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Aircraft Maintenance Performance: the Effects of the Functional Decentralization of On-Equipment Maintenance

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AIRCRAFT MAINTENANCE PERFORMANCE: THE EFFECTS OF THE FUNCTIONAL DECENTRALIZATION OF ON-EQUIPMENT MAINTENANCE

THESIS

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Mark A. Commenator

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Abstract

The Air Force has implemented various aircraft maintenance organizational structures. The implementation of the Objective Wing in the early 1990s was the latest occurrence of reorganization. This research looks at the effect of the type of aircraft maintenance organizational structure on aircraft maintenance performance. The type of organizational structure was defined by the functional centralization of the on-equipment maintenance. Aircraft maintenance performance was measured using TNMCM rates, fix rates, repeat/recur rates, man-hours per flying hour, and scheduling effectiveness rates. Three F-15 wings and three F-16 wings were selected to compare the changes in aircraft maintenance performance and to determine if the organizational structure had a significant influence on aircraft maintenance performance. Comparison of means and regression analysis were used to investigate the main effects of organizational structure and the moderating effects of several additional factors on aircraft maintenance performance. The aircraft maintenance organizational structure was determined to have a significant positive influence on at least one aircraft maintenance performance measure for five of the six experimental group wings. Various moderating factors also had various influences on aircraft maintenance performance.

AIRCRAFT MAINTENANCE PERFORMANCE: THE EFFECTS OF THE FUNCTIONAL DECENTRALIZATION OF ON-EQUIPMENT MAINTENANCE

Chapter 1 – Introduction

Introduction

Chapter 1 presents the key factors and reasons for performing a study of the decentralization versus centralization of on-equipment maintenance within the aircraft maintenance organizational structures of the US Air Force (USAF). The areas discussed are the background, problem statement, research objective, investigative questions, methodology, and scope and assumptions. These areas provide a clearer picture of the research issues in a study of the USAF's aircraft maintenance organizational structures.

Background

The US Air Force has operated under essentially three different types of aircraft maintenance organizational structures over the last 20 years. During the 1980s, aircraft maintenance at the wing level was organized in two different organizational structures depending on the assigned aircraft. The fighter wings operated under a decentralized structure, called either Combat Oriented Maintenance Organization (COMO) or Production Oriented Maintenance Organization (POMO). Under this concept, all on-equipment aircraft maintenance personnel were assigned to an Aircraft Generation Squadron (AGS) and off-equipment maintenance personnel were assigned to either the Equipment Maintenance Squadron (EMS) or the Component Repair Squadron (CRS).

On-equipment maintenance includes all tasks accomplished on the aircraft itself. These tasks include servicing; pre- and post-flight inspections; launch and recovery; lubricating, adjusting, and replacing parts, assemblies, and sub-assemblies. Off-equipment maintenance includes testing, troubleshooting, repairing, and modifying line replaceable units (LRUs) and shop replaceable units (SRUs). These tasks are all performed off the aircraft in the specialist's respective shop. The aircraft maintenance squadrons of the COMO or POMO were under the leadership of the Deputy Commander for Maintenance (DCM) (AFR 66-5, 1979: 1.11-1.17). This structure will be called C/POMO throughout the rest of this research.

The airlift and heavy bomber wings were organized in a centralized structure in which only the on-equipment crew chiefs were assigned to the Organizational Maintenance Squadron (OMS) and on-equipment and off-equipment specialists were assigned to either the Field Maintenance Squadron (FMS) or Avionics Maintenance Structure (AMS). The on-equipment specialists were dispatched to the aircraft to perform any on-equipment maintenance tasks. The aircraft maintenance squadrons of this organizational structure were also under the direct control of the DCM (MACR 66-1,1983: 7-11). This structure will be called the OMS structure throughout the remainder of this report.

In the early 1990s, at the direction of the Air Force Chief of Staff, General Merrill A. McPeak, the aircraft maintenance organization at the wing-level was reorganized into a new Objective Wing concept. The two communities, fighter and airlift, reorganized the aircraft maintenance structure differently under the Objective Wing. The fighter aircraft maintenance organizational structure was further decentralized by assigning the personnel from the AGS of the C/POMO structure directly to the fighter squadrons in the Operations Group (OG). This structure will be referred to as the OG structure throughout the remainder of this research.

The airlift aircraft maintenance organizational structure was also decentralized, but not as decentralized as the fighter community. The airlift community reorganized into an equivalent structure as the C/POMO in which all on-equipment maintenance personnel were assigned to an AGS and the off-equipment maintenance personnel were assigned to either an EMS or CRS. These squadrons were organized under the command of the replacement of the DCM, the Logistics Group commander. This structure will be referred to as the AGS structure throughout the remainder of this report.

Problem Statement and Contribution

Logistics leaders in today's Air Force are concerned with the status of aircraft maintenance performance. Aircraft maintenance performance indicators, such as Total Non-Mission Capable Maintenance (TNMCM) rates, provide an indication of the readiness of units to go into combat. With the recent increases in TNMCM rates, aircraft are not available for pilots to fly training missions and to prepare for combat missions, which reduces the combat readiness of the pilots and the unit overall. This research looks at the wing aircraft maintenance organizational structure to see what, if any, influence the decentralization of on-equipment maintenance has on maintenance performance. These results could suggest the most effective organizational structure out of those examined. Another contribution of the research is to assist in the clarification of the causes of the recent increase in TNMCM rates.

Research Objective

The purpose of this research is to determine if the nature of the wing aircraft maintenance organizational structure has an effect on aircraft maintenance performance. In order to address this objective, several investigative questions must be answered.

Investigative Questions

1) What are the different organizational structures? The different organizational structures need to be identified in order to determine the variations of the centralization of the on-equipment maintenance. See Chapter 2.

2) What are the indicators of aircraft maintenance performance? The indicators are used to construct a predictive model for aircraft maintenance performance and to compare the different organizational structures. See Chapter 3.

3) What are the moderating factors of aircraft maintenance performance? The moderating factors need to be determined in order to construct the predictive model and to also compare the different organizational structures. See Chapter 3.

4) Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures? The aircraft maintenance performance has to be compared between the different organizational structures to see if the performance levels have changed with the implementation of a new organizational structure. See Chapter 4.

5) Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors need to be compared to determine if the aircraft maintenance was being performed in a different environment under the different organizational structures. See Chapter 4.

6) Does the type of organizational structure have a significant effect on aircraft maintenance performance? A predictive model is built to determine if the organizational structure has a significant influence on aircraft maintenance performance. See Chapter 4.

7) Do any of the moderating factors have a significant effect on aircraft maintenance performance? The predictive model is also used to determine if any of the moderating factors have a significant influence on aircraft maintenance performance. See Chapter 4.

Methodology

The overall theory investigated in this research is whether or not the aircraft maintenance organizational structure affects aircraft maintenance performance. The dimensions of the organizational structure are the centralization or decentralization of on-equipment maintenance personnel. There are varying degrees of decentralization from the most centralized (OMS structure) to the most decentralized (OG structure) with the C/POMO and AGS structures falling between the two extremes. Maintenance performance indicators are investigated to determine if there has been a change in the aircraft maintenance performance level with the implementation of a new organizational structure. In addition to the influence of the organizational structure on performance, there are also moderating factors that may have influenced the maintenance performance. The moderating factors are investigated to determine if the environment in which the aircraft maintenance is being performed has changed since the implementation of the new organizational structure.

The organizational structure, maintenance performance indicators, and moderating factors were analyzed using analysis of variance (ANOVA). The comparison of means portion of ANOVA was used to determine if there was a difference in aircraft maintenance performance between the different organizational structures. The regression portion of ANOVA was used to construct a predictive model of aircraft maintenance performance and determine if organizational structure had a significant influence and which moderating factors had the greatest affect on maintenance performance.

Scope and Assumptions

The scope of the research was to analyze the maintenance performance of selected units that remained at the same base and maintained the same aircraft before and after the conversion to the Objective Wing structure. The data was from January 1982 to July 1990 and from January 1993 to September 2000. The time period from August 1990-1992 was omitted due to the possible skewing effect of Desert Shield/Desert Storm and the actual conversion to the Objective Wing during 1992. The data was collected from the MAJCOM maintenance analysis offices based on Core Automated Maintenance System (CAMS) or GO81 entries, and the Reliability and Maintainability Information System (REMIS) program office. The F-15 units and bases included the 1st Fighter Wing at Langley Air Force Base, Virginia, the 33rd Fighter Wing at Eglin Air Force Base, Florida, and the 18th Wing at Kadena Air Base, Japan. The F-16 units and bases included the 388th Fighter Wing at Hill Air Force Base, Utah, the 347th Wing at Moody Air Force

Base, Georgia, and the 52nd Fighter Wing at Spangdahlem Air Base, Germany. The 57th Wing at Nellis Air Force Base, Nevada was analyzed for F-15 and F-16 data because the Wing did not convert to the Objective Wing maintenance structure because of the multiple missions of the aircraft. The 57th Wing was the control group for the comparison of the organizational structures. The unit looked at within AMC was the C-5s at the 436th Airlift Wing at Dover Air Force Base, Delaware.

There were some key assumptions of this research regarding the data and the method in which it was collected. The maintenance indicator data was assumed to be only as accurate as the data entered into the respective aircraft's automated maintenance system CAMS or REMIS. This method was assumed to be the most accurate method of tracking maintenance information available to the Air Force. Another assumption relating to the maintenance indicator data was in the conversion of the raw maintenance data. To correct for changes in the way the variables were calculated, the raw data was used, then the rates were calculated based on the current formulas in use by the MAJCOMs. This helps to reduce the risk of different rates being compared between the two time periods if the formulas had changed.

Summary

Chapter 1 presented the background, problem statement, and investigative questions of this research. The USAF has used various aircraft maintenance organizational structures over the last 20 years. A key element of the differences between the organizational structures is the centralization of the on-equipment maintenance personnel. The research attempts to determine if the centralization of the on-equipment maintenance personnel has had an effect on aircraft maintenance performance as determined by the performance measures in use by the USAF.

Chapter 2 presents the background information of the research to include industry organizational structures, a more detailed presentation of the aircraft maintenance organizational structures used by the USAF, and previous research of aircraft maintenance performance. Chapter 3 presents the theoretical model of the research and the methodology by which the model is investigated. Chapter 4 presents the results of the research by answering the investigative questions presented in Chapter 1. Chapter 5 presents the conclusions of the research in answering the research objective and presents recommendations for possible future research.

Chapter 2 – Literature Review

Introduction

Chapter 2 discusses the background of the research. In order to have a better understanding of the aircraft maintenance organizational structure, the different structures in industry are defined. These structures include centralization versus decentralization and the functional, product, and matrix organizational structures. The aircraft maintenance organizational structures are described from the most centralized, the OMS structure, to the most decentralized, the OG structure. Previous research of aircraft maintenance performance and organizational structure is discussed in order to obtain a perspective of what research has already been done in this area.

Organizational Structures in Industry

There are predominantly three types of organizational structures used in industry today. The structures are functional, product, and matrix. Also factored into the organizational structure is the degree to which the organizations are centralized.

Functional. The first common form of organizational structure is the functional structure. It involves grouping together jobs involving the same or similar activities. The functional structure is most common among smaller organizations. In a manufacturing organization the functions include production, engineering, marketing, finance, accounting, and personnel (see Figure 1). A functional organizational structure helps increase the efficiency of an organization. The efficiency is increased because the functional experts are working together in the same department which allows them to share experiences and increase their expertise. The effectiveness of the functional organizational structure is lower than other organizational structures because for any project there must be large amounts of coordination between the different departments which could take too much time if the project is time-sensitive.

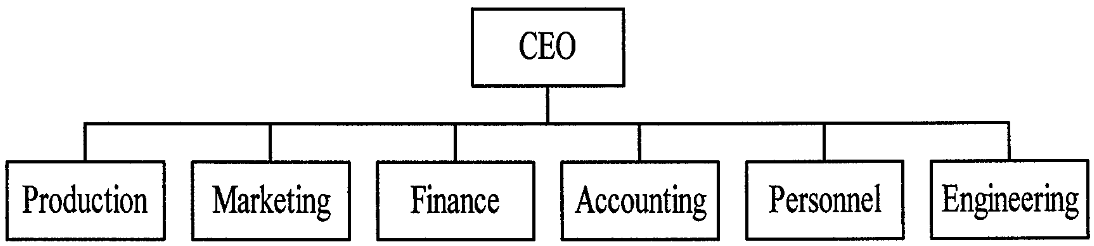


Figure 1. Example of Manufacturing Firm Functional Organization Chart

There are three main advantages to the functional organization. The first advantage is experts in a particular functional area can staff that department. The facilitation of supervision is the second advantage because an individual manager needs to be familiar with only a relative narrow set of skills. The third advantage is coordinating activities inside each department than the other forms of organizational structure (Griffin, 1999:331).

There are also some disadvantages of the functional organizational structure. Decision making tends to become slower and more bureaucratic as a functional organization begins to grow. Employees may concentrate on their own areas and lose sight of the total organization goals. Accountability and performance become more difficult to monitor (Griffin, 1999: 131).

Product. The product organizational structure involves grouping activities around individual products. The activities from the functional organizational structure are assigned to each of the product departments (see Figure 2). The product organizational structure tends to increase overall effectiveness because each product department has everyone required to produce that specific product, which results in very little required coordination between the departments. The overall efficiency of the organization tends to decrease with a product organizational structure. The efficiency decreases because each product department has duplicate departments which increases the amount of resources within the company.

The product organizational structure has three main advantages. The first advantage is all activities associated with one product or product group can be easily integrated and coordinated. The speed and effectiveness of decision making are enhanced. Departments can be held more accountable because the performance of individual products can be assessed more easily and objectively (Griffin, 1999: 131).

There are two major disadvantages of the product organizational structure. Managers may focus on only their product and ignore the goals of the overall organization. The other disadvantage is administrative costs rise because each department has its own functional specialists (Griffin, 1999:131).

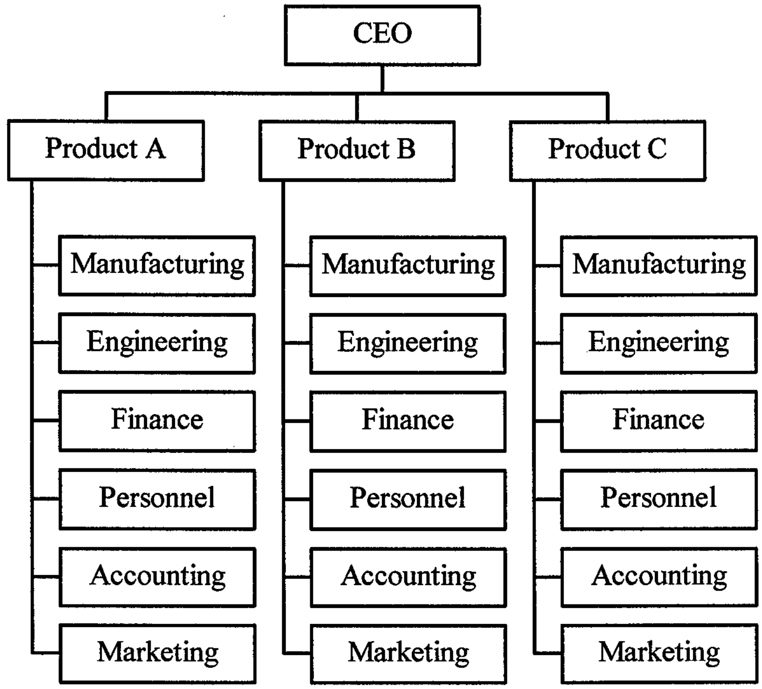


Figure 2. Example of Product Organizational Structure

Matrix. The matrix organizational structure is a combination of the functional and product organizational structures. Personnel from each functional area are assigned to project managers to work on products and projects (see Figure 3). The matrix organizational structure is intended to combine the advantages of the functional and product organizations. There is an increase in efficiency because the functional experts still work in the same department until they are tasked to work on certain projects. There is an increase in effectiveness because once the individuals from the various functional departments are assigned to a project, very little coordination is required between the functional departments. These advantages allow for a flexible and efficient use of resources within the organization and both product and functional goals are met. The matrix structure works well in three types of environments. A matrix structure may work when there is strong pressure from the environment. A matrix structure may be appropriate when large amounts of information has to be processed. A matrix structure may work when there is pressure for shared resources (Griffin, 1999:370).

There are some advantages the matrix organizational structure has over the other structures. The matrix structure enhances flexibility because teams can be created, redefined, and dissolved as needed. Team members are more likely to be highly motivated and committed to the organization because they assume a major role in decision making. Employees in a matrix structure have a great opportunity to learn new skills. The matrix structure provides an efficient method to take full advantage of the organization's human resources. Team members remain members of their functional unit so they can serve as a link between the functional unit and the team in order to enhance cooperation. The matrix structure gives top management a useful method of decentralization (Griffin, 1999:370).

The matrix structure also has some disadvantages. Employees may be uncertain about reporting relationships. Individuals must sometimes struggle with personal versus team loyalties in the matrix structure. Some managers see the matrix structure as a form of anarchy and they have unlimited freedom. A matrix organization may have to devote more time to coordinating task-related activities (Griffin, 1999:370).

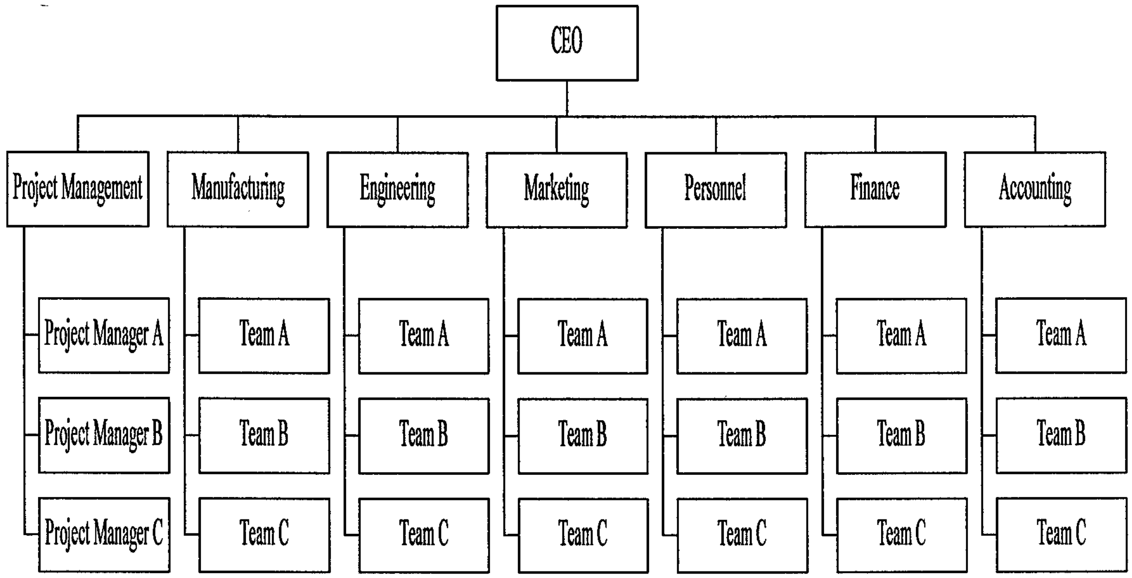


Figure 3. Example of Matrix Organizational Structure

<u>Centralization vs Decentralization of Authority</u>. Another issue of organizational structure in industry involves the advantages and disadvantages of centralization and decentralization of authority. Centralization is the process of systematically retaining power and authority in the hands of higher-level managers. At the other end of the continuum is decentralization which is the process of systematically delegating power and authority throughout the organization to middle and lower-level managers (Griffin, 1999:340).

There are many reasons to either centralize or decentralize authority in an organization. Reasons to decentralize include the development of professional managers, a competitive climate within the organization, and managers with relatively high authority are able to act independently and participate in problem solving. Reasons to centralize include the costs to train managers to make the decisions associated with delegated authority, administrative costs are incurred with decentralization, and decentralization means duplication of functions (Gibson and others, 1991:457-8).

Functional Centralization vs. Decentralization. A function can either be centralized or decentralized within an organization. A centralized function has all the workers familiar with a particular function working within one department. Functional centralization tends to be more efficient and also leads to in-depth skill development and technical expertise. A decentralized function has the workers familiar with a particular function assigned to different departments within an organization. Functional decentralization tends to be more effective with increased initiative and autonomy, but efficiency is low because many tasks are duplicated across the organization (Griffin, 1993:331).

The Air Force has used varying degrees of centralization of its on-equipment maintenance personnel over the years. In the OMS structure, all on-equipment and off-equipment maintenance personnel for each specialty are assigned to the same squadron. This could be considered a centralized functional organizational structure because on-equipment specialists are dispatched to the flightline only when their services are required. In the more decentralized C/POMO, AGS, and OG structures, the on-equipment personnel are separated from the off-equipment personnel and assigned to different squadrons. This could be considered a decentralized product organizational structure because all the maintenance personnel required for sortie production are assigned to the same squadron. The OG structure is even more decentralized than the other two decentralized structures because the on-equipment maintenance personnel are assigned to a different group.

USAF Aircraft Maintenance Organizational Structures

The Air Force has gone through various aircraft maintenance organizational structures since its inception in 1947. On-equipment maintenance has rotated between being assigned to the flying squadrons and the logistics group or its equivalent throughout the life of the Air Force. On-equipment maintenance includes all tasks accomplished on the aircraft itself. These tasks include servicing; pre- and post-flight inspections; launch and recovery; lubricating, adjusting, and replacing parts, assemblies, and sub-assemblies. Off-equipment maintenance includes testing, troubleshooting, repairing, and modifying line replaceable units (LRUs) and shop replaceable units (SRUs). These tasks are all performed off the aircraft in the specialist's respective shop. The organizational structures analyzed in this research are the last three the Air Force has implemented: the OMS structure, the most functionally centralized; the COMO structure and its current incarnation, the AGS structure, intermediary structures on the centralized-decentralized continuum; and the OG structure, the most functionally decentralized.

OMS Structure. The OMS structure was the aircraft maintenance organizational structure used by the Military Airlift Command (MAC), the predecessor to the Air Mobility Command (AMC), prior to the conversion to the Objective Wing. It is the most centralized of the organizational structures analyzed in this research. All aircraft maintenance personnel were under the direct control and supervision of the DCM. There were three squadrons under the DCM's supervision (see Figure 4). The three squadrons were the OMS, FMS and AMS. The

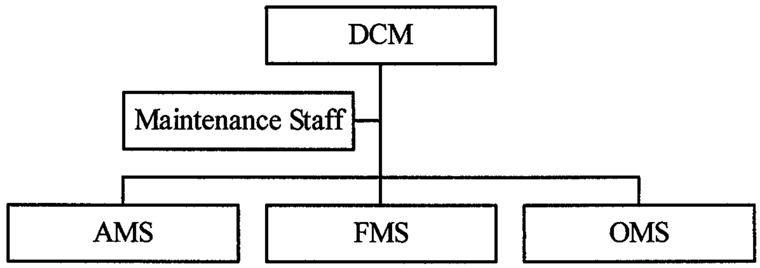


Figure 4. DCM Maintenance Organization (MACR 66-1, 1983:Fig 2-1.)

OMS consisted of only the on-equipment crew chief personnel (see Figure 5). The FMS personnel included the on- and off-equipment fabrication, propulsion, repair and reclamation, fuel systems, environmental systems, and pnuedralic personnel (see Figure 6). The AMS personnel consisted of the on- and off-equipment avionics personnel (see Figure 7). If the crew chiefs required the assistance of on-equipment specialists, the maintenance control section of the DCM's staff was contacted to make the request (MACR 66-1 and Reiter, 1988).

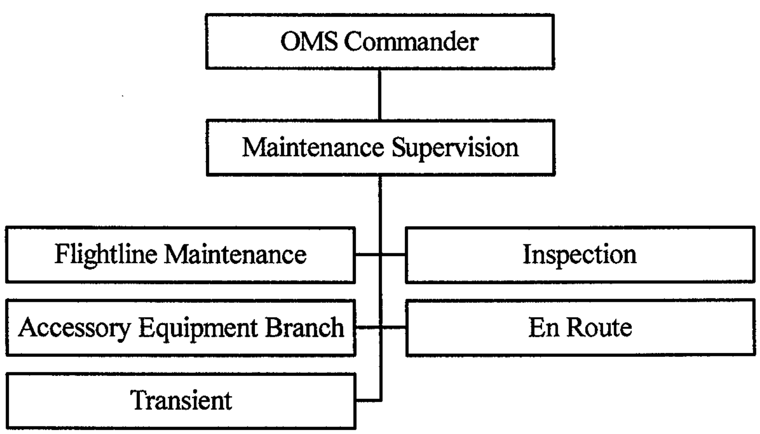


Figure 5. OMS Organizational Chart (MACR 66-1, 1983:Fig 2-4)

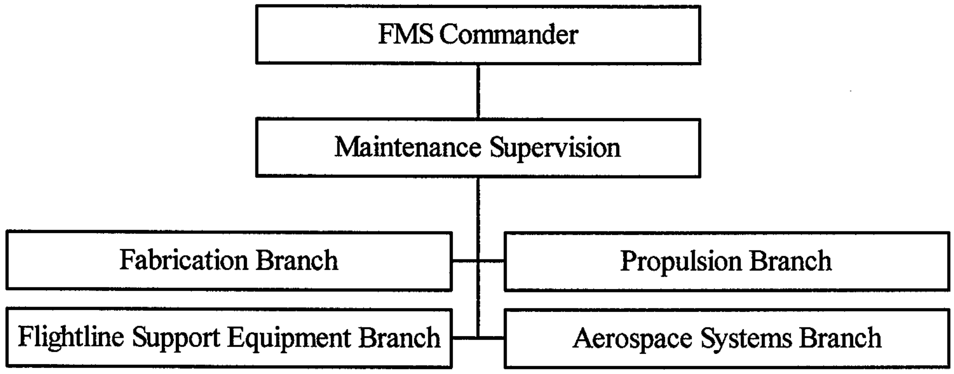


Figure 6. FMS Organizational Chart (MACR 66-1, 1983:Fig 2-3)

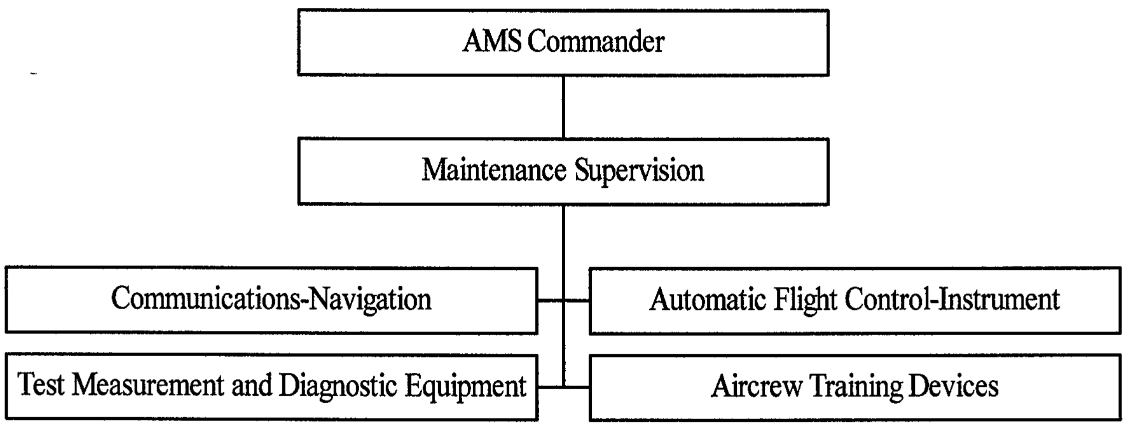


Figure 7. AMS Organizational Chart (MACR 66-1, 1983:Fig 2-5)

C/POMO Structure. The COMO structure was implemented for all Tactical Air Command (TAC) units by the end of December 1978. The COMO structure soon was implemented by all the Combat Air Forces (CAF) with the Air Force. The COMO maintenance structure has flightline maintenance assigned to the DCM. The DCM was responsible for usually three squadrons, the Aircraft Generation Squadron (AGS), the Component Repair Squadron (CRS), and the Equipment Maintenance Squadron (EMS) (see Figure 8).

Each of the squadrons was responsible for specific areas of aircraft maintenance. The COMO structure was an intermediary decentralized structure with all of the on-equipment maintenance personnel assigned to one squadron and the off-equipment maintenance personnel assigned to the two remaining squadrons. The AGS was responsible for the launching and recovering of the aircraft and all on-equipment maintenance. The CRS was responsible for off-equipment maintenance for engines, fuel systems, and avionics. The EMS was responsible for off-equipment maintenance for aerospace ground equipment (AGE), phase inspections, and fabrication (TACR 66-5).

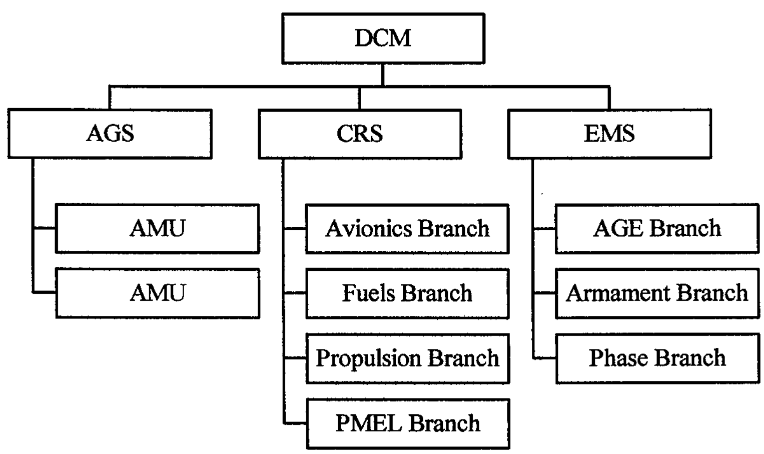


Figure 8. C/POMO Organizational Chart (TACR 66-5)

The AGS consisted of Aircraft Maintenance Units (AMUs). Each AMU was partnered with a flying squadron and was responsible for the aircraft assigned to that squadron. The AMU was organized into usually 2 crew chief flights, a specialist flight, a weapons flight, and a support section (see Figure 9).

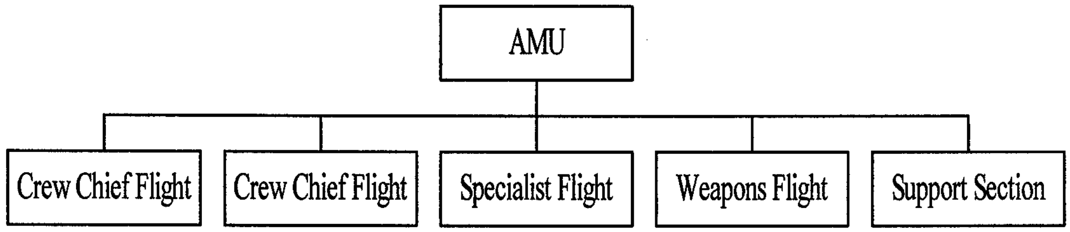


Figure 9. AMU Organizational Chart (TACR 66-5)

The crew chiefs were responsible for the servicing, inspecting, and maintenance of their assigned aircraft. The specialists consisted of the on-equipment avionics, electro-environmental, hydraulics, and engine specialists. The weapons flight was responsible for the uploading and downloading of munitions and on-equipment gun maintenance. The support section contained the tool crib, test equipment, and technical orders (TOs) (TACR 66-5).

OG Structure. As the Cold War came to an end, the US military had to prepare for the downsizing that would occur as a result. For the Air Force, and the other branches of the military, the downsizing would include reduction in manpower and bases. Gen McPeak, US Air Force Chief of Staff in the early 1990s when the downsizing was beginning, proposed the concept of the Objective Wing. The Objective Wing concept was intended to achieve economies of scales in manpower savings and organizational efficiencies (Michels, 1992:21). The Objective Wing concept began being implemented in 1990. Under the Objective Wing concept, wings were reorganized into 4 groups: operations, logistics, support, and medical. The former Deputy Commander for Operations (DO) became the Operations Group Commander. The former DCM became the Logistics Group Commander. The Logistics Group consists of the EMS and the CRS (from the C/POMO structure) in addition to a Supply Squadron, a Transportation Squadron, a Contracting Squadron, and a Logistics Support Squadron. The AGS was eliminated and its personnel were reassigned to flying squadrons within the Operations Group (see Figures 10 and 11) (AFI 38-101).

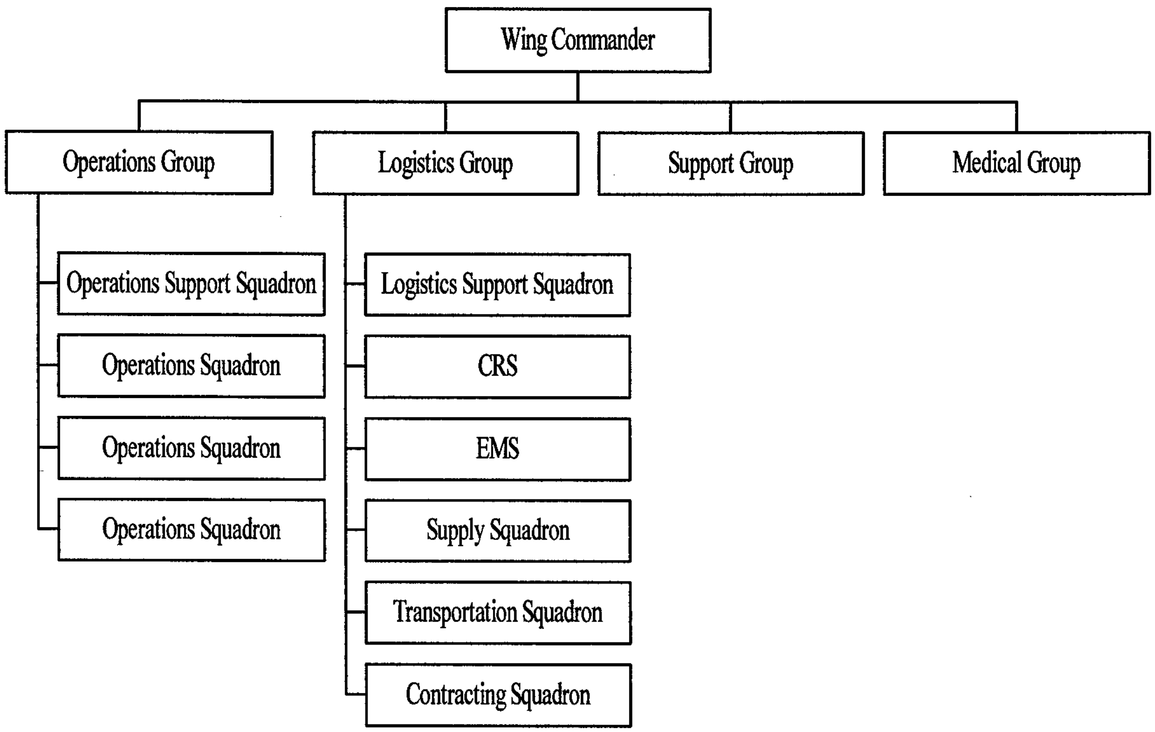


Figure 10. Objective Wing Organizational Chart (AFI 38-101, Fig 3.5)

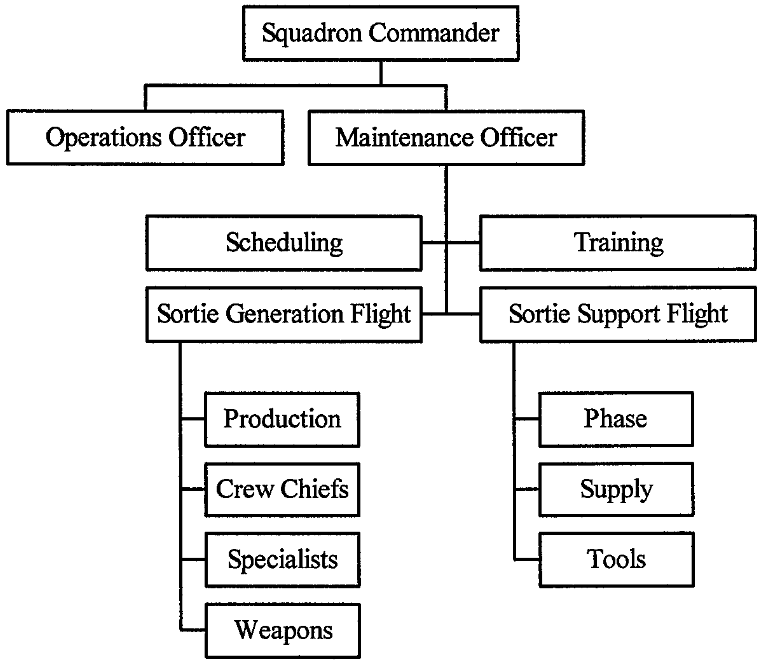


Figure 11. Operations Squadron Organizational Chart (AFI 38-101, Fig 3.11)

The OG structure is the most functionally decentralized of the organizational structures analyzed because within CAF units the on-equipment maintenance personnel were removed from the direct control of the units' senior maintenance officer and assigned to the supervision of pilots within the Operations Group. The aircraft maintenance organization within the flying squadrons is similar to the AMU organizational structure. The position of squadron maintenance officer was created which is equivalent to the operations officer. Each officer is responsible for his or her respective area of expertise, operations or maintenance. Two flights were assigned to the maintenance officer, the sortie generation and sortie support flights (ACCI 21-101).

The sortie generation and sortie support flights were the new organizational units created within the Objective Wing for the flightline maintenance personnel assigned to flying squadrons. The sortie generation flight consists of the crew chiefs, specialists, and weapons flights previously seen in the AMU. Another section within the sortie generation flight is production, which consists of the production supervisor and the expediters, which is responsible for the daily maintenance and sortie production of the squadron. The sortie support flight consists of the support section from the AMU and the phase inspection section, which was assigned to EMS in the COMO structure. Phase was moved to the flying squadrons along with the flightline maintenance to ensure the flying squadron maintenance personnel had control of the assigned aircraft at all times (ACCI 21-101).

AGS Structure. AMC has converted the Objective Wing organizational structure to one more conducive to the types of missions it performs. The AGS structure is an intermediary decentralized structure similar to the C/POMO structure implement by the TAF before the conversion to the Objective Wing. Within AMC, flightline maintenance is not assigned to the flying squadrons within the Operations Group, but are assigned to an AGS within the Logistics Group. The AGS structure is similar to the COMO structure with each AMU partnered with a flying squadron and responsible for its assigned aircraft (AMCI 21-101).

The Air Force has implemented essentially three types of aircraft maintenance organizational structures based on the functional centralization of the on-equipment maintenance personnel. The most functionally centralized structure was the OMS structure used by MAC prior to the implementation of the Objective Wing concept. The intermediary structures are the C/POMO structure used by the CAF during the 1980s and the AGS structure used by AMC during the 1990s. The most functionally decentralized structure is the OG structure implemented by the CAF since the Air Force converted to the Objective Wing organization.

Previous Research

Diener and Hood. Diener and Hood conducted a study in 1980 of C/POMO and its sortie generation capability and maintenance quality. The theory investigated was whether C/POMO would increase sortie generation capability and overall quality of the aircraft systems. The first objective was to evaluate the impact of C/POMO on the levels of key maintenance management performance indicators that relate to unit sortie production capability. The evaluation was based on a comparison of the capability indicators before and after the conversion to the C/POMO structure (Diener and Hood, 1980:4). The second objective was to assess and evaluate the impact of C/POMO on levels of key maintenance management performance indicators that relate to quality of the aircraft systems. The evaluation was based on a comparison of the indicators before and after the C/POMO implementation (Diener and Hood, 1980:5).

The researchers developed six hypotheses to evaluate sortie generation capability. The first hypothesis was that the maintenance man-hours (MMH) required to return broke aircraft to fully mission capable (FMC) status would decrease under C/POMO. The next hypothesis was that the flying schedule effectiveness (FSE) rate would increase under C/POMO. The third hypothesis was that the non-mission capable maintenance (NMCM) rate would decrease under C/POMO. The next hypothesis was that the labor rate would increase under C/POMO. The fifth hypothesis was that the FMC rate would increase under C/POMO. The final hypothesis for sortie generation capability was that the MMH per flying hour (FH) would decrease under C/POMO (Diener and Hood, 1980:5).

Diener and Hood also developed 3 hypotheses to determine overall aircraft system quality. The first hypothesis was that the repeat rate would decrease under C/POMO. The second hypothesis was that the MMH required for a 400-hour phase inspection would decrease under C/POMO. The final hypothesis for quality was that the ground abort rate would decrease under C/POMO (Diener and Hood, 1980:5).

The researchers designated nine variables for their hypotheses tests and six factors for their regression analysis. The hypothesis variables and regression factors are shown in Table 1.

Table 1. Diener and Hood Hypothesis Variables and Regression Factors (Diener and Hood, 1980:29-34)

Hypothesis Variables	Regression Factors
Avg MMH to Return Aircraft to FMC Status	Pre or Post C/POMO
FSE Rate	Personnel Auth/Personnel Assgn
NMCM Rate	Mean Skill Level
Labor Rate	Hours Flown
FMC Rate	Hours Allocated
MMH/FH	Hours Flown/Hours Allocated
Repeat Rate	
MMH for 400-Hr Phase Inspection	
Ground Abort Rate	

The FSE rate is the number of sorties that launched divided by the number of sorties scheduled. The labor rate was defined as the number of MMH used of the total number of man-hours available to the aircraft maintenance unit. The mean skill level was the calculated by taking the number of 3-levels and multiplying by 3 plus the number of

5-levels and multiplying by 5 plus the number of 7-levels and multiplying by 7 plus the number of 9-levels and multiplying by 9 and dividing this total by the total of maintenance personnel assigned minus officers (Diener and Hood, 1980:33).

Diener and Hood selected six active duty fighter interceptor squadrons (FISs) of the Air Defense Command (ADCOM) that had at least 10 months of data available preceding the implementation of C/POMO. The post C/POMO period for the analysis was from implementation until December 1979. The two months before and after implementation were not included in the analysis to allow for a return to steady-state operations (Diener and Hood, 1980: 23-26).

The first step of Diener and Hood's methodology was to perform a Wilcoxon Signed Rank Test on each of the hypothesis variables to compare the two organizational structures. The test was first performed to see if there was an improvement in the post-C/POMO time period. If there was an improvement in that particular variable, that variable advanced to regression analysis. If there was no improvement, the hypothesis variable was compared to observe if there was a degradation or no change in that variable in the post-C/POMO implementation time period (Diener and Hood, 1980:41).

The second step of the methodology was to perform a regression analysis of each hypothesis variable against the regression factors. A multiple linear regression with forward (stepwise) inclusion was used to perform this analysis. The final model for each hypothesis variable would indicate which factors were an influencing factor on that particular hypothesis variable (Diener and Hood, 1980:41).

The third step of the methodology was to determine if C/POMO was a factor in the hypothesis variable. Based on the results of the hypothesis test and the final regression model for each hypothesis variable, the researchers could make a decision as to whether the C/POMO structure had an influence on that particular measure (Diener and Hood, 1980:41).

The researchers found mixed results for the influence of C/POMO on the sortie generation capabilities and the overall aircraft system quality. For sortie generation, P/COMO was determined to have had a positive influence on the MMH required to fix broke aircraft, NMCM rates, labor rate, and MMH/FH. C/POMO had little influence on the FSE rate and the FMC rate. Overall, it was determined C/POMO appeared to have a positive influence on the sortie generation capabilities of the aircraft maintenance units. For the overall aircraft system quality, C/POMO had a negative influence on the MMH required for 400-hour phase inspection and the ground abort rate. For the repeat rate, C/POMO had an insignificant influence. Overall, it was determined C/POMO had a negative influence on the overall aircraft system quality (Diener and Hood, 1980:81-84).

Diener and Hood's research provided some aspects for the functional centralization of on-equipment maintenance personnel research. Their research compared two different organizational structures to determine if the organizational structure was an factor in aircraft maintenance performance. The research of the centralization of on-equipment maintenance also attempts to determine if the organizational structure is a major factor of aircraft maintenance performance. Diener and Hood's research also suggested possible measures for aircraft maintenance performance and the moderating factors that also indirectly affect aircraft maintenance performance. Since the analysis was performed using the means of all six wings together, it would have been interesting to see how the selected wing's compared to each other before and after the C/POMO implementation. Diener and Hood did not check for time series trends in their data. They possibly have time related time series trend in their data that could have affected the results of their research.

Gililland. In 1990, Gililland explored the productivity measurements in aircraft maintenance units to examine the relationships of the measures used to evaluate a unit's performance (Gililland, 1990:iv). The research examined the productivity measurements of USAF aircraft maintenance organizations by first identifying the measurement methods in use, then understanding the relationships among the various productivity measures, and finally evaluating the effect of maintenance productivity measurement on the accomplishments of Air Force productivity measurements (Gililland, 1990:4).

Gililland selected five input variables and eight output variables (see Table 2). Base self sufficiency is an aircraft maintenance unit's ability to repair assets and return them to use (Gililland, 1990:95). Maintenance scheduling effectiveness (MSE) measures a unit's ability to meet the periodic maintenance schedule. The homestation, enroute, and training reliabilities are the departure relability rates, percentage of on-time takeoffs, for that particular type of mission and were the traditional measurement used by MAC to measure maintenance productivity (Gililland, 1990:94-98).

The first step in Gililland's methodology was to interview DCMs and the chiefs of the maintenance data analysis branch of ten MAC wings. The interviews were used to determine the 13 most common measures of productivity used by MAC. The measures selected are listed in Table 2. Six of the ten wings maintenance data were used because the six wings were connected to a central maintenance data computer data base monitored at MAC headquarters. Only six months of data was used for each variable.

Table 2. Gililland Input and Output Variables (Gililland, 1990:94)

Input Variables	Output Variables
Cannibalizations	Labor Hour/FH
Awaiting Maintenance (AWM) Discrepancies	Mission Capable (MC) Rate
Awaiting Parts (AWP) Discrepancies	Repeat/Recur Discrepancies
Average Possessed Aircraft	MSE
Base Self Sufficiency	Maintenance Air Aborts
	Homestation Reliability
	Enroute Reliability
	Training Reliability

Gililland created a proposed a priori logical model to show the relationships of the measures. The initial inputs to the model were average possessed aircraft and base self-sufficiency. He proposed that the average possessed aircraft had a positive correlation to AWP discrepancies, while base self-sufficiency had a negative correlation to AWP discrepancies. Average possessed aircraft and AWP discrepancies were both predicted to have a positive correlation to AWM discrepancies. It was also predicted that AWP discrepancies would have a positive correlation to cannibalizations. AWM discrepancies and cannibalizations both have a positive correlation to labor hours/FH. Gililland proposed labor hours/FH had a correlation to repeat/recur discrepancies, MSE, and maintenance air aborts, but Gililland was unsure whether it was a positive or negative correlation. Repeat/recur discrepancies and maintenance air aborts had a negative correlation to MC rate, while MSE had a positive correlation. MC rate had a positive correlation to homestation reliability, enroute reliability, and training reliability (Gililland, 1990:95-98).

A correlation analysis was the next step in Gililland's methodology. The correlation analysis was used to confirm the relationships proposed in the a priori model. It was also used to identify any redundant variables (Gililland, 1990:82).

The final step of Gililland's methodology was to perform a stepwise regression using a backward elimination procedure. Each output measure was regressed against all the other measures and the bases from which the data originated. The dependent variable regression model with the largest R^2 and global F-test was selected as the variable with the greatest influence on maintenance productivity. If any dependent variables were in this model, the respective regression models for those variables were analyzed to determine which independent variables had the greatest influence on maintenance productivity (Gililland, 1990:82).

The results of the regression and correlation analysis were used to build a final theoretical model. The final a priori model had four independent variables as inputs. They were cannibalizations, AWM discrepancies, average possessed aircraft, and AWP discrepancies. Cannibalizations and AWM discrepancies were determined to have a negative correlation to MC rate, while average possessed aircraft had a positive correlation to MC rate. AWP discrepancies were determined to have a negative correlation to MSE. The indicator determined to have the most measurable contribution to maintenance productivity was labor hours/FH. MC rate was determined to have a negative correlation to labor hours/FH and MSE was determined to have a positive correlation to labor hours/FH. Gililland claimed this model could be used by maintenance managers to identify focus areas to improve unit maintenance productivity (Gililland, 1990:106).

There are some problems with Gililland's research when applying it to the question of functional centralization of on-equipment maintenance. The data for the MAC wings were compiled together without mentioning if the wings flew the same type of aircraft or missions. Also, some bases appeared in every regression model developed. This implies the bases themselves were a factor in maintenance productivity. Gililland did present some more variables that were considered for the functional centralization of on-equipment maintenance problem.

Jung. Follow-up research to Gililland's research was perform by Jung in 1991. Jung expanded Gililland's research by investigating a different MAJCOM, Strategic Air Command (SAC), for a longer time period, 21 months instead of 6 months. Jung theorized that maintenance production capability directly relates to sortie production capability. A key step in determining production capability was identifying the maintenance production constraints that determine production output (Jung, 1991:24). Jung's research objective was to identify the aircraft maintenance constraint independent variables and production output dependent variables and understand how the constraints can be modeled to estimate production capability (Jung, 1991:36).

Jung identified 23 independent variables and 3 dependent variables (see Table 3). The independent variables include the raw numbers and the rates for various aircraft maintenance performance measures. The three maintenance production output dependent variables (MC rate, TNMCM rate, and total non-mission capable supply [TNMCS] rate) were identified by HQ SAC Logistics Analysis as the measures most used to assess maintenance system effectiveness (Jung, 1991:37).

Table 3. Jung Independent and Dependent Variables (Jung, 1991:39 and 46)

	Independent Variables	
Air Aborts (AAB)	Cancellation Rate (CXR)	MH/FH (MHF)
Air Abort Rate (AAR)	Cannibalizations (CAN)	Aircraft Fixed w/in 18 Hrs (NFH)
Breaks (ABK)	Cannibalization Rate (CNR)	Possessed Aircraft (PSA)
Break Rate (ABR)	Hours Flown (HFM)	Possessed Hours (PSH)
Fix Rate (AFR)	Late Take-Offs (LTO)	Sorties Attempted (SAT)
Sortie Utilization (UTE) Rate (ASU)	Late Take-Off Rate (LTR)	Sorties Flown (SFN)
Average Sortie Duration (ASD)	MHs Expended (MHE)	Sorties Scheduled (SSD)
Cancellations (CNX)	MH/Sortie (MHS)	
	Dependent Variables	
MC Rate (MCR)	TNMCM Rate (TNM)	TNMCS Rate (TNS)

Nine SAC aircraft types were selected to be analyzed over a 21 month period from January 1989 to September 1990. The aircraft were the KC-135A/D/E/Q, E-4B, KC-135R, RC-135V/N, EC-135A/C/G/L/N/Y, B-1B, B-52H, B-52G, and FB-111A. The last six months of data was not used in the model building, but was used to validate the models (Jung, 1990:36-37).

The methodology used by Jung was correlation analysis, stepwise multiple regression, and model validation. The methodology was performed for each type of aircraft. The correlation analysis used the Pearson product moment coefficient of correlation (r) to measure the strength of the linear relationship between the independent variables and the dependent variables. The correlation analysis assisted in identifying the independent variables that should be in the model (Jung, 1991:39-40). Forward stepwise multiple regression was used to build models to show which independent variables had the greatest influence on the dependent variables. A regression model was built for each dependent variable for each of the aircraft types. Each production output for all nine aircraft was examined for common constraints. The coefficient of determination, R^2, and the F-statistic were used to determine how well each model fits the maintenance performance indicators (Jung, 1991:40-42). For each model, a model validation was performed using six months worth of data for each aircraft type to see how close to the actual historical production data the model can predict.

The results of Jung's research are presented in Table 4. Jung noted that there were no common constraints across the aircraft models, which prevented a generalized model being built for all aircraft.

The results of Jung's research contribute to the question of the functional centralization of on-equipment maintenance. Jung's independent variables present many of the variables that will be used as either aircraft maintenance performance variables or moderating factor variables in this research. There is a question of the validity of some of the data included in the time period of Jung's research. The last two months of the time period, August and September 1990, were the first two months of Operation DESERT SHIELD. The increased operations tempo during this time period could have had a factor in the analysis. Also, Jung did not compare the aircraft between bases, the analysis was only performed using aggregate data for each aircraft type at the MAJCOM level. One final note, MC rate is directly calculated using TNMCM and TNCMS rates, so it would seem redundant to perform all three regression models. The research could have possibly performed just the NMC rates regressions.

Table 4. Jung Regression Results (Jung, 1991:51-100)

Aircraft Type	Dependent Variable	Contributing Factors
KC-135A/D/E/Q	MC Rate	CXR, HFN, LTO, MHS, PSA, AFR
	TNMCS Rate	ASD, PSA, PSH, SSD, AFR
	TNMCM Rate	CNX, MHF, PSA, AFR
KC-135R	MC Rate	AAB, ABR, CXR, CAN
	TNMCS Rate	CXR, CAN, MHF, AFR
	TNMCM Rate	AAB, ABR, CXR, CAN
RC-135V/N	MC Rate	PSH
	TNMCS Rate	CNR, CNR squared, PSH
	TNMCM Rate	CXR squared
EC-135A/C/G/L/N/Y	MC Rate	CNR, HFN, MHS, NFH
	TNCMS Rate	ABR
	TNMCM Rate	HFN, NFH
E-4B	MC Rate	ASD, MHE, SFN, AFR
	TNMCS Rate	LTR, MHF
	TNMCM Rate	PSH, NFH
B-1B	MC Rate	ABR, CNX, LTR, NFH
	TNMCS Rate	CAN
	TNMCM Rate	ABR
B-52H	MC Rate	AFR
	TNMCS Rate	LTO, MHE, AFR
	TNMCM Rate	CXR
B-52G	MC Rate	ABR, AFR,
	TNMCS Rate	CAN
	TNMCM Rate	AAB, ASD, NFH
FB-111A	MC Rate	CXR, MHF, PSA, PSH
	TNMCS Rate	AFR, AFR squared
	TNMCM Rate	AAR, ASD, CNX, CXR, SAT, SSD

Davis and Walker. With the announcement by Gen McPeak of the new Objective Wing organizational structure, Davis and Walker (1992) performed research before the implementation of the Objective Wing to determine if organizational structure influenced maintenance performance. They attempted to determine if organizational structure contributes to, or detracts from, an aircraft maintenance unit's performance measures as reflected by the MC rate (Davis and Walker, 1992:4). The researchers compared

C/POMO, TAC F-15s and F-16s, to a structure similar to new Objective Wing, which they determined to be US Navy fighters, F-14s and F/A-18s, at sea (Davis and Walker, 1992:5).

The researchers selected 10 key maintenance indicators for their analysis (see Table 5). The time frames selected were October 1989 through September 1991 for the F-15s and F-16s and July 1989 through June 1991 for the F-14s and F/A-18s.

The methodology consisted of correlation analysis, regression analysis, and comparison testing. The methodology was used to compare the MC rates for each aircraft type. The researchers eliminated structural element variables because they could not quantify all of them (Davis and Walker: 1992:65). Correlation analysis was used to select the final variables for the model, with each variable measured against MC rate (Davis and Walker, 1992:48). Stepwise regression analysis was used to create an MC rate model for each aircraft type (Davis and Walker, 1992:49). Validation of the models were performed by splitting the data for each aircraft into two 12 month groups and building 2 models and then compare each model by using the sister groups data, the models were then recombined into one model for each aircraft (Davis and Walker, 1992:50-51).

The final portion of Davis and Walker's methodology was to comparison test of the MC rates. The first comparison test was a paired t-test of the difference between predicted MC rates of the USAF aircraft and the US Navy aircraft to determine if there was a significant difference between the two services. The independent variables from each aircraft type were placed into model of its comparison aircraft, for example F-15 independent variables were placed into F-14 model. This test yielded a predicted MC rate for each month of data of each comparison pair. Each value of predicted MC rate was tested against the actual rate using the paired difference t-test. This test would establish whether differences exist between the performance outputs of the USAF and the US Navy aircraft maintenance organizational structures (Davis and Walker, 1992: 52).

Table 5. Davis and Walker Key Maintenance Indicators
(Davis and Walker 1992:46)

Key Maintenance Indicators	
MC Rate	Abort Rate
NMC Rate	Sortie UTE Rate
TNMCM Rate	Hourly UTE Rate
TNMCS Rate	Authorized Personnel/Aircraft
Total Non-Mission Capable Both (TNMCB)	MMH/FH

The overall results of Davis and Walker's research showed the C/POMO structure of the USAF produced better results than the US Navy organizational structure. The researchers discovered inconsistencies between the MC rate models developed for each aircraft, each model had different significant contributing factors. The F-14 model contained TNMCS rate and sortie UTE rate. The F-15 model only contained abort rate. The F-16 model contained TNMCS rate and sortie UTE rate. The F/A-18 model only contained TNMCS rate. The results of the model did not allow for a direct comparison between the different aircraft types (Davis and Walker, 1992:59). In order to compare the aircraft, the researchers decided to make a model for each aircraft's MC rate using the four independent variables mentioned above. The first comparison test compared the F-15 to the F-14 and the F-16 to the F/A-18. Both tests showed the USAF aircraft MC rate models produced better results than the US Navy models. The second comparison involved inputting the USAF independent variable values into the corresponding US

Navy models and vice versa. The results of this also showed the USAF models performed better than the US Navy models (Davis and Walker, 1992:66-68).

Davis and Walker's research provided valuable insight into the research of the functional centralization of on-equipment maintenance. Their research provided more suggestions for the types of measures and analysis methods to use in investigating the effects of the functional centralization of on-equipment maintenance on unit's aircraft maintenance performance. There are some doubts, however, about the validity of the results of their research. One of the doubts is the time period used data includes the increased operations tempo of Operation DESERT SHIELD/STORM. This could skew the data from normal every-day operations. Also, it is hard to compare aircraft maintenance organizations between different branches of the US Armed Forces because of the possible difference in operating concepts. It would have been interesting if the researchers had broken out the USAF data into individual wings and compared the wings to determine if any wing or wings were performing better than the others.

Gray and Ranalli. After the implementation of the Objective Wing organizational structure in the USAF, Gray and Ranalli (1993) conducted research on the effect of Objective Wing organizational structure on aircraft maintenance performance factors. Their research attempted to determine if significant statistical differences existed in aircraft maintenance performance between the Objective Wing structure and the pre-1992 organizational structures (Gray and Ranalli, 1993:4). The research was conducted using data for the B-52Hs and KC-135Rs from the 92nd Wing at Fairchild AFB, Washington. The time periods researched were January 1990 through January 1993 for the B-52Hs and October 1990 through January 1993 for the KC-135Rs with a break for both in May

1992 for the implementation of the Objective Wing structure. The researchers selected two dependent variables and nine independent variables for the analysis (see Table 6).

The methodology involved constructing predictive models for MC rate and TNMCM rate for both types of aircraft and then a comparison of the performance factors to determine if there was an improvement under the Objective Wing organizational structure. The first step was to test the assumptions of statistical test, normality, randomness, and autocorrelation. Normality was tested with the Wilk-Shapiro test and Rankit plots (Gray and Ranalli, 1993:26). Randomness was tested with the runs test, if there was very small or very large runs, the data was assumed to be non-random (Gray and Ranalli, 1993:26). The dependent variables were tested for autocorrelation with the runs test and the Durbin-Watson test (Gray and Ranalli, 1993:26).

Two different types of predictive models were constructed by the researchers. The first model was the stepwise regression of the independent variables that previous research has used. The other model implemented principal component analysis. The purpose of principal components was to develop successive functions of two or more variables which account for as much of the total variance as possible. Principal component values were substituted for the independent variables in the regression analysis to reduce multicollinearity (Gray and Ranalli, 1993: 30). After the two models were constructed for each dependent variable for each aircraft type, the best model to predict each dependent variable was selected based on the adjusted R^2 value, the Sum of Squares Error, the Root Mean Square Error, and the F-statistic (Gray and Ranalli, 1993:32).

The B-52 TNMCM model exhibited a possible auto-correlation based on the runs tests. The Durbin-Watson test result from the regression model was used to determine if it was a significant auto-correlation. The B-52 TNMCM was determined to be auto-correlated and an autoregressive model was built for TNMCM. The results of the autoregressive model were used throughout the rest of the research (Gray and Ranalli, 1993:40 and 46).

Table 6. Gray and Ranalli Independent and Dependent Variables
(Gray and Ranalli, 1993:25)

Independent Variables		Dependent Variables
Air Abort Rate	FSE Rate	MC Rate
Averaged Possessed Aircraft	Maintenance Late Take-Off Rate	TNMCM Rate
Cannibalization Rate	MH/FH	
Maintenance Cancellation Rate	MH/Sortie	
Delayed Discrepancy (DD) Rate		

The final step in Gray and Ranalli's methodology was a comparison of the performance factors. The performance factors compared were all the independent variables, the dependent variables, and the model prediction of the dependent variables. For normally distributed data, the difference of means test was used. For non-parametric data, the Median test was used (Gray and Ranalli, 1993:33).

The results of Gray and Ranalli's research showed that the aircraft maintenance performance factors had improved contemporaneously with the Objective Wing structure. The predictive models used were regression models for B-52 MC rate and KC-135 MC and TNMCM rate. The principal component model was used to predict B-52 TNMCM rate. The researchers found significant improvement in five variables: cannibalization rate, DD rate, FSE rate, MC rate, and TNMCM rate. For both aircraft types, cannibalization rate, DD rate and TNMCM rate decreased and MC rate and FSE rate increased under the Objective Wing structure (Gray and Ranalli, 1993:66-67).

Gray and Ranalli's research provided some suggestions for the conduction of the research of the functional centralization of on-equipment maintenance. Once again, the research provided insight into possible aircraft maintenance performance factors and analysis techniques. This research provided a method for comparing two different organizational structures of the same organizational unit. Once again there is some doubt to the validity of the results because time period used for the data collection included the Air Force's participation in Operation DESERT SHIELD/STORM. The time series effects were accounted for with the B-52 TNMCM autoregressive model. There were also some possible contributing variables that were not considered in this research. These variables were break rate, TNMCS rate, ground abort rate and utilization rates.

Stetz. Stetz (1999) performed the most recent research investigating aircraft maintenance organizational structure effects on aircraft maintenance performance. Stetz conducted research to determine if reorganization of the aircraft maintenance unit resulted in a more effective and more efficient flightline structure with increased operations tempo (Stetz, 1999:3). The 552nd Air Control Wing flying E-3 AWACS converted from the OG structure, which Stetz refers to as the Flying Squadron Maintenance Unit (FSMU), to the AGS structure in December 1995. Data was collected form December 1993 through December 1997, with the pre-reorganization time period from December 1993 through November 1995 and the post-reorganization time period from January 1996 through December 1997. Stetz proposed five hypotheses tests, MC rate has not increased in the new structure, NMCS rate has not increased in the new structure, operations tempo has not increased in the new structure, the AGS structure is not more efficient than the FSMU structure, and the AGS structure is not more effective than the FSMU (Stetz, 1999:3). He also attempted to determine which maintenance indicators contributed the most to efficiency and which indicators contributed the least.

Stetz identified 21 maintenance performance variables for use in the research (see Table 7). The research identified indicators of aircraft maintenance effectiveness. The effectiveness indicators were hours and sorties flown (planned versus actual), controllable late take-offs, and maintenance cancellations. Stetz also identified the ratio of MC rate to MH/FH as the indicator of aircraft maintenance efficiency (Stetz, 1999:36).

Table 7. Stetz Maintenance Performance Variables (Stetz, 1999: 31)

	Maintenance Performance Variables	
Average Possessed Aircraft	Air Abort Rate	Recur Rate
MC Rate	Maintenance Cancellation Rate	DD Rate
TNMCM Rate	Cannibalization Rate	Planned Hourly UTE Rate
TNMCS Rate	MH/FH	Planned Sortie UTE Rate
Adjusted FSE Rate	Break Rate	Actual Hourly UTE Rate
Controllable Late Take-Offs	Fix Rate	Actual Sortie UTE Rate
Ground Abort Rate	Repeat Rate	MSE Rate

The first step in Stetz's methodology was to verify the assumptions of statistical analysis. The assumptions are the data has a normal distribution, equal variances, and independence. Normality was tested using the Shapiro-Wilk W test. Equal variances were tested using the Levene, Brown-Forsyth, O'Brein, and Bartlett tests. Autocorrelation was tested using the runs test (Stetz, 1999:39-42).

The hypotheses comparison tests were the next steps in Stetz's methodology. The MC rate was compared using the Welch ANOVA F-test because the variances over the two time periods were unequal. The NMCS rate was compared using the Wilcoxon Rank Sums test because the rates were determined to be not normally distributed and possessing unequal variances. The operations tempo was compared by using actual sortie UTE rate with the student's t-test because the rates were normally distributed and had equal variances. The efficiency of the two structures were compared using the means of the ratio of MC rate to MH/FH with the Wilcoxon Rank Sums test because pre-reorganization rates were not normal, but the variances were equal. The effectiveness of the two structures was compared using the hour goal ratio (actual hourly UTE rate/programmed hourly UTE rate), sortie goal ratio (actual sortie UTE rate/programmed sortie UTE rate), controllable late take-offs, and maintenance cancellations. The hour goal ratio, sortie goal ratio, and maintenance cancellations comparison used the Wilcoxon Rank Sums test because the distributions were not normal. The comparison of controllable late take-offs used the student's t-test because the rate possessed a normal distribution (Stetz, 1999:43-51).

The final portion of Stetz's methodology was to determine which maintenance indicators had the greatest influence on efficiency and which factors contributed the least to efficiency. This analysis was performed by performing a stepwise regression of the MC rate and MH/FH indicators. The indicators that were in both final reduced models were determined to have the greatest influence on maintenance efficiency and the indicators not present in either model were determined to have the least influence (Stetz, 199953-65).

Stetz's research concluded the reorganization of the aircraft maintenance organizational structure did not result in a more effective or efficient organization. For all the hypothesis tests, the AGS structure was shown to be not more efficient or effective than the FSMU structure. All maintenance indicators except controllable late take-offs, repeat rate, recur rate, and programmed sortie UTE rate were determined to be a contributing factor to aircraft maintenance organization efficiency (Stetz, 1999:67-72).

Stetz's research provides some insight into the research question of the effects of functional centralization of on-equipment maintenance on aircraft maintenance performance. His research provides suggestions for the maintenance performance indicators and methodology to use in this research. It would have been interesting to see a comparison between different maintenance unit's performance, if there was another AWACS wing within the Air Force.

The previous research of aircraft maintenance performance provides many suggestions for the research on the effects of the functional decentralization of on-equipment maintenance. The methods used in the previous research included comparison of means and regression analysis. The previous research suggests many variables to use in this research and differing uses of the variables as either independent or dependent variables.

CAMS Accuracy

The data used in this type of research was from the CAMS/REMIS database, for 1990s data, and from its predecessor, the Maintenance Data Collection (MDC), for 1980s data. There is a question in the Air Force about the accuracy of CAMS data and its use as a management tool.

An AFIT thesis from 1991 conducted a survey to measure maintenance personnel's perception of the causes and extent to data inaccuracies in the CAMS database. The research showed 10% of the errors were intentional and 90% were accidental. Maintenance personnel felt the difficulty of entering data was the main contributor to the intentional errors and lack of training was the main contributor to the accidental errors (Determan, 1991).

The Institute for Defense Analyses conducted a comparison study of CAMS/REMIS and TICARRS at the direction of the Assistant Secretary of Defense, Production and Logistics. A portion of the study analyzed the accuracy of CAMS/REMIS. The CAMS/REMIS data was observed to be 68% to 76% accurate for mission-critical equipment, reliability and maintainability analysis, and production scheduling, but was shown to be 95% accurate for flying-hour program activities. (Devers, 1993:V-62) A response to these numbers were filed by Litton Computer Services, the prime contractor for the REMIS system, claimed that CAMS/REMIS had an accuracy rate of 94.62% (Devers, Comments on-1993, IV-44).

An 1993 AMC study looked at the accuracy of CAMS. Four CAMS entries that related the most to reliability and maintainability were analyzed. The four entries were five-digit Work Unit Code (WUC), how malfunctioned code, action taken, and parts ordered. If any of the entries did not match for a particular task, the data was invalidated. The results showed a 97% accuracy in these four entries (Brady, 1993).

These studies show there has been research to determine the accuracy of the CAMS database. The studies show there is inaccuracy involved, but it is a minimal rate. The CAMS/REMIS data used for this research, based on the previous studies, was determined to be the most accurate data available within the Air Force.

Summary

This chapter presented a literature review of background areas of the research topic. The first area discussed was the different types of organizational structures within industry and the effects of centralization and decentralization. A description of the three aircraft maintenance organizational structures being analyzed in the research was presented. The other area discussed was a review of previous studies conducted in comparing aircraft maintenance organizational structures or determining predictive models for aircraft maintenance capabilities. Chapter 3 provides a description of the methodology used to perform the analysis of the comparison of the different aircraft maintenance organizational structures.

Chapter 3 – Methodology

Introduction

Chapter 3 describes the methodology used in the analysis of the Air Force's aircraft maintenance organizational structures. First, the theory of how organizational structure affects aircraft maintenance performance is presented. The experimental design of the research is presented describing which organizational structures were compared. The confounds section describes the units selected for the analysis. The final portion of this chapter is the methodology used to perform the analysis of the effects of the functional decentralization of on-equipment maintenance on aircraft maintenance performance. The first portion of the methodology was comparison of means tests used to compare the aircraft maintenance performance of the organizational structures. The second portion of the methodology was the regression analysis used to develop a predictive models to determine which factors have a significant influence on aircraft maintenance performance.

Theoretical Model

The overall theory of this research was that the aircraft maintenance organizational structure affects the aircraft maintenance performance of the unit. In addition to the organizational structure, there are also moderating factors that affect aircraft maintenance performance, but are not causes for the performance. The model is present in Figure 12.

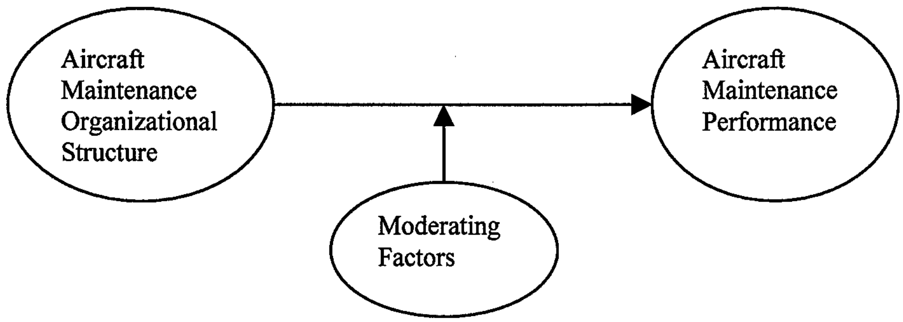


Figure 12. Organizational Structure Theoretical Model.

Aircraft maintenance organizational structure represents the independent, categorical variable that was used in the analysis. This one independent variable reflects the type of structure the unit was organized under for that particular data set. The type of structure was determined by the functional centralization of on-equipment aircraft maintenance.

Aircraft maintenance performance is represented by the dependent variables that were used in the analysis (see Table 8 and Appendix A for formulas). TNMCM Rate is considered an aircraft maintenance performance measure because it represents the amount of time aircraft were unavailable for missions. The lower the TNMCM Rate, the better an aircraft maintenance unit is considered to be performing. The 4/8/12-Hour Fix Rates (4/8/12HR) are aircraft maintenance performance measures because the rates represent how effective an aircraft maintenance unit is at returning aircraft to MC status.

An aircraft maintenance unit is considered to be performing at a high performance level when it produces a high the fix rate. The Repeat (REP), Recur (REC), and Repeat/Recur (REP/REC) Rates are additional aircraft maintenance performance measures considered in this research. REP Rate is the rate at which a discrepancy occurs again on the next flight after a repair. REC Rate is the rate at which a discrepancy occurs again within the next three sorties after initially occurring. REP/REC Rate is the combination of these two rates into one measure. An aircraft maintenance unit wants to maintain a low repeat and recur rate because low rates are an indication the maintenance unit is fixing the discrepancy on the first attempt and not having to spend additional maintenance hours working on a problem that could have been repaired at its first appearance. Man-Hours per Flying Hour (MH/FH) is an aircraft maintenance performance measure that indicates the efficiency of a maintenance unit. MH/FH indicates how many hours of maintenance are required for one hour of flight. An efficient maintenance unit would have low man-hours per flying hour. Maintenance Schedule Effectiveness Rate (MSE) is another aircraft maintenance performance measure. MSE indicates how effective a maintenance unit is at performing scheduled maintenance. An aircraft maintenance unit considered to be effective would most likely have a high MSE. Another aircraft maintenance performance measure is the Flying Schedule Effectiveness Rate (FSE). FSE is a performance measure because it illustrates how effective a unit is at providing aircraft for missions. An aircraft maintenance unit wants to have a high FSE to indicate effective performance.

The moderating factors were represented by other variables that needed to be included in the analysis in order to account for confounding factors (see Table 8 and

Appendix A for formulas). The moderating factors can be divided into three areas, maintenance, supply, and operations tempo. The maintenance moderating factors include the Break Rate (BREAK), Air Abort Rate (AAB), and Ground Abort Rate (GAB). BREAK is a moderating factor because it is in an indicator of how often aircraft maintenance needs to be performed to repair breaks. AAB and GAB are also indicators of how much maintenance needs to be done because the aborts are included in the total number of aircraft breaks. Aborts also require additional maintenance work to prepare additional spare aircraft.

Supply related moderating factors are the TNMCS Rate (TNMCS) and the Cannibalization Rate (CANN). TNMCS is a moderating factor of aircraft maintenance performance because the maintainers do not have control over the supply system and are not able to repair some aircraft because of a lack of parts. CANN is a moderating factor of aircraft maintenance performance because it is an indication of the lack of spare parts and of extra maintenance work performed to remove parts off of the cannibalization bird in order to return broke aircraft to MC status.

Operations tempo related moderating factors are Average Possessed Aircraft (ACFT), Average Sortie Duration (ASD), Hourly Utilization Rate (HUTE), and Sortie Utilization Rate (SUTE). ACFT is the number of aircraft has a direct effect on the number of sorties flown which affects the amount of potential maintenance work. ASD is another potential moderating factor on aircraft maintenance performance because it indicates the average time after departure that aircraft maintainers have to prepare for the return of possibly NMC aircraft requiring repair. HUTE and SUTE are moderating factors that indicate the average number of hours and sorties put on each aircraft.

The theoretical model of this research posits that the aircraft maintenance organizational structure affects aircraft maintenance performance. The type of organizational structure is determined by the functional centralization of the on-equipment maintenance. In addition to the organizational structure, there are moderating factors which indirectly affect aircraft maintenance performance.

Table 8. Aircraft Performance Factors and Moderating Factors

Aircraft Performance Factors	Moderating Factors
TNMCM Rate (TNMCM)	Maintenance Related
4-Hour Fix Rate (4HR)	Break Rate (BREAK)
8-Hr Fix Rate (8HR)	Air Abort Rate (AAB)
12-Hour Fix Rate (12HR)	Ground Abort Rate (GAB)
Repeat Rate (REP)	Supply Related
Recur Rate (REC)	TNMCS Rate (TNCMS)
Repeat/Recur Rate (REP/REC)	Cannibalization Rate (CANN)
Man-hours/Flying Hour (MH/FH)	Operations Tempo Related
Maintenance Schedule Effective Rate (MSE)	Average Possessed Aircraft (ACFT)
Flying Schedule Effectiveness Rate (FSE)	Average Sortie Duration (ASD)
	Hourly UTE Rate (HUTE)
	Sortie UTE Rate (SUTE)

Experimental Design

The experimental design of the research was based on a proposed continuum of the functional centralization of on-equipment maintenance with the aircraft maintenance organization. The most functionally centralized structure is the OMS structure with all of crew chiefs assigned together in one squadron and the on- and off-equipment specialists assigned together in two other squadrons. Intermediate functional centralized structures are the C/POMO and AGS structures with all the on-equipment maintenance personnel assigned together in one squadron and all the off-equipment maintenance personnel assigned to one or two other squadrons. The most functionally decentralized structure is the OG structure in which the on-equipment maintenance personnel are assigned to flying squadrons assigned to the Operations Group and the off-equipment maintenance personnel are assigned to the maintenance squadrons in the Logistics Group (see Figure 13).

Centralized ◄——————————————————————► Decentralized

OMS Structure C/POMO and AGS Structures OG Structure

Figure 13. On-Equipment Functional Centralization Structure

The experimental design of this research consisted of three different experiments. The first experiment compared the OMS structure to the AGS structure of a C-5 wing, unfortunately there was no control group because no C-5 wings remained under the OMS structure after the Air Force initiated the Objective Wing (see Figure 14). The second experiment compared the C/POMO structure to the OG structure of three F-15 wings with a fourth F-15 wing as a control group that remained under the C/POMO structure (see Figure 15). The last experiment also compared the C/POMO structure to the OG structure of three F-16 wings with a fourth F-16 wing as a control group that remained under the C/POMO structure (see Figure 16). In the experiment design figures the Os represent observations of aircraft maintenance performance and moderating factors during that particular time period and the Xs represent the reorganization of the studied unit from one organizational structure to the other.

	OMS		AGS
436th ALW	OOOOOO	X	OOOOOO

Figure 14. C-5 Experimental Design

	C/POMO		OG
1st FW	OOOOOO	X	OOOOOO
33rd FW	OOOOOO	X	OOOOOO
18th WG	OOOOOO	X	OOOOOO
57th WG F-15s	OOOOOO		OOOOOO

Figure 15. F-15 Experimental Design

	C/POMO		OG
388th FW	OOOOOO	X	OOOOOO
347th WG	OOOOOO	X	OOOOOO
52 FW	OOOOOO	X	OOOOOO
57th WG F-16s	OOOOOO		OOOOOO

Figure 16. F-16 Experimental Design

For the F-15 and F-16 experiments three comparisons are performed. Each wing was compared to itself before and after the reorganization. This was done to observe any changes that might have occurred with the reorganization to the OG structure. Each wing's pre-reorganization performance was compared to the control group's pre-reorganization performance. This was done to observe how each wing compared to each other prior to the reorganization. Each wing's post-reorganization performance was compared to the control group's post-reorganization performance. This was done to observe how each wing compared to each other after the reorganization.

Confounds

The data used for this research was from various wings flying the same aircraft and the same mission before and after the reorganization. These units were selected in order to mitigate as many confounding factors as possible. The reason for looking at specific bases for each MDS, instead of the entire fleet, was because bases were closed or changed what aircraft were stationed there. The bases selected were the only ones to maintain the same type of aircraft before and after the reorganization. The reason for selecting these particular types of aircraft was because they were in the Air Force's inventory before and after the reorganization and remained stationed at the same bases before and after the reorganization. Using the same bases and the same aircraft helped to ensure the consistency of the data and facilitated cross testing on the data because they share the same type of mission.

One AMC unit was selected for comparison of aircraft maintenance organizational structures. Even though AMC did not convert to the OG, as described in this research, it did convert from the OMS structure to the AGS structure, the equivalent to the C/POMO structure. The unit selected was the 436th Airlift Wing (ALW) at Dover AFB, Delaware which flies the C-5 cargo plane. This unit was selected because the same aircraft remained at this base and flew the same type of missions throughout the last 20 years. It was hoped another unit would have been used in the research, but data was not available from the 1980s from the other cargo airlift wings considered that had maintained the same aircraft over the past 20 years.

Based on the time series plot of the 436th ALW's TNMCM rate from before and after the reorganization, it appears there are other factors affecting this rate besides normal operations (see Figure 17). The TNMCM rate from the pre-organization time period appeared to have occurred in three different environments. The first environment was the use of the C-5A. The second environment, with the downward slope, was the conversion of the wing to the C-5B. The final environment was after the conversion was complete. Also, the post-reorganization appeared to have abnormally high peaks at certain points. These peaks occurred about the same time as major deployments to Southwest Asia and the Balkans in response to increased threats. The possible increase was 436th ALW is the East Coast deployment sight for the USAF and as more aircraft deployed overseas, some broke in Dover, and the 436th ALW had to provide additional aircraft. Due to these various confounding factors, the C-5 analysis was not further investigated in this research, leaving this analysis for follow-on research.

There are three F-15 units, three F-16 units, and a control unit used in the study of the effects of the functional decentralization of on-equipment maintenance of aircraft maintenance performance. The F-15 units selected are the 1st Fighter Wing (FW) at Langley AFB, Virginia, the 33rd FW at Eglin AFB, Florida, and the 18th Wing (WG) at Kadena AB, Japan. These wings all fly the F-15 in air superiority missions and have similar deployments and TDYs to each other. The F-16 units selected are the 388th FW at Hill AFB, UTAH, the 347th WG at Moody AFB, Georgia, and the 52nd FW at Spangdahlem AB, Germany. These wings all fly the F-16 in primarily air-to-ground bombing missions and have similar deployments and TDYs to each other. The control unit was the 57th WG at Nellis AFB, Nevada. The 57th WG flies both the F-15 and F-16 in similar training missions to the other wings selected. Also, the 57th WG maintained the C/POMO structure because of the various missions of the aircraft and the flying units within the wing.

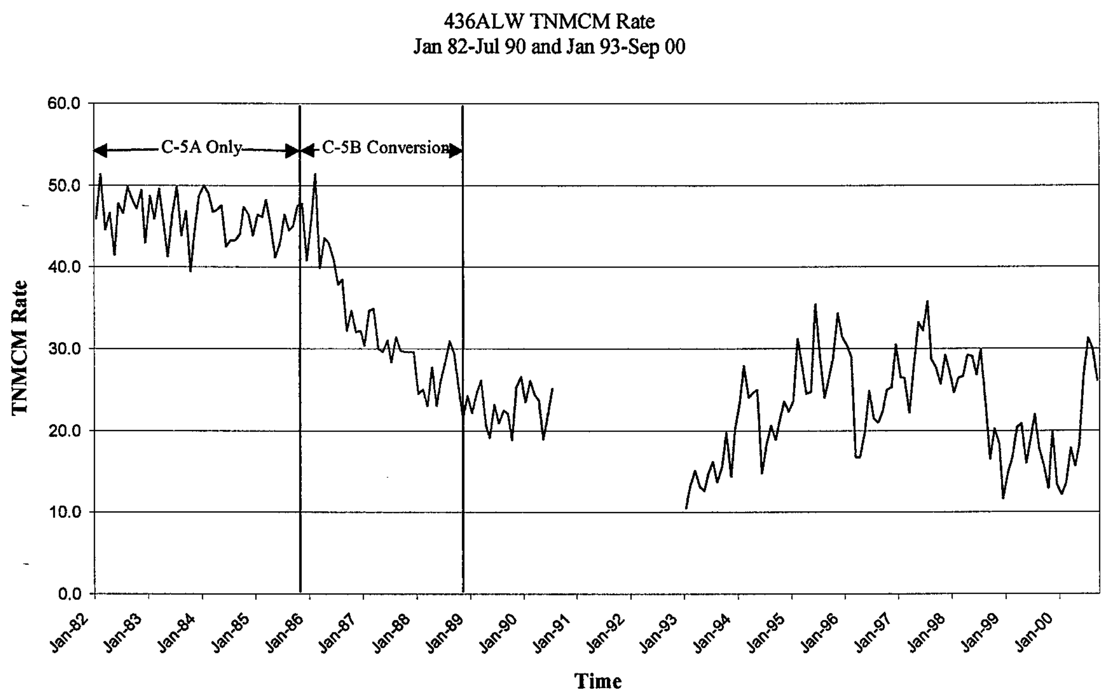


Figure 17. 436th ALW TNMCM Rates

Even though the units have the same types of deployments and TDYs as each other, the actual types have changed since the reorganization. During the Cold War the US had units permanently assigned to overseas locations. The major draw down of USAF fighter wings began in 1991 and had leveled out by 1993 (AFHRA, 2001). With the draw down, the Air Force has evolved into an expeditionary force with CONUS based units deploying overseas for international crises. The major change in deployments was the constant rotation to Southwest Asia in support of Operations NORTHERN and SOUTHERN WATCH, which have existed in one form or another since 1991, and to the Balkans to enforce United Nations and North Atlantic Treaty Organization resolutions since 1993. This is a drastic change in the operations of the Air Force and the type of maintenance structure used could have an affect on the success of the Air Force in these missions.

Table 9. List of Variables Used in F-15 Experiment

Dependent Variables	1 FW	33 FW	18WG	57WG	Pre	Post	Model
TNMCM	X	X	X	X	X	X	X
4HR		X					
8HR		X	X			X	
REP			X				
REC			X				
REP/REC						X	
MH/FH	X	X	X	X	X	X	X
MSE		X					
FSE	X	X	X	X	X	X	X
Moderating Variables							
BREAK		X	X			X	
AAB	X	X	X	X	X	X	X
GAB	X	X	X	X	X	X	X
TNMCS	X	X	X	X	X	X	X
CANN	X	X	X	X	X	X	X
ACFT	X	X	X	X	X	X	X
ASD	X	X	X	X	X	X	X
HUTE	X	X	X	X	X	X	X
SUTE	X	X	X	X	X	X	X

All of the proposed aircraft maintenance performance measures and moderating factors were not used for each experiment. The data was collected from the REMIS

Program Office, the individual wing analysis offices, and their respective MAJCOM analysis offices. Some data was not available for the variables used in this research because it was not tracked during the time period or there are no records remaining with the data. The analysis was performed using variables that were present in both the time period before reorganization and after reorganization. See Tables 9 and 10 for which variables were used in each experiment.

Table 10. List of Variable Used in F-16 Experiment

Dependent Variables	388FW	347WG	52WG	57WG	Pre	Post	Model
TNMCM	X	X	X	X	X	X	X
4HR						X	
8HR						X	
REP	X	X	X	X	X	X	X
REC	X	X	X	X	X	X	X
MH/FH	X	X	X	X	X	X	X
MSE	X						
FSE	X		X	X		X	
Moderating Variables							
BREAK	X	X	X	X	X	X	X
AAB	X	X	X	X	X	X	X
GAB	X	X	X	X	X	X	X
TNMCS	X	X	X	X	X	X	X
CANN	X	X	X	X	X	X	X
ACFT	X	X	X	X	X	X	X
ASD	X	X	X	X	X	X	X
HUTE	X	X	X	X	X	X	X
SUTE	X	X	X	X	X	X	X

Statistical Assumptions

Prior to any comparison of the data, the data was tested for the three assumptions of any parametric statistical test. The first assumption is that the distribution of the data is sufficiently normal. This test was performed using the Shapiro-Wilk W test in the statistical program JMP IN. The test produces a W value ranging from 0.000000 to 0.999999, along with a probability value p. The Shapiro-Wilk W test is based on a hypothesis test, with the null hypothesis being the data has a normal distribution. With a p value less than 0.05 the null hypothesis can be rejected. If the p-value produced by the test was less than 0.05, the data was considered to be non-normal (Sall, 1996:112 and 146) (see Appendix D for results).

The level of significance selected for these statistical assumptions and all the other tests performed in this research was selected in order to reduce the number of Type I errors, when the alternate hypothesis is accepted as true, when in actuality the null hypothesis is true. With a large level of significance, most of an entire population could fall within in the rejection region and the null would be rejected. Alternately with a small level of significance, very little of the population would fall within the rejection region and the alternate would be accepted. In order to reduce these occurrences, the level of significance for the tests in this research was 0.05 (McClave and others, 1998:318-323).

The second assumption is the variances are equal. Four tests were available within JMP IN to test for equal variances. The four tests are Levene, Brown-Forsyth, O'Brien, and Bartlett (Sall, 1996:130). Each test provides an F score and an associated p value. The null hypothesis is that the data has equal variances. If the tests produce a high F score which corresponds to a low p value, less than 0.05, the data can be considered to have unequal variance (Sall, 1996, 167). If at least three of the four tests had a p-value less than 0.05, the data for that particular variable was considered to have unequal variance (see Appendix E for results).

The final assumption to be tested was for auto-correlation of the dependent variables. Auto-correlation is the correlation between time series residuals at different points in time. In other words, with data plotted over time there could be a tendency for groupings of residuals on either the negative or positive side of the straight-line regression. For each dependent variable used, the data was plotted over time and a straight-line regression model was fitted to the data. The residuals were then tested for auto-correlation using the Durbin-Watson test. The valued of the Durbin-Watson test ranges from 0 to 4. For the large data population of this research, one variable, and a level of significance of 0.05, the value of the Durbin-Watson test needed to be between 1.65 and 1.69 to be considered un-correlated. If the residuals were positively auto-correlated, the test result was less than 1.65 and approximately 0 if the auto-correlation was very strong. If the residuals were negatively auto-correlated, the test result was greater than 1.69 and approximately 4 if the auto-correlation was very strong. (McClave and others, 1998:778-782 and 1032) (see Appendix F for results).

Comparison of Means

For each of the three experiments, a comparison of means was performed for the aircraft maintenance performance measures and the moderating factors between the time periods of the different organizational structures. The comparison of means was used to answer Investigative Questions 4 and 5. The aircraft maintenance performance measures were compared to determine if the performance of the maintenance units had changed with the implementation of a new organizational structure. The moderating factors were compared to determine if the maintenance unit was operating in a different environment between the two organizational structures. Besides comparing each wing to itself between the time periods, for each time period all the wings for each experiment were compared to each other to determine if any wing was performing differently from the other wings during this time period.

Based on the results of the normality variance tests, different tests were used to compare the different aircraft maintenance performance measures and moderating factors. If the data for a specific measure had a normal distribution and equal variances, the analysis of variance (ANOVA) F test was used to compare the means. ANOVA produces an F ratio and an associated p-value. The null hypothesis was the means of the measure were equal in both organizational structures. The alternate hypothesis was the means of the measure were not equal in both structures. The level of significance was 0.05. If the ANOVA produced a p value less than 0.05, the null hypothesis was rejected and the means can be considered different between the two organizational structures (Sall, 1996:124).

Another test used to compare the means of the measures used in this research is the Welch ANOVA F test. The Welch ANOVA F test was used for data with normal distributions, but unequal variances. The Welch ANOVA F test is a test in which "the observations are weighted by the reciprocals of the estimated variances" (Sall, 1996:167). The Welch test produces an F ratio and an associated p-value. The null hypothesis was the means of the measure were equal under both organizational structures. The alternate hypothesis was the means of the measure were not equal under both organizational structures. The level of significance was 0.05. If the Welch test produced a p value less than 0.05, the null hypothesis could be rejected and the means could be considered different between the two organizational structures.

The third test was the Kruskal-Wallis test for data with non-normal distributions. The Kruskal-Wallis test is a non-parametric test similar to the more familiar Wilcoxon Rank-Sum test, but is used for data with more than two means being compared. The Kruskal-Wallis test produces a one-way Chi Square approximation and an associated p value. The null hypothesis was the means of the measure were equal under both organizational structures. The alternate hypothesis was the means of the measure were not equal. The level of significance was 0.05. If the Kruskal-Wallis test produced a p-value less than 0.05, the null hypothesis was rejected and the means of the measure could be considered different under the organizational structures (Sall, 1996:168-170).

The first part of analyzing the effect of the functional centralization of on-equipment maintenance was to compare the means of the performance measures and the moderating factors between the organizational structures. Three different types of tests were used depending on the normality and variance of the data being compared. The second part of the analysis was to build regression models for each of the aircraft maintenance performance measures to determine if the organizational structure was a significant factor in performance. The regression models were also used to determine any other significant factors.

Regression

Regression was used to produce the predictive models of each aircraft maintenance performance measure. The models were used to answer Investigative

Questions 6 and 7. For each experiment, a regression model was built for each aircraft maintenance performance for each wing. The first step was to perform a backward stepwise regression to build the model. When the stepwise regression was complete, the three remaining variables with the greatest significance were used in a standard least-squares regression model to create a reduced model that was used to determine the key factors affecting aircraft maintenance performance. After the final model was built, the residuals were tested to ensure the assumptions of regression were met.

Stepwise backward regression was the first step in the regression analysis. Stepwise regression was used to determine the statistically significant independent and moderating variables that influenced the aircraft maintenance performance measure. Also included in the model was time, if auto-correlation was determined to be present. A significance level of 0.05 was used to determine which variables to remove from the model. JMP was used to perform the stepwise regression. The stepwise regression was complete when all the remaining variables had a p value less than the significance level.

The next step was to build a reduced model. For each aircraft maintenance performance measure, the three moderating factors with the greatest significance from the stepwise model were selected to be in the model. Also in the model were time, if auto-correlation was present, and the organizational structure. JMP produced an overall adjusted R^2 value for the model, and F ratios and p values for the independent and moderating variables. The adjusted R^2 value was used to determine how well the model explains the variation the variables. The value ranges from 0 to 1, with a value closer to 1 the better the fit of the model. The F ratios and p values were used to determine the significance of the model. If the overall model p value was less than 0.05, the model could not be explained by the intercept value only, so independent and moderating variables had to be included. Any independent and moderating variable that had a p value less than 0.05 was considered significant and need to be included in the model. The variables that were determined to be significant were those factors that had the greatest effect on the aircraft maintenance performance.

The verification of the three assumptions of the residuals was the final step of the regression analysis. The three assumptions are the residuals are independent, normal, and equal variance. The three assumptions must be met for the regression model to be accurate and make sense. To check for independence, the Durbin-Watson test and overlay plot of residuals was used. If there was no trend in the overlay plot and the Durbin-Watson test p-value was greater then 0.05, the residuals were considered independent. To check for normality, the residuals were plotted as a "distribution of y" in JMP and if the Shapiro-Wilk W test p-value was greater than 0.05, the distribution of residuals was considered normal. To check for constant variance, the residuals were plotted against the predicted values and if no trends were observable, the residuals were considered to have constant variance (White, 2000).

Summary

The theoretical model, experimental design, and methodology used to determine the affect of functional centralization of on-equipment maintenance on aircraft maintenance performance were presented in Chapter 3. The theoretical model proposed that aircraft maintenance performance is directly affect by the organizational structure with various moderating factors having an indirect affect. A functional centralization of on-equipment maintenance continuum was proposed with the OMS structure being the most centralized, the OG structure as the most decentralized, and the C/POMO and AGS structures as being intermediate structures. An experimental design was described which consisted of comparing various C-5, F-15, and F-16 wings. The methodology used to analyze the affect of organizational structure was comparison of means tests to determine if the maintenance performance and moderating factors had changed with the implementation of the new structure. The second portion of the methodology was regression analysis to determine if the organizational factor was a significant factor of maintenance performance and to determine any other significant factors. Chapters 4 presents the results and analysis of the comparison of means tests and regression for the three experiments described in this chapter.

Chapter 4 – Findings and Analysis

Introduction

Chapter 4 presents the findings and analysis of the research investigating the affect of the functional centralization of on-equipment maintenance on aircraft maintenance performance. As a reminder, due to various other confounding factors not captured by this research an analysis of the C-5 wing was not performed. The F-15 experiment was the first analysis performed. The second analysis performed was the F-16 experiment. For each experiment, the methodology and the results of the statistical assumptions test results in Chapter 3 were used to perform the analysis. The methodology used was comparison of means to answer Investigative Questions 4 and 5 to determine if the maintenance performance and moderating factors had changed with the implementation of a new organizational structure. The second part of the methodology was regression analysis to answer Investigative Questions 6 and 7 to determine if organizational structure was a significant factor of maintenance performance and to determine other significant factors on maintenance performance.

F-15 Experiment Comparison of Means

1st FW. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 1st FW the aircraft maintenance performance measures used were TNMCM, MH/FH and FSE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The aircraft maintenance performance measures of the 1st FW were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, MH/FH, and FSE. All three measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 11.

Table 11. 1st FW Aircraft Maintenance Performance Measures Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	69.2204	<0.0001	Yes	Increase
MH/FH	10.7630	0.0010	Yes	Decrease
FSE	53.0404	<0.0001	Yes	Decrease

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 1st FW were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The moderating factors of the 1st FW were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor except HUTE had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). HUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 12.

Table 12. 1st FW Moderating Factor Comparison Test Result

Factor	Test	Score	P Value	Reject?	Result
AAB	Kruskal-Wallis	0.6523	0.4291	No	No Change
GAB	Kruskal-Wallis	108.3803	<0.0001	Yes	Increase
TNMCS	Kruskal-Wallis	66.8728	<0.0001	Yes	Increase
CANN	Kruskal-Wallis	14.0878	0.0002	Yes	Increase
ACFT	Kruskal-Wallis	66.374	<0.0001	Yes	Decrease
ASD	Kruskal-Wallis	41.4126	<0.0001	Yes	Increase
HUTE	ANOVA	0.0323	0.8576	No	No Change
SUTE	Kruskal-Wallis	37.3740	<0.0001	Yes	Decrease

The 1st FW aircraft maintenance performance appeared to have degraded in a different operating environment since the implementation of the OG structure. The increase in TNMCM could be result of the increase in GAB and CANN. GAB created more maintenance work because of the work required to repair aborted aircraft and to prepare additional spare aircraft. CANN created more maintenance work because additional work required to cann spare parts. The time series plot of 1st FW TNMCM shows a difference between the two organizations (see Appendix C), with cyclical peaks during the late 1990s due to the wing's annual summer deployment to Southwest Asia in support of Operation SOUTHERN WATCH.

The improvement in MH/FH is an indication of a slight improvement in 1st FW aircraft maintenance performance. The improvement in MH/FH coupled with the increase in TNMCM could be an indication the emphasis under the OG structure is to repair aircraft in the quickest amount of time to return the aircraft to the flying schedule instead of making a quality repair. The time series plot of MH/FH shows a decrease during the 1980s and an increase again during the 1990s (see Appendix C). This could suggest the implementation of the OG structure may not have had a great affect on the MH/FH, but an increased operations tempo might have had a greater affect.

The decrease in 1st FW FSE is an indication the aircraft maintenance performance degraded since the implementation of the OG structure. The increases in GAB and TNMCS could have had an influence on the degraded FSE. GAB affects FSE because aircraft are not meeting the flying schedule because they are ground aborting more often. TNMCS affects FSE because less aircraft are available for the schedule due to a lack of spare parts. The time series plot of FSE shows that it remained relatively constant during the 1980s, and fluctuated and decreased during the 1990s possibly due to the increased operations tempo and deployments (see Appendix C).

The operations tempo of the 1st FW changed since the implementation of the OG structure. The changes in ACFT, ASD, SUTE, and no change in HUTE indicate the 1st FW possessed fewer aircraft that flew fewer sorties for longer durations. The decrease in ACFT is because the fighter squadrons reduced assigned aircraft from 24 to 21 during the 1990s. The increase in ASD is because of the 1st FW's regular deployments to Southwest Asia throughout the 1990s to enforce the no-fly zones over Iraq.

Table 13. 1st FW Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Degraded
MH/FH	Improved
FSE	Degraded
Moderating Factors	
AAB	No Change
GAB	Increase
TNMCS	Increase
CANN	Increase
ACFT	Decrease
ASD	Increase
HUTE	No Change
SUTE	Decrease

33rd FW. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 33rd FW the aircraft maintenance performance measures used were TNMCM, 4HR, 8HR, MH/FH, MSE, and FSE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The aircraft maintenance performance measures of the 33rd FW were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, 4HR, 8HR, MH/FH, MSE, and FSE. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 14.

Table 14. 33rd FW Aircraft Maintenance Performance Measures
Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	4.9367	0.0263	Yes	Increase
4HR	2.4900	0.1146	No	No Change
8HR	0.1759	0.6749	No	No Change
MH/FH	41.5025	<0.0001	Yes	Decrease
MSE	71.5193	<0.0001	Yes	Decrease
FSE	77.8964	<0.0001	Yes	Decrease

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 33rd FW were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The moderating factors of the 33rd FW were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor except BREAK and SUTE had non-normal distributions (see Appendices D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). BREAK and SUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 15.

Table 15. 33rd FW Moderating Factor Comparison Test Result

Factor	Test	Score	P Value	Reject?	Result
BREAK	ANOVA	30.6171	<0.0001	Yes	Increase
AAB	Kruskal-Wallis	5.8014	0.0160	Yes	Increase
GAB	Kruskal-Wallis	33.7561	<0.0001	Yes	Increase
TNMCS	Kruskal-Wallis	38.6769	<0.0001	Yes	Increase
CANN	Kruskal-Wallis	14.0878	0.0002	Yes	Increase
ACFT	Kruskal-Wallis	140.3326	<0.0001	Yes	Decrease
ASD	Kruskal-Wallis	43.8448	<0.0001	Yes	Increase
HUTE	Kruskal-Wallis	0.56929	0.4531	No	No Change
SUTE	ANOVA	34.4223	<0.0001	Yes	Decrease

The overall aircraft maintenance performance of the 33rd FW appears to have degraded since the implementation of the OG structure. The increase in TNMCM could be because of the increases in BREAK, GAB, and CANN. The increases in BREAK and GAB indicate more maintenance work was required to repair broke aircraft. The increase in CANN indicates the lack of spare parts could have increased the maintenance work because more spare parts were required to be canned. The time plot of the 33rd FW TNMCM appears to indicate the TNMCM was gradually decreasing during the 1980s and then started to increase again during the 1990s (see Appendix C).

The unchanged 4HR and 8HR indicates the aircraft maintenance performance of the 33rd FW did not change since the implementation of the OG structure. The unchanged 4HR and 8HR coupled with the increases in BREAK and GAB indicates the 33rd FW maintenance work force was repairing the same percentage of breaks during the OG structure time frames as during the C/POMO structure time frame. The time series plots of the 33rd FW 4HR and 8HR appear to indicate the fix rates were steadily increasing during the 1980s and then began decreasing during the 1990s, which corresponds to the opposite changes of TNMCM that occurred during the same time frames (see Appendix C).

The improvement in MH/FH indicates 33rd FW increased its aircraft maintenance performance in this area. The improvement in MH/FH coupled with the increase in TNMCM could be an indication that the emphasis under the OG structure is to repair aircraft in the quickest amount of time to return the aircraft to the flying schedule instead of making a quality repair. The time series plot indicates the MH/FH was decreasing at the implementation of the OG structure and has been steadily increasing since the implementation (see Appendix C). This could be an indication the OG structure has had a negative impact on the aircraft maintenance performance area of MH/FH.

The aircraft maintenance performance of the 33rd FW appears to have degraded in MSE. The decrease in MSE could be a result of the increase in BREAK and GAB. These increases could have resulted in a majority of maintenance work being performed to perform the unscheduled maintenance work of repairing broke aircraft instead of performing scheduled maintenance. The time series plot of MSE seems to indicate a steady MSE during the 1980s and a gradual decrease during the 1990s (see Appendix C). This is a possible indication the OG structure had a negative influence on the accomplishment of scheduled maintenance tasks.

The FSE degradation indicates the aircraft maintenance performance level of the 33rd FW decreased since the implementation of the OG structure. The decrease in FSE could be a result of the increased GAB and TNMCS. The increase in GAB indicates aircraft were not meeting the flying schedule because of ground aborts. The increase in TNCMS indicates fewer aircraft were available for the flying schedule because of a lack of spare parts. According to the time series plot, the FSE remained steady throughout the 1980s and through the early 1990s during the implementation of the OG structure (see Appendix C). FSE decreased at the beginning of Fiscal Year 1996 and has been steady around this lower mean since. This could be an indication of a change in the wing leadership and stricter enforcement of the regulations.

The operations tempo of the 33rd FW appears to have changed since the implementation of the OG structure. The changes in ACFT, ASD, and SUTE coupled with the unchanged HUTE indicate the 33rd FW possessed fewer aircraft flying fewer sorties for longer durations. The decrease in ACFT is because the 33rd FW deactivated one of its three squadrons and decreased the assigned aircraft from 24 to 21 for the remaining squadrons. The increased ASD is because of the wing's regular deployments to Southwest Asia in support of Operations NORTHERN and SOUTHERN WATCH during the 1990s.

18th WG. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 18th WG, the aircraft maintenance performance measures used were TNMCM, 8HR, MH/FH, REP, REC, and FSE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

Table 16. 33rd FW Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Degraded
4HR	No Change
8HR	No Change
MH/FH	Improved
MSE	Degraded
FSE	Degraded
Moderating Factors	
BREAK	Increase
AAB	Decrease
GAB	Increase
TNMCS	Increase
CANN	Increase
ACFT	Decrease
ASD	Increase
HUTE	No Change
SUTE	Decrease

The aircraft maintenance performance measures of the 18th WG were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, 8HR, REP, REC, MH/FH, and FSE. All the measures except one had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). 8HR had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means. The results of the tests are presented in Table 17.

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 18th WG were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

Table 17. 18th WG Aircraft Maintenance Performance Measures Test Results

Measure	Test	Value	P Value	Reject?	Result
TNMCM	Kruskal-Wallis	10.3293	0.0013	Yes	Decrease
8HR	ANOVA	50.4979	<0.0001	Yes	Increase
REP	Kruskal-Wallis	65.0912	<0.0001	Yes	Decrease
REC	Kruskal-Wallis	27.0562	<0.0001	Yes	Decrease
MH/FH	Kruskal-Wallis	51.7410	<0.0001	Yes	Decrease
FSE	Kruskal-Wallis	55.1334	<0.0001	Yes	Decrease

The moderating factors of the 18th WG were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor except TNMCS, HUTE, and SUTE had non-normal distributions (see Appendices D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). TNMCS and HUTE had normal distributions and unequal variances (see Appendices D and E), so the Welch ANOVA F-test was used to compare the means (see Appendix G). SUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 18.

The aircraft maintenance performance of the 18th WG appears to have improved since the implementation of the OG structure. The decrease in TNMCM could be a result of the improvement in 8HR, REP, and REC, and decrease in AAB despite the increases in BREAK and GAB. The improvement in 8HR indicates the wing was repairing more breaks and ground aborts in a quicker amount of time. The improvement in REP and REC indicates the maintenance was being done correctly the first time, so additional maintenance work was not required to do the repair again. The decrease in AAB indicates less maintenance was required to repair air aborted aircraft.

Table 18. 18th WG Moderating Factor Comparison Test Result

Factor	Test	Score	P Value	Reject?	Result
BREAK	Kruskal-Wallis	4.1765	0.0410	Yes	Increase
AAB	Kruskal-Wallis	24.7758	0.0160	Yes	Decrease
GAB	Kruskal-Wallis	15.8871	<0.0001	Yes	Increase
TNMCS	Welch	23.1501	<0.0001	Yes	Increase
CANN	Kruskal-Wallis	0.5391	0.4628	No	No Change
ACFT	Kruskal-Wallis	119.1109	<0.0001	Yes	Decrease
ASD	Kruskal-Wallis	23.8899	<0.0001	Yes	Increase
HUTE	Welch	0.9391	0.3340	No	No Change
SUTE	ANOVA	44.2228	<0.0001	Yes	Decrease

The decrease in the 18th WG's MH/FH indicates the aircraft maintenance performance improved since the implementation of the OG structure. The change in MH/FH coupled with the decrease in TNMCM indicates less maintenance was required to produce one flying hour despite the increases in BREAK and GAB.

The 18th WG FSE decrease indicates the aircraft maintenance performance degraded in this area since the implementation of the OG structure. The decrease in FSE could be a result of the increases in GAB and TNCMS. The increase in GAB indicates fewer aircraft did not meet the flying schedule because the aircraft aborted. The increase in TNMCS indicates fewer aircraft were available for the flying schedule because of the lack of spare parts.

The operations tempo of the 18th WG changed under the OG structure. The changes in ACFT, ASD, and SUTE and the no change in HUTE indicates the 18th WG possessed fewer aircraft that flew fewer sorties for longer durations. The decreased ACFT is a result of the wing's squadrons reducing from 24 to 21 assigned aircraft. The increased ASD is a result of the 18th WG's participation in enforcing the no fly zones over Iraq.

Table 19. 18th WG Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Improved
8HR	Improved
REP	Improved
REC	Improved
MH/FH	Improved
FSE	Degraded
Moderating Factors	
BREAK	Increase
AAB	Decrease
GAB	Increase
TNMCS	Increase
CANN	No Change
ACFT	Decrease
ASD	Increase
HUTE	No Change
SUTE	Decrease

57th WG F-15. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 57th WG F-15s, the aircraft maintenance performance measures used were TNMCM, MH/FH and FSE. The 57th WG acted as a control group, so there were no changes in organizational structure analyzed, just the changes in the measures of the

57th WG during the time frames the rest of the Air Force was operating under different organizational structures. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The aircraft maintenance performance measures of the 57th WG F-15s were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, MH/FH, and FSE. All three measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 20.

Table 20. 57th WG F-15 Aircraft Maintenance Performance Measures
Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	100.6612	<0.0001	Yes	Increase
MH/FH	2.6495	0.1036	No	No Change
FSE	92.0941	<0.0001	Yes	Decrease

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 57th WG were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The 57th WG F-15s were used as a control group to determine the effects of the operating environment on a unit that did not implement a new organizational structure. The comparison was made for the time frames of the organizational structures, not the structures themselves. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The moderating factors of the 57th WG were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor except HUTE had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). HUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 21.

Table 21. 57th WG F-15 Moderating Factor Comparison Test Results

Factor	Test	Score	P Value	Reject?	Result
AAB	Kruskal-Wallis	4.8403	0.0278	Yes	Increase
GAB	Kruskal-Wallis	46.2603	<0.0001	Yes	Increase
TNMCS	Kruskal-Wallis	2.6633	0.1027	No	No Change
CANN	Kruskal-Wallis	0.0000	1.0000	No	No Change
ACFT	Kruskal-Wallis	24.5579	<0.0001	Yes	Increase
ASD	Kruskal-Wallis	17.7686	<0.0001	Yes	Increase
HUTE	ANOVA	0.3037	0.5822	No	No Change
SUTE	ANOVA	8.5154	0.0039	Yes	Decrease

The aircraft maintenance performance of the 57th WG F-15s appears to have degraded during the time frame following the CAF's implementation of the OG structure. The increased TNMCM could be a result of the increased AAB and GAB. The increased AAB and GAB created more maintenance work to repair aborted aircraft and to prepare additional spare aircraft.

The aircraft maintenance performance level of the 57th WG F-15s did not change because of the unchanged MH/FH. The unchanged MH/FH coupled with the increase in TNMCM, AAB, and GAB indicates less maintenance hours were required to repair the increased maintenance work. The time series plot for MH/FH shows a decrease during the 1980s and an increase during the 1990s,which indicates MH/FH could have changed regardless of the organizational structure (see Appendix C).

The decreased FSE of the 57th WG F-15s indicate a degradation of aircraft maintenance performance. The increased AAB and GAB could have caused the degradation of FSE. The increases in aborts indicate fewer aircraft were meeting the flying schedule because the aircraft were breaking during the launch.

The operations tempo of the 57th WG F-15s appears to have changed in the time period following the CAF's implementation of the OG structure. The changed ACFT, ASD, and SUTE coupled with the unchanged HUTE indicate the 57th WG possessed more F-15s flying the same number of sorties for longer durations.

Table 22. 57th WG F-15 Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Degraded
MH/FH	No Change
FSE	Degraded
Moderating Factors	
AAB	Increase
GAB	Increase
TNMCS	No Change
CANN	No Change
ACFT	Increase
ASD	Increase
HUTE	No Change
SUTE	Decrease

F-15 Pre-Reorganization. In order to understand how the F-15 units were operating in relationship to one another comparison of means was performed across the common aircraft maintenance performance measures and moderating factors during the C/POMO structure. The aircraft maintenance performance measures analyzed were TNMCM, MH/FH, and FSE. The moderating factors analyzed were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE.

The F-15 aircraft maintenance performance measures from before the implementation of the OG structure were compared for the four F-15 wings. The measures compared were TNMCM, MH/FH, and FSE. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 23 for results.

Table 23. F-15 Pre-Reorganization Aircraft Maintenance Performance Measures Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	1FW	33FW	18WG	57WG
TNMCM	115.2701	<0.0001	Yes	Equal	Equal	Higher	Lower
MH/FH	14.0083	0.0029	Yes	Lower	Equal	Equal	Equal
FSE	19.1076	0.0003	Yes	Equal	Equal	Higher	Equal

The F-15 wings appeared to be performing at different aircraft maintenance performance levels in the time period before the implementation of the OG structure. The 18th WG had the highest mean, with the 33rd FW and 1st FW having similar means, and the 57th WG F-15s had the lowest mean. This indicates the possibility that the three experimental groups were at a lower aircraft maintenance performance level than the control group before the implementation of the OG structure. The 1st FW MH/FH appears to operating at a lower aircraft maintenance performance level than the other three units before the implementation of the OG structure. The 18th WG appeared to have a higher FSE and thus was possibly performing at a higher level of aircraft maintenance performance than the other units.

The F-15 moderating factors from the time period before the implementation of the OG structure were compared for the four F-15 wings. The measures compared were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. All the measures, except for HUTE and SUTE, had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). HUTE had normal distributions and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means (see Appendix G). SUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 24 for results.

The F-15 wings in the experimental group appeared to be operating in a different environment then the 57th WG F-15s during the C/POMO structure time period. For every moderating factor, the 57th WG had a different mean than the other F-15 wings. The lower AAB and GAB indicate the 57th WG had less maintenance work created by repairing aborted aircraft and preparing additional spare aircraft. The higher TNMCS and CANN indicate the 57th WG had less spare parts and created more maintenance work by canning the spare parts. This could be because the other wings had a higher priority than the 57th WG for spare parts. The lower ACFT, ASD, HUTE, and SUTE indicate the 57th WG was at a lower operations tempo than the other wings. The 57th WG's lower ACFT mean was because the wing had only one squadron of F-15s, while the other wings had three squadrons. The 1st FW's higher ASD indicates the wing was flying the same number of sorties as the other wings, just for a longer duration.

Table 24. F-15 Pre-Reorganization Moderating Factors Comparison Test Results

Factor	Test	Score	P Value	Reject?	Result
AAB	Kruskal-Wallis	66.9089	<0.0001	Yes	57WG Lower
GAB	Kruskal-Wallis	7.8909	0.0483	Yes	57WG Lower
TNMCS	Kruskal-Wallis	44.4004	<0.0001	Yes	57WG Higher
CANN	Kruskal-Wallis	26.6235	<0.0001	Yes	57WG Higher
ACFT	Kruskal-Wallis	239.1801	<0.0001	Yes	57WG Lower
ASD	Kruskal-Wallis	203.4055	<0.0001	Yes	1FW Higher 57WG Lower
HUTE	Welch	95.1584	<0.0001	Yes	57WG Lower
SUTE	ANOVA	18.2985	<0.0001	Yes	57WG Lower

The aircraft maintenance performance measures and the moderating factors of the control group and the experimental groups appear to be different during the time period before the implementation of the OG structure. For the aircraft maintenance performance measures the 57th WG F-15s appear to be at the same performance level as the experimental groups, except for TNMCM where the 57th WG was lower. The moderating factors comparison indicates the 57th WG F-15s were operating in a different environment than the other F-15 units. This was not surprising because there is only one

F-15 squadron in the 57th WG and it is not a fully operation wing with the same spare parts priority as the other wings (see Table 25).

Table 25. F-15 Pre-Reorganization Comparison of Means Results

Aircraft Maintenance Performance	1FW	33FW	18WG	57WG
TNMCM	Equal	Equal	Higher	Lower
MH/FH	Lower	Equal	Equal	Equal
FSE	Equal	Equal	Higher	Equal
Moderating Factors				
ACFT	Equal	Equal	Equal	Lower
TNMCS	Equal	Equal	Equal	Higher
HUTE	Equal	Equal	Equal	Lower
SUTE	Equal	Equal	Equal	Lower
ASD	Higher	Equal	Equal	Lower
AAB	Equal	Equal	Equal	Lower
GAB	Equal	Equal	Equal	Lower
CANN	Equal	Equal	Equal	Higher

F-15 Post-Reorganization. In order to understand how the F-15 units were operating in relationship to one another comparison of means was performed across the common aircraft maintenance performance measures and moderating factors after the implementation of the OG structure. The aircraft maintenance performance measures analyzed were TNMCM, 8HR, REP/REC, MH/FH, and FSE. The moderating factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The 57th WG F-15s acted as a control group because the unit did not convert to the OG structure. Also taken into consideration in the analysis was the relationship between the units before the implementation of the OG structure.

The F-15 aircraft maintenance performance measures from after the implementation of the OG structure were compared for the four F-15 wings. The measures compared were TNMCM, 8HR, REP/REC, MH/FH, and FSE. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 26 for results.

Table 26. F-15 Post-Reorganization Aircraft Maintenance Performance Measure Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	1FW	33FW	18WG	57WG
TNMCM	85.6157	<0.0001	Yes	Higher	Equal	Equal	Highest
8HR	32.6699	<0.0001	Yes	Lower	Equal	Equal	Lowest
REP/REC	50.5790	<0.0001	Yes	Equal	Equal	Equal	Higher
MH/FH	91.0514	<0.0001	Yes	Equal	Equal	Equal	Higher
FSE	50.5790	<0.0001	Yes	Equal	Equal	Higher	Equal

The experimental group F-15 wings appear to be operating at a higher aircraft maintenance performance level than the control group, 57th WG F-15s, since the implementation of the OG structure. The 57th WG had a higher TNMCM than the other F-15 units. The difference in TNMCM indicates the experimental group F-15 units were operating at a higher aircraft performance level than the control group, which is a change from before the implementation of the OG structure, in which the 57th WG had a lower TNMCM than the experimental group F-15 units. The 8HR difference indicates the 33rd FW and the 18th WG were operating at a higher aircraft maintenance performance level than the 1st FW and the 57th WG. Also, the 1st FW was also performing better in the 8HR measure than the 57th WG. The difference in REP/REC indicates the three F-15 experimental groups were possibly performing at a higher performance level under the OG structure than the 57th WG which had remained under the C/POMO structure. The

MH/FH difference indicates there was a slight change from before the OG structure implementation in which the 1st FW's MH/FH was lower than the other units' MH/FH. Based on the results of the comparison between each individual wing, in which all three experimental groups' MH/FH decreased and the control group's MH/FH stayed the same, the three experimental groups improved MH/FH since the implementation of the OG structure. The difference in FSE indicates there was not a change from the time period before the implementation of the OG structure where the 18th WG also had a higher FSE than the other wings.

The F-15 moderating factors from the time period following the implementation of the OG structure were compared for the four F-15 wings. The measures compared were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. All the measures, except for HUTE and SUTE, had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). HUTE had normal distributions and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means (see Appendix G). SUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 27 for results.

Table 27. F-15 Post-Reorganization Moderating Factors
Kruskal-Wallis Test Results

Factor	Chi-Square	P Value	Reject?	1FW	33FW	18WG	57WG
BREAK	12.2094	0.0067	Yes	Equal	Equal	Equal	Lower
AAB	25.7684	<0.0001	Yes	Higher	Equal	Equal	Equal
GAB	84.9108	<0.0001	Yes	Higher	Equal	Equal	Equal
TNMCS	37.0764	<0.0001	Yes	Equal	Equal	Lower	Higher
CANN	43.0139	<0.0001	Yes	Equal	Equal	Lower	Equal
ACFT	246.7416	<0.0001	Yes	Higher	Equal	Equal	Lower
ASD	131.8176	<0.0001	Yes	Equal	Equal	Lower	Lowest
HUTE	109.4591	<0.0001	Yes	Equal	Equal	Lower	Lowest
SUTE	6.6465	0.0841	No	Equal	Equal	Equal	Equal

The operating environment for the F-15 wings appeared to be different during the time period following the implementation of the OG structure. The 57th WG's lower BREAK indicates the amount of maintenance work required in the experimental groups was greater than the control group. Based on the results of the individual wing comparisons and the pre-reorganization comparison, it appeared the 1st FW AAB remained the same while the other wings' AAB changed. The 33rd FW and 18th WG AAB improved during the OG structure time frame, while the 57th WG F-15 AAB increased during the OG structure time frame. Based on previous individual wing comparison tests, the 1st FW had a greater increase in GAB than the other wings since the implementation of the OG structure. This is an indication the 1st FW had more maintenance work to perform due to the greater number of spares to repair and ground aborted aircraft to repair. The 57th WG had a higher TNMCS because of a lower priority for spare parts than the other wings. The 18th WG had a lower TNMCS possibly because it is an overseas base and has a higher priority than the state-side wings. The 18th WG's lower CANN indicates the wing had a higher priority for spare parts and does not have to cann parts as often as the other wings. The 57th WG has a lower ACFT because the wing has only one squadron of F-15s while the other three wings had three squadrons. The 1st FW has a higher ACFT because the wing increased the possessed aircraft of two squadrons from 21 to 24 aircraft in 1999. The 1st FW and 33rd FW have a equal ASD and HUTE that are higher than the other two wings because of regular deployments to Southwest Asia throughout the 1990s, while the 18th WG did not first deploy until 1998 and the 57th WG never deployed to Southwest Asia.

The implementation of the OG structure appears to have had an effect on the aircraft maintenance performance of the three F-15 wings acting as experimental groups. The OG structure appears to have lessened the degree to which the aircraft maintenance performance degraded in the time period following the reorganization. The 57th WG F-15s had a greater degradation in the three common aircraft maintenance performance measures than the three experimental group F-15 wings.

Aircraft maintenance performance for the F-15 wings selected for this research had various reactions during the time period following the implementation of the OG structure. Two of the wings, the 1st FW and 33rd FW, appeared to have degraded in aircraft maintenance performance since the implementation of the OG structure with an increase in operations tempo and the amount of maintenance work performed. The other experimental group, the 18th WG, appeared to have actually improved its aircraft maintenance performance level since the implementation of the OG structure with an increase in operations tempo and the amount of maintenance work performed. The control group, the 57th WG F-15s, did not convert its maintenance organization and it also appeared to have a degradation in its aircraft maintenance performance level with an increase in operations tempo and amount of maintenance work performed. The three experimental wings appeared to have had an improvement in aircraft maintenance performance level when compared to the 57th WG since the implementation of the OG structure. The environments each wing are operating in appeared to have had the same changes since the implementation of the OG structure.

Table 28. F-15 Post-Reorganization Comparison of Means Results

Aircraft Maintenance Performance	1FW	33FW	18WG	57WG
TNMCM	Higher	Equal	Equal	Highest
8HR	Lower	Equal	Equal	Lowest
MH/FH	Equal	Equal	Equal	Higher
REP/REC	Equal	Equal	Equal	Higher
FSE	Equal	Equal	Higher	Equal
Moderating Factors				
BREAK	Equal	Equal	Equal	Lower
AAB	Higher	Equal	Equal	Equal
GAB	Higher	Equal	Equal	Equal
TNMCS	Equal	Equal	Lower	Higher
CANN	Equal	Equal	Lower	Equal
ACFT	Higher	Equal	Equal	Lower
ASD	Equal	Equal	Lower	Lowest
HUTE	Equal	Equal	Lower	Lowest
SUTE	Equal	Equal	Equal	Equal

In order to determine if the OG structure had an affect on the changes in aircraft maintenance performance, a regression analysis was performed for each of the aircraft maintenance performance measures for each of the F-15 wings. The regression analysis was also used to identify other key factors that had a significant influence on aircraft maintenance performance.

F-15 Experiment Regression Analysis

Regression analysis was used to answer Investigative Questions 6 and 7. Investigative Question 6 asked if the type of organizational structure had a significant influence on aircraft maintenance performance. Investigative Question 7 asked if any moderating factors had a significant influence on aircraft maintenance performance. The aircraft maintenance performance measures, which served as the dependent variables, used for the F-15 experiment regression analysis were TNMCM, MH/FH, and FSE. The moderating factors selected were AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. These measures and factors were selected because there was data available for each of the wings from the time periods before and after the implementation of the OG structure. The type of organizational structure was used as the independent variable. An additional moderating factor was time, used to take into account the auto-correlation present in the dependent variables (see Appendix F). The regression analysis was performed for each of the F-15 wings.

1st FW. Three reduced regression models were built for the aircraft maintenance performance of the 1st FW. The three aircraft maintenance performance measures were TNMCM, MH/FH, and FSE. The TNMCM model had an R^2 Adjusted of 0.621133 with TIME, AAB, TNMCS, and ASD as significant factors. The MH/FH model had an R^2 Adjusted of 0.539417 with TIME, OG, TNMCS, ACFT, and HUTE as significant factors. The FSE model had an R^2 Adjusted of 0.174116 with TNMCS as a significant factor. Based on the R^2 Adjusted values, the TNMCM and MH/FH models are strong, while the FSE model is weak (see Table 29 and Appendix H).

Table 29. 1st FW Reduced Models Results

TNMCM			
R Squared =	0.633933	R Squared Adjusted =	0.621133
Term	Estimate	F Ratio	P Value
Whole Model	-----	49.5277	<0.0001
Intercept	7.73367253	-----	<0.0001
TIME	0.0497176	23.9405	<0.0001
OG	0.4094363	0.1770	0.6746
AAB	1.4191173	7.9135	0.0056
TNMCS	0.4014642	43.3347	<0.0001
ASD	-1.650624	4.2156	0.0419
MH/FH			
R Squared =	0.556603	R Squared Adjusted =	0.539417
Term	Estimate	F Ratio	P Value
Whole Model	-----	32.3871	<0.0001
Intercept	3.3340618	-----	0.7869
TIME	-0.325719	52.2412	<0.0001
OG	18.723935	15.0615	0.0002
TNMCS	0.99414	20.0705	<0.0001
ACFT	0.6722164	18.7191	<0.0001
HUTE	-0.830524	35.8804	<0.0001
FSE			
R Squared =	0.192334	R Squared Adjusted =	0.174116
Term	Estimate	F Ratio	P Value
Whole Model	-----	10.5573	<0.0001
Intercept	99.23636	-----	<0.0001
TIME	0.1055819	1.3808	0.2421
OG	-1.459308	0.0400	0.8418
TNMCS	-2.603673	29.1944	<0.0001

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

The organizational structure had a significant effect on one of the three 1st FW aircraft maintenance performance measures. The organizational structure had a significant effect on MH/FH. OG had an estimate 18.723935, which indicates the OG structure had a negative impact on MH/FH. The negative impact indicates the OG structure has a negative effect on only one area of aircraft maintenance performance of the 1st FW.

There was one common moderating factor that had a significant effect on the aircraft maintenance performance measure reduced models of the 1st FW. TNMCS was the common moderating factor. TNMCS had a positive estimate in the TNMCM model, so when TNMCS increased, TNMCM would increase. TNMCS had a positive estimate in the MH/FH model, so when TNMCS increased, MH/FH would increase. TNMCS had a negative estimate in the FSE model, so when TNMCS increased, FSE would decrease. The effect of TNMCS on all three measures indicates TNMCS causes the aircraft maintenance performance of the 1st FW to degrade.

<u>33rd FW</u>. Three reduced regression models were built for the aircraft maintenance performance of the 33rd FW. The three aircraft maintenance performance measures were TNMCM, MH/FH, and FSE. The TNMCM model had an R^2 Adjusted of 0.589278 with TIME, OG, AAB, GAB, and TNMCS as significant factors. The MH/FH model had an R^2 Adjusted of 0.557531 with OG, AAB, GAB, and ACFT as significant factors. The FSE Model had an R^2 Adjusted of 0.744013 with TIME, AAB, GAB, and HUTE as

significant factors. Based on the R^2 Adjusted values, all three reduced models are strong (see Table 30 and Appendix H).

Table 30. 33rd FW Reduced Models Results

TNMCM			
R Squared =	0.59981	R Squared Adjusted =	0.589278
Term	Estimate	F Ratio	P Value
Whole Model	-----	56.9548	<0.0001
Intercept	0.8846642	-----	0.2550
TIME	0.0421668	31.0396	<0.0001
OG	-4.73672	35.0953	<0.0001
AAB	2.5837651	26.4089	<0.0001
GAB	0.5697906	16.5961	<0.0001
TNMCS	0.4569414	80.3455	<0.0001
MH/FH			
R Squared =	0.569053	R Squared Adjusted =	0.557531
Term	Estimate	F Ratio	P Value
Whole Model	-----	49.3857	<0.0001
Intercept	83.613304	-----	<0.0001
TIME	-0.029888	0.8021	0.3716
OG	-32.82369	66.0467	<0.0001
AAB	5.3637337	6.6577	0.0106
GAB	3.8077498	50.5130	<0.0001
ACFT	-0.959205	26.5033	<0.0001
FSE			
R Squared =	0.750895	R Squared Adjusted =	0.744013
Term	Estimate	F Ratio	P Value
Whole Model	-----	109.1200	<0.0001
Intercept	101.99245	-----	<0.0001
TIME	-0.115922	48.2680	<0.0001
OG	0.544912	0.0974	0.7553
AAB	-3.687288	12.0812	0.0006
GAB	-2.369706	65.1119	<0.0001
HUTE	0.3431234	21.0026	<0.0001

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

The organizational structure appears to have a significant influence on two of the three aircraft maintenance performance measures of the 33rd FW. The OG is significant in the TNMCM and MH/FH models. The negative estimate in the TNMCM model indicates when the OG structure was implemented, TNMCM decreases. The negative estimate in the MH/FH model indicates when the OG structure is implemented, MH/FH decreases. For the 33rd FW, it appears the implementation of the OG structure has had a positive effect on aircraft maintenance performance.

There are two common moderating factors in the aircraft maintenance performance measure models of the 33rd FW. The two moderating factors are AAB and GAB. The positive estimates in the TNMCM model indicate that as the abort rates increase, TNMCM increases. The positive estimates in the MH/FH model indicate that as the abort rates increase, MH/FH increases. The negative estimates in the FSE model indicate that as the abort rates increase, FSE decreases. For the 33rd FW, AAB and GAB appear to have a negative effect on aircraft maintenance performance.

18th WG. Three reduced regression models were built for the aircraft maintenance performance of the 18th WG. The three aircraft maintenance performance measures were TNMCM, MH/FH, and FSE. The TNMCM model had an R^2 Adjusted of 0.332305 with TIME, OG, GAB, TNMCS, and ACFT as significant factors. The MH/FH model had an R^2 Adjusted of 0.628568 with TIME, OG, TNMCS, ASD, and SUTE as significant factors. The FSE Model had an R^2 Adjusted of 0.57712 with TIME, AAB, TNMCS, and ACFT as significant factors. Based on the R^2 Adjusted values, the MH/FH and FSE models are strong, while the TNMCM model is weak (see Table 31 and Appendix H).

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

The organizational structure had a significant influence on two of the three aircraft maintenance performance measures of the 18th WG. The two measures were TNMCM and MH/FH. In the TNMCM model, the OG had a negatives estimate, so when the OG structure was implemented, TNMCM would decrease. In the MH/FH model, the OG had a negative estimate, so when the OG structure was implemented, MH/FH would decrease. For the 18th WG, the OG structure had a positive influence on two of three aircraft maintenance performance measures.

Table 31. 18th WG Reduced Models Results

TNMCM			
R Squared =	0.352912	R Squared Adjusted =	0.332305
Term	Estimate	F Ratio	P Value
Whole Model	-----	17.1251	<0.0001
Intercept	32.993902	-----	<0.0001
TIME	-0.071717	37.1502	<0.0001
OG	-2.856536	4.3141	0.0394
GAB	0.8605529	32.3446	<0.0001
TNMCS	0.4966708	41.5038	<0.0001
ACFT	-0.32681	15.7200	<0.0001
MH/FH			
R Squared =	0.640032	R Squared Adjusted =	0.628568
Term	Estimate	F Ratio	P Value
Whole Model	-----	55.8299	<0.0001
Intercept	64.5499	-----	<0.0001
TIME	0.1741879	48.6076	<0.0001
OG	-27.55099	164.7340	<0.0001
TNMCS	0.7439523	14.4639	0.0002
ASD	-18.05782	46.9668	<0.0001
SUTE	-0.966835	22.8467	<0.0001
FSE			
R Squared =	0.583586	R Squared Adjusted =	0.57712
Term	Estimate	F Ratio	P Value
Whole Model	-----	90.2537	<0.0001
Intercept	127.06416	-----	<0.0001
TIME	-0.107692	204.5883	<0.0001
OG	-0.099781	0.0178	0.8939
AAB	-2.770405	24.0425	0.0006
TNMCS	-0.501778	92.8599	<0.0001
ACFT	-0.328212	88.5372	<0.0001

There was one common moderating factor with a significant effect on the aircraft maintenance performance of the 18th WG. The moderating factor was TNMCS. In the TNMCM model, TNMCS had a positive estimate, so when TNMCS increased, TNMCM would increase. TNMCS had a positive estimate in the MH/FH model, so when TNMCS increased, MH/FH would increase. In the FSE model, TNMCS had a negative estimates, so when TNMCS increased, FSE would decrease. For the 18th WG, TNMCS had a negative impact on the aircraft maintenance performance.

57th WG F-15. Three reduced regression models were built for the aircraft maintenance performance of the 57th WG F-15s. The three aircraft maintenance performance measures were TNMCM, MH/FH, and FSE. The TNMCM model had an R^2 Adjusted of 0.731965 with TIME, GAB, TNMCS, and ACFT as significant factors. The MH/FH model had an R^2 Adjusted of 0.576199 with TIME, TNMCS, ACFT, and HUTE as significant factors. The FSE Model had an R^2 Adjusted of 0.664383 with TIME, TNMCS, ACFT, and SUTE as significant factors. Based on the R^2 Adjusted values, all the 57th WG F-15 models are strong (see Table 32 and Appendix H).

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

Table 32. 57th F-15 Reduced Models Results

TNMCM			
R Squared =	0.738162	R Squared Adjusted =	0.731965
Term	Estimate	F Ratio	P Value
Whole Model	-----	119.1092	<0.0001
Intercept	0.6476818	-----	0.8669
TIME	0.1051192	202.7699	<0.0001
GAB	0.8896378	22.8778	<0.0001
TNMCS	0.6255833	169.8556	<0.0001
ACFT	-0.569252	5.5514	0.0196
MH/FH			
R Squared =	0.586112	R Squared Adjusted =	0.576199
Term	Estimate	F Ratio	P Value
Whole Model	-----	59.1228	<0.0001
Intercept	108.44228	-----	<0.0001
TIME	0.0555955	7.9870	0.0053
TNMCS	1.538185	139.2191	<0.0001
ACFT	-3.745581	24.5791	<0.0001
HUTE	-1.981099	44.7448	<0.0001
FSE			
R Squared =	0.672234	R Squared Adjusted =	0.664383
Term	Estimate	F Ratio	P Value
Whole Model	-----	85.6274	<0.0001
Intercept	62.215503	-----	<0.0001
TIME	-0.123377	239.2595	<0.0001
TNMCS	-0.619247	88.5593	<0.0001
ACFT	1.9936953	28.3166	<0.0001
SUTE	0.7493691	12.8403	0.0004

There were two common moderating factors that significantly influenced the aircraft maintenance performance of the 57th WG F-15s. The moderating factors were TNMCS and ACFT. In the TNMCM model, TNMCS had a positive estimate, so when TNMCS increased, TNMCM would increase. ACFT had a negative estimate in the TNMCM model, so when ACFT increased, TNMCM would decrease. In the MH/FH model, TNMCS had a positive estimate, so when TNMCS increased, MH/FH would increase. ACFT had a negative estimate in the MH/FH model, so when ACFT increased, MH/FH would decrease. In the FSE model, TNMCS had a negative estimate, so when TNMCS increased, FSE would decrease. ACFT had a positive estimate in the FSE model, so when ACFT increased, FSE would increase. For the 57th WG F-15s, TNMCS had a negative effect and ACFT had a positive effect on aircraft maintenance performance.

For all the F-15 wings, TNMCS was a common moderating factor in the TNMCM model. In all the models, TNMCS had a positive estimate, so when TNMCS increased, TNMCM would increase. For the F-15 wings in this research, TNMCS appears to have a negative impact on aircraft maintenance performance.

Each F-15 wing had varying reduced model results. Each experimental group wing had the organizational structure as a significant factor in at least one aircraft maintenance performance measure model. The wings also had varying moderating factors as significant influences on aircraft maintenance performance. TNMCS had a negative impact in the TNMCM model for all the F-15 wings.

F-16 Experiment Comparison of Means

388th FW. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 388th FW, the aircraft maintenance performance measures used were TNMCM, REP, REC, MH/FH, MSE, and FSE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The aircraft maintenance performance measures of the 388th FW were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, REP, REC, MH/FH, MSE, and FSE. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 33.

Table 33. 388th FW Aircraft Maintenance Performance Measures Kruskal-Wallis Test Results

Measures	Chi-Square	P Value	Reject?	Result
TNMCM	23.0490	<0.0001	Yes	Increase
REP	46.7618	<0.0001	Yes	Decrease
REC	4.2318	0.0397	Yes	Decrease
MH/FH	75.3644	<0.0001	Yes	Decrease
MSE	0.0449	0.8322	No	No Change
FSE	31.4264	<0.0001	Yes	Decrease

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 388th FW were BREAK, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The moderating factors of the 388th FW were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were BREAK, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor except BREAK, HUTE, and SUTE had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). BREAK and HUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). SUTE had normal distributions and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 34.

Table 34. 388th FW Moderating Factors Comparison Results

Factor	Test	Score	P Value	Reject?	Result
BREAK	ANOVA	47.5534	<0.0001	Yes	Decrease
GAB	Kruskal-Wallis	14.8434	<0.0001	Yes	Increase
TNMCS	Kruskal-Wallis	48.7106	<0.0001	Yes	Increase
CANN	Kruskal-Wallis	1.5610	0.2115	No	No Change
ACFT	Kruskal-Wallis	123.2370	<0.0001	Yes	Decrease
ASD	Kruskal-Wallis	30.9864	<0.0001	Yes	Increase
HUTE	ANOVA	3.3129	0.0703	No	No Change
SUTE	Welch	3.3183	0.0702	No	No Change

The 388th FW appears to have had an improvement in aircraft maintenance performance since the implementation of the OG structure. TNMCM increased with an increased GAB, despite a decrease in BREAK. The decrease in BREAK would have been expected to coincide with a decrease in TNMCM. The time-series plot of 388th FW TNMCM appears to indicate TNMCM was decreasing during the C/POMO structure time period and has been increasing since the implementation of the OG structure (see Appendix C). This would seem to indicate the OG structure has had a negative influence on TNMCM.

REP and REC improved in the 388th FW under the OG structure. The decrease in REP and REC could be linked to the decrease in BREAK. The increase in TNMCM could indicate the aircraft were breaking for different items each time. The decrease in REP and REC indicates the 388th FW was making repairs correctly the first time the breaks occurred.

The decrease in MH/FH indicates an improvement in aircraft maintenance performance within the 388th FW. The decrease in BREAK could be an influence on the decreased MH/FH. This indicates less man-hours were required for one hour of flight.

The decrease in the 388th FW's FSE is an indication of a degradation in aircraft maintenance performance. The change in FSE could have been influence by the increase in GAB and increase in TNMCS. The increase in GAB would cause fewer aircraft meeting the flying schedule because of ground aborts. The increase in TNMCS would cause fewer aircraft being available for the flying schedule because of the lack of parts.

The operations tempo of the 388th FW has changed since the implementation of the OG structure. The changes in ACFT and ASD coupled with no changes in HUTE and SUTE indicate the 388th FW possessed fewer aircraft that were flying more sorties for longer durations. The decrease in ACFT is due to the reduction of assigned aircraft per squadron from 24 to 21 during the 1990s. The increased ASD is due to the wing's participation in Operations NORTHERN and SOUTHERN WATCH enforcing the no-fly zones over Iraq.

Table 35. 388th FW Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Degraded
REP	Improved
REC	Improved
MH/FH	Improved
MSE	No Change
FSE	Degraded
Moderating Factors	
BREAK	Decrease
GAB	Increase
TNMCS	Increase
CANN	No Change
ACFT	Decrease
ASD	Increase
HUTE	No Change
SUTE	No Change

347th WG. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 347th WG, the aircraft maintenance performance measures used were TNMCM, REP, REC, and MH/FH. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The aircraft maintenance performance measures of the 347th WG were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, REP, REC, and MH/FH. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 36.

Table 36. 347th WG Aircraft Maintenance Performance Measure Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	25.6499	<0.0001	Yes	Increase
REP	4.6595	0.0309	Yes	Decrease
REC	1.8771	0.1707	No	No Change
MH/FH	9.0504	0.0026	Yes	Decrease

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 347th WG were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The moderating factors of the 347th WG were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 37.

The aircraft maintenance performance of the 347th WG appears to have improved since the implementation of the OG structure. The improvement in REP indicates the wing is performing maintenance correctly the first time. The improvement in MH/FH coupled with the increased TNMCM indicates the emphasis of the wing might be on turning aircraft and not fixing aircraft with quality repairs.

Table 37. 347th WG Moderating Factor Kruskal-Wallis Test Results

Factor	Chi-Square	P Value	Reject?	Result
BREAK	35.2477	<0.0001	Yes	Decrease
AAB	3.6636	0.0556	No	No Change
GAB	0.3940	0.5302	No	No Change
TNMCS	18.3272	<0.0001	Yes	Increase
CANN	0.0212	0.8842	No	No Change
ACFT	8.0525	0.0045	Yes	Decrease
ASD	7.5186	0.0061	Yes	Increase
HUTE	0.0897	0.7646	No	No Change
SUTE	5.2167	0.0224	Yes	Decrease

The 347th WG's increased TNMCM indicates the aircraft maintenance performance has slightly decreased since the implementation of the OG structure. The TNMCM increased despite a decrease in BREAK and no changes in AAB, GAB, and CANN. The time series plot indicates TNMCM has been increasing since the implementation of the OG structure (see Appendix C).

The operations tempo of the 347th WG has changed since the implementation of the OG structure. The changes in ACFT, ASD, and SUTE coupled with the unchanged HUTE indicate the 347th WG possessed fewer aircraft flying fewer sorties for longer durations. The decreased ACFT is due to the reduction of assigned aircraft per squadron from 24 to 21 during the 1990s. The increased ASD is an indication of the wing's regular rotations to Southwest Asia to enforce the United Nations sanctions against Iraq.

52nd FW. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 347th WG, the aircraft maintenance performance measures used were TNMCM, REP, REC, MH/FH, and FSE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

Table 38. 347th WG Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Degraded
REP	Improved
REC	No Change
MH/FH	Improved
Moderating Factors	
BREAK	Decrease
AAB	No Change
GAB	No Change
TNMCS	Increase
CANN	No Change
ACFT	Decrease
ASD	Increase
HUTE	No Change
SUTE	Decrease

The aircraft maintenance performance measures of the 52nd FW were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, REP, REC, MH/FH, and FSE. All four measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 39.

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 52nd FW were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The organizational structures compared were the C/POMO structure and the OG structure. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

Table 39. 52nd FW Aircraft Maintenance Performance Measure Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	1.2661	0.2605	No	No Change
REP	8.4617	0.0036	Yes	Decrease
REC	0.3534	0.5522	No	No Change
MH/FH	5.9174	0.0150	Yes	Decrease
FSE	5.8084	0.0159	Yes	Decrease

The moderating factors of the 52nd FW were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor, except for TNMCS and SUTE, had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). TNMCS and SUTE had normal distribution and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 40.

The aircraft maintenance performance of the 52nd FW appears to have improved since the implementation of the OG structure. The improvement in REP indicates the wing maintenance workforce was repairing items correctly the first time. The decrease MH/FH coupled with the unchanged TNMCM, BREAK, and GAB indicates the wing was taking less time to perform the same amount of maintenance work. The decreased

FSE could be a result of the increased AAB. The increased AAB would result in fewer aircraft meeting the flying schedule.

Table 40. 52nd FW Moderating Factors Comparison Test Results

Measure	Test	Score	P Value	Reject?	Result
BREAK	K-W	0.0367	0.8482	No	No Change
AAB	K-W	23.7369	<0.0001	Yes	Increase
GAB	K-W	0.1075	0.7430	No	No Change
TNMCS	Welch	0.7840	0.3808	No	No Change
CANN	K-W	4.5024	0.0338	Yes	Decrease
ACFT	K-W	57.2260	<0.0001	Yes	Increase
ASD	K-W	42.1254	<0.0001	Yes	Increase
HUTE	K-W	7.5597	0.0060	Yes	Increase
SUTE	Welch	0.8329	0.3361	No	No Change

The operations tempo of the 52nd FW appears to have changed since the implementation of the OG structure. The increased ACFT, ASD, and HUTE coupled with the unchanged SUTE indicates the 52nd FW possessed more aircraft that were flying more sorties for longer durations. The increase in ACFT is a result of various bases in Europe closing and the consolidation of F-16 aircraft at Spangdahlem AB. The increase in ASD is a result of the increases participation in the enforcement of United Nation and NATO sanctions in the Balkans.

57th WG F-16. *Investigative Question 4: Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures?* For the 57th WG F-16s, the aircraft maintenance performance measures used were TNMCM, REP, REC, MH/FH and FSE. The 57th WG acted as a control group, so there were no changes in organizational structure analyzed, just the changes in the measures of the 57th WG during the time frames the rest of the Air Force was operating under different organizational structures. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

Table 41. 52nd FW Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	No Change
REP	Improved
REC	No Change
MH/FH	Improved
FSE	Degraded
Moderating Factors	
BREAK	No Change
AAB	Increase
GAB	No Change
TNMCS	No Change
CANN	Decrease
ACFT	Increase
ASD	Increase
HUTE	Increase
SUTE	No Change

The aircraft maintenance performance measures of the 57th WG F-156s were compared between the C/POMO structure and the OG structure. The aircraft performance measures compared were TNMCM, REP, REC, MH/FH, and FSE. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). The results of the tests are presented in Table 42.

Table 42. 57th WG F-16 Aircraft Maintenance Performance Measure Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	51.8385	<0.0001	Yes	Increase
REP	97.4509	<0.0001	Yes	Decrease
REC	92.2538	<0.0001	Yes	Decrease
MH/FH	37.1382	<0.0001	Yes	Decrease
FSE	69.7341	<0.0001	Yes	Decrease

Investigative Question 5: Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors analyzed for the 57th WG were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The 57th WG F-16s were used as a control group to determine the effects of the operating environment on a unit that did not implement a new organizational structure. The comparison was made for the time frames of the organizational structures, not the structures themselves. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different.

The moderating factors of the 57th WG were analyzed to compare the operating environments of the two organizational structures. The factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. Every factor except HUTE and SUTE had non-normal distributions (see Appendix D), so the Kruskal-Wallis Test was used to compare the means (see Appendix G). HUTE had normal distributions and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means (see Appendix G). SUTE had normal distributions and equal variances (see Appendices D and E), so the ANOVA F-test was used to compare the means (see Appendix G). The results of the tests are presented in Table 43.

Table 43. 57th WG F-16 Moderating Factors Comparison Results

Factor	Test	Score	P Value	Reject?	Result
BREAK	K-W	50.8696	<0.0001	Yes	Decrease
AAB	K-W	0.7097	0.3996	No	No Change
GAB	K-W	9.8077	0.0017	Yes	Decrease
TNMCS	K-W	6.1206	0.0134	Yes	Increase
CANN	K-W	20.7099	<0.0001	Yes	Decrease
ACFT	K-W	139.4778	<0.0001	Yes	Increase
ASD	K-W	2.3821	0.1227	No	No Change
HUTE	Welch	7.8993	0.0055	Yes	Decrease
SUTE	ANOVA	15.2854	<0.0001	Yes	Decrease

The aircraft maintenance performance of the 57th WG F-16s appears to have slightly improved since the CAF implemented the OG structure. The improvement in REP and REC indicates the wing is repairing aircraft breaks correctly the first time. The improvement in MH/FH coupled with the increased TNMCM and decreased BREAK and GAB indicates the wing's emphasis might be on turning the aircraft for the next sortie instead of focusing on quality repairs. The decreased FSE could be a result of the increase in TNMCS which would prevent aircraft from being on the flying schedule because of the lack of parts.

The operations tempo of the 57th WG F-16s appears to have slightly changed since the CAF implemented the OG structure. The increase in ACFT couple with the decrease in HUTE and SUTE and no change in ASD indicates the 57th WG possessed more F-16s that were flying the same number of sorties for the same duration.

Table 44. 57th WG F-16 Comparison of Means Results

Aircraft Maintenance Performance	Result
TNMCM	Degraded
REP	Improved
REC	Improved
MH/FH	Improved
FSE	Degraded
Moderating Factors	
BREAK	Decrease
AAB	No Change
GAB	Decrease
TNMCS	Increase
CANN	Decrease
ACFT	Increase
ASD	No Change
HUTE	Decrease
SUTE	Decrease

F-16 Pre-Reorganization. In order to understand how the F-16 units were operating in relationship to one another comparison of means was performed across the common aircraft maintenance performance measures and moderating factors during the C/POMO structure. The aircraft maintenance performance measures analyzed were TNMCM, REP, REC, and MH/FH. The moderating factors analyzed were BREAK, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE.

The F-16 aircraft maintenance performance measures from before the implementation of the OG structure were compared for the four F-16 wings. The measures compared were TNMCM, REP, REC, and MH/FH. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 45 for results.

Table 45. F-16 Pre-Reorganization Aircraft Maintenance Performance Measure Kruskal-Wallis Test Results

Measure	Chi-Square	P Value	Reject?	Result
TNMCM	7.5811	0.0555	No	No Difference
REP	80.8329	<0.0001	Yes	347WG Higher 57WG Highest
REC	86.9233	<0.0001	Yes	57WG Higher
MH/FH	84.4863	<0.0001	Yes	57WG Higher

The F-16 wings appeared to be operating at different aircraft maintenance performance levels during the time period of the C/POMO structure. The three experimental group F-16 wings appeared to have a higher aircraft maintenance performance level than the control group, 57th WG F-16s.

The F-16 moderating factors from the time period before the implementation of the OG structure were compared for the four F-16 wings. The measures compared were BREAK, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. All the measures, except for HUTE and SUTE, had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). HUTE and SUTE had normal distributions and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 46 for results.

Table 46. F-16 Pre-Reorganization Moderating Factor Comparison Test Results

Factor	Test	Score	P Value	Reject?	Result
BREAK	Kruskal-Wallis	35.0609	<0.0001	Yes	52FW Lower
GAB	Kruskal-Wallis	7.6826	0.0530	No	No Difference
TNMCS	Kruskal-Wallis	27.7666	<0.0001	Yes	388FW Lower 57WG Higher
CANN	Kruskal-Wallis	11.4048	0.0097	Yes	347WG Higher 57WG Highest
ACFT	Kruskal-Wallis	211.9091	<0.0001	Yes	388FW Highest 347WG Higher 52FW Lower 57WG Lowest
ASD	Kruskal-Wallis	62.8845	<0.0001	Yes	57WG Lower
HUTE	Welch	7.5706	0.0001	Yes	52FW Lower 57WG Lowest
SUTE	Welch	0.6880	0.5616	No	No Difference

The F-16 wings appeared to operating in different environments before the implementation of the OG structure. The 52 FW could have had the lowest required maintenance work because it had a lower BREAK. The 57th WG TNMCS and CANN indicate the wing had a lower priority for parts and canned more parts than the other wings. The 57th WG ACFT, ASD, and HUTE indicate the wing possessed less F-16s that flew the same number of sorties for a shorter duration.

F-16 Post-Reorganization. In order to understand how the F-16 units were operating in relationship to one another comparison of means was performed across the common aircraft maintenance performance measures and moderating factors after the implementation of the OG structure. The aircraft maintenance performance measures analyzed were TNMCM, 4HR, 8HR, REP, REC, MH/FH, and FSE. The moderating factors analyzed were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. The 57th WG F-16s acted as a control group because the unit did not convert to the OG structure. Also taken into consideration in the analysis was the relationship between the units before the implementation of the OG structure.

Table 47. F-16 Pre-Reorganization Comparison of Means Results

Aircraft Maintenance Performance	388FW	347WG	52FW	57WG
TNMCM	Equal	Equal	Equal	Equal
REP	Equal	Higher	Equal	Highest
REC	Equal	Equal	Equal	Higher
MH/FH	Equal	Equal	Equal	Higher
Moderating Factors				
BREAK	Equal	Equal	Lower	Equal
GAB	Equal	Equal	Equal	Equal
TNMCS	Lower	Equal	Equal	Higher
CANN	Equal	Higher	Equal	Highest
ACFT	Highest	Higher	Lower	Lowest
ASD	Equal	Equal	Equal	Lower
HUTE	Equal	Equal	Lower	Lowest
SUTE	Equal	Equal	Equal	Equal

The F-16 aircraft maintenance performance measures from after the implementation of the OG structure were compared for the four F-16 wings. The measures compared were TNMCM, 4HR, 8HR, REP, REC, MH/FH, and FSE. All the measures, except for 4HR, had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). 4HR had normal distributions and unequal variances (see Appendices D and E), so the Welch F-test was used to compare the means. The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 47 for results.

Table 48. F-16 Post-Reorganization Aircraft Maintenance Performance Comparison Test Results

Measure	Test	Score	P Value	Reject?	Result
TNMCM	Kruskal-Wallis	72.1102	<0.0001	Yes	52FW Lower
4HR	Welch	22.1133	<0.0001	Yes	57WG Higher 388FW Lower
8HR	Kruskal-Wallis	77.4808	<0.0001	Yes	347WG Lower 52FW Higher
REP	Kruskal-Wallis	16.6650	0.0008	Yes	347WG Higher
REC	Kruskal-Wallis	8.8195	0.0318	Yes	347WG Higher 52FW Higher 388FW Lower 57WG Lower
MH/FH	Kruskal-Wallis	90.5336	<0.0001	Yes	52FW Lower 57WG Higher
FSE	Kruskal-Wallis	74.3006	<0.0001	Yes	52FW Higher

The F-16 wings analyzed in this research appeared to be operating at different aircraft maintenance performance levels. The 52^{nd} FW was performing better in TNMCM. The 388^{th} FW was performing the best in 4HR, while the 57^{th} WG was performing the worst. The 347^{th} WG was performing the best in 8HR, while the 52^{nd} FW was performing the worst. The 347^{th} WG was performing the worst in REP and REC. The 52^{nd} FW was performing better in MH/FH, while the 57^{th} WG was performing the worst. The 52^{nd} FW was performing the best in FSE.

The F-16 moderating factors from the time period following the implementation of the OG structure were compared for the four F-16 wings. The measures compared were BREAK, AAB, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. All the measures had non-normal distributions (see Appendix D), so the Kruskal-Wallis test was used to compare the means (see Appendix G). The null hypothesis used for these tests was the means are equal with a significance level of 0.05. The alternate hypothesis was the means are different. See Table 48 for results.

Table 49. F-16 Post-Reorganization Moderating Factors Kruskal-Wallis Test Results

Factor	Chi-Square	P Value	Reject?	388FW	347WG	52FW	57WG
BREAK	32.4256	<0.0001	Yes	Higher	Equal	Equal	Lower
AAB	41.8298	<0.0001	Yes	Higher	Equal	Equal	Lower
GAB	37.6042	<0.0001	Yes	Higher	Higher	Lower	Lower
TNMCS	17.2954	0.0006	Yes	Equal	Equal	Lower	Equal
CANN	78.1859	<0.0001	Yes	Higher	Highest	Equal	Equal
ACFT	148.0606	<0.0001	Yes	Higher	Equal	Lower	Equal
ASD	112.3748	<0.0001	Yes	Equal	Equal	Higher	Lower
HUTE	83.8766	<0.0001	Yes	Equal	Equal	Higher	Lower
SUTE	4.8277	0.1849	No	Equal	Equal	Equal	Equal

The operating environment for the F-16 wings was different between the wings following the implementation of the OG structure. The 388th FW had the highest maintenance work due to the higher BREAK, AAB, and GAB for the time period of the OG structure. The 52nd FW possessed fewer aircraft and flew longer sorties because of the wing's participation in Operation ALLIED FORCE during 1999. The 57th WG flew shorter sorties because the wing did not deploy in support of Operations ALLIED FORCE, SOUTHERN WATCH, or NORHTERN WATCH during the time period following the implementation of the OG structure.

Table 50. F-16 Post-Reorganization Comparison of Means Results

Aircraft Maintenance Performance	388FW	347WG	52FW	57WG
TNMCM	Equal	Equal	Lower	Equal
4HR	Lower	Equal	Equal	Higher
8HR	Equal	Lower	Higher	Equal
REP	Equal	Higher	Equal	Equal
REC	Lower	Higher	Higher	Lower
MH/FH	Equal	Equal	Lower	Higher
FSE	Equal	Equal	Higher	Equal
Moderating Factors				
BREAK	Higher	Equal	Equal	Lower
AAB	Higher	Equal	Equal	Lower
GAB	Higher	Higher	Lower	Lower
TNMCS	Equal	Equal	Lower	Equal
CANN	Higher	Highest	Equal	Equal
ACFT	Higher	Equal	Lower	Equal
ASD	Equal	Equal	Higher	Lower
HUTE	Equal	Equal	Higher	Lower
SUTE	Equal	Equal	Equal	Equal

Aircraft maintenance performance for the F-16 wings selected for this research had various reactions during the time period following the implementation of the OG structure. The three experimental group F-16 wings appeared to have slightly improved in aircraft maintenance performance under the OG structure. This may not be a result of the change in organizational structure because the 57th WG F-16s also showed a slight improvement in aircraft maintenance performance while maintaining the C/POMO structure. All of the F-16 wings differed from each other in various aspects of the respective wing's operating environments.

In order to determine if the OG structure had an affect on the changes in aircraft maintenance performance, a regression analysis was performed for each of the aircraft maintenance performance measures for each of the F-16 wings. The regression analysis also identified other key factors that had a significant influence on aircraft maintenance performance.

F-16 Experiment Regression Analysis

Regression analysis was used to answer Investigative Questions 6 and 7. Investigative Question 6 asked if the type of organizational structure had a significant influence on aircraft maintenance performance. Investigative Question 7 asked if any moderating factors had a significant influence on aircraft maintenance performance. The aircraft maintenance performance measures, which served as the dependent variables, used for the F-16 experiment regression analysis were TNMCM, REP, REC, and MH/FH. The moderating factors selected were BREAK, GAB, TNMCS, CANN, ACFT, ASD, HUTE, and SUTE. These measures and factors were selected because there was data available for each of the wings from the time periods before and after the implementation of the OG structure. The type of organizational structure was used as the independent variable. An additional moderating factor was time, used to take into account the auto-correlation present in the dependent variables (see Appendix F). The regression analysis was performed for each of the F-16 wings.

388th FW. Four reduced regression models were built for the aircraft maintenance performance of the 388th FW. The four aircraft maintenance performance measures were TNMCM, REP, REC, and MH/FH. The TNMCM model had an R^2 Adjusted of 0.838433 with TIME, OG, GAB, and TNMCS as significant factors. The REP model had an R^2 Adjusted of 0.450441 with OG and ACFT as significant factors. The REC model had an R^2 Adjusted of 0.257185 with OG, BREAK, and ACFT as significant factors. The MH/FH model had an R^2 Adjusted of 0.637706 with OG, GAB, and ASD as significant factors. Based on the R^2 Adjusted values, the TNMCM and MH/FH models are strong, while the REP and REC models are weak (see Table 51 and Appendix H).

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

The organizational structure had a significant effect on all four of the 388th FW aircraft maintenance performance measures. In the TNMCM model, OG had a negative estimate, so when the OG structure was implemented, the TNMCM would decrease. The OG estimate in the REP model was negative, so when the OG structure was implemented, REP would decrease. In the REC model, the OG estimate was negative, so when the OG structure was implemented, REC would decrease. The OG estimate was negative in the MH/FH model, so when the OG structure was implemented, MH/FH would decrease. For the 388th FW, the OG structure had a positive effect on aircraft maintenance performance.

Table 51. 388th FW Reduced Models Results

TNMCM			
R Squared =	0.842084	R Squared Adjusted =	0.838433
Term	Estimate	F Ratio	P Value
Whole Model	-----	230.6296	<0.0001
Intercept	-4.38095	-----	<0.0001
TIME	0.0592893	58.4775	<0.0001
OG	-4.2696	28.3226	<0.0001
GAB	0.9322789	21.9681	<0.0001
TNMCS	0.8554351	316.1135	<0.0001
REP			
R Squared =	0.459862	R Squared Adjusted =	0.450441
Term	Estimate	F Ratio	P Value
Whole Model	-----	48.8124	<0.0001
Intercept	5.8944618	-----	<0.0001
TIME	0.0047585	2.9269	0.0889
OG	-2.931711	93.6359	<0.0001
ACFT	-0.039275	69.2950	<0.0001
REC			
R Squared =	0.274163	R Squared Adjusted =	0.257185
Term	Estimate	F Ratio	P Value
Whole Model	-----	16.1475	<0.0001
Intercept	1.8255012	-----	<0.0001
TIME	0.0002436	0.0267	0.8704
OG	-0.500942	9.0640	0.0030
BREAK	0.0738478	16.9295	<0.0001
ACFT	-0.015083	35.1397	<0.0001
MH/FH			
R Squared =	0.648602	R Squared Adjusted =	0.637706
Term	Estimate	F Ratio	P Value
Whole Model	-----	59.5263	<0.0001
Intercept	36.84687	-----	<0.0001
TIME	0.013706	0.0958	0.7574
OG	-26.88416	53.8352	<0.0001
GAB	3.3329845	19.9109	<0.0001
ASD	-11.58739	5.3329	0.0225

347th WG. Four reduced regression models were built for the aircraft maintenance performance of the 347th WG. The four aircraft maintenance performance measures were TNMCM, REP, REC, and MH/FH. The TNMCM model had an R^2 Adjusted of 0.795268 with TIME and TNMCS as significant factors. The REP model had an R^2 Adjusted of 380197 with GAB and ACFT as significant factors. The REC model had an R^2 Adjusted of 0.117481 with ACFT as a significant factor. The MH/FH model had an R^2 Adjusted of 0.60495 with OG, TNMCS, ASD, and SUTE as significant factors. Based on the R^2 Adjusted values, the TNMCM and MH/FH models are strong, while the REP and REC models are weak (see Table 52 and Appendix H).

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

The organizational structure had a significant influence on one of the four aircraft maintenance performance measures of the 347th WG. OG had a significant influence in the MH/FH model. OG had a negative estimate, so when the OG structure was implemented, MH/FH would decrease. For the 347th WG, the OG structure had a positive impact on MH/FH aspect of aircraft maintenance performance.

Table 52. 347th WG Reduced Models Results

TNMCM			
R Squared =	0.803798	R Squared Adjusted =	0.795268
Term	Estimate	F Ratio	P Value
Whole Model	-----	94.2262	<0.0001
Intercept	-0.126958	-----	0.9532
TIME	0.1393696	41.2666	<0.0001
OG	-2.613022	3.1320	0.0794
BREAK	0.204469	1.9460	0.1657
TNMCS	0.830052	51.7799	<0.0001
ASD	-2.15328	3.5031	0.0638
REP			
R Squared =	0.400857	R Squared Adjusted =	0.380197
Term	Estimate	F Ratio	P Value
Whole Model	-----	19.4025	<0.0001
Intercept	2.1357156	-----	0.0243
TIME	-0.000885	0.0097	0.9217
OG	-0.562094	0.7200	0.3979
GAB	-0.395198	8.7629	0.0037
ACFT	0.052289	30.4745	<0.0001
REC			
R Squared =	0.139544	R Squared Adjusted =	0.117481
Term	Estimate	F Ratio	P Value
Whole Model	-----	6.3248	0.0005
Intercept	0.8732512	-----	0.0311
TIME	-0.003237	0.4777	0.4909
OG	0.1376182	0.1605	0.6894
ACFT	0.0175908	10.7522	0.0014
MH/FH			
R Squared =	0.62243	R Squared Adjusted =	0.60495
Term	Estimate	F Ratio	P Value
Whole Model	-----	35.6080	<0.0001
Intercept	19.741749	-----	<0.0001
TIME	0.0318484	2.8389	0.0949
OG	-5.341561	23.3525	<0.0001
TNMCS	0.479018	24.9919	<0.0001
ASD	-5.121136	32.9380	<0.0001
SUTE	-0.394975	24.5065	<0.0001

52nd FW. Four reduced regression models were built for the aircraft maintenance performance of the 52nd FW. The four aircraft maintenance performance measures were TNMCM, REP, REC, and MH/FH. The TNMCM model had an R^2 Adjusted of 0.144305 with CANN as a significant factor. The REP model had an R^2 Adjusted of 0.468848 with TIME, BREAK, GAB, and ACFT as significant factors. The REC model had an R^2 Adjusted of 0.465779 with TIME, BREAK, GAB, and ACFT as significant factors. The MH/FH model had an R^2 Adjusted of 0.784394 with TIME, OG, GAB, CANN, and ASD as significant factors. Based on the R^2 Adjusted values, the MH/FH is strong, the REP and REC models are medium strength, and the TNMCM model is weak (see Table 53 and Appendix H).

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

Table 53. 52nd FW Reduced Models Results

TNMCM			
R Squared =	0.167432	R Squared Adjusted =	0.144305
Term	Estimate	F Ratio	P Value
Whole Model	-----	7.2397	0.0002
Intercept	4.734036	-----	<0.0001
TIME	0.0050277	0.1250	0.7243
OG	-0.338818	0.0826	0.7743
CANN	0.3831835	13.4611	0.0004
REP			
R Squared =	0.492774	R Squared Adjusted =	0.468848
Term	Estimate	F Ratio	P Value
Whole Model	-----	20.5960	<0.0001
Intercept	-2.131408	-----	0.0196
TIME	-0.022301	25.6402	<0.0001
OG	-0.706982	2.9606	0.0882
BREAK	0.1604751	16.9065	<0.0001
GAB	-0.328628	17.9407	<0.0001
ACFT	0.1242625	33.3599	<0.0001
REC			
R Squared =	0.489843	R Squared Adjusted =	0.465779
Term	Estimate	F Ratio	P Value
Whole Model	-----	20.3558	<0.0001
Intercept	-1.902564	-----	0.0009
TIME	-0.016112	35.2231	<0.0001
OG	0.3105335	1.5032	0.2229
BREAK	0.1259861	27.4267	<0.0001
GAB	-0.154716	10.4646	0.0016
ACFT	0.0810309	37.3307	<0.0001
MH/FH			
R Squared =	0.794376	R Squared Adjusted =	0.784394
Term	Estimate	F Ratio	P Value
Whole Model	-----	79.5829	<0.0001
Intercept	3.7216724	-----	<0.0001
TIME	0.0393794	46.8573	<0.0001
OG	-2.906171	38.6730	<0.0001
GAB	0.6753644	64.2373	<0.0001
CANN	0.2042009	17.9594	<0.0001
ASD	-1.601266	41.4702	<0.0001

The organizational structure had a significant influence on one of four aircraft maintenance performance measures of the 52nd FW. OG had a significant influence in the MH/FH model. The OG had a negative estimate, so when the OG structure was implemented, the MH/FH would decrease. For the 52nd FW, the OG structure had a positive impact on the MH/FH aspect of aircraft maintenance performance.

57th WG F-16. Four reduced regression models were built for the aircraft maintenance performance of the 57th WG F-16s. The four aircraft maintenance performance measures were TNMCM, REP, REC, and MH/FH. The TNMCM model had an R^2 Adjusted of 0.505806 with TIME, GAB, TNMCS, and ACFT as significant factors. The REP model had an R^2 Adjusted of 0.580326 with TIME, BREAK, and TNMCS as significant factors. The REC model had an R^2 Adjusted of 0.45491 with TIME, GAB, and ACFT as significant factors. The MH/FH model had an R^2 Adjusted of 0.545773 with TIME, CANN, ACFT, and SUTE as significant factors. Based on the R^2 Adjusted values, all the 57th WG F-15 models are relatively strong, except for the REC model which is medium strength (see Table 54 and Appendix H).

The residuals of the reduced models were analyzed to verify the assumptions of regression. All of the residuals appeared to have normal distributions and have independence. However, the residuals appeared to violate the auto-correlation assumption because each residual failed the Durbin-Watson test. The auto-correlation was corrected for by including time as a variable in the regression models, but the residuals still failed this assumption. The data was a time-series, so auto-correlation was to be expected. The auto-correlation was slight, so the residuals were assumed to not auto-correlated for the purposes of the research (see Appendix H).

Table 54. 57th F-16 Reduced Models Results

TNMCM			
R Squared =	0.515943	R Squared Adjusted =	0.505806
Term	Estimate	F Ratio	P Value
Whole Model	-----	50.8955	<0.0001
Intercept	-6.931937	-----	<0.0001
TIME	0.019212	5.5110	0.0199
GAB	1.5016521	38.6451	<0.0001
TNMCS	0.3792889	55.7152	<0.0001
ACFT	0.182448	29.4796	<0.0001
REP			
R Squared =	0.586783	R Squared Adjusted =	0.580326
Term	Estimate	F Ratio	P Value
Whole Model	-----	90.8823	<0.0001
Intercept	7.5533573	-----	<0.0001
TIME	-0.060362	225.8784	0.0053
TNMCS	0.1706368	24.8423	<0.0001
BREAK	0.1806642	12.8039	0.0004
REC			
R Squared =	0.463296	R Squared Adjusted =	0.45491
Term	Estimate	F Ratio	P Value
Whole Model	-----	55.2464	<0.0001
Intercept	5.9541144	-----	<0.0001
TIME	-0.020612	31.6773	<0.0001
GAB	0.2279592	4.6341	0.0326
ACFT	-0.052232	12.0622	0.0006
MH/FH			
R Squared =	0.556524	R Squared Adjusted =	0.545773
Term	Estimate	F Ratio	P Value
Whole Model	-----	51.7651	<0.0001
Intercept	40.338085	-----	<0.0001
TIME	-0.089357	14.2618	0.0002
CANN	0.5599891	31.7681	<0.0001
ACFT	-0.152418	4.4351	0.0367
SUTE	-0.837729	9.9025	0.0020

There was one common moderating factor in three of the four aircraft maintenance performance measures of the 57th WG F-16s. The moderating factor was

ACFT and it appeared in the TNMCM, REC, and MH/FH models. In the TNMCM model, ACFT had a positive estimate, so when ACFT increased, TNMCM would increase. ACFT had a negative estimate in the REC model, so when ACFT increased, REC would decrease. In the MH/FH model, ACFT had a negative estimate, so when ACFT increased, MH/FH would decrease. For the 57th WG F-16s, the moderating factor ACFT had a significant influence on different aspects of aircraft maintenance performance.

For all the F-16 wings, ACFT was a common moderating factor in the REC model. In the 388th FW and 57th WG F-16 REC models, ACFT had a negative estimate, so when ACFT increased, REC would decrease. In the 347th WG and 52nd FW REC models, ACFT had a positive estimate, so when ACFT increased, REC would increase. For the F-16 wings in this research, ACFT appears to have varying effects on each wing in the REC aspect of aircraft maintenance performance.

Each F-16 wing had varying reduced model results. Each experimental group wing had the organizational structure as a significant factor in at least one aircraft maintenance performance measure model. The wings also had varying moderating factors as significant influences on aircraft maintenance performance. ACFT had varying effects on the REC aspect of aircraft maintenance performance for the F-16 wings.

Summary

Chapter 4 presents the results of the analysis of the F-15 and F-16 experiment. Comparison of means was used to compare the aircraft maintenance performance measures and moderating factors of the F-15 wings and the F-16 wings between the time periods of the C/POMO structure and the OG structure. Of the F-15 wings, the 1st FW and 33rd FW appear to have degraded in aircraft maintenance performance since the implementation of the OG structure, while the 18th WG had improved its performance. All three F-16 wing experimental groups exhibited slight improvement in aircraft maintenance performance during the time period of the OG structure. Regression analysis was used to determine if the organizational structure has a significant effect on aircraft maintenance performance. Regression was also used to determine if any moderating factors had a significant effect on aircraft maintenance performance. For the F-15 and F-16 experiments, the organizational structure, and various moderating factors, did have a significant effect on aircraft maintenance performance. Chapter 5 presents the answers to the Investigative Question, conclusions, and recommendations for future research.

Chapter 5 - Conclusion and Recommendations

Introduction

Chapter 5 presents the conclusions and recommendations of this research. The Investigative Questions presented in Chapter 1 are restated with the answers discovered through the course of the research. Possible future research topics are presented that build on the results of this research and areas where there can be further research development.

Investigative Questions

1) What are the different organizational structures? There are three aircraft maintenance organizational structures implemented by the Air Force that this research analyzes. The structures are distinguished by the functional decentralization of the on-equipment maintenance. The most centralized structure was the OMS structure. The intermediate structures were the C/POMO and AGS structures. The most decentralized structure was the OG structure.

2) What are the indicators of aircraft maintenance performance? The aircraft maintenance performance indicators used in this research were TNMCM Rate, 4/8/12-Hour Fix Rates, Repeat Rate, Recur Rate, Man-Hours per Flying Hour, the Maintenance Scheduling Effectiveness Rate, and the Flying Scheduling Effectiveness Rate.

3) What are the moderating factors of aircraft maintenance performance? The moderating factors used in this research were Break Rate, Air Abort Rate, Ground

Abort Rate, TNMCS Rate, Cannibalization Rate, Average Possessed Aircraft, Average Sortie Duration, Hourly UTE Rate, and Sortie UTE Rate.

4) Has aircraft maintenance performance changed with implementation of the different aircraft maintenance organizational structures? For the F-15 experiment, two of the three F-15 experimental group wings, the 1st FW and 33rd FW, appeared to show a degradation in aircraft maintenance performance under the OG structure. The 18th WG appeared to show an improvement in aircraft maintenance performance under the OG structure. For the F-16 experiment, all three F-16 experimental group wings appeared to showea slight improvement in aircraft maintenance performance under the OG structure.

5) Have the moderating factors changed over the time of the conversion to the new aircraft maintenance organizational structure? The moderating factors of the F-15 experiment appeared to have had similar type of changes for each of the experimental group wings. The F-16 experiment moderating factors also appeared to have had similar type of changes for each of the experimental group wings. These changes indicate even though the operating environments changed for the wings, the changes were similar so the wing's can be still compared to each other.

6) Does the type of organizational structure have a significant effect on aircraft maintenance performance? For both the F-15 and F-16 experiments, the type of organizational structure has a significant influence on aircraft maintenance performance. For each of the experimental group F-15 wings, the OG structure had a significant influence on at least one aircraft maintenance performance measure. For each of the experimental group F-16 wings, the OG structure had a significant influence on at least one aircraft maintenance performance measure.

7) Do any of the moderating factors have a significant effect on aircraft maintenance performance? For each of the F-15 wings, there were various moderating factors that had a significant influence on aircraft maintenance performance. TNMCS was a common moderating factor that had a negative impact on TNMCM. For each of the F-16 wings, there were also various moderating factors that had a significant influence on aircraft maintenance performance. ACFT was a common moderating factor that had various effects, depending on the wing, on REC.

Conclusions and Implications

The primary conclusion of this research is that the aircraft maintenance organizational structure does affect aircraft maintenance performance. Five of the six wings investigated exhibited improvements in at least one aircraft maintenance performance measure with the implementation of the OG structure. It is difficult to determine if the implementation of the OG structure was the sole reason for the change in the aircraft maintenance performance for the F-15 and F-16 wings. With the control group, the 57th WG, exhibiting similar types of changes, but at a greater level, in aircraft maintenance performance as the experimental wings it would appear that the OG structure could have lessened the negative effects of the moderating factors on aircraft maintenance performance.

An implication of this research is that TNMCS had a significant influence on TNMCM. In the F-15 wings, TNMCS had a negative influence on TNMCM. This indicates that with the decreasing number of spare parts, the TNMCM rate will continue increasing despite the amount of maintenance work performed.

Future Research

There are opportunities for future research in the area of aircraft maintenance organizational structure.

C-5 Analysis. The analysis of the C-5 aircraft maintenance organizational structure needs to be further developed. This research discovered many confounding factors affecting the TNMCM Rate of the C-5 Wing analyzed in this research. The transition to the C-5B and many deployments during the 1990s affected the TNMCM rate in addition to the change in organizational structure. The future research should look at analyzing more C-5 wings, or other AMC aircraft, in an attempt to determine the effect of the type of organizational structure on aircraft maintenance performance. The future research should also attempt to account for the confounding factors involved with the 436th ALW.

CLR. The recent Air Force Chief of Staff's Logistics Review (CLR) recommended realigning fleet management functions under the LG, instead of the OG, to allow senior maintenance management to have direct control. The fleet management functions include Maintenance Operations Center (MOC), phase inspection docks, and maintenance analysis. The Air Force is considering using a few wings as test subjects for this realignment. Research could be performed in order to determine if the realignment improves aircraft maintenance performance.

Further Development. This research could be further developed to obtain a better picture of the effect of the organizational structure on aircraft maintenance performance. If more data could be obtained from the 1980s, a better picture could be developed using the aircraft maintenance performance measures that were not used in this research. The use of these additional measures would provide more information regarding the influence of organizational structure.

Training Wings. A similar type of research could be performed on the fighter training wings of the Air Force. Using the training wings could eliminate many of the confounding factors arising from the participation of the wings of this research in overseas deployments. The training wings do not deploy overseas, so these wings could be used as ideal models for a study of organizational structure.

DOG/M. The Deputy Operations Group Commander for Maintenance (DOG/M) was created within units under the OG structure to provide a senior maintenance manager in the Operations Group. It would be interesting to analyze wings that have a DOG/M to determine if the aircraft maintenance performance has changed since the position was created.

Summary

This research attempted to determine if the type of aircraft maintenance organizational structure affected aircraft maintenance performance. The type of aircraft maintenance structure was defined by the functional decentralization of the on-equipment maintenance. Previous research in aircraft maintenance performance was reviewed to see what methods and measures were used to perform the analysis. Three F-15 and three F-

16 wings and a control group for each were compared using aircraft maintenance performance measures and moderating factors from before and after the reorganization. It was determined that the type of organizational structure did have a statistically significant influence on aircraft maintenance performance, with the OG structure having a positive effect on at least one aircraft maintenance performance measure for the five of the six experimental group wings. Various moderating factors also had a significant influence on aircraft maintenance performance. A common moderating factor was the F-15 TNCMS rate which had a negative effect on TNMCM.

Appendix A – Definition of Aircraft Maintenance Performance Measure and Moderating Factor Terms

Total Non-Mission Capable for Maintenance Rate (TNMCM): TNMCM hours divided by possessed hours.

4/8/12-Hour Fix Rates (4/8/12HR): Number of fixes within 4/8/12 hours divided by the number of breaks.

Repeat Rate (REP): Number of repeats divided by sorties flown.

Recur Rate (REC): Number of recurs divided by sorties flown.

Man-Hours per Flying Hour (MH/FH): Number of maintenance man-hours divided by hours flown.

Maintenance Scheduling Effectiveness Rate (MSE): Maintenance points earned divied by total maintenance points available.

Flying Scheduling Effectiveness Rate (FSE): Total deviations divided by sorties scheduled.

Break Rate (BREAK): Number of breaks divided by sorties flown.

Air Abort Rate (AAB): Number of air aborts divided by sorties flown.

Ground Abort Rate (GAB): Number of ground aborts divided by sorties flown plus number of ground aborts

Total Non-Mission Capable for Supply Rate (TNMCS): TNMCS hours divided by possessed hours.

Cannibalization Rate (CANN): Number of cannibalizations divided by sorties flown.

Average Possessed Aircraft (ACFT): Number of possessed hours/divided by hours in month.

Average Sortie Duration (ASD): Hours flown divided by sorties flown.

Hourly Utilization Rate (HUTE): Hours flown divided by average possessed aircraft.

Sortie Utilization Rate (SUTE): Sorties flown divided by average possessed aircraft.

Appendix B – Data Tables

436th ALW Pre-Reorganization Data:

Date	Group	Unit	TNMCM	MH/FH	ACFT	TNMCS	HUTE	SUTE	ASD	GAB	CANN
Jan-82	PRE	436ALW	45.9	78.0	32.5	10.8	56.7	10.9	5.2	4.3	55.0
Feb-82	PRE	436ALW	51.3	78.0	31.4	10.4	60.1	12.6	4.8	6.0	78.0
Mar-82	PRE	436ALW	44.6	60.5	31.9	12.3	84.7	18.0	4.7	4.3	52.0
Apr-82	PRE	436ALW	46.6	72.8	31.9	14.9	76.4	16.9	4.5	5.1	63.5
May-82	PRE	436ALW	41.5	71.4	30.1	11.2	74.0	17.0	4.3	5.7	65.9
Jun-82	PRE	436ALW	47.8	91.0	29.5	6.6	59.8	13.0	4.6	3.3	79.7
Jul-82	PRE	436ALW	46.6	80.6	29.4	13.4	65.6	14.6	4.5	4.5	69.0
Aug-82	PRE	436ALW	49.8	124.2	28.4	7.2	55.1	13.2	4.2	7.4	62.4
Sep-82	PRE	436ALW	48.3	82.1	27.9	5.2	73.4	15.5	4.7	6.5	55.6
Oct-82	PRE	436ALW	47.2	79.9	28.3	7.5	74.5	16.2	4.6	4.0	55.5
Nov-82	PRE	436ALW	49.4	74.1	28.0	12.6	75.0	15.0	5.0	5.4	64.4
Dec-82	PRE	436ALW	43.0	81.1	25.6	12.2	82.8	18.2	4.6	2.7	50.4
Jan-83	PRE	436ALW	48.7	82.2	26.7	10.1	77.2	17.1	4.5	4.2	62.0
Feb-83	PRE	436ALW	45.9	69.3	26.0	8.3	81.6	16.3	5.0	3.4	45.9
Mar-83	PRE	436ALW	49.6	92.8	27.5	8.1	78.2	17.1	4.6	2.7	47.7
Apr-83	PRE	436ALW	45.4	73.4	28.3	5.3	75.9	15.1	5.0	3.4	44.1
May-83	PRE	436ALW	41.3	72.0	28.6	5.4	76.2	17.4	4.4	3.1	32.9
Jun-83	PRE	436ALW	46.3	71.2	28.6	8.6	76.0	15.7	4.8	4.9	41.9
Jul-83	PRE	436ALW	49.8	62.3	28.4	12.1	76.4	16.2	4.7	4.4	51.1
Aug-83	PRE	436ALW	43.9	70.6	28.5	7.7	98.0	20.4	4.8	2.3	45.2
Sep-83	PRE	436ALW	46.9	83.5	27.8	8.8	79.9	18.2	4.4	4.2	50.4
Oct-83	PRE	436ALW	39.5	55.4	25.9	8.4	104.2	26.4	3.9	1.6	40.0
Nov-83	PRE	436ALW	44.5	77.0	24.5	10.7	100.1	22.1	4.5	2.0	32.0
Dec-83	PRE	436ALW	48.7	80.6	25.3	9.9	91.0	18.5	4.9	2.5	47.2
Jan-84	PRE	436ALW	50.0	84.8	26.4	9.2	83.6	17.6	4.7	5.7	61.5
Feb-84	PRE	436ALW	49.1	70.6	27.3	11.7	87.5	19.0	4.6	3.3	67.3
Mar-84	PRE	436ALW	46.8	62.7	27.2	9.5	98.4	19.8	5.0	3.4	50.7
Apr-84	PRE	436ALW	47.0	62.4	27.4	8.6	88.7	20.1	4.4	4.0	49.7
May-84	PRE	436ALW	47.6	84.1	25.9	13.6	78.7	20.3	3.9	5.1	54.3
Jun-84	PRE	436ALW	42.5	72.3	25.9	12.0	79.1	18.9	4.2	4.3	57.2
Jul-84	PRE	436ALW	43.3	63.1	26.0	10.4	93.5	21.3	4.4	2.6	59.4
Aug-84	PRE	436ALW	43.3	68.9	26.1	12.3	82.6	19.4	4.3	2.3	54.2
Sep-84	PRE	436ALW	44.1	70.3	25.0	9.9	80.1	18.9	4.2	3.7	53.7
Oct-84	PRE	436ALW	47.4	67.9	26.4	11.6	85.6	20.6	4.2	1.3	51.2
Nov-84	PRE	436ALW	46.5	65.7	26.4	14.6	83.4	18.3	4.5	3.6	62.2
Dec-84	PRE	436ALW	43.9	71.8	26.5	16.0	82.9	18.2	4.6	3.6	39.4
Jan-85	PRE	436ALW	46.5	80.9	26.0	16.7	79.5	18.2	4.4	2.7	67.2
Feb-85	PRE	436ALW	46.2	63.1	25.8	12.2	87.9	19.5	4.5	4.4	59.5
Mar-85	PRE	436ALW	48.3	47.1	25.3	17.0	103.4	23.9	4.3	2.7	54.8
Apr-85	PRE	436ALW	45.1	61.5	24.9	15.4	98.5	24.4	4.0	3.9	58.4
May-85	PRE	436ALW	41.2	61.8	25.5	11.4	99.5	23.9	4.2	2.2	53.0
Jun-85	PRE	436ALW	42.9	52.5	26.1	13.9	96.3	21.5	4.5	2.3	51.1
Jul-85	PRE	436ALW	46.5	50.6	23.3	16.6	111.2	24.4	4.6	3.6	71.4
Aug-85	PRE	436ALW	44.5	47.3	21.9	14.6	111.5	26.2	4.3	4.7	53.5
Sep-85	PRE	436ALW	45.0	56.1	21.9	17.7	100.0	24.2	4.1	2.8	57.5
Oct-85	PRE	436ALW	47.6	66.4	20.3	14.3	103.3	24.4	4.2	2.0	61.0
Nov-85	PRE	436ALW	47.8	63.6	18.7	11.6	104.3	24.7	4.2	1.5	41.4
Dec-85	PRE	436ALW	40.8	70.3	21.6	8.0	86.4	19.3	4.5	5.0	44.6
Jan-86	PRE	436ALW	45.7	67.6	21.4	9.6	91.1	22.5	4.0	4.0	49.0
Feb-86	PRE	436ALW	51.3	77.7	21.7	12.6	78.9	20.8	3.8	4.6	55.5
Mar-86	PRE	436ALW	39.9	64.8	23.0	7.8	102.3	29.8	3.4	2.1	27.2
Apr-86	PRE	436ALW	43.6	63.4	22.4	11.1	102.6	24.0	4.3	2.5	30.5

Date	Group	Unit	TNMCM	MH/FH	ACFT	TNMCS	HUTE	SUTE	ASD	GAB	CANN
May-86	PRE	436ALW	42.9	56.0	23.1	17.7	101.5	24.5	4.1	3.6	39.8
Jun-86	PRE	436ALW	40.9	57.9	23.3	15.2	97.0	24.3	4.0	3.2	46.7
Jul-86	PRE	436ALW	37.8	58.2	25.1	13.5	90.3	21.8	4.1	3.0	64.6
Aug-86	PRE	436ALW	38.5	55.8	24.2	15.3	104.3	25.5	4.1	2.1	53.1
Sep-86	PRE	436ALW	32.1	61.9	24.8	16.5	85.8	21.7	3.9	2.7	72.4
Oct-86	PRE	436ALW	34.7	56.5	26.6	12.2	84.2	22.3	3.8	4.1	60.1
Nov-86	PRE	436ALW	32.0	60.2	26.4	9.3	81.2	17.3	4.7	4.2	51.3
Dec-86	PRE	436ALW	32.2	73.8	24.9	14.7	79.7	18.0	4.4	4.5	106.0
Jan-87	PRE	436ALW	30.4	N/A	28.7	16.2	65.2	14.1	4.6	5.4	79.1
Feb-87	PRE	436ALW	34.6	N/A	29.6	12.9	67.4	15.2	4.4	4.0	92.9
Mar-87	PRE	436ALW	34.9	N/A	31.7	12.9	85.5	17.9	4.8	3.2	73.5
Apr-87	PRE	436ALW	30.0	N/A	29.6	13.5	81.7	18.6	4.4	2.6	51.1
May-87	PRE	436ALW	29.6	N/A	29.2	14.4	82.6	20.7	4.0	3.2	43.1
Jun-87	PRE	436ALW	31.0	N/A	29.5	8.3	73.1	19.5	3.7	4.8	28.6
Jul-87	PRE	436ALW	28.4	N/A	31.2	7.9	76.7	17.9	4.3	3.5	45.3
Aug-87	PRE	436ALW	31.4	N/A	30.4	12.2	83.1	18.8	4.4	2.9	47.8
Sep-87	PRE	436ALW	29.7	N/A	31.3	13.3	59.8	13.5	4.4	3.2	53.7
Oct-87	PRE	436ALW	29.6	N/A	30.6	10.7	66.2	16.8	4.0	2.7	47.5
Nov-87	PRE	436ALW	29.6	N/A	31.7	9.1	45.5	10.8	4.2	1.7	56.3
Dec-87	PRE	436ALW	29.6	N/A	32.2	12.9	36.8	9.3	4.0	2.9	46.6
Jan-88	PRE	436ALW	24.5	N/A	31.4	8.0	38.5	9.6	4.0	2.9	31.1
Feb-88	PRE	436ALW	25.0	N/A	31.0	6.1	54.9	13.4	4.1	1.9	35.4
Mar-88	PRE	436ALW	23.0	N/A	31.6	8.5	57.3	13.7	4.2	4.6	42.7
Apr-88	PRE	436ALW	27.8	N/A	31.9	8.5	63.8	14.9	4.3	2.1	38.2
May-88	PRE	436ALW	23.0	N/A	32.3	8.6	63.1	14.0	4.5	3.0	43.1
Jun-88	PRE	436ALW	26.1	N/A	34.5	8.0	65.7	15.2	4.3	2.6	32.2
Jul-88	PRE	436ALW	28.3	N/A	34.8	10.9	60.1	14.8	4.1	2.8	47.6
Aug-88	PRE	436ALW	30.9	N/A	33.4	12.6	83.4	18.8	4.4	1.7	44.1
Sep-88	PRE	436ALW	29.4	N/A	34.9	12.4	65.6	14.7	4.5	1.9	45.5
Oct-88	PRE	436ALW	25.0	N/A	33.1	11.4	68.7	17.1	4.0	1.6	36.8
Nov-88	PRE	436ALW	21.5	N/A	34.2	9.9	55.6	13.7	4.0	0.6	37.4
Dec-88	PRE	436ALW	24.2	N/A	36.7	11.4	40.7	10.0	4.1	2.7	43.3
Jan-89	PRE	436ALW	22.2	N/A	36.6	8.9	42.6	10.7	4.0	3.0	61.8
Feb-89	PRE	436ALW	24.5	N/A	36.4	10.8	46.8	11.8	4.0	1.6	51.7
Mar-89	PRE	436ALW	26.2	N/A	35.4	8.4	59.7	15.7	3.8	1.8	32.0
Apr-89	PRE	436ALW	20.7	N/A	34.4	10.1	67.3	17.6	3.8	2.1	40.8
May-89	PRE	436ALW	19.1	50.8	36.5	9.2	59.4	16.9	3.5	1.6	37.9
Jun-89	PRE	436ALW	23.2	36.7	35.6	6.9	63.4	16.4	3.9	1.7	41.5
Jul-89	PRE	436ALW	20.9	47.0	37.3	8.1	56.2	13.9	4.0	2.4	51.1
Aug-89	PRE	436ALW	22.5	49.6	37.7	10.2	55.2	15.6	3.5	1.7	48.2
Sep-89	PRE	436ALW	22.1	42.4	38.3	9.7	58.8	17.8	3.3	0.9	31.7
Oct-89	PRE	436ALW	18.9	42.1	37.8	11.0	63.1	17.4	3.6	2.8	48.6
Nov-89	PRE	436ALW	25.3	44.1	37.8	13.6	52.6	14.1	3.7	2.2	41.9
Dec-89	PRE	436ALW	26.6	49.9	37.9	16.6	51.7	14.0	3.7	2.2	46.9
Jan-90	PRE	436ALW	23.5	42.4	37.8	18.1	53.6	14.3	3.8	2.9	43.7
Feb-90	PRE	436ALW	26.1	44.6	37.2	13.7	56.9	16.0	3.6	2.0	29.0
Mar-90	PRE	436ALW	24.4	59.1	37.0	12.6	49.5	14.2	3.5	1.1	39.3
Apr-90	PRE	436ALW	23.7	48.7	36.8	11.4	57.6	17.0	3.4	2.0	37.3
May-90	PRE	436ALW	19.0	44.8	36.1	13.9	54.8	15.1	3.6	1.3	35.3
Jun-90	PRE	436ALW	22.0	52.4	35.1	10.4	54.4	15.1	3.6	3.5	33.4
Jul-90	PRE	436ALW	25.1	53.4	35.2	11.5	48.8	13.8	3.5	2.2	33.3

436th ALW Post-Reorganization Data:

Date	Group	Unit	TNMCM	MH/FH	ACFT	TNMCS	HUTE	SUTE	ASD	GAB	CANN
Jan-93	POST	436ALW	10.5	20.8	25.9	10.4	99.9	20.4	4.9	3.7	41.0
Feb-93	POST	436ALW	13.3	21.7	28.6	9.9	81.6	19.3	4.2	3.2	35.1
Mar-93	POST	436ALW	15.0	27.0	29.8	14.0	88.6	21.9	4.0	3.0	35.3
Apr-93	POST	436ALW	13.1	22.0	30.9	14.8	87.8	20.6	4.3	1.9	29.4
May-93	POST	436ALW	12.6	23.7	32.0	11.3	80.9	20.6	3.9	2.9	30.5
Jun-93	POST	436ALW	14.6	27.6	30.9	12.5	63.7	16.6	3.8	3.6	37.9
Jul-93	POST	436ALW	16.1	22.4	29.7	14.0	73.5	18.8	3.9	4.1	32.3
Aug-93	POST	436ALW	13.7	20.7	29.7	14.9	84.0	21.9	3.8	1.2	29.1
Sep-93	POST	436ALW	15.6	22.1	33.2	13.0	73.7	18.4	4.0	1.9	50.0
Oct-93	POST	436ALW	19.8	17.2	32.1	13.7	100.4	21.3	4.7	2.1	43.9
Nov-93	POST	436ALW	14.4	17.3	31.7	10.6	81.2	20.3	4.0	1.7	30.9
Dec-93	POST	436ALW	20.0	19.9	31.0	11.3	71.1	16.9	4.2	1.5	41.3
Jan-94	POST	436ALW	23.3	12.8	30.7	11.5	74.2	17.7	4.2	2.3	35.2
Feb-94	POST	436ALW	27.9	22.4	30.5	12.1	62.5	16.0	3.9	2.8	31.1
Mar-94	POST	436ALW	24.0	18.4	29.5	7.8	84.8	21.9	3.9	3.7	26.1
Apr-94	POST	436ALW	24.7	19.4	30.9	9.7	73.1	19.7	3.7	3.8	34.1
May-94	POST	436ALW	25.0	20.5	31.8	10.4	70.6	20.8	3.4	3.5	43.8
Jun-94	POST	436ALW	14.8	13.6	30.3	5.1	85.2	24.1	3.5	1.1	38.4
Jul-94	POST	436ALW	18.3	17.4	29.4	9.4	74.0	19.9	3.7	3.6	34.9
Aug-94	POST	436ALW	20.6	16.2	31.0	11.2	77.4	20.3	3.8	4.0	37.7
Sep-94	POST	436ALW	18.9	17.1	30.9	8.6	79.3	22.8	3.5	2.4	28.7
Oct-94	POST	436ALW	21.5	14.0	30.8	12.6	98.0	23.7	4.1	2.8	46.9
Nov-94	POST	436ALW	23.5	22.8	30.3	7.9	62.4	16.1	3.9	4.1	38.6
Dec-94	POST	436ALW	22.3	19.6	30.7	8.6	60.3	16.6	3.6	4.0	53.4
Jan-95	POST	436ALW	23.7	25.8	30.0	14.0	58.4	15.9	3.7	1.0	42.4
Feb-95	POST	436ALW	31.2	29.7	30.3	11.9	49.8	13.4	3.7	4.0	48.9
Mar-95	POST	436ALW	27.7	24.6	27.8	11.8	71.4	18.2	3.9	4.9	67.7
Apr-95	POST	436ALW	24.5	23.0	29.3	11.6	60.9	17.8	3.4	3.0	37.0
May-95	POST	436ALW	24.7	19.8	27.5	13.1	72.7	18.2	4.0	4.4	31.8
Jun-95	POST	436ALW	35.5	21.6	31.0	14.7	58.2	16.1	3.6	5.3	57.5
Jul-95	POST	436ALW	28.9	20.6	29.0	10.1	58.9	16.9	3.5	6.5	43.1
Aug-95	POST	436ALW	24.0	25.6	28.0	15.1	60.9	16.2	3.8	4.0	38.1
Sep-95	POST	436ALW	26.6	18.8	31.3	11.6	73.6	19.4	3.8	2.1	63.9
Oct-95	POST	436ALW	28.8	20.1	29.3	11.8	83.0	20.6	4.0	4.1	60.8
Nov-95	POST	436ALW	34.3	19.8	29.6	13.4	71.8	17.1	4.2	3.1	43.1
Dec-95	POST	436ALW	31.4	18.0	30.3	14.8	77.0	19.6	3.9	2.6	56.2
Jan-96	POST	436ALW	30.4	17.5	31.2	14.9	63.8	15.4	4.1	1.6	50.7
Feb-96	POST	436ALW	29.0	22.0	30.9	14.1	61.7	15.5	4.0	3.4	31.5
Mar-96	POST	436ALW	16.8	21.8	31.1	8.5	60.0	20.0	3.0	2.0	16.9
Apr-96	POST	436ALW	16.8	19.3	32.4	9.1	54.8	15.6	3.5	5.4	25.9
May-96	POST	436ALW	19.9	20.4	31.9	8.4	63.5	16.1	4.0	4.5	26.3
Jun-96	POST	436ALW	24.8	18.7	30.3	8.5	74.4	18.7	4.0	2.1	28.3
Jul-96	POST	436ALW	21.5	17.0	31.2	5.3	70.8	18.1	3.9	1.7	37.3
Aug-96	POST	436ALW	21.0	24.5	29.1	6.0	76.6	17.2	4.5	3.3	26.9
Sep-96	POST	436ALW	22.2	17.8	29.0	6.0	69.4	16.4	4.2	2.1	32.4
Oct-96	POST	436ALW	24.9	19.1	29.1	4.6	73.6	18.1	4.1	2.4	40.8
Nov-96	POST	436ALW	25.3	19.5	27.9	6.4	71.3	15.2	4.7	2.7	37.6

Date	Group	Unit	TNMCM	MH/FH	ACFT	TNMCS	HUTE	SUTE	ASD	GAB	CANN
Dec-96	POST	436ALW	30.4	21.8	30.6	7.4	54.0	12.7	4.3	4.0	34.8
Jan-97	POST	436ALW	26.5	26.5	31.5	10.9	49.4	12.1	4.1	5.0	51.6
Feb-97	POST	436ALW	26.4	32.3	31.5	12.1	52.1	11.8	4.4	2.4	41.5
Mar-97	POST	436ALW	22.2	20.8	31.4	12.3	65.0	15.7	4.1	3.3	34.3
Apr-97	POST	436ALW	27.7	19.3	31.5	13.9	67.9	16.8	4.0	3.1	35.2
May-97	POST	436ALW	33.2	20.9	33.5	11.9	56.6	14.9	3.8	4.0	34.1
Jun-97	POST	436ALW	32.2	18.5	32.8	10.4	64.6	16.6	3.9	3.4	23.7
Jul-97	POST	436ALW	35.7	20.7	30.8	14.4	66.0	17.1	3.9	3.3	51.7
Aug-97	POST	436ALW	28.7	27.8	29.4	12.9	48.9	11.8	4.1	3.1	61.4
Sep-97	POST	436ALW	27.7	13.9	30.1	11.2	77.3	17.2	4.5	3.0	57.4
Oct-97	POST	436ALW	25.7	13.9	30.8	15.3	77.9	17.0	4.6	3.1	43.1
Nov-97	POST	436ALW	29.2	12.6	30.6	15.4	66.1	15.1	4.4	2.9	62.4
Dec-97	POST	436ALW	27.1	17.4	32.2	13.5	45.7	10.8	4.2	3.9	53.2
Jan-98	POST	436ALW	24.7	19.3	30.5	14.4	48.3	12.3	3.9	2.3	51.7
Feb-98	POST	436ALW	26.4	10.2	29.2	10.6	96.4	17.1	5.6	2.3	44.5
Mar-98	POST	436ALW	26.6	15.8	29.2	11.1	71.9	15.0	4.8	2.9	48.1
Apr-98	POST	436ALW	29.2	16.0	28.3	11.9	70.0	15.7	4.5	2.4	44.4
May-98	POST	436ALW	29.1	18.5	31.6	9.0	56.7	13.7	4.1	2.0	36.4
Jun-98	POST	436ALW	26.8	13.0	29.1	13.6	77.0	16.7	4.6	1.6	64.1
Jul-98	POST	436ALW	29.9	18.8	27.5	12.6	71.5	16.1	4.5	2.6	50.5
Aug-98	POST	436ALW	23.7	17.1	28.1	12.0	61.1	14.9	4.1	3.0	55.2
Sep-98	POST	436ALW	16.6	23.8	28.9	23.8	55.4	14.5	3.8	3.0	56.8
Oct-98	POST	436ALW	20.2	18.7	28.6	25.6	76.1	17.9	4.3	3.6	37.0
Nov-98	POST	436ALW	18.4	21.1	28.1	26.4	55.3	12.9	4.3	2.7	34.4
Dec-98	POST	436ALW	11.7	24.7	27.2	28.6	56.4	13.6	4.1	2.9	54.1
Jan-99	POST	436ALW	14.8	26.9	26.4	29.1	55.1	14.0	3.9	4.4	57.6
Feb-99	POST	436ALW	16.7	29.4	25.7	31.6	50.4	12.8	4.0	3.2	41.2
Mar-99	POST	436ALW	20.4	29.5	26.3	33.5	56.2	15.0	3.7	2.9	52.7
Apr-99	POST	436ALW	20.8	25.6	26.2	25.9	66.5	15.4	4.3	2.2	41.9
May-99	POST	436ALW	16.0	18.1	26.5	25.1	66.3	16.6	4.0	1.8	68.1
Jun-99	POST	436ALW	18.5	23.0	28.0	32.6	62.8	15.6	4.0	2.9	41.6
Jul-99	POST	436ALW	21.9	25.5	28.1	38.3	61.8	15.7	3.9	2.2	70.0
Aug-99	POST	436ALW	17.8	27.4	28.2	33.6	44.3	11.4	3.9	3.9	65.2
Sep-99	POST	436ALW	15.6	20.1	26.1	30.3	61.3	14.7	4.2	4.7	45.3
Oct-99	POST	436ALW	12.9	24.5	26.5	27.2	53.4	13.7	3.9	5.5	59.4
Nov-99	POST	436ALW	20.0	24.7	25.4	28.4	47.1	12.0	3.9	5.0	41.8
Dec-99	POST	436ALW	13.3	22.1	26.3	25.4	50.5	12.4	4.1	4.1	28.7
Jan-00	POST	436ALW	12.1	26.4	29.5	25.6	39.0	9.3	4.2	4.9	44.5
Feb-00	POST	436ALW	13.5	26.8	31.1	18.4	40.6	10.0	4.0	2.8	29.8
Mar-00	POST	436ALW	17.9	19.3	29.8	23.9	60.3	12.1	5.0	3.0	23.9
Apr-00	POST	436ALW	15.6	31.6	28.9	22.3	42.1	11.1	3.8	3.0	32.8
May-00	POST	436ALW	18.3	28.2	29.3	31.6	43.9	11.6	3.8	4.8	35.3
Jun-00	POST	436ALW	26.7	15.1	28.4	16.8	61.0	15.2	4.0	2.5	40.1
Jul-00	POST	436ALW	31.2	N/A	31.7	20.8	51.7	12.6	4.1	3.2	23.1
Aug-00	POST	436ALW	29.9	N/A	31.7	17.9	66.9	15.6	4.3	1.0	40.3
Sep-00	POST	436ALW	26.1	0.0	32.6	18.2	63.7	15.2	4.2	3.5	36.0

1st FW Pre-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	CANN
Jan-82	PRE	1FW	11.8	51.5	89.3	80.4	11.9	20.0	15.3	1.3	0.2	5.3	12.2
Feb-82	PRE	1FW	14.6	52.7	93.7	77.8	15.9	20.7	17.1	1.2	0.7	4.2	8.1
Mar-82	PRE	1FW	13.4	58.9	91.1	76.1	10.5	22.9	16.8	1.4	1.1	4.8	9.7
Apr-82	PRE	1FW	9.3	43.4	94.0	73.3	10.8	25.7	18.5	1.4	0.7	3.3	8.2
May-82	PRE	1FW	8.3	42.5	96.4	77.3	12.0	26.5	20.4	1.3	0.9	2.5	10.6
Jun-82	PRE	1FW	7.7	32.4	94.8	75.6	11.1	29.3	17.5	1.7	0.4	3.1	13.2
Jul-82	PRE	1FW	10.8	46.7	93.4	79.7	15.8	21.8	17.0	1.3	0.5	3.8	15.9
Aug-82	PRE	1FW	10.2	46.0	95.2	78.4	12.3	28.5	25.7	1.1	0.6	3.6	12.1
Sep-82	PRE	1FW	6.3	61.0	95.7	80.0	14.1	14.4	11.3	1.3	0.4	3.1	23.6
Oct-82	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-82	PRE	1FW	N/A	41.4	N/A	N/A	N/A	N/A	N/A	1.4	0.6	4.4	30.0
Dec-82	PRE	1FW	N/A	48.7	N/A	N/A	N/A	N/A	N/A	1.3	0.5	3.8	22.1
Jan-83	PRE	1FW	N/A	84.0	N/A	N/A	N/A	N/A	N/A	1.2	0.9	3.5	18.8
Feb-83	PRE	1FW	13.4	64.3	N/A	72.2	8.6	24.0	17.3	1.4	0.4	4.1	19.8
Mar-83	PRE	1FW	8.5	49.5	N/A	72.9	9.3	27.4	20.4	1.3	0.3	3.1	17.3
Apr-83	PRE	1FW	10.8	53.4	N/A	53.7	9.7	38.2	29.7	1.3	0.3	4.0	6.0
May-83	PRE	1FW	11.1	60.0	N/A	71.6	15.6	25.9	21.0	1.2	0.4	2.8	7.4
Jun-83	PRE	1FW	11.4	52.6	N/A	76.1	17.1	28.4	20.4	1.4	0.6	4.1	11.3
Jul-83	PRE	1FW	13.8	48.1	N/A	75.2	17.4	28.6	20.2	1.4	0.7	3.1	18.0
Aug-83	PRE	1FW	14.9	36.5	N/A	76.5	17.1	33.6	21.1	1.6	0.6	2.9	22.6
Sep-83	PRE	1FW	13.3	59.3	N/A	76.2	9.6	18.6	14.5	1.3	0.8	5.4	26.5
Oct-83	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nov-83	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dec-83	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jan-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Feb-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mar-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Apr-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
May-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jun-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jul-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sep-84	PRE	1FW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oct-84	PRE	1FW	8.3	38.2	92.7	77.1	5.9	29.3	23.0	1.3	0.7	4.4	19.3
Nov-84	PRE	1FW	9.3	37.5	91.7	76.8	5.4	28.3	19.4	1.5	0.5	4.7	20.7
Dec-84	PRE	1FW	7.7	38.0	95.1	76.2	3.7	23.8	17.9	1.3	0.4	3.3	13.7
Jan-85	PRE	1FW	8.8	35.4	91.8	73.2	4.0	30.0	20.2	1.5	0.5	3.2	13.2
Feb-85	PRE	1FW	11.3	36.8	93.4	67.9	2.2	33.6	24.2	1.4	0.5	4.4	10.6
Mar-85	PRE	1FW	15.3	22.2	94.5	70.1	3.1	42.6	33.1	1.3	0.9	3.9	8.4
Apr-85	PRE	1FW	11.2	23.3	95.4	71.0	3.1	25.5	17.8	1.4	1.0	2.9	7.8
May-85	PRE	1FW	11.7	22.6	93.6	74.7	4.3	31.7	21.6	1.5	1.1	4.2	9.4
Jun-85	PRE	1FW	10.9	33.0	93.4	76.3	3.0	32.0	21.6	1.5	0.8	4.8	7.0
Jul-85	PRE	1FW	10.7	25.2	93.0	73.0	3.4	30.8	23.7	1.3	0.8	4.8	6.6
Aug-85	PRE	1FW	8.5	23.9	92.9	75.9	4.6	33.1	21.1	1.6	0.7	4.1	9.1
Sep-85	PRE	1FW	9.0	32.4	93.9	72.4	4.2	22.0	17.1	1.3	0.4	3.6	6.5
Oct-85	PRE	1FW	12.7	21.4	N/A	70.2	4.2	33.1	23.1	1.4	0.6	5.0	8.1
Nov-85	PRE	1FW	11.0	N/A	N/A	72.1	7.4	31.6	24.0	1.3	0.3	3.7	8.4
Dec-85	PRE	1FW	8.6	23.5	N/A	73.5	6.2	25.8	19.1	1.4	0.1	5.1	8.3
Jan-86	PRE	1FW	9.4	15.9	N/A	70.2	5.1	31.4	22.8	1.4	0.7	4.7	7.1
Feb-86	PRE	1FW	13.9	14.7	N/A	68.4	6.3	23.9	19.2	1.2	0.7	5.3	7.7
Mar-86	PRE	1FW	12.4	8.8	N/A	72.2	6.2	31.1	23.8	1.3	0.5	4.8	8.4
Apr-86	PRE	1FW	9.8	10.7	N/A	72.3	4.3	33.6	26.9	1.2	0.4	3.6	5.5

DATE	GROUP	UNIT	TNMCM	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	CANN
May-86	PRE	1FW	8.3	13.6	N/A	71.3	4.1	32.5	22.0	1.5	0.8	3.9	10.3
Jun-86	PRE	1FW	7.6	5.3	N/A	70.3	4.7	35.0	21.9	1.6	0.3	3.0	10.1
Jul-86	PRE	1FW	11.2	11.9	N/A	69.6	7.8	35.4	23.6	1.5	0.7	5.0	18.5
Aug-86	PRE	1FW	10.7	4.8	N/A	69.7	9.0	33.1	23.9	1.4	0.6	3.4	17.1
Sep-86	PRE	1FW	8.1	18.4	N/A	70.0	7.3	19.3	12.8	1.5	0.7	4.4	23.2
Oct-86	PRE	1FW	11.2	11.1	92.6	69.9	9.1	35.7	24.0	1.5	0.5	4.0	22.6
Nov-86	PRE	1FW	9.0	11.2	91.2	70.0	5.8	25.0	16.8	1.5	0.9	5.5	15.3
Dec-86	PRE	1FW	8.4	10.3	93.2	72.4	4.6	27.9	20.0	1.4	0.9	5.0	10.2
Jan-87	PRE	1FW	10.4	13.3	91.4	71.0	5.1	22.1	16.9	1.3	0.7	5.3	12.8
Feb-87	PRE	1FW	13.5	15.3	94.0	72.1	5.8	24.0	16.6	1.4	0.6	3.4	12.9
Mar-87	PRE	1FW	10.7	11.9	93.7	72.4	4.3	27.8	20.8	1.3	0.9	4.7	8.6
Apr-87	PRE	1FW	12.0	14.9	93.1	73.9	5.2	26.2	19.4	1.3	0.4	4.6	13.1
May-87	PRE	1FW	8.2	10.8	95.4	71.0	5.5	28.5	19.6	1.5	0.5	3.1	15.7
Jun-87	PRE	1FW	12.5	9.1	93.5	70.0	6.3	33.8	27.8	1.2	0.1	4.0	17.9
Jul-87	PRE	1FW	11.7	10.9	91.2	70.8	8.9	40.9	28.0	1.5	0.6	6.5	27.5
Aug-87	PRE	1FW	9.7	7.4	92.4	74.4	10.3	24.0	15.8	1.5	0.2	5.4	33.8
Sep-87	PRE	1FW	8.7	N/A	94.9	73.9	6.7	23.6	16.6	1.4	0.3	4.1	25.5
Oct-87	PRE	1FW	9.1	12.2	94.0	73.9	6.9	29.0	22.3	1.3	0.8	4.5	17.1
Nov-87	PRE	1FW	9.5	11.6	92.4	74.5	6.5	26.9	16.1	1.7	0.8	4.9	32.7
Dec-87	PRE	1FW	10.9	15.3	92.5	72.4	4.9	23.7	17.6	1.3	0.5	5.1	24.4
Jan-88	PRE	1FW	14.7	16.3	91.1	69.9	6.3	24.0	18.6	1.3	0.5	4.5	18.9
Feb-88	PRE	1FW	13.8	14.8	95.2	70.6	5.8	28.9	21.7	1.3	0.7	3.2	16.8
Mar-88	PRE	1FW	11.6	11.6	94.4	70.5	7.3	32.2	24.4	1.3	0.3	4.0	15.4
Apr-88	PRE	1FW	12.1	12.8	94.2	74.3	8.2	26.2	20.8	1.3	0.3	4.3	15.7
May-88	PRE	1FW	13.5	13.5	95.1	73.0	13.7	24.0	19.8	1.2	0.5	3.7	10.8
Jun-88	PRE	1FW	8.0	12.6	95.5	72.9	5.7	25.7	21.4	1.2	0.3	3.7	11.8
Jul-88	PRE	1FW	9.2	11.9	94.8	73.1	6.9	22.7	18.1	1.3	0.6	3.6	13.4
Aug-88	PRE	1FW	11.4	7.4	94.5	73.5	8.6	35.0	21.3	1.6	0.6	4.4	20.0
Sep-88	PRE	1FW	12.0	15.1	93.3	69.8	5.7	21.7	16.6	1.3	0.3	3.7	24.5
Oct-88	PRE	1FW	11.2	N/A	94.2	68.1	7.5	31.8	20.6	1.5	0.5	3.8	19.3
Nov-88	PRE	1FW	10.5	N/A	95.0	69.8	7.5	27.2	20.4	1.3	0.5	4.0	22.9
Dec-88	PRE	1FW	11.1	N/A	93.8	71.6	7.4	24.2	17.9	1.4	0.6	3.9	28.6
Jan-89	PRE	1FW	10.1	N/A	93.2	72.1	6.5	23.1	17.7	1.3	0.6	4.4	24.0
Feb-89	PRE	1FW	11.3	N/A	92.6	73.2	7.6	23.5	18.4	1.3	0.4	5.4	30.4
Mar-89	PRE	1FW	11.4	N/A	94.8	72.8	6.6	32.5	24.5	1.3	0.6	4.0	22.8
Apr-89	PRE	1FW	11.0	N/A	94.8	74.0	7.5	32.0	21.9	1.5	0.4	3.8	23.4
May-89	PRE	1FW	9.2	N/A	93.7	76.0	8.0	28.2	21.3	1.3	0.3	4.4	34.0
Jun-89	PRE	1FW	10.2	N/A	92.9	76.2	6.3	31.8	22.2	1.4	0.6	5.3	21.9
Jul-89	PRE	1FW	10.5	N/A	93.5	76.9	6.3	28.4	21.1	1.3	0.5	4.7	17.8
Aug-89	PRE	1FW	19.1	N/A	91.9	78.1	7.7	30.8	19.8	1.6	0.6	4.5	29.0
Sep-89	PRE	1FW	14.0	N/A	93.3	75.3	7.7	18.1	15.2	1.2	0.5	4.3	24.4
Oct-89	PRE	1FW	N/A	N/A	N/A	71.8	N/A	N/A	17.5	N/A	0.0	0.6	N/A
Nov-89	PRE	1FW	N/A	N/A	N/A	72.9	N/A	27.1	18.9	1.4	0.0	1.5	N/A
Dec-89	PRE	1FW	N/A	N/A	N/A	72.0	N/A	22.0	17.0	1.3	0.4	2.6	N/A
Jan-90	PRE	1FW	N/A	N/A	N/A	72.7	N/A	28.4	20.7	1.4	0.2	2.0	N/A
Feb-90	PRE	1FW	N/A	N/A	N/A	72.4	N/A	24.7	18.2	1.4	0.2	1.1	N/A
Mar-90	PRE	1FW	N/A	N/A	N/A	72.5	N/A	30.2	22.0	1.4	0.5	0.9	N/A
Apr-90	PRE	1FW	N/A	N/A	N/A	73.3	N/A	31.7	21.6	1.5	0.4	1.5	N/A
May-90	PRE	1FW	N/A	N/A	N/A	71.6	N/A	27.4	21.7	1.3	0.6	1.9	N/A
Jun-90	PRE	1FW	N/A	N/A	N/A	70.0	N/A	28.4	23.3	1.2	0.7	1.4	N/A
Jul-90	PRE	1FW	N/A	N/A	N/A	67.7	N/A	30.8	23.3	1.3	0.4	1.7	N/A

1st FW Post-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	8HRFIX	MH/FH	REP/REC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	POST	1FW	15.6	N/A	3.0	N/A	N/A	67.2	11.8	24.9	17.3	1.4	N/A	N/A	N/A	4.0
Feb-93	POST	1FW	16.7	N/A	7.0	N/A	N/A	66.2	11.8	27.0	19.2	1.4	N/A	N/A	N/A	7.2
Mar-93	POST	1FW	16.6	N/A	17.0	N/A	N/A	68.6	18.5	27.6	19.7	1.4	N/A	N/A	N/A	10.4
Apr-93	POST	1FW	15.2	N/A	6.1	N/A	N/A	73.9	11.6	22.6	15.5	1.5	N/A	N/A	N/A	7.3
May-93	POST	1FW	11.9	N/A	12.0	N/A	N/A	74.6	10.1	26.9	19.6	1.4	N/A	N/A	N/A	11.8
Jun-93	POST	1FW	13.0	N/A	16.5	N/A	N/A	72.2	12.0	25.3	20.1	1.3	N/A	N/A	N/A	12.9
Jul-93	POST	1FW	11.6	N/A	13.8	N/A	N/A	72.3	11.8	27.6	16.9	1.6	N/A	N/A	N/A	16.2
Aug-93	POST	1FW	12.6	N/A	11.0	N/A	N/A	72.0	12.6	35.0	20.7	1.7	N/A	N/A	N/A	12.5
Sep-93	POST	1FW	12.1	N/A	12.8	N/A	N/A	72.9	11.0	29.3	16.2	1.8	N/A	N/A	N/A	16.2
Oct-93	POST	1FW	11.8	N/A	7.6	N/A	N/A	74.3	9.1	32.6	19.1	1.7	N/A	N/A	N/A	11.6
Nov-93	POST	1FW	13.8	N/A	6.5	N/A	N/A	75.8	10.8	35.6	22.5	1.6	N/A	N/A	N/A	7.5
Dec-93	POST	1FW	13.1	N/A	9.4	N/A	N/A	76.0	9.4	30.6	18.5	1.7	N/A	N/A	N/A	11.7
Jan-94	POST	1FW	12.7	N/A	11.7	N/A	N/A	74.3	10.8	25.4	16.9	1.5	N/A	N/A	N/A	15.2
Feb-94	POST	1FW	10.6	N/A	13.7	N/A	N/A	71.5	9.7	27.3	19.6	1.4	N/A	N/A	N/A	11.7
Mar-94	POST	1FW	11.8	N/A	12.4	N/A	N/A	71.9	9.3	31.0	21.9	1.4	N/A	N/A	N/A	14.4
Apr-94	POST	1FW	12.0	N/A	12.8	N/A	N/A	72.7	11.3	26.7	19.5	1.4	N/A	N/A	N/A	12.3
May-94	POST	1FW	13.9	N/A	10.0	N/A	N/A	71.3	16.0	31.1	19.9	1.6	N/A	N/A	N/A	11.2
Jun-94	POST	1FW	18.2	N/A	10.7	N/A	N/A	71.7	17.0	34.0	20.8	1.6	N/A	N/A	N/A	11.1
Jul-94	POST	1FW	20.4	N/A	10.8	N/A	N/A	71.4	19.6	30.1	17.1	1.8	N/A	N/A	N/A	11.3
Aug-94	POST	1FW	18.1	N/A	10.1	N/A	N/A	67.3	17.4	34.0	18.7	1.8	N/A	N/A	N/A	9.6
Sep-94	POST	1FW	11.5	N/A	14.1	N/A	N/A	62.8	14.1	22.3	12.6	1.8	N/A	N/A	N/A	18.6
Oct-94	POST	1FW	14.1	81.0	5.8	N/A	91.7	62.1	11.1	44.2	18.7	2.4	0.0	6.8	16.2	23.6
Nov-94	POST	1FW	11.4	83.0	0.6	N/A	94.0	59.7	9.5	38.2	18.5	2.1	0.0	6.0	15.4	22.2
Dec-94	POST	1FW	11.2	76.6	1.8	N/A	92.2	56.9	8.3	26.9	15.6	1.7	0.0	5.4	16.9	18.8
Jan-95	POST	1FW	12.6	78.1	15.4	N/A	91.8	55.9	12.3	28.9	19.0	1.5	0.0	5.3	15.1	20.2
Feb-95	POST	1FW	12.4	83.9	18.7	N/A	91.3	56.0	10.1	24.8	17.2	1.4	0.0	6.6	12.9	21.4
Mar-95	POST	1FW	11.4	79.3	13.0	N/A	95.7	55.7	9.8	29.1	19.3	1.5	0.0	3.8	12.7	16.2
Apr-95	POST	1FW	13.6	84.6	11.4	N/A	94.1	54.9	9.7	34.0	21.8	1.6	0.3	3.9	12.5	14.3
May-95	POST	1FW	17.4	78.3	15.8	N/A	90.4	53.1	10.4	28.1	22.2	1.3	0.5	5.4	13.3	13.8
Jun-95	POST	1FW	15.5	72.5	14.6	N/A	94.0	55.0	10.2	31.8	19.6	1.6	0.4	6.0	18.9	20.3
Jul-95	POST	1FW	17.8	66.8	9.4	N/A	97.4	56.3	12.8	41.7	19.0	2.2	2.0	8.4	22.7	30.1
Aug-95	POST	1FW	13.2	70.6	10.5	N/A	96.1	57.1	10.8	38.1	17.6	2.2	1.8	8.8	21.0	29.6
Sep-95	POST	1FW	11.6	74.4	12.9	N/A	96.1	55.3	8.6	30.7	14.9	2.1	2.2	9.7	21.3	27.5
Oct-95	POST	1FW	11.7	80.7	8.8	0.4	95.7	53.4	5.2	34.0	17.0	2.0	0.6	5.6	20.6	22.9
Nov-95	POST	1FW	13.1	75.0	8.9	2.3	90.0	52.9	5.4	35.6	17.3	2.1	1.3	7.9	18.8	19.8
Dec-95	POST	1FW	11.7	76.5	16.3	1.4	92.0	53.1	6.8	32.4	17.7	1.8	0.4	7.6	17.2	18.3
Jan-96	POST	1FW	10.2	77.3	11.0	1.3	93.9	49.8	5.9	40.1	18.5	2.2	1.0	6.4	15.3	15.3
Feb-96	POST	1FW	12.6	77.3	15.7	1.2	95.9	49.8	8.0	24.2	19.7	1.2	0.2	5.2	15.3	20.3
Mar-96	POST	1FW	14.5	74.8	16.6	1.1	89.0	54.0	13.5	28.0	18.9	1.5	0.5	8.2	13.6	26.9
Apr-96	POST	1FW	13.3	75.9	15.4	6.2	78.1	52.4	11.9	29.9	21.5	1.4	0.5	6.2	15.1	27.5
May-96	POST	1FW	13.3	80.4	14.4	9.0	66.9	56.0	11.0	31.1	20.6	1.5	0.8	7.1	16.0	24.0
Jun-96	POST	1FW	8.2	77.2	10.3	6.6	76.0	55.7	8.1	28.7	14.5	2.0	0.2	6.2	16.9	23.2
Jul-96	POST	1FW	12.4	74.9	12.3	3.6	77.2	53.7	8.0	27.1	19.1	1.4	0.2	5.7	19.0	23.9
Aug-96	POST	1FW	12.1	78.3	10.1	5.4	79.0	54.4	9.5	34.9	18.4	1.9	0.5	6.0	17.5	27.3
Sep-96	POST	1FW	12.8	76.7	8.4	2.0	65.2	53.2	8.8	30.1	13.4	2.2	0.3	8.7	20.4	30.8
Oct-96	POST	1FW	12.3	78.0	15.2	2.4	85.9	52.3	8.7	29.7	15.1	2.0	0.5	6.2	16.1	22.8
Nov-96	POST	1FW	10.8	70.7	17.4	2.4	71.4	54.1	9.8	19.2	13.8	1.4	0.1	10.7	13.2	12.7

DATE	GROUP	UNIT	TNMCM	8HRFIX	MH/FH	REP/REC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	POST	1FW	9.8	70.0	23.3	0.9	67.0	55.7	8.5	14.5	12.0	1.2	1.0	10.5	13.4	10.7
Jan-97	POST	1FW	17.2	66.9	25.7	1.9	68.1	53.7	10.1	23.5	16.3	1.4	3.0	10.8	16.2	24.1
Feb-97	POST	1FW	15.2	63.5	23.0	9.6	66.4	51.7	9.1	24.2	18.0	1.3	0.6	8.3	13.5	20.0
Mar-97	POST	1FW	13.6	76.7	20.0	3.1	63.2	55.0	9.8	25.1	18.8	1.3	0.7	5.7	9.9	21.7
Apr-97	POST	1FW	16.1	79.0	18.6	4.0	77.3	56.2	12.1	30.0	21.1	1.4	0.8	7.3	14.8	19.4
May-97	POST	1FW	16.4	74.5	22.0	2.4	84.4	55.9	12.9	19.8	17.6	1.1	0.1	5.8	9.6	23.7
Jun-97	POST	1FW	19.4	57.8	29.2	3.6	73.0	56.1	10.7	17.1	12.9	1.3	0.8	8.1	11.5	20.6
Jul-97	POST	1FW	22.8	62.1	16.6	1.1	76.1	56.7	13.2	30.4	16.0	1.9	0.6	5.8	14.5	24.3
Aug-97	POST	1FW	19.6	47.9	13.7	0.5	82.8	56.9	12.7	43.0	20.3	2.1	0.9	6.0	12.1	21.5
Sep-97	POST	1FW	17.2	71.7	15.6	2.2	77.4	59.9	12.8	27.2	11.9	2.3	0.2	6.8	14.5	19.7
Oct-97	POST	1FW	18.1	74.8	12.9	3.1	69.8	58.6	13.0	34.1	14.0	2.4	1.1	10.5	18.0	28.6
Nov-97	POST	1FW	13.9	69.5	8.9	3.5	70.0	56.1	12.7	34.7	12.6	2.8	0.6	9.7	18.2	18.0
Dec-97	POST	1FW	15.9	69.6	12.3	8.7	75.0	52.7	12.5	39.0	17.7	2.2	0.9	8.0	16.9	23.5
Jan-98	POST	1FW	22.1	54.3	31.5	5.6	57.5	41.8	9.4	15.1	13.4	1.1	1.4	8.4	18.8	27.2
Feb-98	POST	1FW	22.0	60.5	24.0	5.6	53.0	44.7	10.6	21.4	14.8	1.5	0.2	9.2	18.0	24.7
Mar-98	POST	1FW	22.1	60.6	25.3	6.1	64.7	48.0	19.4	25.1	19.4	1.3	1.2	6.9	15.3	21.3
Apr-98	POST	1FW	23.7	65.9	18.2	5.0	71.7	54.4	23.8	25.9	17.0	1.5	1.5	8.0	18.0	29.3
May-98	POST	1FW	23.7	67.7	21.0	6.5	73.1	55.6	26.8	21.5	17.3	1.2	1.1	8.9	17.0	25.5
Jun-98	POST	1FW	22.9	62.3	20.1	7.7	65.7	56.2	20.0	23.4	13.9	1.7	0.9	11.7	27.5	31.0
Jul-98	POST	1FW	22.8	67.2	13.3	2.4	65.7	58.5	15.5	35.6	17.5	2.0	1.5	10.2	17.3	30.8
Aug-98	POST	1FW	20.9	61.4	12.8	4.7	64.3	58.3	15.0	32.0	14.3	2.2	1.1	9.4	15.2	26.0
Sep-98	POST	1FW	22.3	62.0	12.3	0.0	76.2	56.0	16.9	38.0	18.9	2.0	1.2	9.6	21.6	28.7
Oct-98	POST	1FW	17.0	65.8	7.9	3.3	79.1	53.9	13.6	34.3	16.9	2.0	0.7	9.5	16.1	28.8
Nov-98	POST	1FW	18.6	57.8	11.7	5.4	77.6	57.5	15.4	32.6	13.6	2.4	2.0	8.8	20.5	31.6
Dec-98	POST	1FW	15.1	69.2	15.1	5.4	70.4	60.8	10.7	23.6	11.3	2.1	0.1	6.4	11.4	27.8
Jan-99	POST	1FW	19.8	62.6	18.0	5.0	72.7	59.2	13.9	20.9	15.9	1.3	0.3	6.7	17.3	21.6
Feb-99	POST	1FW	20.5	74.7	21.8	5.9	71.2	65.4	12.8	20.3	14.5	1.4	0.5	9.9	15.8	23.0
Mar-99	POST	1FW	21.0	72.1	20.1	3.2	73.4	71.4	14.8	24.7	17.1	1.4	0.8	5.8	14.1	25.0
Apr-99	POST	1FW	23.4	56.7	10.7	4.8	65.9	69.6	12.2	20.1	14.6	1.4	0.8	6.9	14.7	23.7
May-99	POST	1FW	20.7	62.1	20.6	3.5	82.4	70.2	10.7	21.7	18.3	1.2	0.3	7.4	10.9	23.5
Jun-99	POST	1FW	19.8	67.2	22.3	4.1	73.1	71.2	10.4	26.3	14.6	1.8	0.9	9.0	19.4	24.9
Jul-99	POST	1FW	21.8	62.6	22.1	4.6	74.0	69.7	10.9	28.2	16.1	1.8	0.7	7.4	18.1	24.6
Aug-99	POST	1FW	15.2	64.5	25.3	3.8	82.7	69.3	11.2	21.8	13.6	1.6	1.9	9.0	16.4	22.5
Sep-99	POST	1FW	14.6	47.2	20.7	3.1	68.1	70.1	15.7	22.0	13.2	1.7	0.8	7.6	15.3	21.3
Oct-99	POST	1FW	14.6	68.8	24.4	2.6	77.3	70.8	15.1	21.3	12.7	1.7	0.3	8.9	12.5	23.9
Nov-99	POST	1FW	20.1	57.4	32.2	3.6	67.5	70.4	16.2	20.3	15.2	1.3	0.2	9.1	14.4	21.1
Dec-99	POST	1FW	21.8	73.9	35.6	3.4	69.4	71.3	14.6	17.8	14.7	1.2	0.1	9.2	15.3	25.0
Jan-00	POST	1FW	20.4	63.8	43.3	3.8	46.2	69.9	11.2	15.7	11.9	1.3	0.0	9.4	16.5	22.2
Feb-00	POST	1FW	23.5	54.0	36.0	3.4	61.2	67.9	11.7	21.0	13.6	1.5	0.1	7.2	16.3	31.7
Mar-00	POST	1FW	16.6	65.2	29.0	4.5	69.3	69.3	11.8	27.4	18.1	1.5	0.2	7.6	14.2	19.2
Apr-00	POST	1FW	15.3	70.2	24.8	2.8	81.4	69.1	11.3	28.4	17.8	1.6	0.8	6.5	13.6	16.4
May-00	POST	1FW	10.0	67.0	22.4	0.7	84.6	67.0	9.1	31.9	20.0	1.6	0.5	5.2	13.6	11.4
Jun-00	POST	1FW	13.6	75.3	21.2	1.3	82.6	67.4	10.6	32.6	22.4	1.5	0.5	7.0	12.6	16.2
Jul-00	POST	1FW	15.0	59.0	23.3	1.9	76.3	68.0	10.9	26.1	16.4	1.6	0.5	5.6	18.4	22.4
Aug-00	POST	1FW	16.6	63.7	26.5	1.8	77.9	71.1	15.4	23.4	15.4	1.5	1.1	5.9	19.7	22.2
Sep-00	POST	1FW	14.1	72.7	22.5	2.4	77.7	69.9	13.1	23.5	13.8	1.7	0.4	9.2	17.9	18.6

33rd FW Pre-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	MH/FH	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-82	PRE	33FW	22.3	19.6	36.3	67.9	96.5	N/A	65.9	19.1	18.8	15.5	1.2	2.0	7.3	16.5	27.0
Feb-82	PRE	33FW	25.4	35.8	50.0	24.2	97.8	N/A	66.2	20.7	24.4	18.7	1.3	1.6	5.6	18.7	21.0
Mar-82	PRE	33FW	22.3	30.0	52.7	49.4	97.2	N/A	68.0	16.2	26.4	19.9	1.3	2.0	6.8	17.5	31.5
Apr-82	PRE	33FW	18.9	36.5	57.5	57.6	98.1	N/A	70.0	18.4	26.9	21.2	1.3	1.4	5.2	14.8	29.7
May-82	PRE	33FW	19.3	N/A	N/A	51.3	98.4	N/A	68.0	16.1	25.9	18.5	1.4	1.7	4.7	N/A	28.4
Jun-82	PRE	33FW	21.0	N/A	N/A	44.0	98.0	N/A	71.4	19.4	24.5	20.8	1.2	1.2	6.7	N/A	29.0
Jul-82	PRE	33FW	23.7	N/A	N/A	55.8	96.7	N/A	73.7	20.5	23.2	19.0	1.2	1.4	6.3	N/A	27.6
Aug-82	PRE	33FW	19.2	N/A	N/A	54.6	97.8	N/A	77.0	14.2	21.1	15.4	1.4	1.7	7.1	N/A	47.3
Sep-82	PRE	33FW	13.0	N/A	N/A	46.0	98.1	N/A	77.9	13.1	23.7	16.7	1.4	0.5	2.6	N/A	21.1
Oct-82	PRE	33FW	13.7	42.9	57.6	60.4	98.5	84.9	76.6	17.3	20.7	16.7	1.2	0.9	6.7	13.9	37.9
Nov-82	PRE	33FW	13.6	41.8	58.8	51.0	98.0	89.2	77.6	18.5	22.1	16.8	1.3	0.8	5.1	14.0	25.3
Dec-82	PRE	33FW	12.3	44.8	61.9	29.2	97.0	89.4	76.5	16.2	23.8	21.4	1.1	1.7	5.5	15.4	20.5
Jan-83	PRE	33FW	15.2	45.6	66.1	61.5	97.7	84.7	76.4	14.7	23.1	18.1	1.3	1.5	7.5	22.9	35.5
Feb-83	PRE	33FW	18.5	38.2	56.1	56.6	98.1	86.4	76.1	14.6	22.0	16.9	1.3	2.0	6.5	26.0	26.1
Mar-83	PRE	33FW	15.0	43.2	64.5	45.8	98.7	89.5	77.8	16.4	26.2	23.0	1.1	1.7	6.7	21.0	21.1
Apr-83	PRE	33FW	15.1	38.7	64.2	59.9	98.8	85.8	40.9	9.0	33.1	25.8	1.3	1.5	4.7	19.3	23.5
May-83	PRE	33FW	16.0	46.6	65.6	30.5	98.8	88.6	74.5	18.0	32.2	26.6	1.2	1.2	6.1	14.8	16.2
Jun-83	PRE	33FW	15.3	46.0	63.3	38.4	98.4	87.4	73.6	19.1	30.9	20.7	1.5	0.9	6.1	16.3	17.4
Jul-83	PRE	33FW	13.0	44.0	65.7	27.0	98.1	91.5	70.3	18.6	26.6	23.0	1.2	1.8	5.2	13.3	13.1
Aug-83	PRE	33FW	16.5	47.7	64.9	51.2	98.9	87.3	71.3	19.2	30.8	20.4	1.5	1.2	6.4	19.1	25.0
Sep-83	PRE	33FW	10.7	42.3	59.1	41.5	99.0	91.0	74.1	22.0	15.3	14.3	1.1	0.8	4.7	14.1	25.0
Oct-83	PRE	33FW	14.4	50.4	66.7	31.6	99.1	86.5	73.2	16.1	24.8	19.3	1.3	1.9	7.8	17.4	27.2
Nov-83	PRE	33FW	14.9	43.9	66.0	62.1	97.2	89.9	70.2	10.9	29.2	21.0	1.4	1.0	5.7	14.4	18.7
Dec-83	PRE	33FW	9.6	51.3	66.8	51.5	99.8	90.2	72.5	10.4	22.9	19.7	1.2	1.6	5.4	15.9	21.3
Jan-84	PRE	33FW	10.9	56.6	77.1	67.4	99.3	88.7	73.9	9.8	23.1	17.7	1.3	1.5	7.4	19.1	20.4
Feb-84	PRE	33FW	15.6	51.0	68.1	46.3	99.3	86.7	70.2	8.0	25.9	20.8	1.2	1.9	6.8	17.2	18.2
Mar-84	PRE	33FW	11.8	44.5	66.9	43.7	98.9	93.9	64.7	4.2	31.7	28.4	1.1	1.4	3.7	14.3	13.0
Apr-84	PRE	33FW	12.9	49.8	69.2	47.9	99.6	90.6	70.6	9.5	30.6	23.3	1.3	1.5	5.6	16.0	23.3
May-84	PRE	33FW	11.6	51.7	78.5	23.7	99.1	89.2	71.8	10.1	23.6	17.9	1.3	1.5	5.8	16.2	29.1
Jun-84	PRE	33FW	6.8	56.4	77.5	27.2	99.3	94.8	69.6	6.8	28.7	21.4	1.3	0.9	3.1	14.7	15.7
Jul-84	PRE	33FW	10.1	N/A	N/A	26.3	98.3	93.6	70.7	3.9	28.2	25.9	1.1	1.2	4.3	N/A	10.3
Aug-84	PRE	33FW	15.7	N/A	N/A	23.2	98.7	92.3	67.4	6.9	24.4	19.5	1.3	0.6	4.7	N/A	1.7
Sep-84	PRE	33FW	11.3	N/A	N/A	16.3	99.3	91.4	69.2	6.7	19.5	12.8	1.5	0.8	5.3	N/A	31.6
Oct-84	PRE	33FW	9.6	41.8	78.9	53.0	99.4	91.7	72.7	5.9	26.0	21.2	1.2	1.1	5.2	18.1	22.4
Nov-84	PRE	33FW	8.1	58.8	79.0	41.0	99.8	96.0	70.2	3.7	30.0	25.8	1.2	1.1	2.8	13.4	9.1
Dec-84	PRE	33FW	7.0	57.0	71.0	52.0	89.8	92.8	71.9	4.4	20.6	16.0	1.3	1.3	5.4	18.0	17.4
Jan-85	PRE	33FW	10.6	49.6	71.1	63.0	98.5	92.3	70.5	6.2	28.1	21.0	1.3	1.3	5.2	19.1	13.6
Feb-85	PRE	33FW	10.2	53.1	68.5	57.0	97.2	93.2	67.2	5.4	23.7	16.9	1.4	1.2	4.8	14.3	12.7
Mar-85	PRE	33FW	10.6	55.9	73.9	45.0	97.5	96.0	73.5	6.2	31.3	26.7	1.2	0.7	2.2	11.3	9.3
Apr-85	PRE	33FW	10.0	56.6	77.7	41.0	98.8	92.9	71.2	7.6	29.7	21.1	1.4	0.7	4.0	16.1	15.8
May-85	PRE	33FW	10.1	60.6	76.3	57.5	99.9	94.5	69.3	8.0	25.2	18.4	1.4	1.0	3.8	15.5	15.9
Jun-85	PRE	33FW	11.5	52.3	72.4	51.0	99.8	94.7	71.1	8.1	26.8	20.5	1.3	0.5	3.8	14.7	10.7
Jul-85	PRE	33FW	13.4	47.0	68.5	34.0	99.5	94.5	70.9	5.0	26.7	22.3	1.2	1.1	3.5	9.4	10.7
Aug-85	PRE	33FW	13.9	N/A	N/A	40.0	99.2	91.4	67.7	5.1	28.4	20.5	1.4	1.4	4.5	N/A	8.5
Sep-85	PRE	33FW	8.5	N/A	N/A	50.0	99.8	94.6	72.1	6.0	20.9	16.3	1.3	0.6	3.5	N/A	8.1
Oct-85	PRE	33FW	13.3	N/A	N/A	46.0	98.8	92.6	71.1	8.2	25.7	17.8	1.4	0.9	5.2	N/A	10.1
Nov-85	PRE	33FW	14.4	N/A	N/A	32.0	98.2	94.8	70.6	7.5	27.5	21.7	1.3	0.5	1.0	N/A	8.2
Dec-85	PRE	33FW	8.5	N/A	N/A	49.0	99.3	93.0	69.0	7.0	21.0	17.2	1.2	0.7	3.4	N/A	8.4
Jan-86	PRE	33FW	13.7	N/A	N/A	41.0	96.3	95.1	66.4	9.9	26.1	21.6	1.2	0.4	3.2	N/A	10.0
Feb-86	PRE	33FW	10.2	N/A	N/A	34.0	99.2	95.5	67.7	8.4	21.3	17.1	1.2	0.9	2.6	N/A	12.4
Mar-86	PRE	33FW	6.3	N/A	N/A	35.0	100.0	97.8	65.8	5.4	26.5	20.8	1.3	0.7	1.6	N/A	5.9
Apr-86	PRE	33FW	9.1	N/A	N/A	30.0	97.8	93.4	65.8	6.1	28.8	25.0	1.2	0.7	3.5	N/A	6.4

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	MH/FH	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
May-86	PRE	33FW	7.4	N/A	N/A	23.0	99.7	97.4	66.2	4.4	28.8	23.9	1.2	0.6	2.5	N/A	3.2
Jun-86	PRE	33FW	9.3	N/A	N/A	32.0	98.5	95.1	67.3	4.1	26.0	21.0	1.2	0.7	3.5	N/A	5.5
Jul-86	PRE	33FW	11.0	N/A	N/A	22.0	99.5	94.3	65.8	7.3	33.4	24.4	1.4	1.0	4.4	N/A	5.6
Aug-86	PRE	33FW	12.8	N/A	N/A	18.0	99.5	96.8	68.4	8.4	32.9	24.7	1.3	0.7	2.8	N/A	5.3
Sep-86	PRE	33FW	11.7	N/A	N/A	33.0	99.6	94.9	68.4	8.2	19.0	15.6	1.2	0.7	3.6	N/A	7.9
Oct-86	PRE	33FW	12.9	61.0	76.3	29.1	98.7	95.8	71.4	9.5	27.6	20.9	1.3	0.9	3.3	11.9	9.2
Nov-86	PRE	33FW	10.8	62.8	79.4	23.7	90.6	96.2	70.3	8.7	21.9	16.6	1.3	0.3	3.3	15.5	8.7
Dec-86	PRE	33FW	9.0	60.5	77.3	19.5	99.5	96.9	70.2	5.4	26.4	22.2	1.2	0.4	2.7	14.1	8.0
Jan-87	PRE	33FW	8.8	63.1	79.9	35.4	99.6	95.3	72.0	5.0	23.8	17.9	1.3	0.4	3.9	13.9	9.5
Feb-87	PRE	33FW	9.4	51.3	71.8	25.5	99.8	95.4	70.1	6.0	24.3	18.5	1.3	1.1	3.6	12.0	7.0
Mar-87	PRE	33FW	8.0	55.0	76.0	22.2	99.2	97.0	69.9	4.3	31.2	24.9	1.3	0.6	2.4	9.8	4.5
Apr-87	PRE	33FW	8.3	56.9	76.7	22.3	99.5	96.4	74.3	4.1	29.4	23.3	1.3	0.5	2.6	11.7	5.8
May-87	PRE	33FW	8.1	58.3	72.9	19.5	99.9	95.5	73.7	5.2	25.8	18.4	1.4	0.4	3.8	10.6	6.6
Jun-87	PRE	33FW	9.6	55.5	71.4	15.3	99.6	96.2	72.9	5.0	26.9	23.0	1.2	0.4	3.0	10.9	7.7
Jul-87	PRE	33FW	9.1	58.0	75.8	15.1	99.3	95.6	70.4	3.7	30.3	25.7	1.2	0.5	3.4	8.7	8.2
Aug-87	PRE	33FW	9.9	50.0	73.9	7.8	99.5	96.3	71.0	5.5	26.5	19.3	1.4	0.6	2.5	9.8	7.1
Sep-87	PRE	33FW	7.5	53.3	82.2	7.2	100.0	95.9	73.6	6.8	23.0	12.9	1.8	0.3	3.1	14.2	15.2
Oct-87	PRE	33FW	6.3	53.7	84.6	15.1	99.5	97.5	71.5	6.8	30.9	22.4	1.4	0.2	1.9	7.7	6.5
Nov-87	PRE	33FW	9.0	69.0	84.8	10.2	99.0	97.1	67.1	5.4	27.0	20.0	1.3	0.0	2.5	10.8	8.0
Dec-87	PRE	33FW	4.9	61.2	85.3	31.3	99.5	97.0	67.5	5.1	26.6	21.9	1.2	0.0	2.6	8.7	6.1
Jan-88	PRE	33FW	5.8	59.6	83.7	27.3	100.0	96.7	70.1	6.3	22.1	17.3	1.3	0.2	2.8	8.5	9.7
Feb-88	PRE	33FW	7.8	70.6	85.3	32.1	99.9	96.3	71.4	7.1	21.7	17.9	1.2	0.0	3.3	8.5	9.3
Mar-88	PRE	33FW	6.7	63.9	84.4	18.5	99.4	97.0	72.7	5.2	26.8	21.6	1.2	0.2	2.8	7.8	6.4
Apr-88	PRE	33FW	7.3	56.3	80.4	25.7	99.0	96.4	73.3	7.2	27.6	21.9	1.3	0.0	3.0	7.0	5.2
May-88	PRE	33FW	6.9	66.7	88.0	23.5	99.0	96.1	71.3	3.9	26.6	21.2	1.3	0.0	2.3	7.2	5.4
Jun-88	PRE	33FW	7.4	58.3	76.5	17.5	99.2	95.9	69.2	4.3	28.9	21.8	1.3	0.0	3.1	7.6	6.9
Jul-88	PRE	33FW	7.5	55.5	76.2	31.9	99.7	95.6	68.2	6.4	25.2	20.6	1.2	0.0	4.0	11.7	10.4
Aug-88	PRE	33FW	10.4	52.8	76.7	18.8	99.0	97.2	68.5	7.0	34.6	24.9	1.4	0.0	2.1	9.3	13.0
Sep-88	PRE	33FW	8.0	65.9	85.4	28.1	97.8	95.0	68.6	7.9	17.8	15.3	1.2	0.3	3.6	7.8	14.9
Oct-88	PRE	33FW	8.3	55.9	83.1	20.1	98.5	96.7	69.6	8.1	28.4	22.7	1.3	0.0	2.2	8.6	14.7
Nov-88	PRE	33FW	7.6	55.5	76.5	22.3	99.2	95.9	70.1	4.4	26.0	20.5	1.3	0.1	3.1	8.3	11.1
Dec-88	PRE	33FW	6.5	62.4	86.4	21.3	99.4	97.5	72.4	5.6	21.1	17.6	1.2	0.1	2.0	9.8	9.1
Jan-89	PRE	33FW	8.1	67.4	84.5	24.3	99.6	97.6	71.3	6.9	28.9	20.9	1.4	0.3	2.0	12.9	16.2
Feb-89	PRE	33FW	9.2	78.5	92.1	25.0	98.7	96.2	70.4	8.4	24.8	17.9	1.4	0.3	3.2	14.0	22.4
Mar-89	PRE	33FW	9.7	75.5	91.7	20.6	98.2	96.9	72.1	10.0	32.8	22.4	1.5	0.4	1.8	13.4	17.3
Apr-89	PRE	33FW	8.8	67.0	88.6	31.9	98.7	97.1	72.2	6.4	26.0	19.5	1.3	0.2	2.6	12.5	14.9
May-89	PRE	33FW	10.7	63.8	85.6	23.2	98.8	96.0	75.3	8.1	29.1	21.5	1.4	0.1	2.9	15.9	16.5
Jun-89	PRE	33FW	12.6	61.4	85.3	30.0	98.0	96.0	75.6	6.1	30.3	23.2	1.3	0.1	3.7	16.7	13.9
Jul-89	PRE	33FW	13.5	62.2	86.3	26.2	97.0	96.2	76.6	8.7	25.3	18.5	1.4	0.2	2.9	19.6	17.6
Aug-89	PRE	33FW	11.0	61.7	84.0	28.8	97.7	96.0	74.5	6.7	28.2	21.4	1.3	0.5	3.2	20.9	19.9
Sep-89	PRE	33FW	11.5	66.5	85.6	29.6	98.3	95.8	77.2	7.8	15.4	12.4	1.2	0.3	3.1	19.6	26.4
Oct-89	PRE	33FW	11.3	67.3	85.9	20.8	96.9	96.4	73.8	7.6	27.3	20.4	1.3	0.1	2.6	18.9	18.8
Nov-89	PRE	33FW	10.5	69.0	91.1	N/A	99.2	94.9	75.1	9.0	24.7	18.0	1.4	0.4	3.4	19.1	18.4
Dec-89	PRE	33FW	8.5	70.2	90.4	14.7	97.8	95.9	73.8	10.7	19.1	14.4	1.3	0.1	3.2	16.7	24.5
Jan-90	PRE	33FW	10.2	73.0	89.5	12.9	98.3	96.8	73.8	11.5	27.5	21.2	1.3	0.3	2.9	18.2	21.2
Feb-90	PRE	33FW	11.3	66.9	89.5	14.4	98.5	95.5	73.4	8.8	24.5	19.6	1.2	0.5	3.5	16.6	15.0
Mar-90	PRE	33FW	10.9	68.5	84.8	11.8	99.8	95.0	72.2	9.1	29.4	20.8	1.4	0.2	3.2	13.2	17.4
Apr-90	PRE	33FW	10.0	61.9	83.0	11.9	98.4	96.6	71.9	8.0	28.1	21.3	1.3	0.3	2.9	11.5	18.7
May-90	PRE	33FW	11.9	54.2	91.1	12.8	98.7	95.0	70.7	8.4	28.1	20.9	1.3	0.2	3.5	14.5	21.6
Jun-90	PRE	33FW	11.1	73.4	90.8	7.6	97.9	97.6	69.3	7.9	31.4	22.7	1.4	0.1	1.2	13.9	16.2
Jul-90	PRE	33FW	10.5	69.3	86.1	9.7	99.9	95.7	68.9	6.4	31.2	22.4	1.4	0.2	2.7	15.4	13.6

33rd FW Post-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	MH/FH	REPREC	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	POST	33FW	12.7	55.7	81.9	2.1	N/A	99.8	94.0	57.2	11.2	35.9	16.0	2.2	1.2	4.6	25.9	24.0
Feb-93	POST	33FW	10.1	62.0	82.9	3.5	N/A	99.5	94.4	56.1	8.9	33.2	18.7	1.8	0.7	3.6	20.6	17.8
Mar-93	POST	33FW	6.5	72.8	88.3	7.6	N/A	99.4	96.0	55.8	7.6	39.2	21.6	1.8	0.4	3.1	17.7	15.3
Apr-93	POST	33FW	7.7	72.4	90.6	2.5	N/A	98.5	96.0	54.4	7.4	43.0	22.2	1.9	0.2	3.3	21.0	11.9
May-93	POST	33FW	8.7	66.4	85.7	8.8	N/A	99.8	94.4	54.2	6.3	37.5	23.6	1.6	0.5	4.1	17.0	10.8
Jun-93	POST	33FW	9.7	65.1	81.8	8.1	N/A	99.7	94.4	55.6	7.3	38.9	23.4	1.7	0.7	3.8	16.1	12.0
Jul-93	POST	33FW	8.4	62.3	77.3	13.1	N/A	96.4	95.4	55.9	6.9	30.6	18.9	1.6	0.5	3.4	19.6	20.1
Aug-93	POST	33FW	8.7	62.4	80.8	5.4	N/A	87.4	94.3	55.7	8.0	30.0	21.3	1.4	0.8	4.4	19.3	20.8
Sep-93	POST	33FW	6.9	63.4	84.5	19.1	N/A	95.4	93.2	53.7	7.0	20.6	15.7	1.3	0.6	5.8	23.0	28.4
Oct-93	POST	33FW	7.1	72.2	88.4	9.5	5.0	95.8	96.0	54.1	9.4	29.9	22.4	1.3	0.7	2.8	21.4	21.8
Nov-93	POST	33FW	7.2	60.1	90.6	10.0	3.7	98.3	93.2	52.5	6.8	29.5	20.8	1.4	0.3	4.5	19.5	17.9
Dec-93	POST	33FW	7.8	69.4	86.1	14.2	5.9	98.0	93.9	54.2	10.5	23.3	19.2	1.2	0.3	4.8	20.7	23.0
Jan-94	POST	33FW	8.5	71.7	87.2	9.8	5.8	96.6	92.1	58.4	11.2	27.3	14.4	1.9	0.4	6.4	26.9	25.6
Feb-94	POST	33FW	9.0	62.3	81.2	9.7	3.4	95.9	93.8	59.5	14.3	27.7	17.3	1.6	0.1	4.5	18.6	16.7
Mar-94	POST	33FW	11.2	64.5	80.1	8.6	4.6	96.6	93.6	57.3	18.2	35.1	21.2	1.7	0.7	3.5	21.1	18.5
Apr-94	POST	33FW	8.2	71.3	83.7	7.4	3.8	96.9	95.4	57.0	21.3	31.8	19.3	1.6	0.5	3.7	16.1	11.4
May-94	POST	33FW	11.3	64.9	82.9	11.9	5.4	97.6	92.9	55.6	15.5	27.9	19.2	1.4	0.6	5.0	20.8	13.8
Jun-94	POST	33FW	9.6	61.3	81.5	13.1	4.5	96.9	90.0	52.7	9.8	26.3	20.6	1.3	0.2	6.1	20.4	19.0
Jul-94	POST	33FW	9.4	64.4	82.4	10.7	5.0	98.7	93.0	52.8	8.5	27.9	20.7	1.3	1.0	5.5	21.9	21.3
Aug-94	POST	33FW	10.0	67.7	85.7	11.2	5.8	99.1	93.6	52.2	8.4	32.0	25.6	1.3	0.4	3.9	19.9	20.7
Sep-94	POST	33FW	7.5	73.0	87.4	15.7	5.0	99.5	93.5	53.9	11.8	14.6	10.3	1.4	0.0	4.6	20.0	30.2
Oct-94	POST	33FW	8.4	70.4	87.2	9.7	5.6	98.5	93.7	54.7	11.0	29.2	22.1	1.3	0.3	4.5	22.7	23.0
Nov-94	POST	33FW	10.0	70.4	86.4	N/A	2.6	99.5	88.4	55.2	10.4	22.1	18.0	1.2	0.4	5.7	20.0	19.2
Dec-94	POST	33FW	10.9	65.1	81.2	N/A	6.8	99.3	92.7	56.8	12.4	36.0	17.3	2.1	0.6	5.3	22.1	20.2
Jan-95	POST	33FW	13.5	59.3	81.7	8.0	7.2	96.2	89.4	56.2	12.3	41.3	19.3	2.1	0.8	7.7	22.3	33.0
Feb-95	POST	33FW	9.0	67.2	81.5	7.7	6.3	94.7	93.4	55.0	10.6	38.4	17.2	2.2	0.5	4.4	20.0	25.1
Mar-95	POST	33FW	8.1	67.9	80.9	7.7	5.7	89.5	92.6	55.6	11.4	37.3	17.3	2.1	0.4	4.1	22.3	26.5
Apr-95	POST	33FW	8.6	68.8	80.6	7.7	4.0	93.4	91.7	54.7	10.7	36.1	17.7	2.0	0.4	5.8	19.2	29.2
May-95	POST	33FW	8.5	67.2	83.6	6.8	3.1	95.5	93.0	53.8	11.8	41.6	19.6	2.1	0.2	5.5	18.5	15.9
Jun-95	POST	33FW	9.0	68.7	83.4	9.9	4.2	94.9	96.4	53.8	10.4	38.3	18.8	2.0	1.0	1.4	21.4	20.3
Jul-95	POST	33FW	9.9	61.9	79.2	13.8	2.6	88.9	93.3	55.3	11.1	22.5	16.6	1.4	0.9	1.9	18.3	22.0
Aug-95	POST	33FW	9.4	60.9	78.7	12.2	2.0	89.2	92.6	53.2	10.0	26.1	19.9	1.3	0.2	1.0	16.5	19.0
Sep-95	POST	33FW	11.5	60.6	80.6	10.5	1.4	88.1	94.8	54.3	16.9	25.0	15.6	1.6	0.4	2.1	18.3	15.9
Oct-95	POST	33FW	11.4	66.8	86.8	12.7	3.3	90.9	65.3	56.5	16.7	21.5	15.7	1.4	0.1	2.0	21.4	24.8
Nov-95	POST	33FW	13.3	66.7	81.0	11.4	1.7	85.9	73.4	56.8	12.4	25.6	19.9	1.3	0.0	6.5	17.2	17.2
Dec-95	POST	33FW	8.8	73.7	87.9	19.1	1.8	89.8	70.0	57.0	12.7	19.4	15.4	1.3	0.3	6.5	22.6	16.9
Jan-96	POST	33FW	12.7	51.1	76.9	12.0	2.3	97.0	72.2	56.2	10.4	31.2	16.5	1.9	0.8	5.7	24.6	25.4
Feb-96	POST	33FW	14.2	57.4	77.9	10.4	1.3	96.8	73.6	56.4	9.8	32.8	17.8	1.8	0.6	4.8	20.4	22.9
Mar-96	POST	33FW	13.4	69.5	85.5	9.0	1.3	95.5	80.8	54.5	12.6	39.9	22.9	1.7	0.2	3.4	16.0	15.9
Apr-96	POST	33FW	7.5	51.4	78.0	8.1	1.8	96.5	77.1	55.1	5.5	35.8	16.5	2.2	0.4	4.3	19.4	9.2
May-96	POST	33FW	15.8	52.2	76.4	11.8	3.9	91.2	82.9	53.8	11.0	37.3	21.8	1.7	0.9	5.5	25.7	18.8
Jun-96	POST	33FW	13.7	47.9	71.6	11.8	2.9	87.6	69.2	51.9	9.8	30.8	16.1	1.9	0.5	7.4	23.2	21.9
Jul-96	POST	33FW	12.4	57.9	75.6	10.4	2.2	86.5	79.7	54.8	12.7	33.1	17.6	1.9	0.2	6.1	20.4	13.6
Aug-96	POST	33FW	10.9	50.0	66.5	9.6	2.5	91.0	76.4	54.4	13.6	32.6	17.8	1.8	0.0	4.1	17.0	20.9
Sep-96	POST	33FW	11.4	52.0	76.4	20.9	3.5	90.8	68.9	55.3	10.9	14.5	11.9	1.2	0.3	5.6	19.3	14.7
Oct-96	POST	33FW	15.7	52.7	77.0	18.5	1.4	87.8	74.5	56.4	12.4	25.3	18.9	1.3	0.3	8.2	15.4	17.9
Nov-96	POST	33FW	11.0	52.4	77.8	15.6	1.2	87.7	76.4	57.3	10.8	17.6	13.4	1.3	0.4	4.5	16.4	16.0

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	MH/FH	REPREC	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	POST	33FW	15.1	51.4	72.6	27.0	2.6	93.0	63.4	58.8	13.1	17.3	13.1	1.3	0.9	8.2	18.9	30.4
Jan-97	POST	33FW	15.4	49.1	73.4	15.8	5.0	94.7	66.7	59.5	13.0	31.3	14.0	2.2	1.8	6.8	25.7	19.2
Feb-97	POST	33FW	13.4	54.8	76.9	15.5	4.5	92.7	75.8	58.1	11.4	32.0	15.7	2.0	2.0	6.0	20.4	10.9
Mar-97	POST	33FW	10.9	59.3	81.4	12.2	1.8	96.4	85.9	57.7	10.8	33.1	17.7	1.9	1.1	4.8	16.8	10.4
Apr-97	POST	33FW	11.6	60.2	75.5	18.6	3.5	96.0	76.9	55.2	9.3	22.9	14.1	1.6	0.9	5.3	12.6	20.1
May-97	POST	33FW	10.3	65.8	84.6	21.7	1.3	95.7	78.1	56.7	9.9	23.7	19.9	1.2	0.2	4.6	13.2	17.9
Jun-97	POST	33FW	14.5	53.4	74.3	20.3	3.7	87.5	67.6	53.3	11.8	21.9	16.3	1.3	0.6	5.1	17.1	22.7
Jul-97	POST	33FW	11.6	61.1	82.6	15.4	1.3	92.0	64.8	54.5	11.6	29.6	18.1	1.6	0.7	5.5	16.9	23.4
Aug-97	POST	33FW	13.6	51.4	73.7	23.2	3.5	90.9	72.4	55.0	12.9	23.3	18.0	1.3	1.0	5.2	18.1	23.2
Sep-97	POST	33FW	13.2	60.4	79.1	20.5	3.2	88.1	73.6	54.1	13.1	17.5	13.8	1.3	0.7	4.6	12.2	20.6
Oct-97	POST	33FW	11.0	70.6	85.6	21.2	3.4	93.1	77.7	53.1	9.5	25.1	19.0	1.3	0.6	6.6	15.2	20.3
Nov-97	POST	33FW	9.6	63.2	76.0	16.2	1.3	94.3	71.8	52.0	13.9	25.0	14.5	1.7	0.5	6.0	16.5	20.4
Dec-97	POST	33FW	9.4	70.8	84.4	17.4	3.7	83.9	73.8	53.3	14.9	23.1	13.2	1.7	0.0	5.6	21.9	21.7
Jan-98	POST	33FW	8.7	56.0	81.7	17.5	2.2	98.6	62.5	51.8	15.2	19.5	11.2	1.7	0.9	8.4	18.8	27.7
Feb-98	POST	33FW	11.4	53.9	71.1	15.7	4.1	93.3	75.8	52.6	12.4	25.1	15.9	1.6	0.2	5.6	15.3	34.6
Mar-98	POST	33FW	10.2	60.9	78.9	16.3	3.1	91.6	73.3	50.8	10.2	27.5	17.8	1.5	0.0	6.3	14.7	16.7
Apr-98	POST	33FW	11.5	62.3	82.5	25.5	3.6	79.9	77.0	50.2	13.9	19.9	16.1	1.2	1.0	5.0	14.1	20.2
May-98	POST	33FW	13.9	56.2	76.4	31.4	1.6	84.1	79.2	48.1	14.6	25.0	18.0	1.4	0.3	5.0	10.3	24.0
Jun-98	POST	33FW	16.6	55.1	75.4	38.7	2.6	93.8	75.4	48.4	13.9	21.9	17.8	1.2	0.1	6.6	13.7	18.8
Jul-98	POST	33FW	14.9	51.6	77.0	39.1	1.1	N/A	68.0	50.4	11.1	19.1	13.8	1.4	0.3	6.2	18.1	21.5
Aug-98	POST	33FW	12.8	57.9	76.3	24.9	1.0	97.8	79.2	51.9	12.4	22.1	13.2	1.7	0.3	7.6	16.7	21.6
Sep-98	POST	33FW	14.1	63.2	80.7	25.8	1.6	93.3	72.9	50.8	15.5	21.6	13.2	1.6	0.6	4.8	17.0	10.9
Oct-98	POST	33FW	19.3	50.7	71.3	34.2	1.9	72.5	80.9	50.2	19.8	27.7	16.6	1.7	1.4	5.8	16.3	29.2
Nov-98	POST	33FW	10.9	63.7	74.5	40.3	1.6	78.2	64.9	51.7	12.1	16.4	9.8	1.7	0.8	7.8	20.1	22.3
Dec-98	POST	33FW	19.5	48.8	66.7	18.3	1.6	85.3	71.8	54.0	14.5	34.9	12.8	2.7	1.6	7.8	17.7	29.7
Jan-99	POST	33FW	16.9	49.1	70.4	25.5	5.5	92.9	72.7	53.4	10.2	23.1	8.8	2.6	0.6	9.1	22.9	31.4
Feb-99	POST	33FW	15.8	53.4	70.9	22.4	2.8	97.4	70.3	52.4	11.0	23.9	10.9	2.2	0.2	7.8	18.1	18.9
Mar-99	POST	33FW	18.0	49.6	68.0	31.7	1.1	92.1	75.3	53.3	14.8	25.2	18.1	1.4	0.5	7.0	13.0	18.3
Apr-99	POST	33FW	15.7	48.7	65.2	35.0	3.2	93.3	71.2	53.3	13.6	23.6	14.8	1.6	0.5	7.8	14.6	28.4
May-99	POST	33FW	16.7	54.5	71.8	36.0	3.5	94.7	77.2	53.0	20.2	19.4	16.6	1.2	0.6	8.4	12.5	21.5
Jun-99	POST	33FW	16.1	48.7	68.4	26.7	1.6	95.6	80.4	50.5	18.5	25.1	23.7	1.1	0.6	4.9	9.8	13.7
Jul-99	POST	33FW	18.0	48.7	70.8	35.8	3.0	84.8	68.4	48.9	15.8	20.0	17.9	1.1	0.1	8.1	12.9	18.3
Aug-99	POST	33FW	23.4	38.9	56.6	35.7	3.2	N/A	66.5	49.8	15.8	22.2	18.0	1.2	0.1	6.3	12.6	24.8
Sep-99	POST	33FW	15.8	51.8	72.9	31.8	3.2	N/A	65.0	49.1	12.4	20.8	12.6	1.6	0.2	6.4	13.7	16.5
Oct-99	POST	33FW	14.4	51.4	66.1	25.0	1.4	N/A	77.2	49.1	13.2	27.1	17.2	1.6	0.6	5.1	12.9	17.7
Nov-99	POST	33FW	16.0	49.4	63.2	31.8	3.0	N/A	73.1	47.6	17.4	22.8	14.9	1.5	0.6	5.8	12.3	18.9
Dec-99	POST	33FW	17.2	50.0	69.4	29.5	1.0	N/A	76.9	47.4	15.1	21.3	13.0	1.6	0.5	5.7	11.7	19.3
Jan-00	POST	33FW	15.8	50.0	67.5	31.3	1.6	N/A	76.2	47.7	14.6	23.3	18.7	1.2	0.3	5.9	12.8	17.6
Feb-00	POST	33FW	15.3	46.3	61.0	28.8	1.9	N/A	85.5	43.3	9.1	24.6	18.6	1.3	0.4	5.3	10.1	16.0
Mar-00	POST	33FW	17.3	56.7	74.4	39.0	4.1	N/A	64.5	42.2	12.6	23.9	17.2	1.4	0.6	6.8	12.4	24.1
Apr-00	POST	33FW	20.0	52.4	68.0	34.6	3.6	N/A	77.5	40.7	10.3	27.8	21.5	1.3	0.5	4.3	11.8	21.3
May-00	POST	33FW	14.0	33.8	55.0	33.6	4.7	N/A	87.7	42.6	8.7	29.8	20.8	1.4	0.2	6.0	9.0	20.5
Jun-00	POST	33FW	17.6	43.7	64.7	30.1	1.4	N/A	81.9	47.7	17.6	28.4	27.7	1.0	0.2	5.3	9.0	13.9
Jul-00	POST	33FW	17.7	40.9	61.4	27.5	2.9	N/A	70.6	46.9	13.8	23.7	13.9	1.7	0.3	7.3	13.5	26.5
Aug-00	POST	33FW	18.8	43.2	66.9	25.5	2.0	N/A	81.4	44.0	13.2	33.1	22.7	1.5	0.2	5.0	14.8	15.8
Sep-00	POST	33FW	17.7	43.1	63.1	50.1	3.9	N/A	68.3	41.9	11.0	15.1	13.5	1.1	1.1	4.9	11.5	23.9

18th WG Pre-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	8HRFIX	MH/FH	REP	REC	REPREC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Oct-84	PRE	18WG	11.3	66.7	27.9	2.1	1.0	3.0	97.8	69.7	7.6	31.1	24.5	1.3	0.4	0.9	13.1	17.0
Nov-84	PRE	18WG	15.5	54.0	31.7	2.4	1.3	3.7	98.0	70.2	10.0	24.1	19.0	1.3	0.4	1.3	13.0	24.7
Dec-84	PRE	18WG	13.6	64.6	23.8	1.7	1.0	2.7	97.3	69.8	10.3	24.1	20.2	1.2	0.3	1.5	13.4	15.4
Jan-85	PRE	18WG	15.6	62.4	36.7	3.1	1.4	4.5	96.2	69.7	8.1	26.7	21.4	1.2	0.1	2.4	16.0	11.5
Feb-85	PRE	18WG	16.6	66.3	25.1	3.9	1.8	5.6	96.1	69.1	10.2	19.9	17.2	1.2	0.3	1.9	15.0	9.9
Mar-85	PRE	18WG	17.2	60.3	26.8	2.7	2.2	4.9	95.1	68.3	7.8	28.4	23.1	1.2	0.6	1.9	14.5	11.2
Apr-85	PRE	18WG	17.7	65.9	27.8	3.4	1.6	5.0	96.2	69.5	7.8	28.0	20.7	1.4	0.6	2.2	18.2	14.7
May-85	PRE	18WG	16.3	69.3	26.2	2.9	2.2	5.1	95.9	69.1	7.0	29.0	22.6	1.3	0.6	2.7	16.9	13.7
Jun-85	PRE	18WG	14.3	64.3	27.3	2.0	2.0	3.9	94.5	69.2	7.7	23.6	19.2	1.2	0.9	2.4	18.4	16.8
Jul-85	PRE	18WG	16.5	68.6	27.4	1.5	1.3	2.8	96.4	69.9	7.8	27.4	22.7	1.2	0.6	1.8	15.4	10.5
Aug-85	PRE	18WG	16.5	55.8	20.9	3.7	2.1	5.8	97.5	70.3	8.3	22.9	19.2	1.2	0.3	1.3	18.6	12.7
Sep-85	PRE	18WG	15.6	72.2	26.6	4.3	2.6	6.9	97.5	71.5	8.7	22.7	18.3	1.2	0.6	1.5	21.4	15.5
Oct-85	PRE	18WG	16.2	59.5	27.0	3.7	1.8	5.5	96.1	70.2	7.3	32.0	21.5	1.5	0.6	2.2	19.9	18.2
Nov-85	PRE	18WG	12.7	70.8	26.0	2.5	1.9	4.5	96.8	70.4	4.7	25.6	20.4	1.3	0.6	1.6	21.3	9.6
Dec-85	PRE	18WG	12.2	77.2	24.1	2.4	2.1	4.5	97.9	72.0	9.1	24.2	17.7	1.4	0.6	1.5	21.1	14.4
Jan-86	PRE	18WG	13.5	74.8	34.4	3.7	2.3	6.0	96.3	69.7	6.7	23.6	19.0	1.2	0.8	1.9	23.0	20.0
Feb-86	PRE	18WG	15.3	70.4	19.6	4.1	3.2	7.3	95.5	69.3	5.0	30.3	21.0	1.4	1.0	3.3	18.8	5.8
Mar-86	PRE	18WG	12.6	68.9	22.5	2.7	1.9	4.6	97.9	68.1	8.3	26.9	21.9	1.2	1.2	1.2	15.9	8.8
Apr-86	PRE	18WG	12.6	74.0	28.4	2.3	2.3	4.6	96.9	66.5	7.8	24.2	22.0	1.1	1.1	1.9	15.2	8.7
May-86	PRE	18WG	14.6	65.1	23.3	2.4	2.2	4.6	97.0	66.0	10.4	26.9	25.3	1.1	0.5	1.5	14.4	12.1
Jun-86	PRE	18WG	17.5	71.9	36.3	3.6	3.9	7.6	92.0	65.7	11.8	25.6	23.4	1.1	0.5	2.8	14.4	15.2
Jul-86	PRE	18WG	19.3	66.8	29.1	4.5	4.2	8.7	95.0	63.8	9.0	30.4	26.5	1.1	0.5	2.5	16.8	14.6
Aug-86	PRE	18WG	20.5	65.3	27.9	3.0	1.8	4.8	95.7	65.2	8.3	28.6	20.9	1.4	1.0	3.0	14.2	14.8
Sep-86	PRE	18WG	17.5	69.8	25.3	3.5	1.9	5.4	94.0	67.4	7.7	23.7	18.1	1.3	1.1	3.2	18.4	17.5
Oct-86	PRE	18WG	17.2	69.8	38.4	3.0	2.1	5.1	92.5	69.4	8.5	31.0	23.0	1.3	0.9	3.0	19.3	21.5
Nov-86	PRE	18WG	14.8	75.2	35.7	3.0	1.9	4.9	96.6	69.7	9.8	25.9	20.7	1.3	0.6	2.0	17.3	19.3
Dec-86	PRE	18WG	16.1	70.0	34.9	3.2	3.3	6.5	95.4	69.1	6.8	25.2	21.0	1.2	0.7	2.2	18.1	14.4
Jan-87	PRE	18WG	11.8	77.9	34.7	3.2	2.7	5.8	98.8	69.1	4.7	26.9	21.6	1.2	1.3	0.9	19.5	13.4
Feb-87	PRE	18WG	14.5	71.1	41.7	2.1	1.6	3.7	96.1	66.8	6.6	25.3	21.5	1.2	0.3	1.4	13.0	12.5
Mar-87	PRE	18WG	14.5	74.8	36.8	2.9	2.1	5.0	95.4	68.5	9.0	27.6	21.4	1.3	0.7	2.4	17.6	11.1
Apr-87	PRE	18WG	16.6	63.3	30.6	2.0	1.7	3.7	96.0	67.4	5.7	29.4	23.9	1.2	0.6	2.0	15.6	13.9
May-87	PRE	18WG	14.1	62.8	44.5	3.5	2.4	5.9	94.1	68.5	6.8	21.8	17.1	1.3	1.1	2.1	19.1	17.3
Jun-87	PRE	18WG	16.5	67.6	33.2	2.0	1.4	3.4	95.1	67.6	7.9	29.6	24.8	1.2	1.4	2.9	19.0	12.6
Jul-87	PRE	18WG	17.1	63.8	44.1	3.3	2.2	5.5	94.0	68.1	7.3	25.8	19.2	1.3	0.9	2.7	20.3	15.2
Aug-87	PRE	18WG	20.6	58.2	23.6	3.6	2.7	6.3	89.6	68.6	9.2	31.5	24.1	1.3	0.8	3.1	19.1	18.5
Sep-87	PRE	18WG	18.5	61.0	47.1	7.7	4.1	11.8	93.4	70.6	9.9	21.4	16.7	1.3	1.1	3.4	20.1	21.6

DATE	GROUP	UNIT	TNMCM	8HRFIX	MH/FH	REP	REC	REPREC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Oct-87	PRE	18WG	19.5	60.2	48.5	3.9	2.7	6.5	93.2	71.2	10.9	25.8	19.6	1.3	0.5	5.7	18.9	23.6
Nov-87	PRE	18WG	18.9	63.1	41.9	4.2	2.8	7.0	90.3	70.3	7.5	23.5	18.6	1.3	1.0	8.0	22.0	18.2
Dec-87	PRE	18WG	16.8	59.1	59.7	3.0	2.4	5.4	94.6	68.5	8.1	25.0	20.6	1.2	0.5	7.7	18.7	14.4
Jan-88	PRE	18WG	14.4	60.0	28.8	2.0	0.7	2.8	94.4	67.6	6.1	27.7	21.8	1.3	0.3	6.2	14.4	7.5
Feb-88	PRE	18WG	14.5	67.5	33.4	4.9	2.5	7.4	95.8	66.2	8.4	25.8	20.2	1.3	1.0	5.1	15.5	14.2
Mar-88	PRE	18WG	17.3	58.7	28.4	2.8	1.9	4.7	93.6	67.0	7.0	29.6	25.3	1.2	0.5	6.5	13.9	12.0
Apr-88	PRE	18WG	12.8	62.8	37.5	2.9	1.5	4.4	94.8	66.0	4.9	24.3	22.1	1.1	0.3	6.9	11.6	11.4
May-88	PRE	18WG	11.9	69.9	32.9	3.3	1.7	5.0	94.4	66.6	6.5	24.8	20.4	1.2	0.8	7.0	16.8	11.0
Jun-88	PRE	18WG	13.3	58.8	29.6	2.0	1.7	3.6	96.3	65.0	5.1	28.7	23.6	1.2	0.5	7.2	15.0	7.6
Jul-88	PRE	18WG	14.7	66.3	33.5	4.2	5.8	10.0	94.1	66.4	6.3	26.9	21.7	1.2	0.6	5.7	13.5	8.2
Aug-88	PRE	18WG	18.8	62.3	50.1	3.6	2.4	6.1	90.4	66.5	11.6	28.2	21.1	1.3	0.9	2.0	14.2	15.2
Sep-88	PRE	18WG	15.5	57.3	63.4	3.1	3.3	6.4	92.6	67.9	13.9	19.5	15.0	1.3	0.8	6.3	13.7	19.4
Oct-88	PRE	18WG	15.6	73.0	39.4	2.0	3.1	5.1	87.4	69.3	10.7	24.2	17.3	1.4	0.6	5.2	8.4	11.4
Nov-88	PRE	18WG	15.6	56.3	39.1	2.9	2.1	5.0	94.9	72.5	8.8	25.4	19.8	1.3	0.6	5.2	12.1	9.0
Dec-88	PRE	18WG	16.2	71.8	36.8	3.8	2.8	6.5	94.4	73.7	8.7	24.9	20.1	1.2	0.6	5.5	12.2	5.9
Jan-89	PRE	18WG	13.8	63.0	44.0	2.1	2.0	4.1	91.2	72.0	9.1	26.3	19.9	1.3	0.8	4.7	14.8	9.3
Feb-89	PRE	18WG	12.9	77.8	40.0	2.9	1.6	4.5	93.9	69.1	6.2	29.3	22.7	1.3	0.3	4.7	13.5	11.3
Mar-89	PRE	18WG	14.2	69.2	49.0	1.5	1.2	2.6	93.1	70.5	6.4	32.0	24.4	1.3	0.5	5.3	12.8	10.2
Apr-89	PRE	18WG	15.2	68.7	36.2	3.0	1.6	4.6	95.1	71.9	9.3	27.0	20.4	1.3	0.9	3.4	14.0	9.6
May-89	PRE	18WG	19.6	71.1	44.1	2.7	2.0	4.8	93.9	73.0	7.3	22.8	20.1	1.1	0.9	6.2	15.8	10.3
Jun-89	PRE	18WG	16.2	71.2	51.5	4.7	2.6	7.3	93.6	71.9	5.5	17.8	20.4	0.9	0.9	7.3	17.5	8.9
Jul-89	PRE	18WG	12.8	75.1	36.2	3.9	2.8	6.7	92.2	73.0	5.4	25.4	19.4	1.3	0.6	8.6	18.8	11.5
Aug-89	PRE	18WG	16.1	63.8	39.9	3.5	3.7	7.2	94.9	73.2	7.0	31.2	23.8	1.3	0.6	5.2	16.0	14.3
Sep-89	PRE	18WG	11.9	72.8	41.9	3.2	2.9	6.1	94.3	73.9	7.0	17.6	13.2	1.3	0.4	7.8	19.6	25.6
Oct-89	PRE	18WG	11.3	82.7	26.1	2.5	2.6	5.1	96.5	73.5	8.3	27.0	19.8	1.4	0.5	4.0	14.3	20.5
Nov-89	PRE	18WG	12.3	74.5	21.7	2.3	2.5	4.7	97.4	75.5	9.1	28.7	22.1	1.3	0.7	3.2	13.8	10.2
Dec-89	PRE	18WG	10.9	72.0	30.0	3.5	3.5	7.1	95.7	72.4	4.8	24.2	18.4	1.3	0.4	5.2	12.6	16.9
Jan-90	PRE	18WG	11.4	75.5	40.1	2.0	2.0	3.9	N/A	73.8	7.0	27.9	21.4	1.3	0.6	4.0	16.2	17.3
Feb-90	PRE	18WG	10.5	73.3	24.6	1.6	1.7	3.2	N/A	69.1	7.1	28.9	22.3	1.3	0.5	4.9	12.3	16.7
Mar-90	PRE	18WG	10.4	77.6	27.2	2.6	1.2	3.8	N/A	73.1	5.6	27.0	20.5	1.3	0.5	4.3	16.9	17.5
Apr-90	PRE	18WG	9.2	75.3	28.0	2.1	2.1	4.2	N/A	72.3	7.3	29.0	22.0	1.3	0.4	4.4	14.8	15.3
May-90	PRE	18WG	8.2	87.5	23.9	1.8	1.9	3.7	N/A	72.5	6.7	29.0	21.5	1.3	0.4	2.7	17.0	17.5
Jun-90	PRE	18WG	8.9	76.7	28.4	2.6	2.1	4.7	N/A	72.6	4.3	23.4	18.5	1.3	0.4	5.9	17.8	11.2
Jul-90	PRE	18WG	8.1	76.1	20.0	2.2	3.4	5.6	N/A	73.1	3.6	25.2	17.5	1.4	0.9	4.5	18.3	13.5

18th WG Post-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	8HRFIX	MH/FH	REP	REC	REPREC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	POST	18WG	12.9	84.6	8.5	N/A	N/A	N/A	92.5	58.3	7.7	20.6	19.1	1.1	0.5	4.8	17.6	16.3
Feb-93	POST	18WG	10.8	92.0	11.9	N/A	N/A	N/A	93.7	58.1	7.5	19.0	19.1	1.0	0.2	3.6	18.1	15.0
Mar-93	POST	18WG	12.4	90.3	20.9	N/A	N/A	N/A	95.2	58.1	5.8	25.1	22.0	1.1	0.4	3.8	19.3	12.7
Apr-93	POST	18WG	11.1	81.9	8.4	N/A	N/A	N/A	94.8	55.9	4.6	25.3	23.3	1.1	0.5	3.8	17.4	8.8
May-93	POST	18WG	10.5	84.7	13.6	N/A	N/A	N/A	95.4	55.8	8.6	22.9	18.1	1.3	0.1	3.7	22.7	18.4
Jun-93	POST	18WG	10.9	79.5	17.7	N/A	N/A	N/A	92.5	55.6	6.4	30.6	19.5	1.6	0.5	4.6	23.0	13.3
Jul-93	POST	18WG	9.8	78.2	15.9	N/A	N/A	N/A	92.3	54.8	6.2	25.9	17.4	1.5	0.4	3.9	22.1	11.7
Aug-93	POST	18WG	13.3	83.6	12.0	N/A	N/A	N/A	95.2	54.3	5.4	31.3	17.2	1.8	0.8	2.7	18.3	6.1
Sep-93	POST	18WG	17.3	75.8	21.7	N/A	N/A	N/A	93.9	54.4	2.5	21.1	14.4	1.5	0.6	3.6	28.5	7.2
Oct-93	POST	18WG	10.5	82.3	9.8	N/A	N/A	N/A	82.5	54.2	4.6	22.3	15.6	1.4	0.4	4.4	24.1	14.5
Nov-93	POST	18WG	17.0	76.2	12.5	N/A	N/A	N/A	93.6	54.0	3.3	26.8	17.2	1.6	0.2	4.0	25.8	8.1
Dec-93	POST	18WG	17.7	82.5	17.8	N/A	N/A	N/A	92.6	54.1	7.6	25.1	20.4	1.2	0.3	4.4	24.3	8.9
Jan-94	POST	18WG	10.8	81.6	10.0	N/A	N/A	N/A	91.6	54.5	4.4	20.6	15.5	1.3	1.1	6.3	25.6	5.9
Feb-94	POST	18WG	14.8	76.2	11.0	N/A	N/A	N/A	93.8	55.4	6.9	31.2	22.2	1.4	0.3	3.8	22.5	7.4
Mar-94	POST	18WG	17.6	73.0	14.0	N/A	N/A	N/A	90.7	55.2	7.5	31.3	22.7	1.4	0.3	5.0	22.4	9.3
Apr-94	POST	18WG	22.0	71.8	11.4	N/A	N/A	N/A	86.2	57.8	8.2	19.6	12.8	1.5	0.8	6.1	24.4	13.8
May-94	POST	18WG	15.2	77.8	13.4	N/A	N/A	N/A	92.4	58.1	12.9	22.9	18.5	1.2	0.1	3.9	17.6	10.2
Jun-94	POST	18WG	16.5	80.5	16.3	N/A	N/A	N/A	91.9	57.6	15.0	28.2	20.2	1.4	0.5	4.4	21.6	10.2
Jul-94	POST	18WG	15.9	76.3	11.6	N/A	N/A	N/A	90.7	56.2	12.8	31.6	18.6	1.7	0.6	4.8	21.8	9.9
Aug-94	POST	18WG	22.0	65.0	13.0	N/A	N/A	N/A	86.1	54.6	9.7	37.8	18.1	2.1	0.4	5.2	22.6	12.7
Sep-94	POST	18WG	18.7	70.5	32.3	N/A	N/A	N/A	81.0	53.2	10.1	14.9	13.6	1.1	1.0	5.9	23.0	19.1
Oct-94	POST	18WG	12.6	76.7	16.7	N/A	N/A	N/A	90.9	54.4	6.6	23.7	16.3	1.5	0.3	4.8	20.3	13.1
Nov-94	POST	18WG	11.6	81.1	0.9	N/A	N/A	N/A	93.1	54.4	6.9	29.3	19.5	1.5	0.4	4.2	23.5	13.8
Dec-94	POST	18WG	9.5	87.3	2.1	N/A	N/A	N/A	91.2	54.0	6.0	25.8	17.8	1.4	0.4	6.7	18.0	11.7
Jan-95	POST	18WG	11.2	85.3	17.5	N/A	N/A	N/A	93.5	54.2	7.6	26.1	20.9	1.2	0.6	3.6	17.4	12.4
Feb-95	POST	18WG	13.0	87.4	14.2	N/A	N/A	N/A	93.9	53.6	5.3	24.7	19.5	1.3	0.4	4.5	19.7	15.6
Mar-95	POST	18WG	10.7	89.3	15.8	N/A	N/A	N/A	95.9	54.0	3.6	27.8	22.4	1.2	0.1	3.1	17.8	6.5
Apr-95	POST	18WG	11.8	88.7	14.1	N/A	N/A	N/A	93.4	52.8	4.6	28.5	19.2	1.5	0.3	4.8	21.8	8.0
May-95	POST	18WG	10.5	83.5	9.5	N/A	N/A	N/A	94.3	53.8	4.6	30.8	17.3	1.8	0.4	4.4	23.4	4.8
Jun-95	POST	18WG	16.7	81.1	19.9	N/A	N/A	N/A	93.1	55.5	8.7	23.9	20.1	1.2	0.3	4.5	22.8	11.6
Jul-95	POST	18WG	12.3	92.2	19.3	N/A	N/A	N/A	94.9	53.7	10.7	24.1	17.9	1.3	0.0	3.1	21.3	9.1
Aug-95	POST	18WG	15.7	85.6	22.1	N/A	N/A	N/A	92.5	54.5	9.5	23.2	17.8	1.3	0.1	4.4	21.4	8.6
Sep-95	POST	18WG	14.1	79.9	34.0	N/A	N/A	N/A	88.2	53.8	7.6	15.0	13.0	1.2	0.1	7.0	19.1	7.4
Oct-95	POST	18WG	11.0	83.6	25.8	1.8	2.1	3.9	94.5	54.2	8.1	19.4	17.0	1.1	0.2	4.4	23.1	12.4
Nov-95	POST	18WG	18.9	81.6	20.6	1.5	1.1	2.6	87.3	54.0	13.1	20.8	16.2	1.3	0.3	6.2	23.0	15.7
Dec-95	POST	18WG	15.5	77.4	29.0	1.7	1.5	3.2	90.0	55.6	10.6	23.3	16.7	1.4	0.0	5.2	17.7	30.4
Jan-96	POST	18WG	13.4	81.8	5.3	2.1	1.4	3.5	90.5	57.4	9.9	22.9	16.7	1.4	0.1	5.3	15.0	22.9
Feb-96	POST	18WG	11.6	83.0	4.5	1.1	0.6	1.6	94.4	56.9	9.3	28.3	21.6	1.3	0.4	4.8	17.3	20.8
Mar-96	POST	18WG	9.9	81.9	4.0	0.9	0.5	1.4	95.0	56.4	8.4	31.3	19.8	1.6	0.3	3.5	15.3	13.2
Apr-96	POST	18WG	14.9	74.6	18.6	1.5	1.3	2.7	91.7	55.2	10.0	25.2	17.2	1.5	0.5	5.1	19.1	19.9
May-96	POST	18WG	12.0	86.5	14.8	1.6	1.6	3.1	94.5	55.2	6.5	32.6	20.8	1.6	0.3	4.2	15.5	9.8
Jun-96	POST	18WG	10.9	81.1	16.4	2.3	2.2	4.5	95.3	54.1	6.2	29.1	24.4	1.2	0.5	3.6	15.2	12.5
Jul-96	POST	18WG	9.3	82.3	16.8	0.9	1.7	2.6	94.1	52.2	7.7	26.8	18.9	1.4	0.6	3.6	14.3	17.2
Aug-96	POST	18WG	11.4	72.1	18.7	0.9	1.5	2.4	92.7	51.8	8.4	23.5	17.0	1.4	0.3	5.0	15.4	12.6
Sep-96	POST	18WG	9.2	72.8	27.9	1.8	3.4	5.2	93.7	54.7	7.1	14.6	12.2	1.2	0.6	4.3	18.7	14.5
Oct-96	POST	18WG	9.5	77.1	10.5	1.1	2.7	3.8	93.2	52.2	10.7	39.1	19.0	2.1	0.6	4.4	21.2	15.3
Nov-96	POST	18WG	10.7	81.9	9.0	1.2	2.1	3.3	90.8	55.1	9.4	35.4	15.4	2.3	0.5	5.6	21.5	7.7

DATE	GROUP	UNIT	TNMCM	8HRFIX	MH/FH	REP	REC	REPREC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	POST	18WG	11.3	81.5	11.2	2.3	3.3	5.7	92.2	55.0	9.5	35.7	18.6	1.9	0.7	4.3	20.1	5.0
Jan-97	POST	18WG	8.9	79.4	18.6	1.6	0.6	2.2	92.4	55.1	7.0	22.9	15.7	1.5	0.3	4.9	15.1	12.2
Feb-97	POST	18WG	11.3	81.1	22.8	1.4	0.1	1.5	93.3	55.1	8.6	20.9	18.3	1.1	0.1	2.7	13.1	12.1
Mar-97	POST	18WG	8.1	78.1	18.4	1.0	0.2	1.1	95.5	55.2	10.4	28.3	20.8	1.4	0.6	3.1	12.7	10.5
Apr-97	POST	18WG	13.8	74.0	20.4	1.6	0.2	1.9	89.7	55.0	8.5	24.7	15.4	1.6	0.7	6.0	15.4	14.1
May-97	POST	18WG	12.8	76.5	34.7	2.5	0.5	3.0	92.6	56.0	11.3	21.7	19.2	1.1	0.5	2.5	12.7	10.3
Jun-97	POST	18WG	10.3	74.9	15.4	1.0	0.5	1.5	91.6	56.4	14.3	26.4	18.0	1.5	0.2	3.7	16.9	10.5
Jul-97	POST	18WG	11.6	81.8	22.2	1.4	0.3	1.7	90.6	52.2	10.7	29.7	24.6	1.2	0.3	4.2	12.9	9.7
Aug-97	POST	18WG	12.1	76.8	20.1	2.1	0.2	2.3	91.2	51.1	10.3	22.4	18.8	1.2	0.4	4.2	14.4	6.9
Sep-97	POST	18WG	9.8	65.4	38.5	1.1	0.2	1.3	93.1	51.1	12.4	15.6	12.0	1.3	0.2	3.5	13.2	14.1
Oct-97	POST	18WG	13.8	73.2	34.1	2.2	0.7	2.8	90.8	53.2	12.3	25.6	20.0	1.3	0.4	4.5	13.0	17.6
Nov-97	POST	18WG	11.8	71.4	22.0	1.9	0.9	2.8	93.5	51.0	9.7	26.8	18.9	1.4	0.4	3.7	14.5	10.1
Dec-97	POST	18WG	11.2	79.9	29.7	1.0	0.5	1.4	90.0	51.8	11.5	24.0	20.0	1.2	0.5	5.6	12.9	14.5
Jan-98	POST	18WG	11.3	74.4	25.5	0.7	0.6	1.3	92.7	52.1	14.9	25.5	18.9	1.3	0.1	4.2	12.7	17.4
Feb-98	POST	18WG	10.3	74.4	25.0	0.5	0.5	0.9	92.8	52.9	15.5	24.9	16.0	1.6	0.2	3.8	9.2	15.5
Mar-98	POST	18WG	9.9	78.7	25.5	1.4	0.6	1.9	92.0	49.4	9.4	31.4	24.0	1.3	0.5	4.8	13.1	11.7
Apr-98	POST	18WG	10.9	78.6	37.0	0.8	1.0	1.7	87.7	49.2	12.6	24.8	18.7	1.3	0.2	5.1	12.7	15.5
May-98	POST	18WG	9.5	76.7	19.6	1.8	0.7	2.6	91.8	50.7	11.8	34.3	16.1	2.1	0.1	3.9	19.5	16.0
Jun-98	POST	18WG	13.3	64.9	19.2	1.4	1.2	2.6	93.9	51.0	20.1	39.4	20.8	1.9	0.7	3.1	14.5	16.8
Jul-98	POST	18WG	11.9	75.4	22.3	2.9	1.8	4.8	92.3	47.7	7.1	32.6	17.1	1.9	0.7	4.0	15.9	13.2
Aug-98	POST	18WG	16.1	66.3	39.0	2.2	2.9	5.1	89.8	50.0	10.2	23.9	21.9	1.1	0.5	5.2	17.1	14.4
Sep-98	POST	18WG	12.8	62.5	50.7	3.4	3.2	6.6	83.0	51.4	11.5	13.3	10.9	1.2	0.2	8.4	14.3	22.9
Oct-98	POST	18WG	13.8	66.2	37.0	1.9	1.9	3.9	90.0	51.2	9.2	20.1	17.2	1.2	0.1	6.1	17.8	21.2
Nov-98	POST	18WG	13.3	77.3	22.0	3.0	3.2	6.2	91.6	51.8	14.9	30.3	18.2	1.7	0.7	5.2	12.6	19.9
Dec-98	POST	18WG	10.5	70.0	24.4	1.4	2.6	3.9	92.2	51.7	9.8	25.0	18.2	1.4	0.3	4.8	12.8	13.0
Jan-99	POST	18WG	11.7	73.6	24.6	1.7	2.5	4.1	92.5	51.4	12.2	29.4	17.4	1.7	0.8	5.6	15.6	14.3
Feb-99	POST	18WG	11.7	77.8	24.4	3.2	2.5	5.6	90.3	51.9	14.2	27.8	13.4	2.1	0.6	6.2	15.6	25.0
Mar-99	POST	18WG	12.0	74.1	26.5	1.7	2.6	4.3	93.4	52.4	11.5	30.0	22.1	1.4	0.4	4.7	14.0	17.0
Apr-99	POST	18WG	14.9	76.7	37.4	1.4	2.9	4.3	90.4	52.2	15.5	25.8	19.7	1.3	0.6	5.4	18.3	21.0
May-99	POST	18WG	10.3	82.9	31.2	1.4	1.9	3.3	93.3	51.7	11.9	24.8	20.6	1.2	0.1	4.2	12.1	18.2
Jun-99	POST	18WG	14.5	72.9	30.8	1.5	1.8	3.3	90.4	51.8	12.9	24.8	19.1	1.3	0.9	4.8	17.2	21.9
Jul-99	POST	18WG	14.9	73.5	21.2	2.1	1.6	3.7	88.5	54.4	17.2	29.5	17.5	1.7	0.6	6.7	15.4	24.4
Aug-99	POST	18WG	14.5	74.5	30.3	1.8	1.7	3.5	90.3	52.0	15.2	24.8	14.7	1.7	0.3	6.6	14.4	25.9
Sep-99	POST	18WG	18.7	64.4	36.2	2.6	2.3	4.9	82.7	54.2	14.2	17.8	10.6	1.7	1.7	8.3	18.2	28.4
Oct-99	POST	18WG	18.9	67.5	25.2	1.4	1.2	2.6	80.3	55.2	17.5	25.9	14.1	1.8	1.2	7.7	20.2	19.5
Nov-99	POST	18WG	23.2	63.0	35.6	1.0	1.5	2.5	85.0	56.1	17.0	18.0	10.9	1.6	1.0	9.1	19.4	25.8
Dec-99	POST	18WG	20.6	62.0	29.1	1.7	0.3	2.0	88.2	53.1	14.4	22.3	12.1	1.8	0.6	7.1	16.8	29.3
Jan-00	POST	18WG	16.2	64.2	33.8	0.2	0.5	0.7	91.6	51.1	13.6	20.6	16.3	1.3	0.0	5.0	12.7	28.3
Feb-00	POST	18WG	23.2	53.5	34.9	0.2	0.6	0.8	87.9	45.4	16.4	22.9	18.5	1.2	0.2	6.4	15.4	18.1
Mar-00	POST	18WG	19.6	61.9	28.4	1.2	0.9	2.1	90.8	45.5	8.9	29.0	17.7	1.6	0.5	5.7	14.7	17.4
Apr-00	POST	18WG	17.7	62.3	28.6	0.9	0.8	1.6	91.2	44.3	8.7	26.9	18.0	1.5	0.5	5.9	13.3	15.5
May-00	POST	18WG	16.7	69.1	25.9	1.3	1.3	2.6	90.8	47.9	10.1	28.6	17.5	1.6	0.4	8.1	13.2	19.5
Jun-00	POST	18WG	15.9	65.9	25.3	0.4	0.2	0.6	93.5	48.6	12.4	24.0	17.5	1.4	0.4	4.9	14.8	19.4
Jul-00	POST	18WG	12.8	74.3	24.0	0.0	1.1	1.1	92.0	49.2	11.8	22.3	12.5	1.8	0.5	6.0	17.0	23.7
Aug-00	POST	18WG	16.1	62.5	25.0	1.5	0.4	1.9	91.8	47.6	6.5	25.0	14.2	1.8	1.3	6.0	15.4	22.3
Sep-00	POST	18WG	8.7	71.8	21.8	0.8	1.5	2.3	92.6	47.3	5.6	19.0	8.4	2.2	0.8	5.0	17.8	22.3

57th WG F-15 Pre-Reorganization Data:

DATE	UNIT	TNMCM	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	CANN
Jan-82	57WG	16.1	59.0	N/A	17.0	22.9	12.8	13.4	1.0	0.4	5.0	22.0
Feb-82	57WG	9.3	51.3	N/A	16.7	24.7	15.5	13.6	1.1	2.2	6.2	26.4
Mar-82	57WG	11.2	64.3	85.2	16.2	36.1	18.2	15.9	1.1	0.4	3.4	17.9
Apr-82	57WG	14.4	73.3	89.0	16.8	30.0	17.3	16.3	1.1	0.4	5.2	30.3
May-82	57WG	8.4	45.3	85.9	15.4	26.0	14.7	14.2	1.0	0.0	6.4	21.6
Jun-82	57WG	12.4	73.0	94.3	15.9	32.0	17.2	15.9	1.1	0.8	3.8	27.7
Jul-82	57WG	11.9	60.0	85.7	15.5	31.8	15.9	13.8	1.2	1.4	4.4	34.0
Aug-82	57WG	15.9	50.0	84.8	15.1	24.1	22.2	16.6	1.3	0.0	4.6	24.7
Sep-82	57WG	13.2	78.6	90.3	14.9	22.6	14.0	15.2	0.9	0.0	5.8	41.9
Oct-82	57WG	16.1	85.1	92.9	16.0	25.4	16.9	17.1	1.0	0.0	3.2	57.5
Nov-82	57WG	23.2	81.7	86.3	14.0	30.8	17.5	16.9	1.0	1.3	6.3	41.5
Dec-82	57WG	22.6	57.1	82.8	17.4	29.4	16.9	13.4	1.3	0.0	8.6	35.0
Jan-83	57WG	22.7	67.5	85.7	17.5	33.7	14.5	15.7	0.9	0.4	6.5	42.0
Feb-83	57WG	21.1	98.5	88.9	18.0	32.1	15.7	15.6	1.0	0.7	4.1	33.8
Mar-83	57WG	21.1	100.0	86.0	17.8	35.2	17.1	16.0	1.1	0.7	5.6	46.5
Apr-83	57WG	9.7	50.2	85.6	7.3	18.9	28.2	27.2	1.0	0.0	6.6	25.1
May-83	57WG	9.9	53.8	90.8	17.8	32.3	17.6	18.4	1.0	2.8	3.8	41.1
Jun-83	57WG	20.0	32.2	82.4	17.0	28.6	21.5	18.4	1.2	0.6	5.5	51.3
Jul-83	57WG	17.3	25.8	83.1	17.0	26.5	16.9	16.8	1.0	1.4	7.4	41.6
Aug-83	57WG	9.9	16.1	92.0	18.1	27.7	18.7	18.0	1.0	0.6	3.0	50.0
Sep-83	57WG	10.1	17.4	85.1	18.3	24.7	13.5	12.1	1.1	2.7	6.0	49.3
Oct-83	57WG	20.2	18.6	86.7	17.3	27.4	18.1	15.9	1.1	0.7	3.8	39.9
Nov-83	57WG	14.5	15.9	64.5	17.2	23.4	18.7	16.1	1.2	0.7	3.1	28.2
Dec-83	57WG	13.7	51.7	91.3	17.1	23.5	16.8	15.2	1.1	0.8	4.1	28.1
Jan-84	57WG	8.5	63.0	96.0	16.0	20.2	18.2	18.4	1.0	0.0	1.3	24.7
Feb-84	57WG	12.7	53.5	94.4	16.3	20.5	17.2	15.9	1.1	0.4	0.8	23.6
Mar-84	57WG	10.1	76.8	94.1	15.6	22.2	19.2	18.0	1.1	0.7	2.4	27.0
Apr-84	57WG	8.7	53.7	93.4	16.3	16.1	19.0	16.8	1.1	0.7	4.5	17.1
May-84	57WG	1.3	63.4	96.8	17.3	17.3	15.8	15.6	1.0	0.7	2.9	25.1
Jun-84	57WG	2.6	29.6	96.3	17.5	15.9	20.1	16.6	1.2	0.0	3.0	25.1
Jul-84	57WG	5.5	43.9	95.3	17.0	15.8	16.3	17.1	1.0	0.0	3.7	30.0
Aug-84	57WG	3.2	52.9	94.2	17.0	16.0	17.0	16.6	1.0	0.0	4.7	33.6
Sep-84	57WG	2.8	54.5	98.9	17.0	11.6	9.9	10.9	0.9	0.0	1.1	30.3
Oct-84	57WG	3.8	33.9	93.8	17.0	10.1	20.8	18.5	1.1	0.6	4.0	10.2
Nov-84	57WG	4.3	24.2	97.4	17.0	12.1	21.8	18.1	1.2	0.6	2.5	18.2
Dec-84	57WG	4.9	34.6	95.9	17.0	10.8	16.0	14.2	1.1	0.0	2.8	23.2
Jan-85	57WG	9.9	35.4	95.1	16.7	11.4	18.5	18.5	1.0	0.3	2.2	15.8
Feb-85	57WG	13.9	33.4	93.7	13.8	6.9	20.8	19.9	1.0	0.0	3.5	10.6
Mar-85	57WG	3.3	26.8	94.8	16.1	6.6	18.6	17.8	1.0	0.3	4.3	12.2
Apr-85	57WG	7.1	33.6	95.9	15.5	8.1	20.3	20.4	1.0	0.6	2.2	9.8
May-85	57WG	6.7	22.1	93.3	14.2	1.4	23.1	22.0	1.1	0.3	3.1	4.2
Jun-85	57WG	8.8	23.2	94.6	14.9	9.6	23.4	20.6	1.1	0.0	3.8	12.1
Jul-85	57WG	6.6	29.5	94.0	14.5	5.0	21.2	20.0	1.1	0.0	4.6	11.4
Aug-85	57WG	7.9	36.9	94.7	14.7	7.0	22.4	19.1	1.2	0.0	2.1	6.8
Sep-85	57WG	4.9	42.2	97.0	15.0	7.0	11.7	15.1	0.8	0.0	1.3	11.1
Oct-85	57WG	3.5	16.1	95.8	15.0	4.4	25.9	21.9	1.2	0.3	1.8	7.0
Nov-85	57WG	5.4	30.1	95.9	15.0	10.3	19.3	18.9	1.0	0.4	2.1	6.7
Dec-85	57WG	1.8	24.1	97.9	15.8	12.5	17.0	15.3	1.1	0.4	2.0	11.6
Jan-86	57WG	3.4	25.8	96.9	15.2	9.5	18.5	19.2	1.0	0.0	1.0	6.5
Feb-86	57WG	2.7	33.4	96.8	15.8	6.9	18.2	18.0	1.0	0.0	2.4	10.9
Mar-86	57WG	8.5	23.6	93.5	16.4	11.2	21.4	19.3	1.1	0.0	2.2	10.4
Apr-86	57WG	5.3	30.1	95.1	16.3	10.0	19.8	18.7	1.1	0.0	3.2	10.2

DATE	UNIT	TNMCM	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	CANN
May-86	57WG	5.4	35.2	97.3	16.0	10.5	17.2	18.8	0.9	0.0	1.6	17.9
Jun-86	57WG	5.6	18.9	95.7	16.7	11.5	21.6	19.0	1.1	0.0	2.2	12.9
Jul-86	57WG	3.5	27.7	95.0	17.0	14.1	20.4	19.8	1.0	0.6	2.3	6.0
Aug-86	57WG	6.3	15.4	94.4	17.0	8.6	17.9	15.8	1.1	0.0	2.9	19.0
Sep-86	57WG	3.8	23.6	96.6	17.0	9.5	13.9	13.6	1.0	0.0	3.3	14.3
Oct-86	57WG	4.8	19.2	95.1	17.0	9.2	19.5	19.1	1.0	0.3	3.8	19.7
Nov-86	57WG	2.3	16.9	96.7	17.0	6.6	18.4	15.8	1.2	0.7	1.8	11.9
Dec-86	57WG	3.1	17.7	93.6	17.0	6.5	16.6	15.5	1.1	0.0	5.1	16.7
Jan-87	57WG	3.9	27.7	96.9	17.0	9.7	16.3	17.1	1.0	0.0	1.7	10.7
Feb-87	57WG	3.3	19.4	94.9	16.7	7.8	16.4	16.3	1.0	0.0	4.2	11.8
Mar-87	57WG	10.4	20.1	96.9	16.4	5.6	23.5	21.2	1.1	0.3	2.8	7.8
Apr-87	57WG	7.6	21.3	94.8	17.0	9.0	20.4	20.6	1.0	0.0	3.8	21.7
May-87	57WG	8.1	24.9	92.1	16.5	12.1	15.2	16.5	0.9	0.4	6.2	19.8
Jun-87	57WG	11.3	20.3	95.4	16.2	10.2	24.2	20.0	1.2	0.0	2.4	14.2
Jul-87	57WG	4.9	25.2	97.2	17.0	10.9	19.6	18.5	1.1	0.0	1.6	17.1
Aug-87	57WG	6.4	20.7	95.3	17.0	11.5	21.8	18.6	1.2	0.0	2.2	24.0
Sep-87	57WG	3.6	30.0	94.2	16.3	9.4	15.7	16.3	1.0	0.0	6.4	23.8
Oct-87	57WG	9.1	27.4	92.2	16.8	13.0	22.1	19.5	1.1	0.3	4.9	12.8
Nov-87	57WG	6.0	28.6	94.5	17.0	9.8	16.6	16.7	1.0	0.0	3.7	19.7
Dec-87	57WG	4.8	25.6	92.4	17.0	15.8	18.7	16.4	1.1	0.0	5.1	24.7
Jan-88	57WG	7.5	22.8	94.5	16.6	11.5	16.1	17.5	0.9	0.3	3.6	16.8
Feb-88	57WG	5.9	23.1	96.3	16.1	4.9	18.9	18.1	1.0	0.7	2.7	18.8
Mar-88	57WG	7.4	21.6	95.9	15.4	10.1	26.6	23.8	1.1	0.0	2.4	24.1
Apr-88	57WG	3.6	27.2	95.3	15.1	8.1	21.5	17.9	1.2	0.0	2.9	14.9
May-88	57WG	4.5	21.9	90.4	16.6	10.6	21.4	20.0	1.1	0.3	3.8	16.2
Jun-88	57WG	7.7	22.2	94.2	15.8	15.3	23.8	21.6	1.1	0.0	4.2	13.2
Jul-88	57WG	6.5	25.7	89.5	14.7	11.7	23.5	21.8	1.1	0.3	2.7	14.6
Aug-88	57WG	7.4	33.6	96.0	15.4	8.6	22.3	20.9	1.1	0.6	3.6	36.6
Sep-88	57WG	4.2	19.3	93.6	16.0	10.4	18.2	16.3	1.1	0.4	3.3	20.7
Oct-88	57WG	3.5	24.8	94.4	16.4	9.5	20.6	18.3	1.1	0.3	4.8	19.7
Nov-88	57WG	4.2	25.0	96.0	17.0	7.0	19.6	18.9	1.0	0.3	3.3	19.3
Dec-88	57WG	4.2	18.0	97.5	17.0	6.9	17.2	16.2	1.1	0.0	2.1	11.6
Jan-89	57WG	3.0	20.9	94.1	16.9	9.9	17.6	18.6	0.9	0.3	3.4	20.7
Feb-89	57WG	4.6	19.9	95.0	16.0	5.6	19.0	18.6	1.0	0.0	2.3	21.5
Mar-89	57WG	6.3	12.7	96.8	15.6	3.2	26.4	22.0	1.2	0.0	1.7	8.2
Apr-89	57WG	5.8	8.9	96.3	13.8	6.0	26.2	21.5	1.2	0.3	2.6	22.2
May-89	57WG	6.1	30.5	95.2	16.8	7.2	18.3	18.2	1.0	0.7	3.8	23.5
Jun-89	57WG	5.5	9.2	96.2	16.2	5.9	24.6	22.3	1.1	0.3	2.7	12.2
Jul-89	57WG	5.2	16.7	96.4	15.8	0.0	20.2	19.3	1.0	0.0	3.5	10.5
Aug-89	57WG	8.5	14.3	93.4	14.9	2.5	25.8	20.9	1.2	0.0	4.6	20.9
Sep-89	57WG	7.8	26.0	93.2	16.1	3.3	14.7	15.2	1.0	0.4	4.3	30.2
Oct-89	57WG	4.3	10.7	97.3	17.7	10.0	22.0	18.5	1.2	0.0	1.8	19.9
Nov-89	57WG	6.1	21.5	94.3	18.5	9.1	11.4	16.7	0.7	0.0	2.8	20.1
Dec-89	57WG	7.5	14.4	96.2	15.5	8.7	16.8	15.1	1.1	0.0	2.5	20.9
Jan-90	57WG	6.9	15.3	96.9	15.4	9.8	20.4	13.7	1.5	0.0	3.7	27.1
Feb-90	57WG	6.1	22.6	96.5	15.3	4.4	22.2	20.1	1.1	0.0	3.2	14.7
Mar-90	57WG	8.1	13.2	92.0	15.3	8.5	22.6	22.4	1.0	0.0	4.2	3.2
Apr-90	57WG	4.3	12.4	95.9	15.3	8.6	22.1	18.8	1.2	0.0	3.0	29.3
May-90	57WG	5.6	13.4	93.2	15.9	12.2	21.7	19.7	1.1	0.6	2.8	37.4
Jun-90	57WG	8.4	23.6	96.0	15.8	8.7	24.3	21.7	1.1	0.0	2.6	15.2
Jul-90	57WG	3.7	18.7	95.9	14.1	5.6	22.4	22.0	1.0	0.0	3.1	12.9

57th WG F-15 Post-Reorganization Data:

DATE	UNIT	TNMCM	8HRFIX	MH/FH	REPREC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	57WG	9.4	N/A	N/A	N/A	N/A	16.3	9.4	18.0	17.4	1.0	N/A	N/A	N/A	N/A
Feb-93	57WG	9.6	N/A	10.4	N/A	N/A	16.0	8.9	19.2	19.2	1.0	N/A	N/A	N/A	18.2
Mar-93	57WG	9.3	N/A	24.3	N/A	N/A	16.5	2.7	23.9	20.7	1.2	N/A	N/A	N/A	15.2
Apr-93	57WG	8.8	N/A	8.3	N/A	N/A	17.3	3.4	22.1	18.9	1.2	N/A	N/A	N/A	6.7
May-93	57WG	7.0	N/A	21.0	N/A	N/A	18.0	8.4	20.5	15.4	1.3	N/A	N/A	N/A	19.8
Jun-93	57WG	6.1	N/A	22.4	N/A	N/A	18.0	9.5	20.6	17.6	1.2	N/A	N/A	N/A	20.9
Jul-93	57WG	10.6	N/A	23.9	N/A	N/A	18.4	8.4	18.2	17.8	1.0	N/A	N/A	N/A	18.3
Aug-93	57WG	7.1	N/A	19.3	N/A	N/A	18.5	6.2	19.2	17.5	1.1	N/A	N/A	N/A	19.4
Sep-93	57WG	11.2	N/A	20.3	N/A	N/A	19.2	10.5	16.0	18.0	0.9	N/A	N/A	N/A	12.4
Oct-93	57WG	9.0	N/A	17.8	N/A	N/A	17.7	9.7	19.0	17.1	1.1	N/A	N/A	N/A	22.5
Nov-93	57WG	8.6	N/A	22.9	N/A	N/A	18.6	14.4	20.0	16.2	1.2	N/A	N/A	N/A	26.2
Dec-93	57WG	13.9	N/A	22.3	N/A	N/A	18.9	9.0	16.6	14.0	1.2	N/A	N/A	N/A	34.3
Jan-94	57WG	51.2	N/A	38.2	N/A	N/A	19.0	9.8	8.8	9.2	1.0	N/A	N/A	N/A	22.9
Feb-94	57WG	40.1	N/A	45.6	N/A	N/A	19.0	20.8	8.4	9.2	0.9	N/A	N/A	N/A	32.6
Mar-94	57WG	19.1	N/A	22.1	N/A	N/A	18.0	12.6	21.9	20.1	1.1	N/A	N/A	N/A	12.1
Apr-94	57WG	27.6	N/A	17.2	N/A	N/A	17.7	14.0	23.2	19.8	1.2	N/A	N/A	N/A	13.2
May-94	57WG	17.3	N/A	20.4	N/A	N/A	17.7	12.8	23.8	19.6	1.2	N/A	N/A	N/A	19.3
Jun-94	57WG	18.2	N/A	13.8	N/A	N/A	18.0	5.4	22.7	19.2	1.2	N/A	N/A	N/A	19.7
Jul-94	57WG	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug-94	57WG	21.5	N/A	35.0	N/A	N/A	16.8	9.5	18.1	20.2	0.9	N/A	N/A	N/A	21.9
Sep-94	57WG	17.0	N/A	25.2	N/A	N/A	18.0	13.5	18.0	14.8	1.2	N/A	N/A	N/A	19.9
Oct-94	57WG	17.5	92.3	24.5	N/A	89.3	18.0	20.0	20.0	16.6	1.2	0.0	6.9	21.7	13.4
Nov-94	57WG	22.1	91.4	N/A	N/A	89.7	19.2	13.6	21.0	17.2	1.2	0.0	8.1	21.0	15.0
Dec-94	57WG	23.9	89.8	N/A	N/A	87.7	19.3	18.2	17.2	13.8	1.2	0.0	6.6	18.8	23.4
Jan-95	57WG	16.2	83.0	21.7	N/A	89.7	17.8	14.4	15.3	15.4	1.0	0.0	9.5	19.3	19.3
Feb-95	57WG	14.7	90.1	28.8	N/A	95.4	17.0	9.0	17.2	17.5	1.0	0.0	3.8	23.7	13.8
Mar-95	57WG	12.1	82.5	21.5	N/A	94.4	17.3	12.2	23.4	21.3	1.1	0.0	3.9	10.9	9.8
Apr-95	57WG	13.3	81.1	22.0	N/A	94.2	16.8	7.6	22.5	18.9	1.2	1.3	4.8	16.7	11.7
May-95	57WG	17.1	87.5	21.2	N/A	89.9	18.8	13.0	21.0	17.0	1.2	0.0	5.8	19.6	16.6
Jun-95	57WG	13.7	79.7	17.2	N/A	88.5	17.9	6.4	22.1	13.1	1.7	0.9	6.6	17.9	17.0
Jul-95	57WG	15.7	73.6	23.3	N/A	93.2	18.4	8.3	17.5	16.3	1.1	0.0	5.3	17.6	8.7
Aug-95	57WG	13.5	80.6	18.6	N/A	90.3	18.5	9.9	17.7	16.6	1.1	0.3	5.9	11.8	10.4
Sep-95	57WG	10.4	100.0	11.6	N/A	95.6	18.7	7.2	18.6	15.9	1.2	0.0	3.3	7.8	8.1
Oct-95	57WG	17.2	86.0	21.2	N/A	86.3	17.8	11.3	21.4	17.6	1.2	0.3	6.1	13.4	13.0
Nov-95	57WG	17.8	73.0	13.7	N/A	88.5	17.9	12.5	21.5	17.8	1.2	0.3	6.7	11.9	10.6
Dec-95	57WG	17.4	83.8	39.8	N/A	80.7	17.4	10.9	15.1	13.1	1.2	0.0	8.0	16.2	10.0
Jan-96	57WG	17.1	80.6	26.8	N/A	90.2	17.0	15.2	17.5	17.1	1.0	0.0	6.4	21.3	12.0
Feb-96	57WG	19.5	86.7	27.6	N/A	80.5	16.5	12.6	19.1	18.3	1.0	0.3	5.6	15.0	9.3
Mar-96	57WG	27.0	72.7	25.6	N/A	76.1	13.9	7.4	25.8	20.2	1.3	0.0	3.1	15.7	12.8
Apr-96	57WG	17.0	88.6	27.9	N/A	83.0	12.7	7.6	28.8	22.9	1.3	0.0	6.2	11.6	15.1
May-96	57WG	27.0	78.0	25.5	N/A	73.4	17.0	12.2	25.3	18.9	1.3	0.0	8.1	18.8	13.1
Jun-96	57WG	29.5	60.0	25.8	N/A	84.6	17.7	18.1	20.5	15.5	1.3	0.4	5.3	16.5	15.0
Jul-96	57WG	17.1	72.7	28.5	N/A	81.3	16.6	14.3	19.8	20.7	1.0	0.3	5.5	16.0	10.8
Aug-96	57WG	20.1	79.1	25.0	N/A	74.8	18.8	18.4	18.7	18.0	1.0	0.6	6.5	12.7	25.1
Sep-96	57WG	14.9	92.0	12.6	N/A	72.9	18.4	12.5	20.7	14.8	1.4	0.4	2.5	8.8	16.1
Oct-96	57WG	13.6	84.1	20.0	N/A	75.0	16.3	9.7	25.7	18.7	1.4	2.0	8.7	14.4	7.9
Nov-96	57WG	25.9	90.9	25.9	N/A	42.2	14.9	12.9	19.8	15.1	1.3	0.4	4.2	15.1	11.6

DATE	UNIT	TNMCM	8HRFIX	MH/FH	REPREC	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	57WG	27.1	67.9	37.4	N/A	68.5	15.4	5.1	17.4	13.2	1.3	2.9	7.7	13.2	9.8
Jan-97	57WG	18.9	72.2	62.0	N/A	82.1	16.8	6.1	15.5	15.1	1.0	3.9	3.1	12.6	9.1
Feb-97	57WG	25.1	68.4	48.3	N/A	78.8	18.0	10.3	15.2	15.4	1.0	4.0	6.7	13.7	16.9
Mar-97	57WG	18.5	71.4	28.9	N/A	83.4	15.1	10.2	27.4	23.1	1.2	0.0	6.2	11.9	6.9
Apr-97	57WG	12.3	83.0	43.1	N/A	66.9	16.8	10.0	18.2	15.5	1.2	0.0	7.1	17.9	13.5
May-97	57WG	21.0	78.4	46.4	N/A	80.4	17.7	15.2	20.4	17.2	1.2	0.3	6.6	12.4	18.4
Jun-97	57WG	31.8	77.3	44.4	N/A	80.9	16.6	18.5	22.0	16.9	1.3	0.0	9.1	15.4	12.5
Jul-97	57WG	19.5	70.5	47.0	N/A	75.8	16.0	17.5	17.2	18.3	0.9	1.7	7.0	19.8	13.7
Aug-97	57WG	23.5	69.5	36.0	N/A	78.1	15.8	15.5	19.2	19.7	1.0	0.0	3.7	19.0	16.7
Sep-97	57WG	24.0	74.2	30.5	N/A	87.9	14.0	18.2	22.3	17.5	1.3	0.8	2.0	11.9	25.8
Oct-97	57WG	23.9	68.9	41.4	2.5	68.3	13.0	13.0	25.4	21.2	1.2	2.5	8.0	22.2	27.6
Nov-97	57WG	16.9	78.1	30.4	4.7	83.6	15.5	15.4	19.0	15.1	1.3	0.4	3.7	13.6	18.7
Dec-97	57WG	26.5	74.2	29.6	6.4	78.2	16.1	20.2	24.0	13.7	1.8	0.0	5.6	30.0	30.5
Jan-98	57WG	25.8	68.9	76.2	9.1	74.7	16.2	20.1	13.4	14.3	0.9	1.3	5.7	26.4	35.9
Feb-98	57WG	23.2	78.6	58.6	5.0	62.4	15.6	24.3	12.9	14.1	0.9	1.4	0.5	25.3	40.3
Mar-98	57WG	15.7	85.1	39.0	2.6	77.7	15.1	16.6	24.5	20.1	1.2	1.3	3.8	15.5	35.6
Apr-98	57WG	25.8	78.6	44.8	1.2	76.5	16.4	24.7	23.3	20.5	1.1	0.6	5.9	12.5	31.9
May-98	57WG	21.5	73.9	52.7	5.0	60.0	15.7	26.3	15.7	13.9	1.1	0.0	2.2	10.5	30.6
Jun-98	57WG	29.1	66.7	51.2	1.5	70.7	15.0	26.1	24.5	17.4	1.4	0.4	3.0	18.4	29.5
Jul-98	57WG	23.7	61.4	71.2	5.7	77.9	17.2	19.9	15.0	17.3	0.9	0.7	4.8	19.2	29.6
Aug-98	57WG	24.7	79.2	50.1	14.6	83.7	17.2	16.8	17.7	18.8	0.9	0.6	5.6	14.9	31.0
Sep-98	57WG	26.2	73.2	58.4	6.7	75.6	17.3	20.1	20.1	14.7	1.4	1.2	5.6	16.1	26.0
Oct-98	57WG	21.2	80.6	41.9	13.4	73.8	16.8	17.9	20.0	17.4	1.1	0.7	4.9	24.7	29.8
Nov-98	57WG	24.7	82.8	40.8	9.0	70.3	17.2	15.8	19.6	14.2	1.4	0.4	6.9	23.8	29.1
Dec-98	57WG	18.5	75.0	39.6	11.9	78.8	17.8	16.9	19.2	14.1	1.4	0.8	6.3	20.6	26.6
Jan-99	57WG	21.3	77.4	52.8	15.0	80.4	16.9	7.2	14.6	15.0	1.0	0.4	3.8	24.5	14.6
Feb-99	57WG	27.7	73.1	45.4	12.2	69.3	16.1	12.0	16.4	16.4	1.0	0.4	6.4	19.8	29.3
Mar-99	57WG	16.0	82.2	30.1	3.8	83.2	15.1	9.0	26.0	21.2	1.2	0.3	2.1	14.1	21.3
Apr-99	57WG	25.9	68.4	41.2	6.3	66.8	18.2	21.2	20.5	16.6	1.2	0.3	4.4	18.9	27.8
May-99	57WG	22.1	76.3	40.7	8.5	63.0	17.6	15.9	21.8	15.4	1.4	0.0	6.3	21.9	29.3
Jun-99	57WG	16.5	64.7	46.4	7.8	72.8	16.0	12.9	20.1	15.3	1.3	1.2	6.5	20.9	37.3
Jul-99	57WG	42.6	69.2	73.4	13.3	54.5	14.5	29.2	10.9	11.9	0.9	2.9	7.5	22.5	27.2
Aug-99	57WG	26.5	66.7	37.2	10.6	72.2	15.1	19.7	19.4	19.4	1.0	1.4	3.6	22.5	32.1
Sep-99	57WG	20.4	78.3	37.6	4.7	80.9	16.6	12.9	18.8	15.5	1.2	1.2	3.4	17.9	20.2
Oct-99	57WG	26.2	81.0	48.4	8.7	73.9	18.2	15.2	17.8	14.6	1.2	0.0	8.9	23.8	26.0
Nov-99	57WG	25.5	67.3	58.3	8.5	75.5	17.0	22.0	14.9	11.8	1.3	0.5	4.8	27.5	30.0
Dec-99	57WG	27.9	63.0	58.8	10.5	79.7	17.9	14.8	15.1	12.7	1.2	0.0	5.0	20.2	27.2
Jan-00	57WG	25.3	70.4	67.8	11.5	82.6	18.1	16.7	14.0	14.9	0.9	0.4	4.6	26.3	24.1
Feb-00	57WG	27.2	58.8	66.1	N/A	80.2	18.1	24.3	14.7	15.4	1.0	0.4	6.7	18.3	N/A
Mar-00	57WG	17.8	72.7	42.7	8.3	77.4	17.1	17.1	22.4	18.4	1.2	0.3	6.5	17.5	32.1
Apr-00	57WG	14.9	79.2	40.5	23.2	82.4	16.9	11.3	21.8	16.8	1.3	1.1	8.1	18.6	23.9
May-00	57WG	13.6	84.8	19.7	13.1	87.0	17.2	14.2	25.4	19.0	1.3	0.3	2.7	14.1	16.5
Jun-00	57WG	22.3	73.2	37.1	15.2	85.9	18.2	17.2	18.2	14.1	1.3	0.0	5.2	21.9	32.4
Jul-00	57WG	18.4	83.9	46.0	7.0	86.7	18.1	14.2	16.2	15.8	1.0	0.0	5.3	19.6	26.6
Aug-00	57WG	23.1	85.2	64.0	5.9	68.6	16.9	20.2	17.5	17.0	1.0	0.0	10.0	21.3	35.5
Sep-00	57WG	16.5	88.0	39.9	3.5	69.0	17.7	13.6	21.2	14.7	1.4	0.0	9.8	19.3	21.2

388th FW Pre-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	REP	REC	MH/FH	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	GAB	BREAK	CANN
Jan-82	PRE	388FW	11.6	1.4	0.8	22.5	97.2	94.8	92.6	13.2	24.6	17.3	1.4	2.3	6.4	9.5
Feb-82	PRE	388FW	19.8	1.0	0.5	26	97.6	92.2	77.5	22.2	30.5	21.6	1.4	2.7	12.2	13.3
Mar-82	PRE	388FW	16.6	N/A	N/A	26.2	95.5	91.3	87.5	10.1	30.3	21.0	1.4	4.4	13.9	10.7
Apr-82	PRE	388FW	12.7	N/A	N/A	27.7	96.9	87.4	89.6	20.7	23.8	16.6	1.4	5.2	14.4	14.0
May-82	PRE	388FW	15.8	1.4	0.6	36.6	97.8	90.5	83.5	17.7	26.6	19.3	1.4	5.0	12.0	10.2
Jun-82	PRE	388FW	19.4	3.2	1.4	23.6	97	88.6	85.4	21.4	33.8	22.6	1.5	5.4	14.4	15.3
Jul-82	PRE	388FW	20.7	4.8	1.5	33.3	96.9	85.9	82.0	23.9	31.3	21.0	1.5	6.3	16.3	15.7
Aug-82	PRE	388FW	21.1	4.1	1.2	21	99.1	87.7	83.0	23.3	29.5	23.2	1.3	5.8	16.4	17.6
Sep-82	PRE	388FW	16.7	2.4	2.0	36.5	98.3	87.7	85.2	24.5	29.6	19.7	1.5	4.5	14.7	18.4
Oct-82	PRE	388FW	22.1	3.6	1.9	29.5	97.8	80.1	81.2	21.7	30.3	20.4	1.5	6.6	14.3	20.3
Nov-82	PRE	388FW	16.4	3.2	2.5	44.9	98.6	81.7	82.2	21.3	25.6	17.4	1.5	7.5	15.1	24.3
Dec-82	PRE	388FW	18.0	1.7	1.6	62.3	98.4	89.3	76.9	18.2	27.2	20.3	1.3	5.8	12.3	17.5
Jan-83	PRE	388FW	15.7	3.7	1.3	75.3	98.6	87	71.1	19.7	32.5	23.0	1.4	5.8	14.5	11.5
Feb-83	PRE	388FW	16.1	2.9	1.6	53.5	98.2	87.5	68.0	14.5	31.0	21.0	1.5	4.9	14.9	19.5
Mar-83	PRE	388FW	14.7	2.5	2.6	41.6	99.3	91	71.0	14.1	34.0	24.4	1.4	4.8	15.6	18.5
Apr-83	PRE	388FW	12.0	2.3	2.8	41.8	97.4	92.7	65.3	11.1	36.2	26.6	1.4	3.9	13.6	13.1
May-83	PRE	388FW	12.7	2.5	2.3	53.1	99.4	91.3	68.7	11.2	34.1	25.4	1.3	4.8	14.5	14.5
Jun-83	PRE	388FW	9.7	3.2	2.7	33.5	99.6	93.8	71.3	8.0	32.1	25.8	1.2	3.9	12.8	11.5
Jul-83	PRE	388FW	8.6	3.1	2.4	41.6	100	93.5	71.0	6.2	33.8	23.9	1.4	5.0	13.4	12.4
Aug-83	PRE	388FW	8.5	2.9	1.5	46.3	99.4	91.6	69.6	6.8	38.5	28.7	1.3	5.6	11.5	10.4
Sep-83	PRE	388FW	7.4	3.2	1.8	76.9	99.2	92.7	66.2	5.4	29.3	20.6	1.4	4.8	12.7	14.2
Oct-83	PRE	388FW	9.4	2.5	1.2	39.8	99.7	93.6	88.1	6.1	34.9	24.9	1.4	4.7	13.9	9.4
Nov-83	PRE	388FW	6.7	2.0	0.7	41.4	99.9	94.4	92.8	5.7	29.6	22.8	1.3	4.5	12.3	5.8
Dec-83	PRE	388FW	6.5	1.3	0.7	61.8	99.7	96.9	95.3	6.0	21.8	17.5	1.2	2.0	13.0	6.8
Jan-84	PRE	388FW	9.2	2.1	1.3	36	99.7	96.3	92.8	4.7	28.8	20.8	1.4	2.6	12.2	6.8
Feb-84	PRE	388FW	8.9	1.9	1.5	30.5	99.8	95.5	80.5	6.3	37.1	24.4	1.5	2.5	11.6	7.7
Mar-84	PRE	388FW	7.1	2.6	1.2	63.8	99.8	94	93.0	5.0	29.9	22.3	1.3	3.2	12.3	10.1
Apr-84	PRE	388FW	5.9	1.7	1.6	43.2	99.3	93.3	93.8	3.4	32.5	23.3	1.4	4.3	10.2	8.0
May-84	PRE	388FW	5.9	2.2	0.9	33	95.1	94.6	94.9	2.8	35.4	24.9	1.4	3.7	10.9	7.8
Jun-84	PRE	388FW	8.6	1.8	1.0	34	99.7	94.8	93.7	5.6	33.5	26.2	1.3	3.0	9.7	10.1
Jul-84	PRE	388FW	5.2	1.4	0.6	30.2	100	94.6	95.2	4.7	35.0	23.2	1.5	3.8	9.7	5.9
Aug-84	PRE	388FW	7.3	1.7	1.1	36.3	99.1	92.2	96.5	3.0	34.2	22.4	1.5	5.0	13.1	9.1
Sep-84	PRE	388FW	5.6	1.9	0.9	73.5	96	94.4	93.2	2.5	24.4	17.3	1.4	3.5	12.8	6.0
Oct-84	PRE	388FW	6.6	2.1	1.9	N/A	N/A	N/A	120.4	4.3	24.4	17.3	1.4	6.0	14.6	5.0
Nov-84	PRE	388FW	5.1	2.1	0.9	N/A	N/A	N/A	122.8	4.4	24.7	19.0	1.3	2.8	11.2	5.4
Dec-84	PRE	388FW	4.6	2.2	0.7	N/A	N/A	N/A	126.4	1.8	16.5	13.0	1.3	2.8	9.9	2.9
Jan-85	PRE	388FW	4.2	0.8	0.7	N/A	N/A	N/A	130.6	2.6	18.4	14.1	1.3	2.1	6.1	5.8
Feb-85	PRE	388FW	4.8	2.0	1.6	N/A	N/A	N/A	114.2	3.8	21.2	16.7	1.3	2.6	12.4	5.3
Mar-85	PRE	388FW	4.8	1.7	0.5	N/A	N/A	N/A	129.7	2.8	24.0	17.3	1.4	3.0	12.6	3.9
Apr-85	PRE	388FW	6.2	1.7	0.5	N/A	N/A	N/A	128.5	2.5	21.5	17.5	1.2	2.6	11.0	3.0
May-85	PRE	388FW	4.7	2.2	1.1	N/A	N/A	N/A	125.9	2.9	20.7	16.6	1.2	2.4	11.3	4.3
Jun-85	PRE	388FW	4.5	1.1	0.4	N/A	N/A	N/A	127.8	3.7	23.1	17.9	1.3	3.6	12.7	4.9
Jul-85	PRE	388FW	4.1	0.5	0.3	N/A	N/A	N/A	131.0	4.8	21.1	14.7	1.4	5.5	13.0	6.7
Aug-85	PRE	388FW	6.0	N/A	N/A	N/A	N/A	N/A	128.7	4.1	24.8	16.9	1.5	4.0	11.1	N/A
Sep-85	PRE	388FW	7.1	N/A	N/A	N/A	N/A	N/A	123.2	2.9	21.7	16.6	1.3	3.3	11.6	N/A
Oct-85	PRE	388FW	7.7	N/A	N/A	N/A	N/A	N/A	126.1	4.3	26.5	18.1	1.5	3.2	11.5	N/A
Nov-85	PRE	388FW	7.4	N/A	N/A	N/A	N/A	N/A	127.2	4.5	20.7	15.9	1.3	5.0	13.2	N/A
Dec-85	PRE	388FW	4.6	N/A	N/A	N/A	N/A	N/A	130.3	4.7	15.3	11.6	1.3	2.1	12.7	N/A
Jan-86	PRE	388FW	2.8	1.1	0.4	N/A	N/A	N/A	130.7	3.7	21.0	15.6	1.3	2.7	10.8	2.7
Feb-86	PRE	388FW	4.5	1.9	1.2	N/A	N/A	N/A	112.8	4.7	20.5	15.0	1.4	4.5	12.9	11.8
Mar-86	PRE	388FW	4.8	1.4	0.8	N/A	N/A	N/A	126.9	3.7	23.0	16.3	1.4	4.8	14.3	6.8
Apr-86	PRE	388FW	4.3	1.5	0.9	N/A	N/A	N/A	126.0	4.2	25.0	18.0	1.4	4.2	12.1	7.6

DATE	GROUP	UNIT	TNMCM	REP	REC	MH/FH	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	GAB	BREAK	CANN
May-86	PRE	388FW	4.6	1.8	1.3	N/A	N/A	N/A	126.0	2.6	25.8	16.6	1.6	3.8	13.7	2.9
Jun-86	PRE	388FW	4.9	1.1	0.9	N/A	N/A	N/A	125.8	2.7	24.8	19.4	1.3	4.4	11.1	3.1
Jul-86	PRE	388FW	5.9	2.4	1.2	N/A	N/A	N/A	121.3	2.6	21.7	17.8	1.2	3.4	12.2	3.8
Aug-86	PRE	388FW	3.6	1.7	1.2	N/A	N/A	N/A	116.4	3.3	18.9	15.3	1.2	3.1	12.4	8.9
Sep-86	PRE	388FW	3.6	2.8	1.7	N/A	N/A	N/A	110.9	3.7	16.0	12.1	1.3	3.5	13.8	7.2
Oct-86	PRE	388FW	4.2	2.8	2.0	N/A	N/A	N/A	106.7	2.4	22.5	16.7	1.3	3.0	13.2	3.7
Nov-86	PRE	388FW	3.6	1.9	1.7	N/A	N/A	N/A	107.0	2.3	18.9	14.2	1.3	3.8	12.5	3.2
Dec-86	PRE	388FW	3.5	1.3	1.7	N/A	N/A	N/A	105.1	2.7	12.4	8.5	1.5	3.6	18.8	7.3
Jan-87	PRE	388FW	4.6	1.8	0.9	N/A	N/A	N/A	103.0	2.9	18.0	13.3	1.4	2.9	16.5	4.5
Feb-87	PRE	388FW	4.2	1.3	0.9	N/A	N/A	N/A	88.2	3.2	22.5	17.2	1.3	1.6	12.2	4.3
Mar-87	PRE	388FW	4.9	1.9	2.5	N/A	N/A	N/A	102.3	3.3	22.1	14.7	1.5	3.4	16.7	7.9
Apr-87	PRE	388FW	5.0	1.0	1.6	N/A	N/A	N/A	101.2	3.7	26.2	18.0	1.5	3.0	9.3	8.0
May-87	PRE	388FW	2.6	1.5	1.3	N/A	N/A	N/A	100.4	4.2	19.9	13.9	1.4	2.6	10.5	6.7
Jun-87	PRE	388FW	4.3	1.3	1.6	N/A	N/A	N/A	99.6	3.6	22.2	17.5	1.3	2.1	11.7	6.5
Jul-87	PRE	388FW	3.3	1.6	0.8	N/A	N/A	N/A	99.0	3.2	26.4	19.3	1.4	3.6	10.9	4.4
Aug-87	PRE	388FW	4.4	1.4	1.4	N/A	N/A	N/A	99.0	4.4	25.8	17.2	1.5	2.2	12.3	4.2
Sep-87	PRE	388FW	4.2	1.4	1.7	N/A	N/A	N/A	99.8	4.1	14.9	10.7	1.4	4.2	13.3	9.0
Oct-87	PRE	388FW	3.6	0.4	0.2	N/A	N/A	N/A	99.5	4.2	25.8	17.7	1.5	2.5	9.3	5.7
Nov-87	PRE	388FW	5.1	0.9	0.2	N/A	N/A	N/A	100.0	5.2	20.0	13.8	1.4	2.9	14.6	9.6
Dec-87	PRE	388FW	3.2	0.4	0.2	N/A	N/A	N/A	99.7	3.8	17.2	12.9	1.3	3.3	13.1	7.6
Jan-88	PRE	388FW	4.0	0.2	0.5	N/A	N/A	N/A	101.0	3.6	16.0	12.4	1.3	2.6	9.3	3.5
Feb-88	PRE	388FW	4.4	1.1	1.0	N/A	N/A	N/A	88.3	4.6	24.2	17.7	1.4	2.7	10.8	6.8
Mar-88	PRE	388FW	4.4	1.1	1.3	N/A	N/A	N/A	101.0	4.5	24.6	17.7	1.4	3.0	9.6	5.5
Apr-88	PRE	388FW	3.4	1.2	0.8	N/A	N/A	N/A	100.5	3.0	23.2	17.2	1.4	2.7	9.6	3.4
May-88	PRE	388FW	2.4	0.6	0.5	N/A	N/A	N/A	100.0	0.7	24.1	17.2	1.4	1.7	6.3	1.2
Jun-88	PRE	388FW	2.5	N/A	N/A	N/A	N/A	N/A	99.5	0.9	23.2	17.2	1.3	N/A	N/A	N/A
Jul-88	PRE	388FW	2.2	N/A	N/A	N/A	N/A	N/A	100.0	0.9	16.6	13.2	1.3	N/A	N/A	N/A
Aug-88	PRE	388FW	1.0	N/A	N/A	N/A	N/A	N/A	95.4	0.5	N/A	N/A	1.2	N/A	N/A	N/A
Sep-88	PRE	388FW	N/A	N/A	N/A	N/A	N/A	N/A	94.0	N/A	N/A	N/A	2.4	N/A	N/A	N/A
Oct-88	PRE	388FW	4.7	1.0	0.3	13	99.8	93.8	75.0	4.5	30.1	20.8	1.5	3.0	9.5	9.6
Nov-88	PRE	388FW	7.3	5.6	1.2	16.2	100	93.9	72.0	7.3	28.5	21.2	1.3	3.4	11.6	9.7
Dec-88	PRE	388FW	7.1	4.1	1.7	14.4	98.8	93	72.1	6.0	24.4	19.2	1.3	4.0	10.8	9.5
Jan-89	PRE	388FW	6.6	6.3	2.3	18.2	97.4	94.2	74.9	7.3	24.6	19.5	1.3	3.4	9.4	11.0
Feb-89	PRE	388FW	5.0	5.8	1.8	13.3	97.2	97.5	64.8	5.5	30.5	23.3	1.3	1.8	10.7	7.1
Mar-89	PRE	388FW	5.6	4.4	1.8	11.7	99.8	96.2	74.9	3.9	37.7	23.7	1.6	2.7	10.3	5.7
Apr-89	PRE	388FW	5.1	4.1	1.0	13.2	100	95.7	75.4	3.9	30.4	21.3	1.4	3.0	9.0	7.3
May-89	PRE	388FW	5.4	3.9	1.4	14.5	100	96.3	74.7	4.8	28.0	19.8	1.4	2.8	9.8	9.5
Jun-89	PRE	388FW	5.1	5.5	1.4	15.9	100	95.4	72.5	4.0	27.3	18.2	1.5	3.6	9.7	7.2
Jul-89	PRE	388FW	5.4	6.1	2.8	18.3	99.5	95.9	67.1	4.3	23.1	17.3	1.3	2.8	11.6	10.9
Aug-89	PRE	388FW	4.7	5.4	1.7	18.1	100	94.7	61.5	5.0	26.0	17.1	1.5	3.2	12.0	11.9
Sep-89	PRE	388FW	3.7	4.9	2.4	13.7	100	95.6	63.6	4.5	20.9	14.2	1.5	2.8	10.5	9.4
Oct-89	PRE	388FW	5.1	7.5	2.0	N/A	N/A	N/A	72.4	6.0	20.3	14.7	1.4	1.8	14.0	6.8
Nov-89	PRE	388FW	N/A	9.0	2.8	N/A	N/A	N/A	74.3	N/A	19.5	13.1	1.5	1.4	13.1	N/A
Dec-89	PRE	388FW	2.7	8.1	1.7	N/A	N/A	N/A	70.4	6.2	18.5	14.0	1.3	1.7	12.2	N/A
Jan-90	PRE	388FW	2.6	7.2	2.2	N/A	N/A	N/A	72.5	3.8	19.0	14.6	1.3	1.9	11.8	N/A
Feb-90	PRE	388FW	N/A	7.6	2.2	N/A	N/A	N/A	66.7	N/A	21.0	15.2	1.4	1.7	9.2	N/A
Mar-90	PRE	388FW	N/A	8.6	4.1	N/A	N/A	N/A	79.9	N/A	23.5	16.0	1.5	2.4	12.0	N/A
Apr-90	PRE	388FW	N/A	7.2	1.8	N/A	N/A	N/A	79.8	N/A	25.8	17.0	1.5	1.2	9.2	N/A
May-90	PRE	388FW	N/A	5.7	1.9	N/A	N/A	N/A	78.7	N/A	29.8	20.2	1.5	1.2	7.3	N/A
Jun-90	PRE	388FW	N/A	5.8	2.1	N/A	N/A	N/A	79.0	N/A	26.0	19.4	1.3	1.5	8.1	N/A
Jul-90	PRE	388FW	N/A	5.2	1.8	N/A	N/A	N/A	79.0	N/A	28.2	19.8	1.4	0.6	7.2	N/A

388th FW Post-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	POST	388FW	2.7	65.7	85.7	0.4	0.5	N/A	99.9	95.8	71.0	4.5	22.1	15.9	1.4	0.3	3.1	6.2	2.4
Feb-93	POST	388FW	3.8	68.8	82.5	1.1	1.7	2.1	99.5	93.7	74.9	3.1	18.9	14.0	1.4	0.1	3.8	7.6	1.5
Mar-93	POST	388FW	2.1	68.9	90.4	1.3	0.9	2.6	99.9	95.9	78.7	3.5	29.1	20.9	1.4	0.1	2.3	10.1	2.2
Apr-93	POST	388FW	3.6	67.2	85.9	1.1	0.9	N/A	99.7	96.1	82.5	3.8	30.0	20.5	1.5	0.2	2.5	7.6	3.3
May-93	POST	388FW	4.3	75.9	89.7	1.0	1.3	2.6	99.5	95.0	79.5	4.1	26.9	17.9	1.5	0.4	2.6	10.2	3.5
Jun-93	POST	388FW	3.6	77.8	88.9	0.6	0.6	2.6	99.6	95.5	77.8	4.6	31.6	22.3	1.4	0.1	2.7	6.2	3.5
Jul-93	POST	388FW	3.5	69.8	90.5	0.5	0.4	2.3	99.8	96.3	77.0	4.3	28.5	20.7	1.4	0.1	2.3	7.3	2.6
Aug-93	POST	388FW	3.0	73.8	88.5	0.2	0.9	2.7	99.9	95.2	77.6	4.4	29.6	20.7	1.4	0.5	2.4	8.1	2.5
Sep-93	POST	388FW	2.4	68.2	84.1	0.6	0.7	2.1	100.0	95.5	78.1	6.2	26.5	13.7	1.9	0.2	2.7	10.0	3.7
Oct-93	POST	388FW	2.7	68.9	88.9	1.5	1.3	1.8	99.8	N/A	77.7	7.5	33.3	20.0	1.7	0.4	3.1	8.7	4.6
Nov-93	POST	388FW	2.1	80.9	90.4	0.9	1.3	1.7	100.0	N/A	78.0	4.9	29.6	18.4	1.6	0.2	2.6	8.0	2.9
Dec-93	POST	388FW	2.1	68.9	86.9	1.4	1.2	1.7	99.2	N/A	77.6	6.5	30.2	18.0	1.7	0.6	3.3	8.7	3.0
Jan-94	POST	388FW	3.3	73.4	87.1	2.1	1.4	2.2	100.0	N/A	76.4	10.0	30.3	18.9	1.6	0.3	2.3	8.6	6.5
Feb-94	POST	388FW	2.9	75.8	89.5	0.8	0.8	2.1	100.0	N/A	73.5	6.5	27.8	16.1	1.7	0.4	3.5	8.1	6.4
Mar-94	POST	388FW	2.0	77.7	92.9	0.9	0.5	2.3	100.0	N/A	70.5	5.3	35.7	19.2	1.9	0.1	2.7	8.3	4.1
Apr-94	POST	388FW	2.7	70.7	91.3	0.7	0.8	3.0	99.6	N/A	63.4	6.1	26.2	17.8	1.5	0.4	2.5	8.1	3.5
May-94	POST	388FW	4.3	74.3	85.1	0.7	0.6	2.5	100.0	N/A	60.1	5.4	28.7	21.5	1.3	0.3	2.5	7.8	2.5
Jun-94	POST	388FW	2.7	71.1	90.7	0.5	0.6	1.4	99.9	N/A	60.2	5.8	30.7	21.3	1.4	0.2	2.3	7.6	5.3
Jul-94	POST	388FW	2.4	70.0	90.0	0.7	1.5	2.2	99.8	N/A	61.2	6.6	26.8	19.2	1.4	0.3	3.1	6.8	2.0
Aug-94	POST	388FW	3.5	84.0	93.6	1.3	1.2	3.9	100.0	N/A	61.8	5.6	25.9	18.2	1.4	0.2	3.4	8.3	5.9
Sep-94	POST	388FW	5.8	59.0	75.6	1.7	1.2	2.2	100.0	N/A	60.9	4.5	27.8	14.9	1.9	0.3	3.0	8.6	5.7
Oct-94	POST	388FW	5.5	68.0	87.9	1.8	1.8	2.0	99.5	95.1	61.4	6.0	35.8	18.7	1.9	0.3	3.5	10.5	9.5
Nov-94	POST	388FW	5.1	64.6	85.7	1.3	2.2	N/A	99.6	95.8	46.7	1.8	37.1	22.2	1.7	0.5	3.0	8.2	5.1
Dec-94	POST	388FW	2.8	85.2	86.2	1.2	1.7	N/A	100.0	94.6	51.4	4.8	33.6	19.9	1.7	0.1	3.2	10.2	4.7
Jan-95	POST	388FW	3.9	67.5	84.8	2.0	1.2	1.7	100.0	94.4	49.1	4.9	32.2	18.5	1.7	0.3	3.8	12.1	5.1
Feb-95	POST	388FW	6.2	71.4	88.0	1.3	0.8	2.1	100.0	90.4	48.9	7.1	33.3	19.4	1.7	0.6	3.5	12.7	6.3
Mar-95	POST	388FW	7.5	71.4	86.1	0.7	1.3	2.7	99.9	93.6	50.7	7.1	34.5	18.6	1.9	0.3	2.4	10.1	7.3
Apr-95	POST	388FW	8.0	72.0	83.8	0.6	1.0	3.1	99.7	92.6	52.6	9.2	27.0	18.9	1.4	0.4	3.4	10.2	8.2
May-95	POST	388FW	7.8	67.6	84.3	0.4	1.1	3.3	99.1	94.9	57.3	7.9	26.8	20.2	1.3	0.3	3.3	8.3	8.2
Jun-95	POST	388FW	7.9	73.0	88.5	1.1	1.0	2.5	99.1	93.3	60.8	9.6	24.0	17.8	1.3	0.2	3.0	9.5	7.3
Jul-95	POST	388FW	7.2	59.0	78.1	1.0	0.9	2.6	89.8	93.4	61.2	7.3	25.6	14.3	1.8	0.5	4.2	12.0	7.8
Aug-95	POST	388FW	10.8	59.8	73.1	1.1	0.4	3.2	99.6	92.1	61.4	12.7	31.9	20.2	1.6	0.7	4.2	10.9	10.7
Sep-95	POST	388FW	8.4	63.5	71.0	1.2	1.1	2.9	99.8	95.2	60.9	11.8	29.6	20.4	1.5	0.5	3.4	7.5	10.9
Oct-95	POST	388FW	8.3	71.2	80.1	0.3	0.6	3.2	99.8	85.3	60.0	5.9	26.0	15.6	1.7	0.4	2.6	7.2	7.5
Nov-95	POST	388FW	10.8	72.6	87.0	1.7	1.2	5.0	99.5	82.7	59.4	8.3	25.6	19.4	1.3	0.4	4.6	12.1	12.4
Dec-95	POST	388FW	9.2	72.2	89.5	1.2	1.6	6.3	99.8	74.5	61.2	7.6	21.4	15.3	1.4	0.5	5.0	10.5	10.9
Jan-96	POST	388FW	7.3	76.9	86.5	1.0	0.8	6.3	83.7	53.6	62.8	9.1	16.6	11.7	1.4	1.1	5.8	14.2	12.4
Feb-96	POST	388FW	8.2	64.0	77.3	1.1	1.0	4.6	99.4	56.5	62.0	7.9	20.8	14.1	1.5	0.7	4.0	13.8	7.2
Mar-96	POST	388FW	9.8	62.8	80.5	1.4	2.0	3.6	100.0	80.8	60.1	9.1	29.1	17.1	1.7	0.7	3.7	15.9	9.3
Apr-96	POST	388FW	9.7	65.8	73.6	1.1	0.8	3.3	100.0	86.8	60.5	8.8	28.9	18.8	1.5	1.3	4.2	12.4	11.3
May-96	POST	388FW	11.3	62.5	82.8	1.2	1.4	2.5	100.0	92.1	59.4	8.9	38.9	24.4	1.6	0.4	2.9	9.5	7.9
Jun-96	POST	388FW	7.3	78.7	92.1	0.7	1.0	2.2	100.0	92.4	59.3	7.1	27.5	18.7	1.5	0.5	3.1	9.4	5.8
Jul-96	POST	388FW	10.1	68.3	85.4	1.5	1.1	2.6	100.0	89.6	58.5	12.6	32.7	20.4	1.6	0.4	3.7	9.8	10.5
Aug-96	POST	388FW	10.3	65.3	79.5	2.0	2.1	2.6	100.0	86.7	58.1	13.3	32.9	18.4	1.8	1.3	4.6	11.2	8.7
Sep-96	POST	388FW	8.4	62.7	76.4	1.4	1.4	3.0	100.0	79.6	55.2	6.7	25.2	14.7	1.7	1.2	6.1	12.6	8.0
Oct-96	POST	388FW	6.8	64.7	80.8	1.0	0.7	2.5	97.8	79.3	52.3	8.0	24.2	15.4	1.6	0.7	5.9	13.8	8.3
Nov-96	POST	388FW	9.9	68.4	84.6	0.9	1.0	2.7	100.0	83.5	54.0	14.0	27.0	17.0	1.6	0.7	5.5	9.4	9.0

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	MSE	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	POST	388FW	11.9	66.5	84.4	1.2	1.2	3.4	99.3	63.2	54.0	8.3	24.4	12.8	1.9	0.4	4.2	11.3	14.0
Jan-97	POST	388FW	13.8	61.1	81.9	1.4	2.1	5.7	99.8	53.6	53.4	11.0	19.9	13.6	1.5	0.8	6.5	9.9	9.3
Feb-97	POST	388FW	12.0	69.1	82.0	1.5	0.9	5.3	98.5	72.3	51.2	11.6	24.6	17.1	1.4	0.3	4.2	10.6	8.4
Mar-97	POST	388FW	15.5	67.9	83.4	0.9	0.8	7.4	100.0	77.3	51.9	11.5	25.4	18.4	1.4	0.6	4.0	8.8	7.8
Apr-97	POST	388FW	15.5	58.7	79.4	0.7	0.6	9.8	100.4	70.1	54.0	12.1	23.5	19.2	1.2	0.7	4.3	8.4	10.3
May-97	POST	388FW	14.8	54.9	69.1	1.2	1.1	8.2	99.6	83.2	54.1	13.1	27.4	19.1	1.4	0.5	4.4	9.5	13.4
Jun-97	POST	388FW	13.7	58.6	78.7	1.5	0.6	7.3	N/A	88.2	53.8	12.8	29.7	21.6	1.4	1.5	3.7	10.7	14.7
Jul-97	POST	388FW	20.1	59.9	74.2	1.0	1.5	8.7	100.0	72.7	53.5	14.3	26.9	18.3	1.5	0.6	4.5	11.4	17.9
Aug-97	POST	388FW	16.8	55.2	68.8	1.7	1.7	10.3	100.0	71.6	54.0	14.1	21.0	15.3	1.4	1.1	4.6	11.6	32.6
Sep-97	POST	388FW	16.3	48.7	68.9	1.5	1.1	6.6	97.0	78.8	54.0	17.6	34.9	17.2	2.0	1.4	3.9	12.8	20.9
Oct-97	POST	388FW	17.3	56.0	74.7	1.5	1.3	7.2	99.5	81.0	54.1	15.8	31.7	15.7	2.0	1.4	4.3	12.6	13.5
Nov-97	POST	388FW	17.6	55.3	78.1	1.5	0.7	7.6	100.0	82.3	54.3	12.8	33.6	17.3	1.9	1.4	6.3	10.8	12.2
Dec-97	POST	388FW	18.8	47.2	67.8	3.1	1.8	9.4	100.0	70.8	54.5	13.6	28.2	14.0	2.0	0.5	9.6	10.8	8.5
Jan-98	POST	388FW	20.3	48.4	74.6	1.6	1.6	8.7	90.1	71.0	52.5	16.0	32.3	16.2	2.0	1.4	4.5	9.0	13.9
Feb-98	POST	388FW	18.3	58.5	71.9	2.4	1.9	19.0	92.7	52.8	51.1	14.9	17.8	13.1	1.4	1.5	4.0	11.2	22.5
Mar-98	POST	388FW	17.3	61.0	70.1	1.5	2.3	15.5	96.2	64.6	51.1	15.5	27.3	19.2	1.4	1.1	5.4	11.2	12.1
Apr-98	POST	388FW	17.7	45.5	62.2	1.5	1.7	11.7	92.6	71.5	52.4	16.5	30.0	17.7	1.7	1.1	4.9	11.6	10.3
May-98	POST	388FW	20.5	54.3	72.4	0.8	2.3	14.3	N/A	73.6	53.5	16.0	29.3	17.7	1.7	1.3	6.3	11.1	12.3
Jun-98	POST	388FW	15.6	59.6	72.0	1.1	1.2	8.9	93.4	76.3	53.5	10.0	28.4	16.0	1.8	0.8	4.3	10.4	7.3
Jul-98	POST	388FW	21.0	56.3	70.4	1.1	1.2	18.8	95.6	75.4	54.0	15.4	22.2	17.0	1.3	1.2	5.6	9.3	9.8
Aug-98	POST	388FW	21.2	60.6	70.2	1.8	0.6	16.4	89.6	68.3	53.8	15.0	24.1	15.5	1.6	1.2	5.9	8.7	9.5
Sep-98	POST	388FW	22.8	58.7	72.4	1.0	0.6	13.2	81.9	75.7	54.0	15.8	30.4	16.7	1.8	1.0	5.4	8.9	14.4
Oct-98	POST	388FW	21.3	66.9	81.9	2.4	1.8	16.8	97.3	66.2	53.2	15.2	22.9	15.5	1.5	0.7	5.7	8.9	12.4
Nov-98	POST	388FW	25.8	69.0	80.5	0.6	0.7	10.6	95.4	68.2	53.4	13.6	25.8	13.1	2.0	0.3	5.7	8.7	12.7
Dec-98	POST	388FW	25.3	73.6	88.3	2.1	1.3	14.9	89.4	65.0	55.0	15.0	17.1	12.9	1.3	0.8	5.8	12.4	11.2
Jan-99	POST	388FW	25.3	56.3	73.5	1.6	0.9	16.3	94.6	72.2	56.3	14.6	20.5	13.2	1.6	0.9	5.3	11.7	14.1
Feb-99	POST	388FW	21.8	55.4	73.5	2.7	2.6	21.7	92.7	61.7	57.7	10.7	17.1	12.6	1.4	0.7	5.6	12.9	14.4
Mar-99	POST	388FW	19.9	57.3	71.7	2.0	1.0	15.2	93.5	67.0	57.7	11.0	23.5	16.3	1.4	1.1	5.4	11.1	16.9
Apr-99	POST	388FW	14.6	60.3	80.0	2.2	1.7	16.7	95.7	54.3	56.0	10.0	21.2	14.9	1.4	1.8	3.6	11.5	11.9
May-99	POST	388FW	14.1	64.4	76.4	1.9	1.5	14.0	96.8	76.1	56.0	10.7	20.7	16.2	1.3	1.4	4.6	10.1	8.9
Jun-99	POST	388FW	13.3	65.5	83.3	1.5	1.3	13.1	97.5	89.7	56.0	9.2	26.3	20.4	1.3	0.8	4.3	10.3	11.3
Jul-99	POST	388FW	17.5	59.9	69.9	1.4	0.7	13.1	95.5	79.5	55.8	12.4	24.3	18.1	1.3	1.3	5.4	8.9	10.4
Aug-99	POST	388FW	13.7	54.5	73.0	1.3	0.9	10.9	92.7	79.7	53.9	11.6	28.2	21.6	1.3	0.5	5.1	7.4	9.6
Sep-99	POST	388FW	18.7	58.3	74.1	1.2	1.1	16.2	94.9	75.8	55.0	14.2	20.8	15.4	1.4	0.5	3.4	7.5	12.1
Oct-99	POST	388FW	15.3	62.5	79.5	1.2	2.0	11.4	N/A	86.0	55.0	14.3	26.0	18.5	1.4	1.1	5.6	11.0	12.9
Nov-99	POST	388FW	20.8	60.9	74.7	1.6	1.1	14.7	87.7	76.8	55.8	14.5	22.9	15.6	1.5	1.3	4.7	10.0	13.8
Dec-99	POST	388FW	20.4	53.7	72.2	0.6	1.4	14.5	96.1	64.4	55.7	16.7	20.8	11.5	1.8	1.1	6.4	8.4	11.2
Jan-00	POST	388FW	17.5	49.4	69.6	1.1	1.1	14.7	75.3	64.9	56.9	19.9	19.7	14.2	1.4	1.4	5.6	9.7	15.8
Feb-00	POST	388FW	18.0	59.1	75.3	2.3	0.9	14.5	79.7	65.0	58.0	17.8	21.1	15.1	1.4	0.8	6.3	10.6	15.0
Mar-00	POST	388FW	20.5	58.2	68.1	1.5	1.5	14.4	84.6	64.7	58.1	13.4	23.5	15.4	1.5	1.3	5.4	10.2	10.7
Apr-00	POST	388FW	17.6	61.3	69.9	0.8	0.8	13.0	95.3	80.7	57.8	13.6	26.2	19.1	1.4	0.5	3.8	8.4	10.2
May-00	POST	388FW	17.2	60.2	74.8	0.5	1.0	11.2	94.0	82.0	55.3	11.8	28.6	21.4	1.3	1.6	4.1	8.7	9.3
Jun-00	POST	388FW	15.2	59.3	79.0	1.2	1.1	7.4	84.1	75.9	54.0	13.5	26.5	20.9	1.3	1.0	4.6	7.2	2.1
Jul-00	POST	388FW	21.2	44.8	59.7	1.2	1.2	14.5	92.2	74.2	58.9	13.9	22.8	18.0	1.3	0.7	6.0	6.3	7.1
Aug-00	POST	388FW	25.0	49.6	65.0	0.9	0.7	10.5	84.9	81.0	58.9	17.3	33.3	24.1	1.4	0.5	4.4	8.7	11.0
Sep-00	POST	388FW	24.6	60.3	73.1	0.6	1.8	11.5	79.0	74.6	57.6	17.6	21.3	14.8	1.4	0.7	4.7	9.2	9.1

347th WG Pre-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	REP	REC	MH/FH	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
May-87	PRE	347WG	4.0	1.5	0.8	13.6	12.6	0.5	13.5	10.4	1.3	0.8	1.5	10.7	36.6
Jun-87	PRE	347WG	5.4	1.7	3.0	13.8	18.9	1.4	15.8	12.1	1.3	1.7	4.2	13.9	10.4
Jul-87	PRE	347WG	7.2	1.2	1.2	10.9	20.0	6.4	20.8	16.7	1.3	0.6	4.6	7.5	12.9
Aug-87	PRE	347WG	8.8	1.9	1.6	12.9	20.0	10.3	20.1	15.4	1.3	5.5	6.7	11.0	17.9
Sep-87	PRE	347WG	6.4	2.2	1.1	14.4	20.0	11.0	18.5	13.7	1.4	3.3	3.2	10.6	14.2
Oct-87	PRE	347WG	9.1	0.2	0.2	10.5	22.6	12.1	33.9	23.7	1.4	0.4	2.9	11.4	9.1
Nov-87	PRE	347WG	6.6	0.8	1.9	11.1	29.2	8.9	25.9	17.7	1.5	2.1	4.8	12.4	7.9
Dec-87	PRE	347WG	8.6	0.5	0.8	11.7	40.4	7.3	21.4	16.0	1.3	8.5	3.7	10.8	9.6
Jan-88	PRE	347WG	6.0	0.3	0.4	9.9	43.0	3.9	25.0	17.3	1.4	2.2	4.9	11.2	6.6
Feb-88	PRE	347WG	9.9	2.1	1.6	10.3	48.2	4.4	26.3	18.9	1.4	4.2	6.6	12.3	4.2
Mar-88	PRE	347WG	10.2	2.1	1.4	8.7	63.5	4.9	29.0	20.7	1.4	1.9	6.7	11.6	4.9
Apr-88	PRE	347WG	7.5	2.2	1.7	8.3	69.4	6.3	24.9	19.4	1.3	5.2	5.3	12.5	5.6
May-88	PRE	347WG	7.3	1.2	0.8	5.9	72.5	5.3	25.2	19.6	1.3	1.3	4.4	13.5	5.9
Jun-88	PRE	347WG	6.3	0.1	0.3	N/A	78.6	7.0	28.8	19.9	1.4	0.8	5.7	15.9	N/A
Jul-88	PRE	347WG	11.1	0.2	0.2	N/A	78.5	6.5	21.8	15.4	1.4	2.1	5.5	22.3	N/A
Aug-88	PRE	347WG	12.8	0.6	0.1	N/A	76.3	9.5	28.1	21.3	1.3	1.0	8.2	20.5	1.2
Sep-88	PRE	347WG	6.5	2.1	0.9	8.4	72.3	5.1	25.2	17.5	1.4	1.3	10.1	15.5	12.2
Oct-88	PRE	347WG	7.6	2.3	0.9	6.1	75.4	6.2	34.7	21.7	1.6	0.8	4.6	14.6	8.0
Nov-88	PRE	347WG	9.4	1.9	1.1	6.4	73.2	6.6	30.4	21.6	1.4	0.6	4.4	14.4	7.5
Dec-88	PRE	347WG	7.7	1.4	0.8	6.1	74.1	5.5	28.5	21.4	1.3	0.8	4.2	12.5	8.5
Jan-89	PRE	347WG	8.6	2.7	1.7	7.8	74.5	9.2	29.5	22.6	1.3	0.3	4.7	15.6	10.5
Feb-89	PRE	347WG	7.5	3.2	1.8	6.4	64.8	8.1	27.4	24.2	1.1	0.9	3.9	12.7	8.8
Mar-89	PRE	347WG	7.7	5.8	2.6	7.1	75.1	6.1	27.8	21.9	1.3	0.4	4.0	11.3	8.7
Apr-89	PRE	347WG	6.5	5.9	2.9	6.2	75.1	8.0	31.1	21.5	1.4	0.1	4.0	11.5	13.4
May-89	PRE	347WG	4.7	6.8	2.9	6.4	75.4	5.6	30.0	21.3	1.4	0.1	2.9	12.4	11.3
Jun-89	PRE	347WG	7.7	5.5	2.7	N/A	76.0	7.0	31.2	23.1	1.3	0.4	4.2	9.1	10.2
Jul-89	PRE	347WG	6.1	7.1	2.6	N/A	75.9	7.2	27.9	21.9	1.3	0.2	3.9	12.4	13.2
Aug-89	PRE	347WG	8.5	9.0	4.6	6.6	75.9	10.1	35.5	22.8	1.6	0.2	3.8	14.4	18.7
Sep-89	PRE	347WG	6.0	4.4	2.2	N/A	75.3	10.2	27.2	16.4	1.7	0.1	3.1	10.5	24.0
Oct-89	PRE	347WG	6.9	11.2	4.5	4.9	74.6	9.9	27.2	20.2	1.3	0.0	2.8	13.8	11.4
Nov-89	PRE	347WG	N/A	12.2	4.0	N/A	76.0	N/A	27.9	20.3	1.4	0.0	3.1	12.8	N/A
Dec-89	PRE	347WG	6.5	12.1	5.2	N/A	76.0	9.1	21.1	16.3	1.3	0.3	4.2	13.0	N/A
Jan-90	PRE	347WG	6.4	9.6	4.5	8.8	76.2	9.7	28.9	20.1	1.4	0.4	2.0	14.1	22.8
Feb-90	PRE	347WG	6.8	10.3	4.9	N/A	67.0	14.1	29.7	21.0	1.4	0.4	2.6	15.9	N/A
Mar-90	PRE	347WG	N/A	9.6	5.2	N/A	77.6	N/A	23.9	17.2	1.4	0.2	2.2	14.6	N/A
Apr-90	PRE	347WG	N/A	10.1	5.2	N/A	74.1	N/A	23.2	16.6	1.4	0.5	1.8	14.7	N/A
May-90	PRE	347WG	2.6	7.7	5.8	N/A	71.4	2.3	21.5	14.3	1.5	0.2	2.8	14.9	N/A
Jun-90	PRE	347WG	N/A	5.9	3.2	N/A	74.8	N/A	26.6	17.6	1.5	0.0	1.7	12.1	N/A
Jul-90	PRE	347WG	4.5	9.5	2.8	N/A	76.8	5.9	24.7	16.8	1.5	0.3	2.5	13.5	N/A

347th WG Post-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	POST	347WG	3.0	N/A	N/A	3.8	2.4	1.4	96.1	105.3	4.6	19.8	14.4	1.4	0.2	2.9	8.6	6.9
Feb-93	POST	347WG	5.6	N/A	N/A	2.5	2.7	1.5	95.6	100.9	5.5	23.2	17.6	1.3	0.2	2.9	8.8	7.6
Mar-93	POST	347WG	4.6	N/A	N/A	6.3	2.4	3.1	94.9	98.8	4.7	26.3	16.4	1.6	0.2	2.9	8.5	9.5
Apr-93	POST	347WG	5.7	N/A	N/A	5.3	2.2	N/A	96.4	94.8	5.6	31.5	19.6	1.6	0.2	2.5	7.4	6.2
May-93	POST	347WG	4.4	N/A	N/A	3.5	3.2	1.7	96.0	93.6	6.2	31.4	21.3	1.5	0.2	2.3	6.8	5.2
Jun-93	POST	347WG	5.5	N/A	N/A	6.6	2.7	2.5	95.5	93.2	5.6	25.9	16.4	1.6	0.1	2.7	9.0	7.2
Jul-93	POST	347WG	3.8	N/A	N/A	4.1	2.4	2.4	96.9	92.4	6.4	32.7	20.9	1.6	0.3	2.1	10.2	7.2
Aug-93	POST	347WG	5.3	N/A	N/A	3.5	1.5	2.4	95.5	89.4	6.6	32.9	20.2	1.6	0.1	2.8	9.1	8.7
Sep-93	POST	347WG	3.9	N/A	N/A	3.4	1.3	2.6	97.3	87.4	4.3	23.5	14.0	1.7	0.2	1.7	8.4	8.4
Oct-93	POST	347WG	8.1	N/A	N/A	5.2	2.6	3.2	N/A	87.8	5.0	22.5	16.4	1.4	0.3	2.4	11.6	4.5
Nov-93	POST	347WG	6.3	N/A	N/A	5.5	2.6	3.5	N/A	82.7	4.7	24.5	17.9	1.4	0.1	1.5	10.9	6.9
Dec-93	POST	347WG	8.4	N/A	N/A	6.5	3.3	3.9	N/A	79.0	5.7	25.1	18.5	1.4	0.1	1.8	9.0	7.1
Jan-94	POST	347WG	10.7	N/A	N/A	6.2	2.5	3.5	N/A	75.3	5.1	26.7	18.7	1.4	0.1	1.5	7.2	9.1
Feb-94	POST	347WG	7.4	N/A	N/A	8.0	1.9	3.3	N/A	66.8	5.8	26.3	17.7	1.5	0.0	2.8	8.6	9.6
Mar-94	POST	347WG	6.0	N/A	N/A	9.0	2.6	2.7	N/A	59.5	5.9	34.5	19.5	1.8	0.0	2.2	10.0	6.2
Apr-94	POST	347WG	4.7	N/A	N/A	6.5	2.6	3.1	N/A	60.5	6.0	24.2	14.6	1.7	0.0	2.1	7.9	5.1
May-94	POST	347WG	5.3	N/A	N/A	5.5	2.2	2.6	N/A	60.1	6.6	36.3	20.4	1.8	0.6	2.3	9.7	9.4
Jun-94	POST	347WG	5.9	N/A	N/A	4.7	2.6	2.6	N/A	58.5	7.6	37.7	19.2	2.0	0.3	3.4	11.5	9.1
Jul-94	POST	347WG	5.4	N/A	N/A	3.9	2.4	2.2	N/A	58.9	8.3	34.1	19.6	1.7	0.4	3.8	10.2	5.1
Aug-94	POST	347WG	3.8	N/A	N/A	4.1	1.8	2.0	N/A	58.1	5.4	35.0	19.1	1.8	0.2	3.3	10.6	5.1
Sep-94	POST	347WG	3.3	N/A	N/A	3.0	2.8	2.6	N/A	60.0	5.0	22.8	11.1	2.0	0.4	3.5	9.9	8.5
Oct-94	POST	347WG	5.1	69.2	87.7	0.9	0.9	4.6	94.2	39.8	4.5	27.4	18.9	1.4	0.0	3.5	8.6	7.3
Nov-94	POST	347WG	4.5	60.0	81.4	0.8	1.1	N/A	96.2	39.5	5.2	26.9	19.9	1.4	0.4	2.5	8.9	8.3
Dec-94	POST	347WG	5.6	67.3	80.0	0.8	0.4	N/A	93.8	38.0	5.8	26.4	19.5	1.4	0.3	3.9	7.4	8.5
Jan-95	POST	347WG	6.1	68.0	84.0	0.5	0.8	4.2	94.7	39.4	5.1	28.6	20.1	1.4	0.0	4.0	9.5	11.7
Feb-95	POST	347WG	14.7	62.5	85.4	1.0	0.7	5.7	92.8	41.5	7.5	23.7	16.6	1.4	0.1	3.2	7.0	10.2
Mar-95	POST	347WG	10.0	57.1	78.6	1.1	1.4	3.0	88.8	43.0	6.7	34.6	16.2	2.1	0.1	3.5	8.0	11.8
Apr-95	POST	347WG	7.7	67.4	85.3	0.9	0.7	2.4	95.1	44.6	7.4	39.4	19.7	2.0	0.2	3.5	10.8	15.5
May-95	POST	347WG	9.9	64.4	78.2	0.3	1.0	2.2	93.5	41.0	8.8	44.5	22.6	2.0	0.2	3.2	9.4	14.0
Jun-95	POST	347WG	10.2	61.9	83.3	1.1	0.9	2.0	93.7	40.5	6.4	35.5	16.1	2.2	0.3	4.1	12.9	8.9
Jul-95	POST	347WG	8.5	59.5	81.0	0.6	1.4	2.4	97.0	39.7	9.0	45.6	22.3	2.0	0.8	2.9	14.2	16.4
Aug-95	POST	347WG	8.8	64.8	83.6	1.1	1.4	2.6	95.5	39.7	8.6	47.6	23.6	2.0	0.5	3.4	13.0	19.8
Sep-95	POST	347WG	9.6	50.7	68.0	1.3	1.7	2.5	94.5	41.0	7.9	30.7	13.1	2.3	0.9	4.4	13.9	12.3
Oct-95	POST	347WG	10.3	61.0	75.3	2.1	0.8	4.5	99.8	18.0	12.8	24.4	36.3	0.7	0.3	2.8	5.5	3.5
Nov-95	POST	347WG	13.6	53.7	70.6	3.6	1.9	2.8	90.5	31.0	10.5	16.8	19.0	0.9	1.2	4.4	6.3	5.2
Dec-95	POST	347WG	7.3	58.5	76.0	4.1	3.4	4.2	71.6	41.7	9.3	9.0	9.8	0.9	1.5	5.3	9.0	3.8
Jan-96	POST	347WG	10.1	57.4	76.6	0.0	0.0	6.2	74.5	42.3	8.2	15.0	18.7	0.8	0.3	3.9	4.8	3.8
Feb-96	POST	347WG	13.8	55.7	64.8	1.4	1.1	7.1	67.5	41.4	7.8	13.8	17.0	0.8	0.4	4.7	6.8	8.3
Mar-96	POST	347WG	12.4	53.1	82.5	3.4	1.4	9.1	61.6	40.6	8.5	11.7	17.1	0.7	0.4	4.4	6.5	6.4
Apr-96	POST	347WG	9.2	67.3	75.5	4.6	3.0	4.8	76.2	19.1	7.9	32.7	19.3	1.7	0.3	5.6	7.6	5.9
May-96	POST	347WG	12.5	58.0	74.2	6.7	5.2	4.8	90.3	40.1	7.6	17.8	10.5	1.7	0.7	7.5	3.6	6.8
Jun-96	POST	347WG	11.6	53.8	73.0	2.5	1.7	5.3	76.0	39.1	9.3	18.4	16.3	1.1	0.3	3.9	5.2	N/A
Jul-96	POST	347WG	14.6	71.1	78.3	1.9	2.5	18.3	73.8	41.3	7.2	5.8	11.5	0.5	0.6	6.0	3.8	3.7
Aug-96	POST	347WG	12.3	49.1	59.8	4.5	2.8	7.6	62.5	19.9	6.5	34.3	26.6	1.3	0.4	4.0	6.0	11.5
Sep-96	POST	347WG	16.4	54.6	76.4	2.6	2.3	2.3	79.2	39.0	10.8	26.1	10.9	2.4	0.2	4.5	4.7	13.8
Oct-96	POST	347WG	12.2	57.7	71.1	1.4	0.4	2.6	81.4	39.0	16.0	40.5	19.5	2.1	0.5	4.8	12.8	31.2
Nov-96	POST	347WG	15.8	73.7	84.2	1.2	0.8	1.9	81.5	34.3	12.1	35.7	19.1	1.9	0.3	4.2	11.6	14.8

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	POST	347WG	10.7	49.2	75.4	1.2	1.0	2.0	85.4	41.7	9.3	24.1	9.9	2.4	0.7	6.2	14.8	22.1
Jan-97	POST	347WG	15.4	62.3	77.9	2.8	2.1	3.3	81.7	35.3	12.2	37.8	18.5	2.0	0.5	6.3	11.8	20.8
Feb-97	POST	347WG	17.2	50.6	74.2	1.7	1.1	3.2	85.3	35.4	9.8	40.8	20.1	2.0	0.8	4.7	12.5	14.3
Mar-97	POST	347WG	13.9	50.0	67.5	3.1	1.6	2.5	78.7	34.2	9.3	41.3	16.0	2.6	0.5	3.7	7.3	18.3
Apr-97	POST	347WG	21.2	66.7	82.5	0.8	0.8	8.4	68.5	35.6	12.3	26.6	18.3	1.5	0.5	4.4	8.7	23.9
May-97	POST	347WG	19.7	55.4	73.8	0.7	0.7	7.5	71.7	35.6	15.3	24.4	17.1	1.4	0.7	5.0	10.6	29.0
Jun-97	POST	347WG	27.8	38.5	69.2	0.6	0.1	6.7	72.8	36.3	14.0	24.9	18.6	1.3	0.1	3.6	7.7	22.1
Jul-97	POST	347WG	19.8	38.3	53.2	1.0	0.4	9.3	78.0	36.1	15.5	24.1	20.2	1.2	0.5	3.8	6.4	25.1
Aug-97	POST	347WG	27.3	54.3	71.7	0.7	1.4	15.5	75.5	34.9	17.9	22.2	16.1	1.4	0.4	5.1	8.2	17.2
Sep-97	POST	347WG	28.4	55.6	77.8	0.4	0.9	18.0	57.4	35.6	25.8	16.9	13.0	1.3	0.6	5.9	7.8	28.0
Oct-97	POST	347WG	25.0	46.0	62.0	1.8	2.1	12.4	70.7	36.0	22.9	22.5	16.9	1.3	1.1	5.0	8.2	21.2
Nov-97	POST	347WG	15.8	65.7	80.0	1.5	3.1	6.2	70.3	34.3	12.1	22.2	12.0	1.8	0.2	5.7	8.5	16.9
Dec-97	POST	347WG	16.0	51.9	69.2	0.3	0.9	8.3	86.0	34.5	14.4	27.4	19.8	1.4	0.7	4.1	7.6	12.8
Jan-98	POST	347WG	12.4	63.2	84.2	1.1	0.0	10.8	77.1	35.1	10.8	23.4	13.1	1.8	1.3	4.3	8.2	9.1
Feb-98	POST	347WG	23.2	31.1	64.4	1.7	1.2	12.4	78.0	36.0	13.9	27.3	16.4	1.7	1.0	5.4	7.6	12.7
Mar-98	POST	347WG	25.8	46.7	64.0	1.3	0.7	13.4	75.0	35.7	14.2	31.7	17.1	1.8	0.2	3.8	12.3	9.5
Apr-98	POST	347WG	17.9	55.9	76.5	0.6	0.0	7.1	75.7	36.2	11.2	27.7	18.3	1.5	1.4	3.9	5.1	7.9
May-98	POST	347WG	23.9	46.6	70.7	0.5	0.5	12.5	84.6	37.0	11.8	24.8	18.0	1.4	1.1	3.6	8.7	8.7
Jun-98	POST	347WG	29.6	57.4	77.8	0.9	1.7	20.6	77.5	37.6	14.8	19.6	15.6	1.3	0.9	4.4	9.2	19.3
Jul-98	POST	347WG	31.0	59.0	79.5	0.6	0.9	16.3	81.2	37.6	14.1	23.3	17.0	1.4	0.8	4.0	6.1	12.6
Aug-98	POST	347WG	25.1	46.9	71.4	0.9	1.7	15.8	84.7	39.5	17.4	21.6	16.7	1.3	1.2	3.9	7.4	9.4
Sep-98	POST	347WG	28.8	34.0	54.0	1.6	1.9	19.2	63.4	39.4	13.5	19.7	14.6	1.3	1.4	4.9	8.7	20.1
Oct-98	POST	347WG	29.3	31.3	58.3	1.6	2.0	15.7	80.0	38.8	25.6	21.7	17.6	1.2	0.9	4.5	7.0	10.5
Nov-98	POST	347WG	18.0	54.5	63.6	1.0	0.8	16.7	75.6	39.1	13.2	16.8	12.6	1.3	0.2	6.3	6.7	4.4
Dec-98	POST	347WG	27.3	51.0	68.6	1.9	2.1	20.4	62.9	39.5	21.0	18.7	14.6	1.3	1.0	4.0	8.9	14.6
Jan-99	POST	347WG	25.7	35.9	62.5	1.9	3.9	21.8	68.3	39.4	19.5	18.8	13.6	1.4	0.9	6.0	12.0	16.3
Feb-99	POST	347WG	23.8	61.3	72.0	5.3	5.5	17.8	72.7	38.5	13.7	21.6	14.3	1.5	0.5	3.3	16.9	10.4
Mar-99	POST	347WG	33.8	50.0	81.1	2.9	3.2	13.5	71.3	39.1	13.5	29.9	20.0	1.5	0.4	3.5	15.6	8.4
Apr-99	POST	347WG	32.8	44.7	72.3	1.0	0.6	10.4	74.2	39.5	15.2	17.7	12.3	1.4	0.4	7.1	9.7	6.2
May-99	POST	347WG	19.5	39.0	69.5	1.1	1.1	6.7	64.0	39.3	12.4	22.5	17.8	1.3	0.3	6.3	8.4	3.7
Jun-99	POST	347WG	26.6	42.3	60.6	1.0	0.8	6.6	77.9	39.0	15.2	23.4	16.1	1.4	0.6	5.0	11.3	5.6
Jul-99	POST	347WG	20.5	47.2	58.3	2.5	0.8	10.3	77.8	39.5	13.5	12.3	8.9	1.4	0.6	6.9	10.2	21.2
Aug-99	POST	347WG	18.2	55.4	74.7	1.4	2.5	9.7	85.0	39.4	12.6	22.5	18.1	1.2	0.1	6.1	11.7	11.4
Sep-99	POST	347WG	17.4	49.2	70.5	0.7	0.8	6.0	81.5	39.6	12.9	21.6	15.3	1.4	0.0	6.1	10.1	11.7
Oct-99	POST	347WG	28.3	31.0	55.2	0.5	0.5	7.3	62.7	39.2	16.2	20.1	11.2	1.8	0.2	5.2	6.6	14.1
Nov-99	POST	347WG	32.3	42.4	66.7	0.7	0.7	9.0	68.8	38.8	19.0	21.8	14.8	1.5	0.7	5.4	11.5	12.4
Dec-99	POST	347WG	28.4	25.5	51.0	0.6	0.2	10.5	70.9	38.7	16.8	19.0	12.6	1.5	1.2	6.9	10.5	16.2
Jan-00	POST	347WG	29.4	51.3	63.2	0.9	1.1	11.9	76.8	39.3	14.3	22.7	16.8	1.3	0.9	5.5	11.5	14.7
Feb-00	POST	347WG	19.9	48.1	73.1	0.5	1.4	12.0	81.1	39.2	10.5	22.2	15.9	1.4	0.3	3.9	8.3	11.4
Mar-00	POST	347WG	16.5	46.0	66.7	0.5	0.5	9.5	74.9	38.7	11.4	25.8	18.9	1.4	0.7	6.5	8.6	13.6
Apr-00	POST	347WG	19.4	46.2	74.4	0.4	1.0	6.9	80.3	36.7	14.6	25.2	18.3	1.4	0.6	5.8	5.8	8.8
May-00	POST	347WG	16.7	52.2	71.7	0.5	0.7	9.8	82.5	34.4	14.3	22.9	16.3	1.4	0.2	4.8	8.2	14.1
Jun-00	POST	347WG	24.9	66.7	76.7	0.0	0.2	8.7	76.2	34.7	15.1	25.3	16.6	1.5	0.3	4.6	5.2	14.4
Jul-00	POST	347WG	17.4	65.0	82.5	1.6	0.9	7.5	82.4	33.8	14.5	24.6	17.0	1.4	0.3	4.8	7.0	10.1
Aug-00	POST	347WG	17.2	49.2	72.3	1.0	0.5	7.9	77.3	33.6	13.5	28.8	18.6	1.5	0.3	4.0	10.4	8.6
Sep-00	POST	347WG	17.8	53.8	78.1	17.6	1.6	8.7	88.3	32.3	14.4	20.9	15.2	1.4	0.4	2.8	3.7	8.4

52nd FW Pre-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Oct-87	PRE	52FW	17.8	1.4	0.3	10.1	88.9	21.6	9.0	21.7	13.3	1.6	0.7	8.3	16.7	13.9
Nov-87	PRE	52FW	13.7	0.3	0.6	12.1	89.6	28.7	10.4	16.6	11.1	1.5	0.3	9.2	14.8	10.7
Dec-87	PRE	52FW	13.1	0.3	0.3	13.1	90.4	33.4	4.6	13.1	10.7	1.2	1.1	10.5	10.6	13.4
Jan-88	PRE	52FW	6.5	1.4	1.2	9.9	93.9	34.1	6.3	16.0	12.4	1.3	0.0	5.4	12.8	10.4
Feb-88	PRE	52FW	8.7	1.5	1.1	7.0	94.8	31.7	9.3	21.6	16.8	1.3	0.2	5.7	12.4	7.3
Mar-88	PRE	52FW	8.3	3.5	2.1	8.9	93.3	38.7	13.8	18.5	15.7	1.2	0.3	6.9	12.8	7.9
Apr-88	PRE	52FW	9.3	1.2	0.6	5.3	95.3	39.0	9.0	21.8	17.0	1.3	0.0	3.6	11.1	6.2
May-88	PRE	52FW	5.5	0.8	1.2	5.2	93.7	39.0	7.5	19.1	15.6	1.2	0.2	6.5	10.5	4.3
Jun-88	PRE	52FW	7.0	0.6	0.0	N/A	96.1	38.5	8.3	15.6	12.0	1.3	0.0	4.5	8.0	N/A
Jul-88	PRE	52FW	7.3	0.1	0.1	N/A	93.5	37.0	7.6	23.7	18.7	1.3	0.6	4.2	9.7	N/A
Aug-88	PRE	52FW	9.6	0.6	0.4	N/A	93.2	37.0	11.9	33.1	25.8	1.3	0.8	4.2	11.2	N/A
Sep-88	PRE	52FW	5.9	0.9	0.9	5.3	94.8	36.1	7.0	21.1	15.7	1.3	0.5	4.5	9.5	11.5
Oct-88	PRE	52FW	5.9	3.4	1.0	6.9	95.8	29.8	6.2	23.0	16.7	1.4	0.4	3.1	9.4	12.4
Nov-88	PRE	52FW	5.0	1.3	1.1	5.3	94.2	36.3	4.2	20.3	14.8	1.4	0.4	4.4	7.6	5.6
Dec-88	PRE	52FW	1.6	1.1	1.8	10.1	96.7	37.0	1.2	9.8	7.7	1.3	0.0	5.0	8.8	9.2
Jan-89	PRE	52FW	4.5	0.8	1.0	6.7	95.5	36.7	3.4	18.1	13.5	1.3	0.2	4.6	7.9	5.6
Feb-89	PRE	52FW	7.5	0.4	0.7	5.1	97.8	32.2	7.1	22.0	17.3	1.3	0.2	2.5	8.5	4.7
Mar-89	PRE	52FW	7.0	0.9	1.2	4.4	95.9	37.0	5.5	34.1	24.2	1.4	0.2	3.2	7.5	6.5
Apr-89	PRE	52FW	3.8	0.8	0.6	1.7	96.6	37.0	9.1	38.3	26.8	1.4	0.0	1.3	4.1	1.5
May-89	PRE	52FW	5.5	4.9	1.1	2.3	50.0	37.1	7.9	35.6	25.6	1.4	N/A	N/A	2.9	1.1
Jun-89	PRE	52FW	N/A	8.1	2.7	N/A	98.5	37.0	N/A	33.6	22.8	1.5	N/A	N/A	5.3	N/A
Jul-89	PRE	52FW	N/A	N/A	N/A	N/A	N/A	37.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aug-89	PRE	52FW	5.3	8.1	3.0	2.1	98.4	39.0	6.5	35.0	25.8	1.4	N/A	N/A	5.5	1.8
Sep-89	PRE	52FW	5.3	6.8	3.5	N/A	98.4	39.0	10.3	23.6	18.2	1.3	N/A	N/A	6.1	N/A
Oct-89	PRE	52FW	9.6	4.3	3.6	3.2	91.8	39.0	11.2	31.1	23.8	1.3	0.0	1.7	7.0	4.8
Nov-89	PRE	52FW	6.9	3.4	3.1	N/A	93.1	39.1	9.8	27.3	20.3	1.3	0.0	0.9	8.6	N/A
Dec-89	PRE	52FW	8.0	5.6	5.6	N/A	94.5	40.1	5.4	18.8	13.7	1.4	0.0	2.1	6.9	N/A
Jan-90	PRE	52FW	6.3	4.0	2.2	4.0	N/A	41.2	5.0	18.0	13.5	1.3	0.0	1.4	6.8	4.9
Feb-90	PRE	52FW	10.5	3.7	3.0	N/A	N/A	35.5	8.5	29.4	22.7	1.3	0.0	0.6	8.1	N/A
Mar-90	PRE	52FW	7.3	4.3	3.8	N/A	N/A	40.0	10.3	34.0	24.5	1.4	0.0	1.0	6.6	N/A
Apr-90	PRE	52FW	8.4	4.8	3.5	N/A	N/A	40.0	9.7	27.1	19.1	1.4	0.0	0.6	7.3	N/A
May-90	PRE	52FW	N/A	3.1	1.9	N/A	N/A	40.0	N/A	32.5	24.3	1.3	0.0	0.7	5.6	N/A
Jun-90	PRE	52FW	5.3	2.5	1.6	N/A	N/A	39.7	5.8	27.1	19.1	1.4	0.0	1.9	5.1	N/A
Jul-90	PRE	52FW	6.2	2.8	1.3	N/A	N/A	40.0	5.6	29.7	21.6	1.4	0.0	1.0	5.3	N/A

52nd FW Post-Reorganization Data:

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	POST	52FW	N/A	N/A	N/A	4.3	3.3	1.5	N/A	39.9	N/A	28.2	16.9	1.7	1.3	2.0	10.4	1.0
Feb-93	POST	52FW	6.3	N/A	N/A	3.9	1.9	1.5	N/A	41.1	5.5	25.9	15.8	1.6	0.2	4.6	8.2	1.2
Mar-93	POST	52FW	10.0	N/A	N/A	2.6	1.8	1.9	N/A	47.9	7.5	34.2	23.3	1.5	0.4	1.3	5.8	2.0
Apr-93	POST	52FW	4.0	N/A	N/A	5.9	3.1	N/A	N/A	51.7	6.6	34.2	19.0	1.8	1.0	1.5	9.3	1.0
May-93	POST	52FW	3.4	N/A	N/A	5.3	2.6	1.8	N/A	51.7	5.0	39.0	21.9	1.8	0.3	2.9	6.8	2.3
Jun-93	POST	52FW	10.5	11.7	11.7	3.4	2.8	3.6	N/A	53.2	8.5	30.5	20.7	1.5	1.3	2.7	7.0	4.7
Jul-93	POST	52FW	9.5	19.3	8.0	5.6	3.4	2.2	N/A	56.2	6.9	35.8	18.3	2.0	0.9	2.7	8.6	3.9
Aug-93	POST	52FW	14.2	21.4	1.4	4.9	4.2	2.6	N/A	58.4	9.1	29.1	17.4	1.7	0.6	1.7	6.9	6.1
Sep-93	POST	52FW	12.0	20.6	4.4	5.0	3.3	2.4	N/A	59.8	4.1	25.8	13.3	1.9	0.9	3.0	8.6	3.5
Oct-93	POST	52FW	6.5	33.3	89.2	1.7	2.0	2.2	93.6	53.6	6.2	35.7	23.7	1.5	0.6	2.0	7.3	1.1
Nov-93	POST	52FW	4.5	45.1	92.2	1.1	2.5	2.6	93.2	58.2	6.4	26.4	15.4	1.7	0.1	4.4	5.7	4.1
Dec-93	POST	52FW	3.7	29.4	88.2	2.0	4.1	2.8	94.2	45.7	5.7	20.5	13.3	1.5	0.8	3.5	8.4	2.0
Jan-94	POST	52FW	3.6	45.5	90.9	2.4	3.2	1.7	94.7	50.0	12.4	23.8	13.9	1.7	0.3	3.6	9.5	3.9
Feb-94	POST	52FW	4.3	40.0	96.4	3.7	2.1	1.9	97.1	40.8	12.1	30.4	16.1	1.9	0.2	2.1	8.4	2.4
Mar-94	POST	52FW	2.7	51.7	93.1	2.0	2.1	1.4	97.7	42.4	10.1	41.2	25.6	1.6	0.5	0.9	5.4	3.8
Apr-94	POST	52FW	2.5	62.5	97.9	0.6	1.5	1.1	96.5	40.8	9.4	34.5	20.2	1.7	0.4	2.0	5.8	3.4
May-94	POST	52FW	5.0	70.3	93.8	1.0	1.6	1.6	97.8	40.8	9.5	34.4	21.6	1.6	0.2	1.6	7.2	3.3
Jun-94	POST	52FW	4.1	67.3	92.7	1.6	1.6	1.3	96.4	40.7	9.8	39.9	26.1	1.5	0.5	1.8	5.2	3.0
Jul-94	POST	52FW	3.3	63.4	90.2	0.7	0.8	1.4	96.0	41.1	9.4	32.4	21.2	1.5	0.1	1.4	4.7	1.0
Aug-94	POST	52FW	2.0	66.7	96.5	0.8	1.1	1.0	96.9	40.7	8.8	37.1	21.5	1.7	0.6	1.0	6.5	5.1
Sep-94	POST	52FW	6.5	66.7	88.9	0.8	1.6	1.8	97.0	39.5	7.5	29.3	17.9	1.6	0.8	1.7	7.6	1.8
Oct-94	POST	52FW	4.5	69.5	94.9	1.3	1.4	2.0	94.9	35.2	9.3	35.5	22.4	1.6	0.3	2.5	7.5	3.2
Nov-94	POST	52FW	6.5	36.7	100.0	0.8	1.3	N/A	95.4	27.1	1.9	25.7	19.4	1.3	0.0	3.0	5.7	3.0
Dec-94	POST	52FW	21.1	59.0	97.4	0.4	1.6	N/A	94.6	39.8	7.4	24.8	17.7	1.4	0.9	2.8	5.5	7.0
Jan-95	POST	52FW	12.2	58.6	89.7	1.1	1.5	4.1	92.5	40.4	5.9	17.0	13.6	1.3	0.4	3.5	5.3	2.9
Feb-95	POST	52FW	6.4	50.6	85.4	1.6	0.8	1.9	94.7	40.0	7.6	32.9	25.6	1.3	1.4	2.7	8.7	2.5
Mar-95	POST	52FW	2.7	66.7	87.5	1.6	1.1	1.6	97.2	40.0	7.3	35.6	21.8	1.6	0.1	2.0	5.5	4.9
Apr-95	POST	52FW	5.6	71.1	91.1	0.6	0.6	1.4	96.8	40.0	6.6	35.0	22.0	1.6	0.3	2.0	5.1	4.7
May-95	POST	52FW	5.3	39.3	92.9	0.8	1.5	2.1	96.3	40.0	9.6	26.6	18.7	1.4	0.1	1.8	3.7	5.1
Jun-95	POST	52FW	5.5	72.1	95.1	0.7	1.1	1.8	96.8	41.5	13.9	36.6	24.8	1.5	0.2	2.2	5.9	4.9
Jul-95	POST	52FW	4.9	60.0	85.7	1.7	1.7	2.5	96.8	42.0	6.8	36.9	25.5	1.4	0.1	2.4	6.5	4.5
Aug-95	POST	52FW	4.7	62.5	94.6	1.4	2.8	2.2	95.6	38.3	8.4	36.6	24.2	1.5	0.3	2.3	6.0	4.1
Sep-95	POST	52FW	4.4	60.7	89.9	2.7	1.7	1.8	94.5	37.8	6.9	42.4	17.5	2.4	0.5	2.9	13.5	3.9
Oct-95	POST	52FW	2.5	74.0	95.9	1.8	1.8	2.3	95.3	37.7	7.2	33.7	17.5	1.9	0.5	2.9	11.0	4.2
Nov-95	POST	52FW	4.9	79.5	91.6	2.7	3.5	2.5	93.3	41.4	5.3	27.8	15.0	1.8	0.6	4.3	13.3	3.2
Dec-95	POST	52FW	3.3	67.3	92.3	1.1	1.8	4.3	93.7	42.0	9.1	25.8	13.3	1.9	0.5	4.4	9.3	4.5
Jan-96	POST	52FW	3.3	56.8	94.6	2.2	1.3	3.3	94.4	42.0	5.5	20.2	12.7	1.6	0.2	3.1	6.9	5.6
Feb-96	POST	52FW	4.7	75.0	91.7	0.7	0.5	2.2	93.9	42.0	7.3	26.7	17.8	1.5	0.5	4.3	6.4	4.4
Mar-96	POST	52FW	3.9	62.5	95.8	1.2	1.0	2.8	94.1	42.0	7.3	31.4	18.5	1.7	1.4	3.7	9.3	5.3
Apr-96	POST	52FW	4.0	73.7	96.5	2.3	1.4	2.7	94.5	41.7	7.0	30.9	20.0	1.5	0.2	3.5	6.8	2.4
May-96	POST	52FW	6.5	57.8	95.6	0.8	0.9	2.0	94.7	41.5	4.6	29.4	18.6	1.6	0.5	2.8	5.8	1.6
Jun-96	POST	52FW	6.3	69.8	96.2	0.8	0.4	1.7	96.6	41.8	6.6	35.2	20.3	1.7	0.4	1.4	6.3	3.5
Jul-96	POST	52FW	6.2	68.7	91.0	0.7	0.9	2.4	87.1	41.3	5.3	33.7	20.8	1.6	0.5	4.3	7.8	2.2
Aug-96	POST	52FW	6.4	60.7	90.2	1.0	0.7	2.7	93.5	41.6	6.6	27.7	21.6	1.3	0.6	2.7	6.8	3.4
Sep-96	POST	52FW	4.1	74.2	100.0	0.6	0.3	3.0	94.1	41.3	6.5	20.4	16.3	1.3	0.4	2.2	4.6	4.2
Oct-96	POST	52FW	4.6	80.7	93.0	0.2	1.1	2.8	81.5	39.8	6.2	32.1	22.2	1.4	0.6	2.7	6.4	3.7
Nov-96	POST	52FW	5.4	59.3	77.8	0.5	0.8	2.7	90.9	42.0	10.5	26.4	15.8	1.7	0.5	3.4	8.1	9.2

DATE	GROUP	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	POST	52FW	3.3	40.5	86.5	0.8	0.3	5.1	90.3	41.3	6.0	16.1	9.3	1.7	0.3	4.5	9.7	9.1
Jan-97	POST	52FW	7.2	N/A	90.8	1.7	0.5	5.4	86.5	42.0	6.7	26.5	15.0	1.8	0.2	6.8	10.3	5.9
Feb-97	POST	52FW	5.0	N/A	96.8	0.6	0.5	3.0	93.9	42.0	8.5	32.9	19.4	1.7	0.9	2.9	7.6	2.9
Mar-97	POST	52FW	3.8	N/A	90.5	0.6	0.6	3.6	92.6	42.0	6.3	29.8	15.0	2.0	0.5	3.7	6.7	2.9
Apr-97	POST	52FW	7.8	N/A	91.8	0.3	2.0	5.6	93.4	41.9	7.8	27.3	19.1	1.4	0.3	2.3	6.1	3.9
May-97	POST	52FW	5.7	N/A	83.0	0.8	0.9	4.7	92.9	40.1	7.5	29.3	19.0	1.5	0.4	3.4	6.2	2.4
Jun-97	POST	52FW	6.3	N/A	76.7	0.4	0.1	6.6	82.6	40.5	6.6	21.9	18.2	1.2	0.4	1.9	5.8	3.8
Jul-97	POST	52FW	6.6	36.7	85.0	0.7	0.8	4.4	86.8	42.0	9.8	27.1	17.5	1.5	0.9	2.4	8.1	4.5
Aug-97	POST	52FW	5.3	N/A	95.4	0.4	0.1	4.7	88.1	42.0	9.1	26.7	17.6	1.5	0.5	3.0	8.8	4.6
Sep-97	POST	52FW	5.7	45.1	82.4	0.6	0.2	4.7	93.7	42.0	12.9	23.5	11.8	2.0	0.4	2.4	10.3	5.7
Oct-97	POST	52FW	8.8	N/A	80.3	0.9	0.6	5.3	83.5	41.7	10.8	27.6	16.7	1.7	0.3	4.4	8.8	5.0
Nov-97	POST	52FW	9.1	N/A	72.6	0.4	1.1	3.0	89.9	40.5	12.7	33.0	13.7	2.4	0.9	4.0	13.2	8.9
Dec-97	POST	52FW	10.2	N/A	83.9	0.6	0.9	5.3	90.2	41.0	12.3	30.5	13.0	2.3	0.2	5.0	11.6	16.1
Jan-98	POST	52FW	11.7	38.0	70.9	1.5	1.7	3.6	84.7	41.0	13.0	38.9	14.7	2.6	1.7	5.5	13.1	7.0
Feb-98	POST	52FW	7.7	54.8	84.9	0.5	1.7	3.7	87.3	39.8	10.8	37.6	14.8	2.5	0.7	4.7	12.4	3.9
Mar-98	POST	52FW	4.9	58.5	87.2	0.4	1.6	2.7	87.5	41.0	7.8	39.8	17.3	2.3	0.6	4.4	13.3	3.8
Apr-98	POST	52FW	4.7	44.1	79.7	1.1	1.1	4.5	86.3	41.0	7.1	25.1	17.8	1.4	0.1	3.6	8.1	5.9
May-98	POST	52FW	5.1	44.4	80.6	0.4	1.0	4.0	87.2	41.0	9.4	24.7	16.7	1.5	0.6	3.7	10.5	2.9
Jun-98	POST	52FW	8.4	45.9	79.7	0.4	1.5	4.6	87.5	41.0	7.9	31.6	22.2	1.4	0.2	3.9	8.1	6.4
Jul-98	POST	52FW	5.7	57.1	80.4	0.3	1.0	5.8	89.1	40.9	7.5	23.8	17.2	1.4	1.0	1.4	7.9	4.7
Aug-98	POST	52FW	8.0	47.2	83.0	0.6	1.2	6.4	93.3	41.0	8.9	26.5	20.0	1.3	0.6	2.3	6.5	4.8
Sep-98	POST	52FW	8.7	53.8	82.1	0.2	1.2	9.4	87.6	40.1	8.4	16.1	10.0	1.6	1.0	5.4	9.7	17.9
Oct-98	POST	52FW	5.0	60.0	90.0	0.7	1.3	5.9	91.6	41.0	8.8	21.0	11.0	1.9	0.9	4.6	11.1	13.1
Nov-98	POST	52FW	9.1	46.2	78.2	1.1	1.4	6.0	85.4	41.0	9.3	25.5	15.7	1.6	0.9	4.5	12.1	7.3
Dec-98	POST	52FW	9.1	69.4	88.7	1.5	1.0	8.0	89.7	41.0	5.4	16.5	9.9	1.7	0.2	6.0	15.3	8.4
Jan-99	POST	52FW	8.0	49.4	81.5	0.4	1.1	5.4	85.4	41.3	9.1	28.1	12.9	2.2	0.4	4.0	15.2	9.8
Feb-99	POST	52FW	10.1	53.5	80.3	0.5	0.7	5.0	93.2	41.9	10.6	26.2	13.3	2.0	0.4	3.6	12.7	10.2
Mar-99	POST	52FW	7.2	34.3	79.4	1.1	0.9	5.9	93.9	40.5	7.9	37.6	16.0	2.3	0.6	4.0	15.7	8.9
Apr-99	POST	52FW	11.9	45.4	83.7	2.0	3.2	4.2	92.9	39.7	5.1	67.7	15.2	4.5	1.2	5.2	23.4	8.5
May-99	POST	52FW	11.8	39.7	78.6	1.8	2.1	3.4	92.4	40.6	6.1	71.6	16.5	4.3	1.5	5.8	19.6	9.6
Jun-99	POST	52FW	5.5	39.7	75.9	1.0	1.7	5.2	86.0	40.3	4.6	24.2	7.5	3.2	1.7	5.0	19.1	7.3
Jul-99	POST	52FW	5.6	40.8	63.3	0.9	1.6	8.9	91.8	40.7	3.6	16.5	14.2	1.2	1.4	2.9	8.5	4.7
Aug-99	POST	52FW	10.4	55.9	82.4	0.7	0.8	7.5	91.5	39.7	8.4	23.7	18.0	1.3	1.1	4.4	9.5	7.1
Sep-99	POST	52FW	10.6	55.6	86.1	0.9	0.5	9.0	90.4	41.6	8.2	19.9	13.7	1.5	0.5	3.1	6.3	6.0
Oct-99	POST	52FW	9.2	47.4	71.9	1.2	1.1	7.4	89.0	43.2	9.8	24.1	14.9	1.6	0.8	4.7	8.9	11.6
Nov-99	POST	52FW	4.7	52.9	84.3	0.4	0.0	5.2	91.4	45.9	8.3	18.1	11.1	1.6	0.6	5.0	10.0	9.8
Dec-99	POST	52FW	5.6	51.5	75.8	1.1	0.7	7.3	86.5	45.4	7.4	14.1	10.1	1.4	0.0	4.6	7.2	10.5
Jan-00	POST	52FW	6.6	40.3	67.7	0.4	1.8	8.4	91.3	44.4	5.5	16.9	12.2	1.4	0.4	5.7	11.4	9.2
Feb-00	POST	52FW	8.4	47.2	79.2	1.1	0.8	8.0	89.4	45.0	6.8	18.9	13.7	1.4	0.6	5.2	11.7	8.8
Mar-00	POST	52FW	6.4	50.8	78.0	0.6	0.6	5.3	92.9	44.8	7.3	24.6	15.6	1.6	0.6	3.6	8.5	9.0
Apr-00	POST	52FW	9.1	50.7	81.7	0.9	1.7	4.8	94.2	45.3	9.6	26.6	17.2	1.5	0.3	2.3	9.1	8.7
May-00	POST	52FW	13.0	47.7	78.4	0.5	0.8	6.5	91.8	45.5	8.9	28.2	18.7	1.5	0.2	3.1	10.3	6.3
Jun-00	POST	52FW	14.5	48.0	78.0	0.0	1.1	6.3	92.9	45.1	9.4	27.5	18.6	1.5	0.5	3.7	6.0	7.6
Jul-00	POST	52FW	9.7	20.0	60.0	0.5	0.5	6.3	93.6	44.2	7.8	24.3	18.2	1.3	0.6	1.8	6.8	6.5
Aug-00	POST	52FW	10.8	37.9	74.2	0.3	1.1	5.1	95.8	45.3	8.1	32.2	20.0	1.6	0.1	1.8	7.3	8.7
Sep-00	POST	52FW	9.2	36.5	81.0	1.9	1.1	5.8	96.4	45.8	8.5	25.7	11.7	2.2	0.2	2.4	11.8	9.5

57th WG F-16 Pre-Reorganization Data:

DATE	UNIT	TNMCM	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-82	57WG	13.5	13.7	15.2	34.6	N/A	16.0	20.0	14.8	12.3	1.2	0.0	7.5	5.6	20.3
Feb-82	57WG	14.7	7.5	5.9	31.7	N/A	13.9	27.1	22.6	17.2	1.3	0.4	3.2	5.9	30.1
Mar-82	57WG	9.3	1.5	2.3	33.3	91.4	14.9	14.0	24.6	17.6	1.4	0.0	2.6	8.0	31.9
Apr-82	57WG	13.3	1.6	3.2	54.4	80.1	14.1	24.1	15.7	13.2	1.2	0.0	5.6	8.6	28.0
May-82	57WG	8.3	8.8	4.0	16.6	88.2	14.0	29.5	22.6	19.5	1.2	0.0	4.9	2.9	13.2
Jun-82	57WG	10.9	13.8	4.0	39.7	87.6	14.1	42.4	20.5	18.0	1.1	0.0	5.2	4.0	27.3
Jul-82	57WG	10.8	16.1	7.6	36.2	90.3	15.0	39.5	19.2	14.9	1.3	0.0	4.7	9.4	20.6
Aug-82	57WG	19.0	22.0	13.8	41.8	80.5	17.1	29.1	19.9	15.7	1.3	0.4	5.3	8.2	17.2
Sep-82	57WG	12.3	15.1	4.6	48.7	89.2	15.6	20.7	15.8	14.0	1.1	0.0	4.4	3.2	27.9
Oct-82	57WG	14.6	10.9	3.5	40.0	91.3	14.1	16.8	25.4	20.3	1.3	0.7	5.3	4.6	24.2
Nov-82	57WG	20.5	11.5	5.8	40.4	79.6	14.0	23.5	24.0	17.3	1.4	0.4	5.8	9.1	26.7
Dec-82	57WG	17.1	11.8	8.2	42.8	88.2	14.0	26.4	22.9	18.2	1.3	0.4	5.6	6.3	26.7
Jan-83	57WG	14.6	22.8	6.8	32.4	89.7	11.7	28.4	22.5	20.2	1.1	0.0	4.8	5.1	26.2
Feb-83	57WG	13.4	22.5	9.7	49.4	86.5	9.7	17.7	28.2	23.3	1.2	0.0	5.4	7.9	20.7
Mar-83	57WG	7.7	11.9	7.6	34.5	89.3	11.5	13.9	35.1	24.1	1.5	0.7	5.4	10.4	9.4
Apr-83	57WG	12.8	14.5	4.8	25.0	91.4	11.5	15.9	28.9	21.6	1.3	0.4	3.5	8.8	14.5
May-83	57WG	11.3	15.1	5.8	16.7	87.7	14.3	12.5	24.3	21.9	1.1	0.3	3.7	8.0	15.4
Jun-83	57WG	14.1	12.2	3.4	11.2	85.4	16.5	14.5	28.5	19.4	1.5	0.9	5.6	9.1	18.1
Jul-83	57WG	17.3	12.4	6.9	15.1	79.2	19.4	15.4	22.6	15.8	1.4	0.0	6.7	12.7	18.0
Aug-83	57WG	13.5	13.2	2.4	12.9	88.5	20.3	19.3	26.2	20.6	1.3	0.7	4.8	14.1	19.4
Sep-83	57WG	13.0	6.7	1.3	16.5	89.9	23.4	8.1	18.2	13.4	1.4	0.3	4.6	8.0	30.6
Oct-83	57WG	5.9	5.8	4.0	54.6	N/A	29.4	5.6	19.4	15.3	1.3	N/A	6.7	9.6	32.7
Nov-83	57WG	9.7	7.1	4.4	56.4	N/A	30.0	8.0	17.5	14.5	1.2	N/A	5.9	12.9	26.0
Dec-83	57WG	8.9	6.2	1.3	51.6	N/A	29.0	8.5	18.8	15.5	1.2	N/A	6.2	6.9	28.8
Jan-84	57WG	7.5	4.1	3.8	50.0	N/A	36.6	4.8	17.8	15.9	1.1	N/A	4.3	5.5	23.0
Feb-84	57WG	6.1	5.5	4.2	34.5	N/A	35.0	5.0	25.9	19.9	1.3	N/A	3.5	6.3	12.3
Mar-84	57WG	7.4	8.3	3.9	38.8	N/A	38.6	3.1	23.6	17.8	1.3	N/A	5.1	8.7	19.1
Apr-84	57WG	7.4	9.8	2.3	38.5	N/A	41.0	4.0	21.2	15.6	1.4	N/A	3.6	9.4	15.6
May-84	57WG	6.7	9.8	2.6	42.3	N/A	41.0	9.9	20.8	17.8	1.2	N/A	1.9	6.2	32.1
Jun-84	57WG	6.5	9.2	2.2	32.3	N/A	41.0	7.7	20.6	16.9	1.2	N/A	3.5	8.7	25.9
Jul-84	57WG	9.1	12.6	3.7	33.7	N/A	41.0	7.3	22.3	15.9	1.4	N/A	5.9	8.6	30.9
Aug-84	57WG	6.8	12.3	6.7	39.3	N/A	41.0	6.6	22.1	17.2	1.3	N/A	5.5	8.7	42.6
Sep-84	57WG	3.7	11.6	3.3	46.6	N/A	41.1	4.9	14.6	10.9	1.3	N/A	3.9	8.9	70.3
Oct-84	57WG	11.1	14.6	7.9	29.8	88.5	24.0	6.8	25.3	21.1	1.2	1.4	5.6	14.6	11.0
Nov-84	57WG	6.8	14.7	4.9	23.9	96.6	23.9	6.9	27.7	20.5	1.4	0.0	3.0	10.6	7.7
Dec-84	57WG	6.1	10.8	7.9	26.6	95.0	23.9	9.0	23.6	17.0	1.4	0.2	2.4	9.3	10.8
Jan-85	57WG	8.9	4.7	4.7	20.6	96.4	22.8	1.9	26.3	23.1	1.1	1.3	2.8	5.3	4.7
Feb-85	57WG	6.5	7.9	7.1	18.2	95.5	22.5	3.1	27.0	21.3	1.3	0.2	3.6	14.6	5.6
Mar-85	57WG	7.9	7.6	13.2	14.8	96.7	26.5	6.4	23.2	17.9	1.3	0.2	2.9	12.6	10.9
Apr-85	57WG	7.0	7.9	11.1	17.1	94.5	26.7	7.6	28.8	19.9	1.4	0.8	3.4	12.4	8.8
May-85	57WG	9.6	7.7	11.2	15.0	93.4	25.8	3.2	23.9	20.0	1.2	0.6	5.5	10.3	10.8
Jun-85	57WG	8.0	5.7	8.2	12.8	93.6	25.9	10.1	23.1	18.4	1.3	0.4	4.8	11.8	17.6
Jul-85	57WG	9.0	3.4	6.8	24.1	94.7	27.0	7.0	26.6	19.7	1.4	0.4	3.6	10.9	11.3
Aug-85	57WG	10.7	0.0	0.0	26.8	93.6	26.1	9.4	23.3	17.0	1.4	0.7	3.5	14.5	18.3
Sep-85	57WG	3.2	0.0	0.0	55.6	94.4	25.0	1.7	11.8	12.1	1.0	0.0	4.1	8.6	14.2
Oct-85	57WG	6.2	0.0	0.4	31.7	97.5	23.3	4.5	25.3	20.1	1.3	0.2	1.7	8.7	10.2
Nov-85	57WG	9.5	0.3	0.5	29.3	95.0	22.4	5.3	22.5	17.5	1.3	0.0	4.2	10.7	14.8
Dec-85	57WG	5.4	0.6	0.6	29.2	97.2	21.6	5.3	21.8	16.5	1.3	0.3	2.2	13.5	7.9
Jan-86	57WG	4.9	6.1	3.5	42.6	94.9	21.1	3.8	20.1	18.8	1.1	0.0	4.6	10.4	6.3
Feb-86	57WG	6.0	5.7	3.2	11.8	97.3	20.8	3.6	24.9	19.4	1.3	0.2	2.4	10.1	1.7
Mar-86	57WG	9.9	8.9	4.6	27.2	95.5	22.0	8.6	28.4	20.9	1.4	0.0	3.8	10.0	7.0
Apr-86	57WG	9.4	10.1	7.6	26.5	91.5	22.8	8.0	25.6	20.8	1.2	0.4	5.0	9.7	8.2

DATE	UNIT	TNMCM	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
May-86	57WG	8.6	10.1	6.3	9.3	94.9	22.7	6.3	21.0	19.5	1.1	0.5	2.2	12.8	9.9
Jun-86	57WG	7.5	8.3	5.1	19.1	93.8	22.5	5.6	24.6	19.3	1.3	0.5	3.8	13.6	5.1
Jul-86	57WG	7.6	9.0	4.9	16.0	92.4	22.2	3.7	26.7	21.1	1.3	0.6	4.5	13.7	4.5
Aug-86	57WG	6.3	14.0	6.9	6.9	94.1	24.2	8.2	17.6	15.0	1.2	0.3	4.7	12.1	14.0
Sep-86	57WG	6.5	7.7	2.9	22.7	94.9	22.0	5.5	18.7	15.8	1.2	0.6	4.4	12.9	6.9
Oct-86	57WG	7.3	9.1	2.6	22.2	93.1	22.8	6.8	25.2	21.6	1.2	0.4	5.0	11.8	10.3
Nov-86	57WG	8.3	11.3	2.8	17.5	90.2	22.1	7.1	22.4	18.0	1.2	0.3	4.6	17.6	5.5
Dec-86	57WG	5.4	10.3	4.8	19.0	90.6	21.0	9.1	25.6	19.9	1.3	0.0	3.9	11.5	3.4
Jan-87	57WG	6.7	5.5	5.5	31.1	94.5	21.3	6.0	21.4	20.6	1.0	0.7	3.1	12.0	4.5
Feb-87	57WG	5.8	7.8	5.2	10.0	96.4	18.1	10.4	34.5	25.5	1.4	0.4	1.1	10.0	3.0
Mar-87	57WG	9.9	6.5	6.5	23.7	93.0	22.0	6.9	29.3	21.6	1.4	0.4	2.9	15.8	6.1
Apr-87	57WG	8.4	13.6	9.2	21.1	92.9	23.1	7.6	26.8	20.3	1.3	0.0	4.1	16.6	7.5
May-87	57WG	5.1	9.9	6.5	32.5	91.2	24.0	6.4	20.1	18.5	1.1	0.0	4.3	13.5	6.8
Jun-87	57WG	10.6	12.5	5.2	22.6	88.9	23.6	10.0	20.2	15.6	1.3	0.3	5.2	17.7	8.2
Jul-87	57WG	13.4	12.2	10.2	12.3	88.3	23.7	9.9	18.6	14.9	1.2	1.4	4.1	13.3	5.7
Aug-87	57WG	11.3	15.1	6.3	27.6	86.6	23.6	8.3	16.0	13.5	1.2	1.6	6.5	24.5	10.7
Sep-87	57WG	5.4	12.7	4.2	22.1	91.8	29.7	6.8	11.6	9.5	1.2	0.0	6.0	15.2	15.5
Oct-87	57WG	6.4	1.3	1.1	9.4	88.6	29.2	4.6	20.1	16.1	1.3	1.1	5.1	13.6	4.7
Nov-87	57WG	6.3	1.3	1.8	16.5	86.6	29.9	4.5	16.3	13.2	1.2	1.3	5.9	18.7	6.3
Dec-87	57WG	5.1	3.8	0.9	13.8	92.6	28.7	4.1	17.8	14.8	1.2	1.4	5.1	12.5	7.1
Jan-88	57WG	5.8	3.5	1.8	9.5	92.9	28.2	8.0	20.4	19.4	1.1	0.9	4.7	15.0	8.0
Feb-88	57WG	3.6	10.3	4.3	12.0	97.0	24.6	3.0	23.3	20.0	1.2	0.4	2.6	12.2	2.2
Mar-88	57WG	7.6	8.4	3.7	6.4	93.5	28.4	6.1	28.7	20.9	1.4	0.2	3.3	14.0	4.5
Apr-88	57WG	4.1	13.5	7.1	23.7	96.1	27.7	5.9	22.7	18.4	1.2	0.2	3.0	10.0	5.5
May-88	57WG	6.2	3.0	2.3	12.2	95.5	28.0	5.4	22.7	20.3	1.1	0.5	2.2	10.4	4.4
Jun-88	57WG	4.9	1.0	0.3	34.1	86.1	28.4	11.2	28.1	22.2	1.3	0.5	2.6	10.5	6.7
Jul-88	57WG	9.5	0.8	0.9	20.2	91.7	27.9	9.6	25.6	19.1	1.3	1.5	3.6	15.6	8.3
Aug-88	57WG	6.1	1.9	1.3	19.0	94.0	31.5	5.5	25.7	20.0	1.3	0.3	3.7	11.9	4.8
Sep-88	57WG	8.4	3.8	2.4	37.3	95.1	32.0	6.7	20.0	15.8	1.3	0.6	2.7	10.1	8.1
Oct-88	57WG	6.4	7.7	4.3	17.6	95.3	22.3	5.1	24.5	18.6	1.3	0.5	4.8	19.6	8.2
Nov-88	57WG	3.4	5.7	3.9	13.9	97.9	22.5	9.6	23.2	17.0	1.4	0.0	1.5	15.9	14.6
Dec-88	57WG	2.2	6.5	2.7	15.1	96.1	23.2	1.7	17.9	14.5	1.2	0.3	5.1	12.8	3.0
Jan-89	57WG	2.8	4.6	4.1	13.4	97.1	25.2	4.2	14.6	13.7	1.1	0.3	2.8	18.3	6.4
Feb-89	57WG	1.8	7.3	5.0	9.7	98.5	20.5	5.9	23.8	19.4	1.2	0.0	2.4	13.8	7.5
Mar-89	57WG	2.3	6.2	3.8	7.8	96.9	24.1	5.2	26.1	18.8	1.4	0.0	2.6	14.6	4.2
Apr-89	57WG	1.9	9.1	2.5	33.8	96.2	26.8	3.8	17.4	13.5	1.3	0.0	3.5	24.6	3.0
May-89	57WG	2.8	4.5	2.4	8.6	97.4	23.9	5.0	18.9	17.8	1.1	0.0	2.5	16.2	4.7
Jun-89	57WG	2.4	7.9	4.1	16.7	96.4	23.0	4.3	24.8	19.3	1.3	0.2	2.6	21.9	5.4
Jul-89	57WG	2.2	7.1	3.7	20.4	95.0	22.5	5.1	23.6	19.5	1.2	0.0	3.7	21.9	3.0
Aug-89	57WG	3.7	4.6	2.2	9.6	94.4	20.0	5.7	22.1	18.6	1.2	0.0	3.4	23.4	6.5
Sep-89	57WG	1.9	7.5	3.2	15.7	97.4	19.1	4.1	20.6	16.1	1.3	0.0	2.5	27.3	11.4
Oct-89	57WG	2.8	5.6	1.2	6.7	96.1	21.8	5.2	26.6	18.9	1.4	0.0	2.6	25.5	15.0
Nov-89	57WG	2.3	4.4	2.1	14.9	94.6	21.3	6.5	22.0	18.1	1.2	0.0	3.5	20.7	10.3
Dec-89	57WG	2.1	4.9	4.0	11.8	98.2	21.0	1.8	17.1	15.6	1.1	0.3	1.8	20.4	7.0
Jan-90	57WG	2.2	4.8	1.2	3.3	97.8	21.0	2.6	21.2	19.8	1.1	0.0	1.4	17.8	4.1
Feb-90	57WG	2.0	2.4	1.8	0.8	98.4	17.8	3.0	29.0	21.3	1.4	0.0	1.6	17.7	1.3
Mar-90	57WG	2.2	4.8	1.1	1.4	96.4	21.0	3.7	30.4	21.0	1.4	0.0	3.3	27.1	3.6
Apr-90	57WG	1.2	5.6	2.7	3.8	98.2	21.0	3.3	21.8	18.0	1.2	0.0	1.8	14.1	4.8
May-90	57WG	1.0	8.9	3.1	4.3	97.9	20.7	4.4	22.9	20.5	1.1	0.5	2.1	14.6	4.5
Jun-90	57WG	1.8	8.0	2.8	19.5	96.8	20.6	3.8	28.7	20.6	1.4	0.5	3.2	21.9	3.3
Jul-90	57WG	2.9	13.1	4.6	19.2	94.4	21.0	6.4	26.5	20.7	1.3	0.0	2.5	24.1	6.4

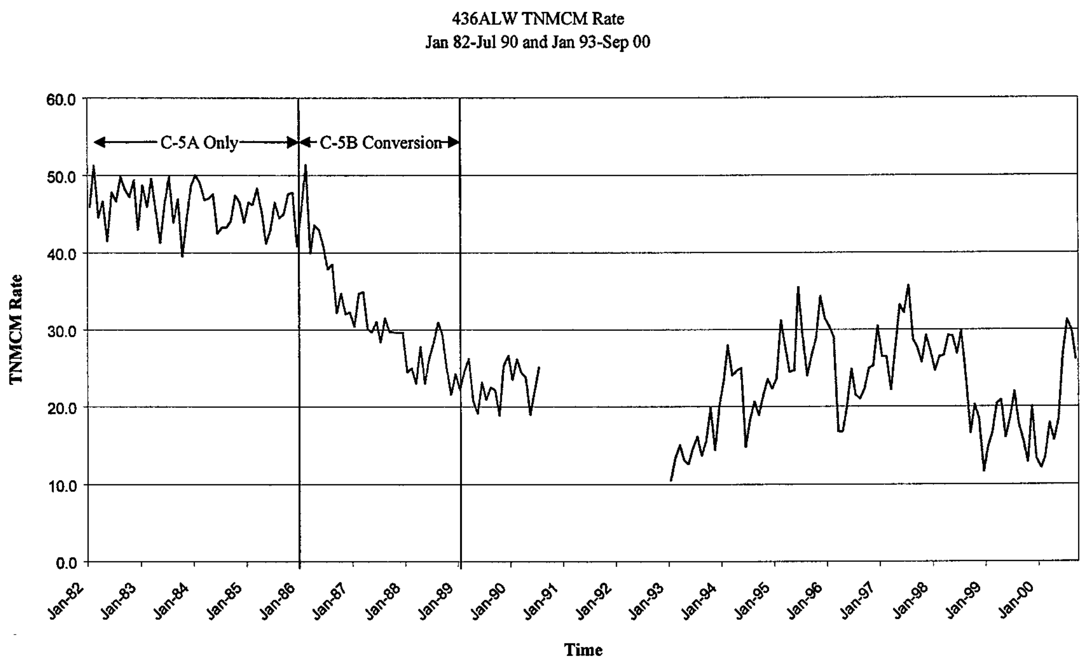
57th WG F-16 Post Reorganization Data:

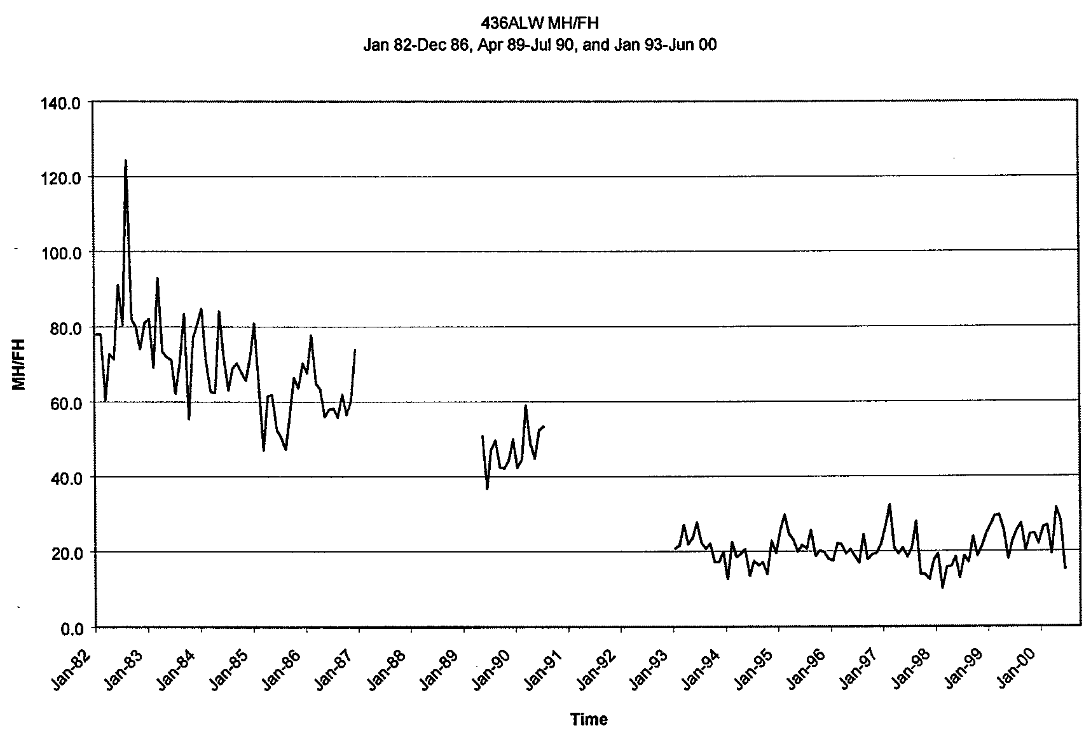
DATE	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Jan-93	57WG	2.7	N/A	N/A	0.8	1.4	N/A	N/A	52.5	2.0	17.1	14.8	1.2	0.0	2.6	6.4	N/A
Feb-93	57WG	3.4	N/A	N/A	1.9	1.0	N/A	N/A	53.4	4.3	23.5	18.4	1.3	0.1	1.4	6.5	N/A
Mar-93	57WG	4.8	N/A	N/A	2.1	1.1	N/A	N/A	53.9	4.8	27.8	21.4	1.3	0.3	2.0	5.5	N/A
Apr-93	57WG	4.9	N/A	N/A	2.1	1.5	N/A	N/A	55.0	4.5	24.2	18.8	1.3	0.2	0.8	4.8	N/A
May-93	57WG	3.5	N/A	N/A	3.1	1.5	N/A	N/A	54.8	4.3	21.3	16.9	1.3	0.1	1.8	4.2	N/A
Jun-93	57WG	6.5	N/A	N/A	1.9	0.7	N/A	N/A	53.7	4.2	23.3	17.4	1.3	0.1	1.3	5.8	N/A
Jul-93	57WG	7.8	N/A	N/A	1.8	2.3	N/A	N/A	54.1	4.1	20.2	17.6	1.1	0.0	1.1	7.9	N/A
Aug-93	57WG	4.5	N/A	N/A	2.3	1.2	N/A	N/A	54.3	5.6	26.7	19.7	1.4	0.3	0.9	8.0	N/A
Sep-93	57WG	4.8	N/A	N/A	2.1	1.6	N/A	N/A	52.5	4.1	20.1	14.5	1.4	0.8	1.2	8.1	N/A
Oct-93	57WG	8.6	N/A	N/A	4.1	0.7	N/A	N/A	52.9	1.3	23.0	16.9	1.4	0.0	1.1	6.0	N/A
Nov-93	57WG	6.7	N/A	N/A	2.9	1.3	N/A	N/A	51.3	2.3	20.7	16.9	1.2	0.7	0.8	8.0	N/A
Dec-93	57WG	6.5	N/A	N/A	2.2	1.3	N/A	N/A	51.2	4.3	20.5	17.4	1.2	0.1	1.9	6.4	N/A
Jan-94	57WG	5.7	N/A	N/A	1.8	1.6	N/A	N/A	52.9	3.9	19.4	16.9	1.1	0.1	1.4	6.7	N/A
Feb-94	57WG	7.1	N/A	N/A	1.7	1.2	N/A	N/A	54.8	4.4	21.3	16.7	1.3	0.8	0.7	6.0	N/A
Mar-94	57WG	11.7	N/A	N/A	1.6	1.0	N/A	N/A	56.0	5.6	25.2	18.9	1.3	0.5	1.0	5.6	N/A
Apr-94	57WG	10.7	N/A	N/A	3.3	2.5	N/A	N/A	56.3	7.1	24.0	16.3	1.5	0.3	1.0	7.0	N/A
May-94	57WG	4.6	N/A	N/A	1.9	1.2	N/A	N/A	55.9	4.3	24.2	19.0	1.3	0.3	1.2	6.0	N/A
Jun-94	57WG	9.8	N/A	N/A	3.0	2.2	N/A	N/A	56.3	6.2	23.3	17.0	1.4	0.3	2.0	8.2	N/A
Jul-94	57WG	10.1	N/A	N/A	1.7	2.0	N/A	N/A	51.3	5.8	20.6	17.9	1.2	0.3	1.1	8.5	N/A
Aug-94	57WG	6.8	N/A	N/A	1.6	1.1	N/A	N/A	47.4	4.8	32.2	22.0	1.5	0.3	1.6	6.2	N/A
Sep-94	57WG	8.6	N/A	N/A	1.3	0.6	N/A	N/A	48.8	4.3	23.7	16.4	1.5	0.3	1.0	6.1	N/A
Oct-94	57WG	7.5	66.7	88.3	2.5	0.7	N/A	92.6	52.7	6.9	24.9	19.2	1.3	0.4	4.2	8.7	5.9
Nov-94	57WG	11.1	69.6	88.6	2.9	1.0	N/A	91.4	53.7	6.5	21.5	21.3	1.0	0.2	4.6	10.3	9.4
Dec-94	57WG	10.4	74.2	91.9	2.8	1.2	N/A	91.6	54.8	4.6	19.4	18.0	1.1	0.1	4.6	9.6	6.2
Jan-95	57WG	7.1	73.9	84.8	3.2	2.1	N/A	94.5	53.2	3.8	19.6	15.3	1.3	0.4	3.8	7.5	5.1
Feb-95	57WG	10.9	60.4	83.3	2.0	1.3	N/A	90.6	51.6	4.9	24.7	20.1	1.2	0.4	2.7	6.0	5.0
Mar-95	57WG	9.8	73.8	84.5	2.6	1.2	4.0	93.0	52.3	7.3	29.0	21.4	1.4	0.4	2.6	7.6	9.3
Apr-95	57WG	10.4	57.5	82.5	3.9	1.5	6.5	94.3	54.6	9.1	21.7	16.4	1.3	0.2	4.1	6.1	13.2
May-95	57WG	11.0	59.1	71.2	3.8	0.4	4.7	92.9	55.8	9.0	23.6	21.1	1.1	1.2	3.3	7.8	5.7
Jun-95	57WG	15.4	66.2	86.2	4.1	1.1	7.0	93.0	55.0	6.9	23.1	18.1	1.3	0.1	2.3	9.0	8.4
Jul-95	57WG	12.4	59.6	82.5	2.5	1.1	6.5	96.0	53.3	5.0	22.1	17.3	1.3	0.2	3.0	8.2	6.3
Aug-95	57WG	16.9	54.5	81.8	2.6	0.8	7.9	89.8	53.0	6.3	24.2	19.5	1.2	0.4	1.4	7.1	5.5
Sep-95	57WG	17.5	75.5	83.7	2.0	0.8	7.1	94.6	54.8	9.6	21.6	16.3	1.3	0.2	2.7	7.5	6.3
Oct-95	57WG	16.9	55.4	73.2	4.0	1.8	7.5	93.7	52.8	10.3	22.8	17.7	1.3	0.1	3.4	7.9	9.9
Nov-95	57WG	20.3	57.6	74.6	1.9	1.1	6.2	87.2	51.8	12.3	21.2	18.1	1.2	0.3	2.7	8.2	8.2
Dec-95	57WG	16.3	60.5	81.6	1.9	1.1	16.0	87.9	52.0	10.2	18.1	14.1	1.3	0.4	3.2	6.8	11.2
Jan-96	57WG	13.7	62.0	75.9	0.0	0.0	6.7	82.2	53.7	7.2	22.1	17.9	1.2	0.8	4.1	11.1	5.5
Feb-96	57WG	14.8	63.9	82.0	1.3	0.8	7.8	90.9	53.0	6.1	25.2	20.1	1.3	0.3	2.6	7.6	7.5
Mar-96	57WG	12.3	57.6	71.2	2.6	1.4	5.6	74.0	52.6	5.9	26.8	18.8	1.4	0.2	3.5	8.8	6.4
Apr-96	57WG	11.6	65.4	85.9	5.0	1.6	5.6	70.0	51.6	4.1	28.6	20.2	1.4	0.5	4.1	9.7	4.8
May-96	57WG	11.0	66.1	84.7	2.6	1.4	5.4	88.3	50.3	5.4	24.5	19.2	1.3	0.3	2.9	7.7	2.9
Jun-96	57WG	12.5	58.6	75.9	2.7	1.0	5.6	87.2	50.6	5.4	19.7	14.0	1.4	0.1	2.8	5.2	4.5
Jul-96	57WG	16.0	63.1	80.0	4.2	1.2	4.7	76.9	52.2	5.5	24.3	17.9	1.4	0.5	4.7	9.1	5.6
Aug-96	57WG	26.7	62.2	75.6	3.8	0.8	4.8	86.5	53.3	9.2	23.8	17.8	1.3	0.5	3.8	6.3	4.5
Sep-96	57WG	15.2	48.6	71.4	1.1	2.8	4.9	82.8	52.0	5.9	20.1	13.8	1.5	0.1	3.2	6.4	5.5
Oct-96	57WG	26.0	45.3	75.0	3.8	1.6	5.3	82.0	52.5	5.0	24.5	20.7	1.2	0.8	4.6	8.4	3.1
Nov-96	57WG	33.0	48.8	75.0	3.3	1.0	5.4	84.8	52.9	6.4	19.6	16.7	1.2	0.3	3.6	13.0	1.8

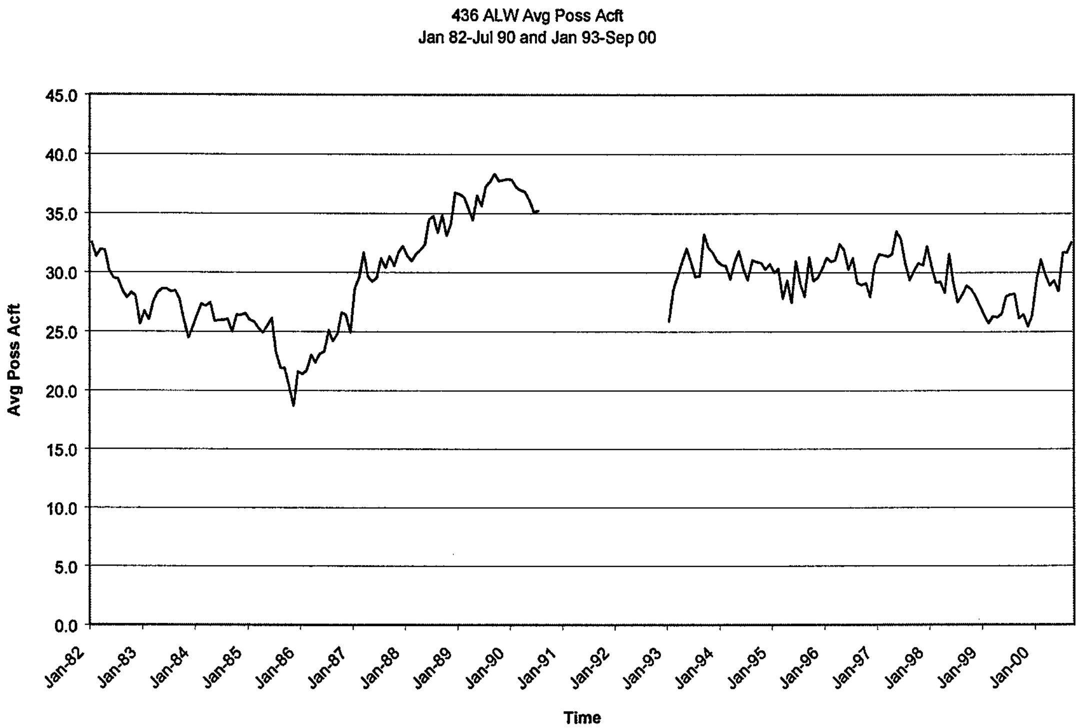
DATE	UNIT	TNMCM	4HRFIX	8HRFIX	REP	REC	MH/FH	FSE	ACFT	TNMCS	HUTE	SUTE	ASD	AAB	GAB	BREAK	CANN
Dec-96	57WG	33.9	48.6	68.6	0.8	0.2	14.8	71.5	52.2	6.3	14.7	12.4	1.2	2.8	6.1	7.6	5.0
Jan-97	57WG	26.4	38.1	73.8	2.3	1.8	14.3	85.2	52.3	8.2	16.5	16.6	1.0	0.2	1.6	6.8	4.6
Feb-97	57WG	21.9	54.3	71.7	0.9	1.1	9.8	83.3	53.7	9.7	18.9	16.5	1.1	0.9	5.5	7.5	4.6
Mar-97	57WG	24.0	60.9	82.6	0.8	1.3	7.6	80.2	54.0	10.7	22.7	20.0	1.1	0.6	4.2	9.3	6.2
Apr-97	57WG	16.8	76.5	88.2	0.0	0.4	8.3	88.4	53.0	10.6	24.1	19.8	1.2	0.0	4.9	9.3	4.4
May-97	57WG	16.7	56.8	75.0	0.0	0.0	7.8	84.6	51.9	11.3	23.4	18.3	1.3	0.0	5.7	6.5	8.1
Jun-97	57WG	20.1	56.4	82.1	0.4	0.3	9.1	83.9	50.0	14.3	21.6	16.0	1.4	0.3	3.7	6.6	10.1
Jul-97	57WG	15.2	59.6	78.8	0.7	0.4	8.3	80.2	51.4	15.0	21.9	18.5	1.2	0.3	4.3	8.0	6.9
Aug-97	57WG	19.7	66.0	84.9	0.4	0.4	10.1	89.3	52.0	14.8	21.3	18.8	1.1	0.1	5.5	8.1	8.7
Sep-97	57WG	20.6	44.2	76.7	0.0	0.0	8.6	88.9	51.8	13.4	19.5	16.2	1.2	0.5	6.5	7.6	7.1
Oct-97	57WG	28.5	62.7	77.1	0.7	1.0	12.6	76.5	41.0	16.2	21.2	16.3	1.3	0.0	3.6	12.4	10.2
Nov-97	57WG	24.7	67.2	90.6	0.4	0.8	15.8	78.8	42.0	14.2	15.2	12.1	1.3	0.0	2.3	12.6	13.0
Dec-97	57WG	17.1	48.0	84.0	0.6	0.2	13.2	72.1	40.9	15.2	18.6	12.8	1.5	0.4	4.9	9.6	9.2
Jan-98	57WG	19.3	56.3	75.0	0.3	1.5	15.1	82.6	40.8	12.9	17.0	14.7	1.2	0.3	4.2	8.0	9.4
Feb-98	57WG	14.3	51.5	72.7	1.1	0.7	16.0	59.3	39.6	14.4	14.7	11.2	1.3	0.9	2.8	7.4	12.4
Mar-98	57WG	10.5	56.9	81.5	0.6	0.3	14.6	86.4	39.7	27.8	20.9	16.0	1.3	0.8	1.2	10.3	6.9
Apr-98	57WG	9.9	58.5	75.6	0.0	0.2	13.4	80.0	57.3	23.3	16.9	10.8	1.6	1.1	3.4	13.3	10.2
May-98	57WG	7.7	72.2	91.7	1.2	0.8	18.4	79.5	38.8	17.7	16.1	12.5	1.3	0.0	2.8	7.4	11.3
Jun-98	57WG	11.7	62.5	66.7	1.1	0.4	20.3	84.0	39.1	13.0	16.5	11.9	1.4	0.0	3.3	5.2	5.6
Jul-98	57WG	9.1	71.2	86.3	0.4	0.3	15.0	80.5	38.9	12.4	18.4	17.2	1.1	0.3	4.4	10.9	11.2
Aug-98	57WG	11.2	71.9	84.4	1.0	0.9	14.3	88.4	39.5	15.6	24.2	17.2	1.4	0.6	3.0	9.4	8.1
Sep-98	57WG	19.8	55.3	76.3	1.0	0.7	12.5	82.2	39.9	16.0	19.9	14.9	1.3	0.3	4.8	6.4	7.4
Oct-98	57WG	17.1	63.5	77.0	1.2	1.4	12.4	77.5	38.8	15.8	25.3	16.6	1.5	0.6	4.9	11.5	9.3
Nov-98	57WG	14.0	58.8	70.6	3.2	3.0	15.8	76.7	43.3	15.2	15.0	12.2	1.2	0.4	3.8	9.7	7.2
Dec-98	57WG	11.0	69.2	84.6	1.8	1.6	15.2	83.3	40.1	14.6	18.8	12.6	1.5	0.4	4.0	10.3	7.7
Jan-99	57WG	14.8	38.3	60.0	1.7	2.0	16.7	80.3	41.8	16.5	16.4	14.1	1.2	0.2	3.5	10.2	8.9
Feb-99	57WG	15.6	46.7	71.7	1.6	0.8	14.0	78.1	41.4	15.5	17.5	14.8	1.2	1.0	3.2	9.8	9.5
Mar-99	57WG	22.7	55.4	67.7	0.6	0.7	14.1	73.7	42.0	17.2	21.2	16.5	1.3	0.1	4.3	9.4	9.7
Apr-99	57WG	18.9	59.0	80.3	1.0	0.8	16.6	72.1	42.0	20.6	19.9	14.5	1.4	0.3	5.6	10.0	11.5
May-99	57WG	26.3	62.5	80.4	1.8	1.0	14.7	77.5	42.0	21.1	18.5	14.6	1.3	0.0	3.8	9.1	5.2
Jun-99	57WG	15.0	60.3	69.8	0.7	0.5	18.5	85.7	39.7	12.9	16.6	14.0	1.2	0.5	4.2	11.4	8.3
Jul-99	57WG	11.7	54.2	78.0	0.0	2.3	13.7	85.5	40.0	16.4	16.7	15.3	1.1	0.8	4.2	9.6	5.2
Aug-99	57WG	12.3	58.1	79.0	1.1	0.7	12.8	82.8	43.3	22.7	21.3	16.8	1.3	0.1	2.4	8.5	10.9
Sep-99	57WG	11.5	58.5	84.9	0.8	1.1	11.5	83.0	43.9	19.8	21.5	15.1	1.4	0.3	3.1	8.0	10.7
Oct-99	57WG	21.7	53.3	68.3	0.6	1.3	17.1	78.1	41.9	23.5	20.6	15.0	1.4	0.2	4.7	9.6	19.0
Nov-99	57WG	21.3	39.0	62.7	0.7	2.2	21.2	77.6	40.9	16.8	17.4	13.1	1.3	0.6	5.6	11.0	17.9
Dec-99	57WG	13.3	49.1	61.8	0.6	2.4	19.3	83.2	42.4	11.7	17.8	12.7	1.4	0.2	3.4	10.2	15.0
Jan-00	57WG	11.3	50.0	63.6	1.0	2.0	25.4	84.9	42.8	10.6	15.2	14.2	1.1	0.3	4.2	7.2	10.2
Feb-00	57WG	13.8	62.2	75.7	0.8	0.8	19.3	73.7	41.9	13.7	19.1	15.6	1.2	0.0	3.5	5.6	8.5
Mar-00	57WG	12.5	N/A	98.4	0.8	0.3	14.2	83.9	43.0	15.2	23.9	18.1	1.3	0.0	2.3	3.8	8.4
Apr-00	57WG	16.3	48.4	69.4	2.0	1.8	14.1	79.8	43.0	12.3	23.1	15.3	1.5	0.2	3.7	9.4	8.3
May-00	57WG	14.0	50.8	61.0	0.2	0.5	19.0	77.2	42.6	14.7	20.7	15.3	1.4	0.6	2.5	9.1	9.1
Jun-00	57WG	9.5	64.9	70.3	0.4	0.5	17.4	85.6	42.0	11.9	16.9	13.3	1.3	0.2	4.0	6.6	6.6
Jul-00	57WG	10.9	38.6	59.1	0.7	1.7	22.2	84.3	40.9	13.4	14.9	14.4	1.0	0.3	4.2	7.5	10.9
Aug-00	57WG	14.4	51.0	62.7	0.1	1.1	25.1	74.5	39.6	14.4	23.2	18.0	1.3	0.3	4.8	7.2	11.1
Sep-00	57WG	11.1	73.5	94.1	1.4	1.4	15.8	82.9	38.1	13.3	22.5	15.2	1.5	0.2	5.1	5.9	8.6

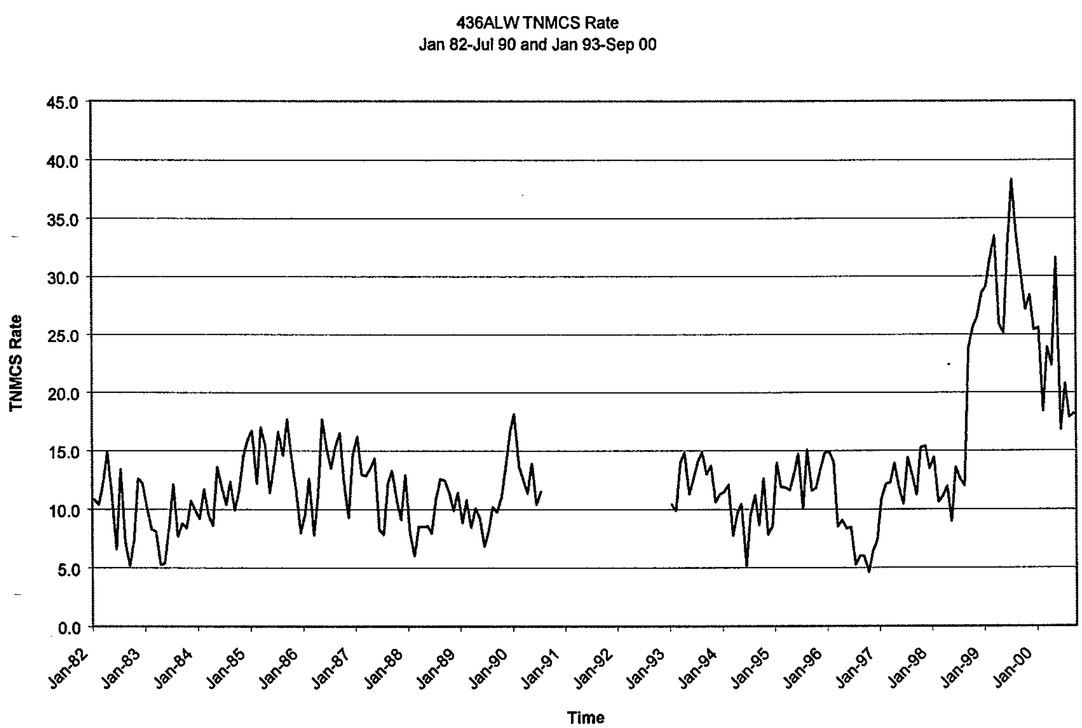
Appendix C – Time Series Plots

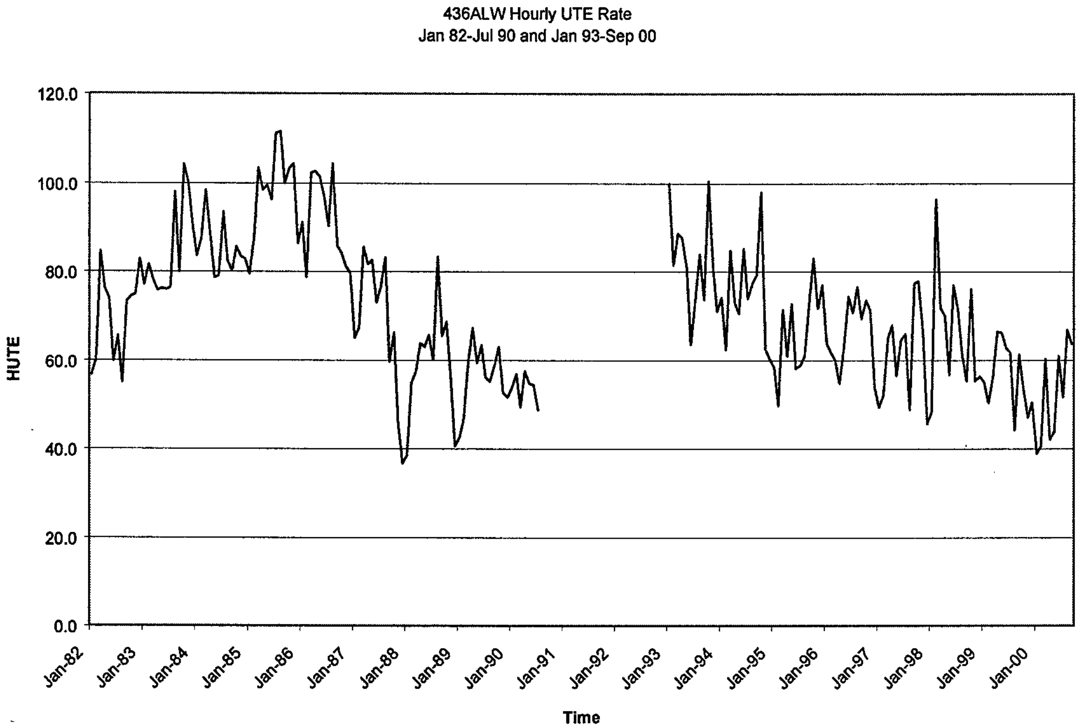
436th ALW:

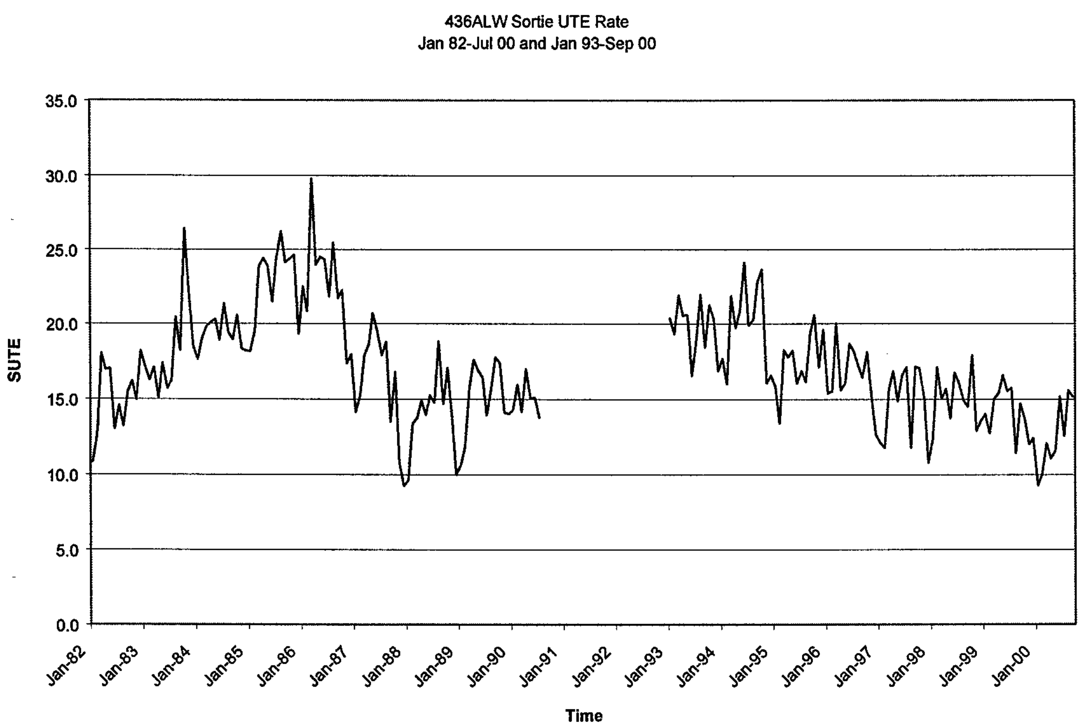




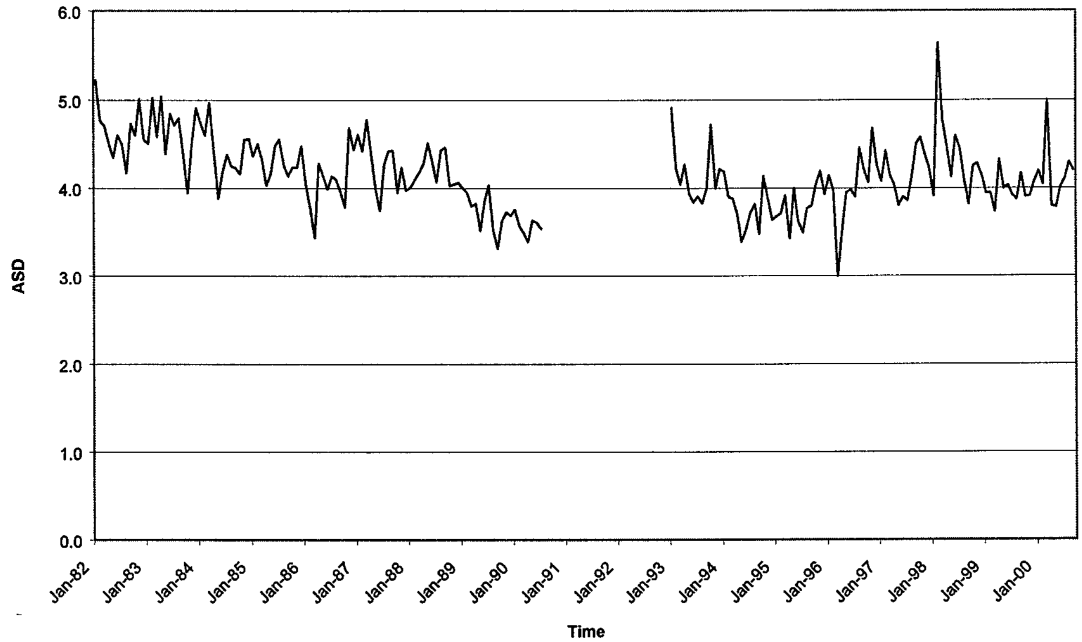

436 ALW Avg Poss Acft
Jan 82-Jul 90 and Jan 93-Sep 00
Avg Poss Acft
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time


436ALW TNMCS Rate
Jan 82-Jul 90 and Jan 93-Sep 00
TNMCS Rate
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

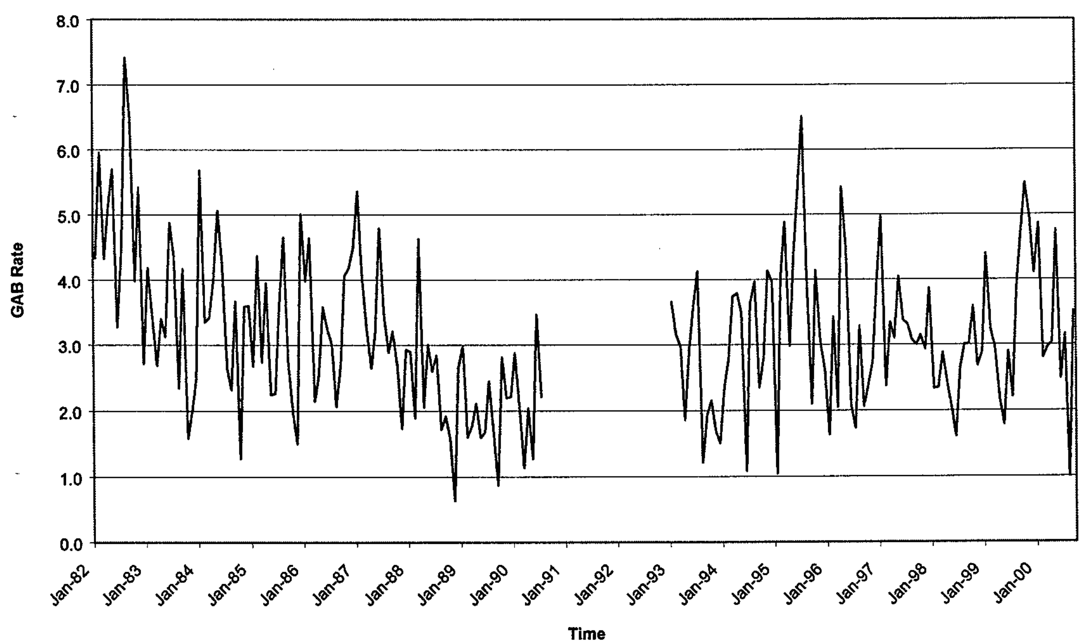

436ALW Hourly UTE Rate
Jan 82-Jul 90 and Jan 93-Sep 00
HUTE
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

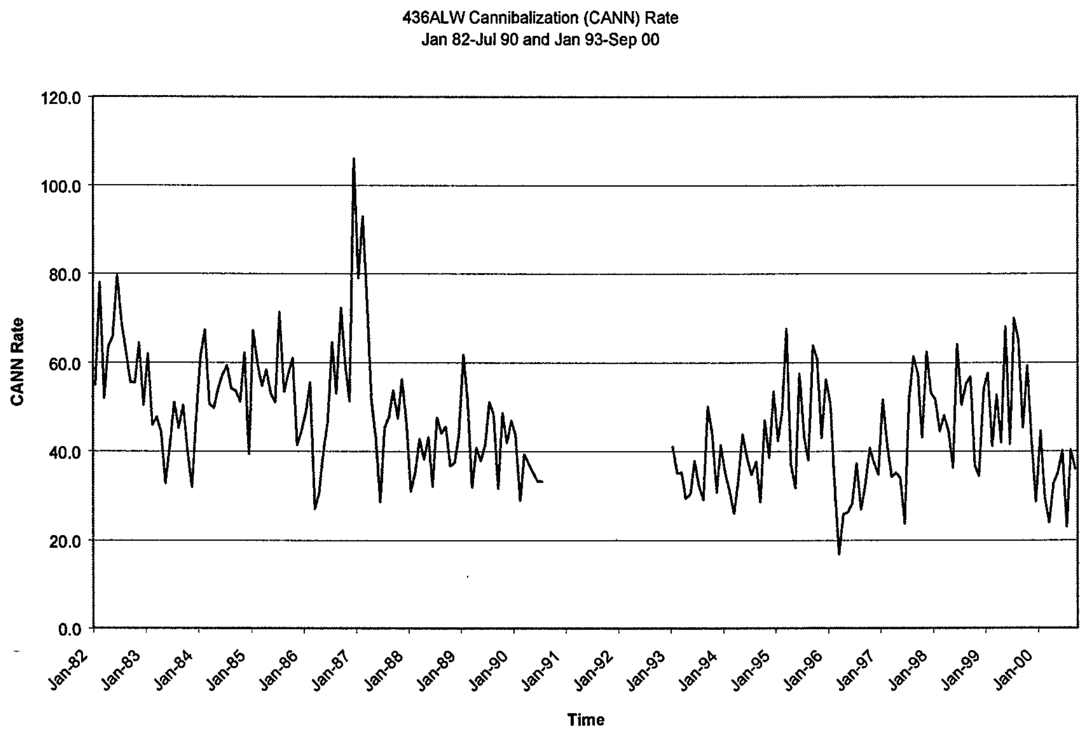

436ALW Sortie UTE Rate
Jan 82-Jul 00 and Jan 93-Sep 00
SUTE
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

436ALW Average Sortie Duration(ASD)
Jan 82-Jul 90 and Jan 93-Sep 00

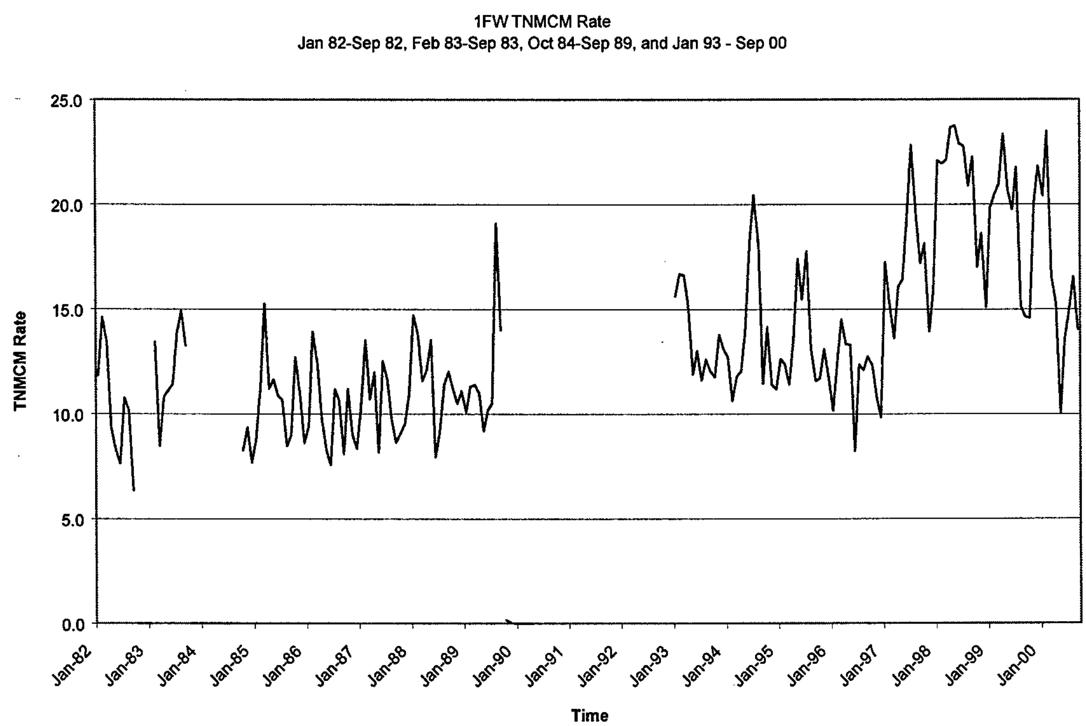


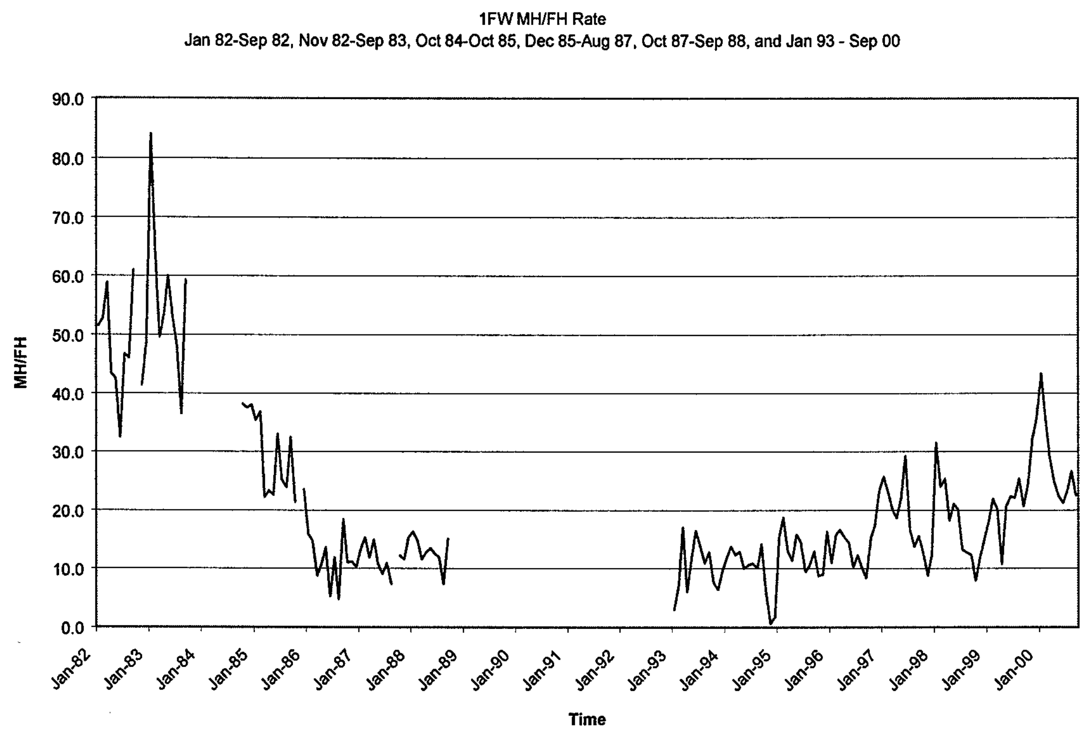
436ALW Ground Abort (GAB) Rate
Jan 82-Jul 90 and Jan 93-Sep 00

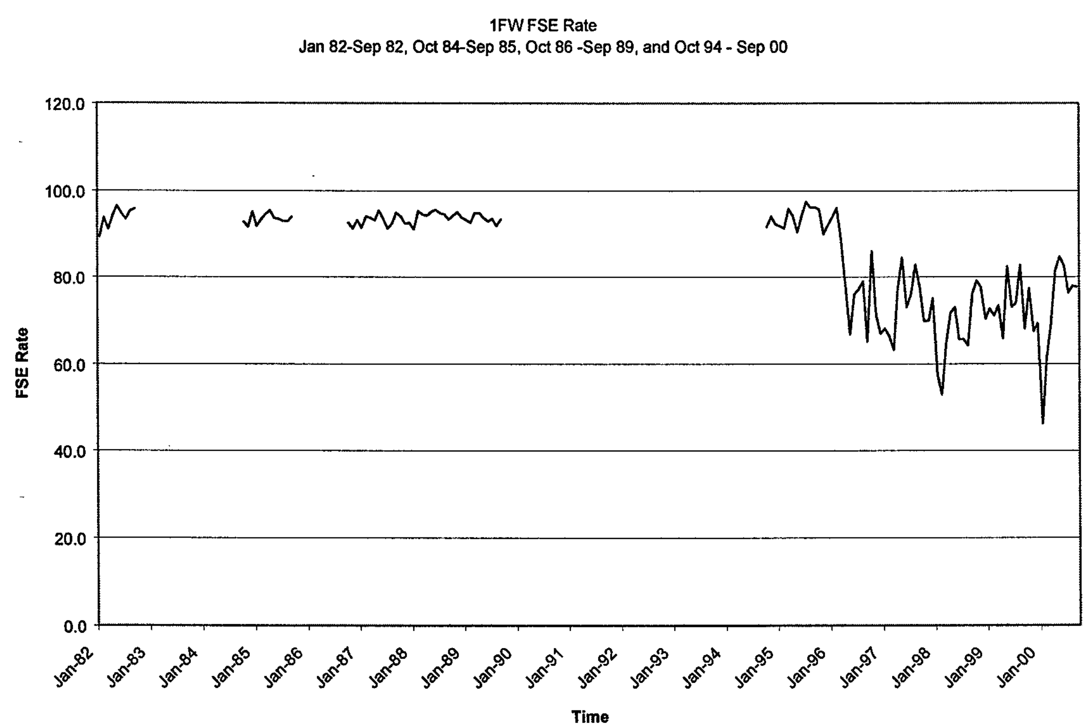


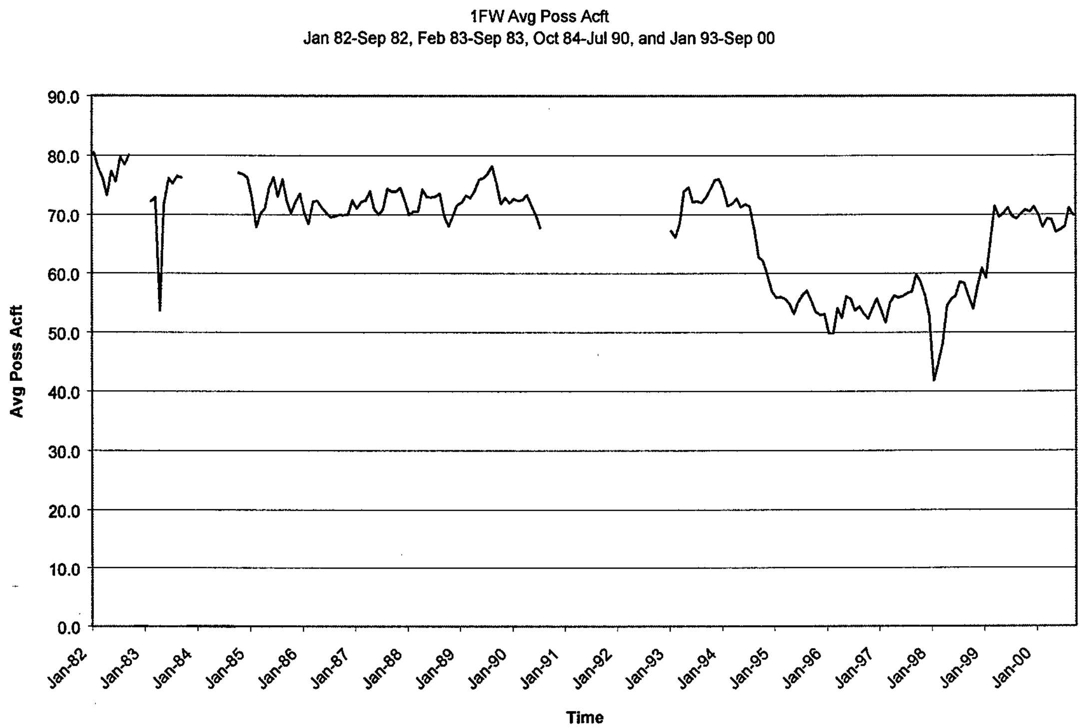

436ALW Cannibalization (CANN) Rate
Jan 82-Jul 90 and Jan 93-Sep 00
CANN Rate
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

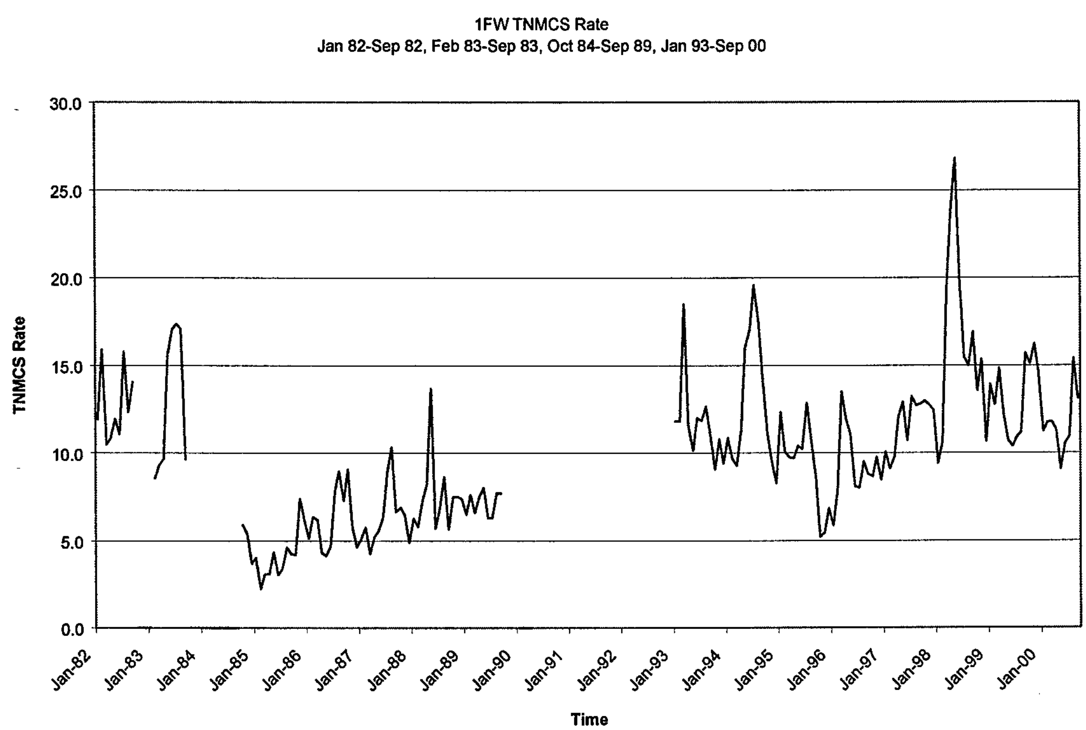
1[st] FW:


1FW TNMCM Rate
Jan 82-Sep 82, Feb 83-Sep 83, Oct 84-Sep 89, and Jan 93 - Sep 00
TNMCM Rate
25.0
20.0
15.0
10.0
5.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

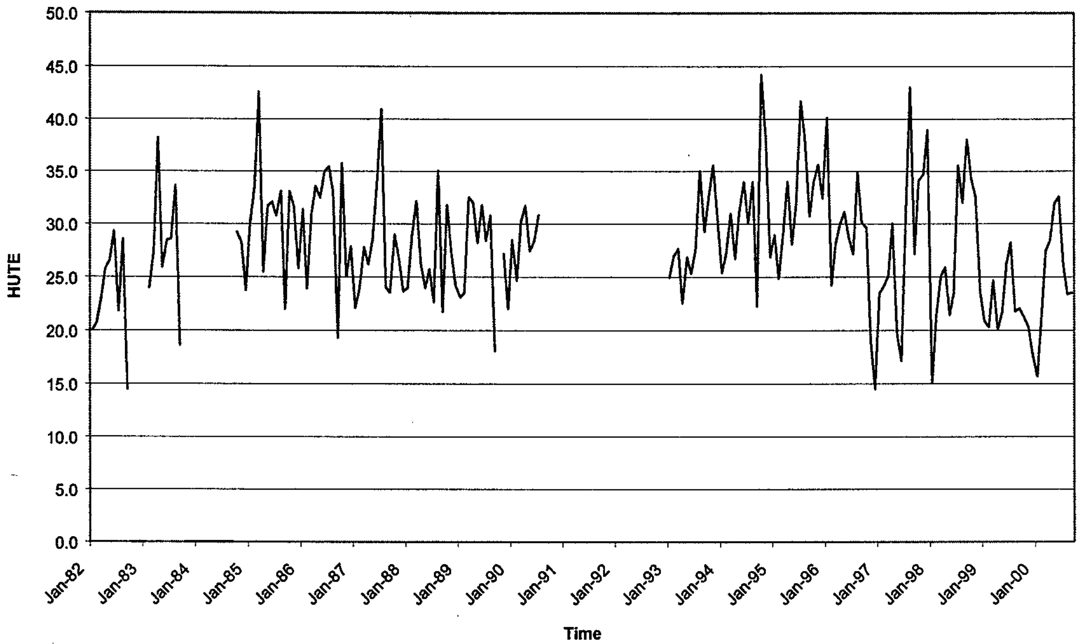

1FW MH/FH Rate
Jan 82-Sep 82, Nov 82-Sep 83, Oct 84-Oct 85, Dec 85-Aug 87, Oct 87-Sep 88, and Jan 93 - Sep 00
MH/FH
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time


1FW FSE Rate
Jan 82-Sep 82, Oct 84-Sep 85, Oct 86 -Sep 89, and Oct 94 - Sep 00
FSE Rate
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

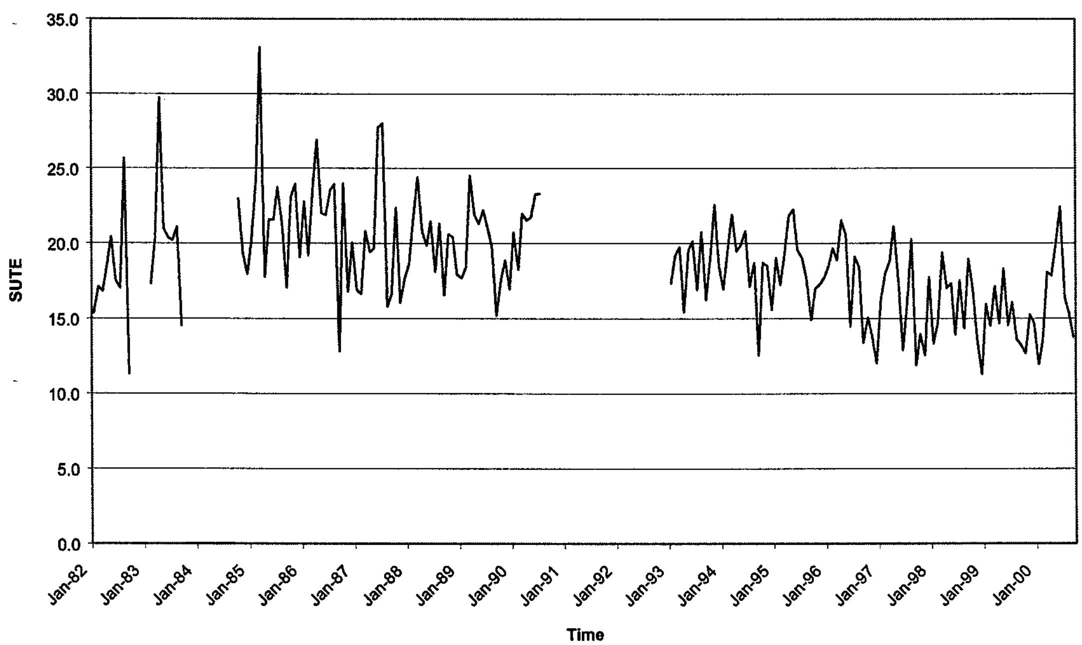

1FW Avg Poss Acft
Jan 82-Sep 82, Feb 83-Sep 83, Oct 84-Jul 90, and Jan 93-Sep 00
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Avg Poss Acft
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time


1FW TNMCS Rate
Jan 82-Sep 82, Feb 83-Sep 83, Oct 84-Sep 89, Jan 93-Sep 00
30.0
25.0
20.0
15.0
10.0
5.0
0.0
TNMCS Rate
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

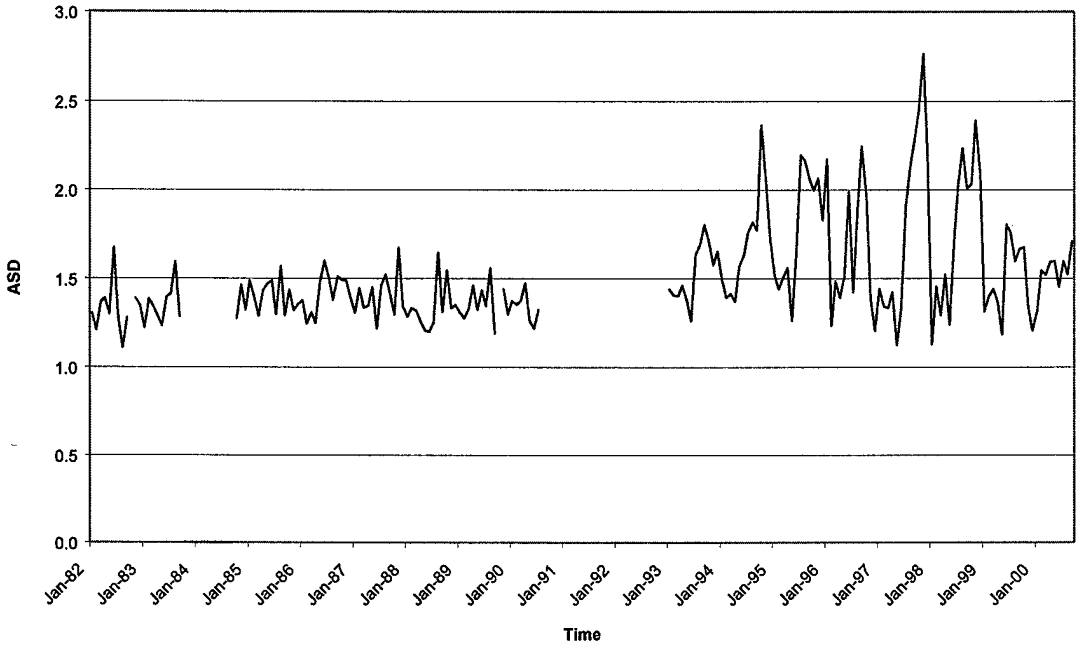
1FW Hourly UTE Rate
Jan 82-Sep 82, Feb 83-Sep 83,Oct 84-Sep 89, Nov 89-Jul 90, and Jan 93-Sep 00



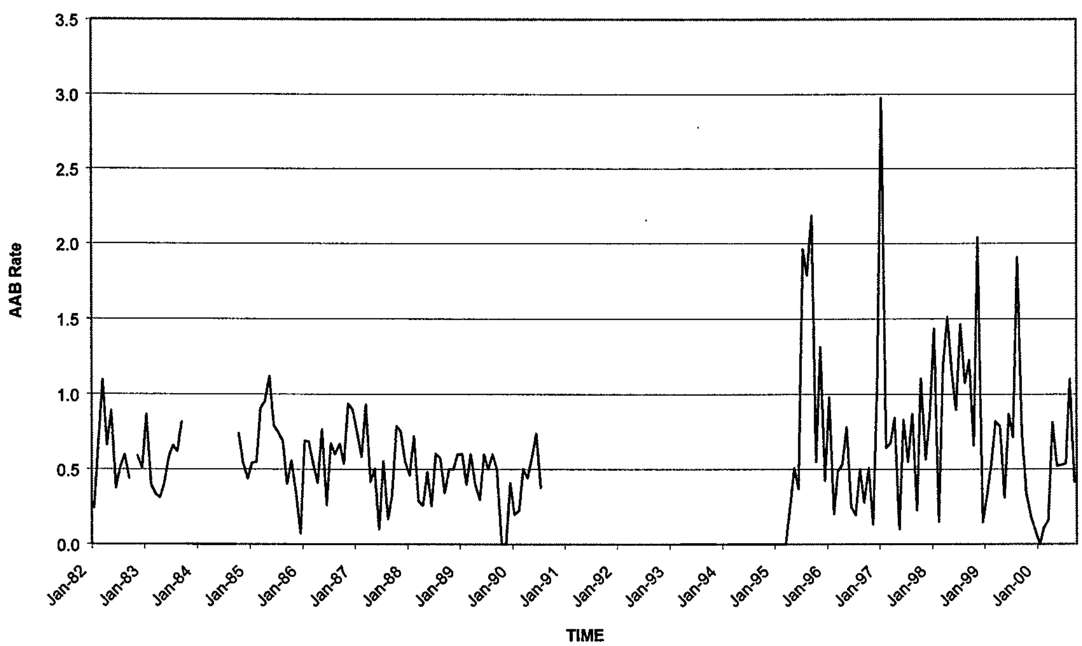
1FW Sortie UTE Rate
Jan 82-Sep 82, Feb 83-Sep 83, Oct 84-Jul 90, and Jan 93-Sep 00



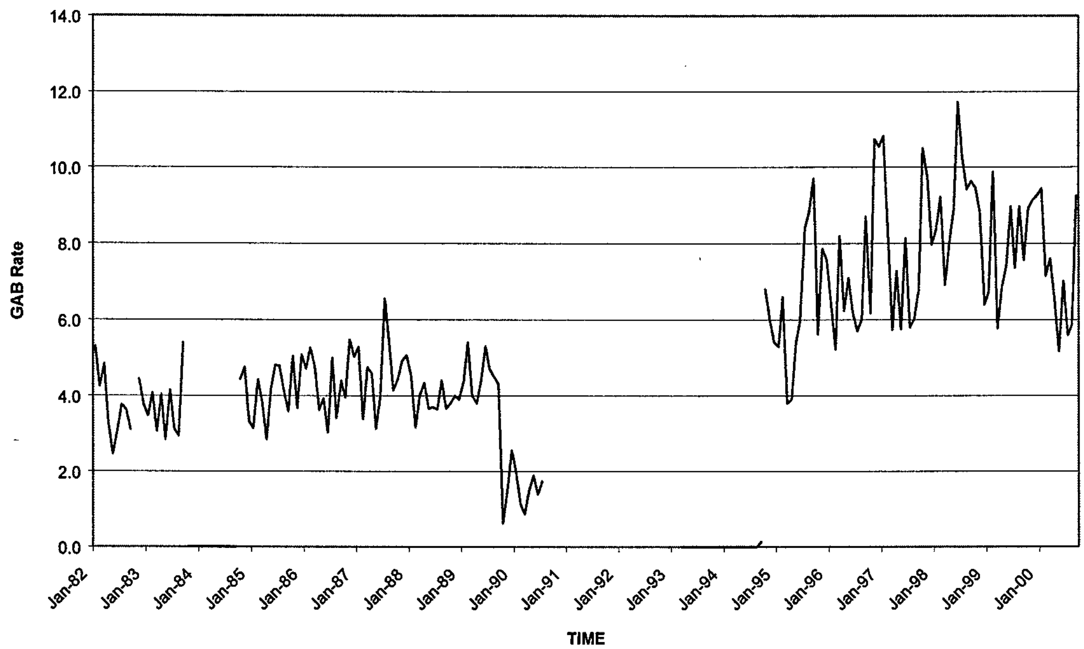
1FW ASD
Jan 82-Sep 82, Nov 82-Sep 83, Oct 84-Sep 89, Nov 89-Jul 90, and Jan 93-Sep 00



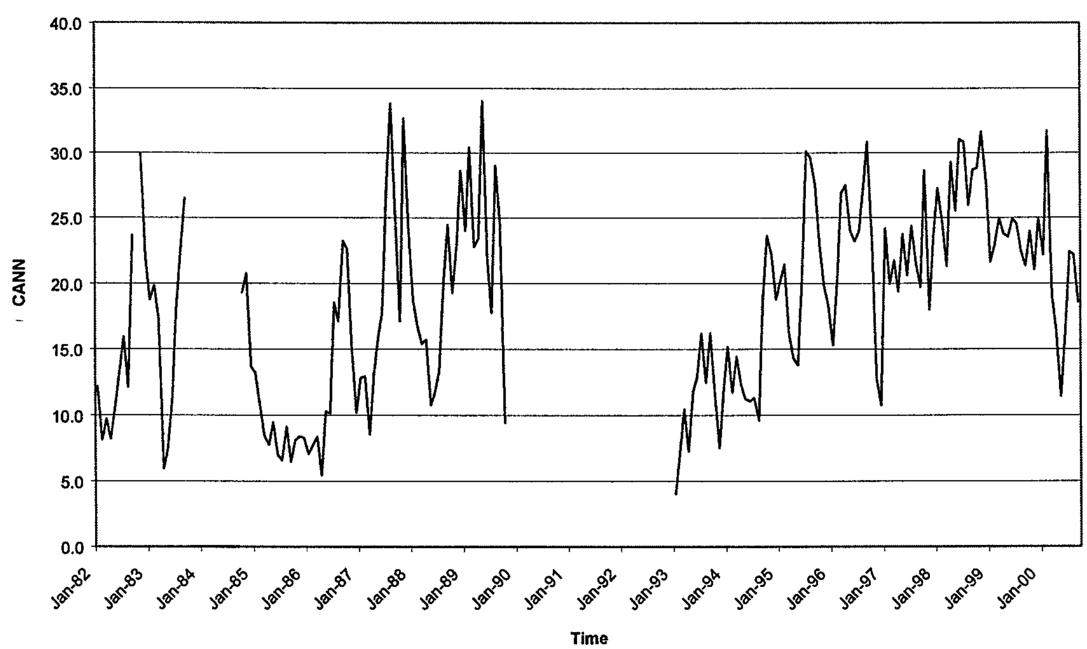
1FW Air Abort (AAB) Rate
Jan 82-Sep 82, Nov 82-Sep 83, Oct 84-Jul 90, Oct 94-Sep 00

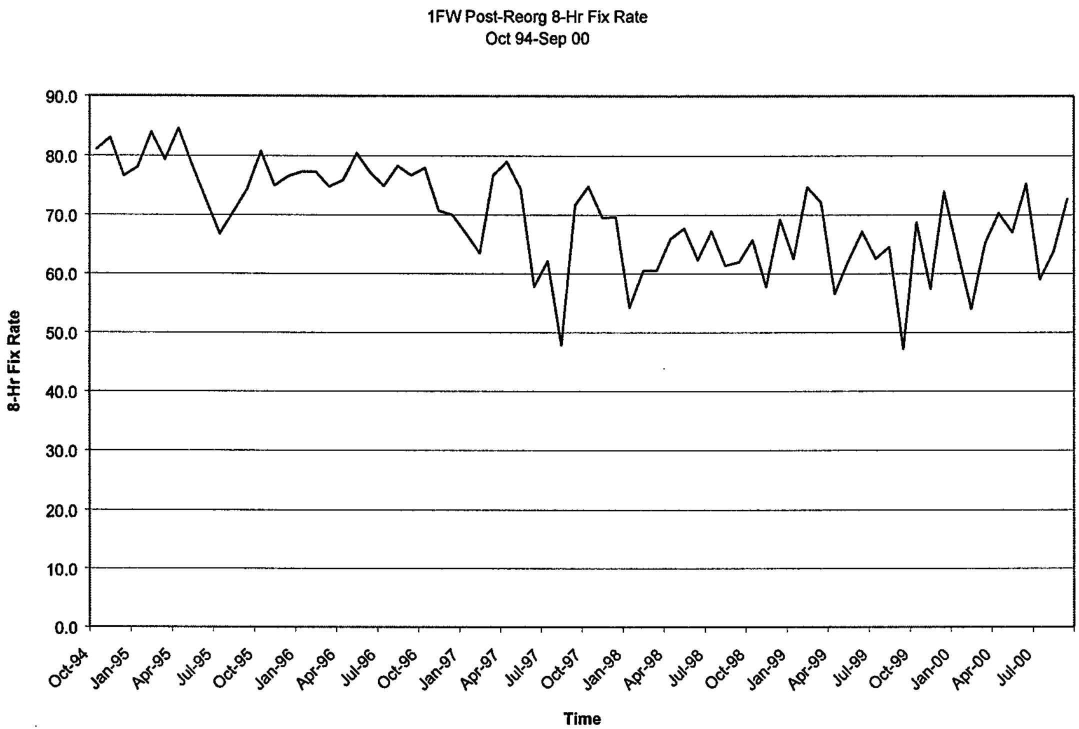


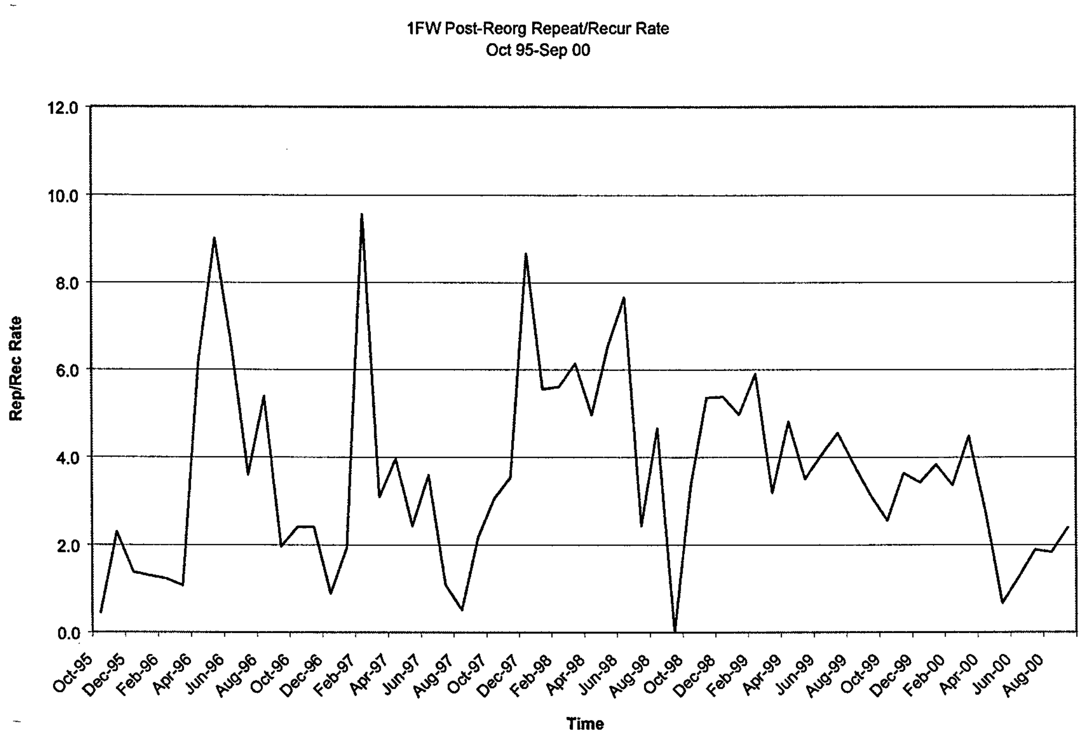
1FW GAB Rate
Jan 82-Sep 82, Nov 82-Sep 83, Oct 84-Jul 90, Oct 94-Sep 00

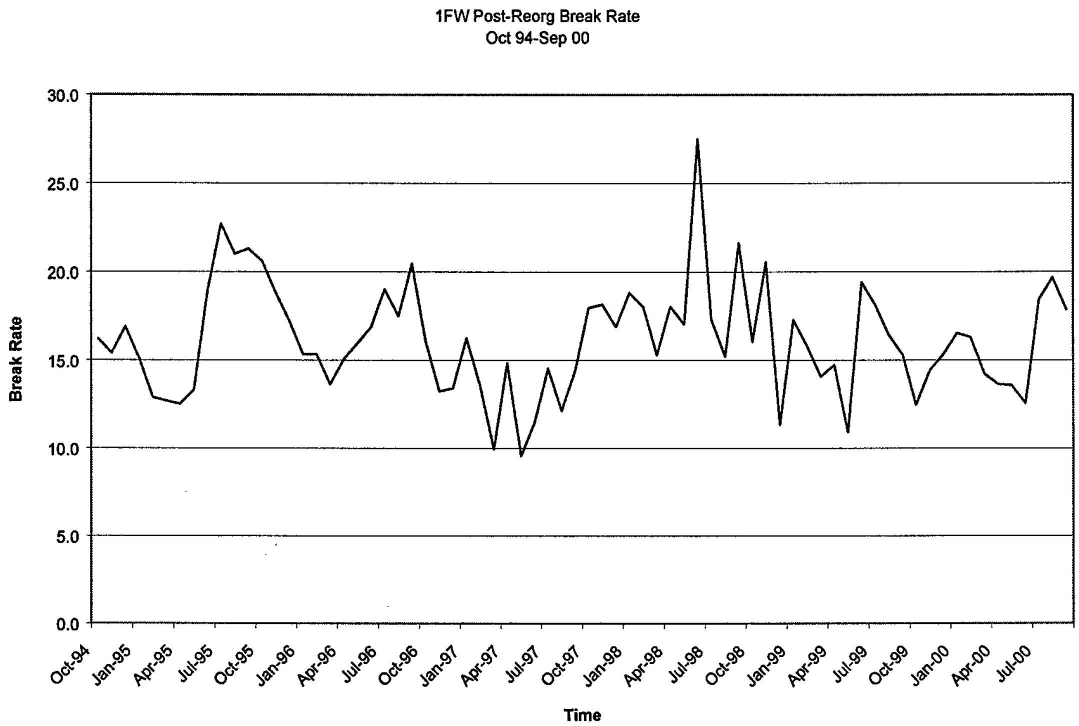


1FW CANN Rate
Jan 82-Sep 82, Nov 82-Sep 83, Oct 84-Oct 89, Jan 93-Sep 00

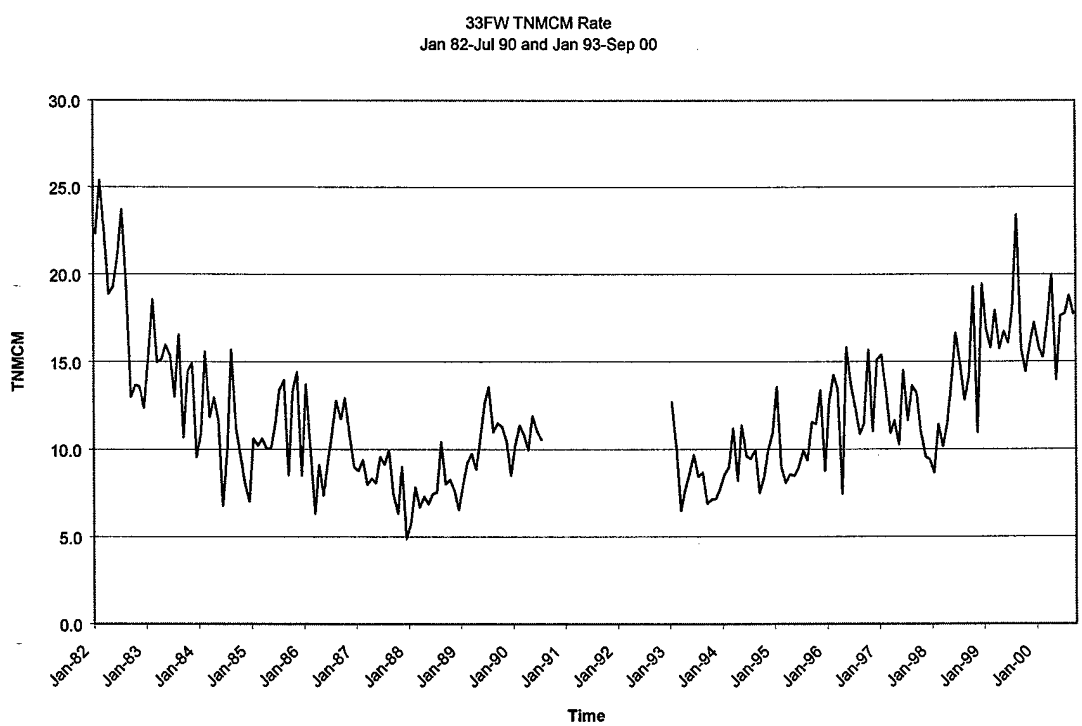



1FW Post-Reorg 8-Hr Fix Rate
Oct 94-Sep 00
8-Hr Fix Rate
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-94
Jan-95
Apr-95
Jul-95
Oct-95
Jan-96
Apr-96
Jul-96
Oct-96
Jan-97
Apr-97
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Time

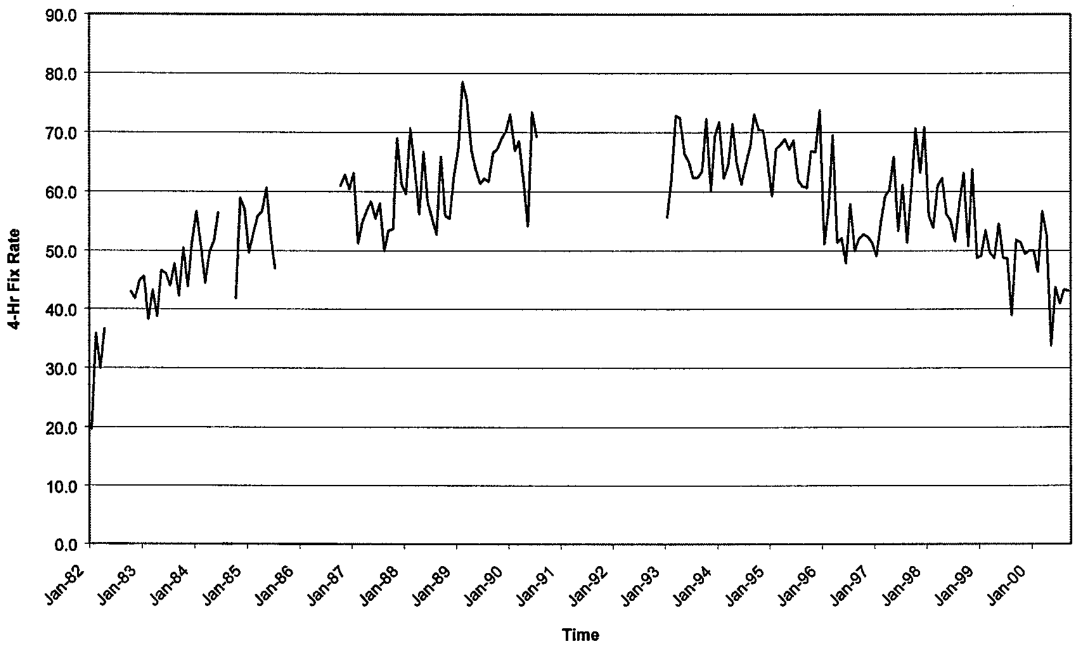

1FW Post-Reorg Repeat/Recur Rate
Oct 95-Sep 00
Rep/Rec Rate
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Oct-95
Dec-95
Feb-96
Apr-96
Jun-96
Aug-96
Oct-96
Dec-96
Feb-97
Apr-97
Jun-97
Aug-97
Oct-97
Dec-97
Feb-98
Apr-98
Jun-98
Aug-98
Oct-98
Dec-98
Feb-99
Apr-99
Jun-99
Aug-99
Oct-99
Dec-99
Feb-00
Apr-00
Jun-00
Aug-00
Time


1FW Post-Reorg Break Rate
Oct 94-Sep 00
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Break Rate
Oct-94
Jan-95
Apr-95
Jul-95
Oct-95
Jan-96
Apr-96
Jul-96
Oct-96
Jan-97
Apr-97
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Time

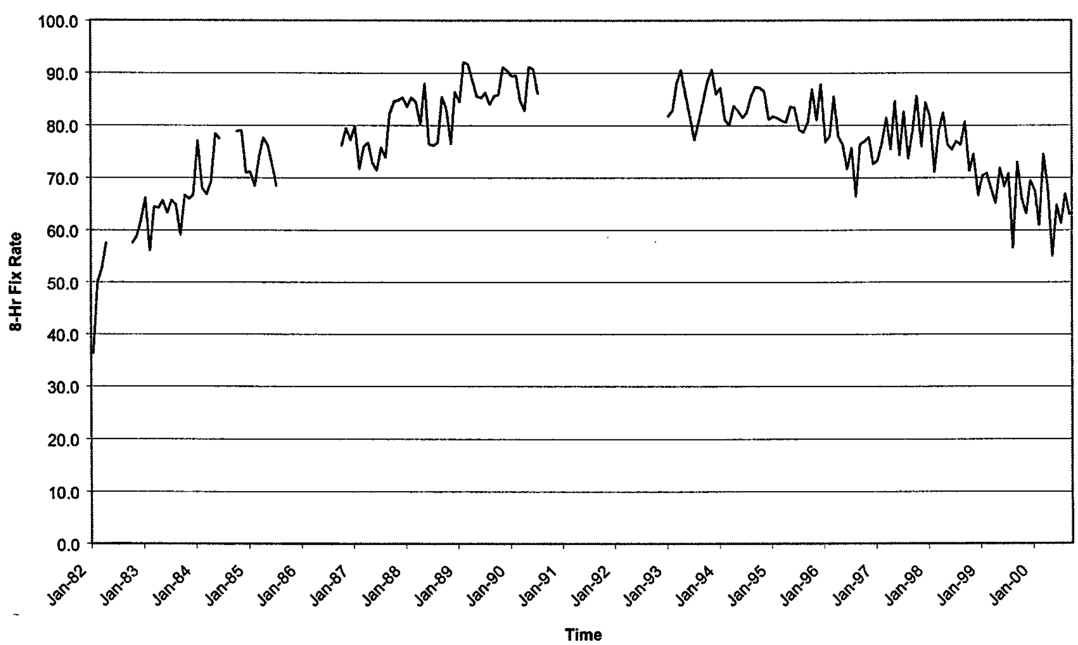
33rd FW:


33FW TNMCM Rate
Jan 82-Jul 90 and Jan 93-Sep 00
30.0
25.0
20.0
15.0
10.0
5.0
0.0
TNMCM
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

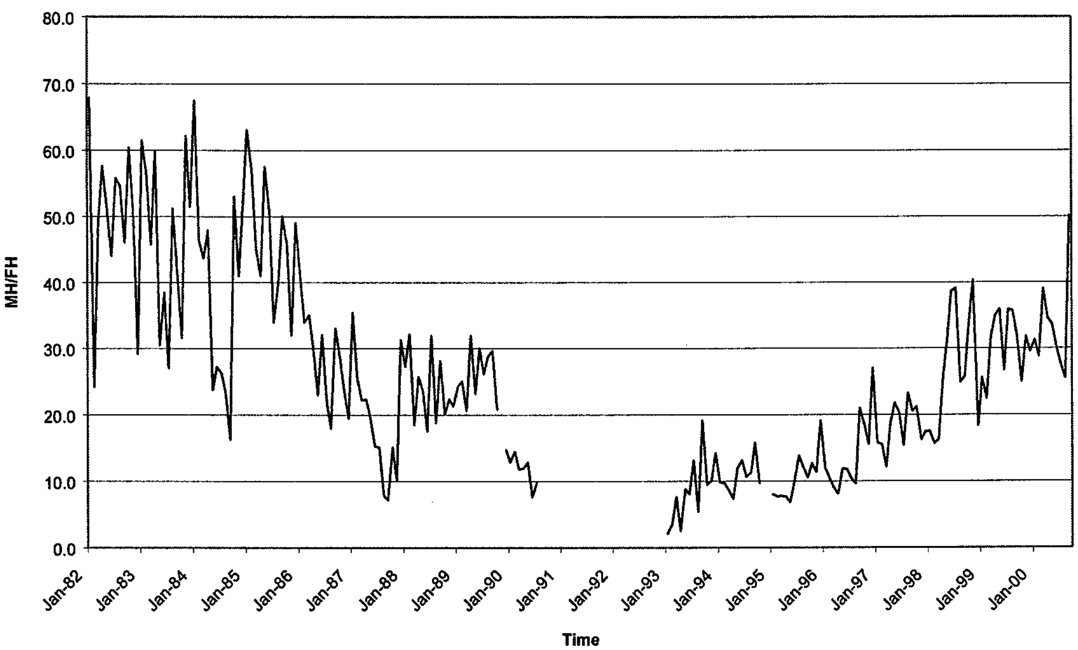
33FW 4-Hr Fix Rate
Jan 82-Apr 82, Oct 82-Jun 84, Oct 84-Jul 85, Oct 86-Jul 90, and Jan 93-Sep 00



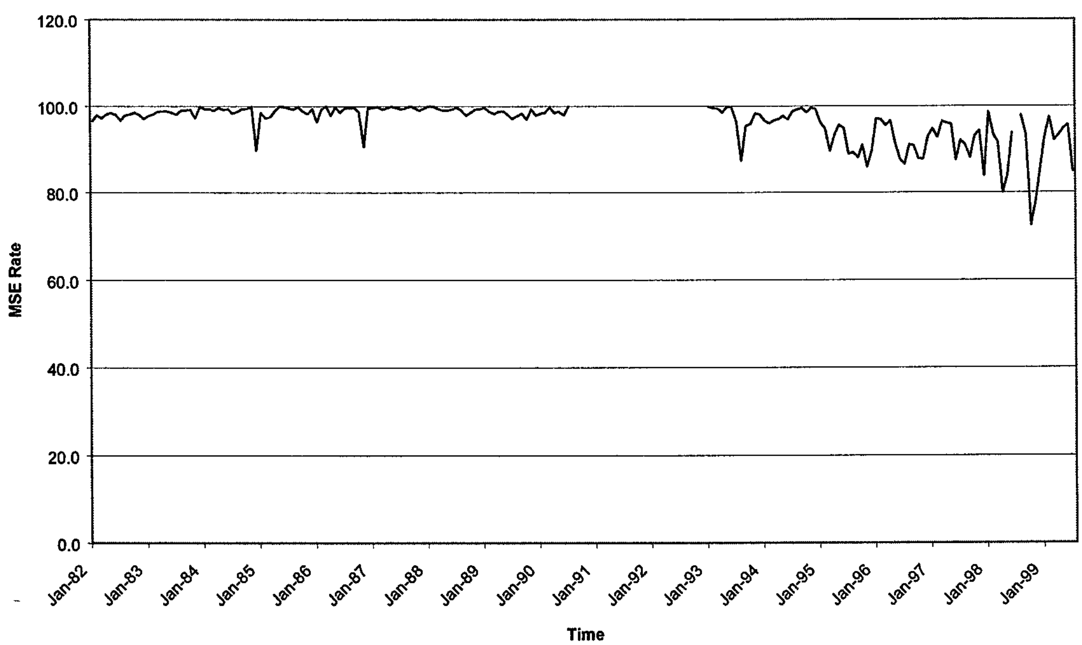
33FW 8-Hr Fix Rate
Jan 82-Apr 82, Oct 82-Jun 84, Oct 84-Jul 85, Oct 86-Jul 90, and Jan 93-Sep 00



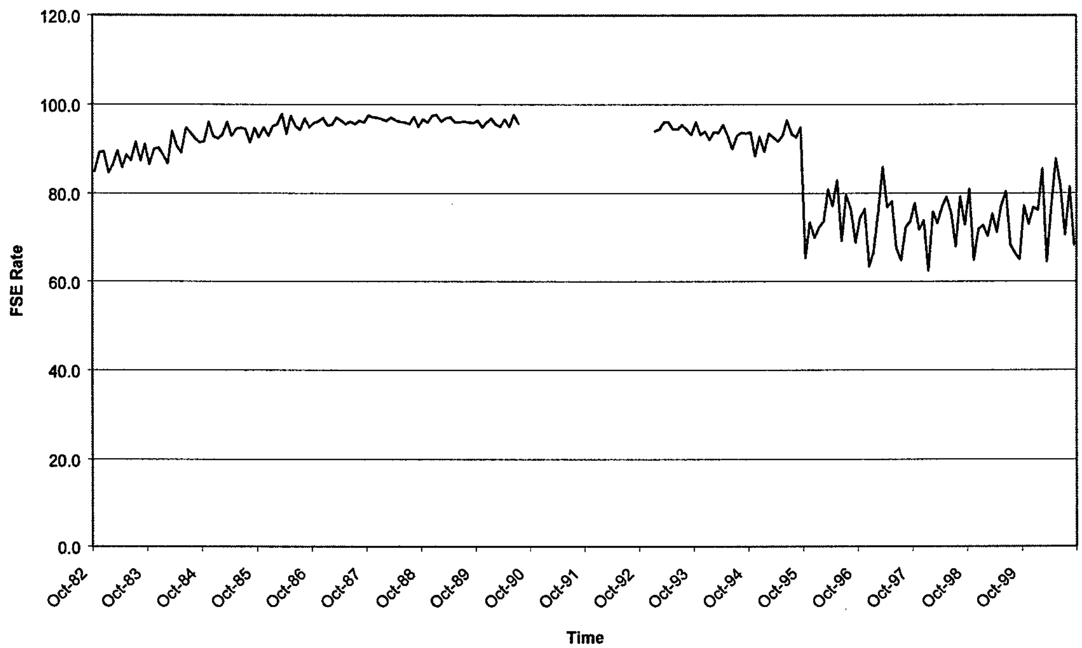
33FW MH/FH
Jan82-Oct 89, Dec 89-Jul 90, Jan 93-Oct 94, Jan 95-Sep 00



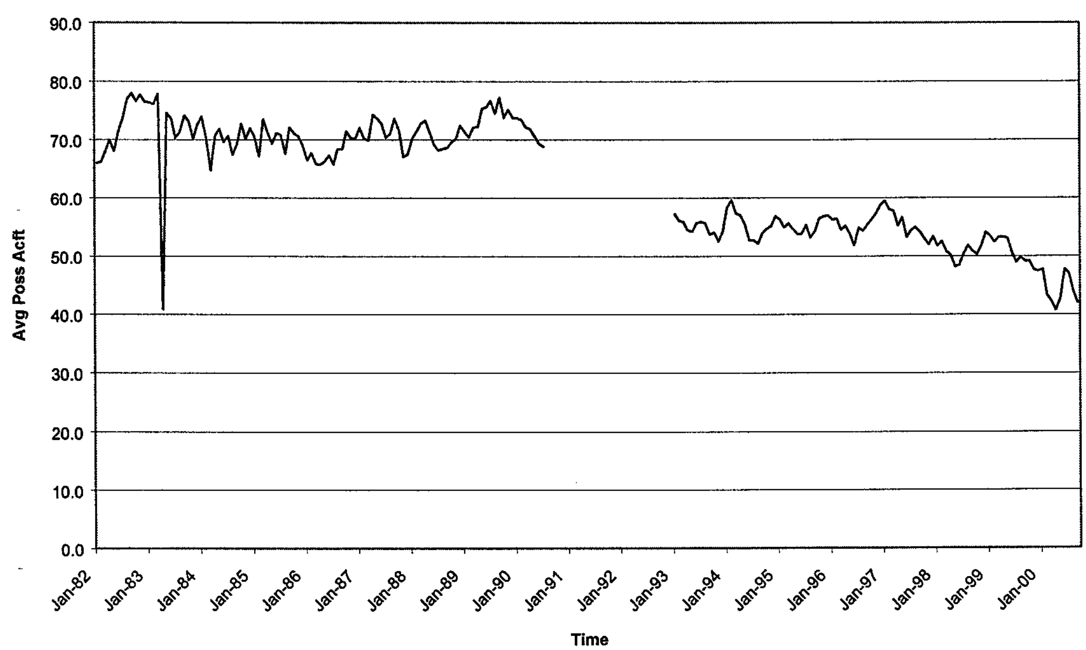
33FW Maintenance Scheduling Effectiveness (MSE) Rate
Jan 82-Jul 00, Jan 93-Jun 98, Aug 98-Jul 99



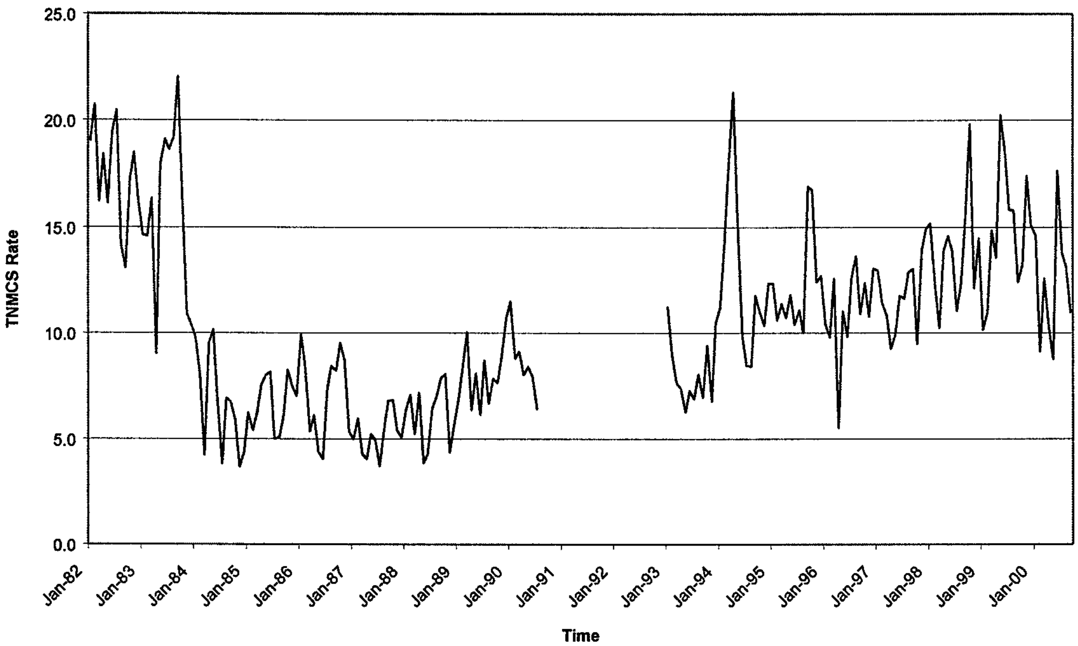
33FW Flying Schedule Effectiveness (FSE) Rate
Oct 82-Jul 90 and Jan 93-Sep 00



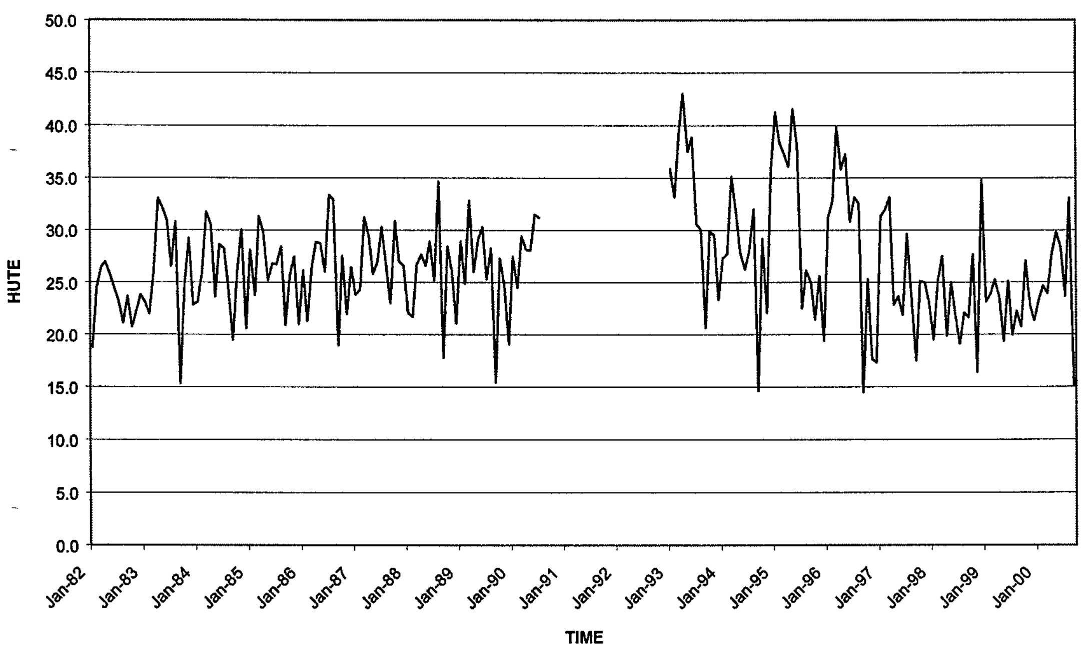
33FW Avg Poss Acft
Jan 82-Jul 90 and Jan 93-Sep 00

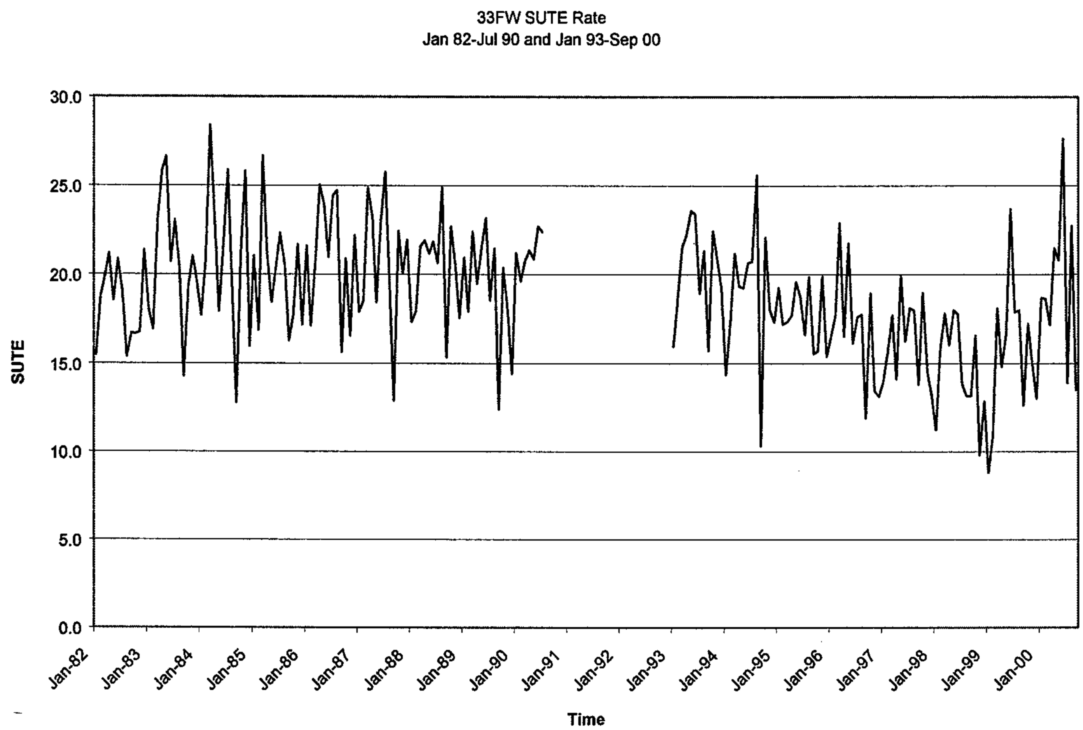


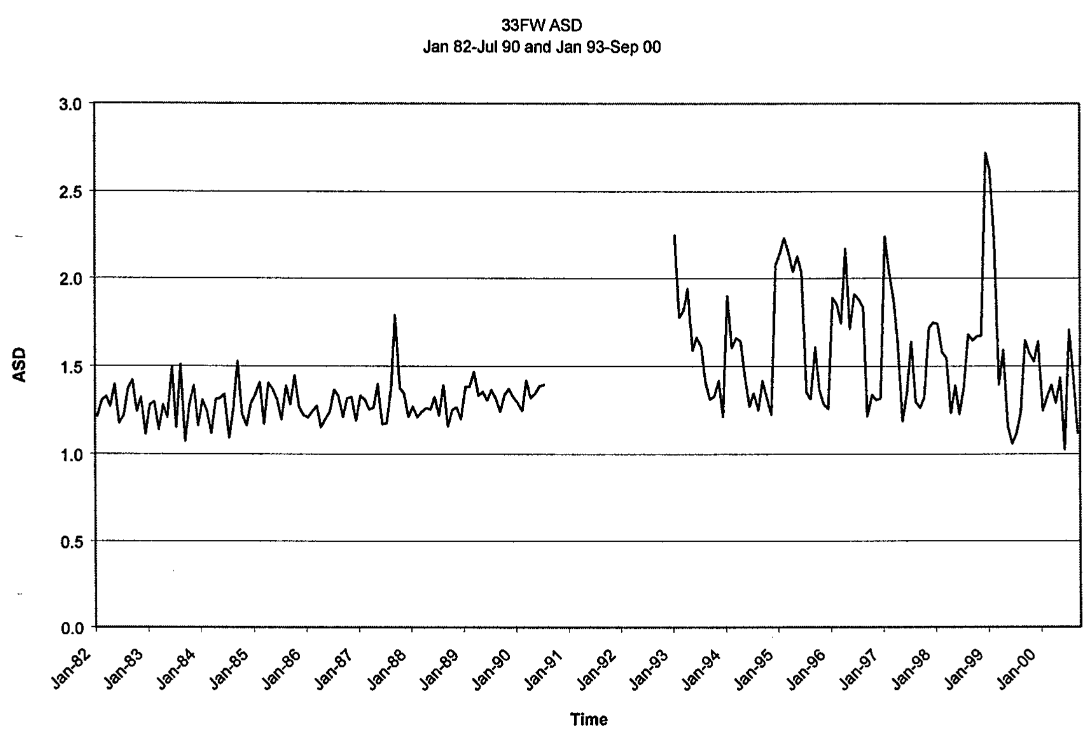
33FW TNMCS Rate
Jan 82-Jul 90 and Jan 93-Sep 00



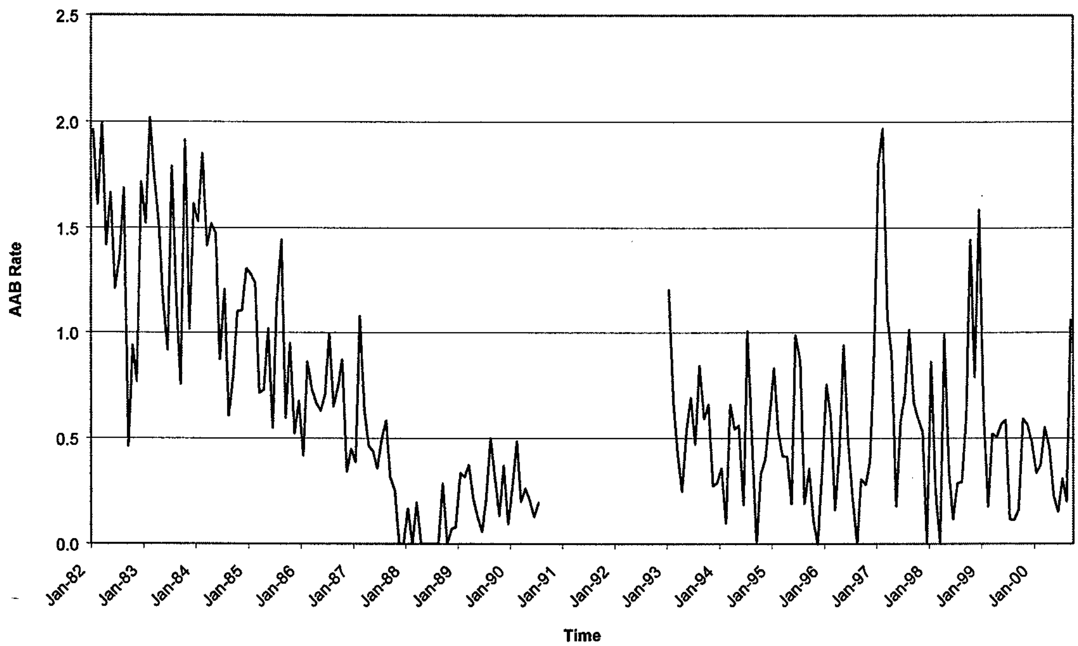
33FW Hourly UTE Rate
Jan 82-Jul 90 and Jan 93-Sep 00



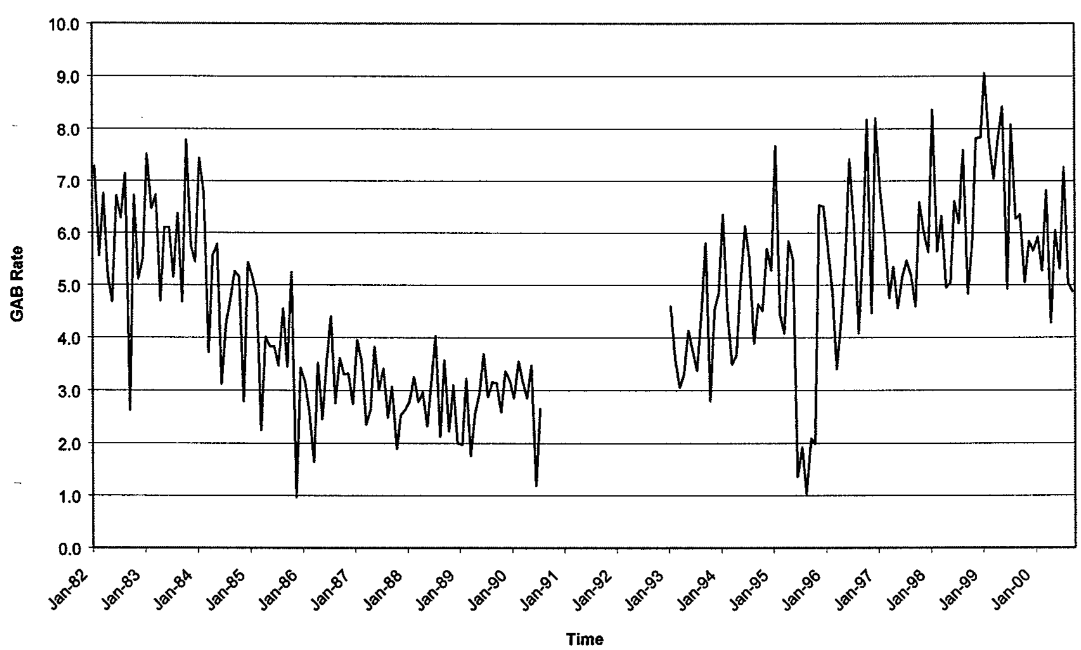

33FW SUTE Rate
Jan 82-Jul 90 and Jan 93-Sep 00
30.0
25.0
20.0
15.0
10.0
5.0
0.0
SUTE
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time


33FW ASD
Jan 82-Jul 90 and Jan 93-Sep 00
3.0
2.5
2.0
1.5
1.0
0.5
0.0
ASD
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

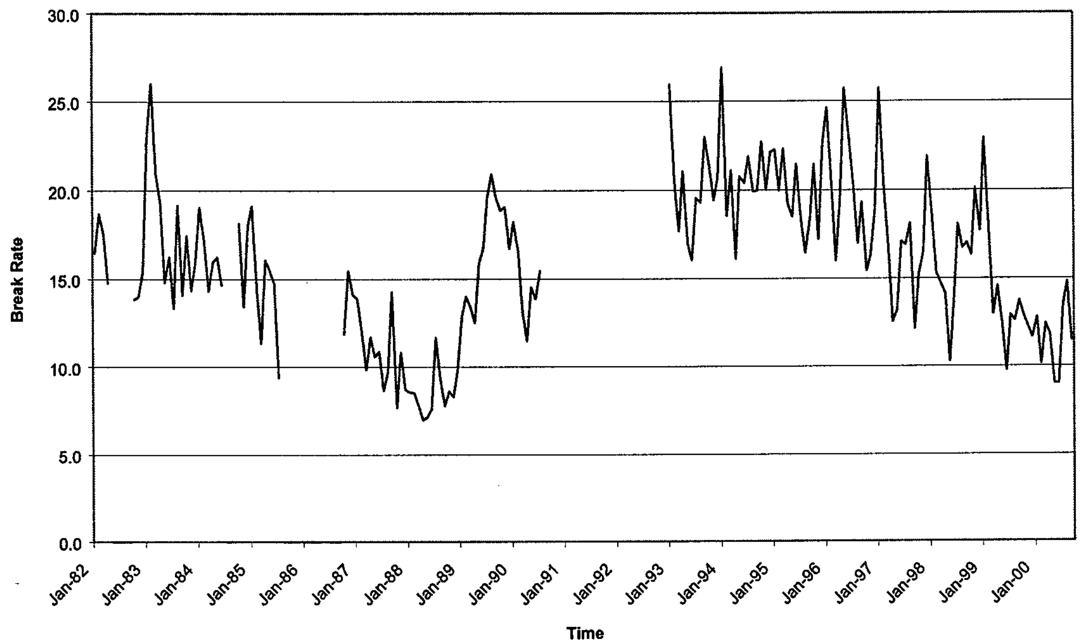
33FW AAB Rate
Jan 82-Jul 90 and Jan 93-Sep 00



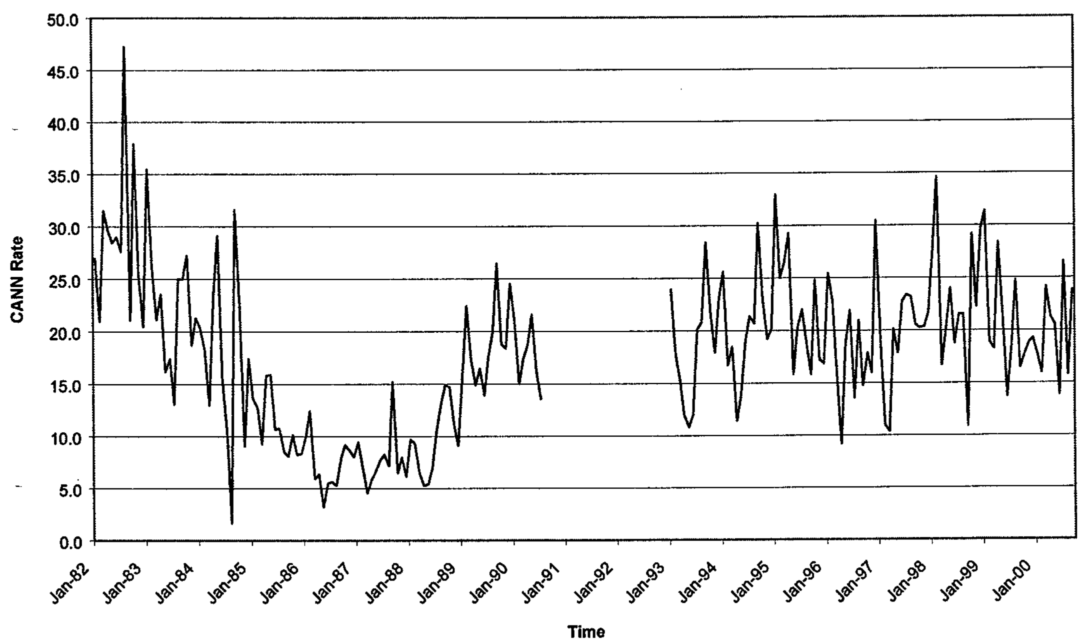
33FW GAB Rate
Jan 82-Jul 90 and Jan 93-Sep 00



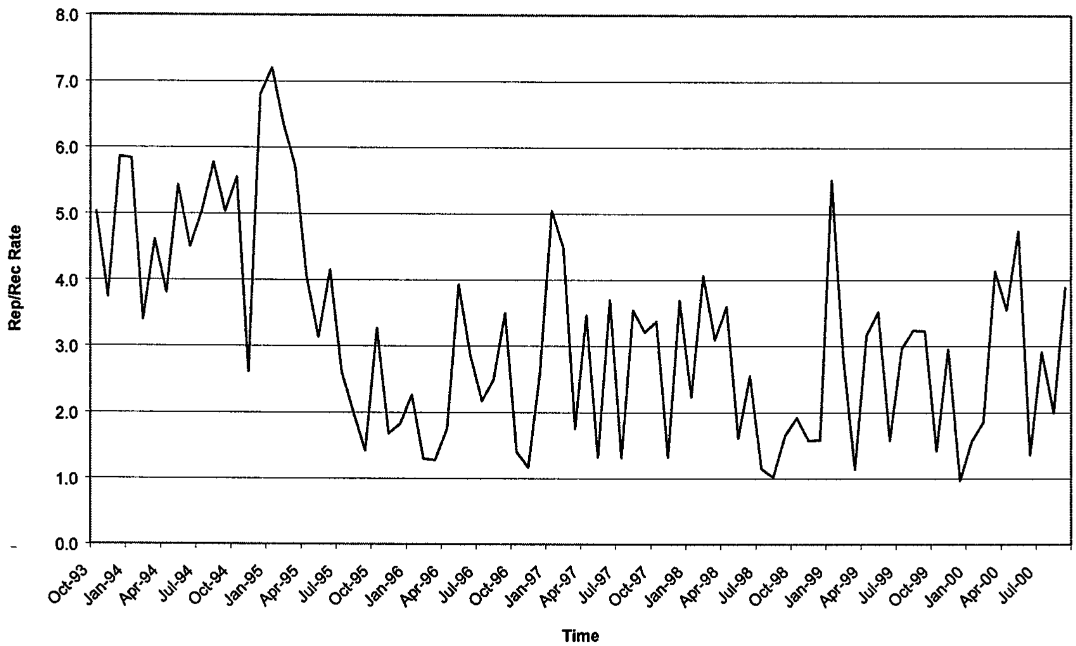
33FW Break Rate
Jan 82-Apr 82, Oct 82-Jun 84, Oct 84-Jul 85, Oct 86-Jul 90, and Jan 93-Sep 00



33FW CANN Rate
Jan 82-Jul 90 and Jan 93-Sep 00

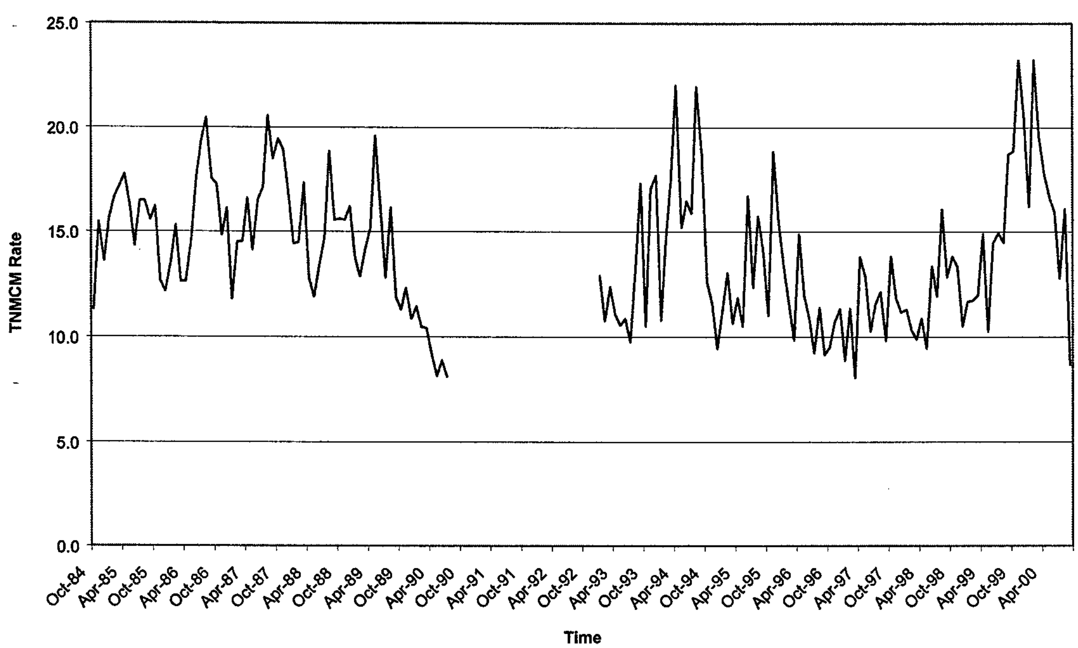


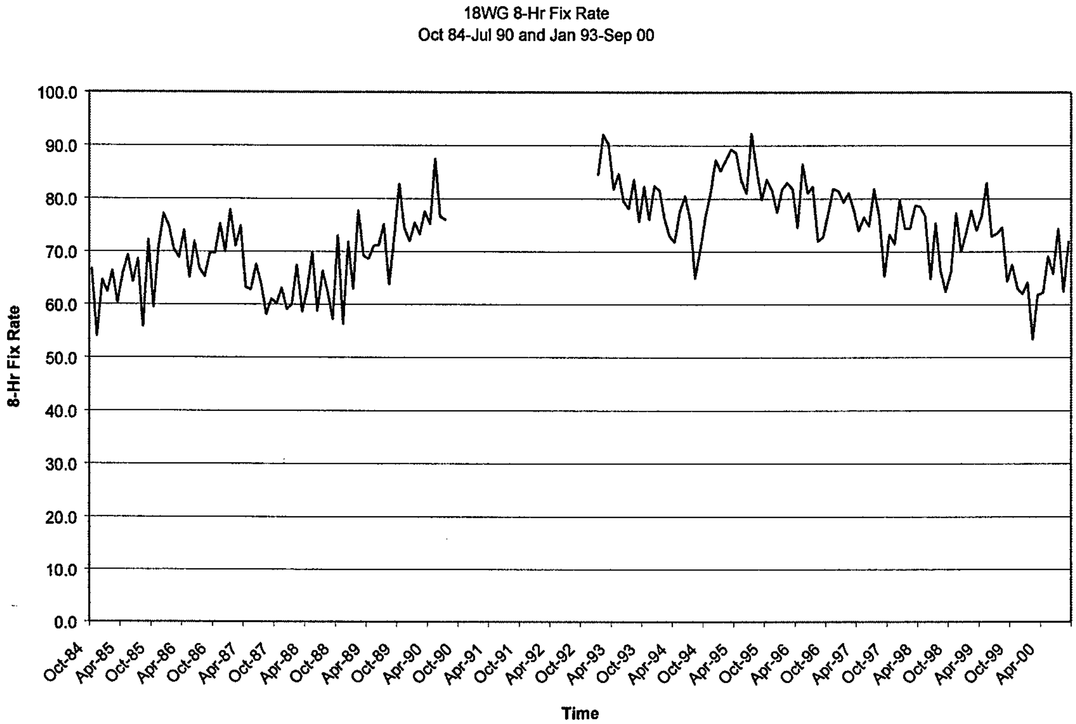
33FW Post-Reorg Repeat/Recur Rate
Oct 93-Sep 00

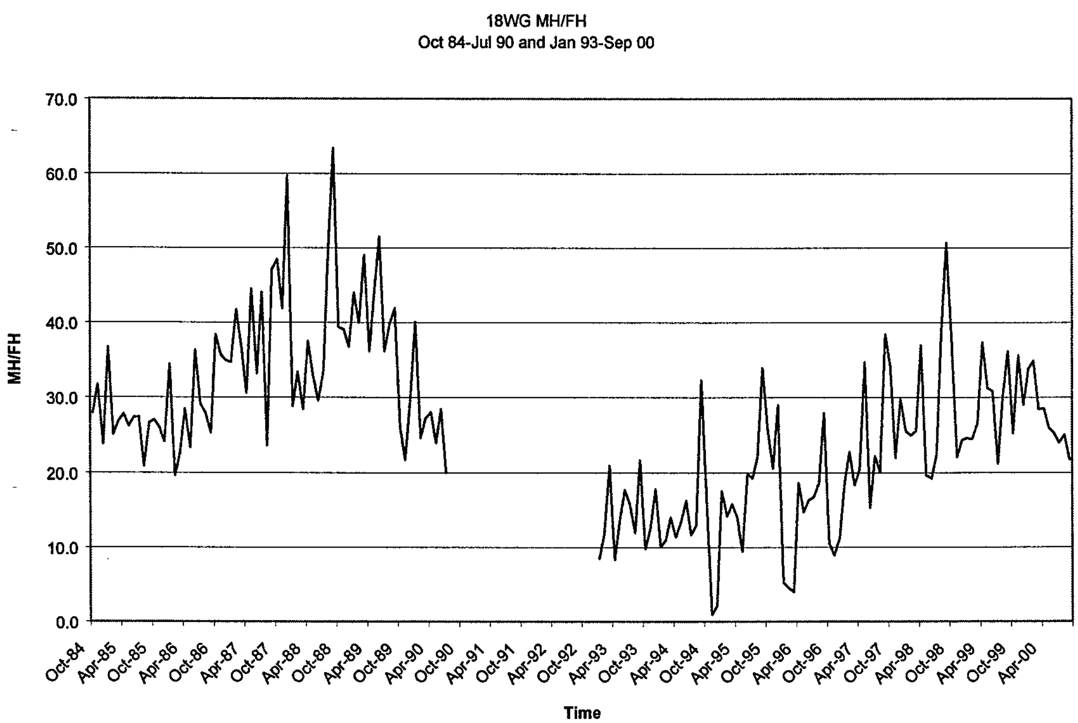


18th WG:

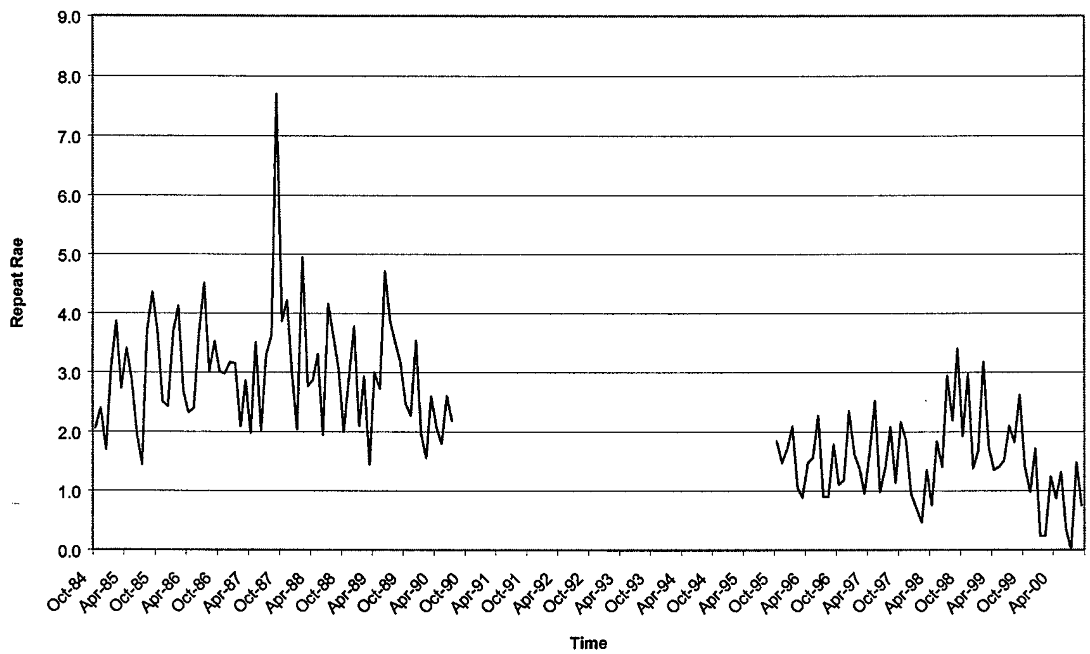
18WG TNMCM Rate
Oct 84-Jul 90 and Jan 93-Sep 00



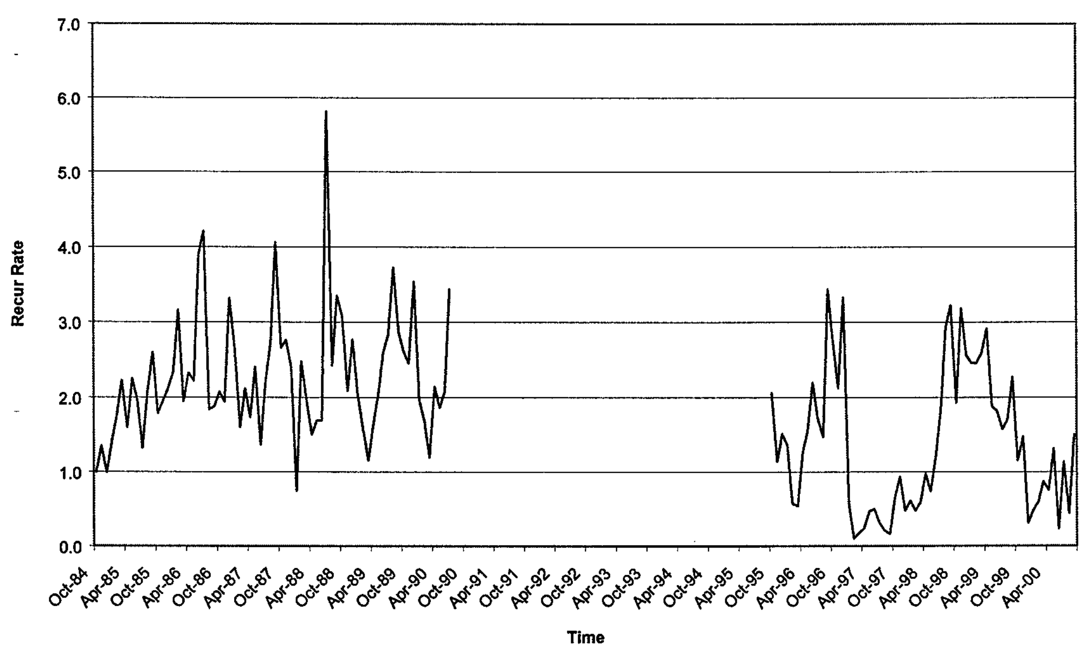

18WG 8-Hr Fix Rate
Oct 84-Jul 90 and Jan 93-Sep 00
8-Hr Fix Rate
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-84
Apr-85
Oct-85
Apr-86
Oct-86
Apr-87
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time


18WG MH/FH
Oct 84-Jul 90 and Jan 93-Sep 00
MH/FH
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-84
Apr-85
Oct-85
Apr-86
Oct-86
Apr-87
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time

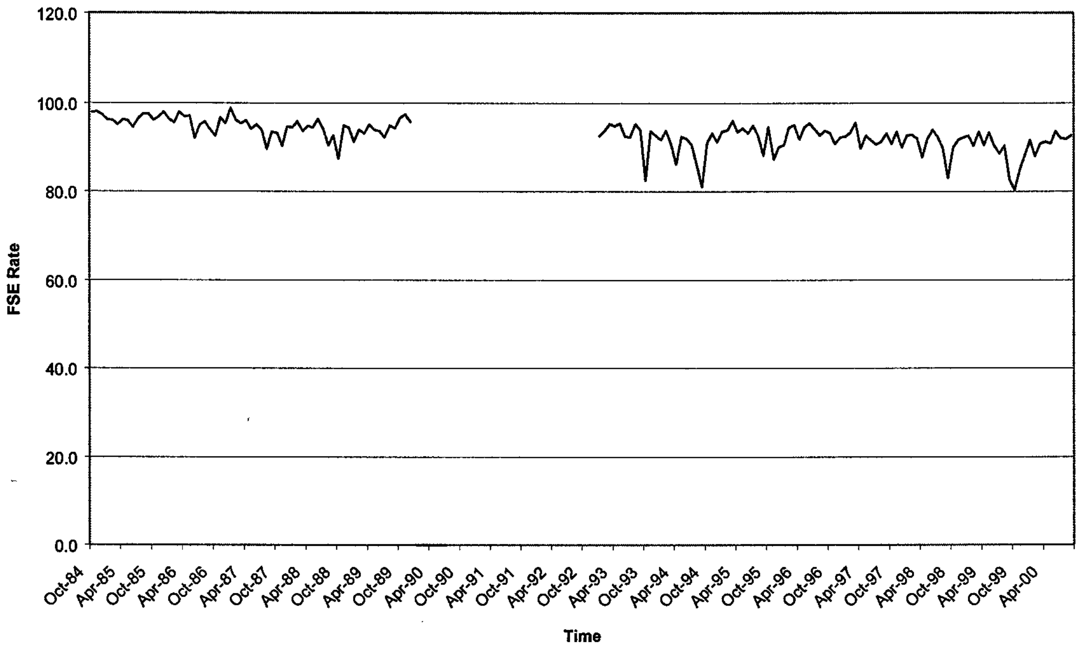
18WG Repeat Rate
Oct 84-Jul 90 and Oct 95-Sep 00



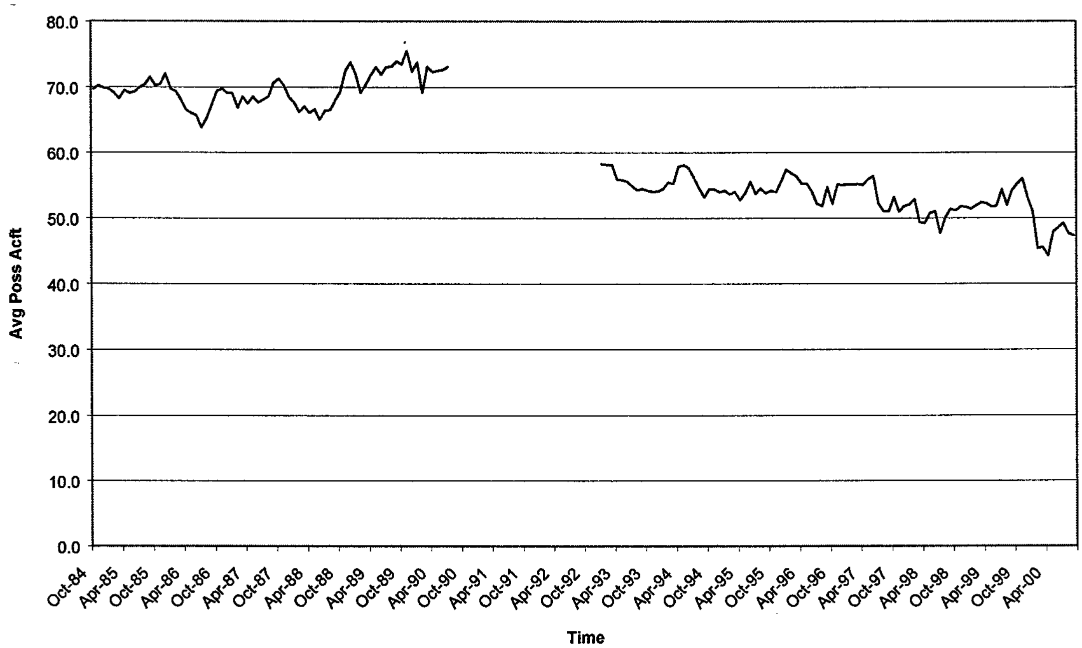
18WG Recur Rate
Oct 84-Jul 90 and Oct 95-Sep 00

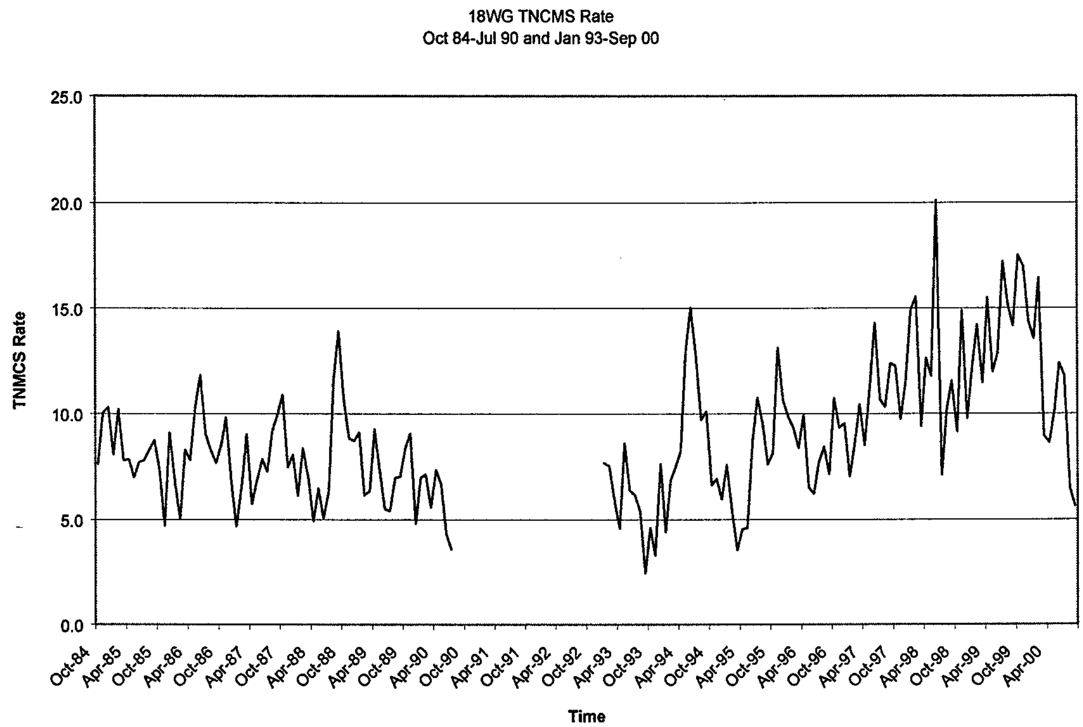


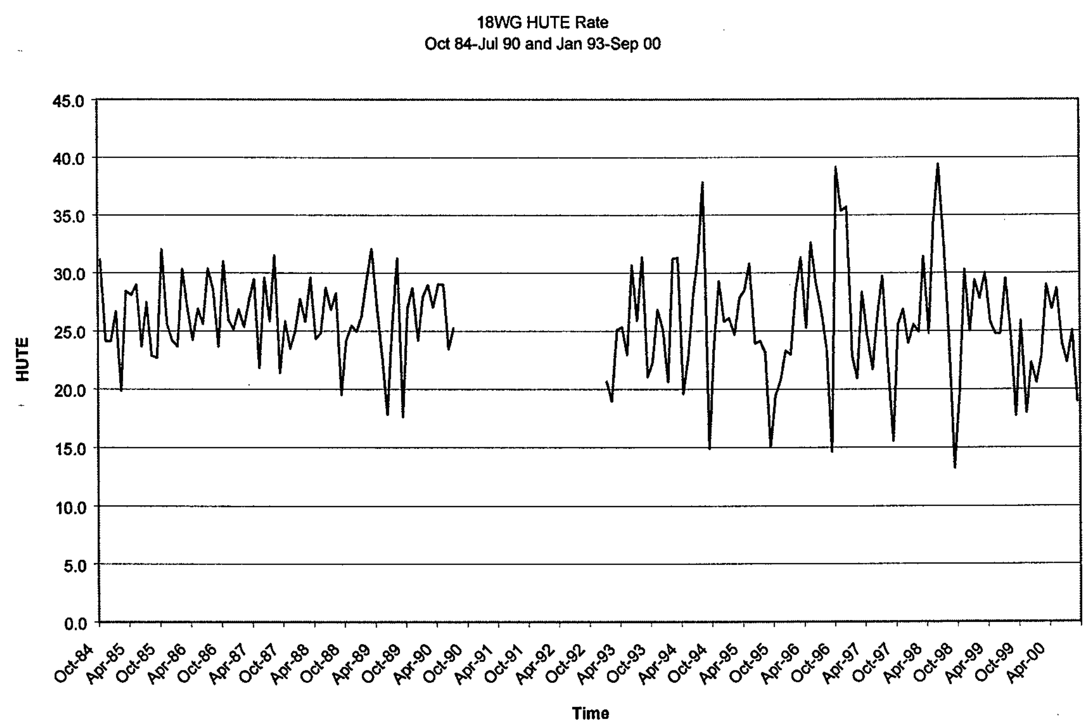
18WG FSE Rate
Oct 84-Dec 89 and Jan 93-Sep 00

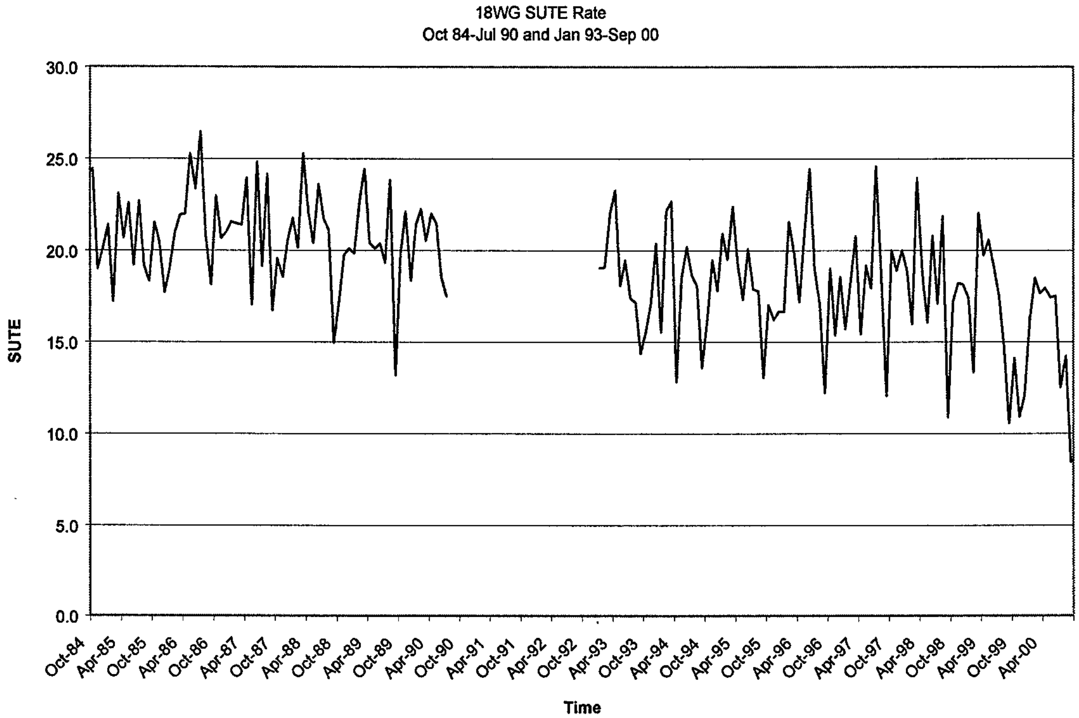


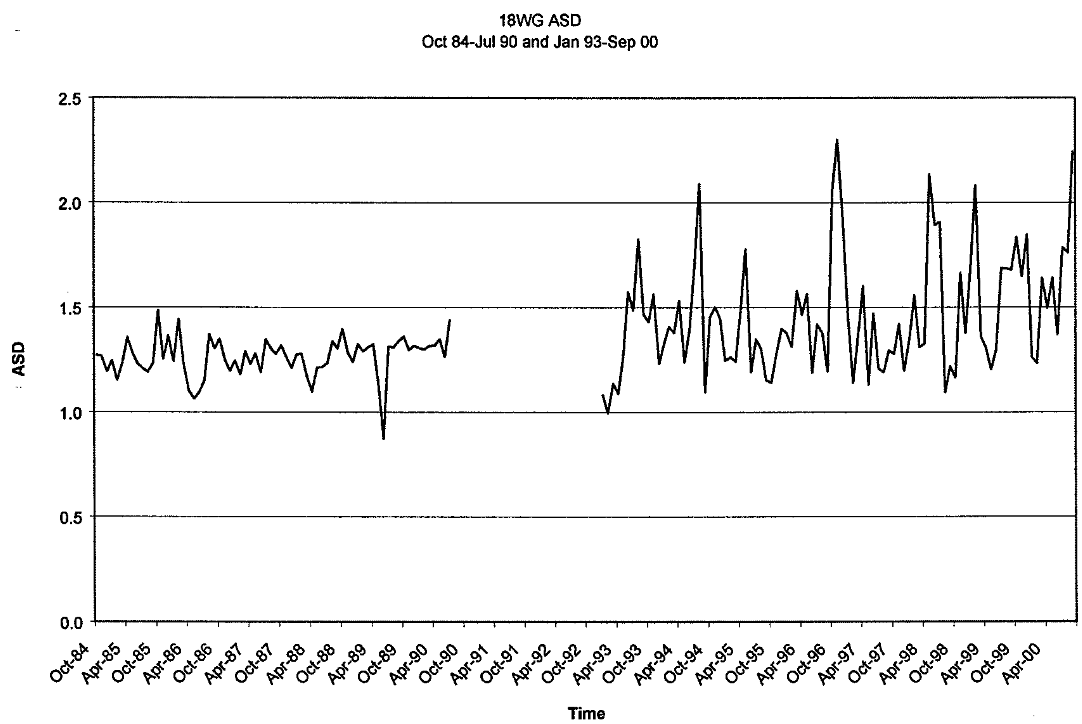
18WG Avg Poss Acft
Oct84-Jul 90 and Jan 93-Sep 00



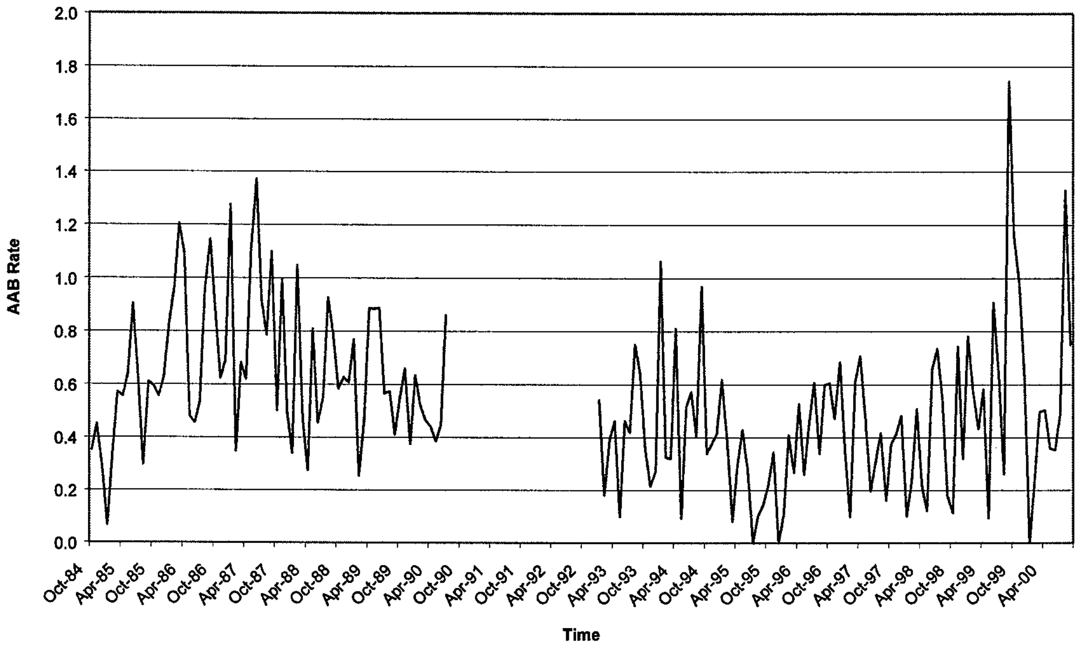

18WG TNCMS Rate
Oct 84-Jul 90 and Jan 93-Sep 00
TNMCS Rate
25.0
20.0
15.0
10.0
5.0
0.0
Oct-84
Apr-85
Oct-85
Apr-86
Oct-86
Apr-87
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time


18WG HUTE Rate
Oct 84-Jul 90 and Jan 93-Sep 00
HUTE
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Oct-84
Apr-85
Oct-85
Apr-86
Oct-86
Apr-87
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time

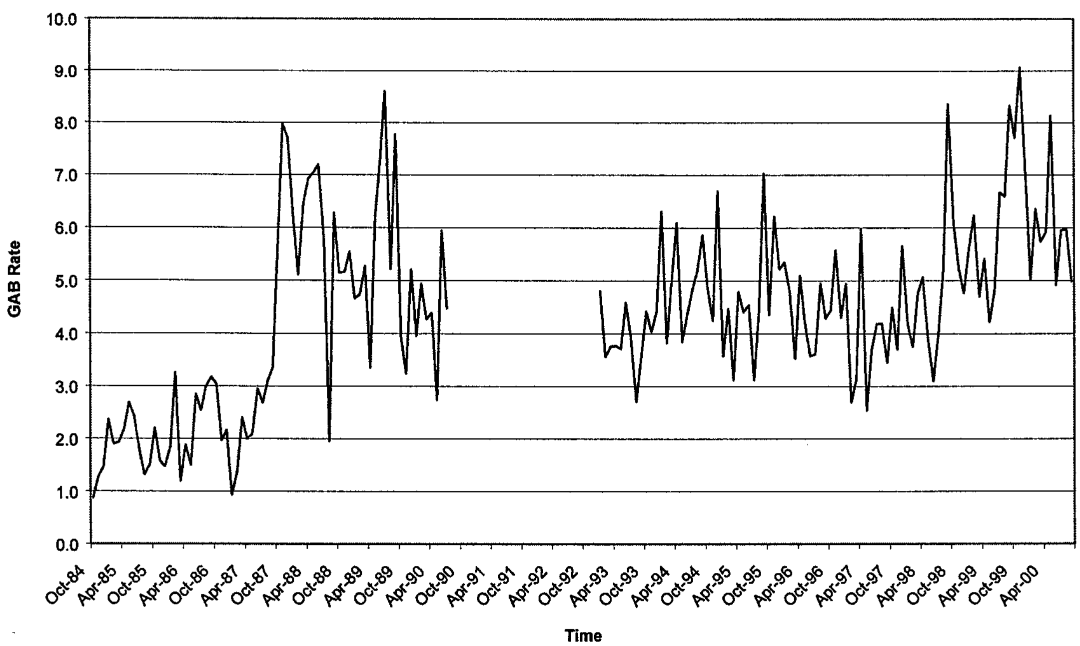

18WG SUTE Rate
Oct 84-Jul 90 and Jan 93-Sep 00
SUTE
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Oct-84
Apr-85
Oct-85
Apr-86
Oct-86
Apr-87
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time


18WG ASD
Oct 84-Jul 90 and Jan 93-Sep 00
ASD
2.5
2.0
1.5
1.0
0.5
0.0
Oct-84
Apr-85
Oct-85
Apr-86
Oct-86
Apr-87
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time

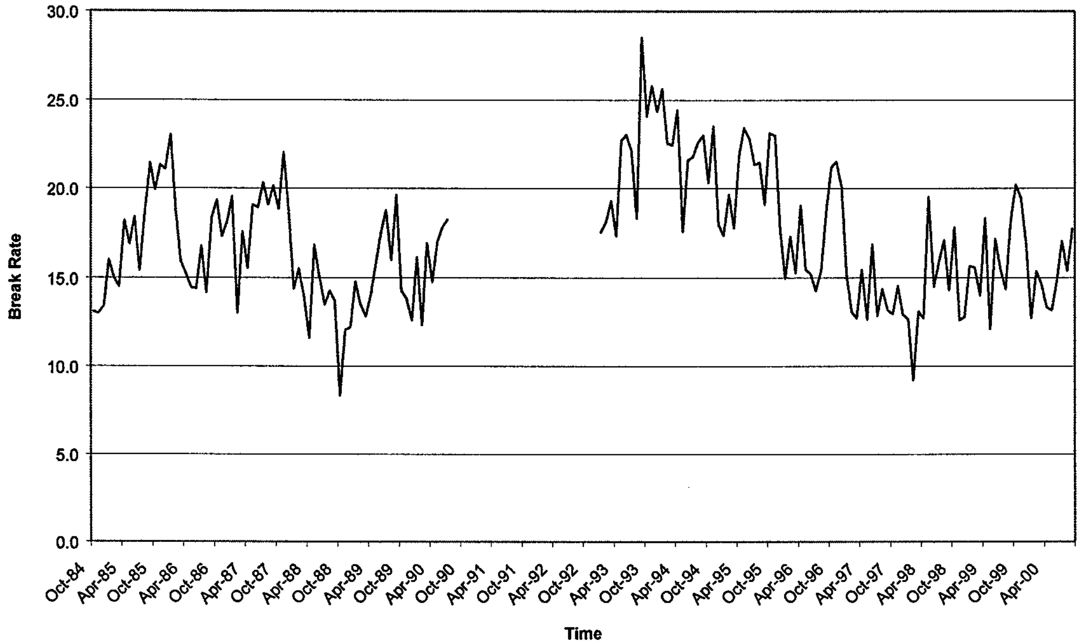
18 WG AAB Rate
Oct 84-Jul 90 and Jan 93-Sep 00



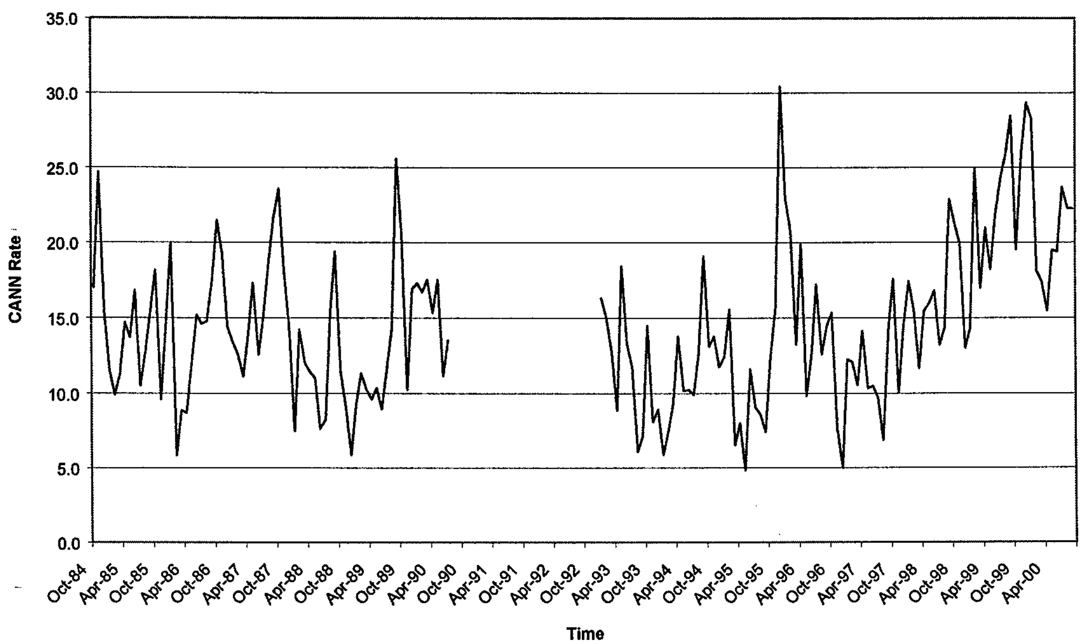
18WG GAB Rate
Oct 84-Jul 90 and Jan 93-Sep 00

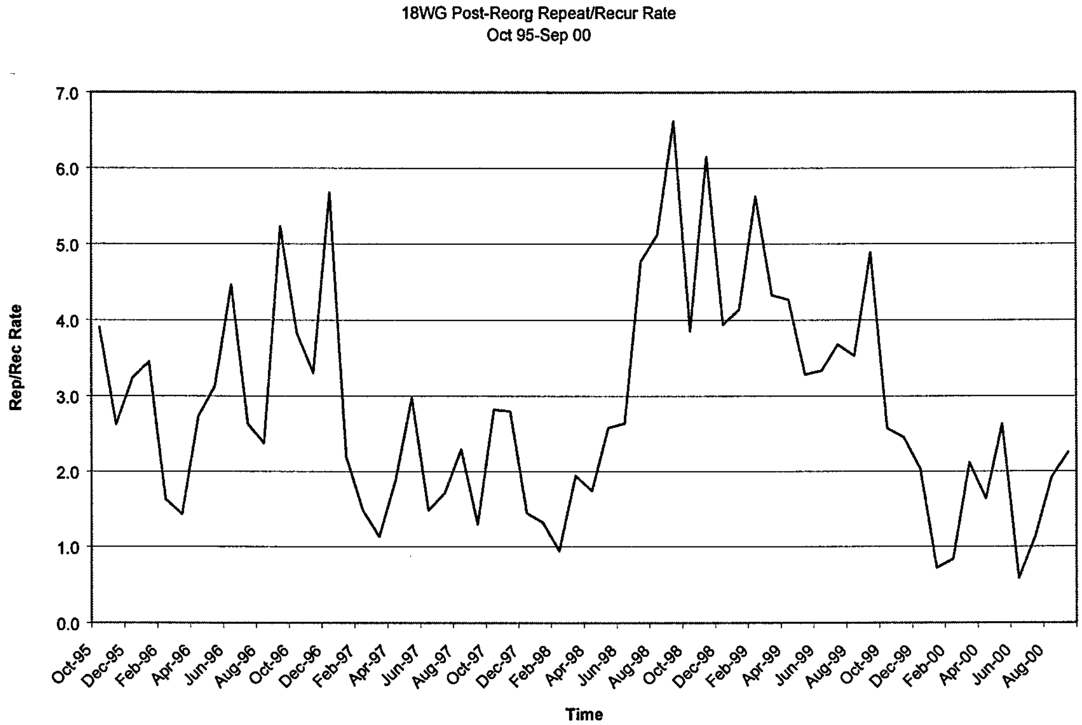


18WG Break Rate
Oct 84-Jul 90 and Jan 93-Sep 00

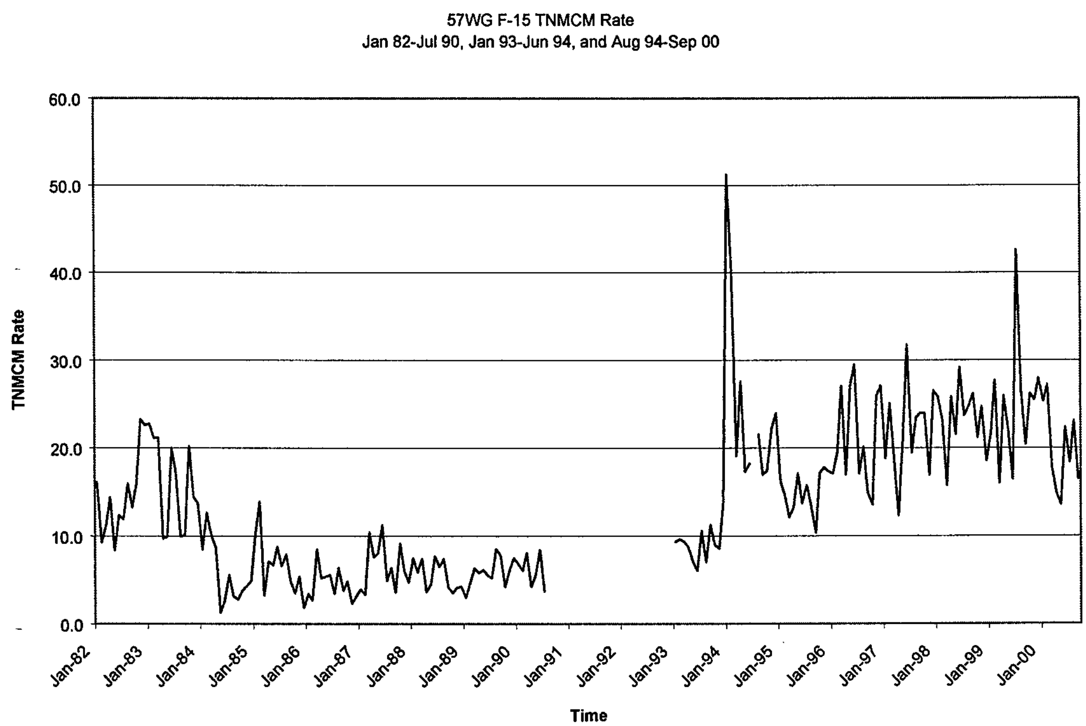


18WG CANN Rate
Oct 84-Jul 90 and Jan 93-Sep 00

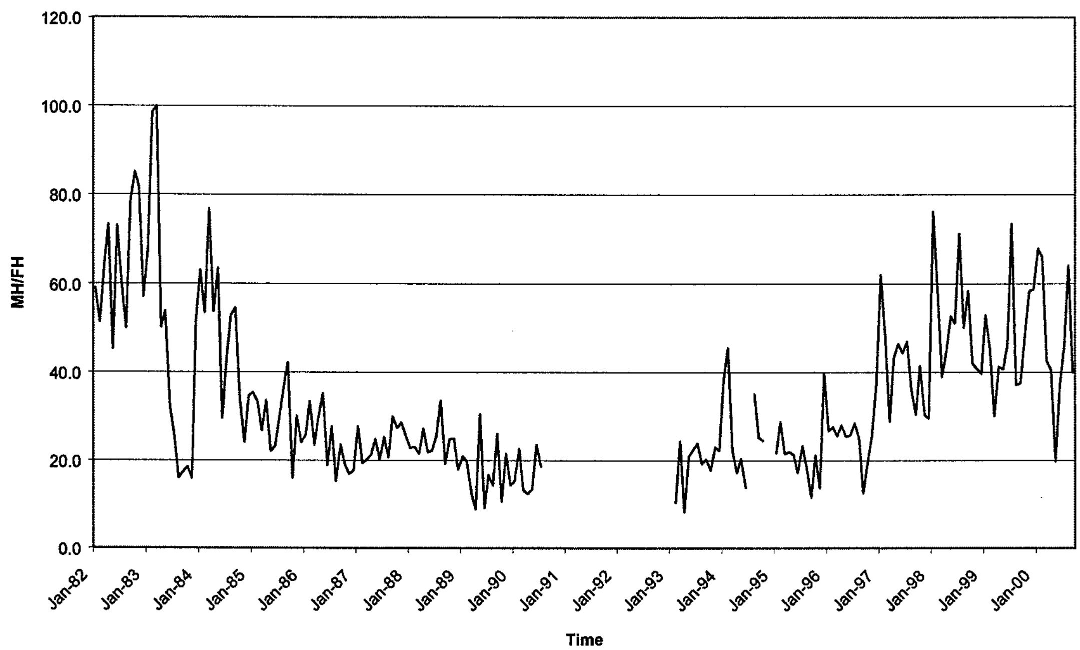



18WG Post-Reorg Repeat/Recur Rate
Oct 95-Sep 00
Rep/Rec Rate
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Oct-95
Dec-95
Feb-96
Apr-96
Jun-96
Aug-96
Oct-96
Dec-96
Feb-97
Apr-97
Jun-97
Aug-97
Oct-97
Dec-97
Feb-98
Apr-98
Jun-98
Aug-98
Oct-98
Dec-98
Feb-99
Apr-99
Jun-99
Aug-99
Oct-99
Dec-99
Feb-00
Apr-00
Jun-00
Aug-00
Time

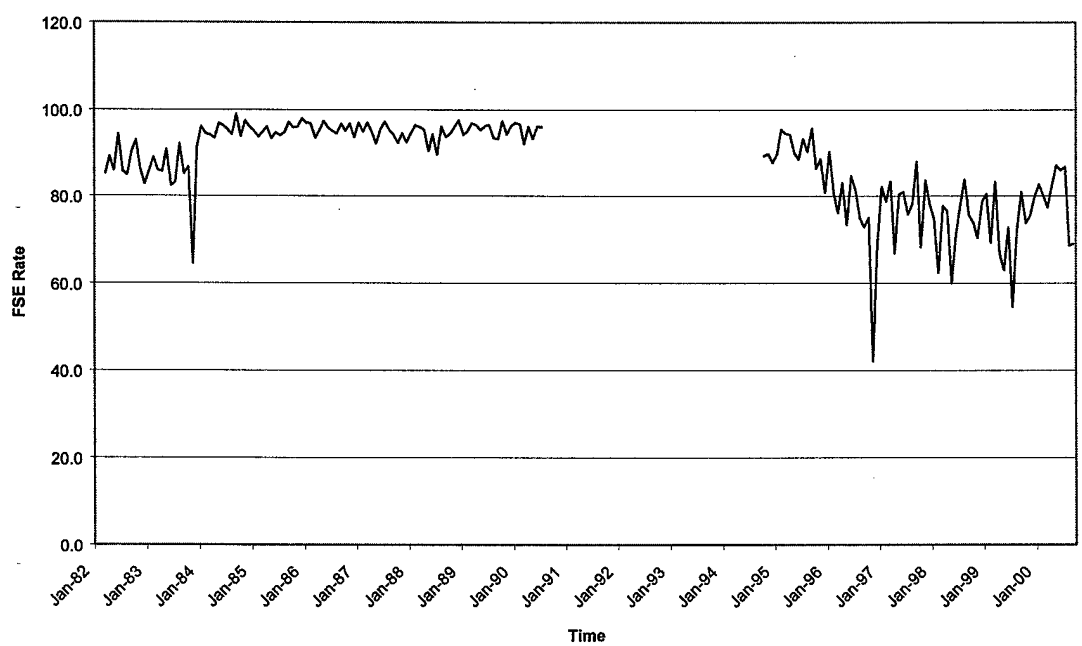
57th WG F-15:


57WG F-15 TNMCM Rate
Jan 82-Jul 90, Jan 93-Jun 94, and Aug 94-Sep 00
TNMCM Rate
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

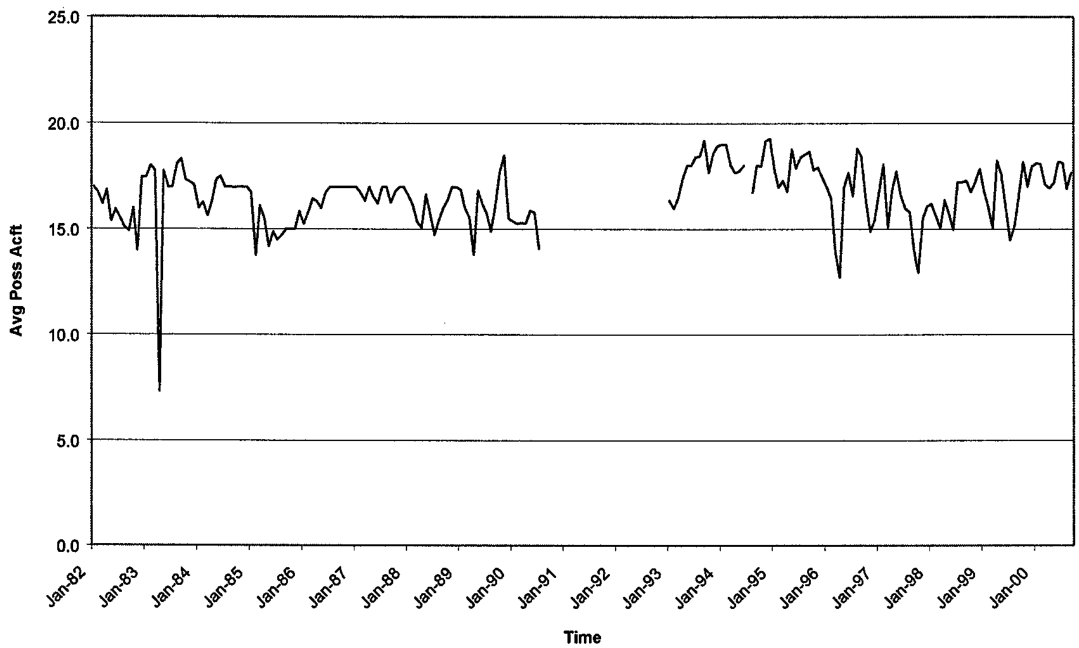
57WG F-15 MH/FH
Jan 82-Jul 90, Feb 93-Jun 94, Aug 94-Oct 94, and Jan 95-Sep 00



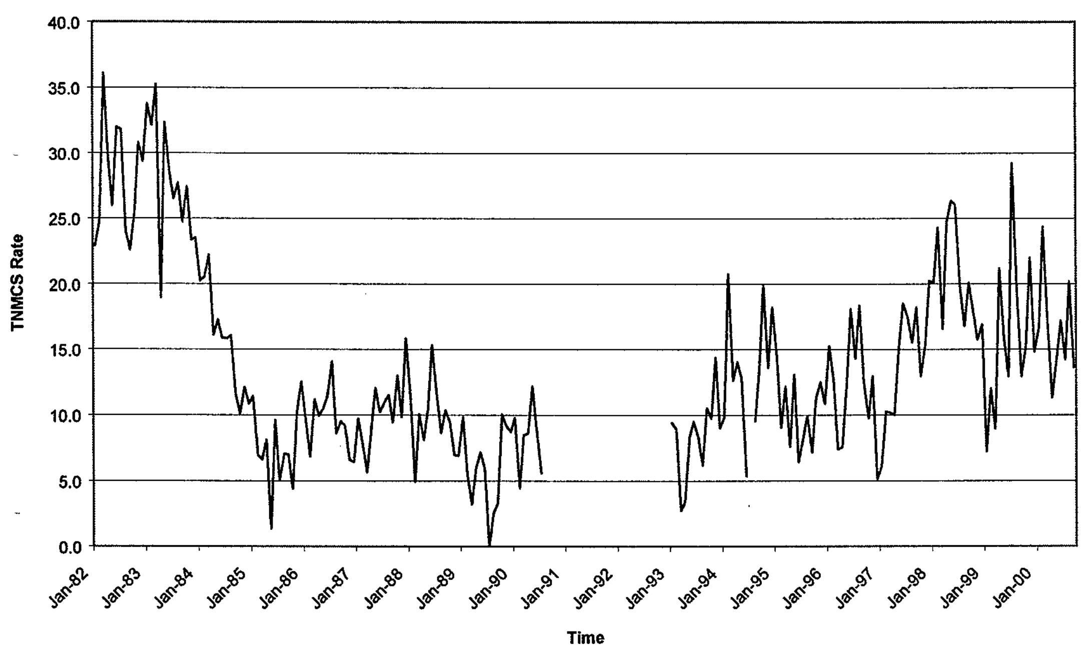
57WG F-15 FSE Rate
Mar 82-Jul 90 and Oct 94-Sep 00



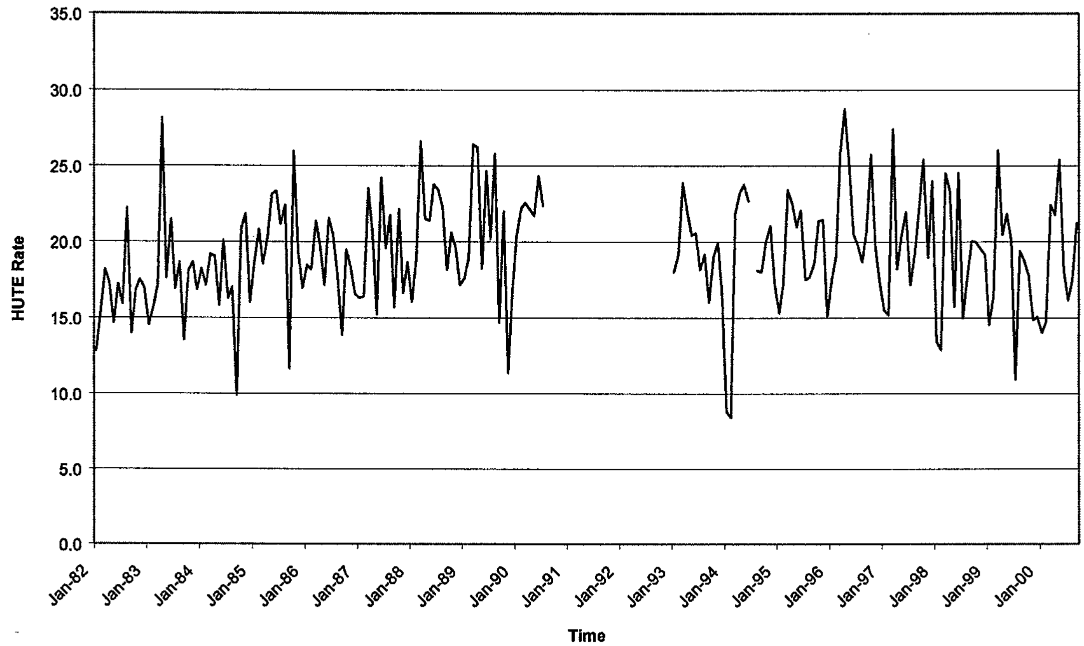
57WG F-15 Avg Poss Acft
Jan 82-Jul 90, Jan 93-Jun 94, and Aug 94-Sep 00



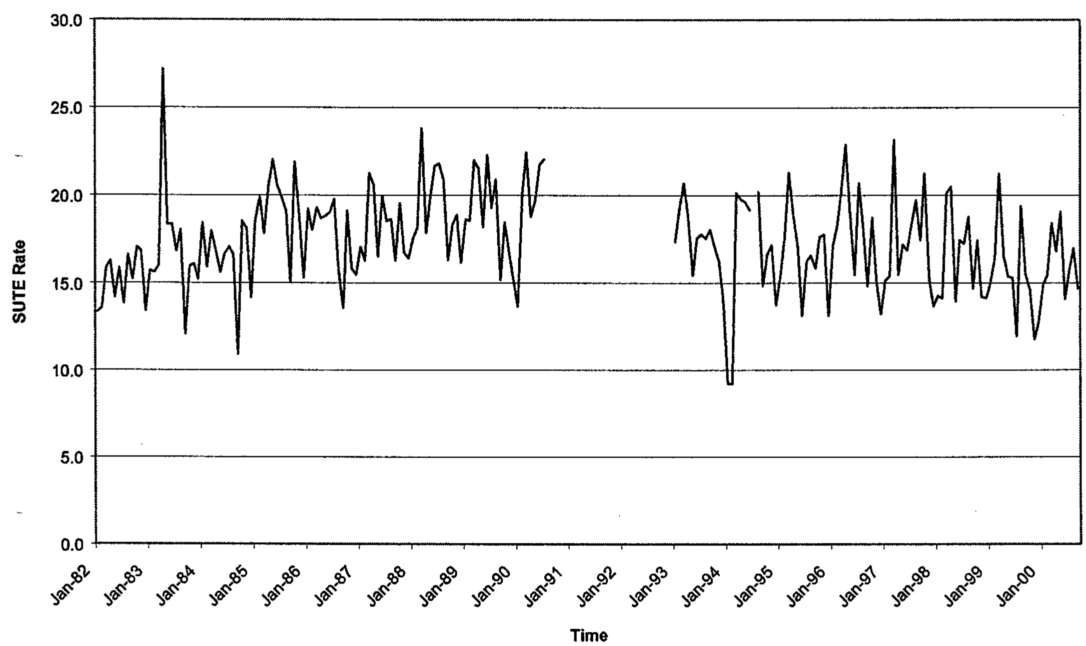
57WG F-15 TNMCS Rate
Jan 82-Jul 90, Jan 93-Jun 94, and Aug 94-Sep 00

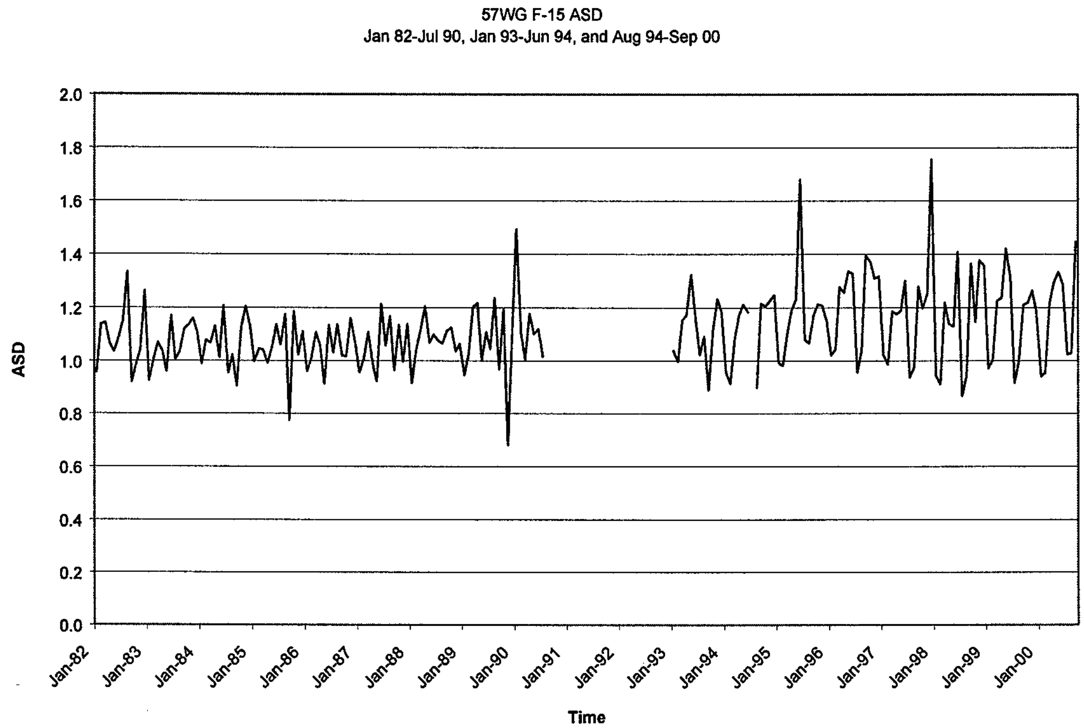


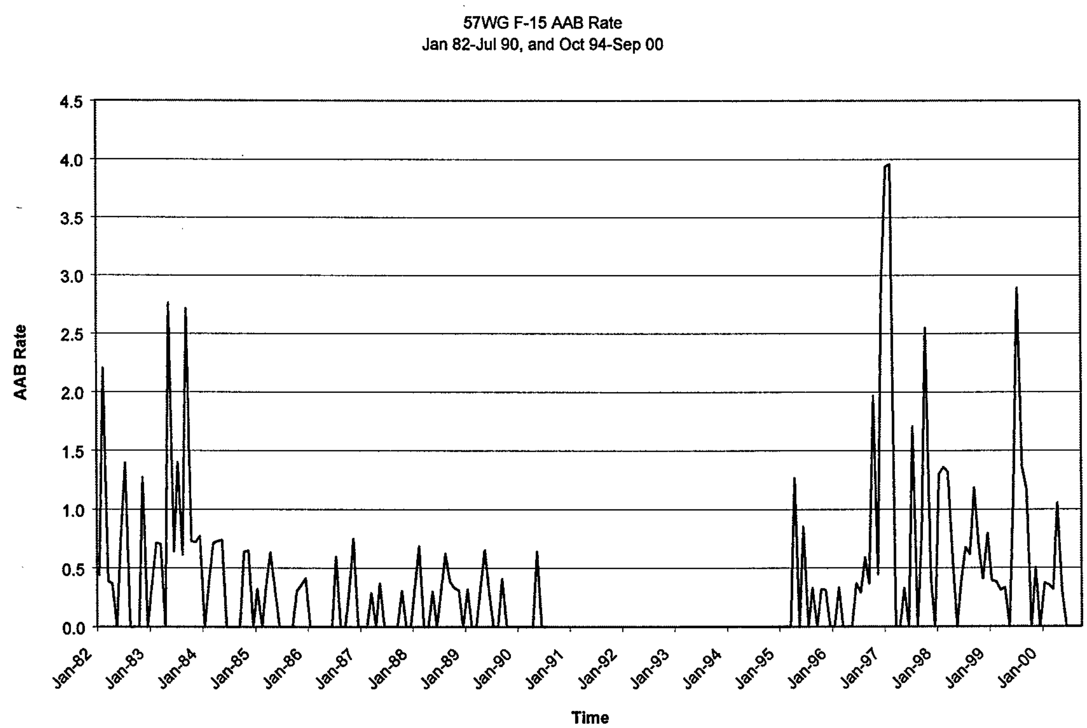
57WG F-15 HUTE Rate
Jan 82-Jul 90, Jan 93-Jun 94, Aug 94-Sep 00



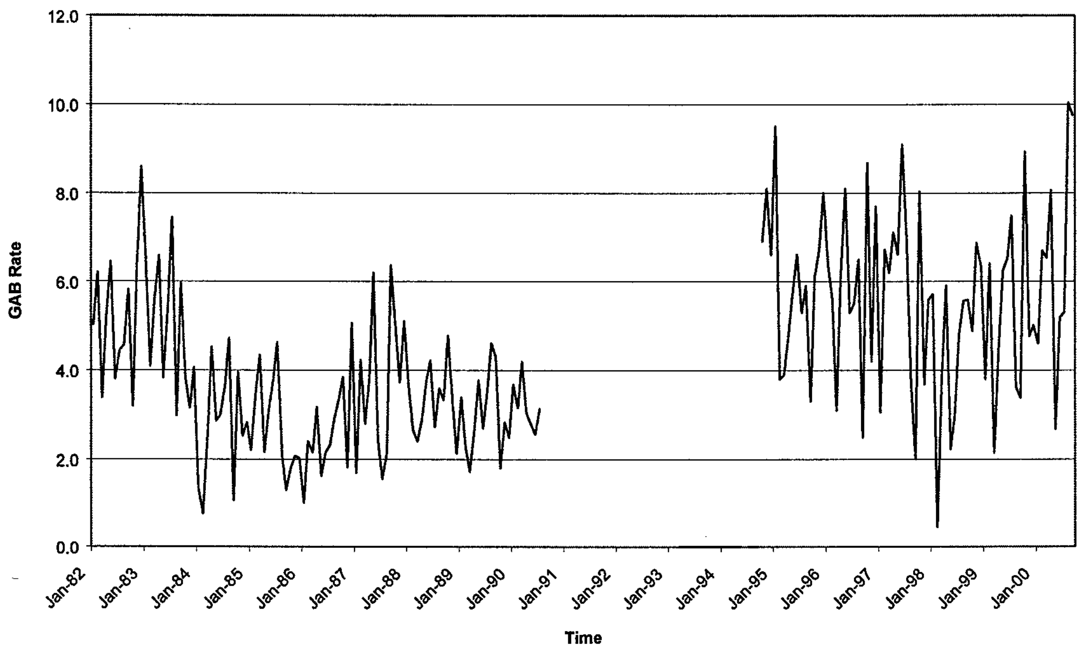
57WG F-15 SUTE Rate
Jan 82-Jul 90, Jan 93-Jun 94, and Aug 94-Sep 00



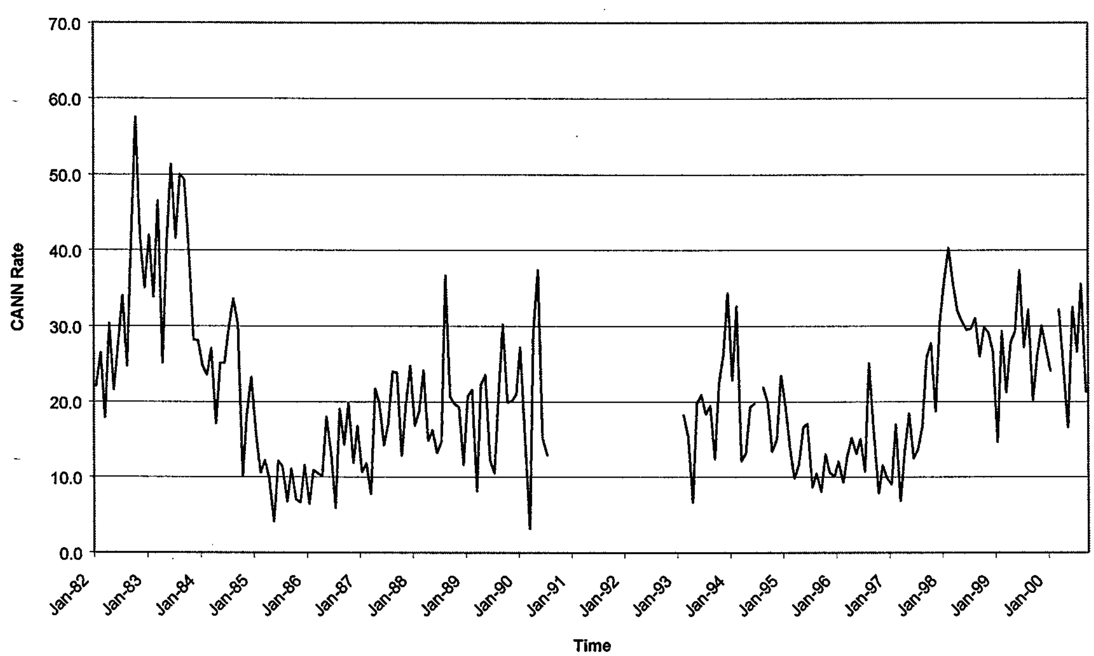

57WG F-15 ASD
Jan 82-Jul 90, Jan 93-Jun 94, and Aug 94-Sep 00
ASD
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

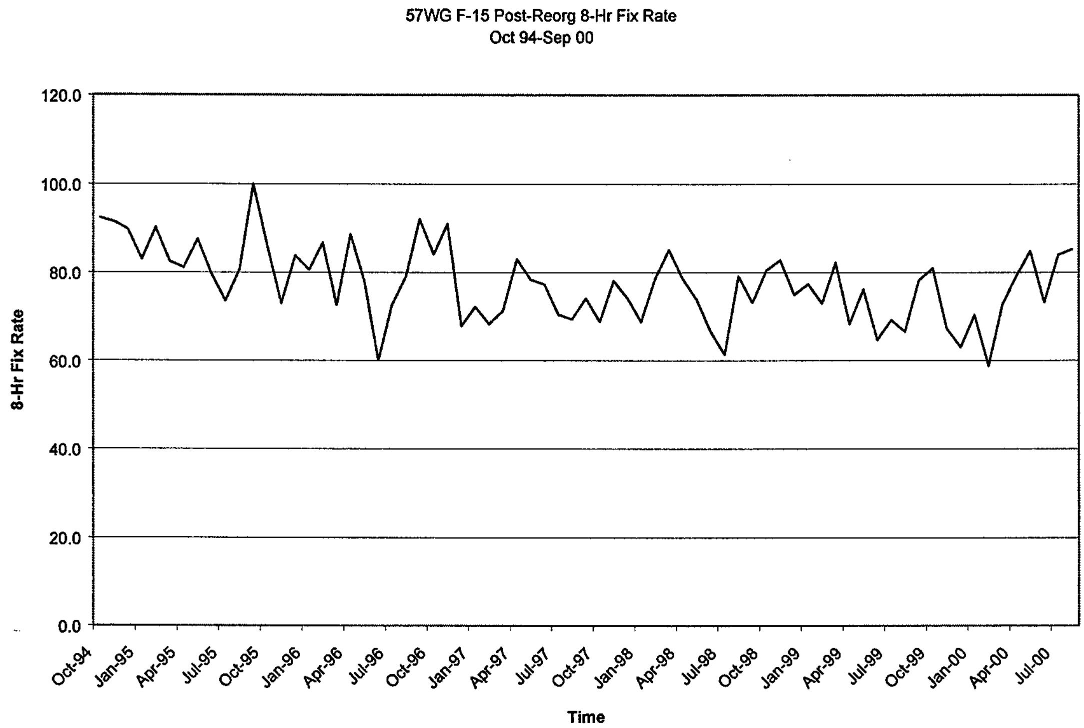

57WG F-15 AAB Rate
Jan 82-Jul 90, and Oct 94-Sep 00
AAB Rate
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

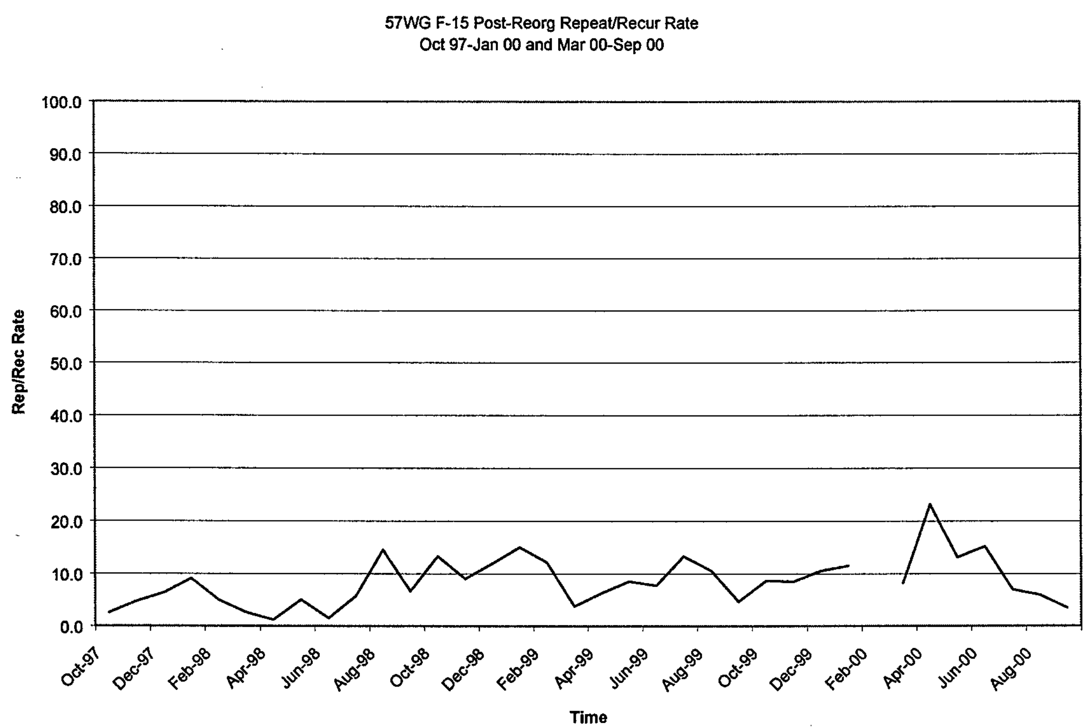
57WG GAB Rate
Jan 82-Jul 90 and Oct 94-Sep 00

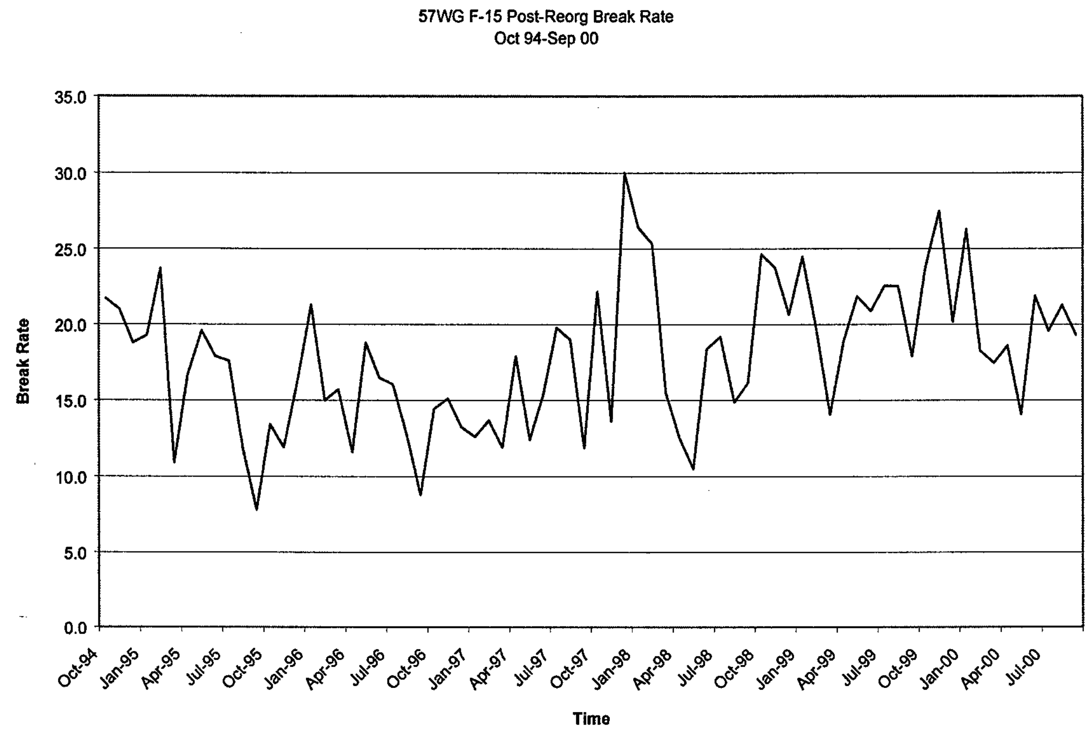


57WG F-15 CANN Rate
Jan 82-Jul 90, Feb 93-Jun 94, Aug 94-Jan 00, and Mar 00-Sep 00

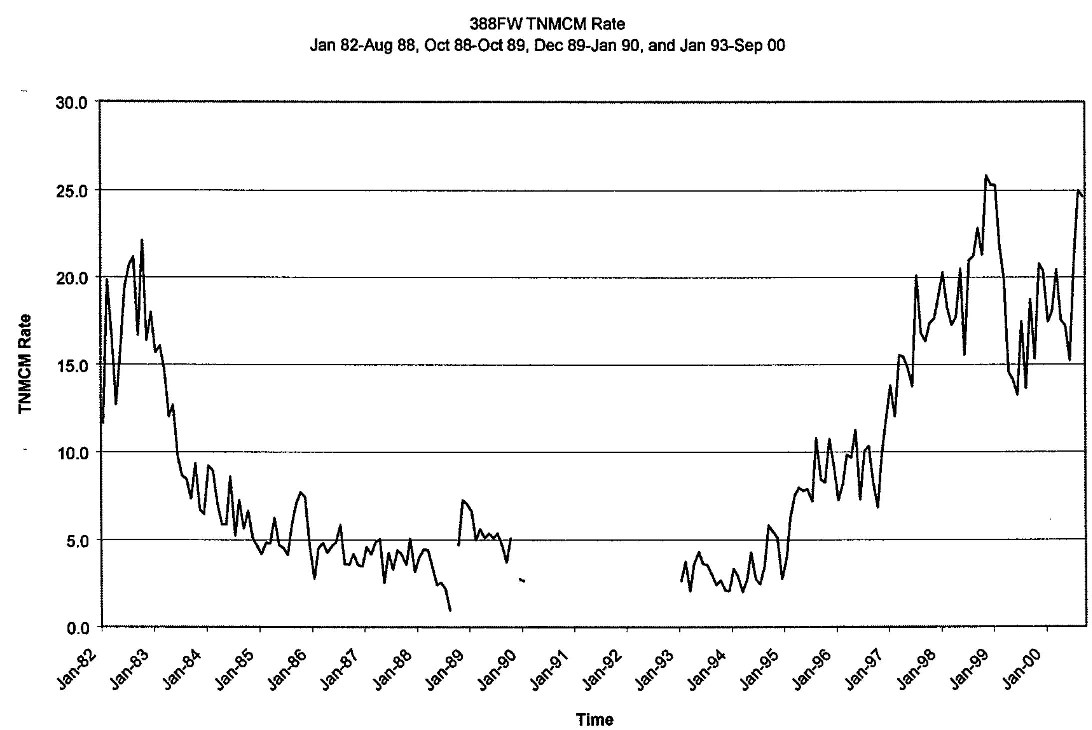


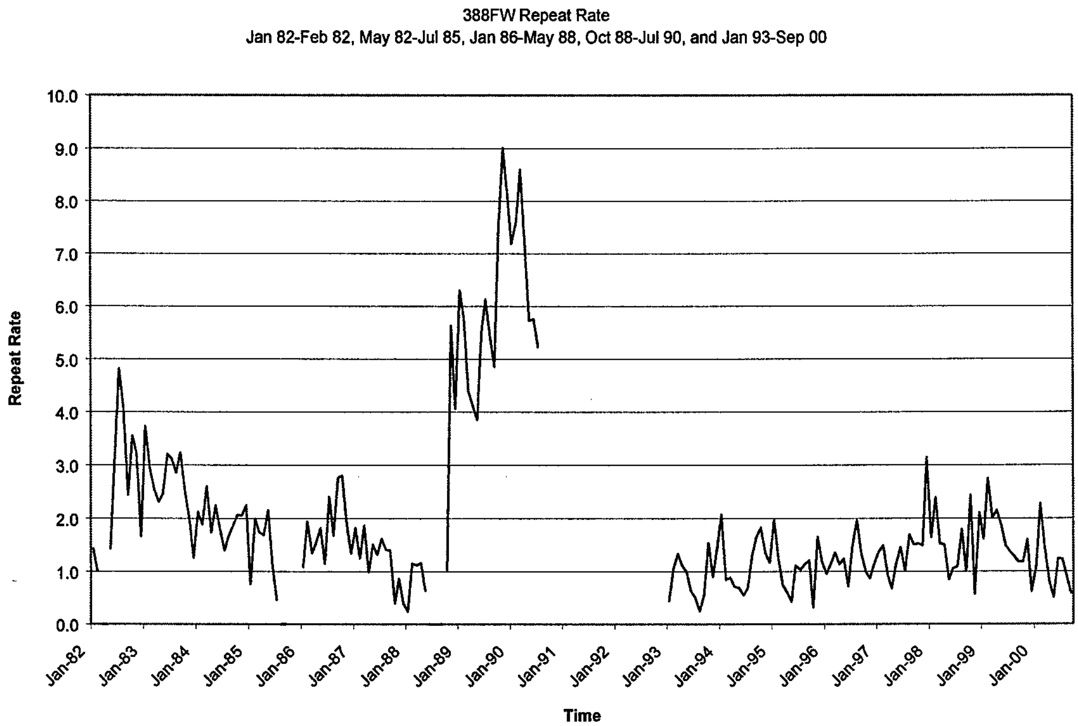

57WG F-15 Post-Reorg 8-Hr Fix Rate
Oct 94-Sep 00
8-Hr Fix Rate
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Oct-94
Jan-95
Apr-95
Jul-95
Oct-95
Jan-96
Apr-96
Jul-96
Oct-96
Jan-97
Apr-97
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Time

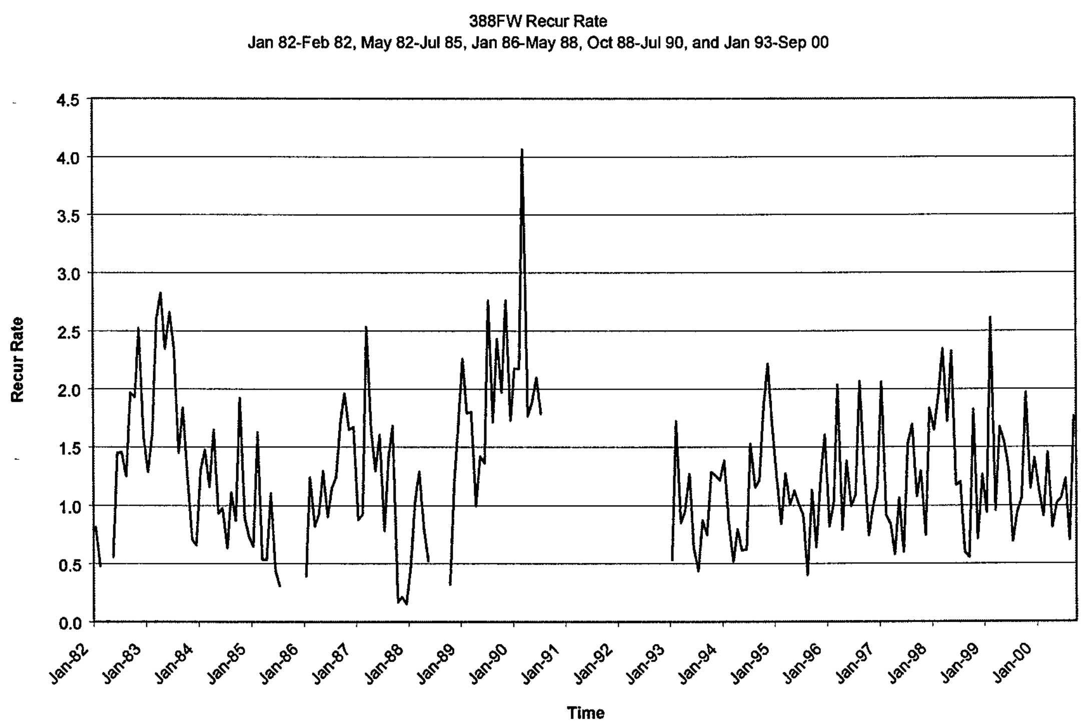

57WG F-15 Post-Reorg Repeat/Recur Rate
Oct 97-Jan 00 and Mar 00-Sep 00
Rep/Rec Rate
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-97
Dec-97
Feb-98
Apr-98
Jun-98
Aug-98
Oct-98
Dec-98
Feb-99
Apr-99
Jun-99
Aug-99
Oct-99
Dec-99
Feb-00
Apr-00
Jun-00
Aug-00
Time

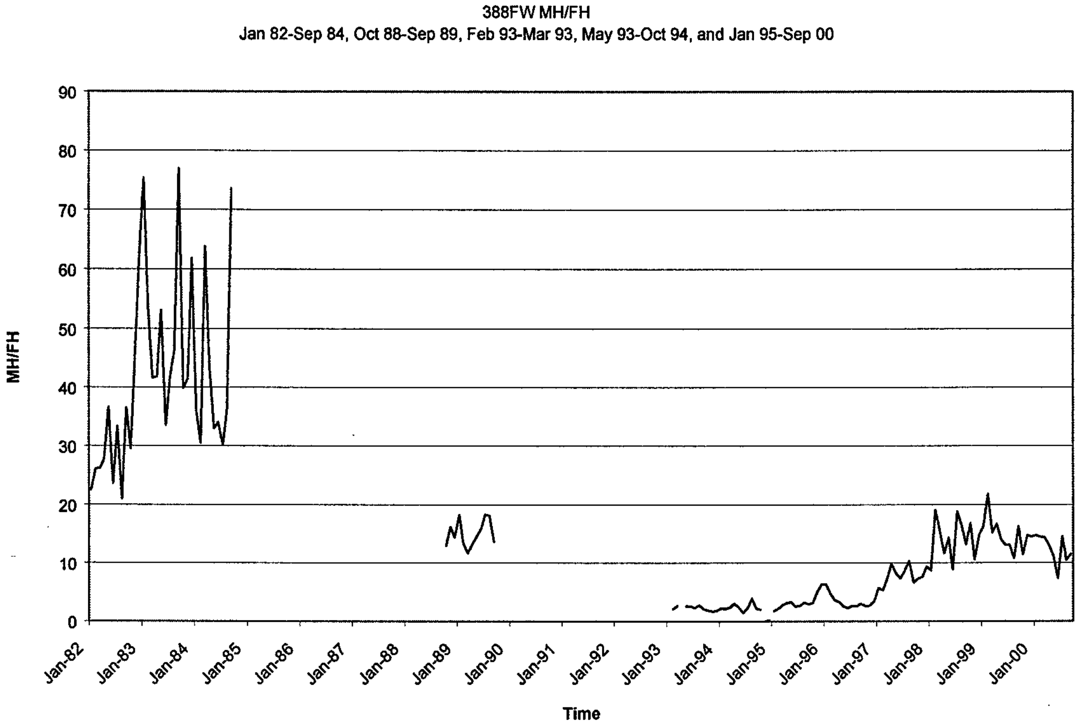

57WG F-15 Post-Reorg Break Rate
Oct 94-Sep 00
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Break Rate
Oct-94
Jan-95
Apr-95
Jul-95
Oct-95
Jan-96
Apr-96
Jul-96
Oct-96
Jan-97
Apr-97
Jul-97
Oct-97
Jan-98
Apr-98
Jul-98
Oct-98
Jan-99
Apr-99
Jul-99
Oct-99
Jan-00
Apr-00
Jul-00
Time

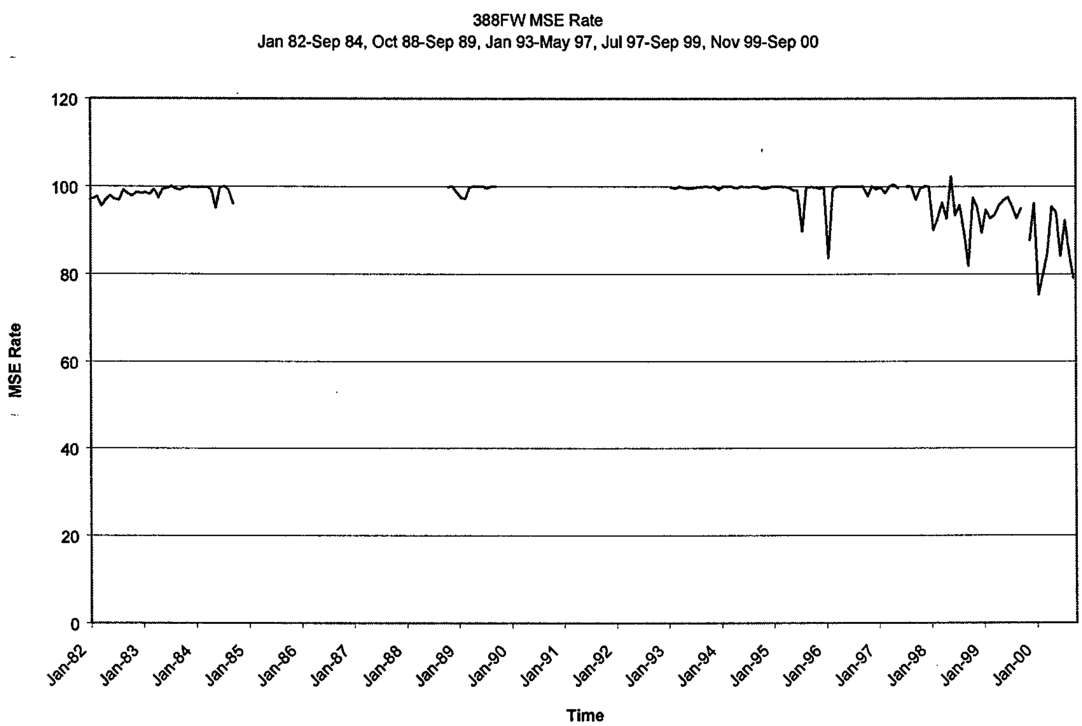
388th FW:


388FW TNMCM Rate
Jan 82-Aug 88, Oct 88-Oct 89, Dec 89-Jan 90, and Jan 93-Sep 00
30.0
25.0
20.0
15.0
10.0
5.0
0.0
TNMCM Rate
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

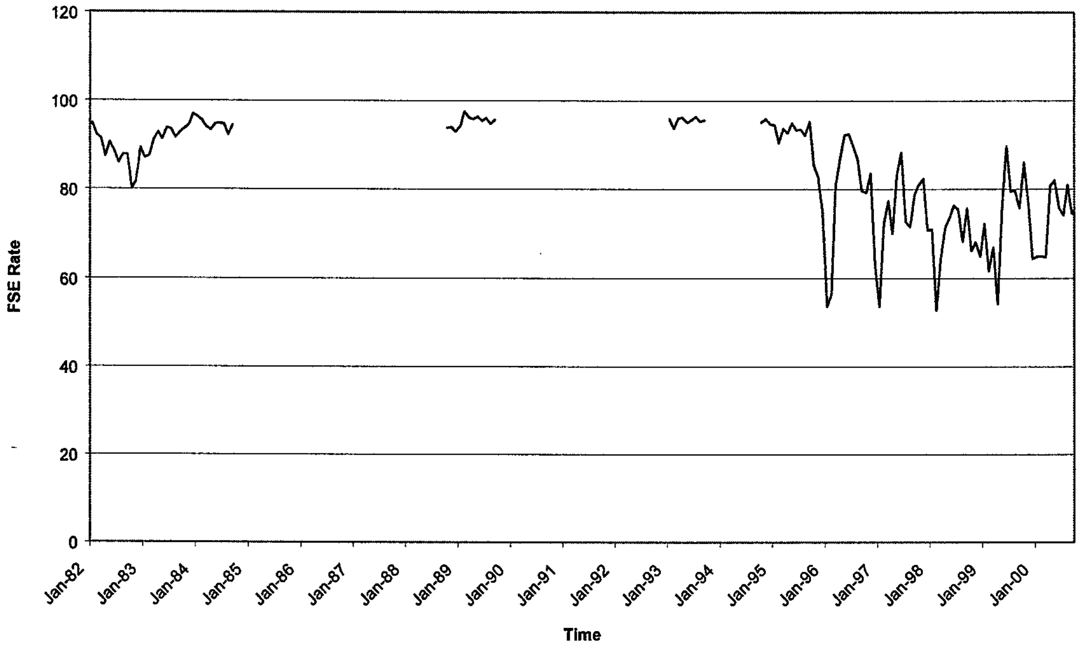

388FW Repeat Rate
Jan 82-Feb 82, May 82-Jul 85, Jan 86-May 88, Oct 88-Jul 90, and Jan 93-Sep 00
Repeat Rate
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time


388FW Recur Rate
Jan 82-Feb 82, May 82-Jul 85, Jan 86-May 88, Oct 88-Jul 90, and Jan 93-Sep 00
Recur Rate
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

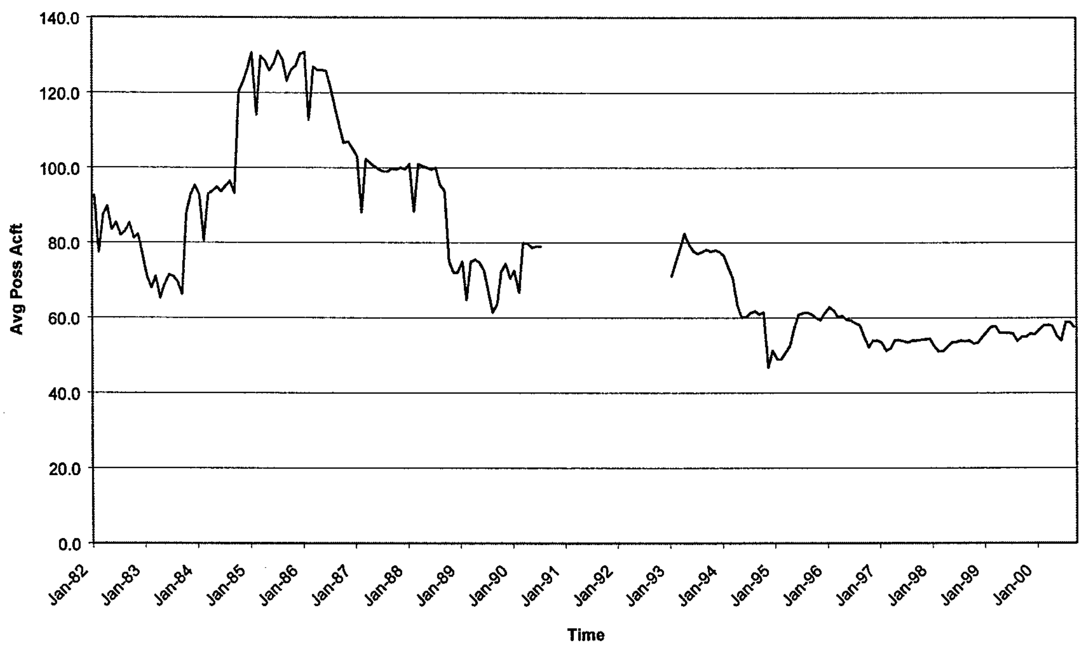

388FW MH/FH
Jan 82-Sep 84, Oct 88-Sep 89, Feb 93-Mar 93, May 93-Oct 94, and Jan 95-Sep 00
MH/FH
90
80
70
60
50
40
30
20
10
0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

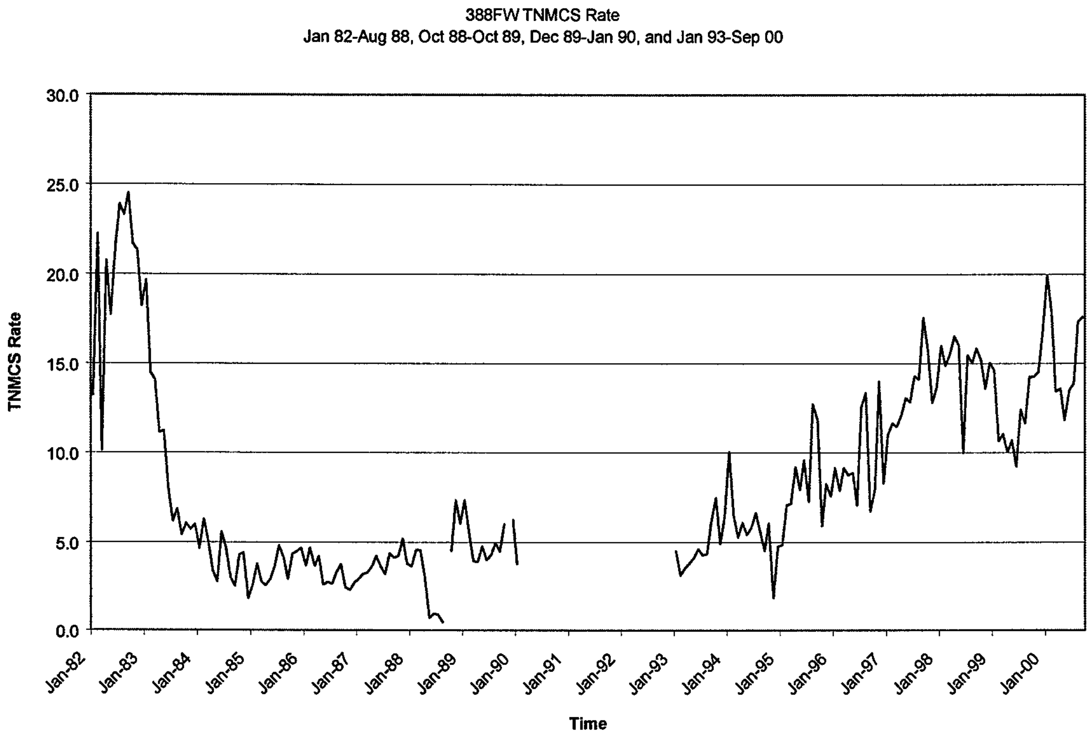

388FW MSE Rate
Jan 82-Sep 84, Oct 88-Sep 89, Jan 93-May 97, Jul 97-Sep 99, Nov 99-Sep 00
MSE Rate
120
100
80
60
40
20
0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

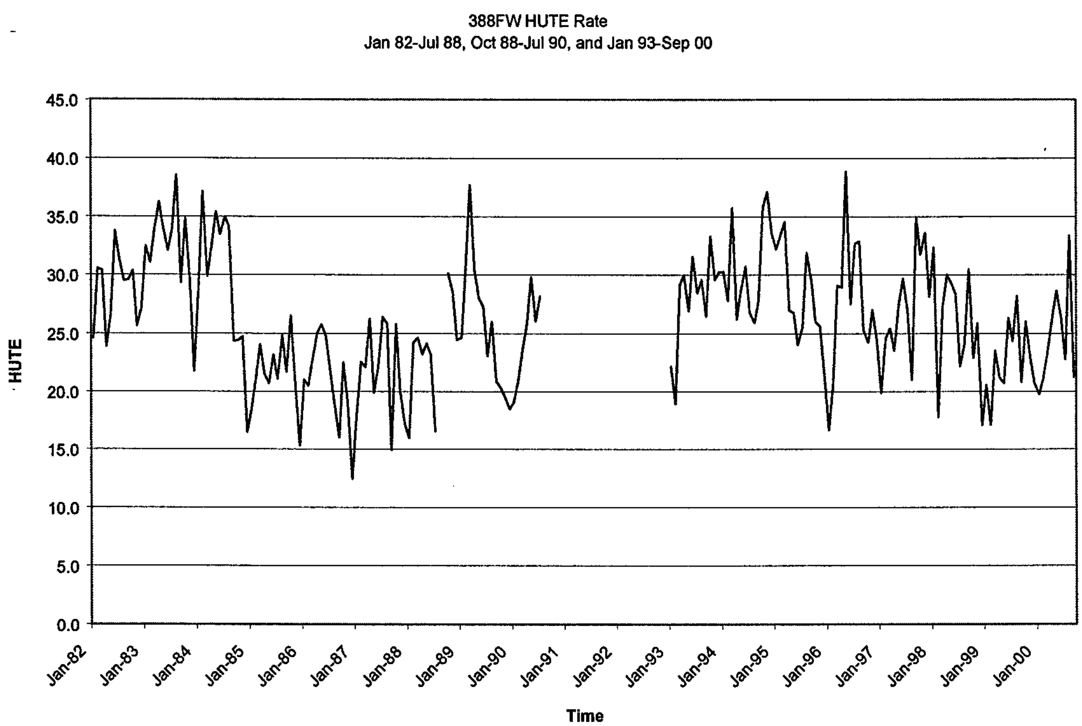
388FW FSE Rate
Jan 82-Sep 84, Oct 88-Sep 89, Jan 93-Sep 93 and Oct 94-Sep 00



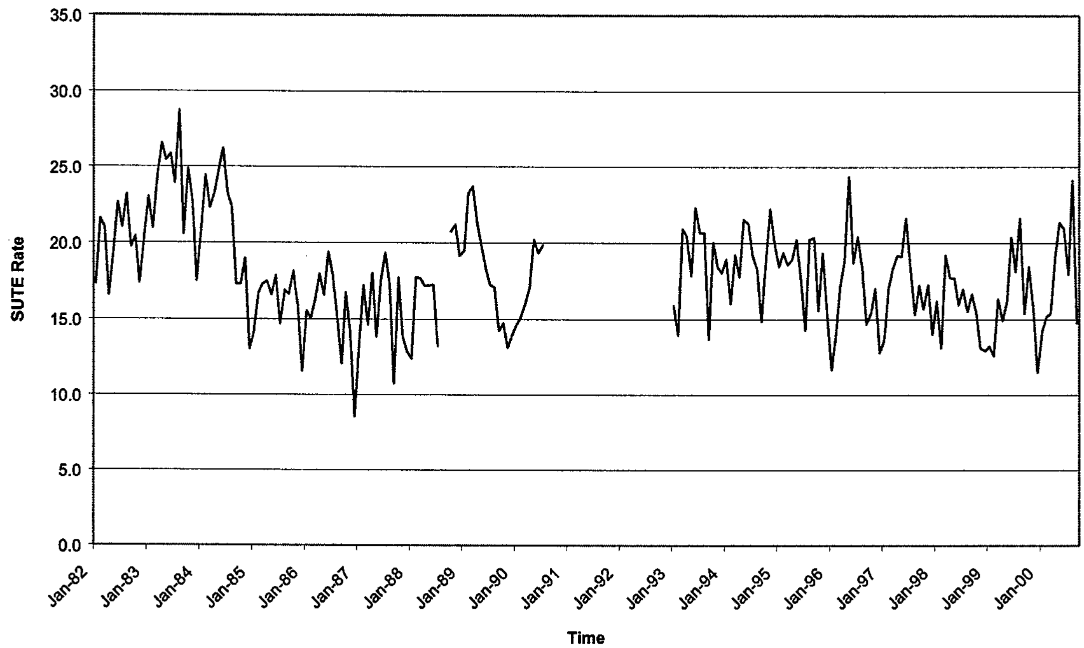
388FW Avg Poss Acft
Jan 82-Jul 90, and Jan 93-Sep 00



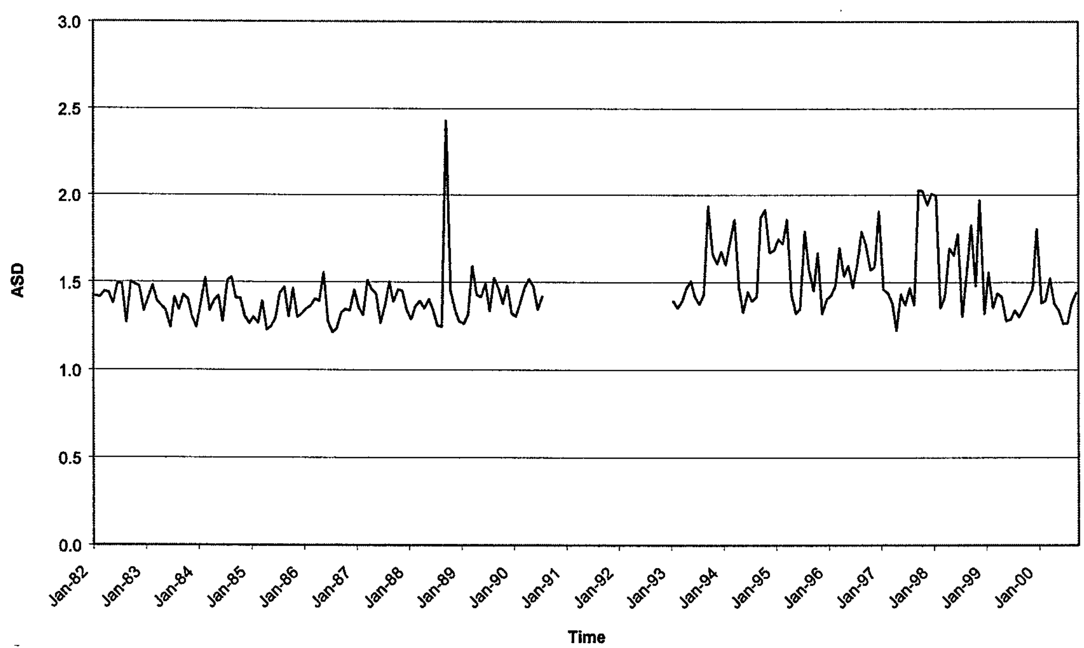

388FW TNMCS Rate
Jan 82-Aug 88, Oct 88-Oct 89, Dec 89-Jan 90, and Jan 93-Sep 00
TNMCS Rate
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time


388FW HUTE Rate
Jan 82-Jul 88, Oct 88-Jul 90, and Jan 93-Sep 00
HUTE
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

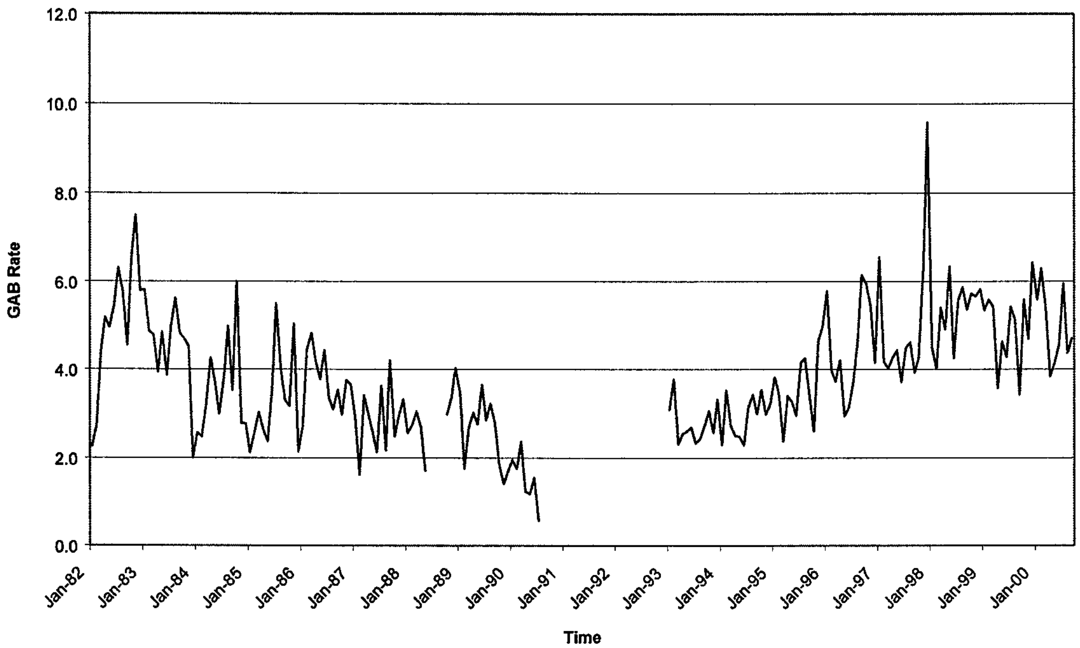
388FW SUTE Rate
Jan 82-Jul 88, Oct 88-Jul 90, and Jan 93-Sep 00



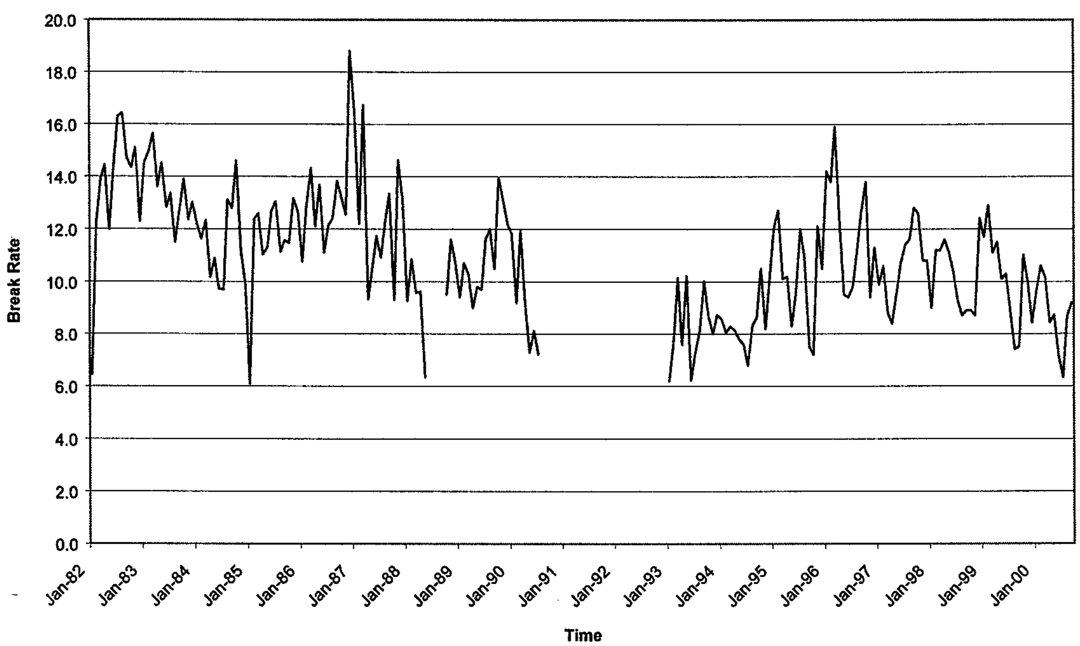
388FW ASD
Jan 82-Jul 90 and Jan 93-Sep 00

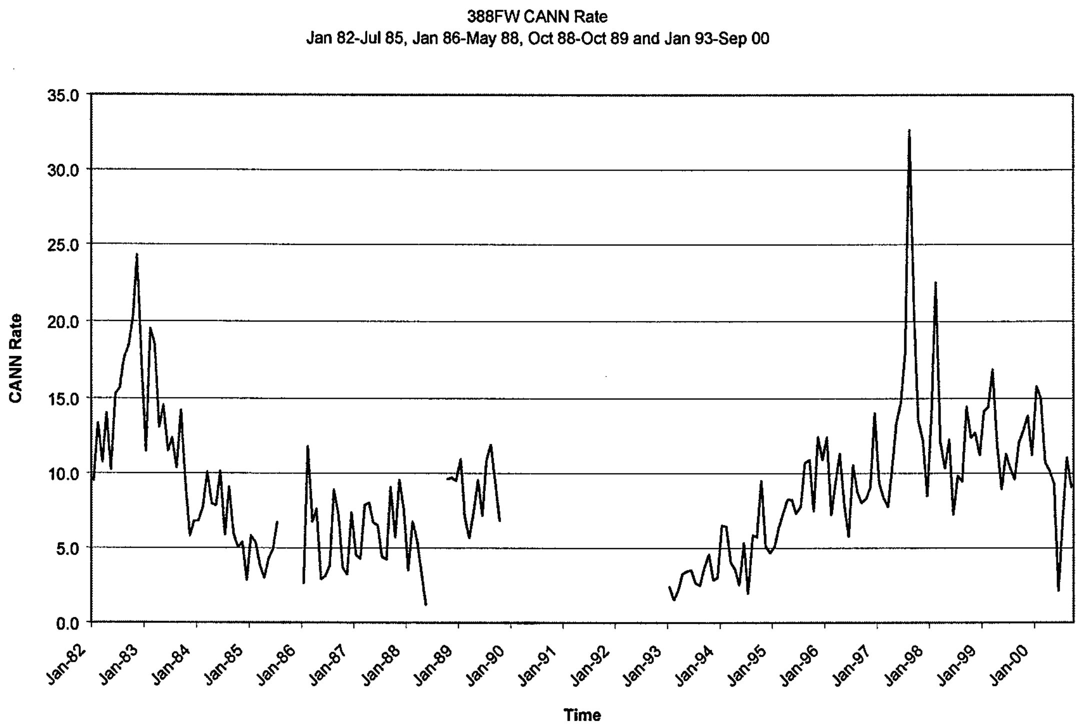


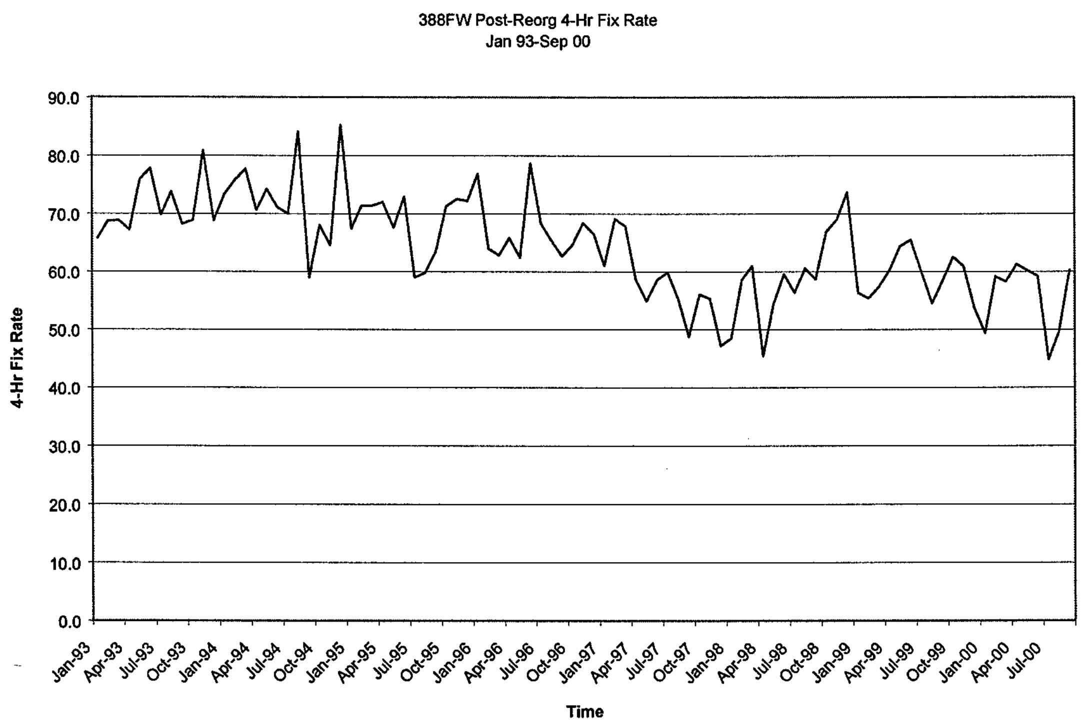
388FW GAB Rate
Jan 82-May 88, Oct 88-Jul 90, and Jan 93-Sep 00



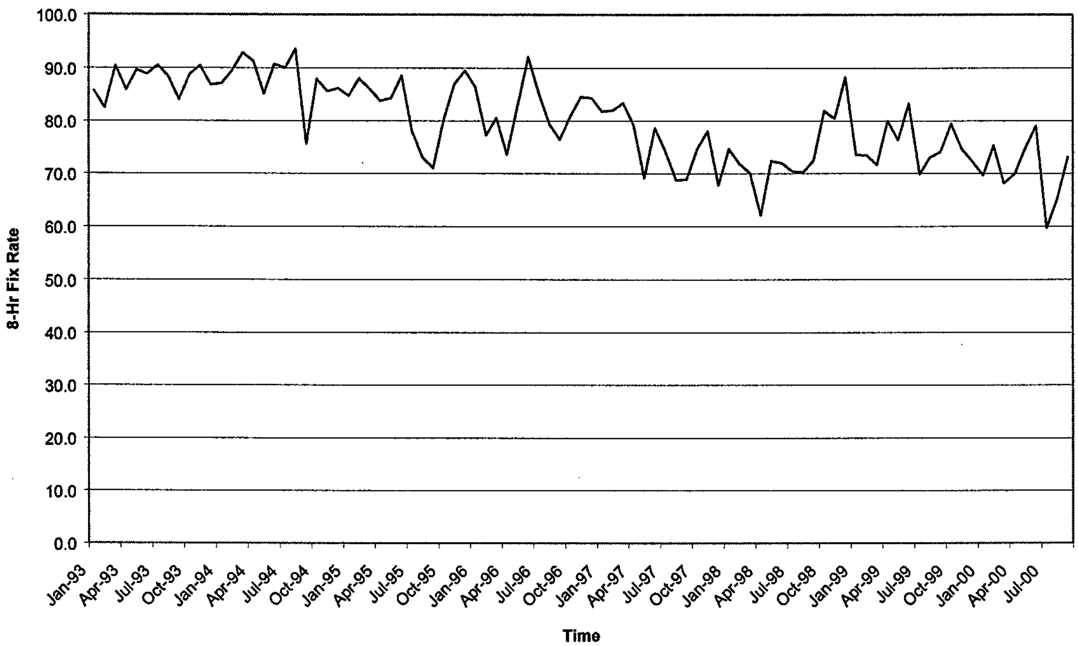
388FW Break Rate
Jan 82-May 88, Oct 88-Jul 90, and Jan 93-Sep 00



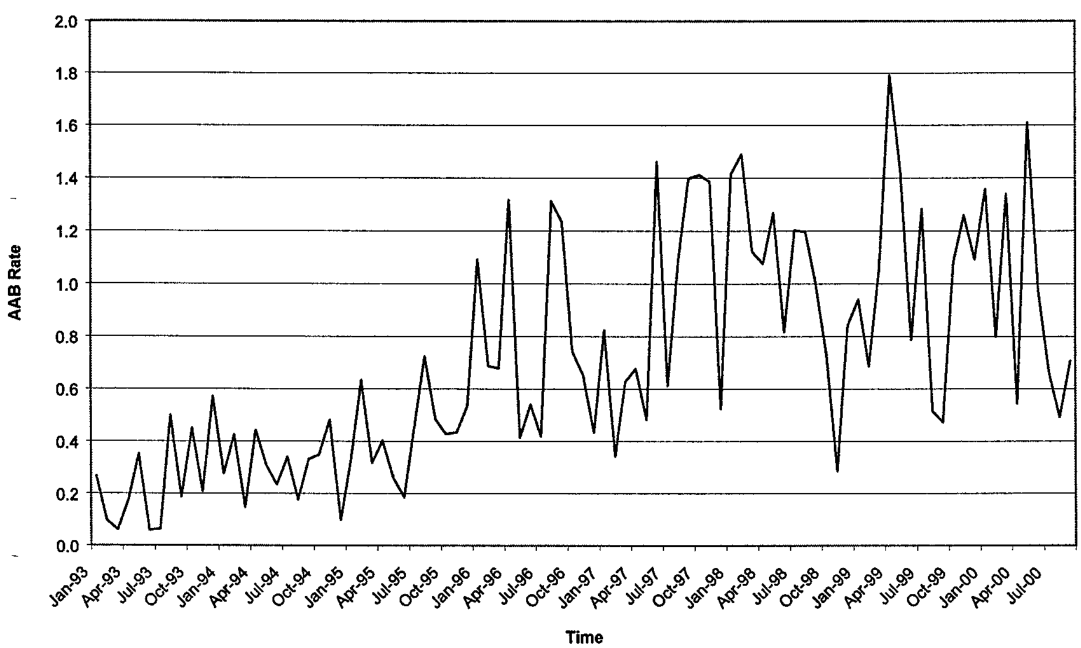

388FW CANN Rate
Jan 82-Jul 85, Jan 86-May 88, Oct 88-Oct 89 and Jan 93-Sep 00
CANN Rate
Time


388FW Post-Reorg 4-Hr Fix Rate
Jan 93-Sep 00
4-Hr Fix Rate
Time

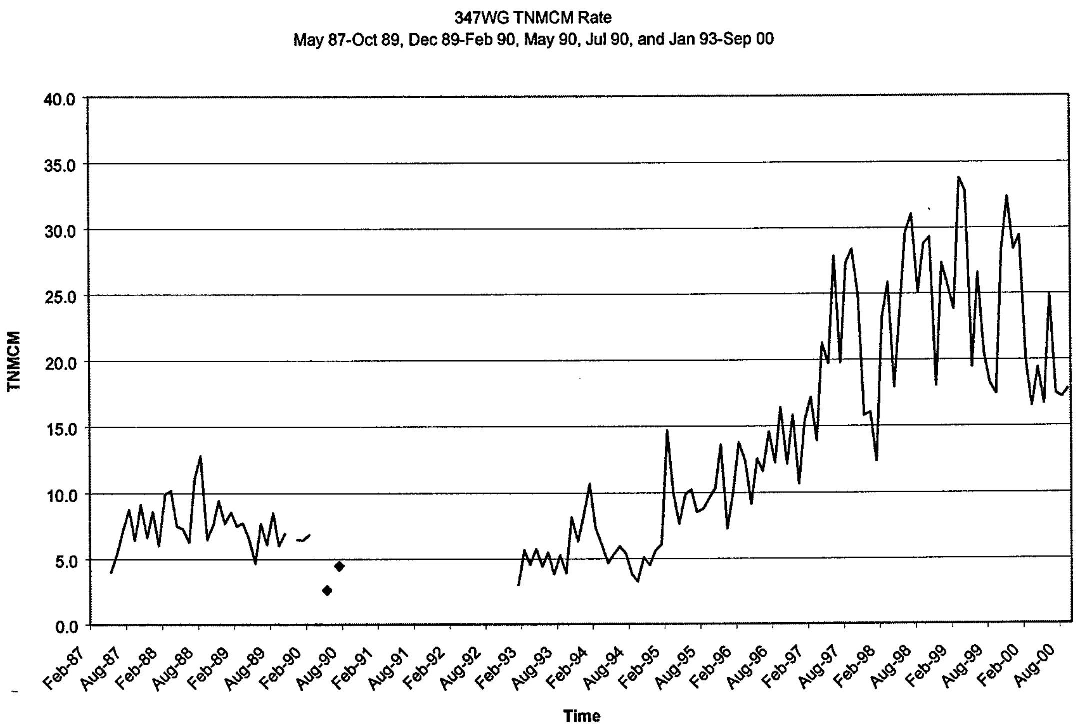
388FW Post-Reorg 8-Hr Fix Rate
Jan 93-Sep 00

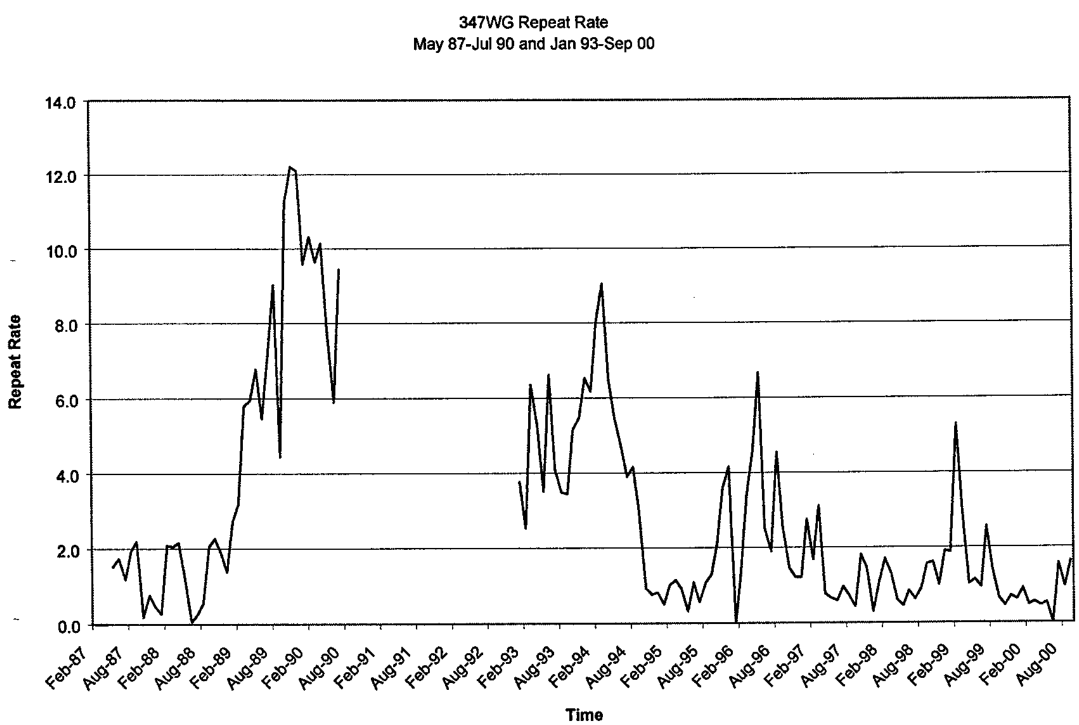


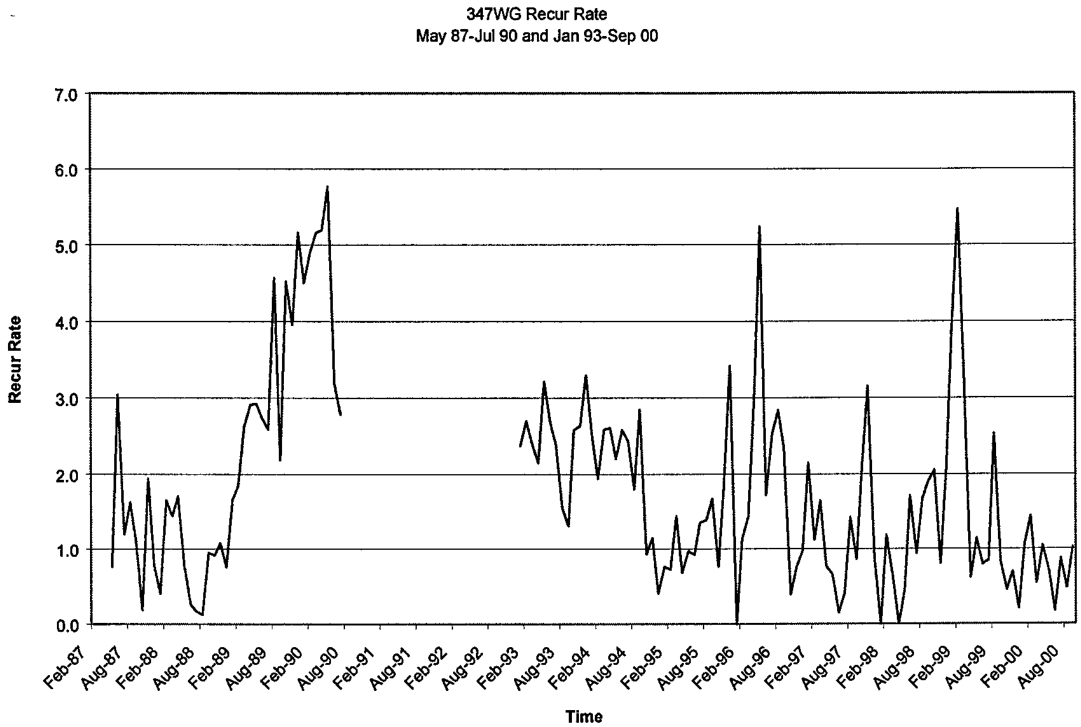
388FW Post-Reorg AAB Rate
Jan 93-Sep 00



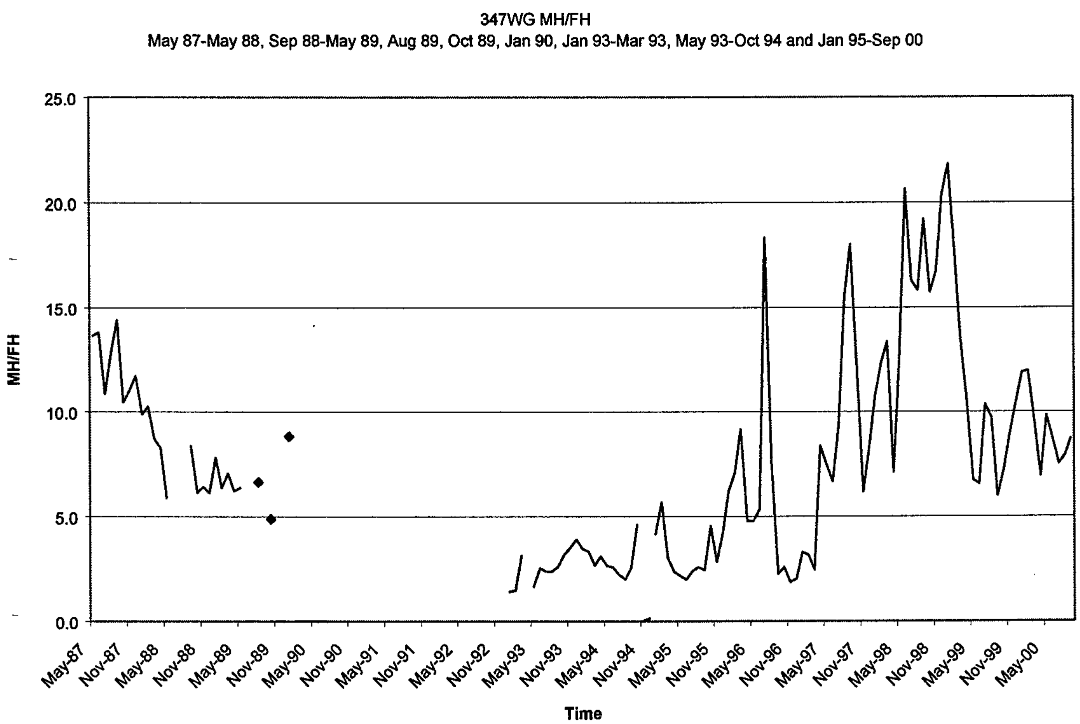
347th WG:


347WG TNMCM Rate
May 87-Oct 89, Dec 89-Feb 90, May 90, Jul 90, and Jan 93-Sep 00
TNMCM
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Feb-87
Aug-87
Feb-88
Aug-88
Feb-89
Aug-89
Feb-90
Aug-90
Feb-91
Aug-91
Feb-92
Aug-92
Feb-93
Aug-93
Feb-94
Aug-94
Feb-95
Aug-95
Feb-96
Aug-96
Feb-97
Aug-97
Feb-98
Aug-98
Feb-99
Aug-99
Feb-00
Aug-00
Time


347WG Repeat Rate
May 87-Jul 90 and Jan 93-Sep 00
Repeat Rate
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Feb-87
Aug-87
Feb-88
Aug-88
Feb-89
Aug-89
Feb-90
Aug-90
Feb-91
Aug-91
Feb-92
Aug-92
Feb-93
Aug-93
Feb-94
Aug-94
Feb-95
Aug-95
Feb-96
Aug-96
Feb-97
Aug-97
Feb-98
Aug-98
Feb-99
Aug-99
Feb-00
Aug-00
Time

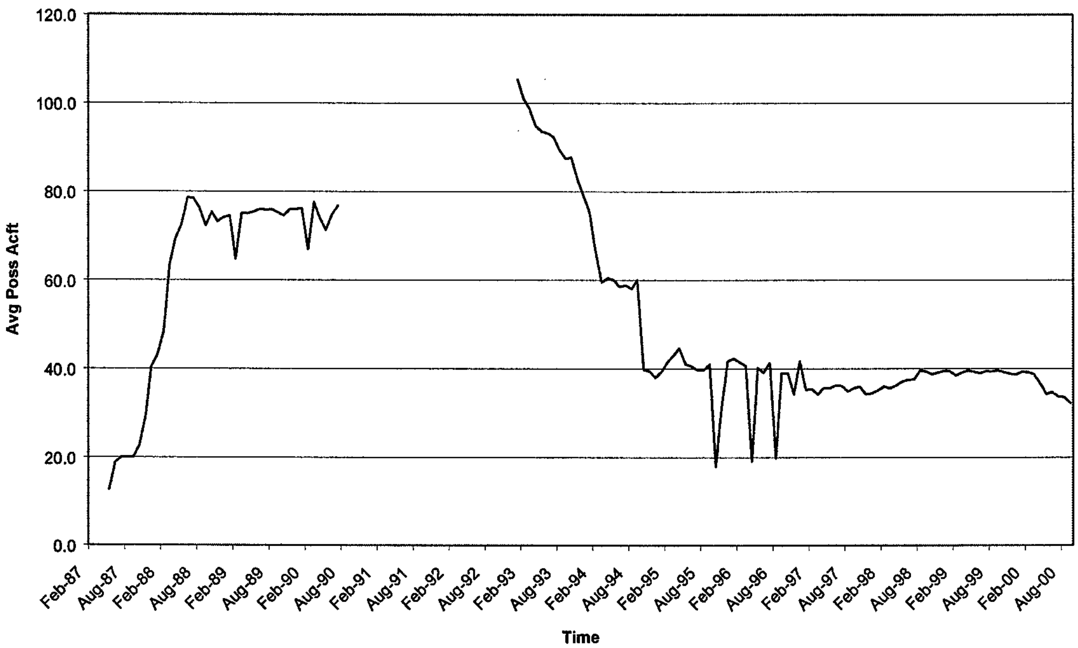


347WG Recur Rate
May 87-Jul 90 and Jan 93-Sep 00
Recur Rate
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Feb-87
Aug-87
Feb-88
Aug-88
Feb-89
Aug-89
Feb-90
Aug-90
Feb-91
Aug-91
Feb-92
Aug-92
Feb-93
Aug-93
Feb-94
Aug-94
Feb-95
Aug-95
Feb-96
Aug-96
Feb-97
Aug-97
Feb-98
Aug-98
Feb-99
Aug-99
Feb-00
Aug-00
Time

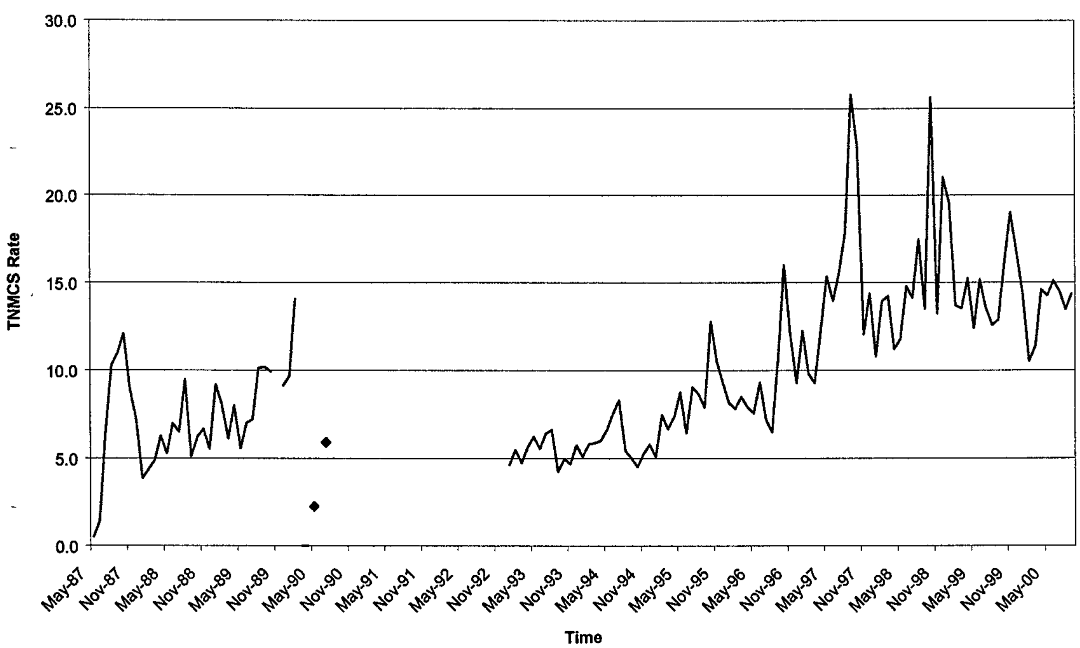


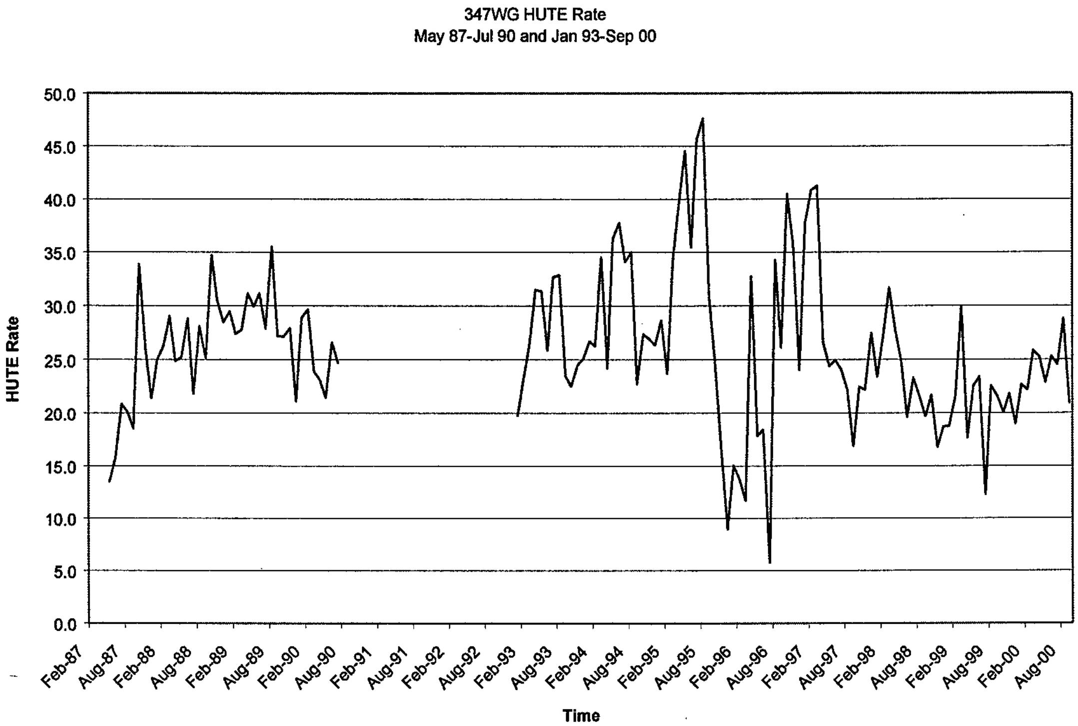
347WG MH/FH
May 87-May 88, Sep 88-May 89, Aug 89, Oct 89, Jan 90, Jan 93-Mar 93, May 93-Oct 94 and Jan 95-Sep 00
MH/FH
25.0
20.0
15.0
10.0
5.0
0.0
May-87
Nov-87
May-88
Nov-88
May-89
Nov-89
May-90
Nov-90
May-91
Nov-91
May-92
Nov-92
May-93
Nov-93
May-94
Nov-94
May-95
Nov-95
May-96
Nov-96
May-97
Nov-97
May-98
Nov-98
May-99
Nov-99
May-00
Time

347WG Avg Poss Acft
May 87-Jul 90 and Jan 93-Sep 00

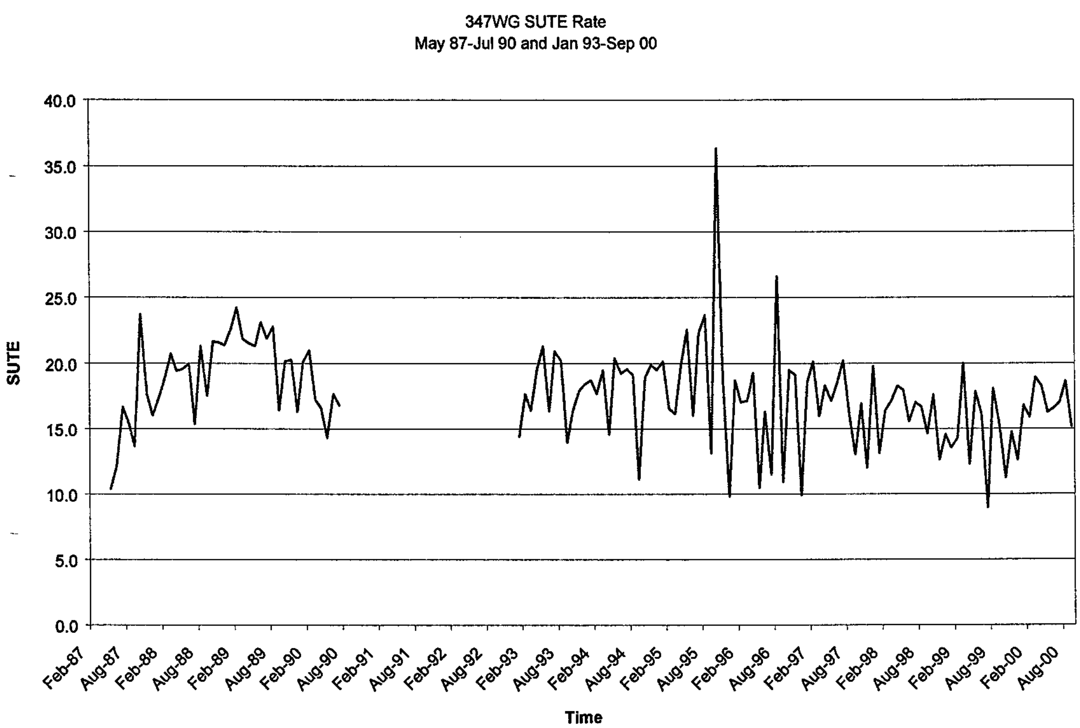


347WG TNMCS Rate
May 87-Oct 89, Dec 89-Feb 90, May 90, Jul 90, and Jan 93-Sep 00

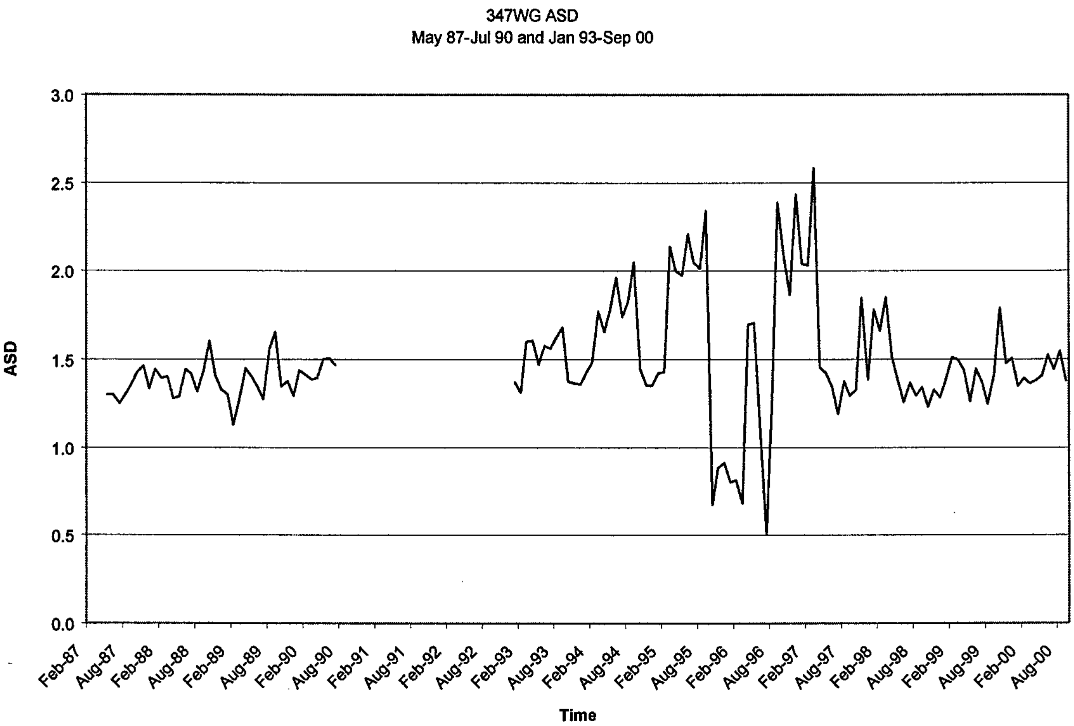




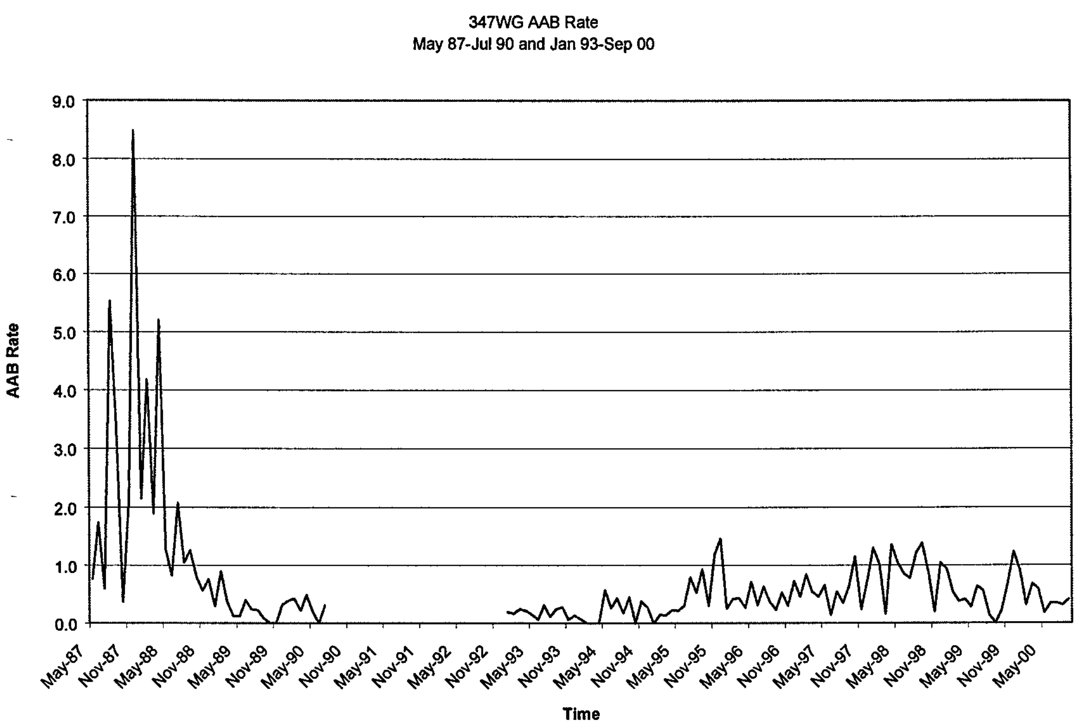
347WG HUTE Rate
May 87-Jul 90 and Jan 93-Sep 00
HUTE Rate
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Feb-87 Aug-87 Feb-88 Aug-88 Feb-89 Aug-89 Feb-90 Aug-90 Feb-91 Aug-91 Feb-92 Aug-92 Feb-93 Aug-93 Feb-94 Aug-94 Feb-95 Aug-95 Feb-96 Aug-96 Feb-97 Aug-97 Feb-98 Aug-98 Feb-99 Aug-99 Feb-00 Aug-00
Time



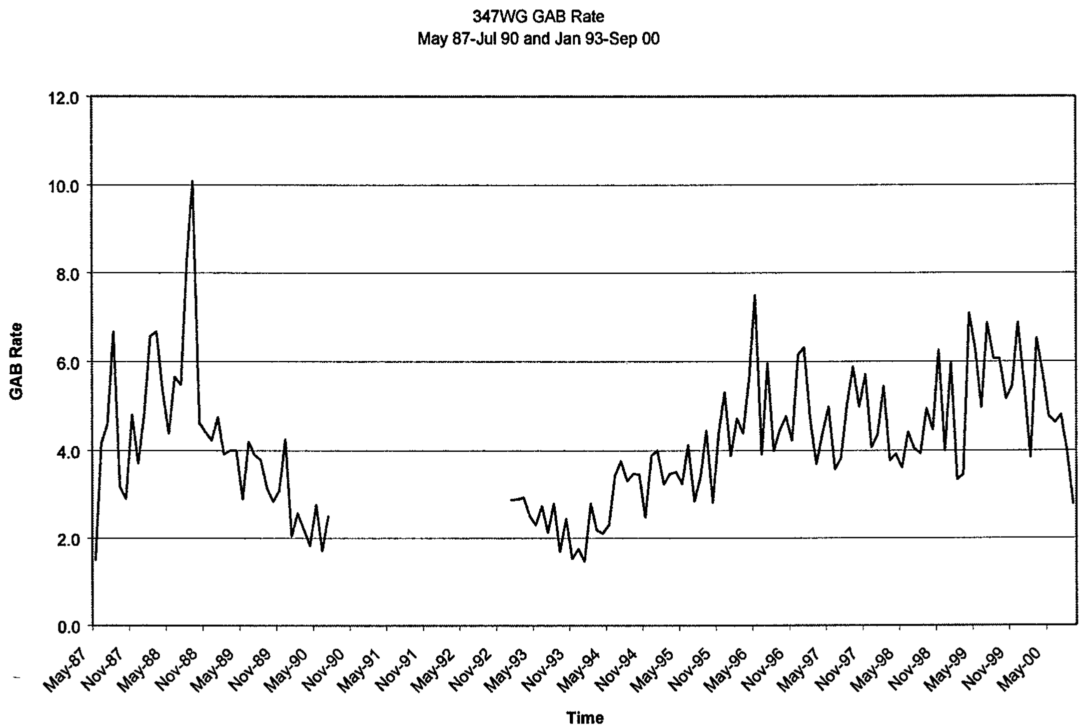
347WG SUTE Rate
May 87-Jul 90 and Jan 93-Sep 00
SUTE
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Feb-87 Aug-87 Feb-88 Aug-88 Feb-89 Aug-89 Feb-90 Aug-90 Feb-91 Aug-91 Feb-92 Aug-92 Feb-93 Aug-93 Feb-94 Aug-94 Feb-95 Aug-95 Feb-96 Aug-96 Feb-97 Aug-97 Feb-98 Aug-98 Feb-99 Aug-99 Feb-00 Aug-00
Time

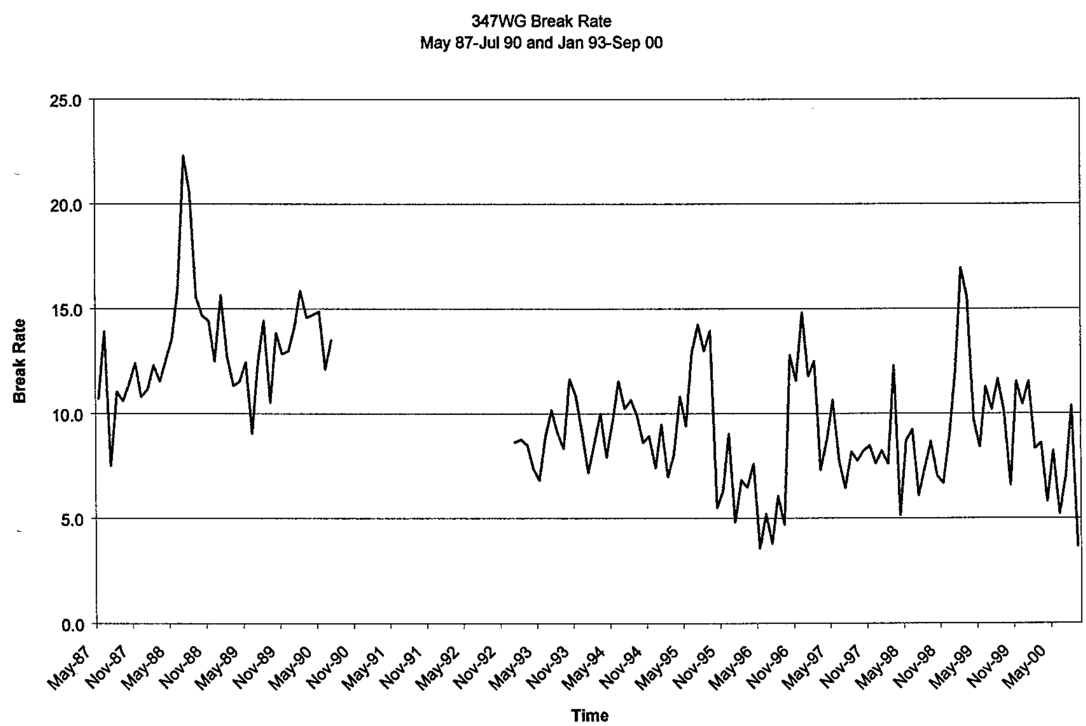


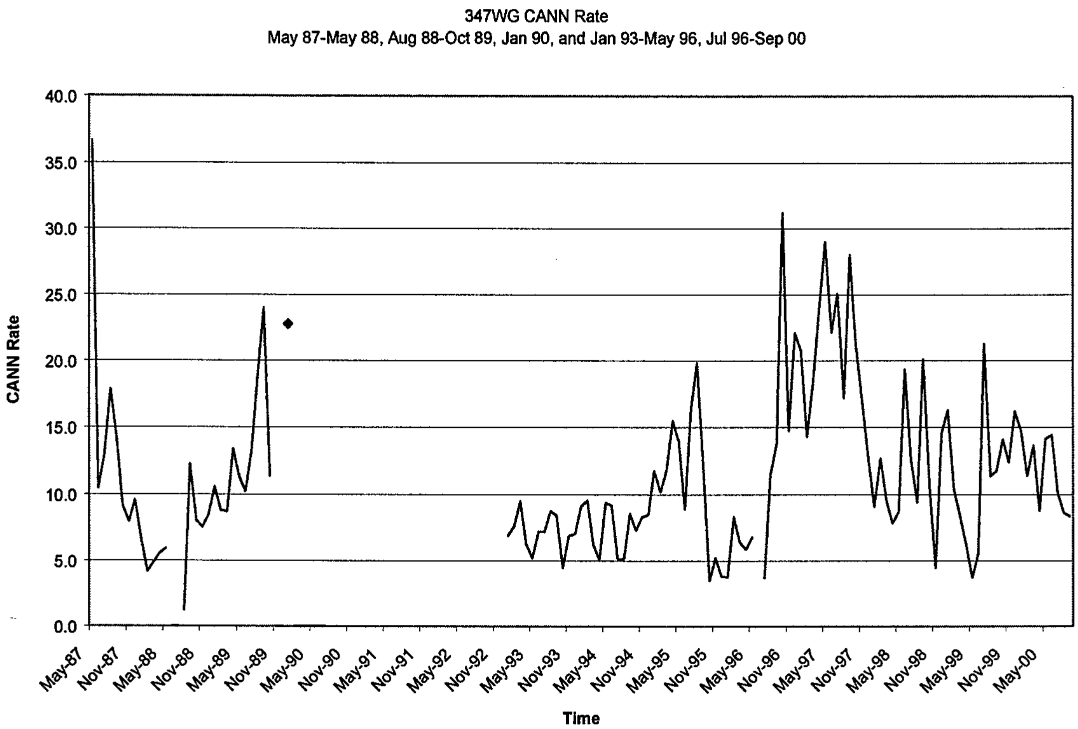
347WG ASD
May 87-Jul 90 and Jan 93-Sep 00
ASD
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Feb-87
Aug-87
Feb-88
Aug-88
Feb-89
Aug-89
Feb-90
Aug-90
Feb-91
Aug-91
Feb-92
Aug-92
Feb-93
Aug-93
Feb-94
Aug-94
Feb-95
Aug-95
Feb-96
Aug-96
Feb-97
Aug-97
Feb-98
Aug-98
Feb-99
Aug-99
Feb-00
Aug-00
Time

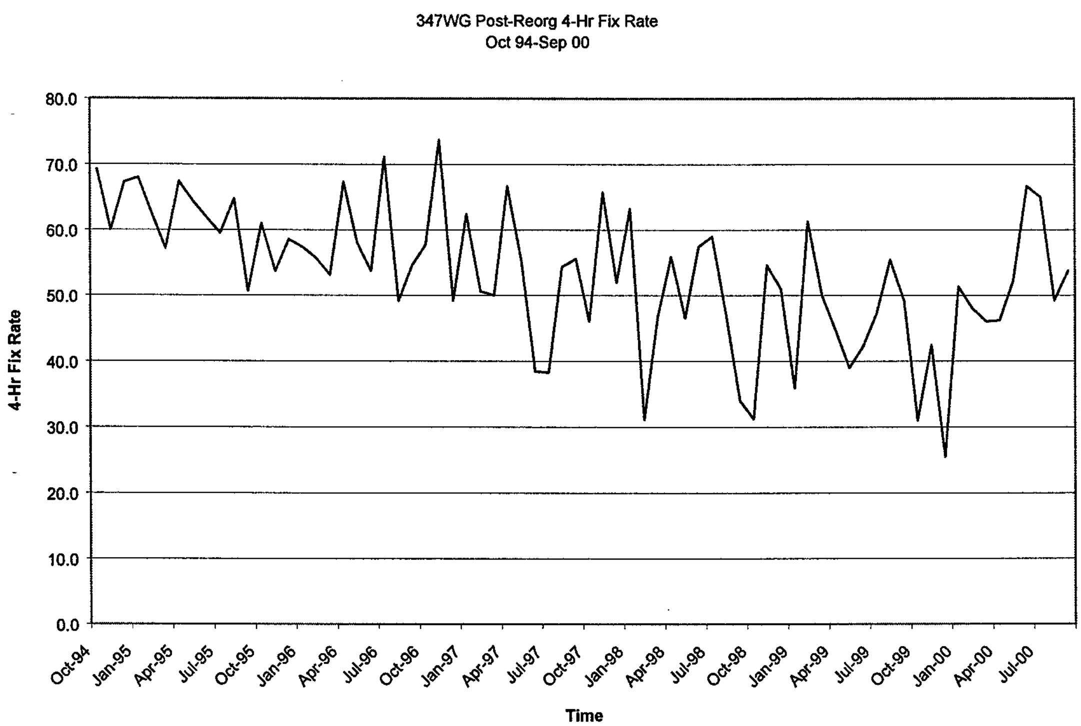


347WG AAB Rate
May 87-Jul 90 and Jan 93-Sep 00
AAB Rate
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
May-87
Nov-87
May-88
Nov-88
May-89
Nov-89
May-90
Nov-90
May-91
Nov-91
May-92
Nov-92
May-93
Nov-93
May-94
Nov-94
May-95
Nov-95
May-96
Nov-96
May-97
Nov-97
May-98
Nov-98
May-99
Nov-99
May-00
Time

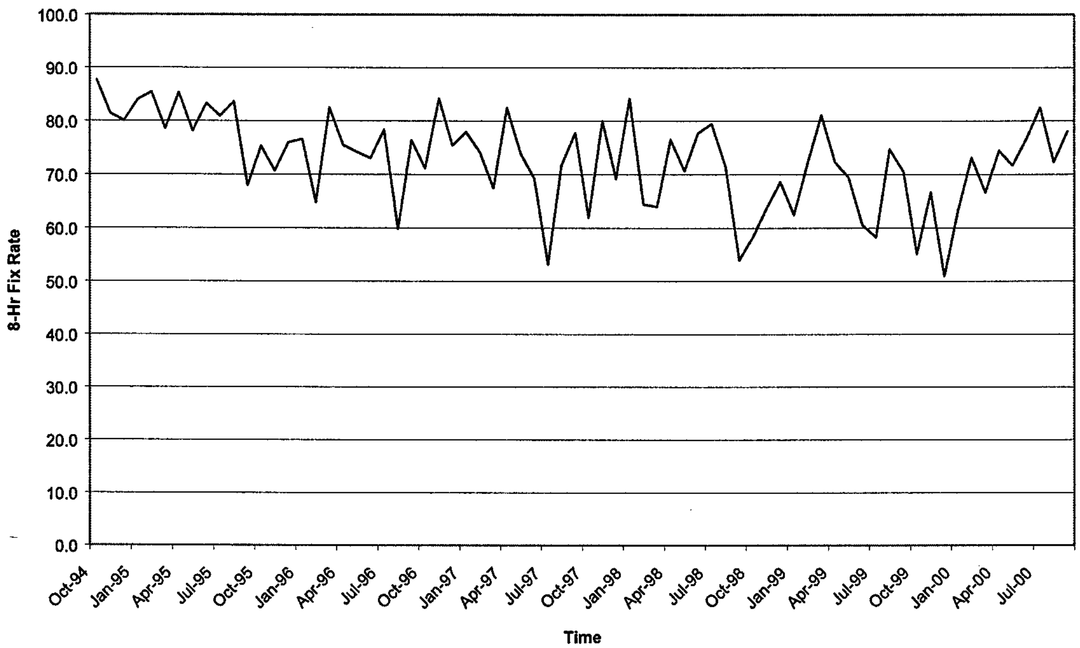

347WG GAB Rate
May 87-Jul 90 and Jan 93-Sep 00
GAB Rate
12.0
10.0
8.0
6.0
4.0
2.0
0.0
May-87
Nov-87
May-88
Nov-88
May-89
Nov-89
May-90
Nov-90
May-91
Nov-91
May-92
Nov-92
May-93
Nov-93
May-94
Nov-94
May-95
Nov-95
May-96
Nov-96
May-97
Nov-97
May-98
Nov-98
May-99
Nov-99
May-00
Time


347WG Break Rate
May 87-Jul 90 and Jan 93-Sep 00
Break Rate
25.0
20.0
15.0
10.0
5.0
0.0
May-87
Nov-87
May-88
Nov-88
May-89
Nov-89
May-90
Nov-90
May-91
Nov-91
May-92
Nov-92
May-93
Nov-93
May-94
Nov-94
May-95
Nov-95
May-96
Nov-96
May-97
Nov-97
May-98
Nov-98
May-99
Nov-99
May-00
Time

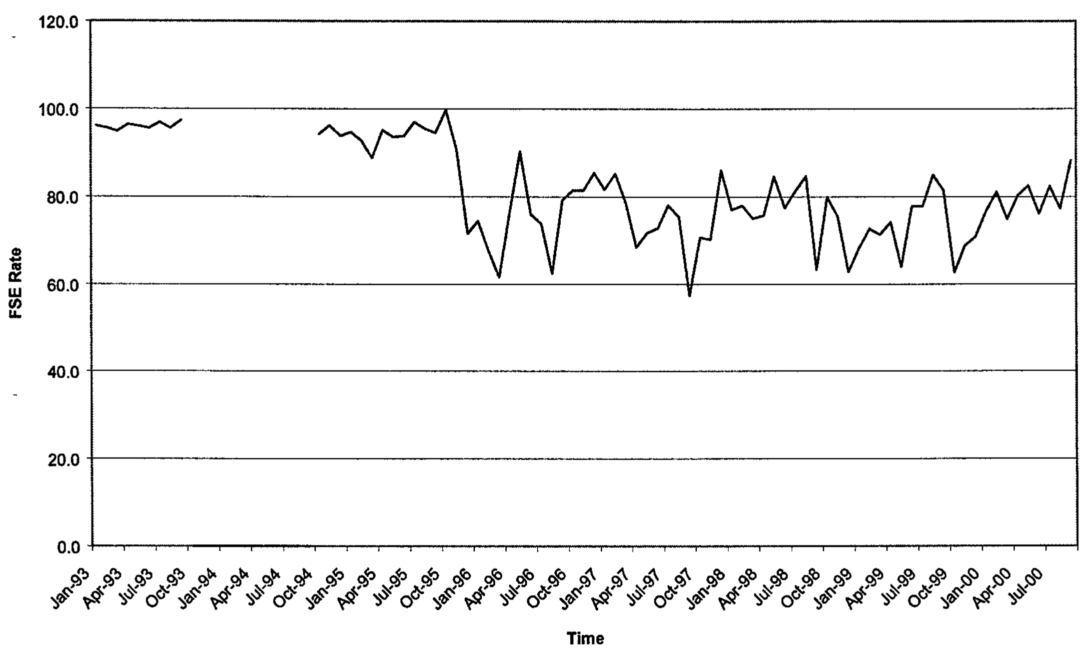

347WG CANN Rate
May 87-May 88, Aug 88-Oct 89, Jan 90, and Jan 93-May 96, Jul 96-Sep 00
CANN Rate
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
May-87 Nov-87 May-88 Nov-88 May-89 Nov-89 May-90 Nov-90 May-91 Nov-91 May-92 Nov-92 May-93 Nov-93 May-94 Nov-94 May-95 Nov-95 May-96 Nov-96 May-97 Nov-97 May-98 Nov-98 May-99 Nov-99 May-00
Time


347WG Post-Reorg 4-Hr Fix Rate
Oct 94-Sep 00
4-Hr Fix Rate
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-94 Jan-95 Apr-95 Jul-95 Oct-95 Jan-96 Apr-96 Jul-96 Oct-96 Jan-97 Apr-97 Jul-97 Oct-97 Jan-98 Apr-98 Jul-98 Oct-98 Jan-99 Apr-99 Jul-99 Oct-99 Jan-00 Apr-00 Jul-00
Time

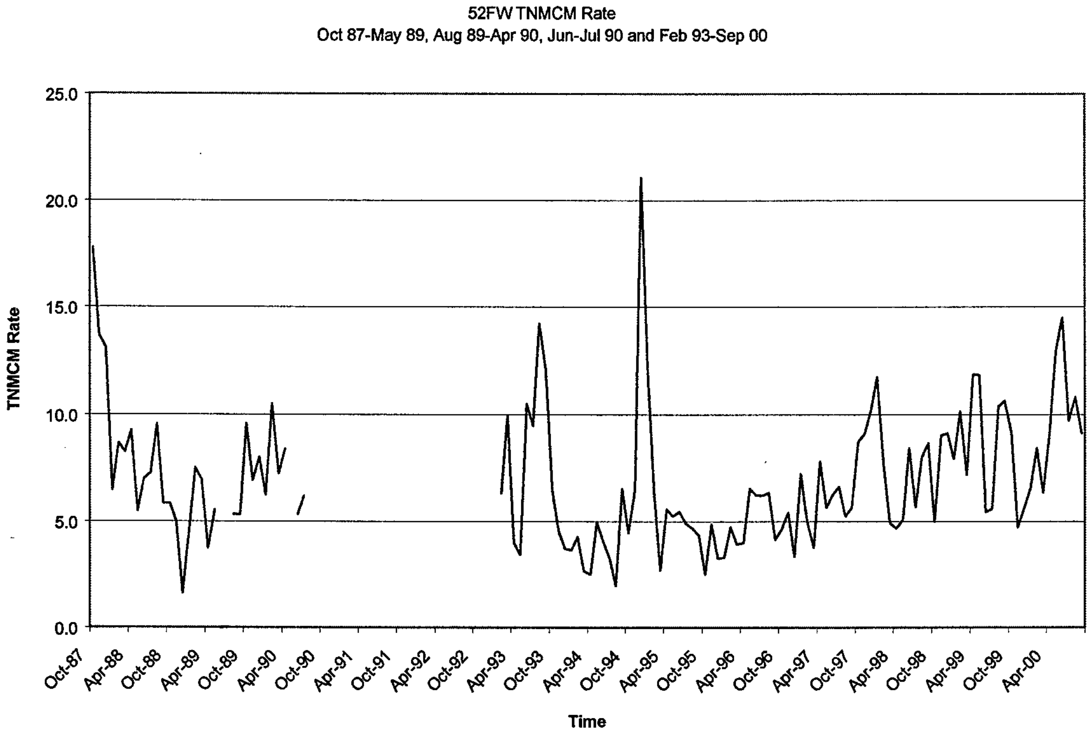
347WG Post-Reorg 8-Hr Fix Rate
Oct 94-Sep 00

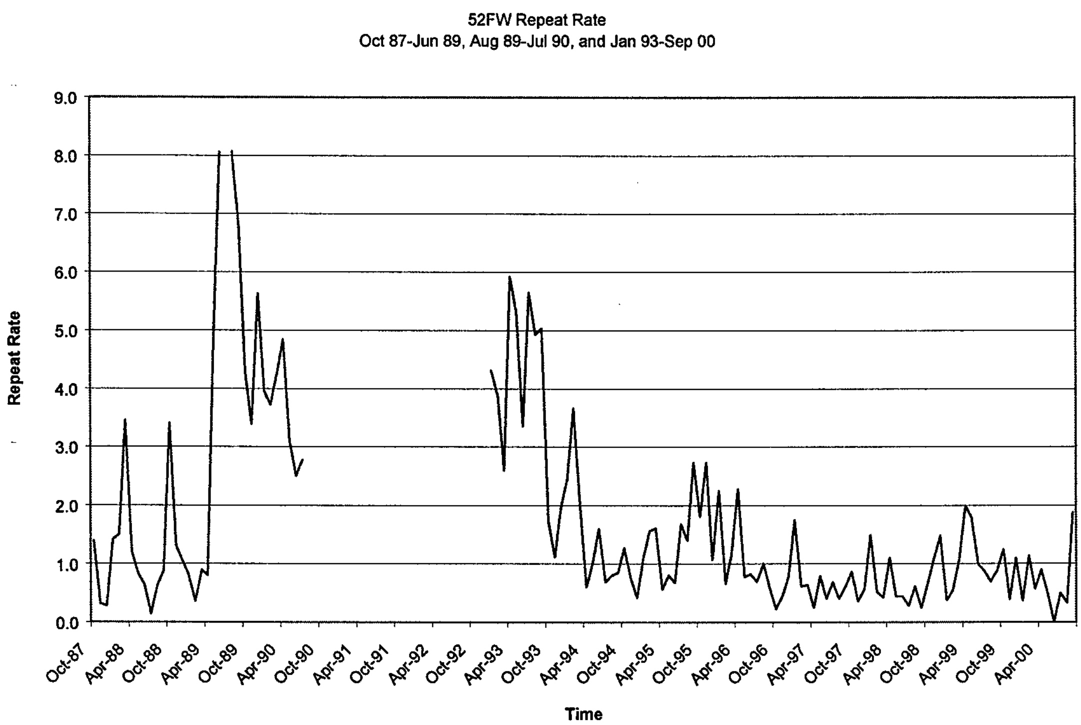


347WG Post-Reorg FSE Rate
Jan 93-Sep 93 and Oct 94-Sep 00

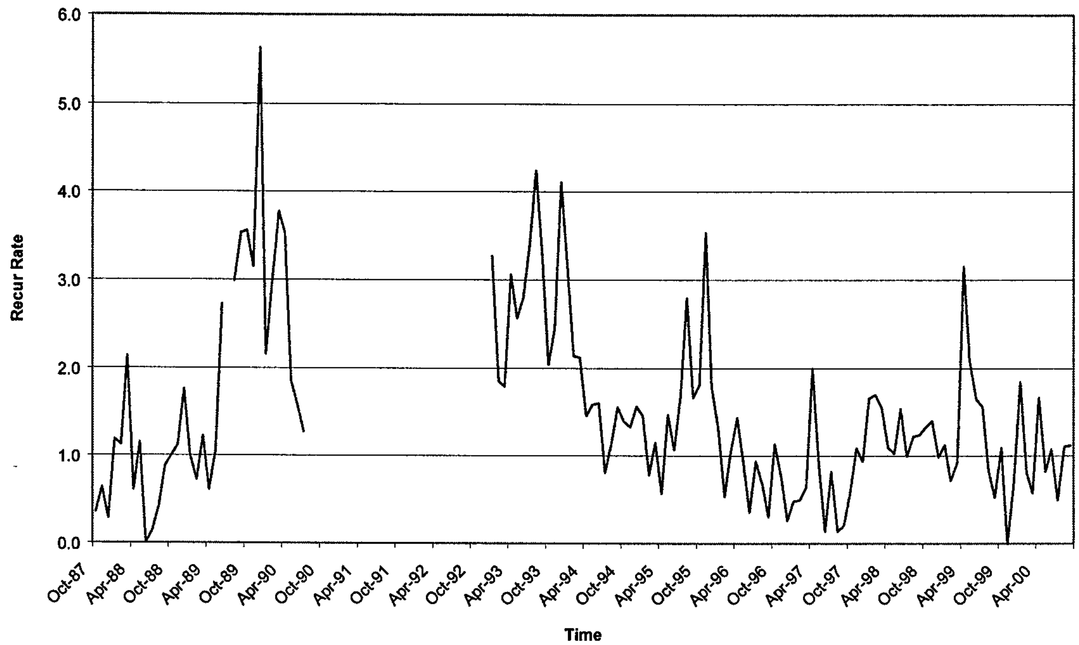


52nd FW:

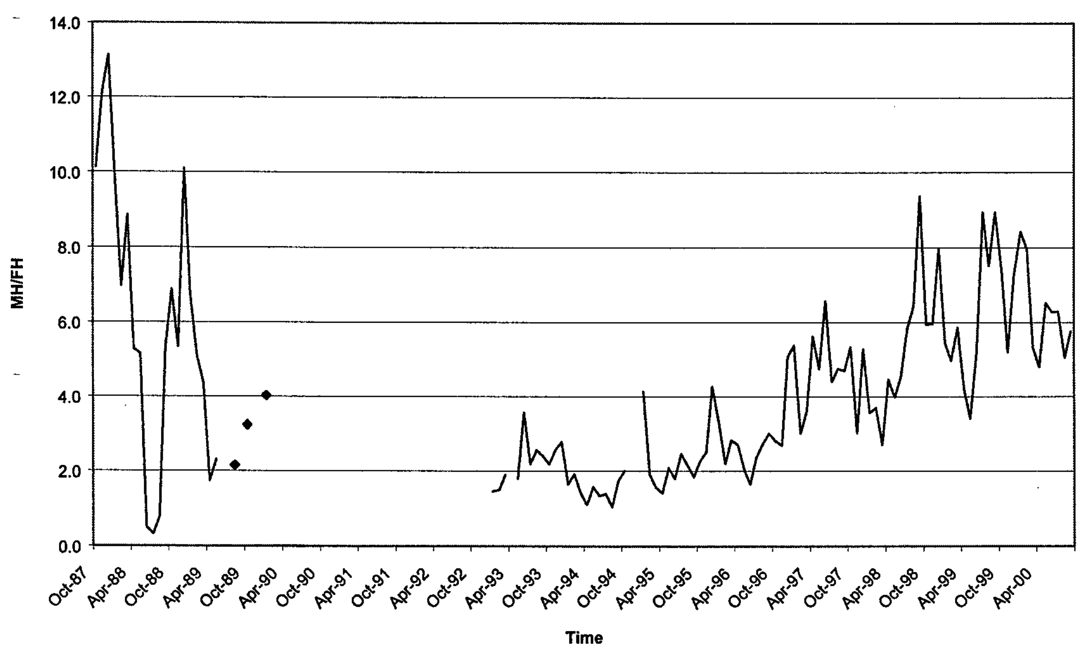

52FW TNMCM Rate
Oct 87-May 89, Aug 89-Apr 90, Jun-Jul 90 and Feb 93-Sep 00
TNMCM Rate
25.0
20.0
15.0
10.0
5.0
0.0
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time

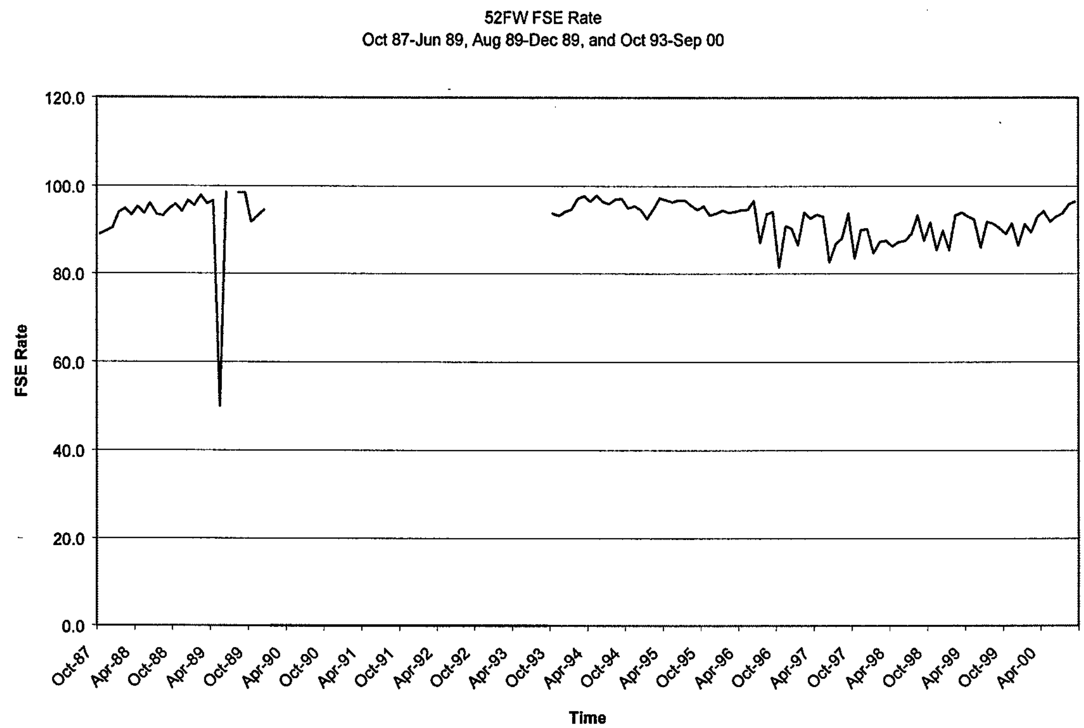

52FW Repeat Rate
Oct 87-Jun 89, Aug 89-Jul 90, and Jan 93-Sep 00
Repeat Rate
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time

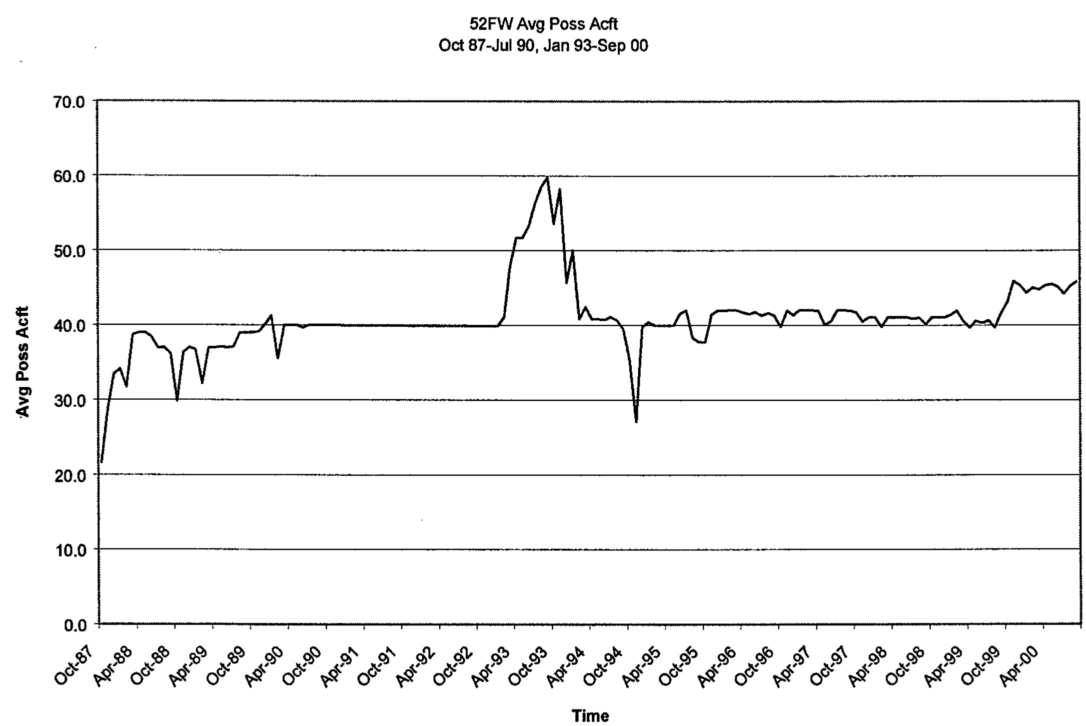
52FW Recur Rate
Oct 87-Jun 89, Aug 89-Jul 90, and Jan 93-Sep 00



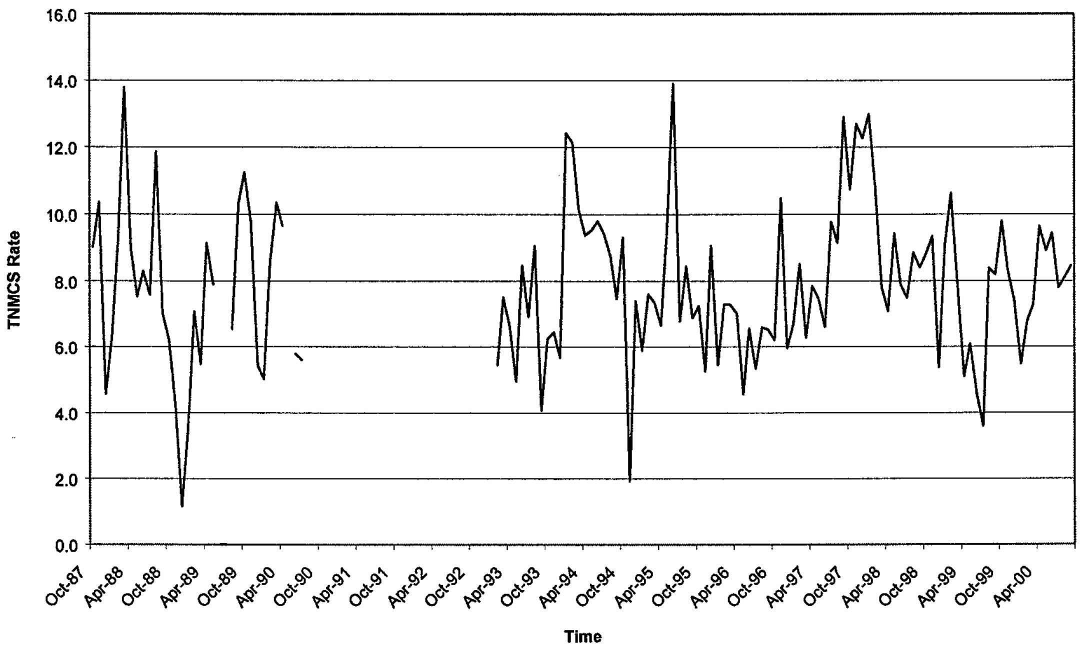
52FW MH/FH
Oct 87-May 88, Sep 88-May 89, Aug 89, Oct 89, Jan 90, Jan 93-Mar 93, May 93-Oct 94, and Jan 95-Sep 00



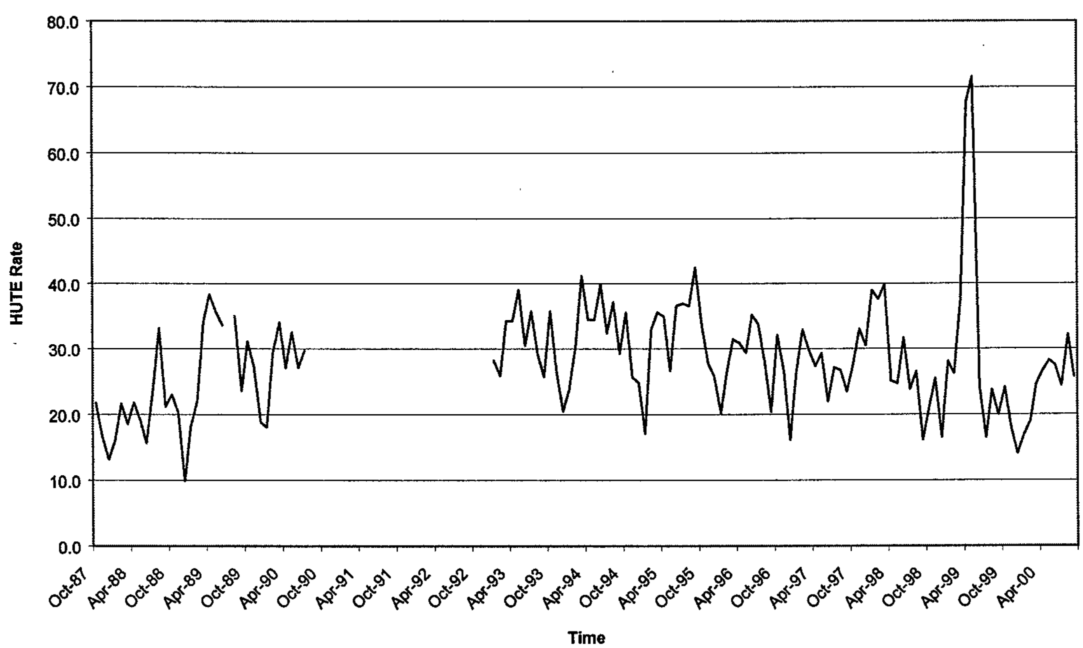

52FW FSE Rate
Oct 87-Jun 89, Aug 89-Dec 89, and Oct 93-Sep 00
FSE Rate
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time


52FW Avg Poss Acft
Oct 87-Jul 90, Jan 93-Sep 00
Avg Poss Acft
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-87
Apr-88
Oct-88
Apr-89
Oct-89
Apr-90
Oct-90
Apr-91
Oct-91
Apr-92
Oct-92
Apr-93
Oct-93
Apr-94
Oct-94
Apr-95
Oct-95
Apr-96
Oct-96
Apr-97
Oct-97
Apr-98
Oct-98
Apr-99
Oct-99
Apr-00
Time

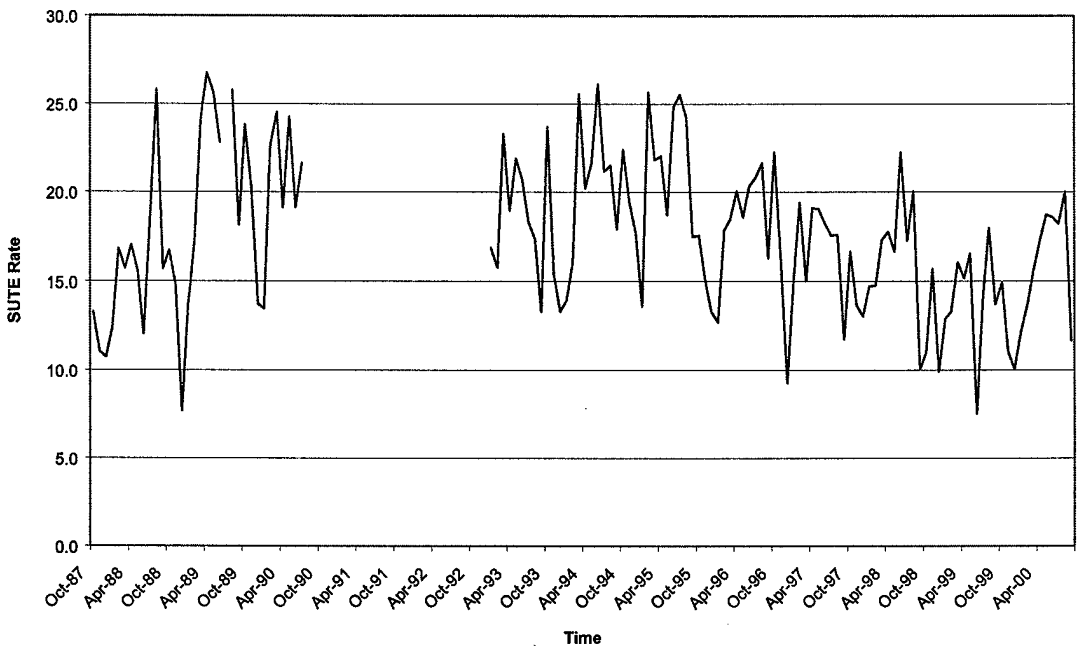
52FW TNMCS Rate
Oct 87-May 89, Aug 89-Apr 90, Jun 90-Jul 90, and Feb 93-Sep 00



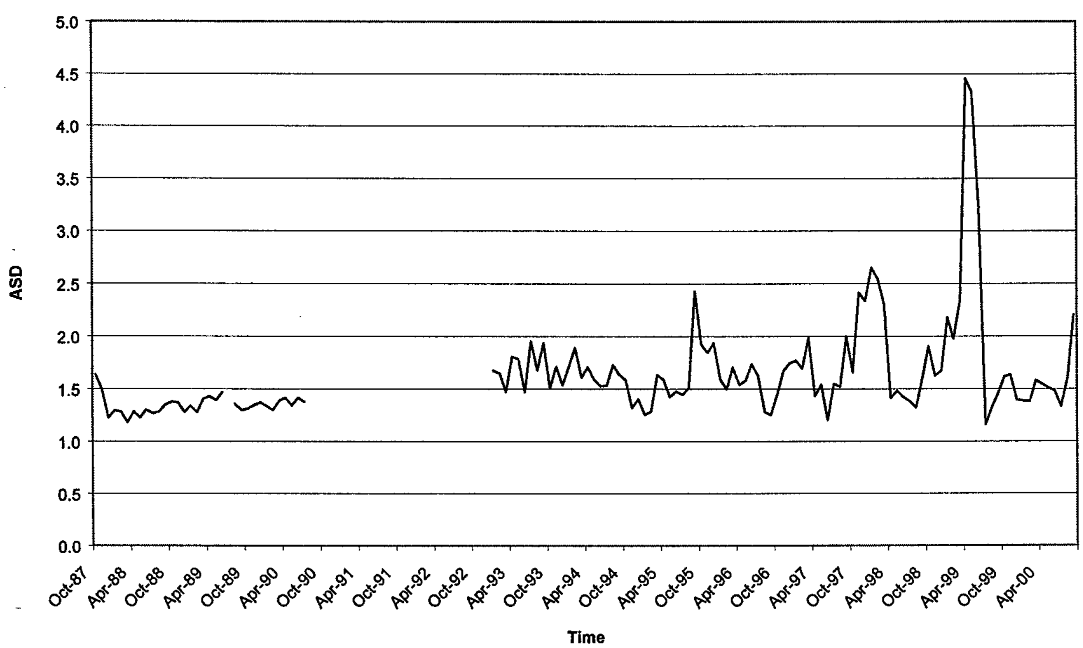
52FW HUTE Rate
Oct 87-Jun 89, Aug 89-Jul 90, and Jan 93-Sep 00



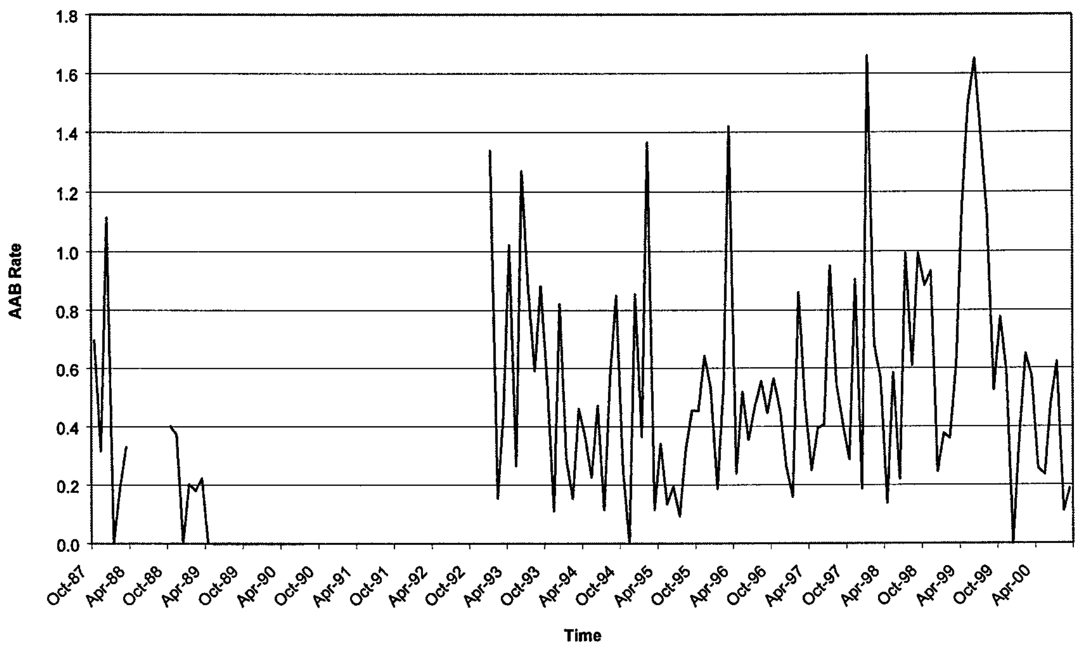
52FW SUTE Rate
Oct 87-Jun 89, Aug 89-Jul 90, and Jan 93-Sep 00



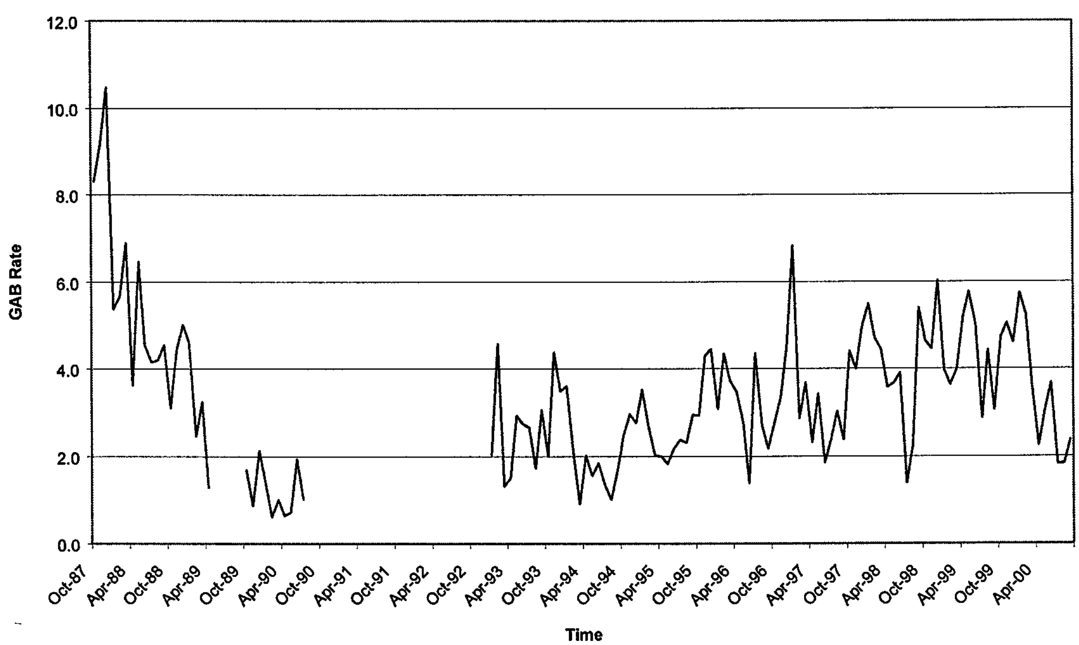
52FW ASD
Oct 87-Jun 89, Aug 89-Jul 90, and Jan 93-Sep 00



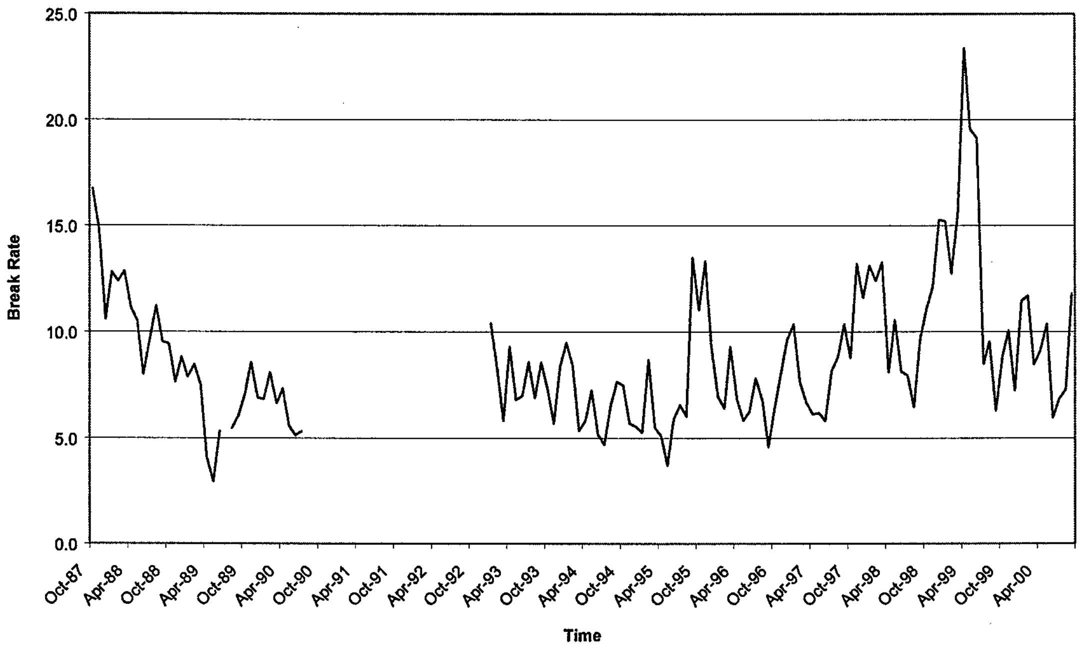
52FW AAB Rate
Oct 87-Apr 89, Oct 89-Jul 90, and Jan 93-Sep 00



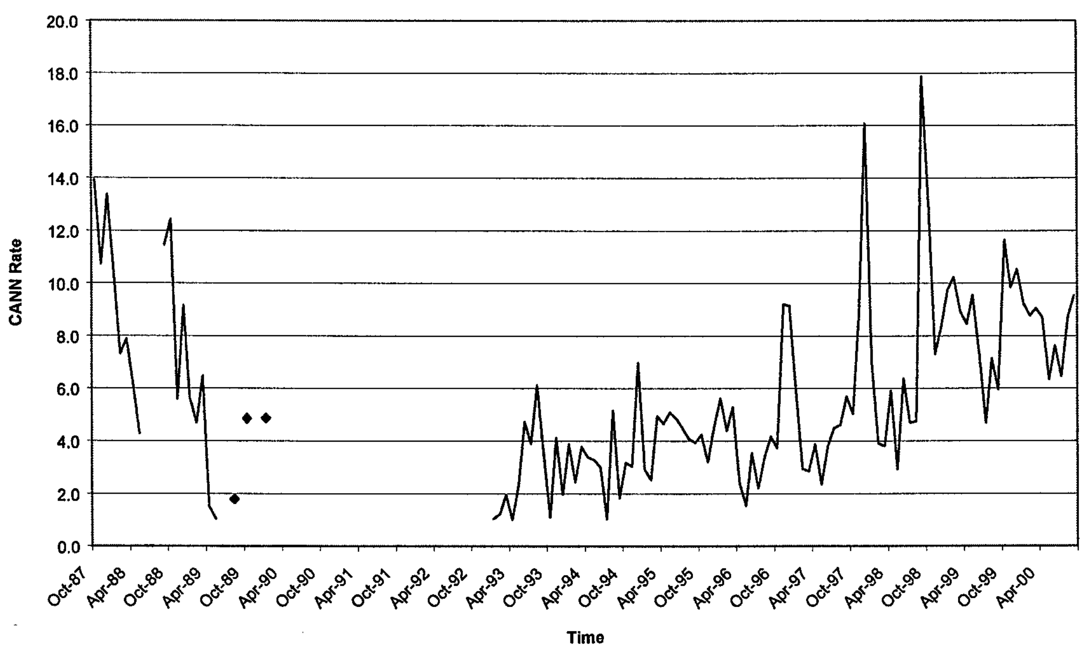
52FW GAB Rate
Oct 87-Apr 89, Oct 89-Jul 90, and Jan 93-Sep 00

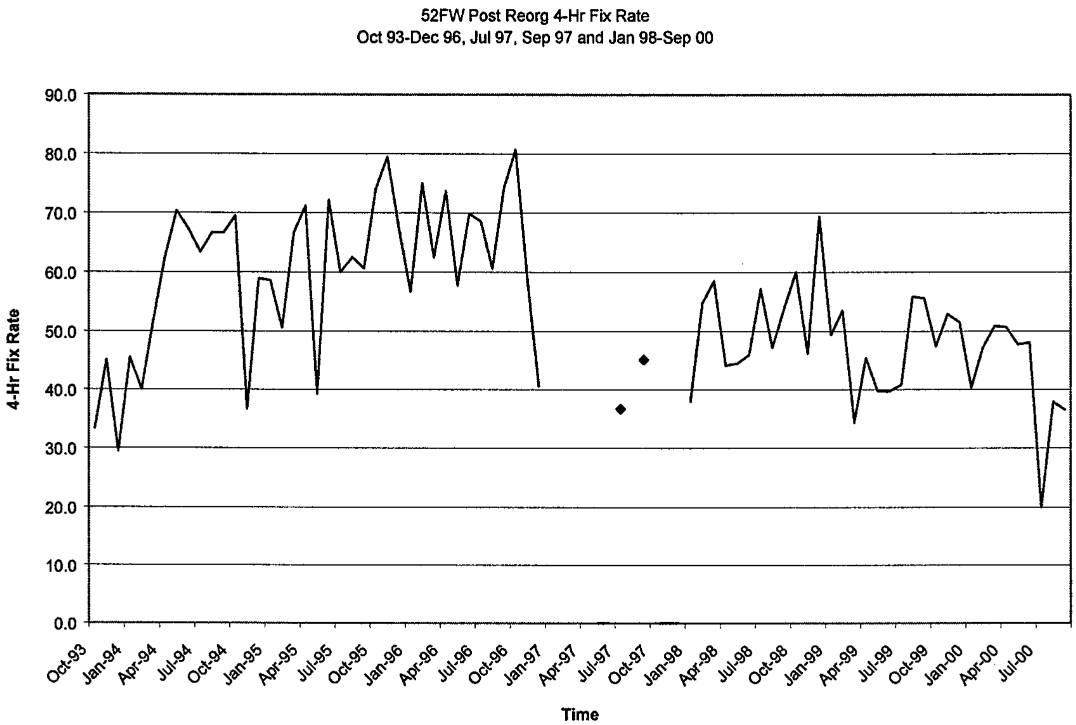


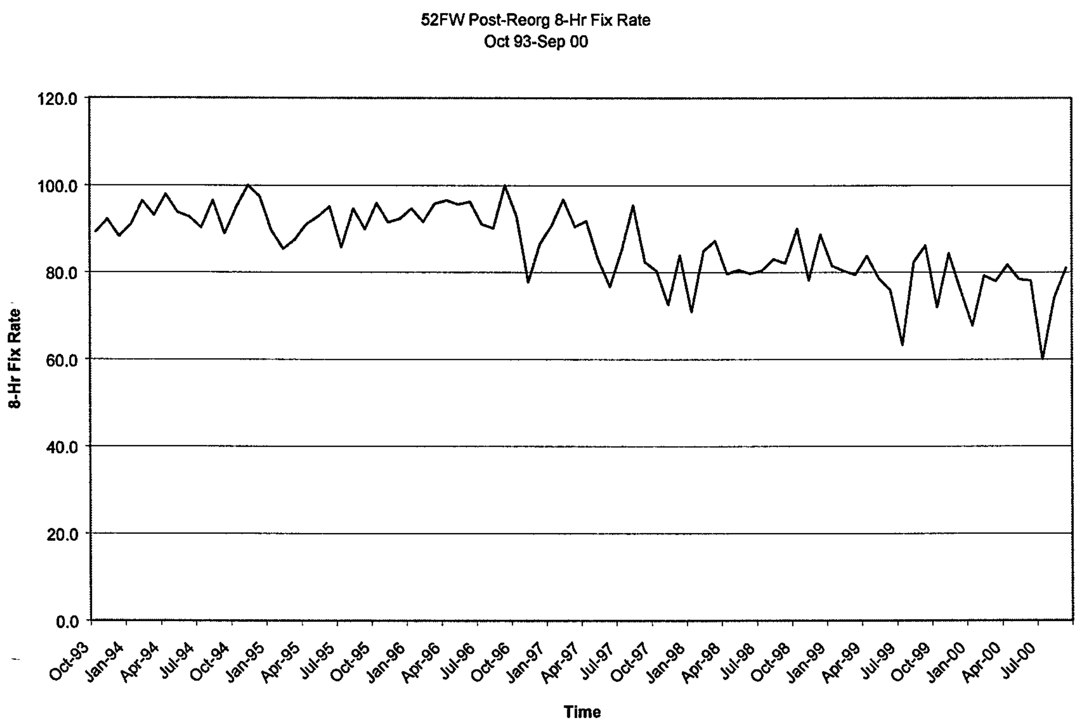
52FW Break Rate
Oct 87-Jun 89, Aug 89-Jul 90, and Jan 93-Sep 00



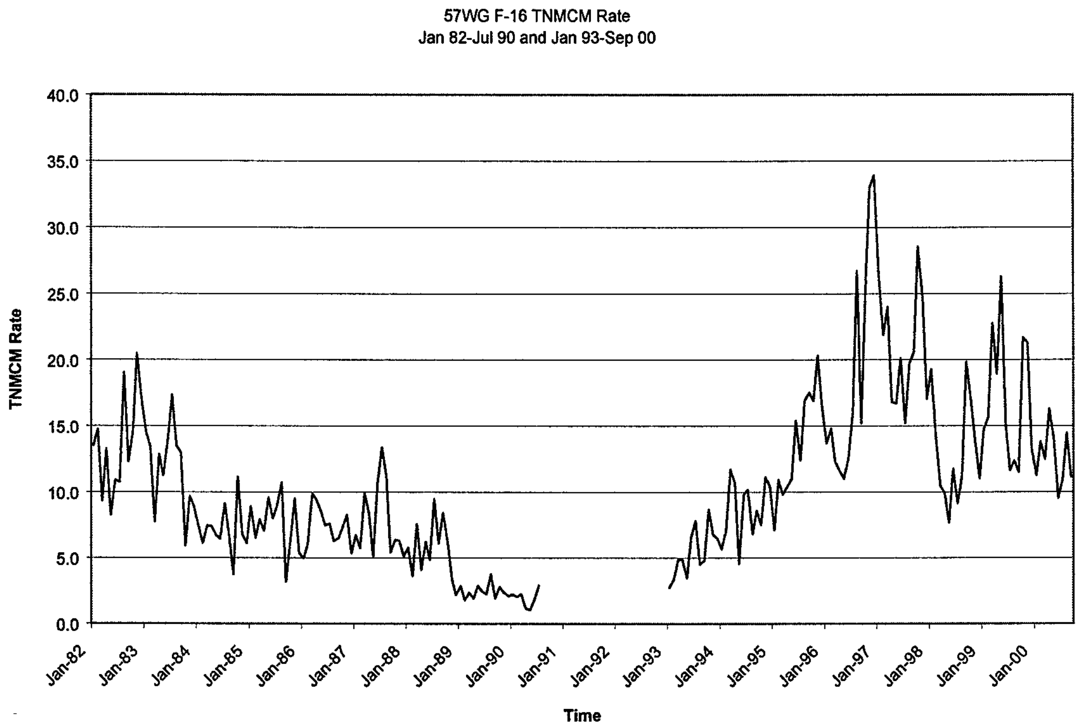
52FW CANN Rate
Oct 87-May 88, Sep 88-May 89, Aug 89, Oct 89, Jan 90, and Jan 93-Sep 00

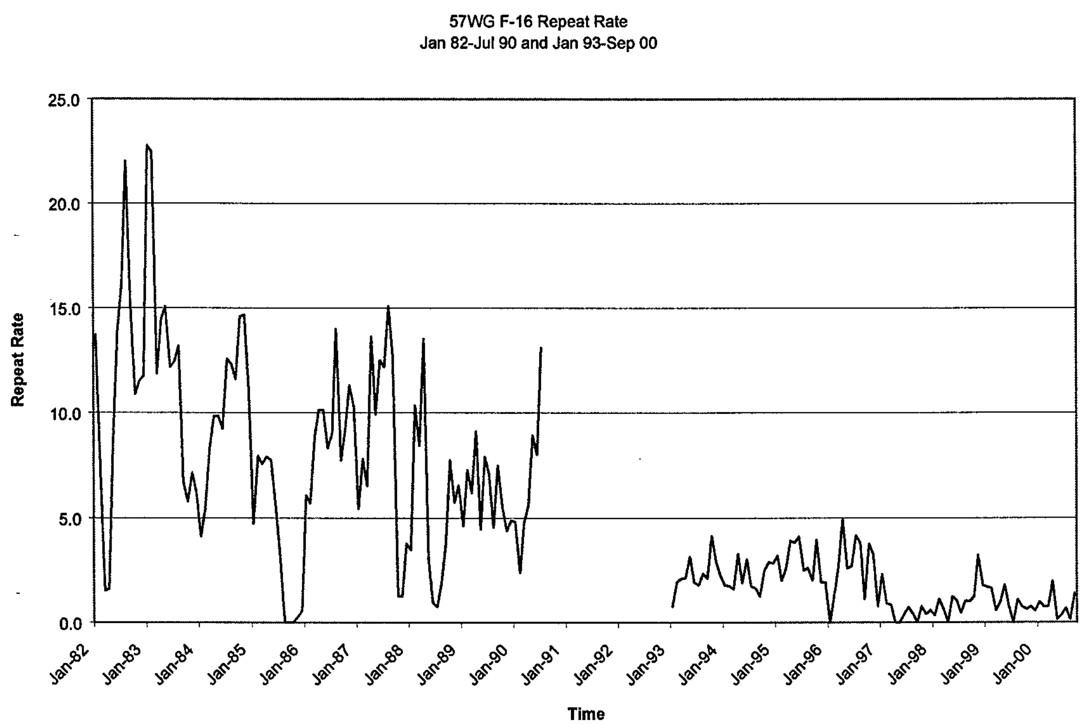



52FW Post Reorg 4-Hr Fix Rate
Oct 93-Dec 96, Jul 97, Sep 97 and Jan 98-Sep 00
4-Hr Fix Rate
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Oct-93 Jan-94 Apr-94 Jul-94 Oct-94 Jan-95 Apr-95 Jul-95 Oct-95 Jan-96 Apr-96 Jul-96 Oct-96 Jan-97 Apr-97 Jul-97 Oct-97 Jan-98 Apr-98 Jul-98 Oct-98 Jan-99 Apr-99 Jul-99 Oct-99 Jan-00 Apr-00 Jul-00
Time

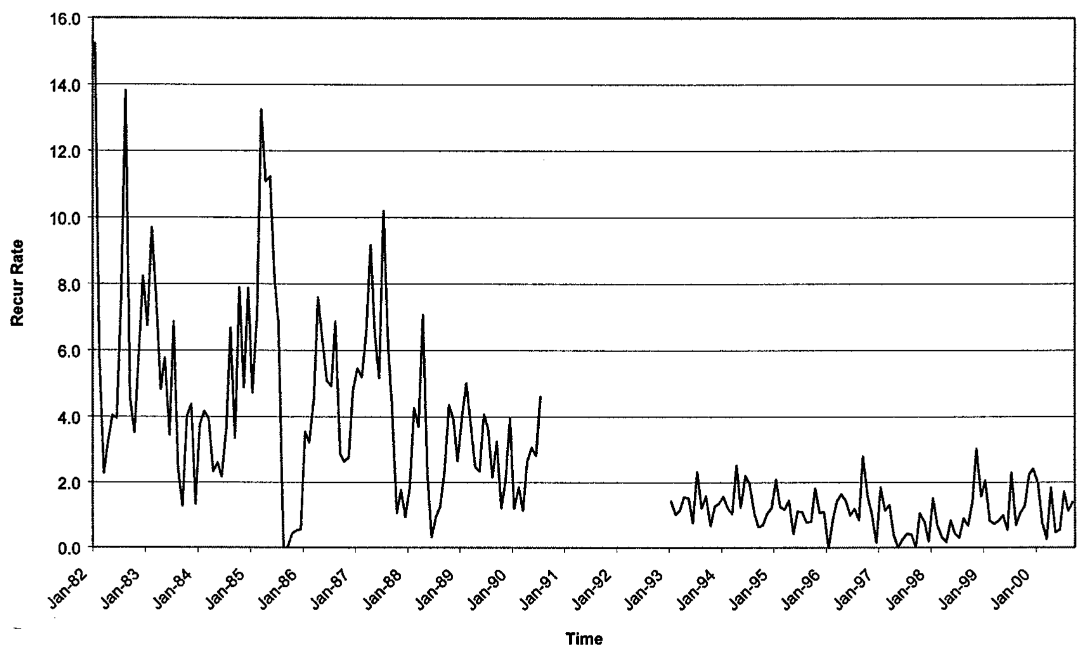

52FW Post-Reorg 8-Hr Fix Rate
Oct 93-Sep 00
8-Hr Fix Rate
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Oct-93 Jan-94 Apr-94 Jul-94 Oct-94 Jan-95 Apr-95 Jul-95 Oct-95 Jan-96 Apr-96 Jul-96 Oct-96 Jan-97 Apr-97 Jul-97 Oct-97 Jan-98 Apr-98 Jul-98 Oct-98 Jan-99 Apr-99 Jul-99 Oct-99 Jan-00 Apr-00 Jul-00
Time

57[th] WG F-16:

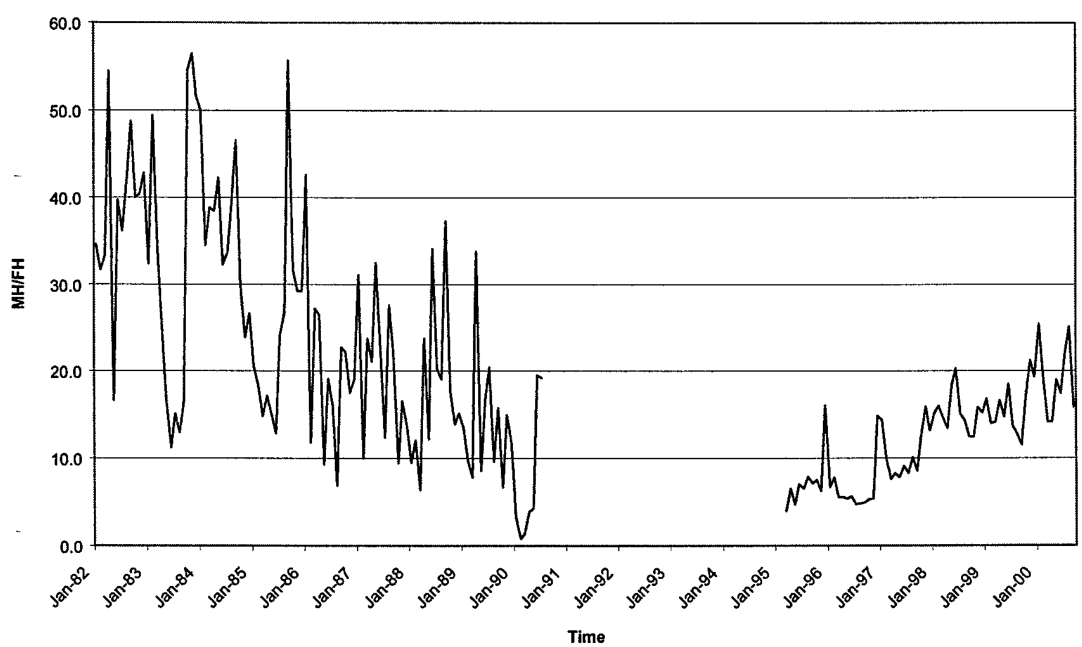

57WG F-16 TNMCM Rate
Jan 82-Jul 90 and Jan 93-Sep 00
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
TNMCM Rate
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

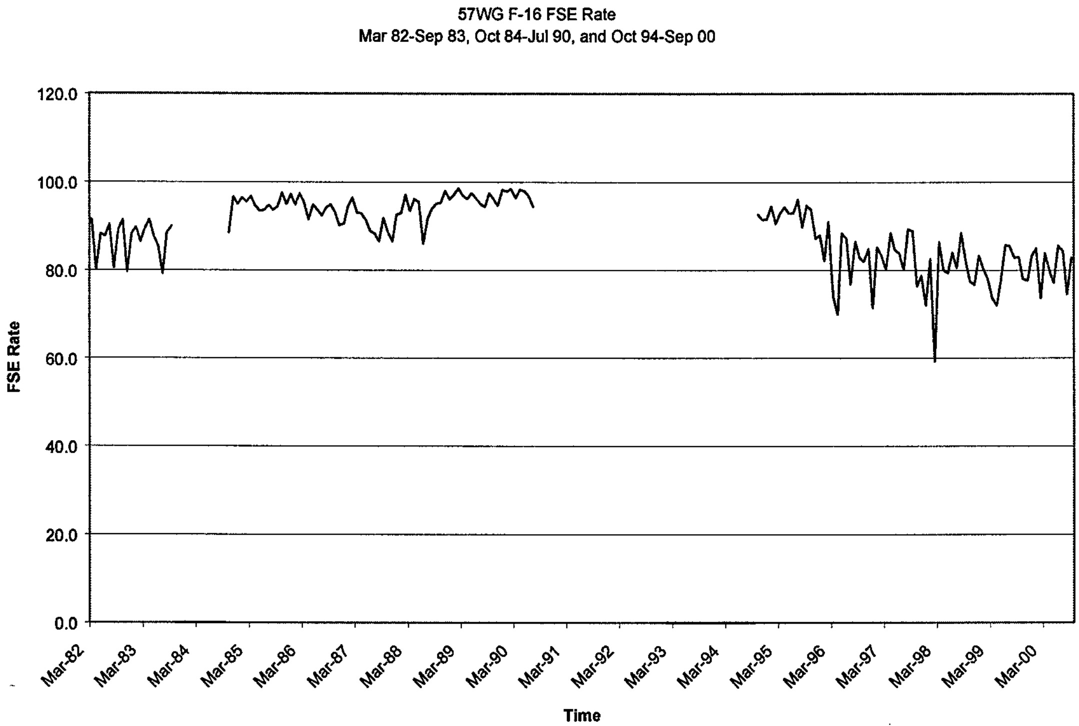

57WG F-16 Repeat Rate
Jan 82-Jul 90 and Jan 93-Sep 00
25.0
20.0
15.0
10.0
5.0
0.0
Repeat Rate
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

57WG F-16 Recur Rate
Jan 82-Jul 90 and Jan 93-Sep 00

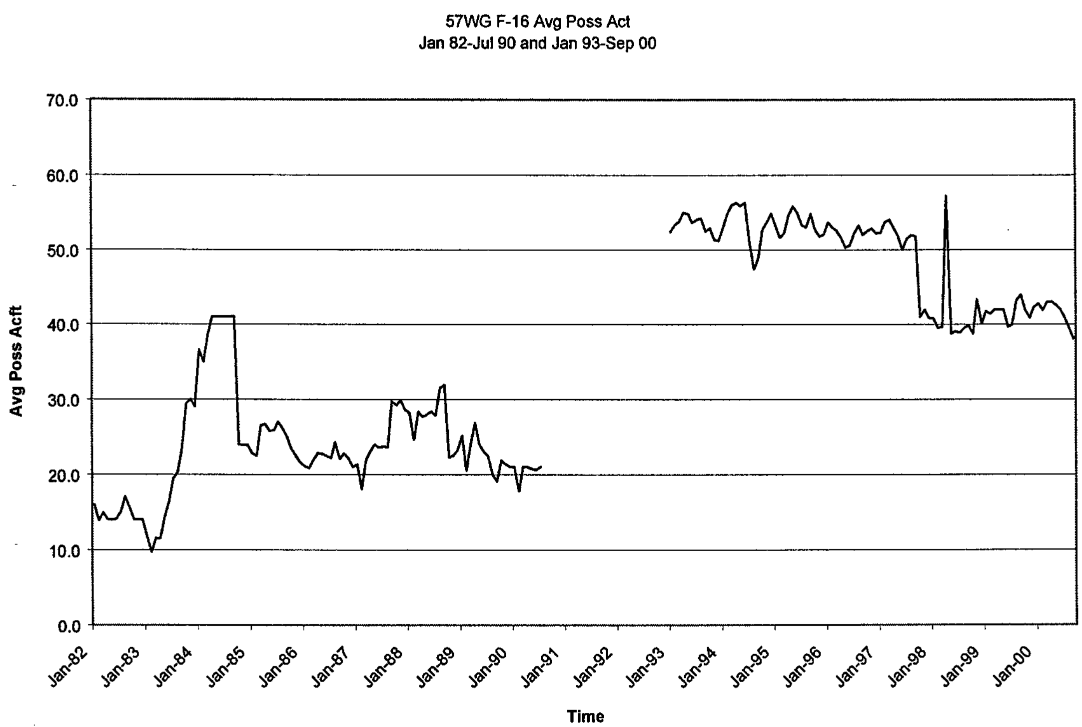


57WG F-16 MH/FH
Jan 82-Jul 90 and Mar 95-Sep 00



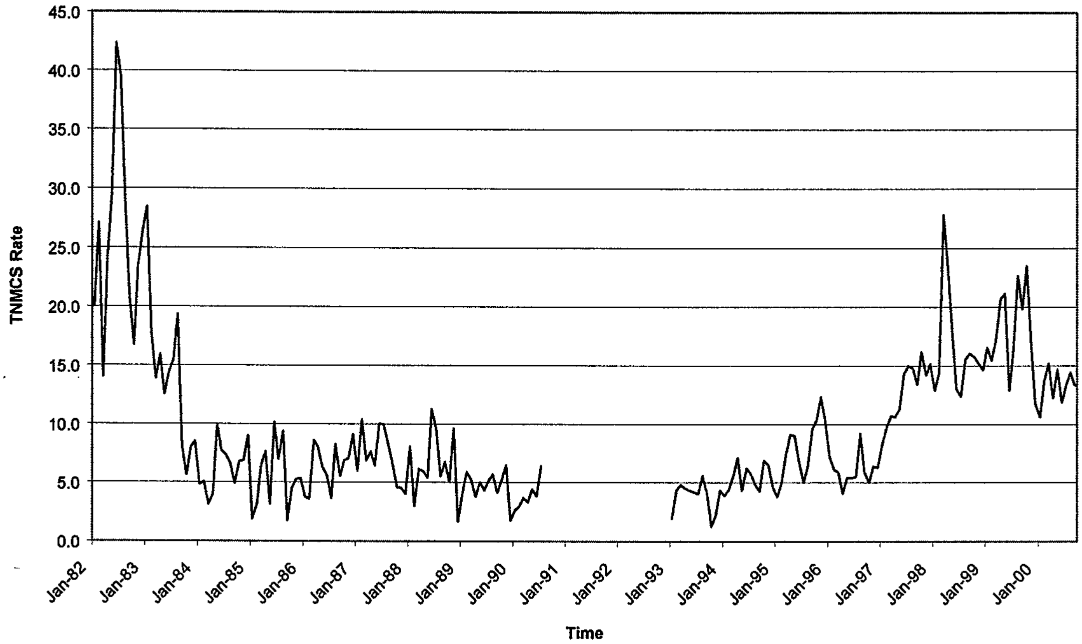


57WG F-16 FSE Rate
Mar 82-Sep 83, Oct 84-Jul 90, and Oct 94-Sep 00
FSE Rate
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Mar-82
Mar-83
Mar-84
Mar-85
Mar-86
Mar-87
Mar-88
Mar-89
Mar-90
Mar-91
Mar-92
Mar-93
Mar-94
Mar-95
Mar-96
Mar-97
Mar-98
Mar-99
Mar-00
Time

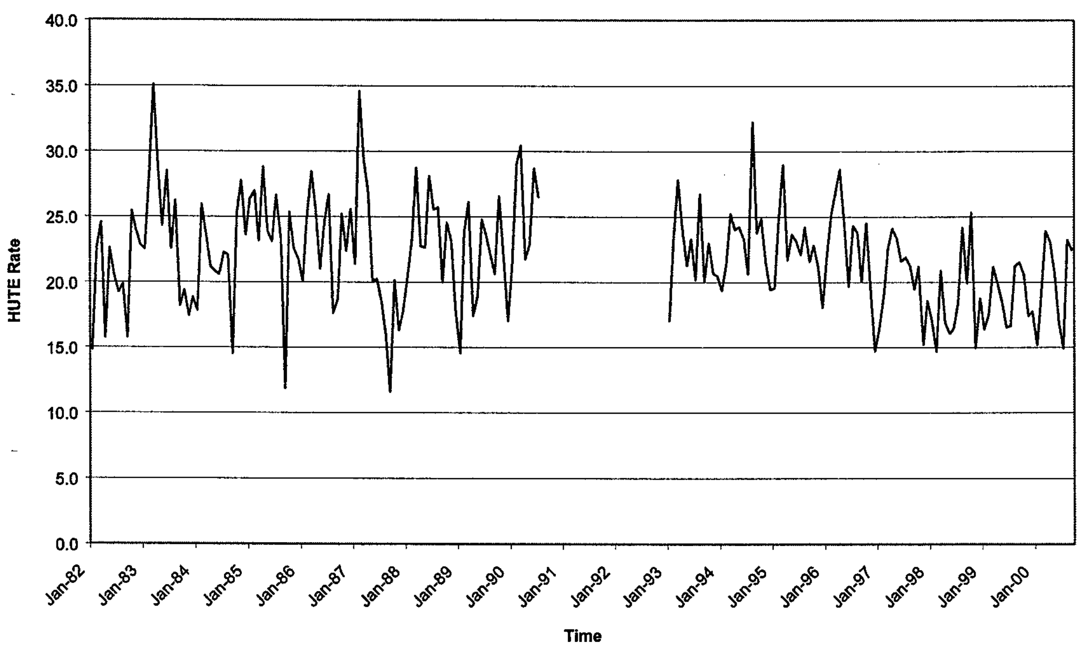


57WG F-16 Avg Poss Act
Jan 82-Jul 90 and Jan 93-Sep 00
Avg Poss Acft
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Jan-82
Jan-83
Jan-84
Jan-85
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Time

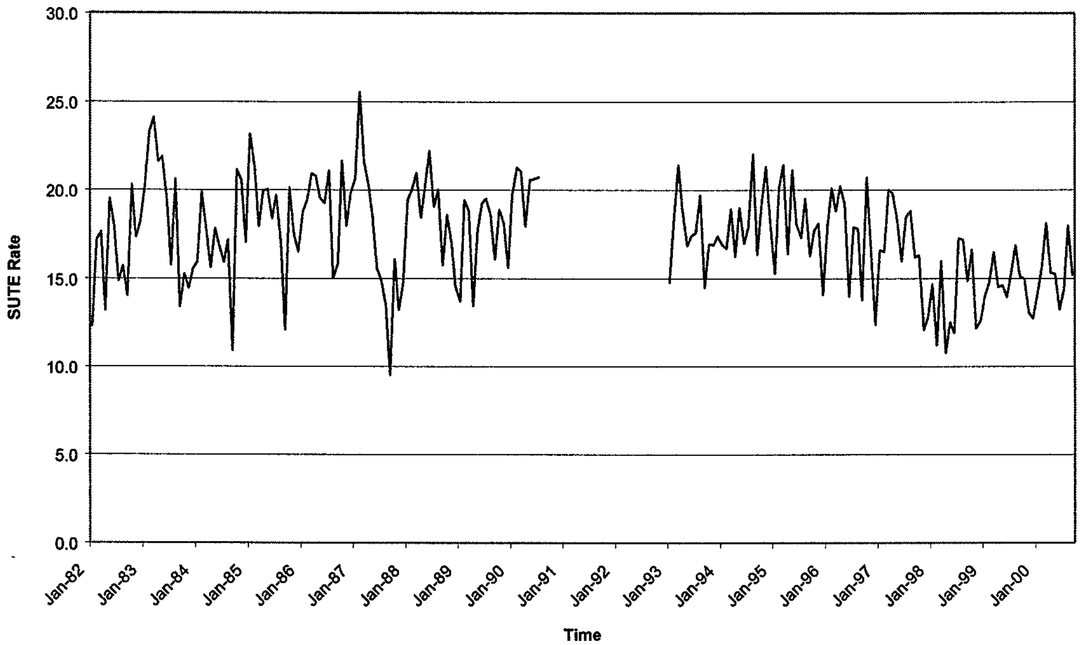
57WG F-16 TNMCS Rate
Jan 82-Jul 90 and Jan 93-Sep 00



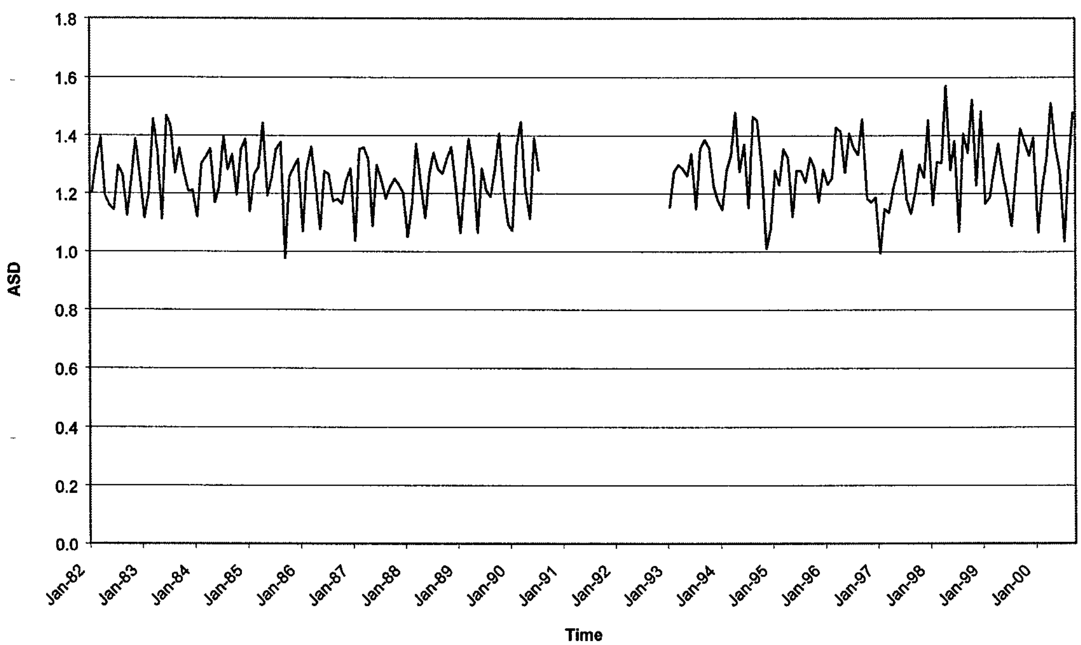
57WG F-16 HUTE Rate
Jan 82-Jul 90 and Jan 93-Sep 00



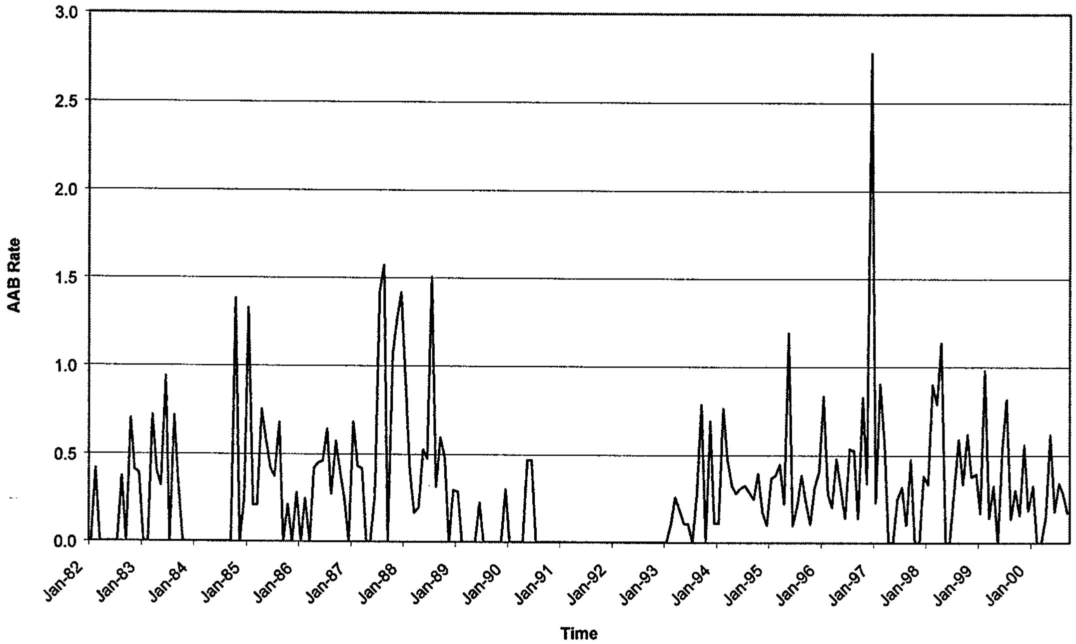
57WG F-16 SUTE Rate
Jan 82-Jul 90 and Jan 93-Sep 00



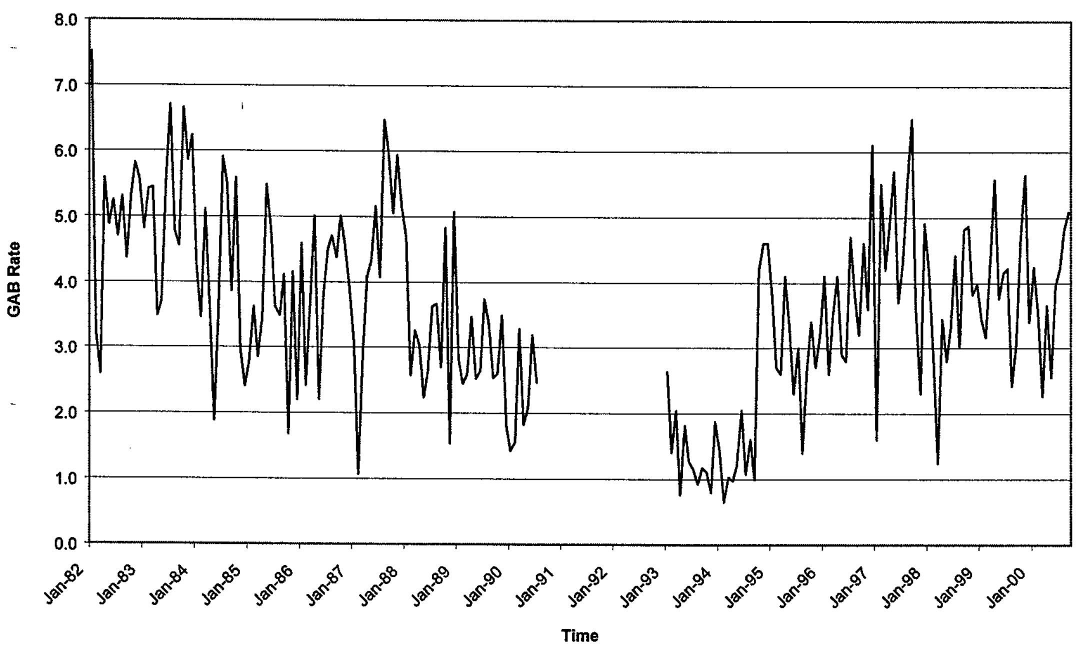
57WG F-16 ASD
Jan 82-Jul 90 and Jan 93-Sep 00



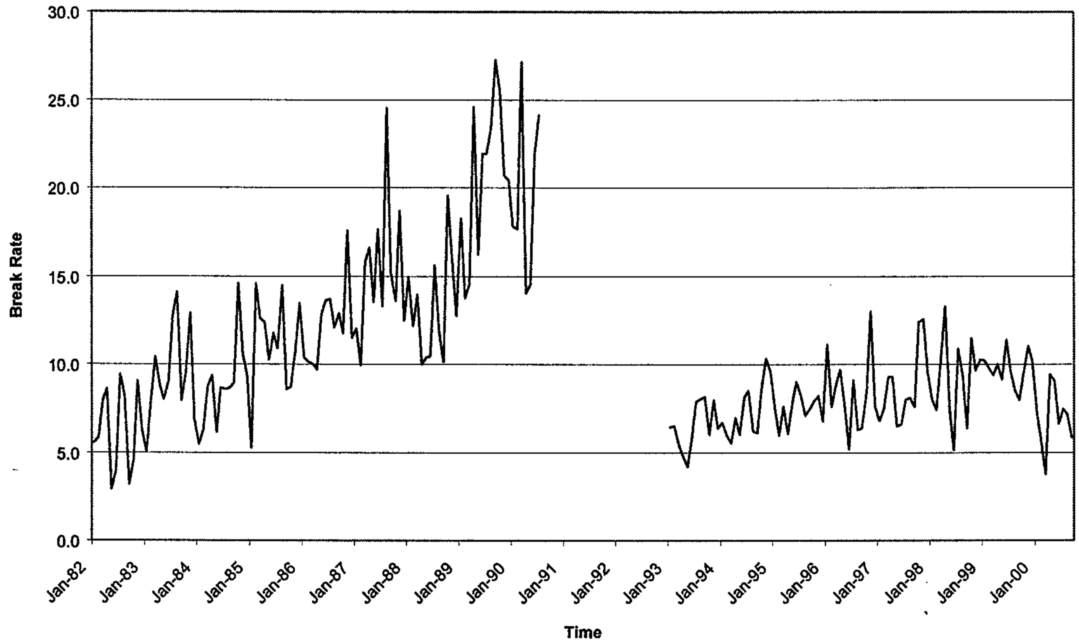
57WG F-16 AAB Rate
Jan 82-Sep 83, Oct 84-Jul 90 and Jan 93-Sep 00



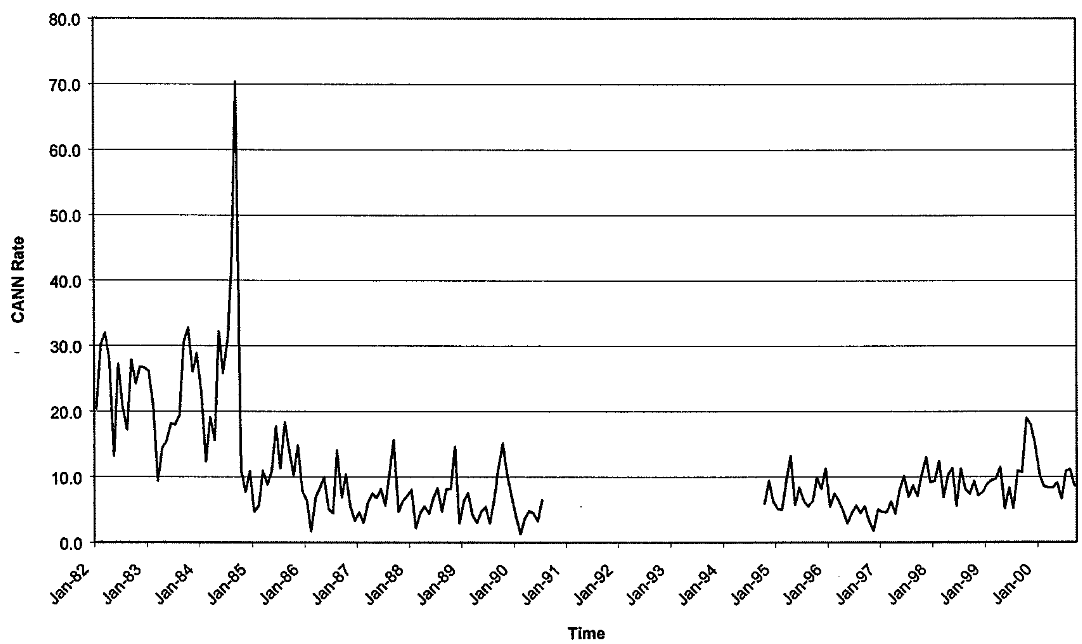
57WG F-16 GAB Rate
Jan 82-Jul 90 and Jan 93-Sep 00



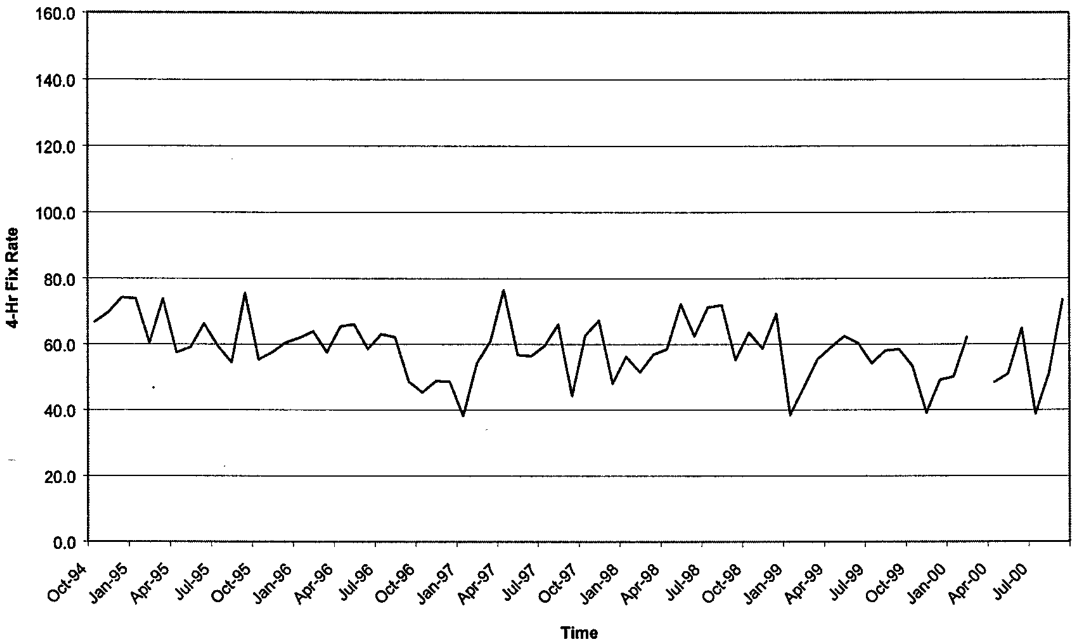
57WG F-16 Break Rate
Jan 82-Jul 90 and Jan 93-Sep 00



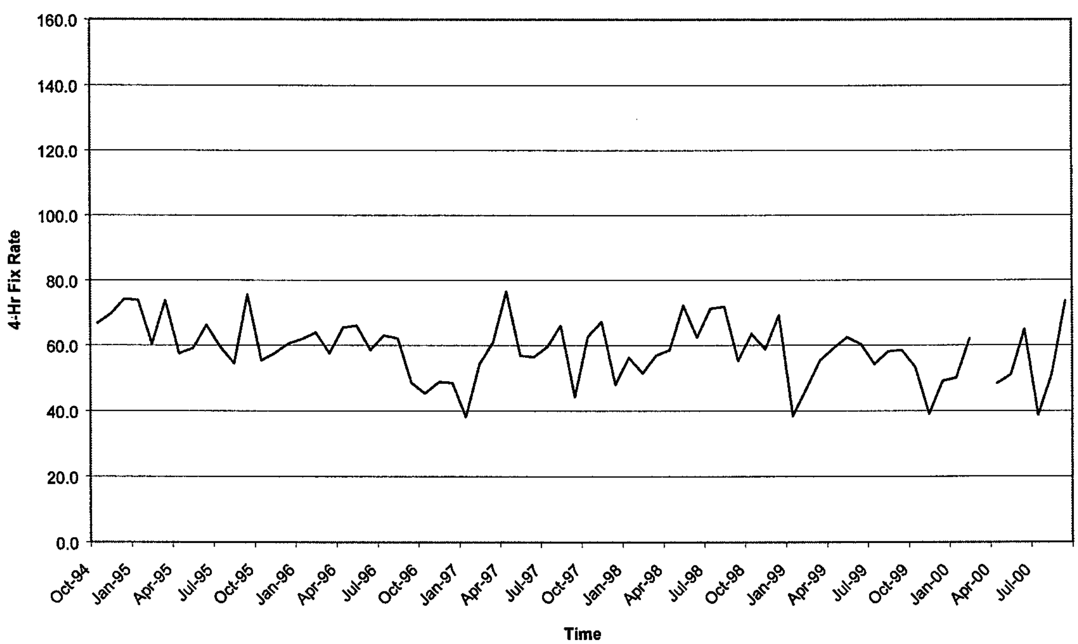
57WG F-16 CANN Rate
Jan 82-Jul 90 and Oct 94-Sep 00



57WG F-16 Post-Reorg 4-Hr Fix Rate
Oct 94-Feb 00 and Apr 00-Sep 00



57WG F-16 Post-Reorg 4-Hr Fix Rate
Oct 94-Feb 00 and Apr 00-Sep 00



Appendix D - Normality Test Results

1st FW:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.964341	0.1022	Yes
	Post	0.922150	<0.0001	No
MH/FH	Pre	0.879550	<0.0001	No
	Post	0.957223	0.0173	No
FSE	Pre	0.974029	0.5579	Yes
	Post	0.952749	0.0229	No
ACFT	Pre	0.890473	<0.0001	No
	Post	0.897958	<0.0001	No
TNMCS	Pre	0.883534	<0.0001	No
	Post	0.917125	<0.0001	No
HUTE	Pre	0.98890	0.9374	Yes
	Post	0.981250	0.6126	Yes
SUTE	Pre	0.976716	0.4118	Yes
	Post	0.959128	0.0249	No
ASD	Pre	0.908348	<0.0001	No
	Post	0.927808	<0.0001	No
AAB	Pre	0.970698	0.1860	Yes
	Post	0.886897	<0.0001	No
GAB	Pre	0.947757	0.0032	No
	Post	0.965951	0.1459	Yes
CANN	Pre	0.926710	<0.0001	No
	Post	0.955569	0.0126	No

33rd FW:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.901743	<0.0001	No
	Post	0.949459	0.0037	No
4HR	Pre	0.981743	0.6726	Yes
	Post	0.959041	0.0245	No
8HR	Pre	0.941641	0.0019	No
	Post	0.952749	0.0072	No
MH/FH	Pre	0.937640	<0.0001	No
	Post	0.926427	<0.0001	No
MSE	Pre	0.678303	0.0000	No
	Post	0.901468	<0.0001	No

FSE	Pre	0.833347	0.0000	No
	Post	0.882560	<0.0001	No
ACFT	Pre	0.794924	0.0000	No
	Post	0.904221	<0.0001	No
TNMCS	Pre	0.825585	0.0000	No
	Post	0.971252	0.1911	Yes
HUTE	Pre	0.977750	0.4037	Yes
	Post	0.959950	0.0290	No
SUTE	Pre	0.980465	0.5433	Yes
	Post	0.988868	0.9324	Yes
ASD	Pre	0.877169	<0.0001	No
	Post	0.925642	<0.0001	No
AAB	Pre	0.911159	<0.0001	No
	Post	0.898269	<0.0001	No
GAB	Pre	0.925582	<0.0001	No
	Post	0.977614	0.4305	Yes
BREAK	Pre	0.968125	0.1557	Yes
	Post	0.970140	0.1623	Yes
CANN	Pre	0.936011	<0.0001	No
	Post	0.974789	0.3086	Yes

18th WG:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.974272	0.3887	Yes
	Post	0.908784	<0.0001	No
8HR	Pre	0.981052	0.6787	Yes
	Post	0.969013	0.1369	Yes
MH/FH	Pre	0.931535	0.0010	No
	Post	0.982512	0.6772	Yes
REP	Pre	0.907416	<0.0001	No
	Post	0.972717	0.3908	Yes
REC	Pre	0.907416	<0.0000	No
	Post	0.915479	0.0003	No
FSE	Pre	0.946090	0.0155	No
	Post	0.854655	<0.0001	No
ACFT	Pre	0.975021	0.4176	Yes
	Post	0.941415	0.0007	No
TNMCS	Pre	0.983739	0.7929	Yes
	Post	0.976670	0.3873	Yes
HUTE	Pre	0.966550	0.1657	Yes
	Post	0.976956	0.4001	Yes
SUTE	Pre	0.988588	0.9431	Yes

	Post	0.971365	0.1942	Yes
ASD	Pre	0.878155	<0.0001	No
	Post	0.917288	<0.0001	No
AAB	Pre	0.946816	0.0106	No
	Post	0.909563	<0.0001	No
GAB	Pre	0.912398	<0.0001	No
	Post	0.940865	0.0006	No
BREAK	Pre	0.979374	0.6036	Yes
	Post	0.955560	0.0126	No
CANN	Pre	0.968278	0.2037	Yes
	Post	0.953212	0.0079	No

57th WG F-15:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.848942	<0.0001	No
	Post	0.941393	0.0007	No
MH/FH	Pre	0.836087	0.0000	No
	Post	0.940186	0.0007	No
FSE	Pre	0.750704	0.0000	No
	Post	0.959726	0.0659	Yes
ACFT	Pre	0.821599	0.0000	No
	Post	0.941332	0.0007	No
TNMCS	Pre	0.865985	<0.0001	No
	Post	0.974134	0.2874	Yes
HUTE	Pre	0.984871	0.7747	Yes
	Post	0.984501	0.7758	Yes
SUTE	Pre	0.988047	0.9029	Yes
	Post	0.981891	0.6483	Yes
ASD	Pre	0.911248	<0.0001	No
	Post	0.910354	<0.0001	No
AAB	Pre	0.654848	0.0000	No
	Post	0.711035	0.0000	No
GAB	Pre	0.954128	0.0055	No
	Post	0.982073	0.7201	Yes
CANN	Pre	0.927271	<0.0001	No
	Post	0.943815	0.0014	No

F-15 Pre-Reorganization:

Variable	Unit	W Score	P Value	Normal?
TNMCM	1FW	0.964341	0.1022	Yes

	33FW	0.901743	<0.0001	No
	18WG	0.974272	0.3887	Yes
	57WG	0.848942	<0.0001	No
MH/FH	1FW	0.879550	<0.0001	No
	33FW	0.937640	<0.0001	No
	18WG	0.931535	0.0010	No
	57WG	0.836087	0.0000	No
FSE	1FW	0.974029	0.5579	Yes
	33FW	0.833347	0.0000	No
	18WG	0.946090	0.0155	No
	57WG	0.750704	0.0000	No
ACFT	1FW	0.890473	<0.0001	No
	33FW	0.794924	0.0000	No
	18WG	0.975021	0.4176	Yes
	57WG	0.821599	0.0000	No
TNMCS	1FW	0.883534	<0.0001	No
	33FW	0.825585	0.0000	No
	18WG	0.983739	0.7929	Yes
	57WG	0.865985	<0.0001	No
HUTE	1FW	0.98890	0.9374	Yes
	33FW	0.977750	0.4037	Yes
	18WG	0.966550	0.1657	Yes
	57WG	0.984871	0.7747	Yes
SUTE	1FW	0.976716	0.4118	Yes
	33FW	0.980465	0.5433	Yes
	18WG	0.988588	0.9431	Yes
	57WG	0.988047	0.9029	Yes
ASD	1FW	0.908348	<0.0001	No
	33FW	0.877169	<0.0001	No
	18WG	0.878155	<0.0001	No
	57WG	0.911248	<0.0001	No
AAB	1FW	0.970698	0.1860	Yes
	33FW	0.911159	<0.0001	No
	18WG	0.946816	0.0106	No
	57WG	0.654848	0.0000	No
GAB	1FW	0.947757	0.0032	No
	33FW	0.925582	<0.0001	No
	18WG	0.912398	<0.0001	No
	57WG	0.954128	0.0055	No
CANN	1FW	0.926710	<0.0001	No
	33FW	0.936011	<0.0001	No
	18WG	0.968278	0.2037	Yes
	57WG	0.927271	<0.0001	No

F-15 Post-Reorganization:

Variable	Unit	W Score	P Value	Normal?
TNMCM	1FW	0.922150	<0.0001	No
	33FW	0.949459	0.0037	No
	18WG	0.908784	<0.0001	No
	57WG	0.941393	0.0007	No
8HR	1FW	0.961368	0.0796	Yes
	33FW	0.952749	0.0072	No
	18WG	0.969013	0.1369	Yes
	57WG	0.985844	0.8650	Yes
MH/FH	1FW	0.957223	0.0173	No
	33FW	0.926427	<0.0001	No
	18WG	0.982512	0.6772	Yes
	57WG	0.940186	0.0007	No
REP/REC	1FW	0.950709	0.0343	No
	33FW	0.931011	0.0002	No
	18WG	0.950108	0.0318	No
	57WG	0.951502	0.1631	Yes
FSE	1FW	0.952749	0.0229	No
	33FW	0.882560	<0.0001	No
	18WG	0.854655	<0.0001	No
	57WG	0.959726	0.0659	Yes
ACFT	1FW	0.897958	<0.0001	No
	33FW	0.904221	<0.0001	No
	18WG	0.941415	0.0007	No
	57WG	0.941332	0.0007	No
TNMCS	1FW	0.917125	<0.0001	No
	33FW	0.971252	0.1911	Yes
	18WG	0.976670	0.3873	Yes
	57WG	0.974134	0.2874	Yes
HUTE	1FW	0.981250	0.6126	Yes
	33FW	0.959950	0.0290	No
	18WG	0.976956	0.4001	Yes
	57WG	0.984501	0.7758	Yes
SUTE	1FW	0.959128	0.0249	No
	33FW	0.988868	0.9324	Yes
	18WG	0.971365	0.1942	Yes
	57WG	0.981891	0.6483	Yes
ASD	1FW	0.927808	<0.0001	No
	33FW	0.925642	<0.0001	No
	18WG	0.917288	<0.0001	No
	57WG	0.910354	<0.0001	No
AAB	1FW	0.886897	<0.0001	No

	33FW	0.898269	<0.0001	No
	18WG	0.909563	<0.0001	No
	57WG	0.711035	0.0000	No
GAB	1FW	0.965951	0.1459	Yes
	33FW	0.977614	0.4305	Yes
	18WG	0.940865	0.0006	No
	57WG	0.982073	0.7201	Yes
BREAK	1FW	0.978530	0.5568	Yes
	33FW	0.970140	0.1623	Yes
	18WG	0.955560	0.0126	No
	57WG	0.982158	0.7204	Yes
CANN	1FW	0.955569	0.0126	No
	33FW	0.974789	0.3086	Yes
	18WG	0.953212	0.0079	No
	57WG	0.943815	0.0014	No

388th FW:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.819225	0.0000	No
	Post	0.913981	<0.0001	No
REP	Pre	0.848985	<0.0001	No
	Post	0.961878	0.0413	No
REC	Pre	0.962691	0.0493	No
	Post	0.944904	0.0014	No
MH/FH	Pre	0.913781	0.0025	No
	Post	0.856237	<0.0001	No
MSE	Pre	0.820400	<0.0001	No
	Post	0.705242	0.0000	No
FSE	Pre	0.878361	<0.0001	No
	Post	0.922908	<0.0001	No
ACFT	Pre	0.911538	<0.0001	No
	Post	0.812038	0.0000	No
TNMCS	Pre	0.713969	0.0000	No
	Post	0.951252	0.0053	No
HUTE	Pre	0.973009	0.2182	Yes
	Post	0.979800	0.5381	Yes
SUTE	Pre	0.980171	0.5332	Yes
	Post	0.975301	0.3289	Yes
ASD	Pre	0.705271	0.0000	No
	Post	0.881185	<0.0001	No
GAB	Pre	0.971415	0.1770	Yes
	Post	0.942180	0.0008	No

BREAK	Pre	0.983542	0.7161	Yes
	Post	0.974236	0.2876	Yes
CANN	Pre	0.922203	<0.0001	No
	Post	0.926108	<0.0001	No

347th WG:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.977456	0.7439	Yes
	Post	0.917594	<0.0001	No
REP	Pre	0.863079	<0.0001	No
	Post	0.759478	0.0000	No
REC	Pre	0.908267	0.0038	No
	Post	0.921826	<0.0001	No
MH/FH	Pre	0.919887	0.0524	Yes
	Post	0.862353	<0.0001	No
ACFT	Pre	0.686929	<0.0001	No
	Post	0.71500	0.0000	No
TNMCS	Pre	0.984022	0.9109	Yes
	Post	0.919708	<0.0001	No
HUTE	Pre	0.971891	0.5365	Yes
	Post	0.965216	0.0739	Yes
SUTE	Pre	0.955379	0.1742	Yes
	Post	0.921053	<0.0001	No
ASD	Pre	0.864598	<0.0001	No
	Post	0.944418	0.0013	No
AAB	Pre	0.684071	<0.0001	No
	Post	0.892480	<0.0001	No
GAB	Pre	0.921840	0.0116	No
	Post	0.970556	0.1726	Yes
BREAK	Pre	0.912747	0.0055	No
	Post	0.975649	0.3432	Yes
CANN	Pre	0.849721	0.0006	No
	Post	0.902714	<0.0001	No

52nd FW:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.900757	0.0078	No
	Post	0.911298	<0.0001	No
REP	Pre	0.875482	0.0011	No
	Post	0.749240	0.0000	No

REC	Pre	0.903427	0.0068	No
	Post	0.903088	<0.0001	No
MH/FH	Pre	0.942756	0.2823	Yes
	Post	0.912506	<0.0001	No
FSE	Pre	0.452008	<0.0001	No
	Post	0.921505	<0.0001	No
ACFT	Pre	0.804924	<0.0001	No
	Post	0.774869	0.0000	No
TNMCS	Pre	0.994615	0.9997	Yes
	Post	0.978619	0.4824	Yes
HUTE	Pre	0.958518	0.2858	Yes
	Post	0.862933	<0.0001	No
SUTE	Pre	0.954415	0.2208	Yes
	Post	0.979750	0.5356	Yes
ASD	Pre	0.856677	0.0003	No
	Post	0.674170	0.0000	No
AAB	Pre	0.760279	<0.0001	No
	Post	0.897558	<0.0001	No
GAB	Pre	0.918274	0.0306	No
	Post	0.963897	0.0590	Yes
BREAK	Pre	0.966398	0.4533	Yes
	Post	0.874326	<0.0001	No
CANN	Pre	0.951061	0.3947	Yes
	Post	0.904143	<0.0001	No

57th WG F-16:

Variable	Period	W Score	P Value	Normal?
TNMCM	Pre	0.943221	0.0004	No
	Post	0.945415	0.0016	No
REP	Pre	0.956848	0.0101	No
	Post	0.935370	0.0002	No
REC	Pre	0.916553	<0.0001	No
	Post	0.961593	0.0392	No
MH/FH	Pre	0.941702	0.0003	No
	Post	0.934484	0.0021	No
FSE	Pre	0.887377	<0.0001	No
	Post	0.972945	0.3302	Yes
ACFT	Pre	0.92215	<0.0001	No
	Post	0.823845	<0.0001	No
TNMCS	Pre	0.734634	0.0000	No
	Post	0.925783	<0.0001	No
HUTE	Pre	0.985581	0.8076	Yes

	Post	0.973104	0.2476	Yes
SUTE	Pre	0.977504	0.3919	Yes
	Post	0.975518	0.3378	Yes
ASD	Pre	0.909228	<0.0001	No
	Post	0.934295	0.0001	No
AAB	Pre	0.803445	0.0000	No
	Post	0.742360	0.0000	No
GAB	Pre	0.972007	0.1819	Yes
	Post	0.954555	0.0103	No
BREAK	Pre	0.938133	<0.0001	No
	Post	0.971476	0.1973	Yes
CANN	Pre	0.821801	0.0000	No
	Post	0.939550	0.0004	No

F-16 Pre-Reorganization:

Variable	Unit	W Score	P Value	Normal?
TNMCM	388FW	0.781583	0.0000	No
	347WG	0.977456	0.7439	Yes
	52FW	0.900757	0.0078	No
	57WG	0.943221	0.0004	No
REP	388FW	0.848985	<0.0001	No
	347WG	0.863079	<0.0001	No
	52FW	0.875482	0.0011	No
	57WG	0.956848	0.0101	No
REC	388FW	0.962691	0.0493	No
	347WG	0.908267	0.0038	No
	52FW	0.903427	0.0068	No
	57WG	0.916553	<0.0001	No
MH/FH	388FW	0.913781	0.0025	No
	347WG	0.919887	0.0524	Yes
	52FW	0.942756	0.2823	Yes
	57WG	0.941702	0.0003	No
ACFT	388FW	0.911538	<0.0001	No
	347WG	0.686929	<0.0001	No
	52FW	0.804924	<0.0001	No
	57WG	0.92215	<0.0001	No
TNMCS	388FW	0.713969	0.0000	No
	347WG	0.984022	0.9109	Yes
	52FW	0.994615	0.9997	Yes
	57WG	0.734634	0.0000	No
HUTE	388FW	0.973009	0.2182	Yes
	347WG	0.971891	0.5365	Yes

	52FW	0.958518	0.2858	Yes
	57WG	0.985581	0.8076	Yes
SUTE	388FW	0.980171	0.5332	Yes
	347WG	0.955379	0.1742	Yes
	52FW	0.954415	0.2208	Yes
	57WG	0.977504	0.3919	Yes
ASD	388FW	0.881185	<0.0001	No
	347WG	0.864598	<0.0001	No
	52FW	0.856677	0.0003	No
	57WG	0.909228	<0.0001	No
GAB	388FW	0.971415	0.1770	Yes
	347WG	0.921840	0.0116	No
	52FW	0.918274	0.0306	No
	57WG	0.972007	0.1819	Yes
BREAK	388FW	0.983542	0.7161	Yes
	347WG	0.912747	0.0055	No
	52FW	0.966398	0.4533	Yes
	57WG	0.938133	<0.0001	No
CANN	388FW	0.922203	<0.0001	No
	347WG	0.849721	0.0006	No
	52FW	0.951061	0.3947	Yes
	57WG	0.821801	0.0000	No

F-16 Post-Reorganization:

Variable	Unit	W Score	P Value	Normal?
TNMCM	388FW	0.913981	<0.0001	No
	347WG	0.917594	<0.0001	No
	52FW	0.911298	<0.0001	No
	57WG	0.945415	0.0016	No
4HR	388FW	0.980484	0.5731	Yes
	347WG	0.968005	0.1883	Yes
	52FW	0.975735	0.4262	Yes
	57WG	0.965858	0.1481	Yes
8HR	388FW	0.951154	0.0052	No
	347WG	0.955569	0.0349	No
	52FW	0.949699	0.0068	No
	57WG	0.977751	0.5220	Yes
REP	388FW	0.961878	0.0413	No
	347WG	0.759478	0.0000	No
	52FW	0.749240	0.0000	No
	57WG	0.935370	0.0002	No
REC	388FW	0.944904	0.0014	No

	347WG	0.921826	<0.0001	No
	52FW	0.903088	<0.0001	No
	57WG	0.961593	0.0392	No
MH/FH	388FW	0.856237	<0.0001	No
	347WG	0.862353	<0.0001	No
	52FW	0.912506	<0.0001	No
	57WG	0.934484	0.0021	No
FSE	388FW	0.922908	<0.0001	No
	347WG	0.93811	0.0010	No
	52FW	0.921505	<0.0001	No
	57WG	0.972945	0.3302	Yes
ACFT	388FW	0.812038	0.0000	No
	347WG	0.71500	0.0000	No
	52FW	0.774869	0.0000	No
	57WG	0.823845	<0.0001	No
TNMCS	388FW	0.951252	0.0053	No
	347WG	0.919708	<0.0001	No
	52FW	0.978619	0.4824	Yes
	57WG	0.925783	<0.0001	No
HUTE	388FW	0.979800	0.5381	Yes
	347WG	0.965216	0.0739	Yes
	52FW	0.862933	<0.0001	No
	57WG	0.973104	0.2476	Yes
SUTE	388FW	0.975301	0.3289	Yes
	347WG	0.921053	<0.0001	No
	52FW	0.979750	0.5356	Yes
	57WG	0.975518	0.3378	Yes
ASD	388FW	0.881185	<0.0001	No
	347WG	0.944418	0.0013	No
	52FW	0.674170	0.0000	No
	57WG	0.934295	0.0001	No
AAB	388FW	0.910327	<0.0001	No
	347WG	0.892480	<0.0001	No
	52FW	0.897558	<0.0001	No
	57WG	0.742360	0.0000	No
GAB	388FW	0.942180	0.0008	No
	347WG	0.970556	0.1726	Yes
	52FW	0.963897	0.0590	Yes
	57WG	0.954555	0.0103	No
BREAK	388FW	0.974236	0.2876	Yes
	347WG	0.975649	0.3432	Yes
	52FW	0.874326	<0.0001	No
	57WG	0.971476	0.1973	Yes
CANN	388FW	0.926108	<0.0001	No

	347WG	0.902714	<0.0001	No
	52FW	0.904143	<0.0001	No
	57WG	0.939550	0.0004	No

Appendix E - Equal Variance Test Results

1st FW:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	28.4791	<0.0001	Unequal
	Brown-Forsythe	30.2253	<0.0001	Unequal
	Levene	38.2210	<0.0001	Unequal
	Bartlett	27.0160	<0.0001	Unequal
MH/FH	O'Brien	34.3974	<0.0001	Unequal
	Brown-Forsythe	47.0199	<0.0001	Unequal
	Levene	84.5988	<0.0001	Unequal
	Bartlett	58.1548	<0.0001	Unequal
FSE	O'Brien	35.1688	<0.0001	Unequal
	Brown-Forsythe	80.5643	<0.0001	Unequal
	Levene	83.4228	<0.0001	Unequal
	Bartlett	161.9406	<0.0001	Unequal
ACFT	O'Brien	46.9411	<0.0001	Unequal
	Brown-Forsythe	63.1152	<0.0001	Unequal
	Levene	120.8442	<0.0001	Unequal
	Bartlett	49.8961	<0.0001	Unequal
TNMCS	O'Brien	0.0004	0.9840	Equal
	Brown-Forsythe	0.0422	0.8375	Equal
	Levene	0.0879	0.7672	Equal
	Bartlett	0.0008	0.9771	Equal
HUTE	O'Brien	3.8663	0.0508	Equal
	Brown-Forsythe	3.7071	0.0558	Equal
	Levene	3.8070	0.0526	Equal
	Bartlett	4.0045	0.0454	Unequal
SUTE	O'Brien	3.6765	0.0568	Equal
	Brown-Forsythe	1.8905	0.1709	Equal
	Levene	1.8221	0.1788	Equal
	Bartlett	5.4179	0.0199	Unequal
ASD	O'Brien	32.3389	<0.0001	Unequal
	Brown-Forsythe	48.8076	<0.0001	Unequal
	Levene	69.4074	<0.0001	Unequal
	Bartlett	85.3677	<0.0001	Unequal
AAB	O'Brien	15.3815	<0.0001	Unequal
	Brown-Forsythe	29.9534	<0.0001	Unequal
	Levene	38.3528	<0.0001	Unequal
	Bartlett	68.0831	<0.0001	Unequal
GAB	O'Brien	16.9282	<0.0001	Unequal

	Brown-Forsythe	23.7535	<0.0001	Unequal
	Levene	24.6219	<0.0001	Unequal
	Bartlett	15.6798	<0.0001	Unequal
CANN	O'Brien	2.4523	0.1192	Equal
	Brown-Forsythe	2.9457	0.0879	Equal
	Levene	2.9850	0.0858	Equal
	Bartlett	1.6619	0.1973	Equal

33rd FW:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	0.5509	0.4589	Equal
	Brown-Forsythe	0.1816	0.6705	Equal
	Levene	0.0887	0.7661	Equal
	Bartlett	0.7950	0.3726	Equal
4HR	O'Brien	3.1732	0.0766	Equal
	Brown-Forsythe	1.1608	0.2828	Equal
	Levene	1.1848	0.2779	Equal
	Bartlett	3.4352	0.0638	Equal
8HR	O'Brien	7.3509	0.0074	Unequal
	Brown-Forsythe	8.2223	0.0047	Unequal
	Levene	9.3232	0.0026	Unequal
	Bartlett	10.6848	0.0011	Unequal
MH/FH	O'Brien	18.7180	<0.0001	Unequal
	Brown-Forsythe	12.7095	0.0005	Unequal
	Levene	17.4616	<0.0001	Unequal
	Bartlett	14.166	0.0002	Unequal
MSE	O'Brien	22.1464	<0.0001	Unequal
	Brown-Forsythe	66.7939	<0.0001	Unequal
	Levene	88.1223	<0.0001	Unequal
	Bartlett	131.5650	<0.0001	Unequal
FSE	O'Brien	121.2386	<0.0001	Unequal
	Brown-Forsythe	97.5392	<0.0001	Unequal
	Levene	158.1319	<0.0001	Unequal
	Bartlett	102.3663	<0.0001	Unequal
ACFT	O'Brien	0.0530	0.8182	Equal
	Brown-Forsythe	0.1880	0.6651	Equal
	Levene	0.4965	0.4819	Equal
	Bartlett	0.4143	0.5198	Equal
TNMCS	O'Brien	10.6875	0.0013	Unequal
	Brown-Forsythe	5.1129	0.0249	Unequal
	Levene	11.4020	0.0009	Unequal
	Bartlett	15.5604	<0.0001	Unequal

HUTE	O'Brien	27.4695	<0.0001	Unequal
	Brown-Forsythe	27.9220	<0.0001	Unequal
	Levene	31.6732	<0.0001	Unequal
	Bartlett	27.6215	<0.0001	Unequal
SUTE	O'Brien	1.1899	0.2767	Equal
	Brown-Forsythe	0.8812	0.3491	Equal
	Levene	0.7363	0.3919	Equal
	Bartlett	1.2050	0.2723	Equal
ASD	O'Brien	33.2474	<0.0001	Unequal
	Brown-Forsythe	86.8017	<0.0001	Unequal
	Levene	87.5491	<0.0001	Unequal
	Bartlett	115.7883	<0.0001	Unequal
AAB	O'Brien	14.8999	0.0002	Unequal
	Brown-Forsythe	22.6399	<0.0001	Unequal
	Levene	25.8333	<0.0001	Unequal
	Bartlett	15.7956	<0.0001	Unequal
GAB	O'Brien	0.0690	0.7930	Equal
	Brown-Forsythe	0.0013	0.9712	Equal
	Levene	0.2519	0.6163	Equal
	Bartlett	0.0633	0.8013	Equal
BREAK	O'Brien	0.0535	0.8173	Equal
	Brown-Forsythe	0.2712	0.6032	Equal
	Levene	0.2998	0.5847	Equal
	Bartlett	0.0416	0.8383	Equal
CANN	O'Brien	11.5932	0.0008	Unequal
	Brown-Forsythe	19.7483	<0.0001	Unequal
	Levene	20.9032	<0.0001	Unequal
	Bartlett	20.9036	<0.0001	Unequal

18^{th} WG:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	2.1666	0.1430	Equal
	Brown-Forsythe	1.3160	0.2530	Equal
	Levene	2.6088	0.1082	Equal
	Bartlett	2.5278	0.1119	Equal
8HR	O'Brien	1.1878	0.2774	Equal
	Brown-Forsythe	0.4124	0.5217	Equal
	Levene	0.4131	0.5213	Equal
	Bartlett	1.1633	0.2808	Equal
MH/FH	O'Brien	0.0399	0.8420	Equal
	Brown-Forsythe	0.0229	0.8800	Equal
	Levene	0.0138	0.9068	Equal

	Bartlett	0.0449	0.8321	Equal
REP	O'Brien	1.6942	0.1954	Equal
	Brown-Forsythe	3.3789	0.0684	Equal
	Levene	3.4394	0.0660	Equal
	Bartlett	6.6398	0.0100	Unequal
REC	O'Brien	0.3840	0.5366	Equal
	Brown-Forsythe	3.0358	0.0838	Equal
	Levene	2.7922	0.0972	Equal
	Brtlett	0.5695	0.4505	Equal
FSE	O'Brien	3.2435	0.0737	Equal
	Brown-Forsythe	2.3810	0.1249	Equal
	Levene	3.6692	0.0573	Equal
	Bartlett	9.3570	0.0022	Unequal
ACFT	O'Brien	1.0795	0.3004	Equal
	Brown-Forsythe	0.2863	0.5933	Equal
	Levene	0.7419	0.3903	Equal
	Bartlett	1.2926	0.2556	Equal
TNMCS	O'Brien	18.5926	<0.0001	Unequal
	Brown-Forsythe	23.4727	<0.0001	Unequal
	Levene	24.6266	<0.0001	Unequal
	Bartlett	27.3640	<0.0001	Unequal
HUTE	O'Brien	10.6082	0.0014	Unequal
	Brown-Forsythe	6.6319	0.0023	Unequal
	Levene	10.4122	0.0015	Unequal
	Bartlett	17.6863	<0.0001	Unequal
SUTE	O'Brien	3.8885	0.0503	Equal
	Brown-Forsythe	2.9215	0.0893	Equal
	Levene	3.1328	0.0786	Equal
	Bartlett	5.2378	0.0221	Unequal
ASD	O'Brien	23.3746	<0.0001	Unequal
	Brown-Forsythe	40.0543	<0.0001	Unequal
	Levene	53.0456	<0.0001	Unequal
	Bartlett	74.7276	<0.0001	Unequal
AAB	O'Brien	0.2798	0.5975	Equal
	Brown-Forsythe	0.0335	0.8550	Equal
	Levene	0.0088	0.9253	Equal
	Bartlett	0.5561	0.4558	Equal
GAB	O'Brien	17.8620	<0.0001	Unequal
	Brown-Forsythe	19.2236	<0.0001	Unequal
	Levene	29.3673	<0.0001	Unequal
	Bartlett	16.2863	<0.0001	Unequal
BREAK	O'Brien	8.6610	0.0037	Unequal
	Brown-Forsythe	7.2480	0.0078	Unequal
	Levene	7.6174	0.0065	Unequal

	Bartlett	7.1907	0.0073	Unequal
CANN	O'Brien	6.3555	0.0127	Unequal
	Brown-Forsythe	5.0320	0.0262	Unequal
	Levene	6.0081	0.0153	Unequal
	Bartlett	6.8933	<0.0001	Unequal

57th WG F-15:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	5.9069	0.0160	Unequal
	Brown-Forsythe	11.5107	0.0008	Unequal
	Levene	11.7279	0.0008	Unequal
	Bartlett	15.5112	<0.0001	Unequal
MH/FH	O'Brien	3.5331	0.0617	Equal
	Brown-Forsythe	0.2886	0.5917	Equal
	Levene	2.5095	0.1148	Equal
	Bartlett	5.6891	0.0171	Unequal
FSE	O'Brien	12.0501	0.0007	Unequal
	Brown-Forsythe	32.1138	<0.0001	Unequal
	Levene	31.4669	<0.0001	Unequal
	Bartlett	42.0018	<0.0001	Unequal
ACFT	O'Brien	0.0102	0.9197	Equal
	Brown-Forsythe	1.3758	0.2423	Equal
	Levene	1.4241	0.2342	Equal
	Bartlett	0.0553	0.8140	Equal
TNMCS	O'Brien	17.1501	<0.0001	Unequal
	Brown-Forsythe	7.4845	0.0068	Unequal
	Levene	22.5967	<0.0001	Unequal
	Bartlett	21.2537	<0.0001	Unequal
HUTE	O'Brien	0.6533	0.4199	Equal
	Brown-Forsythe	0.2672	0.6058	Equal
	Levene	0.2076	0.6492	Equal
	Bartlett	0.7277	0.3936	Equal
SUTE	O'Brien	0.0013	0.9717	Equal
	Brown-Forsythe	0.0050	0.9436	Equal
	Levene	0.0038	0.9511	Equal
	Bartlett	0.0015	0.9689	Equal
ASD	O'Brien	9.1143	0.0029	Unequal
	Brown-Forsythe	12.4062	0.0005	Unequal
	Levene	18.0353	<0.0001	Unequal
	Bartlett	20.6301	<0.0001	Unequal
AAB	O'Brien	5.1815	0.0241	Unequal
	Brown-Forsythe	5.0463	0.0259	Unequal

	Levene	13.4457	0.0003	Unequal
	Bartlett	25.2026	<0.0001	Unequal
GAB	O'Brien	6.7348	0.0103	Unequal
	Brown-Forsythe	6.3738	0.0125	Unequal
	Levene	6.3284	0.0128	Unequal
	Bartlett	7.0342	0.0080	Unequal
CANN	O'Brien	6.4010	0.0122	Unequal
	Brown-Forsythe	2.6526	0.1050	Equal
	Levene	3.2897	0.0713	Equal
	Bartlett	8.1085	0.0044	Unequal

F-15 Pre-Reorganization:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	8.0853	<0.0001	Unequal
	Brown-Forsythe	8.151	<0.0001	Unequal
	Levene	12.0234	<0.0001	Unequal
	Bartlett	21.1023	<0.0001	Unequal
MH/FH	O'Brien	6.8130	0.0002	Unequal
	Brown-Forsythe	6.2175	0.0004	Unequal
	Levene	12.7383	<0.0001	Unequal
	Bartlett	14.6881	<0.0001	Unequal
FSE	O'Brien	2.8780	0.0362	Unequal
	Brown-Forsythe	6.0772	0.0005	Unequal
	Levene	12.3923	<0.0001	Unequal
	Bartlett	33.2387	<0.0001	Unequal
ACFT	O'Brien	1.8730	0.1338	Equal
	Brown-Forsythe	12.5195	<0.0001	Unequal
	Levene	12.4771	<0.0001	Unequal
	Bartlett	41.0299	<0.0001	Unequal
TNMCS	O'Brien	28.9880	<0.0001	Unequal
	Brown-Forsythe	22.0766	<0.0001	Unequal
	Levene	49.7643	<0.0001	Unequal
	Bartlett	58.2247	<0.0001	Unequal
HUTE	O'Brien	3.9784	0.0083	Unequal
	Brown-Forsythe	5.2015	0.0016	Unequal
	Levene	5.3074	0.0014	Unequal
	Bartlett	5.9067	0.0005	Unequal
SUTE	O'Brien	1.3293	0.2646	Equal
	Brown-Forsythe	2.3980	0.0678	Equal
	Levene	2.5827	0.0532	Equal
	Bartlett	3.4893	0.0150	Unequal
ASD	O'Brien	0.8398	0.4727	Equal

	Brown-Forsythe	2.0799	0.1025	Equal
	Levene	2.6026	0.0518	Equal
	Bartlett	1.6828	0.1683	Equal
AAB	O'Brien	6.6017	0.0002	Unequal
	Brown-Forsythe	15.3227	<0.0001	Unequal
	Levene	23.4542	<0.0001	Unequal
	Bartlett	32.5455	<0.0001	Unequal
GAB	O'Brien	10.2407	<0.0001	Unequal
	Brown-Forsythe	9.8422	<0.0001	Unequal
	Levene	15.1137	<0.0001	Unequal
	Bartlett	9.5327	<0.0001	Unequal
CANN	O'Brien	10.4222	<0.0001	Unequal
	Brown-Forsythe	13.0466	<0.0001	Unequal
	Levene	14.9064	<0.0001	Unequal
	Bartlett	21.4974	<0.0001	Unequal

F-15 Post-Reorganization:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	11.0343	<0.0001	Unequal
	Brown-Forsythe	17.8309	<0.0001	Unequal
	Levene	20.0198	<0.0001	Unequal
	Bartlett	28.1956	<0.0001	Unequal
8HR	O'Brien	27.7925	<0.0001	Unequal
	Brown-Forsythe	18.3612	<0.0001	Unequal
	Levene	45.8800	<0.0001	Unequal
	Bartlett	92.2916	<0.0001	Unequal
MH/FH	O'Brien	16.6682	<0.0001	Unequal
	Brown-Forsythe	17.1362	<0.0001	Unequal
	Levene	21.2336	<0.0001	Unequal
	Bartlett	17.1916	<0.0001	Unequal
REP/REC	O'Brien	15.8300	<0.0001	Unequal
	Brown-Forsythe	26.0491	<0.0001	Unequal
	Levene	26.6204	<0.0001	Unequal
	Bartlett	32.9939	<0.0001	Unequal
FSE	O'Brien	16.1359	<0.0001	Unequal
	Brown-Forsythe	31.9382	<0.0001	Unequal
	Levene	38.1917	<0.0001	Unequal
	Bartlett	42.4435	<0.0001	Unequal
ACFT	O'Brien	75.7763	<0.0001	Unequal
	Brown-Forsythe	79.4533	<0.0001	Unequal
	Levene	141.7247	<0.0001	Unequal
	Bartlett	90.2045	<0.0001	Unequal

TNMCS	O'Brien	9.5731	<0.0001	Unequal
	Brown-Forsythe	10.6283	<0.0001	Unequal
	Levene	11.2329	<0.0001	Unequal
	Bartlett	11.3406	<0.0001	Unequal
HUTE	O'Brien	8.7858	<0.0001	Unequal
	Brown-Forsythe	10.3110	<0.0001	Unequal
	Levene	11.1938	<0.0001	Unequal
	Bartlett	10.6297	<0.0001	Unequal
SUTE	O'Brien	3.1002	0.0268	Unequal
	Brown-Forsythe	1.8286	0.1415	Equal
	Levene	1.8889	0.1310	Equal
	Bartlett	3.1591	0.0236	Unequal
ASD	O'Brien	8.1285	<0.0001	Unequal
	Brown-Forsythe	12.4496	<0.0001	Unequal
	Levene	14.2544	<0.0001	Unequal
	Bartlett	16.3707	<0.0001	Unequal
AAB	O'Brien	5.3835	0.0012	Unequal
	Brown-Forsythe	7.9478	<0.0001	Unequal
	Levene	13.5692	<0.0001	Unequal
	Bartlett	35.5442	<0.0001	Unequal
GAB	O'Brien	30.6387	<0.0001	Unequal
	Brown-Forsythe	24.2905	<0.0001	Unequal
	Levene	29.9478	<0.0001	Unequal
	Bartlett	22.6647	<0.0001	Unequal
BREAK	O'Brien	33.8501	<0.0001	Unequal
	Brown-Forsythe	24.2061	<0.0001	Unequal
	Levene	29.2551	<0.0001	Unequal
	Bartlett	31.6600	<0.0001	Unequal
CANN	O'Brien	11.6141	<0.0001	Unequal
	Brown-Forsythe	10.9055	<0.0001	Unequal
	Levene	12.3079	<0.0001	Unequal
	Bartlett	7.5286	<0.0001	Unequal

388th FW:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	14.7274	0.0002	Unequal
	Brown-Forsythe	29.3536	<0.0001	Unequal
	Levene	28.6903	<0.0001	Unequal
	Bartlett	11.4713	0.0007	Unequal
REP	O'Brien	29.0254	<0.0001	Unequal
	Brown-Forsythe	39.0190	<0.0001	Unequal
	Levene	78.1464	<0.0001	Unequal

	Bartlett	128.6421	<0.0001	Unequal
REC	O'Brien	9.0090	0.0031	Unequal
	Brown-Forsythe	12.7381	0.0005	Unequal
	Levene	12.8244	0.0004	Unequal
	Bartlett	15.0775	0.0001	Unequal
MH/FH	O'Brien	37.1602	<0.0001	Unequal
	Brown-Forsythe	52.5038	<0.0001	Unequal
	Levene	56.5796	<0.0001	Unequal
	Bartlett	83.2330	<0.0001	Unequal
MSE	O'Brien	7.9147	0.0056	Unequal
	Brown-Forsythe	9.0597	0.0031	Unequal
	Levene	30.4887	<0.0001	Unequal
	Bartlett	76.1942	<0.0001	Unequal
FSE	O'Brien	29.5018	<0.0001	Unequal
	Brown-Forsythe	50.4749	<0.0001	Unequal
	Levene	49.4871	<0.0001	Unequal
	Bartlett	53.4004	<0.0001	Unequal
ACFT	O'Brien	58.3983	<0.0001	Unequal
	Brown-Forsythe	66.6105	<0.0001	Unequal
	Levene	67.0964	<0.0001	Unequal
	Bartlett	65.0386	<0.0001	Unequal
TNMCS	O'Brien	4.5099	0.0350	Unequal
	Brown-Forsythe	0.2361	0.6276	Equal
	Levene	0.5018	0.4796	Equal
	Bartlett	9.6660	0.0019	Unequal
HUTE	O'Brien	3.4503	0.0648	Equal
	Brown-Forsythe	2.6316	0.1064	Equal
	Levene	3.0955	0.0801	Equal
	Bartlett	2.7099	0.0997	Equal
SUTE	O'Brien	9.5570	0.0023	Unequal
	Brown-Forsythe	5.5733	0.0192	Unequal
	Levene	7.5526	0.0066	Unequal
	Bartlett	9.6236	0.0019	Unequal
ASD	O'Brien	4.7401	0.0307	Unequal
	Brown-Forsythe	25.9688	<0.0001	Unequal
	Levene	36.7790	<0.0001	Unequal
	Bartlett	17.2971	<0.0001	Unequal
GAB	O'Brien	0.0121	0.9125	Equal
	Brown-Forsythe	0.0012	0.9727	Equal
	Levene	0.0186	0.8917	Equal
	Bartlett	0.0159	0.8995	Equal
BREAK	O'Brien	2.7004	0.1020	Equal
	Brown-Forsythe	1.1819	0.2784	Equal
	Levene	1.3541	0.2460	Equal

	Bartlett	3.3212	0.0684	Equal
CANN	O'Brien	0.1925	0.6614	Equal
	Brown-Forsythe	0.1658	0.6843	Equal
	Levene	0.0422	0.8375	Equal
	Bartlett	0.4749	0.4907	Equal

347th WG:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	29.9768	<0.0001	Unequal
	Brown-Forsythe	48.3872	<0.0001	Unequal
	Levene	50.6245	<0.0001	Unequal
	Bartlett	46.3293	<0.0001	Unequal
REP	O'Brien	31.5269	<0.0001	Unequal
	Brown-Forsythe	15.9413	0.0001	Unequal
	Levene	45.4034	<0.0001	Unequal
	Bartlett	26.4218	<0.0001	Unequal
REC	O'Brien	13.9222	0.0003	Unequal
	Brown-Forsythe	12.1793	0.0007	Unequal
	Levene	17.5518	<0.0001	Unequal
	Bartlett	13.3013	0.0003	Unequal
MH/FH	O'Brien	3.9073	0.0504	Equal
	Brown-Forsythe	1.5074	0.2220	Equal
	Levene	4.6794	0.0326	Unequal
	Bartlett	61.1497	<0.0001	Unequal
ACFT	O'Brien	3.6346	0.0587	Equal
	Brown-Forsythe	3.1204	0.0796	Equal
	Levene	9.6753	0.0023	Unequal
	Bartlett	4.1067	0.0427	Unequal
TNMCS	O'Brien	3.6592	0.0580	Equal
	Brown-Forsythe	8.0440	0.0053	Unequal
	Levene	8.3344	0.0046	Unequal
	Bartlett	5.7501	0.0165	Unequal
HUTE	O'Brien	0.1041	0.7474	Equal
	Brown-Forsythe	0.5672	0.4527	Equal
	Levene	0.4875	0.4863	Equal
	Bartlett	0.1582	0.6908	Equal
SUTE	O'Brien	2.3052	0.1313	Equal
	Brown-Forsythe	3.2085	0.0755	Equal
	Levene	3.8618	0.0515	Equal
	Bartlett	6.7294	0.0095	Unequal
ASD	O'Brien	12.2762	0.0006	Unequal
	Brown-Forsythe	18.0537	<0.0001	Unequal

	Levene	26.8661	<0.0001	Unequal
	Bartlett	58.1991	<0.0001	Unequal
AAB	O'Brien	2.5424	0.1132	Equal
	Brown-Forsythe	5.7275	0.0181	Unequal
	Levene	13.2534	0.0004	Unequal
	Bartlett	402.2735	<0.0001	Unequal
GAB	O'Brien	7.4441	0.0072	Unequal
	Brown-Forsythe	3.7962	0.0535	Equal
	Levene	3.7597	0.0546	Equal
	Bartlett	9.6676	0.0019	Unequal
BREAK	O'Brien	5.4346	0.0212	Unequal
	Brown-Forsythe	1.9543	0.1645	Equal
	Levene	2.0074	0.1589	Equal
	Bartlett	12.5215	0.0004	Unequal
CANN	O'Brien	5.7204	0.0183	Unequal
	Brown-Forsythe	2.8459	0.0942	Equal
	Levene	6.1868	0.0142	Unequal
	Bartlett	22.4980	<0.0001	Unequal

52nd FW:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	0.0309	0.8607	Equal
	Brown-Forsythe	0.0744	0.7855	Equal
	Levene	0.2114	0.6465	Equal
	Bartlett	0.0691	0.7926	Equal
REP	O'Brien	11.8997	0.0008	Unequal
	Brown-Forsythe	15.6699	0.0001	Unequal
	Levene	23.7614	<0.0001	Unequal
	Bartlett	18.0444	<0.0001	Unequal
REC	O'Brien	6.0687	0.0151	Unequal
	Brown-Forsythe	4.8053	0.0302	Unequal
	Levene	9.4201	0.0026	Unequal
	Brtlett	7.7276	0.0054	Unequal
MH/FH	O'Brien	19.5680	<0.0001	Unequal
	Brown-Forsythe	8.7734	0.0038	Unequal
	Levene	12.2519	0.0007	Unequal
	Bartlett	12.4234	0.0004	Unequal
FSE	O'Brien	2.6801	0.1045	Equal
	Brown-Forsythe	0.3016	0.5840	Equal
	Levene	0.9005	0.3448	Equal
	Bartlett	33.4613	<0.0001	Unequal
ACFT	O'Brien	0.3912	0.5328	Equal

	Brown-Forsythe	0.0143	0.9051	Equal
	Levene	0.2826	0.5960	Equal
	Bartlett	1.4098	0.2351	Equal
TNMCS	O'Brien	4.4699	0.0365	Unequal
	Brown-Forsythe	4.2569	0.0412	Unequal
	Levene	4.3382	0.0394	Unequal
	Bartlett	4.7747	0.0289	Unequal
HUTE	O'Brien	0.2955	0.5877	Equal
	Brown-Forsythe	0.0115	0.9147	Equal
	Levene	0.0210	0.8850	Equal
	Bartlett	1.3828	0.2396	Equal
SUTE	O'Brien	5.2130	0.0241	Unequal
	Brown-Forsythe	4.7758	0.0307	Unequal
	Levene	5.1415	0.0251	Unequal
	Bartlett	3.1456	0.0761	Unequal
ASD	O'Brien	1.9864	0.1612	Equal
	Brown-Forsythe	7.6053	0.0067	Unequal
	Levene	11.4444	0.0010	Unequal
	Bartlett	77.9709	<0.0001	Unequal
AAB	O'Brien	1.7479	0.1887	Equal
	Brown-Forsythe	1.6578	0.2004	Equal
	Levene	2.2149	0.1393	Equal
	Bartlett	3.0667	0.0799	Equal
GAB	O'Brien	23.8513	<0.0001	Unequal
	Brown-Forsythe	25.7790	<0.0001	Unequal
	Levene	26.7447	<0.0001	Unequal
	Bartlett	27.6510	<0.0001	Unequal
BREAK	O'Brien	0.1844	0.6683	Equal
	Brown-Forsythe	0.0249	0.8748	Equal
	Levene	0.0743	0.7856	Equal
	Bartlett	0.4790	0.4889	Equal
CANN	O'Brien	0.9251	0.3382	Equal
	Brown-Forsythe	1.8165	0.1805	Equal
	Levene	2.0168	0.1584	Equal
	Bartlett	1.2289	0.2676	Equal

57th WG F-16:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	12.4385	0.0005	Unequal
	Brown-Forsythe	12.1432	0.0006	Unequal
	Levene	14.9652	0.0001	Unequal
	Bartlett	19.4676	<0.0001	Unequal

REP	O'Brien	32.1605	<0.0001	Unequal
	Brown-Forsythe	75.7211	<0.0001	Unequal
	Levene	79.9927	<0.0001	Unequal
	Bartlett	141.7940	<0.0001	Unequal
REC	O'Brien	22.4134	<0.0001	Unequal
	Brown-Forsythe	59.5798	<0.0001	Unequal
	Levene	71.6287	<0.0001	Unequal
	Brtlett	165.4702	<0.0001	Unequal
MH/FH	O'Brien	30.5780	<0.0001	Unequal
	Brown-Forsythe	37.8048	<0.0001	Unequal
	Levene	49.2388	<0.0001	Unequal
	Bartlett	53.6819	<0.0001	Unequal
FSE	O'Brien	9.4920	0.0024	Unequal
	Brown-Forsythe	11.9647	0.0007	Unequal
	Levene	11.6073	0.0008	Unequal
	Bartlett	15.9467	<0.0001	Unequal
ACFT	O'Brien	1.5761	0.2108	Equal
	Brown-Forsythe	0.0919	0.7620	Equal
	Levene	1.5013	0.2220	Equal
	Bartlett	1.6082	0.2047	Equal
TNMCS	O'Brien	2.6736	0.1036	Equal
	Brown-Forsythe	0.0457	0.8310	Equal
	Levene	0.5648	0.4532	Equal
	Bartlett	9.0532	0.0026	Unequal
HUTE	O'Brien	3.9950	0.0470	Unequal
	Brown-Forsythe	3.3260	0.0697	Equal
	Levene	3.2950	0.0710	Equal
	Bartlett	4.8223	0.0281	Unequal
SUTE	O'Brien	2.0314	0.1557	Equal
	Brown-Forsythe	1.7628	0.1858	Equal
	Levene	2.0081	0.1581	Equal
	Bartlett	1.9446	0.1632	Equal
ASD	O'Brien	2.4264	0.1209	Equal
	Brown-Forsythe	0.2030	0.6528	Equal
	Levene	0.1925	0.6614	Equal
	Bartlett	2.0096	0.1563	Equal
AAB	O'Brien	0.1240	0.7252	Equal
	Brown-Forsythe	3.1405	0.0780	Equal
	Levene	2.7273	0.1004	Equal
	Bartlett	0.6578	0.4173	Equal
GAB	O'Brien	0.1196	0.7299	Equal
	Brown-Forsythe	0.0152	0.9020	Equal
	Levene	0.0148	0.9033	Equal
	Bartlett	0.0750	0.7842	Equal

BREAK	O'Brien	29.7236	<0.0001	Unequal
	Brown-Forsythe	45.3305	<0.0001	Unequal
	Levene	48.8329	<0.0001	Unequal
	Bartlett	82.9408	<0.0001	Unequal
CANN	O'Brien	7.4455	0.0069	Unequal
	Brown-Forsythe	20.2526	<0.0001	Unequal
	Levene	37.2094	<0.0001	Unequal
	Bartlett	69.9641	<0.0001	Unequal

F-16 Pre-Reorganization:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	3.8052	0.0107	No
	Brown-Forsythe	3.4811	0.0165	No
	Levene	6.7009	0.0002	No
	Bartlett	10.8902	<0.0001	No
REP	O'Brien	11.2796	<0.0001	No
	Brown-Forsythe	15.3489	<0.0001	No
	Levene	19.5524	<0.0001	No
	Bartlett	23.7139	<0.0001	No
REC	O'Brien	10.6741	<0.0001	No
	Brown-Forsythe	21.5747	<0.0001	No
	Levene	26.9394	<0.0001	No
	Brtlett	52.5658	<0.0001	No
MH/FH	O'Brien	9.6860	<0.0001	No
	Brown-Forsythe	16.6500	<0.0001	No
	Levene	19.4826	<0.0001	No
	Bartlett	31.4862	<0.0001	No
BREAK	O'Brien	13.1088	<0.0001	No
	Brown-Forsythe	16.4348	<0.0001	No
	Levene	17.7287	<0.0001	No
	Bartlett	25.0923	<0.0001	No
GAB	O'Brien	11.4133	<0.0001	No
	Brown-Forsythe	9.6919	<0.0001	No
	Levene	9.9054	<0.0001	No
	Bartlett	10.6283	<0.0001	No
TNMCS	O'Brien	3.1319	0.0262	No
	Brown-Forsythe	2.8518	0.0378	No
	Levene	6.6393	0.0002	No
	Bartlett	20.7545	<0.0001	No
CANN	O'Brien	2.9853	0.0320	No
	Brown-Forsythe	7.7941	<0.0001	No
	Levene	13.5630	<0.0001	No

	Bartlett	23.6077	<0.0001	No
ACFT	O'Brien	27.6149	<0.0001	No
	Brown-Forsythe	28.5205	<0.0001	No
	Levene	49.2694	<0.0001	No
	Bartlett	56.4017	<0.0001	No
ASD	O'Brien	0.3752	0.7710	Yes
	Brown-Forsythe	0.7309	0.5343	Yes
	Levene	0.7614	0.5166	Yes
	Bartlett	3.9481	0.0079	No
HUTE	O'Brien	9.4134	<0.0001	No
	Brown-Forsythe	8.3000	<0.0001	No
	Levene	9.3479	<0.0001	No
	Bartlett	8.8982	<0.0001	No
SUTE	O'Brien	10.1368	<0.0001	No
	Brown-Forsythe	8.6728	<0.0001	No
	Levene	9.8373	<0.0001	No
	Bartlett	10.6008	<0.0001	No

F-16 Post-Reorganization:

Variable	Test	F Score	P Value	Equal?
TNMCM	O'Brien	20.1425	<0.0001	No
	Brown-Forsythe	28.4775	<0.0001	No
	Levene	30.1190	<0.0001	No
	Bartlett	25.8835	<0.0001	No
4HR	O'Brien	7.1855	0.0001	No
	Brown-Forsythe	7.1292	0.0001	No
	Levene	7.2096	0.0001	No
	Bartlett	5.8404	0.0006	No
8HR	O'Brien	0.2887	0.8335	Yes
	Brown-Forsythe	0.0466	0.9866	Yes
	Levene	0.0482	0.9860	Yes
	Bartlett	0.2574	0.8561	Yes
REP	O'Brien	15.2011	<0.0001	No
	Brown-Forsythe	17.1863	<0.0001	No
	Levene	35.6959	<0.0001	No
	Bartlett	44.7623	<0.0001	No
REC	O'Brien	9.0136	<0.0001	No
	Brown-Forsythe	14.1381	<0.0001	No
	Levene	17.7690	<0.0001	No
	Bartlett	21.8316	<0.0001	No
MH/FH	O'Brien	14.8121	<0.0001	No
	Brown-Forsythe	22.2949	<0.0001	No

	Levene	27.6197	<0.0001	No
	Bartlett	26.8963	<0.0001	No
FSE	O'Brien	25.1985	<0.0001	No
	Brown-Forsythe	32.7420	<0.0001	No
	Levene	32.9891	<0.0001	No
	Bartlett	34.3544	<0.0001	No
BREAK	O'Brien	5.6068	0.0009	No
	Brown-Forsythe	5.6943	0.0008	No
	Levene	7.4774	<0.0001	No
	Bartlett	14.2977	<0.0001	No
AAB	O'Brien	0.4388	0.7254	Yes
	Brown-Forsythe	3.9765	0.0083	No
	Levene	4.0171	0.0078	No
	Bartlett	1.1680	0.3202	Yes
GAB	O'Brien	0.4125	0.7441	Yes
	Brown-Forsythe	0.4386	0.7255	Yes
	Levene	0.4666	0.7058	Yes
	Bartlett	0.3752	0.7709	Yes
TNMCS	O'Brien	13.3986	<0.0001	No
	Brown-Forsythe	28.0973	<0.0001	No
	Levene	29.3372	<0.0001	No
	Bartlett	24.9008	<0.0001	No
CANN	O'Brien	5.3619	0.0013	No
	Brown-Forsythe	7.3404	<0.0001	No
	Levene	9.1609	<0.0001	No
	Bartlett	12.5539	<0.0001	No
ACFT	O'Brien	19.9197	<0.0001	No
	Brown-Forsythe	12.3689	<0.0001	No
	Levene	42.5752	<0.0001	No
	Bartlett	76.3320	<0.0001	No
ASD	O'Brien	4.0816	0.0072	No
	Brown-Forsythe	9.2761	<0.0001	No
	Levene	14.4886	<0.0001	No
	Bartlett	60.1094	<0.0001	No
HUTE	O'Brien	5.1814	0.0016	No
	Brown-Forsythe	10.7358	<0.0001	No
	Levene	12.7352	<0.0001	No
	Bartlett	30.0778	<0.0001	No
SUTE	O'Brien	3.7616	0.0110	No
	Brown-Forsythe	5.2059	0.0016	No
	Levene	5.2474	0.0015	No
	Bartlett	8.9816	<0.0001	No

Appendix F - Auto-Correlation Test Results

1st FW:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.7734769	0.6047	Yes
MH/FH	0.2936706	0.8433	Yes
FSE	0.639487	0.6681	Yes

33rd FW:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.4817189	0.7337	Yes
4HR	0.5305069	0.6902	Yes
8HR	0.3299923	0.7796	Yes
MH/FH	0.5569734	0.6901	Yes
MSE	0.9813698	0.4960	Yes
FSE	0.5127406	0.7311	Yes

18th WG:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.7883263	0.5963	Yes
8HR	0.7026088	0.6472	Yes
MH/FH	0.7120909	0.6436	Yes
REP	1.3882801	0.2962	Yes
REC	0.9320729	0.5246	Yes
FSE	1.3075076	0.3409	Yes

57th WG F-15:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.709864	0.6372	Yes
MH/FH	0.5072927	0.7418	Yes
FSE	0.786311	0.5974	Yes

F-15 Pre-Reorganization:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.4590715	0.7684	Yes
MH/FH	0.5159266	0.7398	Yes
FSE	0.8726495	0.5613	Yes

F-15 Post Reorganization:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.7542677	0.6220	Yes
8HR	0.3005488	0.8478	Yes
MH/FH	0.7429892	0.6280	Yes
REP/REC	0.7687097	0.6136	Yes
FSE	0.4886549	0.7514	Yes

388th FW:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.1350736	0.9210	Yes
REP	0.2978532	0.8487	Yes
REC	1.0907462	0.4500	Yes
MH/FH	0.5021361	0.7452	Yes
MSE	1.0868662	0.4098	Yes
FSE	0.6090334	0.6942	Yes

347th WG:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.6733913	0.6566	Yes
REP	0.3379371	0.8206	Yes
REC	0.6496081	0.6644	Yes
MH/FH	0.697369	0.3519	Yes

52nd FW:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.9289417	0.4847	Yes
REP	0.5261885	0.7285	Yes
REC	0.7117722	0.6324	Yes

MH/FH	0.3779849	0.7807	Yes
FSE	1.8468508	0.0651	Yes

57th WG F-16:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.4018847	0.7939	Yes
REP	0.743699	0.6256	Yes
REC	0.892556	0.5039	Yes
MH/FH	0.9222668	0.5363	Yes
FSE	0.8793819	0.5589	Yes

F-16 Pre-Reorganization:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.4399082	0.7781	Yes
REP	0.4627562	0.7663	Yes
REC	0.8035496	0.5982	Yes
MH/FH	0.6229004	0.6878	Yes

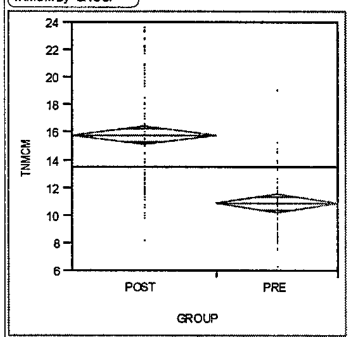
F-16 Post Reorganization:

Variable	Durbin-Watson	Auto-Correlation	Auto-Correlated?
TNMCM	0.2900142	0.8533	Yes
4HR	1.0573893	0.4648	Yes
8HR	0.7936356	0.5985	Yes
REP	0.5417103	0.7278	Yes
REC	1.006779	0.4946	Yes
MH/FH	0.2818655	0.8568	Yes
FSE	0.4964481	0.7486	Yes

Appendix G - Comparison of Means

1FW TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	10609	114.075	8.318
PRE	77	3926	50.987	-8.318

2-Sample Test, Normal Approximation

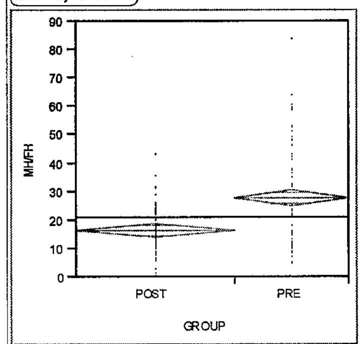
S	Z	Prob>|Z|
3926	-8.31632	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
69.2204	1	<.0001

1FW MH/FH:

MH/FH By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6501.5	69.9086	-3.279
PRE	66	6218.5	94.2197	3.279

2-Sample Test, Normal Approximation

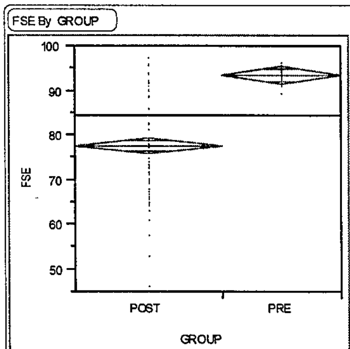
S	Z	Prob>|Z|
6218.5	3.27895	0.0010

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
10.7630	1	0.0010

1FW FSE:

FSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	3144.5	43.6736	-7.281
PRE	57	5240.5	91.9386	7.281

2-Sample Test, Normal Approximation

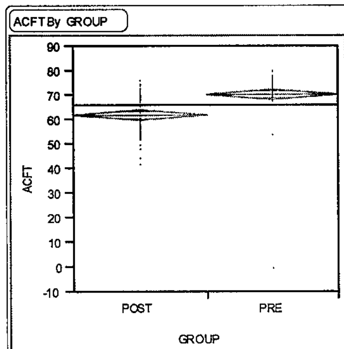
S	Z	Prob>|Z|
5240.5	7.28051	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
53.0404	1	<.0001

1FW ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5637.5	60.618	-8.146
PRE	90	11198.5	124.428	8.146

2-Sample Test, Normal Approximation

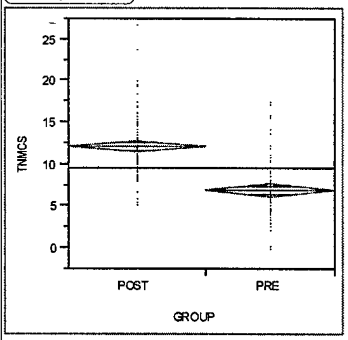
S	Z	Prob>|Z|
11198.5	8.14578	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
66.3784	1	<.0001

1FW TNMCS:

TNMCS By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11273	121.215	8.176
PRE	87	5017	57.667	-8.176

2-Sample Test, Normal Approximation

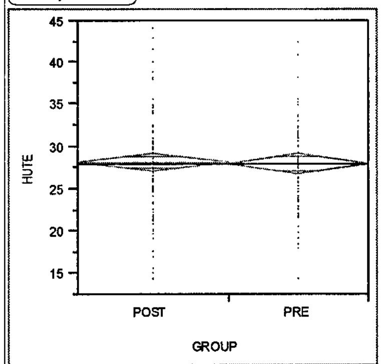
S	Z	Prob>|Z|
5017	-8.17615	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
66.8728	1	<.0001

1FW HUTE:

HUTE By GROUP



Oneway Anova

Summary of Fit

t-Test

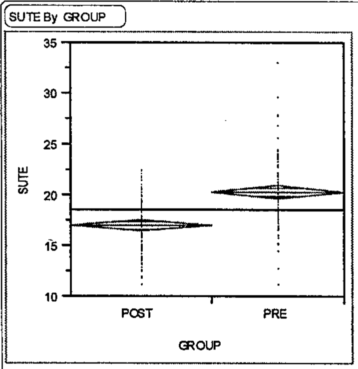
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	1.0654	1.0654	0.0323
Error	177	5842.3934	33.0079	Prob>F
C Total	178	5843.4588	32.8284	0.8576

Means for Oneway Anova

1FW SUTE:

SUTE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6281	67.538	-6.112
PRE	87	10009	115.046	6.112

2-Sample Test, Normal Approximation

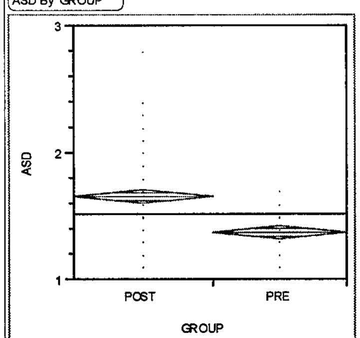
S	Z	Prob>|Z|
10009	6.11199	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
37.3740	1	<.0001

1FW ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	10764.5	115.747	6.434
PRE	89	5888.5	66.163	-6.434

2-Sample Test, Normal Approximation

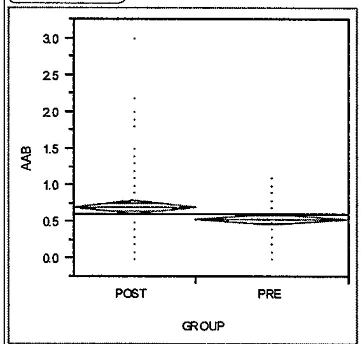
S	Z	Prob>|Z|
5888.5	-6.43384	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
41.4126	1	<.0001

1FW AAB:

AAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	6101.5	84.7431	0.789
PRE	90	7101.5	78.9056	-0.789

2-Sample Test, Normal Approximation

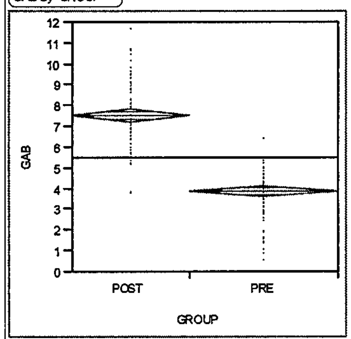
S	Z	Prob>|Z|
6101.5	0.78909	0.4301

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.6253	1	0.4291

1FW GAB:

GAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	8956	124.389	10.409
PRE	90	4247	47.189	-10.409

2-Sample Test, Normal Approximation

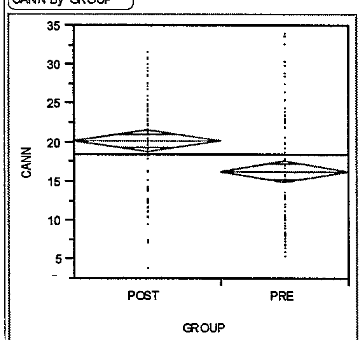
S	Z	Prob>|Z|
8956	10.40890	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
108.3803	1	<.0001

1FW CANN:

CANN By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	9381.5	100.876	3.752
PRE	81	5843.5	72.142	-3.752

2-Sample Test, Normal Approximation

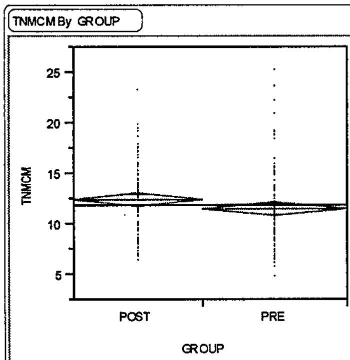
S	Z	Prob>|Z|
5843.5	-3.75186	0.0002

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
14.0878	1	0.0002

33FW TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	10041.5	107.973	2.221
PRE	103	9264.5	89.947	-2.221

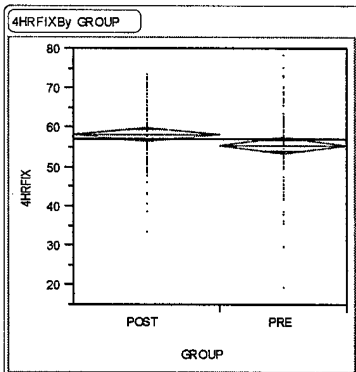
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
10041.5	2.22060	0.0264

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.9367	1	0.0263

33FW 4HR:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8660.5	93.1237	1.576
PRE	81	6564.5	81.0432	-1.576

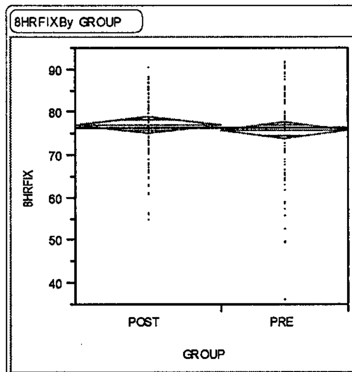
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
6564.5	-1.57648	0.1149

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
2.4900	1	0.1146

33FW 8HR:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8276.5	88.9946	0.418
PRE	81	6948.5	85.7840	-0.418

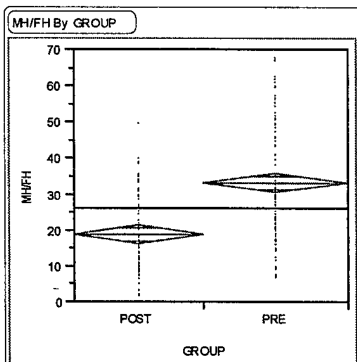
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
6948.5	-0.41788	0.6760

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.1759	1	0.6749

33FW MH/FH:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	91	6331.5	69.577	-6.441
PRE	102	12389.5	121.466	6.441

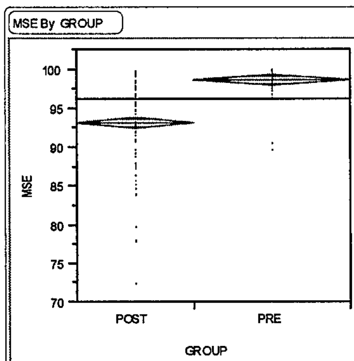
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
6331.5	-6.44095	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
41.5025	1	<.0001

33FW MSE:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	78	4147	53.167	-8.455
PRE	103	12324	119.650	8.455

2-Sample Test, Normal Approximation

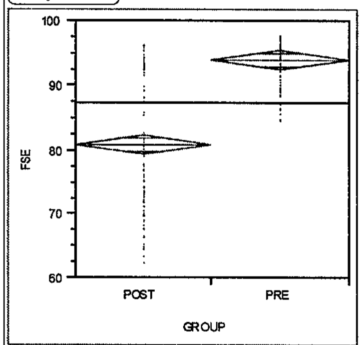
S	Z	Prob>|Z|
4147	-8.45548	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
71.5193	1	<.0001

33FW FSE:

FSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5476	58.882	-8.825
PRE	94	12102	128.745	8.825

2-Sample Test, Normal Approximation

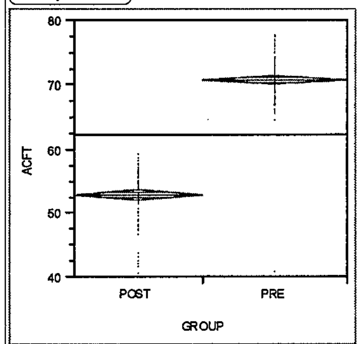
S	Z	Prob>|Z|
5476	-8.82454	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
77.8964	1	<.0001

33FW ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	4463	47.989	-11.845
PRE	103	14843	144.107	11.845

2-Sample Test, Normal Approximation

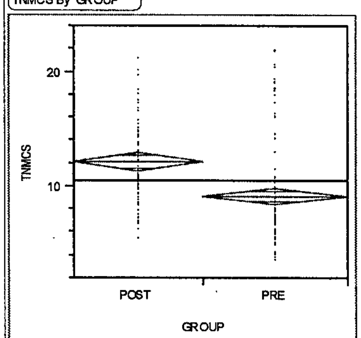
S	Z	Prob>|Z|
4463	-11.8449	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
140.3326	1	<.0001

33FW TNMCS:

TNMCS By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11626.5	125.016	6.218
PRE	103	7679.5	74.558	-6.218

2-Sample Test, Normal Approximation

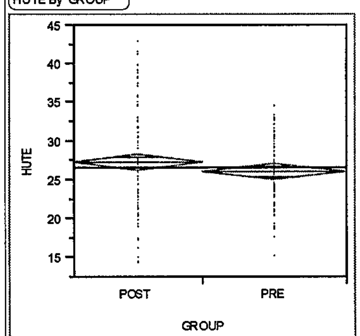
S	Z	Prob>|Z|
11626.5	6.21781	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
38.6769	1	<.0001

33FW HUTE:

HUTE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	9458	101.699	0.749
PRE	103	9848	95.612	-0.749

2-Sample Test, Normal Approximation

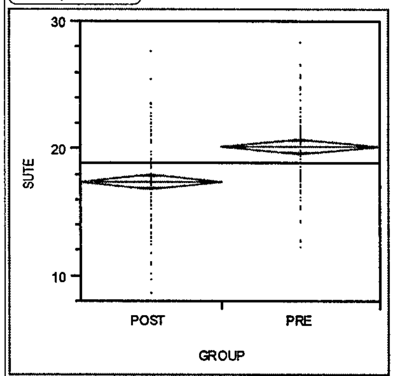
S	Z	Prob>|Z|
9458	0.74899	0.4539

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.5629	1	0.4531

33FW SUTE:

SUTE By GROUP



Oneway Anova

Summary of Fit

t-Test

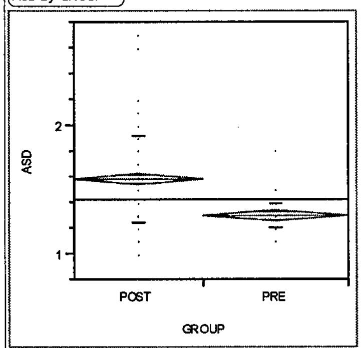
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	393.9868	393.987	34.4223
Error	194	2220.4619	11.446	Prob>F
C Total	195	2614.4487	13.407	<.0001

Means for Oneway Anova

33FW ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11732.5	126.156	6.620
PRE	103	7573.5	73.529	-6.620

2-Sample Test, Normal Approximation

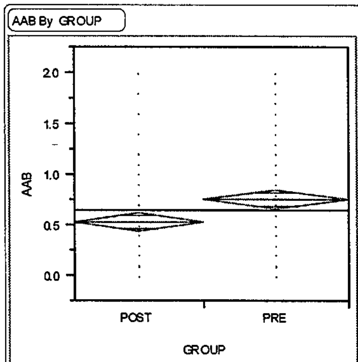
S	Z	Prob>|Z|
11732.5	6.62026	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
43.8448	1	<.0001

33FW AAB:

AAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8208	88.258	-2.407
PRE	103	11098	107.748	2.407

2-Sample Test, Normal Approximation

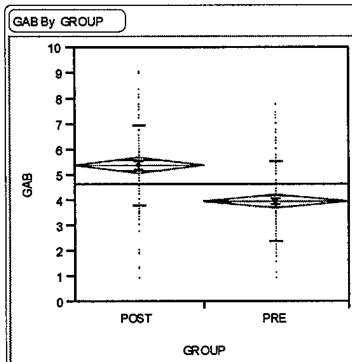
S	Z	Prob>|Z|
8208	-2.40735	0.0161

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
5.8014	1	0.0160

33FW GAB:

GAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11464	123.269	5.809
PRE	103	7842	76.136	-5.809

2-Sample Test, Normal Approximation

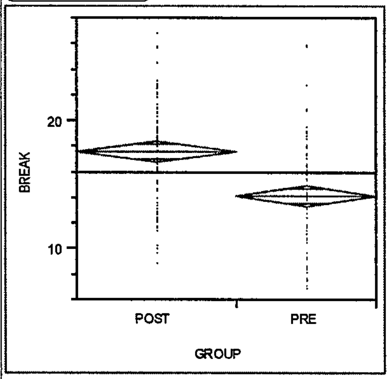
S	Z	Prob>|Z|
11464	5.80874	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
33.7561	1	<.0001

33FW BREAK:

BREAK By GROUP



Oneway Anova

Summary of Fit

t-Test

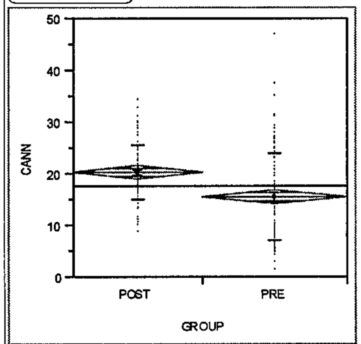
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	511.0875	511.087	30.6171
Error	172	2871.1742	16.693	Prob>F
C Total	173	3382.2617	19.551	<.0001

Means for Oneway Anova

33FW CANN:

CANN By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11116	119.527	4.930
PRE	103	8190	79.515	-4.930

2-Sample Test, Normal Approximation

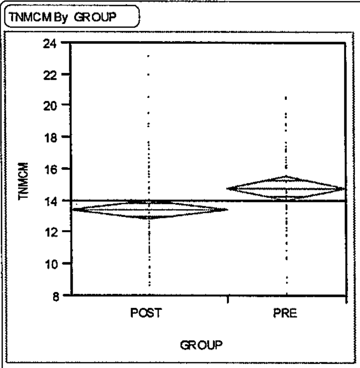
S	Z	Prob>|Z|
11116	4.93012	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
24.3185	1	<.0001

18WG TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6667.5	71.6935	-3.212
PRE	70	6698.5	95.6929	3.212

2-Sample Test, Normal Approximation

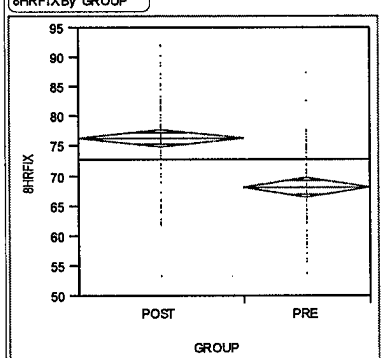
S	Z	Prob>|Z|
6698.5	3.21225	0.0013

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
10.3293	1	0.0013

33FW 8HR:

8HRFIX By GROUP



Oneway Anova

Summary of Fit

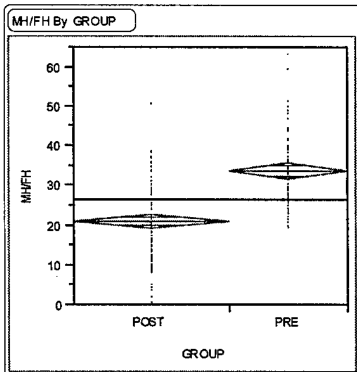
t-Test

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	2728.994	2728.99	50.4979
Error	161	8700.715	54.04	Prob>F
C Total	162	11429.709	70.55	<.0001

Means for Oneway Anova

18WG MH/FH:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5480.5	58.930	-7.191
PRE	70	7885.5	112.650	7.191

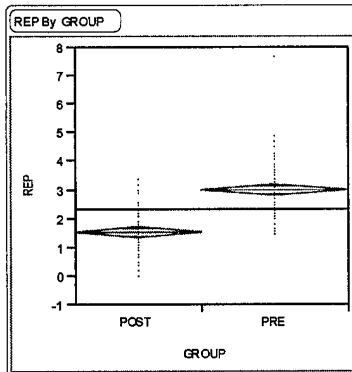
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
7885.5	7.19144	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
51.7410	1	<.0001

18WG REP:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	60	2203.5	36.7250	-8.066
PRE	70	6311.5	90.1643	8.066

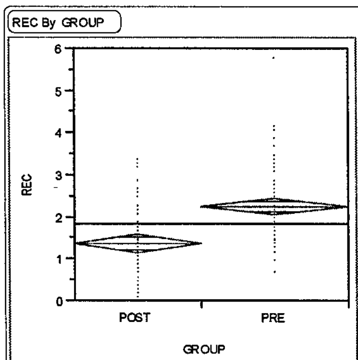
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
2203.5	-8.06557	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
65.0912	1	<.0001

18WG REC:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	60	2817	46.9500	-5.199
PRE	70	5698	81.4000	5.199

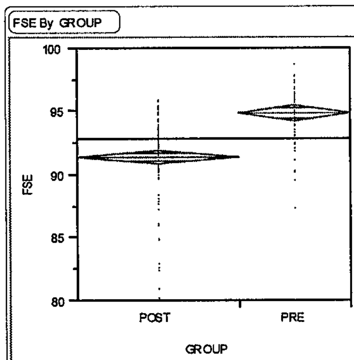
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
2817	-5.19922	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
27.0562	1	<.0001

18WG FSE:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5245	56.398	-7.423
PRE	63	7001	111.127	7.423

2-Sample Test, Normal Approximation

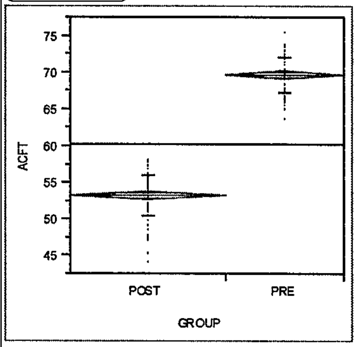
S	Z	Prob>|Z|
7001	7.42338	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
55.1334	1	<.0001

18WG ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	4371	47.000	-10.912
PRE	70	8995	128.500	10.912

2-Sample Test, Normal Approximation

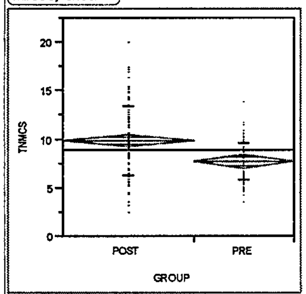
S	Z	Prob>|Z|
8995	10.91212	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
119.1109	1	<.0001

18WG TNMCS:

TNMCS By GROUP



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
POST	93	3.615956	2.902648	2.891398
PRE	70	1.934309	1.488000	1.487143

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	18.5926	1	161	<.0001
Brown-Forsythe	23.4727	1	161	<.0001
Levene	24.6266	1	161	<.0001
Bartlett	27.3640	1	?	<.0001

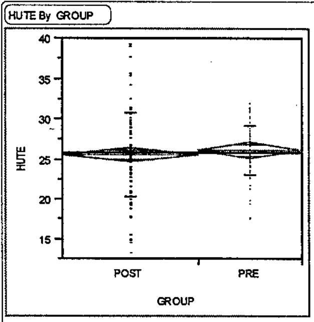
Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
23.1501	1	146.93	<.0001

t-Test
4.8115

18WG HUTE:

HUTE By GROUP



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
POST	93	5.220781	3.973084	3.941935
PRE	70	3.182028	2.527143	2.527143

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	10.6082	1	161	0.0014
Brown-Forsythe	9.6319	1	161	0.0023
Levene	10.4122	1	161	0.0015
Bartlett	17.6863	1	?	<.0001

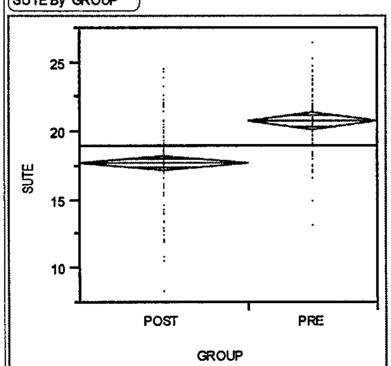
Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
0.9391	1	154.91	0.3340

t-Test
0.9691

18WG SUTE:

SUTE By GROUP



Oneway Anova

Summary of Fit

t-Test

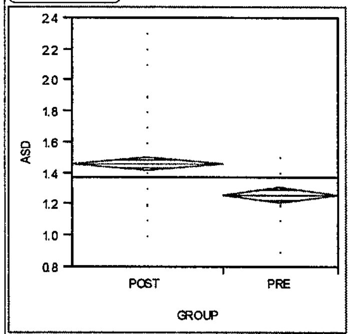
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	371.3946	371.395	44.2228
Error	161	1352.1190	8.398	Prob>F
C Total	162	1723.5136	10.639	<.0001

Means for Oneway Anova

18WG ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	9053.5	97.3495	4.886
PRE	70	4312.5	61.6071	-4.886

2-Sample Test, Normal Approximation

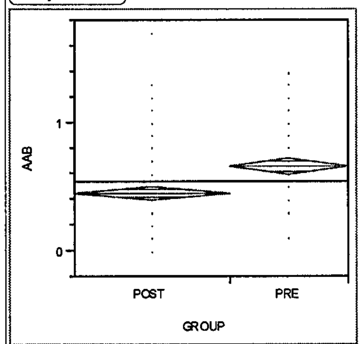
S	Z	Prob>|Z|
4312.5	-4.88601	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
23.8899	1	<.0001

18WG AAB:

AAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6152	66.151	-4.976
PRE	70	7214	103.057	4.976

2-Sample Test, Normal Approximation

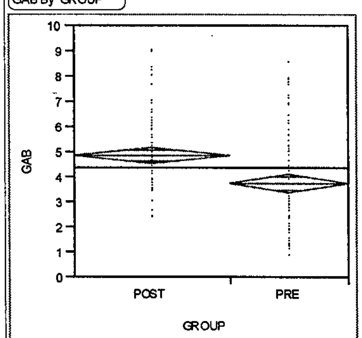
S	Z	Prob>|Z|
7214	4.97584	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
24.7758	1	<.0001

18WG GAB:

GAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8814.5	94.7796	3.984
PRE	70	4551.5	65.0214	-3.984

2-Sample Test, Normal Approximation

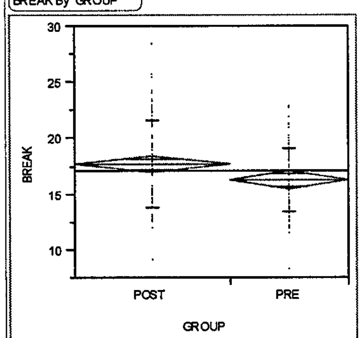
S	Z	Prob>|Z|
4551.5	-3.98419	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
15.8871	1	<.0001

18WG BREAK:

BREAK By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8235.5	88.5538	2.042
PRE	70	5130.5	73.2929	-2.042

2-Sample Test, Normal Approximation

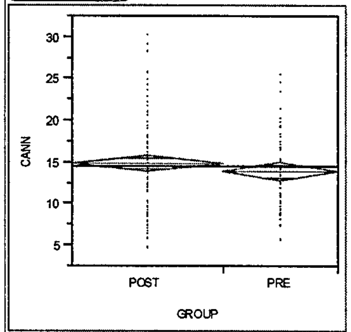
S	Z	Prob>|Z|
5130.5	-2.04197	0.0412

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.1765	1	0.0410

18WG CANN:

CANN By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7845	84.3548	0.733
PRE	70	5521	78.8714	-0.733

2-Sample Test, Normal Approximation

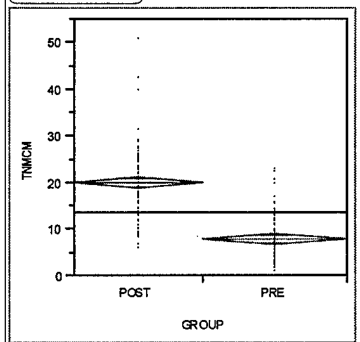
S	Z	Prob>|Z|
5521	-0.73258	0.4638

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.5391	1	0.4628

57WG F-15 TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	92	12963	140.902	10.032
PRE	103	6147	59.680	-10.032

2-Sample Test, Normal Approximation

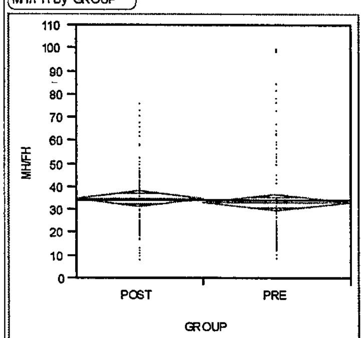
S	Z	Prob>|Z|
12963	10.03173	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
100.6612	1	<.0001

57WG F-15 MH/FH:

MH/FH By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	89	9213.5	103.522	1.626
PRE	103	9314.5	90.432	-1.626

2-Sample Test, Normal Approximation

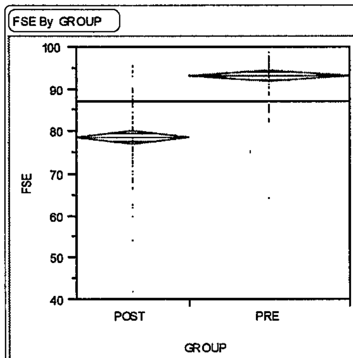
S	Z	Prob>|Z|
9213.5	1.62643	0.1039

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
2.6495	1	0.1036

57WG F-15 FSE:

FSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	3148	43.722	-9.595
PRE	101	11903	117.851	9.595

2-Sample Test, Normal Approximation

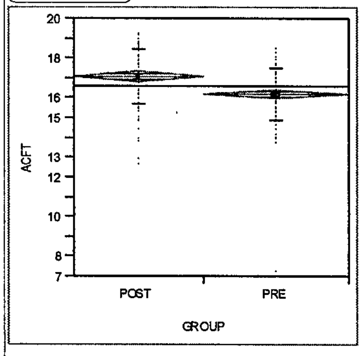
S	Z	Prob>|Z|
3148	-9.59503	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
92.0941	1	<.0001

57WG F-15 ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	92	10962.5	119.158	4.954
PRE	103	8147.5	79.102	-4.954

2-Sample Test, Normal Approximation

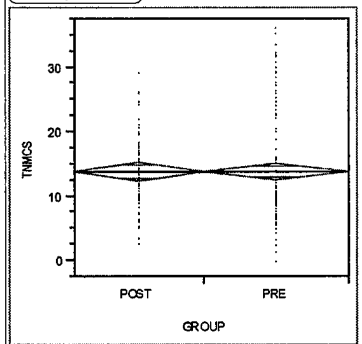
S	Z	Prob>|Z|
10962.5	4.95432	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
24.5579	1	<.0001

57WG F-15 TNMCS:

TNMCS By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	92	9658	104.978	1.631
PRE	103	9452	91.767	-1.631

2-Sample Test, Normal Approximation

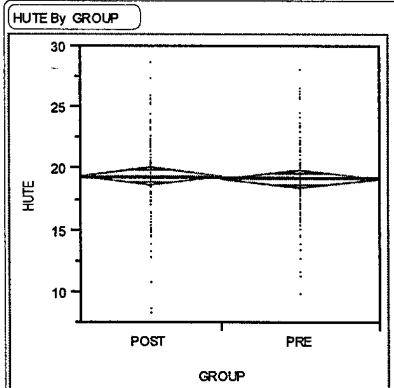
S	Z	Prob>|Z|
9658	1.63068	0.1030

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
2.6633	1	0.1027

57WG F-15 HUTE:

HUTE By GROUP



Oneway Anova

Summary of Fit

t-Test

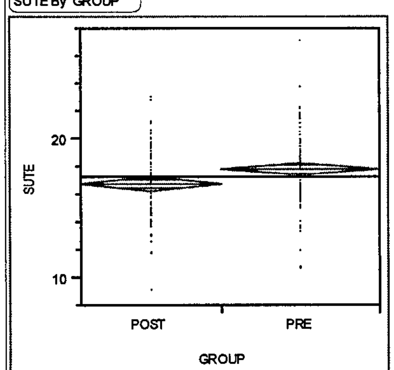
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	4.0695	4.0695	0.3037
Error	193	2586.4312	13.4012	Prob>F
C Total	194	2590.5007	13.3531	0.5822

Means for Oneway Anova

57WG F-15 SUTE:

SUTE By GROUP



Oneway Anova

Summary of Fit

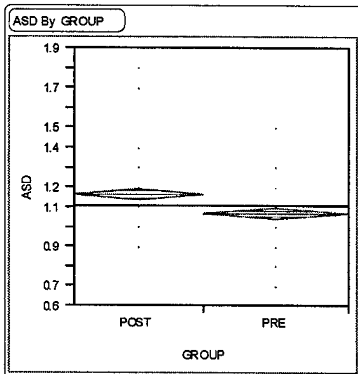
t-Test

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	61.3956	61.3956	8.5154
Error	193	1391.5179	7.2099	Prob>F
C Total	194	1452.9135	7.4892	0.0039

Means for Oneway Anova

57WG F-15 ASD:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	92	10631.5	115.560	4.214
PRE	103	8478.5	82.316	-4.214

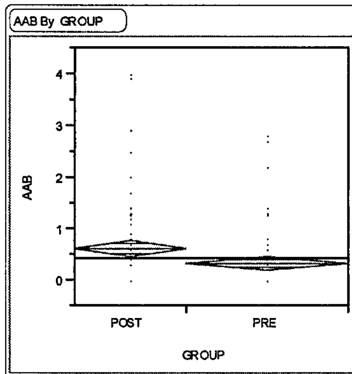
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
10631.5	4.21398	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
17.7686	1	<.0001

57WG F-15 AAB:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	7025.5	97.5764	2.198
PRE	103	8374.5	81.3058	-2.198

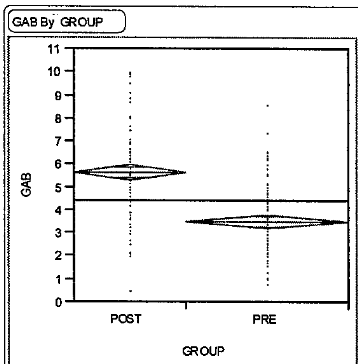
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
7025.5	2.19848	0.0279

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.8403	1	0.0278

57WG F-15 GAB:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	8578.5	119.146	6.800
PRE	103	6821.5	66.228	-6.800

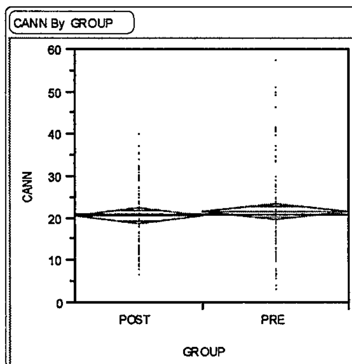
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
8578.5	6.79998	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
46.2603	1	<.0001

57WG F-15 CANN:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	90	8730	97.0000	0.001
PRE	103	9991	97.0000	0.001

2-Sample Test, Normal Approximation

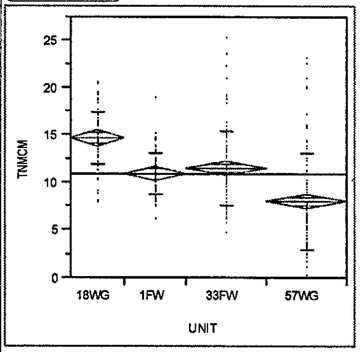
S	Z	Prob>|Z|
8730	0.00129	0.9990

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.0000	1	1.0000

F-15 Pre-Reorg TNMCM:

TNMCM By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	19099	272.843	8.702
1FW	78	14113	180.936	0.335
33FW	103	18970.5	184.180	0.786
57WG	103	10652.5	103.422	-8.724

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
115.2701	3	<.0001

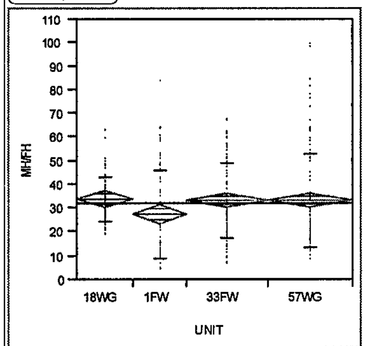
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	33FW	1FW	57WG
18WG	0.00000	3.30466	3.86641	6.74932
33FW	-3.30466	0.00000	0.56175	3.44466
1FW	-3.86641	-0.56175	0.00000	2.88291
57WG	-6.74932	-3.44466	-2.88291	0.00000

Alpha= 0.05

F-15 Pre-Reorg MH/FH:

MH/FH By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	13798	197.114	2.485
1FW	66	8992.5	136.250	-3.188
33FW	102	18299.5	179.407	1.028
57WG	103	17221	167.194	-0.468

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
14.0083	3	0.0029

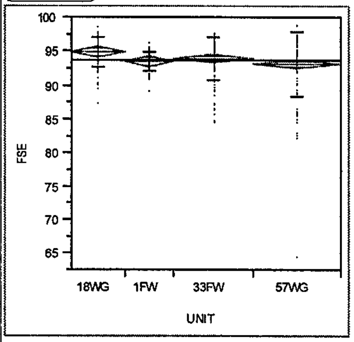
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	57WG	33FW	1FW
18WG	0.00000	0.09675	0.35244	5.86411
57WG	-0.09675	0.00000	0.25568	5.76736
33FW	-0.35244	-0.25568	0.00000	5.51168
1FW	-5.86411	-5.76736	-5.51168	0.00000

Alpha= 0.05

F-15 Pre-Reorg FSE:

FSE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	63	11587.5	183.929	2.526
1FW	57	6597.5	115.746	-3.870
33FW	94	15965.5	169.846	1.505
57WG	101	15619.5	154.649	-0.448

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
19.1076	3	0.0003

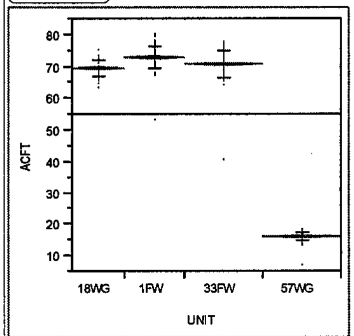
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	33FW	1FW	57WG
18WG	0.00000	0.91003	1.36516	1.68260
33FW	-0.91003	0.00000	0.45513	0.77257
1FW	-1.36516	-0.45513	0.00000	0.31744
57WG	-1.68260	-0.77257	-0.31744	0.00000

Alpha= 0.05

F-15 Pre-Reorg ACFT:

ACFT By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	13332.5	190.464	1.183
1FW	78	20809.5	266.788	8.728
33FW	103	23337	226.573	5.780
57WG	103	5356	52.000	-14.783

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
239.1801	3	<.0001

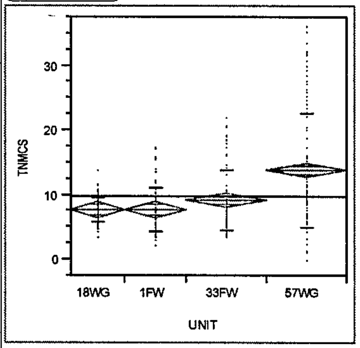
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	33FW	18WG	57WG
1FW	0.0000	1.9896	3.2967	56.7682
33FW	-1.9896	0.0000	1.3072	54.7786
18WG	-3.2967	-1.3072	0.0000	53.4715
57WG	-56.7682	-54.7786	-53.4715	0.0000

Alpha= 0.05

F-15 Pre-Reorg TNMCS:

TNMCS By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	11068.5	158.121	-1.768
1FW	78	10764	138.000	-3.860
33FW	103	17125	166.262	-1.323
57WG	103	23877.5	231.820	6.398

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
44.4004	3	<.0001

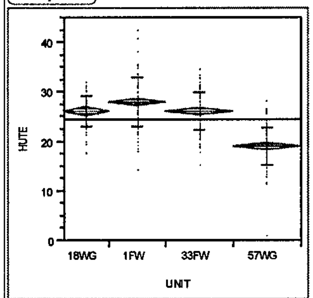
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	33FW	18WG	1FW
57WG	0.00000	4.69320	6.06515	6.14515
33FW	-4.69320	0.00000	1.37194	1.45194
18WG	-6.06515	-1.37194	0.00000	0.08000
1FW	-6.14515	-1.45194	-0.08000	0.00000

Alpha= 0.05

F-15 Pre-Reorg HUTE:

HUTE By UNIT



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
18WG	70	3.182028	2.527143	2.527143
1FW	86	5.079927	4.033423	4.027907
33FW	103	3.936907	3.078217	3.067961
57WG	103	3.831506	2.889811	2.873786

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	3.9784	3	358	0.0083
Brown-Forsythe	5.2015	3	358	0.0016
Levene	5.3074	3	358	0.0014
Bartlett	5.9067	3	?	0.0005

Welch Anova testing Means Equal, allowing Stds Not Equal

F Ratio	DF Num	DF Den	Prob>F
94.1584	3	192	<.0001

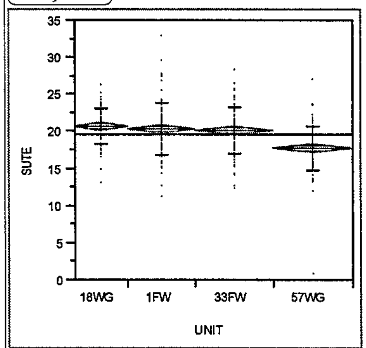
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	18WG	33FW	57WG
1FW	0.00000	1.74422	1.85405	8.90163
18WG	-1.74422	0.00000	0.10983	7.15741
33FW	-1.85405	-0.10983	0.00000	7.04757
57WG	-8.90163	-7.15741	-7.04757	0.00000

Alpha= 0.05

F-15 Pre-Reorg SUTE:

SUTE By UNIT



Oneway Anova

Summary of Fit

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	538.6634	179.554	18.2985
Error	359	3522.7032	9.813	Prob>F
C Total	362	4061.3667	11.219	<.0001

Means for Oneway Anova

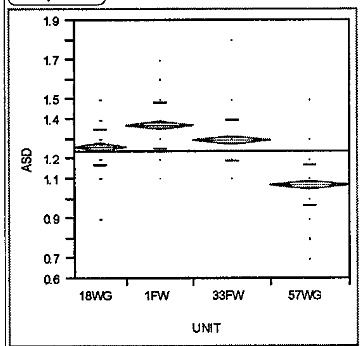
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	1FW	33FW	57WG
18WG	0.00000	0.41118	0.55963	3.02759
1FW	-0.41118	0.00000	0.14844	2.61640
33FW	-0.55963	-0.14844	0.00000	2.46796
57WG	-3.02759	-2.61640	-2.46796	0.00000

Alpha= 0.05

F-15 Pre-Reorg ASD:

ASD By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	13659	195.129	1.094
1FW	89	23773	267.112	8.848
33FW	103	22496.5	218.413	4.113
57WG	103	6866.5	66.665	-13.513

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
203.4055	3	<.0001

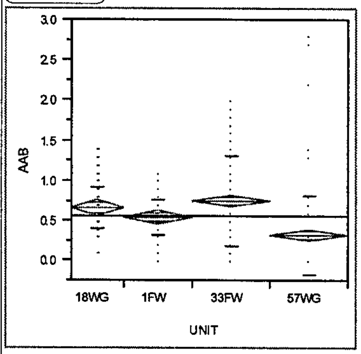
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	33FW	18WG	57WG
1FW	0.000000	0.074517	0.109663	0.301702
33FW	-0.07452	0.000000	0.035146	0.227184
18WG	-0.10966	-0.03515	0.000000	0.192039
57WG	-0.3017	-0.22718	-0.19204	0.000000

Alpha= 0.05

F-15 Pre-Reorg AAB:

AAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	15700.5	224.293	3.607
1FW	90	17412.5	193.472	1.035
33FW	103	22330	216.796	3.789
57WG	103	11718	113.767	-7.936

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
66.9089	3	<.0001

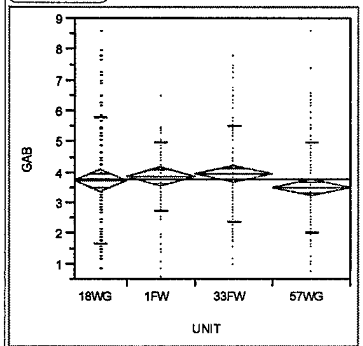
Means Comparisons

Dif=Mean[i]-Mean[j]	33FW	18WG	1FW	57WG
33FW	0.000000	0.096824	0.218252	0.431068
18WG	-0.09682	0.000000	0.121429	0.334244
1FW	-0.21825	-0.12143	0.000000	0.212816
57WG	-0.43107	-0.33424	-0.21282	0.000000

Alpha= 0.05

F-15 Pre-Reorg GAB:

GAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	11991.5	171.307	-1.072
1FW	90	18293.5	203.261	2.040
33FW	103	19847.5	192.694	1.040
57WG	103	17028.5	165.325	-2.057

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
7.8909	3	0.0483

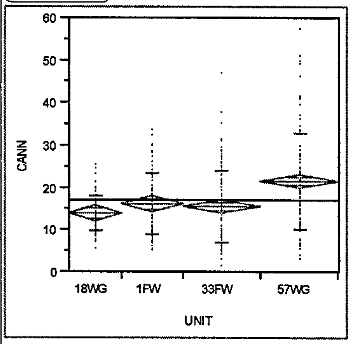
Means Comparisons

Dif=Mean[i]-Mean[j]	33FW	1FW	18WG	57WG
33FW	0.000000	0.099353	0.208877	0.433010
1FW	-0.09935	0.000000	0.109524	0.333657
18WG	-0.20888	-0.10952	0.000000	0.224133
57WG	-0.43301	-0.33366	-0.22413	0.000000

Alpha= 0.05

F-15 Pre-Reorg CANN:

CANN By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	70	10478.5	149.693	-2.649
1FW	81	14116.5	174.278	-0.468
33FW	103	16502.5	160.218	-2.189
57WG	103	22805.5	221.413	4.944

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
26.6235	3	<.0001

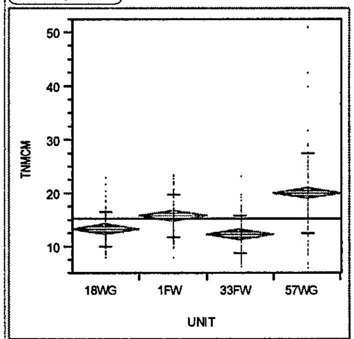
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	1FW	33FW	18WG
57WG	0.00000	5.27356	6.00874	7.59839
1FW	-5.27356	0.00000	0.73518	2.32483
33FW	-6.00874	-0.73518	0.00000	1.58965
18WG	-7.59839	-2.32483	-1.58965	0.00000

Alpha= 0.05

F-15 Post-Reorg TNMCM:

TNMCM By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	13959	150.097	-3.729
1FW	93	19249	206.978	2.179
33FW	93	11862.5	127.554	-6.071
57WG	92	23935.5	260.168	7.649

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
85.6157	3	<.0001

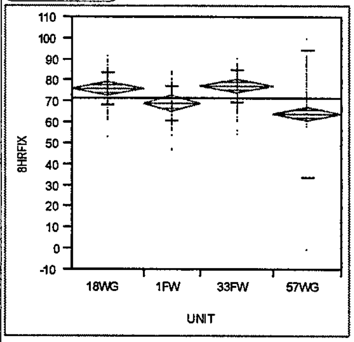
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	1FW	18WG	33FW
57WG	0.00000	4.18825	6.57965	7.56890
1FW	-4.18825	0.00000	2.39140	3.38065
18WG	-6.57965	-2.39140	0.00000	0.98925
33FW	-7.56890	-3.38065	-0.98925	0.00000

Alpha= 0.05

F-15 Post-Reorg 8HR:

8HRFIX By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	17801.5	191.414	2.083
1FW	72	8558	118.861	-5.177
33FW	93	18802.5	202.177	3.301
57WG	87	14523	166.931	-0.656

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
32.6699	3	<.0001

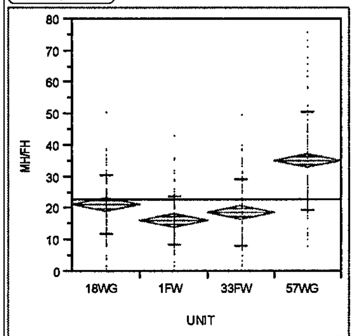
Means Comparisons

Dif=Mean[i]-Mean[j]	33FW	18WG	1FW	57WG
33FW	0.0000	0.7710	7.7250	13.0437
18WG	-0.7710	0.0000	6.9540	12.2727
1FW	-7.7250	-6.9540	0.0000	5.3187
57WG	-13.0437	-12.2727	-5.3187	0.0000

Alpha= 0.05

F-15 Post-Reorg MH/FH:

MH/FH By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	16921	181.946	-0.163
1FW	93	12259.5	131.823	-5.454
33FW	91	13858.5	152.291	-3.246
57WG	89	24122	271.034	8.972

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
91.0514	3	<.0001

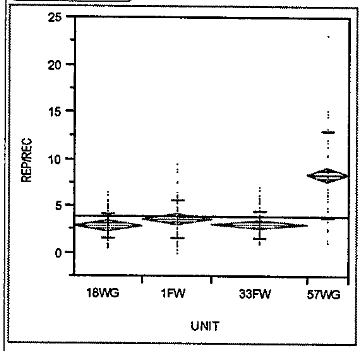
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	18WG	33FW	1FW
57WG	0.0000	14.0237	16.3039	18.8592
18WG	-14.0237	0.0000	2.2802	4.8355
33FW	-16.3039	-2.2802	0.0000	2.5553
1FW	-18.8592	-4.8355	-2.5553	0.0000

Alpha= 0.05

F-15 Post-Reorg REP/REC:

REP/REC By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	60	5810	96.833	-2.999
1FW	60	7110	118.500	-0.193
33FW	84	8953	106.583	-2.208
57WG	35	6807	194.486	6.899

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
50.5790	3	<.0001

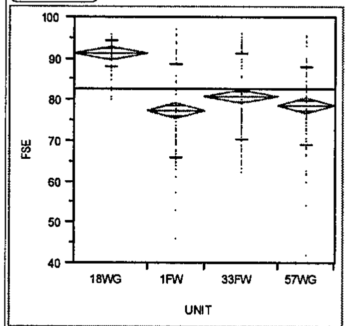
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	1FW	33FW	18WG
57WG	0.00000	4.85286	5.34119	5.61119
1FW	-4.85286	0.00000	0.48833	0.75833
33FW	-5.34119	-0.48833	0.00000	0.27000
18WG	-5.61119	-0.75833	-0.27000	0.00000

Alpha= 0.05

F-15 Post-Reorg FSE:

FSE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	22360.5	240.435	8.937
1FW	72	8974.5	124.646	-4.109
33FW	93	14051.5	151.091	-1.718
57WG	72	9228.5	128.174	-3.754

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
83.7196	3	<.0001

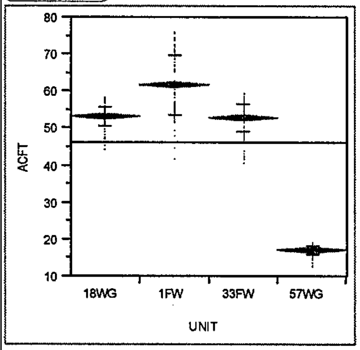
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	33FW	57WG	1FW
18WG	0.0000	10.5624	12.6405	13.8766
33FW	-10.5624	0.0000	2.0781	3.3142
57WG	-12.6405	-2.0781	0.0000	1.2361
1FW	-13.8766	-3.3142	-1.2361	0.0000

Alpha= 0.05

F-15 Post-Reorg ACFT:

ACFT By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	18740.5	201.511	1.611
1FW	93	26894	289.183	10.719
33FW	93	19093.5	205.306	2.005
57WG	92	4278	46.500	-14.388

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
246.7416	3	<.0001

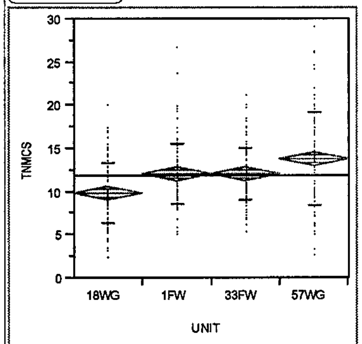
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	18WG	33FW	57WG
1FW	0.0000	8.4763	8.7312	44.6853
18WG	-8.4763	0.0000	0.2548	36.2090
33FW	-8.7312	-0.2548	0.0000	35.9541
57WG	-44.6853	-36.2090	-35.9541	0.0000

Alpha= 0.05

F-15 Post-Reorg TNMCS:

TNMCS By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	12272	131.957	-5.614
1FW	93	17648.5	189.769	0.391
33FW	93	18371.5	197.543	1.199
57WG	92	20714	225.152	4.038

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
37.0764	3	<.0001

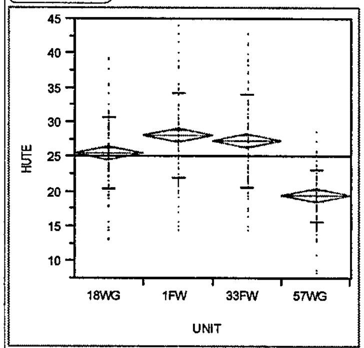
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	33FW	1FW	18WG
57WG	0.00000	1.75664	1.81685	4.01793
33FW	-1.75664	0.00000	0.06022	2.26129
1FW	-1.81685	-0.06022	0.00000	2.20108
18WG	-4.01793	-2.26129	-2.20108	0.00000

Alpha= 0.05

F-15 Post-Reorg HUTE:

HUTE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	18599	199.989	1.453
1FW	93	21949.5	236.016	5.195
33FW	93	20450.5	219.898	3.521
57WG	92	8007	87.033	-10.207

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
109.4591	3	<.0001

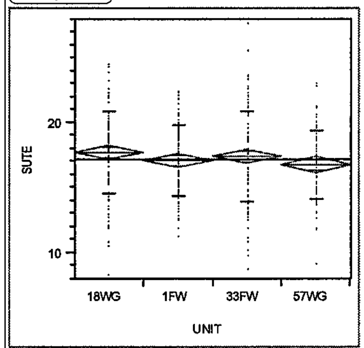
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	33FW	18WG	57WG
1FW	0.00000	0.76022	2.53978	8.68025
33FW	-0.76022	0.00000	1.77957	7.92003
18WG	-2.53978	-1.77957	0.00000	6.14046
57WG	-8.68025	-7.92003	-6.14046	0.00000

Alpha= 0.05

F-15 Post-Reorg SUTE:

SUTE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	19205.5	206.511	2.130
1FW	93	16807	180.720	-0.548
33FW	93	17636.5	189.640	0.378
57WG	92	15357	166.924	-1.967

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
6.6465	3	0.0841

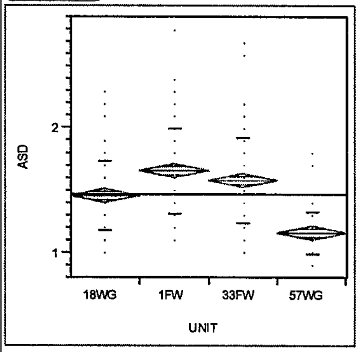
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	33FW	1FW	57WG
18WG	0.00000	0.34946	0.67312	1.00701
33FW	-0.34946	0.00000	0.32366	0.65755
1FW	-0.67312	-0.32366	0.00000	0.33389
57WG	-1.00701	-0.65755	-0.33389	0.00000

Alpha= 0.05

F-15 Post-Reorg ASD:

ASD By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	17683	190.140	0.432
1FW	93	23015.5	247.478	6.424
33FW	93	20837.5	224.059	3.976
57WG	92	7470	81.196	-10.872

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
131.8176	3	<.0001

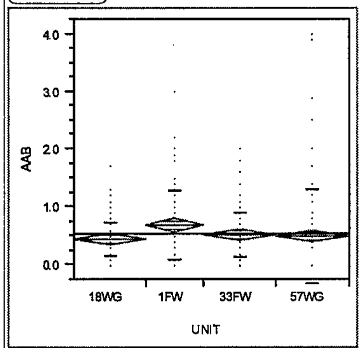
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	33FW	18WG	57WG
1FW	0.000000	0.076344	0.197849	0.497183
33FW	-0.07634	0.000000	0.121505	0.420839
18WG	-0.19785	-0.12151	0.000000	0.299334
57WG	-0.49718	-0.42084	-0.29933	0.000000

Alpha= 0.05

F-15 Post-Reorg AAB:

AAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	16310	175.376	-0.013
1FW	72	15024.5	208.674	3.138
33FW	93	17771	191.086	1.742
57WG	92	12319.5	133.908	-4.617

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
25.7684	3	<.0001

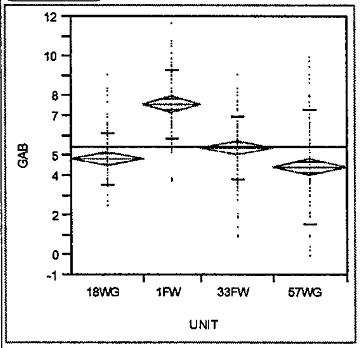
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	33FW	57WG	18WG
1FW	0.000000	0.167115	0.205918	0.249910
33FW	-0.16711	0.000000	0.038803	0.082796
57WG	-0.20592	-0.0388	0.000000	0.043993
18WG	-0.24991	-0.0828	-0.04399	0.000000

Alpha= 0.05

F-15 Post-Reorg GAB:

GAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	12665.5	136.188	-4.373
1FW	72	19456	270.222	8.915
33FW	93	15804	169.935	-0.618
57WG	92	13499.5	146.734	-3.176

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
84.9018	3	<.0001

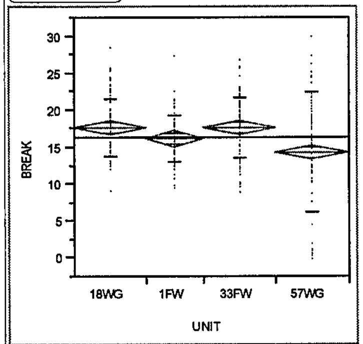
Means Comparisons

Dif=Mean[i]-Mean[j]	1FW	33FW	18WG	57WG
1FW	0.00000	2.18970	2.68324	3.12911
33FW	-2.18970	0.00000	0.49355	0.93941
18WG	-2.68324	-0.49355	0.00000	0.44586
57WG	-3.12911	-0.93941	-0.44586	0.00000

Alpha= 0.05

F-15 Post-Reorg BREAK:

BREAK By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	17992	193.462	1.997
1FW	72	11158	154.972	-1.931
33FW	93	17951	193.022	1.948
57WG	92	14324	155.696	-2.186

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
12.2094	3	0.0067

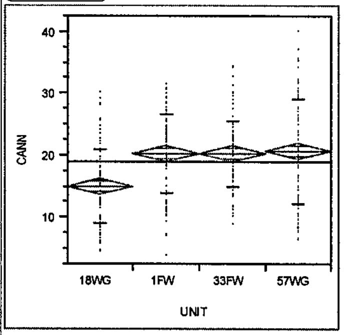
Means Comparisons

Dif=Mean[i]-Mean[j]	18WG	33FW	1FW	57WG
18WG	0.00000	0.14839	1.64368	3.46126
33FW	-0.14839	0.00000	1.49530	3.31287
1FW	-1.64368	-1.49530	0.00000	1.81757
57WG	-3.46126	-3.31287	-1.81757	0.00000

Alpha= 0.05

F-15 Post-Reorg CANN:

CANN By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
18WG	93	11384.5	122.414	-6.542
1FW	93	19397	208.570	2.463
33FW	93	19309	207.624	2.365
57WG	90	18174.5	201.939	1.732

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
43.0139	3	<.0001

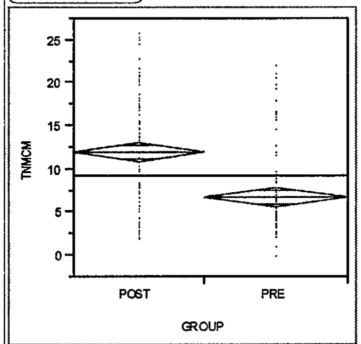
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	33FW	1FW	18WG
57WG	0.00000	0.27373	0.32534	5.68018
33FW	-0.27373	0.00000	0.05161	5.40645
1FW	-0.32534	-0.05161	0.00000	5.35484
18WG	-5.68018	-5.40645	-5.35484	0.00000

Alpha= 0.05

388FW TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	10943	117.667	4.800
PRE	101	7972	78.931	-4.800

2-Sample Test, Normal Approximation

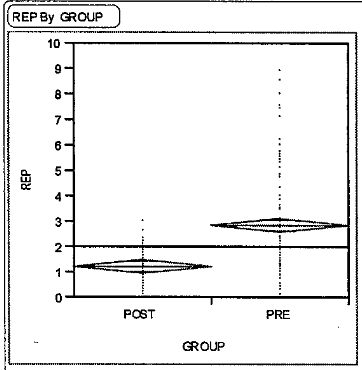
S	Z	Prob>|Z|
10943	4.79965	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
23.0490	1	<.0001

388FW REP:

REP By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6161	66.247	-6.837
PRE	92	11044	120.043	6.837

2-Sample Test, Normal Approximation

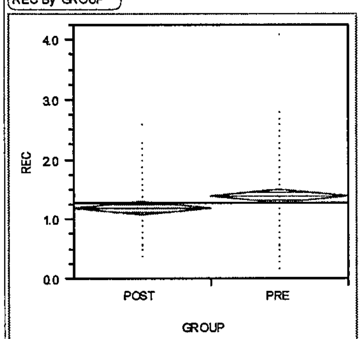
S	Z	Prob>|Z|
11044	6.83689	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
46.7618	1	<.0001

388FW REC:

REC By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7901	84.957	-2.056
PRE	92	9304	101.130	2.056

2-Sample Test, Normal Approximation

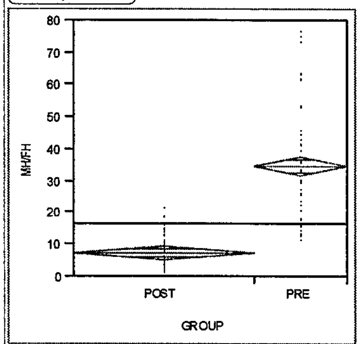
S	Z	Prob>|Z|
9304	2.05576	0.0398

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.2318	1	0.0397

388FW MH/FH:

MH/FH By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	89	4165	46.798	-8.679
PRE	45	4880	108.444	8.679

2-Sample Test, Normal Approximation

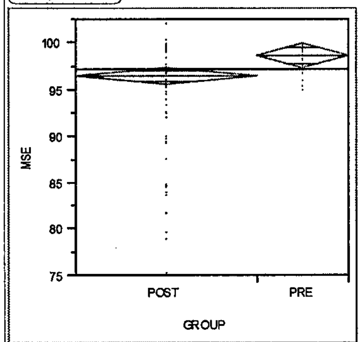
S	Z	Prob>|Z|
4880	8.67891	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
75.3644	1	<.0001

388FW MSE:

MSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	91	6188	68.0000	-0.210
PRE	45	3128	69.5111	0.210

2-Sample Test, Normal Approximation

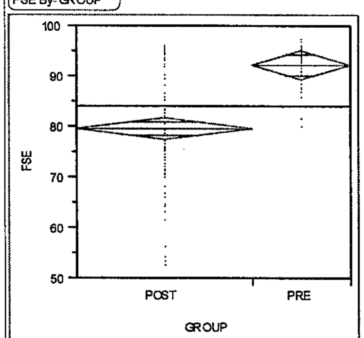
S	Z	Prob>|Z|
3128	0.20959	0.8340

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.0449	1	0.8322

388FW FSE:

FSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	81	4042.5	49.9074	-5.603
PRE	45	3958.5	87.9667	5.603

2-Sample Test, Normal Approximation

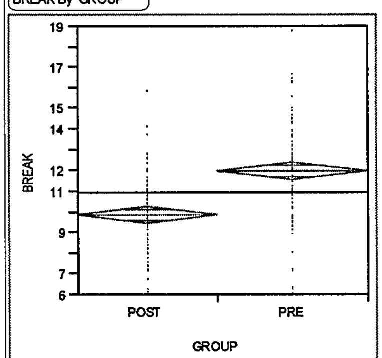
S	Z	Prob>|Z|
3958.5	5.60338	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
31.4284	1	<.0001

388FW BREAK:

BREAK By GROUP



Oneway Anova

Summary of Fit

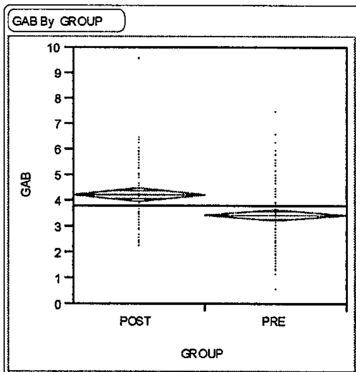
t-Test

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	217.7203	217.720	47.5534
Error	190	869.9028	4.578	Prob>F
C Total	191	1087.6231	5.694	<.0001

Means for Oneway Anova

388FW GAB:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	10456.5	112.435	3.851
PRE	99	8071.5	81.530	-3.851

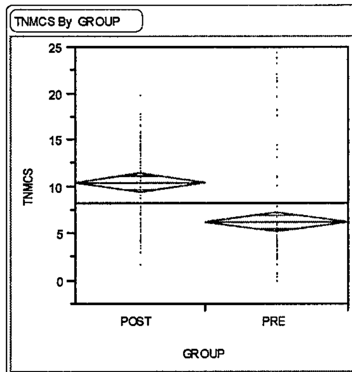
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
10456.5	3.85141	0.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
14.8434	1	0.0001

388FW TNMCS:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11794	126.817	6.978
PRE	101	7121	70.505	-6.978

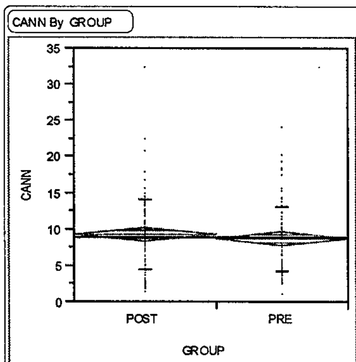
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
11794	6.97802	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
48.7106	1	<.0001

388FW CANN:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8752.5	94.1129	1.248
PRE	85	7178.5	84.4529	-1.248

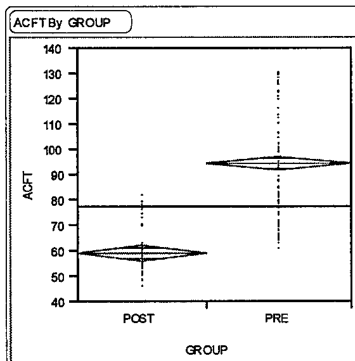
2-Sample Test, Normal Approximation

S	Z	Prob>|Z|
7178.5	-1.24795	0.2120

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
1.5610	1	0.2115

388FW ACFT:



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	4758.5	51.167	-11.100
PRE	103	14547.5	141.238	11.100

2-Sample Test, Normal Approximation

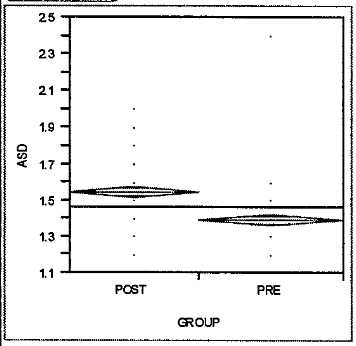
S	Z	Prob>|Z|
4758.5	-11.1	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
123.2370	1	<.0001

388FW ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	11306	121.570	5.565
PRE	103	8000	77.670	-5.565

2-Sample Test, Normal Approximation

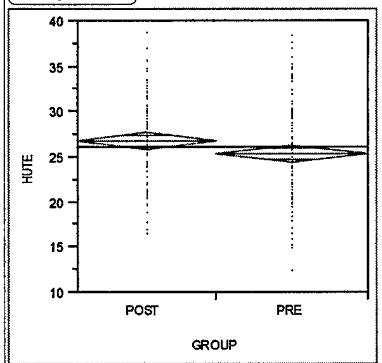
S	Z	Prob>|Z|
11306	5.56525	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
30.9864	1	<.0001

388FW HUTE:

HUTE By GROUP



Oneway Anova

Summary of Fit

t-Test

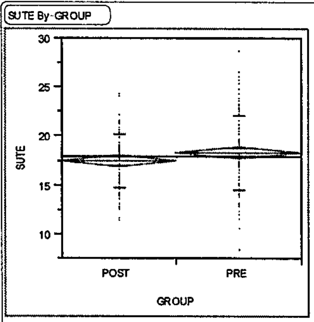
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	93.8606	93.8606	3.3129
Error	192	5439.7877	28.3322	Prob>F
C Total	193	5533.6483	28.6718	0.0703

Means for Oneway Anova

388FW SUTE:

SUTE By GROUP



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
POST	93	2.817530	2.335322	2.317204
PRE	101	3.887143	3.117302	3.037624

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	9.5570	1	192	0.0023
Brown-Forsythe	5.5733	1	192	0.0192
Levene	7.5526	1	192	0.0066
Bartlett	9.6236	1	?	0.0019

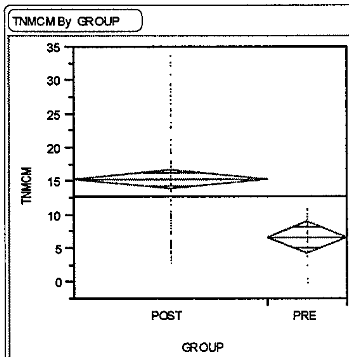
Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
3.3183	1	182.2	0.0702

t-Test
1.8216

347WG TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7136.5	76.7366	5.062
PRE	38	1509.5	39.7237	-5.062

2-Sample Test, Normal Approximation

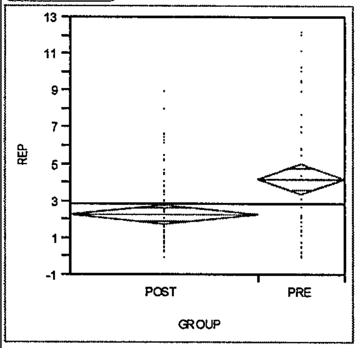
S	Z	Prob>|Z|
1509.5	-5.06204	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
25.6499	1	<.0001

347WG REP:

REP By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5870	63.1183	-2.156
PRE	42	3310	78.8095	2.156

2-Sample Test, Normal Approximation

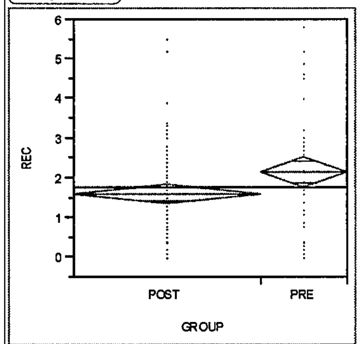
S	Z	Prob>|Z|
3310	2.15621	0.0311

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.6595	1	0.0309

347WG REC:

REC By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6036	64.9032	-1.368
PRE	42	3144	74.8571	1.368

2-Sample Test, Normal Approximation

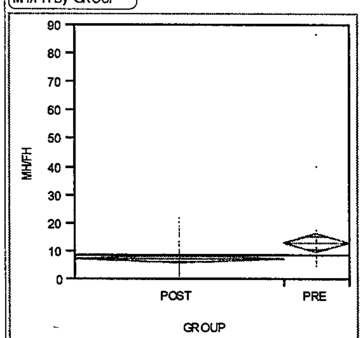
S	Z	Prob>|Z|
3144	1.36769	0.1714

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
1.8771	1	0.1707

347WG MH/FH:

MH/FH By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	90	4879.5	54.2167	-3.005
PRE	28	2141.5	76.4821	3.005

2-Sample Test, Normal Approximation

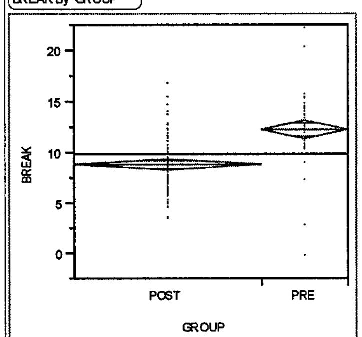
S	Z	Prob>|Z|
2141.5	3.00523	0.0027

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
9.0504	1	0.0026

347WG BREAK:

BREAK By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5075	54.5699	-5.935
PRE	42	4105	97.7381	5.935

2-Sample Test, Normal Approximation

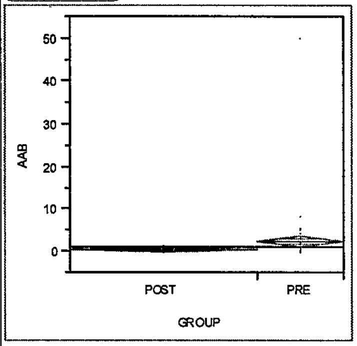
S	Z	Prob>|Z|
4105	5.93460	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
35.2477	1	<.0001

347WG AAB:

AAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5923	63.6882	-1.912
PRE	42	3257	77.5476	1.912

2-Sample Test, Normal Approximation

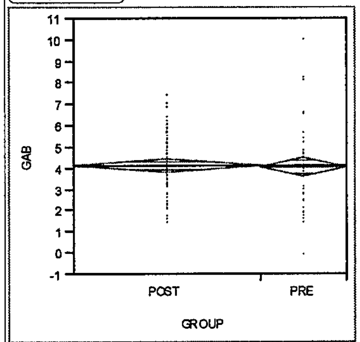
S	Z	Prob>|Z|
3257	1.91166	0.0559

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
3.6636	1	0.0556

347WG GAB:

GAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6456	69.4194	0.625
PRE	42	2724	64.8571	-0.625

2-Sample Test, Normal Approximation

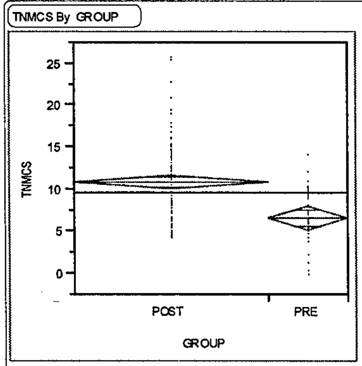
S	Z	Prob>|Z|
2724	-0.62529	0.5318

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.3940	1	0.5302

347WG TNMCS:

TNMCS By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6982	75.0753	4.278
PRE	38	1664	43.7895	-4.278

2-Sample Test, Normal Approximation

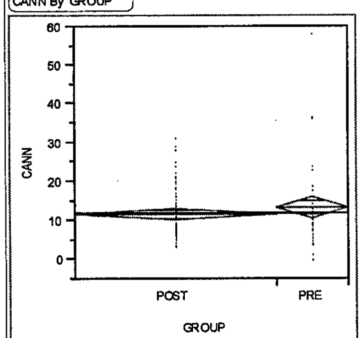
S	Z	Prob>|Z|
1664	-4.27849	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
18.3272	1	<.0001

347WG CANN:

CANN By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	92	5724.5	62.2228	-0.143
PRE	32	2025.5	63.2969	0.143

2-Sample Test, Normal Approximation

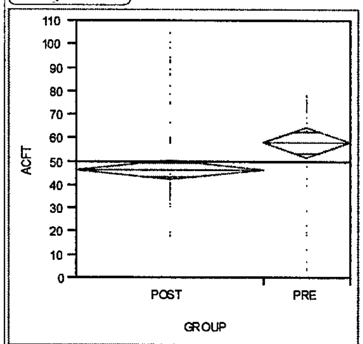
S	Z	Prob>|Z|
2025.5	0.14277	0.8865

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.0212	1	0.8842

347WG ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5727	61.5806	-2.835
PRE	42	3453	82.2143	2.835

2-Sample Test, Normal Approximation

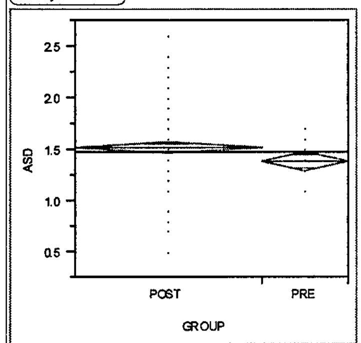
S	Z	Prob>|Z|
3453	2.83531	0.0046

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
8.0525	1	0.0045

347WG ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6888.5	74.0699	2.740
PRE	42	2291.5	54.5595	-2.740

2-Sample Test, Normal Approximation

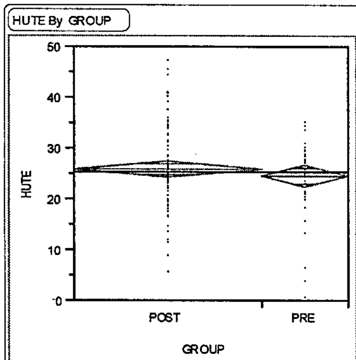
S	Z	Prob>|Z|
2291.5	-2.73958	0.0062

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
7.5186	1	0.0061

347WG HUTE:

HUTE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6261	67.3226	-0.297
PRE	42	2919	69.5000	0.297

2-Sample Test, Normal Approximation

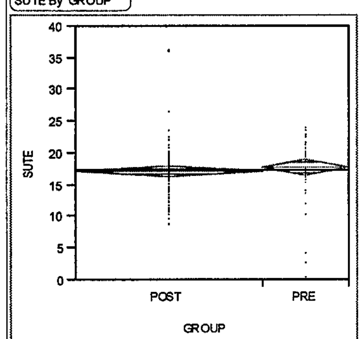
S	Z	Prob>|Z|
2919	0.29707	0.7664

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.0897	1	0.7646

347WG SUTE:

SUTE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5843.5	62.8333	-2.282
PRE	42	3336.5	79.4405	2.282

2-Sample Test, Normal Approximation

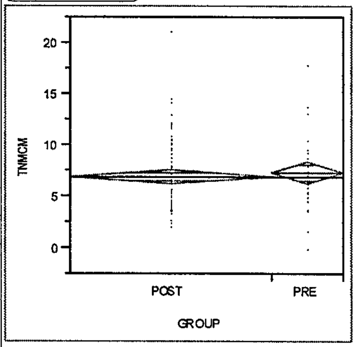
S	Z	Prob>|Z|
3336.5	2.28163	0.0225

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
5.2167	1	0.0224

52FW TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	92	5553	60.3587	-1.122
PRE	32	2197	68.6563	1.122

2-Sample Test, Normal Approximation

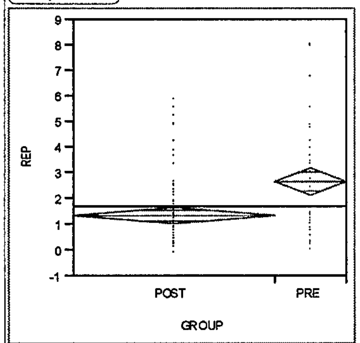
S	Z	Prob>|Z|
2197	1.12235	0.2617

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
1.2661	1	0.2605

52FW REP:

REP By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5382	57.8710	-2.906
PRE	33	2619	79.3636	2.906

2-Sample Test, Normal Approximation

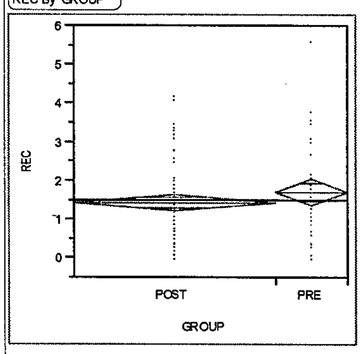
S	Z	Prob>|Z|
2619	2.90613	0.0037

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
8.4617	1	0.0036

52FW REC:

REC By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5798.5	62.3495	-0.592
PRE	33	2202.5	66.7424	0.592

2-Sample Test, Normal Approximation

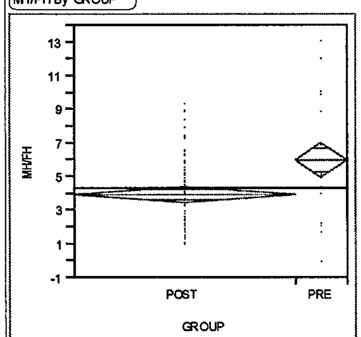
S	Z	Prob>|Z|
2202.5	0.59170	0.5541

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.3534	1	0.5522

52FW MH/FH:

MH/FH By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	90	4717	52.4111	-2.429
PRE	21	1499	71.3810	2.429

2-Sample Test, Normal Approximation

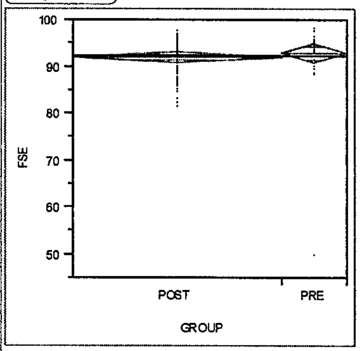
S	Z	Prob>|Z|
1499	2.42881	0.0151

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
5.9174	1	0.0150

52FW FSE:

FSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	84	4319.5	51.4226	-2.407
PRE	26	1785.5	68.6731	2.407

2-Sample Test, Normal Approximation

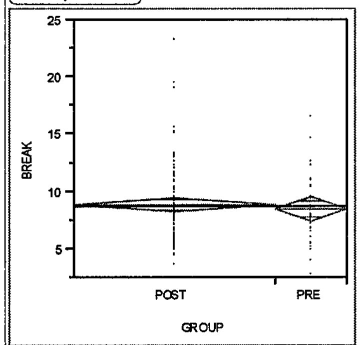
S	Z	Prob>|Z|
1785.5	2.40654	0.0161

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
5.8084	1	0.0159

52FW BREAK:

BREAK By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5940	63.8710	0.189
PRE	33	2061	62.4545	-0.189

2-Sample Test, Normal Approximation

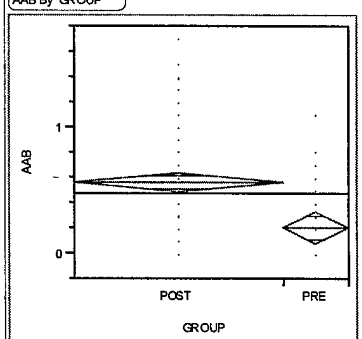
S	Z	Prob>|Z|
2061	-0.18869	0.8503

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.0367	1	0.8482

52FW AAB:

AAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6525	70.1613	4.869
PRE	29	978	33.7241	-4.869

2-Sample Test, Normal Approximation

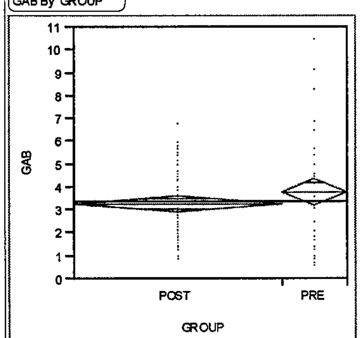
S	Z	Prob>|Z|
978	-4.86902	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
23.7369	1	<.0001

52FW GAB:

GAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5665	60.9140	-0.325
PRE	29	1838	63.3793	0.325

2-Sample Test, Normal Approximation

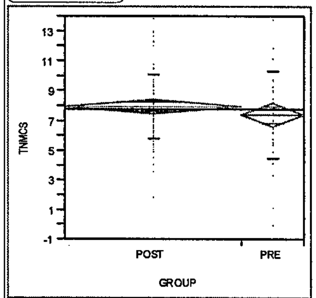
S	Z	Prob>|Z|
1838	0.32491	0.7452

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.1075	1	0.7430

52FW TNMCS:

TNMCS By GROUP



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
POST	92	2.193213	1.705246	1.695652
PRE	32	2.987116	2.342578	2.337500

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	4.4699	1	122	0.0365
Brown-Forsythe	4.2569	1	122	0.0412
Levene	4.3382	1	122	0.0394
Bartlett	4.7747	1	?	0.0289

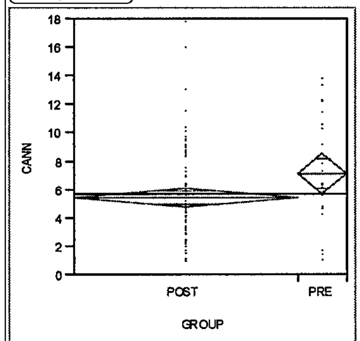
Welch Anova testing Means Equal, allowing Stds Not Equal

F Ratio	DF Num	DF Den	Prob>F
0.7840	1	43.198	0.3808

t-Test
0.8854

52FW CANN:

CANN By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5019	53.9677	-2.118
PRE	20	1422	71.1000	2.118

2-Sample Test, Normal Approximation

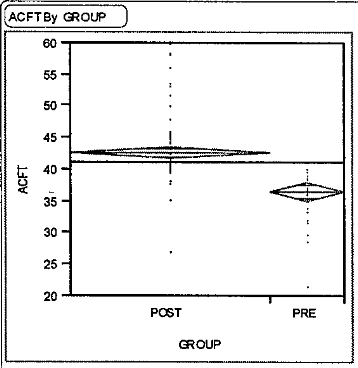
S	Z	Prob>|Z|
1422	2.11812	0.0342

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.5024	1	0.0338

52FW ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7340	78.9247	7.562
PRE	34	788	23.1765	-7.562

2-Sample Test, Normal Approximation

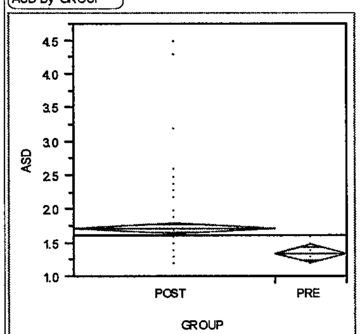
S	Z	Prob>|Z|
788	-7.56206	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
57.2260	1	<.0001

52FW ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7063.5	75.9516	6.488
PRE	33	937.5	28.4091	-6.488

2-Sample Test, Normal Approximation

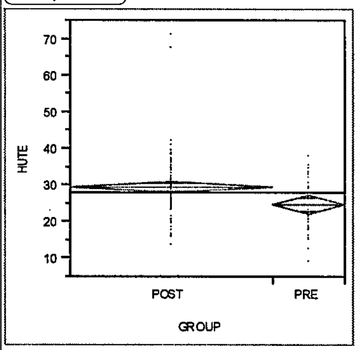
S	Z	Prob>|Z|
937.5	-6.48761	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
42.1254	1	<.0001

52FW HUTE:

HUTE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6401	68.8280	2.747
PRE	33	1600	48.4848	-2.747

2-Sample Test, Normal Approximation

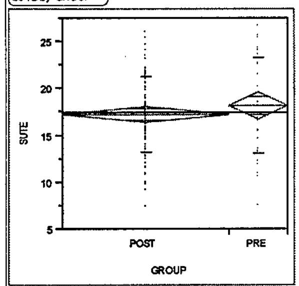
S	Z	Prob>|Z|
1600	-2.74671	0.0060

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
7.5597	1	0.0060

52FW SUTE:

SUTE By GROUP



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
POST	93	4.045084	3.212001	3.207527
PRE	33	5.191516	4.364187	4.345455

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	5.2130	1	124	0.0241
Brown-Forsythe	4.7758	1	124	0.0307
Levene	5.1415	1	124	0.0251
Bartlett	3.1456	1	?	0.0761

Welch Anova testing Means Equal, allowing Std's Not Equal

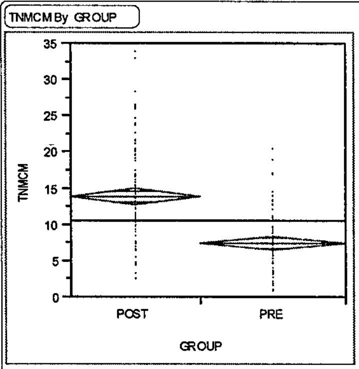
F Ratio	DF Num	DF Den	Prob>F
0.8329	1	46.521	0.3661

t-Test

0.9126

57WG F-16 TNMCM:

TNMCM By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	12015.5	129.199	7.199
PRE	103	7290.5	70.782	-7.199

2-Sample Test, Normal Approximation

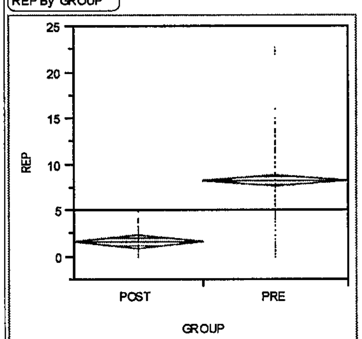
S	Z	Prob>|Z|
12015.5	7.19863	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
51.8385	1	<.0001

57WG F-16 REP:

REP By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5246.5	56.414	-9.870
PRE	103	14059.5	136.500	9.870

2-Sample Test, Normal Approximation

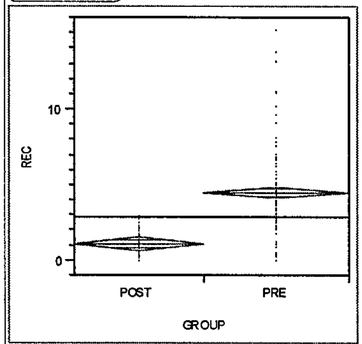
S	Z	Prob>|Z|
5246.5	-9.87046	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
97.4509	1	<.0001

57WG F-16 REC:

REC By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	5353	57.559	-9.604
PRE	103	13953	135.466	9.604

2-Sample Test, Normal Approximation

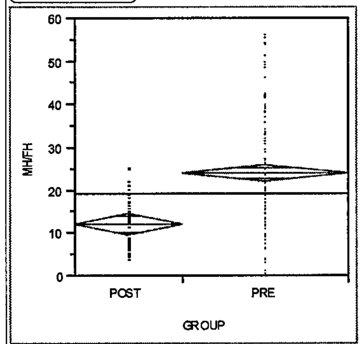
S	Z	Prob>|Z|
5353	-9.60362	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
92.2538	1	<.0001

57WG F-16 MH/FH:

MH/FH By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	67	3817.5	56.978	-6.093
PRE	103	10717.5	104.053	6.093

2-Sample Test, Normal Approximation

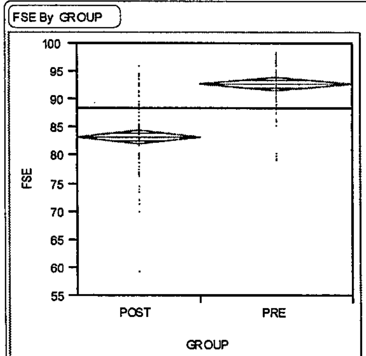
S	Z	Prob>|Z|
3817.5	-6.09251	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
37.1382	1	<.0001

57WG F-16 FSE:

FSE By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	72	3376	46.889	-8.349
PRE	89	9665	108.596	8.349

2-Sample Test, Normal Approximation

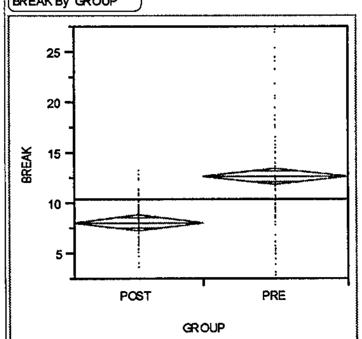
S	Z	Prob>|Z|
3376	-8.34900	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
69.7341	1	<.0001

57WG F-16 BREAK:

BREAK By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	6332.5	68.091	-7.131
PRE	103	12973.5	125.956	7.131

2-Sample Test, Normal Approximation

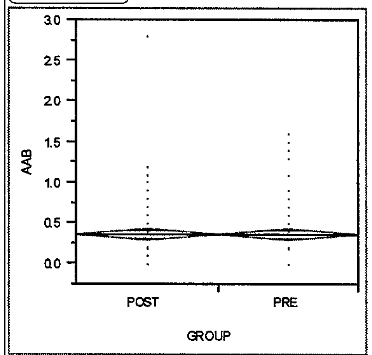
S	Z	Prob>|Z|
6332.5	-7.13103	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
50.8696	1	<.0001

57WG F-16 AAB:

AAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	8903	95.7312	0.841
PRE	91	8117	89.1978	-0.841

2-Sample Test, Normal Approximation

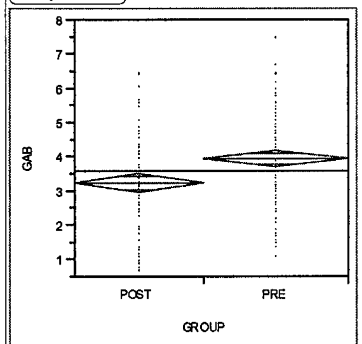
S	Z	Prob>|Z|
8117	-0.84102	0.4003

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
0.7097	1	0.3996

57WG F-16 GAB:

GAB By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7919	85.151	-3.130
PRE	103	11387	110.553	3.130

2-Sample Test, Normal Approximation

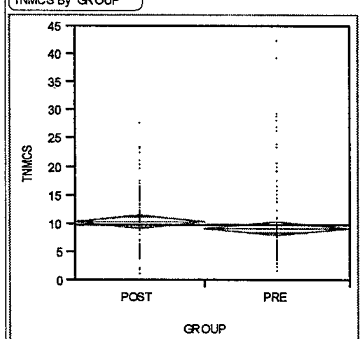
S	Z	Prob>|Z|
7919	-3.13046	0.0017

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
9.8077	1	0.0017

57WG F-16 TNMCS:

TNMCS By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	10141.5	109.048	2.473
PRE	103	9164.5	88.976	-2.473

2-Sample Test, Normal Approximation

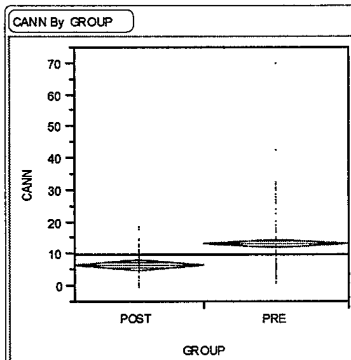
S	Z	Prob>|Z|
10141.5	2.47273	0.0134

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
6.1206	1	0.0134

57WG F-16 CANN:

CANN By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	7356	79.097	-4.550
PRE	103	11950	116.019	4.550

2-Sample Test, Normal Approximation

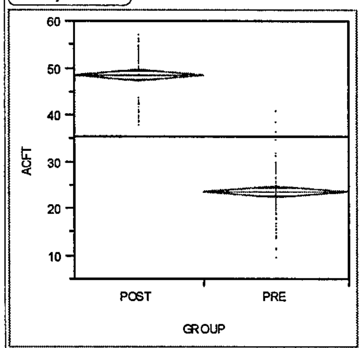
S	Z	Prob>|Z|
7356	-4.54955	<.0001

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
20.7099	1	<.0001

57WG F-16 ACFT:

ACFT By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	13843.5	148.855	11.809
PRE	103	5462.5	53.034	-11.809

2-Sample Test, Normal Approximation

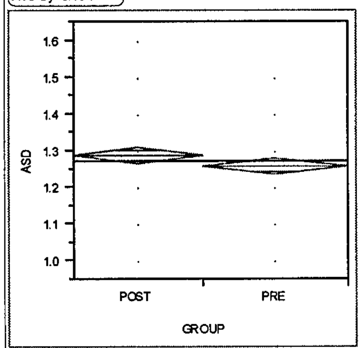
S	Z	Prob>|Z|
13843.5	11.80881	0.0000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
139.4778	1	<.0001

57WG F-16 ASD:

ASD By GROUP



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
POST	93	9752.5	104.866	1.542
PRE	103	9553.5	92.752	-1.542

2-Sample Test, Normal Approximation

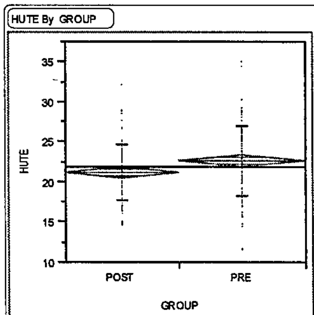
S	Z	Prob>|Z|
9752.5	1.54210	0.1230

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
2.3821	1	0.1227

57WG F-16 HUTE:

HUTE By GROUP



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
POST	93	3.491468	2.767002	2.762386
PRE	103	4.375258	3.404223	3.403883

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	3.9950	1	194	0.0470
Brown-Forsythe	3.3260	1	194	0.0697
Levene	3.2950	1	194	0.0710
Bartlett	4.8223	1	?	0.0281

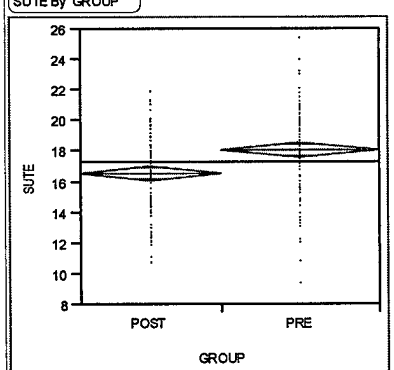
Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
7.8993	1	191.18	0.0055

t-Test
2.8106

57WG F-16 SUTE:

SUTE By GROUP



Oneway Anova

Summary of Fit

t-Test

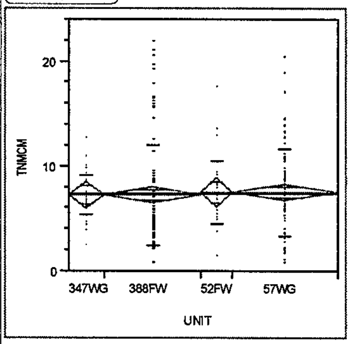
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	116.3485	116.349	15.2854
Error	194	1476.6815	7.612	Prob>F
C Total	195	1593.0300	8.169	0.0001

Means for Oneway Anova

F-16 Pre-Reorg TNMCM:

TNMCM By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	35	5229.5	149.414	1.406
388FW	95	11012.5	115.921	-2.645
52FW	31	4477.5	144.435	0.925
57WG	103	14260.5	138.451	1.012

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
7.5811	3	0.0555

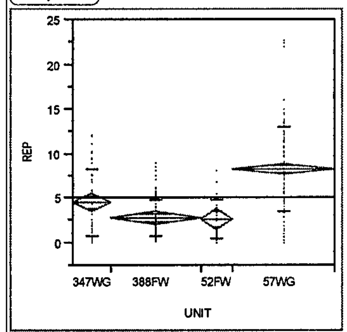
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	52FW	347WG	388FW
57WG	0.000000	0.032697	0.238779	0.324343
52FW	-0.0327	0.000000	0.206083	0.291647
347WG	-0.23878	-0.20608	0.000000	0.085564
388FW	-0.32434	-0.29165	-0.08556	0.000000

Alpha= 0.05

F-16 Pre-Reorg REP:

REP By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	39	4798	123.026	-0.959
388FW	92	8962.5	97.418	-5.612
52FW	33	2851.5	86.409	-3.781
57WG	103	19166	186.078	8.733

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
80.8329	3	<.0001

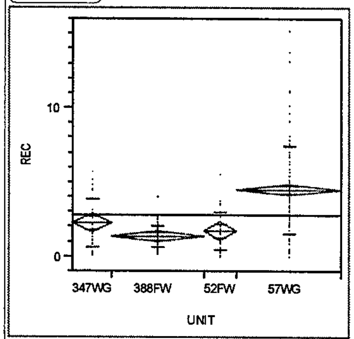
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	347WG	388FW	52FW
57WG	0.00000	3.80152	5.43909	5.63369
347WG	-3.80152	0.00000	1.63757	1.83217
388FW	-5.43909	-1.63757	0.00000	0.19460
52FW	-5.63369	-1.83217	-0.19460	0.00000

Alpha= 0.05

F-16 Pre-Reorg REC:

REC By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	39	4906.5	125.808	-0.716
388FW	92	8277	89.967	-6.757
52FW	33	3266	98.970	-2.783
57WG	103	19328.5	187.655	9.000

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
86.9233	3	<.0001

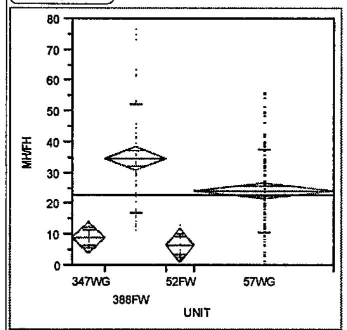
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	347WG	52FW	388FW
57WG	0.00000	2.17615	2.78641	3.08315
347WG	-2.17615	0.00000	0.61026	0.90700
52FW	-2.78641	-0.61026	0.00000	0.29674
388FW	-3.08315	-0.90700	-0.29674	0.00000

Alpha= 0.05

F-16 Pre-Reorg MH/FH:

MH/FH By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	25	1002.5	40.100	-5.457
388FW	45	6140.5	136.456	5.410
52FW	20	515.5	25.775	-6.021
57WG	103	11062.5	107.403	2.767

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
84.4853	3	<.0001

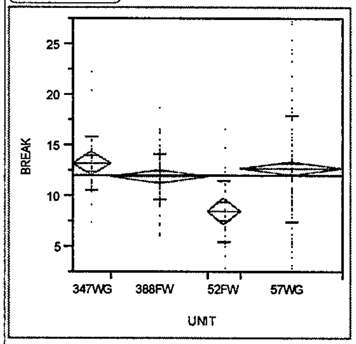
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	57WG	347WG	52FW
388FW	0.0000	10.4029	25.6876	28.1806
57WG	-10.4029	0.0000	15.2846	17.7776
347WG	-25.6876	-15.2846	0.0000	2.4930
52FW	-28.1806	-17.7776	-2.4930	0.0000

Alpha= 0.05

F-16 Pre-Reorg BREAK:

BREAK By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	39	6679.5	171.269	2.873
388FW	99	14222	143.657	0.967
52FW	33	2169	65.727	-5.547
57WG	103	14604.5	141.791	0.695

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
35.0609	3	<.0001

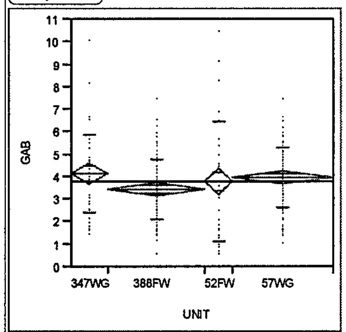
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	57WG	388FW	52FW
347WG	0.00000	0.54703	1.21702	4.67459
57WG	-0.54703	0.00000	0.66999	4.12757
388FW	-1.21702	-0.66999	0.00000	3.45758
52FW	-4.67459	-4.12757	-3.45758	0.00000

Alpha= 0.05

F-16 Pre-Reorg GAB:

GAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	39	5872.5	150.577	1.303
388FW	99	11951.5	120.722	-2.366
52FW	29	3633.5	125.293	-0.744
57WG	103	15127.5	146.869	1.879

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
7.6826	3	0.0530

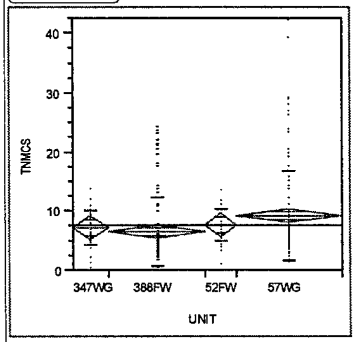
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	57WG	52FW	388FW
347WG	0.000000	0.224297	0.388240	0.704507
57WG	-0.2243	0.000000	0.163944	0.480210
52FW	-0.38824	-0.16394	0.000000	0.316266
388FW	-0.70451	-0.48021	-0.31627	0.000000

Alpha= 0.05

F-16 Pre-Reorg TNMCS:

TNMCS By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	35	5302	151.486	1.578
388FW	95	9498	99.979	-5.188
52FW	31	5009.5	161.597	2.257
57WG	103	15170.5	147.286	2.516

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
27.7666	3	<.0001

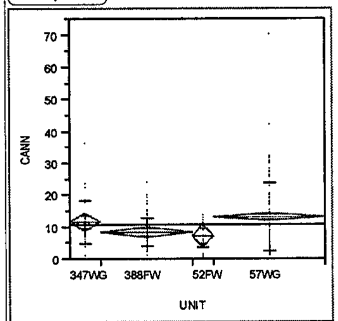
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	52FW	347WG	388FW
57WG	0.00000	1.52640	1.99589	2.60341
52FW	-1.52640	0.00000	0.46949	1.07701
347WG	-1.99589	-0.46949	0.00000	0.60752
388FW	-2.60341	-1.07701	-0.60752	0.00000

Alpha= 0.05

F-16 Pre-Reorg CANN:

CANN By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	29	3973.5	137.017	1.509
388FW	85	9027.5	106.206	-2.147
52FW	20	1791	89.550	-2.006
57WG	103	13411	130.204	2.205

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
11.4048	3	0.0097

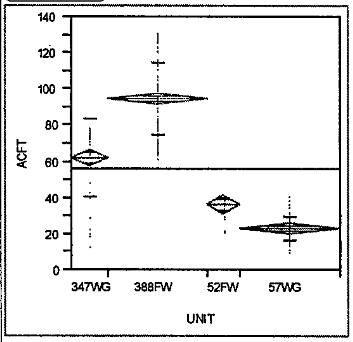
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	347WG	388FW	52FW
57WG	0.00000	1.51272	4.44112	5.92083
347WG	-1.51272	0.00000	2.92840	4.40810
388FW	-4.44112	-2.92840	0.00000	1.47971
52FW	-5.92083	-4.40810	-1.47971	0.00000

Alpha= 0.05

F-16 Pre-Reorg ACFT:

ACFT By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	39	6000.5	153.859	1.156
388FW	103	22872.5	222.063	12.996
52FW	34	4028	118.471	-1.659
57WG	103	6159	59.796	-12.701

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
211.9091	3	<.0001

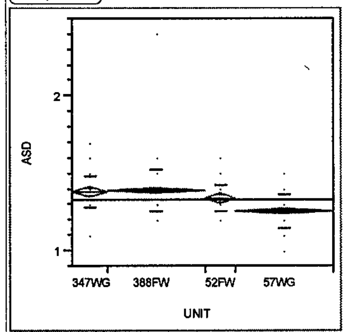
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	347WG	52FW	57WG
388FW	0.0000	32.2830	57.7592	70.7990
347WG	-32.2830	0.0000	25.4762	38.5160
52FW	-57.7592	-25.4762	0.0000	13.0399
57WG	-70.7990	-38.5160	-13.0399	0.0000

Alpha= 0.05

F-16 Pre-Reorg ASD:

ASD By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	39	6631	170.026	2.659
388FW	103	17795.5	172.772	5.507
52FW	33	4790.5	145.167	0.448
57WG	103	9564	92.854	-7.720

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
62.8845	3	<.0001

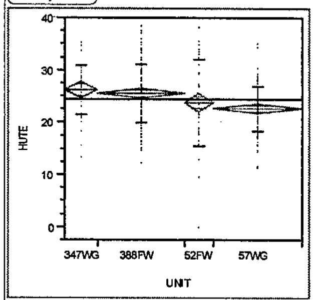
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	347WG	52FW	57WG
388FW	0.000000	0.008240	0.044837	0.130097
347WG	-0.00824	0.000000	0.036597	0.121857
52FW	-0.04484	-0.0366	0.000000	0.085260
57WG	-0.1301	-0.12186	-0.08526	0.000000

Alpha= 0.05

F-16 Pre-Reorg HUTE:

HUTE By UNIT



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
347WG	39	4.791154	3.700460	3.643590
388FW	101	5.732048	4.646662	4.603960
52FW	34	8.405652	6.720415	6.650000
57WG	103	4.375258	3.404223	3.403883

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	9.4134	3	273	<.0001
Brown-Forsythe	8.3000	3	273	<.0001
Levene	9.3479	3	273	<.0001
Bartlett	8.8982	3	?	<.0001

Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
7.5706	3	93.198	0.0001

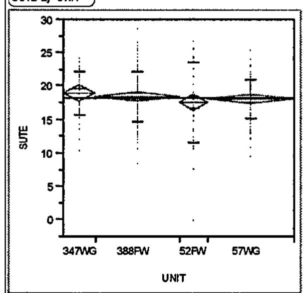
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	388FW	52FW	57WG
347WG	0.00000	0.68314	2.32406	3.42146
388FW	-0.68314	0.00000	1.64091	2.73832
52FW	-2.32406	-1.64091	0.00000	1.09740
57WG	-3.42146	-2.73832	-1.09740	0.00000

Alpha= 0.05

F-16 Pre-Reorg SUTE:

SUTE By UNIT



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
347WG	39	3.274667	2.750690	2.710256
388FW	101	3.887143	3.117302	3.037624
52FW	34	5.990322	4.739446	4.717647
57WG	103	2.937316	2.371119	2.355340

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	10.1368	3	273	<.0001
Brown-Forsythe	8.6728	3	273	<.0001
Levene	9.8373	3	273	<.0001
Bartlett	10.6008	3	?	<.0001

Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
0.6880	3	92.638	0.5616

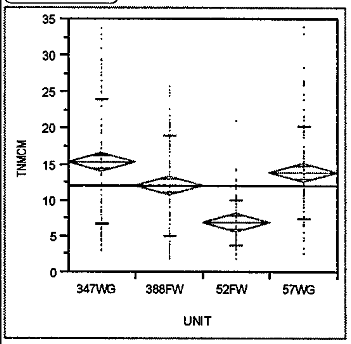
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	388FW	57WG	52FW
347WG	0.00000	0.49947	0.77394	1.21403
388FW	-0.49947	0.00000	0.27447	0.71456
57WG	-0.77394	-0.27447	0.00000	0.44009
52FW	-1.21403	-0.71456	-0.44009	0.00000

Alpha= 0.05

F-16 Post-Reorg TNMCM:

TNMCM By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	21101.5	226.898	4.248
388FW	93	17435	187.473	0.152
52FW	92	9930.5	107.940	-8.050
57WG	93	20539	220.849	3.620

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
72.1102	3	<.0001

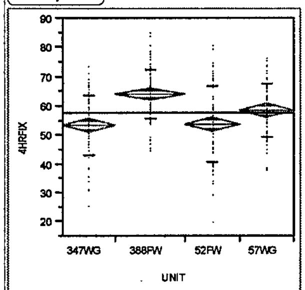
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	57WG	388FW	52FW
347WG	0.00000	1.50860	3.32796	8.49845
57WG	-1.50860	0.00000	1.81935	6.98984
388FW	-3.32796	-1.81935	0.00000	5.17049
52FW	-8.49845	-6.98984	-5.17049	0.00000

Alpha= 0.05

F-16 Post-Reorg 4HR:

4HRFIX By UNIT



Tests that the Variances are Equal

Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
347WG	72	10.46384	8.21435	8.18056
388FW	93	8.48528	6.90515	6.90538
52FW	74	13.10116	10.93499	10.92973
57WG	71	9.24322	7.15366	7.15493

Test	F Ratio	DF Num	DF Den	Prob>F
O'Brien[.5]	7.1855	3	306	0.0001
Brown-Forsythe	7.1292	3	306	0.0001
Levene	7.2096	3	306	0.0001
Bartlett	5.8404	3	?	0.0006

Welch Anova testing Means Equal, allowing Std's Not Equal

F Ratio	DF Num	DF Den	Prob>F
22.1133	3	161.77	<.0001

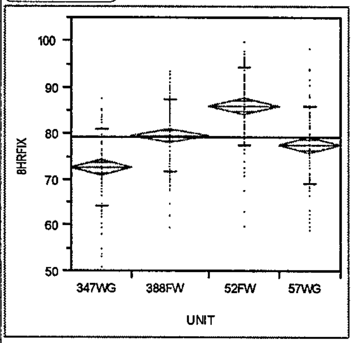
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	57WG	52FW	347WG
388FW	0.0000	5.5314	10.2269	10.8604
57WG	-5.5314	0.0000	4.6965	5.3290
52FW	-10.2269	-4.6955	0.0000	0.6335
347WG	-10.8604	-5.3290	-0.6335	0.0000

Alpha= 0.05

F-16 Post-Reorg 8HR:

8HRFIX By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	72	7120.5	98.896	-6.446
388FW	93	15204	163.484	0.306
52FW	84	19065.5	226.970	7.581
57WG	72	10291	142.931	-1.875

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
77.4808	3	<.0001

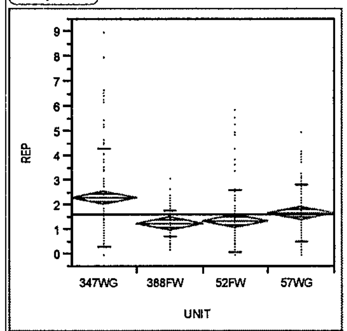
Means Comparisons

Dif=Mean[i]-Mean[j]	52FW	388FW	57WG	347WG
52FW	0.0000	6.4311	8.5843	13.4649
388FW	-6.4311	0.0000	2.1532	7.0337
57WG	-8.5843	-2.1532	0.0000	4.8806
347WG	-13.4649	-7.0337	-4.8806	0.0000

Alpha= 0.05

F-16 Post-Reorg REP:

REP By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	19909	214.075	2.857
388FW	93	16472	177.118	-0.972
52FW	93	14363	154.441	-3.322
57WG	93	18634	200.366	1.437

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
16.6650	3	0.0008

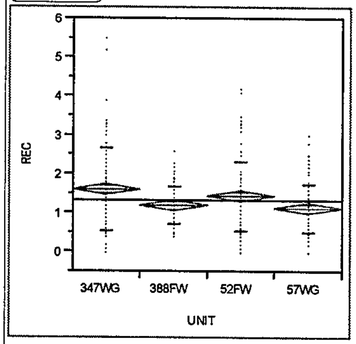
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	57WG	52FW	388FW
347WG	0.00000	0.60860	0.94731	1.05699
57WG	-0.60860	0.00000	0.33871	0.44839
52FW	-0.94731	-0.33871	0.00000	0.10968
388FW	-1.05699	-0.44839	-0.10968	0.00000

Alpha= 0.05

F-16 Post-Reorg REC:

REC By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	19345	208.011	2.230
388FW	93	16458.5	176.973	-0.987
52FW	93	18210.5	195.812	0.965
57WG	93	15364	165.204	-2.208

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
8.8195	3	0.0318

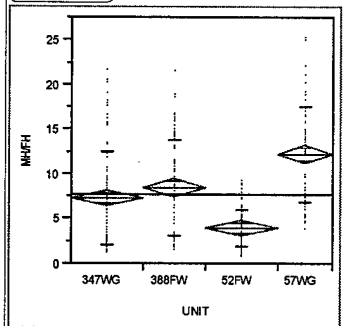
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	52FW	388FW	57WG
347WG-	0.000000	0.168817	0.404301	0.458065
52FW	-0.16882	0.000000	0.235484	0.289247
388FW	-0.4043	-0.23548	0.000000	0.053763
57WG	-0.45806	-0.28925	-0.05376	0.000000

Alpha= 0.05

F-16 Post-Reorg MH/FH:

MH/FH By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	90	14279	158.656	-0.458
388FW	77	13598.5	176.604	1.513
52FW	90	8748	97.200	-7.782
57WG	67	16024.5	239.172	7.522

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
90.5336	3	<.0001

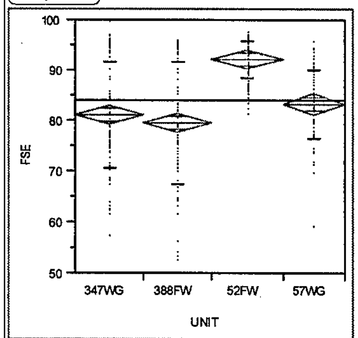
Means Comparisons

Dif=Mean[i]-Mean[j]	57WG	388FW	347WG	52FW
57WG	0.00000	3.83204	4.89449	8.32338
388FW	-3.83204	0.00000	1.06245	4.49134
347WG	-4.89449	-1.06245	0.00000	3.42889
52FW	-8.32338	-4.49134	-3.42889	0.00000

Alpha= 0.05

F-16 Post-Reorg FSE:

FSE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	81	10827	133.667	-2.929
388FW	81	10171.5	125.574	-3.846
52FW	84	19584.5	233.149	8.558
57WG	72	10138	140.806	-1.961

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
74.3006	3	<.0001

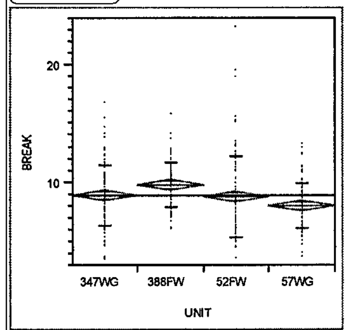
Means Comparisons

Dif=Mean[i]-Mean[j]	52FW	57WG	347WG	388FW
52FW	0.0000	8.8488	10.9840	12.5309
57WG	-8.8488	0.0000	2.1352	3.6821
347WG	-10.9840	-2.1352	0.0000	1.5469
388FW	-12.5309	-3.6821	-1.5469	0.0000

Alpha= 0.05

F-16 Post-Reorg BREAK:

BREAK By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	17651.5	189.801	0.341
388FW	93	21962.5	236.156	5.142
52FW	93	15692	168.731	-1.840
57WG	93	14072	151.312	-3.644

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
32.4256	3	<.0001

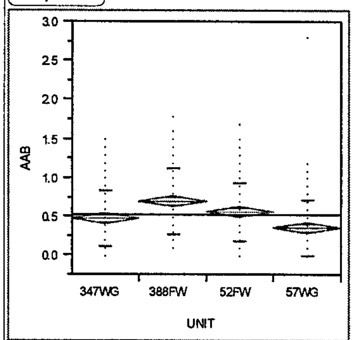
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	347WG	52FW	57WG
388FW	0.00000	0.90753	1.01075	1.77419
347WG	-0.90753	0.00000	0.10323	0.86667
52FW	-1.01075	-0.10323	0.00000	0.76344
57WG	-1.77419	-0.86667	-0.76344	0.00000

Alpha= 0.05

F-16 Post-Reorg AAB:

AAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	16160.5	173.769	-1.324
388FW	93	21717	233.516	4.892
52FW	93	18828	202.452	1.659
57WG	93	12672.5	136.263	-5.227

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
41.8298	3	<.0001

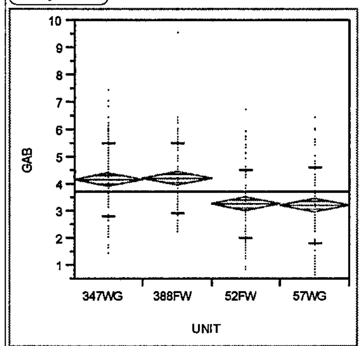
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	52FW	347WG	57WG
388FW	0.000000	0.138710	0.229032	0.341935
52FW	-0.13871	0.000000	0.090323	0.203226
347WG	-0.22903	-0.09032	0.000000	0.112903
57WG	-0.34194	-0.20323	-0.1129	0.000000

Alpha= 0.05

F-16 Post-Reorg GAB:

GAB By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	20359.5	218.919	3.358
388FW	93	20679.5	222.360	3.714
52FW	93	14025.5	150.812	-3.696
57WG	93	14313.5	153.909	-3.375

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
37.6042	3	<.0001

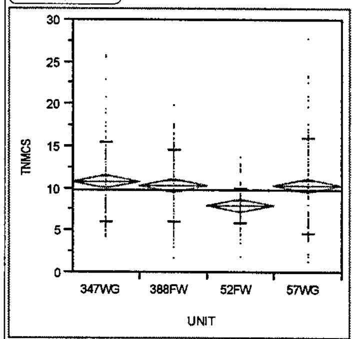
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	347WG	52FW	57WG
388FW	0.00000	0.05484	0.97634	1.00538
347WG	-0.05484	0.00000	0.92151	0.95054
52FW	-0.97634	-0.92151	0.00000	0.02903
57WG	-1.00538	-0.95054	-0.02903	0.00000

Alpha= 0.05

F-16 Post-Reorg TNMCS:

TNMCS By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	19268.5	207.167	2.198
388FW	93	18763.5	201.758	1.637
52FW	92	13600	147.826	-3.937
57WG	93	17376	186.839	0.097

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
17.2954	3	0.0006

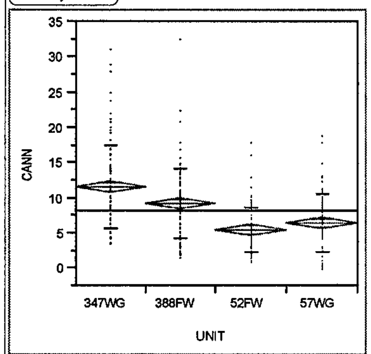
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	388FW	57WG	52FW
347WG	0.00000	0.50000	0.53333	2.96851
388FW	-0.50000	0.00000	0.03333	2.46851
57WG	-0.53333	-0.03333	0.00000	2.43518
52FW	-2.96851	-2.46851	-2.43518	0.00000

Alpha= 0.05

F-16 Post-Reorg CANN:

CANN By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	92	22913	249.054	6.503
388FW	93	20140.5	216.565	3.175
52FW	93	11533	124.011	-6.439
57WG	93	14419.5	155.048	-3.215

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
78.1859	3	<.0001

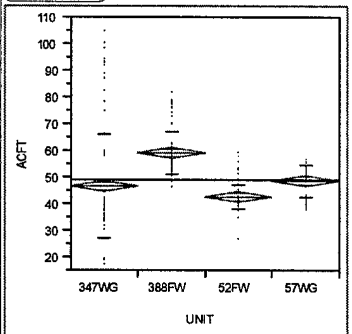
Means Comparisons

Dif=Mean[i]-Mean[j]	347WG	388FW	57WG	52FW
347WG	0.00000	2.28184	5.20227	6.13990
388FW	-2.28184	0.00000	2.92043	3.85806
57WG	-5.20227	-2.92043	0.00000	0.93763
52FW	-6.13990	-3.85806	-0.93763	0.00000

Alpha= 0.05

F-16 Post-Reorg ACFT:

ACFT By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	11149	119.882	-6.899
388FW	93	27314	293.699	11.102
52FW	93	12784.5	137.468	-5.078
57WG	93	18130.5	194.952	0.875

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
148.0606	3	<.0001

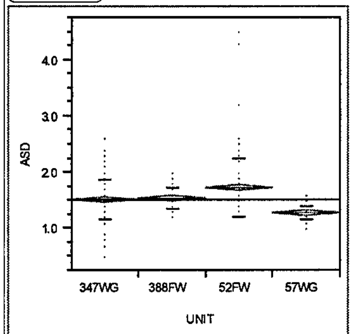
Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	57WG	347WG	52FW
388FW	0.0000	10.8785	12.6570	16.7194
57WG	-10.8785	0.0000	1.7785	5.8409
347WG	-12.6570	-1.7785	0.0000	4.0624
52FW	-16.7194	-5.8409	-4.0624	0.0000

Alpha= 0.05

F-16 Post-Reorg ASD:

ASD By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	18233	196.054	0.999
388FW	93	19693.5	211.758	2.643
52FW	93	23033	247.667	6.400
57WG	93	8418.5	90.522	-10.043

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
112.3748	3	<.0001

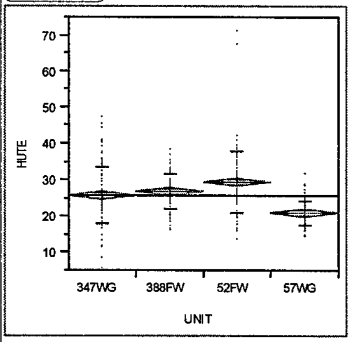
Means Comparisons

Dif=Mean[i]-Mean[j]	52FW	388FW	347WG	57WG
52FW	0.000000	0.182796	0.204301	0.440860
388FW	-0.1828	0.000000	0.021505	0.258065
347WG	-0.2043	-0.02151	0.000000	0.236559
57WG	-0.44086	-0.25806	-0.23656	0.000000

Alpha= 0.05

F-16 Post-Reorg HUTE:

HUTE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	17434	187.462	0.099
388FW	93	20089	216.011	3.056
52FW	93	22198	238.688	5.404
57WG	93	9657	103.839	-8.560

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
83.8786	3	<.0001

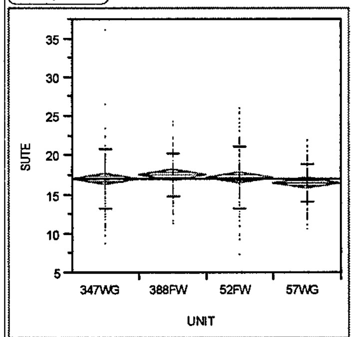
Means Comparisons

Dif=Mean[i]-Mean[j]	52FW	388FW	347WG	57WG
52FW	0.00000	2.50323	3.44516	8.21613
388FW	-2.50323	0.00000	0.94194	5.71290
347WG	-3.44516	-0.94194	0.00000	4.77097
57WG	-8.21613	-5.71290	-4.77097	0.00000

Alpha= 0.05

F-16 Post-Reorg SUTE:

SUTE By UNIT



Wilcoxon / Kruskal-Wallis Tests (Rank Sums)

Level	Count	Score Sum	Score Mean	(Mean-Mean0)/Std0
347WG	93	17294	185.957	-0.056
388FW	93	18721.5	201.306	1.533
52FW	93	17779.5	191.177	0.484
57WG	93	15583	167.559	-1.961

1-way Test, Chi-Square Approximation

ChiSquare	DF	Prob>ChiSq
4.8277	3	0.1849

Means Comparisons

Dif=Mean[i]-Mean[j]	388FW	52FW	347WG	57WG
388FW	0.000000	0.205376	0.401075	0.934409
52FW	-0.20538	0.000000	0.195699	0.729032
347WG	-0.40108	-0.1957	0.000000	0.533333
57WG	-0.93441	-0.72903	-0.53333	0.000000

Alpha= 0.05

Appendix H – Regression Results

1st FW TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1007.2674	144	6.994912	0.6335	0.6233	5.677019	294.7465

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	7.01597434	1	0	0.000	1.0000
☐	☒	TIME	0.05317811	1	558.7498	79.879	0.0000
☐	☐	OG	?	1	1.245479	0.177	0.6746
☐	☐	ACFT	?	1	6.022867	0.860	0.3552
☐	☒	TNMCS	0.40892689	1	345.5292	49.397	0.0000
☐	☐	HUTE	?	1	6.406565	0.915	0.3403
☐	☐	SUTE	?	1	5.429319	0.775	0.3802
☐	☒	ASD	-1.5258425	1	29.32294	4.192	0.0424
☐	☒	AAB	1.41421873	1	55.31793	7.908	0.0056
☐	☐	GAB	?	1	24.90082	3.625	0.0589
☐	☐	CANN	?	1	3.223097	0.459	0.4992

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	SUTE	Removed	0.9270	0.058643	0.6504	9.0084	10
2	OG	Removed	0.8093	0.40424	0.6502	7.0665	9
3	ACFT	Removed	0.8672	0.192788	0.6502	5.0942	8
4	CANN	Removed	0.3886	5.099911	0.6483	3.8267	7
5	HUTE	Removed	0.1295	15.8302	0.6425	4.1004	6
6	GAB	Removed	0.0589	24.90082	0.6335	5.677	5

1st FW TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.633933
RSquare Adj	0.621133
Root Mean Square Error	2.65238
Mean of Response	13.52617
Observations (or Sum Wgts)	149

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7.3367253	1.351727	5.43	<.0001
TIME	0.0497176	0.010161	4.89	<.0001
TNMCS	0.4014642	0.060986	6.58	<.0001
ASD	-1.650264	0.803754	-2.05	0.0419
AAB	1.4191173	0.50447	2.81	0.0056
OG	0.4094363	0.973092	0.42	0.6746

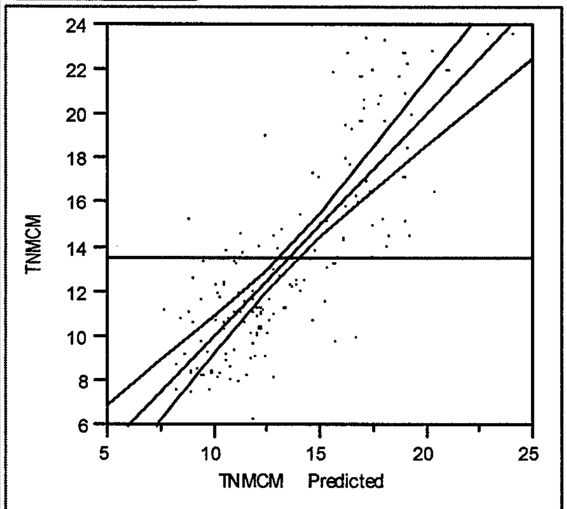
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	168.42445	23.9405	<.0001
TNMCS	1	1	304.86459	43.3347	<.0001
ASD	1	1	29.65732	4.2156	0.0419
AAB	1	1	55.67215	7.9135	0.0056
OG	1	1	1.24548	0.1770	0.6746

Durbin-Watson

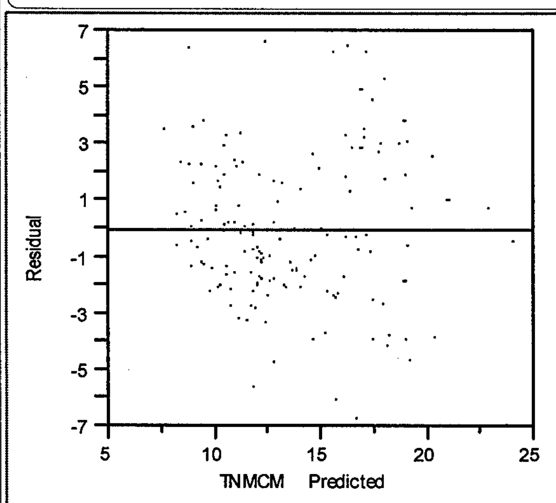
Durbin-Watson	Number of Obs.	AutoCorrelation
0.9434524	149	0.5189

Whole-Model Test



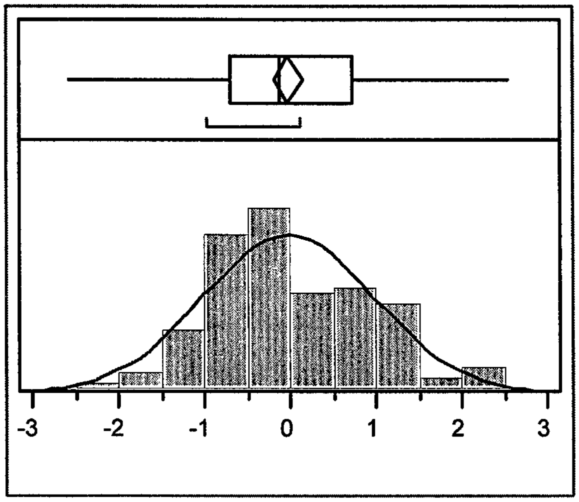
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	1742.1660	348.433	49.5277
Error	143	1006.0219	7.035	Prob>F
C Total	148	2748.1879		<.0001



1st FW TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	-0.0012
Std Dev	1.0027
Std Error Mean	0.0821
Upper 95% Mean	0.1611
Lower 95% Mean	-0.1636
N	149.0000
Sum Weights	149.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.972080	0.0899

1st FW MH/FH Stepwise Model Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
11335.658	129	87.87332	0.5566	0.5394	7.874345	610.1086

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	3.33406182	1	0	0.000	1.0000
☐	☒	TIME	-0.3257187	1	4590.604	52.241	0.0000
☐	☒	OG	18.7239346	1	1323.506	15.062	0.0002
☐	☒	ACFT	0.67221644	1	1644.909	18.719	0.0000
☐	☒	TNMCS	0.99414	1	1763.658	20.070	0.0000
☐	☒	HUTE	-0.8305237	1	3152.927	35.880	0.0000
☐	☐	SUTE	?	1	296.5705	3.439	0.0660
☐	☐	ASD	?	1	254.1074	2.935	0.0891
☐	☐	AAB	?	1	59.42055	0.675	0.4130
☐	☐	GAB	?	1	38.9672	0.442	0.5076
☐	☐	CANN	?	1	227.402	2.620	0.1080

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.9620	0.196895	0.5799	9.0023	10
2	AAB	Removed	0.4386	51.87377	0.5779	7.6012	9
3	CANN	Removed	0.2842	99.06027	0.5740	6.7449	8
4	GAB	Removed	0.1917	147.7188	0.5682	6.4503	7
5	SUTE	Removed	0.0660	296.5705	0.5566	7.8743	6

1st FW MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.556603
RSquare Adj	0.539417
Root Mean Square Error	9.374077
Mean of Response	21.82296
Observations (or Sum Wgts)	135

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.3340618	12.29856	0.27	0.7868
TIME	-0.325719	0.045065	-7.23	<.0001
OG	18.723935	4.824615	3.88	0.0002
ACFT	0.6722164	0.15537	4.33	<.0001
TNMCS	0.99414	0.221906	4.48	<.0001
HUTE	-0.830524	0.138651	-5.99	<.0001

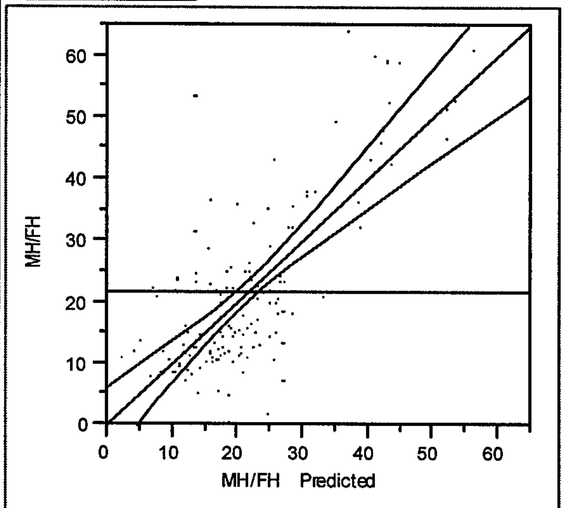
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	4590.6042	52.2412	<.0001
OG	1	1	1323.5063	15.0615	0.0002
ACFT	1	1	1644.9088	18.7191	<.0001
TNMCS	1	1	1763.6578	20.0705	<.0001
HUTE	1	1	3152.9272	35.8804	<.0001

Durbin-Watson

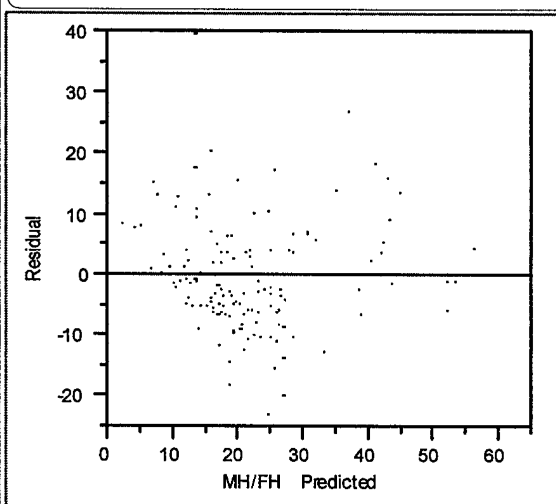
Durbin-Watson	Number of Obs.	AutoCorrelation
0.625806	135	0.6864

Whole-Model Test



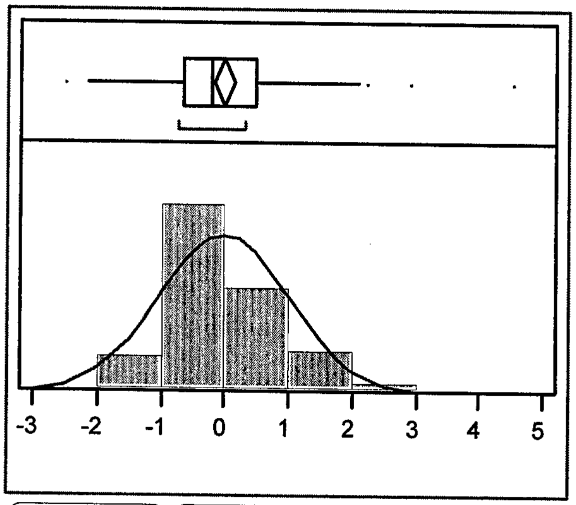
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	14229.801	2845.96	32.3871
Error	129	11335.658	87.87	Prob>F
C Total	134	25565.459		<.0001



1st FW MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	0.0032
Std Dev	1.0121
Std Error Mean	0.0871
Upper 95% Mean	0.1754
Lower 95% Mean	-0.1691
N	135.0000
Sum Weights	135.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.960959	0.0070

1st FW FSE Stepwise Model Results:

Response: FSE

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
59326.555	135	439.456	0.1719	0.1658	0.996183	835.7039

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	102.348268	1	0	0.000	1.0000
☐	☐	TIME	?	1	1444.417	3.344	0.0697
☐	☐	OG	?	1	861.0798	1.974	0.1624
☐	☐	ACFT	?	1	16.2611	0.037	0.8483
☐	☒	TNMCS	-2.2633898	1	12317.81	28.030	0.0000
☐	☐	HUTE	?	1	384.1727	0.873	0.3517
☐	☐	SUTE	?	1	31.71878	0.072	0.7893
☐	☐	ASD	?	1	633.5237	1.446	0.2312
☐	☐	AAB	?	1	363.5538	0.826	0.3650
☐	☐	GAB	?	1	211.2102	0.479	0.4902
☐	☐	CANN	?	1	625.9787	1.429	0.2340

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	SUTE	Removed	0.8368	18.86825	0.2211	9.0426	10
2	ASD	Removed	0.9638	0.908696	0.2211	7.0447	9
3	CANN	Removed	0.5054	194.5197	0.2184	5.484	8
4	OG	Removed	0.4092	297.5615	0.2142	4.1561	7
5	GAB	Removed	0.3906	321.3702	0.2097	2.8819	6
6	AAB	Removed	0.4554	242.2412	0.2063	1.4291	5
7	ACFT	Removed	0.2428	592.8722	0.1981	0.7682	4
8	HUTE	Removed	0.3216	427.5366	0.1921	-0.266	3
9	TIME	Removed	0.0697	1444.417	0.1719	0.9962	2

1st FW FSE Reduced Model Results:

Response: FSE

Summary of Fit

RSquare	0.192334
RSquare Adj	0.174116
Root Mean Square Error	20.85841
Mean of Response	79.69124
Observations (or Sum Wgts)	137

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	99.23636	5.405669	18.36	<.0001
TNMCS	-2.603673	0.481878	-5.40	<.0001
TIME	0.1055819	0.089852	1.18	0.2421
OG	-1.459308	7.298002	-0.20	0.8418

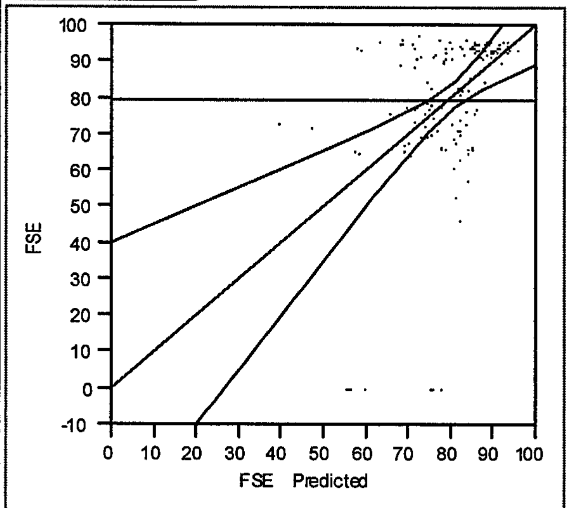
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TNMCS	1	1	12701.692	29.1944	<.0001
TIME	1	1	600.733	1.3808	0.2421
OG	1	1	17.396	0.0400	0.8418

Durbin-Watson

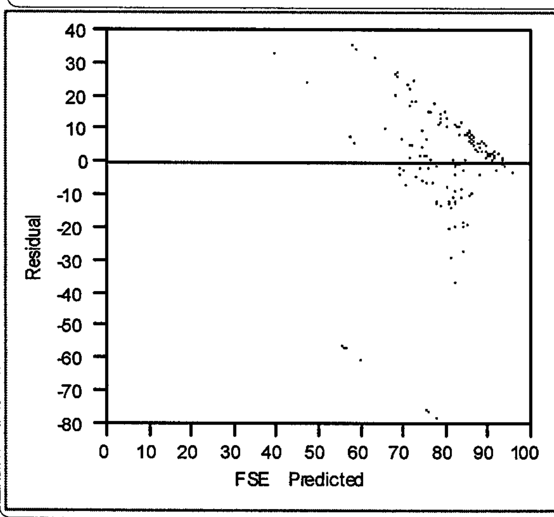
Durbin-Watson	Number of Obs.	AutoCorrelation
0.5380888	137	0.7272

Whole-Model Test



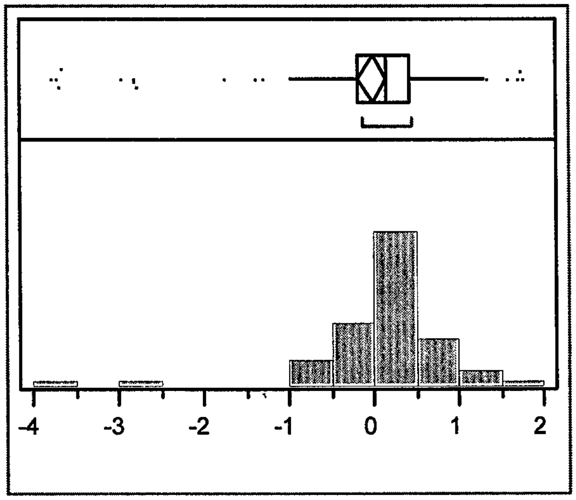
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	13779.627	4593.21	10.5573
Error	133	57864.742	435.07	Prob>F
C Total	136	71644.369		<.0001



1st FW FSE Reduced Model Residual Analysis:

Studentized Resid FSE



Quantiles

Moments

Mean	0.0008
Std Dev	1.0094
Std Error Mean	0.0862
Upper 95% Mean	0.1713
Lower 95% Mean	-0.1698
N	137.0000
Sum Weights	137.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.799711	0.0000

33rd FW TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1014.1299	188	5.394308	0.6538	0.6410	8.025841	338.1596

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	12.1061784	1	0	0.000	1.0000
☐	☒	TIME	0.03464304	1	110.8976	20.558	0.0000
☐	☒	OG	-7.3539636	1	325.2597	60.297	0.0000
☐	☒	ACFT	-0.1894309	1	100.4573	18.623	0.0000
☐	☒	TNMCS	0.48534972	1	552.1729	102.362	0.0000
☐	☐	HUTE	?	1	1.690558	0.312	0.5770
☐	☒	SUTE	0.11535648	1	23.37751	4.334	0.0387
☐	☐	ASD	?	1	1.772652	0.327	0.5679
☐	☒	AAB	2.19374421	1	114.1539	21.162	0.0000
☐	☒	GAB	0.64844117	1	120.7822	22.391	0.0000
☐	☐	CANN	?	1	14.8684	2.782	0.0970

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	HUTE	Removed	0.9342	0.036833	0.6594	9.0068	10
2	ASD	Removed	0.6082	1.414839	0.6589	7.2691	9
3	CANN	Removed	0.0970	14.8684	0.6538	8.0258	8

33rd FW TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.59981
RSquare Adj	0.589278
Root Mean Square Error	2.48411
Mean of Response	11.92194
Observations (or Sum Wgts)	196

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.8846642	0.77488	1.14	0.2550
TIME	0.0421668	0.007569	5.57	<.0001
OG	-4.73672	0.799564	-5.92	<.0001
TNMCS	0.4569414	0.050978	8.96	<.0001
AAB	2.5837651	0.50278	5.14	<.0001
GAB	0.5697906	0.139866	4.07	<.0001

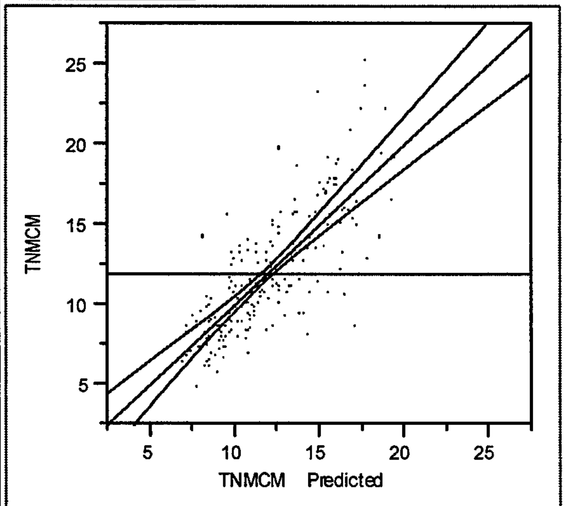
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	191.53900	31.0396	<.0001
OG	1	1	216.56632	35.0953	<.0001
TNMCS	1	1	495.79625	80.3455	<.0001
AAB	1	1	162.96407	26.4089	<.0001
GAB	1	1	102.41106	16.5961	<.0001

Durbin-Watson

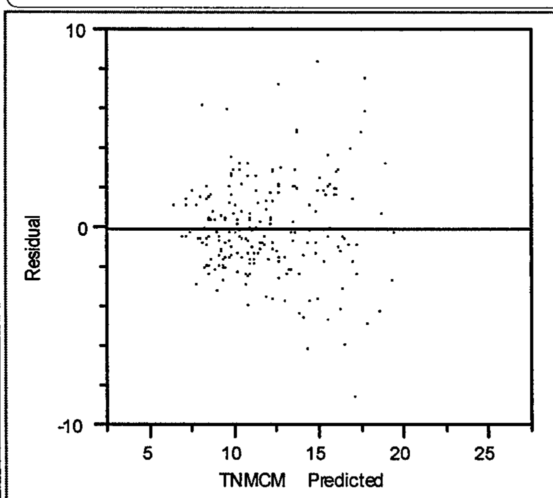
Durbin-Watson	Number of Obs.	AutoCorrelation
1.1128167	196	0.4360

Whole-Model Test



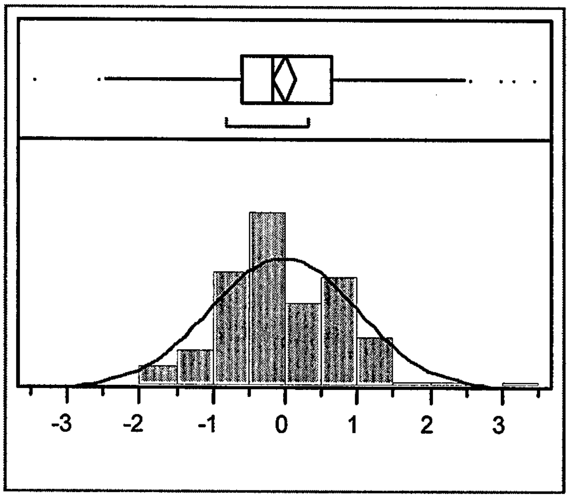
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	1757.2834	351.457	56.9548
Error	190	1172.4523	6.171	Prob>F
C Total	195	2929.7357		<.0001



33rd FW TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	-0.0000
Std Dev	1.0058
Std Error Mean	0.0718
Upper 95% Mean	0.1417
Lower 95% Mean	-0.1417
N	196.0000
Sum Weights	196.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.978116	0.2213

33rd FW MH/FH Stepwise Model Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
16133.691	186	86.74027	0.6394	0.6277	8.756054	868.2131

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	94.5079134	1	0	0.000	1.0000
☐	☐	TIME	?	1	237.2805	2.761	0.0983
☐	☒	OG	-27.556113	1	4929.942	56.836	0.0000
☐	☒	ACFT	-0.7733433	1	1859.441	21.437	0.0000
☐	☐	TNMCS	?	1	228.7226	2.660	0.1046
☐	☒	HUTE	-0.5252038	1	971.7706	11.203	0.0010
☐	☐	SUTE	?	1	64.31222	0.740	0.3906
☐	☒	ASD	-8.3358956	1	536.6264	6.187	0.0138
☐	☒	AAB	8.16956635	1	2228.457	25.691	0.0000
☐	☒	GAB	2.99105462	1	2726.884	31.437	0.0000
☐	☐	CANN	?	1	178.3238	2.068	0.1521

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	SUTE	Removed	0.7150	11.49566	0.6502	9.1338	10
2	CANN	Removed	0.4355	52.2362	0.6490	7.7417	9
3	TNMCS	Removed	0.1337	193.5996	0.6447	7.9947	8
4	TIME	Removed	0.0983	237.2805	0.6394	8.7561	7

33rd FW MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.569053
RSquare Adj	0.557531
Root Mean Square Error	10.1535
Mean of Response	26.47876
Observations (or Sum Wgts)	193

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	83.613304	14.28273	5.85	<.0001
OG	-32.82369	4.038889	-8.13	<.0001
ACFT	-0.959205	0.186321	-5.15	<.0001
AAB	5.3637337	2.078769	2.58	0.0106
GAB	3.8077498	0.535756	7.11	<.0001
TIME	-0.029888	0.033373	-0.90	0.3716

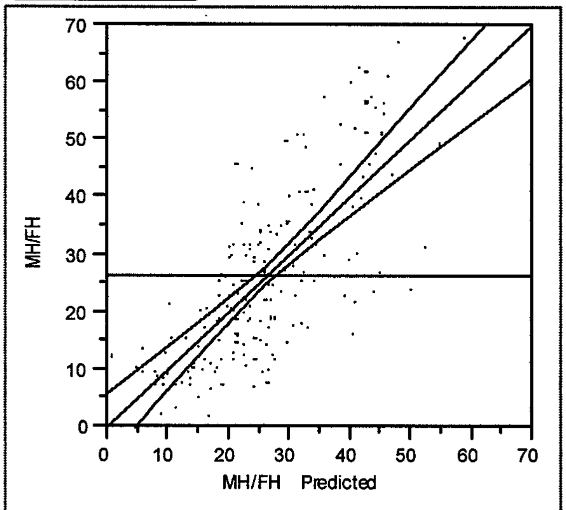
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
OG	1	1	6808.9892	66.0467	<.0001
ACFT	1	1	2732.3252	26.5033	<.0001
AAB	1	1	686.3627	6.6577	0.0106
GAB	1	1	5207.5718	50.5130	<.0001
TIME	1	1	82.6874	0.8021	0.3716

Durbin-Watson

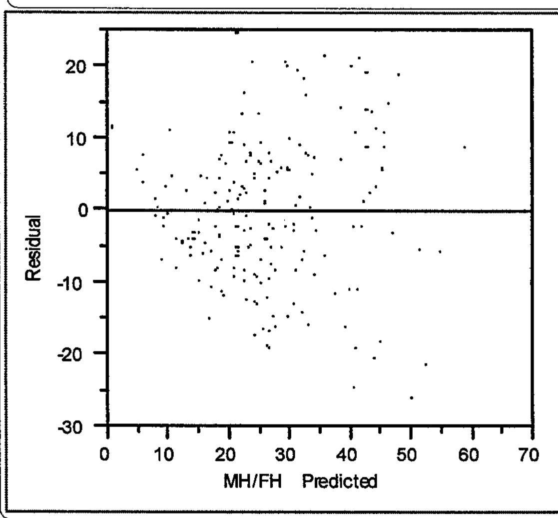
Durbin-Watson	Number of Obs.	AutoCorrelation
1.0979913	193	0.4378

Whole-Model Test



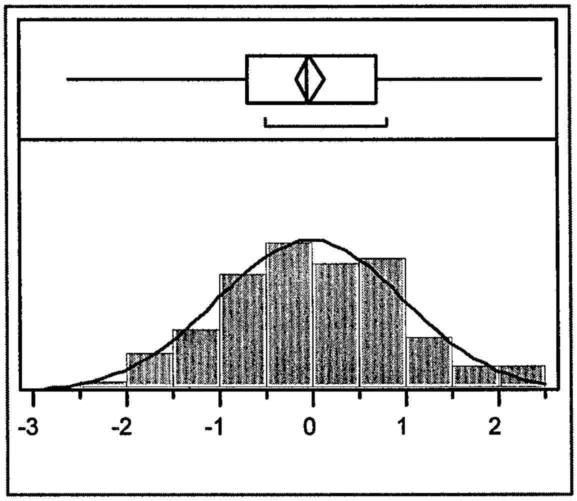
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	25456.735	5091.35	49.3857
Error	187	19278.508	103.09	Prob>F
C Total	192	44735.243		<.0001



33rd FW MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	-0.0007
Std Dev	1.0035
Std Error Mean	0.0722
Upper 95% Mean	0.1418
Lower 95% Mean	-0.1432
N	193.0000
Sum Weights	193.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.981053	0.4023

33rd FW FSE Stepwise Model Results:

Response: FSE

Stepwise Regression Control

Prob to Enter	0.050
Prob to Leave	0.050
Direction	Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
4817.6665	182	26.4707	0.7508	0.7453	5.583676	617.5511

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	101.492749	1	0	0.000	1.0000
☐	☒	TIME	-0.1115575	1	3992.734	150.836	0.0000
☐	☐	OG	?	1	2.592414	0.097	0.7553
☐	☐	ACFT	?	1	12.77311	0.481	0.4888
☐	☐	TNMCS	?	1	54.93921	2.088	0.1502
☐	☒	HUTE	0.35105066	1	660.8637	24.966	0.0000
☐	☐	SUTE	?	1	0.116193	0.004	0.9474
☐	☐	ASD	?	1	1.333289	0.050	0.8231
☐	☒	AAB	-3.6213159	1	322.8039	12.195	0.0006
☐	☒	GAB	-2.3462221	1	1817.227	68.651	0.0000
☐	☐	CANN	?	1	19.28898	0.728	0.3948

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	SUTE	Removed	0.9247	0.23633	0.7597	9.009	10
2	ASD	Removed	0.2968	28.72548	0.7582	8.0976	9
3	OG	Removed	0.2968	28.74493	0.7568	7.187	8
4	ACFT	Removed	0.4940	12.33766	0.7561	5.6546	7
5	CANN	Removed	0.1742	48.73376	0.7536	5.5015	6
6	TNMCS	Removed	0.1502	54.93921	0.7508	5.5837	5

33rd FW FSE Reduced Model Results:

Response: FSE

Summary of Fit

RSquare	0.750895
RSquare Adj	0.744013
Root Mean Square Error	5.157773
Mean of Response	87.48182
Observations (or Sum Wgts)	187

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	101.99245	2.84968	35.79	<.0001
TIME	-0.115922	0.016685	-6.95	<.0001
HUTE	0.3431234	0.074871	4.58	<.0001
AAB	-3.687288	1.060846	-3.48	0.0006
GAB	-2.369706	0.293673	-8.07	<.0001
OG	0.544912	1.745566	0.31	0.7553

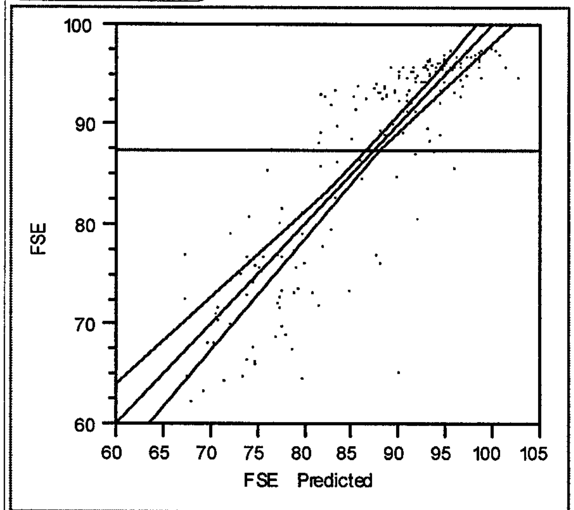
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	1284.0548	48.2680	<.0001
HUTE	1	1	558.7249	21.0026	<.0001
AAB	1	1	321.3908	12.0812	0.0006
GAB	1	1	1732.1474	65.1119	<.0001
OG	1	1	2.5924	0.0974	0.7553

Durbin-Watson

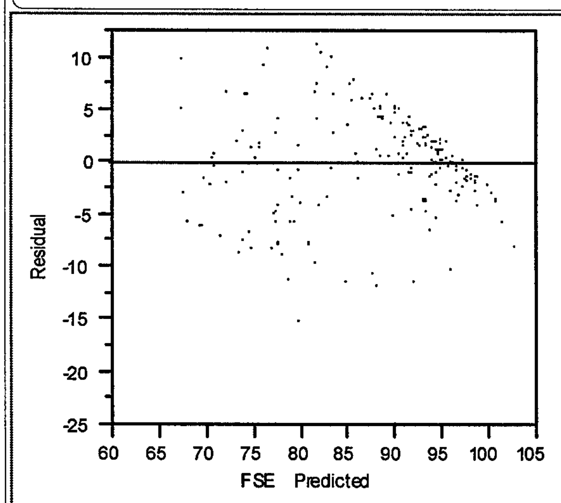
Durbin-Watson	Number of Obs.	AutoCorrelation
1.0718114	187	0.4612

Whole-Model Test



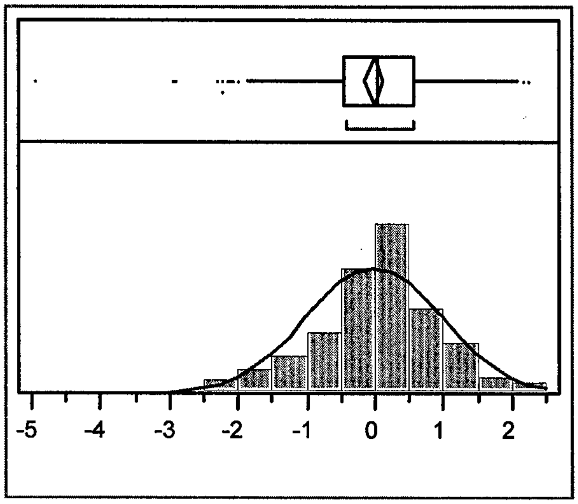
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	14514.384	2902.88	109.1200
Error	181	4815.074	26.60	Prob>F
C Total	186	19329.458		<.0001



33rd FW FSE Reduced Model Residual Analysis:

Studentized Resid FSE



Quantiles

Moments

Mean	0.0005
Std Dev	1.0050
Std Error Mean	0.0735
Upper 95% Mean	0.1455
Lower 95% Mean	-0.1445
N	187.0000
Sum Weights	187.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.965606	0.0051

18th WG TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1080.2825	157	6.880781	0.3819	0.3622	5.596799	320.2701

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	24.3092411	1	0	0.000	1.0000
☐	☒	TIME	-0.0771487	1	330.7558	48.070	0.0000
☐	☐	OG	?	1	13.65833	1.998	0.1595
☐	☒	ACFT	-0.2234862	1	125.3058	18.211	0.0000
☐	☒	TNMCS	0.5028892	1	311.1116	45.215	0.0000
☐	☐	HUTE	?	1	0.747709	0.108	0.7428
☐	☐	SUTE	?	1	1.416542	0.205	0.6515
☐	☐	ASD	?	1	4.574316	0.663	0.4166
☐	☒	AAB	2.47083009	1	81.73464	11.879	0.0007
☐	☒	GAB	0.83358668	1	217.6504	31.632	0.0000
☐	☐	CANN	?	1	15.38975	2.254	0.1352

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	SUTE	Removed	0.9052	0.098179	0.4000	9.0142	10
2	HUTE	Removed	0.6541	1.381124	0.3992	7.2144	9
3	ASD	Removed	0.4137	4.58049	0.3966	5.8784	8
4	OG	Removed	0.2213	10.26146	0.3907	5.3659	7
5	CANN	Removed	0.1352	15.38975	0.3819	5.5968	6

18^{th} WG TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.352912
RSquare Adj	0.332305
Root Mean Square Error	2.683923
Mean of Response	14
Observations (or Sum Wgts)	163

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	32.993902	5.835304	5.65	<.0001
TIME	-0.071717	0.011766	-6.10	<.0001
ACFT	-0.32681	0.082427	-3.96	0.0001
TNMCS	0.4966708	0.077095	6.44	<.0001
GAB	0.8605529	0.151313	5.69	<.0001
OG	-2.856536	1.375291	-2.08	0.0394

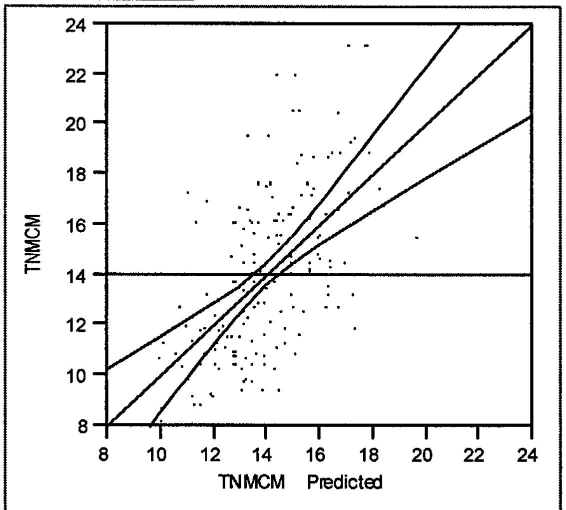
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	267.60945	37.1502	<.0001
ACFT	1	1	113.23789	15.7200	0.0001
TNMCS	1	1	298.97051	41.5038	<.0001
GAB	1	1	232.99240	32.3446	<.0001
OG	1	1	31.07637	4.3141	0.0394

Durbin-Watson

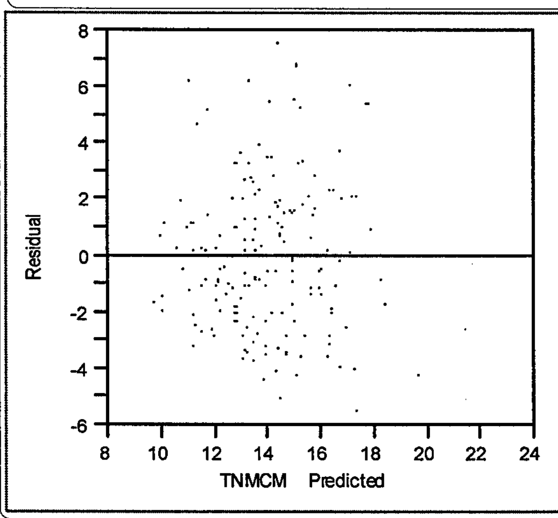
Durbin-Watson	Number of Obs.	AutoCorrelation
1.1832069	163	0.4025

Whole-Model Test



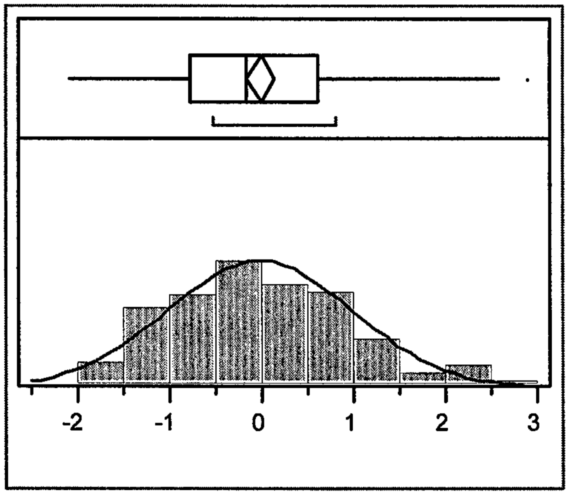
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	616.7992	123.360	17.1251
Error	157	1130.9408	7.203	Prob>F
C Total	162	1747.7400		<.0001



18th WG TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	0.0006
Std Dev	1.0064
Std Error Mean	0.0788
Upper 95% Mean	0.1563
Lower 95% Mean	-0.1550
N	163.0000
Sum Weights	163.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.963865	0.0061

18th WG MH/FH Stepwise Model Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter	0.050
Prob to Leave	0.050
Direction	Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
6610.587	155	42.64895	0.6782	0.6637	5.786412	619.5364

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	114.798731	1	0	0.000	1.0000
☐	☒	TIME	0.11017	1	610.8857	14.324	0.0002
☐	☒	OG	-35.900068	1	4739.087	111.119	0.0000
☐	☒	ACFT	-0.7626092	1	609.9753	14.302	0.0002
☐	☒	TNMCS	0.79028294	1	751.0889	17.611	0.0000
☐	☐	HUTE	?	1	10.9434	0.255	0.6140
☐	☒	SUTE	-0.9213968	1	878.4043	20.596	0.0000
☐	☒	ASD	-17.927385	1	2141.625	50.215	0.0000
☐	☐	AAB	?	1	11.52185	0.269	0.6048
☐	☒	GAB	0.97610701	1	275.5091	6.460	0.0120
☐	☐	CANN	?	1	6.813341	0.159	0.6907

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	CANN	Removed	0.6241	10.43336	0.6794	9.2411	10
2	HUTE	Removed	0.5972	12.07037	0.6788	7.5201	9
3	AAB	Removed	0.6048	11.52185	0.6782	5.7864	8

18th WG MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.640032
RSquare Adj	0.628568
Root Mean Square Error	6.862986
Mean of Response	26.50552
Observations (or Sum Wgts)	163

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	64.5499	6.359104	10.15	<.0001
TIME	0.1741879	0.024984	6.97	<.0001
OG	-27.55099	2.146573	-12.83	<.0001
TNMCS	0.7439523	0.195615	3.80	0.0002
SUTE	-0.966835	0.202274	-4.78	<.0001
ASD	-18.05782	2.634935	-6.85	<.0001

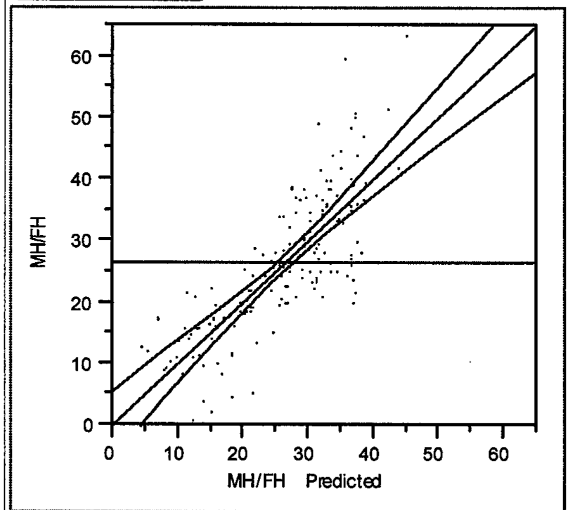
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	2289.4484	48.6076	<.0001
OG	1	1	7759.0658	164.7340	<.0001
TNMCS	1	1	681.2591	14.4639	0.0002
SUTE	1	1	1076.0942	22.8467	<.0001
ASD	1	1	2212.1644	46.9668	<.0001

Durbin-Watson

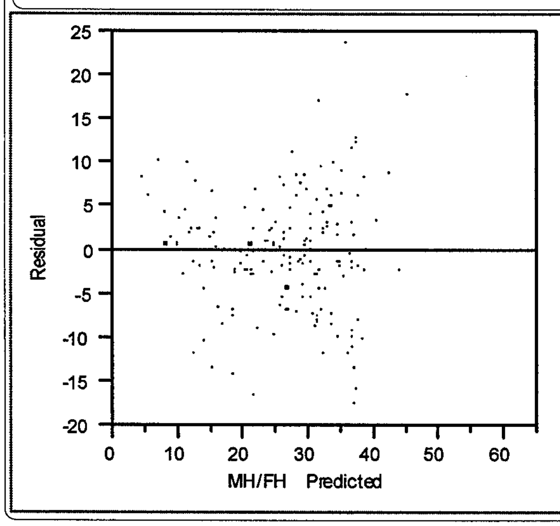
Durbin-Watson	Number of Obs.	AutoCorrelation
1.3130836	163	0.3420

Whole-Model Test



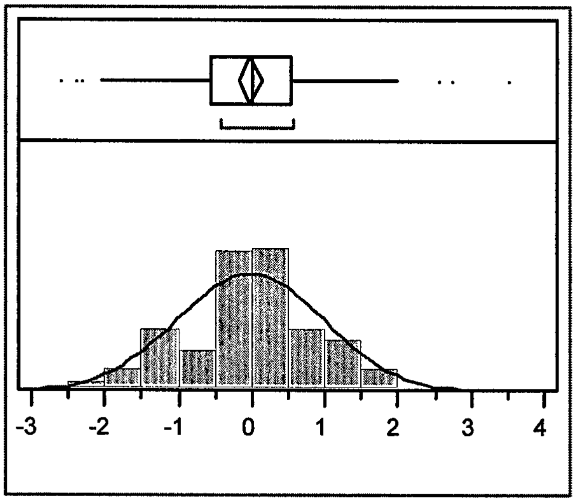
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	13148.094	2629.62	55.8299
Error	157	7394.791	47.10	Prob>F
C Total	162	20542.885		<.0001



18th WG MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	0.0008
Std Dev	1.0023
Std Error Mean	0.0785
Upper 95% Mean	0.1558
Lower 95% Mean	-0.1542
N	163.0000
Sum Weights	163.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.984440	0.6768

18th WG FSE Stepwise Model Results:

Response: FSE

Stepwise Regression Control

Prob to Enter	0.050
Prob to Leave	0.050
Direction	Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
8709.5051	322	27.04815	0.6040	0.5979	5.149682	1087.563

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	124.969537	1	0	0.000	1.0000
☐	☒	TIME	-0.0934471	1	3626.459	134.074	0.0000
☐	☐	OG	?	1	9.463458	0.349	0.5550
☐	☒	ACFT	-0.271191	1	1613.008	59.635	0.0000
☐	☒	TNMCS	-0.4481864	1	1976.64	73.079	0.0000
☐	☐	HUTE	?	1	0.297343	0.011	0.9167
☐	☐	SUTE	?	1	4.055769	0.150	0.6992
☐	☐	ASD	?	1	0.555853	0.020	0.8863
☐	☒	AAB	-2.6435505	1	632.4892	23.384	0.0000
☐	☒	GAB	-0.7020897	1	449.6853	16.625	0.0001
☐	☐	CANN	?	1	24.6852	0.912	0.3402

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	OG	Removed	0.3366	25.11932	0.6080	9.9262	10
2	CANN	Removed	0.3785	21.08576	0.6070	8.7037	9
3	ASD	Removed	0.1462	57.49319	0.6044	8.8237	8
4	HUTE	Removed	0.6751	4.78439	0.6042	7.0001	7
5	SUTE	Removed	0.6992	4.055769	0.6040	5.1497	6

18th WG FSE Reduced Model Results:

Response: FSE

Summary of Fit

RSquare	0.583586
RSquare Adj	0.57712
Root Mean Square Error	5.333209
Mean of Response	89.92439
Observations (or Sum Wgts)	328

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	127.06416	2.5819	49.21	<.0001
TIME	-0.107692	0.007529	-14.30	<.0001
ACFT	-0.328212	0.034881	-9.41	<.0001
TNMCS	-0.501778	0.052071	-9.64	<.0001
AAB	-2.770405	0.565006	-4.90	<.0001
OG	-0.099781	0.747607	-0.13	0.8939

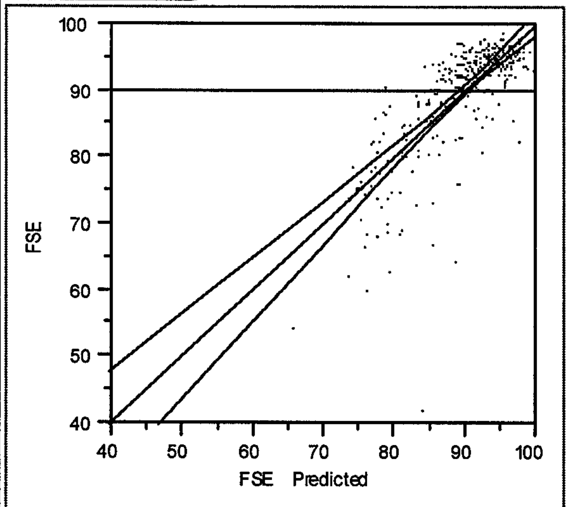
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	5819.1280	204.5883	<.0001
ACFT	1	1	2518.2729	88.5372	<.0001
TNMCS	1	1	2641.2253	92.8599	<.0001
AAB	1	1	683.8449	24.0425	<.0001
OG	1	1	0.5067	0.0178	0.8939

Durbin-Watson

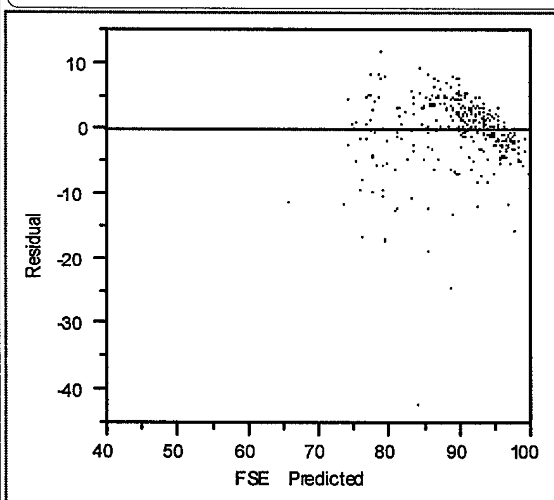
Durbin-Watson	Number of Obs.	AutoCorrelation
1.3018799	328	0.3434

Whole-Model Test



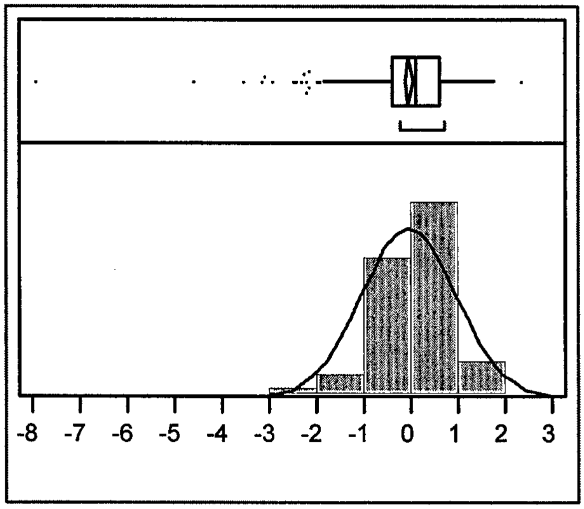
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	12835.481	2567.10	90.2537
Error	322	9158.684	28.44	Prob>F
C Total	327	21994.165		<.0001



18th WG FSE Reduced Model Residual Analysis:

Studentized Resid FSE



Quantiles

Moments

Mean	-0.0003
Std Dev	1.0030
Std Error Mean	0.0554
Upper 95% Mean	0.1087
Lower 95% Mean	-0.1092
N	328.0000
Sum Weights	328.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.876682	0.0000

57th WG F-15 TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
2973.018	167	17.8025	0.7507	0.7418	7.128787	507.8603

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	0.94813082	1	0	0.000	1.0000
☐	☒	TIME	0.10472535	1	3648.611	204.949	0.0000
☐	☒	ACFT	-0.5378065	1	91.07179	5.116	0.0250
☐	☒	TNMCS	0.69160661	1	2089.387	117.365	0.0000
☐	☐	HUTE	?	1	7.4826	0.419	0.5184
☐	☐	SUTE	?	1	47.3167	2.685	0.1032
☐	☐	ASD	?	1	12.75608	0.715	0.3989
☐	☒	AAB	1.01576682	1	79.23732	4.451	0.0364
☐	☒	GAB	0.83383504	1	366.8344	20.606	0.0000
☐	☒	CANN	-0.0908144	1	80.78911	4.538	0.0346

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.9005	0.279151	0.7554	8.0157	9
2	HUTE	Removed	0.5005	8.061479	0.7547	6.4689	8
3	SUTE	Removed	0.1032	47.3167	0.7507	7.1288	7

57th WG F-15 TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.738162
RSquare Adj	0.731965
Root Mean Square Error	4.298842
Mean of Response	13.32471
Observations (or Sum Wgts)	174

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.6476818	3.859527	0.17	0.8669
TIME	0.1051192	0.007382	14.24	<.0001
ACFT	-0.569252	0.241604	-2.36	0.0196
TNMCS	0.6255833	0.048	13.03	<.0001
GAB	0.8896378	0.185997	4.78	<.0001

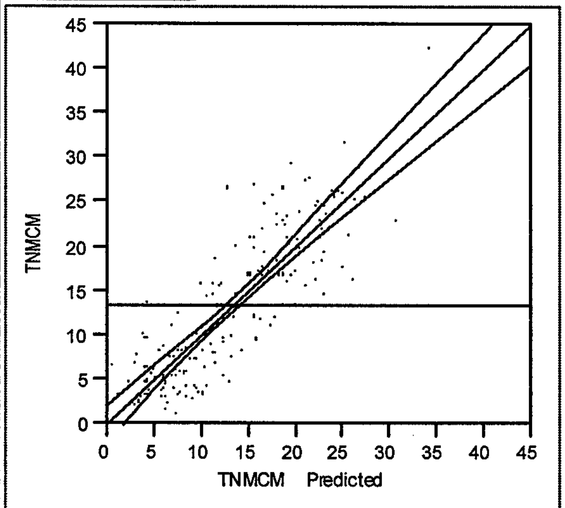
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	3747.1975	202.7699	<.0001
ACFT	1	1	102.5894	5.5514	0.0196
TNMCS	1	1	3138.9382	169.8556	<.0001
GAB	1	1	422.7829	22.8778	<.0001

Durbin-Watson

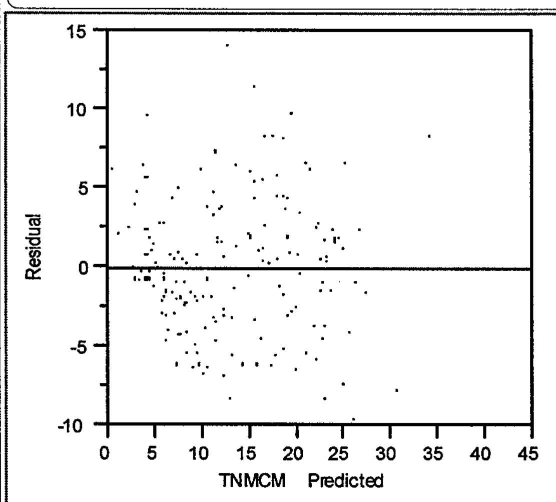
Durbin-Watson	Number of Obs.	AutoCorrelation
1.2395038	174	0.3593

Whole-Model Test



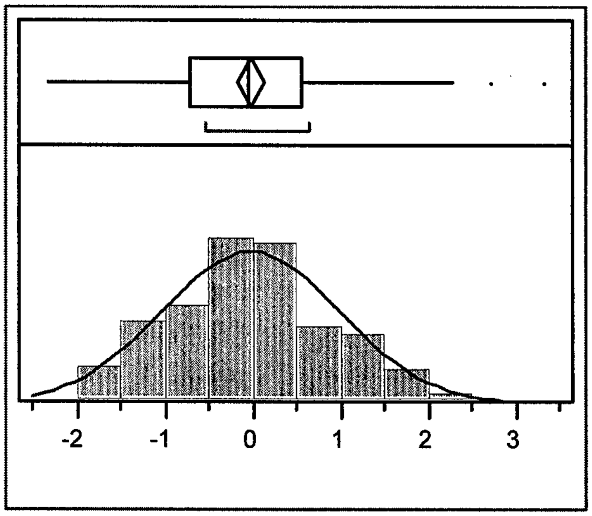
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	8804.576	2201.14	119.1092
Error	169	3123.127	18.48	Prob>F
C Total	173	11927.704		<.0001



57th WG F-15 TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	-0.0003
Std Dev	1.0062
Std Error Mean	0.0763
Upper 95% Mean	0.1502
Lower 95% Mean	-0.1509
N	174.0000
Sum Weights	174.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.980678	0.4072

57th WG F-15 MH/FH Stepwise Model Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
24269.151	167	145.3243	0.5861	0.5762	2.377096	861.3083

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	108.442276	1	0	0.000	1.0000
☐	☒	TIME	0.05559551	1	1160.703	7.987	0.0053
☐	☒	ACFT	-3.7455815	1	3571.944	24.579	0.0000
☐	☒	TNMCS	1.53818505	1	20231.91	139.219	0.0000
☐	☒	HUTE	-1.9810988	1	6502.507	44.745	0.0000
☐	☐	SUTE	?	1	44.5226	0.305	0.5815
☐	☐	ASD	?	1	40.14743	0.275	0.6007
☐	☐	AAB	?	1	108.6736	0.747	0.3888
☐	☐	GAB	?	1	179.7805	1.239	0.2673
☐	☐	CANN	?	1	6.795328	0.046	0.8295

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.9527	0.521827	0.5921	8.0035	9
2	CANN	Removed	0.8060	8.880771	0.5919	6.0637	8
3	SUTE	Removed	0.4534	82.42012	0.5905	4.6219	7
4	AAB	Removed	0.4613	79.35871	0.5892	3.1594	6
5	GAB	Removed	0.2673	179.7805	0.5861	2.3771	5

57th WG F-15 MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.586112
RSquare Adj	0.576199
Root Mean Square Error	12.05505
Mean of Response	35.38837
Observations (or Sum Wgts)	172

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	108.44228	15.5378	6.98	<.0001
TIME	0.0555955	0.019672	2.83	0.0053
ACFT	-3.745581	0.755503	-4.96	<.0001
TNMCS	1.538185	0.130364	11.80	<.0001
HUTE	-1.981099	0.296166	-6.69	<.0001

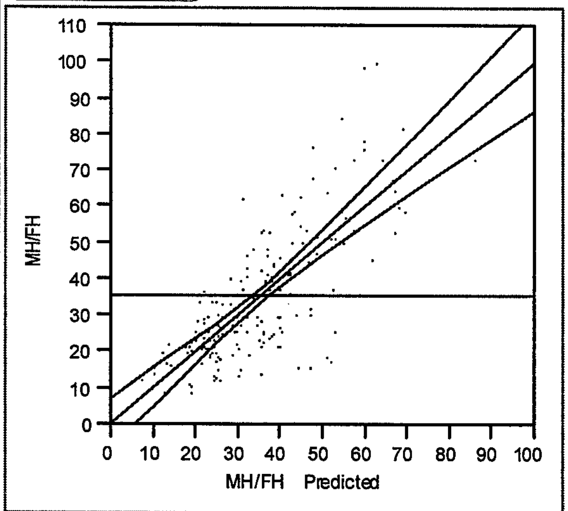
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	1160.703	7.9870	0.0053
ACFT	1	1	3571.944	24.5791	<.0001
TNMCS	1	1	20231.906	139.2191	<.0001
HUTE	1	1	6502.507	44.7448	<.0001

Durbin-Watson

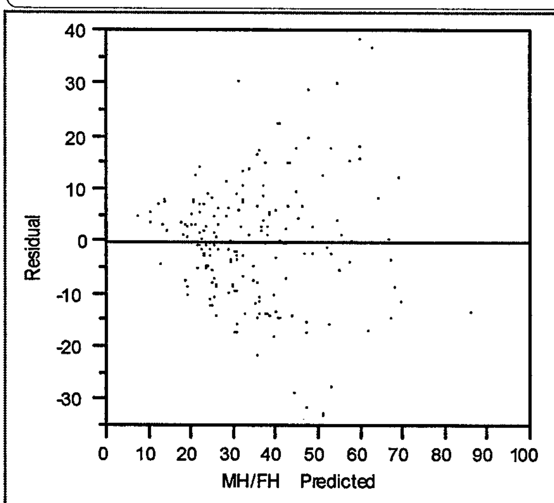
Durbin-Watson	Number of Obs.	AutoCorrelation
1.0082015	172	0.4937

Whole-Model Test



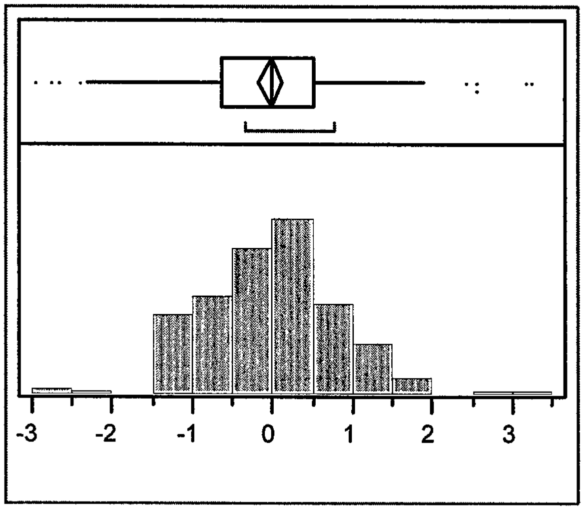
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	34367.886	8591.97	59.1228
Error	167	24269.151	145.32	Prob>F
C Total	171	58637.037		<.0001



57th WG F-15 MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	0.0002
Std Dev	1.0050
Std Error Mean	0.0766
Upper 95% Mean	0.1514
Lower 95% Mean	-0.1511
N	172.0000
Sum Weights	172.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.975990	0.1664

57th WG F-15 FSE Stepwise Model Results:

Response: FSE

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
5311.6196	165	32.19163	0.7012	0.6903	6.624849	603.9871

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	66.3693936	1	0	0.000	1.0000
☐	☒	TIME	-0.1091488	1	5245.205	162.937	0.0000
☐	☒	ACFT	1.93483337	1	909.6278	28.257	0.0000
☐	☒	TNMCS	-0.5288197	1	1995.18	61.978	0.0000
☐	☐	HUTE	?	1	47.42415	1.477	0.2259
☐	☒	SUTE	0.64248987	1	321.2926	9.981	0.0019
☐	☐	ASD	?	1	34.04192	1.058	0.3052
☐	☒	AAB	-1.6428002	1	196.1675	6.094	0.0146
☐	☒	GAB	-0.747194	1	285.3091	8.863	0.0033
☐	☐	CANN	?	1	31.71563	0.985	0.3224

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.5812	9.855838	0.7054	8.3055	9
2	CANN	Removed	0.3570	27.41075	0.7039	7.155	8
3	HUTE	Removed	0.2259	47.42415	0.7012	6.6248	7

57th WG F-15 FSE Reduced Model Results:

Response: FSE

Summary of Fit

RSquare	0.672234
RSquare Adj	0.664383
Root Mean Square Error	5.906747
Mean of Response	87.27093
Observations (or Sum Wgts)	172

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	62.215503	8.737185	7.12	<.0001
TIME	-0.123377	0.007976	-15.47	<.0001
ACFT	1.9936943	0.37466	5.32	<.0001
TNMCS	-0.619247	0.065803	-9.41	<.0001
SUTE	0.7493691	0.209126	3.58	0.0004

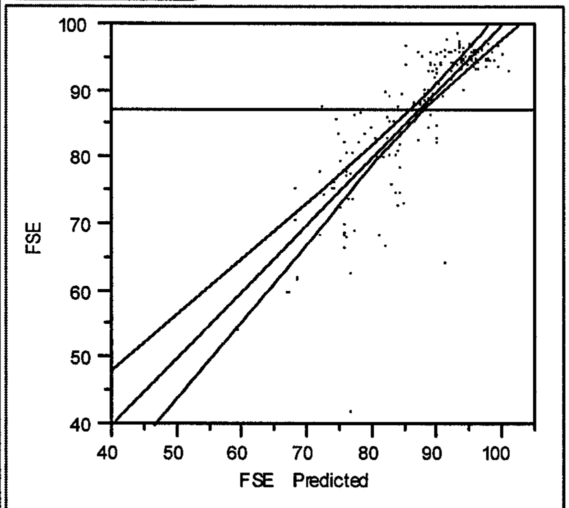
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	8347.6834	239.2595	<.0001
ACFT	1	1	987.9582	28.3166	<.0001
TNMCS	1	1	3089.8058	88.5593	<.0001
SUTE	1	1	447.9926	12.8403	0.0004

Durbin-Watson

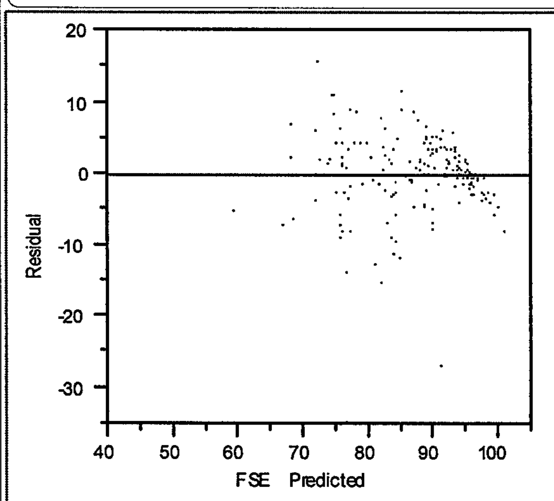
Durbin-Watson	Number of Obs.	AutoCorrelation
1.3977761	172	0.2968

Whole-Model Test



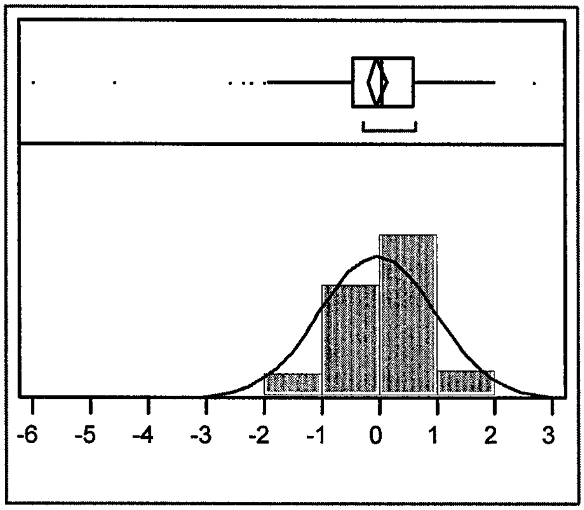
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	11950.041	2987.51	85.6274
Error	167	5826.574	34.89	Prob>F
C Total	171	17776.615		<.0001



57th WG F-15 FSE Reduced Model Residual Analysis:

Studentized Resid FSE



Quantiles

Moments

Mean	-0.0000
Std Dev	1.0039
Std Error Mean	0.0765
Upper 95% Mean	0.1511
Lower 95% Mean	-0.1512
N	172.0000
Sum Weights	172.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.897364	0.0000

388th FW TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1205.7245	173	6.969506	0.8421	0.8384	12.08791	350.5233

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	-4.3809496	1	0	0.000	1.0000
☐	☒	TIME	0.05928934	1	407.5595	58.478	0.0000
☐	☒	OG	-4.2696001	1	197.3948	28.323	0.0000
☐	☐	ACFT	?	1	0.331457	0.047	0.8281
☐	☒	TNMCS	0.85543513	1	2203.155	316.114	0.0000
☐	☐	HUTE	?	1	5.23034	0.749	0.3879
☐	☐	SUTE	?	1	23.83894	3.469	0.0642
☐	☐	ASD	?	1	8.961797	1.288	0.2580
☐	☒	GAB	0.93227886	1	153.1065	21.968	0.0000
☐	☐	BREAK	?	1	1.293767	0.185	0.6679
☐	☐	CANN	?	1	25.55356	3.724	0.0553

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	BREAK	Removed	0.8755	0.164978	0.8535	9.0246	10
2	ACFT	Removed	0.1989	11.07315	0.8521	8.6785	9
3	ASD	Removed	0.1298	15.48926	0.8501	8.992	8
4	HUTE	Removed	0.1843	11.96834	0.8485	8.7796	7
5	SUTE	Removed	0.0648	23.37689	0.8454	10.271	6
6	CANN	Removed	0.0553	25.55356	0.8421	12.088	5

388th FW TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.842084
RSquare Adj	0.838433
Root Mean Square Error	2.639982
Mean of Response	9.880337
Observations (or Sum Wgts)	178

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-4.38095	0.694794	-6.31	<.0001
TIME	0.0592893	0.007753	7.65	<.0001
OG	-4.2696	0.80227	-5.32	<.0001
TNMCS	0.8554351	0.048113	17.78	<.0001
GAB	0.9322789	0.198907	4.69	<.0001

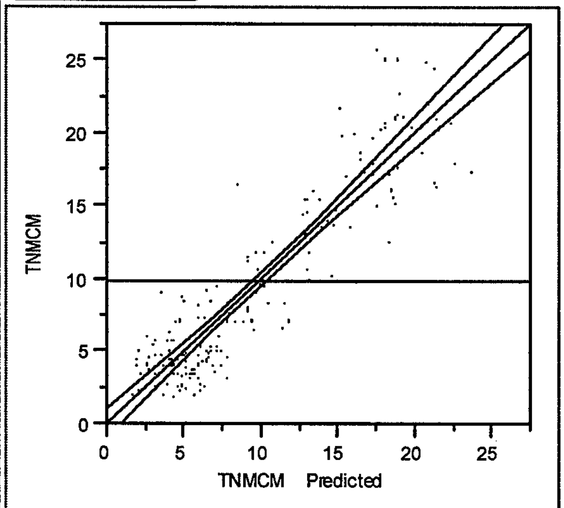
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	407.5595	58.4775	<.0001
OG	1	1	197.3948	28.3226	<.0001
TNMCS	1	1	2203.1549	316.1135	<.0001
GAB	1	1	153.1065	21.9681	<.0001

Durbin-Watson

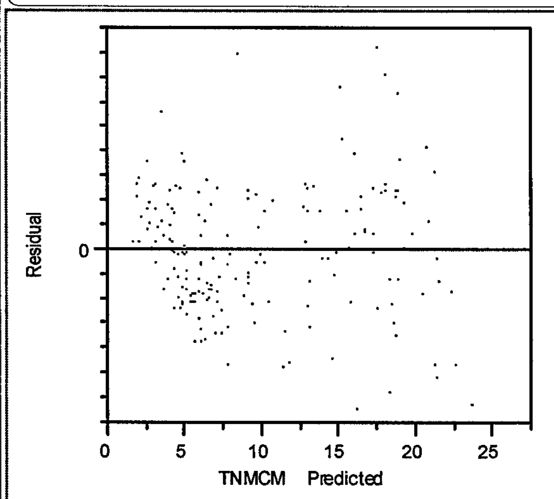
Durbin-Watson	Number of Obs.	AutoCorrelation
1.0545003	178	0.4658

Whole-Model Test



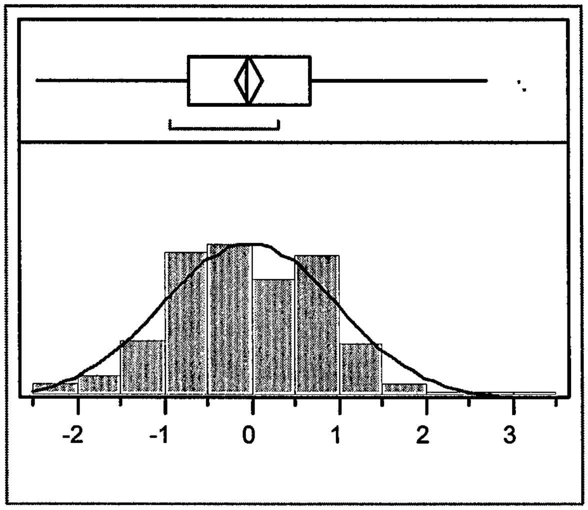
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	6429.4967	1607.37	230.6296
Error	173	1205.7245	6.97	Prob>F
C Total	177	7635.2212		<.0001



388th FW TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	-0.0014
Std Dev	1.0040
Std Error Mean	0.0753
Upper 95% Mean	0.1471
Lower 95% Mean	-0.1499
N	178.0000
Sum Weights	178.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.975663	0.1453

388th FW REP Stepwise Model Results:

Response: REP

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
149.8618	173	0.866253	0.4507	0.4443	2.670292	-22.2956

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	6.23533604	1	0	0.000	1.0000
☐	☐	TIME	?	1	2.507506	2.927	0.0889
☐	☒	OG	-2.5652748	1	122.7867	141.745	0.0000
☐	☒	ACFT	-0.0407682	1	66.23311	76.459	0.0000
☐	☐	TNMCS	?	1	0.098832	0.114	0.7366
☐	☐	HUTE	?	1	0.902615	1.042	0.3087
☐	☐	SUTE	?	1	1.17896	1.364	0.2445
☐	☐	ASD	?	1	0.001683	0.002	0.9650
☐	☐	GAB	?	1	0.532604	0.613	0.4346
☐	☐	BREAK	?	1	2.492902	2.910	0.0899
☐	☐	CANN	?	1	0.187649	0.216	0.6430

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	CANN	Removed	0.9281	0.007094	0.4750	9.0082	10
2	GAB	Removed	0.7065	0.122717	0.4746	7.1496	9
3	SUTE	Removed	0.6211	0.210484	0.4738	5.3921	8
4	ASD	Removed	0.8054	0.05204	0.4736	3.452	7
5	HUTE	Removed	0.8394	0.034988	0.4735	1.4924	6
6	TNMCS	Removed	0.3973	0.608365	0.4713	0.1933	5
7	BREAK	Removed	0.0564	3.113907	0.4599	1.7812	4
8	TIME	Removed	0.0889	2.507506	0.4507	2.6703	3

388th FW REP Reduced Model Results:

Response: REP

Summary of Fit

RSquare	0.459862
RSquare Adj	0.450441
Root Mean Square Error	0.925587
Mean of Response	1.784659
Observations (or Sum Wgts)	176

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.8944618	0.491657	11.99	<.0001
OG	-2.931711	0.30297	-9.68	<.0001
ACFT	-0.039275	0.004718	-8.32	<.0001
TIME	0.0047585	0.002781	1.71	0.0889

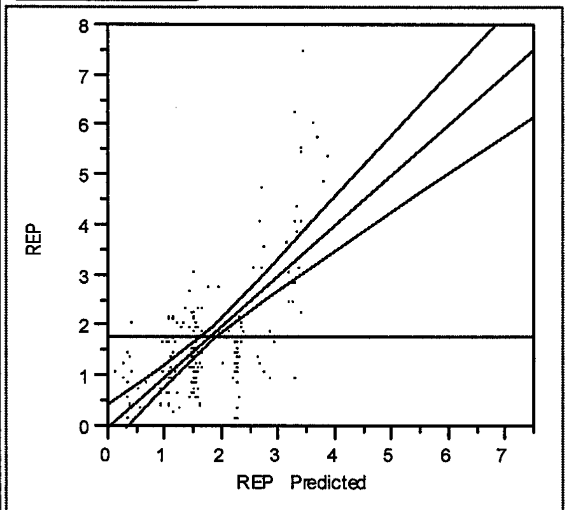
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
OG	1	1	80.218895	93.6359	<.0001
ACFT	1	1	59.365794	69.2950	<.0001
TIME	1	1	2.507506	2.9269	0.0889

Durbin-Watson

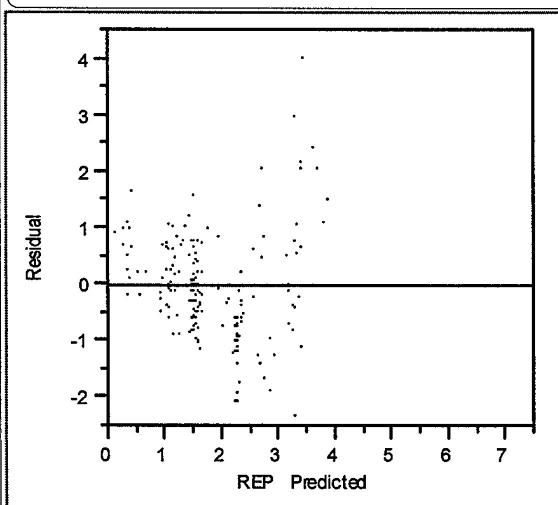
Durbin-Watson	Number of Obs.	AutoCorrelation
0.9420931	176	0.5234

Whole-Model Test



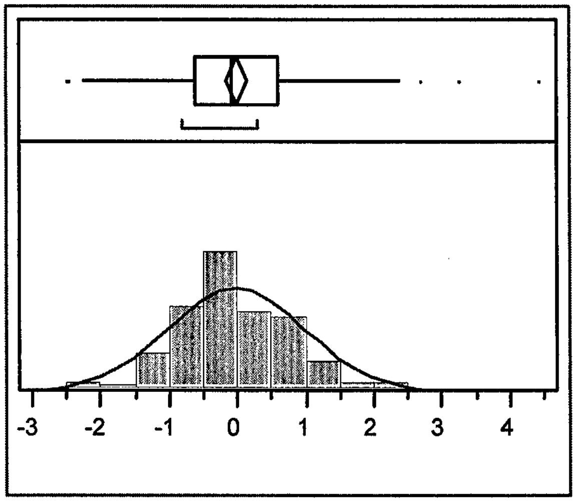
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	125.45428	41.8181	48.8124
Error	172	147.35430	0.8567	Prob>F
C Total	175	272.80858		<.0001



388th FW REP Reduced Model Residual Analysis:

Studentized Resid REP



Quantiles

Moments

Mean	0.0015
Std Dev	1.0052
Std Error Mean	0.0758
Upper 95% Mean	0.1510
Lower 95% Mean	-0.1480
N	176.0000
Sum Weights	176.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.966093	0.0086

388th FW REC Stepwise Model Results:

Response: REC

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
41.59194	172	0.241814	0.2741	0.2614	2.821849	-245.894

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	1.84746087	1	0	0.000	1.0000
☐	☐	TIME	?	1	0.00649	0.027	0.8704
☐	☒	OG	-0.4831425	1	3.589809	14.845	0.0002
☐	☒	ACFT	-0.0151654	1	8.994818	37.197	0.0000
☐	☐	TNMCS	?	1	0.233432	0.965	0.3273
☐	☐	HUTE	?	1	0.06778	0.279	0.5980
☐	☐	SUTE	?	1	0.055642	0.229	0.6328
☐	☐	ASD	?	1	0.001079	0.004	0.9470
☐	☐	GAB	?	1	0.187534	0.775	0.3801
☐	☒	BREAK	0.0735239	1	4.131468	17.085	0.0001
☐	☐	CANN	?	1	0.082528	0.340	0.5606

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.8171	0.01307	0.2986	9.0537	10
2	SUTE	Removed	0.9684	0.000382	0.2986	7.0552	9
3	HUTE	Removed	0.6872	0.039164	0.2979	5.2161	8
4	TIME	Removed	0.7844	0.017981	0.2976	3.2899	7
5	CANN	Removed	0.1665	0.4598	0.2895	3.1784	6
6	GAB	Removed	0.1003	0.653682	0.2781	3.8631	5
7	TNMCS	Removed	0.3273	0.233432	0.2741	2.8218	4

388th FW REC Reduced Model Results:

Response: REC

Summary of Fit

RSquare	0.274163
RSquare Adj	0.257185
Root Mean Square Error	0.493143
Mean of Response	1.24375
Observations (or Sum Wgts)	176

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	1.8255012	0.370352	4.93	<.0001
OG	-0.500942	0.16639	-3.01	0.0030
ACFT	-0.015083	0.002544	-5.93	<.0001
BREAK	0.0738478	0.017948	4.11	<.0001
TIME	0.0002436	0.001491	0.16	0.8704

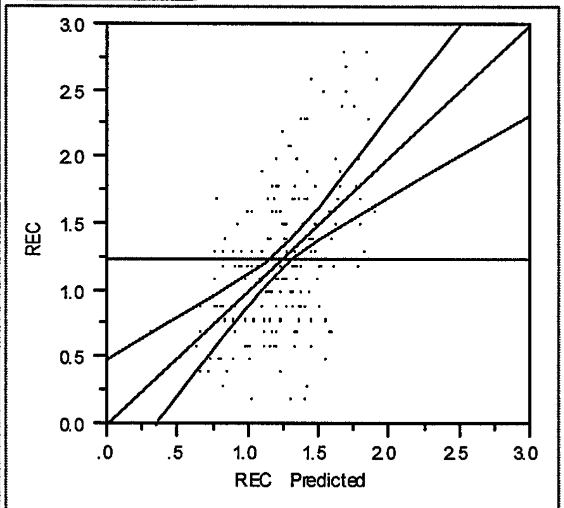
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
OG	1	1	2.2042821	9.0640	0.0030
ACFT	1	1	8.5456274	35.1397	<.0001
BREAK	1	1	4.1170828	16.9295	<.0001
TIME	1	1	0.0064895	0.0267	0.8704

Durbin-Watson

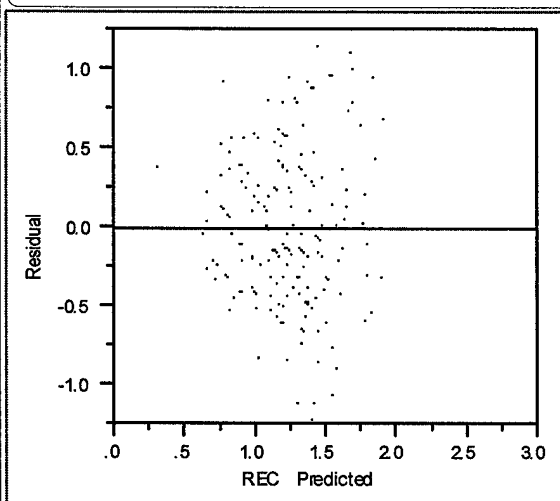
Durbin-Watson	Number of Obs.	AutoCorrelation
1.4944427	176	0.2480

Whole-Model Test



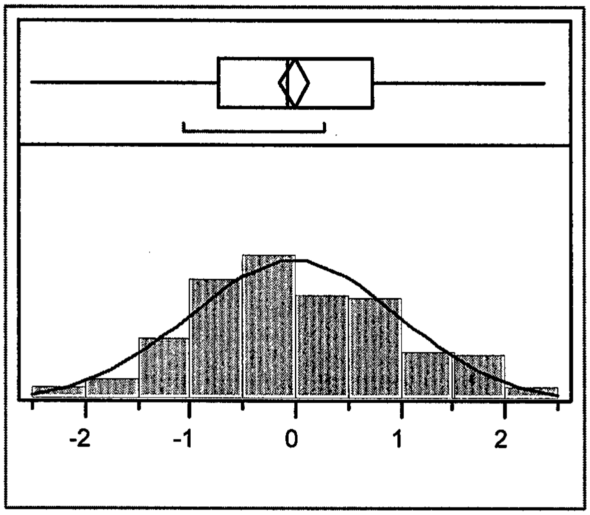
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	15.707674	3.92692	16.1475
Error	171	41.585451	0.24319	Prob>F
C Total	175	57.293125		<.0001



388th FW REC Reduced Model Residual Analysis:

Studentized Resid REC



Quantiles

Moments

Mean	0.0006
Std Dev	1.0032
Std Error Mean	0.0756
Upper 95% Mean	0.1499
Lower 95% Mean	-0.1486
N	176.0000
Sum Weights	176.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.975010	0.1268

388th FW MH/FH Stepwise Model Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
13520.374	130	104.0029	0.6483	0.6402	7.122745	626.2912

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	37.2374683	1	0	0.000	1.0000
☐	☐	TIME	?	1	10.03475	0.096	0.7574
☐	☒	OG	-25.935186	1	17495.77	168.224	0.0000
☐	☐	ACFT	?	1	174.6154	1.688	0.1962
☐	☐	TNMCS	?	1	13.96941	0.133	0.7155
☐	☐	HUTE	?	1	27.35858	0.262	0.6099
☐	☐	SUTE	?	1	21.51702	0.206	0.6510
☐	☒	ASD	-11.922316	1	620.1067	5.962	0.0160
☐	☒	GAB	3.42879877	1	2664.486	25.619	0.0000
☐	☐	BREAK	?	1	314.8561	3.076	0.0818
☐	☐	CANN	?	1	175.3863	1.695	0.1952

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	HUTE	Removed	0.9670	0.174049	0.6751	9.0017	10
2	TNMCS	Removed	0.6420	21.88137	0.6745	7.2172	9
3	SUTE	Removed	0.3534	86.87986	0.6722	6.0726	8
4	CANN	Removed	0.3001	108.2636	0.6694	5.1386	7
5	TIME	Removed	0.0950	283.2431	0.6621	5.9274	6
6	ACFT	Removed	0.1501	212.8005	0.6565	6.0226	5
7	BREAK	Removed	0.0818	314.8561	0.6483	7.1227	4

388th FW MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.648602
RSquare Adj	0.637706
Root Mean Square Error	10.23383
Mean of Response	16.66716
Observations (or Sum Wgts)	134

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	36.846487	7.45418	4.94	<.0001
OG	-26.88416	3.664066	-7.34	<.0001
ASD	-11.58739	5.017711	-2.31	0.0225
GAB	3.3329845	0.746944	4.46	<.0001
TIME	0.013706	0.044279	0.31	0.7574

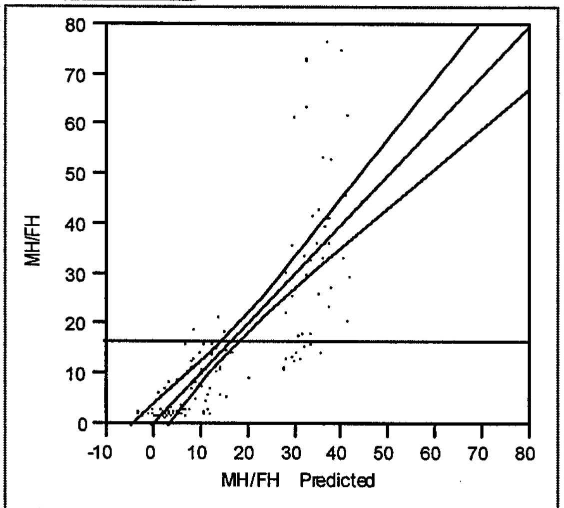
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
OG	1	1	5638.2303	53.8352	<.0001
ASD	1	1	558.5170	5.3329	0.0225
GAB	1	1	2085.2901	19.9109	<.0001
TIME	1	1	10.0348	0.0958	0.7574

Durbin-Watson

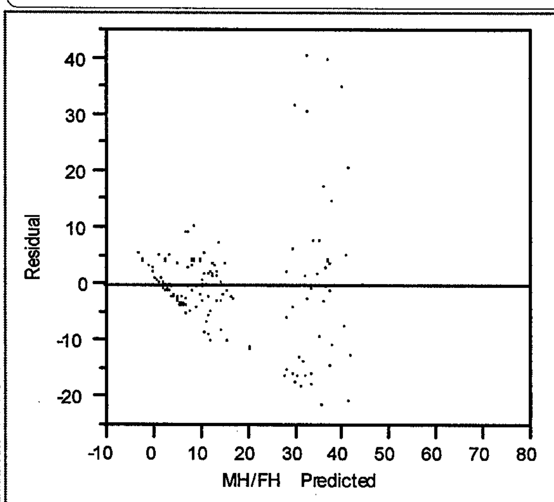
Durbin-Watson	Number of Obs.	AutoCorrelation
1.1444038	134	0.4265

Whole-Model Test



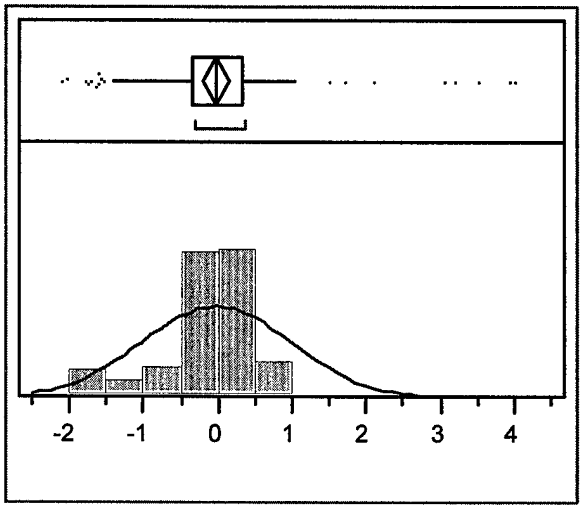
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	24937.076	6234.27	59.5263
Error	129	13510.339	104.73	Prob>F
C Total	133	38447.416		<.0001



388th FW MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	-0.0012
Std Dev	1.0045
Std Error Mean	0.0868
Upper 95% Mean	0.1704
Lower 95% Mean	-0.1728
N	134.0000
Sum Weights	134.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.857741	0.0000

347th WG TNMCM Stepwise Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1612.1753	115	14.01892	0.8073	0.7989	4.624603	325.3354

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	3.24823258	1	0	0.000	1.0000
☐	☒	TIME	0.10690781	1	627.2405	44.742	0.0000
☐	☐	OG	?	1	38.11417	2.760	0.0994
☐	☐	ACFT	?	1	20.92166	1.499	0.2234
☐	☒	TNMCS	0.899275	1	969.1961	69.135	0.0000
☐	☐	HUTE	?	1	0.028428	0.002	0.9643
☐	☒	SUTE	-0.2179266	1	73.93252	5.274	0.0235
☐	☒	ASD	-3.2405829	1	123.9096	8.839	0.0036
☐	☐	GAB	?	1	15.82303	1.130	0.2900
☐	☒	BREAK	0.34597882	1	96.04773	6.851	0.0100
☐	☐	CANN	?	1	0.027851	0.002	0.9647

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	HUTE	Removed	0.8797	0.326751	0.8134	9.023	10
2	CANN	Removed	0.8108	0.80975	0.8133	7.0801	9
3	GAB	Removed	0.6710	2.52879	0.8130	5.2583	8
4	ACFT	Removed	0.4056	9.648619	0.8118	3.9384	7
5	OG	Removed	0.0994	38.11417	0.8073	4.6246	6

347th WG TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.803798
RSquare Adj	0.795268
Root Mean Square Error	3.777973
Mean of Response	13.49504
Observations (or Sum Wgts)	121

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-0.126958	2.158857	-0.06	0.9532
TIME	0.1393696	0.021695	6.42	<.0001
TNMCS	0.8300502	0.115352	7.20	<.0001
ASD	-2.15328	1.15046	-1.87	0.0638
BREAK	0.204469	0.146573	1.39	0.1657
OG	-2.613022	1.476495	-1.77	0.0794

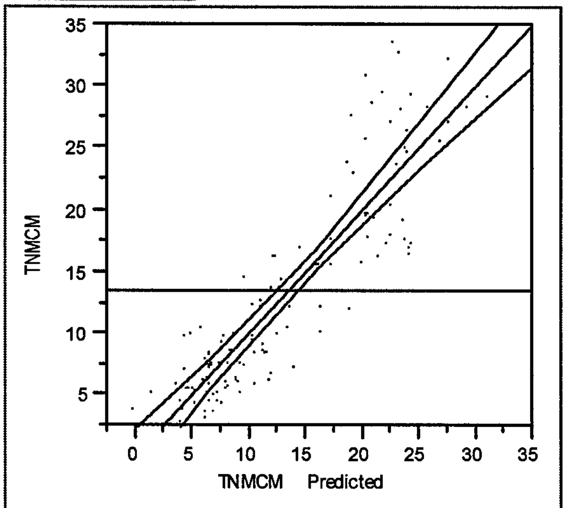
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	589.00103	41.2666	<.0001
TNMCS	1	1	739.05827	51.7799	<.0001
ASD	1	1	50.00065	3.5031	0.0638
BREAK	1	1	27.77561	1.9460	0.1657
OG	1	1	44.70335	3.1320	0.0794

Durbin-Watson

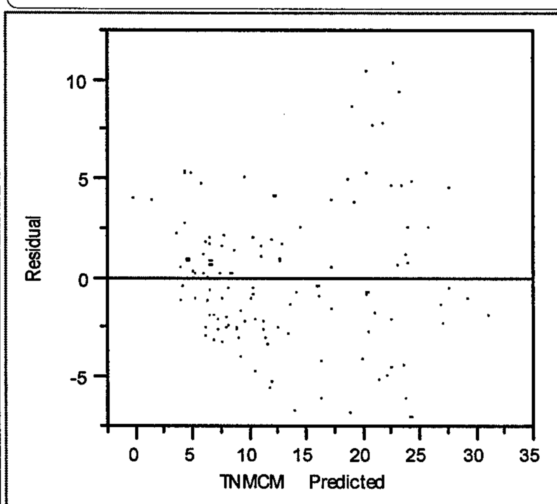
Durbin-Watson	Number of Obs.	AutoCorrelation
1.1060791	121	0.4306

Whole-Model Test



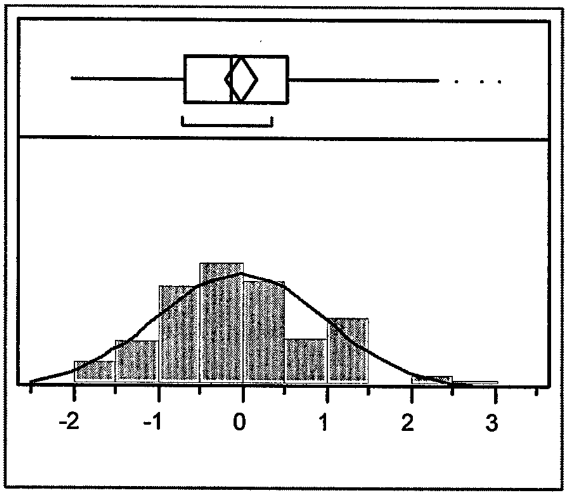
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	6724.4926	1344.90	94.2262
Error	115	1641.4044	14.27	Prob>F
C Total	120	8365.8970		<.0001



347th WG TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	-0.0010
Std Dev	1.0028
Std Error Mean	0.0912
Upper 95% Mean	0.1795
Lower 95% Mean	-0.1815
N	121.0000
Sum Weights	121.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.964393	0.0278

347th WG REP Stepwise Model Results:

Response: REP

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

[Enter All] [Remove All] [Go] [Stop] [Step] [Make Model]

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
401.76924	118	3.404824	0.3892	0.3788	-1.76337	151.2106

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	1.35202673	1	0	0.000	1.0000
☐	☐	TIME	?	1	5.244373	1.547	0.2160
☐	☐	OG	?	1	7.657425	2.273	0.1343
☐	☒	ACFT	0.05611139	1	150.4101	44.176	0.0000
☐	☐	TNMCS	?	1	2.767947	0.812	0.3695
☐	☐	HUTE	?	1	0.216382	0.063	0.8022
☐	☐	SUTE	?	1	0.028579	0.008	0.9275
☐	☐	ASD	?	1	0.000001	0.000	0.9995
☐	☒	GAB	-0.3685321	1	32.17842	9.451	0.0026
☐	☐	BREAK	?	1	0.725362	0.212	0.6464
☐	☐	CANN	?	1	0.216867	0.063	0.8020

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	BREAK	Removed	0.8493	0.128624	0.4064	9.0363	10
2	CANN	Removed	0.8095	0.205462	0.4061	7.0942	9
3	TIME	Removed	0.8178	0.185939	0.4058	5.1466	8
4	TNMCS	Removed	0.7091	0.483773	0.4051	3.2829	7
5	SUTE	Removed	0.6324	0.789465	0.4039	1.5054	6
6	ASD	Removed	0.4794	1.71628	0.4013	-0.011	5
7	HUTE	Removed	0.7606	0.316773	0.4008	-1.922	4
8	OG	Removed	0.1343	7.657425	0.3892	-1.763	3

347th WG REP Reduced Model Results:

Response: REP

Summary of Fit

RSquare	0.400857
RSquare Adj	0.380197
Root Mean Square Error	1.843158
Mean of Response	2.556198
Observations (or Sum Wgts)	121

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	2.1357156	0.936071	2.28	0.0243
ACFT	0.052289	0.009472	5.52	<.0001
GAB	-0.395198	0.133503	-2.96	0.0037
TIME	-0.000885	0.008983	-0.10	0.9217
OG	-0.562094	0.662433	-0.85	0.3979

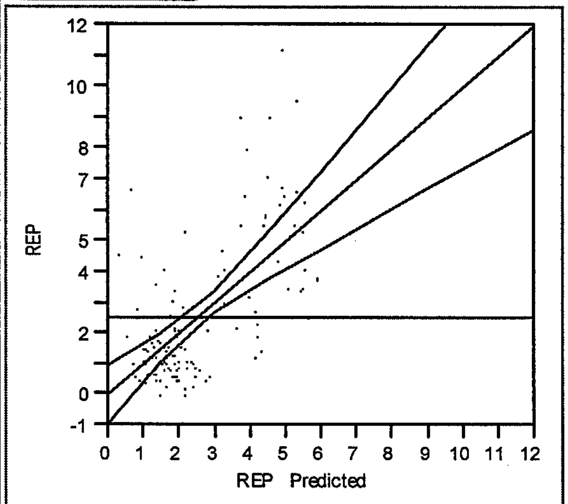
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
ACFT	1	1	103.52909	30.4745	<.0001
GAB	1	1	29.76968	8.7629	0.0037
TIME	1	1	0.03296	0.0097	0.9217
OG	1	1	2.44601	0.7200	0.3979

Durbin-Watson

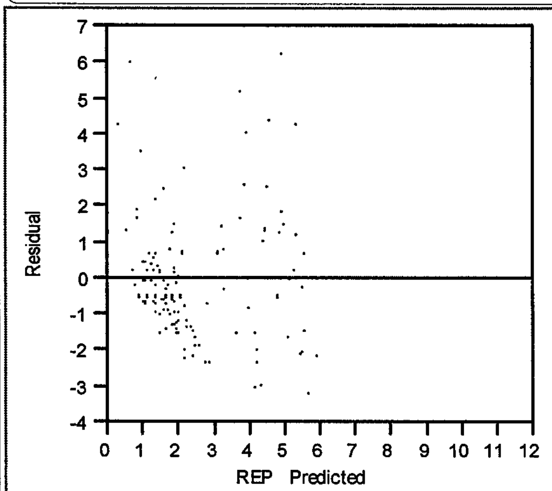
Durbin-Watson	Number of Obs.	AutoCorrelation
0.9356047	121	0.5313

Whole-Model Test



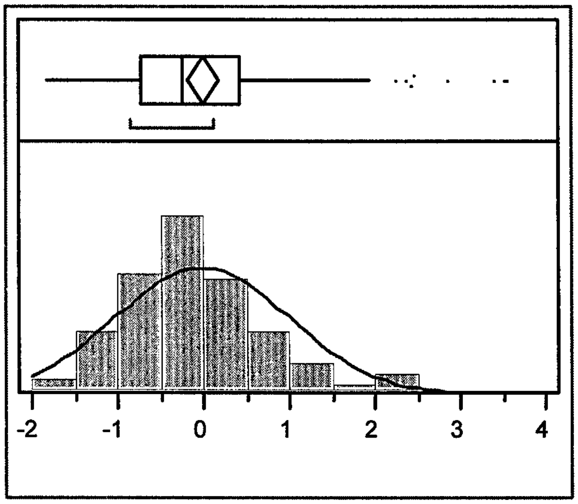
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	263.65900	65.9148	19.4025
Error	116	394.07885	3.3972	Prob>F
C Total	120	657.73785		<.0001



347th WG REP Reduced Model Residual Analysis:

Studentized Resid REP



Quantiles

Moments

Mean	0.0010
Std Dev	1.0088
Std Error Mean	0.0917
Upper 95% Mean	0.1825
Lower 95% Mean	-0.1806
N	121.0000
Sum Weights	121.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.911489	<.0001

347th WG REC Stepwise Results:

Response: REC

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
130.71727	119	1.098464	0.1358	0.1286	-0.44263	13.34679

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	0.68186157	1	0	0.000	1.0000
☐	☐	TIME	?	1	0.383983	0.348	0.5566
☐	☐	OG	?	1	0.031218	0.028	0.8670
☐	☒	ACFT	0.01958597	1	20.54521	18.704	0.0000
☐	☐	TNMCS	?	1	0.118742	0.107	0.7438
☐	☐	HUTE	?	1	0.705246	0.640	0.4253
☐	☐	SUTE	?	1	1.655603	1.514	0.2210
☐	☐	ASD	?	1	0.014584	0.013	0.9088
☐	☐	GAB	?	1	1.772518	1.622	0.2053
☐	☐	BREAK	?	1	0.398394	0.361	0.5493
☐	☐	CANN	?	1	0.000009	0.000	0.9978

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.9248	0.010051	0.1844	9.009	10
2	OG	Removed	0.8609	0.034269	0.1841	7.0395	9
3	TNMCS	Removed	0.6451	0.234971	0.1826	5.249	8
4	TIME	Removed	0.8201	0.056826	0.1822	3.2997	7
5	CANN	Removed	0.6425	0.235081	0.1807	1.5093	6
6	HUTE	Removed	0.4285	0.68053	0.1762	0.1161	5
7	BREAK	Removed	0.2170	1.654979	0.1652	-0.408	4
8	SUTE	Removed	0.1181	2.674763	0.1475	-0.023	3
9	GAB	Removed	0.2053	1.772518	0.1358	-0.443	2

347th WG REC Reduced Model Results:

Response: REC

Summary of Fit

RSquare	0.139544
RSquare Adj	0.117481
Root Mean Square Error	1.05472
Mean of Response	1.649587
Observations (or Sum Wgts)	121

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	0.8732512	0.400171	2.18	0.0311
ACFT	0.0175908	0.005365	3.28	0.0014
TIME	-0.003237	0.004683	-0.69	0.4909
OG	0.1376182	0.343458	0.40	0.6894

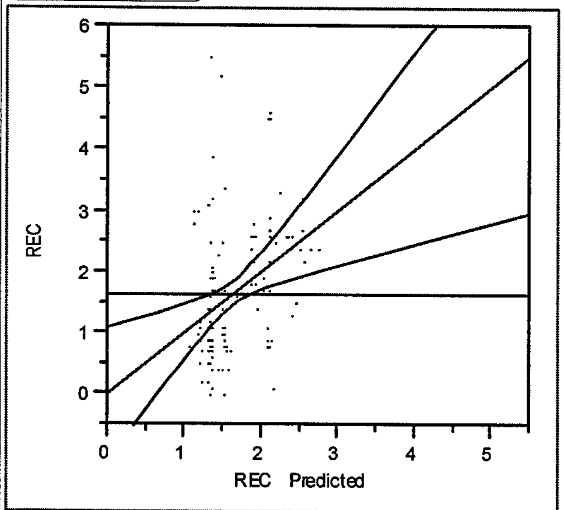
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
ACFT	1	1	11.961069	10.7522	0.0014
TIME	1	1	0.531364	0.4777	0.4909
OG	1	1	0.178598	0.1605	0.6894

Durbin-Watson

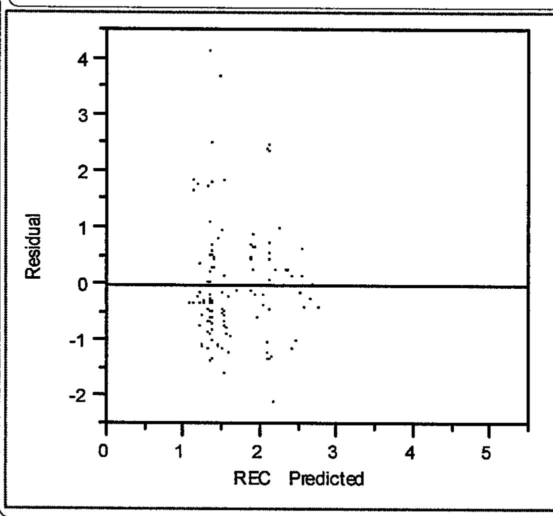
Durbin-Watson	Number of Obs.	AutoCorrelation
1.0616524	121	0.4687

Whole-Model Test



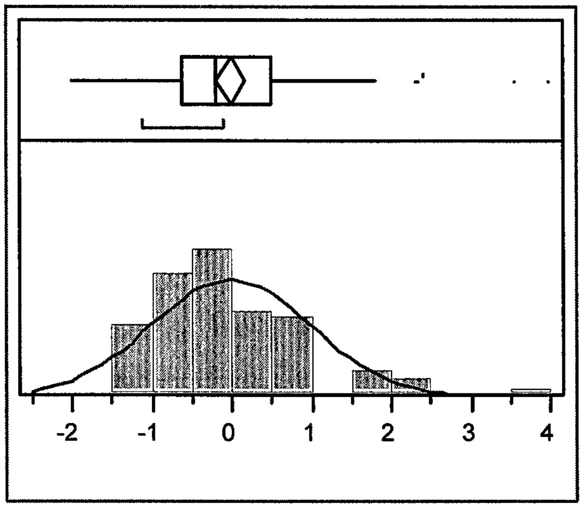
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	21.10779	7.03593	6.3248
Error	117	130.15469	1.11243	Prob>F
C Total	120	151.26248		0.0005



347th WG REC Reduced Model Residual Analysis:

Studentized Resid REC



Quantiles

Moments

Mean	0.0001
Std Dev	1.0030
Std Error Mean	0.0912
Upper 95% Mean	0.1807
Lower 95% Mean	-0.1804
N	121.0000
Sum Weights	121.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.911996	<.0001

347th WG MH/FH Stepwise Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
981.46213	108	9.087612	0.6469	0.6306	8.014563	257.4243

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	22.8609393	1	0	0.000	1.0000
☐	☐	TIME	?	1	6.54759	0.719	0.3985
☐	☒	OG	-3.9745373	1	244.7027	26.927	0.0000
☐	☒	ACFT	-0.0505163	1	95.7053	10.531	0.0016
☐	☒	TNMCS	0.49751876	1	441.5048	48.583	0.0000
☐	☐	HUTE	?	1	15.88407	1.760	0.1874
☐	☒	SUTE	-0.3876652	1	233.099	25.650	0.0000
☐	☒	ASD	-5.2722886	1	341.2606	37.552	0.0000
☐	☐	GAB	?	1	14.47464	1.602	0.2084
☐	☐	BREAK	?	1	23.4596	2.620	0.1085
☐	☐	CANN	?	1	0.550634	0.060	0.8069

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	CANN	Removed	0.8938	0.159726	0.6694	9.0179	10
2	HUTE	Removed	0.3486	7.832895	0.6666	7.8959	9
3	TIME	Removed	0.2494	11.84281	0.6623	7.2234	8
4	GAB	Removed	0.1430	19.2833	0.6554	7.3849	7
5	BREAK	Removed	0.1085	23.4596	0.6469	8.0146	6

347th WG MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.62243
RSquare Adj	0.60495
Root Mean Square Error	3.117421
Mean of Response	7.723684
Observations (or Sum Wgts)	114

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	19.741749	2.266158	8.71	<.0001
OG	-5.341561	1.105355	-4.83	<.0001
TNMCS	0.4797018	0.095956	5.00	<.0001
SUTE	-0.394975	0.079787	-4.95	<.0001
ASD	-5.121136	0.892313	-5.74	<.0001
TIME	0.0318484	0.018902	1.68	0.0949

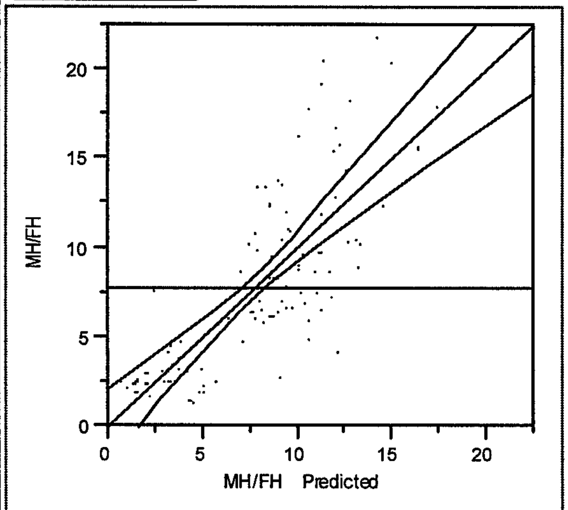
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
OG	1	1	226.94676	23.3525	<.0001
TNMCS	1	1	242.87891	24.9919	<.0001
SUTE	1	1	238.16150	24.5065	<.0001
ASD	1	1	320.10219	32.9380	<.0001
TIME	1	1	27.58975	2.8389	0.0949

Durbin-Watson

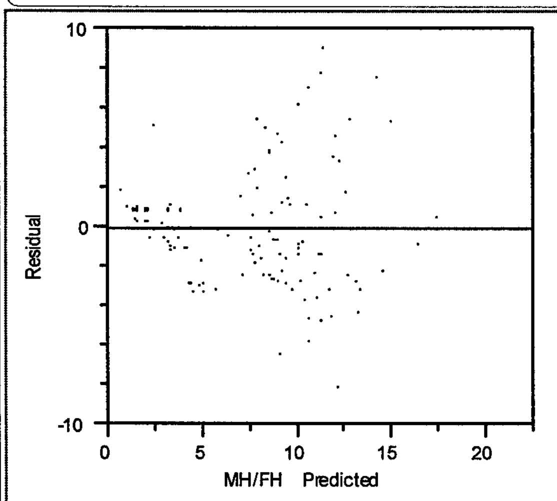
Durbin-Watson	Number of Obs.	AutoCorrelation
0.754657	114	0.6092

Whole-Model Test



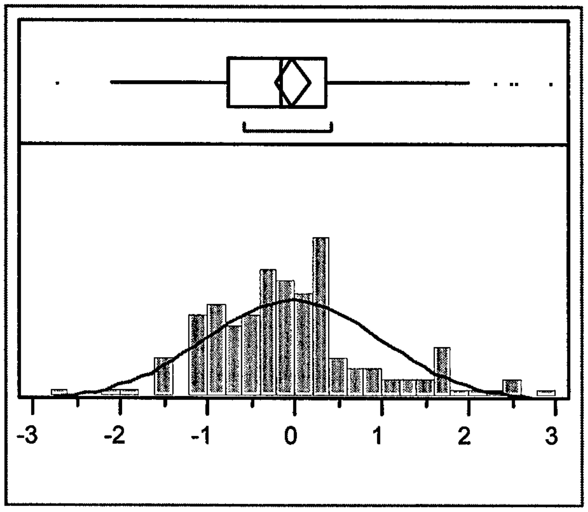
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	1730.2484	346.050	35.6080
Error	108	1049.5777	9.718	Prob>F
C Total	113	2779.8261		<.0001



347th WG MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	-0.0004
Std Dev	1.0034
Std Error Mean	0.0940
Upper 95% Mean	0.1858
Lower 95% Mean	-0.1866
N	114.0000
Sum Weights	114.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.965444	0.0430

52nd FW TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1026.8384	110	9.334895	0.1665	0.1589	4.139827	252.163

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	4.62234697	1	0	0.000	1.0000
☐	☐	TIME	?	1	0.412566	0.044	0.8346
☐	☐	OG	?	1	0.009529	0.001	0.9747
☐	☐	ACFT	?	1	9.183162	0.984	0.3235
☐	☐	TNMCS	?	1	12.13667	1.304	0.2560
☐	☐	HUTE	?	1	12.44733	1.338	0.2500
☐	☐	SUTE	?	1	7.904947	0.846	0.3598
☐	☐	ASD	?	1	5.473913	0.584	0.4463
☐	☐	GAB	?	1	16.20032	1.747	0.1890
☐	☐	BREAK	?	1	15.37951	1.657	0.2007
☐	☒	CANN	0.40337243	1	205.0622	21.967	0.0000

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	BREAK	Removed	0.5661	3.034474	0.2468	9.3314	10
2	HUTE	Removed	0.4553	5.110532	0.2427	7.8895	9
3	ASD	Removed	0.5078	3.999872	0.2394	6.3263	8
4	TIME	Removed	0.3273	8.72762	0.2323	5.2795	7
5	OG	Removed	0.6770	1.572041	0.2310	3.4511	6
6	TNMCS	Removed	0.3502	7.869781	0.2247	2.3106	5
7	ACFT	Removed	0.0736	29.14734	0.2010	3.4937	4
8	SUTE	Removed	0.0920	26.34283	0.1796	4.3706	3
9	GAB	Removed	0.1890	16.20032	0.1665	4.1398	2

52nd FW TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.167432
RSquare Adj	0.144305
Root Mean Square Error	3.081668
Mean of Response	6.96875
Observations (or Sum Wgts)	112

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.734036	0.97004	4.88	<.0001
CANN	0.3831835	0.10444	3.67	0.0004
TIME	0.0050277	0.014218	0.35	0.7243
OG	-0.338818	1.178829	-0.29	0.7743

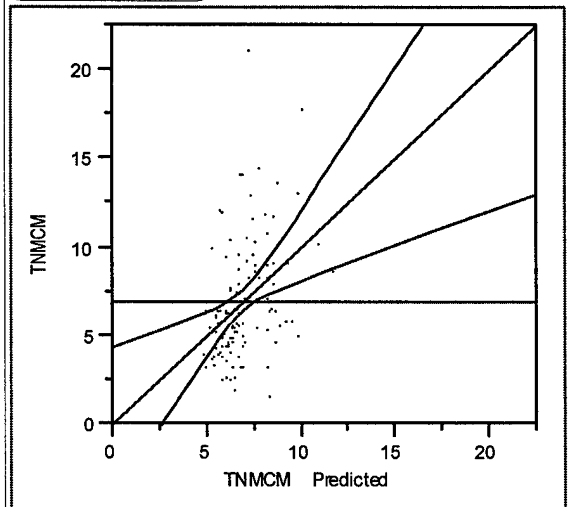
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
CANN	1	1	127.83572	13.4611	0.0004
TIME	1	1	1.18755	0.1250	0.7243
OG	1	1	0.78452	0.0826	0.7743

Durbin-Watson

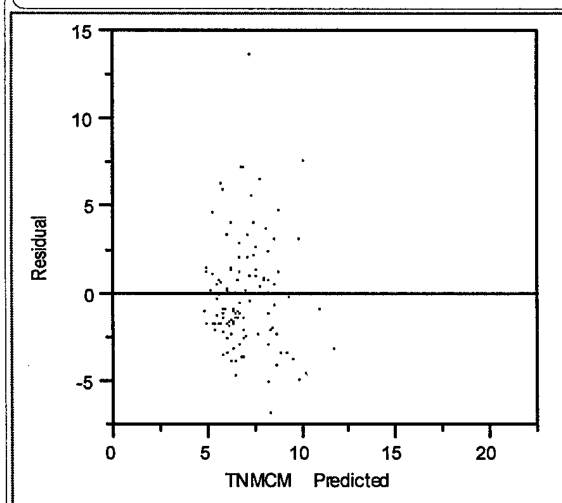
Durbin-Watson	Number of Obs.	AutoCorrelation
1.0145269	112	0.4634

Whole-Model Test



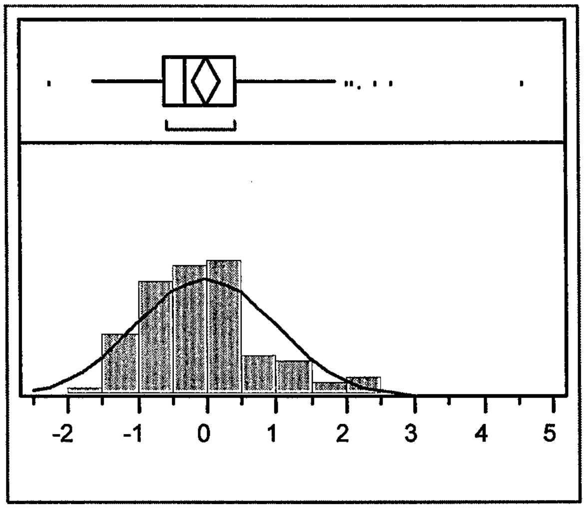
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	206.2593	68.7531	7.2397
Error	108	1025.6414	9.4967	Prob>F
C Total	111	1231.9006		0.0002



52nd FW TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	0.0011
Std Dev	1.0081
Std Error Mean	0.0953
Upper 95% Mean	0.1899
Lower 95% Mean	-0.1876
N	112.0000
Sum Weights	112.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.938087	<.0001

52nd FW REP Stepwise Model Results:

Response: REP

Stepwise Regression Control

Prob to Enter 0.050
Prob to Leave 0.050
Direction Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
117.6016	107	1.09908	0.4786	0.4591	4.119204	15.46602

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	-1.8492158	1	0	0.000	1.0000
☐	☒	TIME	-0.0273648	1	75.29531	68.508	0.0000
☐	☐	OG	?	1	3.195426	2.961	0.0882
☐	☒	ACFT	0.10769375	1	33.81866	30.770	0.0000
☐	☐	TNMCS	?	1	1.517015	1.385	0.2418
☐	☐	HUTE	?	1	0.027441	0.025	0.8753
☐	☐	SUTE	?	1	0.103073	0.093	0.7610
☐	☐	ASD	?	1	0.008147	0.007	0.9319
☐	☒	GAB	-0.3096086	1	17.54313	15.962	0.0001
☐	☒	BREAK	0.16526483	1	19.45174	17.698	0.0001
☐	☐	CANN	?	1	0.001185	0.001	0.9740

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	CANN	Removed	0.8177	0.059206	0.5035	9.0534	10
2	HUTE	Removed	0.7325	0.12902	0.5029	7.1698	9
3	ASD	Removed	0.5670	0.358985	0.5013	5.4938	8
4	SUTE	Removed	0.4511	0.618928	0.4986	4.0523	7
5	TNMCS	Removed	0.2723	1.311551	0.4928	3.2358	6
6	OG	Removed	0.0882	3.195426	0.4786	4.1192	5

52nd FW REP Reduced Model Results:

Response: REP

Summary of Fit

RSquare	0.492774
RSquare Adj	0.468848
Root Mean Square Error	1.038895
Mean of Response	1.458036
Observations (or Sum Wgts)	112

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-2.131408	0.899001	-2.37	0.0196
TIME	-0.022301	0.004404	-5.06	<.0001
ACFT	0.1242625	0.021514	5.78	<.0001
GAB	-0.328628	0.077586	-4.24	<.0001
BREAK	0.1604751	0.039028	4.11	<.0001
OG	-0.706982	0.410881	-1.72	0.0882

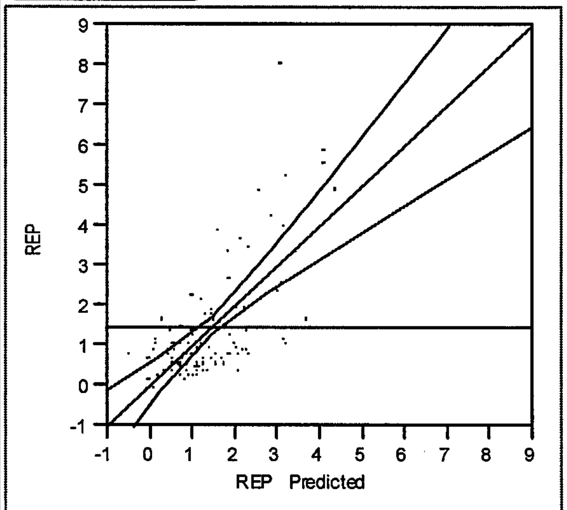
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	27.673590	25.6402	<.0001
ACFT	1	1	36.005452	33.3599	<.0001
GAB	1	1	19.363508	17.9407	<.0001
BREAK	1	1	18.247268	16.9065	<.0001
OG	1	1	3.195426	2.9606	0.0882

Durbin-Watson

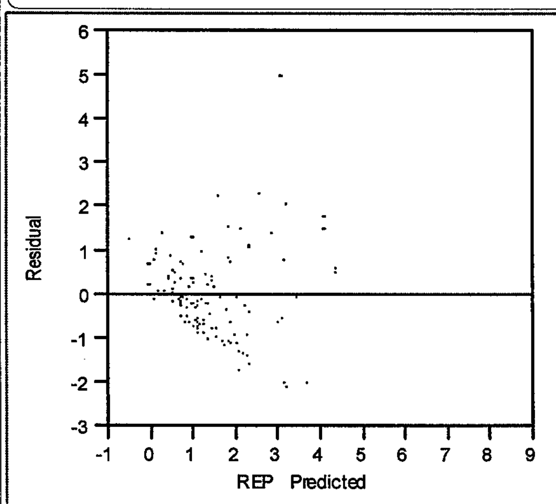
Durbin-Watson	Number of Obs.	AutoCorrelation
1.3857168	112	0.3026

Whole-Model Test



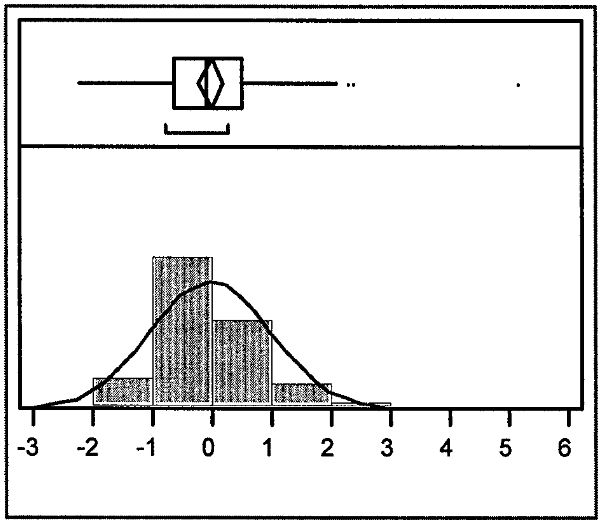
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	111.14659	22.2293	20.5960
Error	106	114.40618	1.0793	Prob>F
C Total	111	225.55277		<.0001



52nd FW REP Reduced Model Residual Analysis:

Studentized Resid REP



Quantiles

Moments

Mean	0.0046
Std Dev	1.0193
Std Error Mean	0.0963
Upper 95% Mean	0.1954
Lower 95% Mean	-0.1863
N	112.0000
Sum Weights	112.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.943060	0.0002

52nd FW REC Stepwise Model Results:

Response: REC

Stepwise Regression Control

Prob to Enter	0.050	Enter All
Prob to Leave	0.050	Remove All
Direction	Backward	

Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
44.090455	107	0.41206	0.4826	0.4633	2.945603	-94.4126

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	-2.0265135	1	0	0.000	1.0000
☐	☒	TIME	-0.0138881	1	19.39395	47.066	0.0000
☐	☐	OG	?	1	0.616495	1.503	0.2229
☐	☒	ACFT	0.08830853	1	22.73949	55.185	0.0000
☐	☐	TNMCS	?	1	0.448742	1.090	0.2989
☐	☐	HUTE	?	1	0.762888	1.866	0.1748
☐	☐	SUTE	?	1	0.196328	0.474	0.4926
☐	☐	ASD	?	1	0.635633	1.551	0.2158
☐	☒	GAB	-0.1630701	1	4.866645	11.811	0.0008
☐	☒	BREAK	0.12389226	1	10.93165	26.529	0.0000
☐	☐	CANN	?	1	0.425757	1.034	0.3116

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	ASD	Removed	0.8925	0.007708	0.5020	9.0183	10
2	SUTE	Removed	0.8685	0.01146	0.5018	7.0456	9
3	CANN	Removed	0.8582	0.013215	0.5017	5.0771	8
4	OG	Removed	0.3969	0.295422	0.4982	3.7803	7
5	TNMCS	Removed	0.2407	0.566962	0.4916	3.1298	6
6	HUTE	Removed	0.1748	0.762888	0.4826	2.9456	5

52nd FW REC Reduced Model Results:

Response: REC

Summary of Fit

RSquare	0.489843
RSquare Adj	0.465779
Root Mean Square Error	0.640415
Mean of Response	1.380357
Observations (or Sum Wgts)	112

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-1.902564	0.554179	-3.43	0.0009
TIME	-0.016112	0.002715	-5.93	<.0001
ACFT	0.0810309	0.013262	6.11	<.0001
GAB	-0.154716	0.047827	-3.23	0.0016
BREAK	0.1259961	0.024059	5.24	<.0001
OG	0.3105335	0.253283	1.23	0.2229

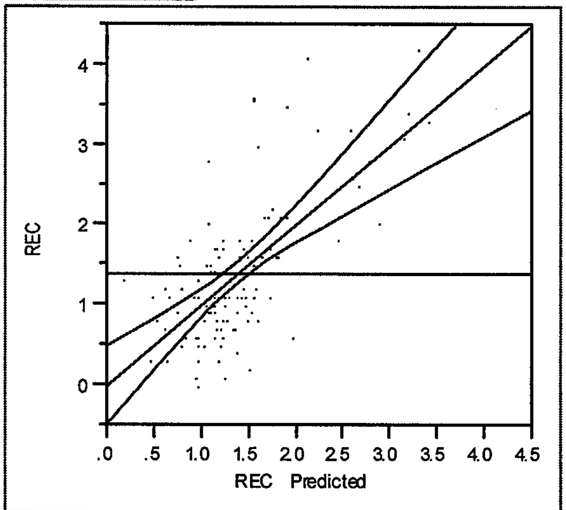
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	14.446110	35.2231	<.0001
ACFT	1	1	15.310506	37.3307	<.0001
GAB	1	1	4.291870	10.4646	0.0016
BREAK	1	1	11.248555	27.4267	<.0001
OG	1	1	0.616495	1.5032	0.2229

Durbin-Watson

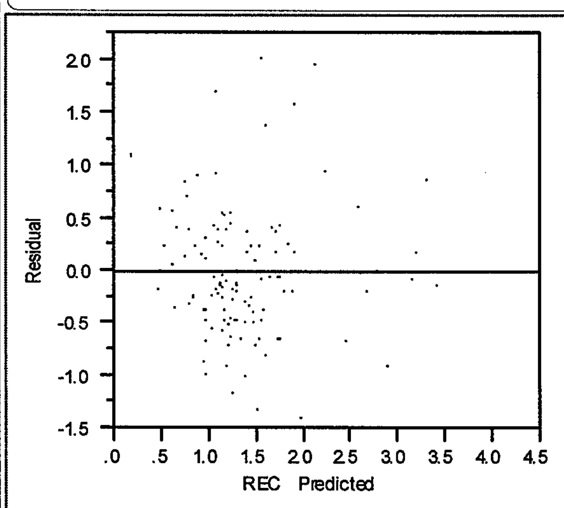
Durbin-Watson	Number of Obs.	AutoCorrelation
1.4528801	112	0.2709

Whole-Model Test



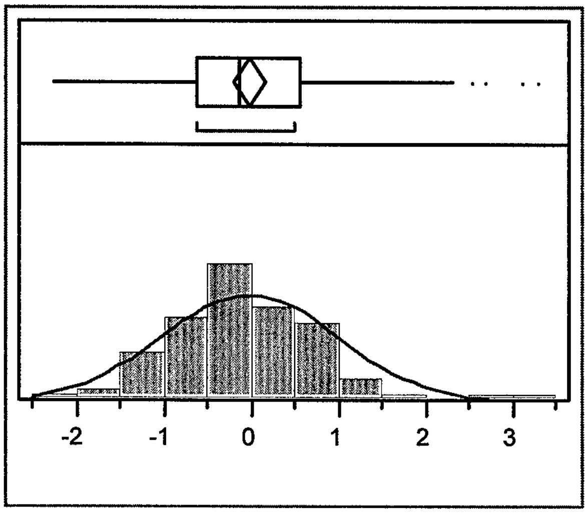
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	41.742826	8.34857	20.3558
Error	106	43.473960	0.41013	Prob>F
C Total	111	85.216786		<.0001



52nd FW REC Reduced Model Residual Analysis:

Studentized Resid REC



Quantiles

Moments

Mean	0.0034
Std Dev	1.0061
Std Error Mean	0.0951
Upper 95% Mean	0.1918
Lower 95% Mean	-0.1850
N	112.0000
Sum Weights	112.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.955633	0.0049

52nd FW MH/FH Stepwise Results:

Response: MH/FH

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
130.96613	102	1.283982	0.8136	0.8026	8.183439	34.01141

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	6.65146368	1	0	0.000	1.0000
☐	☒	TIME	0.03718085	1	57.70485	44.942	0.0000
☐	☒	OG	-2.9474899	1	55.74391	43.415	0.0000
☐	☐	ACFT	?	1	0.216529	0.167	0.6834
☐	☐	TNMCS	?	1	2.213028	1.736	0.1906
☐	☐	HUTE	?	1	0.009168	0.007	0.9332
☐	☒	SUTE	-0.1149376	1	13.48394	10.502	0.0016
☐	☒	ASD	-1.6460397	1	61.25038	47.703	0.0000
☐	☒	GAB	0.5362806	1	44.26183	34.472	0.0000
☐	☐	BREAK	?	1	3.431205	2.717	0.1024
☐	☒	CANN	0.16371298	1	15.08162	11.746	0.0009

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	HUTE	Removed	0.8279	0.060285	0.8228	9.0475	10
2	ACFT	Removed	0.7856	0.093489	0.8227	7.1212	9
3	TNMCS	Removed	0.1242	2.994129	0.8185	7.4801	8
4	BREAK	Removed	0.1024	3.431205	0.8136	8.1834	7

52nd FW MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.794376
RSquare Adj	0.784394
Root Mean Square Error	1.184241
Mean of Response	4.414679
Observations (or Sum Wgts)	109

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	3.7216724	0.48221	7.72	<.0001
TIME	0.0393794	0.005753	6.85	<.0001
OG	-2.906171	0.467323	-6.22	<.0001
ASD	-1.601266	0.248654	-6.44	<.0001
GAB	0.6753644	0.084264	8.01	<.0001
CANN	0.2042009	0.048185	4.24	<.0001

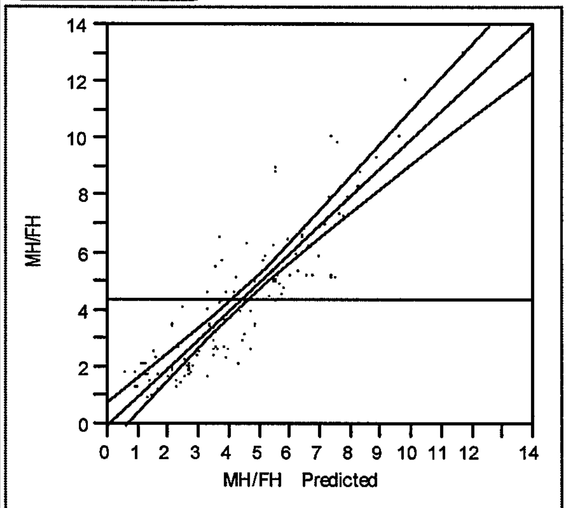
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	65.714039	46.8573	<.0001
OG	1	1	54.236036	38.6730	<.0001
ASD	1	1	58.159020	41.4702	<.0001
GAB	1	1	90.088161	64.2373	<.0001
CANN	1	1	25.186721	17.9594	<.0001

Durbin-Watson

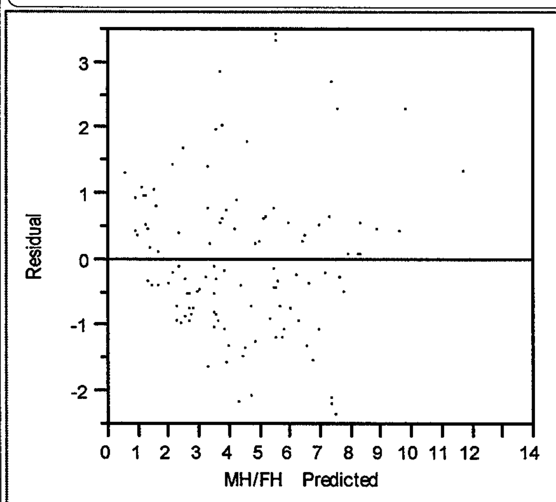
Durbin-Watson	Number of Obs.	AutoCorrelation
1.2930159	109	0.3513

Whole-Model Test



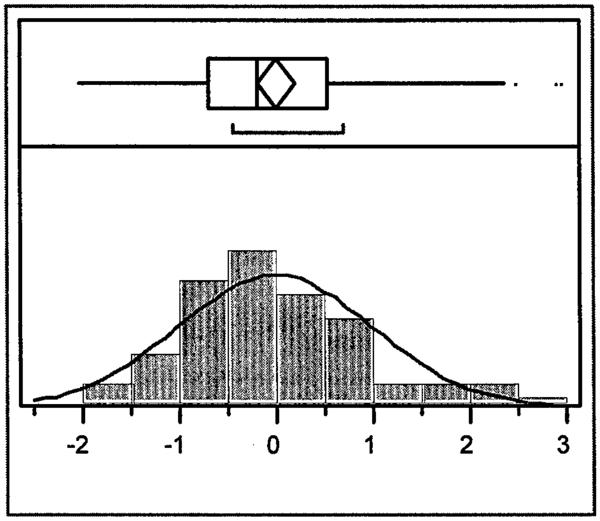
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	5	558.04644	111.609	79.5829
Error	103	144.45007	1.402	Prob>F
C Total	108	702.49651		<.0001



52nd FW MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	0.0035
Std Dev	1.0089
Std Error Mean	0.0966
Upper 95% Mean	0.1951
Lower 95% Mean	-0.1880
N	109.0000
Sum Weights	109.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.957891	0.0097

57th WG F-16 TNMCM Stepwise Model Results:

Response: TNMCM

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
3732.7276	191	19.54308	0.5159	0.5058	5.565635	587.5689

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	-6.9319369	1	0	0.000	1.0000
☐	☒	TIME	0.019212	1	107.7012	5.511	0.0199
☐	☒	ACFT	0.18244797	1	576.1224	29.480	0.0000
☐	☒	TNMCS	0.37928885	1	1088.846	55.715	0.0000
☐	☐	HUTE	?	1	34.89645	1.793	0.1822
☐	☐	SUTE	?	1	57.94876	2.996	0.0851
☐	☐	ASD	?	1	2.236894	0.114	0.7361
☐	☒	GAB	1.50165207	1	755.2434	38.645	0.0000
☐	☐	BREAK	?	1	56.61913	2.926	0.0888
☐	☐	CANN	?	1	9.796716	0.500	0.4804

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	HUTE	Removed	0.9160	0.217446	0.5300	8.0112	9
2	ASD	Removed	0.8929	0.352452	0.5299	6.0292	8
3	CANN	Removed	0.8455	0.734594	0.5298	4.0669	7
4	BREAK	Removed	0.1110	49.19521	0.5235	4.5917	6
5	SUTE	Removed	0.0851	57.94876	0.5159	5.5656	5

57th FW F-16 TNMCM Reduced Model Results:

Response: TNMCM

Summary of Fit

RSquare	0.515943
RSquare Adj	0.505806
Root Mean Square Error	4.420755
Mean of Response	10.52449
Observations (or Sum Wgts)	196

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-6.931937	1.403804	-4.94	<.0001
TIME	0.019212	0.008184	2.35	0.0199
ACFT	0.182448	0.033603	5.43	<.0001
TNMCS	0.3792889	0.050814	7.46	<.0001
GAB	1.5016521	0.241559	6.22	<.0001

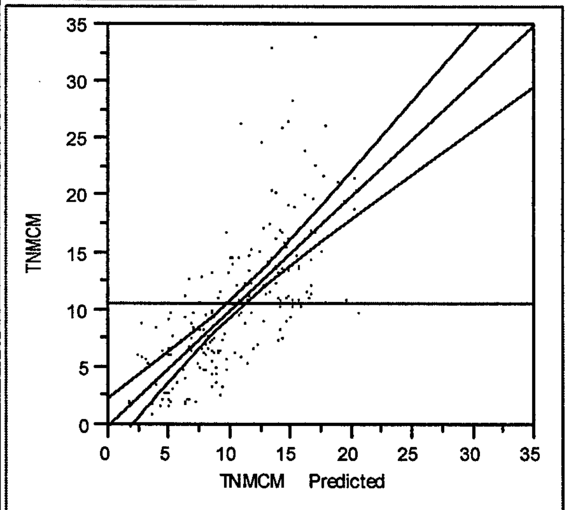
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	107.7012	5.5110	0.0199
ACFT	1	1	576.1224	29.4796	<.0001
TNMCS	1	1	1088.8458	55.7152	<.0001
GAB	1	1	755.2434	38.6451	<.0001

Durbin-Watson

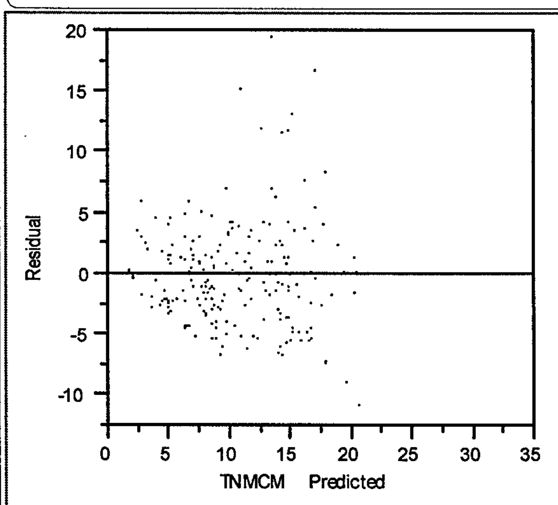
Durbin-Watson	Number of Obs.	AutoCorrelation
0.8325029	196	0.5796

Whole-Model Test



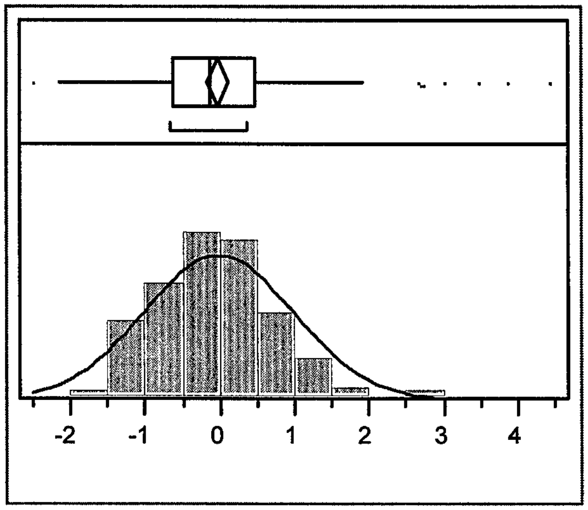
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	3978.6148	994.654	50.8955
Error	191	3732.7276	19.543	Prob>F
C Total	195	7711.3424		<.0001



57th WG F-16 TNMCM Reduced Model Residual Analysis:

Studentized Resid TNMCM



Quantiles

Moments

Mean	-0.0020
Std Dev	1.0047
Std Error Mean	0.0718
Upper 95% Mean	0.1395
Lower 95% Mean	-0.1435
N	196.0000
Sum Weights	196.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.931329	<.0001

57th WG F-16 REP Stepwise Model Results:

Response: REP

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
1905.2943	192	9.923408	0.5868	0.5803	5.877342	453.7583

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	7.55335734	1	0	0.000	1.0000
☐	☒	TIME	-0.0603623	1	2241.483	225.878	0.0000
☐	☐	ACFT	?	1	6.239643	0.628	0.4292
☐	☒	TNMCS	0.17063683	1	246.5199	24.842	0.0000
☐	☐	HUTE	?	1	12.46295	1.258	0.2635
☐	☐	SUTE	?	1	24.1749	2.455	0.1188
☐	☐	ASD	?	1	4.419493	0.444	0.5060
☐	☐	GAB	?	1	30.53184	3.111	0.0794
☐	☒	BREAK	0.18066424	1	127.0587	12.804	0.0004
☐	☐	CANN	?	1	0.226875	0.023	0.8803

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	CANN	Removed	0.9490	0.040244	0.6036	8.0041	9
2	SUTE	Removed	0.8859	0.201941	0.6035	6.0246	8
3	ACFT	Removed	0.6402	2.131255	0.6031	4.2415	7
4	ASD	Removed	0.1685	18.50105	0.5990	4.1241	6
5	HUTE	Removed	0.1037	26.00681	0.5934	4.7705	5
6	GAB	Removed	0.0794	30.53184	0.5868	5.8773	4

57th WG F-16 REP Reduced Model Results:

Response: REP

Summary of Fit

RSquare	0.586783
RSquare Adj	0.580326
Root Mean Square Error	3.150144
Mean of Response	5.162245
Observations (or Sum Wgts)	196

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	7.5533573	0.872988	8.65	<.0001
TIME	-0.060362	0.004016	-15.03	<.0001
TNMCS	0.1706368	0.034236	4.98	<.0001
BREAK	0.1806642	0.050489	3.58	0.0004

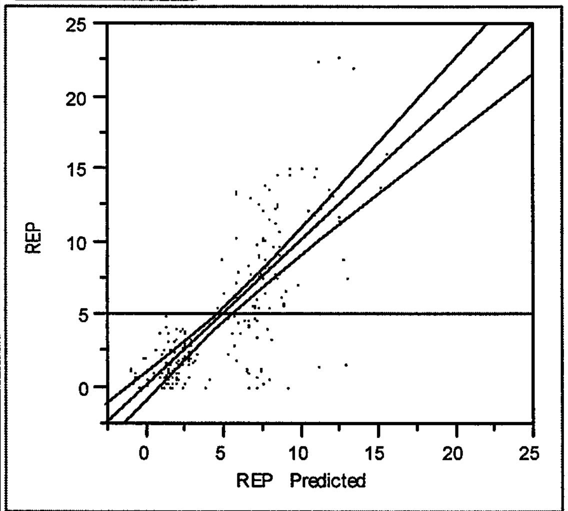
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	2241.4835	225.8784	<.0001
TNMCS	1	1	246.5199	24.8423	<.0001
BREAK	1	1	127.0587	12.8039	0.0004

Durbin-Watson

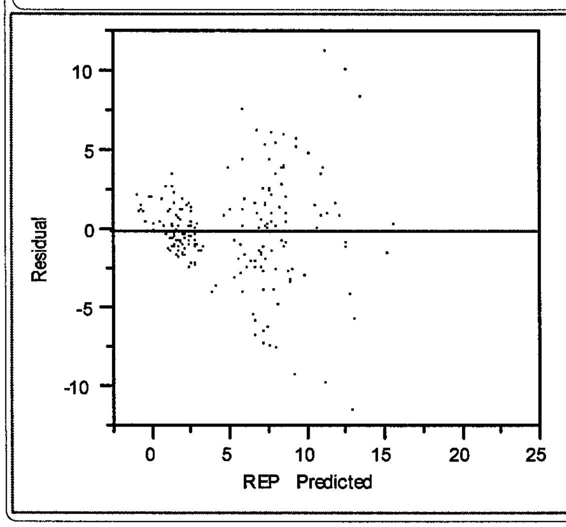
Durbin-Watson	Number of Obs.	AutoCorrelation
0.788874	196	0.6033

Whole-Model Test



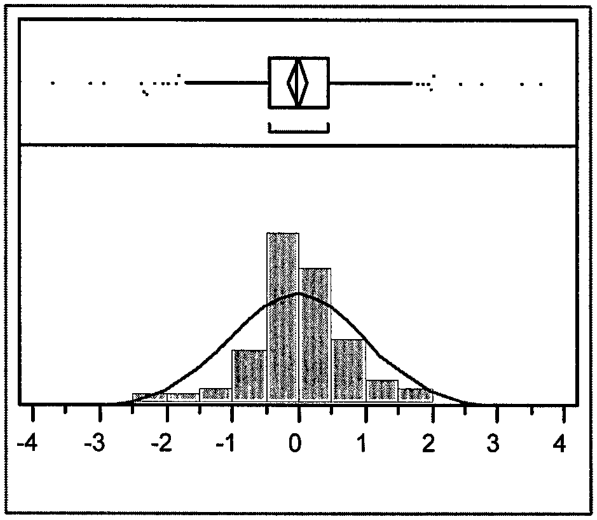
Analy sis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	2705.5863	901.862	90.8823
Error	192	1905.2943	9.923	Prob>F
C Total	195	4610.8806		<.0001



57th WG F-16 REP Reduced Model Residual Analysis::

Studentized Resid REP



Quantiles

Moments

Mean	-0.0001
Std Dev	1.0051
Std Error Mean	0.0718
Upper 95% Mean	0.1415
Lower 95% Mean	-0.1416
N	196.0000
Sum Weights	196.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.956314	<.0001

57th WG F-16 REC Stepwise Model Results:

Response: REC

Stepwise Regression Control

Prob to Enter 0.050
Prob to Leave 0.050
Direction Backward

Enter All | Remove All | Go | Stop | Step | Make Model

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
801.4093	192	4.174007	0.4633	0.4549	5.731333	284.0184

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	5.95411436	1	0	0.000	1.0000
☐	☒	TIME	-0.020612	1	132.2213	31.677	0.0000
☐	☒	ACFT	-0.0522323	1	50.34771	12.062	0.0006
☐	☐	TNMCS	?	1	4.521525	1.084	0.2992
☐	☐	HUTE	?	1	2.778382	0.664	0.4160
☐	☐	SUTE	?	1	1.641222	0.392	0.5320
☐	☐	ASD	?	1	0.311573	0.074	0.7855
☐	☒	GAB	0.22795924	1	19.34262	4.634	0.0326
☐	☐	BREAK	?	1	1.676135	0.400	0.5277
☐	☐	CANN	?	1	12.31484	2.981	0.0859

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	BREAK	Removed	0.8320	0.186593	0.4846	8.0451	9
2	ASD	Removed	0.3821	3.158346	0.4825	6.8086	8
3	SUTE	Removed	0.6230	0.996515	0.4818	5.0495	7
4	HUTE	Removed	0.7753	0.334412	0.4816	3.1303	6
5	TNMCS	Removed	0.0566	14.99153	0.4715	4.7544	5
6	CANN	Removed	0.0859	12.31484	0.4633	5.7313	4

57th WG F-16 REC Reduced Model Results:

Response: REC

Summary of Fit

RSquare	0.463296
RSquare Adj	0.45491
Root Mean Square Error	2.043039
Mean of Response	2.895408
Observations (or Sum Wgts)	196

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	5.9541144	0.632223	9.42	<.0001
TIME	-0.020612	0.003662	-5.63	<.0001
ACFT	-0.052232	0.015039	-3.47	0.0006
GAB	0.2279592	0.105895	2.15	0.0326

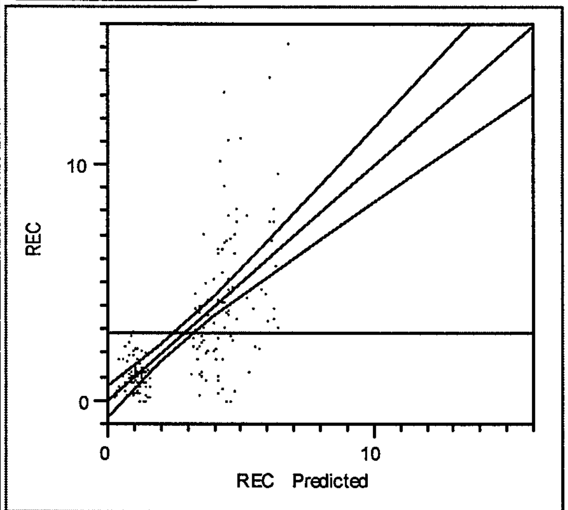
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	132.22135	31.6773	<.0001
ACFT	1	1	50.34771	12.0622	0.0006
GAB	1	1	19.34262	4.6341	0.0326

Durbin-Watson

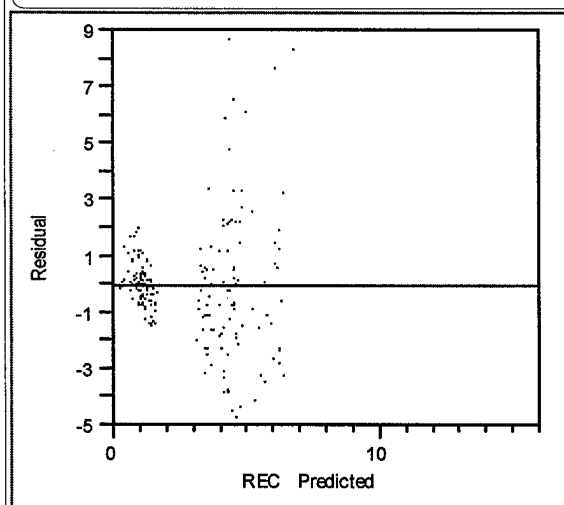
Durbin-Watson	Number of Obs.	AutoCorrelation
0.959823	196	0.4761

Whole-Model Test



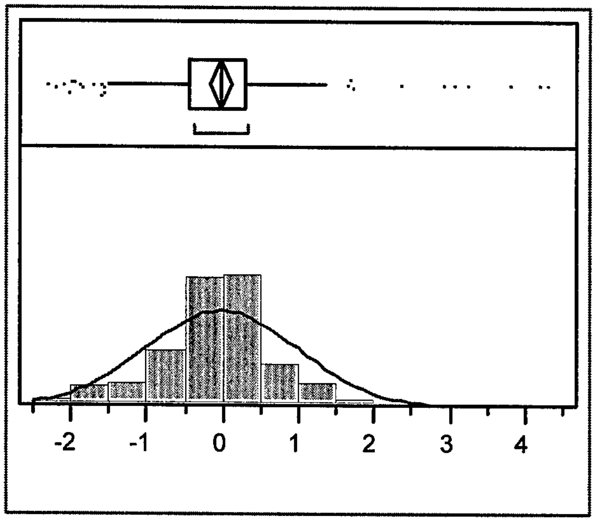
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	3	691.7966	230.599	55.2464
Error	192	801.4093	4.174	Prob>F
C Total	195	1493.2059		<.0001



57th WG F-16 REC Reduced Model Residual Analysis:

Studentized Resid REC



Quantiles

Moments

Mean	0.0001
Std Dev	1.0022
Std Error Mean	0.0716
Upper 95% Mean	0.1412
Lower 95% Mean	-0.1411
N	196.0000
Sum Weights	196.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.896896	0.0000

57th WG F-16 MH/FH Stepwise Model:

Response: MH/FH

Stepwise Regression Control

Prob to Enter 0.050

Prob to Leave 0.050

Direction: Backward

[Enter All] [Remove All] [Go] [Stop] [Step] [Make Model]

Current Estimates

SSE	DFE	MSE	RSquare	RSquare Adj	Cp	AIC
11011.85	163	67.55736	0.5879	0.5728	7.359114	723.0579

Lock	Entered	Parameter	Estimate	nDF	SS	"F Ratio"	"Prob>F"
☒	☒	Intercept	61.8707345	1	0	0.000	1.0000
☐	☒	TIME	-0.0740691	1	678.9526	10.050	0.0018
☐	☒	ACFT	-0.2501538	1	678.2097	10.039	0.0018
☐	☐	TNMCS	?	1	25.00821	0.369	0.5445
☐	☐	HUTE	?	1	22.66331	0.334	0.5641
☐	☒	SUTE	-0.8574731	1	741.0903	10.970	0.0011
☐	☒	ASD	-11.103068	1	279.0033	4.130	0.0438
☐	☐	GAB	?	1	161.2368	2.407	0.1227
☐	☒	BREAK	-0.4267007	1	495.9734	7.342	0.0075
☐	☒	CANN	0.51675347	1	1803.387	26.694	0.0000

Step History

Step	Parameter	Action	"Sig Prob"	Seq SS	RSquare	Cp	p
1	HUTE	Removed	0.7154	8.994925	0.5961	8.1334	9
2	TNMCS	Removed	0.3613	56.20226	0.5940	6.9672	8
3	GAB	Removed	0.1227	161.2368	0.5879	7.3591	7

57th WG F-16 MH/FH Reduced Model Results:

Response: MH/FH

Summary of Fit

RSquare	0.556524
RSquare Adj	0.545773
Root Mean Square Error	8.474884
Mean of Response	19.50059
Observations (or Sum Wgts)	170

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	40.338085	6.328297	6.37	<.0001
TIME	-0.089357	0.023661	-3.78	0.0002
ACFT	-0.152418	0.072375	-2.11	0.0367
SUTE	-0.837729	0.266214	-3.15	0.0020
CANN	0.5599891	0.099354	5.64	<.0001

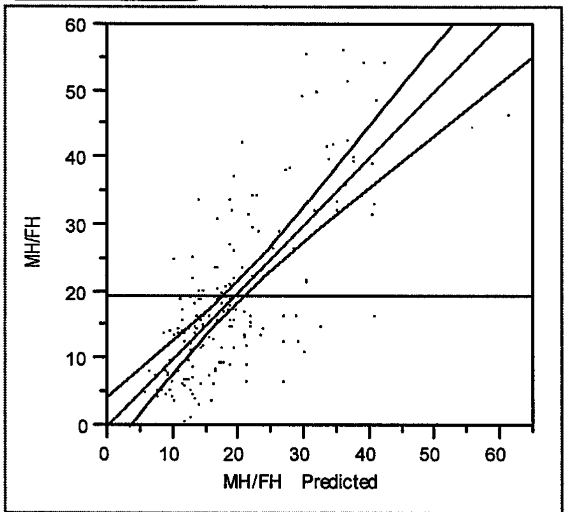
Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
TIME	1	1	1024.3315	14.2618	0.0002
ACFT	1	1	318.5417	4.4351	0.0367
SUTE	1	1	711.2361	9.9025	0.0020
CANN	1	1	2281.7006	31.7681	<.0001

Durbin-Watson

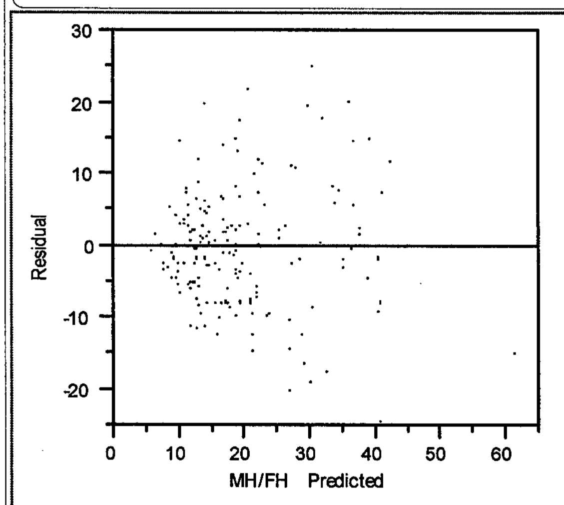
Durbin-Watson	Number of Obs.	AutoCorrelation
1.2289384	170	0.3840

Whole-Model Test



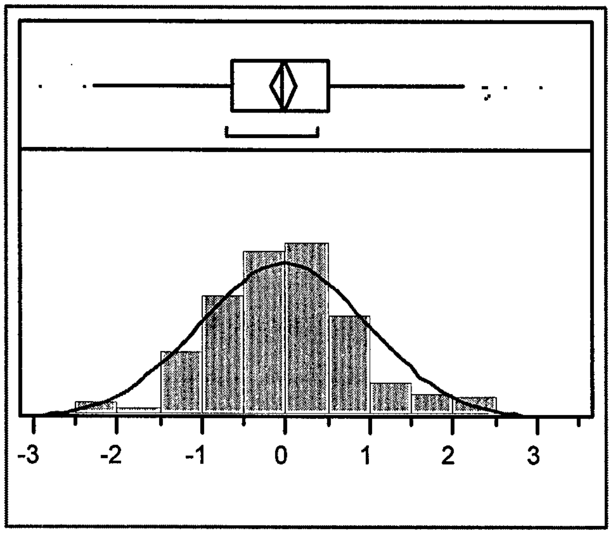
Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	14871.828	3717.96	51.7651
Error	165	11850.902	71.82	Prob>F
C Total	169	26722.730		<.0001



57th WG F-16 MH/FH Reduced Model Residual Analysis:

Studentized Resid MH/FH



Quantiles

Moments

Mean	-0.0012
Std Dev	1.0067
Std Error Mean	0.0772
Upper 95% Mean	0.1512
Lower 95% Mean	-0.1537
N	170.0000
Sum Weights	170.0000

Test for Normality

Shapiro-Wilk W Test

W	Prob<W
0.981739	0.4845

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13. SUPPLEMENTARY NOTES

14. ABSTRACT The Air Force has implemented various aircraft maintenance organizational structures. The implementation of the Objective Wing in the early 1990s was the latest occurrence of reorganization. This research looks at the effect of the type of aircraft maintenance organizational structure on aircraft maintenance performance. The type of organizational structure was defined by the functional centralization of the on-equipment maintenance. Aircraft maintenance performance was measured using TNMCM rates, fix rates, repeat/recur rates, man-hours per flying hour, and scheduling effectiveness rates. Three F-15 wings and three F-16 wings were selected to compare the changes in aircraft maintenance performance and to determine if the organizational structure had a significant influence on aircraft maintenance performance. Comparison of means and regression analysis were used to investigate the main effects of organizational structure and the moderating effects of several additional factors on aircraft maintenance performance. The aircraft maintenance organizational structure was determined to have a significant positive influence on at least one aircraft maintenance performance measure for five of the six experimental group wings. Various moderating factors also had various influences on aircraft maintenance performance.

15. SUBJECT TERMS
Aircraft Maintenance, Organizational Structure, Organizational Theory, Maintenance Management

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