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As the highly trained ex-military pilots of World War II began to retire from commercial flying, there was concern over the pilot shortage, especially among the airlines with their growing needs. Miami-Dade Junior College, in January 1965, was the first to respond to this need. Although initial enrollment was expected to be small, 150 applications were received; in 1967, enrollment was nearly 800; in one or two years, an enrollment of over 1000 is predicted. Broward County, Manatee, and Gulf Coast Junior Colleges now offer career pilot programs. Each program requires about 200 hours of flight time, costs the student about \$3000, and offers 68 to 78 semester hours of mathematics, social science, humanities, business, and physical education, besides aviation courses in flight theory, aircraft development, aerophysics, air navigation, aerodynamics, meteorology, air transportation, engines and structure theory, aircraft systems, aviation safety, and radio communications. The program leads to an associate degree in science or arts. Flying for the airlines is the initial goal of most students, but many switch to some other job in flying, such as corporate, rescue service, charter, or agricultural pilot. Miami-Dade also offers an associate degree program for stewardesses. Four more junior college programs for pilots are currently being planned in Florida. (HH)

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# TO EDUCATE PILOTS

*By Dayton Y. Roberts*



*Miami-Dade Junior College aerospace student Mike Forman prepares to take off from Opa-Locka Airport in Cessna 150.*

Of the more than 100,000 aircraft in the general aviation fleet in the United States, only 2,500 are operated by the scheduled airlines. These 2,500 aircraft are piloted by men who have passed stringent mental and physical examinations—men who often exceed the top FAA requirements—men who have been educated as pilots.

To be sure, many of the other men and women who fly the remaining 100,000 or more aircraft in the country—ranging from small, one-man, low-horsepower, home-built cropdusters, to large, multi-engine jets of the type flown by the airlines, are just as qualified as the airline pilots. In the late 1950's and early 1960's, however, the number of active pilots with top qualifications began diminishing as thousands of the highly trained ex-military pilots of World War II began to retire from commercial flying.

There were some indications that the number of "educated pilots" in relation to the number of "airplane drivers" was also diminishing. Concern over the pilot shortage was apparent throughout commercial aviation, especially in the airlines, for they were already foreseeing a great need, stemming

from the fact that two-thirds of all airline pilots who were active as late as 1964 would be forced to retire by 1977. And—since nine out of ten commercial pilots are not with the airlines, the projected annual need for commercial pilots appeared somewhat staggering.

It was obvious to the commercial aviation industry that the traditional sources of pilots and most types and levels of training for pilots were not adequate. The time was ripe to educate pilots—preferably at the college level in combination with general academic subjects.

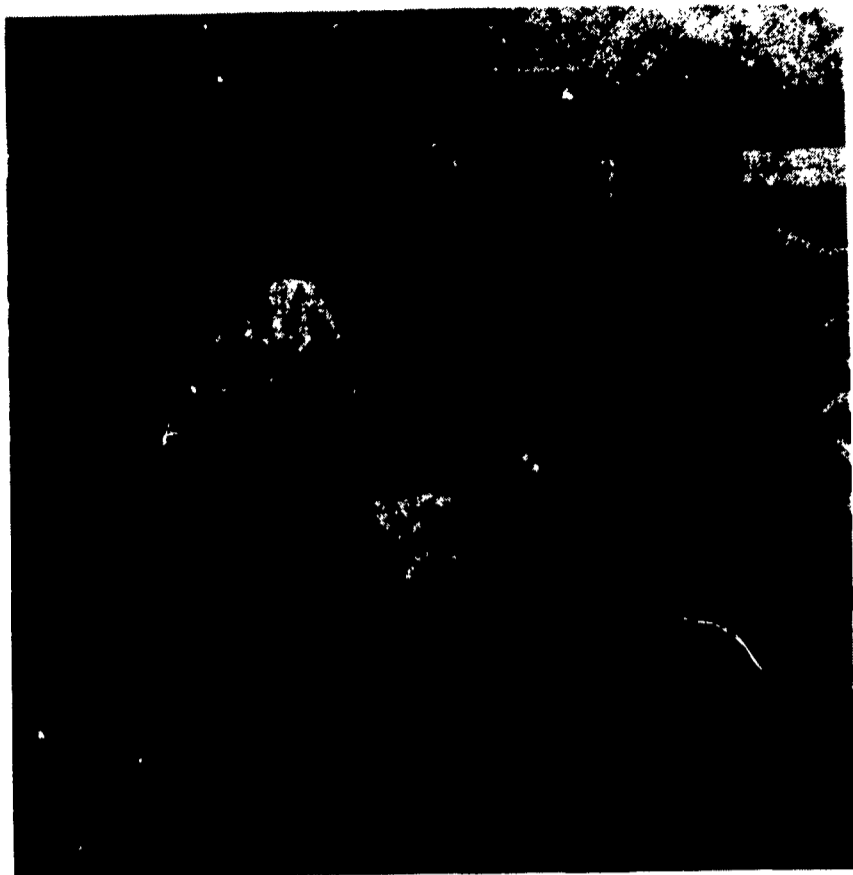
The first institution of higher education in the nation to respond directly to this need for the educating of career commercial pilots was Miami-Dade Junior College in Miami, Florida. Miami-Dade introduced its Career Pilot program in January 1965. Initial enrollment expectations were modest. Instead, according to George Mehallis, director of Miami-Dade's Technical Division, "... we were overwhelmed by 150 applications and it hasn't slowed down since."

In three years, the Miami-Dade program has become the largest, nonmilitary flight training opera-

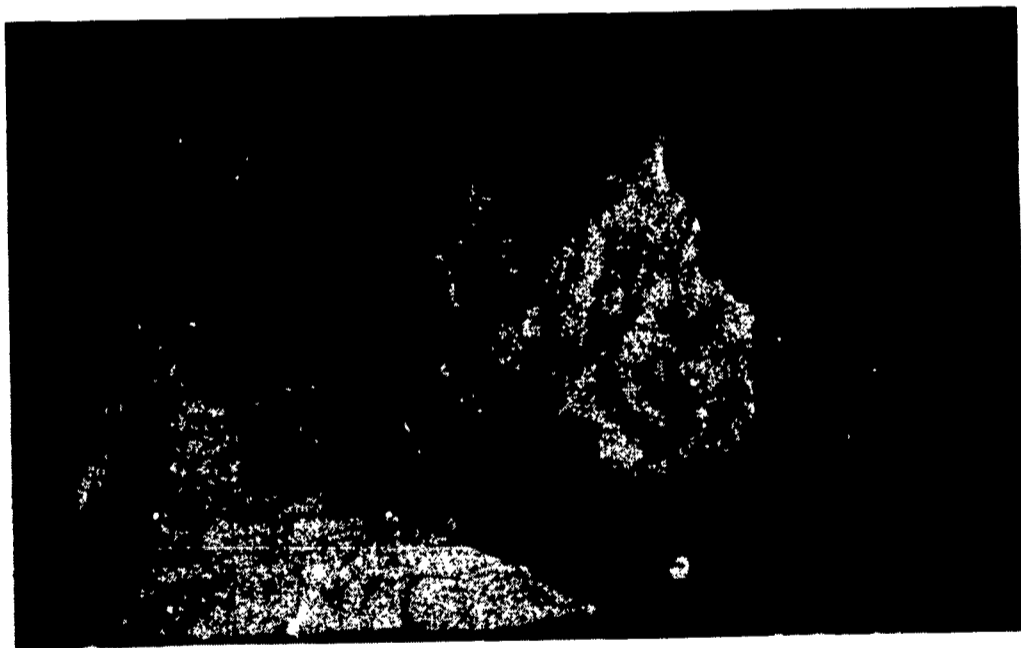
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*Miami-Dade president Peter Masiko, Jr. (center) and the technical studies director, George Mehalis, participate in shirttail cutting ritual after student's first solo. Below, career pilot students at Junior College of Broward County, Fort Lauderdale, labor over navigation problems.*



tion in the world. An enrollment of almost 800 in 1967 is expected to surpass 1,000 in one or two years. Testimony to the rapid growth of Miami-Dade's Career Pilot program is the fact that Miami's Opa-Locka Airport, home of the Miami-Dade (North Campus) program, has taken over from Chicago's O'Hare as the busiest airport in the United States, and, with the exception of two airfields in Vietnam, it is the busiest airport in the world.

In typical "Keep Florida First" fashion, the next institution of higher education in the nation to inaugurate a career pilot program was the Junior College of Broward County in Fort Lauderdale—only

20 miles north of Miami-Dade Junior College. Broward's initial program differed from Miami-Dade's in that Broward leased its fleet of aircraft, primarily Piper Cherokee 140's, and ran its own groundbase operation. Now, however, Broward is shifting its program to a contract service similar to that of Miami-Dade which contracts its program with two privately owned flying services—one of which uses Cessna 150's while the other one uses Piper Cherokee 140's.

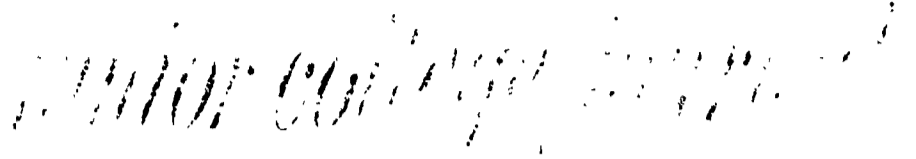
In the fall of 1966, two more Florida community junior colleges began career pilot programs—they are Manatee Junior College in Bradenton and Gulf Coast Junior College in Panama City.

Whereas administration of these career pilot programs differs somewhat from college to college and official titles for the programs may differ, program content is similar at the four institutions. Each program leads to an associate in science or associate in arts degree. All four programs require approximately 200 hours of flight time. Total cost to the students in each program is approximately \$3,000—primarily for in-flight training expenses. All require between 68 and 78 semester hours including mathematics, social science, humanities, business, and physical education courses in addition to aviation courses. Aviation courses in the career pilot

programs include flight theory, aircraft development, aerophysics, air navigation, aerodynamics, meteorology, air transportation, engines and structure theory, aircraft systems, aviation safety, and radio communications.

Although flying for the airlines is the initial goal of most new career pilot students, many later change their direction toward the less publicized, though nonetheless glamorous, flying occupations which employ 90 per cent of all commercial aviators. Many corporate pilots, rescue service pilots, charter pilots, and agricultural crop pilots have more flexible hours and consider themselves better off than airline pilots. Miami-Dade, however, probably assured an increasing proportion of airline pilot aspirants when it established the Flight Attendant program in 1966. This two-year, associate degree program for educating stewardesses may prove to be the best career pilot recruiting device yet established.

With the rapid growth of the four existing career pilot programs and with the addition of four more junior college programs now in the planning stage, Florida may become the first state in the nation to add a sixth purpose to the five traditional purposes of the community junior college. The sixth purpose—to educate pilots.



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