

Helping the GA Community for Over 90 Years

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Did you know that the first federal air traffic facilities in the United States date back to August 20, 1920? On that day, the Post Office Department issued orders to establish the first air mail radio stations along the transcontinental air mail route. The 2,612-mile route from New York to San Francisco had 17 primary landing fields, and each would have its own air mail radio station. These stations were the forerunners of today's flight service stations.



Bellefonte, PA, air mail radio station

Air mail radio station personnel provided an early flight following service, with the departure time and a coded flight plan teletyped to all stations along the route. As the pilot passed each station, he would report by radio or, if he had no radio, he would flash his lights or gun his engine and

his new position would be relayed to the next station. The first station personnel reported aircraft arrivals and departures. They could only make point-to-point transmissions with other ground stations using Morse code over radiotelegraph. They later used a Morse code shortcut called Phillips Code. It is from Phillips Code that acronyms such as ETA (estimated time of arrival) and WILCO (will comply) originated.

Although the first station operators had “state-of-the art equipment,” which included Navy spark transmitters, Army antennas, and 4-cylinder gas engine generators,

they often found themselves housed in makeshift buildings, including an abandoned box car, a converted chicken coop, and a shed made from discarded crates once used for shipping DeHaviland aircraft. Since, initially, only two air mail flights came daily – one in the morning and the other in the evening – only one operator manned the station. He worked seven days a week for a typical salary of \$1,200 per year. He received infrequent raises and, although he worked a lot of overtime, received no overtime pay. In addition to tracking flights, he provided weather information, sorted mail, maintained the equipment, and kept the runways clear. If a landing had to be made in the dark, he had to light the field by any means possible – automobile headlights, flares, bonfires, etc. And, during the day's slow periods, the operator broadcast market reports for the Bureau of Markets and Crop Estimates of the Department of Agriculture.

When the Department of Commerce became responsible for the transcontinental airway after passage of the Air Commerce Act of 1926 it assumed operation of the air mail radio stations, and renamed them airway radio stations. By 1927, the Department's Lighthouse Service



1929, airway radio operators

Airways Division, which had responsibility for the stations, employed 143 ground personnel, including 45 radio operators, 14 maintenance mechanics, and 84 caretakers. Because of a high demand for services, all stations from New York to Salt Lake City soon began providing 24-hours service, seven days a week with three operators. Stations

west of Salt Lake City provided 16-hour service with two operators (they also later went to 24-hour operations). Until 1935, all station employees had to wear uniforms while on duty.



Maintenance technician Dusty Rhodes in his uniform

Life in the field under the Department gradually improved. The offices, called watch houses, for the most part, now consisted of prefabricated wood huts that housed one to four men, sparsely furnished. In remote areas, the stations included a residence for the station operator and even bachelor quarters for

single workers. By mid-1933, 68 airway radio stations, about 200 miles apart, comprised the federal airways, supported by 13,000 miles of leased teletype circuits, serving 345 air carrier aircraft flying scheduled services on specific routes.

With other airway facilities, the stations were transferred to the Civil Aeronautics Authority in 1938 and to the Civil Aeronautics Administration in 1940. The CAA redesignated them as airway communication stations in 1938. On May 1, 1939, the CAA completed a \$7 million modernization and improvement program, begun in July 1937. The federal airway system now included 231 radio stations. By this time, the station operators could actively participate in the control of flight because of new air-to-ground capability. They provided up-to-date weather reports and helped lost pilots identify local landmarks to find their bearings. As the number of stations continued to grow and

equipment became more sophisticated the CAA began hiring maintenance technicians so the airways operation specialists could focus on their primary duties.

As the United States prepared for and then entered World War II, the stations faced huge manpower shortages. During the war, the CAA trained approximately 4,000 men and women at the regional training centers to work at the airway communications stations. Alaska, in particular, needed communications specialists as the CAA built a large number of stations throughout the territory to aid in the war effort. Volunteers from stations throughout the continental U.S. volunteered for six month tours in Alaska. Since most of the new stations were in remote locations, the Alaska Region trained about 100 husband/wife teams during the war to encourage families to move to the region.

On March 1, 1960, the Federal Aviation Agency (created by the Federal Aviation Act of 1958), gave the air traffic communications stations new names – flight service stations and international flight service stations. By the early 1960s, the Agency operated 297 flight service stations. FAA worked to continually update the stations as new technologies became available. For example, FAA commissioned a new program in the summer of 1978, under the name En Route Flight Advisory Service (EFAS). This service provided en route pilots with current weather information. Flight Service Station specialists trained in the collection and dissemination of aviation weather data manned the EWAS units, which were linked by direct telephone line with the nearest National Weather Service forecast office.

In February 1972, following a nationwide election, the National Association of Air Traffic Specialists (NAATS) received Department of Labor certification as the national exclusive representative for all flight service station specialists, approximately

3,000 employees. Four months later, on June 1, 1972, FAA and NAATS concluded an agencywide collective bargaining agreement, the first such contract between FAA and a national labor organization.



Tucson flight service station

By the mid-1970s, with the advent of new automation technologies, FAA began planning to decrease the number of flight service stations using what was then the latest computer technology. FAA estimated that if the system remained unchanged, up to 11,500 specialists would be needed to operate it by 1995, as opposed to only 4,500 in 1978. In April 1980, FAA Administrator Langhorne Bond announced plans to consolidate flight service operations into 61 automated stations. Although linked by telephone lines to computers at the air route traffic control centers, these sites would be housed in new buildings at airports with general aviation activity. FAA commissioned its first automated flight service station (AFSS) at Denver in November 1982. By the end of fiscal year 1995, FAA had consolidated its flight service stations into 61 AFSSs, 31 auxiliary stations (primarily in Alaska), and one remaining conventional station.

As part of its modernization program, in August 1997, FAA awarded Harris Corporation a contract to replace the system that flight service specialists used to provide information to pilots. The operational and supportability implementation system (OASIS) would provide



Millville automated flight service station

integrated weather briefing and flight planning capabilities for preflight weather briefings and inflight updates. FAA commissioned the first system on July 1, 2002, at the AFSS in Anderson, SC, and planned to complete the program over the next ten years.

As the modernization program progressed, a series of government mandates resulted in the flight service program's largest organizational change. In May 2003, the Office of Management and Budget (OMB) issued a significant revision to Circular A-76, which, at its core tenant, said government functions should be performed in the most efficient and cost effective way regardless of whether it was with government employees or contractor personnel. Federal departments and agencies were to examine their programs to determine if any would be more cost effective as a contract operation.

After careful review, FAA formally announced in December 2003 that its automated flight service stations met the criteria for competitive sourcing and that it would conduct a competition under OMB's Circular A-76 guidelines. The competition would be limited to services provided by 58 AFSSs in the contiguous U.S., Hawaii, and Puerto Rico. The FAA would continue operating facilities in Alaska as part of its new Air Traffic Organization. The agency planned to award a contract by early 2005.

FAA received five competing service providers, including the incumbent government organization, and on February 1, 2005, announced the selection of a team headed by Lockheed Martin to take over services provided currently by the agency's automated flight service stations. The total evaluated cost of the five-year contract, with five additional option years, was \$1.9 billion and represented estimated savings of \$2.2 billion over the next ten years. Lockheed Martin assumed operation of the flight service stations on October 4, 2005. By the time FAA had awarded Lockheed a three-year contract

extension in September 2010, Lockheed had consolidated the automated flight service stations into three hubs and three satellite facilities.



Kotzebue satellite flight service station

FAA continues to operate three automated flight service stations in Fairbanks, Juneau, and Kenai, Alaska, as well as 14 satellite field facility flight service stations across the state. Flight service specialists at these stations are helping to prepare the national airspace system for the introduction of the FAA's

Next Generation Air Transportation System (NextGen). They are working with Alaska's general aviation pilots to integrate new satellite technologies, such as automatic dependent broadcast – surveillance, into the system to improve safety. FAA's Capstone program in Alaska took ADS-B from proof-of-concept to reality. Now that technology is the cornerstone for the NextGen system. By 2020, the year that NextGen takes a big step forward in increasing safety and efficiency throughout the U.S. national aerospace system, the FAA will also be celebrating 100 years of government service to aviation. The Alaskan flight service stations continue supporting this vital modernization. Flight service has come a long way from its humble beginnings on August 20, 1920, to laying the groundwork for the NextGen system.