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REPORT BY THE

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Comptroller General

OF THE UNITED STATES

Unnecessary Procurement Of An Aviation Weather And Notice To Airmen System By FAA

The Federal Aviation Administration (FAA) purchased a second prototype, Aviation Weather and Notice to Airmen System, to demonstrate the feasibility of consolidating several stations and collocating them with the air route traffic control center at Leesburg, Virginia.

ABCD0030

FAA purchased this new system before it had completely developed and evaluated the system's performance capabilities.

FAA did not consider relocating the existing prototype nor did it reconsider its decision when still another system proved to be capable of handling the Leesburg operations. FAA's action resulted in an unnecessary acquisition at a cost of \$2.6 million.



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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164497(1)

The Honorable John L. Burton
Chairman, Subcommittee on Government
Activities and Transportation
Committee on Government Operations
House of Representatives

HSE01503

Dear Mr. Chairman:

In response to your May 2, 1978, request and discussions with your office, we have reviewed the Federal Aviation Administration's (FAA's) procurement of two Aviation Weather and Notice to Airmen Systems (AWANSes), costing about \$6.3 million. Also, in response to your October 27, 1978, request, we considered the operational problems at the Indianapolis, Indiana, flight service station to determine why AWANS has not improved service to pilots.

AWANS was developed because of the need to modernize the labor-intensive and paper-oriented flight service station. The first AWANS was installed in Atlanta, Georgia, as an experimental system to test the feasibility of automating flight service stations. The system has since been upgraded and is now fully operational.

According to FAA, AWANS demonstrates that a station can be automated and that a specialist using the system can improve the quality of pilot briefings. However, the system also has presented some problems. Using the system has lengthened the time required for briefings. Also, the benefit of reducing manual functions has been offset by an increase in the number of personnel needed to operate the computer system.

FAA purchased a second AWANS, to demonstrate the feasibility of consolidating several stations and collocating them with the air route traffic control center at Leesburg, Virginia. However, FAA had not completely developed and evaluated the system's capabilities to perform at the Leesburg site. In its haste to establish the demonstration site at Leesburg, FAA limited its alternatives to either procuring a second AWANS or developing an entirely new system, which would take about 5 years to complete and cost about \$6 million. FAA never considered moving the first AWANS prototype from Atlanta to Leesburg.

After making the decision to purchase, but before the actual purchase of the second AWANS, another system, the Meteorological and Aeronautical Presentation System (MAPS), was leased and installed at Leesburg. This system handled the workload well and is still used at the Leesburg site.

For these reasons, we believe that FAA failed to consider the most viable alternative in fulfilling the needs of the Leesburg demonstration. In addition, FAA did not reconsider its decision to buy a second AWANS when MAPS became available. In acquiring the second AWANS, FAA unnecessarily spent \$2.6 million.

When the second AWANS was relocated in Indianapolis, two additional briefing positions were established, thus increasing the station's briefing capacity. However, because of staffing levels, the station was unable to take advantage of the added briefing positions. Without these positions, productivity drops because, using AWANS, the time required for pilot briefing increases. The added positions are staffed during peak demand periods, and FAA believes that as specialists develop proficiency using AWANS, the station should be able to brief more pilots.

AWANS DESCRIPTION AND BACKGROUND

AWANS is a computerized system designed to aid flight service station specialists in briefing pilots and filing flight plans. It enables specialists to enter, delete, and recall data using a keyboard similar to that of a typewriter and display information on a cathode-ray tube, a television-like screen. AWANS eliminates the paper-oriented and noisy operation of the teletype system and makes weather and notice-to-airmen information more readily available for use by specialists.

FAA entered into a cost reimbursement-type contract with E-Systems, Inc., on June 26, 1972, for the design, development, and installation of AWANS; operator training; and first-year maintenance support in Atlanta, Georgia. The original contract was for about \$1.2 million and called for final acceptance by October 1973. FAA made 39 modifications to the contract, increasing the system's cost to about \$3.7 million. FAA finally accepted the system as totally operational in May 1978. According to agency officials, many changes were needed because neither the contractor nor FAA fully understood the complexity of the job required to automate the functions of a flight service station.

On January 15, 1976, before the first system was fully developed, FAA entered into a contract with E-Systems, Inc., for a second AWANS prototype. The second system, which was to demonstrate consolidation and collocation at Leesburg, Virginia, was installed in a test mode and found to be unsuitable. It was removed and relocated at the Indianapolis, Indiana, flight service station. FAA spent about \$2.6 million for the second system, which began operations in Indianapolis on April 5, 1978.

PROBLEMS WITH AWANS OPERATION

The AWANS operation at the Atlanta station was not very reliable. Major subsystems of AWANS were inoperative for substantial periods from July 1975 to May 1978.

The communications and alphanumeric subsystems of AWANS interface with the Weather Message Switching Center in Kansas City, Missouri, for weather and aeronautical data and with a data interchange system for flight plan data. From the beginning of AWANS operation in July 1975, FAA experienced numerous problems with flight plan processing. FAA and contractor personnel determined that using AWANS for flight plan processing caused rapid deterioration of the overall system. Therefore, rather than continually suffer system outages, Atlanta flight service station officials used AWANS for weather briefings only, and processed flight plans manually. FAA did not satisfactorily operate flight plan functions until the contractor incorporated major software changes in May 1978--about 3 years after AWANS was installed. Agency officials informed us that many problems, unrelated to AWANS, were caused by changes at the Weather Message Switching Center.

Briefings have improved with AWANS because it processes and provides more information, but it also takes longer to brief each pilot. In March 1978, FAA released the results of its time and motion study conducted at the Atlanta station. FAA determined that using AWANS has significantly improved the quality of service. Cited as factors which have improved briefings were more timely weather data, use of pilot reports, and greater access to enroute weather conditions. The study also noted that the time required for a combined flight plan and weather briefing increased from 3.70 to 4.34 minutes, but that the total employee time devoted to this briefing decreased 0.56 minutes, primarily due to the elimination of manual procedures. In a June 1977 test conducted by FAA's

Eastern Regional Office at Leesburg, Virginia, FAA concluded that many functions of AWANS flight plan processing were more difficult than the manual method.

The March 1978 study shows that eliminating the manual functions associated with preflight briefings and filing of flight plans reduce total service time to about 5 minutes. This freed the specialist to perform additional pilot briefings, thereby increasing the capacity of the Atlanta station by about 53 percent. This capacity increase has been offset, however, by the additional employees (a data system officer and a staff of five data specialists) needed to operate AWANS. According to FAA officials, capacity gains were not realized because of the low level of activity at the Atlanta station.

UNNECESSARY PURCHASE OF SECOND AWANS

In May 1975, FAA directed that an automated flight service station be established at the air route traffic control center in Leesburg, Virginia. The purpose was to demonstrate the benefits of consolidating several stations into one facility and collocating it with a center. In July 1975, FAA determined that an AWANS, functionally identical to the one being developed at Atlanta, should be purchased for the Leesburg demonstration. The justification behind the decision to buy a second AWANS prototype is highly questionable because (1) the first prototype was not completely developed, (2) an appraisal of its capabilities and suitability for Leesburg had not been performed, (3) FAA did not plan to purchase AWANS in production quantities to automate flight service stations, and (4) other alternatives, such as substituting MAPS for the demonstration or relocating the Atlanta AWANS, were not considered.

According to the Department of Transportation order, DOT 4200.9, the acquisition of major systems, including demonstration projects, is a critical function of the Department. Generally, a high-level review of major acquisitions is conducted by a Transportation System Acquisition Review Council to advise the Secretary of Transportation before development or procurement decisions are made. In the case of the AWANS procurement for Leesburg, to expedite the purchase, a full program review was not performed. Thus, a portion of the normal review process was waived. Consideration was only given to either purchasing a system identical to the Atlanta AWANS or undertaking a new program, which would take about

5 years to complete and cost about \$6 million. Considering the need to quickly establish the demonstration project at Leesburg, the Department considered this second alternative unrealistic.

AWANS still in development phase

FAA decided to buy the second AWANS even though the first prototype performed unsatisfactorily during a factory demonstration in January 1974 and continued to experience major deficiencies during the factory acceptance test 1 year later. During May 1975 AWANS site acceptance tests and June-July 1975 retests, improvements were noted in the system; however, a number of problems still had to be corrected. Beginning in July 1975, AWANS experienced some operational problems which were not resolved until almost 3 years later by changing the flight plan data processing program.

Suitability for Leesburg not evaluated

A formal appraisal of AWANS capabilities to determine AWANS suitability for the Leesburg site had not been performed until after it was installed. As part of the analysis, a comparison was made between AWANS and MAPS. On the average, AWANS required more than four times as many key functions as MAPS for processing flight plans. Since flight plan processing is a major portion of Leesburg's workload, AWANS was determined to be inadequate for the site, removed from Leesburg, and installed in the Indianapolis station which does not have as heavy a flight plan workload.

No future plans for AWANS

FAA did not plan to purchase AWANS in production quantities to automate flight service stations. FAA had been considering a new concept in station operation. A 1973 joint FAA/Department of Transportation plan proposed consolidating all flight service stations into 30 hub facilities connected to a computer at a large central processing facility. While the central processing facility concept has been dropped and the number of hubs reduced, consolidation of all the stations into hubs--each with its own data processing system--is still part of the automation plan. The AWANS computer is not large enough to handle the workload of a hub facility.

MAPS available for
Leesburg demonstration

FAA had been studying the feasibility of using MAPS for flight service station operations. At that time, MAPS was a computerized experimental system which the agency was developing for use by controllers at the air route traffic control center in Leesburg, Virginia. When the study successfully demonstrated MAPS' capability, FAA entered into a lease/purchase agreement for the system with Price, Williams, and Associates, Inc., on November 4, 1975, 2 months before the AWANS purchase contract was issued. Although MAPS was known to be available and capable of performing the demonstration at Leesburg before the contract was awarded for the second AWANS prototype, FAA leased MAPS only as an interim system to be used until an AWANS was available.

Relocation of Atlanta AWANS

FAA also did not consider relocating the Atlanta AWANS to Leesburg, in lieu of a new system. In retrospect, according to an FAA official, relocation would have resulted in the Atlanta station reverting back to the manual system and the AWANS operating staff relocating to Leesburg, which would have caused serious morale problems. In addition, it would have delayed the development of operational data considered necessary to gain support for the agency's flight service station modernization program.

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Considering all the circumstances, we question the waiver of the Transportation System Acquisition Review Council process and the purchase of the second AWANS prototype.

OPERATION OF AWANS AT INDIANAPOLIS
FLIGHT SERVICE STATION

Since the installation of AWANS in Indianapolis, State and Federal officials have been concerned about pilot complaints regarding the long waits required to obtain a briefing or to file a flight plan. Your office asked us to determine why the service at the station had not improved with the installation of automated equipment.

As stated earlier, although specialists can give pilots a better briefing by using AWANS, the time spent with each

pilot has increased. Before AWANS was installed, the Indianapolis station had six preflight briefing positions and the station could handle about 98 combined briefings per hour. With the installation of AWANS, two additional briefing positions increased the station's capacity to about 107 briefings per hour. According to an official at the Indianapolis station, the station initially did not have the staff to take advantage of the added briefing positions. If only six AWANS positions are used, productivity drops to about 80 briefings per hour or 18 less than before AWANS installation. According to a station official, staffing levels have been increased allowing them to use the additional positions during peak demand periods. FAA believes that as specialists develop proficiency in using AWANS, the station should be able to brief more pilots.

Initially, AWANS was not purchased for use at the Indianapolis flight service station. But because the system was unsuited for Leesburg, a use had to be found for the system and it was relocated to Indianapolis. Because the station was unable to staff the added briefing positions, it did not realize the anticipated service improvements.

AGENCY COMMENTS AND OUR EVALUATION

The Department of Transportation considers the AWANS development effort to be successful; and, in its opinion, our report fails to place the procurement and operation of AWANS in proper perspective in terms of development effort and the strong public interest in the program. Its position is that, as a research and development effort to automate flight service station operations, the program was properly planned, used the correct procurement methods and the best contract type, was properly controlled considering the changes to interfacing systems, and proved automation was possible and cost effective on a national basis.

Our report primarily deals with the purchase of the second AWANS prototype and is not an assessment of FAA's research and development efforts. We agree that FAA was able to develop an automated system for flight service stations and that specialists can improve the quality of pilot briefings using an AWANS. FAA's statement that automation is cost effective on a national basis may be true, but only if pilot self-briefing is part of the automation program. AWANS does not have a pilot self-briefing capability. In addition, FAA's time and motion study concluded that AWANS theoretically increased the capacity of the Atlanta station to service pilots, but such gains were offset by an increase in

computer system operating cost. FAA attributed the lack of capacity gains to the low level of traffic at the station.

The Department also argues that the purchase of the second AWANS was sound when viewed in the context of the time and circumstances surrounding the decision. It notes that strong conflicting external concerns were expressed over the program's direction because of the controversial issues of consolidation and collocation. Lacking support of key congressional leaders and user groups, the acting Administrator decided, in May 1975, to establish a consolidated and collocated facility at Leesburg, Virginia. Two alternative systems for the facility were considered:

- Development of a new system which was estimated to cost \$6 million and would take 5 years to develop.
- Purchase of another AWANS at a cost of \$2 million that would be available in 2 years.

According to Department of Transportation officials, the choice was obvious. Also, at the time the decision was made to purchase the second AWANS, FAA did not consider MAPS to be a viable alternative because it was not sufficiently developed.

We do not question the establishment of a consolidated and collocated facility, but we do not agree that the purchase of the second AWANS was the obvious choice. Relocating the Atlanta AWANS was an alternative which was not seriously considered. Also, FAA knew before the AWANS purchase contract was issued that MAPS was capable of handling the operations at the Leesburg facility. A MAPS feasibility study was initiated in June 1974 and completed in November 1975. As early as September 1975, FAA was considering the installation of MAPS at the Leesburg site until an AWANS became available 2 years hence. The lease/purchase agreement for MAPS was signed in November 1975, 2 months before the AWANS contract was signed. The initial MAPS cost was \$404,700, which included about \$50,000 for maintenance expenses, with an installation date of January 31, 1976. Total cost for MAPS as of December 18, 1978, was \$839,862. Although the Department of Transportation did not consider MAPS a viable alternative in July 1975 when the decision was made to purchase a second AWANS, information on MAPS capability and cost was known before the second AWANS system was purchased and should have altered that decision.

FAA comments are included as an appendix to this report.

CONCLUSION

FAA was able to automate the functions of flight service stations; however, the time required for briefings has increased and the reduction in manual functions has been offset by an increase in the number of personnel needed to operate the computer system.

Although there may have been a need to establish a consolidated and collocated facility to demonstrate AWANS feasibility, ~~we believe~~ purchasing a second AWANS for this purpose was not justified. At the time the decision was being made to purchase the second AWANS, the contractor had been experiencing development problems, FAA had not determined if AWANS was suitable for the demonstration, and for over 1 year FAA had been studying the feasibility of using MAPS for flight service station operations. Even if AWANS had been successful at Leesburg, FAA had no plans to purchase AWANS in production quantities to automate the flight service station network. Although not considered a viable alternative when the decision was made to purchase AWANS, prior to the award of the contract for the second AWANS, MAPS was determined to be capable of handling the operations at Leesburg. Therefore, we believe the unnecessary purchase of the second AWANS for about \$2.6 million is indicative of the need for better management control.

The acquisition of major systems by the Department is a critical function requiring proper consideration by the Secretary throughout the acquisition process. In this regard, the Office of Management and Budget (OMB), in April 1976, issued OMB Circular No. A-109, which prescribes the policy to be followed by executive branch agencies in the acquisition of major systems. The new policy expects to

"* * * effect reforms throughout the executive branch to greatly reduce cost overruns and to diminish the controversy of * * * whether new systems are needed."

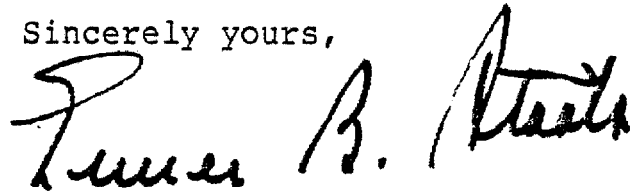
Recently, we evaluated the implementation of OMB Circular No. A-109 by several executive agencies, including FAA, and recommended in an August 1979 report (PSAD-79-89) that the Secretary of Transportation revise the Department's and FAA's implementing directives to conform more closely to the A-109 acquisition approach. FAA reported it is issuing a new

directive applicable to major system acquisitions which is to be consistent with OMB Circular No. A-109. Hopefully, this directive will improve acquisition management control and prevent unnecessary procurements, such as the second AWANS prototype.

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As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 14 days from its date. At that time, we will send copies to the appropriate Senate and House congressional committees, the Secretary of Transportation, the Administrator of the Federal Aviation Administration, the Director of the Office of Management and Budget, and other interested parties on request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "James B. Stewart". The signature is written in a cursive, slightly slanted style.

Comptroller General
of the United States



ASSISTANT SECRETARY
FOR ADMINISTRATION

OFFICE OF THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

May 2, 1979

Mr. Henry Eschwege
Director, Community and Economic
Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Eschwege:

We have enclosed two copies of the Department of Transportation's reply to the General Accounting Office (GAO) draft report "Review Of The Federal Aviation Administration's Procurement and Operation Of The Aviation Weather And Notice To Airmen System".

The GAO report views the Aviation Weather and Notice to Airmen System (AWANS) program as more of a failure than a success. In contrast, the Department considers this development effort to be eminently successful. The report, in our opinion, has failed to place the procurement and operation of AWANS in a proper perspective in terms of the significance of the development effort and in light of the strong public interest in the Flight Service Stations (FSS) Modernization Program. It is the Department's position that the AWANS program at Atlanta as a Research and Development (R&D) effort to automate the manual FSS operations was properly planned, used the correct procurement methods (competitive negotiations), the best contract type (cost-plus-a-fixed-fee), and was properly controlled considering changes to interfacing systems and that the results proved that FSS automation was possible and cost effective on a national basis. Furthermore, it is the Department's position that the purchase of the second AWANS to be installed at the Air Route Traffic Control Center (ARTCC) in Leesburg, Virginia, was a sound decision when viewed in the context of the time and circumstances surrounding the decision.

GAO implies that due to the fact that a Transportation Systems Acquisition Review Council (TSARC) waiver was granted for the purchase of a second AWANS system, a high level review of the acquisition was not conducted. In this instance, a waiver was granted for the requirement for an

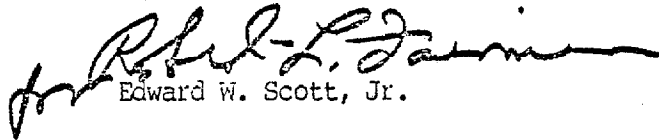


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Acquisition Paper (AP); however, the proposed procurement was reviewed by TSARC and approved by the Deputy Secretary. The Deputy Secretary considered the alternatives and based on advice from the TSARC members, determined that an AP was not necessary in order to authorize Federal Aviation Administration (FAA) to proceed with the second AWANS acquisition.

If we can further assist you, please let us know.

Sincerely,



Edward W. Scott, Jr.

Enclosures

DEPARTMENT OF TRANSPORTATION REPLY
TO
GAO DRAFT REPORT OF MARCH 14, 1979
ON
REVIEW OF THE FEDERAL AVIATION ADMINISTRATION'S
PROCUREMENT AND OPERATION OF THE
AVIATION WEATHER AND NOTICE TO AIRMEN SYSTEM

SUMMARY OF GAO FINDINGS AND RECOMMENDATION

The General Accounting Office (GAO) concludes that the Federal Aviation Administration (FAA) unnecessarily spent about \$2.6 million because the performance capabilities of the original Aviation Weather and Notice to Airmen System (AWANS) installed at Atlanta, Georgia, were not assessed before purchasing the second system and FAA leased equipment could have fulfilled the required need. In this regard, the GAO states that the Department of Transportation granted a waiver to the FAA from its Transportation Systems Acquisition Review Council (TSARC) process to obtain the second system on an expedited basis. The GAO recommends that the Secretary of Transportation grant approval of follow-on systems only after the agency is assured that prototype or developmental models function properly and are consistent with current plans for their use.

SUMMARY OF DEPARTMENT OF TRANSPORTATION POSITION

The GAO report views the AWANS program as more of a failure than a success. In contrast, the Department considers this development effort to be eminently successful. The report, in our opinion, has failed to place the procurement and operation of AWANS in a proper perspective in terms of the significance of the development effort and in light of the strong public interest in the Flight Service Station (FSS) Modernization Program. It is the Department's position that the AWANS program at Atlanta as a research and development (R&D) effort to automate the manual FSS operations was properly planned, used the correct procurement methods (competitive negotiations), the best contract type (cost-plus-a-fixed-fee), and was properly controlled considering changes to interfacing systems and that the results proved that FSS automation was possible and cost-effective on a national basis. Furthermore, it is the Department's position that the purchase of the second AWANS to be installed at the Air Route Traffic Control Center (ARTCC) in Leesburg, Virginia, was a sound decision when viewed in the context of the time and circumstances surrounding the decision.

POSITION STATEMENT

To gain the knowledge and experience necessary to develop a production specification, the FAA initially determined it must test AWANS under operational conditions. Test plans provided for the operation of AWANS in the Atlanta FSS with the capability to continue manual operations

simultaneously. It would have been inconceivable to have proposed that a new real-time developmental automation system as complex as AWANS could be placed into an operational air traffic control facility without experiencing normal developmental problems.

The flight service specialists involved in the test and evaluation of AWANS at Atlanta were highly pleased with the system. Based on the strong acceptance by the flight service specialists and the improved quality of pilot briefings, a decision was made by FAA to upgrade AWANS into a fully operational system and continue its operation in Atlanta until production systems were implemented.

From a developmental standpoint, AWANS was the initial R&D effort to automate the functions performed by a flight service specialist. In terms of life cycle phases, AWANS was the breadboard model; the engineering model; the prototype model; and became a fully operational system.

The GAO report emphasizes the many changes or contract modifications to the contract and the delays encountered prior to final factory acceptance testing. There are two significant considerations which contribute to these factors. First, the development of AWANS was a learning experience for all concerned. The complexity of automating the many things routinely accomplished by a flight service specialist was not fully apparent. The size of the software programs was more than double the original estimates. This experience was, of course, the purpose of the development effort. Second, the factory testing of AWANS was accomplished in a fully simulated operational environment; and in the course of this testing, using actual flight service specialists from several facilities, additional procedural requirements were identified which required modification to the system. After installation in Atlanta, and the decision to continue the system operationally beyond the test period, the system was upgraded to meet redundancy, reliability, and maintainability requirements. Over half the contract modifications and about \$1 million in contract costs can be attributed to changes in other operational systems and to converting the R&D system to an operational system. After incorporating these improvements into AWANS, the manual FSS was removed. Surprisingly, the major problems causing disruption of automated operations at Atlanta were not attributable to the system, but rather external influences; i.e., the changes made to the Service B communications network and the fluctuation in the primary power sources to the FSS.

The major finding of the GAO report that the second AWANS was unnecessary also ignores the circumstances surrounding the FSS Modernization Program at that point in time and does not place that decision in proper context. There were strong conflicting external interests concerned over the program's direction because of the controversial issues of consolidation

and collocation of FSS's with the 20 ARTCC's and the concern over system costs in light of proposed user charges. Based upon expressed concern on the part of key Congressional leaders over the lack of solid support from user groups and other organizations, the then Acting Administrator for the FAA decided in May 1975 to establish the consolidated, collocated FSS prototype at the Leesburg ARTCC. The Acting Administrator was aware that his decision would delay the overall planned implementation schedule and directed that the Leesburg facility be established within the confines of the existing plant and in the earliest time-frame. The only two viable alternatives for providing an automation capability were to develop a new system, including flight service specialist automation and self-briefing functions, or to procure a second AWANS and demonstrate the self-briefing functions independently in the Washington area. The initial cost estimates and time-frames for completion of the prototype facilities associated with these two alternatives were approximately \$6 million and 5 years, and \$2 million and 2 years. The latter alternative was obviously chosen. At that point in time, the Meteorological and Aeronautical Presentation System (MAPS) was not considered a viable alternative. It existed only as a very limited demonstration model in the contractor's plant, and was being considered as a potential semi-automated system for near-term application. It included a limited capability for storing and retrieving weather information, did not include any flight plan filing capability at that time, nor had it been tested in an operational environment. On the other hand, FAA operations staff had considerable experience with AWANS during its development and factory testing period, plus AWANS was operating successfully in Atlanta at the time the decision was made to purchase the second system.

The subsequent implementation of MAPS at Leesburg proved it to be acceptable as a prototype for the FSS near-term improvement program. Moreover, based on the improved flight plan capabilities, it was determined that MAPS would support the consolidated, collocated FSS concept to be demonstrated at that location.

Selection of Indianapolis as the alternate AWANS site followed a very thorough review of the operational need, of site acceptance, and the value of gaining additional automation experience. Relocation of the Indianapolis FSS was an approved project, and like Atlanta, its operation could be improved through automation.

Departmental representatives were closely monitoring the progress of the FSS Modernization Program and were intimately familiar with the issue surrounding the decision to establish the Leesburg facility and the purchase of the second AWANS. The TSARC fully considered the circumstances

surrounding the procurement of the second AWANS in issuing a waiver to the full program review process. Taken in its proper perspective, the decision to purchase the second AWANS stands as sound and proper.

Comments of a minor nature on the GAO report are being furnished to the GAO as an attachment.

DEPARTMENT OF TRANSPORTATION COMMENTS
OF A MINOR NATURE ON
GAO DRAFT REPORT OF MARCH 14, 1979
"REVIEW OF THE FEDERAL AVIATION ADMINISTRATION'S
PROCUREMENT AND OPERATION OF THE
AVIATION WEATHER AND NOTICE TO AIRMEN SYSTEM"

1. Time required for briefings has lengthened.

Briefing with AWANS including flight plan filing is 4.34 minutes, and in the previous manual operation 9.3 minutes. Weather briefing only with AWANS is just 0.04 minutes more than in the manual system. This information is in an FAA Management Systems Study dated March 1, 1978, and the times include the period from telephone contact to entry of the flight plan into the National Air Space system.

2. Manpower reductions in the manual operation are offset by an increase in the number of personnel needed to operate the computer system.

The finding is correct as it applies to one Flight Service Station and AWANS system. However, the FAA has not, and will not, implement nationally this system configuration. FAA emphasized this position when giving testimony regarding replication of AWANS systems as proposed in the "Hammerschmidt Bill," H.R. 7699.

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