BY THE COMPTROLLER GENERAL

Report To The Congress

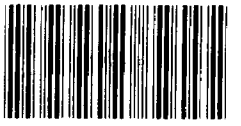
OF THE UNITED STATES

FAA Misses Opportunities To Discontinue Or Reduce Operating Hours Of Some Airport Traffic Control Towers

The Federal Aviation Administration (FAA) operates a national air traffic control system which provides for the safe and expeditious movement of air traffic. One segment of this system--444 airport traffic control towers which control air traffic at and near airports--costs over $400 million a year to operate.

Millions of dollars in savings are possible if FAA adopts uniform criteria to identify economically unjustified control towers and closes such towers.

FAA is not adequately surveying or evaluating air traffic levels at 24-hour control towers to identify opportunities to reduce operating hours. Reducing operating hours can save money by decreasing staff.



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

B-203220

To the President of the Senate and the
Speaker of the House of Representatives

This report discusses actions the Secretary of Transportation can take to reduce expenditures related to airport traffic control towers operated by the Federal Aviation Administration.

We made this review in the interest of identifying ways in which economies could be achieved by the Federal Aviation Administration in providing air traffic control services to the Nation.

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretary of Transportation; interested congressional committees and Members of Congress; and other interested parties.

Milton J. Socolar

Acting Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

FAA MISSES OPPORTUNITIES TO DISCONTINUE OR REDUCE OPERATING HOURS OF SOME AIRPORT TRAFFIC CONTROL TOWERS

D I G E S T

The Federal Aviation Administration (FAA) has not taken effective action to discontinue economically unjustified airport traffic control towers or to reduce the operating hours of control towers which meet the criteria for reduced operations. GAO believes these actions could save millions of dollars.

DISCONTINUANCE OF ECONOMICALLY UNJUSTIFIED AIRPORT TRAFFIC CONTROL TOWERS NOT PURSUED

FAA does not have uniform discontinuance criteria for the control towers it operates to control traffic in and around airports. FAA operates 444 towers at a cost of over $400 million a year. In 1969 and again in 1975, FAA revised its criteria for use in identifying control towers for discontinuance. With each revision the criteria became more stringent. However, FAA also established "grandfather" clauses by making the more stringent 1975 criteria, which included a benefit-cost analysis, applicable only to towers established or approved for establishment during or after 1977. (See p. 4.)

This lack of uniform criteria has resulted in the continued operation of economically unjustified control towers. For example, GAO's application of the criteria with the "grandfather" clauses identified only eight towers as candidates for discontinuance, whereas ignoring the "grandfather" clauses and using the more stringent criteria identified 66 candidates. (See p. 7.) Based on FAA's projections, the traffic levels to be handled by 36 of these 66 towers would not justify a tower until after 1995. FAA could save an average of about $287,000 annually for each tower the agency discontinued. Based on FAA estimates, annual operating costs for fiscal year 1980 would have been reduced by about $5.6 million had FAA closed the 21 control towers recommended for discontinuance

by regional offices in response to a November 1978 inquiry from FAA headquarters. Many non-towered airports handle more air traffic than some with economically unjustified towers. (See p. 9.) Some of the values used in FAA's benefit-cost analysis are not reliable because they are outdated.

GAO recommends that the Secretary of Transportation require the Administrator, FAA, to

--identify control towers for discontinuance by adopting uniform criteria which require (1) an economic analysis based on up-to-date benefits and costs and (2) consideration of non-economic factors, such as topography or frequency of severe weather, at each airport and

--institute procedures to ensure that the criteria are applied periodically and that discontinuance of candidate towers is actively pursued.

REDUCTIONS IN HOURS OF OPERATIONS OF AIRPORT TRAFFIC CONTROL TOWERS NOT ADEQUATELY PURSUED

FAA is not surveying air traffic activity levels at some 24-hour control towers to identify possible reductions in hours of operation. Two regional offices had not conducted any surveys since 1977. (See p. 13.)

When surveys were conducted and candidates identified in the three regions reviewed, FAA seldom completed or documented additional required evaluations. One regional office had identified 20 candidates for reduced operating hours in 1977. However, the region did not pursue reducing operating hours at 18 of these towers. (See p. 16.) Such evaluations are necessary to ensure that no adverse impact on safety and little inconvenience to users will occur if operating hours are reduced.

GAO surveyed 17 control towers, 16 of which had traffic levels identifying them as candidates for reduced operating hours according to FAA's criteria. (See p. 14.) FAA could save salary and other costs of up to about $47,000 annually at each control tower at which operating hours were reduced.

GAO recommends that the Secretary of Transportation require the Administrator, FAA, to

--survey activity levels of 24-hour control towers to identify candidates for reductions in operating hours,

--establish time limits for completing required staff studies to determine whether candidates can be safely and efficiently part-timed, and

--document and clearly justify the decisions made as a result of the staff studies.

AGENCY COMMENTS

The Department of Transportation generally concurred with GAO's recommendations. FAA has been working on establishing uniform and updated economic criteria for tower discontinuance and on procedures to be followed in decommissioning unneeded towers. It has recognized the need to revitalize its program for reducing operating hours in some regions and has taken appropriate action. The Department disagreed with the recommendation to establish time limits for completing staff studies because completion is dependent on the workload and coordination required at each regional office. Although some flexibility is justified to account for each region's workload and coordination requirements, GAO believes specific guidance is required to assure that staff studies are completed within a reasonable period. (See pp. 12, 18, and app. III.)

Contents

ABBREVIATIONS

DOT	Department of Transportation
FAA	Federal Aviation Administration
GAO	General Accounting Office

CHAPTER 1

INTRODUCTION

The Federal Aviation Administration (FAA), Department of Transportation (DOT), operates a national air traffic control system which provides for the safe and expeditious movement of air traffic. This system includes airport traffic control towers, air route traffic control centers, and flight service stations. About $779 million and 29,000 positions were included in the appropriation to operate the system in fiscal year 1977. For fiscal year 1982, FAA requested $1.2 billion and 29,200 positions for operations. This report discusses FAA's management of only one segment--airport traffic control towers--of the national air traffic control system.

AIRPORT TRAFFIC CONTROL TOWERS

FAA uses airport traffic control towers to control air traffic at, and in the vicinity of, airports. The control tower provides this service by using air/ground communications, radar, visual signaling, and other services. As of September 30, 1980, FAA was operating 444 control towers. The cost of operating the airport traffic control towers has risen from about $306 million in fiscal year 1977 to the $458 million requested in fiscal year 1982.

Total aircraft operations (takeoffs or landings) at airports with FAA control towers totaled 59 million in 1975 and are predicted to reach 74 million in 1985, a 25-percent increase in 10 years.

FAA recognizes that it must provide air traffic control services to locations where the greatest benefit will be derived. FAA has published establishment and discontinuance criteria as the major tool to help allocate air traffic control tower services. These criteria are primarily based on air traffic demand, since volume of traffic is a basic indicator of the need for a control tower. However, other factors, such as nearby terrain features, the frequent occurrence of severe weather, or other local conditions, must also be considered.

To achieve economies in the operation of 24-hour control towers, FAA has provided criteria for selecting control towers for reduced operating hours. By reducing control tower operations during late night and early morning hours, FAA can achieve savings by more efficient realignment of staff.

FAA categorizes control towers into five levels, based on traffic density. For example, Level I control towers do not provide radar service, generally handle fewer aircraft operations, and have fewer assigned staff. Level V control towers, on the other hand, such as those at Chicago's O'Hare International or Atlanta's Hartsfield International, provide full radar service and handle more aircraft.

OBJECTIVE, SCOPE, AND METHODOLOGY

Our review was designed to determine if FAA was implementing effective systems to identify control towers which were candidates for discontinuance (see ch. 2) or for reduced operating hours (see ch. 3). We did not attempt to reach conclusions as to whether specific control towers should be discontinued or have operating hours reduced. This was primarily because data relating to factors unique to each airport, such as weather or the average number of people aboard an aircraft, was not readily available.

We reviewed pertinent congressional hearings and reports; FAA policies, criteria, procedures, and records including FAA's 1975 establishment/discontinuance criteria for airport traffic control towers; an analysis made by FAA in 1977 of continued operation of selected control towers; and the guidance provided by FAA to its field offices concerning reduced operating hours. We interviewed FAA officials from regional offices' Air Traffic Divisions and FAA headquarters Office of Air Traffic Service and the Office of Aviation Policy and Plans (formerly the Office of Aviation System Plans). As used in this report the term "airport traffic control towers" includes control towers and terminal radar facilities.

We conducted our review at FAA headquarters in Washington, D.C., and at FAA Eastern, Great Lakes, and Southern regions in New York, Chicago, and Atlanta, respectively. Information included in chapter 2 was obtained primarily at FAA headquarters and was national in scope. Information included in chapter 3 was obtained primarily at the three regional offices. We selected these regional offices because preliminary data obtained at FAA headquarters indicated these regions did not closely monitor control towers for part-timing (reducing operating hours).

To identify discontinuance candidates, we uniformly applied FAA discontinuance criteria, relating to control towers established or approved for establishment during or after 1977, to 130 Level I control towers operating as of November 1980. We selected Level I control towers because these have the highest probability of being economically unjustified control towers. Our calculations were based on actual air traffic activity for the period September 1979 to August 1980 and projected air traffic activity from 1981 to 1995, using an advance run of FAA's 1980 Terminal Area Forecasts.

We also analyzed traffic activity at selected towered and nontowered airports using FAA's 1979 Terminal Area Forecasts. It should be noted that total traffic operations for towered airports were actual counts while total operations for nontowered airports were FAA estimates.

To obtain the excess of costs over benefits shown in appendix I, we used FAA's tower discontinuance computer program. This program compared the dollar value of a control tower's

benefits with annualized operation and maintenance costs. For example, to calculate benefits of prevented accidents, we used FAA data pertaining to traffic growth for various categories of aircraft, such as air carrier or general aviation; the number of passengers in each category of aircraft; the value of the aircraft; and other necessary values. The program also included FAA control tower cost estimates to compare to benefit values. The computer program then discounted and compared total benefit and cost values over the 15-year period to derive the appendix I results.

To identify candidates for reduced operating hours, we analyzed activity records for Level I, II, and III, 24-hour control towers in the Eastern and Southern regions. Analyses could not be made in the Great Lakes region because activity records were not available. For purposes of our detailed review, we selected 17 potential candidates because reviewing FAA headquarters traffic activity records indicated these were possible candidates for reduced operating hours and because hourly activity records, necessary for the survey, were available. (See app. II.) In our surveys, we derived hourly averages for each tower by totaling all traffic activity for each hour and dividing by the appropriate number of days in the survey.

Identifying control towers as candidates for reduced operating hours is only the first step in part-timing a tower. For example, additional detailed analyses to address safety concerns must be made. Since we do not know exactly how many towers could be part-timed, we could not estimate total savings.

CHAPTER 2

DISCONTINUANCE OF ECONOMICALLY UNJUSTIFIED AIRPORT TRAFFIC CONTROL TOWERS NOT PURSUED

Millions of dollars in savings are possible if FAA adopts and applies uniform criteria to identify economically unjustified airport traffic control towers as candidates for discontinuance and pursues discontinuance of such control towers. Most control towers--those established or approved for establishment before 1977--must meet less stringent requirements to remain open than newer ones. Our review of 130 Level I towers, using FAA's split criteria, identified only 8 control towers as discontinuance candidates; however, when we applied the more recent requirements, 66 towers were identified as discontinuance candidates. Based on FAA's projections of air traffic activity for the 15-year period ending in 1995, the traffic levels to be handled by 36 of these 66 control towers would not justify a tower until after 1995. In addition, many of these economically unjustified control towers have much less activity than many nontowered airports. According to FAA officials, FAA does not adopt and apply uniform criteria, or pursue control tower discontinuance, because of perceptions that political opposition would be encountered if FAA proposed control towers for discontinuance. Finally, some of the values used in FAA's benefit-cost analysis are not reliable because they are outdated.

DISCONTINUANCE CRITERIA NOT UNIFORM

FAA first established discontinuance criteria in 1956. Since then the agency has revised the criteria in 1969 and 1975. FAA based the 1956 and 1969 criteria solely on the level of aircraft activity (operations) at an airport. The 1975 revision included the number of operations as the measure for retaining existing control towers but also added economic analysis (benefit-cost study requirements) to the criteria for towers established or approved for establishment during or after 1977. The addition of an economic analysis was to enable FAA to better justify control tower establishment or discontinuance.

FAA's current discontinuance criteria require that control towers established or approved for establishment before 1968 must have had at least 18,000 annual operations to remain open. Control towers established or approved for establishment between 1968 and 1976 must have had at least 18,000 or 37,500 annual operations depending on whether the airport was for commercial flights or general aviation. Regarding control towers established or approved for establishment during or after 1977, candidate towers for discontinuance are identified through a two-phase process.

Phase 1 is a simple calculation that is based on the annual level and mix of aircraft activity served by the control

tower. Phase 2 is a detailed benefit-cost analysis which compares the dollar value of a tower's benefits, primarily from estimated accidents prevented, with annualized operation and maintenance costs. If projected costs exceed projected benefits over a 15-year period, the control tower is not economically justified.

After a control tower is identified as a candidate for discontinuance, the criteria specify that FAA must consider various noneconomic factors in its discontinuance decisions. For example, the topography around an airport or the frequent occurrence of severe weather are some of the factors considered. In addition, the airport's relationship with other FAA programs, such as the Satellite Airport Development Program which is designed to provide capacity and training relief for other airports, needs to be considered. Also, although designation of some airports as "essential service" points by the Civil Aeronautics Board may be another noneconomic consideration, such designation does not directly relate to tower retention. FAA officials said that consideration of such designation may be pertinent to only the very few control towers which have benefits nearly equaling costs. This would not affect tower discontinuance for most economically unjustified control towers.

The discontinuance criteria have become more stringent with each revision because the aircraft activity levels needed to justify control tower retention have increased. The more stringent criteria adopted in 1975 were applicable to only the very few towers established or approved for establishment during or after 1977. Control towers were to be evaluated for discontinuance on the basis of the criteria in effect at the time the tower was established or approved for establishment. These are the so-called "grandfather" clauses. As shown on page 7, the grandfather clauses "protect" control towers that would have been identified for discontinuance by the more recent criteria.

In 1977 the DOT Office of Audits identified 82 towers that could be considered discontinuance candidates if the latest criteria were applied. 1/ The Office of Audits recommended that FAA eliminate the grandfather clauses and establish uniform control tower discontinuance criteria based on benefit-cost principles. In addition, the Surveys and Investigations Staff, House Appropriations Committee, in a March 3, 1978, report, recommended that FAA eliminate the grandfather clauses and apply the discontinuance criteria uniformly and equitably.

In June 1977 FAA completed a detailed analysis of the 1975 criteria in which the agency applied the economic-based criteria to 425 towered airports, regardless of the date FAA established

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1/DOT Audit Report Number HC-FA-77-7.29, dated October 17, 1977.

the tower. The analysis found that if FAA considered the grandfather clauses, the agency would have identified nine control towers for possible discontinuance. When FAA applied the economic-based criteria uniformly, the agency identified 73 economically unjustified control towers and stated that closing these towers would save about $14 million annually. The study also showed the costs of these 73 control towers would exceed benefits by $22 million over the 15-year period, and only 7 of these towers would have sufficient traffic growth within 10 years to qualify for control tower establishment. As a result, FAA recognized that retaining the grandfather clauses resulted in the continued operation of many control towers which were not expected to be economically viable in the near future.

Using the results of this study, in September 1977 FAA solicited, in the Federal Register, comments about alternative approaches to continuing or discontinuing operations at certain control towers. FAA also held public hearings in the fall of 1977 at Atlanta, Los Angeles, Kansas City, and Washington. The purpose was to help FAA proceed with criteria development, including eliminating the grandfather clauses. About 75 percent (804 out of 1,067) of the respondents wanted the tower at "their" airport retained. This included 89 of the 106 congressional replies, or 84 percent. In January 1978 FAA advised a Member of Congress that a policy resolution was expected by June 1978. Also, in March 1978 hearings before a subcommittee of the House Committee on Appropriations, FAA stated that the details of a decision about the grandfather clauses would be announced shortly in the Federal Register.

FAA also told the Congress in March 1980 that it was reviewing the discontinuance criteria. The agency said actual decommissioning action was being held off until it completed the review, sometime after November 1980. Finally, in September 1980, the DOT Office of Inspector General recommended that FAA develop benefit-cost criteria and annually review operating facilities, including airport traffic control towers, using such criteria. 1/ FAA agreed to review and improve existing procedures and take corrective action where necessary.

According to the Chief, Plans Requirements Branch, Planning Analysis Division, Office of Aviation Policy and Plans, and the Chief, Program Management Staff, Office of Associate Administrator for Policy and International Aviation Affairs at FAA headquarters, FAA has decided to eliminate the grandfather clauses and planned to establish uniform discontinuance criteria by August 1981. However, because of the absence of documentation on the status of the effort, and in view of similar statements going

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1/DOT Audit Report Number AD-FA-0-111, dated September 9, 1980.

back to 1978, it is questionable whether the agency will implement uniform discontinuance criteria in the near future.

FAA has not taken effective steps to implement uniform economic-based discontinuance criteria. According to FAA officials, this is due to perceived political opposition. For example, they point to the fact that 89 of 106 congressional responses to FAA's September 1977 proposed policy change favored retaining existing control towers. However, it is important to note that, for fiscal year 1979, FAA requested and the Congress included funds in FAA's appropriation to discontinue five specific control towers as discussed on page 8. Agency officials were not aware of any congressional opposition to this appropriation.

CONTINUED OPERATION OF ECONOMICALLY UNJUSTIFIED CONTROL TOWERS

The grandfather clauses permit the operation of economically unjustified control towers. Using FAA's split criteria, we identified only 8 of the 130 Level I control towers reviewed as discontinuance candidates; however, uniform application of the more recent requirements identified 66 towers as discontinuance candidates. For these 66 towers, the computed value of total costs exceeds by $52.9 million the computed value of total benefits for the period 1981 to 1995. 1/ Appendix I lists these 66 towers and the results of our benefit-cost analyses. Thirty-six of these towers are the most generally uneconomical ones. Traffic activity at these towers is not expected to increase sufficiently to meet the initial tower establishment criteria by 1995. In contrast, FAA's November 1979 Terminal Area Forecasts stated that 128 nontowered airports have exceeded or will meet initial tower establishment criteria by 1990. Thus, many busier, nontowered airports will require control towers while these 36 towers continue uneconomic operations. Because of projected traffic growth, the 30 other towers we identified would qualify for control tower establishment by 1995. FAA officials said the agency could possibly "mothball" such uneconomical control towers until air traffic increased to justify the towers.

Although, as discussed on page 4, FAA has not adopted uniform discontinuance criteria, the agency has from time to time made unofficial analyses which ignored the grandfather clauses. For example, in November 1978 FAA headquarters identified 32 control towers where computed costs exceeded computed benefits. FAA headquarters requested the regional offices to make recommendations on discontinuance of 27 of these towers. The Congress had already provided funds to discontinue four of

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1/Our computations were based on FAA's benefit-cost analysis. FAA criteria prescribe a 15-year projection in calculating benefit-cost values.

these control towers, and another was to be retained because of the airport's unique topographical conditions. FAA regional offices recommended discontinuing 11. For another 10, one regional office recommended FAA offer each airport sponsor the option to share the tower's costs. If the sponsors did not want to share these costs, the regional office recommended discontinuing these 10 control towers. Regional offices did not recommend discontinuing the other six towers.

Savings could result from discontinuing uneconomic control towers

The Federal Government could save a lot of money if FAA would eliminate the grandfather clauses and apply the benefit-cost criteria uniformly. For example, based on FAA estimates, fiscal year 1980 operation and maintenance costs for 65 1/ of the 66 control towers we identified averaged about $287,000. Closing only the 21 control towers recommended by the regional offices would have reduced 1980 costs by about $5.6 million. This annual savings would be offset by the one-time expense of about $900,000 to discontinue these control towers. An additional annual savings of over $1 million is possible by closing already identified control towers for which funds have been appropriated.

The Congress included $210,000 in FAA's fiscal year 1979 appropriation to close five control towers. These funds would be used for expenses such as equipment removal and transfer of personnel. These towers were Danville, Illinois; Miami (Dade-Collier), Florida; Pine Bluff, Arkansas; West Memphis, Arkansas; and Mayaguez, Puerto Rico. Even though these towers were eligible for discontinuance under the grandfather clauses, FAA has not yet begun action to discontinue them. FAA advised us that all discontinuance actions are being held in abeyance pending finalization of FAA discontinuance criteria.

The estimated fiscal year 1980 operating costs for four 1/ of these towers totaled over $1 million. If FAA closed these four towers, this annual $1 million savings (offset by one-time expense of about $170,000) would be in addition to the $5.6 million discussed above. The Congress has also shown interest in closing other control towers. For example, House Report 95-383 stated:

> "* * * The Committee [House Committee on Appropriations] is also concerned about the testimony which indicates that FAA will continue to equip and staff

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1/The estimate for Miami (Dade-Collier), Florida, was not available because its cost data is administratively combined as part of the Miami (Tamiami), Florida, control tower's accounting system.

a tower at Phillip Billard Municipal Airport even though all air carrier operations have been transferred to Forbes Airport. The committee believes FAA should reexamine the need for the operation of both of these tower facilities."

Our analysis identified Billard Airport, Topeka, Kansas, as being an economically unjustified control tower.

The 36 economically unjustified control towers that will not meet initial tower establishment criteria by 1995 (see p. 7) are authorized 229 controller positions. The Chief, Program Branch, Air Traffic Control System Programs Division, Office of Air Traffic Service at FAA headquarters, said closing these 36 towers would not result in any controller layoffs because FAA could assign these controllers to fill staff vacancies at other locations without having to recruit or train replacements.

Many nontowered airports handle more air traffic than airports with economically unjustified control towers

Because many nontowered airports have met, or will meet by 1990, FAA's criteria for establishing a control tower, and because of the current mood to limit or reduce Federal expenditures, FAA needs to take every opportunity to identify economically unjustified control towers for possible discontinuance. For example, in 1978, 114 nontowered airports, not including such airports in Alaska, had over 4,500 air carrier, air taxi, and commuter operations while 35 airports with economically unjustified towers had fewer than 4,500 such operations. Additionally, based on the benefit-cost criteria's estimates of preventable mid-air collisions, the traffic at 17 airports with economically unjustified control towers would have resulted in a total of one mid-air collision every 5 years had a control tower not been present. However, higher traffic levels at 17 nontowered airports could statistically have resulted in a total of five mid-air collisions for this group in 5 years. In actuality, four mid-air collisions did occur at these 17 nontowered airports between 1975 and 1979.

As of December 1980, FAA had identified six nontowered airports which exceeded the benefit-cost criteria for establishing control towers. Total 1978 traffic at these six nontowered airports (818,000 operations) exceeded total traffic at 12 airports with economically unjustified towers (483,000 operations).

OUTDATED INFORMATION USED IN BENEFIT-COST ANALYSIS

FAA had recognized that some of the information used in completing the benefit-cost aspect of FAA's airport traffic control tower discontinuance criteria have become obsolete. This obsolescence may distort project benefit calculations. The agency developed benefit values in about 1972. For example,

many values used to calculate the benefits of preventing a mid-air collision are based on 1970, or earlier, sources. Outdated values can result in the benefit-cost analysis reflecting fewer benefits attributable to a control tower. Table I shows examples of benefit values used in the benefit-cost analysis compared to more current FAA estimates.

Table I

Benefit-cost category	Amount used in benefit-cost analysis	1979 FAA estimate	Percent of variance
Average value of a used air carrier aircraft	$4,500,000	$6,000,000	33
Average value of a used air taxi aircraft (commuter)	150,000	200,000	33
Average value of a used general aviation aircraft	22,500	50,000	122
Average air carrier operating cost per minute	14.00	25.21	80
Average commuter operating cost per minute	2.80	5.24	87

In addition to outdated benefit values, operation and maintenance costs used are also old. For example, the benefit-cost analysis uses $186,620 as the annualized operation and maintenance cost of a Level I control tower. This is fiscal year 1976 cost data. The comparable fiscal year 1980 cost estimate averaged about $287,000.

FAA officials agreed such outdated values and costs could distort the benefit-cost results. In February 1980 FAA began to update discontinuance criteria assumptions and values, such as aircraft operating costs and aircraft values. The agency expects to complete this updating by July 1981. The Chief, Plans Requirements Branch, Office of Aviation Policy and Plans at FAA headquarters, said his office's workload prevented any earlier updating action.

CONCLUSIONS

FAA airport traffic control tower discontinuance criteria are not uniform. Since 1956, this criteria has become more stringent. For example, the most recent 1975 criteria added benefit-cost analysis. However, the agency does not uniformly apply these more recent and stringent criteria to all control towers. Rather, FAA evaluates control towers for discontinuance on the basis of the criteria in effect at the time the tower was established or approved for establishment. FAA recognizes that retaining the grandfather clauses has continued the operation of economically unjustified control towers.

Applying the economic-based benefit-cost criteria, rather than retaining the grandfather clauses, will result in better identification of discontinuance candidates. For example, the current grandfather clauses identified only 8 discontinuance candidates, while FAA's benefit-cost criteria identified 66 candidates. In addition, based on FAA's projection of air traffic activity, 36 of the 66 control towers will not have traffic levels by 1995 that would justify control tower establishment. The estimated fiscal year 1980 cost of 65 of these 66 control towers averaged $287,000. Discontinuing only the 21 towers which FAA regional offices recommended for closure would save about $5.6 million annually. In addition, FAA could save over $1 million annually by discontinuing the five control towers for which funds were provided in fiscal year 1979.

Some of the values used in FAA's benefit-cost analysis are not reliable because they are outdated. For example, comparing 1976 cost data with 1970, or earlier, benefit values can result in inaccurate identification of discontinuance candidates. FAA acknowledged these deficiencies and is currently updating the benefit-cost assumptions and values.

RECOMMENDATIONS TO THE SECRETARY OF TRANSPORTATION

To achieve increased economy and efficiency in managing airport traffic control towers, we recommend that the Secretary of Transportation require the Administrator, FAA, to

- --identify control tower candidates for discontinuance by adopting uniform criteria which require (1) an economic analysis based on up-to-date benefits and costs and (2) consideration of noneconomic factors, such as topography or the frequent occurrence of severe weather at each airport, and

- --institute procedures to ensure that the criteria are applied periodically and that discontinuance of candidate towers is actively pursued.

AGENCY COMMENTS AND OUR EVALUATION

In commenting on our proposed report by letter dated April 27, 1981 (see app. III), DOT concurred with our recommendations. DOT responded that FAA has been working on establishing uniform, up-to-date tower discontinuance criteria. As previously indicated, FAA has been working on establishing revised criteria since 1977 and has told the Congress since 1978 that this would be completed. However, based on this elapsed time and FAA's statement that actions are still "underway or planned," it is unlikely that the agency will adopt uniform discontinuance criteria in the near future. Accordingly, more effective action is needed, including the possible setting of milestones, for assurance that FAA will adopt such criteria.

Regarding our recommendation that procedures be instituted to periodically apply criteria and pursue tower discontinuance, FAA advised that it is developing step-by-step procedures to be followed when a tower has been identified as a candidate for discontinuance. FAA's adoption of appropriate criteria and carrying out of decommissioning procedures should result in savings.

CHAPTER 3

REDUCTIONS IN HOURS OF OPERATIONS OF AIRPORT TRAFFIC CONTROL TOWERS NOT ADEQUATELY PURSUED

While FAA has criteria to identify 24-hour control towers at which operating hours can be reduced, it has given possible reductions a low priority. Reducing operating hours at 24-hour towers can save money by decreasing staff. Two regional offices had not conducted surveys since 1977 of late night and early morning traffic to identify candidates for reduced operating hours (so-called part-timing). In addition, even if candidate towers were identified, FAA seldom continued the necessary evaluation process or documented reasons for retaining operating hours. For example, although one region knew since 1977 that 18 control towers were candidates for part-timing, the region took no further evaluation action.

Although FAA is not closely monitoring control towers which may be candidates for part-timing, the agency has provided guidance to its regional and local representatives for use in this regard. As of July 1980 FAA had part-timed 14 control towers since January 1977, including 4 radar facilities. As of September 1980, 240 of FAA's 444 control towers, or 54 percent, were operating for less than 24 hours a day. Some of FAA's regional offices have been more active than others in part-timing airport traffic control towers. For example, 4 of the 10 FAA regions, including the Eastern region, accounted for 12 of the 14 towers part-timed since January 1977. FAA's Southwest region accounted for six of these reductions.

The guidance provided by FAA to help identify control towers at which operating hours can be reduced with no adverse safety impact and little or no user inconvenience includes three basic requirements. These are

--performing a 90-day survey of hourly air traffic activity,

--considering for identified candidates several operational requirements to minimize inconvenience to users and to assure no adverse impact on safety, and

--preparing a staff study to address these and other factors.

FAA NOT ADEQUATELY SURVEYING TRAFFIC ACTIVITY

To identify candidates for part-timing, FAA is required to survey hourly air traffic operations at control towers with low density traffic periods. Low density periods include late night

and early morning hours. A control tower meets the first requirement for part-timing when air traffic averages four or fewer operations an hour for 5 or more consecutive hours. One operation would involve an aircraft landing or taking off at the airport. FAA is required to survey traffic over 90 days that are representative of the tower's normal air traffic activity.

Some FAA regional offices have not adequately surveyed air traffic to identify part-timing candidates. For example, the Great Lakes region has not conducted any surveys since 1977. After our visit in December 1980, this region began requiring all of its 35 control towers providing 24-hour service to conduct 7-day air traffic surveys every month. This should aid in identifying control towers at which 90-day surveys may be in order.

FAA's Southern region seldom surveyed hourly traffic operations at the 37 towers providing 24-hour service. The most recently documented regional surveys involved eight control towers surveyed in early 1978. The survey report, dated September 1978, showed that seven of these eight control towers met the numerical criteria for part-timing, but no recommendation or change was made. It was stated that the surveys would be continued; however, our review showed that no additional surveys were made. After our visit in September 1980, the Southern regional office directed control tower chiefs at low-activity facilities to maintain a continuous 90-day survey of hourly activity and notify the regional office when such activity fell below the numerical part-timing criteria. In addition, the regional office notified the chiefs at seven towers (including one of those identified in the September 1978 survey report) that 90-day surveys of hourly activity should be made and the results forwarded to the regional office. Surveys and evaluations of these towers are currently in process.

The Eastern region has not surveyed traffic activity since 1977 at the 42 towers providing 24-hour service. According to the region's operating procedures, low-activity towers should be surveyed at least every 2 years. According to FAA, congressional and local opposition, turnover in key personnel, and concentration on higher priority safety-related programs contributed to this survey lapse. Ninety-day surveys of traffic activity for nine control towers are currently in process.

Many control towers have traffic levels averaging less than four operations an hour for 5 or more consecutive hours. Using available hourly traffic information, we made 30- or 90-day surveys of the traffic handled from 11 p.m. to 7 a.m. by 17 control towers with low levels of activity. Sixteen of these 17 control towers, or 94 percent, were found to have operation levels that met the criteria for part-timing. Most of these 16 control towers had very few operations during our 8-hour survey periods. For example, as shown on table II below, most handled less than three operations an hour. Appendix II shows specific, hourly survey results.

Table II

Average hourly operations	Number of hourly averages
	(16 towers X 8 hours = 128)
1 or less	51
1 to 2	27
2 to 3	21
3 to 4	7
Over 4	22
Total	128

As shown in appendix II, nine control towers met the part-timing criteria for periods of 7 or 8 consecutive hours. Six of these towers handled an average of less than 10 operations each night.

FAA officials said reducing a control tower's operating hours by 7 or 8 hours can usually result in eliminating an 8-hour shift. A 1981 update of an FAA cost estimate for staffing one controller position during late night and early morning periods totaled about $47,000. This included base salary; night, Sunday, and holiday differentials; estimated fringe benefits; and administrative costs.

A 6-hour reduction in operating hours may also result in eliminating the 8-hour shift. However, this could be more difficult because other shifts may have to be rescheduled to cover the 2-hour differential caused by eliminating the 8-hour controller position, but only reducing operations by 6 hours. Finally, part-timing a control tower for 5 hours would probably not result in eliminating an 8-hour shift, according to FAA officials. Thirteen of the 16 candidate control towers, or 81 percent, identified in our survey were below FAA's numerical criteria for periods of 6 to 8 consecutive hours. The other three towers included periods of 5 consecutive hours.

Control tower candidates that have a co-located, 24-hour FAA flight service station are easier to part-time. The FAA flight service station can often provide some of the services provided by the tower. These may include providing weather observations, airport lighting, or general radio communication. Two of the nine control towers that were below the numerical criteria for 7 or 8 consecutive hours have such co-located flight service stations.

AIRPORT TRAFFIC CONTROL TOWERS IDENTIFIED AS CANDIDATES FOR PART-TIMING NOT EVALUATED

After surveying control towers and identifying candidates for reduced operating hours, evaluations need to be made to ensure that no adverse impact on safety and little or no inconvenience to users or the local community will occur if FAA reduces operating hours. The agency must also show that savings or other benefits from part-timing will exceed any incidental costs of part-timing that may occur, such as changing the approach lighting systems. Generally, FAA incurs no additional costs when towers have been part-timed. To address safety concerns, FAA evaluates several operational factors, such as continued

--availability of weather observations,

--provision for airport emergency and lighting services, and

--support for various military operations.

Since July 1979, a detailed staff study on all evaluations has been required to aid in deciding on reducing or retaining operating hours. Prior to July 1979, regional offices should have documented results of evaluations of the above factors, but FAA did not require a staff study.

Two regional offices did not document decisions or complete the evaluations after identifying control tower candidates for part-timing. As previously stated, early in 1978 the Southern region identified seven of eight control towers surveyed as part-timing candidates but decided to take no further action. Documentation for this decision was not available. The Chief, Plans and Programs Branch, Air Traffic Division, Southern region, told us that as he understands it, the regional office recommended no further action for the following reasons:

--Some of the airports are alternate landing locations for air carriers.

--Some of the 90-day surveys did not appear to be in accordance with specific guidelines.

--The political environment was not conducive to reducing operating hours.

We question whether these reasons should have precluded any further evaluation of the identified candidates. For example, keeping a tower open for 24 hours because it is an alternate airport is not necessarily justified. Commercial air carriers use a number of airports with part-time control towers as alternate

landing locations. 1/ In addition, the Assistant Chief, Air Traffic Services Procedures Division, Office of Air Traffic Service at FAA headquarters, said even the scheduled landing of an air carrier should not prevent part-timing a control tower, especially since many air carriers land at airports without towers. Also, if some of the surveys were not properly conducted, FAA should have required corrected surveys to be completed. This was never done.

FAA's Eastern region has not completed required evaluations after identifying 18 control towers as candidates for part-timing. In a July 1977 audit report, 2/ DOT reported that even though FAA's Eastern region had, as early as 1973, identified 20 control towers which were candidates for part-timing, no followup on part-timing these towers had occurred. The auditors reported that they were unable to find any justification for the inordinate delay in taking further action on these control towers. The report recommended that FAA review and evaluate potential candidates for part-timing. The FAA regional director concurred with this recommendation. Some regional officials said that FAA should not reduce the operating hours of a large number of facilities within a short time because critical reaction and impact would be too great. However, our review showed that only 2 of the 20 towers have been part-timed since 1977. Regional officials had stated that 8 to 10 others should be processed. However, FAA had not evaluated any of the 18 remaining control towers for possible part-timing. In January 1981 regional officials told us that surveys for nine of the towers would be updated by March 1981, with necessary evaluations and recommendations to follow.

LOW PRIORITY GIVEN TO PART-TIMING CONTROL TOWERS

Monitoring of FAA's guidance on identifying and reducing control towers' operating hours has a low priority. According to headquarters and regional office officials, they have not had sufficient personnel to manage this activity and fully evaluate safety or other considerations. For example, the Eastern region has not completed a 90-day survey since 1977, in part, because of personnel turnover, according to the Air Traffic Division Chief. The FAA headquarters specialist responsible for monitoring the part-timing program said he was concerned that regional offices were not completing 90-day surveys, but other duties did not leave him time to take action. In addition, regional and field office officials advised us that they were reluctant to try to part-time control towers because of a perception that political opposition would eventually preclude any part-timing. In this regard, as previously stated, FAA has reduced the operating hours at 14 control towers since 1977.

1/DOT Audit Report Number SF-FA-77-2.11, dated March 11, 1977.

2/DOT Audit Report Number NY-FA-77-5.16, dated July 8, 1977.

CONCLUSIONS

FAA had not taken effective action to assure economical staffing of airport traffic control towers during late night and early morning hours. By not surveying traffic activity, FAA was not aware of current candidates for reduced operating hours. Two regional offices we reviewed had not conducted required traffic surveys since 1977.

FAA had not adequately completed additional requirements for evaluating control towers for reduced operating hours. After promising action on several candidates identified in 1977, FAA's Eastern region did not begin such part-timing evaluations until 1981. In addition, although FAA's Southern region identified seven control tower candidates in 1978, FAA could not provide documentation for the decision not to part-time these towers. We realize FAA must exercise judgment in reducing operating hours to assure no adverse safety impact and little or no user inconvenience. However, the agency should document specific reasons for retaining operating hours when traffic levels do not meet FAA criteria.

We identified control towers that are candidates for reduced operating hours. Of 17 surveys conducted, 16 control towers had traffic levels below the part-timing criteria. FAA could achieve annual savings of up to about $47,000 for each tower at which operating hours are reduced and a controller position deleted. FAA could assign any controllers from the deleted shifts to other shifts or control towers that might be understaffed.

RECOMMENDATIONS TO THE SECRETARY OF TRANSPORTATION

We recommend that the Secretary of Transportation require the Administrator, FAA, to

--survey activity levels of 24-hour control towers to identify candidates for reduced operating hours,

--establish time limits for completing required staff studies to determine whether candidates can be safely and efficiently part-timed, and

--document and clearly justify the decisions made as a result of the staff studies.

AGENCY COMMENTS AND OUR EVALUATION

DOT generally concurred with our recommendations but believed that the part-timing program has been active and very effective and did not agree that our conclusions accurately reflected the overall effectiveness of its reduction efforts. (See app. III.) For example, DOT pointed out that it had reduced

operating hours at 14 24-hour control towers since 1977. However, the agency also recognized the need to revitalize the program in several regions. In this regard, after receiving our draft report, FAA issued instructions dated March 13, 1981, to its regional offices pointing out deficiencies identified by our report and placing increased emphasis on the part-timing program. These instructions required regional offices to conduct 90-day surveys of potential candidates, to apply part-timing criteria, and to complete required staff studies for documentation.

These actions are in accord with our recommendations, except for establishing time limits for completing the staff studies. DOT said it could not establish specific time limits primarily because that would be dependent on individual regional workload and coordination required. Although some flexibility is justified to account for each region's workload and coordination requirements, we believe specific guidance is required to assure that staff studies are completed within a reasonable period.

GAO ANALYSES OF POSSIBLE CANDIDATES FOR DISCONTINUANCE

Control towers	Extent to which computed cost exceeds computed benefits (1981-95) (notes a and b)
Miami, FL (Dade-Collier) (note c)	$1,167,660
Chicago, IL (Meigs) (note c)	1,142,060
St. Petersburg, FL (Whitted) (note c)	1,117,660
Akron, OH (Municipal) (note c)	1,088,160
Plainview, TX (note c)	1,048,610
Marysville, CA (note c)	1,039,020
Merced, CA (note c)	1,018,450
Alton, IL (note c)	1,010,540
Fresno, CA (Chandler) (note c)	996,490
Hobbs, NM (note c)	994,190
Ardmore, OK (note c)	992,150
Danville, IL (note c)	970,690
Cleveland, OH (Cuyahoga) (note c)	961,730
New Bern, NC (note c)	943,650
West Memphis, AR (note c)	940,580
Knoxville, TN (Downtown) (note c)	937,280

a/FAA criteria prescribe a 15-year projection in calculating benefit-cost values.

b/These computations were made using FAA criteria. As discussed on pages 9 and 10, some of the information used in these criteria is outdated.

c/Thirty-six control towers with such light traffic that FAA could not justify establishing a control tower there until 1996 at the earliest.

Control towers	Extent to which computed cost exceeds computed benefits (1981-95) (notes a and b)
Minot, ND (note c)	$928,780
Galesburg, IL (note c)	921,990
Benton Harbor, MI (note c)	919,800
Enid, OK (note c)	917,530
Valdosta, GA (note c)	913,380
Santa Fe, NM (note c)	896,300
Meridian, MS (Key) (note c)	881,570
Laredo, TX (note c)	877,810
San Antonio, TX (Stinson) (note c)	871,170
Marion, IL (note c)	868,170
Tuscaloosa, AL (note c)	863,230
N. Myrtle Beach, SC (note c)	860,200
St. Joseph, MO (note c)	856,100
Wheeling, WV	846,750
Athens, GA (note c)	846,390
Bloomington, IN	835,080
Idaho Falls, ID	818,190
Hagerstown, MD	816,820

a/FAA criteria prescribe a 15-year projection in calculating benefit-cost values.

b/These computations were made using FAA criteria. As discussed on pages 9 and 10, some of the information in these criteria is outdated.

c/Thirty-six control towers with such light traffic that FAA could not justify establishing a control tower there until 1996 at the earliest.

Control towers	Extent to which computed cost exceeds computed benefits (1981-95) (notes a and b)
Spartanburg, SC (note c)	$813,810
Greenville, MS (note c)	812,210
Jackson, MS (Hawkins)	803,960
Shreveport, LA (Downtown) (note c)	803,790
Lewisburg, WV (note c)	782,200
Ann Arbor, MI	779,490
Brunswick, GA (McKinnon) (note c)	773,800
Owensboro, KY	772,030
Paducah, KY	764,290
Chico, CA	764,260
Alexandria, LA	759,400
Jacksonville, FL (Craig)	759,360
Twin Falls, ID	755,370
Pine Bluff, AR	750,490
Cape Girardeau, MO	737,790
Klamath Falls, OR	715,450
Ponce, PR	709,990
Flagstaff, AZ	689,160

a/FAA criteria prescribe a 15-year projection in calculating benefit-cost values.

b/These computations were made using FAA criteria. As discussed on pages 9 and 10, some of the information used in these criteria is outdated.

c/Thirty-six control towers with such light traffic that FAA could not justify establishing a control tower there until 1996 at the earliest.

Control towers	Extent to which computed cost exceeds computed benefits (1981-95) (notes a and b)
Hickory, NC	$ 685,330
Troutdale, OR	643,350
McAllen, TX	624,030
Pendleton, OR	604,560
Topeka, KS (Billard)	570,500
Joplin, MO	525,070
Hot Springs, AR	508,240
Mayaguez, PR	495,780
Greenville, SC	494,680
Olympia, WA	446,580
Key West, FL	443,440
Pago Pago, AS (notes c and d)	428,910
Valdez, AK	391,810
Columbia, MO	227,530
Total	$52,944,840

a/FAA criteria prescribe a 15-year projection in calculating benefit-cost values.

b/These computations were made using FAA criteria. As discussed on pages 9 and 10, some of the information used in these criteria is outdated.

c/Thirty-six control towers with such light traffic that FAA could not justify establishing a control tower there until 1996 at the earliest.

d/AS - American Samoa.

GAO SURVEY OF POSSIBLE CANDIDATES

FOR REDUCTION IN HOURS OF OPERATION

Control towers	Average number of operations per hour								Number of hours	Type of survey (30 or 90 days)
	11-12 PM	12-1 AM	1-2 AM	2-3 AM	3-4 AM	4-5 AM	5-6 AM	6-7 AM		
Allentown, PA	2.96	1.04	0.43	0.16	0.09	0.08	0.76	1.87	8	90
Asheville, NC	2.98	1.13	0.53	0.14	0.14	0.76	0.59	1.94	8	90
Erie, PA	3.40	2.50	1.70	1.87	0.57	0.53	0.53	3.00	8	30
Huntington, WV	3.13	2.03	1.37	0.53	0.47	0.50	0.43	1.00	8	30
Binghamton, NY	2.80	1.00	0.47	0.90	0.80	0.53	0.63	(a)	7	30
Charleston, WV	(a)	3.30	0.99	0.60	0.73	0.97	0.44	2.54	7	30
Fayetteville, NC	(a)	3.20	1.77	1.34	1.09	1.17	1.89	3.51	7	90
Niagara Falls, NY (note b)	(a)	3.10	2.20	1.63	0.90	0.20	0.10	0.67	7	30
Utica, NY	(a)	2.60	2.60	1.00	2.43	1.17	1.13	2.83	7	30
Augusta, GA	(a)	1.56	2.68	2.67	0.54	1.39	0.84	(a)	6	90
Columbus, GA	(a)	2.83	1.41	0.66	0.74	0.84	1.23	(a)	6	90
Trenton, NJ	(a)	3.37	1.60	0.93	0.47	0.90	1.70	(a)	6	30
Bristol, TN	(a)	2.78	1.02	0.41	0.19	0.83	2.53	(a)	6	90
Greer, SC	(a)	(a)	1.70	0.83	0.89	1.46	2.34	(a)	5	90
Tallahassee, FL	(a)	(a)	2.00	1.27	0.55	0.31	1.73	(a)	5	90
Wilmington, NC	(a)	(a)	2.24	2.26	0.89	0.63	2.18	(a)	5	90
Teterboro, NJ	(a)	(a)	(a)	(a)	(a)	3.80	3.87	(a)	2	30

a/Average of over four operations.

b/Niagara Falls, NY, also averaged only 2.7 operations betweeen 7 and 8 o'clock AM.

APPENDIX II

APPENDIX III

U.S. Department of Transportation
Office of the Secretary of Transportation

Assistant Secretary for Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

April 27, 1981

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 (DOT) reply to the General Accounting Office (GAO) draft report, "Airport Traffic Control Towers: Opportunities To Discontinue Or Reduce Operating Hours Not Pursued," dated March 9, 1981.

The Department generally concurs with the GAO draft report recommendations, but does not agree with all of the GAO's findings, especially those dealing with reduced tower operating hours.

With regard to discontinuing economically unjustified airport traffic control towers, the FAA has been working on establishing uniform and updated economic criteria and on procedures to be followed in decommissioning towers identified as unneeded.

Concerning the reduced tower operating hours program, we believe that it has been active and very effective. We also believe that the GAO conclusions relative to this program do not accurately reflect the overall effectiveness of our reduction efforts. Nevertheless, we have recognized the need to revitalize the program in some regions. In this connection, the FAA has issued instructions to all of its regions to place increased emphasis on this program.

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

Sincerely,

Robert L. Fairman
Acting

Enclosures

APPENDIX III

DEPARTMENT OF TRANSPORTATION REPLY TO GAO DRAFT REPORT OF MARCH 9, 1981, AIRPORT TRAFFIC CONTROL TOWERS: OPPORTUNITIES TO DISCONTINUE OR REDUCE OPERATING HOURS NOT PURSUED

SUMMARY OF GAO FINDINGS AND RECOMMENDATIONS

The General Accounting Office (GAO) concludes that the Federal Aviation Administration (FAA) does not have effective programs to discontinue economically unjustified control towers or reduce the operating hours of control towers during periods of low levels of air traffic activity. Regarding discontinuance, GAO states that FAA does not uniformly apply discontinuance criteria to airport traffic control towers. According to GAO, in 1975, FAA revised its criteria for use in identifying control towers for discontinuance to make it more stringent. They further state that the agency also established a "grandfather" clause by making the more stringent criteria, which includes a cost-benefit analysis, applicable only to control towers programmed or established during or after 1977.

GAO believes that this lack of uniform criteria has resulted in the continued operation of economically unjustified control towers. They state that their application of the criteria with the "grandfather" clause identified only 8 discontinuance candidates, while if the "grandfather" clause is ignored, 66 candidates are identified with cost savings exceeding benefits by $52.9 million through 1995.

With respect to reducing hours of operation at airport traffic control towers, GAO states that FAA is not assessing the need to keep open some 24-hour control towers during periods of low volume air traffic activity. They state that FAA seldom made required surveys of air traffic activity to identify candidates for a reduction in hours of operation. In addition, GAO states that when surveys were conducted and candidates were identified, FAA seldom completed or documented required evaluations. According to GAO, such evaluations are necessary to ensure that no adverse impact on safety and little inconvenience to users will occur if operating hours are reduced. GAO believes that FAA could achieve annual savings of up to $47,000 for each tower at which the agency deletes one controller position by reducing operating hours.

GAO recommends that FAA (1) adopt uniform up-to-date criteria to identify control tower candidates for discontinuance, (2) institute procedures to ensure that the criteria is applied periodically and that discontinuance of candidate towers is actively pursued, (3) survey activity levels of 24-hour control towers to identify candidates for reductions in operating hours, (4) establish time limits for

APPENDIX III

completing studies on whether candidates can be safely and efficiently part-timed, and (5) document and clearly justify the decisions made in the staff studies.

SUMMARY OF DEPARTMENT OF TRANSPORTATION POSITION

The Department generally concurs with the GAO draft report recommendations but does not agree with all of the GAO's findings, especially those dealing with reduced tower operating hours.

With regard to discontinuing economically unjustified airport traffic control towers, the FAA has been working on establishing uniform and updated economic criteria and on procedures to be followed in decommissioning towers identified as unneeded.

Concerning the reduced tower operating hours program, we believe that it has been active and very effective. We also believe that the GAO conclusions relative to this program do not accurately reflect the overall effectiveness of our reduction efforts. Nevertheless, we have recognized the need to revitalize the program in some regions. In this connection, the FAA has issued instructions to all of its regions to place increased emphasis on this program.

POSITION STATEMENT

Discontinuance of Economically Unjustified Airport Traffic Control Towers

With respect to the first GAO recommendation to adopt uniform up-to-date tower discontinuance criteria, the FAA has been working on establishing uniform and updated economic criteria. In this regard, the following actions are underway or planned:

-- An update of the cost-benefit values, begun in February 1980, is nearing completion.

-- Revision of the cost-benefit analysis for both the tower establishment and tower discontinuance criteria, which will incorporate the above values and will include revised mid-air collision risk estimates, is underway.

-- To assure use of more current cost-benefit values in future criteria revisions, the computer software is being redesigned to incorporate current forecasts and simplify updates.

-- The "grandfather" clause will be eliminated from the tower discontinuance criteria when this new cost-benefit analysis is incorporated into FAA Order 7031.2B, Airway Planning Standard Number One. Eliminating this clause prior to the cost-benefit analysis revision might result in closing economically justified towers.

APPENDIX III

Regarding the second GAO recommendation to institute procedures to periodically apply criteria and pursue tower discontinuance, procedures for applying the criteria are already in place. Step-by-step procedures to be followed when a tower has been identified as a candidate for discontinuance are being developed. The FAA has initiated a study of each of the locations identified as candidates for discontinuance under the revised uniform criteria. When the revised criteria and decommissioning procedures are approved, the agency will be prepared to begin implementation immediately at locations recommended for discontinuance.

The GAO report does not mention, although GAO was aware of, the major FAA effort in the years just prior to 1977 to decommission a substantial number of flight service stations. While a few stations were closed, the effort was viewed as not worthwhile considering the tremendous workload and congressional, user, and employee hostility it engendered. The final result was the passage of legislation that severely inhibited decommissioning of the stations. This same problem impacts the attempted closure of economically unjustified airport towers.

In addition, the report does not mention that the FAA held 4 public hearings in the fall of 1977 in Atlanta, Los Angeles, Kansas City, and Washington following the September 1977 Federal Register Notice. The notice described the tower decommissioning problem, presented five alternative methods for identifying towers to be retained or decommissioned, and invited public comment. The response at these hearings was overwhelmingly in favor of the first alternative, namely continuing all existing control tower operations.

Further, GAO does not address the consideration of other factors in decommissioning decisions. Nine of the 66 control towers GAO identified are located at airports eligible for FAA's Satellite Airport Development Program designed to provide capacity and training relief for hub airports. Discontinuance of these towers may increase delays at busy air carrier airports causing considerable economic impact. A majority of the 66 towers are located in communities identified by the Civil Aeronautics Board as points eligible for "essential service" as provided by the Small Community Air Service provision of the Airline Deregulation Act of 1978. This act stipulates that the FAA will assure that commuter carrier passengers are afforded the same level of safety as passengers on scheduled certificated carriers. In fact, five of these towers are located at airports which are part of FAA's commuter airport program announced by the Administrator on January 15, 1981. This five-year, estimated $160 million, program is designed to provide more reliable service and increased safety at 127 commuter airports in the U.S. Considerations of this kind cannot be addressed by a simple cost-benefit criteria applicable to a variety of sites.

We believe GAO's discussion of tower discontinuance material submitted "to the FAA Administrator for a decision" on page 7 of the report should be deleted. We fail to see how specific administrative details of how the issue was treated have any relevance. A decision on implementing the discontinuance criteria was still under consideration at the time of GAO's review.

Reduction in Hours of Operation of Airport Traffic Control Towers

We do not agree with GAO's conclusions that "FAA does not have effective programs to...reduce the operating hours of control towers during periods of low levels of air traffic activity" (page i) and that "FAA is not assessing the need to keep open some 24-hour control towers during the periods of low volume air traffic activity" (page ii).

In our opinion, the FAA part-timing program has been active and very effective. As indicated in the GAO report, FAA had reduced the operating hours at 14 terminal facilities since 1977.

Of 447 terminal control facilities operated by the FAA, 238 are now operated less than 24 hours daily. Moreover, the agency has actively encouraged continued actions to identify and act on additional candidates with particular emphasis in the regions with more probable candidates. To this end, numerous candidates had been identified and reduction efforts initiated in FAA's Southwest and Western Regions.

FAA's Eastern Region had identified several potential candidates as early as 1978, but they encountered Congressional and local opposition in completing the initial reductions. The agency spent an extraordinary amount of time and effort from 1977 through 1979 to resolve delays in two of the reductions. These time-consuming efforts, followed by personnel turnover and concentration on higher priority safety-related programs, precluded further action on the 8 other potential candidates in the Eastern Region.

The prescribing directive for reduced operating hours, FAA Order 7232.5E, Reduced Operating Hours for Airport Traffic Control Towers/Approach Control Facilities, was revised in July 1979 to reemphasize the national program to provide for greater consistency between regional reduction efforts and to require detailed staff studies on all potential candidates as both a means of supporting reduction decisions and as documentation of the actions taken. From 1977 to the present, except for an unavoidable hiatus in 1980, specific reduction proposals have been processed regularly; in fact, 3 were in progress during the GAO visits. However, not all "candidates" meeting the reduction criteria in FAA Order 7232.5E also meet the operational considerations that must be applied before a decision is made to reduce operations.

FAA operates only 199 visual flight rules towers, and most of these are already reduced to part-time operations. Of the other 229 towers, 225 provide some form of approach control service to the primary airport and/or adjacent airports; 118 of these are full-range approach control facilities. Before an approach control facility can be reduced, alternative means of continuing separation services for instrument flight rules traffic must be assured. This is possible at some locations, as evidenced by recent reductions of two nontower radar approach control facilities, but not readily achievable at other locations.

Nonetheless, the FAA has recognized the need to revitalize the program in some regions. In this connection, FAA headquarters issued a letter dated March 13, 1981, to all regional Air Traffic Division chiefs pointing out the deficiencies identified in the GAO draft report. This letter also requires the regions to (1) identify specific candidates for reduced operating hours, (2) conduct 90-day traffic surveys, (3) apply criteria identified in FAA Order 7232.5E, and (4) complete required staff studies for documentation. These actions comply with the GAO recommendations, except for the one concerned with establishing time limits for completing studies. In this regard, we cannot establish specific time limits primarily because this is dependent upon individual regional workload and coordination required.

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