Federal Aviation Administration – Regulations and Policies
Aviation Rulemaking Advisory Committee

Airport Certification Issue Area
Friction Measurement and Signing Working Group

Task 1 – Review Part 139

Task Assignment

[4910-3]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Friction Measurement and Signing Working Group

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of establishment of Friction Measurement and Signing Working Group.

SUMMARY: Notice is given of the establishment of the Friction Measurement and Signing Working Group of the Aviation Rulemaking Advisory Committee (ARAC). This notice informs the public of the activities of the ARAC on airport certification issues.

FOR FURTHER INFORMATION CONTACT: Robert E. David, Assistant Executive Director, Airport Certification Issues, Aviation Rulemaking Advisory Committee, Office of Airport and Safety Standards (AAS-300), 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267-3085; fax (202) 267-5383.

SUPPLEMENTARY INFORMATION: The Federal Aviation Administration has established an Aviation Rulemaking Advisory Committee (ARAC) (56 FR 219, January 22, 1991; and 58 FR 9230, February 19, 1993). One area of the ARAC deals with airport certification issues.

Task

Specifically, the working group's tasks are the following:

Review Code of Federal Regulations (CFR) Title 14, Chapter I, Part 139 and supporting material, previous studies and surveys, procedures and interpretations for the purpose of determining if it would be appropriate to undertake rulemaking and/or develop policy relative to performing friction measurement to be used in the maintenance of air carrier runway surfaces; and

Review CFR Title 14, Chapter I, Part 139 and Advisory Circular 150/5340-18C, "Standards for Airport Sign Systems," and supporting material for the purpose of developing a notice of proposed rulemaking which would require these distance remaining signs at some or all the airports certificated under part 139.

If deemed appropriate, draft for ARAC notices of proposed rulemaking for each task proposing new or revised requirements, supporting economic analyses and other required

analyses, advisory and guidance material, and any other collateral documents the working group determines to be needed.

Reports

A. Recommend time line(s) for completion of the tasks, including rationale, for consideration at the meeting of the ARAC to consider airport certification issues held following publication of this notice.

B. Give a detailed conceptual presentation on the proposed recommendation to the ARAC before proceeding any further with the tasks.

C. Give a status report on the tasks at each meeting of the ARAC held to consider airport certification issues.

The Friction Measurement and Signing Working Group will be comprised of experts from those organizations having an interest in the task assigned. A working group member need not necessarily be a representative of one of the member organizations of ARAC. An individual who has expertise in the subject matter and wishes to become a member of the working group should write the person listed under the caption **FOR FURTHER INFORMATION CONTACT** expressing that desire, describing his or her interest in the task, and the expertise he or she would bring to the working group. The request will be reviewed with the Assistant Chair of the ARAC for airport certification issues and the Chair of the Friction Measurement and Signing Working Group, and the individual will be advised whether or not the request can be accommodated.

The Secretary of Transportation has determined that the formation and use of the ARAC are necessary in the public interest in connection with the performance of duties imposed on the FAA by law. Meetings of the ARAC to consider airport certification issues will be open to the public except as authorized by section 10(d) of the Federal Advisory Committee Act. Meetings of the Friction Measurement and Signing Working Group will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of working group meetings will be made.

Issued in Washington, DC, on October 4, 1994

/s/

Robert E. David

Assistant Executive Director for Airport Certification Issues,

Aviation Rulemaking Advisory Committee

Recommendation Letter

AIRPORTS COUNCIL INTERNATIONAL

August 30, 2002

Mr. Nicholas A. Sabatini
Associate Administrator for Regulation and Certification
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, DC 20591

Dear Mr. Sabatini:

On June 21, 2001, the ARAC Airport Certification Issues Group met to vote on two issues that remained open from one of our working groups. The final recommendations from the Runway Friction Measurement and Runway Distance Remaining Signage working group (WG) were presented to the Issues group for discussion and submission to FAA. The following is the recommendation of the Issues group:

> **Task 1, Friction Measurement:** The WG recommends regulatory action to amend 14 CFR 139.305, Paved areas, and submitted a draft notice of proposed rulemaking (NPRM), titled "Runway Friction Measurement," dated January 29, 1999.
>
> The WG stated that consensus had been reached on the need for a rule change to part 139. This NPRM (see attachment) contains the WG's draft regulatory language and preamble discussion, but does not contain a regulatory evaluation (cost/benefit analysis), nor has it undergone a legal review.
>
> **ACTION:** ARAC voted unanimously to submit the NPRM recommendation to FAA for action, completing this task.
>
> I request that this task be closed as it is now complete.

Task 2, Distance Remaining Signs: The WG recommends no regulatory action (majority opinion) on the signage task. As consensus had not been reached by the WG, both the majority and minority opinions were reviewed.

The Air Line Pilots Association (ALPA) holds the minority opinion that regulatory action is necessary to ensure all airports have the required signs.

The majority opinion (all other WG members) stated that no regulatory action is necessary, as voluntary compliance already has resulted in approximately 97 percent of all airports having the requisite signage in place. A regulatory action would not have a corresponding impact for the time/resource allocation needed.

ACTION: The ARAC voted, with dissenting opinions, to recommend no regulatory action to FAA, closing the task. The ARAC also recommends that FAA actively pursue ensuring advisory circulars detail the important benefits of proper signage, encouraging the remaining airports to apply smart business/safety practices. The dissenting opinions were from the members of ARFFWG and the National Air Disaster Alliance, who joined ALPA in registering their concerns over possible safety issues if regulatory action was not taken.

I request that you close the Runway Distance Remaining Signage task without a regulatory action.

Best regards,

Ian A. Redhead
Assistant Chair for ARAC Airport Certification

Cc: Ben Castellano, FAA
Jennifer A. Banks, ACI-NA

Recommendation

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP
FINAL REPORT

Prepared for:

Aviation Rulemaking Advisory Committee

February 20, 1997

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I. EXECUTIVE SUMMARY

THE TASK

In 1994 after two tragic and highly publicized accidents involving regional air carriers, the Secretary of Transportation, in response to certain safety recommendations from the National Transportation and Safety Board (NTSB), announced the department's intention to require air carrier aircraft operating aircraft with 10 to 30 seats to comply with FAR Part 121. Part 121 carriers are required to operate into airports which have been certificated by FAA under 14-CFR Part 139. The Federal Aviation Administration (FAA) did not have congressional authority to certificate the small airports. Later, FAA asked the U.S. Senate to introduce legislation that would authorize FAA to establish regulations for the certification of those airports served by regional carriers using aircraft with 10 to 30 seating capacity.

In 1995, Senator Wendell H. Ford (D-KY) introduced S.682, a bill to provide for the certification by the FAA of airports serving commuter air carriers. Recognizing that certification would have a significant financial impact, Sen. Ford urged FAA to work with the industry toward the goal of enhanced safety.

THE PROCESS

FAA's program for seeking industry advice on possible regulation is the Aviation Rulemaking Advisory Committee (ARAC). Under the ARAC program, a Working Group (WG) was appointed to study the regulatory and nonregulatory effect on the airports, airlines and others potentially affected by the proposed legislation.

The Working Group is composed of appointed members from the following organizations:

American Association of Airport Executives (AAAE)
Airport Council International-North America (ACI-NA)
National Association of State Aviation Officials (NASAO)
Air Line Pilots Association (ALPA)
Regional Airline Association (RAA)
National Air Transportation Association (NATA)
Aircraft Owners and Pilots Association (AOPA)
Landrum & Brown, aviation consultants

Also serving with the WG were representatives from FAA's airports certification office, legal staff, and office of economics.

The WG met five times and held one telephone conference call. The members are scattered throughout the country - from Alaska to Maine to Dallas; however, most are from the Washington, D.C. area. There was no budget for the study. Most of the administrative functions have been provided at the expense of Landrum & Brown, including recording and distributing meeting minutes and compiling and distributing survey information.
At the first meeting, the representatives were polled for their initial view on the subject of certification of small airports. Some members indicated a preference for the "do nothing" approach, believing that no problem exists, and therefore, no solution is warranted. Others believed

that 14 CFR Part 139 should be extended, in its entirety, to the airports involved. Others felt some level of certification might be advisable.

All members were aware of the limited resources available from the Airport Improvement Program (AIP), the trust fund upon which most public use airports rely for capital improvements. To redirect dollars for certification of the approximately 360 small airports potentially affected by the proposed legislation would surely be at the expense of other larger airports. Also, of concern was that, in addition to the "start up" investment for capital improvements and equipment, the budgets of small airports might not be sufficient for the recurring operations, personnel and maintenance costs associated with a certification program.

Of significant concern to the WG was the potential for small communities to lose air service if the airport sponsor could not meet the impending expenses, thereby, losing jobs, industry, and economic development opportunities. Further, if the cost of certification resulted in higher fares, passengers could choose to drive rather than fly, thus representing a higher risk to their personal safety. Those representatives on the WG whose memberships primarily consist of general aviation users expressed concern that the additional costs would be passed on to all airport users, most of whom may not want or need the additional services.

Also of concern was the lack of data, from any source, to indicate that airport conditions had contributed to any accident for the type air carrier operations being studied. This fact caused some members of the WG to conclude that certification of small airports might be a solution in search of a problem.

The WG designed and distributed a survey to each of the airports potentially affected. The results indicated the need for further information; therefore, a telephone survey was conducted to gather more specific information. The more information that was gathered, the more the WG became convinced that significant emphasis will need to be placed on education and enlightenment, whether or not the WG's final recommendation resulted in a regulatory or non-regulatory approach. Oftentimes, the person responsible for supervision of an airport was someone whose primary duties were for an entirely different function of government, for example, public works, parks and recreation, city or county management, etc. Some confessed that they were not sufficiently familiar with airport certification issues to understand and complete the survey. All indicated a willingness to provide safe facilities but lacked knowledge, personnel, and funds to make costly improvements.

The WG reviewed Part 139, line by line, to discuss the applicability of each provision. A majority opinion began to develop that indicated that a regulatory approach was not necessary, but rather a safety familiarization and education program would be more helpful. It was suggested that the target airports could be included in the FAA's 5010 program which is contracted to NASAO.

A minority position was taken by the ALPA members of the group, mostly with regard to aircraft rescue fire fighting (ARFF) equipment and personnel available on or adjacent the airport in order to meet a three minute response time. The report of the assigned economist would later indicate that the outcome of those accidents which had occurred at airports served by 10 to 30 seat air carrier aircraft would not have been different had ARFF capabilities been available. The minority opinion also maintained that the presence of emergency medical assistance at the airport would provide additional benefits for the travelling public.

In the last days of the 104th Congress, at the urging of ALPA, legislation was passed to authorize the FAA Administrator to certificate small airports after identifying and considering a reasonable number of regulatory alternatives and to select from such alternatives the least costly, most cost-effective or the least burdensome alternative that will provide comparable safety at airports being served by aircraft with 10 to 30 seat capacity.

Also, the WG was advised by the FAA that a regulatory approach had been decided on. Further, the WG was instructed by FAA that it should finish its work quickly so that FAA could consider the WG's recommendations in its rulemaking.

The work of the WG was severely hampered by the lack of continuity in the appointment of an economist to develop the cost/benefit study. Three different FAA economists were appointed to the WG, and all three advised that the study was not considered to be their highest work priority. No budget was assigned to the WG; therefore, the expertise could not be sought outside FAA.

During the time that the WG awaited the results of the cost/benefit study, the FAA directed the ARAC-Certification Issues Group Chair to direct the WG to hold its last meeting, try to reach a consensus, and make a recommendation to be submitted to the Issues Group. A deadline of January 9, 1997 was given by FAA. The WG was further informed that if a recommendation was not made, FAA would proceed with its development of the regulation without the WG's input using the work papers available.

Members of the WG are disappointed that they were not permitted to complete their work. They were further dismayed to learn that FAA would be willing to disregard the WG's recommendations if conclusions could not be reached and submitted by the deadline, especially in view of the fact that the WG's progress was continually delayed due to FAA's lack of provision for technical support.

THE RECOMMENDATIONS

Despite lengthy discussions, the ARAC-WG did not reach agreement on all aspects of airport certification. As a result, ALPA has developed a **minority** position which differs from the **majority's** in six areas.

The **majority** opinion is that a non-regulatory approach could have accomplished the desired effect. However, since regulation has now been indicated, the **majority** has drafted its suggested revisions to Part 139. It places more emphasis on education directed at accident prevention rather than accident mitigation and upon developing a comprehensive plan for responding to an emergency and for ensuring airfield safety. The Working Group majority clearly feels that the limited funds available to these small airports would be better spent on accident prevention rather than on accident mitigation.

The **minority** recommendation, among other things, stresses the need for availability of ARFF equipment and personnel on or near the airport for a three (3) minute response.

THE CONCLUSION:

The members of the Working Group have voluntarily accepted the challenge of undertaking this study and have taken their charge seriously. "Zero Accidents" has always been their goal whatever their role in the aviation industry. The members wish to thank all those who provided advice, furnished data or otherwise contributed to the process and progress. The Working Group earnestly hopes that its recommendations will be helpful in the development of a cost effective, non-burdensome plan for enhancing safety for the affected airports, airlines and passengers.

II. INTRODUCTION

In April 1995 the Federal Aviation Administration (FAA) asked the Aviation Rulemaking Advisory Committee (ARAC) to review Title 14, Code of Federal Regulations (CFR) Part 139 and develop recommendations concerning which requirements would be applicable to airports that have scheduled air carrier service with aircraft having a seating capacity of 10 to 30 seats. Part 139 prescribes rules governing the certification and operation of land airports which serve any scheduled or unscheduled passenger operation of an air carrier aircraft having a seating capacity of more than 30 passengers. An airport serving scheduled air carriers would be required to operate under an Operating Certificate, where an airport serving unscheduled air carriers would be required to operate under at least a Limited Operating Certificate.

Specifically, the FAA asked the ARAC to:

- Consider categorizing the requirements applicable to these airports by the size of the airport, or some other means to achieve specific safety objectives, while minimizing the operational and economic burden;
- Consider alternatives to providing aircraft rescue and firefighting services for operations at these airports;
- Consider conducting a survey of the airports that would be affected by these requirements to determine what safety practices are already being conducted and the operational and economic impact of full certification; and
- Recommend applicable requirements, including a reasonable compliance period, taking into account economic and operational factors.

Where it appears that it is not reasonable to apply a Part 139 requirement, the ARAC was asked to examine alternatives to the requirements to determine if there are other means to ensure an equal level a safety.

The ARAC accepted the task and established a Commuter Airport Certification Working Group (hereafter referred to as the Working Group) under the Airport Certification Issues Group. The Working Group is comprised of representatives of the FAA, aviation groups (NATA, ALPA, RAA, AOPA and NASAO), state DOTs, airport operators, and aviation technical advisors that provide a diverse range of ideas for discussion. See Section VI for a list of members names, addresses and affiliated organization.

A. ALTERNATIVES

During the first meeting on June 26-27, 1995, the Working Group prepared a list of four possible options that could be implemented on new Part 139 rules for air carrier operators with 10 to 30 seats. These options are as follows:

- Option 1 - Change Part 139 to read 10 passengers instead of 30. Exceptions to these rules would be required for some airports;

- Option 2 - Make no changes to Part 139;

- Option 3 - Modify Part 139 to include smaller airports, but suggest changes in requirements to reduce the economic impact on airport sponsors; and

- Option 4 - Establish a non-regulatory "industry standard" for these airports with further direction and educational assistance from the FAA and various aviation industry groups (i.e., AAAE, RAA, etc.).

Option 4 was added to the list during the October 10-11, 1995 meeting. These options were discussed at great length during this meeting and the Working Group decided that a survey of the applicable airports should be conducted to determine the possible impacts of implementing any one of the three options.

B. AIRPORT SURVEY'S

The Working Group identified 375 airports that receive service from commuter aircraft and that are either not certificated or hold a "limited" certificate that permit operations of unscheduled air carrier aircraft. A two-page survey form was prepared and mailed to each of these airports, requesting responses on questions concerning ARFF capabilities, hours airport is staffed, certification status, annual enplanements, the presence of marking, lighting and signage, and capital and recurring costs of certain equipment and procedures. Forty-eight of these airports were selected for a follow-up telephone survey. An additional phone survey was conducted of seventeen airports that are voluntarily complying with full Part 139 requirements. The results of these surveys are provided at the end of this section of the report.

C. WORK PLAN

Also, during the June 26-27, 1995 meeting a preliminary two phase Work Plan was prepared and submitted to the ARAC Chairman for approval. This Work Plan was modified based on the ARAC Issues Group comments. The final July 27, 1995 Work Plan was approved by the ARAC Issues Group and is presented at the end of this section of the report.

B. Airport Surveys

SURVEY FOR AIRPORTS
RECEIVING COMMUTER AIRLINE SERVICE

NAME OF AIRPORT _____

NAME OF PERSON RESPONSIBLE
FOR MANAGEMENT OF AIRPORT _____

TITLE _____

TELEPHONE NUMBER _____ FAX NUMBER_____

* * * * *

1. Does your airport serve commuter or air carrier aircraft landings on a **scheduled basis?**
   Yes__ No__

   Check which aircraft seating capacity is appropriate.
   10-19 seats __ 20-30 seats __ 30 plus __

2. What was the total number of annual enplanements for 1994? _____

3. Does your airport have:
   ( ) Airport Operating Certificate per FAA Part 139
   ( ) Limited Operating Certificate per FAA Part 139
   ( ) No Federal Certificate

4. Is the airport staffed 24 hours per day? ( ) Yes ( ) No

5. Do you have rescue/firefighting capabilities? ( ) Yes ( ) No

6. Is the airport firefighting facility manned 24 hours per day? ( ) Yes ( ) No

7. Does your airport have: (check all that apply to your airport)
   ( ) lines of succession of airport operational responsibilities
   ( ) a grid map or other means of identifying locations and terrain features on or around the airport which are significant to emergency operations
   ( ) a system for runway and taxiway identification
   ( ) document listing of each obstruction required to be lighted or marked within the airport's area of authority
   ( ) a description of each movement area and its safety area
   ( ) procedures for maintaining paved areas
   ( ) procedures for maintaining unpaved areas
   ( ) procedures for maintaining safety areas
   ( ) procedures for maintaining the marking and lighting systems for the runways and taxiways
   ( ) snow and ice control plan
   ( ) emergency plan
   ( ) procedures for maintaining the traffic and wind direction indicators

(Continued On Back)

7. Does your airport have: (check all that apply to your airport) (Cont'd.)
   - ( ) procedures for performing airport inspections
   - ( ) controlling ground vehicles crossing runways and taxiways
   - ( ) procedures for obstruction removal, marking, or lighting
   - ( ) procedures for protection of navaids
   - ( ) procedures for performing wildlife hazard management
   - ( ) procedures for identifying marking and reporting construction and other unserviceable areas
   - ( ) procedures for airport condition reporting

8. Does your airport maintain **Notice to Airmen (NOTAM)** capability?
   ( ) Yes ( ) No

9. Check if your runway(s) and taxiway(s) have:

R/W	T/W
( ) Marking	( ) Marking
( ) Reflectors	( ) Reflectors
( ) Lighting	( ) Lighting
( ) Signage	( ) Signage

10. For airports that have in place any of the six equipment and/or procedures below, please report what are the capital (fixed) costs and ongoing yearly recurring (variable) costs. For those airports that do not currently have any of these six items, please estimate the capital and maintenance costs of installing and operating them.

Items	Capital Costs	Recurring Costs	Capital & Maint. Costs Installation & Operating
Aircraft Rescue & Firefighting Equip.	_____	_____	_____
Airfield Marking and Lighting	_____	_____	_____
Airfield Inspection Procedures	_____	_____	_____
Airfield Staff Training	_____	_____	_____
Airfield Discrepancy Reporting	_____	_____	_____
Airfield Pavement	_____	_____	_____

11. Comments:

_____

_____

_____

Please mail or FAX your completed survey to the address listed below:

Landrum & Brown
c/o Russell Blanck
11279 Cornell Park Drive
Cincinnati, Ohio 45242
Phone: 513-530-5333
Fax: 513-530-5748

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III. COST/BENEFIT ANALYSIS

A. INDUSTRY PROFILE

A difficulty in determining the number of airports potentially affected if part 139 were to be required for all airports with part 135 scheduled airline service is that such service is particularly dependent upon Essential Airport Service (EAS) funding. Consequently, current information may not reflect the airports that would be affected because changes in future EAS funding levels would significantly affect the number of these airports. With the understanding that the situation can change, this report is based on current information.

The initial data source, which provided the initial number of potentially affected airports, was the Aviation Rulemaking Advisory Committee (ARAC) Working Group's Summary Database for Airports Receiving Commuter Service by Aircraft With 10 to 30 Seats. For those airports whose manager did not respond to the survey, the National Association of State Aviation Officials (NASAO) Internet site was used to complete the airport certification status information based on each airport's Form 5010 Landing Facility Detail. The Federal Aviation Administration's (FAA) Information Systems Branch then reported the number of departures in November 1996 of: (1) scheduled part 135 airplanes with more than 9 and fewer than 31 seats; and (2) scheduled part 135 airplane departures with fewer than 10 seats. In addition, the Department of Transportation (DOT) provided a list of airports where the scheduled aircarrier received EAS funding in August 1996. On that basis, the non-Alaska airports initially developed for the ARAC Survey were classified into the following 6 categories:

1. Non-Certificated Airports with Scheduled Part 135 Airplanes with >9 and <31 PAX;
2. Non-Certificated Airports with Scheduled Part 135 Airplanes with <9 PAX;
3. Non-Certificated Airports with no Scheduled Part 135 Airplanes;
4. Limited Certificated Airports with Scheduled Part 135 Airplanes with >9 and <31 PAX;
5. Limited Certificated Airports with Scheduled Part 135 Airplanes with <9 PAX; and
6. Limited Certificated Airports with no Scheduled Part 135 Airplanes.

The results are found in the Tables 1-6 at the end of this chapter. (Note: There were also a number of airports in the ARAC Survey that were part 135 certificated. These are not listed in a Table.)

Briefly summarizing those tables, there are 38 non-certificated airports with part 135 scheduled airplanes with more than 9 but fewer than 31 seats. The number of daily departures range from 1.0 to 7.2 (with one exception of 11.5 departures) with an average of 3.5 departures. Airlines servicing 23 of those airports receive EAS.

In addition, there are 48 part 139 limited certificate airports that have part 135 scheduled airplane service by airplanes with more than 9 but fewer than 31 seats. The number of daily departures range from 0.8 to 9.3 with an average of 3.9 departures. Airlines servicing 26 of these airports receive EAS.

In addition, (as more fully explained in the Compliance Cost section) 13 of the non-certificated airports that had responded to the ARAC survey were resurveyed to obtain a better understanding of the impact that applying part 139 to those airports. Further, their annual operating budgets and the number of staff at these airports was also collected. As seen in Table 7, the operating budgets are generally between $250,000 and $400,000 while the number of staff ranges from 1 to 5. The important result from this rather limited survey is that these airports are very small with very limited operating budgets. In fact, 36 of the 38 airports are small entities under the DOT definition of a small airport entity. Consequently, many of them do not have the financial resources to afford any substantial annual expenditures to operate in compliance with part 139 even if EAS funding were maintained.

TABLE 1
NUMBER OF DEPARTURES OF SCHEDULED PART 135 AIRPLANES
WITH >9 BUT <31 PAX AT NON-CERTIFICATED AIRPORTS
(November 1996)

No.	City/County	State	ID	DPM	DPD	EAS
1.	Lake Havasu	Ariz	HLL	216	7.2	N
2.	Show Low	Ariz	SOW	97	3.2	N
3.	El Dorado	Ark	ELD	86	2.9	Y
4.	Harrison	Ark	HRO	102	3.4	Y
5.	Jonesboro	Ark	JBR	43	1.4	Y
6.	Mountain Home	Ark	2M9	81	2.7	N
7.	Carlsbad	Cal	CRQ	345	11.5	N
8.	Inyokern	Cal	IYK	143	4.8	N
9.	Hana Maui	Haw	HHN	60	2.0	N
10.	Mt. Vernon	Il	MVN	55	1.8	Y
11.	Quincy	Il	UIN	215	7.2	N
12.	Spencer	Iowa	SPW	217	7.2	N
13.	Augusta	Me	AUG	102	3.4	Y
14.	Bar Harbor	Me	BHB	127	4.2	Y
15.	Rockland	Me	RKD	166	5.5	Y
16.	Cumberland	Md	CBE	100	3.3	N
17.	Manistee	Mich	MBL	97	3.2	N
18.	Glasgow	Mont	GGW	42	1.4	Y
19.	Glendive/Dawson	Mont	GDV	67	2.2	Y
20.	Havre	Mont	HVR	42	1.4	Y
21.	Lewistown	Mont	LWT	83	2.8	Y
22.	Miles City	Mont	MLS	83	2.8	Y
23.	Sidney	Mont	SDY	46	1.5	Y
24.	Wolf Point	Mont	OLF	67	2.2	Y
25.	Keene	N.H.	EEN	121	4.0	Y
26.	Alamogordo	N.M.	ALM	79	2.6	Y
27.	Carlsbad	N.M.	CNM	156	5.2	N
28.	Clovis	N.M.	CVN	81	2.7	Y
29.	Gallup	N.M.	GUP	164	5.5	N
30.	Santa Fe	N.M.	SAF	114	3.8	N
31.	Silver City	N.M.	SVC	40	1.3	Y
32.	Dickinson	N.D.	DIK	170	5.7	Y

33.	Enid	OK	WDG	47	1.6	Y
34.	Ponca City	OK	PNC	69	2.3	Y
35.	Brownwood	Tex	BWD	42	1.4	Y
36.	Del Rio	Tex	DRT	94	3.1	N
37.	Bryce Canyon	Utah	BCE	30	1.0	N
38.	Bluefield	W.Va.	BLF	76	2.5	Y

TABLE 2
NUMBER OF DEPARTURES OF SCHEDULED PART 135 AIRPLANES
WITH <9 PAX AT NON-CERTIFICATED AIRPORTS
(November 1996)

No..	City/County	State	ID	DPM	DPD	EAS
1.	Harrison	Ark	HRO	18	0.6	Y
2.	Canyonland Fields/ Moab	Utah	CNY	42	1.4	Y
3.	Anacortes	Wash	74S	373	12.4	N
4.	Friday Harbor	Wash	FHR	937	31.2	N
5.	Oak Harbor/ Wes Lupin	Wash	76S	483	16.1	N

TABLE 3
NON-CERTIFICATED AIRPORTS WITH NO SCHEDULED PART 135
AIRPLANE SERVICE
(November 1996)

No.	City/County	State	ID	DPM	DPD	EAS
1.	Sedona	Ariz	SEZ			N
2.	Springdale	Ark	ASG			N
3.	Bermuda Dunes	Cal	UDD			N
4.	Bishop	Cal	BIH			N
5.	Imperial	Cal	IDL			N
6.	Cour D'Alene	Id	COE			N
7.	Kokomo	Ind	OKK			N
8.	Ocean City	Md	N80			N
9.	Fergus Falls	Minn	FFM			Y
10.	Clarksdale	Miss	CKM			N
11.	Pascagoula	Miss	PQL			N
12.	Kearney	Neb	EAR			Y
13.	Albuquerque/ Double Eagle	N.M.	AEG			N
14.	East Hampton	N.Y.	HTO			N
15.	Aurora	Ore	UAO			N
16.	Sugarland/Hull	Tex	SGR			N
17.	Green River	Utah	U34			N
18.	Monument Valley	Utah	TIV			N
19.	Orcas Island	Wash	ORS			N
20.	Wausau Municipal	Wis	AUG			N

TABLE 4
NUMBER OF DEPARTURES OF SCHEDULED PART 135 AIRPLANES WITH >9 AND <31 PAX AT PART 139 LIMITED CERTIFICATED AIRPORTS
(November 1996)

No.	City/County	State	ID	DPM	DPD	EAS
1.	Kingman	Ariz	IGM	41	1.4	Y
2.	Page	Ariz	PGA	81	2.8	Y
3.	Prescott	Ariz	PRC	152	5.1	Y
4.	Hot Springs	Ark	HOT	139	4.6	Y
5.	Merced	Cal	MCE	24	0.8	Y
6.	Visalia	Cal	VIS	54	1.8	Y
7.	Cortez	Col	CEZ	139	4.6	Y
8.	Danville	Il	DNV	102	3.4	N
9.	Marion	Il	MWA	125	4.1	N
10.	Sterling/ Rock Falls	Il	SQI	92	3.1	Y
11.	Bloomington	Ind	BMG	76	2.5	N
12.	Ottumwa	Iowa	OTM	46	1.5	Y
13.	Great Bend	Kan	GBD	83	2.8	Y
14.	Hays	Kan	HYS	72	2.4	Y
15.	Liberal	Kan	LBL	74	2.5	Y
16.	Manhattan	Kan	MHK	183	6.1	N
17.	Hagerstown	Md	HGR	264	8.8	N
18.	Alpena	Mich	APN	213	7.1	N
19.	Iron Mountain	Mich	IMT	188	6.3	N
20.	Sault Ste Marie	Mich	CIU	145	4.8	N
21.	Fairmont	Minn	FRM	92	3.1	Y
22.	Grand Rapids	Minn	GPZ	90	3.0	N
23.	St. Cloud	Minn	STC	252	8.4	N
24.	Thief River Falls	Minn	TVF	86	2.9	N
25.	Cape Girardeau	Mo	GGI	45	1.5	Y
26.	Alliance	Neb	AIA	96	3.2	Y
27.	Chadron	Neb	CDR	92	3.1	Y
28.	Grand Island	Neb	GRI	250	8.3	N
29.	Norfolk	Neb	OFK	102	3.4	N
30.	North Platte	Neb	LBF	100	3.3	N
31.	Scottsbluff	Neb	BFF	103	3.3	N
32.	Las Vegas/ Henderson	Nev	HSH	120	4.0	N
33.	Las Cruces	N.M.	LRU	109	3.6	N
34.	Ruidoso	N.M.	SRR	30	1.0	N
35.	Massena	N.Y.	MSS	38	1.3	Y
36.	Devils Lake	N.D.	DVL	123	4.1	Y
37.	Jamestown	N.D.	JMS	123	4.1	Y
38.	Williston	N.D.	ISN	161	5.4	N
39.	North Bend	Ore	OTH	163	5.4	N
40.	Brookings	S.D.	BKX	102	3.4	Y

41.	Huron	S.D.	HON	173	5.8	N
42.	Mitchell	S.D.	MHE	92	3.1	Y
43.	Yankton	S.D.	YKN	102	3.4	Y
44.	Cedar City	Utah	CDC	98	3.3	Y
45.	St. George	Utah	SGU	280	9.3	N
46.	Vernal	Utah	VEL	49	1.6	Y
47.	Rutland	Vt	RUT	90	3.0	Y
48.	Beckley	W.Va.	BKW	164	5.5	Y

TABLE 5
NUMBER OF DEPARTURES OF SCHEDULED PART 135 AIRPLANES
WITH <9 PAX AT PART 139 LIMITED CERTIFICATED AIRPORTS
(November 1996)

No..	City/County	State	ID	DPM	DPD	EAS
1.	Carbondale	Il	CKM	42	1.4	N
2.	Frenchville	Me	FVE	42	1.4	N
3.	Fairmont	Minn	FRM	4	0.1	Y
4.	Ely	Nev	ELY	42	1.4	Y

TABLE 6
PART 139 LIMITED NON-CERTIFICATED AIRPORTS WITH NO SCHEDULED
PART 135 AIRPLANE SERVICE
(November 1996)

No.	City/County	State	ID	DPM	DPD	EAS
1.	Mammoth Lakes	Cal	MMH			N
2.	Lamar	Col	LAA			Y
3.	Chicago-Meigs	Il	CGX			N
4.	Anderson	Ind	AID			N
5.	Elkart	Ind	EKM			N
6.	Gary	Ind	GYY			N
7.	Mt. Comfort	Ind	MQJ			N
8.	Valparaiso	Ind	VPZ			N
9.	Goodland	Kan	GLD			N
10.	Menominee	Mich	MNM			N
11.	St. Paul Downtown	Minn	STP			N
12.	Worthington	Minn	OTG			N
13.	Clarksdale	Miss	CKM			N
14.	West Yellowstong	Mont	WYS			N
15.	Hastings	Neb	HSI			Y
16.	Astoria	Ore	AST			N
17.	Galveston	Tex	GLS			N

TABLE 7
ANNUAL REVENUES AND NUMBER OF PERSONNEL OF THE RESURVEYED AIRPORTS

No.	City/County	State	ID	Annual Operating Budget	No. of Staff	ARRF	24 hrs
1.	El Dorado	AR	ELD	$105,000	2FT/1PT	N	N
2.	Lake Havasu	AZ	HLL	$310,000	4FT	Y	N
3.	Inyokern	CA	IYK	$300,000	2FT	Y	N
4.	Kokomo	IN	OKK	$250,000	3FT	?	?
5.	Sidney	MT	SDY	$89,000	1FT	Y	N
6.	Kearney	NE	EAR	$400,000	4FT	?	?
7.	Keene	NH	EEN	$254,000	2FT	Y	N
8.	Alamogord	NM	ALM	$81,000	2FT	Y	N
9.	Gallup	NM	GUP	$140,000	4FT	Y	N
10.	Enid	OK	WDG	$1,000,000	5FT/7PT	Y	N
11.	Ponca City	OK	PNC	$265,000	3FT	Y	N
12.	Brownwood	TX	BWD	$346,000	5FT	Y	N
13.	Moab	UT	CNY	$40,000	1PT	?	?

B. BENEFITS

The method used to review the potential benefits for bringing non-certificated airports into part 139 was to collect all part 135 scheduled commuter airlines accidents and incidents that have occurred at all airports. There are two reasons for using this method.

The first reason is that it increases the available pool of part 135 accident and incident data. For example, between 90 percent and 95 percent of the November 1996 part 135 scheduled airplane operations occurred at part 139 certificated airports. Given the very low accident rate for part 135 scheduled airplanes, limiting the sample of accidents and incidents only to those that have occurred on non-certificated airports could overlook infrequently occurring types of events that could occur at a non-certificated airport. Thus, incorporating accident and incident data from part 139 airports can be used, not to serve as a basis of comparison between non-certificated and part 139 certificated, but, rather, to illustrate potential events and provide a basis for a proactive means to indicate potential problems that may eventually occur at a non-certificated airport.

Second, comparing the post-accident consequences of part 135 scheduled airline accidents and incidents that have occurred at part 39 certificated airports, part 139 limited certificated airports, and non-certificated airports can indicate whether the accident mitigating aspects of part 139 have affected fatalities and injury severity. In particular, has the presence of Aircraft Rescue and Firefighting (ARFF) at part 139 airports prevented fatalities or reduced the injury severity in a part 135 airplane post-crash fire? If it has had a positive effect, then, even though there have been no fatalities from part 135 scheduled airplane post-crash fires on non-certificated or limited part 139 airports, this evidence could indicate an effective role for ARFF in combating future post-crash fires at these airports. Conversely, if ARFF has not prevented fatalities or reduced injury severity in part 135 scheduled airplane post-crash fires, this evidence could indicate that ARFF may not be effective in combating post-crash fires at these airports.

An alternative method to estimating potential benefits is to attempt to calculate an overall individual part 135 scheduled airplane accident rate for each of the three types of airport certificates, to compare these rates, and then to declare that any difference must be a result of the airport certification category. Using that method would generate conclusions that would be inaccurate or, at best, unproved. This method ignores such important factors that would affect average accident rates, such as the impact of weather conditions, types of operations, the fact that there are very few accidents, etc. Correlation is not causation.

The data used for this benefits discussion is based on the National Aviation Safety Data Analysis Center's (NASDAQ) collection of the summary National Transportation Safety Board's (NTSB) accident and incident reports for all part 135 scheduled airplane accidents and incidents that occurred at an airport. The NASDAQ data base covers from 1983 through Nov. 3, 1996. Thus, the November 1996, Quincy, Illinois, accident is not in this data base until the NTSB concludes its investigation and issues its final report. Reviewing these reports and eliminating those that involved seaports and rotorcraft generates an accident and incident data base of 138 reports. Of these 138 reports, 40 occurred in Alaska, 79 occurred at non-Alaskan part 139 certificated airports, 10 occurred at non-Alaskan non-certificated airports, and 9 occurred at non-Alaskan limited part 139 certificated airports. These accidents and incidents do not include animal strikes, which are separately addressed in the paragraphs discussing section 135.337.

As might be expected, most Alaska accidents involved airplanes with 9 or fewer passengers and airport runway conditions on gravel runways. There were no reported post-crash fires among any Alaska accidents or incidents - even the Nov. 23, 1987, accident at Homer, Alaska involved fatalities and injuries caused solely by the impact of the crash. As a result, these Alaska accidents (with one exception) were not included in the more detailed analysis because conditions are not replicated in the lower 48 states, Hawaii, and the U.S. possessions.

None of the non-Alaska accidents that occurred at non-certificated or at part 139 limited certificated airports could be attributable to the airport's condition. For part 139 certificated airports, only 16 accidents involved the airport's condition or airport (including aircarrier or fueling agent) personnel. Of these 16 accidents, 14 involved either ground personnel (walking into propellers, directing docking airplanes into already parked airplanes, and ground support vehicles colliding with taxiing airplanes) or part 135 scheduled airplanes taxiing into equipment, such as Ground Power Units (GPU) or baggage tugs, that were left in the wrong place. One accident occurred when a construction worker went to lunch and left an unattended backhoe parked adjacent to the aircraft ramp in a dirt area with the boom in the extended position where it was struck by the wing of an airplane taxiing to takeoff. Another accident occurred due to a 5 inch dropoff (part 139 requires a 3 inch maximum difference in pavement heights) from the connector to the taxiway. No fatalities or injuries were associated with either of these two accidents.

In addition to preventing potential accidents, part 139, (through the ARFF and emergency plan requirements) is also designed to mitigate the post-crash effects (e.g., fire, landing in water, etc.) of an accident. The NASDAC data base contains the following 15 post-crash fires that occurred to part 135 scheduled airplanes. There were no reported non-Alaska water landings or other airport emergencies that occurred to scheduled part 135 airplanes. It also reported the number of fatalities and the extent of injuries associated with each accident. These accidents are summarized in Table 8.

Phoenix: 2/21/94

During the landing rollout, a fire broke out in the PA-31-350 engine's accessory compartment. One passenger suffered a fractured ankle during the evacuation. The other 3 passengers and crew evacuated safely.

Las Vegas: 7/12/93

Pilot neglected to secure the nose compartment baggage compartment of a CE-402-C. The airplane stalled and crashed nose first. Although there was a post-crash fire, the 3 fatalities occurred due to the impact.

Table 8

No.	Date	Airport	Number of Individuals			
			Fatal	Serious	Minor	None
1.	2/21/94	Phoenix, Ariz	0	1	0	3
2.	7/12/93	Las Vegas, Nev	3	0	0	0
3.	2/1/91	Los Angeles, Cal	18	0	0	0
4.	1/30/91	Beckley, W.Va	0	13	3	3
5.	12/26/89	Pasco, Wash	6	0	0	0
6.	7/27/88	Anchorage, Alas	0	0	0	8
7.	5/24/88	Lawton, Ok	0	2	6	0
8.	5/16/88	Atlanta, GA	0	0	0	12
9.	5/8/87	Mayaguez, P.R	2	0	4	0
10.	3/4/87	Detroit, Mich	9	7	6	0
11.	2/5/87	Florence, S.C.	0	0	0	7
12.	3/22/85	Los Angeles, Cal	0	1	1	11
13.	12/7/84	Harrison, Ark	0	0	0	7
14.	10/28/83	Tri-Cities, Tenn	0	0	16	0
15.	8/27/83	Hot Springs, Ark	0	0	0	4
TOTALS			38	24	33	55

Los Angeles: 2/1/91

This is the accident where the USAir 737 landed on the Skywest SA-227-AC. All of the 18 passengers and crew in the Skywest airplane died on impact.

Beckley: 1/30/91

A USAir BA-JETSTM-3101 made a hard landing, its landing gear collapsed, and it slid 3,600 feet. The impact caused the injuries to the 16 passengers and crew as the post-crash fire occurred after the evacuation. ARFF was available but another USAir BA-Jetstm-3101 had been diverted from Bluefield W.Va. and the airport employee thought that there was only one USAir flight

landing. The employee left the line office and went to the hangar to open the hangar door to store the airplane that was scheduled to remain overnight. While at the hangar, the second USAir airplane landed and had the accident. While the employee was at the hangar, he saw a sheriff's car with emergency lights flashing drive past him and one of the crew from the first airplane reported there had been a crash. After calling 911, the employee went for the ARFF truck and got to the accident scene between one and a half minutes and two minutes. The total response was 5 to 10 minutes longer than it would have been had the employee remained at the line office.

Pasco: 12/26/89

A BA-JETSTM-3101 nosed over and crashed in a steep descent and a post-crash fire occurred. All 6 fatalities occurred due to the impact.

Anchorage: 7/27/88

A fire broke out in the left main gear wheelwell of the SA-227 after takeoff. The pilot landed safely and the 8 passengers and crew were able to evacuate safely.

Lawton: 5/24/88

The left engine failed during takeoff and the EMB-110P crashed on the runway and slid into the perimeter fence. Brush fires started and the fuel tank ruptured. The 6 passengers and the First Officer evacuated the airplane before the ARFF arrived. However, the captain was trapped in the airplane while a fire was approaching the rear of the airplane from the leaking fuel. A passenger and the First Officer managed to extricate the captain. However, it is not clear from the report whether the ARFF arrived before or after the captain was extricated. It took the ARFF crew between one and one half minutes to one minute and 50 seconds to reach the accident scene after they had been notified. The ARFF did arrest the fire but the back of the airplane was destroyed.

Atlanta: 5/16/88

A SA-226-TC made a gear up landing. The 12 passengers and crew were able to evacuate safely.

Mayaguez: 5/8/87

A C-212-CC crashed right wing first about 650 ft. short of the runway. The fuel tank ruptured and a post-crash fire ensued. The two crew died on impact but the 4 passengers were able to exit safely before the ARFF arrived.

Detroit: 3/4/87

A C-212-CC crashed but the impact was survivable. A post-crash fire developed and before the ARFF could arrive, the 9 fatalities were victims of flashover while the 10 survivors although severely injured from the crash were the ones able to exit the airplane before flashover. A rapid intervention vehicle was at the scene within one and one-half minutes of the alarm from the control tower. It was followed 15 seconds later by 3 CFR trucks. The fire was extinguished within 2 minutes of the first alarm.

Florence: 2/5/87

A SA-226-TC made a gear up landing and the 7 passengers and crew were able to evacuate before the post-crash fire became serious.

Los Angeles: 3/22/85

A SA-226-TC made a gear up landing and the 13 passengers and crew were able to evacuate before the post-crash fire became serious. The two injuries were due to parts of the propeller entering the cabin and striking two passengers.

Harrison: 12/7/84

A SA-226-TC made a landing during the course of which the left landing gear collapsed and the airplane slid 2,190 feet. All 7 passengers and crew were able to evacuate safely before the post-crash fire became serious.

Tri-Cities: 10/28/83

An EMB-110-P1 made a gear up landing. The 16 minor injuries were suffered during the impact and all evacuated safely before the post-crash fire became serious.

Hot Springs: 8/27/83

While turning onto the runway, the instrument panel of a SA-226-TC erupted into fire. The 4 passengers and crew were able to evacuate safely before the post-crash fire became serious.

C. COMPLIANCE COSTS

GENERAL METHODOLOGY

The basis of this report is the initial Aviation Rulemaking Advisory Committee's (ARAC) Working Group survey. However, in order to obtain a more in-depth view of the impact that a part 139 certification would have on the most affected airports (the non-certificated), a telephone survey was developed that resurveyed the managers of non-certificated airports who had responded to the ARAC survey. The resurvey was designed to be more open-ended to allow the respondent to provide an overview of the expected part 139 impact on the airport. After all, sometimes the total impact is more than the sum of the individual parts. Thirteen airport managers were resurveyed.

The key factor to remember is that these numbers are compliance cost **estimates,** and, as such, need to be treated with caution. There are four reasons contributing to the uncertainty associated with these cost estimates.

1. First, different approaches to enforcement of part 139 requirements on these airports can result in different compliance costs. In general, a strict by-the-Advisory-Circular enforcement approach would generate higher compliance costs than would a more performance oriented enforcement approach. To some extent, different enforcement experiences could account for the wide variation in cost estimates provided by respondents.

2. Second, the airports in this survey group have widely differing characteristics. For example, 4 of the 13 resurveyed airports have had a part 139 or a part 139 limited certificate while some others reported that they would simply abandon part 135 scheduled service if they had to become a part 139 certificated to receive it. Consequently, any "average" cost covers a wide range of actual costs among individual airports.

3. Third, there are many instances when the airport manager did not know (and would not estimate): (1) costs for developing and following a specific procedure; or (2) costs of some equipment that would be required under part 139. In addition, there are areas (primarily those involving the amount of time to create a certification manual and to develop written procedures) where specific information was not provided but general comments were made about the overall amount of "unnecessary paperwork" that would occur under a part 139 certification.

Applying other airport managers' cost estimates for developing and following specific procedures introduces additional uncertainty into the estimates. Nevertheless, that is the only available method. Consequently, as the "average" times to perform individual paperwork activities are based on discussions with the resurveyed airport managers, there would be differences among individual airports.

With respect to equipment costs, however, manufacturers were surveyed and their estimates can provide reasonably reliable cost information. There are two types of equipment (1) Airplane Rescue and Firefighting (ARFF); and (2) airport lighting and signs, were found to have potentially large compliance costs. The working group has agreed to the basic equipment and personnel costs associated with ARFF, but a discussion with Mike Conroy of the National Fire Protection Association (NFPA) led to some modification of training costs and the annual costs

for building depreciation, maintenance, and utilities needed to be addressed. For airport lighting costs, 3 major manufacturers (Crouse-Hinds, Hughey and Phillips, and ADB) were contacted (2 responded) to provide estimated costs for lighting and signs for a 6,000 ft. runway with parallel taxiway and three connectors.

4. Finally, the sample of 13 resurveyed airport managers may not be representative of the entire population. For example, 4 of the airports (30 percent) have had a part 139 certificate. As a result, there may be areas in which this analysis overestimates the extent to which these airports would be in compliance with the part 139 requirements. However, it is believed that these overestimates are not a significant problem in this report.

In conclusion, despite these uncertainties, these "average" cost estimates are believed to be reasonably accurate and can serve as an aid in the deliberations. Nevertheless, any individual airport's costs to comply with specific sections of part 139 can differ considerably from the "average."

Finally, this report does not include the potential impact on airports that have part 139 limited certificates and have scheduled commuter service. In particular, these airports would now become subject to the ARFF manning and the airport emergency plan requirements. The impact of these (and others) part 139 requirements on part 139 limited certificate airports needs further review.

The following is a section-by-section breakdown of the compliance costs associated with bringing non-certificate airports with scheduled part 135 airplane service into compliance with part 139.

SECTION BY SECTION COST ESTIMATES

Many of the compliance costs depend upon the number of airport personnel hours needed to meet a requirement. Thus, in order to transform these hours into dollars, the FAA determined that the average fully loaded hourly compensation rate (includes wages, social security, fringes, worker's compensation, etc.) would be $25 for an airport manager, $20 for a firefighter, and $15 for other airport personnel.

There are two basic types of compliance costs that are estimated in the following sections. The first type is the "first year" cost, which includes items such as capital equipment, additional personnel costs, expenditures on developing programs, initial training, etc. The second type is "annual" cost, which includes all recurring costs such as additional personnel costs, expenditures on maintenance and depreciation, annual training, etc.

Table 9 contains a summary of the estimated first year and annual compliance costs to an individual non-certificated airport based on a high cost estimate of complying with part 139 requirements. It needs to be emphasized that not every non-certificated airport would incur every one of these costs nor would every non-certificated airport necessarily spend the estimated amount in order to be in compliance with the requirement. Nevertheless, many of these airports would need to make expenditures in the general range represented in the table.

TABLE 9
ESTIMATED HIGH PER AIRPORT FIRST YEAR AND ANNUAL COMPLIANCE COSTS

Section	First Year	Annual
Application for Certificate	$420	$0
Inspection Authority	$400	$200
Issuance of Certificate	$600	$0
Exemptions	$1,000	$0
Airport Certification Manual	$2,600	$400
Marking and Lighting	$450,000	$3,400
ARFF Equipment	$177,000	$12,850
ARFF Personnel and Training	$87,730	$84,130
Storing Hazardous Materials	$140	$60
Develop an Airport Emergency Plan	$3,000	$200
Emergency Exercise	$0	$200
Locked Gate	$1,000	$100
Wildlife Hazard Management	$100,000	$5,000
Total	$823,890	$106,540

Section 139.101: Certification requirements: General

There would be no compliance costs associated with this section.

Section 139.103: Application for certificate

As with any paperwork requirement, an airport manager would need time to contact the FAA for initial guidance concerning the acceptable format and for the information necessary to complete the application. The compliance cost estimate for this section includes only the time to prepare an application. All costs associated with developing a certification manual will be estimated in section 139.201. For an airport that has not had a part 139 certificate, it is estimated that an application for a part 139 certificate would take an airport manager 2 days for a non-certificated airport (for a one-time cost of $400) and 1 day for a limited part 139 airport (for a one-time cost of $200).

The application must also be accompanied by 2 copies of an airport certification manual. The FAA estimates that an individual certification manual would cost about $10, for a total of $20 per application.

Section 139.105: Inspection authority

The FAA inspector is, typically, accompanied on the inspection by the airport manager so that questions can be answered, points can be clarified, etc. The FAA estimates that, for the average size of the affected non-certificated airports, the FAA initial inspection would take 2 days (for a

one-time cost of $400) and its annual inspections thereafter would take 1 day (for an annual cost of $200).

Section 139.107: Issuance of certificate

In general, an FAA investigation of any airport requires more than just a one-time paperwork submission by the applicant. The FAA will request more information than was supplied with the initial application; phone the airport manager to obtain clarification of items in the submitted manual; make one or two visits to the airport; etc. All of these activities would require the airport manager's participation. Based on FAA experience, it is estimated that a manager of a non-certificated airport would spend 3 days (for a one-time cost of $600) on a part 139 certificate.

Section 139.109: Duration of certificate

There would be no compliance costs associated with this section.

Section 139.111: Exemptions

As is more fully explained in the section 139.115, .117, and .119 discussion, 10 of the 13 resurveyed airport managers reported that they had ARFF on site. Two of the 10 had the local fire department on site. The other 8 reported that, although ARFF equipment was on site, it was not manned in accordance with part 139 requirements.

It is anticipated that due to the personnel expenses of having full-time ARFF personnel, managers of 33 of the 39 non-certificated airports would request an exemption from either: (1) the entire ARFF requirements; or (2) the ARFF personnel requirements. It is likely that all of these airports would be under the enplanement eligibility threshold for applying for an exemption. Applying for this exemption would require these airport managers to provide airport financial information, projections of future enplanements, etc. On that basis, it is estimated that an airport manager would take 5 days (for a one-time cost of $1,000) to provide the initial petition, subsequent documentation, etc. for an FAA exemption.

Section 139.113: Deviations

It is estimated that each report would take a total of 6 hours (for a cost of $150) for an airport manager to complete an initial report and a follow-up to respond to FAA follow-up questions and requests. As it is anticipated that few of these reports would be filed in any particular year, the overall compliance costs with this section would be minimal.

Section 139.201: Airport operating certificate: Airport certification manual;

Section 139.203: Preparation of airport certification manual; Section 139.205: Contents of airport certification manual

The compliance costs associated with each of the three sections are difficult to individually distinguish because these are three interdependent components of one process - creating a written certification manual that contains mandatory procedures judged to be acceptable to the FAA. In practice, this process requires the airport manager to review and to become familiar with part 139 and its associated Advisory Circulars (AC); to develop written procedures for all of the

operations required to be documented under section 139.205; and then to review and change these procedures as necessary to make certain that they would continue to meet with FAA approval. Several of the resurveyed airport managers asserted that transforming an airport operations manual into a certification manual is not a trivial exercise. Indirect evidence for this assertion can be found in the regulatory history of part 139. When the FAA initially proposed part 139, the affected airport managers were to be allowed 60 days to prepare the application and manual. In the 1972 final rule, the FAA agreed with commenters that 60 days was too short a time and allowed the airport managers 120 days.

In general, the most troublesome facet of compliance with these sections to airport managers was an uncertainty that their existing procedures would be acceptable to the FAA in either content or form. Another concern, as shown in the ARAC survey, is that the managers of non-certificated airports reported that they did not have written procedures for an average of 5 of the required procedures.

It is estimated that an airport manager of a non-certificated airport would need about 13 days (at a one-time cost of $2,600) to develop and write all the necessary procedures and to complete and obtain FAA approval of the certification manual. In addition, the airport manager would need to spend about 2 days a year to keep the manual current. The length of time would vary across airports and would depend upon how closely the airport's operation manuals follow the FAA 139 series ACs, how much additional material created for section 139.205 would need to be written and incorporated into the certification manual, and whether the airport had been a part 139 certificated airport.

Section 139.207: Maintenance of airport certification manual

There would be minimal compliance costs associated with this section. Although some of the surveyed airport managers expressed unhappiness with the requirement for keeping an airport certification manual current at all times, it appears that any compliance costs would be minimal.

Section 139.209: Limited airport operating certificate: Airport certification specifications;

Section 139.211: Preparation of airport certification specifications;

Section 139.213: Contents of airport certification specifications;

Section 139.215: Maintenance of airport certification specifications

These 4 sections apply to obtaining a part 139 limited certificate and does not apply to this report.

Section 139.217: Amendment of airport certification manual or airport certification specifications

There would be minimal compliance costs associated with this section.

Section 139.301: Inspection authority

These compliance costs have been estimated under section 139.105.

Section 139.303: Personnel

There would be no compliance costs associated with this section because it is current industry practice for all airport managers to employ qualified individuals.

Section 139.305: Paved areas

All resurveyed airport managers reported that they currently follow these requirements. They were specifically questioned about the "prompt repair" and the specifications found in 139.305(a)(1) and (2) and reported that the requirements in this section represented standard procedures necessary to keep the airport operational. They further reported that, in general, their existing practices were at least as good as those in this section because it is bad for business to let any areas deteriorate and potentially cause damage to their customers' (both general aviation (GA) and commuter) airplanes. Although some managers noted that there could be short periods of times when their airports might not be strictly in compliance, those periods of non-compliance would be infrequent. In light of those discussions, it is estimated that there would be minimal compliance costs associated with this section.

Section 139.307: Unpaved areas

No airport manager reported that there was an unpaved movement area that would be affected by this section at the airport. Consequently, it is estimated that there would be minimal compliance costs associated with this requirement.

Section 139.309: Safety areas

Similar responses to those for 139.305 were given, however, two airport managers expressed some concern about the FAA interpretation and enforcement of this section. They felt that their airports would meet the spirit of this section but the uncertainty about FAA interpretation and enforcement left them hesitant to say that there would be no costs. The other airport managers did not foresee any compliance costs. However, these airports would not be affected unless a major upgrade is undertaken because they would be grandfathered under the current rule. In light of this information, there would be minimal compliance costs associated with this section.

Section 139.311: Marking and lighting

One of the airport managers who had had a part 139 certificate, reported that his airport (Kokomo, Ind.) had upgraded its lighting and signs in 1992 - after the new lighting requirements were promulgated. The Kokomo airport has two runways (one 5,201 ft.; one 4,001 ft.) and a taxiway parallel to the 5,201 ft. runway with 3 connectors. The lighting upgrade was only for the 5,201 runway and taxiway. That manager reported a cost of $375,000 for this upgrade, of which $175,000 was for equipment and $200,000 was for construction and installation. In 1996 dollars, this would be about $435,000.

Another airport manager who had had a part 139 limited certificate (Keene, N.H.) reported that his 6,201 foot runway and parallel taxiway had their lighting upgraded in 1993 at a cost of about $400,000. In 1996 dollars, this would be about $450,000.

As noted earlier, three airport lighting and sign manufacturers were called and asked to provide an approximate cost to bring airport lighting and marking up to part 139 standards for a

hypothetical 6,000 foot runway and parallel taxiway with 3 connectors. One of them reported that they and their contractors had recently completed an upgrade of the lighting and signs for the Westminster/Carroll County Regional, Md. airport - a GA airport with no tower. Previously, that airport had a 3,222 ft. X 60 ft. runway with a parallel taxiway and 4 connectors but, in a general upgrade, the runway was increased to 5,001 ft. X 100 ft. with 5 connectors. The lighting upgrade was to Medium Intensity Runway Lighting (MIRL) and included all new cable, new light bases, 5 regulators, all new cans, and all new transformers. They did not have exact dollar values for all of the installation costs charged by the contractor. They installed 30 lighted signs at about $2,500 per sign and it cost about $2,500 to install each sign for a total sign cost of $150,000. As a rough approximation, they estimated that at this airport, substituting retroreflective signs would have reduced the sign costs by about 80 percent (or by $120,000). However, they noted that the entire lighting system at this airport was going to be upgraded due to the runway expansion so that the power for the lighted signs was not the factor determining the necessity for the entire system upgrade. They were asked what would be a typical cost increase, if, in point of fact, the power required for lighted signs were to be the factor necessitating a lighting system upgrade and retrofit. Their response was that these lighting and sign upgrades have involved Airport Improvement (AIP) funds and the incremental costs to the airport for the upgrade would have been relatively small and they had not encountered the hypothetical situation. Consequently, they were unwilling to estimate even a range of costs for that hypothetical situation.

The manufacturer estimated that the two runway end identification light systems at the Westminster Airport cost about $80,000 installed and the PAPI cost about $15,000 installed. The overall total cost for this airport was between $400,000 and $500,000. They estimated that if that airport had had a 6,000 ft. runway and parallel taxiway, the costs would have been between $450,000 and $550,000.

Finally, another manufacturer provided a "rough" estimate of between $400,000 and $450,000 to install a lighting and sign system that would meet the minimum requirements. He also reported that retroreflective signs would reduce the sign costs by about 75 percent.

As a result, it is estimated that between $400,000 to $450,000 would be needed to upgrade lighting and signs to part 139 standards and that allowing retroreflective signs would reduce these costs by about $100,000 to a total of $300,000 to $350,000.

Brighter lights are more expensive to replace and use more electricity than dimmer lights. One airport manager whose airport had installed improved lighting reported that the annual incremental costs of replacing the more expensive burnt-out lights were about $1,000 per year and the additional electricity costs would be about $2,400 per year ($200 a month). There is a difficulty in generalizing this estimate because some airports would leave the lights on, some would have the lights activated by the approaching airplane, some have longer hours than others, etc.

Section 139.313: Snow and ice control

The airport managers reported that their airports would be in compliance with the requirements of this section - as long as they could shut down the airport until the snow could be removed. Some of them located in Arizona and New Mexico also added the qualifier that they do not have snow removal equipment and they wait for the sun to clear the movement areas. One airport manager in the Northeast reported that the state contractors clear the roads first and then they

plow the airport. However, the applicable AC requires an airport to have equipment capable of removing one inch of snow in all primary movement areas within one hour. If an airport were to be required to have snow removal equipment it would cost about $50,000 and there would be annual operation and maintenance costs of about $5,000.

Section 139.315: Aircraft rescue and firefighting: Index determination;

Section 139.317: Aircraft rescue and firefighting: Equipment and agents;

Section 139.319: Aircraft rescue and firefighting: Operational requirements

Of the 38 non-certificated airports with part 135 scheduled service, 15 of their managers responded to the ARAC survey that they had ARFF on-site, 5 responded that they had no ARFF on site, and 18 did not respond to the question. Of the 15 airport managers with ARFF on-site, only 2 responded that the trucks were manned full-time. In the resurvey of 13 managers of non-certificated airports, 10 reported that they had ARFF on-site but 6 of the 10 (60 percent) further stated that their trucks would not meet the firefighting capabilities required by part 139. As a result, they believed that they would need to upgrade their ARFF truck or obtain a new truck. Further, if they obtained a new ARFF truck, 4 of the 6 managers (67 percent) reported that the existing building housing the truck would be too small and a larger building would need to be constructed.

An industry consultant expert in ARFF trucks reported that about half of the trucks (3 of the 6) reported by the airport managers as being inadequate under part 139 would, in fact, meet the part 139 requirements.

Assuming that these survey results are representative of the population of 38 non-certificated airports, 10 of these 38 airports have no ARFF truck or building on-site, 28 have an ARFF truck but 19 of them would need to upgrade the ARFF truck and 13 of these 28 would need a new building to house the new ARFF truck.

Of the 48 non-certificated airports with part 135 scheduled service, 37 of their managers responded to the ARAC survey. Of these 37 respondents, 30 reported that they had an ARFF truck on-site and 7 reported that they had no ARFF truck on-site. Of those 30 airport managers whose airports had an ARFF truck, 7 reported that it was manned full-time.

The working group reached a general agreement that a minimum ARFF truck with a useful life of 10 years would cost $50,000, truck maintenance would be $5,000 a year, $2,000 would be spent every three years on miscellaneous firefighting equipment and clothing, and a storage building with a use of 40 years would cost $125,000. The building's depreciation, maintenance, and utilities would average about $7,200. Consequently, the total capital cost for the building and the truck would be $175,000 while the annual operating costs associated with this equipment would be $12,850.

Most of the Working Group agreed that, at a minimum, the practical way to comply with the ARFF for these airports would require an airport to hire two dedicated firefighters (for an annual total compensation cost of $80,000). This assumes that there are trained professional firefighters available to be employed at these airports. If not, an NFPA representative reported that basic firefighting training requires a minimum of 140 hours of classroom and practice firefighting. In addition, these firefighters would need specific training in airplane firefighting. If the airport

were to actually train their firefighters, then they face the risk that the newly trained firefighter would leave for a position in a fire department where the pay and fringes are likely to be better than those at a small airport. However, the cost estimates are based on the assumption that the airport can hire trained professional firefighters. Nevertheless, there is the possibility that certain of these non-certificated airports may be required to fund basic firefighting training and those training costs plus the potential loss of such a trained firefighter can be a considerable expense.

The two firefighters and one additional airport employee (to cover those times when a firefighter would be on vacation or ill) would each need a 40 hour training class dedicated to airplane firefighting (for a compensation cost of $1,600 for the two firefighters and $600 for the airport employee for a total one-time cost of $2,200) that would cost about $400 per attendee (for a total one-time class cost of $1,200 for the three trainees). The NFPA representative reported that airplane firefighting requires a specialized class (often held at larger airports) for which the attendees would need to travel and stay overnight. The estimated costs would be $50 a day for lodging and $30 a day for food and incidentals for the 6 day stay (need to arrive the day previous to the start of class) for a one-time cost of $1,440 for the three attendees. In addition, the two firefighters and one additional airport employee would each need a 40 hour emergency medical training course (for a compensation cost of $2,200) that is typically offered for free at the local or regional hospital. As a result, the initial total cost to train 2 firefighters and 1 additional airport employee for airplane firefighting would be $6,680.

The working group agreed that each individual would need one hour per week at the airport for refresher firefighting training (for an annual compensation of $1,000 per firefighter and $750 for the airport employee for an annual cost of $2,750). The working group also agreed that the yearly practice burn would cost $350 per attendee (for an annual cost of $1,050). Thus, the total annual training costs would be $3,800.

As previously discussed, in light of the availability of alternative employment, the turnover rate among firefighters at these airports is expected to be higher than the turnover rate for full-time airport employees. It is estimated that the labor turnover rate for the dedicated firefighters would be about 16 percent (or one new firefighter would need to be trained every three years) at these airports. As the estimated initial training cost for a firefighter is $2,480, averaging this cost over three years indicates that the annual additional initial training cost to cover firefighter turnover is about $830. Thus, the annual personnel training costs would be $4,630.

One alternative to airport personnel providing ARFF is to have the local fire department available for each part 135 scheduled operation at these airports. However, except where the fire station is on-site, that alternative is not generally practical. One reason is that many of these airports are located in areas that have a local volunteer fire department where it may be difficult to have volunteers present at the airport for every commuter airplane operation. Even in those areas with a paid fire department, placing local firefighters at the airport can mean that they are not as available to respond to fires elsewhere. This problem would be exacerbated the further the airport is from the city or town. For example, if an airport has 6 commuter operations (3 departures and 3 arrivals) a day, the fire department might need to hire additional firefighters to cover both the local area and the airport. None of the resurveyed airport managers could provide even a rough estimate of the amount that the local fire department would need to charge them to provide this service as would be required under part 139. However, a consultant estimated that the local fire department would charge $150 per scheduled commuter operation which, in turn, would total about $215,000 for the year for 4 daily scheduled operations. For such an airport, $215,000 could pay for 4 full-time firefighters or, over time, a fire truck with 3 full-time

firefighters. When viewed in that light, it appears that the Bar Harbor estimate would be too high if the fire department were only concerned with recovering its operating costs. However, that estimate may not be unreasonable because a professional fire department operation generally has specific manpower requirements for any operation it undertakes - and those requirements generally involve a minimum of 3 firefighters. In conclusion, if ARFF were to be required for these airports, it would be less expensive for the vast majority of them to have the airport controlled ARFF on-site rather than to contract with the local fire department for it to be at the airport 15 minutes before and 15 minutes after each operation. For a few airports, having the fire department itself on-site could be an option but that option would be available to very few of these non-certificated airports.

In addition, part 139 limited certificate airports that currently have ARFF available for the charter service would also need to have ARFF available for any scheduled commuter service. Depending upon their charter schedules, these airports may not currently provide this service for all of their part 135 scheduled operations.

Finally, there may be some part 139 fully certificated airports that currently only staff their ARFF for the larger airplanes and not for scheduled part 135 airplanes. These airports could incur some costs for additional staffing.

Section 139.321: Handling and storing of hazardous substances and materials

Section 139.321(a): The resurveyed airport managers reported that the Fixed Base Operator (FBO) or the airline acts as the cargo handling agent. As a result, there would be no compliance costs for the airport associated with this section.

Section 139.321(b): The ARAC survey data base did not report whether or not the airport had a written fire safety program. Consequently, the costs of developing a fire safety written program are estimated in this section and were not included in the costs of developing the certification manual under Sections 139.201, .203, and .205. Most managers of non-certificated airports have delegated the responsibility for fueling areas to the fueling agent or the FBO. Of the 13 resurveyed managers of non-certificated airports, 4 had a written program for the fuel storage area while 9 had no written program. The development of a written program would require the airport manager to meet with the fueling agent or the FBO, learn the existing fire safety system, determine whether and to what extent that fire safety system would need to be revised to meet FAA requirements, and then write and submit the plan to the FAA during the application for certification. If the airport plan were to differ from the fueling agent's or the FBO's plan (particularly with respect to the training of fueling personnel), the airport manager would need to require the fueling agent or the FBO to comply with the FAA-approved plan. Despite that possibility, none of the 13 airport managers indicated that they anticipated any difficulty with adopting the fueling agent's program to their certification needs. Assuming that the reported ratio of 9 out of 13 airports that would need to create a written fire safety plan for the fueling area is representative of the 38 non-certificated airports, it is estimated that 27 airport managers would each spend an average of 4 hours (for a one-time cost of $80 per airport and a total cost of $2,160 for all airports) to develop a written fire safety plan for the fueling area.

Section 139.321(c): With the exception of the fueling agent's personnel training requirements, the airport managers reported that their current surveillance of the fueling activities would meet the part 139 requirement. Thus, there would be minimal compliance costs associated with this section for a non-certificated airport.

Section 139.321(d): Of the 13 airport managers, 4 reported that they perform the quarterly inspections and would be in compliance with this requirement, 2 reported that an outside independent agency (one by the Department of Defense and one by the local fire department) performed these quarterly inspections while the airport performed an annual inspection, 6 reported that both they and the local fire department made annual inspections, and 1 reported that the airport alone performed an annual inspection. They also reported that the typical inspection would take between 0.5 hours to one hour. Assuming that the resurveyed airport managers are representative of the 38 non-certificated airports, 21 of these 38 airport managers would need to spend an additional 2 hours to 4 hours (for a per airport cost of $40 to $80 and a total annual cost of $1,050 to $2,100) to do these quarterly inspections.

Although these airport managers use a check list to complete these inspections, a few were concerned that their current inspections and records would not be adequate for a part 139 airport. However, given the relatively uncomplicated nature of these small fueling operations, it is assumed that the FAA would accept the existing inspection procedures and check lists.

Section 139.321(e): None of the resurveyed airport managers knew whether or not the fueling agent supervisor had completed an aviation fuel training course in fire safety. One airport manager had completed this course and he reported that it cost $1,000 (including travel, lodging, and course fee but not his compensation). Two others reported that they believed it would cost between $1,000 and $2,500 to complete this course because it would not be offered locally. On that basis, the FAA estimates that it would cost the fueling agent about $2,000 for a supervisor to complete this course.

Section 139.321(f)-(i): The FAA estimates that there would be minimal compliance costs associated with these provisions.

Section 139.323: Traffic and wind direction indicators

All the resurveyed airport managers reported that they had the lighted wind cones required by this provision. On that basis, it is assumed that there would be minimal compliance costs. However, there could be airports that may need to provide additional lighting for wind cones.

Section 139.325: Airport emergency plan

Section 139.325(a)-(e): The difficulty in estimating the compliance cost for this section is the ambiguity concerning the level of effort needed for compliance. If an acceptable plan is one that lists the names and numbers of the organizations to be called and provides a very basic description of the airport personnel responsibilities, then the compliance costs would be relatively small. For example, of the 13 resurveyed airport managers, 7 reported that they had a written emergency plan that would meet part 139 FAA requirements under that interpretation, 4 reported that they had a written emergency plan that would need minor revisions, and 2 reported that they had no written emergency plan and provide no training to their airport personnel in their responsibilities during an emergency. Assuming that the resurvey is representative of the 38 non-certificated airports, 12 of these airport emergency plans would need minor modification while 6 of these airport emergency plans would need to be developed. It is estimated that revising an existing plan would take an airport manager 4 hours (for a one-time cost of $80) while writing a plan would take an airport manager 6 hours (for a one-time cost of $120). On that basis, 12 managers of non-certificated airports would need to revise their program (for a one-

time cost of $960) and 6 managers of non-certificated airports would need to write an emergency program (for a one-time cost of $720) in order for a part 139 certificate.

If, however, compliance would require substantial coordination, a table top exercise involving an aerial photo of the airport and surrounding area rehearsing what each appropriate agency would do, then these costs would be greater than estimated in this analysis. A consultant concluded that it would cost an airport between $10,000 and $15,000 to prepare an emergency plan under the more stringent interpretation of the emergency plan requirement.

Nevertheless, it is anticipated that the level of effort that would suffice to comply with a more stringent interpretation of this provision would require an airport manager to cooperate and coordinate the plan with the local police, fire department, and local health care providers. On that basis, it is estimated that an airport manager would need 15 days to develop a comprehensive airport emergency plan and the manager would spend one day a year to review it.

Of the 13 resurveyed airport managers, 3 reported they would be in compliance with the more stringent interpretation of the requirements, 4 would need to make substantial additions to their plans, while the other 6 would likely incur the costs estimated for the Bar Harbor airport.

Finally, 11 of the 13 airport managers reported that their airport was part of a local area disaster plan.

Section 139.325(f): It could not be determined how many of the non-certificated airports would be required to have water rescue capability. A consultant reported that compliance with this section would require a marine response vessel including trailer, portable fire pump, and other equipment (for a one-time cost of $30,000); two 25-person inflatable life rafts (for a one-time cost of $500); and a heated garage for the response boat (for a one-time cost of $30,000) resulting in a total one-time cost of $60,500. However, the Working Group believes that compliance with this requirement would be met as part of the emergency plan under which the authority responsible for water rescue would be the responding party. On that basis, the compliance costs would be minimal.

Section 139.325(g): None of the 13 resurveyed airport managers had ever participated in a full-scale emergency plan exercise at his/her current airport, although one reported that he had been involved in such an exercise at another airport. From his experience, he stated that a first-time exercise would take about 24 hours (for a first-time cost of $600) spread over several days for an airport manager to meet with the other affected organizations, establish a mutually acceptable date for the exercise, inform GA operators who may want to use the airport at that date and time, and contact a local group to supply volunteers to act as victims. It is estimated that succeeding exercises would take 16 hours (for a cost of $400 every 3 years or about $135 a year) of the airport manager's time. The actual exercise itself would take a day to stage and evaluate the responses (for a per exercise cost of $200) while it would take about 4 hours of each of his airport personnel's time (for a per exercise cost of $60 to $240). The total airport manager and airport personnel costs would be between $660 and $840 per exercise. In general, although the local participating fire, police, hospital, and ambulance service would incur costs to pay staff to replace those involved in the exercise, it is unlikely that these costs would be billed to the airport. Thus, there would be minimal costs to the airport other than those for the airport manager and personnel. Assuming that all of the 38 non-certificated airports would need to have one of these exercises every three years to comply with the part 139 certificate requirement, the

total first-time costs would be between $25,080 and $31,920 per exercise, for an annual average of $8,360 to $10,640.

Section 139.327: Self-inspection program

Section 139.327(a): Every resurveyed airport manager reported that they are in compliance with this section. Thus, there would be minimal compliance costs associated with this section.

Section 139.327(b)(1)-(3): Same as above.

Section 139.327(b)(4): As noted in the Industry Profile section, only two of the resurveyed non-certificated airports had as many as 5 employees while most had 2 to 4. For those airports, there is no reporting system because, as often as not, the individual performing the inspection is the individual who will correct any unsafe conditions found. Assuming that process would be acceptable to the FAA, there would be minimal compliance costs.

Section 139.327(c): Every resurveyed airport manager reported that a record is made of each inspection and of any corrective action and, although only a few did not keep these records for 6 months, there would be minimal compliance costs associated with this additional storage time. That conclusion is based on the assumption that the current airport checklist record format would be acceptable to the FAA. A few managers voiced concerns that the FAA would require a lengthier, more detailed format that would increase the manager's paperwork, however, it is likely that no (or only minimal) change(s) in the form would be required by the FAA.

Section 139.329: Ground vehicles

Section 139.329(a): There was some uncertainty concerning the practical meaning of the specific words "Limit access". A few of the managers made the point that once a vehicle is allowed onto the airport, there is nothing to physically stop it from going anywhere wherever it wants. For these compliance costs, the requirement is interpreted to allow an airport to permit an airplane owner to drive his car to the hangar or loading ramp with a minimum of time spent in movement or safety areas. On that basis, the resurveyed airport managers reported that their airports would be in compliance. However, if the requirement is interpreted to absolutely prohibit unauthorized ground vehicles from transversing movement or safety areas, then most of these airports would not be in compliance and it would be very difficult and expensive for them to comply with this requirement.

Section 139.329(b): Each of the 13 resurveyed airport managers reported that there was a locked gate to prevent an unauthorized motor vehicle from entering the airport movement areas. Ten of these airport gates could only be opened by either a magnetic card or an airport employee. However, 3 of these airport managers reported that the gate was routinely left open during the operating hours because there were too few airport employees available to open the gate whenever a GA operator wanted to access his/her airplane. Of the airport managers whose gate had a magnetic card system, two of them reported that an installed card system locked gate would cost about $1,000. There would also be an annual cost of $100 for maintenance and depreciation of the system. Assuming that the resurvey is representative of the 38 non-certificated airports, 9 would need to either direct personnel to be available to open the gate or to install a magnetic lock system. If the magnetic lock system were to be selected, it would cost a total of $9,000 in one-time costs to install and there would be minimal annual costs.

Section 139.329(c): Only one of the 13 resurveyed airports had a control tower and that manager reported that there is no two-way communication for controlling ground vehicles. However, that airport has signs for ground vehicle traffic and has established procedures that are known to the operators of those vehicles. That operator was not willing to estimate a potential cost to install two-way radio communication with an escort vehicle, although he did state that it would be expensive.

Section 139.329(d):

Section 139.329(e): Every airport manager reported that a standard clause in every hangar lease specifically establishes the routes that an aircraft operator must use to drive his motor vehicle to the hangar. Violation of that clause can result in the owner's lease being canceled. As a result, the FAA estimates that there would be minimal compliance costs associated with this provision as this is common industry practice.

Section 139.331: Obstructions

None of the 13 resurveyed airport managers reported that compliance with this section would impose costs on their airport. Consequently, it is estimated that there would be minimal compliance costs associated with this section, although there could be a few airports that may incur some compliance cost.

Section 139.333: Protection of navaids

The 13 resurveyed airport managers reported that, if the requirement is interpreted less stringently, then the current level of NAVAID protection would comply with this section and there would be minimal compliance costs. However, if the requirement is interpreted more stringently, then there could be considerable compliance costs for some airports.

Section 139.335: Public protection

Section 139.335(a): None of the resurveyed airport managers reported that this section would impose new or additional burdens on their airports. On that basis, it is estimated that there would be minimal compliance costs associated with this section.

Section 139.335(b): None of the resurveyed airport managers reported that compliance with this section would impose costs on their airports. However, there could be other airports where this current compliance is not the case and there could be compliance costs associated with fencing.

Section 139.337: Wildlife hazard management

Each of the 13 resurveyed airport managers reported some problems with wildlife. The most common problems with animals other than birds is with deer and coyotes. The method generally used by airport managers to solve a deer problem was to organize a hunt. Birds were reported to be a problem, particularly during bird migration seasons.

Two of the resurveyed managers reported that a Department of Interior Fish and Wildlife Service wildlife had performed an ecological study that provided recommendations. In one case, the study recommended fencing an open side of the airport's perimeter to protect against coyote and potential bighorn sheep runway incursions at what would have been a cost of $107,000. He

respectfully declined to follow that recommendation because the problem is not sufficiently severe to warrant that expense. In the other case, the study recommended building 13 foot high fences angled at 30 degrees and parallel to the runway because deer had been traveling across the runway during certain times of the year. That manager estimates that it would have cost his airport about $200,000. As a result, he called the game warden, got permission to organize a deer hunt, took out about 60 deer, and solved the problem. Although two cases are not enough to generate an "average" cost (particularly because there can be a wide variety in wildlife problems and airport terrain's), it appears that ecological studies exhibit a tendency to recommend a high cost, non-hunting solution to a wildlife management problem. Consequently, it is estimated that an "average" wildlife management plan for land animals would cost about $100,000 and would involve about $5,000 in annual maintenance and depreciation.

Section 139.339: Airport condition reporting

The 13 resurveyed airport managers reported that this requirement is common industry practice. As a result, it is estimated that there would be minimal compliance costs associated with this section.

Section 139.341: Identifying, marking, and reporting construction and other unserviceable areas

The 13 resurveyed airport managers reported that this requirement is common industry practice. As a result, it is estimated that there would be minimal compliance costs associated with this section.

Section 139.343: Noncomplying conditions

The 13 resurveyed airport managers reported that this requirement is common industry practice. As a result, it is estimated that there would be minimal compliance costs associated with this section.

ARAC PHONE SURVEY QUESTIONNAIRE

September 25, 1995

1. What affect would full compliance to Part 139 regulations for commuter aircraft with 10 seats or more have on your airport operations?

2. Will general aviation revenues, as opposed to only air carrier revenues, be required by the airport sponsor to fully comply with FAR Part 139 certification costs?

3. Who would conduct your airport inspection if full Part 139 regulation compliance was implemented?

   a). How often would your airport be inspected and at what cost per inspection?
   b). How would you plan to fund the additional expense associated with these inspections?

4. How many commercial aircraft (10 or more seats) accidents have occurred at your airport?

   a). How many of these accidents had fatalities?
   b). How would an increase in ARFF or emergency response capability have effected any passenger injuries or fatalities?

5. Please quantify and describe the safety benefits, if any, your airport would receive if made to comply with full FAR Part 139 requirements.

6. Do you have any procedures or facilities in place for public protection (fence, signage, etc.)? If yes, what was the initial cost and how much is it to maintain on a yearly basis?

7. Do you believe an FAA sponsored non-regulatory airfield safety assessment/enhancement program would be of benefit to your airport?

8. Review the airport's capital and recurring facility costs with each airport chosen for further questioning.

9. Does your airport have a Disaster Plan of any kind?

   a). Have you ever conducted a full scale disaster exercise?
   b). Have you ever conducted a table top exercise?
   c). What emergency equipment other than ARFF is available on your airport (hydraulic extraction tools, emergency medical supplies, other rescue tools, etc.)
   d). Are any of your staff EME qualified?

10. Can you offer an alternative approach, other than a modified FAR Part 139, the FAA can use to ensure the public that your airport is safe and that you have an emergency plan ready when scheduled air carriers operate from your airport?

MEMORANDUM
Landrum & Brown

September 20, 1996

To: Loretta Scott, Chair, ARAC Working Group

From: Bob Sanfilippo
Landrum & Brown

Subject: Phone survey of selected airports not required to maintain a full 139 certification, but have chosen to comply.

Utilizing the data obtained from our original survey, I identified those airports that are currently maintaining a full 139 certificate, even if their level of air service does not require them to do so. Unfortunately, the survey only identified seventeen airports in this category. Of the seventeen identified airports I was able to contact sixteen. I focused on two main areas: why have they maintained a full certificate; and, ARFF equipment, in particular staffing and annual costs. The phone survey contained eight questions; they are:

1. Are you still fully certified FAR Part 139?
2. How long has your airport been certified?
3. When was your last FAA certification inspection?
   - Were any major deficiencies discovered?
4. Why have you chosen to voluntarily meet full 139 standards?
5. What type of ARFF equipment are you presently utilizing?
   - Who mans and operates the equipment?
   - Describe your training program
6. When did you last stage your ARFF equipment for other than a scheduled flight?
   - Typical type of responses (ARFF or EMS)?
   - Number of times you stage in a year?
7. What is your total airport budget?
   - Could you send me a copy of the budget?
8. What is your ARFF budget:
   - Personnel costs
   - Equipment & supply costs
   - Training costs

For the most part, everyone I spoke with was very cooperative; however, the availability of reliable cost numbers was insufficient. Only five airports were able to give me actual budget numbers. Many of the airports contacted are part of other city or county departments, such as, Parks District or Public Works and the airport managers did not have budget numbers readily available. The remainder of the memo will be divided into two sections: Why has the airport maintained full certification, and the costs associated with maintaining the certification, especially ARFF.

Section One: Why has your airport maintained full certification

I think the working group already knows the answer to this question; marketing and development were the main responses. Eighty percent of the airports I talked with either recently (within the last year) had scheduled service by aircraft with over 30 seats or are anticipating (hoping) to reacquire the service soon. Therefore, they felt it was easier to maintain the certification than to relinquish it and have to get recertified again. I did find it interesting that only one Airport Manager said they maintained certification for **safety reasons.** When the other airports responded with "marketing" as the reason. I asked if they had a marketing plan or budget; none of them did. I also asked if going to a limited certificate would reduce their budget? They all said probably not. It might be useful to the working group if we could determine what type of costs are associated with going from a limited certificate to a full certificate. The bottom line is that it is easier and, to some extent, more cost effective to maintain certification, even if you have to justify it as a marketing tool to the city council or aviation board or whoever is operating your airport.

Section Two: Costs associated with meeting 139 certification ARFF requirements

Obtaining accurate cost numbers was difficult at best and at times confusing. As I mentioned earlier many of the airports contacted are just departments within a larger budget and are not handled as an enterprise fund budget. Many times payroll and fringe benefit costs are included in another budget and only direct expenses and some overhead costs are included in the airport budget. Since I was trying to obtain payroll cost as they apply to ARFF personnel, I was not too successful. However, I did try to obtain ballpark numbers when ever possible. Once again, payroll was very difficult, especially if the ARFF equipment is operated by airport personnel. Training costs and maintenance and supplies were easier to estimate and seemed to be realistic. The average annual training cost was approximately $ 4,000 and maintenance and supplies were approximately $5,300.

If the maintenance and supply numbers seem low, it's because most of the airports I contacted had new ARFF equipment, one to three years old. Since it is a specialized piece of equipment it does not receive much wear and tear during the year; therefore, maintenance costs should be reasonable. AIP funds were utilized to purchase the equipment by all of the airports owning relatively new equipment.

One area I found particularly interesting is the creativity of some of the airport managers in meeting their ARFF costs. Fifty percent of the airports screened have some sort of special arrangement other than funding ARFF through direct payroll costs. One airport built the city/county fire station on airport property with access on the landside as well as the airside. The city/county supplies the personnel to meet 139 certification requirements. I forgot to ask if the fire station was build with AIP funds. Another airport gave the airport tenant the option: they staff the ARFF equipment, or have their rates increased. The tenant assimilates all ARFF personnel costs and the airport maintains the equipment and purchases supplies. The FBO operator staffs the ARFF equipment at another airport.

One more airport that pays for ARFF through its O&M budget has a airport reserve bank account to cover deficits. The airport has been experiencing 40 to 50 thousand dollar deficits a year. I asked how the account was funded. The airport manager said he was not sure since he was relatively new to the airport but it was funded somehow with past surplus funds. His concern was that they would run out of money in the next two to three years and he did not know how they would fund the budget.

Clearly, ARFF costs are still an issue. I'm not sure the budget numbers I was able to gather will be much help. However, I did talk with an airport manager that had just completed getting a 139 full certificate. The airport ARFF equipment will be operated by professional fire fighters from the local volunteer fire department (VFD). The fire house is located on airport property with both landside and airside access. The VFD will assign four full time fire fighters for 18 hour coverage, two fire fighters per shift. The fire fighters will also function as EMS personnel for the airport. All equipment was purchased with AIP and matching state funds. The budget is:

Wages four VFD personnel annually	$ 94,000 *
Taxes	8,400
Insurance Liability & Comprehensive	34,600
Training	4,000
Uniforms	2,000
Other: percent of Fire Chief, admin. costs, etc.	6,000
	$ 149,200

* I don't think this includes fringe benefit costs . The airport manager was not sure.

The survey average for the airports that reported ARFF budgets was $ 141,360. When I questioned managers that did not have budget numbers for what they thought the estimated annual cost would be, not utilizing airport personnel, it was $150,000. Also, a large portion of the airports with professionally trained fire fighters have them crossed trained for EMS and police/security functions. Attached is a table that depicts the costs I was able to gather. The sample is small so I don't know how much weight we should place on the findings. The one thing that I am sure of after the survey is that if we want one level of safety for all airports, ARFF must be operated by professional fire fighters, not part-time airport personnel.

My intent was and still is not to be judgmental on how the ARFF requirements were achieved, but to document the airports existing operation. What I discovered opened up a larger question. All my airport experience, both as a pilot and a consultant, pertained to large airports. As I talked with these airport managers I got some insight into how really small these operations are and the budget and personnel problems that they undergo. Does a full 139 certificate really mean that there is one level of safety for all airports? Or will the traveling public just perceive that there is one level of safety if full 139 certification is enforced. In my opinion the level of training at some of these airport is suspect. I would think if all US (in lower forty-eight states) airports today had to meet full 139 standards that many would fall into the suspect group. The level of training for the airports I surveyed was all over the ballpark. Almost all the airports staffed with professional fire fighters seem to have adequate capabilities.

However, many of the airports that staffed the ARFF equipment with airport personnel were in my opinion inadequate. Many training programs consisted of looking at a video and attending a live burn pit once a year. This, combined with lacking budgets and normal employee turnover, could be the recipe for disaster. Some airports had a total staff of four employees including the manager. One employee resigns and you may have lost half or all of your ARFF capability.

Loretta, I don't know how, or if, this information will be of any assistance to the working group. I would be glad to give a verbal summary of my findings as stated in this memo or share this memo with the group.

Part 139 Survey Cost for ARFF
By Airport

	Airport Code	Annual Budget	ARFF Budget	Personnel	Training	Maintenance & Supplies	Total ARFF Cost	Percent of Budget	Staffing	Comments
1	83B	300,000			5,000				Fire Dept.	No personnel cost City Fire Dept. Maintenance under Fire Dept. Budget
2	FLG	1,100,000			5,000	5,000			7 AE	Airport operates at a $500,000 deficit each year, estimates total ARFF at $150,000
3	LEB	693,000	106,000	100,000	1,200	4,800	106,000	15%	VFD	Local VFD sends one person to operate equipment, Landing fee $1.05 going to $1.68
4	MCM	900,000			2,000	3,500			3 AE	Northwest reimburses airport for standby time gave NW choice increase LF or pay for labor
5	MGM	340,000			5,000				6 AE	Does not have ARFF budget, running a 50K deficit each year, Airport Reserve Account
6	MIE				1,300	1,200			Fire Dept.	No personnel costs, Muncie Aviation operates airport and is also FBO, staff is mixed??
7	MTH	554,000	149,200	140,200	4,000	5,000	149,200	27%	VFD	Gave VFD space in building on airport to use as a station reimburse VFD for 4 full time staff
8	MTO				1,200	4,800			3 AE	
9	PIB	750,000	150,000	112,500	20,000	17,500	150,000	20%	6 AE	Six personnel are cross trained Fire & Police Staffed 24hr cost must not include fringe

AE: Airport Employee VFD: Volunteer Fire Department

Part 139 Survey Cost for ARFF
By Airport

	Airport Code	Annual Budget	ARFF Budget	Personnel	Training	Maintenance & Supplies	Total ARFF Cost	Percent of Budget	Staffing	Comments
10	POU	1,300,000				5,000			11 AE	Does not allocate ARFF personnel cost since personnel are cross trained, training cost are free, state Out Reach Fire Training Program
11	SBP	1,200,000	231,000	225,000	2,000	4,000	231,000	19%	Fire Dept.	Staff with 7 full time California Div. of Forestry personnel
12	SBY				2,000	5,000			Piedmont	No personnel cost, Piedmont supplies staff rather than having rates increase
13	SCK	1,400,000				9,500			3 AE	No training costs, operates a ARFF training program on airport generates revenue
14	SLK	450,000			1,750	2,000			VFD & AE	VFD handles aircraft over 30 seats airport handles under 30 seats
15	TUP	482,530		67,000	2,300	1,300	70,600	15%	3 AE	Training LSU Fire Training School once a year
	Total				52,750	68,600	706,800			
	Average				4,058	5,277	141,360			

AE: Airport Employee VFD: Volunteer Fire Department

C. Work Plan

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP

EXTENSION OF FAR PART 139 AIRPORT CERTIFICATION TO AIRPORTS SERVING AIR CARRIERS USING AIRCRAFT SEATING TEN OR MORE PASSENGERS

PROPOSED WORK PLAN

July 27, 1995

Federal Aviation Regulation Part 139, "Certification and Operations: Land Airports Serving Certificated Air Carriers" currently prescribes requirements for certification and operation of land airports which serve scheduled or unscheduled air carrier passenger aircraft with seating capacity of more than 30 passengers. An airport serving scheduled air carriers would be required to operate under an Operating Certificate, where an airport serving unscheduled air carriers would be required to operate under at least a Limited Operating Certificate. The National Transportation Safety Board (NTSB) has recommended that the FAA seek legislative expansion of FAR Part 139 to include in the Airport Certification Program all airports served by air carriers that provide scheduled passenger service and revise FAR Part 139 to permit scheduled passenger operations only into airports certificated under the standards in FAR Part 139.

The Commuter Airport Certification Working Group of the Aviation Rulemaking Advisory Committee (ARAC) has been asked to develop recommendations concerning what FAR Part 139 requirements should be applicable to airports that have scheduled service with aircraft having a seating capacity of 10 to 30 seats. In conducting this review, the Working Group will consider the following issues:

1. Consider categorizing the requirements applicable to these airports by the size of the airport, or some other means to achieve specific safety objectives, while minimizing the operational and economic burden.

2. Consider alternatives to providing aircraft rescue and firefighting services for operations at these airports.

3. Consider conducting a survey of the airports that would be affected by this rule to determine what safety practices are already being conducted and the operational and economical impact of full certification.

4. Make a recommendation to the full ARAC Committee on what action should be taken, including time frames for implementation.

In accordance with Federal Register Document 93-10771, the Commuter Airport Certification Working Group will comply with the procedures adopted by ARAC and will perform the following tasks:

1. Develop a work plan for completion of the tasks, including the rationale supporting such a plan, for consideration at the meeting of the full ARAC Committee on Airport Certification Issues.

2. Give a detailed conceptual presentation of the proposed recommendations, prior to proceeding with the work stated in item three below.

3. Provide a status report at each meeting of the full ARAC Committee held to consider airport certification issues.

Currently there are no FAR Part 139 regulations pertaining to airports with commuter operations of 10-30 seating capacity. The following two phase Work Plan outlines the various steps that the ARAC Commuter Airport Certification Working Group will undertake in our process to develop recommendations concerning whether FAR Part 139 regulations or other measures should be applicable to airports with scheduled service with 10 to 30 seat aircraft.

PHASE 1

1. Abide by the three procedures outlined in Federal Register Document 95-10711 as filed on May 1, 1995, and as stated above.

2. Take into consideration the four items discussed in Federal Register Document 95-10711 and as stated above.

3. Develop a list of preliminary options for consideration and review by the Working Group.

4. Have the FAA economist immediately prepare a baseline cost/benefit analysis for a non-certified airport having to comply with full FAR Part 139 regulations. These costs should include capital, operating and maintenance, life/cycle, and training costs.

5. Have a briefing from a National Transportation Safety Board (NTSB) representative to explain why NTSB made the recommendation to change FAR Part 139 to include airports with 10-30 seat schedule commuter operators.

6. Review and comment on the General Accounting Office report to the Honorable Robert C. Byrd, U.S. Senate, "Aviation Safety-Commuter Airports Should Participate in the Airport Certification Program," GAO/RCED-88-41.

7. Request the following list of commuter operator accident/safety statistics from the FAA or appropriate organizations:

   - All Part 139 airport safety incidents and accidents for the past 10 years.
   - Scheduled commuter accidents and incidents that were caused by the airport for the past 10 years.
   - Airport Safety incidents and accidents for the past 10 years related to Part 135 airports.

8. Prepare a questionnaire survey to be issued to airports potentially affected by FAR Part 139 changes relating to commuter operators with 10-30 seats.

9. Identify potential affected airports and coordinate with state aviation representatives on the validity of the airport mailing list.

10. Distribute the questionnaire to the airports and analyze the data upon return.

11. Develop follow-up phone questionnaire and call airports for additional information.

PHASE 2

1. Refine options based on information/data received from the airport surveys.

2. Request that FAA economist perform a cost/benefit analysis on proposed options.

3. Develop preliminary recommendations regarding the application of FAR Part 139 regulations to airports serving commuter operations with 10-30 seats.

4. Evaluate impact of FAR Part 139 rule changes on international operations.

5. Ask that FAA counsel perform legal review of preliminary FAR Part 139 regulations.

6. Present preliminary FAR Part 139 regulation recommendations and time schedule for implementation to ARAC.

7. Assess ARAC comments on preliminary recommendations.

8. Make final recommendation to ARAC.

The Commuter Airport Certification Working Group is pleased to undertake the responsibilities that the ARAC has set-forth, and will perform the above Work Plan in an expeditious and cost effective manner. The ARAC will be kept abreast of the current status and any modification or delays incurred throughout the evaluation process.

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A. Certification Of Airports Served By Commercial Aircraft With 10-30 Seats Majority Viewpoint

IV. WORKING GROUP POSITION PAPERS

A. CERTIFICATION OF AIRPORTS SERVED BY COMMERCIAL AIRCRAFT WITH 10-30 SEATS

MAJORITY VIEWPOINT

This document presents to the Aviation Rulemaking Advisory Committee the majority position of this ARAC-WG. This working group has over the past two years, been striving to reach consensus concerning the aviation industries' goal of one level of safety and more specifically how the intent of that goal can be achieved at airports which are served on a scheduled basis by aircraft with 10 to 30 seats.

The majority position, representing a consensus of views from the American Association of Airport Executives, Airports Council International- North America, American Association of State Aviation Officials, the Regional Airline Association, the National Air Transportation Association, and the Aircraft Owners and Pilots Association are refered to the ARAC. A minority report representing the views of the Airline Pilots Association will be submitted.

It should be noted that the working group's most recent guidance was to review "line by line" FAR Part 139 and to identify any requirements which the working group felt would be applicable to those airports under discussion. Additional guidance was provided by Congress to the FAA to be cognizant of the economic considerations of any proposed rule. Further the FAA was to examine regulatory alternatives and to select from those alternatives the least costly, most cost-effective or the least burdensome alternative that will provide adequate safety at these airports.

This working group in its deliberations reviewed all facets of FAR Part 139. During initial fact finding, airport managers along with experts in the fields of aircraft rescue and firefighting, risk management, and airfield lighting were interviewed; the views of the industry representatives on the working group and accident records were also considered.

Based on our analysis, it is the majority opinion that no demonstrated need exists to support full certification of these airports. The working group did discover, however, that a professional airport management structure was absent at many of the airports. Consequently, it is recommended that more guidance and assistance be provided to the affected airports concerning basic operations and safety plans; and that a reasonable approach with achievable enhancements to safety and more structure will meet with intent of providing one level of safety.

Initially, it was the majority view that a non-regulatory program, based on industry standards, would meet the needs of these airports. In the interim, the FAA changed its position concerning a flexible program and asked the working group to re-focus its efforts and to make recommendation concerning a regulatory program, eliminating from further discussion a non-regulatory program.

Unfortunately, consensus could not be reached. ALPA has been unyielding in its position, resulting in the submission of a minority report. Consensus could not be achieved in those areas where the majority recognized that full compliance with a specific provision of FAR Part 139

would be too burdensome or costly for a small airport to implement. The majority position offers an achievable alternative.

The majority viewpoint differs from the minority in six (6) areas:

1) Marking and Lighting
2) Aircraft Rescue and Firefighting (ARFF)
3) Handling and Storage of Hazardous Materials
4) Airport Emergency Plan
5) Ground Vehicles
6) Wildlife Hazard Management

Only the 6 areas which lack consensus are further discussed. The majority opinion is presented as follows:

Section XYZ.311 Marking and Lighting

Par. a(3) The majority believes that taxi guidance signs should be provided and that airports who currently have retroreflective signs, those signs should continue to be considered acceptable. The majority believes when a currently unlighted taxiway becomes lighted then the signs on that taxiway should be illuminated as a part of that project. The majority believes that to unilaterally and immediately mandate that all taxi guidance signs are to be illuminated would be an undue economic burden. The costs for such a project go beyond the acquisition of signs alone. It may very well require an upgrade/replacement of a complete lighting circuit or an electric vault. Again, there is no demonstrated problem at these airports which warrants an immediate mandate of this kind. The recurrent O&M costs of lighted signs was also a consideration in the majority opinion.

The potential economic impact of this rule alone on small airport sponsors could be staggering. The majority believes the limited dollars available to these airport operators would be better spent elsewhere.

Section XYZ .315 , XYZ.317, XYZ.319
Aircraft Rescue and Firefighting

This, more than any other issue, defines the differences between the majority and the minority.

An FAA analysis of ten years of Part 135 aircraft accidents demonstrated there were no cases where the presence of ARFF equipment on an airport would have made a difference in saving lives. In each case, the unfortunate victims were killed from trauma related to impact or for causes which an ARFF response would have made no difference. The FAA's own cost/benefit analysis presented to the working group clearly shows that there is no economic justification for ARFF based at these airports.

The majority opinion is that emphasis should be placed on accident/incident preparedness with existing community resources. The majority believes the quality of the response (skills and training of the professional "off-airport" firefighters) would exceed those of an airport mechanic driving a pick-up truck with a skid-mounted ARFF unit as suggested by the minority. The very

real potential is for this individual to become an additional victim by attempting to do the right thing and getting hurt or worse in the process.

The majority recommends that both ARFF and the first responder medical response to the airport be specifically covered in Section XYX.325 Airport Emergency Plan . The majority believes it should be imperative that mutual aid agreements and response plans for these services be developed, signed and made a part of the emergency plan.

The minority believes a three (3) minute ARFF response time to the mid-point of the furthest runway is essential. We respectfully disagree for several reasons. First, as mentioned above, ARFF has not been proven to save lives in regional aircraft accidents, therefore, the arbitrary response time of three minutes is meaningless. Second, this response time would essentially mandate that an ARFF vehicle be positioned on the airport; a true and substantial economic burden to these small communities. The minority will make the case that they do not mandate that ARFF be on the field however, the three minute response time would essentially require the same. Third, the majority believes the response time for responding units will vary with the resources of the community served. We do not feel the regulation should mandate a specific response time but rather allow the FAA and the airport to define the response time on a case-by-case basis and then make it part of the Emergency Plan. Fourth, the relatively low level of operations by regional carriers at these airports and low annual enplanements would make landing fees (ergo, ticket prices) potentially prohibitive if the cost of ARFF is to be recovered. Let's not forget that many of these locations are Essential Air Service (EAS) locales with minimal operations per day and few passengers.

Having stated the above, the majority is in agreement with the minority that the equipment which responds to the airport should meet Index A requirements. Our differences lie as to where the equipment is housed and the response time.

Section XYZ.321 Handling and Storage of Hazardous Materials

The minority feels the existing language in Part 139.321 defines the minimum requirements related to this issue. The majority is of the opinion that this detail of sophistication is not necessary at these smaller facilities. Our opinion is that currently there may be nothing which formally addresses the handling of hazardous materials at these airports. We concur that the issue should not be ignored and that procedures should be established in conjunction with local fire codes.

The majority feels that mandating the equivalent of Part 139.321 tenant fueling agent training and certification requirements would be excessive for airports with this level of commercial activity. Again, there is no known problem which needs correcting. The majority feels our proposed language outlined in the attached as XYZ.321 addresses the preparedness and safety issues associated with hazardous material handling without being overly burdensome.

Section XYZ.325 Airport Emergency Plan

Par (c)(1) As discussed in the previous section, the majority believes ARFF coverage should be described in the Emergency Plan but does not have to be located on the airport.

Par (g)(4) and (g)(5) The majority believes the cost of a full scale airport emergency plan exercise is overly burdensome for this size airport. It was our intent to expand upon the current FAR Part 139 requirement for a "table top" exercise each year by requiring these airports to conduct an actual "walk through" with all parties having responsibilities under the plan. The walk through would include a field tour, identification of staging areas, perimeter security requirements, etc. as well as the scenario-based table top exercise under the present Part 139.

The majority believes the potential for an air carrier accident at these low use facilities is minimal. The majority believes, however, pre-planning is important for even such a rare incident and that familiarization with the airport environs is especially important for the off-airport responders. We believe requiring a full scale drill every third year is excessive.

This issue was the source of significant debate by the working group. The majority took the approach that the new regulation is defining minimum requirements for these airports. There is certainly no prohibition if an airport operator elects to conduct a full scale exercise, however, in developing minimum standards we believe an annual walk through should be an essential aspect for local emergency response preparedness.

Section XYZ.329 Ground Vehicles

The majority believes paragraphs .329 (e) and (f) of the existing Part 139 (we have renamed as XYZ.329 (a) and (b) in the attached) are necessary for the safe operation of ground vehicles at these essentially general aviation airports. Many of these airports do not have towers or the volume of vehicular traffic on movement areas to warrant the current Part 139 requirements.

The majority does feel it is important for an airport operator to familiarize employees, tenants and contractors with proper safety procedures while on movement areas, however, other current Part 139 requirements are operationally or economically excessive considering the limited commercial activity at these airports.

Section XYZ.337 Wildlife Hazard Management

The majority believes many of the provisions of the existing Part 139.337 would be economically burdensome for airports of this size. It is the majority opinion that 139.337 (f) and (g) (renamed XYZ.337 (a) and (b) in the attached) are sufficient for the safe operation of these airports. Many of these airports do not have complete perimeter fences or other measures which could be used to deter wildlife access to the Air Operations Area (AOA). The majority believes the immediate removal of the wildlife hazard whenever detected is a reasonable requirement on an airport operator.

To require an airport operator with limited financial resources to hire a consultant to study a potential wildlife "problem" and to begin establishing priorities for habitat modification etc. is, we believe, excessive. Again, any operator who elects to do a study of wildlife issues at their airport would be free to do so. But as a minimum, we feel it is essential the airport operator have a plan to remove the hazard whenever detected.

Conclusion

The majority view takes into account several known facts:

1) There is no demonstrated statistical (accidents) justification for certification of airports serving commercial carriers with 10-30 seats;

2) The cost of full Part 139 compliance at these facilities would be high and would create an economic burden to the small communities they serve ;

3) The enplanements at these facilities are nominal, in fact, several are served by Essential Air Service (EAS) carriers who are subsidized to provide air service. The cost of any certification efforts will certainly increase the cost of doing business for carriers serving these airports;

4) To significantly increase the cost of doing business at these facilities translates into higher airline ticket prices, which discourages people from flying, puts them on the highways and could lead to more deaths;

5) Airports serving commercial carriers with aircraft of 10-30 seats, however, should provide an adequate level of safety to its users. Further, it could be argued that some level of federal guidance and oversight is appropriate to ensure the public is adequately protected;

6) To this end, considering the minimal risk of injury or death at these airports today, any such federal regulation should be reasonable, sufficient to correct any known deficiency and the least costly to implement to achieve this level of safety.

The majority feels it has kept the above in mind during the ARAC-WG process. The majority recommendations enhance safety at these airports while not becoming overly burdensome economically. The minority (ALPA) has a difference of opinion in the scope and scale of these safety enhancements. Their opinion was clearly and openly stated as an attempt to maximize the safety of their union members.

The majority recognizes the union's efforts to protect its members is a noble one and that their recommendations are clearly based on existing Part 139 requirements. The majority feels the comparative low activity and minimal financial resources at these smaller airports will not support the type of infrastructure necessary to fully comply with the most burdensome aspects of the existing Part 139 requirements; nor are they justified under current cost/benefit analysis techniques.

The ARAC-WG mission was to investigate measures to ensure adequate airport safety at facilities served by commercial carriers with aircraft having 10-30 seats. This mission was taken seriously. Numerous volunteer hours and thousands of non-federal dollars were spent to analyze all aspects of the issue. The majority viewpoint attached clearly will enhance safety at these facilities. To go beyond these recommendations will provide additional burdens without any quantifiable increase in safety.

B. Certification Of Airports Served By Commercial Aircraft With 10-30 Seats Minority Viewpoint

ARAC COMMUTER AIRPORT CERTIFICATION WORKING GROUP

CERTIFICATON OF AIRPORTS SERVED BY COMMERCIAL AIRCRAFT WITH 10-30 SEATS

MINORITY POSITION

The Air Line Pilots Association (ALPA), representing 43,000 pilots who fly for 38 airlines, herewith submits its minority position documentation required per Operating Procedures for the ARAC, Section V, C., as pertains to the work of the ARAC Commuter Airport Certification Working Group (WG). ALPA is pleased that the majority of this working group is also submitting recommendations aimed at certification of these airports instead of a voluntary, non-regulatory industry standard, as it previously announced to the Airport Certification Issues Group. We have been a long-time proponent of creating one level of safety for airport standards and we encourage the FAA to complete this process by issuing a Notice of Proposed Rulemaking which will make this worthy goal a reality.

Also, we have received a copy of the Executive Summary submitted by the WG, with which we have substantial disagreement. As was explained to the WG's chair, instead of a concise explanation of the WG's actions and conclusions, the summary is largely constituted of arguments against airport certification and arguments favoring the majority position. It also contains some erroneous and misleading information and is, we believe, inappropriately and unnecessarily critical of the FAA. We asked that the summary be substantially amended to correct these problems or that a minority position on the summary be included in same, but neither request was honored. As a result, it should be understood that the minority cannot endorse the contents of the Executive Summary.

The certification of small airports serving scheduled air carriers is an important and necessary action which will help ensure that one level of safety is the goal of all involved in providing scheduled, regional airline transportation, regardless of the number of seats an aircraft may have. The FAA has previously developed requirements, which the regional airline community has embraced, that will bring 10-30 seat aircraft under the purview of the FAR Part 121 program. Part 121 requires that airports served by regulated air carriers be certificated; the recommendations of the ARAC-WG will be most helpful to the FAA in making a determination as to how this should be accomplished.

ALPA is pleased that the majority and minority positions are identical, or nearly so, in all but a few sections of the proposed recommendations. Following are our comments on areas of disagreement.

XYZ.311, Marking and Lighting -- The majority calls for a requirement for retro-reflective signs on taxiways and other movement areas. They believe that such a requirement is adequate to meet the needs of regional airline aircraft and they also point out the costs associated with a requirement to provide lighted signs on these areas.

ALPA, recognizing the potential costs associated with a requirement that all affected airports install lighted signs, is of the view that (1) lit taxiways should have lit taxiway signs and (2) unlit taxiways should install, at a minimum, retro-reflective signs with internally illuminated signs preferred. We take this position because of the fact that, depending on the aircraft and the placement of its taxi light(s) (e.g., on the nose wheel), retro-reflective signs may be not visible to pilots.

ALPA's position is superior to the majority's because (1) it would more nearly comply with the desired goal of standardizing airport accident prevention measures on all airports and (2) it would only require lit signs where a lighting system is already in place, giving airports the option to utilize retro-reflective signs until such a system is installed. We would also note that airfield improvements are capital expenditures which would be AIP-eligible at the 90% level.

XYZ.315, 317 and 319: Aircraft Rescue and Firefighting -- ALPA believes the majority's position on requiring an ARFF response per current FAR Part 139 may be summarized as follows:

1. From the perspective of someone involved in an aircraft accident, a timely, trained and well-equipped ARFF response to aircraft incidents and accidents is very desirable.

2. The provision of such a response has not always resulted in saving lives because survivors often extricate themselves from an accident aircraft prior to the arrival of an on-airport ARFF response.

3. Because the costs are deemed too high and the resultant benefits too low, the majority does not favor a requirement for ARFF at the affected airports.

The majority position calls for a requirement to include an ARFF response within the airport's emergency plan; however, the majority is opposed to any requirement that the ARFF response demonstrate a capability to arrive at the midpoint of the farthest runway serving air carrier operations within three minutes as required by the present Part 139. The majority is of the view that remotely located (e.g., 10 miles from the airport) ARFF equipment would be acceptable for the purpose of providing an ARFF response.

ALPA's position favors a requirement for an ARFF response with a demonstrated three-minute maximum response capability because the FAA's own tests have demonstrated that an aircraft fire

will normally produce an unsurvivable cabin environment in four minutes or less. However, we fully recognize the financial limitations of some, not all, affected airports and realize that providing full-time, professional firefighters at some of these airports may result in loss of airline service or an unreasonable financial burden. Obviously, a balanced approach to this problem is essential in order to realize improvements.

With respect to a cost-benefit analysis for small airport ARFF provisions, some representatives of the airport community, not affiliated with the ARAC-WG, have argued vociferously for many years that there is inadequate cost-benefit to provide ARFF at <u>any</u> certificated airports. We believe this rationale is flawed, in part because of demands by the public, flight crews and cabin crews that a serious effort be made to save their lives from burning aircraft regardless of how successful such actions may be. The majority, in our view, understands the human compassion element of this issue, but is unwilling to recommend the level of ARFF desired by ALPA because of concerns that doing so will "break the bank" and/or result in loss of airline service. Again, ALPA is sensitive to this concern, but the majority's position infers that if <u>any</u> of the affected airports cannot afford a full-time professional ARFF response, then <u>none</u> of them should be required to develop ARFF capabilities or improvements needed to meet current minimum FAA standards. We strongly disagree with this "all or nothing" approach.

The majority and ALPA agree that provision of ARFF-related capital costs (i.e., a truck, storage space and some equipment) is not a serious obstacle for most of the affected airports; ongoing, expensive and non-AIP eligible personnel costs may be an obstacle, however. Accordingly, provided below are several viable options of providing the personnel needed for an ARFF response at the affected airports which could be required by the FAA at the various airports based on the airport/community's individual resources:

1. ARFF provided by local fire station -- Some airports having a full or limited certificate use this option today. Fire fighting equipment and personnel "stand by" during air carrier operations in order to comply with FAR Part 139's ARFF requirements. This may be a low- or no-cost option to the airport, depending on local governance.

2. Site local community fire station at the airport -- Certain locales may be able to site the fire station at the airport to serve the needs of both the town/city and the airport. By doing so, a three-minute response time could be achieved, using professional fire fighters, with equipment and personnel dedicated to the airport's needs when airline operations are being conducted.

3. Full-time, paid professional fire fighters -- Carlsbad, California, may be an example of an airport that could afford to hire full-time ARFF personnel. The airport has an average 371 monthly departures and an estimated 40,000 annual enplanements, which is more than some currently-certificated airports.

4. Cross-trained and utilized airport-based employees -- Numerous airports train and use their employees to provide different types of services, including ARFF, police, emergency medical care, etc. Such employees would not necessarily be airport employees; they could be

employees of an FBO or the tenant air carrier. No additional personnel costs would be required if enough airport-based employees can be located to perform this work.

5. Part-time employees -- An airport could employ retired firefighters, off-duty firefighters, off-duty policemen or others who need a supplemental income. This option could be low-cost and not require provision of the normal benefits offered to full-time employees.

6. Trained auxiliary firefighters, paid or volunteer -- Small communities can field auxiliary fire departments based at an affected airport to meet ARFF personnel requirements in whole or in part. Such arrangements work well at many small communities throughout the country and utilize the services of people from all walks of life. Little or no additional personnel costs would be required.

7. Combination of options 1-6 -- Some airports may utilize some combination of the above options depending on individual needs and financial capabilities.

In summary, there are numerous options available to the affected airports other than a simple "yes" or "no" to the question of whether they can afford to hire professional, full-time ARFF personnel. We would also note that the FAA currently retains the right, via Part 139.111, to specifically exempt any airport from certain ARFF requirements which are deemed unreasonable at a particular location.

Following are other points we believe should be recognized by the FAA during its deliberations on the subject of ARFF service requirements for the affected airports:

- The victims of aircraft accidents and incidents at the affected airports are currently left to fend for themselves after such an event. The November 19, 1996 accident at Quincy, Illinois, involving the survivable collision of a regional airline's B1900 aircraft and a general aviation aircraft highlights that problem. In our view, there were needless fatalities as a result of that accident which very likely would have been avoided had the airport been required to provide an ARFF response to the accident. Conversations of ALPA representatives with officials there indicate that trapped occupants cried out for help after the accident, but perished because pedestrians who ran to the scene moments after the accident were not equipped to open the aircraft doors or suppress a fire. The circumstances of this accident shreds the assertion by the airport and regional airline community that airport safety at such small airports is already acceptable and that airport certification and ARFF requirements are solutions in search of a problem. ARFF provisions at small airports are clearly inadequate – in other words, we have been lucky to avoid more such accidents in the past, not good.

We would further note that shortly before the B1900 accident, a DC-9 charter operation was provided stand-by ARFF services to comply with FAA requirements – once the DC-9 departed, the ARFF equipment left also and was absent from the field at the time of the accident. The occupants of the regional airliner deserved the same level of ARFF capability provided to the occupants of the DC-9.

- Many of the scheduled aircraft using the affected airports are operated in a code-sharing arrangement with a national or major airline. As a result, the traveling public often does not know what type of equipment they are flying on, much less that flying into and out of the affected airports means that they will not be afforded an adequate ARFF response in the event of an accident or incident.

- The International Civil Aviation Organization (ICAO) Annex 14 contains a Standard on this subject which reads, "Rescue and fire fighting equipment and services shall be provided at an aerodrome." The U.S. does not currently enforce this standard at the affected airports. As a result, the U.S. lags numerous countries which provide ARFF for all airports serving scheduled air carrier aircraft including the U.K., Finland, Belgium, France, Japan, the Netherlands, Norway, Singapore and Sweden.

- The number of enplanements is not a good predictor of an airport's ability to afford full certification; the GAO found in 1987 that 33 certificated airports had fewer passenger enplanements than did 17 uncertificated airports. Relatedly, it was determined during the WG's study that 25 airports without scheduled airline service voluntarily maintain a "full" FAA airport certificate, including the provision of an adequate ARFF response per Part 139.

- ARFF equipment and personnel at currently-certificated airports are used for more than just aircraft accidents and any determination of cost-benefit should acknowledge that fact. Two examples:

  BWI Airport, which has never had an airliner crash, utilized its ARFF capabilities 1,906 times in 1995. Paramedics responded to 65 percent of the calls for personal medical problems; the firefighters were called 60 times to respond to a potential problem with an aircraft. BWI enplaned 13 million passengers in 1995.

  Huntington, WV -- In 1992, this airport had 10 ARFF stand-by's for potential problems, six occasions where ARFF vehicles followed an aircraft on the runway as a precaution, one assistance during an emergency and two medical calls. Huntington enplaned 115,000 passengers in 1992.

The ARAC-WG has produced preliminary ARFF-related costs, which are reproduced here for discussion purposes:

AIRORT-BORNE COSTS (all are averages and assume 90% federal and a 5% state match)

Initial Capital Costs

Truck --	$80,000 @ 5% =	$4,000
Equipment --	$ 2,000 @ 5% =	$ 100
Storage Facility --	$75,000 @ 5% =	$3,750
TOTAL		$7,850

Ongoing Annual Capital Costs (AIP-eligible)

Equipment -- $700 @ %5	=	$ 35

Initial O&M Costs (Non-AIP Eligible)

Training --	=	$ 6,440
Additional labor --	=	$20,000*
TOTAL		$26,440

*(The majority calls for 2 individuals at $40,000 annually; we believe this figure can be greatly reduced, on average, using one of the no-cost/low-cost personnel options identified above.)

Ongoing Annual O&M Costs (Non-AIP Eligible)

Truck Maintenance --	=	$ 5,000
Additional labor --	=	$20,000
Training --	=	$ 4,630
TOTAL		$29,630

Neither the majority nor ALPA has the resources to conduct a case-by-case analysis of the ability of the affected airports to fund a new ARFF requirement and for that reason, it has not been accomplished. In fact, airport-produced estimates of certification costs varied so widely as to be of little use to the WG. We believe that the affected airports and their municipalities, working with their carrier(s) and the FAA, are in the best position to develop a financial methodology for complying with an ARFF requirement. The small average amounts we believe are required for ARFF could be readily obtained by most airports through higher landing fees or other rates and charges.

ALPA's position is superior to the majority's because it recognizes that numerous small airports are already providing an adequate ARFF response and most, if not all, the others can and should be required to do so to protect the flying public. The ALPA position also recognizes that those airports which cannot reasonably provide or obtain ARFF services have available to them an exemption process which the FAA can utilize for the very purpose of precluding unreasonable and burdensome ARFF costs. This knowledge can then be transmitted to the pilots who would

then be aware of the inadequacies of the emergency equipment at this airport. The majority's proposal will merely codify the status quo by naming which off-airport fire station will be called in the event of an emergency.

XYZ.321, Handling and Storing of Hazardous Substances and Materials -- The majority proposes to strike all of the language in this section and replace it with very general language calling for establishment of hazmat handling procedures and meeting the local codes for aircraft refueling. The majority does so on the basis that the airport operators at the affected airports should not be burdened by complying with the regulation as written.

ALPA believes that this section should be retained in its entirety because (1) we believe that the requirements contained therein are good, common-sense procedures which any and all airports should comply with, (2) local fire codes may not address aircraft refueling or have the level of specificity needed for hazmat handling on aircraft, (3) the FAA economic analysis found that "there would be no compliance costs for the airport" as a result of compliance with this section, and (4) we disagree that compliance would be burdensome as airport operator comments attest.

We believe the ALPA position is superior to the majority's because it will not result in greater costs to the airport and it will ensure that proven safety procedures are utilized at the affected airports.

XYZ.329, Ground Vehicles -- The majority favors striking much of the regulatory requirements contained in this section on the basis that airports would shoulder an increased degree of liability and some small additional costs for two-way radios.

ALPA believes that the affected airports are long overdue for an increased degree of responsibility and liability since they are the only unregulated party within the National Airspace System. The costs associated with complying with this section are very minimal and many of the airports already perform the functions described herein, as the FAA's economist assigned to the WG discovered.

We believe the ALPA position is superior to the majority's because it will not result in much, if any, greater costs and will ensure that proven safety procedures are utilized at the affected airports.

XYZ.337, Wildlife Hazard Management --The majority favors deleting nearly all of the existing section and replacing it with a requirement to take immediate measures to alleviate wildlife hazards whenever they are detected. This position is based on concerns about the potential for expensive wildlife management studies and remedies dictated to them by state and federal agencies.

ALPA is cognizant of the potential costs involved with compliance with the section in question. However, it has been repeatedly demonstrated that airport personnel, whether at large or small airports, often do not have the expertise to develop effective measures for mitigating wildlife

hazards. The wildlife hazard to aviation is a difficult and burgeoning one which should be taken seriously by the small airport operator. For that reason, we recommend retaining the language in this section.

We believe that ALPA position is superior to the majority's because it will help ensure that professional wildlife management techniques are utilized to control wildlife problems at the affected airports.

C. Part XYZ-Certification And Operations: Land Airports Serving Certain Air Carriers

D. PART XYZ--CERTIFICATION AND OPERATIONS: LAND AIRPORTS SERVING CERTAIN AIR CARRIERS

Subpart A--General

Sec.

XYZ. 1 Applicability.
XYZ. 3 Definitions.
XYZ. 5 Standards and procedures for compliance with the certification and operations requirements of this part.

Subpart B--Certification

XYZ. 101 Certification requirements: General.
XYZ. 103 Application for certificate.
XYZ. 105 Inspection authority.
XYZ. 107 Issuance of certificate.
XYZ. 109 Duration of certificate.
XYZ. 111 Exemptions.
XYZ. 113 Deviations.

Subpart C--Airport Certification Manual and Airport Certification Specifications

XYZ. 201 Airport operating certificate: Airport certification manual.
XYZ. 203 Preparation of airport certification manual.
XYZ. 205 Contents of airport certification manual.
XYZ. 207 Maintenance of airport certification manual.
XYZ. 209 Limited airport operating certificate: Airport certification specifications.
XYZ. 211 Preparation of airport certification specifications.
XYZ. 213 Contents of airport certification specifications.
XYZ. 215 Maintenance of airport certification specifications.
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Subpart D--Operations

XYZ. 301 Inspection authority.
XYZ. 303 Personnel.
XYZ. 305 Paved areas.
XYZ. 307 Unpaved areas.
XYZ. 309 Safety areas.
XYZ. 311 Marking and lighting.
XYZ. 313 Snow and ice control.
XYZ. 315 Aircraft rescue and firefighting: Index determination.
XYZ. 317 Aircraft rescue and firefighting: Equipment and agents.
XYZ. 319 Aircraft rescue and firefighting: Operational requirements.
XYZ. 321 Handling and storing of hazardous substances and materials.
XYZ. 323 Traffic and wind direction indicators.
XYZ. 325 Airport emergency plan.
XYZ. 327 Self-inspection program.
XYZ. 329 Ground vehicles.
XYZ. 331 Obstructions.

XYZ. 333	Protection of navaids.
XYZ. 335	Public protection.
XYZ. 337	Wildlife hazard management.
XYZ. 339	Airport condition reporting.
XYZ. 341	Identifying, marking, and reporting construction and other unserviceable areas.
XYZ. 343	Noncomplying conditions.

PART XYZ--CERTIFICATION AND OPERATIONS: LAND AIRPORTS SERVING CERTAIN AIR CARRIERS

MAJORITY POSITION
Subpart A--General

Sec. XYZ.1 Applicability.

This part prescribes rules governing the certification and operation of land airports which serve any scheduled ~~or unscheduled~~ passenger operation of an air carrier that is conducted with an aircraft having a seating capacity of 10 to ~~more than~~ 30 passengers (excluding Alaskan airports). This part does not apply to airports at which air carrier passenger operations are conducted only by reason of the airport being designated as an alternate airport.

Sec. XYZ.3 Definitions.

The following are definitions of terms as used in this part:
AFFF means aqueous film forming foam agent.
Air carrier means a person who holds or who is required to hold an air carrier operating certificate issued under this chapter while operating aircraft having a seating capacity of 10 to ~~more than~~ 30 passengers.
Air carrier aircraft means an aircraft with a seating capacity of 10 to ~~more than~~ 30 passengers which is being operated by an air carrier.
Air carrier operation means the takeoff or landing of an air carrier aircraft and includes the period of time from 15 minutes before and until 15 minutes after the takeoff or landing.
Airport means an area of land or other hard surface, excluding water, that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.
Airport operating certificate means a certificate, issued under this part, for operation of an airport serving scheduled operations of air carriers.
~~*Average daily departures* means the average number of scheduled departures per day of air carrier aircraft computed on the basis of the busiest 3 consecutive months of the immediately preceding 12 calendar months;~~

MINORITY POSITION
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MAJORITY POSITION

~~except that if the average daily departures are expected to increase, then "average daily departures" may be determined by planned rather than current activity in a manner acceptable to the Administrator.~~

Certificate holder means the holder of an airport operating certificate under this Part. ~~or a limited airport operating certificate, except that as used in Subpart D "certificate holder" does not mean the holder of a limited airport operating certificate if its airport certification specifications, or this part, do not require compliance with the section in which it is used.~~

~~*Heliport* means an airport or an area of an airport used or intended to be used for the landing and takeoff of helicopters.~~

~~*Index* means an airport ranking according to the type and quantity of aircraft rescue and firefighting equipment and agent required, determined by the length and frequency of air carrier aircraft served by the airport, as provided in Subpart D of this part.~~

~~*Limited airport operating certificate* means a certificate, issued under this part, for the operation of an airport serving unscheduled operations of air carriers.~~

Movement area means the runways, taxiways, and other areas of an airport which are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and aircraft parking areas.

Regional Airports Division Manager means the airports division manager for the FAA region in which the airport is located.

Safety area means a designated area abutting the edges of a runway or taxiway intended to reduce the risk of damage to an aircraft inadvertently leaving the runway or taxiway.

Wildlife hazard means a potential for a damaging aircraft collision with wildlife on or near an airport. As used in this part, "wildlife" includes domestic animals while out of the control of their owners.

MINORITY POSITION

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MAJORITY POSITION

Sec. XYZ.5 Standards and procedures for compliance with the certification and operations requirements of this part.

Certain requirements prescribed by Subparts C and D of this part must be complied with in a manner acceptable to the Administrator. FAA Advisory Circulars contain standards and procedures that are acceptable to the Administrator for compliance with Subparts C and D. Some of these advisory circulars are referenced in specific sections of this part. The standards and procedures in them, or other standards and procedures approved by the Administrator, may be used to comply with those sections.

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MAJORITY POSITION

Subpart B--Certification

Sec. XYZ.101 Certification requirements: general.

(a) No person may operate a land airport in any State of the United States, the District of Columbia, or any territory or possession of the United States, serving any scheduled passenger operation of an air carrier operating an aircraft having a seating capacity of 10 to ~~more than~~ 30 passengers without an airport operating certificate, or in violation of that certificate, the applicable provisions of this part, or the approved airport certification manual for that airport.

~~(b) Unless otherwise authorized by the Administrator, no person may operate a land airport in any State of the United States, the District of Columbia, or any territory or possession of the United States, serving any unscheduled passenger operation of an air carrier operating an aircraft having a seating capacity of more than 30 passengers without a limited airport operating certificate, or in violation of that certificate, the applicable provisions of this part, or the approved airport specifications for that airport.~~

Sec. XYZ.103 Application for certificate.

(a) Each applicant for an airport operating certificate ~~or a limited airport operating certificate~~ must submit an application, in a form and in the manner prescribed by the Administrator, to the Regional Airports Division Manager.

(b) The application must be accompanied by two copies of an airport certification manual ~~or airport certification specifications, as appropriate,~~ as prepared in accordance with Subpart C of this part.

Sec. XYZ.105 Inspection authority.

Each applicant for an airport operating certificate ~~or a limited airport operating certificate~~ must allow the Administrator to make any inspections, including unannounced

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Sec. XYZ.105 Inspection authority.

Each applicant for an airport operating certificate ~~or a limited airport operating certificate~~ must allow the Administrator to make any inspections, including unannounced

inspections, or tests to determine compliance with--

(a) ~~The Federal Aviation Act of 1958, as amended; and~~ Title 49,USC44708

(b) The requirements of this part.

Sec. XYZ.107 Issuance of certificate.

(a) An applicant for an airport operating certificate is entitled to a certificate if--

(1) The provisions of Sec. XYZ.103 of this subpart are met;

(2) The Administrator, after investigation, finds that the applicant is properly and adequately equipped and able to provide a safe airport operating environment in accordance with--

(i) Subpart D of this part, and

(ii) Any limitations which the Administrator finds necessary in the public interest; and

(3) The Administrator approves the airport certification manual.

~~(b) An applicant for a limited airport operating certificate is entitled to a certificate if--~~

~~(1) The provisions of Sec. XYZ.103 of this subpart are met;~~

~~(2) The Administrator, after investigation, finds that the applicant is properly and adequately equipped and able to provide a safe airport operating environment in accordance with--~~

~~(i) The provisions of Subpart D listed in Sec. XYZ.213(a) of this part, and~~

~~(ii) Any other provisions of this part and any limitations which the Administrator finds necessary in the public interest; and~~

~~(3) The Administrator approves the airport certification specifications.~~

Sec. XYZ.109 Duration of certificate.

An airport operating certificate ~~or a limited airport operating certificate~~ issued under this part is effective until it is surrendered by the certificate holder or is suspended or revoked by the Administrator.

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MAJORITY POSITION

Sec. XYZ.111 Exemptions.

(a) An applicant or a certificate holder may petition the Administrator under Sec. 11.25, Petitions for Rule Making or Exemptions, of this chapter for an exemption from any requirement of this part.
(b) An applicant or a certificate holder, enplaning annually less than one-
quarter of 1 percent of the total number of passengers enplaned at all air
carrier airports, may petition the Administrator under Sec. 11.25, Petitions for Rule Making or Exemptions, of this chapter for an exemption from all or part of the rescue and firefighting equipment requirements of this part on the grounds that compliance with those requirements is, or would be, unreasonably costly, burdensome, or impractical.
(c) Each petition filed under this section must be submitted in duplicate to the Regional Airports Division Manager.

Sec. XYZ.113 Deviations.

In emergency conditions requiring immediate action for the protection of life or property, involving the transportation of persons by air carriers, the certificate holder may deviate from any requirement of Subpart D of this part to the extent required to meet that emergency. Each certificate holder who deviates from a requirement under this paragraph shall, as soon as practicable, but not later than 14 days after the emergency, report in writing to the Regional Airports Division Manager stating the nature, extent, and duration of the deviation.

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MAJORITY POSITION

Subpart C--Airport Certification Manual ~~and Airport Certification Specifications~~

Sec. XYZ.201 Airport operating certificate: Airport certification manual.

(a) An applicant for an airport operating certificate must prepare, and submit with an application, an airport certification manual for approval by the Administrator. Only those items addressing subjects required for certification under this part shall be included in the airport certification manual.
(b) Except as provided in paragraph (c) of this section, each certificate
holder shall comply with an approved airport certification manual that meets
the requirements of Secs. XYZ.203 and XYZ.205.
~~(c) A certificate holder with an approved airport operations manual on December 31, 1987, may use the manual in lieu of the manual required by paragraph (b) of this section until December 31, 1988. Until the certificate holder has an approved airport certification manual, it shall comply with Sec. XYZ.207 as if that section applied to its airport operations manual.~~

Sec. XYZ.203 Preparation of airport certification manual.

(a) Each airport certification manual required by this part shall--
(1) Be typewritten and signed by the airport operator;
(2) Be in a form that is easy to revise;
(3) Have the date of initial approval or approval of the latest revision on each page or item in the manual and include a page revision log; and
(4) Be organized in a manner helpful to the preparation, review, and approval processes.
(b) FAA Advisory Circulars in the XYZ series contain standards and procedures for the development of airport certification manuals which are acceptable to the Administrator.

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(b) FAA Advisory Circulars in the XYZ series contain standards and procedures for the development of airport certification manuals which are acceptable to the Administrator.

MAJORITY POSITION

Sec. XYZ.205 Contents of airport certification manual.

(a) Each airport certification manual required by this part shall include operating procedures, facilities and equipment descriptions, responsibility assignments, and any other information needed by personnel concerned with operating the airport in order to comply with--

(1) The provisions of Subpart D of this part; and

(2) Any limitations which the Administrator finds necessary in the public interest.

(b) In complying with paragraph (a) of this section, the airport certification manual must include at least the following elements:

(1) Lines of succession of airport operational responsibility.

(2) Each current exemption issued to the airport from the requirements of this part.

(3) Any limitations imposed by the Administrator.

(4) A grid map or other means of identifying locations and terrain features on and around the airport which are significant to emergency operations.

(5) The system of runway and taxiway identification.

(6) The location of each obstruction required to be lighted or marked within the airport's area of authority.

(7) A description of each movement area available for air carriers and its safety areas and each ~~road described in Sec. XYZ.319(k) that serves it~~ emergency access road.

(8) A plan~~Procedures~~ for avoidance of interruption or failure during construction work of utilities serving facilities or navaids which support air carrier operations.

(9) A plan~~Procedures~~ for maintaining the paved areas as required by Sec. XYZ.305.

(10) A plan~~Procedures~~ for maintaining the unpaved areas as required by Sec. XYZ.307.

(11) A plan ~~Procedures~~ for maintaining the safety areas as required by Sec. XYZ.309.

MINORITY POSITION

Sec. XYZ.205 Contents of airport certification manual.

(a) Each airport certification manual required by this part shall include operating procedures, facilities and equipment descriptions, responsibility assignments, and any other information needed by personnel concerned with operating the airport in order to comply with--

(1) The provisions of Subpart D of this part; and

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(4) A grid map or other means of identifying locations and terrain features on and around the airport which are significant to emergency operations.

(5) The system of runway and taxiway identification.

(6) The location of each obstruction required to be lighted or marked within the airport's area of authority.

(7) A description of each movement area available for air carriers and its safety areas and each ~~road described in Sec. XYZ.319(k) that serves it~~ emergency access road.

(8) A plan~~Procedures~~ for avoidance of interruption or failure during construction work of utilities serving facilities or navaids which support air carrier operations.

(9) A plan~~Procedures~~ for maintaining the paved areas as required by Sec. XYZ.305.

(10) A plan~~Procedures~~ for maintaining the unpaved areas as required by Sec. XYZ.307.

(11) A plan ~~Procedures~~ for maintaining the safety areas as required by Sec. XYZ.309.

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(12) A description of, and plan ~~procedures~~ for maintaining, the marking and lighting systems as required by Sec. XYZ.311.
(13) A snow and ice control plan as required by Sec. XYZ.313.
~~(14) A description of the facilities, equipment, personnel, and procedures for meeting the rescue and firefighting requirements in Secs. XYZ.317 and XYZ.319.~~
(14~~15~~) A plan~~Procedures~~ for complying with the requirements of Sec. XYZ.321 relating to hazardous substances and materials.
(15~~16~~) A description of, and a plan ~~procedures~~ for maintaining, the traffic and wind direction indicators required by Sec. XYZ.323.
(16~~17~~) An emergency plan as required by Sec. XYZ.325.
(17~~18~~) A plan~~Procedures~~ for conducting the self-inspection program as required by Sec. XYZ.327.
(18~~19~~) A plan ~~Procedures~~ for controlling ground vehicles as required by Sec. XYZ.329.
(19~~20~~) A plan ~~Procedures~~ for obstruction removal, marking, or lighting as required by Sec. XYZ.331.
(20~~21~~) A plan ~~Procedures~~ for protection of navaids as required by Sec. XYZ.333.
(21~~22~~) A plan for ~~description of~~ public protection as required by Sec. XYZ.335.
(22~~23~~) ~~A wildlife hazard management plan as required by Sec. XYZ.337.~~ A listing of names and telephone numbers of the persons responsible for responding to wildlife hazards.
(23~~24~~) A plan ~~Procedures~~ for airport condition reporting as required by Sec. XYZ.339.
(24~~25~~) A plan ~~Procedures~~ for identifying, marking, and reporting construction and other unserviceable areas as required by Sec. XYZ.341.
(25~~26~~) Any other item which the Administrator finds is necessary in the public interest.

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(12) A description of, and plan ~~procedures~~ for maintaining, the marking and lighting systems as required by Sec. XYZ.311.
(13) A snow and ice control plan as required by Sec. XYZ.313.
(14) A description of the facilities, equipment, personnel, and procedures for meeting the rescue and firefighting requirements in Secs. XYZ.317 and XYZ.319.
(15) A plan~~Procedures~~ for complying with the requirements of Sec. XYZ.321 relating to hazardous substances and materials.
(16) A description of, and a plan ~~procedures~~ for maintaining, the traffic and wind direction indicators required by Sec. XYZ.323.
(17) An emergency plan as required by Sec. XYZ.325.
(18) A plan~~Procedures~~ for conducting the self-inspection program as required by Sec. XYZ.327.
(19) A plan ~~Procedures~~ for controlling ground vehicles as required by Sec. XYZ.329.
(20) A plan ~~Procedures~~ for obstruction removal, marking, or lighting as required by Sec. XYZ.331.
(21) A plan ~~Procedures~~ for protection of navaids as required by Sec. XYZ.333.
(22) A plan for ~~description of~~ public protection as required by Sec. XYZ.335.
(23) ~~A~~ W~~w~~ildlife hazard management plan as required by Sec. XYZ.337.

(24) A plan ~~Procedures~~ for airport condition reporting as required by Sec. XYZ.339.
(25) A plan ~~Procedures~~ for identifying, marking, and reporting construction and other unserviceable areas as required by Sec. XYZ.341.
(26) Any other item which the Administrator finds is necessary in the public interest.

MAJORITY POSITION

Sec. XYZ.207 Maintenance of airport certification manual.

Each holder of an airport operating certificate shall--
(a) Keep its airport certification manual current at all times;
(b) Maintain at least one complete and current copy of its approved airport certification manual easily accessible ~~on the airport~~;
(c) Furnish the applicable portions of the approved airport certification
manual to the airport personnel responsible for their implementation;
(d) Make the copy required by paragraph (b) of this section available for
inspection by the Administrator upon request; and
(e) Provide the Administrator with one complete and current copy required
by paragraph (b) of this section.

~~**Sec. XYZ.209 Limited airport operating certificate: Airport certification specifications.**~~

~~(a) An applicant for a limited airport operating certificate must prepare, and submit with an application, airport certification specifications for approval by the Administrator. Only those items addressing subjects required for certification under this part shall be included in the airport certification specifications.~~
~~(b) Except as provided in paragraph (c) of this section, each certificate holder shall comply with the approved airport certification specifications that meet the requirements of Secs. XYZ.211 and XYZ.213.~~
~~(c) A certificate holder with an approved airport operations specification on December 31, 1987, may use those specifications in lieu of the specifications required by paragraph (b) of this section until December 31, 1988. Until the certificate holder has approved airport certification specifications, it shall comply with Sec. XYZ.215 as if that section applied to its airport operations specifications.~~

MINORITY POSITION

Sec. XYZ.207 Maintenance of airport certification manual.

Each holder of an airport operating certificate shall--
(a) Keep its airport certification manual current at all times;
(b) Maintain at least one complete and current copy of its approved airport certification manual easily accessible ~~on the airport~~;
(c) Furnish the applicable portions of the approved airport certification
manual to the airport personnel responsible for their implementation;
(d) Make the copy required by paragraph (b) of this section available for
inspection by the Administrator upon request; and
(e) Provide the Administrator with one complete and current copy required
by paragraph (b) of this section.

~~**Sec. XYZ.209 Limited airport operating certificate: Airport certification specifications.**~~

~~(a) An applicant for a limited airport operating certificate must prepare, and submit with an application, airport certification specifications for approval by the Administrator. Only those items addressing subjects required for certification under this part shall be included in the airport certification specifications.~~
~~(b) Except as provided in paragraph (c) of this section, each certificate holder shall comply with the approved airport certification specifications that meet the requirements of Secs. XYZ.211 and XYZ.213.~~
~~(c) A certificate holder with an approved airport operations specification on December 31, 1987, may use those specifications in lieu of the specifications required by paragraph (b) of this section until December 31, 1988. Until the certificate holder has approved airport certification specifications, it shall comply with Sec. XYZ.215 as if that section applied to its airport operations specifications.~~

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~~**Sec. XYZ.211 Preparation of airport certification specifications.**~~

~~(a) Each airport certification specifications required by this part shall~~
~~(1) Be typewritten and signed by the airport operator;~~
~~(2) Be in a form that is easy to revise;~~
~~(3) Have the date of initial approval or approval of the latest revision on each page or item in the specifications and include a page revision log; and~~
~~(4) Be organized in a manner helpful to the preparation, review, and approval processes.~~
~~(b) FAA Advisory Circulars in the XYZ series contain standards and procedures for the development of airport certification specifications which are acceptable to the Administrator.~~

~~**Sec. XYZ.213 Contents of airport certification specifications.**~~

~~(a) The airport certification specifications required by this part shall include operating procedures, facilities and equipment descriptions, responsibility assignments, and any other information needed by personnel concerned with operating the airport in order to comply with~~
~~(1) The following provisions of Subpart D of this part:~~
~~(i) Section XYZ.301 Inspection authority.~~
~~(ii) Section XYZ.303 Personnel.~~
~~(iii) Section XYZ.305 Paved areas.~~
~~(iv) Section XYZ.307 Unpaved areas.~~
~~(v) Section XYZ.309 Safety areas.~~
~~(vi) Section XYZ.311 Marking and lighting.~~
~~(vii) Section XYZ.339 Airport condition reporting.~~
~~(2) Any other provisions of Subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest.~~
~~(b) In complying with paragraph (a) of this section, the airport certification specifications shall include at least the following elements:~~
~~(1) Lines of succession of airport operational responsibility.~~
~~(2) Each current exemption issued to the airport from the requirements of~~

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~~**Sec. XYZ.211 Preparation of airport certification specifications.**~~

~~(a) Each airport certification specifications required by this part shall~~
~~(1) Be typewritten and signed by the airport operator;~~
~~(2) Be in a form that is easy to revise;~~
~~(3) Have the date of initial approval or approval of the latest revision on each page or item in the specifications and include a page revision log; and~~
~~(4) Be organized in a manner helpful to the preparation, review, and approval processes.~~
~~(b) FAA Advisory Circulars in the XYZ series contain standards and procedures for the development of airport certification specifications which are acceptable to the Administrator.~~

~~**Sec. XYZ.213 Contents of airport certification specifications.**~~

~~(a) The airport certification specifications required by this part shall include operating procedures, facilities and equipment descriptions, responsibility assignments, and any other information needed by personnel concerned with operating the airport in order to comply with~~
~~(1) The following provisions of Subpart D of this part:~~
~~(i) Section XYZ.301 Inspection authority.~~
~~(ii) Section XYZ.303 Personnel.~~
~~(iii) Section XYZ.305 Paved areas.~~
~~(iv) Section XYZ.307 Unpaved areas.~~
~~(v) Section XYZ.309 Safety areas.~~
~~(vi) Section XYZ.311 Marking and lighting.~~
~~(vii) Section XYZ.339 Airport condition reporting.~~
~~(2) Any other provisions of Subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest.~~
~~(b) In complying with paragraph (a) of this section, the airport certification specifications shall include at least the following elements:~~
~~(1) Lines of succession of airport operational responsibility.~~
~~(2) Each current exemption issued to the airport from the requirements of~~

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~~this part.~~
~~(3) Any limitations imposed by the Administrator.~~
~~(4) The system of runway and taxiway identification.~~
~~(5) The location of each obstruction required to be lighted or marked within the airport's area of authority.~~
~~(6) A description of each movement area available for air carriers and its safety areas.~~
~~(7) Procedures for maintaining the paved areas as required by Sec. XYZ.305.~~
~~(8) Procedures for maintaining the unpaved areas as required by Sec. XYZ.307.~~
~~(9) Procedures for maintaining the safety areas as required by Sec. XYZ.309.~~
~~(10) A description of, and procedures for maintaining, the marking and lighting systems as required by Sec. XYZ.311.~~
~~(11) A description of the facilities, equipment, personnel, and procedures for emergency response to aircraft rescue and firefighting needs.~~
~~(12) Procedures for safety in storing and handling of hazardous substances and materials.~~
~~(13) A description of, and procedures for maintaining, any traffic and wind direction indicators on the airport.~~
~~(14) A description of the procedures used for conducting self inspections of the airport.~~
~~(15) Procedures and responsibilities for airport condition reporting as required by Sec. XYZ.339.~~
~~(16) Procedures for compliance with any other provisions of Subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest.~~

~~**Sec. XYZ.215 Maintenance of airport certification specifications.**~~

~~Each holder of a limited airport operating certificate shall—~~
~~(a) Keep its airport certification specifications current at all times;~~

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~~this part.~~
~~(3) Any limitations imposed by the Administrator.~~
~~(4) The system of runway and taxiway identification.~~
~~(5) The location of each obstruction required to be lighted or marked within the airport's area of authority.~~
~~(6) A description of each movement area available for air carriers and its safety areas.~~
~~(7) Procedures for maintaining the paved areas as required by Sec. XYZ.305.~~
~~(8) Procedures for maintaining the unpaved areas as required by Sec. XYZ.307.~~
~~(9) Procedures for maintaining the safety areas as required by Sec. XYZ.309.~~
~~(10) A description of, and procedures for maintaining, the marking and lighting systems as required by Sec. XYZ.311.~~
~~(11) A description of the facilities, equipment, personnel, and procedures for emergency response to aircraft rescue and firefighting needs.~~
~~(12) Procedures for safety in storing and handling of hazardous substances and materials.~~
~~(13) A description of, and procedures for maintaining, any traffic and wind direction indicators on the airport.~~
~~(14) A description of the procedures used for conducting self inspections of the airport.~~
~~(15) Procedures and responsibilities for airport condition reporting as required by Sec. XYZ.339.~~
~~(16) Procedures for compliance with any other provisions of Subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest.~~

~~**Sec. XYZ.215 Maintenance of airport certification specifications.**~~

~~Each holder of a limited airport operating certificate shall—~~
~~(a) Keep its airport certification specifications current at all times;~~

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~~(b) Maintain at least one complete and current copy of its approved airport certification specifications on the airport;~~
~~(c) Furnish the applicable portions of the approved airport certification specifications to the airport personnel responsible for their implementation;~~
~~(d) Make the copy required by paragraph (b) of this section available for inspection by the Administrator upon request; and~~
~~(e) Provide the Administrator with one complete and current copy required by paragraph (b) of this section.~~

Sec. XYZ.217 Amendment of airport certification manual~~or airport certification specifications~~.

(a) The Regional Airports Division Manager may amend any airport certification manual ~~or any airport certification specifications~~ approved under this part, either--
(1) Upon application by the certificate ~~certification~~ holder; or
(2) On the Regional Airports Division Manager's own initiative if the
Regional Airports Division Manager determines that safety in air transportation or air commerce and the public interest require the amendment.
(b) An applicant for an amendment to its airport certification manual ~~or its airport certification specifications~~ shall file its application with the Regional Airports Division Manager at least 30 days before the proposed effective date of the amendment, unless a shorter filing period is allowed by that office.
(c) At any time within 30 days after receiving a notice of refusal to approve the application for amendment, the certificate holder may petition the Administrator to reconsider the refusal to amend.
(d) In the case of amendments initiated by the Regional Airports Division Manager, the office notifies the certificate holder of the proposed amendment, in writing, fixing a reasonable period (but not less than 7 days) within which the certificate holder may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Airports Division Manager notifies the certificate

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~~(b) Maintain at least one complete and current copy of its approved airport certification specifications on the airport;~~
~~(c) Furnish the applicable portions of the approved airport certification specifications to the airport personnel responsible for their implementation;~~
~~(d) Make the copy required by paragraph (b) of this section available for inspection by the Administrator upon request; and~~
~~(e) Provide the Administrator with one complete and current copy required by paragraph (b) of this section.~~

Sec. XYZ.217 Amendment of airport certification manual~~or airport certification specifications~~.

(a) The Regional Airports Division Manager may amend any airport certification manual ~~or any airport certification specifications~~ approved under this part, either--
(1) Upon application by the certificate ~~certification~~ holder; or
(2) On the Regional Airports Division Manager's own initiative if the
Regional Airports Division Manager determines that safety in air transportation or air commerce and the public interest require the amendment.
(b) An applicant for an amendment to its airport certification manual ~~or its airport certification specifications~~ shall file its application with the Regional Airports Division Manager at least 30 days before the proposed effective date of the amendment, unless a shorter filing period is allowed by that office.
(c) At any time within 30 days after receiving a notice of refusal to approve the application for amendment, the certificate holder may petition the Administrator to reconsider the refusal to amend.
(d) In the case of amendments initiated by the Regional Airports Division Manager, the office notifies the certificate holder of the proposed amendment, in writing, fixing a reasonable period (but not less than 7 days) within which the certificate holder may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Airports Division Manager notifies the certificate

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holder of any amendment adopted or rescinds the notice. The amendment becomes effective not less than 30 days after the certificate holder receives notice of it, except that prior to the effective date the certificate holder may petition the Administrator to reconsider the amendment, in which case its effective date is stayed pending a decision by the Administrator.

(e) Notwithstanding the provisions of paragraph (d) of this section, if the Regional Airports Division Manager finds that there is an emergency requiring immediate action with respect to safety in air transportation or air commerce that makes the procedures in this paragraph impractical or contrary to the public interest, the Regional Airports Division Manager may issue an amendment, effective without stay on the date the certificate holder receives notice of it. In such a case, the Regional Airports Division Manager incorporates the finding of the emergency, and a brief statement of the reasons for the finding, in the notice of the amendment. Within 30 days after the issuance of such an emergency amendment, the certificate holder may petition the Administrator to reconsider either the finding of an emergency or the amendment itself or both. This petition does not automatically stay the effectiveness of the emergency amendment.

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holder of any amendment adopted or rescinds the notice. The amendment becomes effective not less than 30 days after the certificate holder receives notice of it, except that prior to the effective date the certificate holder may petition the Administrator to reconsider the amendment, in which case its effective date is stayed pending a decision by the Administrator.

(e) Notwithstanding the provisions of paragraph (d) of this section, if the Regional Airports Division Manager finds that there is an emergency requiring immediate action with respect to safety in air transportation or air commerce that makes the procedures in this paragraph impractical or contrary to the public interest, the Regional Airports Division Manager may issue an amendment, effective without stay on the date the certificate holder receives notice of it. In such a case, the Regional Airports Division Manager incorporates the finding of the emergency, and a brief statement of the reasons for the finding, in the notice of the amendment. Within 30 days after the issuance of such an emergency amendment, the certificate holder may petition the Administrator to reconsider either the finding of an emergency or the amendment itself or both. This petition does not automatically stay the effectiveness of the emergency amendment.

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Subpart D--Operations

Sec. XYZ.301 Inspection authority.

Each certificate holder shall allow the Administrator to make any inspections, including unannounced inspections, or tests to determine compliance with this part.

Sec. XYZ.303 Personnel.

Each certificate holder shall maintain sufficient qualified personnel to comply with the requirements of its airport certification manual or airport certification specifications and the applicable rules of this part.

Sec. XYZ.305 Paved areas.

(a) Each certificate holder shall maintain, and promptly repair the pavement of, each runway, taxiway, loading ramp, and parking area on the airport which is available for air carrier use as follows:
(1) The pavement edges shall not exceed 3 inches difference in elevation between abutting pavement sections and between full strength pavement and abutting shoulders.
(2) The pavement shall have no hole exceeding 3 inches in depth nor any hole the slope of which from any point in the hole to the nearest point at the lip of the hole is 45 degrees or greater as measured from the pavement surface plane, unless, in either case, the entire area of the hole can be covered by a 5-inch diameter circle.
(3) The pavement shall be free of cracks and surface variations which could impair directional control of air carrier aircraft.
(4) Except as provided in paragraph (b) of this section, mud, dirt, sand, loose aggregate, debris, foreign objects, rubber deposits, and other contaminants shall be removed promptly and as completely as practicable.
(5) Except as provided in paragraph (b) of this section, any chemical solvent that is used to clean any pavement area shall be removed as soon as possible, consistent with the instructions of the manufacturer of the solvent.

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Subpart D--Operations

Sec. XYZ.301 Inspection authority.

Each certificate holder shall allow the Administrator to make any inspections, including unannounced inspections, or tests to determine compliance with this part.

Sec. XYZ.303 Personnel.

Each certificate holder shall maintain sufficient qualified personnel to comply with the requirements of its airport certification manual or airport certification specifications and the applicable rules of this part.

Sec. XYZ.305 Paved areas.

(a) Each certificate holder shall maintain, and promptly repair the pavement of, each runway, taxiway, loading ramp, and parking area on the airport which is available for air carrier use as follows:
(1) The pavement edges shall not exceed 3 inches difference in elevation between abutting pavement sections and between full strength pavement and abutting shoulders.
(2) The pavement shall have no hole exceeding 3 inches in depth nor any hole the slope of which from any point in the hole to the nearest point at the lip of the hole is 45 degrees or greater as measured from the pavement surface plane, unless, in either case, the entire area of the hole can be covered by a 5-inch diameter circle.
(3) The pavement shall be free of cracks and surface variations which could impair directional control of air carrier aircraft.
(4) Except as provided in paragraph (b) of this section, mud, dirt, sand, loose aggregate, debris, foreign objects, rubber deposits, and other contaminants shall be removed promptly and as completely as practicable.
(5) Except as provided in paragraph (b) of this section, any chemical solvent that is used to clean any pavement area shall be removed as soon as possible, consistent with the instructions of the manufacturer of the solvent.

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(6) The pavement shall be sufficiently drained and free of depressions to prevent ponding that obscures markings or impairs safe aircraft operations.
(b) Paragraphs (a)(4) and (a)(5) of this section do not apply to snow and ice accumulations and their control, including the associated use of materials such as sand and deicing solutions.
(c) FAA Advisory Circulars in the 150 series contain standards and procedures for the maintenance and configuration of paved areas which are acceptable to the Administrator.

Sec. XYZ.307 Unpaved areas.

(a) Each certificate holder shall maintain and promptly repair the surface of each gravel, turf, or other unpaved runway, taxiway, or loading ramp and parking area on the airport which is available for air carrier use as
follows:
(1) No slope from the edge of the full-strength surfaces downward to the existing terrain shall be steeper than 2:1.
(2) The full-strength surfaces shall have adequate crown or grade to assure
sufficient drainage to prevent ponding.
(3) The full-strength surfaces shall be adequately compacted and sufficiently stable to prevent rutting by aircraft, or the loosening or buildup of surface material which could impair directional control of aircraft or drainage.
(4) The full-strength surfaces must have no holes or depressions which exceed 3 inches in depth and are of a breadth capable of impairing directional control or causing damage to an aircraft.
(5) Debris and foreign objects shall be promptly removed from the surface.
(b) Standards and procedures for the maintenance and configuration of unpaved full-strength surfaces shall be included in the airport certification manual or the airport certification specifications, as appropriate, for
compliance with this section.

Sec. XYZ.309 Safety areas.

(a) To the extent practicable, each certificate holder shall provide and maintain for each

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(6) The pavement shall be sufficiently drained and free of depressions to prevent ponding that obscures markings or impairs safe aircraft operations.
(b) Paragraphs (a)(4) and (a)(5) of this section do not apply to snow and ice accumulations and their control, including the associated use of materials such as sand and deicing solutions.
(c) FAA Advisory Circulars in the 150 series contain standards and procedures for the maintenance and configuration of paved areas which are acceptable to the Administrator.

Sec. XYZ.307 Unpaved areas.

(a) Each certificate holder shall maintain and promptly repair the surface of each gravel, turf, or other unpaved runway, taxiway, or loading ramp and parking area on the airport which is available for air carrier use as
follows:
(1) No slope from the edge of the full-strength surfaces downward to the existing terrain shall be steeper than 2:1.
(2) The full-strength surfaces shall have adequate crown or grade to assure
sufficient drainage to prevent ponding.
(3) The full-strength surfaces shall be adequately compacted and sufficiently stable to prevent rutting by aircraft, or the loosening or buildup of surface material which could impair directional control of aircraft or drainage.
(4) The full-strength surfaces must have no holes or depressions which exceed 3 inches in depth and are of a breadth capable of impairing directional control or causing damage to an aircraft.
(5) Debris and foreign objects shall be promptly removed from the surface.
(b) Standards and procedures for the maintenance and configuration of unpaved full-strength surfaces shall be included in the airport certification manual or the airport certification specifications, as appropriate, for
compliance with this section.

Sec. XYZ.309 Safety areas.

(a) To the extent practicable, each certificate holder shall provide and maintain for each

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runway and taxiway which is available for air carrier use--

(1) If the runway or taxiway had a safety area on ~~December 31, 1987,~~ (amend date to final rule date for airports with 10-30 seat services) and if no reconstruction or significant expansion of the runway or taxiway was begun on or after ~~January 1, 1988,~~(amend date to final rule date for airports with 10-30 seat services) a safety area of at least the dimensions that existed on ~~December 31, 1987; or~~ (amend date to final rule date for airports with 10-30 seat services).

(2) If construction, reconstruction, or significant expansion of the runway or taxiway began on or after ~~January 1, 1988,~~(amend date to final rule date for airports with 10-30 seat services) a safety area which conforms to the dimensions acceptable to the Administrator at the time construction, reconstruction, or expansion began.

(b) Each certificate holder shall maintain its safety areas as follows:

(1) Each safety area shall be cleared and graded, and have no potentially hazardous ruts, humps, depressions, or other surface variations.

(2) Each safety area shall be drained by grading or storm sewers to prevent water accumulation.

(3) Each safety area shall be capable under dry conditions of supporting snow removal equipment, and aircraft rescue and firefighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.

(4) No object may be located in any safety area, except for objects that need to be located in a safety area because of their function. These objects shall be constructed, to the extent practical, on frangibly mounted structures of the lowest practical height with the frangible point no higher than 3 inches above grade.

(c) FAA Advisory Circulars in the 150 series contain standards and procedures for the configuration and maintenance of safety areas acceptable to the Administrator.

Sec. XYZ.311 Marking and lighting.

(a) Each certificate holder shall provide and maintain at least the following marking systems for air carrier operations on the airport:

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runway and taxiway which is available for air carrier use--

(1) If the runway or taxiway had a safety area on ~~December 31, 1987,~~ (amend date to final rule date for airports with 10-30 seat services) and if no reconstruction or significant expansion of the runway or taxiway was begun on or after ~~January 1, 1988,~~(amend date to final rule date for airports with 10-30 seat services) a safety area of at least the dimensions that existed on ~~December 31, 1987; or~~ (amend date to final rule date for airports with 10-30 seat services).

(2) If construction, reconstruction, or significant expansion of the runway or taxiway began on or after ~~January 1, 1988,~~(amend date to final rule date for airports with 10-30 seat services) a safety area which conforms to the dimensions acceptable to the Administrator at the time construction, reconstruction, or expansion began.

(b) Each certificate holder shall maintain its safety areas as follows:

(1) Each safety area shall be cleared and graded, and have no potentially hazardous ruts, humps, depressions, or other surface variations.

(2) Each safety area shall be drained by grading or storm sewers to prevent water accumulation.

(3) Each safety area shall be capable under dry conditions of supporting snow removal equipment, and aircraft rescue and firefighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.

(4) No object may be located in any safety area, except for objects that need to be located in a safety area because of their function. These objects shall be constructed, to the extent practical, on frangibly mounted structures of the lowest practical height with the frangible point no higher than 3 inches above grade.

(c) FAA Advisory Circulars in the 150 series contain standards and procedures for the configuration and maintenance of safety areas acceptable to the Administrator.

Sec. XYZ.311 Marking and lighting.

(a) Each certificate holder shall provide and maintain at least the following marking systems for air carrier operations on the airport:

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(1) Runway markings meeting the specifications for the approach with the lowest minimums authorized for each runway.
(2) Taxiway centerline and edge markings.
(3) Signs identifying taxiing routes on the movement area shall be as a minimum retroreflective.

(4) Runway holding position markings and signs. Internally-illuminated mandatory signs are required to be installed on runways equipped with edge lighting. Internally-illuminated or retroflective mandatory signs shall be installed on runways not equipped with edge lighting.
(5) ILS critical area markings and signs.
(b) Each certificate holder shall provide and maintain, when the airport is open during hours of darkness or during conditions below VFR minimums, at least the following lighting systems for air carrier operations on the airport:
(1) Runway lighting meeting the specifications for the approach with the lowest minimums authorized for each runway.
(2) One of the following taxiway lighting systems:
(i) Centerline lights.
(ii) Centerline reflectors.
(iii) Edge lights.
(iv) Edge reflectors.
(3) An airport beacon.
(4) Approach lighting meeting the specifications for the approach with the lowest minimums authorized for each runway, unless otherwise provided and maintained by the FAA or another agency.
(5) Obstruction marking and lighting, as appropriate, on each object within its authority which constitutes an obstruction under Part 77 of this chapter. However, this lighting and marking is not required if it is determined to be unnecessary by an FAA aeronautical study.
(c) Each certificate holder shall properly maintain each marking or lighting system installed on the airport which is owned by the certificate holder. As used in this section, to "properly maintain" includes: To clean, replace, or repair any faded, missing, or nonfunctional item of lighting; to keep each

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(1) Runway markings meeting the specifications for the approach with the lowest minimums authorized for each runway.
(2) Taxiway centerline and edge markings.
(3) Internally-illuminated signs shall be installed to identify taxiing routes on the movement area where edge and/or centerline lighting is installed. Internally illuminated or retroflective signs shall be installed in areas not equipped with edge and/or centerline lighting.
(4) Runway holding position markings and signs. Internally-illuminated mandatory signs are required to be installed on runways equipped with edge lighting. Internally-illuminated or retroflective mandatory signs shall be installed on runways not equipped with edge lighting.
(5) ILS critical area markings and signs.
(b) Each certificate holder shall provide and maintain, when the airport is open during hours of darkness or during conditions below VFR minimums, at least the following lighting systems for air carrier operations on the airport:
(1) Runway lighting meeting the specifications for the approach with the lowest minimums authorized for each runway.
(2) One of the following taxiway lighting systems:
(i) Centerline lights.
(ii) Centerline reflectors.
(iii) Edge lights.
(iv) Edge reflectors.
(3) An airport beacon.
(4) Approach lighting meeting the specifications for the approach with the lowest minimums authorized for each runway, unless otherwise provided and maintained by the FAA or another agency.
(5) Obstruction marking and lighting, as appropriate, on each object within its authority which constitutes an obstruction under Part 77 of this chapter. However, this lighting and marking is not required if it is determined to be unnecessary by an FAA aeronautical study.
(c) Each certificate holder shall properly maintain each marking or lighting system installed on the airport which is owned by the certificate holder. As used in this section, to "properly maintain" includes: To clean, replace, or repair any faded, missing, or nonfunctional item of lighting; to keep each

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item unobscured and clearly visible; and to ensure that each item provides an accurate reference to the user.
(d) Each certificate holder shall ensure that all lighting on the airport, including that for aprons, vehicle parking areas, roadways, fuel storage areas, and buildings, is adequately adjusted or shielded to prevent interference with air traffic control and aircraft operations.
(e) FAA Advisory Circulars in the 150 series contain standards and procedures for equipment, material, installation, and maintenance of light systems and marking listed in this section which are acceptable to the Administrator.
(f) Notwithstanding paragraph (a) of this section, a certificate holder is not required to provide the identified signs in paragraph (a)(3) of this section until ~~January 1, 1995~~**(change date).** Each certificate holder shall maintain each—marking system that meets paragraph (a)(3) of this section. If installing a new lighting system or "rehabing" a lighting system, then the certificate holder must install illuminated signs. This does not apply to repaving projects.)

Sec. XYZ.313 Snow and ice control.

(a) Each certificate holder whose airport is located where snow and icing conditions regularly occur shall prepare, maintain, and carry out a snow and ice control plan.
(b) The snow and ice control plan required by this section shall include instructions and procedures prior to air carrier operations for--

(1) ~~Prompt~~ R~~r~~emoval or control, as completely as practical, of snow, ice, and slush on each movement area;
(2) Positioning snow off of movement area surfaces so that all air carrier aircraft propellers, engine pods, rotors, and wingtips will clear any snowdrift and snowbank as the aircraft's landing gear traverses any full
strength portion of the movement area;
(3) Selection and application of approved materials for snow and ice control to ensure that they adhere to snow and ice sufficiently to minimize engine ingestion;

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item unobscured and clearly visible; and to item ensure that each item provides an accurate reference to the user.
(d) Each certificate holder shall ensure that all lighting on the airport, including that for aprons, vehicle parking areas, roadways, fuel storage areas, and buildings, is adequately adjusted or shielded to prevent interference with air traffic control and aircraft operations.
(e) FAA Advisory Circulars in the 150 series contain standards and procedures for equipment, material, installation, and maintenance of light systems and marking listed in this section which are acceptable to the Administrator.
(f) Notwithstanding paragraph (a) of this section, a certificate holder is not required to provide the identified signs in paragraph (a)(3) of this section until ~~January 1, 1995~~**(change date).** Each certificate holder shall maintain each—marking system that meets paragraph (a)(3) of this section. If installing a new lighting system or "rehabing" a lighting system, then the certificate holder must install illuminated signs.

Sec. XYZ.313 Snow and ice control.

(a) Each certificate holder whose airport is located where snow and icing conditions regularly occur shall prepare, maintain, and carry out a snow and ice control plan.
(b) The snow and ice control plan required by this section shall include instructions and procedures prior to air carrier operations for--

(1) ~~Prompt~~ R~~r~~emoval or control, as completely as practical, of snow, ice, and slush on each movement area;
(2) Positioning snow off of movement area surfaces so that all air carrier aircraft propellers, engine pods, rotors, and wingtips will clear any snowdrift and snowbank as the aircraft's landing gear traverses any full
strength portion of the movement area;
(3) Selection and application of approved materials for snow and ice control to ensure that they adhere to snow and ice sufficiently to minimize engine ingestion;

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~~(4) Timely commencement of snow and ice control operations; and~~

(~~4~~5) Prompt notification, in accordance with Sec. XYZ.339, of all air carriers using the airport when any portion of the movement area normally available to them is less than satisfactorily cleared for safe operation by their aircraft.

(c) FAA Advisory Circulars in the 150 series contain standards for snow and ice control equipment, materials, and procedures for snow and ice control which are acceptable to the Administrator.

~~**Sec. XYZ.315 Aircraft rescue and firefighting: Index determination.**~~

~~(a) An Index is required by paragraph (c) of this section for each certificate holder. The Index is determined by a combination of--~~

~~(1) The length of air carrier aircraft expressed in groups; and~~

~~(2) Average daily departures of air carrier aircraft.~~

~~(b) For the purpose of Index determination, air carrier aircraft lengths are grouped as follows:~~

~~(1) Index A includes aircraft less than 90 feet in length.~~

~~(2) Index B includes aircraft at least 90 feet but less than 126 feet in length.~~

~~(3) Index C includes aircraft at least 126 feet but less than 159 feet in length.~~

~~(4) Index D includes aircraft at least 159 feet but less than 200 feet in length.~~

~~(5) Index E includes aircraft at least 200 feet in length.~~

~~(c) Except as provided in Sec. XYZ.319(c), the Index required by Sec. XYZ.319 is determined as follows:~~

~~(1) If there are five or more average daily departures of air carrier aircraft in a single Index group serving that airport, the longest Index group with an average of 5 or more daily departures is the Index required for the airport.~~

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~~(4) Timely commencement of snow and ice control operations; and~~

(~~4~~5) Prompt notification, in accordance with Sec. XYZ.339, of all air carriers using the airport when any portion of the movement area normally available to them is less than satisfactorily cleared for safe operation by their aircraft.

(c) FAA Advisory Circulars in the 150 series contain standards for snow and ice control equipment, materials, and procedures for snow and ice control which are acceptable to the Administrator.

Sec. XYZ.315 Aircraft rescue and firefighting: Index determination.

(a) An Index is required by paragraph (c) of this section for each certificate holder. The Index is determined by a combination of--

(1) The length of air carrier aircraft expressed in groups; and

(2) Average daily departures of air carrier aircraft.

(b) For the purpose of Index determination, air carrier aircraft lengths are grouped as follows:

(1) Index A includes aircraft less than 90 feet in length.

(2) Index B includes aircraft at least 90 feet but less than 126 feet in length.

(3) Index C includes aircraft at least 126 feet but less than 159 feet in length.

(4) Index D includes aircraft at least 159 feet but less than 200 feet in length.

(5) Index E includes aircraft at least 200 feet in length.

(c) Except as provided in Sec. XYZ.319(c), the Index required by Sec. XYZ.319 is determined as follows:

(1) If there are five or more average daily departures of air carrier aircraft in a single Index group serving that airport, the longest Index group with an average of 5 or more daily departures is the Index required for the airport.

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~~(2) If there are less than five average daily departures of air carrier aircraft in a single Index group serving that airport, the next lower Index from the longest Index group with air carrier aircraft in it is the Index required for the airport. The minimum designated Index shall be Index A.~~

Sec. XYZ.317Aircraft rescue and firefighting: Equipment and agents.

The following rescue and firefighting equipment and agents are the minimum required to meet ~~for the Indexes referred to in~~ Sec. XYZ._~~315~~ 325(c):

(a) Index A: One vehicle carrying at least--

(1) 500 pounds of sodium-based dry chemical or halon 1211; or

(2) 450 pounds of potassium-based dry chemical and water with a commensurate quantity of AFFF to total 100 gallons, for simultaneous dry chemical and AFFF foam application.

~~(b) Index B: Either of the following:~~

~~(1) One vehicle carrying at least 500 pounds of sodium-based dry chemical or halon 1211, and 1,500 gallons of water, and the commensurate quantity of AFFF for foam production.~~

~~(2) Two vehicles--~~

~~(i) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and~~

~~(ii) One vehicle carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by both vehicles is at least 1,500 gallons.~~

~~(c) Index C: Either of the following:~~

~~(1) Three vehicles--~~

~~(i) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and~~

~~(ii) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 3,000 gallons.~~

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(2) If there are less than five average daily departures of air carrier aircraft in a single Index group serving that airport, the next lower Index from the longest Index group with air carrier aircraft in it is the Index required for the airport. The minimum designated Index shall be Index A.

Sec. XYZ.317Aircraft rescue and firefighting: Equipment and agents.

The following rescue and firefighting equipment and agents are the minimum required for the Indexes referred to in Sec. XYZ.315:

(a) Index A: One vehicle carrying at least--

(1) 500 pounds of sodium-based dry chemical or halon 1211; or

(2) 450 pounds of potassium-based dry chemical and water with a commensurate quantity of AFFF to total 100 gallons, for simultaneous dry chemical and AFFF foam application.

(b) Index B: Either of the following:

(1) One vehicle carrying at least 500 pounds of sodium-based dry chemical or halon 1211, and 1,500 gallons of water, and the commensurate quantity of AFFF for foam production.

(2) Two vehicles--

(i) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and

(ii) One vehicle carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by both vehicles is at least 1,500 gallons.

(c) Index C: Either of the following:

(1) Three vehicles--

(i) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and

(ii) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 3,000 gallons.

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~~(d) Index D: Three vehicles--~~
~~(1) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and~~
~~(2) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 4,000 gallons.~~
~~(e) Index E: Three vehicles--~~
~~(1) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and~~
~~(2) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 6,000 gallons.~~
~~(f) Notwithstanding the provisions of paragraphs (a) through (e) of this section, any certificate holder whose vehicles met the requirements of this part for quantity and type of extinguishing agent on December 31, 1987, may comply with the Index requirements of this section by carrying the extinguishing agents to the full capacity of those vehicles. Whenever any of those vehicles is replaced or rehabilitated, the capacity of the replacement or rehabilitated vehicle shall be sufficient to comply with the requirements of the required Index.~~
~~(g) Foam discharge capacity. Each aircraft rescue and firefighting vehicle used to comply with Index B, C, D, or E requirements with a capacity of at least 500 gallons of water for foam production shall be equipped with a turret. Vehicle turret discharge capacity shall be as follows:~~
~~(1) Each vehicle with a minimum rated vehicle water tank capacity of at least 500 gallons but less than 2,000 gallons shall have a turret discharge rate of at least 500 gallons per minute but not more than 1,000 gallons per minute.~~
~~2) Each vehicle with a minimum rated vehicle water tank capacity of at least 2,000 gallons shall have a turret discharge rate of at least 600 gallons per minute but not more than 1,200 gallons per minute.~~

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(d) Index D: Three vehicles--
(1) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and
(2) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 4,000 gallons.
(e) Index E: Three vehicles--
(1) One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and
(2) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 6,000 gallons.
(f) Notwithstanding the provisions of paragraphs (a) through (e) of this section, any certificate holder whose vehicles met the requirements of this part for quantity and type of extinguishing agent on December 31, 1987, may comply with the Index requirements of this section by carrying the extinguishing agents to the full capacity of those vehicles. Whenever any of those vehicles is replaced or rehabilitated, the capacity of the replacement or rehabilitated vehicle shall be sufficient to comply with the requirements of the required Index.
g) Foam discharge capacity. Each aircraft rescue and firefighting vehicle used to comply with Index B, C, D, or E requirements with a capacity of at least 500 gallons of water for foam production shall be equipped with a turret. Vehicle turret discharge capacity shall be as follows:
(1) Each vehicle with a minimum rated vehicle water tank capacity of at least 500 gallons but less than 2,000 gallons shall have a turret discharge rate of at least 500 gallons per minute but not more than 1,000 gallons per minute.
(2) Each vehicle with a minimum rated vehicle water tank capacity of at least 2,000 gallons shall have a turret discharge rate of at least 600 gallons per minute but not more than 1,200 gallons per minute.

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~~(3) Notwithstanding the requirements of paragraph (g) of this section, any certificate holder whose aircraft rescue and firefighting vehicles are not equipped with turrets or do not have the discharge capacity required in this section, but otherwise met the requirements of this part on December 31, 1987, need not comply with paragraph (g) of this section for a particular vehicle until that vehicle is replaced or rehabilitated.~~

~~(h) Dry chemical and halon 1211 discharge capacity. Each aircraft rescue and firefighting vehicle which is required to carry dry chemical or halon 1211 for compliance with the index requirements of this section must meet one of the following minimum discharge rates for the equipment installed:~~

~~(1) Dry chemical or halon 1211 through a hand line, 5 pounds per second.~~

~~(2) Dry chemical or halon 1211 through a turret, 16 pounds per second.~~

~~(i) Extinguishing agent substitutions. The following extinguishing agent substitutions may be made:~~

~~(1) Protein or fluoroprotein foam concentrates may be substituted for AFFF. When either of these substitutions is selected, the volume of water to be carried for the subsitute foam production shall be calculated by multiplyingthe volume of water required for AFFF by the factor 1.5.~~

~~(2) Sodium- or potassium-based dry chemical or halon 1211 may be substituted for AFFF. Up to 30 percent of the amount of water specified for AFFF production may be replaced by dry chemical or halon 1211, except that for airports where such extreme climatic conditions exist that water is either unmanageable or unobtainable, as in arctic or desert regions, up to 100 percent of the required water may be replaced by dry chemical or halon 1211. When this substitution is selected, 12.7 pounds of dry chemical or halon 1211 shall be substituted for each gallon of water used for AFFF foam production.~~

~~(3) Sodium- or potassium-based dry chemical or halon 1211 may be substituted for protein or fluoroprotein foam. When this substitution is~~

MINORITY POSITION

(3) Notwithstanding the requirements of paragraph (g) of this section, any certificate holder whose aircraft rescue and firefighting vehicles are not equipped with turrets or do not have the discharge capacity required in this section, but otherwise met the requirements of this part on December 31, 1987, need not comply with paragraph (g) of this section for a particular vehicle until that vehicle is replaced or rehabilitated.

(h) Dry chemical and halon 1211 discharge capacity. Each aircraft rescue and firefighting vehicle which is required to carry dry chemical or halon 1211 for compliance with the index requirements of this section must meet one of the following minimum discharge rates for the equipment installed:

(1) Dry chemical or halon 1211 through a hand line, 5 pounds per second.

(2) Dry chemical or halon 1211 through a turret, 16 pounds per second.

(i) Extinguishing agent substitutions. The following extinguishing agent substitutions may be made:

(1) Protein or fluoroprotein foam concentrates may be substituted for AFFF. When either of these substitutions is selected, the volume of water to be carried for the substitute foam production shall be calculated by multiplying the volume of water required for AFFF by the factor 1.5.

(2) Sodium- or potassium-based dry chemical or halon 1211 may be substituted for AFFF. Up to 30 percent of the amount of water specified for AFFF production may be replaced by dry chemical or halon 1211, except that for airports where such extreme climatic conditions exist that water is either unmanageable or unobtainable, as in arctic or desert regions, up to 100 percent of the required water may be replaced by dry chemical or halon 1211. When this substitution is selected, 12.7 pounds of dry chemical or halon 1211 shall be substituted for each gallon of water used for AFFF foam production.

(3) Sodium- or potassium-based dry chemical or halon 1211 may be substituted for protein or fluoroprotein foam. When this substitution is

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~~selected, 8.4 pounds of dry chemical or halon 1211 shall be substituted for one gallon of water for protein or fluoroprotein foam production.~~
~~(4) AFFF may be substituted for dry chemical or halon 1211. For airports where meteorological conditions, such as consistently high winds and precipitation, would frequently prevent the effective use of dry chemical or halon 1211, up to 50 percent of these agents may be replaced by water for AFFF production. When this substitution is selected, one gallon of water for foam production with the commensurate quantity of AFFF shall be substituted for 12.7 pounds of dry chemical or halon 1211.~~
~~(5) Potassium-based dry chemical may be substituted for sodium-based dry chemical. Where 500 pounds of sodium-based dry chemical is specified, 450 pounds of potassium-based dry chemical may be substituted.~~
~~(6) Other extinguishing agent substitutions acceptable to the Administrator may be made in amounts that provide equivalent firefighting capability.~~
~~(j) In addition to the quantity of water required, each vehicle required to carry AFFF shall carry AFFF in an appropriate amount to mix with twice the water required to be carried by the vehicle.~~
~~(k) FAA Advisory Circulars in the 150 series contain standards and procedures for AFFF equipment and agents which are acceptable to the Administrator.~~

~~Sec. XYZ.319 Aircraft rescue and firefighting: Operational requirements.~~

~~(a) Except as provided in paragraph (c) of this section, each certificate holder shall provide on the airport, during air carrier operations at the airport, at least the rescue and firefighting capability specified for the Index required by Sec. XYZ.317.~~
~~(b) Increase in Index. Except as provided in paragraph (c) of this section, if an increase in the average daily departures or the length of air carrier aircraft results in an increase in the Index required by paragraph (a) of this section, the certificate holder shall comply with the increased requirements.~~

MINORITY POSITION

selected, 8.4 pounds of dry chemical or halon 1211 shall be substituted for one gallon of water for protein or fluoroprotein foam production.
(4) AFFF may be substituted for dry chemical or halon 1211. For airports where meteorological conditions, such as consistently high winds and precipitation, would frequently prevent the effective use of dry chemical or halon 1211, up to 50 percent of these agents may be replaced by water for AFFF production. When this substitution is selected, one gallon of water for foam production with the commensurate quantity of AFFF shall be substituted for 12.7 pounds of dry chemical or halon 1211.
(5) Potassium-based dry chemical may be substituted for sodium-based dry chemical. Where 500 pounds of sodium-based dry chemical is specified, 450 pounds of potassium-based dry chemical may be substituted.
(6) Other extinguishing agent substitutions acceptable to the Administrator may be made in amounts that provide equivalent firefighting capability.
(j) In addition to the quantity of water required, each vehicle required to carry AFFF shall carry AFFF in an appropriate amount to mix with twice the water required to be carried by the vehicle.
(k) FAA Advisory Circulars in the 150 series contain standards and procedures for AFFF equipment and agents which are acceptable to the Administrator.

Sec. XYZ.319 Aircraft rescue and firefighting: Operational requirements.

(a) Except as provided in paragraph (c) of this section, each certificate holder shall provide on the airport, during air carrier operations at the airport, at least the rescue and firefighting capability specified for the Index required by Sec. XYZ.317.
(b) Increase in Index. Except as provided in paragraph (c) of this section, if an increase in the average daily departures or the length of air carrier aircraft results in an increase in the Index required by paragraph (a) of this section, the certificate holder shall comply with the increased requirements.

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~~(c) Reduction in rescue and firefighting. During air carrier operations with only aircraft shorter than the Index aircraft group required by paragraph (a) of this section, the certificate holder may reduce the rescue and firefighting to a lower level corresponding to the Index group of the longest air carrier aircraft being operated.~~

~~(d) Any reduction in the rescue and firefighting capability from the Index required by paragraph (a) of this section in accordance with paragraph (c) of this section shall be subject to the following conditions:~~

~~(1) Procedures for, and the persons having the authority to implement, the reductions must be included in the airport certification manual.~~

~~(2) A system and procedures for recall of the full aircraft rescue and firefighting capability must be included in the airport certification manual.~~

~~(3) The reductions may not be implemented unless notification to air carriers is provided in the Airport/Facility Directory or Notices to Airmen (NOTAM), as appropriate, and by direct notification of local air carriers.~~

~~(e) Vehicle communications. Each vehicle required under Sec. XYZ.317 shall be equipped with two-way voice radio communications which provides for contact with at least--~~

~~(1) Each other required emergency vehicle;~~

~~(2) The air traffic control tower, if it is located on the airport; and~~

~~(3) Other stations, as specified in the airport emergency plan.~~

~~(f) Vehicle marking and lighting. Each vehicle required under Sec. XYZ.317 shall--~~

~~(1) Have a flashing or rotating beacon; and~~

~~(2) Be painted or marked in colors to enhance contrast with the background environment and optimize daytime and nighttime visibility and identification.~~

~~(g) FAA Advisory Circulars in the 150 series contain standards for painting, marking and lighting vehicles used on airports which are acceptable to the Administrator.~~

~~(h) Vehicle readiness. Each vehicle required under Sec. XYZ.317 shall be maintained as follows:~~

MINORITY POSITION

(c) Reduction in rescue and firefighting. During air carrier operations with only aircraft shorter than the Index aircraft group required by paragraph (a) of this section, the certificate holder may reduce the rescue and firefighting to a lower level corresponding to the Index group of the longest air carrier aircraft being operated.

(d) Any reduction in the rescue and firefighting capability from the Index required by paragraph (a) of this section in accordance with paragraph (c) of this section shall be subject to the following conditions:

(1) Procedures for, and the persons having the authority to implement, the reductions must be included in the airport certification manual.

(2) A system and procedures for recall of the full aircraft rescue and firefighting capability must be included in the airport certification manual.

(3) The reductions may not be implemented unless notification to air carriers is provided in the Airport/Facility Directory or Notices to Airmen (NOTAM), as appropriate, and by direct notification of local air carriers.

(e) Vehicle communications. Each vehicle required under Sec. XYZ.317 shall be equipped with two-way voice radio communications which provides for contact with at least--

(1) Each other required emergency vehicle;

(2) The air traffic control tower, if it is located on the airport; and

(3) Other stations, as specified in the airport emergency plan.

(f) Vehicle marking and lighting. Each vehicle required under Sec. XYZ.317 shall--

(1) Have a flashing or rotating beacon; and

(2) Be painted or marked in colors to enhance contrast with the background environment and optimize daytime and nighttime visibility and identification.

(g) FAA Advisory Circulars in the 150 series contain standards for painting, marking and lighting vehicles used on airports which are acceptable to the Administrator.

(h) Vehicle readiness. Each vehicle required under Sec. XYZ.317 shall be maintained as follows:

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~~(1) The vehicle and its systems shall be maintained so as to be operationally capable of performing the functions required by this subpart during all air carrier operations.~~
~~(2) If the airport is located in a geographical area subject to prolonged temperatures below 33 degrees Fahrenheit, the vehicles shall be provided with cover or other means to ensure equipment operation and discharge under freezing conditions.~~
~~(3) Any required vehicle which becomes inoperative to the extent that it cannot perform as required by Sec. XYZ.319(h)(1) shall be replaced immediately with equipment having at least equal capabilities. If replacement equipment is not available immediately, the certificate holder shall so notify the Regional Airports Division Manager and each air carrier using the airport in accordance with Sec. XYZ.339. If the required Index level of capability is not restored within 48 hours, the airport operator, unless otherwise authorized by the Administrator, shall limit air carrier operations on the airport to those compatible with the Index corresponding to the remaining operative rescue and firefighting equipment.~~
~~(i) Response requirements. (1) Each certificate holder, with the airport rescue and firefighting equipment required under this part and the number of trained personnel which will assure an effective operation, shall--~~
~~(i) Respond to each emergency during periods of air carrier operations; and~~
~~(ii) When requested by the Administrator, demonstrate compliance with the response requirements specified in this section.~~
~~(2) The response required by paragraph (i)(1)(ii) of this section shall achieve the following performance:~~
~~(i) Within 3 minutes from the time of the alarm, at least one required airport rescue and firefighting vehicle shall reach the midpoint of the farthest runway serving air carrier aircraft from its assigned post, or reach any other specified point of comparable distance on the movement area which is available to air carriers, and begin application of foam, dry chemical, or halon 1211.~~

MINORITY POSITION

(1) The vehicle and its systems shall be maintained so as to be operationally capable of performing the functions required by this subpart during all air carrier operations.
(2) If the airport is located in a geographical area subject to prolonged temperatures below 33 degrees Fahrenheit, the vehicles shall be provided with cover or other means to ensure equipment operation and discharge under freezing conditions.
(3) Any required vehicle which becomes inoperative to the extent that it cannot perform as required by Sec. XYZ.319(h)(1) shall be replaced immediately with equipment having at least equal capabilities. If replacement equipment is not available immediately, the certificate holder shall so notify the Regional Airports Division Manager and each air carrier using the airport in accordance with Sec. XYZ.339. If the required Index level of capability is not restored within 48 hours, the airport operator, unless otherwise authorized by the Administrator, shall limit air carrier operations on the airport to those compatible with the Index corresponding to the remaining operative rescue and firefighting equipment.
(i) Response requirements. (1) Each certificate holder, with the airport rescue and firefighting equipment required under this part and the number of trained personnel which will assure an effective operation, shall--
(i) Respond to each emergency during periods of air carrier operations; and
(ii) When requested by the Administrator, demonstrate compliance with the response requirements specified in this section.
(2) The response required by paragraph (i)(1)(ii) of this section shall achieve the following performance:
(i) Within 3 minutes from the time of the alarm, at least one required airport rescue and firefighting vehicle shall reach the midpoint of the farthest runway serving air carrier aircraft from its assigned post, or reach any other specified point of comparable distance on the movement area which is available to air carriers, and begin application of foam, dry chemical, or halon 1211.

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~~(ii) Within 4 minutes from the time of alarm, all other required vehicles shall reach the point specified in paragraph (i)(2)(i) of this section from their assigned post and begin application of foam, dry chemical, or halon~~
~~1211.~~
~~(j) Personnel. Each certificate holder shall ensure the following:~~
~~(1) All rescue and firefighting personnel are equipped in a manner acceptable to the Administrator with protective clothing and equipment needed to perform their duties.~~
~~(2) All rescue and firefighting personnel are properly trained to perform their duties in a manner acceptable to the Administrator. The training curriculum shall include initial and recurrent instruction in at least the following areas:~~
~~(i) Airport familiarization.~~
~~(ii) Aircraft familiarization.~~
~~(iii) Rescue and firefighting personnel safety.~~
~~(iv) Emergency communications systems on the airport, including fire alarms.~~
~~(v) Use of the fire hoses, nozzles, turrets, and other appliances required for compliance with this part.~~
~~(vi) Application of the types of extinguishing agents required for compliance with this part.~~
~~(vii) Emergency aircraft evacuation assistance.~~
~~(viii) Firefighting operations.~~
~~(ix) Adapting and using structural rescue and firefighting equipment for aircraft rescue and firefighting.~~
~~(x) Aircraft cargo hazards.~~
~~(xi) Familiarization with firefighters' duties under the airport emergency plan.~~
~~(3) All rescue and firefighting personnel participate in at least one live fire drill every 12 months.~~
~~(4) After January 1, 1989, at least one of the required personnel on duty during air carrier operations has been trained and is current in basic emergency medical care. This training shall include 40 hours covering at least the following areas:~~
~~(i) Bleeding.~~
~~(ii) Cardiopulmonary resuscitation.~~
~~(iii) Shock.~~
~~(iv) Primary patient survey.~~
~~(v) Injuries to the skull, spine, chest, and extremities.~~

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(ii) Within 4 minutes from the time of alarm, all other required vehicles shall reach the point specified in paragraph (i)(2)(i) of this section from their assigned post and begin application of foam, dry chemical, or halon
1211.
(j) Personnel. Each certificate holder shall ensure the following:
(1) All rescue and firefighting personnel are equipped in a manner acceptable to the Administrator with protective clothing and equipment needed to perform their duties.
(2) All rescue and firefighting personnel are properly trained to perform their duties in a manner acceptable to the Administrator. The training curriculum shall include initial and recurrent instruction in at least the
following areas:
(i) Airport familiarization.
(ii) Aircraft familiarization.
(iii) Rescue and firefighting personnel safety.
(iv) Emergency communications systems on the airport, including fire alarms.
(v) Use of the fire hoses, nozzles, turrets, and other appliances required for compliance with this part.
(vi) Application of the types of extinguishing agents required for compliance with this part.
(vii) Emergency aircraft evacuation assistance.
(viii) Firefighting operations.
(ix) Adapting and using structural rescue and firefighting equipment for aircraft rescue and firefighting.
(x) Aircraft cargo hazards.
(xi) Familiarization with firefighters' duties under the airport emergency plan.
(3) All rescue and firefighting personnel participate in at least one live-fire drill every 12 months.
(4) After January 1, 1989, at least one of the required personnel on duty during air carrier operations has been trained and is current in basic emergency medical care. This training shall include 40 hours covering at least the following areas:
(i) Bleeding.
(ii) Cardiopulmonary resuscitation.
(iii) Shock.
(iv) Primary patient survey.
(v) Injuries to the skull, spine, chest, and extremities.

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~~(vi) Internal injuries.~~
~~(vii) Moving patients.~~
~~(viii) Burns.~~
~~(ix) Triage.~~
~~(5) Sufficient rescue and firefighting personnel are available during all air carrier operations to operate the vehicles, meet the response times, and meet the miminum agent discharge rates required by this part;~~
~~(6) Procedures and equipment are established and maintained for alerting rescue and firefighting personnel by siren, alarm, or other means acceptable to the Administrator, to any existing or impending emergency requiring their assistance.~~
~~(k) Emergency access roads. Each certificate holder shall ensure that roads which are designated for use as emergency access roads for aircraft rescue and firefighting vehicles are maintained in a condition that will support those vehicles during all weather conditions.~~

Sec. XYZ.321 Handling and storing of hazardous substances and materials.

(a) ~~Each certificate holder which acts as a cargo handling agent shall establish and maintain procedures for the protection of persons and property on the airport during the handling and storing of any material regulated by the the Hazardous Materials Regulations (49 CFR Part 171, et seq.), that is, or is intended to be, transported by air. These procedures shall provide for at least the following:~~
Establish procedures for safety in storing and handling of hazardous substances and materials plus meet local code for aircraft refueling.
(1) ~~Designated personnel to receive and handle hazardous substances and materials.~~
Address the fire code of the public body having jurisdiction over the airport.
~~(2) Assurance from the shipper that the cargo can be handled safely, including any special handling procedures required for safety.~~
~~(3) Special areas for storage of hazardous materials while on the airport.~~
~~(b) Each certificate holder shall establish and maintain standards acceptable to the~~

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(vi) Internal injuries.
(vii) Moving patients.
(viii) Burns.
(ix) Triage.
(5) Sufficient rescue and firefighting personnel are available during all air carrier operations to operate the vehicles, meet the response times, and meet the minimum agent discharge rates required by this part;
(6) Procedures and equipment are established and maintained for alerting rescue and firefighting personnel by siren, alarm, or other means acceptable to the Administrator, to any existing or impending emergency requiring their assistance.
(k) Emergency access roads. Each certificate holder shall ensure that roads which are designated for use as emergency access roads for aircraft rescue and firefighting vehicles are maintained in a condition that will support those vehicles during all-weather conditions.

Sec. XYZ.321 Handling and storing of hazardous substances and materials.

(a) Each certificate holder which acts as a cargo handling agent shall establish and maintain procedures for the protection of persons and property on the airport during the handling and storing of any material regulated by the Hazardous Materials Regulations (49 CFR Part 171, et seq.), that is, or is intended to be, transported by air. These procedures shall provide for at least the following:

(1) Designated personnel to receive and handle hazardous substances and materials.

(2) Assurance from the shipper that the cargo can be handled safely, including any special handling procedures required for safety.
(3) Special areas for storage of hazardous materials while on the airport.
(b) Each certificate holder shall establish and maintain standards acceptable to the

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~~Administrator for protecting against fire and explosions in storing, dispensing, and otherwise handling fuel, lubricants, and oxygen (other than articles and materials that are, or are intended to be, aircraft cargo) on the airport. These standards shall cover facilities, procedures, and personnel training and shall address at least the following:~~
~~(1) Grounding and bonding.~~
~~(2) Public protection.~~
~~(3) Control of access to storage areas.~~
~~(4) Fire safety in fuel farm and storage areas.~~
~~(5) Fire safety in mobile fuelers, fueling pits, and fueling cabinets.~~
~~(6) After January 1, 1989, training of fueling personnel in fire safety in accordance with paragraph (e) of this section.~~
~~(7) The fire code of the public body having jurisdiction over the airport.~~
~~(c) Each certificate holder shall, as a fueling agent, comply with and, except as provided in paragraph (h) of this section, require all other fueling agents operating on the airport to comply with the standards established under paragraph (b) of this section and shall perform reasonable surveillance of all fueling activities on the airport with respect to those standards.~~
~~(d) Each certificate holder shall inspect the physical facilities of each airport tenant fueling agent at least once every 3 months for compliance with paragraph (b) of this section and maintain a record of that inspection for at least 12 months. The certificate holder may use an independent organization to perform this inspection if--~~
~~(1) It is acceptable by the Administrator; and~~
~~(2) It prepares a record of its inspection sufficiently detailed to assure the certificate holder and the FAA that the inspection is adequate.~~
~~(e) The training required in paragraph (b)(6) of this section shall include at least the following:~~
~~(1) At least one supervisor with each fueling agent shall have completed an aviation fuel training course in fire safety which is acceptable to the Administrator.~~
~~(2) All other employees who fuel aircraft, accept fuel shipments, or otherwise handle fuel~~

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(1) Grounding and bonding.
(2) Public protection.
(3) Control of access to storage areas.
(4) Fire safety in fuel farm and storage areas.
(5) Fire safety in mobile fuelers, fueling pits, and fueling cabinets.
(6) After January 1, 1989, training of fueling personnel in fire safety in accordance with paragraph (e) of this section.
(7) The fire code of the public body having jurisdiction over the airport.
(c) Each certificate holder shall, as a fueling agent, comply with and, except as provided in paragraph (h) of this section, require all other fueling agents operating on the airport to comply with the standards established under paragraph (b) of this section and shall perform reasonable surveillance of all fueling activities on the airport with respect to those standards.
(d) Each certificate holder shall inspect the physical facilities of each airport tenant fueling agent at least once every 3 months for compliance with paragraph (b) of this section and maintain a record of that inspection for at least 12 months. The certificate holder may use an independent organization to perform this inspection if--
(1) It is acceptable by the Administrator; and
(2) It prepares a record of its inspection sufficiently detailed to assure the certificate holder and the FAA that the inspection is adequate.
(e) The training required in paragraph (b)(6) of this section shall include at least the following:
(1) At least one supervisor with each fueling agent shall have completed an aviation fuel training course in fire safety which is acceptable to the Administrator.
(2) All other employees who fuel aircraft, accept fuel shipments, or otherwise handle fuel

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~~shall receive at least on-the-job training in fire safety from the supervisor trained in accordance with paragraph (e)(1) of this section.~~
~~(f) Each certificate holder shall obtain certification once a year from each airport tenant fueling agent that the training required by paragraph (e) of this section has been accomplished.~~
~~(g) Unless otherwise authorized by the Administrator, each certificate holder shall require each tenant fueling agent to take immediate corrective action whenever the certificate holder becomes aware of noncompliance with a standard required by paragraph (b) of this section. The certificate holder shall notify the appropriate FAA Regional Airports Division Manager immediately when noncompliance is discovered and corrective action cannot be accomplished within a reasonable period of time.~~
~~(h) A certificate holder need not require an air carrier operating under Part 121 or Part 135 of this chapter to comply with the standards required by this section.~~
~~(i) FAA Advisory Circulars in the 150 Series contain standards and procedures for the handling and storage of hazardous substances and materials which are acceptable to the Administrator.~~

Sec. XYZ.323 Traffic and wind direction indicators.

Each certificate holder shall provide the following on its airport:
(a) A wind cone that provides surface wind direction information visually to pilots. For each airport in a terminal control area, supplemental wind cones shall be installed at each runway end or at least at one point visible to the pilot while on final approach and prior to takeoff. If the airport is open for air carrier operations during hours of darkness, the wind direction indicators must be lighted.
(b) For airports serving any air carrier operation when there is no control tower operating, a segmented circle around one wind cone and a landing strip and traffic pattern indicator for each runway with a right-hand traffic pattern.

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shall receive at least on-the-job training in fire safety from the supervisor trained in accordance with paragraph (e)(1) of this section.
(f) Each certificate holder shall obtain certification once a year from each airport tenant fueling agent that the training required by paragraph (e) of this section has been accomplished.
(g) Unless otherwise authorized by the Administrator, each certificate holder shall require each tenant fueling agent to take immediate corrective action whenever the certificate holder becomes aware of noncompliance with a standard required by paragraph (b) of this section. The certificate holder shall notify the appropriate FAA Regional Airports Division Manager immediately when noncompliance is discovered and corrective action cannot be accomplished within a reasonable period of time.
(h) A certificate holder need not require an air carrier operating under Part 121 or Part 135 of this chapter to comply with the standards required by this section.
(i) FAA Advisory Circulars in the 150 Series contain standards and procedures for the handling and storage of hazardous substances and materials which are acceptable to the Administrator.

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(b) For airports serving any air carrier operation when there is no control tower operating, segmented circle around one wind cone and a landing strip and traffic pattern indicator for each runway with a right-hand traffic pattern.

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Sec. XYZ.325 Airport emergency plan.

(a) Each certificate holder shall develop and maintain an airport emergency plan designed to minimize the possibility and extent of personal injury and property damage on the airport in an emergency. The plan must include--

(1) Procedures for prompt response to all of the emergencies listed in paragraph (b) of this section, including a communications network; and

(2) Sufficient detail to provide adequate guidance to each person who must implement it.

(b) The plan required by this section must contain instructions for response to--

(1) Aircraft incidents and accidents;

(2) Bomb incidents, including designated parking areas for the aircraft involved;

(3) Structural fires;

(4) Natural disaster;

(5) Radiological incidents;

(6) Sabotage, hijack incidents, and other unlawful interference with operations;

(7) Failure of power for movement area lighting; and

(8) Water rescue situations if applicable.

(c) The plan required by this section must address or include--

(1) ARFF response equal to Index A as defined in XYZ.317, and either located on or off-airport.

(2~~1~~) To the extent practicable, provisions for medical services including transportation and medical assistance for the maximum number of persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve;

(3~~2~~) The name, location, telephone number, and emergency capability of each hospital and other medical facility, and the business address and telephone number of medical personnel on the airport or in the communities it serves, agreeing to provide medical assistance or transportation;

(4~~3~~) The name, location, and telephone number of each rescue squad, ambulance service, military installation, and government agency on

MINORITY POSITION

Sec. XYZ.325 Airport emergency plan.

(a) Each certificate holder shall develop and maintain an airport emergency plan designed to minimize the possibility and extent of personal injury and property damage on the airport in an emergency. The plan must include--

(1) Procedures for prompt response to all of the emergencies listed in paragraph (b) of this section, including a communications network; and

(2) Sufficient detail to provide adequate guidance to each person who must implement it.

(b) The plan required by this section must contain instructions for response to--

(1) Aircraft incidents and accidents;

(2) Bomb incidents, including designated parking areas for the aircraft involved;

(3) Structural fires;

(4) Natural disaster;

(5) Radiological incidents;

(6) Sabotage, hijack incidents, and other unlawful interference with operations;

(7) Failure of power for movement area lighting; and

(8) Water rescue situations if applicable.

(c) The plan required by this section must address or include--

(1) ARFF response as defined in XYZ.317.

(2~~1~~) To the extent practicable, provisions for medical services including transportation and medical assistance for the maximum number of persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve;

(3~~2~~) The name, location, telephone number, and emergency capability of each hospital and other medical facility, and the business address and telephone number of medical personnel on the airport or in the communities it serves, agreeing to provide medical assistance or transportation;

(4~~3~~) The name, location, and telephone number of each rescue squad, ambulance service, military installation, and government agency on

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the airport or in the communities it serves, that agrees to provide medical assistance or transportation;

(5~~4~~) An inventory of surface vehicles and aircraft that the facilities, agencies, and personnel included in the plan under paragraphs (c)(2) and (c)(3) of this section will provide to transport injured and deceased persons to locations on the airport and in the communities it serves;

(6~~5~~) Each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons;

(7~~6~~) Crowd control, specifying the name and location of each safety or security agency agrees to provide assistance for the control of crowds in the event of an emergency on the airport; and

(8~~7~~) The removal of disabled aircraft including to the extent practical the name, location and telephone numbers of agencies with aircraft removal responsibilities or capabilities.

(d) The plan required by this section must provide for

(1) The provision of Index A ARFF response as defined in XYZ.317.

(2~~1~~) The marshalling, transportation, and care of ambulatory injured and uninjured accident survivors;

(3~~2~~) The removal of disabled aircraft;

(4~~3~~)Emergency alarm ~~system~~ or communication/ notification; and

(5~~4~~) Coordination of airport and control tower functions relating to emergency actions, where applicable.

(e) The plan required by this section shall contain procedures for notifying the facilities, agencies, and personnel who have responsibilities under the plan of the location of an aircraft accident, the number of persons involved in that accident, or any other information necessary to carry out their responsibilities, as soon as that information is available.

(f) The plan required by this section shall contain provisions, to the extent practicable, for the rescue of aircraft accident victims from significant bodies of water or marsh lands adjacent to the airport which are crossed by the approach and departure flight paths of air

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the airport or in the communities it serves, that agrees to provide medical assistance or transportation;

(5~~4~~) An inventory of surface vehicles and aircraft that the facilities, agencies, and personnel included in the plan under paragraphs (c)(2) and (c)(3) of this section will provide to transport injured and deceased persons to locations on the airport and in the communities it serves;

(6~~5~~) Each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons;

(7~~6~~) Crowd control, specifying the name and location of each safety or security agency agrees to provide assistance for the control of crowds in the event of an emergency on the airport; and

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(1) The provision of Index A ARFF response as defined in XYZ.317.

(2~~1~~) The marshalling, transportation, and care of ambulatory injured and uninjured accident survivors;

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(f) The plan required by this section shall contain provisions, to the extent practicable, for the rescue of aircraft accident victims from significant bodies of water or marsh lands adjacent to the airport which are crossed by the approach and departure flight paths of air

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carriers. A body of water or marsh land is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles. To the extent practicable, the plan shall provide for rescue vehicles with a combined capacity for handling the maximum number of persons that can be carried on board the largest air carrier aircraft that the airport reasonably can be expected to serve.

(g) Each certificate holder shall--

(1) Coordinate its plan with law enforcement agencies, rescue and fire fighting agencies, medical personnel and organizations, the principal tenants at the airport, and all other persons who have responsibilities under the plan;

(2) To the extent practicable, provide for participation by all facilities, agencies, and(2) To the extent practicable, provide for participation by all facilities, agencies, and personnel specified in paragraph (g)(1) of this section in the development of the plan;

(3) Ensure that all airport personnel having duties and responsibilities under the plan are familiar with their assignments and are properly trained;

(4) At least once every 12 months, review the plan and conduct a walk through with all of the parties with whom the plan is coordinated as specified in paragraph (g)(1) of this section, to ensure that all parties know their responsibilities and that all of the information in the plan is current; ~~and~~

~~(5) Hold a full scale airport emergency plan exercise at least once every 3years~~.

(h) FAA Advisory Circulars in the 150 Series contain standards and procedures for the development of an airport emergency plan which are acceptable to the Administrator.

Sec. XYZ.327 Self-inspection program.

(a) Each certificate holder or designee shall inspect the airport to assure compliance with this subpart--

(1) Daily, except as otherwise required by the airport certification manual or airport certification specifications;

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(g) Each certificate holder shall--

(1) Coordinate its plan with law enforcement agencies, rescue and fire fighting agencies, medical personnel and organizations, the principal tenants at the airport, and all other persons who have responsibilities under the plan;

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(3) Ensure that all airport personnel having duties and responsibilities under the plan are familiar with their assignments and are properly trained;

(4) At least once every 12 months, review the plan with all of the parties with whom the plan is coordinated as specified in paragraph (g)(1) of this section, to ensure that all parties know their responsibilities and that all of the information in the plan is current; and

(5) Hold a full scale airport emergency plan exercise at least once every 3 years.

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Sec. XYZ.327 Self-inspection program.

(a) Each certificate holder or designee shall inspect the airport to assure compliance with this subpart--

(1) Daily, except as otherwise required by the airport certification manual or airport certification specifications;

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(2) When required by any unusual condition such as construction activities or meteorological conditions that may affect safe air carrier operations; and
(3) Immediately after an accident or incident.
(b) Each certificate holder shall provide the following:
(1) Equipment for use in conducting safety inspections of the airport;
(2) Procedures, facilities, and equipment for reliable and rapid dissemination of information between airport personnel and its air carriers;
(3) Procedures to ensure that qualified inspection personnel perform the inspections; and
(4) A reporting system to ensure prompt correction of unsafe airport conditions noted during the inspection.
(c) Each certificate holder shall prepare and keep for at least 6 months, and make available for inspection by the Administrator on request, a record of each inspection prescribed by this showing the conditions found and all corrective actions taken.
(d) FAA Advisory Circulars in the 150 series contain standards and procedures for the conduct of airport self-inspections which are acceptable to the Administrator.

Sec. XYZ.329 Ground vehicles.

Each certificate holder shall--
~~(a) Limit access to movement areas and safety areas only to those ground vehicles necessary for airport operations;~~
~~(b) Establish and implement procedures for the safe and orderly access to, and operation on, the movement area and safety areas by ground vehicles, including provisions identifying the consequences of noncompliance with the procedures by an employee, tenant, or contractor;~~
~~(c) When an air traffic control tower is in operation, ensure that each ground vehicle operating on the movement area is controlled by one of the following:~~
~~(1) Two way radio communications between each vehicle and the tower,~~

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(2) When required by any unusual condition such as construction activities or meteorological conditions that may affect safe air carrier operations; and
(3) Immediately after an accident or incident.
(b) Each certificate holder shall provide the following:
(1) Equipment for use in conducting safety inspections of the airport;
(2) Procedures, facilities, and equipment for reliable and rapid dissemination of information between airport personnel and its air carriers;
(3) Procedures to ensure that qualified inspection personnel perform the inspections; and
(4) A reporting system to ensure prompt correction of unsafe airport conditions noted during the inspection.
(c) Each certificate holder shall prepare and keep for at least 6 months, and make available for inspection by the Administrator on request, a record of each inspection prescribed by this showing the conditions found and all corrective actions taken.
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(a) Limit access to movement areas and safety areas only to those ground vehicles necessary for airport operations;
(b) Establish and implement procedures for the safe and orderly access to, and operation on, the movement area and safety areas by ground vehicles, including provisions identifying the consequences of noncompliance with the procedures by an employee, tenant, or contractor;
(c) When an air traffic control tower is in operation, ensure that each ground vehicle operating on the movement area is controlled by one of the following;
(1) Two way radio communications between each vehicle and the tower;

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~~(2) An escort vehicle with two way radio communications with the tower to accompany any vehicle without a radio, or~~
~~(3) Measures acceptable to the Administrator for controlling vehicles, such as signs, signals, or guards, when it is not operationally practical to have two way radio communications with the vehicle or an escort vehicle;~~
~~(d) When an air traffic control tower is not in operation, provide adequate procedures to control ground vehicles on the movement area through prearranged signs or signals;~~
(a~~e~~) Ensure that each employee, tenant, or contractor who operates a ground vehicle on any portion of the airport that has access to the movement area is familiar with the airport's procedures for the operation of ground vehicles and the consequences of noncompliance; and
(b~~f~~) On request by the Administrator, make available for inspection any record of accidents or incidents on the movement areas involving air carrier aircraft and/or ground vehicles.

Sec. XYZ.331 Obstructions.

Each certificate holder shall ensure that each object in each area within its authority which exceeds any of the heights or penetrates the imaginary surfaces described in Part 77 of this chapter is either removed, marked, or lighted. However, removal, marking, and lighting is not required if it is determined to be unnecessary by an FAA aeronautical study.

Sec. XYZ.333 Protection of navaids.

Each certificate holder shall--
(a) Prevent the construction of facilities on its airport that, as determined by the Administrator, would derogate the operation of an electronic or visual navaid and air traffic control facilities on the airport;
(b) Protect, or if the owner is other than the certificate holder, assist in protecting, all navaids on its airport against vandalism and theft; and

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(2) An escort vehicle with two way radio communications with the tower to accompany any vehicle without a radio, or
(3) Measures acceptable to the Administrator for controlling vehicles, such as signs, signals, or guards, when it is not operationally practical to have two way radio communications with the vehicle or an escort vehicle;
(d) When an air traffic control tower is not in operation, provide adequate procedures to control ground vehicles on the movement area through prearranged signs or signals;
(e) Ensure that each employee, tenant, or contractor who operates a ground vehicle on any portion of the airport that has access to the movement area is familiar with the airport's procedures for the operation of ground vehicles and the consequences of noncompliance; and
(f) On request by the Administrator, make available for inspection any record of accidents or incidents on the movement areas involving air carrier aircraft and/or ground vehicles.
is necessary to address the responsibility of certificate holders with regard to ground vehicle operations.

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Each certificate holder shall ensure that each object in each area within its authority which exceeds any of the heights or penetrates the imaginary surfaces described in Part 77 of this chapter is either removed, marked, or lighted. However, removal, marking, and lighting is not required if it is determined to be unnecessary by an FAA aeronautical study.

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Each certificate holder shall--
(a) Prevent the construction of facilities on its airport that, as determined by the Administrator, would derogate the operation of an electronic or visual navaid and air traffic control facilities on the airport;
(b) Protect, or if the owner is other than the certificate holder, assist in protecting, all navaids on its airport against vandalism and theft; and

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(c) Prevent, insofar as it is within the airport's authority, interruption of visual and electronic signals of navaids.

Sec. XYZ.335 Public protection.

(a) Each certificate holder shall provide--
(1) Safeguards acceptable to the Administrator to prevent inadvertent entry
to the movement area by unauthorized persons or vehicles; and
(2) Reasonable protection of persons and property from aircraft blast.
~~(b) Fencing meeting the requirements of Part 107 of this chapter in areas subject to that part is acceptable for meeting the requirements of paragraph (a)(1) of this section.~~

Sec. XYZ.337 Wildlife hazard management.

~~(a) Each certificate holder shall provide for the conduct of an ecological study, acceptable to the Administrator, when any of the following events occurs on or near the airport:~~
~~(1) An air carrier aircraft experiences a multiple bird strike or engine ingestion.~~
~~(2) An air carrier aircraft experiences a damaging collision with wildlife other than birds.~~
~~(3) Wildlife of a size or in numbers capable of causing an event described in paragraph (a) (1) or (2) of this section is observed to have access to any airport flight pattern or movement area.~~
~~(b) The study required in paragraph (a) of this section shall contain at least the following:~~
~~(1) Analysis of the event which prompted the study.~~
~~(2) Identification of the species, numbers, locations, local movements, and daily and seasonal occurrences of wildlife observed.~~
~~(3) Identification and location of features on and near the airport that attract wildlife.~~
~~(4) Description of the wildlife hazard to air carrier operations.~~
~~(c) The study required by paragraph (a) of this section shall be submitted to the Administrator, who determines whether or not there is a need for a wildlife hazard management plan. In reaching this determination, the Administrator considers--~~

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(c) Prevent, insofar as it is within the airport's authority, interruption of visual and electronic signals of navaids.

Sec. XYZ.335 Public protection.

(a) Each certificate holder shall provide--
(1) Safeguards acceptable to the Administrator to prevent inadvertent entry
to the movement area by unauthorized persons or vehicles; and
(2) Reasonable protection of persons and property from aircraft blast.
~~(b) Fencing meeting the requirements of Part 107 of this chapter in areas subject to that part is acceptable for meeting the requirements of paragraph (a)(1) of this section.~~

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(1) Analysis of the event which prompted the study.
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(c) The study required by paragraph (a) of this section shall be submitted to the Administrator, who determines whether or not there is a need for a wildlife hazard management plan. In reaching this determination, the Administrator considers--

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~~(1) The ecological study;~~
~~(2) The aeronautical activity at the airport;~~
~~(3) The views of the certificate holder;~~
~~(4) The views of the airport users.~~
~~(5) Any other factors bearing on the matter of which the Administrator is aware.~~
~~(d) When the Administrator determines that a wildlife hazard management plan is needed, the certificate holder shall formulate and implement a plan using the ecological study as a basis. The plan shall--~~
~~(1) Be submitted to, and approved by, the Administrator prior to implementation; and~~
~~(2) Provide measures to alleviate or eliminate wildlife hazards to air carrier operations.~~
~~(e) The plan shall include at least the following:~~
~~(1) The persons who have authority and responsibility for implementing the plan.~~
~~(2) Priorities for needed habitat modification and changes in land use identified in the ecological study, with target dates for completion.~~
~~(3) Requirements for and, where applicable, copies of local, state, and Federal wildlife control permits.~~
~~(4) Identification of resources to be provided by the certificate holder for implementation of the plan.~~
~~(5) Procedures to be followed during air carrier operations, including at least~~
~~(i) Assignment of personnel responsibilities for implementing the procedures;~~
~~(ii) Conduct of physical inspections of the movement area and other areas critical to wildlife hazard management sufficiently in advance of air carrier operations to allow time for wildlife controls to be effective;~~
~~(iii) Wildlife control measures; and~~
~~(iv) Communication between the wildlife control personnel and any air traffic control tower in operation at the airport.~~
~~(6) Periodic evaluation and review of the wildlife hazard management plan for--~~
~~(i) Effectiveness in dealing with the wildlife hazard; and~~
~~(ii) Indications that the existence of the wildlife hazard, as previously described in the ecological study, should be reevaluated.~~

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(1) The ecological study;
(2) The aeronautical activity at the airport;
(3) The views of the certificate holder;
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(5) Procedures to be followed during air carrier operations, including at least
(i) Assignment of personnel responsibilities for implementing the procedures;
(ii) Conduct of physical inspections of the movement area and other areas critical to wildlife hazard management sufficiently in advance of air carrier operations to allow time for wildlife controls to be effective;
(iii) Wildlife control measures; and
(iv) Communication between the wildlife control personnel and any air traffic control tower in operation at the airport.
(6) Periodic evaluation and review of the wildlife hazard management plan for--
(i) Effectiveness in dealing with the wildlife hazard; and
(ii) Indications that the existence of the wildlife hazard, as previously described in the ecological study, should be reevaluated.

MAJORITY POSITION

~~(7) A training program to provide airport personnel with the knowledge and skills needed to carry out the wildlife hazard management plan required by paragraph (d) of this section.~~

(a~~f~~) ~~Notwithstanding the other requirements of this section,~~ Eeach certificate holder shall take immediate measures to alleviate wildlife hazards whenever they are detected.

(b~~g~~) FAA Advisory Circulars in the 150 series contain standards and procedures for wildlife hazard management at airports which are acceptable to the Administrator.

Sec. XYZ.339 Airport condition reporting.

(a) Each certificate holder shall provide for the collection and dissemination of airport condition information to air carriers.

(b) In complying with paragraph (a) of this section, the certificate holder shall utilize the NOTAM system and, as appropriate, other systems and procedures acceptable to the Administrator.

(c) In complying with paragraph (a) of this section, the certificate holder shall provide information on the following airport conditions which may affect the safe operations of air carriers:

(1) Construction or maintenance activity on movement areas, safety areas, or loading ramps and parking areas.

(2) Surface irregularities on movement areas or loading ramps and parking areas.

(3) Snow, ice, slush, or water on the movement area or loading ramps and parking areas.

(4) Snow piled or drifted on or near movement areas contrary to Sec. XYZ.313.

(5) Objects on the movement area or safety areas contrary to Sec. XYZ.309.

(6) Malfunction of any lighting system required by Sec. XYZ.311.

(7) Unresolved wildlife hazards as identified in accordance with Sec. XYZ.337.

(8) Nonavailability of any rescue and firefighting capability required in Section~~s~~ XYZ.317~~ and XYZ.319~~.

MINORITY POSITION

(7) A training program to provide airport personnel with the knowledge and skills needed to carry out the wildlife hazard management plan required by paragraph (d) of this section.

(f) Notwithstanding the other requirements of this section, each certificate holder shall take immediate measures to alleviate wildlife hazards whenever they are detected.

(g) FAA Advisory Circulars in the 150 series contain standards and procedures for wildlife hazard management at airports which are acceptable to the Administrator.

Sec. XYZ.339 Airport condition reporting.

(a) Each certificate holder shall provide for the collection and dissemination of airport condition information to air carriers.

(b) In complying with paragraph (a) of this section, the certificate holder shall utilize the NOTAM system and, as appropriate, other systems and procedures acceptable to the Administrator.

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(1) Construction or maintenance activity on movement areas, safety areas, or loading ramps and parking areas.

(2) Surface irregularities on movement areas or loading ramps and parking areas.

(3) Snow, ice, slush, or water on the movement area or loading ramps and parking areas.

(4) Snow piled or drifted on or near movement areas contrary to Sec. XYZ.313.

(5) Objects on the movement area or safety areas contrary to Sec. XYZ.309.

(6) Malfunction of any lighting system required by Sec. XYZ.311.

(7) Unresolved wildlife hazards as identified in accordance with Sec. XYZ.337.

(8) Nonavailability of any rescue and firefighting capability required in Sections XYZ.317 and XYZ.319.

MAJORITY POSITION

(9) Any other condition as specified in the airport certification manual or airport certification specifications, or which may otherwise adversely affect the safe operations of air carriers.
(d) FAA Advisory Circulars in the 150 series contain standards and procedures for using the NOTAM system for dissemination of airport information which are acceptable to the Administrator.

Sec. XYZ.341 Identifying, marking, and reporting construction and other unserviceable areas.

(a) Each certificate holder shall--
(1) Mark and, if appropriate, light in a manner acceptable to the Administrator--
(i) Each construction area and unserviceable area which is on or adjacent to any movement area or any other area of the airport on which air carrier aircraft may be operated;
(ii) Each item of construction equipment and each construction roadway, which may affect the safe movement of aircraft on the airport; and
(iii) Any area adjacent to a navaid that, if traversed, could cause derogation of the signal or the failure of the navaid, and
(2) Provide procedures, such as a review of all appropriate utility plans prior to construction, for avoiding damage to existing utilities, cables, wires, conduits, pipelines, or other underground facilities.
(b) FAA Advisory Circulars in the 150 series contain standards and procedures for identifying and marking construction areas which are acceptable to the Administrator.

Sec. XYZ.343 Noncomplying conditions.

Unless otherwise authorized by the Administrator, whenever the requirements of Subpart D of this part cannot be met to the extent that uncorrected unsafe conditions exist on the airport, the certificate holder shall limit air carrier operations to those portions of the airport not rendered unsafe by those conditions.
of Subpart D of this part cannot be met to the extent that uncorrected unsafe conditions exist on the airport, the certificate holder shall limit air carrier operations to those portions of the airport not rendered unsafe by those conditions.

MINORITY POSITION

(9) Any other condition as specified in the airport certification manual or airport certification specifications, or which may otherwise adversely affect the safe operations of air carriers.
(d) FAA Advisory Circulars in the 150 series contain standards and procedures for using the NOTAM system for dissemination of airport information which are acceptable to the Administrator.

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(1) Mark and, if appropriate, light in a manner acceptable to the Administrator--
(i) Each construction area and unserviceable area which is on or adjacent to any movement area or any other area of the airport on which air carrier aircraft may be operated;
(ii) Each item of construction equipment and each construction roadway, which may affect the safe movement of aircraft on the airport; and
(iii) Any area adjacent to a navaid that, if traversed, could cause derogation of the signal or the failure of the navaid, and
(2) Provide procedures, such as a review of all appropriate utility plans prior to construction, for avoiding damage to existing utilities, cables, wires, conduits, pipelines, or other underground facilities.
(b) FAA Advisory Circulars in the 150 series contain standards and procedures for identifying and marking construction areas which are acceptable to the Administrator.

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V. MEETING MINUTES

The Working Group held five meetings between June 1995 and December 1996, and one tele-conference on September 8, 1995 (no recorded minutes). Minutes from the five meetings were recorded and are presented in this section. A brief summary of the key issues for these meetings is presented below.

June 26-27, 1995

- Kick-off meeting where Bob David gave an overview of the purpose of the Aviation Rulemaking Advisory Committee (ARAC) and FAR Part 139 regulations. He set forth the Working Group's task to recommend changes to FAR Part 139 to include those airports with scheduled commuter operations that have 10-30 seat aircraft operations.

- The Working Group prepared a preliminary list of possible options for modified Part 139 regulations.

- A preliminary two phase Working Plan was developed.

- The Working Group reviewed the FAR Part 139.213 requirements to see what would be applicable to these type airports.

October 10-11, 1995

- Review responses from the survey questionnaire and follow-up phone survey.

- The Working Group recommended that a non-regulatory Part 139 industry standard be proposed for those airport with 10-30 seat aircraft service. There was no objection to this proposal from the members present at the meeting.

- Presentations were made by Bill Wekenborg and Robert Belyea on ARFF response and equipment.

March 20, 1996

- Jerry Wright made a presentation regarding ALPA's opinion on where the Working Group is headed with the current "Industry Standard" recommendation.

- The FAA economist presented the capital and recurring cost results from the survey of airports.

- The Working Group discussed how the "industry standard" would be established and administered.

- Mark Brewer presented feedback he received from Sedgwick James Aviation, Inc. regarding the "industry standard" approach toward airport safety.

- The approved Work Plan was reviewed to determine if the Working Group was in compliance with its charter and if any issues needed further study.

September 26-27, 1996

- Ken Kenvin will replace John Duval as chairman of the ARAC.

- Loretta Scott gave a briefing of the events that had transpired since the last meeting. ALPA had taken issue with the "industry standard" direction and declared that the Working Group had gone outside or beyond its charter. In response, the Airport Issue Group determined that the Working Group was within its' charge and that non-regulatory considerations was a viable option. The Working Group was asked to review FAR Part 139 line-by-line to consider its applicability to those airports under question.

- An additional questionnaire was developed for the case study of airports that are voluntarily adhering to the FAR Part 139 regulations. The results of this case study were presented to the Working Group.

- Allen Winters of Sedwick James Aviation, Inc. gave a briefing about the airport insurance industry.

- The November 18, 1987 GAO Report was reviewed for additional guidance in making a recommendation.

- FAR Part 139 Subpart D was reviewed line-by-line to determine what would be applicable to airports with scheduled service from 10 to 30 seat commuter aircraft.

- Allen Mattes gave a briefing on the status of the cost/benefit analysis.

December 5-6, 1996

- Bruce Kirkendoll indicated that the Working Group has been given a new mission from the Issues Committee. There would be some form of "regulatory" requirements proposed by the Working Group and that they are to reach a consensus on Part 139 requirements relative to the airports under question. If there is no consensus, than each group will state there positions in the final report.

- The remainder of Part 139 was reviewed line-by-line and each member presented their opinion.

- It was clear that there would be no consensus on this issue and there would be a majority and minority opinion presented in the final report.

-FINAL-

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP

MEETING MINUTES

June 26-27, 1995

Attendees:

Loretta Scott, Chairperson
Steve Pavish, NASAO
Bob David, FAA
Ron Roy, NASAO
Dean Cook, RAA
Bruce Kirkendoll, FAA
Andy Cebula, NATA
Russell Blanck, L&B
Teresa Kuto, AAAE
Bob Sanfilippo, L&B
Victor Hewes, ALPA
Jeff Cepuran, ALPA

Bob David opened the meeting with a brief overview of the purpose of the Aviation Rulemaking Advisory Committee (ARAC) and FAR Part 139. Our group is considered as a "Working Group" under ARAC. We are charged with formulating changes to FAR Part 139 regulations to include those airports with scheduled commuter operations that have 10-30 seating capacity. The FAA will make available an economist (Jeff Goode) to perform cost/benefit analysis, a lawyer for legal review, a drafter/CAD operator, and an FAA representative at each meeting for additional guidance (Bruce Kirkendoll). The new rules will only apply to scheduled commuter service as defined under FAR Part 119. Andy Cebula indicated that Congress is not acting on current legislation until the ARAC makes a recommendation on FAR Part 139 rules for 10-30 seat scheduled commuter operators.

Brenda Courtney of the FAA reviewed the Operating Procedures for the Aviation Rulemaking Advisory Committee and issued a copy of these operating procedures. Walt Coleman is the Chairman and John Duvale is the Assistant Chairman of ARAC. An approved "Work Plan" will be necessary prior to formulating any recommendations to the ARAC Chairman.

The FAA supplied a preliminary list of airports that will/may be affected by the ARAC recommendation for commuter FAR Part 139 regulations. This list was complied with input from the FAA, RAA and OAG, "Airports Receiving Service with 10 or More Seats Commuter Aircraft as of January 27, 1995." The Group inputted some additional airports to this list. An ARAC sub-working group met in Boston and prepared a draft questionnaire to be sent to the airports on the list. The Working Group reviewed the questionnaire and made various changes

where appropriate. Loretta Scott will prepare a cover letter on AAAE letter head and Landrum & Brown will distribute the questionnaire to the various airports.

Bruce Kirkendoll indicated that the General Accounting Office (GAO) made a FAR Part 139 rule recommendation for commuter operators with 10-30 seats in a November, 1987 report to Senator Robert Byrd, "Aviation Safety, Commuter Airports Should Participate in the Airport Certification Program, GAO/RCED-88-41." A copy of this report was distributed to the Working Group. The National Transportation Safety Board (NTSB) initiated this review for all scheduled airport commuter service. Larry Roman of the NTSB gave a briefing on their reasoning behind the recommendation. He indicated that there was no accident data to support their recommendation, however, they felt that a commuter passenger should have the same level of safety as air carrier operators and that there are no commuter operator requirements today. The NTSB has asked the FAA to receive legislative authority for the additional standards and that they are not asking for full commuter certification at this time. The main concern of the NTSB board members is the ARFF response time, safety areas, signage and lighting requirements. The NTSB is relying on this Working Group to develop reasonable and practical recommendations for commuter FAR Part 139 operators.

Loretta Scott prepared a list of three possible options on new FAR Part 139 rules for commuter operators with 10 to 30 seats.

- Option 1 - Change FAR Part 139 to read 10 passengers instead of 30. Exceptions to these rules would be required for some airports. The Working Group did not think this was a viable recommendation.

- Option 2 - This option recommends that no changes be made to FAR Part 139. The Working Group felt that this was a viable option, however it may not satisfy Congress or the FAA. Bruce Kirkendoll indicated that the FAA's Associate Administrator has indicated that the FAA is neutral on this issue and has no pre-decisions.

- Option 3 - This option recommends that FAR Part 139 be modified to read 10 passengers and to suggest changes in requirements to reduce the economic impact on airport sponsors. The Working Group felt that this was a viable option and warrants further discussion.

A preliminary two phase Work Plan was prepared for submission to the ARAC Chairman, which includes the following:

PHASE 1

1. Objective statement (list 4 issues).

2. Develop preliminary options for consideration.

3. Have FAA economist immediately prepare a cost/benefit analysis on Option 1.

4. Briefing from NTSB on why they made recommendation to change FAR Part 139 to include the 10-30 seat scheduled commuter operators.

5. Review and comment on the GAO November, 1987 Aviation Safety Report.

6. Request a list of commuter operator accident/safety statistics.

7. Prepare a questionnaire survey to be issued to airports potentially affected by FAR Part 139 changes.

8. Identify potential affected airports and coordinate with state aviation representatives on airport mailing list.

9. Issue and analyze questionnaire survey data.

10. Develop follow-up phone questionnaire.

11. Evaluate international implications.

PHASE 2

1. Refine options based on information/data received from airport surveys.

2. FAA perform cost/benefit analysis on remaining options.

3. Develop preliminary recommendations.

4. FAA perform legal review of preliminary recommendations.

5. Present preliminary recommendations to ARAC.

6. Assess and validate/incorporate ARAC comments.

7. Make final recommendations to ARAC.

It was recommended that the FAA economist immediately prepare a cost/benefit analysis for Option 1. This should include capital costs to meet FAR Part 139 requirements, operating and maintenance costs, life/cycle costs, and training costs. A baseline non-certified airport with no equipment should also be analyzed.

The following various issues were raised during the course of the meetings and need further discussion/resolution by the Working Group or other outside agencies:

- Should all airports have a Disaster Plan?
- Define what scheduled service means.
- Liability issues for compliance with recommended FAR Part 139 regulations.
- Cost/benefit of ARFF requirements may be a major issue.
- List of commuter aircraft accidents and their cause.
- U.S. airports do not comply with ICAO safety standards, and should they?
- Educational process needed if new regulations are proposed for commuter airports, and who will conduct/pay for this education.
- Alaska airports have special situations and may require special set of rules or exemptions to the proposed new regulations.

- Possible use of off-airport ARFF facilities.
- Frequency and cost of airport inspections due to reduced FAA staff and increase in FAR Part 139 airports.
- State wildlife mitigation measure as opposed to individual airport mitigation procedures.

The Working Group reviewed the FAR Part 139.213 requirements to see if they would be applicable to scheduled commuter operators with 10-30 seats. These requirements apply to applicants requesting a limited airport operating certificate. The following recommendations were noted:

(2)(b)(1) Lines of succession of airport operational responsibility. **(Applicable).**

(2)(b)(2) Each current exemption issued to the airport from the requirements of this part. **(Non-Applicable).**

(2)(b)(3) Any limitations imposed by the Administrator. **(Non-Applicable).**

(2)(b)(4) The system of runway and taxiway identification. **(Applicable) - (Use of reflective signs is adequate).**

(2)(b)(5) The location of each obstruction required to be lighted or marked within the airport's area of authority. **(Applicable).**

(2)(b)(6) A description of each movement area available for air carriers and its safety areas. **(Applicable).**

(2)(b)(7) Procedures for maintaining the paved areas as required by 139.305. **(Applicable).**

(2)(b)(8) Procedures for maintaining the unpaved areas as required by 139.307. **(Applicable).**

(2)(b)(9) Procedures for maintaining the safety areas as required by 139.309. **(Applicable) - (Grandfather current safety areas, use foam arresting systems, major cost issue, need further guidance on safety area requirements for runway overlay projects).**

(2)(b)(10) A description of, and procedures for maintaining, the marking and lighting systems as required by 139.311. **(New wording of this regulation is required).**

(2)(b)(11) A description of the facilities, equipment, personnel, and procedures for emergency response to aircraft rescue and firefighting needs. **(Create new index level, possible training of local fire department).**

(2)(b)(12) Procedures for safety in storing and handling of hazardous substances and materials. **(Applicable).**

(2)(b)(13) A description of, and procedures for maintaining, any traffic and wind direction indicators on the airport. **(Applicable).**

(2)(b)(14) A description of the procedures used for conducting self-inspections of the airport. **(Add provisions for individual air carrier to perform own inspection).**

(2)(b)(15) Procedures and responsibilities for airport condition reporting as required by 139.339. **(Provide wording to allow private airports to directly contact the individual airlines with appropriate information. They are not permitted to issue NOTAM's.)**

(2)(b)(16) Procedures for compliance with any other provisions of subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest. **(Applicable, provided rules are flexible enough to minimize impact on airport capital costs and O&M costs).**

ACTION ITEMS

1. List of commuter accident information (Bob David).

2. Questionnaire cover letter (Loretta Scott).

3. Issue questionnaire to airport sponsors and analyze response data (Russell Blanck and Bob Sanfilippo).

4. Preparation of phone questionnaire (Loretta Scott, Bob Sanfilippo and Bruce Kirkendoll).

5. Perform cost/benefit analysis of Option 1 (Jeff Goode, FAA).

NEXT MEETINGS

1. Teleconference week of September 4-8, 1995 (Have phone questionnaire for review).

2. Meeting at DFW on October 10 and 11, 1995.

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-FINAL-

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP

MEETING MINUTES

October 10-11, 1995

Attendees:	Affiliation	Phone No.
Loretta Scott, Chairperson	Grand Prairie Mun. Airport	214-988-3801
Bob Sanfilippo	Landrum & Brown	513-530-5333
Russell Blanck	Landrum & Brown	513-530-5333
Woody Davis	FAA, Attorney Advisor	202-267-3428
Bruce Kirkendoll	FAA, Airport Safety Specialist	202-267-8741
Jeffrey Goode	FAA, Aviation Policy/Economics	202-267-3103
George Rasmussan	Great Lakes Aviation, Ltd. (RAA)	612-767-7000
Deborah McElroy	Regional Airline Assoc. (RAA)	202-857-1170
Ron Roy	Maine DOT/NASAO	207-287-3186
Jeff Gilley	AOPA	301-695-2208
Andy Cebula	NATA	703-845-9000
Mark Brewer	Lehigh Valley Int. Airport	610-266-6001
Dana Batey	Oklahoma Aeronautics Commission	405-340-4626
Jeff Cepuran	ALPA	904-492-7261

Loretta Scott opened the meeting and asked if there were any comments regarding the June 26-27, 1995 meeting minutes. There were no comments received. A letter from DOT Administrator David Hinson to Paul Bowers of the Alaska DOT was distributed regarding Hinson's views on implementation of full Part 139 regulations at airports being served by 10-30 seat aircraft (see attachment).

Mr. Blanck reviewed the current status of the airport survey data response (see attachment). He indicated that there were a total of 371 airports surveyed (194 in the lower 48 states and 177 in Alaska). A total of 291 airports responded, for a return rate of 78 percent. Of those responding, 65 airports have full Part 139 certification, 49 have limited certification, and 176 have no Part 139 certification. Approximately 85 percent of the none certificated airports are in Alaska. One major area of concern is the amount of airports having Airport Rescue and Firefighting (ARFF) capability. Approximately 84 percent of the airports within the lower 48 states have ARFF capability, while only 15 percent of the Alaskan airports have ARFF capability. ARFF capability was provided by either the airport, local fire department or the National Guard. The majority of the limited certificated airports are in compliance with full Part 139 requirements, except for the ARFF requirements. The majority of the none certified airports have minimal or no ARFF capability (staff or equipment).

An additional phone survey was conducted consisting of ten questions (see attachment). The phone surveys indicated that the majority of the limited and none certified airports could not financially afford to purchase or staff the necessary ARFF associated with full Part 139 certification requirements. Many of the airports are under staffed and managed by the local municipality. Many of the airports staff had no idea what facilities were required under Part 139.

Mr. Sanfilippo asked who is more liable, an airport that does not have proper ARFF equipment, or an airport with full ARFF and non-adequate response training. Mr. Kirkendoll indicated that it depends on how the airport's certification manual is written and what the airport lists as their capabilities. An airport's liability will increase as the equipment and procedures are increased. Many of the airports only have ARFF capability from the local fire department, who do not have the proper aircraft firefighting training. Many airports that were surveyed questioned the safety benefits of full Part 139 ARFF certification, particularly since there is no accident data to support the increased ARFF capability. Ms. McElroy indicated that there are three areas where airport money can be allocated regarding safety; 1) accident prevention, 2) determine what caused the incident, and 3) respond to an incident. She felt that it would be more practical to spend the money on trying to prevent the incident from occurring, rather than on more ARFF equipment to respond to an accident.

It was a unanimous agreement that there needs to be more money spent on educating the airport managers/operators on airport operations and safety requirements. The FAA needs to establish some type of Part 139 industry standards and programs/seminars to assist the airports in educational training. Mr. Rasmussan stated that he does not see a safety problem at airports now, it is purely an economical issue regarding Part 139 requirements. Making all airports comply with full Index A ARFF requirements would be like staging an ambulance and wrecker every mile on the highway to respond to auto accidents. Mr. Rasmussan noted that the majority of the pilots feel just as safe flying into small airports as they do large airports, however, every situation is different. Mr. Gilley indicated that AOPA feels that the same level of passenger safety should be present at all airports, no matter their size.

Mr. Davis indicated that the FAA has no legal ability to change regulation requirements under Part 139. It was recommended in the 1984 GAO Report that the FAA pursue changing various Part 139 requirements. At that time the FAA felt that they did not have the legal authority to make such changes, and their position has not changed. Any recommendation from this Working Group would need to be a non-regulatory/voluntary program. However, the FAA may try again, with the help of the NTSB to gain the authority to change Part 139 regulations. The RAA and NATA noted that they would not support any form of regulatory Part 139 requirements, particularly increased ARFF equipment for airports with 10 to 30 seat aircraft. Mr. Kirkendoll stated that the FAA Southern Region has a GA safety program in which airport inspectors give advise during their yearly inspections. The airport operator is not required to implement any of the FAA's suggestions, it is strictly a voluntary process. Mr. Batey stated that the state of Oklahoma uses the 5010 yearly inspection program to assist the airports in complying with the 5010 requirements. If the airport is in noncompliance, the FAA is informed and action is taken where appropriate. The Working Group agreed that the 5010 inspection program would be a positive avenue to pursue in helping airports increase their awareness of safety on the airport and minimize the potential for accidents to occur due to inadequate personnel training and knowledge of operational issues. This program will only work if the FAA can require airports to comply with the 5010 regulations through the grant assurance program. Ms. McElroy noted that the 5010 form may need to be modified to include other inspection safety issues.

The Working Group agreed that the 5010 form inspection process could be used to establish Part 139 industry standards for airports with 10 to 30 seat aircraft operations. These voluntary standards must have FAA support or the airports will ignore all recommendations. Also, there must be adequate AIP funding available to help airports pay for implementation of these standards. It was suggested that the insurance companies be contacted to see if they would be willing to reduce airport rates if they were to comply with the recommended Part 139 industry standards developed by the Working Group.

Mr. Goode updated the Working Group on the regulatory process and current status of the economic analysis regarding the Part 139 impacts. He indicated that the FAA must perform an economic evaluation on the following:

- Background as to why the new ruling is being recommended
- Baseline risk reduction
- Benefits derived over a 10 year period
- Present value
- Effect on small businesses

He indicated that full Part 139 certification of 360 airports would cost $150-$200 million to enact over the next 10 years. This includes all capital costs and operating & maintenance costs. Based on the current aircraft accident statistics, he projected that one aircraft accident would occur per year for the next 10 years with no recorded fatalities. At this accident rate, the costs for full certification implementation would exceed any derived safety benefits and could not be justified. However, he anticipates that the amount of accidents and fatalities will increase over time, and some cost benefit will be derived from full certification regulations. The FAA uses a fatality cost of $2.8 million per person in performing their cost/benefit analysis. Mr. Goode noted that he will be receiving more accurate accident data from the past 20 year period to perform a more precise cost/benefit analysis. The FAA economist was tasked to develop a cost/benefit analysis associated with full Index A, ARFF requirements and to include the following information:

- Staffing requirements and salaries
- Capital costs
- Yearly operating and maintenance costs
- Other facility costs to comply with limited and full certification requirements
- Review the state of Maine and Alaska studies
- Review costs presented in the GAO report

The following list of preliminary Part 139 industry standards was developed for implementation at all airports with 10-30 seat scheduled aircraft service:

- Self inspection program
- NOTAM all deficiencies
- Develop operations plan
- Develop an emergency contingency plan
- Develop a snow removal plan

To help assist airports in this effort, the FAA and NASAO will provide education and training assistance through the use of inspection forms, advisory circulars, seminars, videos, and the FAA Internet. The FAA will establish a Certification Inspection Program as a means to promote and

disseminate these industry standards. The state's 5010 form inspection process can be used to monitor and enforce the program.

Mr. Batey stated that the Oklahoma 5010 inspection program includes 150 airports, in which three field representatives inspect the airports over a three month period at a cost of $300-$500 per airport. These inspections are performed on a yearly basis. Mr. Sanfilippo asked what the pilots do if they detect a safety problem at an airport. Mr. Gilley stated that the pilot will call the safety hot line and report the incident, and they will also report it to their company representative.

Mr. Bill Wekenborg of the Dallas Forth Worth International Airport Department of Public Safety briefed the Working Group on what he felt was required to effectively respond to an aircraft fire. He would like to see all airports equipped with a minimum of Index A equipment, and more if financially possible. Training is very costly and many airports have poorly trained staff. Dry chemicals are ineffective when there is a 3 m.p.h. or greater wind. A response time of more than 3-4 minutes is too long and many outside local fire departments can not meet this requirement. Many staff have a psychological problem going inside a closed aircraft after an accident. Mr. Roy indicated that Part 139 ARFF training would not certify a person as a firefighter in any state. They also need some form of structural fire training. Part 139 training money must be allocated to the most qualified fire department (on-airport or local public department) depending on their training, equipment and response time. There are various research and training materials available to ARFF personnel, such as: FAA videos, training course ($465), fire emergency network TV channel, and other state and local training programs.

Mr. Robert Relyea of Crash Rescue Equipment Service, Inc. was asked to talk about the ARFF equipment needs and costs. He noted that most small aircraft accidents have fatalities due to the size of the aircraft and the minimal structural framing around the passengers. He noted that the number of fatalities will dictate the amount of equipment needed for response. Minimum requirement Index A ARFF equipment costs $50,000-55,000 (see attachment) and O&M costs are dependent on the amount of equipment use. Other costs include staff salaries and storage facilities. An effective response time is critical to saving lives, however there is no data to support this issue due to poor record keeping. Mr. Kirkendoll stated that full Index A ARFF regulations will require many airports to cancel service of 10-30 seat aircraft.

Ms. Scott asked the Working Group if there was any comments regarding the Group's recommendation that a non-regulatory Part 139 industry standard be proposed for those airports with 10-30 seat aircraft service, pending the outcome of the FAA's cost/benefit analysis. There was no objection to this proposal and the meeting was adjourned.

ACTION ITEMS

1. Bruce Kirkendoll will verify the airports certification status.

2. Deborah McElroy will check the OAG to identify those airports with scheduled service and also identify those airports under the EAS.

3. Mark Brewer will contact an insurance broker to attend the next meeting to discuss possible insurance rate cuts for airports participating in the "Safe Airports Program".

4. Russell Blanck/Bob Sanfilippo will prepare a draft outline of the "Aviation Industry Standards for Airport That Have Scheduled Service With Aircraft Having 10 to 30 Seats" report.

5. Jeff Goode will conduct the cost/benefit analysis.

NEXT MEETING

The next ARAC Working Group meeting is tentatively scheduled for March 20, 1996 in Washington, DC.

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-FINAL-

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP

MEETING MINUTES

March 20, 1996

Attendees:	Affiliation	Phone No.
Loretta Scott, Chairperson	Grand Prairie Mun. Airport	214-988-3801
Bob Sanfilippo	Landrum & Brown	513-530-5333
Russell Blanck	Landrum & Brown	513-530-5333
Woody Davis	FAA, Attorney Advisor	202-267-3152
Bruce Kirkendoll	FAA, Airport Safety Specialist	202-267-8741
Marilyn DonCarlos	FAA, Aviation Policy/Economics	202-267-3319
Deborah McElroy	Regional Airline Assoc. (RAA)	202-857-1170
Ron Roy	Maine DOT/NASAO	207-287-3186
Jeff Gilley	AOPA	301-695-2208
Andy Cebula	NATA	703-845-9000
Mark Brewer	Lehigh Valley Int. Airport	610-266-6001
Jerry Wright	ALPA	703-689-4197
Victor Hewes	ALPA	404-767-2947
Steven Lofgren	NATA	703-845-9000
Steve Pavish	Alaska DOT/NASAO	907-266-1661

Ms. Scott opened the meeting and asked if there were any comments on the November 10, 1995 meeting minutes. Jeff Cepuran (ALPA) was omitted from the attendance list and should be added. No other comments were received.

Mr. Wright made a presentation regarding ALPA's opinion on where the ARAC Working Group is headed with their current "Industry Standard" recommendation. ALPA feels that there should be one level of safety at all airports and that full Part 139 requirements should be implemented, with certain exceptions, to all airports with scheduled service from 10-30 seat aircraft. The Working Group has been tasked to review Part 139 and develop recommendations concerning what requirements are applicable to these airports. Mr. Davis noted that Congress has denied the FAA four times in the past eight years the ability to set federal regulations on this issue. Ms. McElroy stated that David Hinson has not committed the FAA to regulate airports as stated in Mr. Wright's presentation. The Working Group could recommend that there be no Part 139 requirements for these airports. Mr. Kirkendoll noted that the FAA is neutral on this issue and is not leading the Working Group in any one direction.

Mr. Sanfilippo noted that the accident data that ALPA presented reflects all airports throughout the world and not just those airports being served by 10-30 seat aircraft. This data paints a very skewed view of airport accidents for these types of airports. Mr. Brewer indicated that the NTSB accident data did not support a recommendation for full Part 139 certification. In fact, Mr. Larry Roman from NTSB stated in our June 27, 1995 meeting that there was no accident data to support their (NTSB) recommendation regarding full Part 139 certification at these airports. The NTSB recommendation was purely based on achieving one common level of safety at all airports.

Mr. Hewes stated that many airports defy FAA regulations set forth in the Advisory Circulars for political and financial reasons. Mr. Kirkendoll disagreed and indicated that the majority of the airports do comply with the AC's due to liability issues, and that they seriously care about safety on their airports. They also comply with the safety regulations through the 5010 program and grant assurance agreements.

Mr. Sanfilippo stated that most airports will be able to purchase the needed equipment (ARFF, lighting, etc.) with the limited amount of AIP funds available. However, they will not be able to afford the yearly operating and maintenance costs associated with this equipment. Many of these airports can not collect enough revenue to cover the needed operating costs. Many of these airports are not profitable and are funded through their local municipality. Ms. DonCarlos noted that it will cost approximately $40,000-$50,000 per year to maintain a two person ARFF facility operating 8 hours per day. Mr. Wright suggested that the Working Group survey those certified airports who supply ARFF capability and determine how they are financing their operation. The Working Group agreed to conduct such a survey at the direction of Mr. Sanfilippo.

Ms. DonCarlos presented the capital and recurring cost results from the survey of airports receiving commuter service. The costs varied so widely that it was necessary to take out the top and bottom one-third numbers. The report focused on the capital and recurring costs for the three airport groupings (full, limited and none certified). As the airport certification increases, so do the capital and recurring costs. The ARFF and pavement costs were the major expenses facing airports today. Mr. Pavish noted that it costs $70,000-$85,000 a year for a part-time ARFF person (includes training) in Alaska. Training costs are higher since the personnel must be flown-in to the site. Mr. Wright asked that the data in Table ES1 be verified since some of the cost figures appear low. Mr. Blanck indicated that a benefit analysis must also be prepared to determine the usefulness of implementing full or partial Part 139 certification at these airports. The Working Group agreed that more detailed cost information needs to be collected from a select group of airports in order to complete the cost/benefit analysis.

Ms. McElroy mentioned some of the downside issues of implementing full Part 139 certification standards.

- Increase passenger ticket prices with a PFC to finance facilities
- Potential loss of service and its economical impact
- Increased automobile traffic with loss of service (more auto accidents)

The Working Group discussed how the recommended industry standard would be established and administered. The following items were raised:

- Keep industry standard separate from the FAA documents
- Use AAAE as sponsor
- Identify the industry group (airlines, airports, State DOT)
- Outline all resources available in Advisory Circulars
- Prepare a document for the industry users (Institution of Standards)
- Tie into the 5010 and Grant Assurance Programs
- Who becomes liable for any accidents

It was agreed that the State or aviation community must adopt the industry standard for it to become enforceable.

Mr. Brewer presented his feedback from talking to Sedgwick James Aviation, Inc., an airport insurance broker, about the "Industry Standard" approach for airport safety. The insurance companies refer to the airport industry standard for safety as "Risk Management Program". The aviation insurance market consists of only seven companies and each one must be approached individually to prevent any inference of collusion. Aviation insurance premiums are competitively bid through brokers, therefore, underwriters can not give a direct discount if an airport voluntarily complies with the industry standards. The industry looks at several factors when evaluating an airport's premium quote, such as; passengers, operations, revenue, freight tonnage, etc. It may be possible to approach the underwriters and ask them to add "adoption of an approved risk management program (our industry standard)" to their list of requested information. All brokers nationwide would encourage their clients to adopt the standards to ensure the best possible premium quote. All airports pay for other airports accidents across the country through their insurance rates. Mr. Brewer suggested inviting 1-2 underwriters to a meeting when the Working Group begins developing the industry standards. The Working Group agreed with this recommendation.

Mr. Roy noted that the 5010 report and grant assurance process would work in the following manner:

- Trained FAA inspector will survey an airport for compliance (2-3 days).
- Inspector generates a report and issues it to the FAA regional office listing possible deficiencies.
- The report is given to the airport manager and asked to fix any deficiencies within a specific time period.
- If the airport is delinquent in complying with this request, the FAA will take the necessary action under the grant assurance agreement provisions or the State block grant agreement.

Ms. McElroy noted that more money needs to be spent on accident prevention (signage, lights, markings, etc.) as opposed to the mitigation of accidents (ARFF, emergency plans, disaster plans, etc.)

The Working Group reviewed the July 27, 1995 Work Plan to determine their progress. The following issues need further study:

- Assess alternative forms of ARFF
- Determine operational and economical impact of full certification (case study)
- Prepare baseline cost data for non-certified airport having to comply with full certification
- Review and comment on GAO report to Robert Byrd
- Conduct cost/benefit analysis
- Develop preliminary recommendations

Action Items

1. (Loretta Scott) - Develop questionnaire for case study.

2. (Bob Sanfilippo) - Call select group of certified airports for case study.

3. (Deborah McElroy) - Survey of airport users to determine what they look for in an airport to initiate air service.

4. (Jerry Wright) - Prepare a list of procedures that pilots go through to determine service into an airport.

5. (Bruce Kirkendoll) - Prepare a list of data that will help airport operators comply with the industry standard (advisory circulars, 5010s, grant agreement, etc.).

6. (New FAA Economist - Allen Mattes) - Conduct a cost/benefit analysis of airport complying with full Part 139 certification. Prepare baseline cost data for non-certified airport having to comply with full certification.

7. (Working Group) - Review GAO report to Robert Byrd for discussion at next meeting.

8. (Working Group) - Review Part 139 to determine which requirements can be applicable to airports receiving 10-30 seat aircraft service.

The next ARAC Working Group meeting is scheduled for September 26-27 at the DFW-Hyatt Hotel.

Prepared By:

Russell Blanck
Landrum & Brown

-FINAL-

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP

MEETING MINUTES

September 26-27, 1996

Attendees:	Affiliation	Phone No.
Loretta Scott, Chairperson	Grand Prairie Mun. Airport	214-988-3801
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Russell Blanck	Landrum & Brown	513-530-5333
Bruce Kirkendoll	FAA, Airport Safety Specialist	817-222-5619
Allen Mattes	FAA, Aviation Policy/Economics	202-267-3412
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Steve Pavish	Alaska DOT/NASAO	907-266-1661

Ms. Scott opened the meeting and indicated that Ken Kenvin will replace John Duval as chairman of the ARAC. Ken is currently the Director of operations at Dallas Fort Worth International Airport. Also, Allen Mattes has taken the place of Marilyn DonCarlos as the FAA economist.

The draft 20 March 1996 meeting minutes were reviewed and no comments were received. These meeting minutes will be considered as final and will be distributed to each Working Group member.

Ms. Scott gave the group a briefing of the events that have transpired since the March 20th meeting. They are as follows:

- On April 24th ALPA issued a statement of dissent to the majority position of the ARAC Working Group and a minority position statement for the Working Group's consideration.

- ALPA has gotten approval of their position from the House and is under review by the Senate today (see attached copy of regulation).

- On 14 May 1996 Ms. Scott wrote to Bob David to determine: (1) whether or not the Working Group had gone outside or beyond its' charter in exploring non-regulatory means to accomplish the "one level of safety" for the commuter airports involved, and (2) whether or not the Working Group has followed the proper process.

- On 29 May 1996 Bob David informed Ms. Scott that the ARAC Airport Issue Group should meet and respond to the questions raised.

- On 27 June 1996 the ARAC Airport Issue Group met to consider Ms. Scott's inquiries. The Issues Group determined that the Working Group was within its' charge and that non-regulatory considerations was a viable option. The Working Group was further charged to consider line-by-line each item in FAR Part 139 to consider applicability to those airports with scheduled service with 10-30 seat aircraft.

Ms. Scott and Bob Sanfilippo developed a questionnaire for the case study of airports that are voluntarily adhering to the FAR Part 139 regulations. The questionnaire included eight questions, which are:

1. Are you still fully certified FAR Part 139?
2. How long has your airport been certified?
3. When was your last FAA certification inspection?
4. Why have you chosen to voluntarily meet full 139 standards?
5. What type of ARFF equipment are you presently utilizing?
6. When did you last stage your ARFF equipment for other than a scheduled flight?
7. What is your total airport budget?
8. What is your ARFF budget?

Seventeen airports were identified for the case study. Bob Sanfilippo conducted the phone survey and was able to contact sixteen airports. The attached memorandum dated 20 September 1996 is a summary of the survey results. Concurrent with this survey, Jerry Wright had Jeff Cepuran conduct an interview of twelve airports. He indicated that they all had some form of ARFF capability, but had different levels of training. The airports were also gearing up to purchase additional equipment due to the new Part 139 legislation coming out. He indicated that the majority of the airport responses were similar to that of the case study conducted by Bob. Mr. Sanfilippo indicated that these airports do not have one level of airport ARFF training and much of it is from FAA manuals and videos. Bruce Kirkendoll stated that all ARFF personnel must have a minimum of 40 hours of training in eleven subject areas. The FAA inspector will talk to the employees and review their records to assure proper training has occurred. Yearly reoccurring training is also required, however there is no requirement that the personnel be a licensed professional firefighter.

Ms. McElroy was asked at the last meeting to provide information on the procedures followed by regional airlines when they are considering new service to a non-certificated airport. Unfortunately no comments were received from the regional airlines, therefore Ms. McElroy prepared the attached memorandum dated 26 September 1996 for distribution to the group. Mr. Wright noted that we need to address how these additional costs will be funded. He suggested that the FAA ask Congress to reduce the ticket tax for flights into these airports and add a surcharge per leg into the airport. Also, PFC's can be used for O&M costs. Mr. Brewer noted that a $3 PFC would not be adequate to fully fund annual ARFF costs. Congress is backing away from EAS airports and will make it difficult to fund any new regulations. Ms. McElroy stated that the RAA would oppose any increase in PFC costs. Ms. Scott noted that some airports would rather increase landing fees than increase PFC's. Mr. Pavish noted that many certificated

airports will still experience increased operating costs to cover those hours outside the normal eight hour operating window.

Mr. Wright was asked to report on the procedures that ALPA goes through to determine service into an airport. He indicated that ALPA does not determine when an airline will initiate service into an airport. This decision is at the discretion of the individual airline. The pilots will fly where the airlines tell them. The pilots will look at NOTAMS, FMS and weather to determine if the airport and airspace is safe to fly into that airport on any particular day. All Part 121 carriers must fly into a certificated airport on its initial flight. Mr. Kirkendoll noted that it may take approximately six months for an airport to become fully certificated if it is not certificated today.

Mark Brewer invited Allen Winters of Sedwick to give a briefing about the airport insurance industry and how these new regulations will affect the airports premiums and liability. Mr. Winters noted that there are approximately seven underwriters that supply insurance to airports. They will typically ask an airport a series of questions about liability issues which will help determine their insurance premiums. Airports can still get insurance without the presence of on-airport ARFF. There is no reduction in their premiums with ARFF, however it will increase their liability and the potential for loss. The insurance premium is based on units and not accidents. Today the average claim is approximately $3 million. Mr. Winters indicated that if the airport can demonstrate that they have an emergency response plan, personnel training, daily inspections, etc. it may be possible to get the underwriters to reduce their insurance premiums. It would be possible to privatize the ARFF and have an independent agency fund the service. However, this is not a money making enterprise and the cost would be passed to the airlines and passengers. Mr. Winters indicated that the aviation industry is very safe based on the total number of passengers and operations. The major claims come from minor injuries in the terminal building (escalators, baggage belts, automatic doors, tile floors, etc.). The main issue is to promote risk reduction.

The Working Group reviewed the contents and recommendations contained in the 18 November 1987 GAO Report regarding commuter airports participation in the Airport Certification Program. Mr. Wright indicated that ALPA wants to apply one standard of safety at all airports. He noted that it would be impossible to achieve one level of safety at all airports. Risk reduction and accident mitigation are the main issues at stake. Mr. Brewer noted that he would condone that the airports under question should have as a minimum a limited certification, with some exemptions regarding ARFF and a full exemption for Alaskan airports. Much of the Working Group agreed with this position and decided that it would help to review the Part 139 regulations line-by-line.

The Working Group reviewed Subpart D - Operations of FAR Part 139 to determine what would be applicable to airports with scheduled service from 10 to 30 seat commuter aircraft. See the attached information for the Group's preliminary recommendations. Some of the Working Group members need to get further direction from their agency before rendering any formal decision on various sections. Also, there was no discussion on Sections 139.315, 139.317 and 139.319 due to its sensitivity and need for additional review time.

Mr. Mattes gave a briefing on the status of the cost/benefit analysis and noted that additional cost data will need to be collected for the list of airports in order to proceed with this analysis. Three scenarios will be developed for the ARFF costs, which are as follows:

- Scenario 1 - Full Index A (3 people)
- Scenario 2 - Full Index A (2 people)
- Scenario 3 - ARFF stage 15 min. before and after each aircraft operation (arrival & departure)

The Working Group reviewed the capital and O&M costs associated with various airport items, and recommended the following:

- Skid mounted truck is $50,000 (10 yr. life expectancy)
- Truck maintenance is $5,000/yr.
- Training for 3 people
  - 40 hrs/person initial training
  - 1 hr/wk recurring training
  - live fire training $350/person
  - EMS training $100/person
- Misc. equipment $2,000/3 yrs.
- Storage building $75,000
- Personnel (2 dedicated people) $40,000/person/yr.
- ARFF response $150/ea.

Mr. Mattes indicated that he will need to collect additional O&M costs on other airport items (pavement, airfield lighting, guidance signage, navaids, etc.). He indicated that it will take approximately one month to collect the additional data and one more month to prepare the cost/benefit analysis.

The next ARAC Working Group meeting is scheduled for December 5-6, 1996 at the DFW Airport.

Prepared By:

Russell Blanck
Landrum & Brown

-FINAL-

AVIATION RULEMAKING ADVISORY COMMITTEE
COMMUTER AIRPORT CERTIFICATION WORKING GROUP

MEETING MINUTES

December 5-6, 1996

Attendees:	Affiliation	Phone No.
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Russell Blanck	Landrum & Brown	513-530-5333
Bruce Kirkendoll	FAA, Airport Safety Specialist	817-222-5619
Allen Mattes	FAA, Aviation Policy/Economics	202-267-3412
Woody Davis	FAA, Attorney Advisor	202-267-3152
Ron Roy	Maine DOT/NASAO	207-287-3318
Jeff Gilley	AOPA	301-695-2208
Mark Brewer	Lehigh Valley Int. Airport	610-266-6001
Jerry Wright	ALPA	703-689-4197
Vic Hewes	ALPA	404-767-2947
Steve Pavish	Alaska DOT/NASAO	907-266-1661

Ms. Scott opened the meeting and asked if there were any comments on the September 26-27, 1996 meeting minutes. No comments were received and these minutes will be considered as final.

Bruce Kirkendoll indicated that the ARAC Working Group (WG) has a new mission to reach a consensus on Part 139 requirements for airports with 10 to 30 seat commuter aircraft operations. If a consensus can not be reached, then each group will state there positions in the final report. Loretta Scott noted that the WG recommendations will be presented to the Issues Group on January 29, 1997. The WG has been asked to review Part 139 line-by-line and state our recommendations. Woody Davis indicated that an NPRM will be issued on the proposed recommendations and the WG will have the opportunity to submit their comments prior to becoming final regulation.

The WG continued to review the remaining sub-parts of Part 139 and presented their views, which are as follows:

139.315

Bruce Kirkendoll indicated that as a minimum the FAA would require Index A fire fighting capability at these airports. This would apply even if there are less than five flights per day. Also, if the airport will have Index C aircraft operations, the minimum ARFF requirement would be Index B for standby.

Ron Roy noted that he received responses from the State airports stating that the ARFF capital and O&M costs are significant and that they would have a difficult to impossible time finding dollars for this expense. He suggested that the ARFF response issue should be covered under the Emergency Plan and that the ARFF equipment does not need to be located on the airport. Jerry Wright indicated that ALPA is in agreement with having Index A as a minimum for ARFF, but believes that the facility should be located on airport property for all airports.

139.319

The majority group agreed that the ARFF did not need to be located on-airport property. This decision was made due to the minimal number of accidents at these type airports. Also, if the ARFF was manned by the local airport staff, the majority group felt that the staff would be insufficiently trained to handle an accident if it occurred. Most of the airports could not afford to provide a dedicated staff just for ARFF response. Jerry Wright indicated that ALPA is in agreement with having Index A as a minimum for ARFF and that such equipment could either stand by at the airport during airline operations or be based at the airport. Bruce Kirkendoll stated that ARFF crews function is to provide an escape route for passengers. Mutual Aid is relied upon to provide assistance to survivors and put out the fire.

Benefit Analysis

Allen Mattes indicated that based on his cost/benefit analysis with four flights per day, it would be more costly to have ARFF located off-airport. This is based on $150 per flight at two trips per day for seven days per week. Part 135 accident data which involved aircraft fires was collected since 1983. This data indicated that there has been 15 accidents and that the passengers evacuated the aircraft prior to arrival of the ARFF equipment. For those fatalities, the data shows that they all perished on impact and that the presence of ARFF would have made no difference. Vic Hewes noted that the mutual aid also responds to non-fire accidents and treats injuries such as, severed arteries. Ron Roy indicated that a total of 15 accidents with no ARFF credited with saving of lives, does not justify requiring the presence of ARFF on all airports. Most of the passengers evacuate the aircraft on their own, or with the help of other passengers or crew. Steve Pavish stated that in Alaska, the local community response is much better than the on-airport facilities due to the higher level of personnel training and budget dollars. The current federal structure does not always result in the best response or training for ARFF.

Cost Analysis

Allen Mattes stated that based on his phone survey, many of the airports had ARFF equipment but no personnel or proper training to adequately respond to accidents. Many of them would not meet the required three minute response time, have the adequate volume of fire agents, and their equipment is old and in need of upgrading. They also did not have an adequate budget for yearly O&M expenses. It would be less expensive to purchase new equipment rather than try to maintain older equipment. A cost of $50,000 was used for a new Index A skid mounted fire truck, with no turret. An average cost of $75,000 was used for a storage building and a minimum of three fully trained staff members. Based on $2.7 million per person's life, the historical loss of life for these airports does not justify the need for ARFF.

Loretta Scott noted that the FAA has made the decision to not require child safety seats on aircraft, even though it has been proven that they might save lives. The FAA decided that it would be too costly for the passengers to purchase an additional ticket to accommodate the safety

seat and that passengers would revert to driving as opposed to flying. Driving has a higher mortality rate than flying.

Vic Hewes indicated that the airports would fund the ARFF equipment through the ticket tax process. Bob Sanfilippo noted that these cost are minor compared to the yearly O&M, training, and salary costs that must come from the airports own budget. Many of them can not afford these yearly costs. Jerry Wright stated that there are 30 airports who voluntarily meet Part 139 certification, which voluntarily meet Part 139 certification requirements even without any airline revenues with which to pay for ARFF and other services. Those airports that can not afford these costs will ask for an exemption to these requirements. Bruce Kirkendoll noted that there is only one airport that has been approved for an exemption to Part 139, and that is Port Hyden in Alaska. Vic Hewes indicated that many of the airports will ask for an exemption and learn over the years how to finance the additional costs.

Bruce Kirkendoll noted that Part 139 does not require the EMT to be located with the airport firefighting. This can be provided by the local community fire service away from the airport. Allen Mattes stated that he would analyze the EMT separate from the ARFF requirements. Loretta Scott asked why should an airport be required to provide on-airport EMT, when a local shopping mall/center does not have this requirement. This can be handled in the airport Emergency Plan by calling 911 and have the local fire department supply EMT services.

Majority Position

Mark Brewer stated that the majority position is that there is no need for ARFF to be located on-airport. The accident and cost/benefit analysis does not justify the need or expense. Since Part 139 allows for EMT to respond from outside the airport, a similar arrangement can be provided for ARFF response from professionally trained personnel. There should be no specific response time required since the accident data does not justify the three minute response time. Jeff Gilley noted that 98 percent of operations at these airports are general aviation. If GA operating costs go towards funding these Part 139 requirements, they would reduce monies allocated for additional GA hangars, apron, and other services. AOPA can not recommend using these funds to support 3-4 daily commuter flights.

Minority Position

Jerry Wright indicated that ALPA feels that there are two levels of safety between air carrier and commuter airport operations. This inconsistency can be negated by implementation of full Part 139 requirements for all airports with commuter operations with 10 to 30 seats. ALPA feels that these airports should have a minimum of Index A ARFF capability which is required to respond within the three minute first-response time. The ARFF can be manned by trained airport employees for the first response. Other off-airport resources can be used for additional response vehicles. Vic Hewes noted that ICAO regulates full Part 139 at all of their airports to provide one level of safety. Bruce Kirkendoll noted that the three minute first response is a test time and is not required in an actual accident situation. Also, there is no response time specified for mutual aid. Bob Sanfilippo requested that the minority position include appropriate funding sources for implementation of ARFF requirements.

Review of Cost/Benefit Draft Report

The WG reviewed the draft cost/benefit report and recommended various changes. Allen Mattes recorded these comments and will make the appropriate changes to the report.

Final Report Production

It was indicated that the final Executive Summary must be submitted to the ARAC Issues Group by January 9, 1997. This will be officially presented to them on January 29, 1997. The following persons will be responsible for production of the report:

Executive Summary----------Loretta Scott
Chronology of Events----------Loretta Scott
Cost/Benefit Analysis----------Allen Mattes
Majority Position Paper----------Mark Brewer/Ron Roy
Minority Position Paper----------Jerry Wright
Membership Position Papers--------Steve Pavish (NASAO)
Debbie McElroy (RAA)
Jeff Gilley (AOPA)

All sections of the report will be issued to Russell Blanck or Bob Sanfilippo for coordination and distribution for review by the WG. At this time there are no further meetings scheduled for the WG. Loretta thanked all of the members for their participation and hard work that has gone into this effort. She regrets that the group could not come to a consensus on their final recommendations.

Minutes Prepared By:
Russell Blanck

VI. MEMBERSHIP LIST

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VII. REFERENCE AND PRESENTATION MATERIAL

1. "Commuter Airports Should Participate in the Airport Certification Program", United States General Accounting Office, GAO/RCED-88-41, November 1987.

2. "Airports Served by Scheduled Aircraft With 10 to 30 Passenger Seats", National Association of State Aviation Officials, July 27, 1995.

3. "FAR Part 139 Certification and Operations: Land Airports Serving Certain Air Carriers", Federal Aviation Administration, January 1, 1988.

4. "Accident and Incident for 10 to 30 Seat Aircraft at Non FAR Part 139 Airports", National Transportation Safety Board, FAA Memorandum, September 6, 1995.

5. "An Analysis of Data Associated With The Certification of Airports With Scheduled Commuter Operations", FAA Office of Aviation Safety, Flight Safety Division, January 1995.

6. "Survey For Airports Receiving Commuter Airline Service", ARAC Working Group.

7. "Phone Survey Questionnaire", ARAC Working Group.

8. "Report to Congress, National Plan of Integrated Airport Systems (NPIAS) 1993-1997", U.S. Department of Transportation, Federal Aviation Administration, Washington, DC, April 1995.

9. "Airport Improvement Program Grant Assurance Number One - General Federal Requirements", Advisory Circular 150/5100-16A, October 4, 1988, U.S. Department of Transportation, Federal Aviation Administration, Washington, DC.

10. Briefing from Larry Roman of NTSB on June 26, 1995.

11. Briefing from Bill Wekenborg of the Dallas Forth Worth International Airport Department of Public Safety on October 11, 1995.

12. Briefing from Robert Relyea of Crash Rescue Equipment Service, Inc. on October 11, 1995.

13. Briefing from Allen Winters of Sedgwick James Aviation, Inc. on September 26, 1996.

Airport Name	1 Landings on Scheduled Basis (Yes) / (No)	1A Aircraft Seating Capacity	2 1994 Annual Enplanements	3 Airport Federal Certification Status (Full, Limited, None)	4 Airport Staffed 24 Hrs/Day (Yes) / (No)	5 ARFF (Yes) / (No)	6 ARFF (24 Hrs/Day) (Yes) / (No)	7 Does Your Airport Have 1/ A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	8 Maintain NOTAMS (Yes) / (No)	9 Runway (R) and Taxiway (T) Data Marking	Reflectors	Lighting	Signage	A
New England Region																																		
Maine																																		
Augusta (AUG)	Yes	10-19	5,000	None	No	No	No	x	x	x		x	x	x	x	x	x	x	x	x						x	Yes	R,T	-	R,T	R,T	
Bar Harbor (BHB)	Yes	10-19	5,231	None	No	No	No	x		x	x	x													x		Yes	R,T	-	R,T	R,T	
Rockland (RKD)				None																														
Frenchville (FVE)	Yes	20-30	No Commuters	None	No	No	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Presque Isle (8S8)	Yes	10-19	26,178	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	Yes	R,T	T	R,T	R,T	
New Hampshire																																		
Keene (EEN)	Yes	10-19	-	None	No	Yes (un-man)	No	x		x	x		x		x		x		x	x	x			x	x	x	Yes	R,T	T	R,T (part)	R,T	
Lebanon (LEB)	Yes	10-19	50,487	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Vermont																																		
Rutland (RUT)	Yes	10-19	6,253	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Eastern Region																																		
New York																																		
East Hampton (HTO)				None																														
Massena (MSS)	Yes	10-19	7,900	Limited	No	Yes	No	x		x	x	x	x		x	x	x		x	x	x		x	x	x	x	Yes	R,T	-	R,T	R,T	
Plattsburgh (PLB)	Yes	10-19	16,332	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Poughkeepsie (POU)	Yes	10-19	7,300	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T	
Saranac Lake (SLK)	Yes	10-19	5,335	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Ogdensburg (OGS)				Full																														
Watertown (ART)				Full																														
Maryland																																		
Cumberland (CBE)	Yes	10-19	-	None	No	No	No	x	x		x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	Yes	-	-	R,T	-	
Hagerstown (HGR)	Yes	10-19	34,497	Limited	No	No	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Salisbury (SBY)	Yes	30+	67,590	Full	No	Yes	No	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T	
Ocean City (N80)				None																														
West Virginia																																		
Beckley (BKW)	Yes	10-19	8,400	Limited	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Bluefield (BLF)	Yes	10-19	6,000	None	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Morgantown (MGW)	Yes	10-19	23,641	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Southern Region																																		
Florida																																		
Ft. Walton Beach (VPS)				Full																														
Key West (EYW)	Yes	30+	250,297	Full	Yes	Yes	No	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Marathon (MTH)				Full																														
Melbourne (MLB)				Full																														
Naples (APF)	Yes	30+	70,000	Full	Yes	Yes	Yes			x	x		x	x	x	x		x	x	x	x	x	x		x	x	Yes	R,T	T	R,T	R,T	
Panama City (PFN)	Yes	30+	154,000	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
North Carolina																																		
Greensboro (GSO)	Yes	30+	1,900,000	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x		Yes	R,T	R,T	R,T	R,T	
Mississippi																																		
Hattiesburg-Laurel (PIB)	Yes	10-19	6,217	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Columbus (GTR)	Yes	20-30	47,000	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Greenville (GLR)	Yes	20-30	10,740	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Gulfport/Biloxi (GPT)	Yes	30+	263,417	Full	No	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Jackson (HKS)	Yes	30+	408,418	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Meridian (MEI)	Yes	20-30	28,000	Full	No	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Tupelo (TUP)	Yes	10-19	22,355	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Bay St. Louis (68Y)				None																														
Clarksdale (CKM)	No	20-30	25	None	No	No	No		x	x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	-	
Natchez (HEZ)	No	-	None	Limited	Yes	Yes	Yes	x		x		x	x	x	x	x			x	x				x	x	x	Yes	R,T	-	R,T	-	
Pascagoula (M50)	No	-	None	None	No	No	No		x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Puerto Rico																																		
Isla De Culebra (CPX)				None																														
Isla De Vieques (VQS)				None																														
Fajardo (X95)				None																														
Isla Grande				None																														
Tennessee																																		
Jackson (MKL)				Full																														
Great Lakes Region																																		
Illinois																																		
Carbondale (MDH)	Yes	10-19	3,200	Limited	Yes	Yes	No	x		x	x					x	x	x		x	x	x				x	Yes	R,T	-	R,T	R,T	
Chicago-Meigs (CGX)				Limited																														
Marion (MWA)	Yes	10-19	14,300	Limited	Yes	Yes	No	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Mt. Vernon (MVN)				Limited																														
Quincy (UIN)				Limited																														
Sterling/Rock Falls (SQI)	Yes	10-19	1,250	Limited	No	Yes	No	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x		x	Yes	R,T	-	R,T	R,T	
Danville (DNV)	Yes	10-19	-	Limited	No	Yes	No	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Mattoon (MTO)	Yes	10-19	1,575	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Indiana																																		
Anderson (AID)				Limited																														
Kokomo (OKK)	Yes	10-19	-	None	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x							Yes	R,T	-	R,T	R,T	
Muncie (MIE)	Yes	10-19	-	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x			x	Yes	R,T	-	R,T	R,T	
Bloomington (BMG)	Yes	10-19	2,500	Limited	No	Yes	Yes	x		x	x	x	x	x	x	x	x	x	x	x	x					x	Yes	R,T	-	R,T	R,T	
Gary (GYY)	No	30+	54,500	Limited	No	Yes	No	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x		x	Yes	R,T	-	R,T	R,T	
Elkhart (EKM)				Limited																														
Valparaiso (VPZ)	No	-	No Scheduled	Limited	No	No	No	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	Yes	R,T	T	R	R,T	
Mt. Comfort (MQJ)	No	-	-	Limited	No	Yes	Yes	x		x	x		x	x	x		x	x				x	x		x	x	Yes	R,T	-	R,T	R,T	
Michigan																																		
Alpena (APN)				Limited																														
Iron Mountain (IMT)				Limited																														
Ironwood (IWD)	Yes	10-19	4,330	Limited	No	Yes	No	x		x			x	x	x	x	x	x	x	x	x				x	x	Yes	R,T	R,T	R,T	R,T	
Manistee (MBL)				None																														
Menominee (MNM)				Limited																														
Sault Ste. Marie (CIU)				Limited																														
Wisconsin																																		
Wausau (AUW)				None																														
Minnesota																																		
Fairmont (FRM)	Yes	10-19	-	Limited	No	Yes	No			x	x	x	x	x	x	x	x	x	x					x	x	x	Yes	R,T	T	R,T	R,T	
Fergus Falls (FFM)				None																														
Grand Rapids (GPZ)	Yes	10-19	7,100	Limited	No	Yes	No	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
Mankato (MKT)				Limited																														
St. Cloud (STC)	Yes	10-19	10,014	Limited	No	No	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	-	T	R	R,T	
St. Paul Downtown (STP)				Limited																														
Thief River Falls (TVF)	Yes	10-19	2,911	Limited	No	Yes	No	x		x		x	x	x	x	x	x		x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Worthington (OTG)				Limited																														
Chisholm-Hibbing (HIB)	Yes	20-30	14,400	Full	yes	Yes	Yes	x	x	x		x	x	x	x	x	x	x	x	x		x	x	x	x	x	Yes	R,T	T	R,T	R,T	
International Falls (INL)				Full																														
Bemidji (BJI)				Full																														
North Dakota																																		
Devils Lake (DVL)	Yes	10-19	4,300	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Jamestown (JMS)	Yes	10-19	3,500	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	Yes	R,T	-	R,T	R,T	
Dickinson (DIK)				None																														
Williston (ISN)	Yes	10-19	6,000	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	
South Dakota																																		
Brookings (BKX)				Limited																														
Huron (HON)	Yes	10-19	4,588	Limited	No	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Mitchell (MHE)	Yes	10-19	1,390	Limited	No	No	No	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Yankton (YKN)	Yes	10-19	772	Limited	No	Yes	No	x		x	x	x		x	x	x	x	x		x	x	x	x		x	x	Yes	R,T	-	R,T	R,T	

MMUTER SERVICE BY AIRCRAFT WITH 10 TO 30 SEATS

	10																	
	Capital Costs						Recurring Costs						Capital & Maint./Installation & Operating Costs					
sta Signage	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement
R,T	$80,000	$0	$0	$0	$0	$0	$1,000	$25,000	$0	$0	$0	$20,000	$0	$25,000	$0	$0	$0	$20,000
R,T	$0	$0	$0	$0	$0	$0	$0	$2,000	$0	$0	$1,000	$5,000	$677,500	$0	$5,000	$20,000	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$30,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$400,000	$0	$0	$0	$0	$0	$10,000	$0	$0	$0	$20,000	$0	$0	$0	$0	$0	$0
R,T	$150,000	$300,000	$0	$0	$0	$5,000,000	$2,000	$1,000	$0	$0	$0	$10,000	$0	$0	$0	$0	$0	$0
R,T	$137,000	$0	$0	$0	$0	$0	$2,310	$2,780	$1,930	$2,635	$1,690	$15,817	$139,310	$10,910	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$10,000	$0	$0	$0	$0	$2,500,000	$1,500	$0	$50	$1,800	$50	$4,000	$1,200	$0	$0	$1,200	$0	$3,000
R,T	$250,000	$300,000	$0	$0	$0	$10,000,000	$2,000	$18,000	$1,715	$1,000	$500	$5,000	$5,000	$2,000	$100	$0	$0	$1,000,000
-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$165,000	$800,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000	$0	$0	$0	$0	$0	$0
R,T	$180,000	$500,000	$500	$45,000	$500	$5,000,000	$3,000	$12,000	$200	$4,000	$200	$18,000	$0	$0	$0	$0	$0	$0
R,T	$294,000	$199,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$10,000	$200,000	$0	$0	$0	$2,000,000	$300	$2,000	$0	$2,000	$0	$10,000	$10,300	$202,000	$0	$2,000	$0	$2,010,000
R,T	$140,000	$750,000	$0	$500	$0	$0	$1,000	$1,000	$5,000	$5,000	$0	$0	$0	$0	$0	$0	$0	$10,000
R,T	$500,000	$0	$0	$0	$0	$0	$25,000	$5,000	$20,000	$5,000	$10,000	$5,000	$0	$0	$0	$0	$0	$0
R,T	$13,750	$72,500	$0	$0	$0	$356,138	$11,675	$12,340	$11,440	$3,500	$2,200	$200	$0	$0	$0	$0	$0	$0
R,T	$1,500,000	$0	$0	$0	$0	$0	$5,500	$5,000	$1,000	$3,000	$0	$9,000	$0	$0	$0	$0	$0	$0
R,T	$1,000,000	$750,000	$0	$0	$0	$2,000,000	$15,000	$50,000	$0	$0	$0	$50,000	$0	$0	$0	$0	$0	$0
R,T	$850,000	$500,000	$5,000	$0	$0	$3,000,000	$30,000	$25,000	$5,000	$5,000	$5,000	$60,000	$30,000	$25,000	$5,000	$5,000	$5,000	$60,000
R,T	$280,000	$800,000	$0	$0	$0	$3,000,000	$120,000	$6,000	$0	$0	$0	$8,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$1,590,000	$2,100,000	$50,000	$15,000	$3,000	$16,000,000	$475,000	$85,000	$62,000	$11,000	$3,000	$65,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$5,804,091	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$800,000	$0	$0	$0	$45,000,000	$0	$5,000	$1,000	$500	$0	$5,000	$0	$0	$0	$0	$0	$0
R,T	$331,000	$350,000	$20,000	$35,000	$10,000	$7,000,000	$5,000	$2,800	$10,000	$5,000	$4,500	$450,000	$0	$0	$0	$0	$0	$0
-	$105,000	$40,000	$0	$350	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
-	$1,000	$2,000	$100	$500	$100	$1,000	$500	$1,000	$0	$200	$0	$4,000	$0	$0	$0	$0	$0	$0
R,T	$8,500	$70,000	$5,000	$2,500	$0	$0	$5,000	$5,000	$0	$0	$0	$0	$45,000	$80,000	$5,000	$2,500	$0	$2,000,000
R,T	$0	$0	$0	$0	$0	$0	$0	$5,000	$500	$10,000	$500	$10,000	$200,000	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$8,000,000	$1,500	$5,000	$0	$500	$0	$30,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$125,000	$150,000	$15,000	$5,000	$0	$0	$35,000	$4,000	$5,000	$2,500	$0	$10,000	$0	$0	$0	$0	$0	$0
R,T	$0	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,000	$0	$0	$0	$0
R,T	$389,091	$30,000	$0	$0	$0	$22,000	$3,000	$3,800	$0	$20,000	$0	$3,000	$0	$0	$0	$0	$0	$0
R,T	$288,000	$0	$0	$0	$0	$0	$1,800	$0	$1,200	$1,800	$0	$5,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$40,000	$0	$0	$0	$20,000	$0	$0	$0	$0	$0	$0	$250,000	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$750,000	$0	$0	$0	$2,500,000	$0	$5,000	$0	$0	$0	$30,000	$0	$0	$0	$0	$0	$0
R,T	$85,000	$948,350	$0	$0	$0	$3,013,000	$0	$0	$0	$3,000	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$250,000	$320,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$30,000	$180,000	$3,500	$1,500	$500	$35,000	$1,500	$2,000	$1,000	$800	$100	$11,000	$800	$17,000	$850	$700	$100	$8,500
R,T	$40,000	$2,000,000	$16,000	$4,000	$0	$3,000,000	$1,500	$7,000	$16,000	$1,700	$0	$25,000	$2,500	$25,000	$5,000	$1,700	$0	$40,000
R,T	$100,000	$300,000	$1,000	$0	$500	$10,000,000	$500	$1,000	$500	$500	$500	$6,000	$0	$0	$0	$0	$0	$0
R,T	$300,000	$200,000	$0	$0	$0	$5,000,000	$60,000	$15,000	$0	$0	$0	$500,000	$0	$0	$0	$0	$0	$0
R,T	$0	$750,000	$0	$0	$0	$2,200,000	$0	$0	$3,650	$1,300	$0	$3,000	$0	$750	$0	$24,000	$0	$0
R,T	$30,000	$0	$0	$0	$0	$0	$500	$400	$800	$100	$400	$1,500	$0	$0	$0	$0	$0	$0

Airport Name	1 Landings on Scheduled Basis (Yes) / (No)	1A Aircraft Seating Capacity	2 1994 Annual Enplanements	3 Airport Federal Certification Status (Full, Limited, None)	4 Airport Staffed 24 Hrs/Day (Yes) / (No)	5 ARFF (Yes) / (No)	6 ARFF (24 Hrs/Day) (Yes) / (No)	7 Does Your Airport Have 1/ A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	8 Maintain NOTAMS (Yes) / (No)	9 Runway (R) and Taxiway (T) Data Marking	Reflectors	Lighting	Signage
Pierre (PIR)	Yes	10-19	-	Full	Yes	Yes	No	x	x	x		x	x			x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Central Region																																
Iowa																																
Ft. Dodge (FOD)	Yes	10-19	10,184	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Ottumwa (OTM)	Yes	10-19	2,700	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Spencer (SPW)				None																												
Mason City (MCW)	Yes	30+	18,500	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Burlington (BRL)	Yes	20-30	25,000	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T
Kansas																																
Goodland (GLD)	Yes	10-19	1,058	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Great Bend (GBD)				Limited																												
Hays (HYS)				Limited																												
Liberal (LBL)	Yes	10-19	4,532	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Manhattan (MHK)	Yes	10-19	23,000	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Missouri																																
Cape Girardeau (GGI)				Limited																												
Kirksville (IRK)	Yes	10-19	5,460	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R	R,T	R,T
Forney Army Airfield	Yes	10-19	9,800	Full	No	Yes	Yes	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	-
Nebraska																																
Alliance (AIA)				Limited																												
Chadron (CDR)	Yes	10-19	850	None	No	No	No	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Grand Island (GRI)				Limited																												
Hastings (HSI)	Yes	10-19	950	Limited	No	Yes	No	x	x	x		x	x	x	x	x	x	x	x	x	x	x			x	x	Yes	R,T	-	R,T	R,T
Kearney (EAR)	Yes	10-19	3,345	None	No	No	No	x		x			x	x	x	x	x		x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
McCook (MCK)	Yes	10-19	2,111	Limited	No	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Norfolk (OFK)	Yes	10-19	3,854	Limited	No	No	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	Yes	R,T	-	R,T	R,T
North Platte (LBF)	Yes	10-19	14,172	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x		x	x			x	x	Yes	R,T	-	R,T	R,T
Scotts Bluff (BFF)	Yes	10-19	21,000	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x			x	x		x	x	x	x	x	Yes	R,T	-	R,T	R,T
Southwest Region																																
Arkansas																																
El Dorado (ELD)	Yes	10-19	3,589	None	No	No	No	x		x		x	x	x	x	x		x	x	x	x	x		x	x	x	Yes	R,T	-	R,T	R,T
Harrison (HRO)				None																												
Hot Springs (HOT)	Yes	20-30	4,582	Limited	No	Yes	Yes	x	x	x			x	x	x	x		x	x	x	x	x		x	x	x	Yes	R,T	R	R,T	R,T
Jonesboro (JBR)	Yes	10-19	-	None	No	Yes	Yes	x		x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R
Mountain Home (BPK)	Yes	10-19	6,500	None	No	Yes	No	x	x	x	x		x	x		x	x	x	x	x		x		x			Yes	R,T	-	R,T	R,T
Springdale (ASG)				None																												
Oklahoma																																
Enid (WDG)	Yes	10-19	4,200	None	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	Yes	R,T	-	R,T	R,T
Ponca City (PNC)	Yes	10-19	4,000	None	No	Yes	Yes	x	x	x	x		x	x	x	x	x	x	x	x		x			x	x	Yes	R,T	T	R,T	R,T
Texas																																
Brownwood (BWD)	Yes	10-19	2,500	None	No	Yes	No	x		x			x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R	R,T
Sugar Land/Hull (SGR)	Yes	20-30	19,000	None	Yes	No	-	x	x	x			x	x	x	x		x	x	x	x	x	x		x	x	Yes	R,T	R,T	R,T	R,T
Galveston (GLS)				Limited																												
Del Rio (DRT)				None																												
Victoria (VCT)	Yes	20-30	20,000	Limited	No	Yes	No	x		x	x	x	x	x	x	x		x	x	x	x	x			x	x	Yes	R,T	R,T	R,T	R,T
New Mexico																																
Alamogordo (ALM)	Yes	10-19	3,294	Full	No	Yes	No	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Carlsbad (CNM)	Yes	10-19	11,291	None	No	Yes	No	x				x	x	x	x	x			x	x					x	x	Yes	R,T	T	R,T	R,T
Clovis (CVN)	Yes	10-19	4,800	None	No	Yes	No			x	x		x	x	x	x	x	x	x		x					x	Yes	R,T	-	R,T	R,T
Gallup (GUP)	Yes	10-19	6,800	None	No	Yes	Yes		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Las Cruces (LRU)	Yes	10-19	6,295	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Santa Fe (SAF)				None																												
Silver City (SVC)				None																												
Farmington (FMN)	Yes	30+	91,989	Full	No	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Roswell (ROS)	Yes	10-19	30,240	Full	No	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Hobbs (HOB)	Yes	20-30	4,500	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Albuquerque (AEG)				None																												
Ruidoso (SRR)	Yes	10-19	-	Limited	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T
Western-Pacific Region																																
California																																
Bermuda Dunes (UDD)				None																												
Bishop (BIH)				None																												
Carlsbad (CRQ)				None																												
Crescent City (CEC)	Yes	10-19	-	Limited	No	Yes	No	x	x	x		x	x	x	x	x		x	x	x	x	x	x		x	x	Yes	R,T	R,T	R,T	R,T
Imperial (IIP)				None																												
Inyokern (IYK)	Yes	10-19	24,003	None	No	No	No	x		x			x		x				x	x			x		x		Yes	R,T	T	R	R
Mammoth Lakes (MMH)	Yes	10-19	9,000	Limited	No	Yes	No		x	x	x		x	x	x	x			x	x				x		x	Yes	R,T	T	R	R,T
Merced (MCE)	Yes	10-19	7,638	Limited	No	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T
Oxnard (OXR)	Yes	10-19	39,989	Full	Yes	Yes	Yes	x		x		x			x			x		x	x	x			x	x	Yes	R,T	R,T	R,T	R,T
Santa Maria (SMO)				None																												
San Luis Obispo (SBP)	Yes	30+	121,000	Full	No	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Stockton (SCK)	Yes	10-19	27,158	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Visalia (VIS)	Yes	10-19	7,000	Limited	No	Yes	Yes	x	x	x	x	x	x		x	x		x	x	x		x	x		x	x	Yes	R,T	-	R,T	R,T
Arizona																																
Kingman (IGM)				Limited																												
Lake Havasu City (HII)	Yes	10-19	13,000	None	No	Yes (off-site)	No	x		x	x	x	x	x	x	x		x	x	x		x	x		x	x	Yes	R,T	T	R,T	R,T
Page (PGA)	Yes	10-19	19,000	Limited	No	Yes	No	x	x	x	x	x		x	x			x	x	x	x	x	x		x	x	Yes	R,T	R,T	R,T	R,T
Prescott (PRC)	Yes	10-19	13,000	Limited	No	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T
Sierra Vista (FHU)				Full																												
Show Low (SOW)				None																												
Bullhead (IFP)	Yes	30+	74,194	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Sedona (SEZ)	No	-	-	None	-	-	-																				-	-	-	-	-
Flagstaff (FLG)	Yes	20-30	41,138	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T
Yuma (YIA)	Yes	30+	68,000	Full (U.S. Navy)	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T
Nevada																																
Ely (ELY)	Yes	10-19	2,265	Limited	No	Yes	No	x	x	x	x		x	x	x	x	x	x	x	x	x		x		x	x	Yes	R,T	T	R	R,T
L.V./Henderson (HSH)	Yes	10-19	-	None	No	No	No			x											x						No	R,T	-	R	-
American Samoa																																
Ofu Island (OFU)				None																												
Fitiuta (FAQ)				None																												
Hawaii																																
Hana, Maui (HNM)				None																												
Princeville, Kauai (H101)				None																												
Northwest Mountain Region																																
Colorado																																
Cortez (CEZ)	Yes	20-30	9,495	Limited	No	Yes	No	x	x	x		x	x	x	x	x	x	x	x	x			x	x	x	x	Yes	R,T	T	R	R,T
Lamar (LAA)				Limited																												
Idaho																																
Coeur D'Alene (COE)				None																												
Montana																																
Glasgow (GGW)				None																												
Glendive/Dawson (GDV)	Yes	10-19	1,500	None	No	Yes	No	x		x	x		x	x	x	x	x	x	x	x	x	x	x	x		x	Yes	R,T	R,T	R,T	R,T
Havre (HVR)				None																												
Kalispell(FCA)	Yes	30+	101,715	Full	Yes	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R	R,T
Lewiston (LWT)	Yes	10-19	-	None	No	No	Yes	x			x	x	x		x	x	x		x	x			x		x		Yes	R,T	-	R,T	R,T
Miles City (MLS)				None																												
Sidney (SDY)	Yes	10-19	-	None	No	Yes	No	x	x	x	x		x		x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T
Wolf Point (OLF)	Yes	-	1,689	None	No	Yes	No			x							x			x		x				x	No	R,T	R,T	R,T	R,T
Yellowstone (WYS)	Yes	20-30	2,700	Limited	No	Yes	No	x		x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T

OMMUTER SERVICE BY AIRCRAFT WITH 10 TO 30 SEATS

Data	Capital Costs						10 Recurring Costs						Capital & Maint./Installation & Operating Costs					
Signage	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement
R,T	$400,000	$200,000	$0	$0	$0	$2,000,000	$5,000	$2,000	$500	$200	$0	$10,000	$0	$0	$0	$0	$0	$0
R,T	$125,000	$200,000	$0	$0	$0	$5,000,000	$5,000	$2,000	$0	$0	$0	$40,000	$1,000	$0	$0	$0	$0	$5,000
R,T	$0	$46,000	$10,000	$1,000	$30,000	$20,000	$0	$3,000	$1,000	$1,000	$30,000	$20,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$500	$0	$0	$21,950	$19,200	$22,000	$1,500	$22,000	$10,000	$0	$0	$0	$0	$0	$0
R,T	$300,000	$1,000,000	$0	$0	$0	$2,000,000	$5,000	$0	$10,000	$5,000	$0	$5,000	$0	$0	$0	$0	$0	$0
R,T	$79,238	$0	$0	$0	$0	$0	$0	$500,000	$0	$0	$0	$618,808	$0	$0	$0	$0	$0	$0
R,T	$25,000	$0	$0	$0	$0	$0	$0	$8,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$525,000	$1,500,000	$10,000	$8,000	$2,000	$3,500,000	$15,000	$8,000	$2,000	$1,000	$500	$75,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$2,500	$1,600	$200	$3,000	$0	$0	$2,500	$1,600	$0	$0	$0	$0
-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$400	$5,000	$0	$200	$5,000	$45,000	$0	$0	$0	$0	$0
R,T	$21,000	$1,500,000	$0	$0	$0	$9,000,000	$500	$5,000	$0	$0	$0	$5,000	$100,000	$3,000,000	$0	$0	$0	$18,000,000
R,T	$300,000	$244,000	$0	$0	$0	$0	$100,000	$5,000	$3,000	$4,000	$5,000	$25,000	$0	$0	$0	$0	$0	$0
R,T	$250,000	$50,000	$0	$0	$0	$2,000,000	$5,000	$1,000	$5,000	$1,000	$1,000	$10,000	$0	$0	$0	$0	$0	$0
R,T	$0	$500,000	$0	$0	$0	$1,350,000	$0	$5,000	$1,000	$2,500	$1,000	$20,000	$400,000	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$8,000	$12,000	$1,000	$3,000	$1,000	$5,000	$0	$0	$0	$0	$0	$0
R,T	$300,000	$90,000	$1,000	$500	$100	$0	$5,000	$2,000	$1,000	$500	$300	$20,000	$0	$0	$0	$0	$0	$0
R,T	$260,000	$275,000	$0	$0	$0	$25,000,000	$215,000	$3,000	$1,000	$500	$500	$7,500	$0	$0	$0	$0	$0	$0
R,T	$350,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$150	$0	$0	$0	$0	$0	$150	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$5,800	$152,000	$800	$295	$20	$1,450,000	$1,800	$800	$500	$2,500	$20	$10,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$5,000	$4,000	$4,000	$8,000	$4,000	$5,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$300,000	$0	$0	$0	$0	$500,000	$145,000	$48,000	$10,000	$7,000	$5,000	$50,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$15,000	$200,000	$0	$0	$0	$2,051,000	$200	$800	$2,000	$1,500	$300	$15,000	$15,200	$200,800	$2,000	$1,500	$300	$2,066,000
R,T	$200,000	$0	$0	$0	$0	$0	$3,000	$5,000	$500	$4,000	$100	$10,000	$203,000	$5,000	$500	$4,000	$100	$10,000
R,T	$0	$0	$0	$0	$0	$0	$1,000	$1,200	$0	$0	$0	$40,000	$0	$0	$0	$0	$0	$0
R,T	$0	$315,000	$0	$0	$0	$0	$12,000	$8,000	$3,000	$0	$0	$0	$12,000	$323,000	$3,000	$0	$0	$0
R,T	$50,000	$300,000	$0	$0	$0	$4,500,000	$1,000	$5,000	$0	$1,000	$0	$100,000	$0	$0	$0	$0	$0	$0
R,T	$300,000	$400,000	$136,000	$0	$0	$0	$115,000	$10,000	$60,000	$0	$0	$10,000	$0	$0	$0	$0	$0	$0
R,T	$350,000	$2,000,000	$4,000	$4,500	$4,000	$5,000,000	$20,000	$0	$3,650	$4,500	$3,650	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$200,000	$0	$0	$0	$3,500,000	$75,000	$2,000	$0	$500	$0	$10,000	$21,000	$1,000	$0	$0	$0	$2,000
R,T	$200,000	$25,000	$0	$0	$0	$50,000,000	$500	$1,000	$0	$0	$0	$20,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$1,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$9,000	$14,500	$1,500	$0	$4,000	$0	$2,000	$0	$3,000	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$88,000	$200,000	$40,000	$25,000	$20,000	$1,181,000	$11,600	$25,000	$29,500	$12,000	$10,000	$50,000	$9,600	$25,000	$29,500	$29,500	$5,000	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$750,000	$1,000,000	$9,000	$9,000	$0	$0	$22,250	$61,000	$3,600	$1,000	$0	$75,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$23,500	$4,800	$2,100	$1,100	$380	$0	$1,300	$570	$1,400	$0	$200	$0	$2,800	$8,212	$9,800	$625	$0	$0
R,T	$50,000	$500,000	$20,000	$0	$0	$10,000,000	$1,000	$10,000	$20,000	$2,000	$5,000	$250,000	$0	$0	$0	$0	$0	$0
R,T	$15,000	$504,000	$0	$0	$0	$300,000	$2,400	$5,000	$0	$0	$0	$50,000	$0	$0	$0	$0	$0	$0
R,T	$500,000	$850,000	$0	$0	$0	$8,000,000	$230,000	$1,000	$2,500	$2,500	$2,500	$0	$730,000	$0	$2,500	$2,500	$2,500	$0
-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$4,000	$0	$0	$0	*$0	$0	$27,000	$42,000	$30,000	$15,000	$12,000	$30,000	$0	$0	$0	$0	$0	$0
R,T	$800,000	$1,500,000	$30,000	$10,000	$2,000	$1,500,000	$250,000	$300,000	$10,000	$3,500	$1,500	$150,000	$850,000	$1,800,000	$40,000	$13,500	$3,500	$15,150,000
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
-	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$175,000	$400,000	$1,000	$5,000	$1,000	$4,800,000	$1,500	$500	$750	$500	$1,000	$3,500	$0	$0	$0	$0	$0	$0
R,T	$80,000	$100,000	$0	$0	$0	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$275,000	$850,000	$10,000	$4,000	$0	$2,500,000	$2,000	$5,000	$5,000	$4,000	$0	$18,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$5,000	$0	$0	$0	$2,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$0	$103,000	$0	$0	$0	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$180,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Airport Name	1 Landings on Scheduled Basis (Yes) / (No)	1A Aircraft Seating Capacity	2 1994 Annual Enplanements	3 Airport Federal Certification Status (Full, Limited, None)	4 Airport Staffed 24 Hrs/Day (Yes) / (No)	5 ARFF (Yes) / (No)	6 ARFF (24 Hrs/Day) (Yes) / (No)	7 Does Your Airport Have 1/ A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	8 Maintain NOTAMS (Yes) / (No)	9 Runway (R) and Taxiway (T) Data Marking	Reflectors	Lighting	Signage	ARFF
Utah																																	
Bryce Canyon (BCE)				None																													
Canyonlands Fields (CNY)	Yes	>9	5,758	None	No	No	No	x	x	x	x	x		x	x			x		x					x		Yes	R,T	R,T	R,T	R,T	
Cedar City (CDC)	Yes	20-30	6,017	Limited	No	Yes	No	x	x	x	x	x	x		x	x	x	x	x	x		x		x	x		Yes	R,T	R,T	R,T	R,T	
Green River (U34)				None																													
Logan-Cache (LGU)	No	N/A	N/A	None	No	Yes	No	x		x		x		x		x		x	x						x		Yes	R,T	-	R,T	R,T	
Monument Valley				None																													
St. George (SGU)				Limited																													
Vernal (VEL)				Limited																													
Wyoming																																	
Cheyenne (CYS)	Yes	20-30	34,000	Full	No	Yes (guard)	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	
Riverton (RIW)	Yes	10-19	16,990	Full	No	Yes	No		x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x		Yes	R,T	-	R,T	R,T	
Worland (WOR)	Yes	10-19	3,500	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	-	R,T	R,T	$1
Oregon																																	
Astoria (AST)	Yes	10-19	4,633	Limited	No	Yes	Yes	x	x	x		x	x	x	x	x	x	x	x	x			x	x	x	x	Yes	-	-	R,T	R,T	$2,0
North Bend (OTH)	Yes	10-19	19,346	Limited	Yes	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	T	R,T	R,T	$1
Aurora (3S2)				None																													
Pendleton (PDT)	Yes	20-30	11,265	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T	R,T	R,T	R,T	$2
Washington																																	
Anacortes (74S)				None																													
Friday Harbor (WA24)	Yes	<9	16,106	None	No	Yes	No	x		x	x		x	x	x	x	x	x	x	x				x		x	Yes	R,T	-	R,T	R,T	
Moses Lake (MWH)				Full																													
Wes Lupien (76S)	Yes	<9	-	None	No	No	No			x				x		x	x	x	x	x	x			x	x	x	Yes	-	-	R	R	
Orcas Island (ORS)				None																													
Pullman (PUW)				Full																													
Wenatchee (EAT)	Yes	30+	44,108	Full	Yes	Yes	Yes	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x		Yes	R,T	-	R,T	R,T	$1
Alaskan Region																																	
Alaska																																	
Akhiok (AKK)	Yes	10-19	1,036	None	No	No		x		x				x													No		R,T			
Alaschek (Z13)	Yes	10-19	3,041	None	No	No		x		x				x													No		R,T			
Akiak (AKI)	Yes	10-19	1,834	None	No	No		x		x				x													No		R,T			
Aleknagik (AUK)	Yes	10-19	889	None	No	No		x		x				x													No			R,T		
Aleknagik (5A8)	No			None																													
Alitak (ALZ)	No			None																													
Allakaket (AET)	Yes	10-19	1,711	None	No	No		x		x				x													No			R,T			
Ambler (Z69)	Yes	10-19	1,948	None	No	No		x		x				x													No			R,T			
Ammok (AK81)	No			None																													
Anaktuvuk Pass (AKP)	Yes	10-19	2,866	None	No	No		x		x				x													No			R,T			
Anak (ANI)	Yes	>30	12,010	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$
Anvik (ANV)	Yes	10-19	768	None	No	No		x		x				x													No			R,T		
Arctic Village (ARC)	Yes	10-19	1,568	None	No	No		x		x				x													No			R,T		
Atka (AKB)	Yes	10-19	422	None	No	No		x		x				x													No			R,T		
Atmautluak (0BAK)	Yes	10-19	2,132	None	No	No		x		x				x													No		R,T			
Atqasuk (Z46)	Yes	10-19	3,194	None	No	No		x		x				x													No			R,T		
Barrow (BRW)	Yes	>30	45,898	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$2
Beaver (WBO)	Yes	10-19	1,664	None	No	No		x		x				x													No			R,T		
Bethel (BET)	Yes	>30	97,257	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1
Bettles (BTT)	Yes	10-19	2,344	None	No	No		x		x				x													No			R,T		
Big Creek	No			None																													
Birch Creek (Z91)	Yes	<10	475	None	No	No		x		x				x													No			R,T		
Brevig Mission (KTS)	Yes	10-19	1,508	None	No	No		x		x				x													No			R,T		
Buckland (7K5)	Yes	10-19	2,898	None	No	No		x		x				x													No			R,T		
Chalkyitsik (CIK)	Yes	10-19	787	None	No	No		x		x				x													No			R,T		
Chefornak (CYF)	Yes	10-19	2,565	None	No	No		x		x				x													No			R,T		
Chevak (VAK)	Yes	10-19	3,234	None	No	No		x		x				x													No			R,T		
Chignik Bay (Z79)	Yes	10-19	811	None	No	No		x		x				x													No		R,T			
Chignik Lagoon (KCL)	Yes	10-19	703	None	No	No		x		x				x													No		R,T			
Chignik Lake (AK79)	Yes	10-19	81	None	No	No		x		x				x													No		R,T			
Chuathbaluk (9A3)	Yes	10-19	504	None	No	No		x		x				x													No		R,T			
Clarks Point (CLP)	Yes	10-19	2,430	None	No	No		x		x				x													No		R,T			
Coffee Point	No			None																													
Cold Bay (CDB)	Yes	>30	13,046	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1
Cordova (CKU)	Yes	>30	17,108	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$
Crooked Creek (CJX)	Yes	10-19	760	None	No	No		x		x				x													No		R,T			
Council (K29)	Yes	<10	74	None	No	No		x		x				x													No		R,T			
Deadhorse (SCC)	Yes	>30	33,492	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$
Deering (0Z0)	Yes	10-19	1,538	None	No	No		x		x				x													No			R,T		
Dillingham (DLG)	Yes	>30	38,826	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$2
Eagle (EAA)	Yes	10-19	1,101	None	No	No		x		x				x													No			R,T		
Eek (EEK)	Yes	10-19	1,186	None	No	No		x		x				x													No		R,T			
Egegik (69E)	Yes	10-19	2,154	None	No	No		x		x				x													No			R,T		
Eluk (KKU)	Yes	10-19	1,224	None	No	No		x		x				x													No					
Elwok (KEK)	Yes	10-19	744	None	No	No		x		x				x													No		R,T			
Elim (ELI)	Yes	10-19	2,004	None	No	No		x		x				x													No			R,T		
Emmonak (2ZO)	Yes	10-19	1,262	None	No	No		x		x				x													No			R,T		
English Bay (KEB)	Yes	10-19	1,489	None	No	No		x		x				x													No		R,T			
False Pass (KFP)	Yes	10-19	664	None	No	No		x		x				x													No		R,T			
Farewell (FWL)	No		26	None																													
Flat (FLT)	No		62	None																									R,T			
Ft. Yukon (FYU)	Yes	10-19	6,559	None	No	No		x		x				x													No			R,T		
Galena (GAL)	Yes	10-19	8,617	Limited	No	No		x		x				x													Yes	R,T		R,T	R,T	
Gambell (GAM)	Yes	10-19	3,828	None	No	No		x		x				x													No	R,T		R,T		
Golovin (GLV)	Yes	10-19	1,543	None	No	No		x		x				x													No			R,T		
Good News Bay (GNU)	Yes	10-19	1,711	None	No	No		x		x				x													No		R,T			
Grayling (KGX)	Yes	10-19	1,051	None	No	No		x		x				x													No		R,T			
Gustavus (GST)	Yes	>30	11,932	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T			R,T	$
Haines (HNS)	Yes	10-19	20,076	None	No	No		x		x				x													No	R,T		R,T		
Herendeen (AK33)	No			None																													
Holy Cross (AZ4)	Yes	10-19	1,648	None	No	No		x		x				x													No			R,T		
Hoonah (HNH)	Yes	10-19	10,049	None	No	No		x		x				x													No	R,T	R,T			
Hooper Bay (HPB)	Yes	10-19	4,198	None	No	No		x		x				x													No	R,T		R,T		
Homer (HOM)	Yes	>30	34,192	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	
Huges (HUS)	Yes	10-19	891	None	No	No		x		x				x													No			R,T		
Huslia (HSL)	Yes	10-19	2,531	None	No	No		x		x				x													No			R,T		
Igugig (IGG)	Yes	10-19	791	None	No	No		x		x				x													No			R,T		
Ilamna (ILI)	Yes	>30	6,230	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes			R,T	R,T	
Ilinnos Creek	No			None																													
Kalskag (KLG)	Yes	10-19	3,094	None	No	No		x		x				x													No			R,T		
Kaltag (KAL)	Yes	10-19	1,864	None	No	No		x		x				x													No			R,T		
Karluk (KYK)	Yes	10-19	1,113	None	No	No		x		x				x													No		R,T			
Kasigluk (Z09)	Yes	10-19	2,775	None	No	No		x		x				x													No		R,T			
Kenai Municipal (ENA)	Yes	>30	106,426	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	
Ketchikan (KTN)	Yes	>30	146,414	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	
Kiana (IAN)	Yes	10-19	3,398	None	No	No		x		x				x													No			R,T		
King Cove (KVK)	Yes	10-19	3,995	None	No	No		x		x				x													No		R,T			
King Salmon (AKN)	Yes	>30	45,852	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$
Kipnuk (KPN)	Yes	10-19	4,704	None	No	No		x		x				x													No			R		
Kivalina (KVL)	Yes	10-19	3,182	None	No	No		x		x				x													No			R,T		
Klawock (9Z0)	Yes	10-19	3,103	None	No	No		x		x				x													No	R,T		R,T		
Kobuk (OBU)	Yes	10-19	808	None	No	No		x		x				x													No			R,T		
Kodiak (ADQ)	Yes	>30	79,434	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	
Koliganek (KGK)	Yes	10-19	1,124	None	No	No		x		x				x													No		R			

MUTER SERVICE BY AIRCRAFT WITH 10 TO 30 SEATS

	10																	
	Capital Costs						Recurring Costs						Capital & Maint./Installation & Operating Costs					
ta ignage	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement
R,T	$0	$30,000	$0	$0	$0	$1,000,000	$0	$1,000	$0	$0	$0	$5,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$5,000	$3,000	$0	1,200	$0	$0	$0	$0	$0	$0	$0	$20,000
R,T	$0	$311,194	$0	$0	$0	$20,000	$0	$1,000	$0	$0	$0	$0	$0	$311,194	$0	$0	$0	$20,000
R,T	$0	$200,000	$0	$0	$0	$1,000,000	$0	$10,000	$10,000	$10,000	$5,000	$50,000	$0	$0	$0	$0	$0	$0
R,T	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$150,000	$300,000	$15,000	$2,000	$0	$8,000,000	$2,000	$1,000	$2,500	$3,000	$500	$15,000	$0	$0	$0	$0	$0	$0
R,T	$2,000,000	incl. in ARFF	incl. in ARFF	incl. in ARFF	incl. in ARFF	incl. in ARFF	$3,000,000	incl. in ARFF	incl. in ARFF	incl. in ARFF	incl. in ARFF	incl. in ARFF	$0	$0	$0	$0	$0	$0
R,T	$150,000	$2,000,000	$10,000	$0	$0	$4,000,000	$5,000	$10,000	$500	$2,000	$3,000	$60,000	$160,000	$2,020,000	$20,000	$2,000	$3,000	$4,100,000
R,T	$250,000	$25,000	$2,500	$10,000	$2,500	$1,000,000	$5,000	$10,000	$1,000	$2,500	$1,000	$7,500	$255,000	$35,000	$3,500	$12,500	$3,500	$1,007,500
R,T	$3,200	$125,000	$0	$11,000	$0	$3,508,844	$1,000	$4,000	$7,300	$0	$500	$1,000	$0	$0	$0	$0	$0	$0
R	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
R,T	$387,000	$150,000	$0	$500	$0	$0	$0	$15,000	$0	$2,500	$0	$15,000	$0	$0	$0	$0	$0	$0
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,000,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,000,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$800,000	$500,000				$3,400,000	$70,000	$35,000	$29,000	$10,000	$6,000	$52,000	$177,000	$18,000	$58,000	$19,000	$13,000	$30,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$2,667,000	$600,000				$4,000,000	$135,000	$68,000	$55,000	$18,000	$12,000	$50,000	$180,000	$33,000	$47,000	$28,000	$17,000	$24,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$1,300,000	$500,000				$4,000,000	$178,000	$71,000	$58,000	$19,000	$13,000	$51,000	$90,000	$35,000	$34,000	$11,000	$8,000	$26,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$1,100,000	$800,000				$7,000,000	$141,000	$56,000	$46,000	$15,000	$10,000	$41,000	$141,000	$108,000	$92,000	$30,000	$21,000	$20,000
R,T	$800,000	$500,000				$3,300,000	$94,000	$68,000	$55,000	$18,000	$12,000	$50,000	$188,000	$34,000	$78,000	$26,000	$18,000	$24,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$900,000	$700,000				$4,000,000	$94,000	$68,000	$55,000	$18,000	$12,000	$50,000	$188,000	$34,000	$78,000	$26,000	$18,000	$24,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$2,300,000	$500,000				$3,100,000	$94,000	$68,000	$55,000	$18,000	$12,000	$50,000	$188,000	$34,000	$78,000	$26,000	$18,000	$24,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$0	$450,000				$3,800,000	$0	$85,000	$69,000	$23,000	$15,000	$62,000	$318,000	$42,000	$97,000	$32,000	$22,000	$30,000
		$250,000				$2,000,000		$17,000				$18,000	$283,000		$2,000	$12,000	$4,000	
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$1,100,000	$50,000				$4,500,000	$30,000	$45,000	$20,000	$5,000	$3,000	$3,000	$7,000	$5,000	$1,000	$1,000	$1,000	$1,000
		$250,000				$2,000,000		$17,000				$18,000	$283,000		$2,000	$12,000	$4,000	
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
						$3,500,000						$18,000	$283,000	$217,000	$2,000	$12,000	$4,000	
		$250,000				$2,000,000		$17,000				$18,000	$283,000		$2,000	$12,000	$4,000	
R,T	$900,000	$500,000				$2,800,000	$167,000	$68,000	$54,000	$18,000	$12,000	$49,000	$55,000	$27,000	$22,000	$7,000	$5,000	$20,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$180,000	$450,000				$0	$98,000	$39,000	$32,000	$10,000	$7,000	$0	$195,000	$19,000	$64,000	$21,000	$14,000	$5,085,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T																		
R,T																		
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$2,057,000	$1,000,000				$5,200,000	$147,000	$50,000	$41,000	$14,000	$9,000	$37,000	$147,000	$25,000	$41,000	$14,000	$9,000	$18,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000				$1,500,000		$17,000				$18,000	$283,000		$2,000	$12,000	$4,000	
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$0	$1,100,000				$5,500,000	$12,000	$71,000	$58,000	$19,000	$13,000	$52,000	$0	$30,000	$24,000	$8,000	$6,000	$22,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000

	1	1A	2	3	4	5	6	7																		8	9				
	Landings on Scheduled Basis	Aircraft Seating	1994 Annual	Airport Federal Certification Status	Airport Staffed 24 Hrs/Day	ARFF	ARFF (24 Hrs/Day)	Does Your Airport Have 1/																		Maintain NOTAMS	Runway (R) and Taxiway (T) Data				
ort Name	(Yes) / (No)	Capacity	Enplanements	(Full, Limited, None)	(Yes) / (No)	(Yes) / (No)	(Yes) / (No)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	(Yes) / (No)	Marking	Reflectors	Lighting	Signage	ARFF Equ
Kongiganek (OUY)	Yes	10-19	2,882	None	No	No		x		x				x													No		R			
Kotlik (KOT)	Yes	10-19	1,454	None	No	No		x		x				x													No		R,T			
Kotzebue (OTZ)	Yes	>30	80,738	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$950,0
Koyuk (KKA)	Yes	10-19	2,209	None	No	No		x		x				x													No			R,T		
Koyukuk (KYU)	Yes	10-19	1,329	None	No	No		x		x				x													No			R,T		
Kwethluk (KWT)	Yes	10-19	3,074	None	No	No		x		x				x													No		R			
Kwigillingok (AK85)	Yes	10-19	3,138	None	No	No		x		x				x													No		R,T			
Larsen Bay (09AK)	Yes	10-19	2,593	None	No	No		x		x				x													No		R			
Levelock (KLL)	Yes	10-19	812	None	No	No		x		x				x													No		R			
Lime Village (23AK)	Yes	<10	158	None	No	No		x		x				x													No		R			
McGrath (MCG)	Yes	10-19	5,688	None	No	No		x		x				x													No	R,T		R,T		
Manokotak (17Z)	Yes	10-19	4,482	None	No	No		x		x				x													No			R,T		
Marshall (MLL)	Yes	10-19	2,099	None	No	No		x		x				x													No		R			
Mekoryuk (MYU)	Yes	10-19	1,611	None	No	No		x		x				x													No			R,T		
Metlakatla (MTM)	No			None																												
Mountain Village (MOU)	Yes	10-19	2,987	None	No	No		x		x				x													No			R,T		
Napaskiak (WNA)	Yes	10-19	1,725	None	No	No		x		x				x													No		R			
Napakiak (PKA)	Yes	10-19	1,111	None	No	No		x		x				x													No			R,T		
Nelson Lagoon (Z73)	Yes	<10	355	None	No	No		x		x				x													No		R,T			
New Stuyahok (KNW)	Yes	10-19	1,606	None	No	No		x		x				x													No		R,T			
Newtok (WWT)	Yes	10-19	1,813	None	No	No		x		x				x													No		R,T			
Nightmute (24AK)	Yes	10-19	1,442	None	No	No		x		x				x													No		R			
Nikolai (5NI)	Yes	<10	356	None	No	No		x		x				x													No		R,T			
Nikolski (L2F)	No		356	None																												
Noatak (WTK)	Yes	10-19	3,991	None	No	No		x		x				x													No			R,T		
Noorvik (ORV)	Yes	10-19	4,637	None	No	No		x		x				x													No			R,T		
Nome (OME)	Yes	>30	58,567	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1,200,0
Nuiqsut (10AK)	Yes	10-19	2,211	None	No	No		x		x				x													No			R,T		
Nulato (NUL)	Yes	10-19	3,105	None	No	No		x		x				x													No			R,T		
Nunapitchuk (16A)	Yes	<10		None	No	No		x		x				x													No		R			
Old Harbor (6R7)	Yes	10-19	3,255	None	No	No		x		x				x													No		R,T			
Ouzinkie (4K5)	Yes	10-19	2,403	None	No	No		x		x				x													No		R			
Perryville (AK05)	Yes	10-19	701	None	No	No		x		x				x													No		R			
Petersburg (PSG)	Yes	>30	17,146	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1,300,0
Pilot Point (PIP)	Yes	10-19	1,304	None	No	No		x		x				x													No		R,T			
Pilot Station (AK10)	Yes	10-19	2,844	None	No	No		x		x				x													No		R,T			
Platinum (PTU)	Yes	10-19	718	None	No	No		x		x				x													No		R,T			
Point Hope (PHO)	Yes	10-19	4,478	None	No	No		x		x				x													No	R,T		R,T		
Point Lay (PIZ)	Yes	10-19	1,815	None	No	No		x		x				x													No		R,T			
Port Heiden (PTH)	Yes	>30	1,297	Limited	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes			R,T	R,T	$1,100,0
Port Graham (PGM)	Yes	10-19	1,162	None	No	No		x		x				x													No		R			
Port Lions (ORI)	Yes	10-19	2,891	None	No	No		x		x				x													No		R,T			
Port Moller	No			None																												
Portage Creek (AK14)	Yes	<10	269	None	No	No		x		x				x													No		R,T			
Prudhoe Bay (PUO)				Limited										x													No					
Queen (5QN)	No		38	None										x													No					
Quinhagak (AQH)	Yes	10-19	1,868	None	No	No		x		x				x													No		R			
Red Devil (RDV)	Yes	10-19	525	None	No	No		x		x				x													No		R,T			
Ruby (RBY)	Yes	10-19	1,682	None	No	No		x		x				x													No			R,T		
Russian Mission (RSH)	Yes	10-19	2,241	None	No	No		x		x				x													No			R,T		
Savoonga (SVA)	Yes	10-19	3,472	None	No	No		x		x				x													No			R,T		
Sand Point (SDP)	Yes	>30	4,758	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$800,0
Scammon Bay (SCM)	Yes	10-19	2,365	None	No	No		x		x				x													No			R,T		
Selawik (91A)	Yes	10-19	4,130	None	No	No		x		x				x													No			R,T		
Seldovia (SOV)	Yes	10-19	3,036	None	No	No		x		x				x													No		R,T			
Seward (SWD)	Yes	<10	200	None	No	No		x		x				x													No	R,T		R,T		
Shageluk (SHX)	Yes	10-19	943	None	No	No		x		x				x													No		R,T			
Shaktoolik (38A)	Yes	10-19	1,902	None	No	No		x		x				x													No			R,T		
Sheldons Point (SXP)	Yes	10-19	371	None	No	No		x		x				x													No			R,T		
Shishmaref (K09)	Yes	10-19	3,375	None	No	No		x		x				x													No			R,T		
Shungnak (SHG)	Yes	10-19	1,610	None	No	No		x		x				x													No			R,T		
Sitka (SIT)	Yes	>30	57,781	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1,000,0
Skagway (SGY)	Yes	10-19	24,678	None	No	No		x		x				x													No	R	R			
Sleetmute (SLQ)	Yes	10-19	680	None	No	No		x		x				x													No			R,T		
Soldotna (L85)	No	<10	485	None																												
South Naknek (AK35)	Yes	10-19	1,367	None	No	No		x		x				x													No			R,T		
Stevens Village (SVS)	Yes	10-19	872	None	No	No		x		x				x													No		R,T			
St. George Island (STG)	Yes	10-19	1,383	None	No	No		x		x				x													No			R,T		
St. Marys (KSM)	Yes	10-19	11,156	None	No	No		x		x				x													No			R,T	R,T	
St. Michael (SMK)	Yes	10-19	1,761	None	No	No		x		x				x													No			R,T		
St. Paul Island (SNP)	Yes	>30	5,494	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes			R,T	R,T	$1,000
Stebbins (WBB)	Yes	10-19	2,315	None	No	No		x		x				x													No			R,T		
Takotna (TCT)	Yes	10-19	569	None	No	No		x		x				x													No		R			
Tanana (TAL)	Yes	10-19	4,435	None	No	No		x		x				x													No			R,T		
Teller (AK52)	Yes	<10	52	None	No	No		x		x				x													No		R			
Teller (AK54)	Yes	10-19	1,339	None	No	No		x		x				x													No			R,T		
Togiak (TOG)	Yes	10-19	5,174	None	No	No		x		x				x													No			R,T		
Toksook Bay (OOK)	Yes	10-19	3,611	None	No	No		x		x				x													No		R			
Tununak (TLT)	Yes	10-19	3,098	None	No	No		x		x				x													No		R			
Tuntutuliak (AK81)	Yes	10-19	3,537	None	No	No		x		x				x													No			R		
Tununak (AK45)	Yes	10-19	2,371	None	No	No		x		x				x													No			R,T		
Twin Hills (AK83)	Yes	10-19	734	None	No	No		x		x				x													No		R			
Ugashik (9A8)	Yes	<10	380	None	No	No		x		x				x													No		R,T			
Umiat (UMT)	No			None																									R			
Unalakleet (UNK)	Yes	10-19	8,030	None	No	No		x		x				x													No			R,T		
Unalaska (DUT)	Yes	>30	40,400	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$550
Valdez (VDZ)	Yes	>30	28,834	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1,100
Venetie (YEE)	Yes	10-19	1,984	None	No	No		x		x				x													No		R			
Wainwright (5WW)	Yes	10-19	3,174	None	No	No		x		x				x													No			R,T		
Wales (IWK)	Yes	10-19	1,577	None	No	No		x		x				x													No			R,T		
White Mountain (WMO)	Yes	10-19	1,754	None	No	No		x		x				x													No			R,T		
Wrangell (WRG)	Yes	>30	14,825	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1,100
Yakutat (YAK)	Yes	>30	10,308	Full	No	Yes	No	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	Yes	R,T		R,T	R,T	$1,300

- Lines of succession of airport operational responsibilities.
- A grid map or other means of identifying locations and terrain features on or around the airport which are significant to emergency operations.
- A system for runway and taxiway identification.
- Document listing of each obstruction required to be lighted or marked within the airport's area of authority.
- A description of each movement area and its safety area.
- Procedures for maintaining paved areas.
- Procedures for maintaining unpaved areas.
- Procedures for maintaining safety areas.

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I - Procedures for maintaining the marking and lighting systems for the runways and taxiways.
J - Snow and ice control plan.
K - Emergency plan.
L - Procedures for maintaining the traffic and wind direction indicators.
M - Procedures for performing airport inspections.
N - Controlling ground vehicles crossing runways and taxiways.
O - Procedures for obstruction removal, marking, or lighting.
P - Procedures for protection of navaids.
Q - Procedures for performing wildlife hazard management.
R - Procedures for identifying marking and reporting construction and other unserviceable areas.
S - Procedures for airport condition reporting.

OMMUTER SERVICE BY AIRCRAFT WITH 10 TO 30 SEATS

	10																	
	Capital Costs						Recurring Costs						Capital & Maint./Installation & Operating Costs					
) Data Signage	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement	ARFF Equip.	Marking & Lighting	Inspection Procedures	Staff Training	Discrepancy Reporting	Pavement
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$950,000	$500,000				$3,000,000	$147,000	$50,000	$41,000	$14,000	$9,000	$37,000	$147,000	$25,000	$41,000	$14,000	$9,000	$18,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000				$3,000,000		$17,000				$25,000	$283,000		$2,000	$12,000	$4,000	
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$1,200,000	$900,000				$14,000,000	$147,000	$50,000	$41,000	$14,000	$9,000	$37,000	$147,000	$25,000	$41,000	$14,000	$9,000	$18,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$1,300,000	$500,000				$2,900,000	$80,000	$52,000	$26,000	$8,000	$3,000	$7,000	$120,000	$8,000	$2,000	$1,000	$1,000	$1,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000				$2,000,000		$17,000				$18,000	$283,000		$2,000	$12,000	$4,000	
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
R,T	$1,100,000	$800,000				$0	$10,000	$5,000	$4,000	$1,000	$1,000	$0	$20,000	$3,000	$8,000	$3,000	$2,000	$8,000,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$800,000	$380,000				$3,000,000	$21,000	$10,000	$9,000	$3,000	$2,000	$8,000	$42,000	$5,000	$17,000	$8,000	$4,000	$3,500
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$1,000,000	$500,000				$2,500,000	$80,000	$64,000	$32,000	$8,000	$3,000	$6,000	$75,000	$7,000	$3,000	$1,000	$1,000	$1,000
						$800,000						$15,000	$283,000	$217,000	$2,000	$12,000	$4,000	
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T		$500,000				$0	$0	$44,000					$350,000	$22,000	$108,000	$36,000	$23,000	$5,000,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$1,000,000	$500,000				$0	$33,000	$18,000	$13,000	$4,000	$3,000	$0	$88,000	$8,000	$27,000	$9,000	$8,000	$4,000,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$550,000	$380,000				$3,000,000	$98,000	$46,000	$37,000	$12,000	$8,000	$33,000	$195,000	$20,000	$74,000	$25,000	$17,000	$16,000
R,T	$1,100,000	$500,000				$4,000,000	$170,000	$85,000	$69,000	$23,000	$15,000	$62,000	$237,000	$42,000	$97,000	$32,000	$22,000	$30,000
													$283,000	$217,000	$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
		$250,000						$17,000					$283,000		$2,000	$12,000	$4,000	$2,018,000
R,T	$1,100,000	$500,000				$3,000,000	$30,000	$50,000	$26,000	$8,000	$3,000	$7,000	$150,000	$6,000	$2,000	$1,000	$1,000	$1,000
R,T	$1,300,000	$900,000				$5,000,000	$90,000	$80,000	$26,000	$8,000	$3,000	$10,000	$150,000	$6,000	$2,000	$1,000	$1,000	$1,000

FAA Action – Not Available