Federal Aviation Administration – Regulations and Policies
Aviation Rulemaking Advisory Committee

Air Carrier Operations Issue Area
Single Engine-IMC-with Passengers Working Group

Task 1 – IMC with Passengers

Task Assignment

Aviation Rulemaking Advisory Committee (ARAC)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of establishment of the Single Engine-IMC-with passengers ARAC Working Group.

SUMMARY: Notice is given of the establishment by the Aviation Rulemaking Advisory Committee of an ARAC working group to examine the feasibility of conducting single-engine passenger carrying operations in instrument meteorological conditions (IMC) under Part 135 of the Federal Aviation Regulations. This notice informs the public of the activities of the ARAC and seeks the public's participation.

FOR FURTHER INFORMATION CONTACT: Mr. Quentin J. Smith, Jr., Executive Director for Air Carrier Operations Issues, Flight Standards Service (AFS-200), 800 Independence Ave. SW., Washington, DC 20591; telephone (202) 267-8166, FAX: (202) 267-5230.

SUPPLEMENTARY INFORMATION: The Federal Aviation Administration (FAA) has established an Aviation Rulemaking Advisory Committee (ARAC) (56 FR 2190, January 22, 1991; and 58 FR 9230, February 19, 1993). One area that the ARAC deals with is air carrier operations. Other working groups in this area have dealt with issues such as autopilot takeoff minimum altitudes, fuel requirements, controlled rest on the flight deck, noise abatement, and flight crewmember flight/rest/duty requirements. The Single Engine-IMC-with passengers Working Group is being established to evaluate the safety aspects and overall feasibility of allowing passenger carrying operations in IMC with single engine aircraft. The Single Engine-IMC-with passengers Working Group will forward its recommendations to the ARAC, which will then determine whether to forward them to the FAA.

Specifically, the Working Group's task is as follows:

(1) Review the Canadian policy authorizing single engine IMC operations in turbine-powered airplanes and make recommendations for adoption.

(2) Re-examine existing policies for commercial IMC and/or night operations by single-engine aircraft.

(3) Determine the conditions and/or limitations which should be met before commercial air transport IMC and/or night operations by single-engine aircraft could be permitted.

(4) When considering the applicability of such operations, include both airplanes and helicopters (both turbine and reciprocating engines), passenger carriage (FAA), passenger/cargo carriage (JAA).

(5) Consider and dispose of any petitions for rulemaking or exemption on this subject.

(6) If, after completing the review, changes are recommended, develop and submit any needed advisory material or notice of proposed rulemaking in final form.

The Working Group should recommend time line(s) for completion of the task, including the rationale, for consideration at the meeting of the ARAC to consider air carrier operations issues held following publication of this notice.

The Working Group will give a status report on the task at each meeting of the ARAC held to consider air carrier operations issues.

The Single Engine-IMC-with passengers Working Group will be comprised of experts from those organizations having an interest in the tasks assigned. A Working Group member need not necessarily be a representative of one of the member organizations of the ARAC. Individuals who have expertise in the subject and wish to become a member of the Working Group should write the person listed under the caption **FOR FURTHER INFORMATION CONTACT** expressing that desire, describing their interest in the task, and the expertise they would bring to the Working Group. The request will be reviewed with the ARAC Assistant Chair for Air Carrier Operations and the Chair of the Single Engine-IMC-with passengers 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 of the FAA by law. Meetings of the ARAC to consider air carrier operations issues will be open to the public except as authorized by section 10(d) of the Federal Advisory Committee Act. Meetings of the Single Engine-IMC-with passengers 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 13, 1994.

Quentin J. Smith, Jr.,

Assistant Executive Director for Air Carrier Operations Issues, Aviation Rulemaking Advisory Committee.

[FR Doc. 94-26068 Filed 10-19-94; 8:45 am]

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Recommendation Letter

AIR LINE PILOTS ASSOCIATION

535 HERNDON PARKWAY □ P.O. BOX 1169 □ HERNDON, VIRGINIA 22070 □ (703) 689-2270

April 5, 1995

Mr. Anthony J. Broderick
Associate Administrator for
Regulation and Certification (AVR-1)
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D.C. 20591

Subject: Single Engine IFR Working Group

Dear Mr. Broderick:

The Aviation Rulemaking Advisory Committee (ARAC) Air Carrier Operations Issues Group established a Single Engine IFR Working Group last year to perform several tasks assigned by the FAA. One of the tasks was to consider and dispose of any petitions for rulemaking or exemption on the subject of allowing single engine airplanes to conduct commercial operations in IFR.

There were five petitions for exemption considered by the working group. Four of the petitions were similar in that they were from individual Part 135 operators and requested exemption authorization to conduct single engine IFR operations in a specific aircraft. The remaining petition was from the Alaska Air Carriers Association (AACA) and requested exemption only from FAR Part 135.181(c)(2). Their petition, if granted, would give their members authority to conduct single engine IFR operations only under certain narrowly defined circumstances.

At our March 7, 1995 meeting, the working group presented their report which contained two recommendations and a draft notice of proposed rulemaking. One of the recommendations was to grant the group of four petitions and the other was to grant the AACA petition. The issues group felt that the working group needed to have further discussions on several aspects of their report. However, the issues group did feel that there was enough merit in the AACA petition to warrant granting it for use in Alaska. It is sufficiently narrow in scope that it should not present a rulemaking precedent.

Accordingly, I am pleased to forward to you the attached recommendation of the Single Engine IFR Working Group to grant the AACA petition for exemption.

We look forward to sending the additional recommendations as they are completed.

Sincerely,

William W. Edmunds

William W. Edmunds, Assistant Chairman
Aviation Rulemaking Advisory Committee

WWE:jch

cc: Mr. Joe Sprague
Air Carrier Operations Issues Group

Acknowledgement Letter

U.S. Department
of Transportation

**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

MAY 16 1995

Mr. William W. Edmunds, Jr.
Assistant Chairman, Aviation Rulemaking
Advisory Committee
Airline Pilots Association
Herndon, Virginia 22070

Dear Mr. Edmunds:

Thank you for your April 5 letter forwarding the Aviation Rulemaking Advisory Committee (ARAC) proposal concerning the Alaska Air Carriers' Association petition for exemption from section 135.181 of the Federal Aviation Regulations.

The FAA recognizes that there is an ongoing action within ARAC to review and make recommendations on amending the rules affecting single engine IFR (SEIFR) operations with passengers. With this in mind, it would be premature for us to take singular action on this petition, when a rulemaking proposal is near at hand.

Additionally, to grant this petition would set a precedent to allow SEIFR operations with passengers when the related staff work of ARAC is not completed on the subject.

Therefore, the FAA will not take action either to grant or deny this petition until the work on the subject is completed, however, we do look forward to receiving your complete formal proposal at your earliest opportunity.

I would like to thank the ARAC and, in particular, the SEIFR Working Group for its efforts on the task and its continuing work.

Sincerely,

Anthony J. Broderick
Associate Administrator for
Regulation and Certification

Recommendation

- **LETTER OF RECOMMENDATION ON THE PENDING PETITION FOR EXEMPTION TO FAR PART 135.181(c)(2) FROM THE ALASKA AIR CARRIERS ASSOCIATION**

March 7, 1995

Mr. Bill Edmunds
Assistant Chairman
Air Carrier Operations Issues Group
Aviation Rulemaking Advisory Committee
P.O. Box 1169
Herndon, VA 22070

Dear Mr. Edmunds,

The following letter presents the recommendation of the Single-Engine IFR Working Group on the pending petition for exemption from FAR Part 135.181(c)(2) by the Alaska Air Carriers Association (Docket No. 27061).

BACKGROUND

The official list of tasks assigned to the Aviation Rulemaking Advisory Committee (ARAC) regarding the single-engine IFR (SEIFR) issue included the instruction to "consider and dispose of any petitions for rulemaking or exemption on this subject." There are five pending petitions for exemption to all, or part, of FAR Part 135.181. Four of these petitions are similar in that they are from individual Part 135 operators and request authorization to conduct SEIFR operations in a specific aircraft. The Working Group's recommendation to grant these four petitions is contained in a separate letter.

The remaining petition (attached) is from the Alaska Air Carriers Association (AACA) and requests exemption only from FAR Part 135.181(c)(2). This would give the Association's members authority to conduct SEIFR operations in single-engine aircraft only under certain narrowly defined circumstances.

RECOMMENDATION

After considerable review and discussion of all available information on the single-engine IFR issue in general, and the Alaska issue specifically, the SEIFR Working Group strongly recommends that the Alaska Air Carriers Association petition be granted. Studies, including Transport Canada's Safety Study of VFR Flight Into Adverse Weather and the FAA's Part 135 SEIFR Operations in Instrument Meteorological Conditions (IMC) report, have clearly shown that inadvertent flight into IMC is a problem that could be addressed by allowing greater authority for SEIFR operations.

As the FAA report points out, "given the extremely low single-engine airplane accident rate estimated to be achievable for accidents that result from mechanical propulsion failure in IMC, and the highly disproportionate share of VFR into IMC accidents that occur in Alaska, very few VFR into IMC accidents would need to be prevented to offset the incremental risk exposure from propulsion failure that might result from approving single-engine IFR operations in IMC."

The AACA petition retains the existing limitations of Part 135.181, but would allow an instrument approach to be conducted at a destination in forecast, as well as unforecast, IFR conditions. This petition mandates several conservative conditions that must be met before operations are authorized. The Working Group believes that a grant of this petition will provide both the means and the incentive for Alaskan operators to improve safety by shifting operations from the VFR environment to one with aircraft separation, terrain clearance, and guaranteed coverage of navigational aids. Due to the unique nature of Alaska operations and the likelihood of improving safety, this petition should be granted without delay.

This recommendation is made after very careful, deliberate consideration by the Working Group and represents a unanimous consensus on behalf of the Working Group members.

Thank you for your consideration.

Sincerely,

Joseph A. Sprague
Chairman,
SEIFR Working Group

cc: Quentin Smith, ARAC Assistant Executive Director
Distribution: ARAC Air Carrier Issues Group members

• PETITION FOR EXEMPTION FROM THE ALASKA AIR CARRIERS ASSOCIATION

ALASKA AIR CARRIERS ASSOCIATION

1117 East 35th. #102 • Anchorage. Alaska 99508 • 907-277-0071 • Fax 907-277-0072

Federal Aviation Administration
Rules Docket, AGC-10
800 Independence Avenue, S.W.
Washington, D.C. 20591

SUBJECT: Petition for exemption from Section 135.181(c) (2).

CONDITIONS: The Alaska Air Carriers Association hereby petitions on behalf of its members for an exemption from Section 135.181(c) (2) of the Federal Aviation Regulations to allow operation of single-engine airplanes carrying passengers in IFR, forecast as well as unforecast, conditions in accordance with the following limitations:

1. Flights may be conducted only on routes or portions thereof which are located entirely in non-mountainous areas as described in Section 95.17 of the Federal Aviation Regulations.

2. At least one of the airports to be used on the planned flight will not accommodate, for some reason, the use of a multi-engine airplane with a passenger seating capacity of nine or less.

3. The most current weather reports or forecasts or any combination thereof indicate that the weather along the planned route allows flight under VFR under the ceiling (if a ceiling exists) beginning at a point no more than 15 minutes flying time at normal cruise speed from the departure airport.

4. Every destination and alternate airport must either: 1) be equipped with an approved instrument approach procedure; or 2) have forecast VFR conditions from a point no less than 15 minutes flying time at normal cruise speed from that airport.

5. Specific routes and airports must be approved by the Flight Standards District Office which holds the certificate for the operator, and must be listed on the operations specifications.

6. In addition to that training required by Part 135 for IFR operations, each operator using the exemption must conduct FAA approved training for its pilots on a representative route the operator is authorized to use, emergency procedures for engine failure under IFR conditions, and the conditions and limitations of the exemption.

7. Each operator must keep a record of each and every flight conducted under the exemption to include the following: pilot's name, aircraft registration number and type, date and time of flight, departure and destination airports, names of passengers, weight and balance calculation, and any accidents, incidents, engine failures or forced landings that occur. These records will be retained for two years and will be made available to the local Flight Standards District Offices upon request.

8. Every accident, incident, engine failure or forced landing which occurs in operations under this exemption must be reported within 24 hours to the nearest Flight Standards District Office.

BACKGROUND: The Alaska Air Carrier Association has been committed to improving the safety of air carrier operations in Alaska since 1966. Two years ago, the AACA safety committee began working with the FAA in a partnership approach to improving aviation safety. The goal is to effect a major cultural change throughout rural Alaska from one of "bush pilot mentality" to that of a professional pilot.

Together with the FAA, the safety committee developed public service announcements for aviation safety during hunting season and provided strong support and technical assistance to the innovative air carrier "Pilot Decision Making Program". As part of our ongoing safety commitment, The Association is working with the FAA to increase the number of AWOS units in outlying villages, increase the number of IFR routes available to the public, and permit the use of widely available equipment such as Loran and GPS for instrument approaches.

The Alaska Air Carriers Association is determined to continue improving aviation safety in Alaska. Studies have shown that, in sharp contrast with the picture in the contiguous United States, the majority of weather related accidents in Alaska occur in single engine airplanes on VFR flights. We believe that a grant of this petition will provide both the means and the incentive for Alaskan operators to improve safety by shifting operations from the VFR environment to one with aircraft separation, terrain clearance, and guaranteed coverage of navigational aids. This petition will require additional training and give the pilots the incentive to sharpen their IFR skills.

HISTORY OF REGULATIONS PERTAINING TO SINGLE ENGINE IFR: Prior to July 8, 1963, Part 42 of the Civil Air Regulations permitted single engine IFR when a VFR buffer zone existed. Every proposed regulatory change up to and including Notice of Propose Rulemaking (NPRM) Number 77-17 (42 FR 34390; August 29, 1977) retained the provision for single engine IFR with a buffer zone. In 1978, Part 135 was substantially revised (43 FR 46742, October 10, 1978). At that time, the buffer zone was dropped for operations involving single engine aircraft IFR conditions, but was retained for operations over-the-top, even though the NPRM had retained the buffer zone for both IFR and over-the-top operations. The preamble discussion to the final rule did not explain why this provision was dropped.

PUBLIC INTEREST AND IMPACT ON SAFETY: There are hundreds of villages in the non-mountainous areas of Alaska each with a population of 100-400 people. The airplane is virtually the only means of transportation available year round and is far safer than the use of dog sled or snowmobile, which are available only in the winter.

These villages have unimproved, short landing strips which can only be used by single-engine airplanes or STOL twin-engine airplanes with high wings and big tires. Typical flights carry only 3-5 passengers. There are no twin-engine airplanes with a seating capacity of nine or less which can operate into these strips. Therefore, operators use single-engine airplanes such as the Piper PA-32, Cessna 185, 206, 207, and 208. The type of service provided by single-engine airplanes in these areas cannot, by its nature, be performed using comparable multiengine aircraft.

Notwithstanding economic considerations, it is believed that shifting these essential operations from the VFR environment to the IFR environment will have a great impact on safety. First, the IFR environment provides the public with a better trained pilot, one who must pass standard FAA check rides every six months. Pilots holding IFR ratings will be required to train and keep IFR proficient.
This, coupled with the innovative air carrier "Pilot Decision Making Program" developed jointly by FAA and industry, can only improve the safety record. Second, the airplanes used under this exemption will have IFR instrumentation and equipment, including an alternate static source. Third, the IFR environment will provide passengers with separation from other aircraft, terrain clearance, and guaranteed coverage of navigational aids. Fourth, the additional IFR training for pilots will be an on-going process.

The primary consideration is that no compromise to the fare paying passenger's safety will result from IFR charter operations of single engine airplanes under this exemption when compared to other alternatives. Indeed, it is believed that a grant of this petition will greatly improve passenger safety for the hundreds of villagers who have had no alternatives other than dog sleds or VFR flights in single engine airplanes since the regulatory change in 1978.

Finally, the record keeping requirements listed above will allow tracking and analysis of safety trends. This capability will permit the determination of any additional conditions, training, or equipment which may be necessary to further improve safety of single engine operations within Alaska.

FAA Action

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

SEP 5 1996

Mr. William J. Edmunds, Jr.
Assistant Chair, Aviation Rulemaking Advisory Committee
Air Line Pilots Association
P.O. Box 1169
Herndon, Virginia 22070

Dear Mr. Edmunds:

The purpose of this letter is to advise you of recent activities that have impacted the work of the single engine IFR working group. The original task, presented to ARAC on September 13, 1994, was to consider the viability of using single-engine aircraft in commercial, passenger-carrying operations. Since that time a number of significant events have occurred, such as the release of a report by the NTSB regarding flight operations in Alaska, and the finalization of the commuter rule. In light of these changes, the Federal Aviation Administration (FAA) is reconsidering the direction and scope of the project and is therefore withdrawing the task from ARAC. It is the intent of the FAA to use the efforts of the working group as a foundation to develop a broader proposal than was originally tasked.

The FAA appreciates the work done by ARAC and, in particular, the single engine IFR working group on the task; the information will assist us greatly in offering a viable proposal in the area of single engine, passenger-carrying operations.

Sincerely,

Barry L. Valentine
Acting Associate Administrator for
Regulatory and Certification