The petitioner requests that the NRC eliminate the differential armed escort requirements for rail shipments based on population. The current regulations state, in part:

**§ 73.37 Requirements for physical protection of irradiated reactor fuel in transit.**

(d) * * *

(1) A shipment car within a heavily populated area is accompanied by two armed escorts (who may be members of a local law enforcement agency), at least one of whom is stationed at a location on the train that will permit observation of the shipment car while in motion.

(2) A shipment car not within any heavily populated area is accompanied by at least one escort stationed at a location on the train that will permit observation of the shipment car while in motion.

* * * * *

The petitioner states that in Nevada and other western states, many small cities and towns grew up around rail lines and rail service facilities. In these communities, there are significant population concentrations within one-half mile of a potential SNF rail shipment route. In Nevada and other western states, mainline railroads are frequently located in river valleys near major water supplies. The petitioner also states that mainline railroads of national economic significance may, in-and-of themselves, be as attractive as targets for terrorists as heavily populated areas. The Union Pacific Salt Lake City-Los Angeles mainline through southern Nevada, potentially the primary shipment route to Yucca Mountain, is a rail route of national economic significance.

The petitioner requests that the NRC, as part of re-examining its physical protection requirements, consider increasing substantially the armed escort requirements for rail shipments. The petitioner believes that new high-capacity (125 ton) rail shipping cask designs may be particularly vulnerable to attacks involving antitank missiles, and that armed escorts aboard the train could be incapacitated at the beginning of an attack, or as a result of a train derailment. The petitioner requests that the NRC consider requiring at least two armed escorts in an escort vehicle, in addition to the two armed escorts aboard the train.

Based on recent experience during the foreign research reactor SNF shipments through Nevada, the petitioner believes the NRC should also consider requiring continuous, real-time aircraft surveillance along certain rail route segments through rough terrain and through heavily populated areas. The NRC should evaluate the advantages and disadvantages of requiring a level of protection comparable to that provided for rail shipments of strategic special nuclear materials (SNM); seven armed escorts stationed in a variety of configurations aboard the train or in one or more escort vehicles.

The petitioner requests that the NRC adopt additional planning and scheduling requirements for the physical protection of SNF shipments based on the precautions already applied to shipments of SNM. The current regulations for shipments of SNM state, in part:

**§ 73.26 Transportation physical protection systems, subsystems, components, and procedures.**

(b) * * *

(1) Shipments shall be scheduled to avoid regular patterns and preplanned to avoid areas of natural disaster or civil disorders, such as strikes or riots. Such shipments shall be planned in order to avoid storage times in excess of 24 hours and to assure that deliveries occur at a time when the receiver at the final delivery point is present to accept the shipment.

* * * * *

The petitioner requests that the NRC amend the general requirements for physical protection of irradiated reactor fuel in transit by adopting the same planning and scheduling requirements for special nuclear material in transit.

The petitioner requests that the NRC require all rail shipments of SNF to be made in dedicated trains. Considering the potentially large number of cross-country rail shipments to a repository and/or storage facility, more than 12,000 rail cask shipments of SNF and more than 1,000 rail cask shipments of HLW, the petitioner believes that the performance objectives set forth in § 73.37(a)(1) can only be met by requiring all rail shipments to be made in dedicated trains. The petitioner also requests that the NRC consider the physical protection implications of shipping SNF in dedicated trains compared to general rail freight service. While continuing to believe that the use of dedicated trains should be mandatory, the petitioner acknowledges arguments that dedicated trains pose certain disadvantages from a physical protection standpoint. The petitioner states that dedicated trains may facilitate target tracking and attack scheduling by potential adversaries, and multiple casks in a short train may facilitate target selection and weapon delivery. According to the petitioner, the NRC's consequence assessment should evaluate the advantages and disadvantages of shipping SNF in dedicated trains, assuming both current and enhanced requirements or rail shipment armed escorts.

**The Petitioner's Conclusions**

The petitioner submits that the foregoing regulatory amendments and the need for a comprehensive assessment are necessitated by changes in the nature of the terrorist threat and increased vulnerability of shipping casks to terrorist attacks involving high-energy explosive devices, as set forth in the petition. In the interest of safeguarding the public health, safety, and welfare, the petitioner urges the Commission to undertake the tasks outlined in the petition.

For the Nuclear Regulatory Commission.

Dated at Rockville, Maryland, this 7th day of September, 1999.

**Annette L. Vietti-Cook,**

*Secretary of the Commission.*

[FR Doc. 99–23691 Filed 9–10–99; 8:45 am]

BILLING CODE 7590–01–P

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 23

**[Docket No. CE154; Notice No. 23–99–01–SC]**

## Special Conditions: Cessna Aircraft Company, Model 525A, High Altitude Operation.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed special conditions.

**SUMMARY:** This notice proposes special conditions for the Cessna Aircraft Company Model 525A airplane. This airplane will have novel or unusual design features associated with high altitude operation. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

**DATES:** Comments must be received on or before October 13, 1999.

**ADDRESSES:** Comments on this proposal may be mailed in duplicate to: Federal Aviation Administration, Regional Counsel, ACE–7, Attention: Rules Docket, Docket No. CE154, 601 East 12th Street, Kansas City, Missouri 64106, or delivered in duplicate to the Regional Counsel at the above address.

Comments must be marked: CE154. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

**FOR FURTHER INFORMATION CONTACT:** Lowell Foster, Federal Aviation Administration, Aircraft Certification Service, Small Airplane Directorate, ACE–111, 601 East 12th Street, Kansas City, Missouri, 816–426–5688, fax 816–426–2169.

**SUPPLEMENTARY INFORMATION:**

## Comments Invited

Interested persons are invited to participate in the making of these proposed special conditions by submitting such written data, views, or arguments as they may desire. Communications should identify the regulatory docket or notice number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments will be considered by the Administrator. The proposals described in this notice may be changed in light of the comments received. All comments received will be available in the Rules Docket for examination by interested persons, both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Persons wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must include with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to CE154.'' The postcard will be date stamped and returned to the commenter.

## Background

On May 14, 1998, Cessna Aircraft Company applied to amend the Model 525 Type Certificate to add a new Model 525A. The Model 525A is a derivative of the Model 525 currently approved under Type Certificate Data Sheet A1WI.

The Cessna Model 525A, a derivative of the Model 525, will be certified for operation to a maximum altitude of 45,000 feet. This will be the first of this series to be approved above 41,000 feet. The certification basis of the Model 525 was primarily 14 CFR part 23, as amended by Amendments 23–1 through 23–40, plus special conditions. This unusually high operating altitude constitutes a novel or unusual design feature for which the applicable airworthiness regulations do not contain adequate or appropriate safety standards. Therefore, it is necessary to develop special conditions that provide the level of safety to that established by the regulations.

The FAA has previously issued Special Conditions No. 23–ACE–87, to another small turbojet airplane model with requested approval for operation up to 49,000 feet.

The FAA policy is to apply special conditions to part 23 airplanes when the certified altitude exceeds the capability of the oxygen system (in this case, the passenger system). This was the situation for a part 23 turbojet airplane. Thus, the special conditions were deemed to be appropriate for the Cessna Model 525A and provide the basis for formulating the special conditions described below:

Damage tolerance methods are proposed to assure pressure vessel integrity while operating at the higher altitudes. Crack growth data is used to prescribe an inspection program, which should detect cracks before an opening in the pressure vessel would allow rapid depressurization. Initial crack sizes for detection are determined under 23.571 as amended by Amendment 23–48.

The cabin altitude after failure may not exceed the cabin altitude/time history curve limits shown in Figures 3 and 4.

Continuous flow passenger oxygen equipment is certified for use up to 40,000 feet; however, for rapid decompressions above 34,000 feet, reverse diffusion leads to low oxygen partial pressures in the lungs, to the extent that a small percentage of passengers may lose useful consciousness at 35,000 feet. The percentage increases to an estimated 60 percent at 40,000 feet, even with the use of the continuous flow system. To prevent permanent physiological damage, the cabin altitude must not exceed 25,000 feet for more than 2 minutes. The maximum peak cabin altitude of 40,000 feet is consistent with the standards established for previous certification programs. In addition, at these altitudes the other aspects of decompression sickness have a significant, detrimental effect on pilot performance (for example, a pilot can be incapacitated by internal expanding gases).

Decompression above the 37,000 foot limit of Figure 4 approaches the physiological limits of the average person; therefore, every effort must be made to provide the pilot with adequate oxygen equipment to withstand these severe decompressions. Reducing the time interval between pressurization failure and the time the pilot receives oxygen will provide a safety margin against being incapacitated and can be accomplished by the use of mask-mounted regulators. The special condition, therefore, requires pressure demand masks with mask-mounted regulators for the flightcrew. This combination of equipment will provide the best practical protection for the failures covered by the special conditions and for improbable failures not covered by the special conditions, provided the cabin altitude is limited.

## Type Certification Basis

Under the provisions of 21.101, Cessna Aircraft Company must show that the Cessna Model 525A meets the applicable provisions of the regulations incorporated by reference in Type Certificate Data Sheet A1WI or the applicable regulations in effect on the date of application for the change to the Cessna Model 525A. The regulations incorporated by reference in the type certificate are commonly referred to as the ''original type certification basis.'' The regulations incorporated by reference in Type Certificate Data Sheet A1WI are as follows:

(1) Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by Amendments 23–1 through 23–40;

(a) In addition, if the regulations incorporated by reference do not provide adequate standards with respect to the change, the applicant must comply with certain regulations in effect on the date of application for the change. The FAA has determined that the Cessna Model 525A must also be shown to comply with the following sections of part 23:

Federal Aviation Regulations §§ 23.331, 23.351, 23.421, 23.423, 23.425, 23.427, 23.939, and 23.1163 as amended by Amendments 23–1 through 23–42;

Federal Aviation Regulations §§ 23.943, 23.951, 23.957, 23.961, 23.967, 23.991, 23.993, 23.997, 23.999, 23.1001, 23.1011, 23.1019, 23.1041, 23.1061, 23.1189, 23.1322, 23.1357, 23.1391, 23.1393, 23.1395, and 23.1445 as amended by Amendments 23–1 through 23–43;

Federal Aviation Regulations §§ 23.305, 23.321, 23.361, 23.397, 23.479, 23.485, 23.613, 23.615, 23.621, 23.731 and 23.1549 as amended by Amendments 23–1 through 23–45;

Federal Aviation Regulations §§ 23.335, 23.337, 23.341, 23.343, 23.345, 23.347, 23.371, 23.393, 23.399, 23.415, 23.441, 23.443, 23.455, 23.457, 23.473, 23.499, 23.561, 23.571, 23.572, 23.611, 23.629, 23.673, and 23.725 as amended by Amendments 23–1 through 23–48;

Federal Aviation Regulations §§ 23.677, 23.723, 23.785, 23.787, 23.791, 23.853, 23.855, 23.1303, 23.1307, 23.1321, 23.1351, 23.1353, 23.1361, and 23.1401 as amended by Amendments 23–1 through 23–49;

Federal Aviation Regulations §§ 23.233, 23.235, 23.1555, and 23.1589 as amended by Amendments 23–1 through 23–50;

Federal Aviation Regulations §§ 23.901, 23.903, 23.929, 23.963, 23.965, 23.1013, 23.1043, 23.1143, 23.1183, 23.1191, and 23.1337 as amended by Amendments 23–1 through 23–51;

(2) Federal Aviation Regulations part 36 effective December 1, 1969, as amended by Amendments 36–1 through the amendment in effect at the time of TC issuance.

(3) Federal Aviation Regulations part 34 effective September 10, 1990, as amended by Amendment 34–1, Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes.

(4) Special Conditions as follows:

(a) 23–ACE–55, additional requirements for engine location, performance, characteristics, and protection of electronic systems from lightning and high intensity radiated electromagnetic fields (HIRF).

(b) Special conditions adopted by this rulemaking action.

(5) Exemption: Exemption number 5759 granted. Model 525A to use Federal Aviation Regulations § 25.181 in lieu of damping criteria of Federal Aviation Regulations § 23.181(b).

(6) Compliance with ice protection will be demonstrated in accordance with Federal Aviation Regulations § 23.1419.

If the Administrator finds that the applicable airworthiness regulations (i.e., part 23) do not contain adequate or appropriate safety standards for the Cessna Model 525A because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the Model 525A must comply with the part 23 fuel vent and exhaust emission requirements of 14 CFR part 34 and the part 23 noise certification requirements of 14 CFR part 36, and the FAA must issue a finding of regulatory adequacy pursuant to § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

Special conditions, as appropriate, are issued in accordance with § 11.49 after public notice, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with 21.101(b)(2).

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, or should any other model already included on the same type certificate be modified to incorporate the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of 21.101(a)(1).

## Novel or Unusual Design Features

The Model 525A will incorporate the following novel or unusual design features:

The methods used to ensure pressure vessel integrity and to provide ventilation, air conditioning, and pressurization will be unique due to the operating altitude of this airplane.

## Applicability

As discussed above, these special conditions are applicable to the Cessna Model 525A. Should the Cessna Aircraft Company apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well under the provisions of 21.101(a)(1).

## Conclusion

This action affects only certain novel or unusual design features on one model of airplane. It is not a rule of general applicability, and it affects only the applicant who applied to the FAA for approval of these features on the airplane.

## List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

## Citation

The authority citation for these special conditions is as follows:

**Authority:** 49 U.S.C. 106(g), 40113 and 44701; 14 CFR 21.16 and 21.17; and 14 CFR 11.28 and 11.29(b).

## The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for the Cessna Aircraft Company Model 525A airplane.

*1. Pressure Vessel Integrity*

(a) The maximum extent of failure and pressure vessel opening that can be demonstrated to comply with paragraph 4 (Pressurization), of this special condition must be determined. It must be demonstrated by crack propagation and damage tolerance analysis supported by testing that a larger opening or a more severe failure than demonstrated will not occur in normal operations.

(b) Inspection schedules and procedures must be established to assure that cracks and normal fuselage leak rates will not deteriorate to the extent that an unsafe condition could exist during normal operation.

*2. Ventilation*

In addition to the requirements of § 23.831(b), the ventilation system must be designed to provide a sufficient amount of uncontaminated air to enable the crewmembers to perform their duties without undue discomfort or fatigue and to provide reasonable passenger comfort during normal operating conditions and in the event of any probable failure of any system that could adversely affect the cabin ventilating air. For normal operations, crewmembers and passengers must be provided with at least 10 cubic feet of fresh air per minute per person, or the equivalent in filtered recirculated air, based on the volume and composition at the corresponding cabin pressure altitude of no more than 8,000 feet.

*3. Air Conditioning*

In addition to the requirements of § 23.831, the cabin cooling system must be designed to meet the following conditions during flight above 15,000 feet mean sea level (MSL):

(a) After any probable failure, the cabin temperature/time history may not exceed the values shown in Figure 1.

(b) After any improbable failure, the cabin temperature/time history may not exceed the values shown in Figure 2.

*4. Pressurization*

In addition to the requirements of § 23.841, the following apply:

(a) The pressurization system, which includes for this purpose bleed air, air conditioning, and pressure control systems, must prevent the cabin altitude from exceeding the cabin altitude-time history shown in Figure 3 after each of the following:

(1) Any probable malfunction or failure of the pressurization system, in conjunction with any undetected, latent malfunctions or failures, must be considered.

(2) Any single failure in the pressurization system combined with the occurrence of a leak produced by a complete loss of a door seal element, or a fuselage leak through an opening

having an effective area 2.0 times the effective area that produces the maximum permissible fuselage leak rate approved for normal operation, whichever produces a more severe leak.

(b). The cabin altitude-time history may not exceed that shown in Figure 4 after each of the following:

(1) The maximum pressure vessel opening resulting from an initially detectable crack propagating for a period encompassing four normal inspection intervals. Mid-panel cracks and cracks through skin-stringer and skin-frame combinations must be considered.

(2) The pressure vessel opening or duct failure resulting from probable damage (failure effect) while under maximum operating cabin pressure differential due to a tire burst, engine rotor burst, loss of antennas or stall warning vanes, or any probable equipment failure (bleed air, pressure control, air-conditioning, electrical source(s), etc.) that affects pressurization.

(3) Complete loss of thrust from all engines.

(c) In showing compliance with paragraphs 4a and 4b of these special conditions (Pressurization), it may be assumed that an emergency descent is made by an approved emergency procedure. A 17-second crew recognition and reaction time must be applied between cabin altitude warning and the initiation of an emergency descent.

**Note:** For the flight evaluation of the rapid descent, the test article must have the cabin volume representative of what is expected to be normal, such that Cessna must reduce the total cabin volume by that which would be occupied by the furnishings and total number of people.

*5. Oxygen Equipment and Supply*

(a) In addition to the requirements of § 23.1441(d), the following applies: A quick-donning oxygen mask system with a pressure-demand, mask mounted regulator must be provided for the flightcrew. It must be shown that each quick-donning mask can, with one hand and within 5 seconds, be placed on the face from its ready position, properly secured, sealed, and supplying oxygen upon demand.

(b) In addition to the requirements of § 23.1443, the following applies: A continuous flow oxygen system must be provided for each passenger.

(c) In addition to the requirements of § 23.1445, the following applies: If the flightcrew and passengers share a common source of oxygen, a means to separately reserve the minimum supply required by the flightcrew must be provided.

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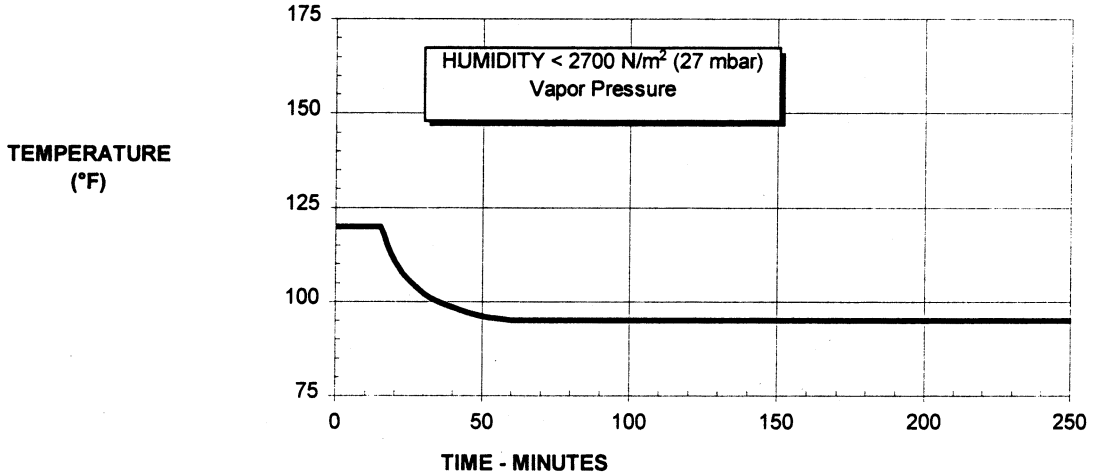
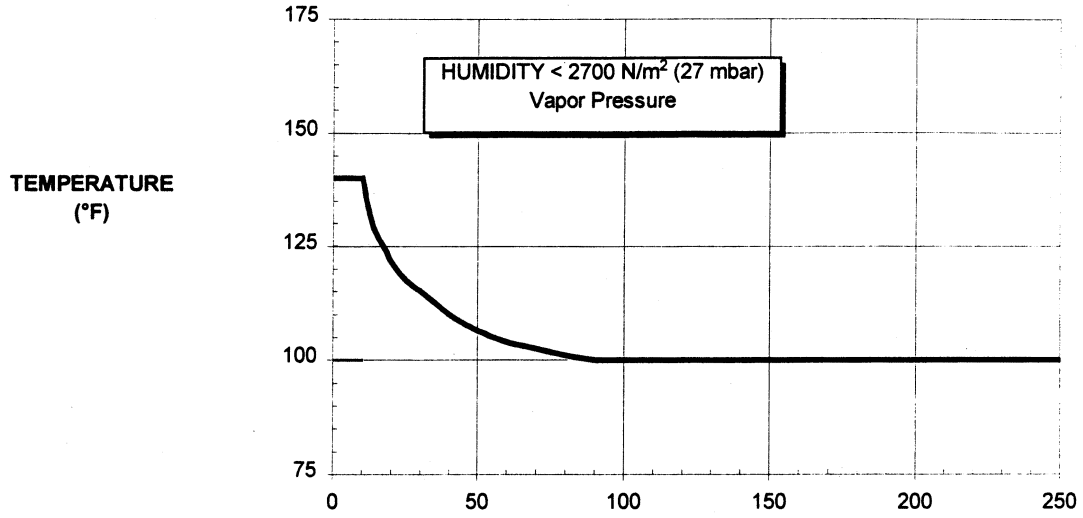



TIME - TEMPERATURE RELATIONSHIP
FIGURE 1




TIME - TEMPERATURE RELATIONSHIP
FIGURE 2

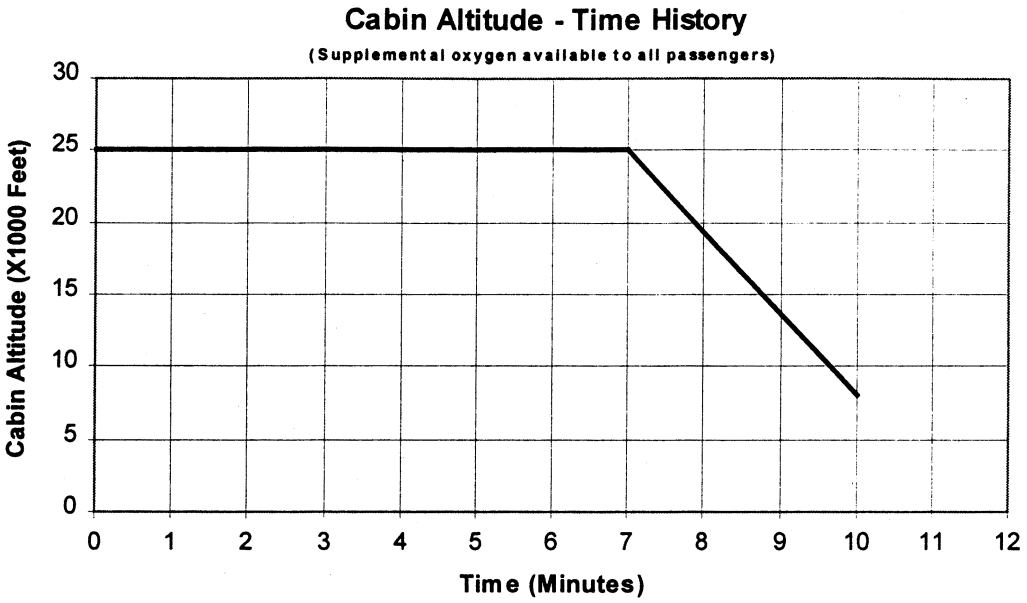



Figure 3

NOTE: For figure 3, time starts at the moment cabin altitude exceeds 8,000 feet during depressurization. If depressurization analysis shows that the cabin altitude limit of this curve is exceeded, the following alternate limitations apply: After depressurization, the maximum cabin altitude exceedence is limited to 30,000 feet. The maximum time the cabin altitude may exceed 25,000 feet is 2 minutes; time starting when the cabin altitude exceeds 25,000 feet and ending when it returns to 25,000 feet.

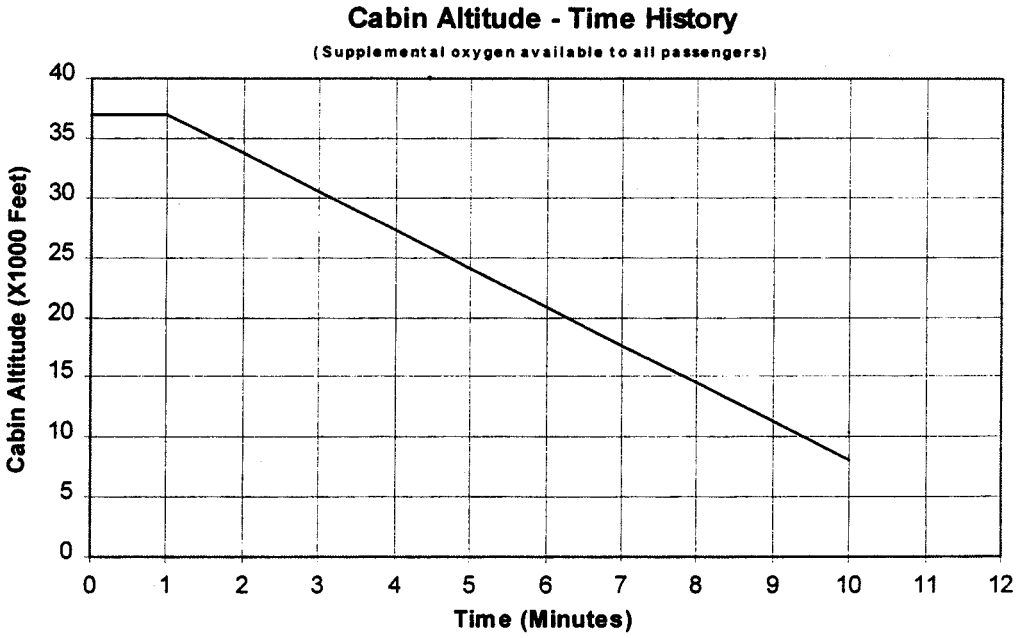



Figure 4

NOTE: For figure 4, time starts at the moment cabin altitude exceeds 8,000 feet during depressurization. If depressurization analysis shows that the cabin altitude limit of this curve is exceeded, the following alternate limitations apply: After depressurization, the maximum cabin altitude exceedence is limited to 40,000 feet. The maximum time the cabin altitude may exceed 25,000 feet is 2 minutes; time starting when the cabin altitude exceeds 25,000 feet and ending when it returns to 25,000 feet.

Issued in Kansas City, Missouri on August 31, 1999.

**Michael Gallagher,**

*Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 99–23719 Filed 9–10–99; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

**[Docket No. 99–NM–200–AD]**

**RIN 2120–AA64**

## Airworthiness Directives; Sab Model SAAB SF340A and SAAB 340B Series Airplanes

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain Saab Model SAAB SF340A and SAAB 340B series airplanes. This proposal would require repetitive inspections of the control quadrant for loose screws, and replacement of the control quadrant with a modified part, which constitutes terminating action for the repetitive inspections. This proposal is promoted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by the proposed AD are intended to prevent the power levers from binding due to the backing out of screws that secure the solenoid bracket within the flight idle stop assembly, which could result in the malfunction of the flight idle stop mechanism and the inability to move the power levers to flight idle.

**DATES:** Comments must be received by October 13, 1999.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–114, Attention: Rules Docket No. 99–NM–200–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from Saab Aircraft AB, SAAB Aircraft Product Support, S–581.88, Linköping, Sweden. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington.

**FOR FURTHER INFORMATION CONTACT:** Norman B Martenson, Manager, International Branch, ANM–116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–2110; fax (425) 227–1149.

**SUPPLEMENTARY INFORMATION:**

### Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received or or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped