

(b) *Precipitation conditions.*—For precipitation conditions, the following apply:

(1) The airplane must have a means to maintain a clear portion of the windshield, during precipitation conditions, sufficient for both pilots to have a sufficiently extensive view along the flight path in normal flight attitudes of the airplane. This means must be designed to function, without continuous attention on the part of the crew, in—

- (i) Heavy rain at speeds up to 1.6 VS1, with flaps retracted;
- (ii) The icing conditions specified in 25.1419 if certification with ice protection provisions is requested.

(2) The first pilot must have a window that—

- (i) When the cabin is not pressurized, is openable under the conditions prescribed in subparagraph (1) of this paragraph and provides the view specified in that paragraph; and
- (ii) Gives sufficient protection from the elements against impairment of the pilot's vision.

ANNEX F

BEFORE THE CIVIL AERONAUTICS BOARD, WASHINGTON, D.C.

(Docket No. —)

*Aircraft Owners and Pilots Association, Petitioners v. Civil Aeronautics Board,
Respondent*

PETITION TO AMEND CIVIL AIR REGULATIONS

The Aircraft Owners and Pilots Association hereby requests that the Civil Aeronautics Board amend Sections 3.382 and 4b.351 of the Civil Air Regulations to provide specific measurable visibility standards from the pilot's seat with respect to the following:

- (a) Angle forward above the horizon unbroken.
- (b) Angle forward below the horizon unbroken.
- (c) Angle above the horizon 90° to left.
- (d) Angle below the horizon 90° to left.
- (e) Angle to the left.
- (f) Angle to the right.

It is further requested that definite and measurable standards be fixed requiring visibility from the cockpit directly above, below and to the rear of the aircraft either by direct view, by optical means, or other devices.

This petition is based upon the following facts:

The present regulations Sections 3.382 and 4b.351 above specified are general in terms and do not provide for adequate minimum standards of cockpit visibility. Air carrier aircraft which have been built under the standards of Part 4 and subsequently Part 4b of the Civil Air Regulations are inadequate with respect to cockpit visibility. Of six models of air carrier aircraft examined, not one met the minimum standards recommended by Report No. 32 of Committee S-7 of the Society of Automotive Engineers, Inc., which is composed of twelve representatives of airline and large plane manufacturers.

The record of aircraft collisions demonstrates that an important factor common to the collisions, which factor caused or contributed substantially to the cause of the accidents, was the limited visibility from the cockpit of either one or both of the planes involved.

Respectfully submitted,

AIRCRAFT OWNERS & PILOTS ASSOCIATION
By J. B. HARTRANFT, Jr. *President—Petitioner.*

STATE OF MARYLAND,
County of Montgomery, ss:

J. B. Hartranft, Jr., being first duly sworn deposes and says that he is President of Aircraft Owners and Pilots Association, Petitioner in the foregoing petition; that he has read the foregoing petition and that to the best of his informa-