(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. The existence of undetected, latent malfunctions, or failures in conjunction with probable 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 d.1. and d.2. of these special conditions (Pressurization), it may be assumed that an emergency descent is made by 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.

5. Oxygen equipment and supply.(a) A continuous flow oxygen system must be provided for the passengers.

(b) A quick donning pressure demand mask with mask-mounted regulator must be provided for each pilot. Quick donnning from the stowed position must be demonstrated to show that the mask can be withdrawn from stowage and donned within 5 seconds.

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