

to be certified with the hatches closed; therefore, the hatches must remain closed.

*Special Condition 2c.* requires placards inside and outside the hatches of the aft lower lobe service/cargo compartment, indicating that occupancy of the compartment should be of minimum duration. Because of this limitation, the requirement of § 25.819(f) to provide a seat is unnecessary.

*Special Condition 2d.* requires a limitation to be placed in the airplane flight manual (AFM) and placards to be posted inside and outside the hatches of the aft lower lobe service/cargo compartment, all stating that the compartment may not be occupied during taxi, takeoff, or landing or during a fire. These placards are being required, because the compartment is not being certified for occupancy during taxi, takeoff, or landing and because the compartment must not be occupied during a fire so that an occupant is not exposed to fire or to fire suppressant. These placards are somewhat redundant, given the warning required under 1(b) and 1(c) but would provide information to an occupant, if the flightcrew failed to activate the warnings of 1(b) and 1(c).

*Special Condition 2e.* requires that the AFM supplement include the following with respect to the aft lower lobe service/cargo compartment:

- Flightdeck crew instructions for allowing access
- Procedures, including warning and evacuation procedures, for the flightcrew to follow in the event of fire or smoke
- Procedures, including warning and evacuation procedures, for the flightcrew to follow in the event of decompression; and
- Limitations on occupancy during taxi, takeoff, or landing.

This special condition also requires that the weight and balance manual include cargo loading restrictions requiring cargo to be loaded and restrained so as to maintain escape paths. These requirements are to ensure that a single member of the flightcrew could access the cargo compartment safely during flight and exit safely during failure conditions.

*Special Condition 2f.* Because access is being provided to the aft lower lobe service/cargo compartment, there is concern that during flight, passengers may retrieve hazardous materials or weapons stored in luggage. Access could be prevented by locking the aft lower lobe service/cargo compartment, and that is being specified as one solution (in Special Condition 2(f)(1)). However, this airplane is being designed

for use by a head-of-state, it will have limited access, and it will have placards limiting access. Furthermore, there will be notification to the flightcrew when the aft lower lobe service/cargo compartment is occupied (in Special Condition 1(a)). Special Condition 2(f)(2), therefore, would prohibit the airplane from being operated for hire or offered for common carriage.

#### *Special Condition 3—Equipment*

In addition to that required by § 25.819, Special Condition 3 requires the following equipment:

*Special Condition 3a.* requires that a portable oxygen bottle be available at all times and that it be sufficient to supply a member of the flightcrew who is occupying the aft lower lobe service/cargo compartment (except during taxi, takeoff, or landing or during a fire). Because it would not be advisable to provide drop-down masks in a cargo compartment or to store a portable oxygen bottle in the compartment, the FAA is requiring that a portable oxygen bottle be mounted outside each main deck entrance of the aft lower lobe service/cargo compartment. A member of the flightcrew must carry the portable oxygen bottle, when he or she enters the compartment. The supply of oxygen must be compatible with the emergency descent profile following a decompression.

*Special Condition 3b.* requires supplemental handheld lighting (with locator light) when an occupant is in the aft lower lobe service/cargo compartment and power to the compartment is off, or the emergency escape path lighting is off or lost, or if visibility is poor. At least two flashlights are required. One flashlight would be located adjacent to each emergency exit in the aft lower lobe service/cargo compartment at the foot of the stairs in the compartment. Note that this requirement is in addition to the automatic emergency lighting system required by § 25.819(a).

*Special Condition 3c.* obviates the need to comply with the requirements of § 25.819(f) for the installation of a forward or aft facing seat for each occupant of the compartment. The compartment's physical constraints, such as the reduced ceiling height and limited accessibility, make the installation of a seat impractical and prohibitive.

#### *Special Condition 4—Evacuation Routes*

Special Condition 4 requires, in addition to the two evacuation routes (including an exit) specified by § 25.819(a), procedures to keep the evacuation routes clear. The cargo in the

compartment must be restrained to ensure that the crewmember's paths to the exits are clear. Further, all entrances and exits from the aft lower lobe service/cargo compartment must be capable of being closed after exiting. In addition to the concern for cargo blocking the escape paths, there is concern about hazardous quantities of smoke, flames, or fire suppressant entering compartments occupied by passengers or crew and about the loss of fire suppressant from the compartment during a fire. The aft lower lobe service/cargo compartment must be capable of being closed, because after evacuation it must comply with the requirements applicable to the Class C cargo compartment, including §§ 25.855, 25.857, and 25.858.

#### *Special Condition 5—Training*

Because the design features required by these special features can fulfill their safety objectives only if crewmembers are properly trained in their use, these special conditions require the applicant to develop the following training materials:

*Special Condition 5a.* requires training materials about use of the aft lower lobe service/cargo compartment and actions associated with the warnings and placards required by these special conditions.

*Special Condition 5b.* requires training materials about entering and exiting the aft lower lobe service/cargo compartment, including emergency exiting, (associated with Special Conditions 1(b), 1(c), 1(d), 1(e), 2(a), 2(b), 2(c), 2(d), and 3(b)).

*Special Condition 5c.* requires training materials about checking the pressure of the portable oxygen bottle prior to entering the aft lower lobe service/cargo compartment (associated with Special Condition 3(a)).

*Special Condition 5d.* requires training materials about carrying a portable oxygen bottle when entering the aft lower lobe service/cargo compartment (associated with Special Condition 3(a)).

*Special Condition 5e.* requires training materials about maintaining an exit aisle and access to the evacuation routes from the lower lobe service/cargo compartment (associated with Special Condition 3(c)).

#### *Special Condition 6—Ladders*

The ladders between the aft lower lobe service/cargo compartment and the main deck must meet the following requirements:

*Special Condition 6a.* requires that the ladders consist of a single segment.