

modified airplane will have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. The modification is associated with an aft lower lobe compartment that will serve as both a service compartment and a Class C cargo compartment. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These 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.

**EFFECTIVE DATE:** The effective date of these special conditions is July 2, 2003. Comments must be received on or before August 21, 2003.

**ADDRESSES:** Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Transport Airplane Directorate, Attention: Rules Docket (ANM-113), Docket No. NM258, 1601 Lind Avenue SW., Renton, Washington 98055-4056; or delivered in duplicate to the Transport Airplane Directorate at the above address. All comments must be marked: Docket No. NM258.

**FOR FURTHER INFORMATION CONTACT:** Alan Sinclair, FAA, Airframe/Cabin Safety, ANM-115, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington, 98055-4056; telephone (425) 227-2195; facsimile (425) 227-1149.

**SUPPLEMENTARY INFORMATION:** The FAA has determined that notice and opportunity for prior public comment hereon are impracticable, because those procedures would significantly delay issuance of the approval design and thus delivery of the affected aircraft. The FAA, therefore, finds that good cause exists for making these special conditions effective upon issuance.

## Background

On October 29, 2001, JRG Design Inc. applied for a supplemental type certificate for a Boeing Model 747SP airplane to combine the functions of a service compartment and a Class C cargo compartment in the aft lower lobe compartment. Boeing Model 747SP series airplanes, currently approved under Type Certificate A20WE, are large transport category airplanes with upper and main passenger decks. The airplanes are limited to 400 passengers or fewer, depending on the interior configuration. As part of the type design, certified Class C cargo

compartments are installed below the main deck.

JRG Design Inc. proposes to modify the interior of a 747SP airplane for use by a head-of-state. As part of the modification, JRG proposes to include two ladders from the main deck into the aft lower lobe cargo compartment and to use that compartment as a combined service compartment and Class C cargo compartment. The compartment would use materials meeting the flammability standards for Class C cargo compartments and would include smoke detectors. Access would be limited to one trained crewmember and would be allowed during flight, but not during taxi, takeoff or landing or if there were a fire.

As part of the safety enhancement necessary to allow occupancy of the aft lower lobe service/cargo compartment by a crewmember, JRG proposes the installation of warning and emergency equipment, as defined for a lower lobe service compartment in § 25.819. Speakers, warning lights, and buzzers will be installed in the aft lower lobe service/cargo compartment to warn an occupant of turbulent conditions, the presence of smoke or fire, or the need to leave the area. A crew interphone will be provided for communications with the flight deck. In addition, emergency equipment will be provided to that occupant in case of decompression. No seat will be installed in this area, as required by § 25.819(f), because of the reduced height and accessibility of the area.

JRG Design Inc. indicates that the aft lower lobe service/cargo compartment will meet the Class C cargo requirements of § 25.857(c). The compartment will be equipped with an approved built-in fire extinguisher or suppression system which is controllable from the cockpit to eliminate the need to send someone into the compartment to fight a fire. In the event of a fire, the aft lower lobe service/cargo compartment will be evacuated, and the pilot will activate the fire suppression system. A means will be provided to prevent inadvertent access to the compartment when the fire suppression system has been activated.

The existing regulations address separate service areas and Class C cargo compartments but do not address a single compartment that has both uses. The requirements for these compartments are not only different, but also incompatible. For example, the service compartment may be occupied (except during taxi, takeoff, and landing), but the Class C cargo compartment must not be occupied. In addition, fire fighting is dealt with

differently in the two compartments. The crew fights a fire in a service compartment, whereas a flooding extinguisher system is used in a Class C cargo compartment.

The concept of a single, multi-use compartment which JRG proposes would be acceptable, if the FAA could be assured that whether the compartment is used as a service compartment or as a Class C cargo compartment, the level of safety would be equivalent to that of a separate service compartment or a separate Class C cargo compartment. Therefore, special conditions that provide an equivalent level of safety are being required; these special conditions pertain to visible and audible warnings, placards and limitations, equipment, evacuation routes, training, and the use of ladders between the main deck and the aft lower lobe service/cargo compartment.

## Type Certification Basis

Under the provisions of § 21.101 Amendment 21-69, effective September 16, 1991, JRG Design Inc. must show that the Model 747SP airplane, as modified, continues to meet the applicable provisions of the regulations incorporated by reference in Type Certificate A20WE or the applicable regulations in effect on the date of application for the change.

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 A20WE for the Boeing Model 747SP series airplanes include 14 CFR part 25, as amended by Amendments 25-1 through 25-8 and 25-15, 25-17, 25-18, 25-20 and 25-39, with certain exceptions and special conditions as listed in the type certificate data sheet. The U.S. type certification basis for the Boeing Model 747SP series airplane is established in accordance with 14 CFR 21.17 and 21.21 and the type certification application date. The type certification basis is listed in Type Certificate Data Sheet No. A20WE.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, 14 CFR part 25) do not contain adequate or appropriate safety standards for a Boeing Model 747SP series airplane 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 Boeing Model 747SP airplane must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise