

GULFSTREAM G550

OPERATING MANUAL

DIMENSIONS AND AREAS, MAJOR COMPONENT LOCATIONS

2A-06-10: General

The Gulfstream G550 is powered by two BMW / Rolls Royce BR710C4-11 high bypass ratio turbofan engines rated at fifteen thousand three hundred eighty-five pounds (15,385 lbs) of takeoff thrust at sea level, standard day. The engines are mounted within nacelles attached by pylons to the aft upper fuselage. The engine nacelles feature thrust reversers at the exhaust section to aid in slowing the aircraft during landing. The aircraft landing gear incorporates a steerable nose wheel and main wheel anti-skid braking.

The fuselage is of semi-monocoque metal construction. The main fuselage is pressurized to support a cabin altitude of six thousand feet (6,000 ft) at a maximum operating altitude of fifty-one thousand feet (51,000 ft). Non-pressurized areas of the fuselage are the nose radome and aft equipment compartment in the aircraft tail section. The aft equipment compartment houses the Auxiliary Power Unit (APU), engine and APU fire extinguisher bottles, hydraulic system reservoirs, a fluid (engine/APU oil and hydraulic system) replenishment station and additional mechanical and electrical installations. The fuselage is divided lengthwise into an above-floor section and a below-floor section. The below-floor section houses air-conditioning ducting, electrical distribution wiring and components, hydraulic lines and control cable linkages. The above-floor passenger compartment may be configured in any of a variety of optional layouts, with a maximum possible seating capacity of nineteen (19) plus three (3) crew members. The main aircraft entrance door is located at the front of the passenger compartment, with the entrance area forming the separation between the cockpit and passenger compartment. Immediately aft of the cockpit and adjacent to the entrance area are the two main Electronic Equipment Racks, one on either side of the cockpit entrance, designated Left (LEER) and Right (REER). The racks contain the majority of the aircraft avionics components as well as wiring for electrical power distribution. A baggage compartment is provided at the rear of the passenger compartment, separated by an internal secondary pressure bulkhead with an integrated access door that may be used to enter the compartment during flight. The baggage compartment has an external door for ground loading/unloading. An Auxiliary Electronic Equipment Rack (AEER) is also installed in the baggage compartment.

The aircraft wings are swept back twenty-seven degrees (27°) and are cantilevered with a three degree (3°) dihedral. Each wing contains a fuel tank integrated into the wing structure. Wing anti-icing ducts and landing lights are installed on the leading edge of the wing. Primary and secondary flight controls are installed on the wing trailing edge. The primary flight controls are the ailerons, with the left aileron having an adjustable trim tab. Secondary flight controls include the Fowler-type flaps (one per side) and spoilers (two flight spoilers and one ground spoiler per side). Winglets installed at the outboard end of each wing aid in drag reduction and improve fuel economy. At the wing roots on either side of the fuselage keel are the wheel wells and the main landing gear support structure.

The airplane tail section consists of a fixed vertical stabilizer and an adjustable horizontal stabilizer equipped with primary flight controls. Tail mounted primary flight controls are the left and right elevators attached to the trailing edge of the horizontal stabilizer, and a rudder attached to the trailing edge of the vertical stabilizer. The elevators incorporate adjustable trim tabs, whereas rudder trim is accomplished by displacement of the entire surface.

The Dimensions, Areas and Major Component Locations section is divided into the following subsections:

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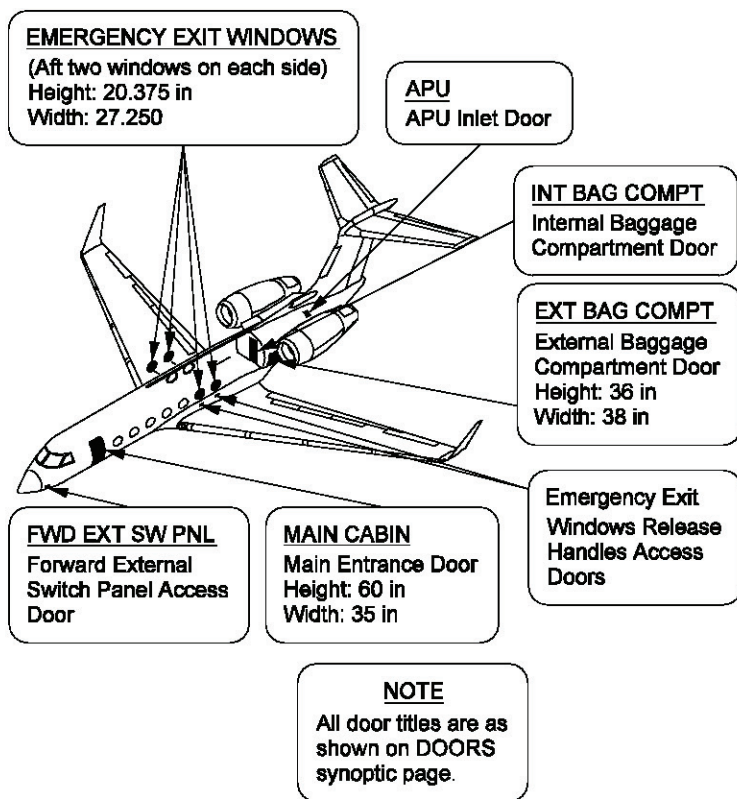
- 2A-06-20: Principal Dimensions
- 2A-06-30: Entrances, Exits and External Access Doors
- 2A-06-40: Flight Crew Station Components

2A-06-20: Principal Dimensions**1. Dimensions, Areas and Distances:**

See Figure 1 through Figure 3 for principal dimensions, areas and distances.

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Entrances, Exits and External Doors
Figure 6 (Sheet 1 of 5)