

## HALO - High Altitude and Long Range Research Aircraft

The HALO aircraft based on a Gulfstream G550 Business Jet will be modified during a 19 month layover at RUAG Aerospace Services in Oberpfaffenhofen, near Munich. The program incorporates major structural as well as system modifications, engineering and certification support. The aircraft will be operated by DLR "Deutsches Zentrum für Luft- und Raumfahrt" from early 2009 on.



### Flying laboratory without competition

The concept behind HALO is to provide an optimal platform for airborne atmospheric science and earth observation, a well-equipped flying laboratory that allows the scientists onboard to completely focus on their experiment.

The main strengths of the proposed HALO aircraft are its long range and endurance, high ceiling altitude and large instrument load capacities, which are not available in such combination on any other research aircraft in Europe.

#### Aircraft data

Takeoff distance (SL, ISA, MTOW) 1,801 m

Landing distance (SL, ISA, MLW) 844 m

MTOW 41,277 kg

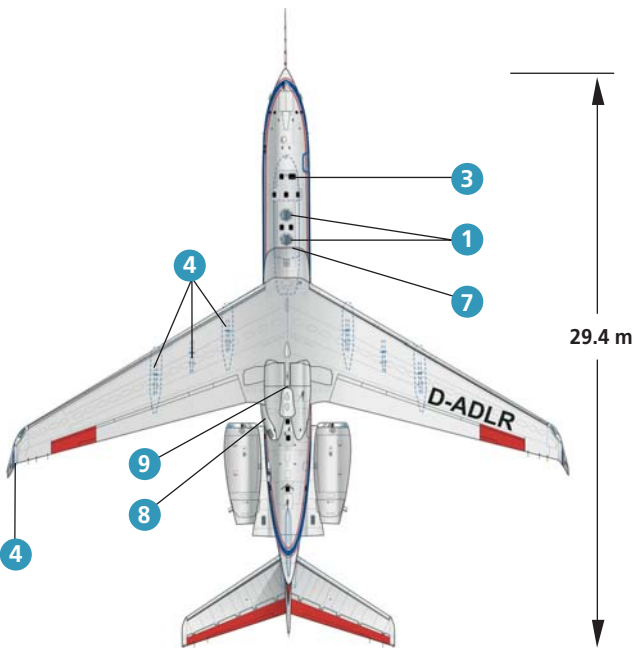
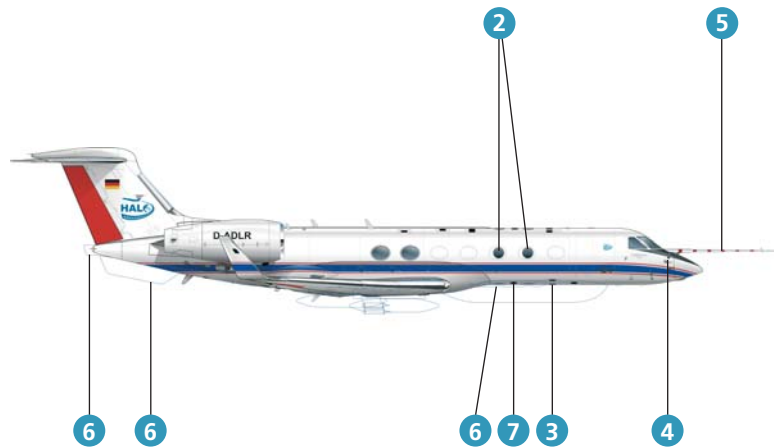
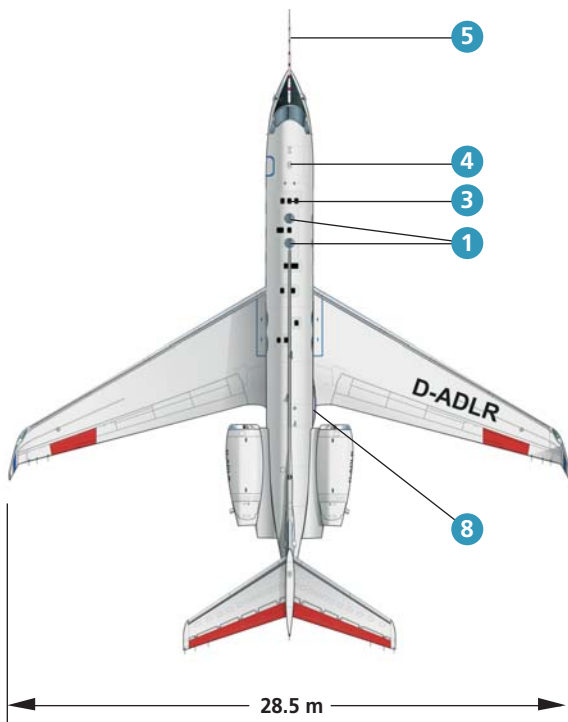
Max. cruise speed M 0.85

Max. cruise altitude 15,545 m

Max. payload 2,812 kg

Max. passengers 19

Range 12,501 km at M 0.8



#### Modifications performed by RUAG Aerospace Services:

- Large 515 mm view ports at top and bottom panel of fuselage **1**
- 432 mm side view ports **2**
- 23 apertures at several fuselage locations **3**
- Hard points for research equipment installation at wing and fuselage **4**
- 2.5 m nose boom **5**
- Provisions for belly instrumentation pod, enlarged tail cone and ventral fin **6**
- Electrical shutter door for lower view ports **7**
- Liquid Cooling System for research equipment **8**
- Chemical exhaust system **9**
- Special ARINC interface
- Mission power system
- Research signal wiring
- Scientist VHF/AM intercom
- Cabin intercom system
- Additional seat track installation
- Antenna and avionics system relocation and installation

RUAG Aerospace will soon become an authorized service center for Gulfstream G550.

### RUAG Aerospace Services GmbH

P. O. Box 1253 · 82231 Wessling · Germany

Tel. +49 (0)8153 30 2772 · Fax +49 (0)8153 30 2516 · info.services.aerospace@ruag.com · www.ruag.com

# RUAG

Aerospace Defence Technology

SECURITY IS OUR GOAL, QUALITY OUR STANDARD