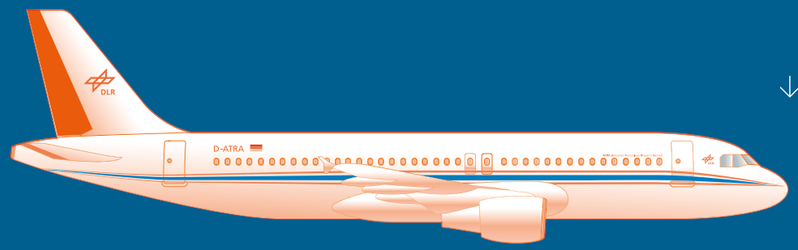
AN IMPRESSIVE FLEET

DLR's research aircraft at a glance

DLR's wide-ranging aircraft fleet offers everything, from large commercial Airbus aircraft, to helicopters, and even gliders. With its 12 aircraft, DLR operates the largest civilian research fleet in Europe. The Flight Experiments Facility is responsible for research flight operations and operates out of two locations, Braunschweig, Lower Saxony and Oberpfaffenhofen, Bavaria. At the southern research airport in Oberpfaffenhofen, the aircraft are mostly comprised of measurement and sensor platforms for atmospheric, climate and environmental research, Earth observation, and for testing communications, radar and navigation systems. At the northern location in Braunschweig, the aircraft primarily conduct research to improve the efficiency and environmental compatibility of aircraft, with a focus on aerodynamics, aeroelasticity, flight systems and air traffic management. The oldest member of the fleet is the BO 105 helicopter with 47 years of service, closely followed by the Dassault Falcon 20 with 45 years of service. The youngest members of the fleet are the Dassault Falcon 2000 (ISTAR) and the Do 228 (D-CEFD), which will be used as a flying laboratory for electric flight propulsion systems.



D-ATRA

Airbus A320

At DLR since 2008

- Until 2020 used mainly in the fields of flight control, synthetic fuels, aerodynamics and noise reduction
- Continued use planned starting in 2023

D-ADLR

Gulfstream G550

At DLR since 2009

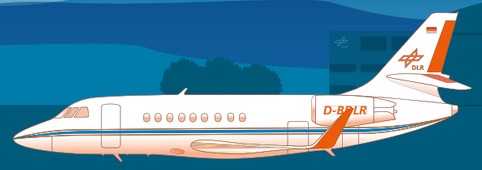
- Chemical composition of the atmosphere
- Air pollution and its transport
- Meteorology and dynamics of the atmosphere
- Formation and life cycle of aerosol particles, clouds and precipitation
- Global carbon cycle
- Transport and dynamics in higher atmospheric layers

D-CEFD

Dornier Do 228-202

At DLR since 2021

- Testing of technologies, components and systems for electric flight propulsion
- Fuel-cell-based electric propulsion

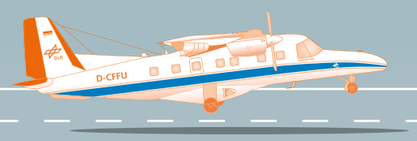


D-BDLR

Dassault Falcon 2000LX

At DLR since 2020

- Digitalisation
- Automation
- Unmanned Systems
- Aerodynamics
- Flight systems and control
- Flight procedures

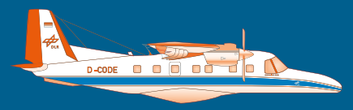


D-CFFU

Dornier Do 228-212

At DLR since 1991

- Radar systems
- Hyperspectral sensors
- High-resolution aerial imaging



D-CODE

Dornier Do 228-101

At DLR since 1986

- Technologies for remote-controlled flight systems
- Autonomous flight
- Sense and avoid
- Noise reduction

D-9833

Discus-2c

At DLR since 2011

- Reference aircraft for flight performance measurements
- Testing of new measurement techniques
- In-flight mechanical and aeroelastic research
- Atmospheric measurements
- Dynamic testing of transient flight conditions with modern pressure measurement technologies
- Flight tests without vibration and electromagnetic disturbances
- Digital maintenance methods

D-CMET

Dassault Falcon 20E-5

At DLR since 1976

- Environmental and climate research
- Measurement of emissions from aircraft in flight
- Validation of satellite data and climate models
- Communications, navigation and surveillance

D-HFHS

EC 135

At DLR since 2002

- Implementation and testing of active control elements (sidesticks), sensors and visual systems
- Testing of pilot assistance systems
- Flight characteristics measurements
- Training of test pilots and flight test engineers
- Simulation of the flight behaviour of other helicopters
- Sensor platform for high-resolution optical camera systems

D-HDDP

BO 105 CB

At DLR since 1974

- Traffic monitoring and disaster management
- Low-noise approaches
- Pilot assistance systems
- External loads
- Rotor flight characteristics and conditions

D-FDLR

Cessna 208B Grand Caravan

At DLR since 1998

- Flying lecture theatre / summer school for students of meteorology or aeronautics and crewed spaceflight
- Air-quality measurements in the boundary layer and troposphere
- High-resolution aerial imaging

D-EDVE

Robin DR400-200R

At DLR since 1991

- Towplane for DLR research glider Discus-2c
- Pilot training
- Intruder for 'Sense and Avoid' systems

The size of the aircraft is not to scale