



## RUAG Intensifies Collaborations with Turkish Companies

For several years, RUAG Aviation has supported projects of leading Turkish aerospace companies through its Aerodynamic Department. Recent projects include wind tunnel testing of an aircraft primary trainer and the load measurement for a missile engine test stand for a rocket engine manufacturer.

The Aerodynamics Department of RUAG Aviation has many decades of experience in the operation of its two low speed wind tunnels and the development of unique testing and measurement technologies. Strongly focused on the aerospace industry, it still holds tests in the niche sectors of ground transport, civil engineering and sports.

The variety of specific needs and requirements of these customers necessitates a high degree of flexibility of both the staff and the supporting infrastructure, as well as

available model instrumentation, data acquisition and wind tunnel control software. This results in a wide range of readily available equipment, competences and capabilities in the department, all of which were put to advantage for the Turkish projects.

### Together ahead with a leading Turkish aircraft manufacturer

An established aircraft manufacturer at the centre of Turkey's technology in the design, development, modernization and manufacturing of integrated aerospace systems and one of the top 100 global companies in aerospace and defence, recently engaged in a highly productive collaborative project with RUAG.

As a part of its new generation basic trainer development programme, said aircraft

manufacturer subcontracted RUAG's Aerodynamics Department to perform tests in the LWTE (Large Subsonic Wind Tunnel in Emmen). RUAG was responsible for designing, developing and instrumenting a 1:3.5-scale model, and for performing the wind tunnel tests in its facility. The complete process was successfully completed on time, in just six months.

Crucial to the timely and successful completion of the test were the regular exchanges of information between the aircraft manufacturer and RUAG, prior to the project. Interaction increased even more during the tests – in the best spirit of RUAG's motto "Together ahead" - with onsite manufacturer personnel controlling the test sequence according to incoming results and RUAG operating the wind tunnel at its best efficiency and effectiveness.



With both parties focused on their respective jobs, and excellent communication, sound decisions were quickly taken and last minute changes implemented, contributing to the success of the campaign.

**Missile motor test bench**

A Turkish manufacturer of rocket engines contacted RUAG Aviation for support in instrumenting a test stand for the development of its missile motors. Building on its expertise in the field of design and manufacture of highly precise and reliable strain gauge balances, chiefly used in wind tunnels, RUAG provided the manufacturer with a compact 6-component block-type strain gauge balance, which ideally matches the forces and moments to be measured as well as the integration of the available data acquisition system. A RUAG specialist was on-site to assist the customer in setting up the measurement chain to optimally exploit the balance and get the best possible results, as well as to provide

comprehensive consultancy in the field of measurement technology and data processing.

These two projects highlight RUAG’s international reputation as a centre of excellence for wind tunnel testing and test solutions. RUAG, as an experienced, independent service supplier in the aerospace industry, is known for its dependable and timely results within budget.

**About RUAG Aviation:**

RUAG Aviation is a leading supplier, support provider and integrator of aircraft systems and

components for civil and military customers and Original Equipment Manufacturer (OEM) of the Dornier 228 aircraft..The company is the principal life cycle support partner for the Swiss Air Force and supports many Air Forces around the globe. RUAG Aviation is an authorized Service Center for Bombardier, Cessna, Dassault Falcon, Embraer, Piaggio and Pilatus Aircraft as well as Major Service Center for Dornier 328, Hawker Beechcraft and DHC-6 Twinotter. RUAG Aviation is also the Original Equipment Manufacturer (OEM) of the Dornier 228 aircraft.

**Client benefits:**

- › accelerated development cycle through RUAG’s experience
- › significantly reduced number of design and test run iterations
- › permanent customer involvement during all project phases
- › accurate and useful test results through proven technology and processes
- › Neutral, and thus objective, test results