AVIATEST Research and Testing Centre, which is a part of an aerotechnical branch of the LNK Group holding company, specialises in static, fatigue and full scale tests for entire aircraft as well as for individual assemblies and structural components. AVIATEST also perform tests for airport equipment and various building structures.

What sets AVIATEST apart from other experimental centres is that all tested aircraft have an operation time close to the original service limit.

After Latvia gained independence, the enterprise managed to not only sustain a traditional bond with Russian aerotechnical manufacturers, but also execute structural fatigue tests for Western manufacturers. The company is certified to perform tests on aviation technology produced both in the European Union (LV EN ISO/EC 17025:2005) and in the Russian Federation (IAC AR).

In recent years, AVIATEST specialists have conducted static and endurance tests for almost all civil aviation airframes and helicopters. As a result, the structures were improved and the service life of the aircraft was extended. Today AVIATEST is the only laboratory in the Baltics, which conducts full-scale structural and service life testing of aircraft.

At various time periods, tests have been performed on numerous airplanes and helicopters from the testing of samples to full scale (Mi-26, Mi-38, Ka-62 and SSJ-100 etc.). Our unique laboratory has a staff of more than 60 people which consists of highly motivated specialists, among whom there are those with PhDs, highly qualified engineers, mechanics and IT specialists. Modern multichannel loading systems, testing systems and an automated data management system are used in the testing process.

AVIATEST is currently contracted to perform a whirl tower test of the PRGB (AgustaWestland) and Rotor (Airbus Helicopter) in the European Project NICETRIP.

ALEKSANDER MILOV
Founder and a Chairman of AVIATEST, D. Eng., Sc.

GEGAM HANAMIRJAN
General Director of LNK Aerospace
Calculation, testing and maintenance of aviation equipment.

**CENTRE COMPOSITE**

Strength analysis of the most important components of aviation equipment constructed from composite materials.

**AVIATEST**

On-site testing of aviation equipment.

**AVIATECHSERVICE**

Repair and maintenance of civil aircraft.

**AVIATECH BUREAU**

Organisation and support of the international aircraft certification.

**TURNOVER OF THE ENTERPRISE**

<table>
<thead>
<tr>
<th>Year</th>
<th>Turnover (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>748,283</td>
</tr>
<tr>
<td>2010</td>
<td>956,383</td>
</tr>
<tr>
<td>2011</td>
<td>1,397,442</td>
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<tr>
<td>2012</td>
<td>5,671,682</td>
</tr>
<tr>
<td>2013</td>
<td>8,031,239</td>
</tr>
</tbody>
</table>

**TOTAL AREA OF THE TEST HANGAR**

5500 m²

**QUANTITY OF THE TEST RIGS FOR FULL SCALE TESTS**

30 +

**HIGH-PRECISION MANUFACTURING MACHINES**

5
OUR TEAM

ALEKSEI NASIBULLIN
Executive Director, D. Eng. Sc.
Flexible and realistic problem solving during the testing of aviation equipment. We prolong the service life of aeroplanes and helicopters while making them safer.

ALEKSEI KULAKOV
Head of the Technical Control Department
Sound experience of our specialists and modern innovations guide us in our project work.

KRISTINA SOSKOVEC
Commercial Director
We sell a perfect blend of cost and quality and our reputation confirms it.

VLADISLAV TURKO
Deputy Executive Director for Science, D. Eng. Sc.
Here in AVIATEST we put science into life.

ALEKSEI CHEPUSOV
Executive in charge
The main goal of the Project Leader is to achieve the goal of the Customer and provide an end result, as well as successfully supervise the project from its conception to its full completion.

ALEKSEI NEVSKIJ
Executive in charge
One of the main conditions for project success is strict quality control during all stages of its realization.

ALEKSANDER SOROKIN
Trial and Research Director, D. Eng. Sc.
Flexibility and realism in problem solving during the testing of aviation equipment. We prolong the service life of aeroplanes and helicopters while making them safer.

FARIT NASIBULLIN
Technical Director, D. Eng. Sc.
Going to work in an excellent mood every day for 38 years is priceless.

VLADIMIR GORGUC
Executive in charge
Our work in AVIATEST is based on one of Aristotle’s principles: “It is better to complete a smaller part of the work perfectly than complete it badly but do ten times more.”

MAKSIM SMOLOJANINOV
Executive in charge
One of the main characteristics of the AVIATEST employee is striving for progress.

ALEKSANDER NEVSKIJ
Executive in charge
Going to work in an excellent mood every day for 38 years is priceless.

FARIT NASIBULLIN
Executive Director, D. Eng. Sc.
It is important to remember those who created this unique enterprise. Working in AVIATEST is an investment of each employee in the development of the company.

Vladimir Serebriakov
Executive Director, D. Eng. Sc.
AVIATEST is an enterprise of high standards. Our completed projects speak for themselves.

ALEKSANDER LIMARENKO
Commercial Director
Aviation is one of the most magnificent creations of human engineering genius. Every time you see those metal birds – they take your breath away.

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Here in AVIATEST we put science into life.
Endurance tests of a Sukhoj Superjet 100 fuselage front section.

Sukhoj Superjet 100 aeroplane.

Test rig for high lift on the semispan wing of a Sukhoj Superjet 100 airplane.

Arrangement of the fuselage sections of a Sukhoj Superjet 100 and MS-21 airplanes at the AVIATEST Research and Testing Centre.

AVIATEST Research and Testing Centre performed structural tests for airframes such as the Il-18, Yak-40, Yak-18, An-24, Il-18, Yak-40, Yak-18, An-24. The laboratory also tested the airframe of a Tu-134 (both A and B), high-lift wing of a Tu-334 fuselage and a high-lift wing of an SSJ-100 and components of an MS-21.
Endurance tests of a Sukhoi Superjet 100 fuselage front section.

Sukhoi Superjet 100 aeroplane.

Test rig for high lift on the semispan wing of a Sukhoi Superjet 100 airplane.

Arrangement of the fuselage sections of a Sukhoi Superjet 100 and MS-21 airplanes at the AVIATEST Research and Testing Centre.
AVIATEST Research and Testing Centre at present, has been commissioned to plan and execute structural fatigue tests for helicopters such as the Mi-1, Mi-2, Mi-8, Mi-6, Mi-38, Mi-26, Ka-126 / 226 and Ka-62. In recent years, the laboratory has been performing the testing of helicopter units and aggregates for the major European manufacturers AgustaWestland and Airbus Helicopters that are also cooperating with us within the international NICETRIP programme.
Test rig for fatigue tests of the full-scale fuselage and tail boom of an Mi-26T helicopter.

Fuselage of a Ka-62 helicopter is placed on a test rig for static trials of ground loading.

Design of the Ka-62 helicopter.
AVIATEST Research and Testing Centre conducts a whole spectrum of trials that provide a life span and certification of aircraft equipment. This includes trials of elementary samples of individual units, airframes of aeroplanes and helicopters.

For aggregate trials, AVIATEST offers a package of services that includes: design and construction of test rigs (mechanical construction of the control and measurement system) and trials that correspond to the Customer’s technical assignment.

Aggregate trials are accompanied with all the necessary measurements, sensor monitoring of the trial object and analysis of behaviour and reasons for fracture.
AVIATEST Research and Testing Centre provides non-destructive testing that exposes the measurements, reliability and main working capabilities of the object or its separate components without the necessity for shutdown or disassembly. AVIATEST specialists use the whole spectrum of modern methods of non-destructive testing.

We use the full spectrum of modern methods of non-destructive testing including ultrasonic, capillary, magnetic powder, x-ray and other diagnostic methods to perform quality control of welds, identify geometric deflections, measure residual stress, determine increased stress condition spots and develop a structure monitoring procedure.
MANUFACTURING OF TEST RIGS

In cooperation with the TTS factory (an enterprise that is a part of the LNK Group company), AVIATEST Research and Testing Centre provides the design, manufacturing and entry into service of various test rigs.

Our specialists create structures for securing the testing object and electrical systems for the controlling and conducting of measurements.

After the completion of the whole work cycle, AVIATEST offers a ready-made solution, that is developed specifically for each individual case. Before the test rig enters into service, all the necessary tests are performed and our specialists carry out supervised installation and all subsequent warranty maintenance.
AVIATEST Research and Testing Centre provides a set of works in different areas of manufacturing technological process automation: woodworking, transhipment of bulk cargo, assembly lines etc.

The automation of technological and manufacturing processes is performed to increase productivity, as well as to increase the level of workplace safety and reliability. The advantages of industrial automation are: significant increase in the overall efficiency and improvement of product quality.

Technological process automation involves the installation and setting of coordinated work of the following elements: - computational and controlling devices (controllers) – signal receiving and conversion tools (transmitters) – information display and registration devices (operator's station, registrars); - execution units (electric drivers, pneumatic drives, hydraulic lines).
HIGH-PRECISION MACHINING

AVIATEST provides a wide spectrum of mechanical and assembly components manufacturing services. Solved production problems: mechanical processing, heat processing, electroplating, welding, assembly; various types of controls, including non-destructive ones (magnetic powder, radiological); measuring of geometrical dimensions using a portal CMM and a microscope.

High-speed machining centre MIKRON HMS 600 U.


AVIATEST has all the required machining equipment, including a 3-5 axes milling centre, lathe and grinding machining centre, wire and die sinking erosion for the manufacturing complex and precise parts from almost any material. It is possible to manufacture component parts up to 2700 mm long. Our specialisation is – parts and assembly units for aircraft construction, tool construction, machine construction and forming tools.
AVIATEST Research and Testing Centre is equipped with modern test machines that allow our specialists to conduct a wide spectrum of fundamental sample testing. In order to achieve more objective results, samples are tested at a wide range of loads and temperatures.

In cooperation with Centre Composite enterprise, the AVIATEST tests layered composite materials to determine their stress-strain properties in the context of static and high-speed power load conditions with regard to the effects of temperature, humidity and time factors, and also performs the computational-and-analytical backup of industrial hub and composite material aggregate field testing.

AVIATEST testing machinery and mounts have all the necessary certificates.

Certificates were issued in correspondence with the standards of the laboratory accreditation of the United Kingdom Accreditation Service. They provide measurement uniformity of acknowledged national standards, and unite the measurements that are implemented in the National Physical Laboratory or any other acknowledged laboratory that corresponds with national standards.

The abovementioned mechanical device was tested under the following criteria and modes specified below, only with escalating power for ISO 7500-1 while using machinery inspection that is calibrated for ISO 376.

Enterprise specialists are certified according to the international standard EN ISO 9712:2012.
AVIATEST Research and Testing Centre is certified according to the Latvian National Accreditation Bureau (LATAK) and Interstate Aviation Committee (IAC).
AVIATEST Research and Testing Centre regularly conducts product testing for leading European and Russian manufacturers. Currently our partners are: