

NATIONAL  
CONTACT  
POINT  
**AERONAUTICS**



НАЦИОНАЛЬНАЯ  
КОНТАКТНАЯ  
ТОЧКА  
**АЭРОНАВТИКА**

## National contact point “AERONAUTICS”

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*Factsheet<sup>1</sup>*

## Opportunities for Development of EU-Russia Science and Technology Cooperation in Aeronautics

### State Research Institute of Aviation Systems – GosNIIAS

In order to maintain and develop the scientific and technological EU-Russia cooperation in the field of aeronautics, **Russian National Contact Point for aeronautical research – NCP “Aeronautics”** informs you about Russian organizations\institutions conducting their activities in the field of aeronautics and being effective partners for international cooperative activities in this field.

At the present time **State Research Institute of Aviation Systems (GosNIIAS)** is one of the leading research organizations in the field of aeronautics in Russia.

#### About the Institute

Being the Russian Federation’s State Research Center, GosNIIAS is a **leading Russian research center in aviation systems**, engaged in civil and military aviation systems research, airborne system algorithms and software development, and avionics systems efficiency analysis.

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On behalf of the Russian Federation, the rights of the Institute's founder and owner of the Institute's property are exercised by Russian National Research Center "Institute named after N.E. Zhukovsky" (NRC "Zhukovsky Institute").

Established in 1946, the Institute conducts applied research and participates in the development of future aviation systems and their components.

GosNIIAS researchers carry out work for establishing an **advanced research foundation** for elaborating aviation systems, development and integration of new avionics systems, development of airborne system algorithms and software, and conduct unique testing of aviation systems.

The Institute has **unique experimental facilities with a wide range of testing equipment** allowing to test aviation systems and their components, including environmental testing of avionics systems and complete units. Integrated Air Traffic Control System Hardware-In-the-Loop full-scale research Simulation facility (IATCSHILS) and Air Traffic Management System Simulation facility (ATMSS) of the Institute enable to conduct a wide range of ATC and ATM research.

#### **GosNIIAS areas of activity:**

- Aircraft system efficiency and concept definition (external design);
- Avionics systems integration and development;
- Airborne system algorithms and software;
- Airspace management planning in Air Traffic Management (ATM) systems;
- Avionics systems environmental resistance.

#### **GosNIIAS research technologies:**

- All level system simulation (mathematical, hardware-in-the-loop, physical);
- Full-scale testing;
- Special-purpose computer technologies;
- Hardware/software certification;
- Production technologies and pilot production.

## **International Cooperation**

### **GosNIIAS's Participation in International Research Cooperation**

GosNIIAS actively pursues international cooperation through joint projects with foreign companies and organizations: ROCKWELL Collins, Hughes, Intermec, Digital, Evans & Sutherland, Smiths Industries, THALES (THOMSON-CSF, Sextant Avionique), CATIC, the Indian Air Force, General Electric, Esterel Technologies, Apsys, Sysgo, TTTEch, CNIT and others.

An example of international cooperation is the joint effort of avionics system development for MiG-AT training aircraft in conjunction with Sextant Avionique (France) and A. I. Mikoyan Experimental Design Bureau (Russia). IL-96M/T software was developed by GosNIIAS specialists in cooperation with ROCKWELL Collins (USA). IL 96M/T avionics hardware and software were certified in line with FAA (USA) and AR IAC (Aviation Register of Interstate Aviation Committee) (Russia) international requirements. Work package for integration and engineering support of Kazan ATC (Air Traffic Control) Center was conducted by GosNIIAS in cooperation with THALES AIRSYS.

Since 2008, the Institute participates in research projects according to European framework programmes relating to aircraft environmental impact studies; studies for reducing the time and costs of aircraft development, manufacture, and operation; meeting customers' demand and ensuring customers' safety; providing aircraft and passenger protection; developing new ideas and technologies for the future air transport.

As a partner, GosNIIAS has made and continues to make a **significant contribution to projects of the 7th Framework Programme** of the European Union:

- SCARLETT – SCALable & ReconfigurabLe Electronics plaTforms and Tools;
- ASHLEY – Avionics Systems Hosted on a distributed modular electronics Large scale dEmonstrator for multiple tYpe of aircraft.

These projects deal with various aspects of development of components of future aviation systems that would meet the target indicators established by the European strategy documents Vision 2020 and FlightPath 2050.

### Conferences, Exhibitions, Airshows

GosNIIAS's researchers represent Russia in international events of the **foreign research societies** ICAO, RTCA, EUROCAE, SAE International, ISPRS, SPIE, ICAS, EUSASS, etc.

The Institute **organizes international conferences and seminars**, among which is a series of International Conferences "Integrated Modular Avionics and CNS/ATM", regularly held in the framework of International Aerospace Show MAKS, etc.

GosNIIAS regularly participates **in international airshows and exhibitions**:

- International Aerospace Show [MAKS](#) (Russia),
- International Helicopter Exhibition [HeliRussia](#) (Russia),
- International Hydroaviation Exhibition [GIDROAVIASALON](#) (Russia),
- Paris Air Show at Le Bourget (France),
- Farnborough International Airshow (UK),
- ILA Berlin Air Show (Germany),
- ISPRS Congress (different countries),
- Aviation Electronics Europe (Germany),
- AERO Friedrichshafen (Germany),
- World ATM Congress (Spain),
- Airshow China (Zhuhai, China),
- and others.

During such international events, the Institute showcases advanced high-tech products and solutions to current problems of elaborating aviation systems at foreign markets.

### More information you can find here:

- ✓ GosNIIAS official website: <http://www.gosniias.ru/index-e.htm>;
- ✓ Russian NCP «Aeronautics» support: +7 495 556 31 62, +7 498 483 29 09, <http://ncp.tsagi.ru/en/>.