



ANTONOV DEVELOPS THE NEW LIGHT MULTIPURPOSE TRANSPORT

ANTONOV Company appreciates the long-term mutually beneficial cooperation with Indian aircraft operators, companies and authorities. Taking part in the DefExpo – 2016, ANTONOV presents its advanced programs based on its experience in field of transport, regional passenger and special purpose airplanes development. These projects could become a basis for new joint Indian-Ukrainian aviation programs.

Among features of ANTONOV aircraft is ability to be operated under various weather and climatic conditions and from/to various airbases including unpaved and located in mountains. They proved their efficiency in India with adverse climatic conditions and numerous airbases located in high mountains. AN-32 takes a particular place among aircraft being operated in this country. For many years, these transports perform missions of both military and civil organizations.

An optimal decision for replacement of the AN-32 and other such type light transports is the AN-132 multipur-



The AN-132 will be to carry different cargoes, self – and non-selfpropelled vehicles

pose aircraft with payload of 9.2 t to be operated on short- and medium-haul air routes.

ANTONOV Company realizes the AN-132 program together with King Abdulaziz City for Science and Technology (KACST) and Taqnia Aeronautics Co., Kingdom of Saudi Arabia. The project involves major international partners, including Pratt&Whitney Canada, General Electric, Honeywell, Liebherr and Hamilton Sundstrand.

The first prototype of this advanced airplane is being constructed by ANTONOV Company. In assembly shop of ANTONOV Company works on mounting the wing on the AN-132D aircraft demonstrator were completed. According to Mykhaylo Gvozdev, President of ANTONOV Company, «the next stage of the first AN-132 construction was performed in accordance with the approved schedule. So, we meet commitments to our

partners and keep the fixed terms of the program development».

Completion of the AN-132 construction is scheduled for the end of 2016. After series of the test flights, the partners on the program will present the aircraft to the potential customers in Kingdom of Saudi Arabia. The new aircraft will be able to carry various cargoes, air drop palletized cargoes and paratroopers, to carry people, sick and injured persons under emergency situations. Developed on the basis of the AN-32, the AN-132 will differ with better technical and economical, operational characteristics: payload increased by 23 percent, flight range increased in 2.75 times while carrying 6 t of cargo, higher fuel efficiency, lower noise and emission levels. AN-132 will have two-member "glass" cockpit, avionics and equipment meeting the modern standards. Airborne loading/unloading equipment, APU will provide its autonomous operation at poor-equipped airfields.

ANTONOV invites the Indian enterprises to take part in the international team on the AN-132 program and aircraft operators of the country to become customers of this new airplane.



The AN-132D in the final assembly workshop of ANTONOV Company

AN-178 TRANSPORT IS TESTED WITH NEW ENGINES

Photo: Sergey Smolentsev



AN-178 passes the next stage of testing with the new D-436-148FM engine

New AN-178 medium transport is continuing the flight test program. The aircraft performed about 50 flights with total duration of more than 120 hours. Nowadays, the AN-178 is performing tests flights powered with D-436-148FM engines. This power plant was developed by Motor Sich SC and Ivchenko-Progress corporation (Zaporozhye, Ukraine) especially for the AN-178. Before delivery of these engines, the airplane flew powered by D-436-148s installed on the aircraft of the AN-148 and AN-158 family. D-436-148FM differs from its predecessor with increased thrust on all the main stages of flight and improved noise and emission characteristics.

Unique feature of the AN-178 having a payload up to

18 t is ability to carry almost all the types of the existing packaged freights (containerized and palletized ones) including high-capacity containers 1C (sea containers). Owing to this, the aircraft is an indispensable transport to provide logistic support as well as operations under emergency situations. So, AN-178 can be used by India as the basis for creation of medium transport aircraft.

Keeping the best characteristics of the ANTONOV aircraft, the AN-178 has high reliability and can be operated from/to any runway, including those ones with artificial pavement, unpaved airfields and alpine airdromes.

New aircraft is suggested as a replacement of the AN-12 medium turboprop transport at higher level. All in all more than

1400 AN-12 were produced. These aircraft are still widespread in CIS countries, Africa and Asia. The AN-178 is suggested as a replacement of the C-160 European two-engine turboprop transport (124 aircraft were assembled) for customers orientated to the Western aircraft.

Unlike the Embraer KC-390 new Brazil transport being developed as a replacement of the C-130, ANTONOV's development has another philosophy of its development and use. First of all, the AN-178 has essentially smaller dimensions and take-off mass. It is created on the base of the already existed platform – family of the AN-148 and AN-158 regional jets. This let make it much cheaper, with less fuel consumption and essentially

reduced cost of the aircraft life cycle.

In particular, the AN-178 operation support – system of its technical, guarantee and after guarantee maintenance and over haul – is totally unified with support of existed aircraft of the family. This saves costs and reduces cost of aircraft owner.

One more important component to influence market attractiveness of the new product is a flight simulator existence. Elaborating software of the already existed D level KTC-148/158 for the AN-148 and AN-158, especially peculiarities of piloting and use of ramp transport will allow creation of unified flight simulator to train crews of both passenger and transport aircraft with minimum costs.

Training of self-propelled vehicle loading into the AN-178



Photo: Viktor Mette

THE VERSATILE AN-148 AND AN-158 REGIONAL JET FAMILY



Photo: Vasili Koba

AN-158 aircraft operated by «Cubana de Aviacion» mastered domestic and international routes of Latin America

At DefExpo – 2016, ANTONOV Company presents a series of new variants of the AN-148/AN-158 family of regional jets, which can become a basis for development of cooperation with enterprises and State departments of Republic of India, in particular within the programs of design, production and provision of after sale support of the aircraft of the different purposes to be designed on the basis of common platform.

The family's base consists of the AN-148-100 and AN-158 with capacities between 68 and 99 passengers that have shown themselves to be efficient in operations under different climatic and weather conditions. At present, they are being used by 9 airlines from four countries, performing different functions, including VIP-passenger transportation. Upgraded with special medical equipment, the AN-148 variants carry sick and injured persons.

AN-148-100EM aircraft can be effectively used in emergency situations. The layout of the airplane includes: a main passenger compartment, a business-class compartment and ambulance compartment where installation of 2 to 6 specialized medical modules is foreseen. To use the abilities of the airplane more

effectively, medical modules and some economy class seats can be transported in the baggage hold allowing for quick reconfiguration. According to operator requirements the AN-148-100EM may be a basis for 5 versions: Passenger, Command and Control, and three different passenger/ambulance configurations.



Medicine modules of the AN-148-100EM

Photo: IFC JSC

The 39-seat AN-148-100EA became the first VIP-version of the family entered into operation. The AN-148-300, able to carry VIP-passengers over a distance up to 7000 km, has been developed. On the basis of this long-range airplane, an advanced AN-148-300MP intended for maritime patrol and resistance to trespassers, electromagnetic radiation and communication facilities intelligence, pollution response role and SAR missions has been designed. ANTONOV and more than 200 of its partners from 15 countries have implemented the most innovative technologies in all stages of the AN-148/158 program, including: digital technologies for aircraft design and series production, performing trials to widen the range of the aircraft operation conditions in addition to the obligatory certification tests, establishing a comprehensive system of the aircraft after sales support.



VIP cabin of the AN-148-100EA

Photo: IFC JSC



The AN-148 crews are trained using a complex D level simulator

Photo: ANTONOV Company

THE AN-148-300MP MARITIME PATROL

On the basis of the AN-148-300 long-range aircraft, ANTONOV is developing an advanced AN-148-300MP, which is intended for maritime patrol and resistance to trespassers, electromagnetic radiation and communication facilities intelligence, pollution response role, SAR missions.

To perform these tasks, the AN-148-300MP is fitted with special equipment, providing radar and optoelectronic search of targets on water, as well as blisters on each side of the fuselage for visual search of targets.

While on SAR missions, it can paratroop and airdrop special recovery aids in the disaster zone from pylons under the wing and through

the rear side door of the cargo cabin.

To monitor pollution zones, the AN-148-300MP is equipped with SLAR, MWR, IR/UV, LFS.

Owing to its spacious fuselage,

in case of necessity, the aircraft can be used for transportation of personnel and cargoes.

The AN-148-300MP has flight duration of 10 hours and high speed typical for jet air-

craft. Owing to this, it flies to a patrol zone faster and patrols much bigger area of water as compared to the turboprop airplanes. So, the patrol tasks can be performed by less number of the airplanes.



AN-148-300MP

Photo: Computer design/ANTONOV Company

ANTONOV RENEWED ITS ANTAEUS



AN-22 Antaeus is in the after almost 7-year break

AN-22 Antaeus, the world's first widebody transport, returned into air fleet of Ukraine.

ANTONOV Company performed a lot of works to repair the AN-22 after long staying on the ground. "In spite of confident leadership of famous

AN-124-100 Ruslan and AN-225 Mriya in the market of air transportation of super-heavy and oversized cargo, AN-22 is still in demand. For this reason we took decision to renew the Antaeus"— said Oleksandr Kotsiuba, the First Vice President.

The renewed aircraft constructed in 1974 performed its last flight in March 2009, "before that, this AN-22 flew round the world excluding USA and New Zealand. Antaeus carried various freights. Nowadays it is re-

quested again, and we are sure it is able to continue operation" – noted pilots.

Nowadays ANTONOV Company is painting the AN-22 in colours of "Antonov Airlines" to use the aircraft for new cargo transportations.



Photo: Dmitry Birin



Photo: Dmitry Birin