

Ukraine-EU Aeronautics Co-operation



ANTONOV COMPANY

**PARTICIPATION
IN 7-th EUROPEAN FRAME PROGRAMM**



Zaporozhe 2010

AN-148-100 Regional Passenger Aircraft



- Accompany serial production
- Accompany operation in air companies

- ▶ Passenger capacity - 85 pax.
- ▶ Range - 4400 km
- ▶ Cruising Speed - 850 km/h



AN-158 New Regional Passenger Aircraft



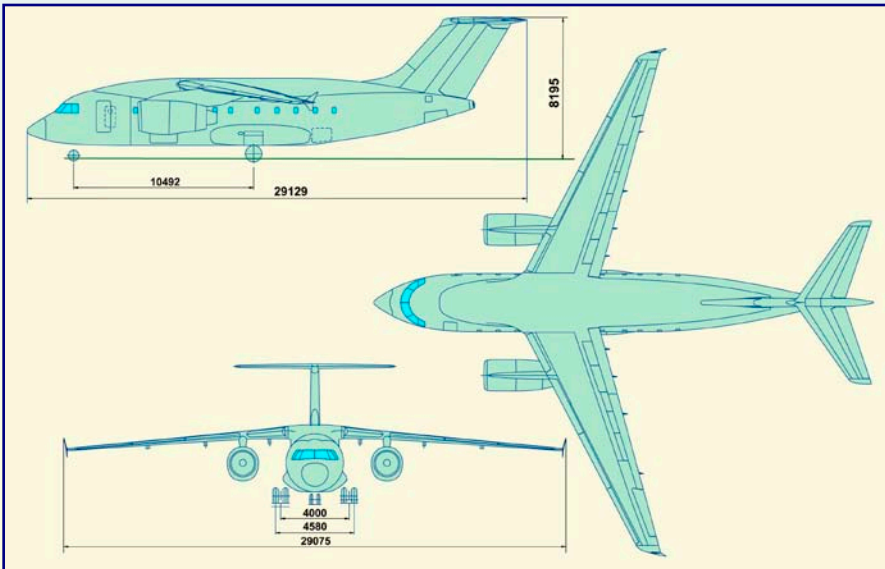
- **Certifications works, including test flays**
- **Startup serial production**

- ▶ **Passenger capacity - 99 pax.**
- ▶ **Range - 3000 km**
- ▶ **Cruising Speed - 850 km/h**

AN-168 New Business Jet Aircraft



- ▶ **Passengers – up to 19 pax.**
- ▶ **Range – 7000 km**
- ▶ **Cruising Speed – 850 km/h**



New Modification. AN-124-200 Aircraft



- Resume of serial production
- “Glass” cockpit
- Digital avionics and aircraft systems
- 80% Extension of Service Life



AN-70 current works



- Upgrading power plant
- Upgrading systems
- Ending of flight tests
- Continuation of static strength tests
- Start of the aircraft serial production

Antonov-70 Military & Civil STOL Aircraft

- ▶ Troops and vehicles
- ▶ Armoured cars and helicopters
- ▶ Large-size and long-size cargoes
- ▶ Standard containers and pallets
- ▶ Suitable for unpaved runways
- ▶ Airdropping

Modification AN-32 Aircraft



**Upbraiding cockpit cabin
and electrical systems**

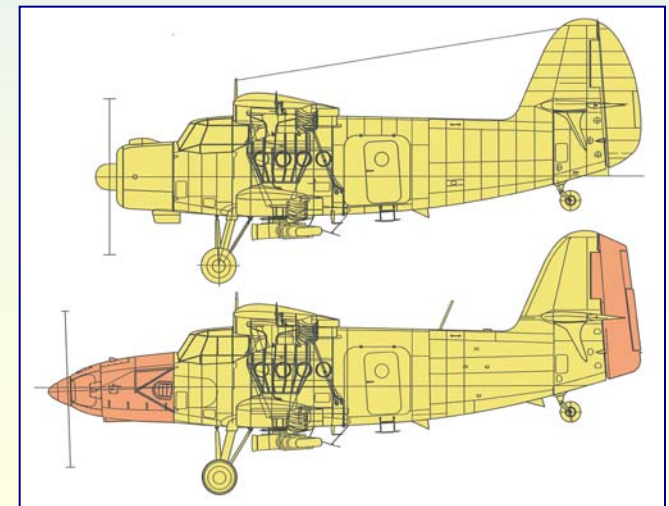
- ▶ **Payload** - 8 t
- ▶ **Range (with 4,15 t)** - 5100 km
- ▶ **Cruising speed** - 530 km/h
- ▶ **Wide range of operational conditions:**
 - hot climate (up to +55°C);
 - high-level mountains (up to 4500 m);
 - humid marine climate;
 - short unpaved runways



AN-3-300 - multipurpose aircraft



АН-3-300 –developing of АН-2 aircraft.
Retooling AN-2 in AN-3-300 consist in change of piston engine on turboprop MC-14 by OAO «Motor-Sich» (Zaporozhe).

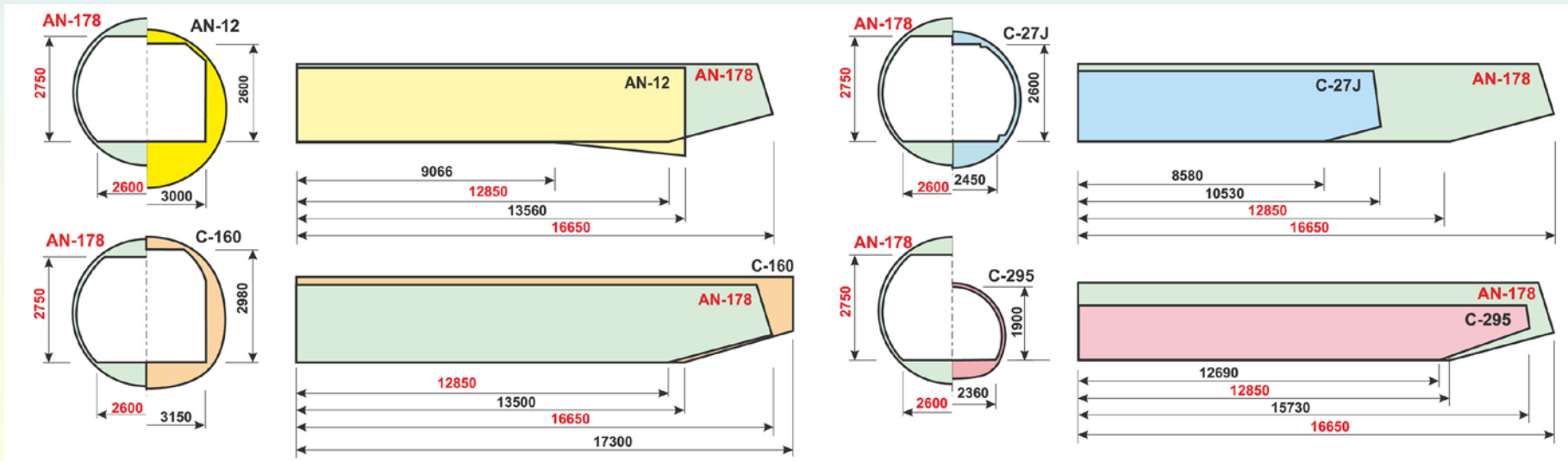


New Project. Antonov-178 Aircraft



- Payload - 15 t
- Range:
 - with 15 t - 1200 km
 - with 10 t - 3200 km
- Cruising speed - 825 km/h

Cargo cabin of AN-178 in comparison with analog aircraft



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Participation Antonov Company in European program FP7

A photograph of an Antonov An-225 aircraft in flight, viewed from a low angle. The aircraft is white with blue and yellow accents on the tail and wings. It has four engines mounted on the wings. The background is a clear blue sky.

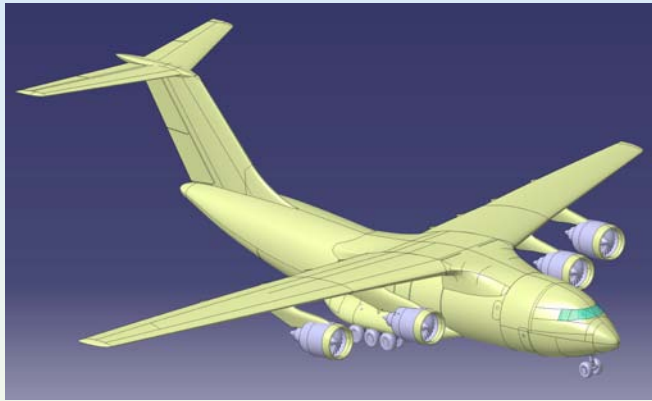
**Research of the Aircraft Wing,
Equipped with the Adaptive Winglets**

SARISTU Project: Adaptive Winglets

Adaptive Winglets

Idea: allow controlling the air circulation of the wing during the flight;


- increasing the effective aspect ratio of the wing during the cruising flight;
- decreasing the effective aspect ratio of the wing at the critical flight;



Equipment
Adaptive
Winglets



- ✓ increasing aerodynamic quality for cruising flight;
- ✓ decreasing bending moment of wing torsion box end wing weight.

- 
- ✓ better flight performance;
 - ✓ fuel saving;

SARISTU Project: Adaptive Winglets

Research objects list

Aerodynamic research:

- form configuration and flying position;
- increasing quality;
- changing of wing load;

Materials:

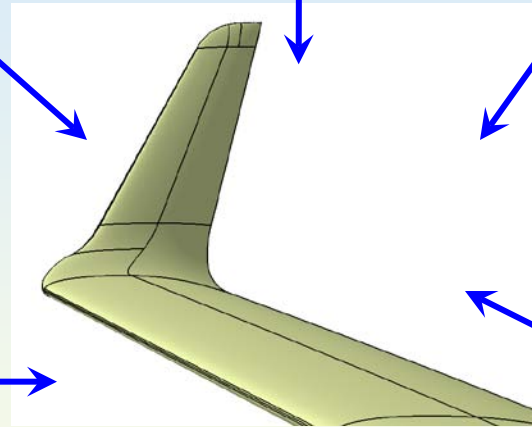
- SARISTU

Stress research :

- changing of load;
- decreasing torsion box weight.

Design:

- airframe structures;
- movable parts;
- driving mechanism



Testing:

- aerodynamic testing;
- stress testing.

Recommended guideline:

- economic effect;
- designing for aircrafts;
- design certification.



THANK YOU FOR YOUR ATTENTION!