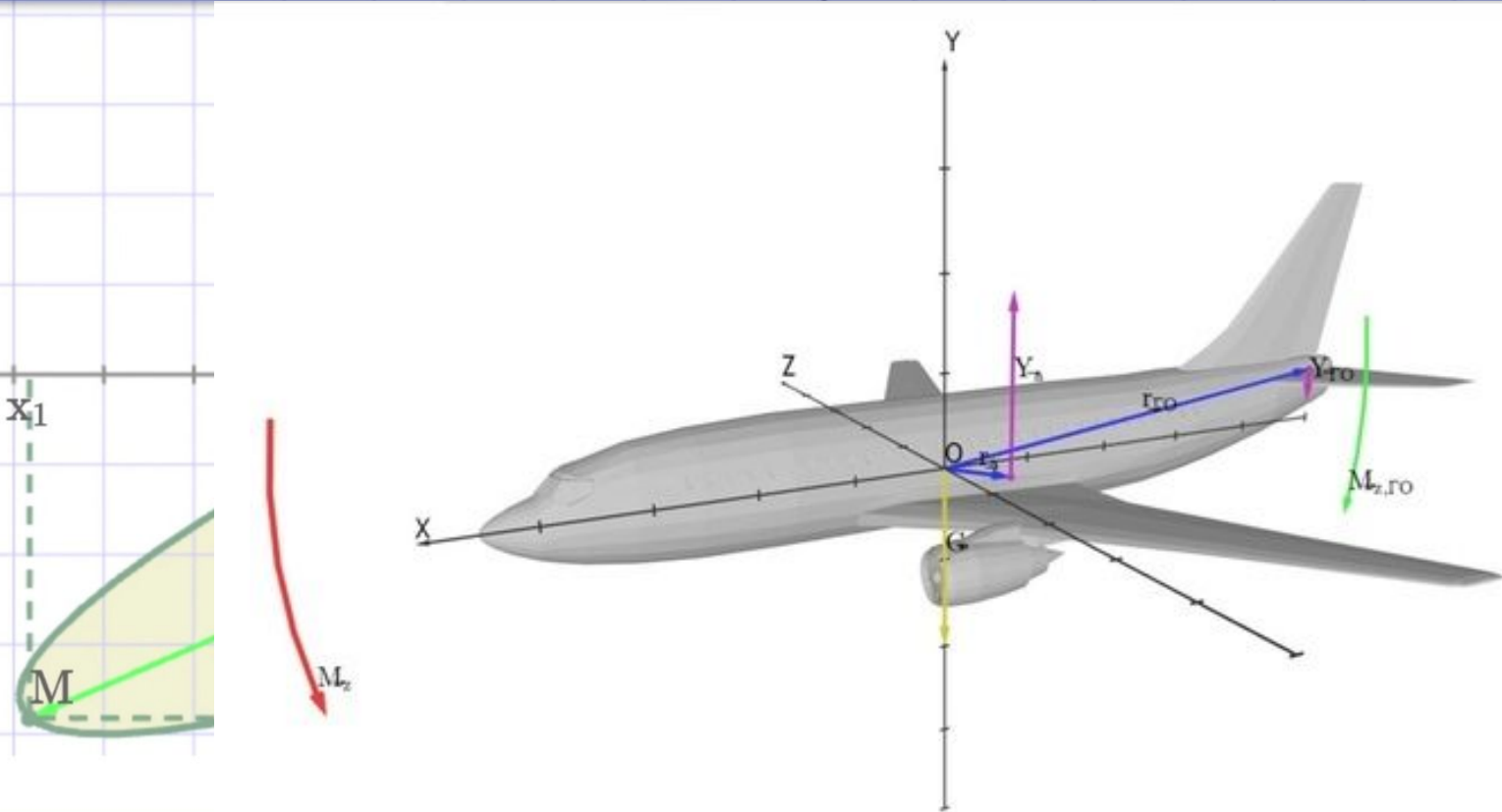


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AIRCRAFTS OF THE FUTURE

OUR MAJOR



ана в МГТУ им.Н.Э.Баумана
ная математика и
РН-11).
– Димитриенко Ю.И.,
-11, профессор, д.ф.-м.н.



VERTICAL TAKEOFF AND LANDING



The Lockheed Martin F-35 Lightning II is a family of single-seat, single-engine, all-weather, stealth, fifth-generation, multirole combat aircraft, designed for ground-attack and air-superiority missions. It is built by Lockheed Martin and many subcontractors, including Northrop Grumman, Pratt & Whitney, and BAE Systems.

The F-35 descends from the Lockheed Martin X-35, the design that was awarded the Joint Strike Fighter (JSF) program over the competing Boeing X-32. The official Lightning II name has proven deeply unpopular and USAF pilots have nicknamed it Panther.

VERTICAL TAKEOFF AND LANDING



When cruising speeds are reached, these propellers will fold and the aircraft will fly thanks to four more propellers located behind the wings and tail.

Joby S2 will be able to reach speeds of up to 322 km / h, 322 km it will be able to fly on a single charge of its batteries.

Joby Aviation introduced an interesting concept for the Joby S2 small two-seater aircraft, which is a hybrid of a helicopter and an airplane. It will be equipped with electric motors and will run on batteries. The device will be equipped with 12 inclined screws that will allow Joby S2 to take off and land vertically.

ELECTRIC AIRCRAFTS



Airbus-E-Fan

The Airbus E-Fan is a prototype two-seater electric aircraft that was under development by Airbus. It was flown in front of the world press at the Farnborough Airshow in the United Kingdom in July 2014. The target market was intended to be pilot training, but production of the aircraft was cancelled in April 2017.

ELECTRIC AIRCRAFTS



The EU-funded 7th Framework Programme project entitled Distributed Propulsion and Ultra-high By-Pass Rotor Study at Aircraft Level, or, DisPURSAL, was formally concluded on 31 January 2015. This 4-year project involved partners from the Central Institute for Aviation Motors (CIAM, Russia), ONERA and Airbus Group Innovations (Germany).

Assuming 340 passengers travelling 8900 km investigations showed up to 14% and 8% reduction in block fuel could be realised for the Propulsive Fuselage Concept and the Distributed Multiple-Fans Concept respectively compared to an evolutionary,

SUPERSONIC AIRCRAFT



Aerion AS2

According to preliminary estimates, the only supersonic airliner Aerion AS2 designed for civil aviation will cost \$120 million, and its development will cost \$4 billion.

The developer claims that the AS2, designed for 12 passengers, will develop a speed one and a half times higher than the speed of sound. The main possible routes are transatlantic flights.

SUPERSONIC AIRCRAFT



Boom Technology intends to revive transatlantic supersonic passenger air travel, which was discontinued in 2003. Boom Technology is designing a prototype aircraft capable of speeds twice the speed of sound, which will allow it to make a transatlantic flight from New York to London in 3 hours and 24 minutes.

According to the founder of the Blake Scholl project, these will be the cheapest supersonic commercial flights.

SUPERSONIC AIRCRAFT



Developed by the British aerospace company Reaction Engines Limited Skylon, 82 meters long and 25 meters wide, it will take off and land on the runway like a “normal” plane, but at the same time it will be able to achieve hypersonic speeds and altitudes of 26 kilometers, switching to oxygen from its own tanks.

LEGEND



The Boeing 777X is the latest series of the long-range from Boeing Commercial Airplanes. The 777X will feature new GE9X engines, new composite wings with folding wingtips, greater cabin width and seating capacity, and technologies from the Boeing

787. The 777X was launched in November 2013 with two variants: the 777-8 and the 777-9. The 777-8 provides seating for 365 passengers and has a range of 16,090 km while the 777-9 has seating for 414 passengers and a range of over 13,936 km. The -9 is expected to fly in 2020 with deliveries the same year.

NEW PASSENGERS AIRCRAFTS



The Irkut MC-21 is a Russian single-aisle twinjet airliner, developed by the Yakovlev Design Bureau and produced by its parent Irkut, a branch of the United Aircraft Corporation (UAC). The initial design started in 2006 and detailed design was ongoing in 2011. After delaying the scheduled introduction from 2012 to 2020, Irkut rolled out the first MC-21-300 on 8 June 2016.

It has a carbon fibre reinforced polymer wing and is powered by Pratt & Whitney PW1000G or Aviadvigatel PD-14 turbofans. With a capacity of 132–163 passengers in two class and up to 6,000–6,400 km range. By July 2018, it had received 175 firm orders and recorded nearly 150 intentions.

NEW PASSENGERS AIRCRAFTS



The Boeing 737 MAX is a narrow-body aircraft series manufactured by Boeing Commercial Airplanes as the fourth generation of the Boeing 737, succeeding the Boeing 737 Next Generation (NG).

The new series was publicly announced on August 30, 2011. The first 737 MAX performed its first flight on January 29, 2016. The series gained FAA certification in March 2017. The first delivery was a MAX 8 in May 2017.

HELICOPTERS



The Mi-38 is a transport helicopter designed by Mil Moscow Helicopter Plant. Originally intended as a replacement for the Mi-8 and the Mi-17, it is being marketed in both military and civil versions. It flew for the first time on 22 December 2003 and was certified on 30 December 2015.

FINAL

