

Newton vs. Einstein

Why not let him fly?

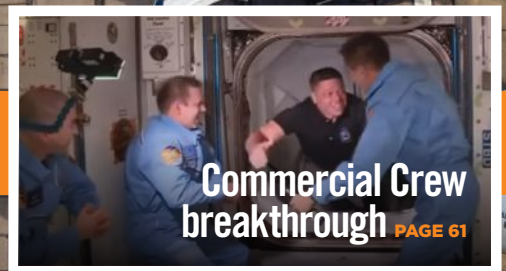
First jet operations from a carrier

AEROSPACE

★ ★ ★ AMERICA ★ ★ ★

2020

YEAR-IN-REVIEW Researchers, industry persevere through the pandemic.





Astronauts again launch from U.S. soil

BY KEVIN BURNS

The **History Committee** works to preserve the record of aerospace advances and recognize their impacts on modern society.

▲ **The crew onboard the International Space Station** welcomes Bob Behnken and Doug Hurley (not visible) in May after their arrival in a SpaceX Crew Dragon capsule.

NASA

Historians will likely remember 2020 for the coronavirus pandemic and its worldwide effects, including hits to the aerospace industry. But as NASA astronaut Chris Cassidy told CNN in May from the International Space Station, “There’s hope in being united. When I look down at the planet, it’s just a big beautiful spaceship that has 7 billion astronauts on it.”

In August, the **U.S. Space Force** published its first doctrine, titled “Spacepower.” The United States established the Space Force in December 2019. It is the first new U.S. military branch since the establishment of the Air Force in 1947.

After nine years of relying on Russia to launch U.S. astronauts to ISS, a new era began in U.S. space exploration as Endeavour, the **SpaceX Crew Dragon** capsule, was launched on the Demo-2 mission from Kennedy Space Center in Florida in May; it delivered **astronauts Bob Behnken and Doug Hurley** to the station the next day. The astronauts praised the experience, saying that docking Endeavour was so smooth that they didn’t even feel it. In June from the ISS, Hurley said, “The suits were custom designed and fitted to us, so they were very comfortable and much easier to get in and out of in zero G.” Demo-2 cleared the way for the Crew-

1 mission, which was launched in November with four astronauts on-board.

This year saw many **centennial celebrations** commemorating 1920 events, including the founding of Canadian, Venezuelan, Ecuadorian and South African air forces; the founding of Argentine and Peruvian naval aviation forces; the founding of Stinson Aircraft Co., de Havilland Aircraft Co. and Davis-Douglas Co.; the founding of Australian airline **Qantas**; the first autogyro; the first flight in Hawaii; the **first flight across the Sahara Desert**; the **first east/west crossing of Australia**; the crea-

tion of the first U.S. Coast Guard air station; the establishment of the U.S. Army Air Service; and the **U.S. Postal Service’s first transcontinental airmail flight**. Also, 1920 saw Germany’s Imperial German Air Service and England’s Women’s Royal Air Force disbanded. And 100 years ago, Frank Hawks took 23-year-old **Amelia Earhart on her first flight**.

World War II ended 75 years ago. It had a tremendous impact on aerospace, including the U.S. Navy’s first recorded use of jet-assisted take-off; the beginning of operations for Mexican airline Aerovias Braniff; the founding of Transportes Aéreos Portugueses (the future TAP Portugal); the **founding of the International Air Transport Association**; the creation of Avro Canada as a part of the Hawker Siddeley Group; and Essair Airways becoming the first airline to operate as a “feeder” or “local service” airline.

Sixty years ago, the Army Ballistic Missile Agency of the Redstone Arsenal in Alabama formally became a part of NASA and was renamed the **George C. Marshall Space Flight Center**. This year was the **50th anniversary of the flight of Apollo 13**, one of the near disasters of the Apollo program, and the 45th anniversary of the Apollo-Soyuz Test Project, the first international human spaceflight, which opened the way for international space cooperation as well as future joint missions such as the ISS. Also, it was the 30th anniversary of the launch of the Hubble Space Telescope from the space shuttle after more than a decade of research and development. ★