

Helicopter Mandates

Complying with existing and upcoming mandates.

Helicopters face many challenging conditions throughout their flight envelopes. In addition, they often land at unfamiliar sites that have little to no navigational aids and present multiple hazards such as terrain, trees, towers, wires, and buildings.

Aviation regulatory agencies all over the world have put increased emphasis on studying and understanding helicopter operations and they continue to introduce new mandates aimed at reducing helicopter accidents and improving overall safety.

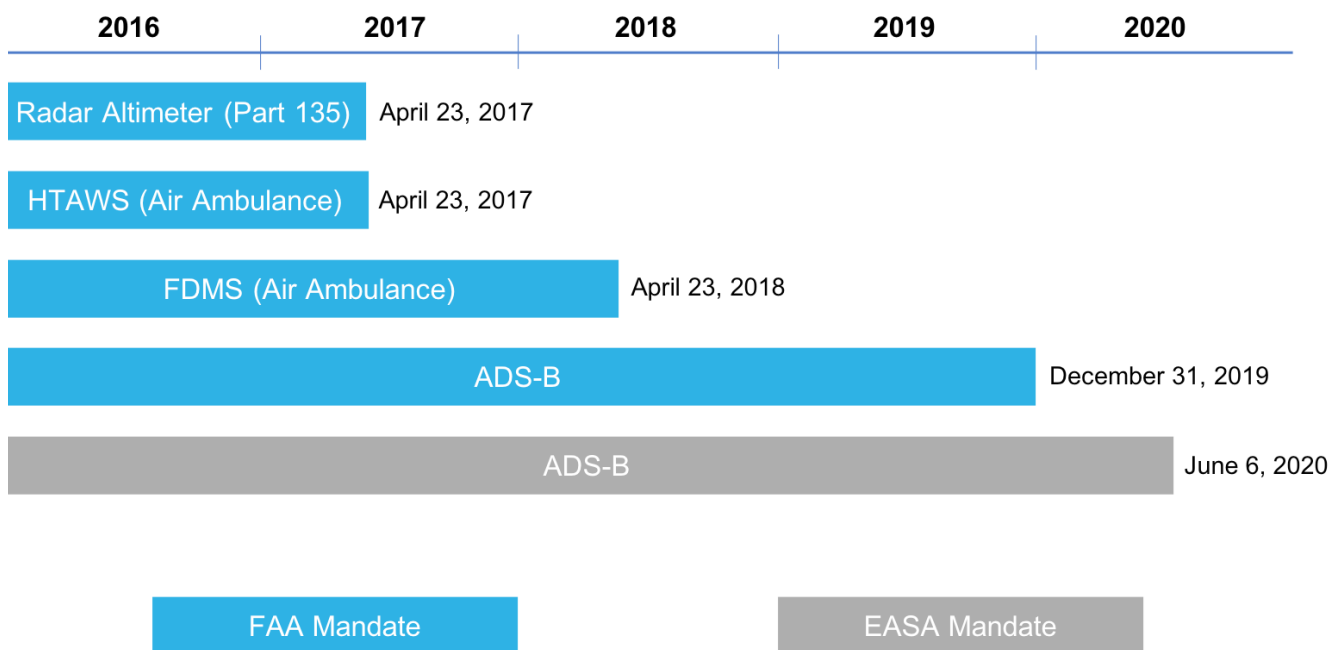
These new regulations and mandates are aimed at all aspects of helicopter operation—from flight rules and communication to training, and from safety equipment to mission-specific requirements.

There are two main types of mandates the helicopter operator needs to satisfy:

- **Safety-related mandates**
- **NextGen airspace modernization-related mandates**

Below is an overview of mandates that have or will affect helicopter operators between 2016–2020.

Noncompliance to the mandates is not an option for an operator as it will severely limit the helicopter operation leading up to the grounding of the aircraft.



Noncompliance to mandates will severely limit a helicopter's operations, leading to the aircraft's grounding

Safety-Related Mandates

Safety-related mandates require specific equipment to be installed on helicopters and are usually geared to a class of operators: two recent examples are the radar altimeter mandate—required by April 23, 2017—where all Part 135 helicopter operators had to install approved radar altimeters or devices that incorporates one; and the Helicopter Terrain Awareness and Warning System (HTAWS) mandate—required by April 23, 2017—where all Helicopter Emergency Medical Services (HEMS) operators had to install HTAWS systems.

Another mandate for all Part 135 helicopters concerns the development of effective training programs to prepare cockpit crews for brownout, whiteout, and flat-light conditions. Modern avionics tools like synthetic vision can facilitate the compliance and rollout of these additional crew proficiency regulations.

By April 23, 2018, a safety-related mandate will require HEMS operators to equip their helicopters with Flight Data Monitoring Systems (FDMS).

NextGen Airspace

Modernization-Related Mandates

Aviation regulatory agencies are introducing new regulations to improve the efficiency of the airspace and prepare for the forecasted growth in air traffic. The Federal Aviation Administration (FAA), European Aviation Safety Agency (EASA), and several other aviation regulatory agencies worldwide are introducing Automatic Dependent Surveillance-Broadcast (ADS-B), a next-generation, GPS-based system that will supplement and—in some situations—replace ground-based radars.

As of December 31, 2019, all helicopters operating in the following U.S. airspace will have to be equipped with ADS-B Out:

- **Class A airspace** (18,000 feet and higher)
- **Class B airspace** (from the ground up within the “Mode C ring”)
- **Class C airspace** (from the ground up)
- **Flying above 10,000 feet and below 18,000 feet in the contiguous U.S.**
- **Flying at or above 3,000 feet over the Gulf of Mexico**

Europe will require all helicopters operating under Instrument Flight Rules (IFR) to be ADS-B Out equipped by June 6, 2020.

The Astronautics Solution

Astronautics’ RoadRunner™ EFI and AFD 6800 family of displays provide an integrated HTAWS system, synthetic vision, and display ADS-B Out symbology as well as interface with selected radar altimeters. Astronautics products deliver state-of-the-art technology and allow helicopter operators to meet mandates with reduced downtime and easy installation.