Chapter 736 Newsletter for February 2017

Trump Executive Order on Regulations Means Potentially Big Changes for the FARs

A White House directive requiring federal agencies to eliminate two existing regulations for every new regulation could require a major overhaul of the Federal Aviation Regulations.

When President Donald Trump in his first days in office made good on a campaign promise to cut red tape by eliminating unnecessary regulations, workers at federal agencies knew they'd suddenly be very busy. Perhaps nowhere was this more true than at the FAA, where the enactment of new rules in the near future would seem to require a top-down review of the Federal Aviation Regulations aimed at combining, rewriting and eliminating rules already on the books.

Ironically, many of the new rules the FAA is about to introduce — for BasicMed third-class medical reform, the Part 23 rewrite and those dealing with operational credit for use of infrared enhanced-vision systems, to name a few — are aimed at reducing regulatory bureaucracy and benefiting pilots and aircraft operators. It's unclear at this point whether the president's executive order and a temporary freeze he has put on new regulations will lead to delays in enacting BasicMed or the Part 23 rewrite, but what we do know is the FAA will have its hands full trying to determine which regulations to jettison to make way for new ones.

The good news is that the Federal Aviation Regulations are rife with duplication and rules that are no longer necessary. The FAA through its history has preferred to tackle regulatory issues by heaping new rules on top of old ones, in many cases without regard for regulations that came before.

BasicMed and the Part 23 rewrite are special cases, however, since these reforms were ordered by Congress. With the confirmation of incoming Transportation Secretary Elaine Chao, the Department of Transportation and FAA can begin the task of determining how they proceed with the enactment of these mandated reforms while satisfying the requirements of the Trump Administration's executive order.

New NASA air traffic control tech aims for flight efficiency

NASA and the FAA are conducting trail flights to test new air traffic control technology this week around Grant County International Airport in Washington state.

The project aims at overall flight efficiency. The flights testing the plane-guiding technology is one leg of the $35-billion NextGen national aviation revamp underway, according to Wired.
More: DJI teams up with world's biggest model aviation group for new programs

The plan is to restructure everything from "preflight prep to arrival, introducing modern planning software, digital instead of voice communication, and GPS-based position-reporting over imprecise radar-based tracking" by 2030.

NASA and the FAA dubbed the air traffic control tests ATD-1, which stands for Air Traffic Management Technology Demonstration-1. Wired reports that "a Boeing 757, a Honeywell business jet, and a Boeing 737" will utilize the plane-guiding tech around the Grant County International Airport so that researches can make an assessment of the technology's productivity. The current air traffic control system talks pilots through the landing process while using radar data. NASA project manager Leighton Quon said that because radar data is flawed and voice communication causes delays, more space between airplanes is required.

The new system will speed up communications, add more space for airplane flight patterns, and sharpen tracking precision. It will also save fuel and improve flight arrival times.

"The core of the new system is an on-board GPS receiver and data transmitter known as ADS-B, which can broadcast an aircraft's position to other aircraft and ground controllers with far greater precision than radar. The setup, already on many business and private aircraft, will be required on commercial airplanes by 2020, mostly to communicate their positions to nearby aircraft, as a safety measure. Folding in the approach management element, Quon says, is a bonus," reports Wired.

The FAA reports it has spent $7.5 billion on the NextGen air traffic modernization program over the past seven years.

"That investment has resulted in $2.7 billion in benefits to passengers and the airlines to date, and is expected to yield more than $160 billion in benefits through 2030," the FAA stated in a recent press release.

A company that detects and disarms drones engaging in illegal activity just raised $15mill.

Consumer-grade drones pose an enormous security risk. And as more people buy into thetechnology, law enforcement worldwide has been exploring ways to take them down, from eagles that snag drones in midair to net-wielding drones that can capture unwanted aircraft.

San Francisco-based anti-drone company Dedrone announced Monday that it has raised $15 million in its Series B funding round led by Felicis Ventures and by John Chambers, the executive chairman of Cisco.

At the recent meeting of the World Economic Forum in Davos this year, Swiss police used a drone detection system made by the Dedrone to detect and disarm unpermitted unmanned aircraft.
Off-the-shelf drones have been used to carry drugs into prisons. A drone in Iraq was strapped with a bomb to turn it into an unmanned kamikaze robot. They've been used to spy on neighbors. Cross borders. The list goes on.

Over 670,000 drones were registered in the U.S. alone last year, according to the FAA.

"Our biggest amount of customers are in data centers," said Jörg Lamprecht, CEO of Dedrone. "You can use drones to hack into networks. You can equip a drone with snooping devices to steal data. Or you can fly a drone into the facility's air conditioner on the rooftop, which would cause the data center to quickly overheat and break down."

Dedrone has built what is essentially a library of nearly every type of off-the-shelf drone for sale in the world, which it uses to identify and locate aircraft from up to three quarters of a mile away using sensors installed around the vicinity of the area aiming to be protected. The company can then tell the drone's make and model and analyze whether it's carrying a malicious payload.

Then the company can deploy a signal jammer to cause the drone to lose radio contact with its remote operator and make the drone come down or travel to its starting point. Dedrone's signal jamming is only available to law enforcement, embassies and other state actors, since the amount of disturbance it causes to other radio signals can be dangerous to other devices that depend on radio communication.

Every single one of Dedrone's customers has had to use their detection system within seven days of installation; a minimum of 10 drones are detected or disarmed a day with Dedrone, says Lamprecht.

With the new funding, Dedrone plans to increase its global sales team and try to do more business with military clients. Fifty weaponized off-the-shelf drones a day cross over into military bases in Iraq and Afghanistan alone, according to Lamprecht.

The company's anti-drone technology was also used by local law enforcement to protect the airspace during the first presidential debate in September last year.