

ROTARY WING NEWSLETTER March 2024 | Volume XXIV | Issue III

# **SAFETY**WIRE



SAFO 24002: **USHST**—Monthly Safety Manager's **Dangerous Laser** What's Happening Recognizing **Corner: Manage**with FAA Commercial Safety Report Strikes Increase to and Mitigating ment Reviews (FEB) **Highest Numbers Drone Regulation -GPS/GNSS** Winter 2024 **Disruptions** Page 1 Page 9 Page 2 Page 5 Page 7



### **Dangerous Laser Strikes Increase to Highest Numbers**

(Source: FAA January 31, 2024)

**WASHINGTON** -- Dangerous laser strikes <u>topped all previous records</u> in 2023. The Federal Aviation Administration (FAA) received 13,304 reports from pilots last year, a 41 percent increase over 2022.



Shining a laser at an aircraft is a serious safety threat. Many types of high-powered lasers can incapacitate pilots, many of whom are flying airplanes with hundreds of passengers. Pilots have reported 313 injuries since the FAA began recording data on laser strikes in 2010.

"The FAA is committed to maintaining the safest air transportation system in the world. Aiming a laser at an aircraft is a serious safety hazard that puts everyone on the plane and on the ground at risk," said <u>FAA Administrator Michael Whitaker</u>.

People who shine lasers at aircraft face FAA fines of up to \$11,000 per violation and up to \$30,800 for multiple laser incidents. Violators can also face criminal penalties from federal, state and local law enforcement agencies.

"Like many crimes, there's a need for education, outreach, and cooperation from the public to address this safety risk. We encourage you to report laser strikes to the FAA via our website or to your local law enforcement agency," said Whitaker.

To identify laser-strike trends, the FAA's <u>visualization tool</u> shows laser-strike data from 2010 to 2023 and highlights trends by geographic area, per capita data, time of day and year. The FAA shares the information to draw attention to the dangerously high rate.



<u>Laser report data by year</u> can also be downloaded on the FAA's website.

The FAA strongly encourages the public to <u>report laser strikes</u> to the FAA and local law enforcement agencies.

Please watch our <u>video</u> about the dangers of lasers, visit our <u>website</u> and read our <u>fact</u> <u>sheet</u> for more information on laser strikes.











Safety Alert for Operators

SAFO 24002 DATE: 01/25/24

## Recognizing and Mitigating Global Positioning System (GPS) / Global Navigation Satellite System (GNSS) Disruptions.

(Source: FAA SAFO: 24002; January 31, 2024)

**Subject:** Recognizing and Mitigating Global Positioning System (GPS) / Global Navigation Satellite System (GNSS) Disruptions.

Flight Standards Service Washington, DC **Purpose:** This SAFO provides information and guidance to operators and manufacturers regarding operations in a GPS/GNSS disrupted environment.

**Background:** Recent GPS/GNSS jamming and spoofing activities reported by civil air operators operating globally pose a potential safety of flight risk to civil aviation. GPS/GNSS disruptions often occur in and around conflict zones, military operations areas, and areas of counter unmanned air-craft systems (UAS) protection. The term GNSS includes satellite augmentation systems.

The recent jamming and spoofing incidents may pose increased safety of flight risks due to possible loss of situational awareness and increased pilot and regional Air Traffic Control (ATC) work-load issues. Due to the increasing frequency of GPS/GNSS disruptions, the Federal Aviation Administration (FAA) recommends flightcrews put additional emphasis on closely monitoring aircraft equipment performance for any discrepancies or anomalies, promptly informing ATC of any apparent GPS/GNSS degradation, and being prepared to operate without GPS/GNSS navigation systems.

**Discussion:** The effects of GPS/GNSS jamming and/or spoofing have been observed by crews in various phases of flight. In some cases, these effects led to re-routing or diversions, due to the inability to perform safe instrument procedures. The magnitude of the issues generated by these disruptions would depend upon the impacted area, the duration of the event, type of aircraft, type of avionics, and the phase of flight of the affected aircraft. To improve analysis and dissemination of these issues, the FAA stresses the need for "real time" pilot reporting to ATC and the use of the Pilot Reporting site, <u>Report a GPS Anomaly | Federal Aviation Administration</u>, (<u>https://www.faa.gov/air\_traffic/nas/gps\_reports</u>) for reporting of GPS/GNSS anomalies, to enable tracking and mitigation. Safety impacts should be reported through normal safety channels.

Aircraft operators should be aware of impacts to their specific aircraft systems identified by Original Equipment Manufacturers (OEMs). Manufacturers, operators, and ATC should be aware of the general impacts of GPS/GNSS interference, jamming, and spoofing. such as:









- Inability to use GPS/GNSS for navigation;
- Inability to use hybrid GPS/GNSS inertial systems for navigation;
- Loss of area navigation (RNAV) capability, to include required navigation performance (RNP);
- Unreliable triggering of Terrain Avoidance and Warning systems (TAWS);
- Inaccurate aircraft position on navigation display (e.g. moving map and electronic flight bag);
- Loss of or erroneous Automatic Dependent Surveillance-Broadcast (ADS-B) outputs;
- Unanticipated effects to use of conventional navigation aids (e.g. inability to autotune);
- Unanticipated position-dependent flight management system effects (e.g. insufficient fuel indication)
- Failure or degradation of Air Traffic Management (ATM) infrastructure and its associated systems reliant on GPS/GNSS, resulting in potential airspace infringements and/or route deviations.



**U.S. Department** 

of Transportation

**Federal Aviation** 

Administration

**Recommended Action:** Prior to departure, operators should be aware of potential risk locations, check for any relevant Notices to Air Missions (NOTAMs), plan fuel contingencies, and research alternative conventional arrival/approach procedures at the destination and all alternate airports. When available, operators should plan to use conventional Navigational Aids (NAVAIDs) in these locations. The FAA recommends that each operator follow the detailed guidance from their respective OEM.

During flight, the FAA recommends operators:

- 1. Be vigilant for any indication that the aircraft's GPS/GNSS is being disrupted by reviewing the manufacturer's guidance for that specific aircraft type and avionics equipage. Verify the aircraft position by means of conventional NAVAIDs, when available. Indications of disruption may include:
  - Changes in actual navigation performance
  - Aircraft clock changes (e.g., incorrect time)
  - Incorrect Flight Management System (FMS) position
  - Large shift in displayed GPS/GNSS position
  - Primary flight display (PFD)/navigation display (ND) warnings about position error
  - Other aircraft reporting clock issues, position errors, or requesting vectors











- 2. Assess operational risks and limitations linked to the loss of GPS/GNSS capability, including any on-board systems requiring inputs from a GPS/GNSS signal.
- 3. Ensure NAVAIDs critical to the operation for the intended route/approach are available.
- 4. Remain prepared to revert to conventional instrument flight procedures.
- 5. Promptly report disruption to ATC, followed by a detailed written report post flight at: <u>Report a</u> <u>GPS Anomaly | Federal Aviation Administration</u> and through normal safety channels when safety effects are encountered.

**Contact:** Direct questions or comments regarding this SAFO to the Flight Technologies and Procedures Division, Flight Operations Group at (202) 267-8790 or e-mail: <u>9-AWA-AVS-</u> <u>AFS410@faa.gov</u>.

#### http://www.faa.gov/other visit/aviation industry/airline operators/airline safety/safo/all safos

A SAFO contains important safety information and may include recommended action. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.









# What's Happening with FAA Commercial Drone Regulation - Winter 2024

(Source: João Antunes, Commercial UAV News; February 22, 2024)

As the drone industry continues to grow, so do the rules and regulations revolving around drones—a paramount concern for aviation authorities worldwide. In this article, and as we delve into the winter of 2024, we would like to highlight pivot-al developments, challenges, and implications shaping the landscape of commercial drone regulation from the FAA.



#### Postponing The Remote ID Mandate

FAA's Remote ID rule provides identification and location information for every drone and broadcasts it to other parties. The objective is to lay the foundation of the safety and security groundwork needed for more complex drone operations and help the FAA, law enforcement, and other federal agencies locate the control station when a drone appears to be flying in an unsafe manner or where it is not allowed to fly.

Late last year, right before the <u>Remote ID rule</u> would go into effect, the FAA announced a sixmonth extension, due to "unanticipated issues that some operators are experiencing finding some remote identification broadcast modules." While the FAA expects pilots to comply with the initial September 16, 2023, date, they understand "that some drone pilots may not be able to comply because of limited availability of broadcast modules and lack of approved FAA-Recognized Identification Areas." For that reason, only after March 2024 and in those cases, "the FAA will consider all factors in determining whether to take enforcement action."

To get Remote ID ready, drone pilots can Operate Standard Remote ID drones, buy a Remote ID broadcast module and attach it to a drone, or fly within FAA-recognized identification areas, sponsored by community-based organizations (CBOs), or educational institutions without Remote ID equipment.

#### **Reintroducing the American Security Drone Act**

In late 2023, Congress announced the approval of the 2024 National Defense Authorization Act (NDAA), which reintroduced the <u>American Security Drone Act</u>. According to Rep. Rob Wittman, this act "will promote American superiority and competitiveness within the drone market, protect against IP theft and data security violations by the Chinese Communist Party, and fortify our national security."











The Act prohibits federal departments and agencies from operating or procuring any covered unmanned aircraft system manufactured or assembled by covered foreign entities, including PRCbased drone manufacturers. Additionally, it also prohibits the use of federal funds awarded through contracts, grants, or cooperative agreements to purchase covered unmanned aircraft systems.

#### The Release of the Final ARC Report

In January 2024, the FAA released <u>the final report</u> of the UAS Detection and Mitigating Systems Aviation Rulemaking Committee (ARC). Divided into several working groups and subgroups, the ARC is composed of representatives from the manned and unmanned aviation communities, government entities, various subject matter experts, and other stakeholders.

Having begun its work in May 2023, the ARC's primary focus is on developing the best recommendations with as much consensus as possible regarding the safety of the NAS. From concerns surrounding legal authorities and constraints, near-real-time ability to share data and to identify verified operators, to communication plans, and the establishment of safety standards, the ARC claims the recommendations in this report "are intended to provide a framework of actions and policies to promote safe and widespread adoption of UAS D/M systems that does not adversely impact or interfere with the safe and efficient operation of the NAS."

#### The Reauthorization Act of 2023

Approved by the Committee on Commerce, Science, and Transportation in February 2024, the <u>Reauthorization Act of 2023</u> sets out to improve aviation safety and consumer protections that Americans have been demanding. It includes several provisions to strengthen safety standards and oversight at the FAA and respond to safety concerns from recent aviation accidents and near-misses.

As part of the more than \$107 billion authorized in appropriations for the FAA for fiscal years 2024 through 2028, the bill requires the FAA to create new standards and drone-related goals:

- Facilitate commercial use of drones by establishing a pathway for BVLOS operations and creating two additional test sites for companies to use drones for package delivery or other operations.
- Extending the BEYOND program for five more years.
- Expanding FAA research to safely integrate unmanned aircraft systems and advanced air mobility into the national airspace system.









USHST United States								
Monthly Safety Report February 2024   The USHST is a regional partner to the Vertical Aviation Safety Team (VAST).   USHST GOAL: Reduce the 5 year average fatal US helicopter accident rate to 0.55 fatal accidents per 100K hrs by 2025   USHST Vision: A Civil Helicopter Community with Zero Fatal Accidents								
<b>N</b>	Metric	2020	2020 - 2024			2019 - 2023		
	Avg Fatal Acc Rate	(	0.67			0.69		
	Avg Accident Rate	3	3.86			3.91		
/ (the l	Year To Date	Curr (C	Current Year (CY24)			Previous Year (CY23)		
<u></u>	Fatal Accidents		1			0		
	Accidents		4			2		
S	Fatalities		3		0			
Average number of days between <u>fatal</u> accidents: 2020: 18 days 2021: 17 days 2022: 21 days 2022: 21 days 2022: 21 days 2022: 19 days 2024: 20 days Longest time between <u>fatal</u> accidents (past 5 yrs):						0.55 USHST End Goal, 5 Yr awg 2020-2024		
107 days (2020) Fatal Accident Counter								
Each year the U.S. helicopter industry safely flies approx. 3 million flight hours and <u>every</u> second of <u>every</u> flight must be handled with professionalism.						56 Secs		





















# SAFETY MANAGER'S CORNER

## **Management Reviews**

One of the more vital characteristics of an effective SMS is the emphasis on senior management's commitment to operational safety. A major responsibility of the accountable executive is to lead a management review process that is focused on the assessment of the various management systems with the enterprise (an important part of any continuous improvement process). The objective of this consistently recurring evaluation is to verify that each of the component operation systems is operating to meet expectations in terms of performance, productivity, cost control, customer satisfaction and safety. In addition, the management review must include well-defined change management processes, so that intelligence gained from analysis and assessment can be applied to decrease operational risk. The review should be conducted annually and its format is entirely at the discretion of the accountable executive. The management review report will be maintained by the accountable executive, who will also approve access.

The following is a list of items that may be addressed during a management review:

- Results of safety risk assessments
- Results of audits, inspections and investigations
- Safety performance results (metrics)
- Operational feedback
- Changes in regulatory policy or civil aviation legislation
- Process performance and organizational conformity
- · Status of corrective and preventive actions
- Follow-up actions from previous management reviews
- Feedback and recommendations for management system improvement
- Regulatory violations
- Emergency response drill results

The safety manager can greatly assist this review by providing data derived from the safety management system to highlight the operation's safety performance and create a total risk picture. No organization or system is ever perfect and a thorough and disciplined review process will undoubtedly facilitate improvement.











# **Quote of the Month**

#### "Live as if you were to die tomorrow. Learn as if you were to live forever."

— Mahatma Gandhi



The "carpe diem" portion of Gandhi's statement belongs among the more frequently used life advice themes but the second sentence deserves equal attention. We should never stand pat mentally, believing there is nothing left to learn. Subjects from technical to biological constantly evolve and we must stay informed of those things that affect us in a significant manner. The constant quest for learning also creates an awareness attitude; you keenly observe the things around you because you want to understand in great detail how they function and why they work, or don't work. A learning approach demands questions and questions lead directly to knowledge and indirectly to self-improvement. And guess where self-improvement leads: it makes your flight operation better. When every employee constantly increases knowledge and improves awareness the benefits spread profusely with a resulting positive effect for everyone involved. That's something we should all learn.



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Page | 10





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### **UPCOMING COURSES**

May 13 to May 17, 2024—PROS Course ALAT Training Denver, CO

August 26 to August 30, 2024—PROS Course ALAT Training Denver, CO

September 24 to September 26, 2024—PRISM Course Safety Management System (SMS) Denver, CO

November 11 to November 15, 2024—PROS Course ALAT Training Denver, CO

Go to Upcoming Training Classes to register.



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**# PRISM PREFERS** 

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Page | 11



