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SAFETYWIRE

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Dangerous Laser Strikes Increase to Highest Numbers

(Source: FAA January 31, 2024)

WASHINGTON -- Dangerous laser strikes topped all previous records 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 FAA Administrator Michael Whitaker.

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 visualization tool 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.

Laser report data by year can also be downloaded on the FAA’s website.

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

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

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SAFO

Safety Alert for Operators

SAFO 24002
DATE: 01/25/24

Flight Standards Service
Washington, DC

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.

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 aircraft 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) workload 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, Report a GPS Anomaly | Federal Aviation Administration, (https://www.faa.gov/air_traffic/nas/gps_reports) 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:

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- 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

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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: Report a GPS Anomaly | Federal Aviation Administration 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: 9-AWA-AVS-AFS410@faa.gov.

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.

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Know Before You Go – Make a Safe Landing with Arrival Alert Notices

(Source: FAA; February 27, 2024)

Continuing its efforts to improve safety on the nation's runways, the FAA is informing pilots of an easily accessible safety tool called Arrival Alert Notice (AAN). AAN is a planning and awareness tool to help pilots avoid lining up to land on a wrong taxiway, runway or airport.

"This add-on to our From the Flight Deck series is one of the many proactive steps we are taking to address runway safety and help pilots remain vigilant," said Jeffrey Planty, vice president for FAA Safety & Technical Training.

General Aviation pilots account for 83 percent of wrong-surface events, with commercial pilots making up the remainder. As part of pre-flight planning, a pilot can access the tool, pull up a map of a select airport, and get an aerial view of the airport's surface and other important safety information.

In 2022, the FAA began testing the tool and found AANs to be effective in mitigating risks associated with wrong-surface landings. Learn more about AAN and view a map of available locations here. See the Arrival Alert Notice From the Flight Deck video and fact sheet (see below).

Arrival Alert Notices (AAN) Facts

What is happening?

Aircraft are misaligning to wrong runway or even a taxiway and sometimes the wrong airport. To address these wrong surface events, the FAA released the Arrival Alert Notices (AAN) at several airports with a history of misalignment risk. AANs provide a graphic visually depicting the approach to a particular airport with a history of misalignment risk. There is also language describing the misalignment risk area.

Why is this happening?

Wrong surface events continue to be a focus area for the FAA as they can present a significant safety risk. The FAA has taken a number of steps to address wrong surface events but there is still a need to provide a more permanent awareness of these events, especially to general aviation pilots, who comprise 83 percent of wrong surface events. The remaining percentage is pilots operating commercially. Many wrong surface events occur during the daytime and in visual meteorological conditions, and the majority of the time, the pilot has read back the correct landing clearance. AANs can serve as an additional planning and awareness tool for pilots.

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Which airports have AANs?

Below is a list of the current airports that have AANs.

- Boise Airport (BOI), Boise, ID
- Buchanan Field Airport (CCR), Concord, CA
- Capital Region International Airport (LAN), Lansing, MI
- Centennial Airport (APA), Englewood, CO
- Chandler Municipal Airport (CHD), Chandler, AZ
- Chicago Executive Airport (PWK), Chicago, IL
- Chino Airport (CNO), Chino, CA
- Daniel K. Inouye International Airport (HNL), Honolulu, HI
- Deer Valley Airport (DVT), Phoenix, AZ
- Dekalb Peachtree Airport (PDK), Atlanta, GA
- DuPage Airport (DPA), West Chicago, IL
- El Paso International Airport (ELP), El Paso, TX
- Falcon Field (FFZ), Maricopa, AZ
- Flying Cloud Airport (FCM), Eden Prairie, MN
- Fort Worth Meachum (FTW), Ft. Worth, TX
- Frederick Douglass/Greater Rochester International Airport (ROC), Rochester, NY
- Fresno Yosemite International Airport (FAT), Fresno, CA
- Henderson Executive Airport (HND), Las Vegas, NV
- Idaho Falls Regional Airport (IDA), Idaho Falls, ID

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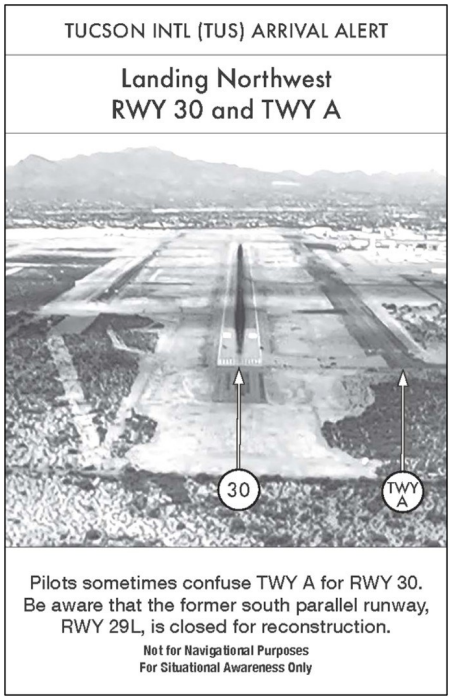
- King County International Airport (BFI), Boeing Field, WA
- Laurence G. Hanscom Field (BED), Bedford, MA
- Lincoln Airport (LNK), Lincoln, NE
- Livermore Municipal (LVK), Livermore, CA
- McKinney National Airport (TKI), Dallas, TX
- Miami-Opa Locka Executive Airport (OPF), Miami, FL
- Monterey Regional Airport (MRY), Monterey, CA
- North Las Vegas Airport (VGT), Las Vegas, NV
- Oakland County International Airport (PTK), Pontiac, MI
- Palm Beach International Airport (PBI), West Palm Beach, FL
- Palm Springs International Airport (PSP), Palm Springs, CA
- Phoenix-Mesa Gateway Airport (IWA), Mesa, AZ
- Portland-Hillsboro Airport (HIO), Portland, OR
- Reid-Hillview Airport of Santa Clara County (RHV), San Jose, CA
- Reno/Tahoe International Airport (RNO), Reno, NV
- Rocky Mountain Metro Airport (BJC), Broomfield, CO
- Salt Lake City International Airport (SLC), Salt Lake City, UT
- Snohomish County Airport (Paine Field) (PAE), Everett, WA
- Tucson International Airport (TUS), Tucson, AZ
- University of Illinois/Willard Airport (CMI), Champaign/Urbana, IL
- Van Nuys Airport (VNY), Van Nuys, CA



Sample Arrival Alert Notice for Tucson International Airport (TUS).

When will the AANs be available?

Several AANs were released in the May 19, 2022 charting cycle. Additional and updated AANs were released in the January 25, 2024 charting cycle. Access digital aeronautical charts here.

For inquiries or feedback and comments contact 9-awa-RunwaySafety@faa.gov

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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.

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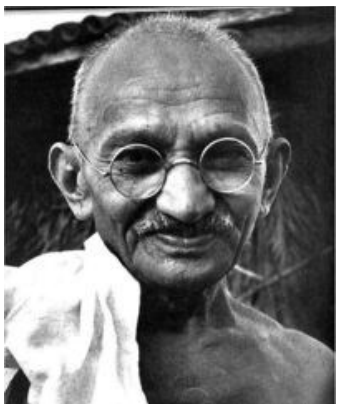
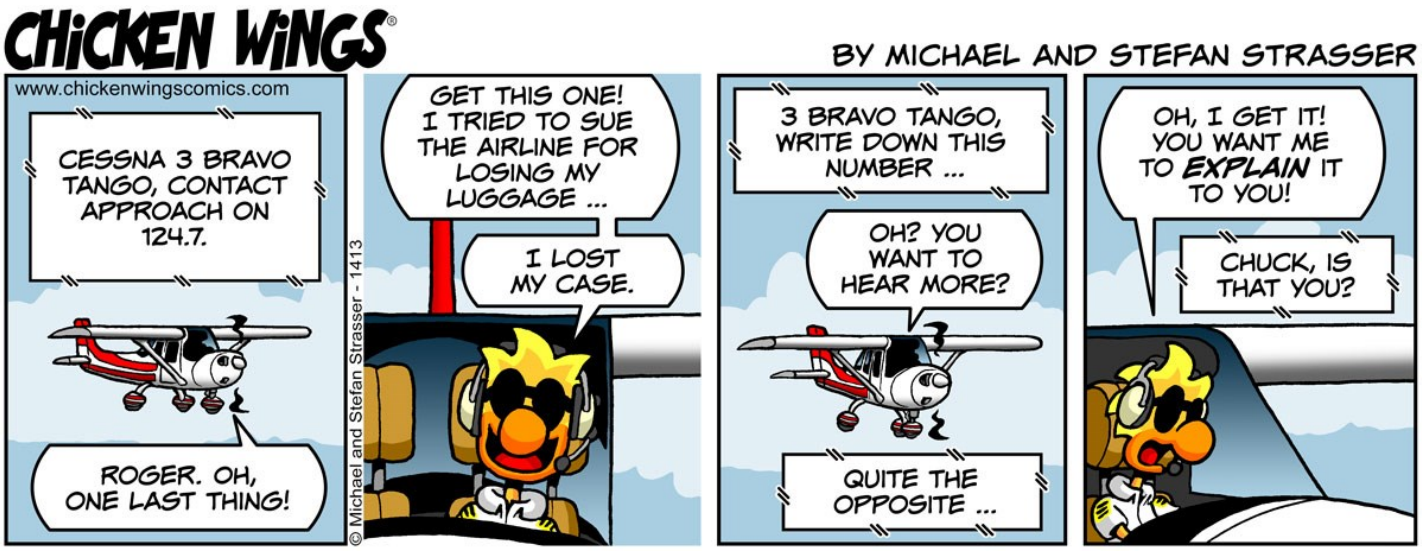
Quote of the Month

“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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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.