



The

Safety

Wire

February 2021

It's frustrating

I'm looking through the NTSB final report on the S-76 crash a year ago that killed nine people. Nobody in the business was surprised to hear the crash was related to inadvertent (or unintentional) flight into instrument meteorological conditions (IIMC). The frustrating part is the familiarity of the tragedy. While I admit I haven't quite made it



through the 1,000 pages of the report, there is so far nothing really unique about the accident that I have read. There is a link at the bottom of this newsletter to the NTSB docket.

The disturbing similarities are not isolated to IIMC. Accident reports attributed to loss of control and/or human factors seem to be cut

and paste over and over with minor changes in names or locations. Training accident reports are even worse, especially with the standard probable cause statement, "the flight instructor's failure to intervene in a timely manner," or something to that effect in nearly every report.

We often react to big stories such as the Kobe Bryant helicopter crash with a push for more awareness. I'm willing to bet if you are reading this and work as aircrew in a public safety aircraft, you have heard that IIMC is dangerous. You have probably also heard advice on making go/no go decisions to avoid it, landing the aircraft or committing to IMC (if legal, proficient and current), responding as an aircrew, setting Enroute Decision Points, etc., etc.

While there is certainly a need for continued outreach and education, it does us no good if we, as operators, do not do something about it. We must each accept that there is a risk to our own safety and reject the idea that these issues are other people's problems. We must refuse to surrender our safety to luck, or regulators or upper



management, and take ownership of our safety. Each of us must decide to use this information now instead of waiting for a problem to present itself.

We all know what the threats to our safety are. What are you prepared to do about it? If you are not sure, APSA has resources for you to access and put into play...today. We are here to help you put knowledge into action, and we look forward to hearing from you.

*"Not change, but growth.
Growth embraces the old but moves it forward."*

*~ Capt. Mitchell Morrison
USCG*

Annual Safety Survey

It is time again for the annual APSA Safety Survey. We need your participation so we can get a clear picture of the hazards and risks in our industry. The survey is completely anonymous, and the information helps APSA develop the training and safety resources our members need to keep our operations as safe as possible. A summary of the results will later be published in this newsletter. The survey will be open through March 19, 2021.

<https://www.surveymonkey.com/r/Q9YLGKH>

Practical SMS

It is the beginning of the year. If you have not done so already, set your 2021 SMS Safety Goals and Objectives. Remember, goals are the point on the horizon and objectives are the measurable steps in the pathway to each goal. For example, if you are going to increase training as a goal, then your objectives may be to have 'X' type of training done quarterly, 'Y' training started up as a new program, and 'Z' training conducted every month by the individual unit members as independent work.



I recommend having at least three goals with three objectives for each goal. During your quarterly Safety Committee meetings, you can revisit these goals to keep your program on track. To really tie your efforts together into a functioning safety 'system', the goals can be tied to active hazards being addressed by the program, concerns raised from annual safety surveys, or issues identified from FRAT data.

ONLINE MEETINGS

APSA conducts regularly scheduled online meetings for safety officers, maintenance technicians, SAR personnel, and UAS operators via a conference call you can join using your computer, mobile device or phone. Online meetings are open to any APSA member. Contract maintenance providers to APSA members are welcome to participate

in the maintenance meeting as well. If you would like to join, send an email to:
safety@publicsafetyaviation.org

The schedule for upcoming APSA online meetings is as follows.



UAS:

Wednesday, March 3, 2021
1:00 PM - 2:00 PM EST (1800 UTC)

Safety Officers:

Friday, March 19, 2021
1:00 PM – 2:00 PM EDT (1700 UTC)

Natural Resource Officers:

Wednesday, Mar 31, 2021
1:00 PM – 2:00 PM EDT (1700 UTC)

Maintenance:

Wednesday, April 7, 2021
1:00 PM - 2:00 PM EDT (1700 UTC)

SAR:

Wednesday, April 28, 2021
1:00 PM – 2:00 PM EDT (1700 UTC)

*"Change is hard because people overestimate the value of what they have,
and underestimate the value of what they may gain by giving it up."*

*~ Belasco & Stayer
Flight of the Buffalo*

EMERGENCY PROCEDURE OF THE MONTH

In each monthly emergency situation, discuss what you would do, as a crew, to respond to the following emergency. If the EP does not apply to your specific aircraft, think of something similar.

Unidentified UAS flying near where you are flying a mission in a manned aircraft, or vice-versa for UAS operators.

RESOURCES

56 Seconds to Live – IIMC Video

<https://www.youtube.com/watch?v=ERUveRF7xC4>

UHSHT

<https://ushst.org>

NASA ASRS Safety Newsletter – Loss of Control

https://asrs.arc.nasa.gov/docs/cb/cb_493.pdf

Police Aviation News

<http://www.policeaviationnews.com/Acrobat/298February2021PAN.pdf>



REALITY CHECK

Note: The following reports are taken directly from the reporting source and edited for length. The grammatical format and writing style of the reporting source has been retained. My comments are added in *red* where appropriate. The goal of publishing these reports is to learn from these tragic events and not to pass judgment on the persons involved.

Aircraft:

Sikorsky S-76

Injuries:

9 Fatal

NTSB#:

DCA20MA059

<https://data.nts.gov/Docket?NTSBNumber=DCA20MA059>

On January 26, 2020, at 0945 Pacific standard time (PST), a Sikorsky S-76B helicopter, N72EX, collided with hilly terrain near the city of Calabasas, California. The pilot and eight passengers were fatally injured, and the helicopter was destroyed by impact forces and fire. The helicopter was operated as an on-demand passenger visual flight rules (VFR) flight. ATC communications and radar data indicate the flight departed KSNA about 0906 PST. N72EX proceeded to the north-northwest at an altitude of about 700 to 800 feet mean sea level (msl) under visual flight rules (VFR). At 0920, as the aircraft neared the Burbank class C airspace, the pilot requested to transition the area along Highway 101.

The current Burbank weather observation reported instrument flight rules (IFR) conditions. In response to the pilot's request, the air traffic controller advised that cloud tops were reported at 2,400 feet msl and queried the pilot's intentions; the pilot then requested a special VFR clearance. The air traffic controller advised that the pilot would need to hold for a short time due to IFR traffic, which the pilot acknowledged. At 0932, ATC cleared the pilot of N72EX to transition the class C surface area following the I-5 freeway, maintaining special VFR conditions at or below 2,500 feet. The pilot acknowledged with a correct readback and climbed to approximately 1,400 feet msl (600 feet agl). In response to query, the pilot replied to the Burbank ATC that he would follow Highway 118 and "loop around VNY [Van Nuys Airport]" to follow Highway 101. ATC acknowledged and coordinated.



At 0939, as N72EX was passing west of Van Nuys at 1,500 feet msl, the VNY controller asked the pilot if he was in VFR conditions. The pilot replied "VFR conditions, one thousand five hundred," and the VNY controller advised him to contact Southern California Terminal Radar Approach Control (SCT) for radar advisory services. The pilot reported to SCT that the flight was going to Camarillo at 1,500 feet. The SCT controller advised that he would not be able to maintain radar contact at that altitude and terminated services. The SCT controller was subsequently relieved by a different controller. At 0945, the pilot of N72EX again contacted SCT and advised he was climbing above cloud layers and requested advisory services. The second controller was not aware of the aircraft, as services had

previously been terminated, so asked the pilot to identify the flight. The SCT controller then asked the pilot his intentions, to which he replied he was climbing to 4,000 feet. There were no further transmissions.

Radar/ADS-B data indicate the aircraft was climbing along a course aligned with Highway 101 just east of the Las Virgenes exit. Between Las Virgenes and Lost Hills Road, the aircraft reached 2,300 feet msl (approximately 1,500 feet above the highway, which lies below the surrounding terrain) and began a left turn. Eight seconds later, the aircraft began descending and the left turn continued. The descent rate increased to over 4,000 feet per minute (fpm), ground speed reached 160 knots. The last ADS-B target was received at 1,200 feet msl approximately 400 feet southwest of the accident site.



Aircraft:	Airbus AS350B2
Injuries:	4 Fatal
Canada TSB#:	A17O0264

<https://www.bst-tsb.gc.ca/eng/rapports-reports/aviation/2017/a17o0264/a17o0264.html>

An Airbus Helicopters AS 350 B2 helicopter was transporting crews of power line technicians between a staging area and transmission towers. At 1144 Eastern Standard Time, the pilot picked up a crew of 3 power line technicians near the bottom of a tower for a return flight to the staging area. It had become common practice for power line technicians to attach tool bags and other small items to the external platform for flights to and from work sites. In line with this practice, the technicians attached a few items to the platform while boarding the helicopter, and then took their seats in the aft cabin.



The practice of carrying external loads attached to the platform was not a formalized procedure at the company and, as a result, adequate controls were not in place to ensure that these objects were properly stored or secured. Consequently, an empty canvas supply bag with an attached carabiner that was being carried on the platform was not adequately secured before the helicopter departed for the return flight to the staging area.

When the helicopter was 0.26 nautical miles from the staging area, the canvas bag separated from the platform and struck the helicopter's tail rotor, causing

significant damage, severe imbalance, and intense vibration.

Shortly after, while the pilot was attempting to land, the helicopter's tail rotor, tail rotor gearbox, and vertical fin separated from the helicopter. The helicopter became uncontrollable and collided with terrain. The 3 power line technicians were unrestrained and became separated from the helicopter, either slightly before or during the impact, and received fatal injuries from contact with the helicopter or the surrounding terrain. The pilot was fatally injured on impact. The helicopter was destroyed.

Each seat in the aft cabin was equipped with a safety belt that included a detachable shoulder harness; however, the harnesses had been rolled up and taped with electrical tape before the flight, preventing them from being used. In addition to not being able to attach the shoulder harnesses, the technicians involved in this occurrence did not attach their lap straps either, possibly because they perceived the risk on the short flight to be low, or because they found it difficult to attach the lap straps over their cold weather gear.

From 1990 to 2018, the TSB investigated many accidents involving aircraft that were equipped with detachable shoulder harnesses where it was determined that the harnesses were not being worn at the time of the accident. Of the 62 accidents identified, 33 were fatal, resulting in 68 deaths. Of those 68 deaths, 37 were individuals who had not been wearing the available shoulder harness.

*There are no new ways to crash an aircraft...
...but there are new ways to keep them from crashing.*

Bryan 'Mugy' Smith

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