

Lessons from the Ashes: Improving Aviation Safety through Accident Investigation



Robert Sumwalt

April 5, 2018



NTSB.gov



February 23



March 11



March 13



March 15



March 18



March 23

The Board



Earl Weener



Robert Sumwalt



Bella Dinh-Zarr

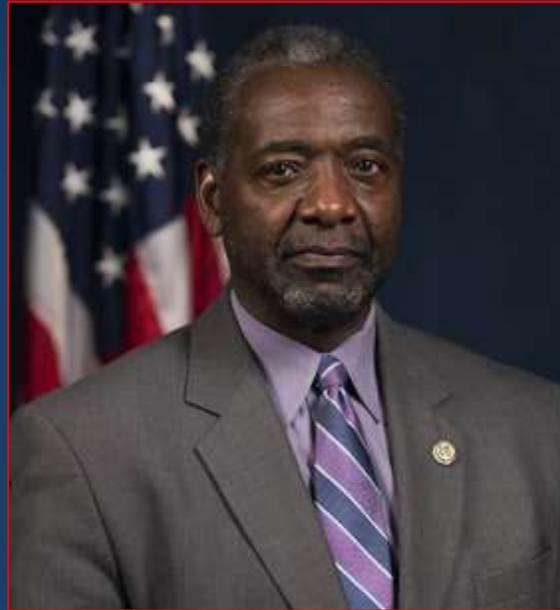


NTSB Executive Officer



Sean Dalton, Esq.

Office of Managing Director



Dennis Jones
Managing Director



Sharon Bryson
Deputy Managing Director

Office of General Counsel



Kathy Silbaugh, Esq.
General Counsel

NTSB Office of Administrative Law Judges



Hon. Steven Woody

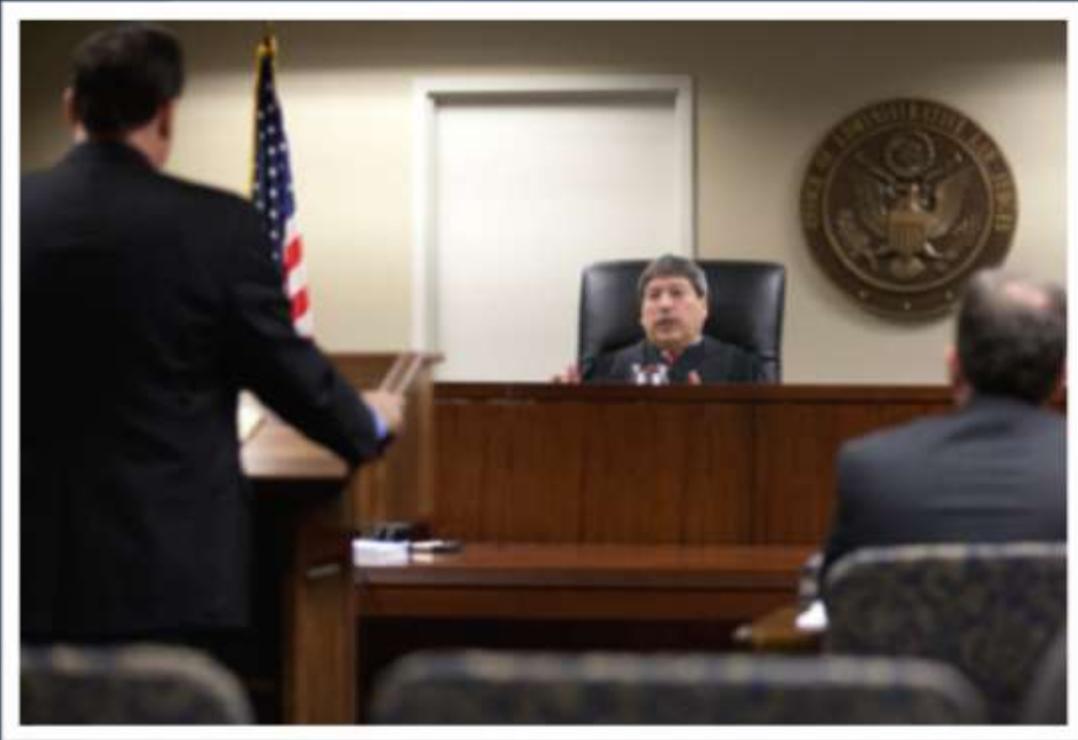


Hon. Alfonso Montano
Chief Judge



Hon. Roger Mullins

2017 Activity



ALJ Office

- 237 new cases received
- 33 hearings
- 44 ALJ decisions
 - 121 emergency cases

Decisions Appealed to the Board

- Issued 17 Opinion & Orders
 - 12 affirmed
 - 0 reversed
 - 2 modified
 - 3 remanded



Office of Aviation Safety - 2017

- 1298 domestic accidents investigated
- Accredited Representative to 164 foreign accident investigations



INTEGRITY

TRANSPARENCY

INDEPENDENCE

EXCELLENCE

Lockhart, TX

July 2016





Passenger smartphone photos



Pilot History

- Multiple arrests, convictions, and imprisonment for drugs possession and distribution, and driving while impaired.
- Diagnosed with “major depression”
- ADHD

Pilot's Medications

- Prescribed 13 medications
 - Many likely not impairing
- Toxicology: 5 likely impairing medications

Three prescription

Cyclobenzaprine, diazepam, oxycodone

Two over-the-counter

Dextromethorphan, diphenhydramine



These air tour operations ...

require this.



UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

BB-4574359
MEDICAL CERTIFICATE, SECOND CLASS
AND STUDENT PILOT CERTIFICATE

THIS CERTIFIES THAT (Full name and address)

JAMES RONALD SMITH
1234 SOUTH STREET
BEACH TOWN, CA 93449

DATE OF BIRTH	HEIGHT	WEIGHT	HAIR	EYES	SEX
07-16-40	76	200	BLACK	BLUE	M

has met the medical standards prescribed in Part 67, Federal Aviation Regulations for this class of Medical Certificate, and the standards prescribed in Part 61 for a Student Pilot Certificate.

STUDENT PILOTS ARE PROHIBITED FROM CARRYING PASSENGERS

DATE OF EXAMINATION: 05-03-96
EXAMINER'S SERIAL NO: MP-05-4321

EXAMINER'S SIGNATURE: *Donald E. Brown, M.D.*
TYPED NAME: DONALD E. BROWN, M.D.
AIRMAN'S SIGNATURE: *James Ronald Smith*

FAA FORM 8000-4 (10-77) SUPER REDESIGN PREVIOUS EDITION

FAA Medical Certificate

But, for commercial air tour balloon operations...

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

BB-4574359

MEDICAL CERTIFICATE THIRD CLASS
AND STUDENT PILOT CERTIFICATE

THIS CERTIFIES THAT (Put name and address)

JAMES RONALD SMITH
1234 SOUTH STREET
BEACH TOWN, CA 93640

DATE OF BIRTH	HEIGHT	WEIGHT	HAIR	EYES	SEX
07-16-40	76	200	BROWN	BLUE	M

has met the medical standards prescribed in Part 67, Federal Aviation Regulations for the issuance of a Medical Certificate, and the standards prescribed in Part 61, Federal Aviation Regulations for the issuance of a Student Pilot Certificate.

STUDENT PILOTS ARE PROHIBITED FROM CARRYING PASSENGERS

EXPIRES: _____

DATE: 05-03-98 EXAMINER'S SERIAL NO: MP-05-4321

EXAMINER'S SIGNATURE: *Donald E. Brown, M.D.*

TYPED NAME: DONALD E. BROWN, M.D.

APPLICANT'S SIGNATURE: *James Ronald Smith*

FAA FORM 8000-2 (10/77) SUPER MODEL PREVIOUS EDITION

No Requirement





Probable Cause

The pilot's pattern of poor decision-making that led to the initial launch, continued flight in fog and above clouds, and descent near or through clouds that decreased the pilot's ability to see and avoid obstacles.

Contributing to the accident were:

- (1) the pilot's impairing medical conditions and medications, and;
- (2) the Federal Aviation Administration's policy to not require a medical certificate for commercial balloon pilots.

NTSB recommendations to FAA:

- Require medical certificates for commercial balloon operators
- Better surveillance and oversight for commercial balloon operators



March 11



National Transportation Safety Board
Washington, DC 20594

Urgent Safety Recommendation Report
Additional Harness Systems that Allow for Rapid Egress

Accident Number: ERA18MA099
Operator: Liberty Helicopters
Aircraft: Airbus Helicopters AS350B2, N350LH
Location: Flushing, NY
Date: March 11, 2018
Adopted: March 19, 2018

The National Transportation Safety Board (NTSB) is providing the following information to urge the Federal Aviation Administration (FAA) to take immediate action on this urgent safety recommendation to ensure that, if a harness system is used for an open-door passenger flight, it allows for rapid egress from the aircraft in the event of an emergency. This recommendation is derived from our ongoing investigation of a fatal accident involving an Airbus Helicopters AS350B2 helicopter, N350LH, that impacted the East River during an autorotation after a loss of engine power, the helicopter subsequently rolled inverted. The NTSB is issuing one urgent safety recommendation to the FAA.

Background and Analysis

On March 11, 2018, about 1908 eastern daylight time, an Airbus Helicopters AS350B2 helicopter, N350LH, was substantially damaged when it impacted the East River during an autorotation after a loss of engine power near New York, New York; the helicopter subsequently rolled inverted. The pilot egressed from the helicopter and sustained minor injuries. Five passengers remained inside the helicopter and were fatally injured. The doors-off aerial photography flight was scheduled for 30 minutes and was operated by Liberty Helicopters under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91. Visual meteorological conditions prevailed, and no flight plan was filed for the flight, which originated from Helo Kenney Heliport, Kenney, New Jersey, about 1500.

The initial investigation into this accident has revealed that the five passengers onboard the helicopter were provided with airframe manufacturer-installed restraints (lap belt/upper body restraint), as well as a harness system that allowed the passengers to move securely within the helicopter and sit in the door sill while airborne.¹ This harness system was not installed by the helicopter manufacturer; it was comprised of off-the-shelf components (a nylon full-protection harness tethered via a lanyard to the helicopter) that were provided to the passengers by FlyNYON,

¹ In this report, "restraint" refers to the manufacturer-installed restraint system, and "harness" refers to the additional system provided by the operator to ensure passengers did not fall out of the helicopter while hovering around.

57913

ASR-18-02

March 19

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900 456

National Policy

Effective Date:
03/23/18

Cancellation Date:
03/23/19

SUBJ: Emergency Order of Prohibition Pertaining to "Doors-Off" Flight Operations for Compensation or Hire

1. Purpose of this Notice. This notice informs inspectors of the issuance of the Emergency Order of Prohibition, Order No. FAA-2018-0243, which prohibits the use of supplemental passenger restraint systems that cannot be released quickly in an emergency during flight operations for compensation or hire with the doors open or removed (hereinafter, "doors-off flights" or "doors-off flight operations"). The order is applicable to operators and pilots who conduct "doors-off" flights for compensation or hire. Additionally, the order prohibits passenger-carrying "doors-off" operations for compensation or hire unless the passengers are at all times properly secured using Federal Aviation Administration (FAA)-approved restraints. The order was effective immediately upon issuance.

2. Audience. The primary audience for this notice is principal inspectors (PI), aviation safety inspectors (ASI), and aviation safety technicians (AST) in Safety Assurance offices. The secondary audience includes Flight Standards Service (FS) branches and divisions in Safety Standards.

3. Where Can I Find This Notice? You can find this notice on the MyFAA employee website at http://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at <http://hams.avis.faa.gov>. Operators can find this notice on the FAA's website at <http://hams.faa.gov>. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. Background. Based on the reliable and credible information derived from an initial investigation into a fatal March 11, 2018 helicopter accident in the East River near New York City, New York, the Acting Administrator has determined an emergency exists related to safety in air commerce. The investigation has found that while operating a "doors-off" flight, all passengers were wearing a non-FAA-approved supplemental passenger restraint system provided by the operator of the flight. While intended as a safety measure when the aircraft was in flight, these supplemental passenger restraint systems may have prevented the passengers' ability to quickly egress from the aircraft after the accident. While the accident on March 11, 2018 involved an aircraft ditching in water, passengers could face a similar hazard in other emergency situations, such as an aircraft fire on the ground.

Distribution: Electronic Only

Initiated By: AFS-200

March 23

