AERONAUTS & ACCIDENTS

J. D. Huss

AERCO/AAAA/BFA

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FAASTeam = FAA Safety Team

This seminar qualifies you for credit in the WINGS Program.

Register online @ www.FAASafety.gov for safety materials & seminars in your area.

ACCIDENTS

Underlying the findings in many accident investigations is the element of (poor) pilot decision making.

Reference: 2008, 2010 and 2013 Nall Report

AOPA Air Safety Institute Publication showing Accident Trends and Factors for Airplanes & Helicopters

Consider these actual accident statistics –

Statistics – The Good, Bad, & Ugly

JAN 1, 2010 through DEC 31, 2015 –

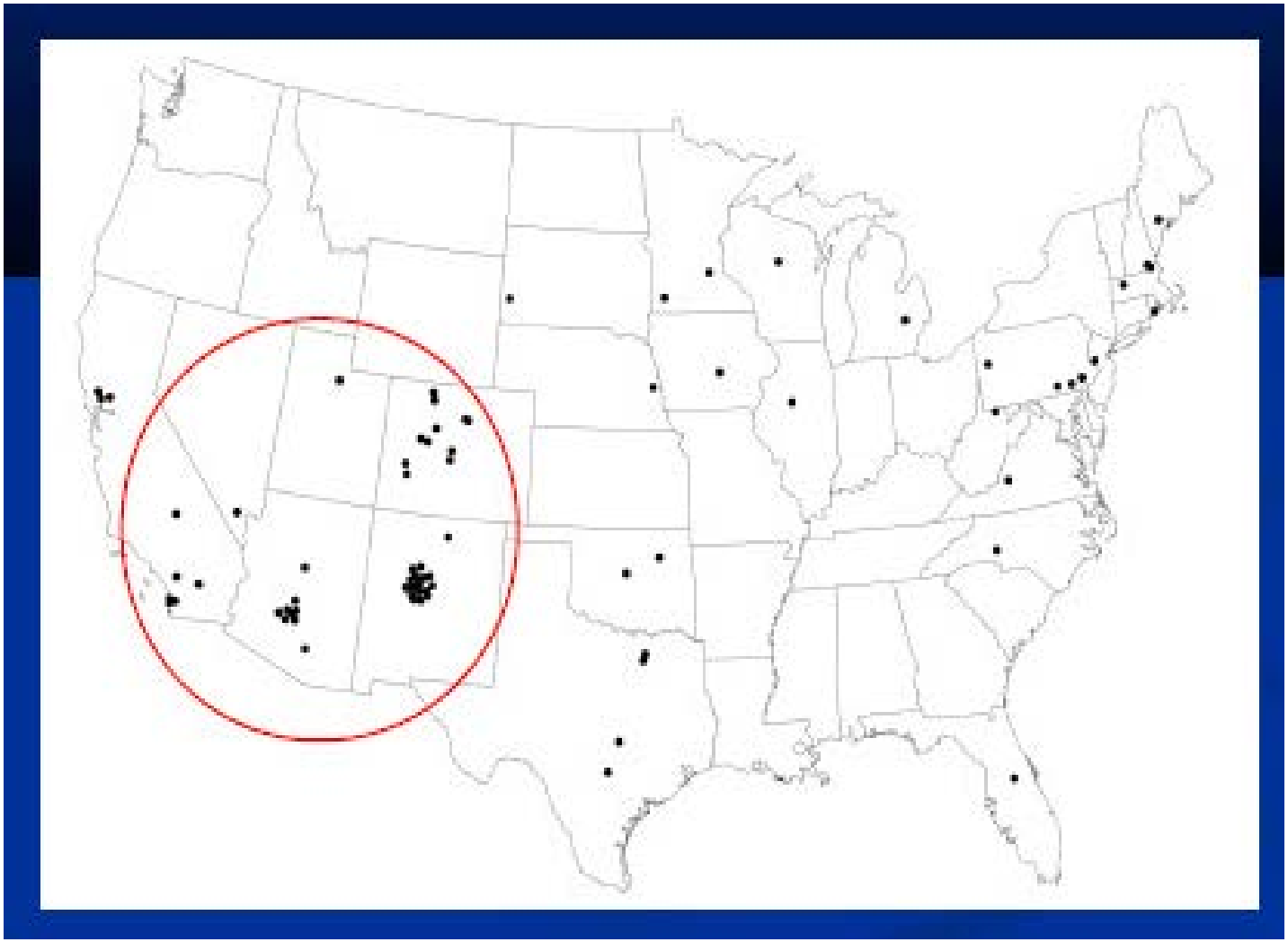
8,811 Total Aviation Accidents

70 Total LTA Balloon Accidents (0.8%)

1,546 Fatal Aviation Accidents

3 Fatal LTA Balloon Accidents (0.02%)

Commercial Balloon Ride Accident Locations



ACCIDENTS – 1/1/10 thru 12/31/15

70 Reported Accidents –

3 (4%) had fatalities –

57 (81%) had serious injuries –

10 (15%) had no injuries –

34 (49%) were Commercial Rides

36 (51%) were FUN FLIGHTS!

These accidents occurred in:

AZ – 10 (15%)

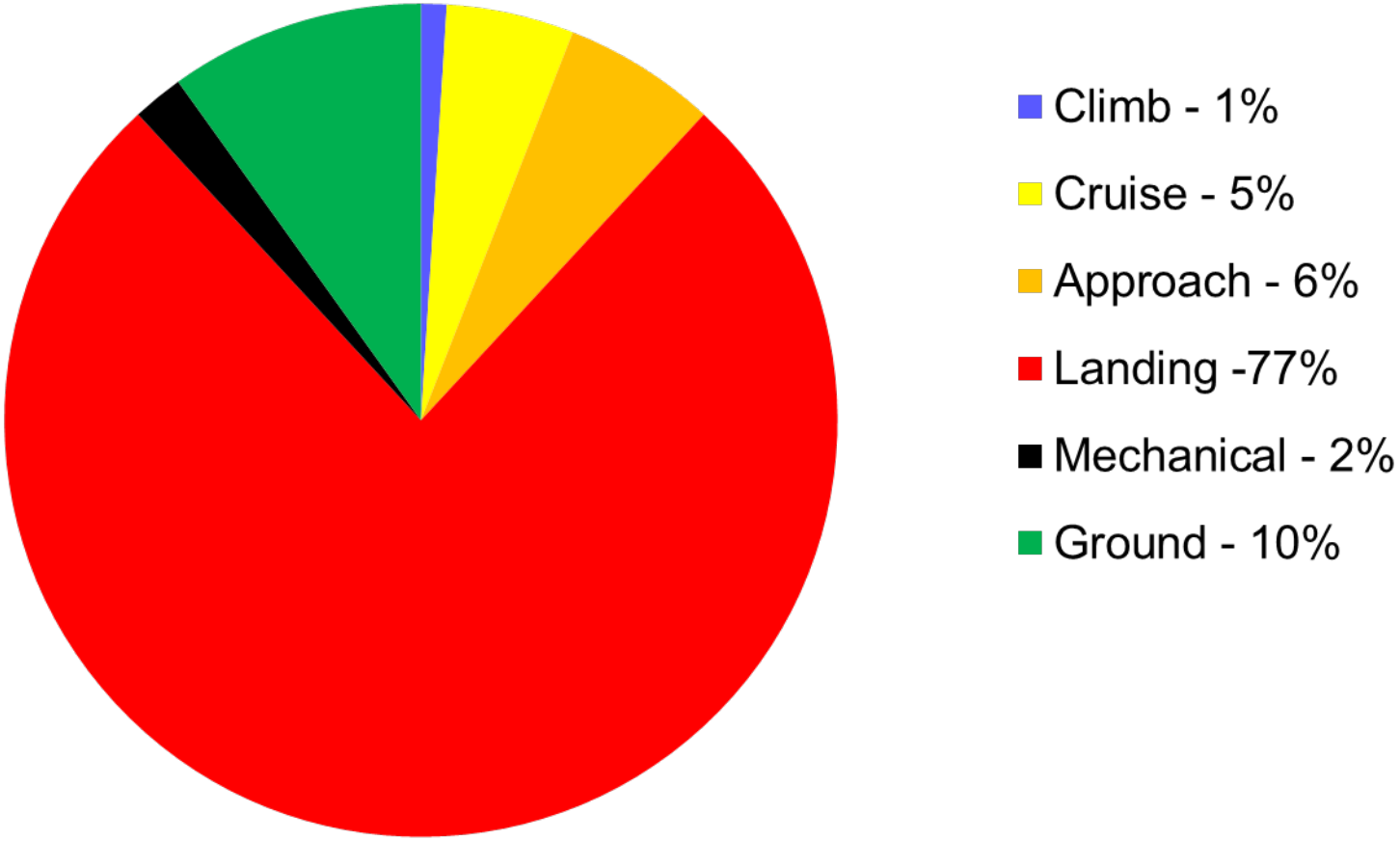
NM – 10 (15%)

CO – 9 (12%)

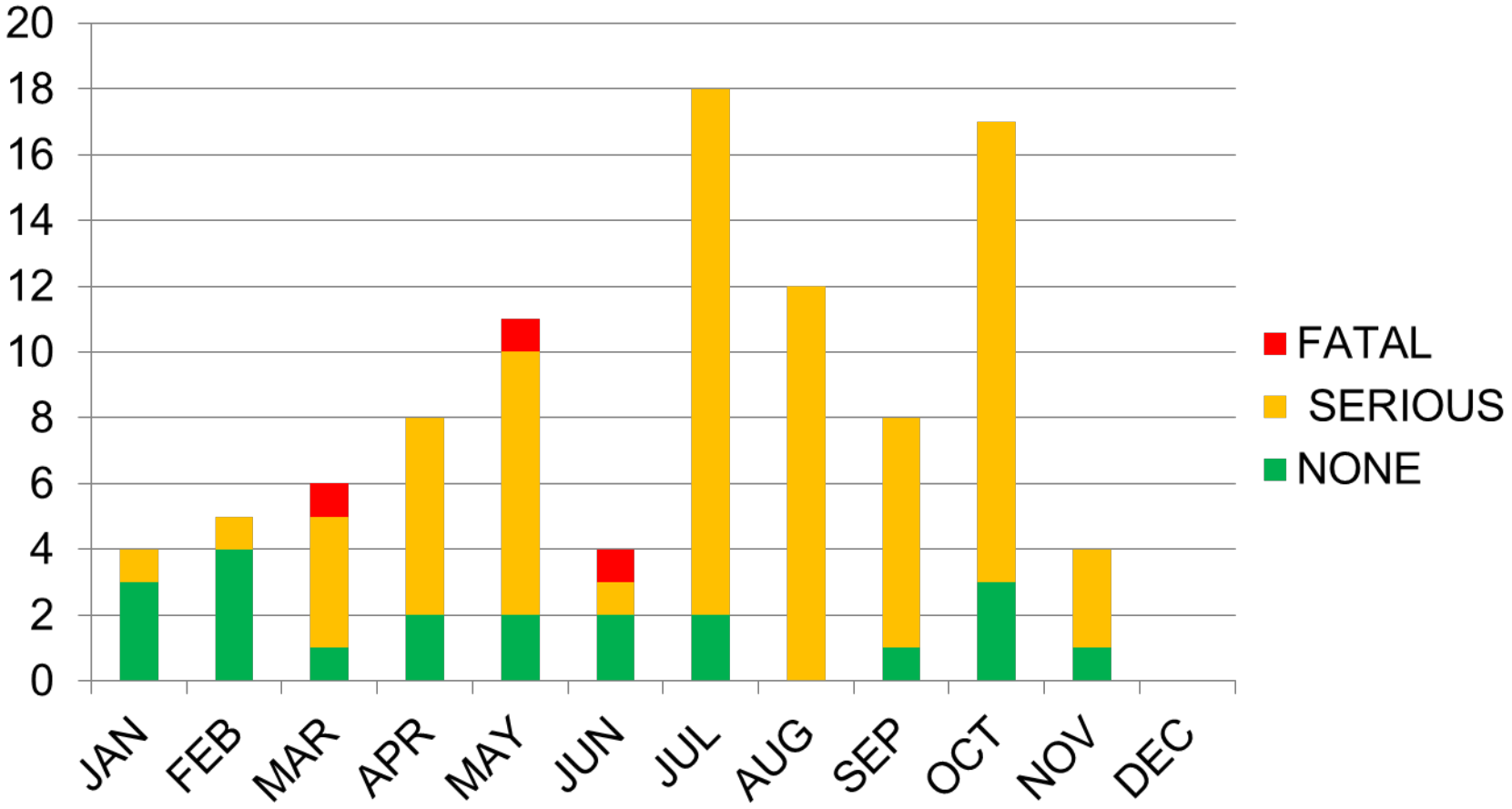
CA – 6 (8%)

NTSB AVIATION ACCIDENT DATA BASE

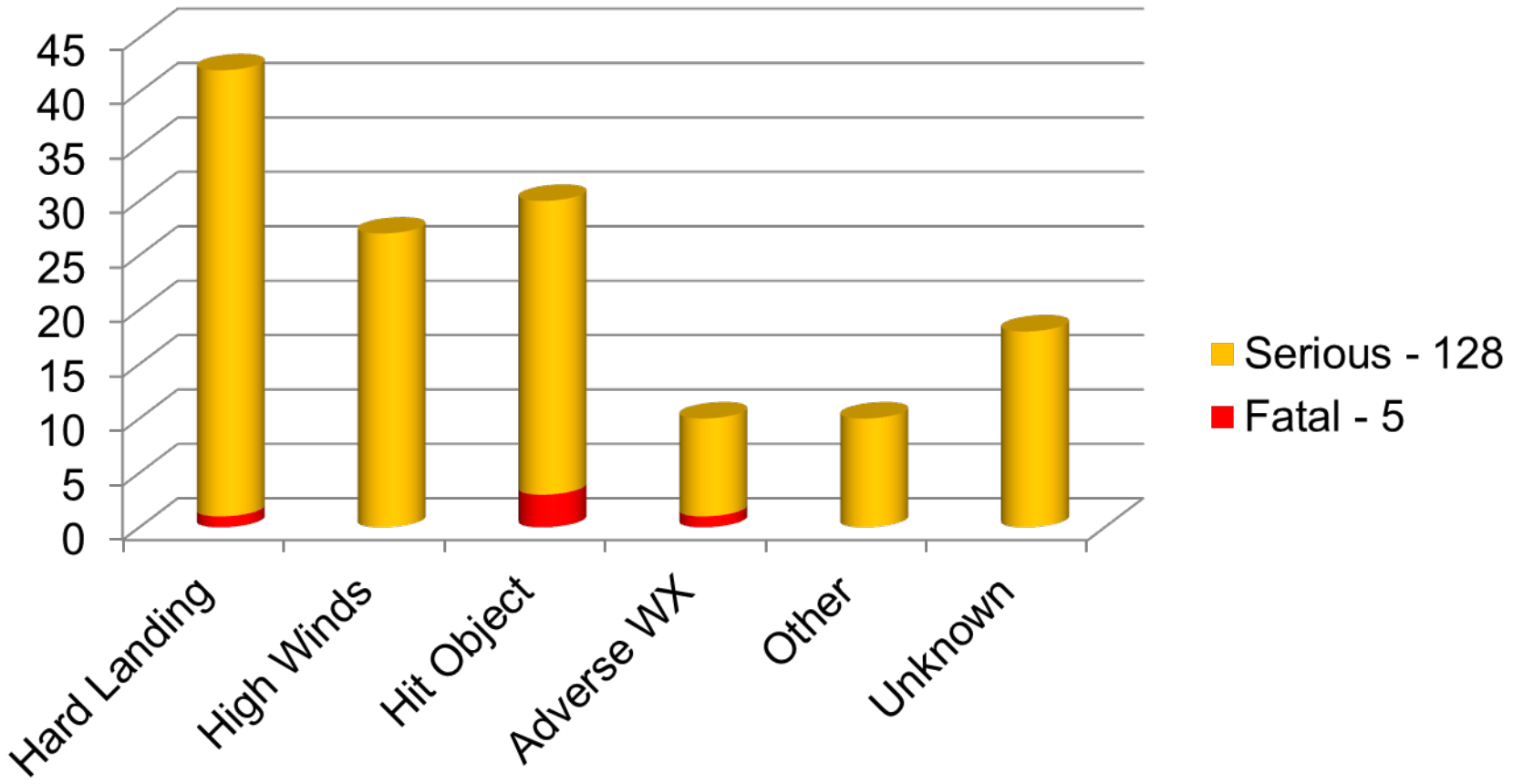
Accidents are Happening Here –



Accidents with Injuries by Month



People are being Injured or Killed



ACCIDENTS –

We haven't invented any new ways to crash –

46% - Hard Landing

41% - Surface wind increased during fright

22% - Wind began gusting during flight

24% - Hit a Known Object

I yelled "MOVE OVER!" but the house just stayed there!

13% - Hit a Power line

All but one knew the line was there, but they failed to avoid it.

2% - Hit each other – or ran out of fuel

As Aeronauts we have some control over all these factors!

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Two Worn-Out Statements –

It’s better to be on the ground – wishing you were in the air, than in the air – wishing you were on the ground.

Takeoffs are optional – Landings are mandatory.

You have to go out – You don’t have to come back

Motto of the U. S. Lifesaving Service

ACCIDENTS

Things we can’t control –

8% - Maintenance

- E-Z-Vent partially opened in flight
- Red line bound in pulley

2% Crew

9% Passengers

4% - In-fright **FIRE**

- Leaking hose or blast valve
- A “Bauwens Burn” …. or two

Aeronauts & Accidents

Federal Aviation Administration

Accident Causes

Pilot Related (100% - Fatal & 90% - Serious Injuries) – accidents arising from improper actions or inactions by the pilot

Mechanical/Maintenance (~12%) – accidents arising from mechanical failure of a component or an error in maintenance

Other/Unknown (~13%) – accidents such as pilot incapacitation and those for which a specific cause could not be determined

Causes of Pilot Related Accidents

Landing/Descent and Approach – Most often identified cause of accidents (but seldom fatal)

Takeoff/Climb – Important flight phase for balloonists but easily controlled

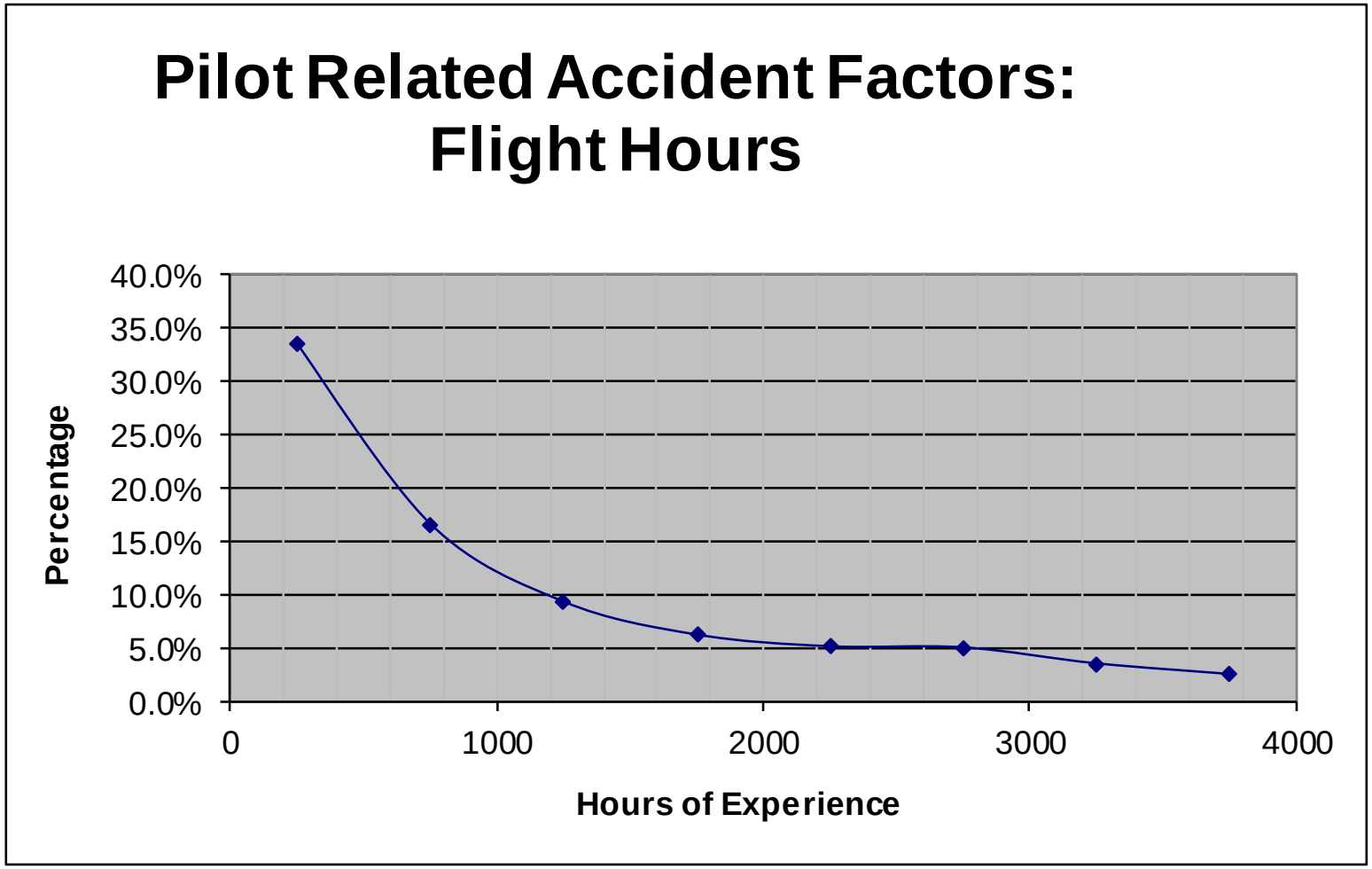
Fuel Management – Flight planning and not observing changing environments

Weather

For Airplane/Helicopter accidents: usually VFR flight into IMC

For us: increasing winds, perhaps thunderstorms

Level of Experience



Nall Report, 2006

Yet, in the 2010 NALL Report

"The role of flight experience as an accident risk factor seems less straight forward than previously supposed."

This seems to be an ongoing debate.

Nall Report 2010

49 CFR Part 830

§ 1(a) – Initial notification and later reporting of aircraft incidents and accidents and certain other occurrences in the operation of aircraft, **wherever they occur, when they involve civil aircraft of the United States**….

§ 5 – The operator of **any civil aircraft**,…shall immediately, and by the most expeditious means available, notify the nearest National Transportation Safety Board (NTSB) office when:

Why the NTSB Investigates Balloons

Balloons are a class of aircraft – LTA-Balloon

Balloons carry passengers

Balloon accidents are usually “very public”

People are injured or killed in balloon accidents

There are things the ballooning community can learn from NTSB investigations

What is a Balloon Accident < 2013

Serious Injuries/Fatalities

Damage to the Envelope –

- Vertical and Horizontal Load Tapes

Other Component damage not always considered –

- Basket, Tanks, Burners

Result: The NTSB missed many Safety Issues.

What is a Balloon Accident ≥ 2013

Serious Injuries/Fatalities, and/or Substantial Damage –

Vertical & Horizontal load tapes unless expressly excluded by the approved **Instructions for Continued Airworthiness (ICA)**

Damage to the crown ring that is outside ICA limits

Damage to flying wires/suspension cables requiring repair/replacement.

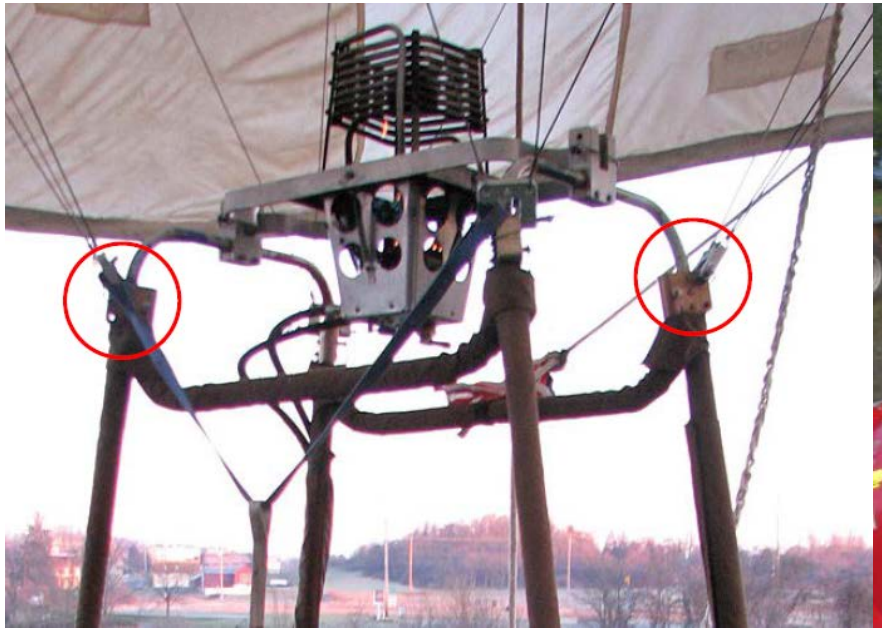
Damage to more than 1 fabric panel above the equator.

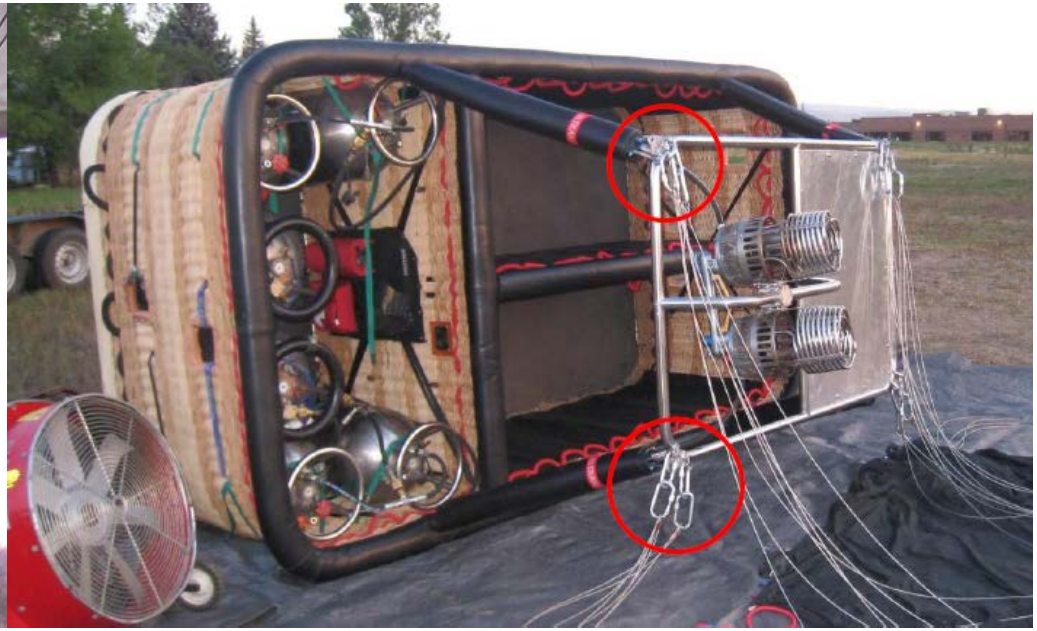
Damage to the basket support structure/skeleton requiring repair/replacement.

Damage to the basket floor outside the ICA limits

Damage to carabineers or other attachment hardware between the flying wires or suspension cables and the basket.

Basket Attachments





This is NOT Substantial Damage

Damage limited to the scoop or skirt

Damage to less than 10% of only the fabric panels below the equator with no damage to the load tapes.

Damage to the sides or bottom of the basket that does not affect the structural skeleton.

Damage to, or failure of, a burner (equate to an engine) since this is expressly excluded by our definition in 49 CFR Part 830.

Contacting the NTSB

NTSB Response Operations Center, (202) 314-6290

NTSB Western Region Headquarters, 505 South 336th Street, Federal Way, WA 98003 (253)-874-2880

NTSB Headquarters, 490 L'Enfant Plaza, Washington, DC 20596, (202) 314-6000 (automated switchboard)

NTSB Public Inquiries, Washington, DC 1-800-877-6799

www.ntsb.gov

Aviation Accident Database
Publications,
Safety Recommendation Letters

NTSB Safety Recommendations

The most important product of the investigation

Every report produced is the culmination of efforts made by many professional investigators.

If one person reads an accident report and it causes that person to think about the lessons in that report, and they change their actions to be a safer pilot, **YOU** have saved a life.

You won’t know it – but it happens every day.

THANKS TO –

Dr. David Bowling
Director, NTSB
Central Service Area.

Is this just a Coincidence?

If,

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Equals,

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Then,

K + N + O + W + L + E + D + G + E
11 + 14 + 15 + 23 + 12 + 5 + 4 + 7 + 5 = 96%

H + A + R + D + W + O + R + K
8 + 1 + 18 + 4 + 23 + 15 + 18 + 11 = 98%

Both are important, but the total falls just short of 100%

But,

A + T + T + I + T + U + D + E
1 + 20 + 20 + 9 + 20 + 21 + 4 + 5 = 100%

Safety is really an attitude. Make 100% Safe Behavior your choice!

Federal Aviation Administration

Additional Video Links

- https://youtu.be/lUa2ujQRTLw
- https://youtu.be/Ydpi3TQDr1s
- https://www.youtube.com/watch?v=v7CvULBOpwk
- https://www.youtube.com/watch?v=9XrxDIWhSwY&ebc=ANyPxKr_GgDqDe1iMZ6bpJqtF5YehQWd0ETh4Fz52yEBlnLOvDBtqA35Q-uStaFkGxd_tsSjGJeruYz-zZtoYBta64XtpJMewA