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# Avoiding Icing, LGA Tower, Thermoses, Airline Safety, Eyelids Pulling Aircraft

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Ouote of the month

"The only time an aircraft has too much fuel on board is when it is on fire."

> -- Sir Charles Kingsford Smith,

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Thank you for taking the time to read this safety message. If you're a regular reader you know that I only send this newsletter every 20-40

Thanks for your continued support, Darren

## New Security Concern at the Airport... Thermoses

Late December the TSA sent a security bulletin around to Federal Security Directors at the Nation's airports. The bulletin was also circulated among airline security professionals, airline pilots, airport directors and police departments. Somehow the bulletin ended up in the hands of the CBC (Canadian Broadcasting Company) as reported on www.cbc.ca.

Passengers must remove insulated beverage containers from carry-ons and place them in a bin for inspection. Adm. James Winnefeld, head of the U.S. Northern Command, told The Associated Press on Friday that the Transportation Security Administration is "always trying to think ahead."

Winnefeld said officials responsible for homeland security are always a bit more alert over the holiday season. He says there has been a lot of chatter online about potential terror activity, but nothing specific.

Got an IFR Checkride or IPC Coming Up?

sometime before his death in the 1920's

Hit reply and send me your favorite quote.

Flight Attendant Vocabulary Translator

#### Spinners:

Passengers who get on late and don't have a seat assignment, so they spin around looking for a seat.

#### **FAA WATCH**

**Expired Registration** If you're an aircraft owner, by now you should already be aware that the FAA registration for your aircraft will expire every 3 years. Eligible aircraft can be reregistered between October 1, 2010, and December 31, 2013, updating the FAA Aircraft Registry with current data. More Info...

Pilot Photo Certificate
Did you know that the
FAA is projecting that
the cost of complying
with the upcoming
photo pilot certificate
requirements will be:
\$445.8 million. It
affects 740,000
pilot certificates and
93,000 flight instructor
certificates.

#### IFR Checkride Reviewer

Finally, Instrument Rating HELP! This best selling 340-page review package is designed to help you to get through the Instrument Checkride. Includes Radio Communications Guide as a chapter and Visi-Hold. This package can be used as a self study guide or by flight instructors to provide an Instrument Proficiency Check (IPC), Flight Review (BFR) for instrument rated pilots or Instrument Checkride preparation. Designed to fit in your flight bag, size: 8.5x5.5 Priority Mail, arrives in 2-3 days. Price: \$24.95 (free shipping to US addresses) ISBN: 978-0-9823940-0-7

See it at <u>www.ifrcheckridereviewer.com</u>



#### FAA inaugurates new LaGuardia tower

The FAA on Monday inaugurated a new \$100 million air traffic control tower at the LaGuardia airport in New York, replacing a tower that had been in place since 1964.

The 71m-high (233ft) facility includes Airport Surface Detection System Model X (ASDE-X) equipment that allows controllers to track surface movement of aircraft and vehicles. Controllers in the tower will also be using the FAA's Integrated Control and Monitoring System (ICMS), which consolidates information including navigational aid displays into one screen.

"LaGuardia Airport plays an important role in our country's aviation infrastructure," says US DOT secretary Ray LaHood. "This modern tower will help enhance the safety and efficiency of air travel in and out of the New York metropolitan area." Source: Air Transport Intelligence news

# Visi-Hold™ - *Know Instantly*

Never wonder about holding entries again! Works with standard holds and non-standard holds (left turns). The Visi-Hold™ package comes complete with Visi-Hold™ template, directions, and two articles on holds: All About Holding and Holding Simplified. You'll pay no less than \$14.95 for a complicated sliderule holding pattern calculator made by ASA. That's not even including shipping! Those of you who know what real IFR is like know that you can't fool around with a sliderule while the airplane is bouncing around. Instead, get the original Visi-Hold™, helping pilots know the holding pattern entry since 2000. Price: \$9.95

(Always free shipping to US addresses).

#### Examples:

Teardnop Entry—Heading is 270° direct to the VOR to enter the hold. Point the arrow at 150° and search to the VOR to enter the arrow at 150° and search to the VOR to enter the arrow at 241° and Visition to enter the hold. Point the arrow at 241° and Visition to enter the hold. Point the arrow at 241° and Visition to enter the hold.

Parellel Entry—Heading is 270° direct to the VOOR to eather that operations. Point the arrows of 0.3° and Visit-fold shows a Parallel entry.

ISBN: 978-0-9823940-6-9

... more information & free support

## Avoiding Aircraft Icing

The conversation went like this:

Student: "There's ice developing on the windshield." Instructor: "What are you going to do about it?"

Student: "I don't know."

Any ice that develops on an aircraft indicates immediate action is required. How ice forms on an aircraft and what happens is required knowledge for any IFR pilot. The potential hazards include:

- blocking air intakes, static ports, carb air filters
- jammed flight surfaces
- airfoil changes, especially the disruption of the laminar flow during rime ice encounters
- increased drag resulting in changes in stalling speed
- increased fuel consumption
- weight & balance concerns
- · and a reduction in lift.

Significant changes in aircraft performance can occur in less than 10 minutes in severe conditions. Types of ice include:

- Clear Ice: a smooth, glassy/clear ice formed by slowly freezing water of large supercooled water droplets.
- Rime Ice: a frosty/milky color ice formed by quick freezing of small supercooled water droplets.
- Mixed Ice: a combination of both types, brittle, hard, rough surface.

Ice conditions are reported as defined in the AIM:

- Trace: Ice becomes perceptible. Rate of accumulation is slightly greater than sublimation. Deicing/ anti-icing equipment is not utilized unless encountered for an extended period of time (>1hr).
- Light: The rate of accumulation may create a problem if flight is prolonged in this environment (>1hr). Occasional use of deicing/ anti-icing equipment removes or prevents accumulation. It does not present a problem if the deicing/ anti-icing equipment is used.
- Moderate: The rate of accumulation is such that even short encounters become potentially hazardous and use of deicing/ anti icing equipment or flight diversion is necessary.
- Severe: The rate of accumulation is such that deicing/ anti icing equipment fails to reduce or control the hazard. Immediate flight diversion is necessary.

When can you expect icing conditions? Anytime you fly in visible moisture (clouds & rain) between +2C and -10C.

## Strategies for reducing your risks:

- 1. Weather Briefing Tips
  - Areas of FZRA (freezing rain) and FZDZ (freezing drizzle) are very likely to produce icing conditions.
  - Convective sigmets imply severe icing potential.

Avoiding Icing, LGA Tower, Thermoses, Safety Threats

- A report of 50% relative humidity usually implies icing conditions.
- Closer to the center of a low pressure system, moisture moves upwards faster. This results in icing conditions at higher altitudes.
- Look for amended TAFs which indicated better information about icing conditions.
- Obtain pireps for the route of flight but remember that pireps are a snapshot at a given moment.
- 2. Never fly with frost on your aircraft. Using water to remove frost creates clear ice. Use the sun to remove it and be sure the airframe is dry prior to takeoff.
- 3. Use early warning devices on your aircraft: corners of windshields, through windshield thermometers, and wing strut steps are all early warning devices for icing conditions.
- 4. Any time you experience visible moisture (fog, clouds, rain), use pitot heat immediately.
- 5. Stay clear of clouds if possible. Clouds are visible moisture and are likely to provide you an icing experience to remember, particularly at the tops. If you are flying through a cloud which is causing ice buildup, the bottom of the cloud is less likely to give you more ice than the top. You might be able to descend 1000 feet to clear the cloud or stop the icing.
- 6. If you are experiencing ice, leave the area of precipitation, or leave that altitude. Use the rule of 4000: it will give you an eight degree shift in temperature which will likely end ice accretion.
- 7. If you are leaving an area of icing by climbing or descending, use gentle control movements. Climb and descend at moderate angles of attack.
- 8. Induction icing can be just as serious a problem. Use carb heat when icing conditions exist. If using carb heat and alternate air, lean the mixture to improve engine performance and increase engine operating temperature.
- 9. If you are experiencing icing conditions, notify and obtain priority handling from ATC.
- 10. Give pireps enroute. Example: Cessna 123A over ABC VOR, 2200Z at four thousand a Cessna 172. We are experiencing trace ice, outside air temperature is 2C.
- 11. The standard rate 180 degree turn back out of icing conditions may not produce the result you're looking for so always have a way out.
- 12. During landing, use a stabilized approach with minimal use of flaps and avoid large power changes.

Please write to me with your comments and tips for avoiding aircraft icing.

## January Special Offer... Be An Insider

# Northwest Airlines Jeppesen Commemorative Chart

This is a limited distribution poster was given only to Northwest Airlines flight operations employees when NWA ceased operations 12/31/2009. The poster was created to commemorate the 75 year history of NWA & Jeppesen's relationship.



This poster is printed on ultra white poster stock and measures 17" x 25" - a



professional 4 color process created by Jeppesen. The front side of the poster has a timeline of the last 75 years of NWA & Jeppesen history along with special trivia facts about both NWA & Jeppesen. It features every logo that NWA used since 1926 and photos of the aircraft that changed the game in the industry over the decades. On the back panel (pictured above) is a list of every aircraft type that NWA flew from the Thomas-Morse S4 Scout in 1926 to the Airbus 330 in 2003. (Trivia: NWA was the largest airline of 330's in the world). On the back side of the poster is the signature of all the Jeppesen employees who worked on the charts NWA used. The timeline ends with the entry that NWA & Delta Air Lines merged creating the largest airline in the world. NWA is now only a fond memory.

Price: \$5, free shipping, first 100 orders get a special bonus Condition: NEW, UNUSED, Packaged flat, in plastic protector sleeve

...buy now, limited quantities available

#### Lose Your ID While Traveling? That's Ok...

TSA accommodates travelers who lose ID with verbal screening
From the Honolulu Advisor: Losing your identification
documents on a trip doesn't necessarily mean you won't be
able to fly home. The TSA has a "verbal process" in place that
allows travelers to substantiate their identities. Travelers
without identification may also be subjected to additional
screening at security checkpoints. "We understand that people
lose identification on their trips and they could show up to the
airport without their passport or other forms of substantiating
their identification," said Nico Melendez, a TSA public affairs
manager. Editorial Comment: Wonder if that works if the FAA
Ramp Checks you?

## **Pilot's Radio Communications Guide**

This 70-page review guide is designed as a quick reference guide or radio communications training self study guide. This covers VFR & IFR radio communications. Build your confidence by knowing what to say and when. Designed to fit in your flight bag, size: 3.6" x 8.5" Price: \$14.95 (Free Shipping to US addresses). ISBN: 978-0-9823940-7-6



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One Copy \$14.95

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Airline Safety Stalls Again in 2010

LONDON, PRNewswire -- Global airline accident rates have not fallen for eight years, with a widening gap between carriers with the best and worst safety records.

This is the finding of Flight International's latest annual safety review, which tracks the incidence of airliner accidents around the world and their causes.

It has sparked worries that some airlines and authorities are failing to learn the lessons of previous incidents and implement a proactive safety culture among their pilots and managers.

The survey found that in 2010, there were 26 fatal crashes, causing 817 deaths. This compares with 28 accidents and 749 deaths in 2009.

Flying remains one of the safest ways to travel. From 1903, when the Wright brothers invented powered flight, safety improved significantly every decade for exactly 100 years. But since 2003, that improvement has stopped - and the difference between the best and worst performers appears to be getting bigger.

#### The Ultimate Checklist: Pilot's Rules of Thumb

The ultimate checklist that <u>every</u> pilot needs. Ten years in development, this is a product that pilots of all levels of experience can immediately use. This tool covers 30 normal and non-normal situations and has 9 special tools that you'll use on every flight. This high-quality plastic ruler/checklist measures approximately 3.75" x 9". Click the picture to see a larger picture of this tool or click the link for <u>more information</u>. Price: \$3.99(Free Shipping to US addresses). ... more information & free support



One Copy \$3.99

Buy Now

## Finally... Man Pulls Airplane With Eyelids

When a picture is really worth 1,000 words, this is the story that proves it.

In an unbelievably weird and phenomenal performance, a Chinese martial arts expert has defied the laws of gravity (not to mention the limits of



human belief) and actually pulled an airplane for five meters (more than

17 feet) by a rope hooked onto his eyelids.

Certainly seeming like an act from a festival conducted by the likes of Ripley's Believe It or Not, Dong Changsheng, aged 50, performed the stunt in front of many observers at the Changchun International Exhibition Center in Jilan Province.

After fastening two metal hooks into his lower eyelids with ropes attached to the amphibian plane, he pulled the aircraft, which weighed half a ton, in less than one minute for sixteen feet.

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