# Pilot Health, China's Stealth Fighter, Safest US Airline, GPS Jamming

Issue #15 February 18, 2011

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<u>CFIT on Non-Precision</u> <u>Approaches</u>

Fundamentals of a Safe Approach

7-day Instrument Rating Training Program

IFR Checkride Reviewer

Pilot's Rules of Thumb

Quote of the month

"When a flight is proceeding incredibly well, something was forgotten." 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 days.

Please keep in touch through my website: www.cfidarren.com

If you want to change the way I use your email address, click "Join Our List" and uncheck any of the boxes. You can also subscribe to FREE updates to publications you already own.

Thanks for your continued support, Darren

# February Special -- Safer Approaches

**Safer Approaches** will teach you how to conduct Instrument Approach Procedures to a higher standard of safety and precision. You will learn:

- Four Fundamentals of Safe Approaches,
- How to virtually eliminate possibility of CFIT of Controlled Flight Into Terrain,
- How to perform a Constant Angle Non-Precision Approach (CANPA),
- How to calculate a Visual Descent Point (VDP),
- How to practice building your flying precision.

What's inside the package?

- 1. The Safer Approaches publication, 14pp.
- 2. The Stabilized Approach Descent Rate Table, a plastic 4" x 6" kneeboard sized IFR tool that will

eliminate the mental math applying these techniques during your IFR flying. Price: \$5 + postage Sent First Class with Delivery Confirmation Tracking Number. <u>Buy online</u> or click:

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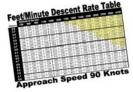
# China's New Stealth Jet Fighter

# Balkan Officials Say U.S. Wreck May Have Helped

Some of the technology in China's new stealth fighter jet may have come from the wreckage of an American stealth fighter shot down over Serbia in 1999, Balkan military officials said. A Serbian missile shot down an

Safer Approaches

Use CANPA to perform safer, stabilized approaches



Use the safest, airline-proven flying technique for non-precision approaches that minimizes aerodynamic surprises and virtually eliminates the possibility of Controlled Flight Into Terrain

Darren Smith, ATP, CFII/MEI

1 of 6

5/14/2011 12:57 AM

### -- Robert Livingston in Flying The Aeronca

Hit reply and send me your favorite quote.

Flight Attendant **Vocabulary Translator** 

### George:

Autopilot. "I'll let George take over."

#### **FAA WATCH**

### **CFI** Renewal by **FAASTeam Seminar**

If you're renewing your CFI certificate by attending FAASTeam CFI Workshops, be advised that the FAA will terminate the program upon completion of Module 8 on September 30, 2012. To be eligible for CFI renewal, you must complete all eight modules prior to that date; there will be no makeup workshops after then.

### RANDOM FACT

Moon Fact The moon rotates at 10 MPH compared to the Earth's rotation of 1000 miles per hour.

In Memory Of...

### Gen. William Spruance

Saturday, Jan. 15 saw the passing of a great supporter and friend of Embry-Riddle

American F-117 Nighthawk, an early radar-evading stealth fighter, during NATO's bombing of Serbia in the Kosovo war. Civilians collected the pieces, which were strewn over a wide area of farmland. Croatia's military chief at the time, Adm. Davor Domazet-Loso, said Croatian intelligence reported "Chinese agents crisscrossing the region" buying up plane parts from farmers. A senior Serbian military official confirmed that pieces of the wreckage were removed by souvenir collectors, and that some ended up "in the hands of foreign military attachés." China unveiled its stealth fighter this month. China has repeatedly insisted that its military growth and modernization are defensive in nature and pose no threat to other nations. Source: Associated Press

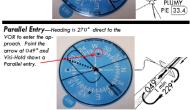
# Visi-Hold™ - *Know Instantly*

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(Always free shipping to US addresses). ISBN: 978-0-9823940-6-9

# Examples: Teardrop Entry VOR to enter the hold. Point the arrow at 150° and Visi-Hold shows a teardrop entry and a recommended outbound heading of 300° after station passage.

Direct Entry—He PLUMY intersection to enter the hold. Point the arrow at 241° and Visi-



... more information & free support

## Wireless 4G Broadcaster Interferes With GPS

# FCC Grants Licence For 40,000 Watt Transmitters On Adjacent Frequencies

The FCC has granted a license to a company called LightSquared, which plans to offer 4G wireless broadband services nationwide. But studies show the service may severely interfere with GPS navigation, according to one GPS industry source.

A report on the GPS World website indicated that the GPS industry offered data to the FCC showing that LightSquared's operations could cause GPS receivers to "cease to operate" in areas near the the 40,000 watt transmitters the company plans to erect. GPS manufacturers Garmin and Trimble both contributed to the report "Experimental Evidence Of Wide Area GPS Jamming" which was presented to the FCC.

The manufacturers found that a

Effect	Distance
Jamming is detected	13.76 miles (22137 meters )
10 dB Loss of Sonsitivity	0.05

5/14/2011 12:57 AM

Aeronautical University, Brigade General William Spruance. Gen. Spruance has been with ERAU since 1972.

A graduate of Princeton University, Spruance served in the Army Air Corps during World War II, flying supplies over the Himalayas. After the war, he would become a founding member of the Delaware Air National Guard.

In 1961, Spruance suffered a near fatal T-33 crash. As a result, Spruance would become one of the leading advocates of aviation safety, traveling around the nation to deliver presentations on flight safety and crash survival, using his own personal experience as an example.

Garmin430W lost its fix in open sky more than 5SM from one of the transmitters, and interference was

Lilect	and the second s
Jamming is detected	13.76 miles (22137 meters )
10 dB Loss of Sensitivity	9.85 miles (15853 meters)
Loss of Fix in Open Sky	5.60 miles (9018 meters )

Table 3: GNS 430W Results

detected at nearly 14 SM. The testing was conducted using simulated GPS signals representing a constellation of 31 satellites, and the Lightsquared transmission was simulated to actual technical specifications, according to the report.

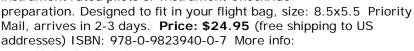
The FCC decided to waive its own rules and permit Lightsquared to broadcast in the L Band despite potential interference. In its final ruling, the FCC does admit that interference with GPS is a "significant concern," and that the interference issues "must be addressed" before LightSquared could light up its wireless network. But since the interference would stem from transmissions in the authorized spectrum, rather than the GPS band, the FCC "expects the GPS industry to work expeditiously and in good faith with LightSquared to ameliorate the interference concerns."

Lightsquared has said it will "work with the GPS industry" to determine which GPS receivers would require "filtering so that they don't look into our band." There is no mention as to what those filters might entail, or at what cost to those who own the equipment.LightSquared hopes to have its 4G wireless network up and operating by June 15th of this year. FMI: <a href="https://www.fcc.gov">www.fcc.gov</a>, Jamming Report , <a href="https://www.lightsquared.com">www.lightsquared.com</a>

# Got an IFR Checkride or IPC Coming Up?

### 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







### Pilot's Blood Pressure, New Guidance from AHA

It seems to be an occupational hazard that a good many airline pilots also have high blood pressure. General aviation pilots closely mirror the trend. It has long been thought that psychological factors, such as the 'type A' personality type was the cause. While this may contribute significantly to high blood pressure, *Eating Well* magazine this month reports the #1 food you should avoid. Cutting back on **salt** can have a major (positive) impact on your blood pressure (even for those with normal blood pressure).

More evidence comes from the American Heart Association's journal *Circulation*: the new recommended sodium limit is 1,500 milligrams a day (down from the current limit of 2,300 mg daily).

Their research reveals some startling statistics. Namely, lowering your sodium intake could reduce your risk of developing high blood pressure by 20 percent, according to one study. Furthermore, their research shows that cutting back on sodium lowers blood pressure in adults with "normal" blood pressure-as well as in those with high blood pressure.

# **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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# Airline Safety: Safest Airline in the US

This month, US News & World Report published a list of the safest airline in the US (with more than 600 daily flights). Here's the specifics:

- #1. AirTran Incidents per Flight: 0.00001965 documented incidents out of approximately 255,500 flights
- #2. Southwest Airlines Incidents per Flight: 0.0000203 23 documented incidents out of approximately 1,131,500 flights
- #3. US Airways Incidents per Flight: 0.0000212 24 documented incidents out of approximately 1,131,865 flights
- #4. Continental Airlines Incidents per Flight: 0.0000260 23 documented incidents out of approximately 884,395 flights
- #5. Delta Airlines Incidents per Flight: 0.000038677 documented incidents out of approximately 1,994,725 flights
- #6. United Airlines Incidents per Flight: 0.0000407 49 documented incidents out of approximately 1,204,500 flights
- #7. American Airlines Incidents per Flight: 0.0000701

87 documented incidents out of approximately 1,241,000 flights

#8. JetBlue - Incidents per Flight: 0.0000776 17 documented incidents out of approximately 219,000 flights

Critics point to the beliefs of Economists and analysts who have held that airline accidents and incidents are so rare that it is pointless to try to extrapolate any meaningful data from the numbers.

"Trying to rank the US airlines on safety is like trying to rank the players in this week's Pro Bowl. They are all at the top of their game, as are the airlines on safety," the Air Transport Association says.

# The Ultimate Checklist: Pilot's Rules of Thumb

The ultimate checklist that every 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 more information. Price: \$3.99(Free Shipping to US addresses). ... more information & free support



One Copy \$3.99

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# The Ultimate Guide to Preflighting Your Airplane



It is not a good sign if you see the pilot checking what's where before take-off

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