



# *What Were They Thinking ?!*

**David Jack Kenny,  
Manager of Aviation Safety Analysis**

**AOPA Foundation  
Air Safety Institute**





# VFR into IMC is:

- Almost always avoidable
- Almost always fatal (87% 2003-2012)
- Most common type of weather accident
- *NOT* happening any less often!



# SO ... How do we stop it?

## Grim statistics?

- On average, one fatal accident  
**EVERY TWO WEEKS**

## Horrifying examples?

**At ASI, we'll try almost anything.**





# Insanity:

**“Doing the same thing over and over while expecting a different result”**

**Most of these pilots didn't get a second chance ... but**

**... they probably knew what had happened to others.**



# NTSB Accident Reports

- are usually carefully researched and well documented
- reveal predictable patterns
- often leave you wondering,

***“WHAT WERE THEY THINKING?!”***



## Pattern 1: Short and Unhappy

**Example:** NYC08FA231 – June 29, 2008

**Aircraft:** Beech 95-B55 Baron

Three passengers

203 pounds overweight

80-pound dog unrestrained in  
baggage compartment



## NYC08FA231 (continued)

**Pilot:** VFR-only private pilot  
593 hours total, 222 in type  
3 flights in preceding 7 months

**Weather:** Light southwesterly winds  
Visibility  $\geq$  5 miles  
700-foot overcast, tops 4,000



## NYC08FA231: The Flight

- **Took off without a flight plan**
- **Climbed to 1,700 feet before descending**
- **Lasted all of six minutes**
- **Ended in a flat spin pitched 30 degrees nose-up**
- **Killed all four on board (and the dog)**



**Example:** LAX08FA256 – August 4, 2008

**Aircraft:** 1969 Cessna 172K  
Apparently IFR-certified  
Two on board

**Pilot:** CFI with instrument rating, current IPC  
1,650 hours claimed on medical  
Logbooks not located

**Weather:** Calm, 300-foot overcast, tops 2,600  
2½ SM BR, zero temp-DP spread

# LAX08FA256: The Flight



- **Departed without flight plan or clearance**
- **Climbed to 1,350 “in a tightening spiral” before stalling and spinning into a house**
- **Post-crash fire destroyed the house**
- **The pilot, passenger, and three people in the house were killed. Two people in the house suffered serious burns.**
- **No indication why the pilot didn’t file IFR.**

**Example:** CEN13FA039 – November 1, 2012



**Aircraft:** 1967 Cessna 320

Expired annual inspection

Left engine running “very rough”

“Very old” 360-channel comm radios

**Pilot:** Private pilot ASEL & AMEL

783 hours total, 29 in type, 5 in IMC

**NOT** instrument-rated

**Weather:** Calm, 200-foot overcast

½ SM, 1° temp-DP spread

**“Very foggy”**



## **CEN13FA039: The Flight**

- **Lineman lost sight of aircraft in fog as it taxied to the runway**
- **Radios could not receive tower, ground, or AWOS frequencies, so pilot wanted to leave before tower opened**
- **Departed 6:06 a.m., 1 hour 40 minutes before dawn, without a flight plan**
- **Crashed less than 1 mile from the threshold, killing the solo pilot.**



## Pattern 2: Excruciatingly Protracted

**Example:** CHI08LA080 – February 8, 2008

**Aircraft:** 1948 Cessna 140

Venturi-powered turn-and-bank indicator

No other attitude instruments

Bought the morning of the accident



## CHI08LA080 (continued)

**Pilot:** ATP AMEL, commercial helicopter,  
instrument helicopter

21,000-hour airline captain

Airline checkride 2 months earlier

Three weather briefings

**Weather:** AIRMET for widespread IFR

At departure, 4-knot winds,  
overcast at 1,500, 1¼ SM

At accident site, 400 overcast,  
1-1/2 SM BR, 1° T/DP spread



## CHI08LA080: The flight

- **Departed VFR without flight plan on cross-country of 380 nm straight line**
- **Flew just under an hour as ceilings descended from 1,500 to 400**
- **Encountered a windmill farm and lost control of the airplane attempting to avoid a collision**
- **Wreckage consistent with high-speed impact**



**Example:** ERA09FA145 – January 30, 2009

**Aircraft:** Piper PA-34-200 Seneca  
5 passengers on board  
332 lbs. overweight, CG 3.5” aft of limit

**Pilot:** Private, ASEL and AMEL, VFR only  
2,200 hours total time; logbook not found  
No evidence of weather briefing

**Weather:** Clear at start and destination, but  
Overcast at 1,000,  $\frac{3}{4}$  mile visibility in  
snow near the accident site



## **ERA09FA145: The flight**

- **Departed VFR without flight plan**
- **Entered IMC 350 nm after takeoff**
- **First contact with ATC was “Mayday” call reporting “low on fuel”**
- **Attempted to follow vectors for 25 minutes; able to keep aircraft upright but not hold altitudes or headings**
- **Crashed into power lines**
- **Possible fuel exhaustion**



**Example:** ERA09FA411 – July 17, 2009

**Aircraft:** 1978 Cessna R182  
Current annual and IFR certification  
Repositioning for prop governor O/H

**Pilot:** ATP, CFII, 20,000 hours  
Current 2<sup>nd</sup>-class medical

**Weather:** AIRMET for mountain obscuration  
Low clouds over accident site  
3,500 broken at destination – in  
valley between two ridges



## ERA09FA411: The flight

- No record of Wx briefing for 38-nm flight
- Departed in VMC without flight plan
- Initially northbound, turned 30° left direct to destination
- Radar contact lost after descending from 5,600 to 4,700 msl
- 6 miles short of the destination, crashed into the peak of a ridge at 4,667 msl
- GPS approach was available with MDA more than 1,100 feet below reported ceiling



# POP QUIZ !!

You're hoping to depart on a VFR cross-country within the next few minutes. Given the information below, what should you do?

## Pilot

Private ASEL, 350 hours total time, non-instrument rated

## Aircraft

Piper PA-32R-300 (Lance)

## Current METAR

04005KT 4SM HZ OVC006 22/19 RMK CIG 005V010

## FSS Briefing

Airmet Sierra, IFR; Low pressure system dominates area; VFR not recommended



# Your choices are:

- a) Take off as planned
- b) Check on possible airline flights
- c) Cancel or postpone the trip

**Hint: You're going to attend a college football game, so postponing won't do you any good.**



# Tough call, right?

Here's a dramatic recreation of what happened, read from the transcripts of the actual ATC communications ...

**... and here's the result.**





Imagine if this was the last thing anyone said about you during your lifetime?

*“Hey, Lance 1228 hotel IFR is rolling right now. I read twenty-five hundred to him like three times, but **he’s not the sharpest tool**, so just watch that altitude really close when he comes off, all right?”* -- Riverside Ground to Tulsa Approach



**You might not consider the pilot a  
“victim.”**

**His wife, two daughters, and a  
family friend all were.**

**Moral: “You’re playing for all the  
marbles, but not all those  
marbles are yours.”**

**-- Bruce Landsberg, President  
AOPA Foundation**



# Resources available at [www.airsafetyinstitute.org](http://www.airsafetyinstitute.org)

## ASI Flight Risk Evaluator

### Online courses:

- **Weather Wise: VFR into IMC**
- **Weather Wise: Ceiling and Visibility**
- **IFR Insights: Cockpit Weather**
- **Skyspotter: PIREPs Made Easy**



# ASI Resources (continued)

## ***More online courses:***

- **A Pilot's Guide to Flight Service**
- **Do the Right Thing: Decision Making for Pilots**

## **Accident Case Studies:**

- **VFR into IMC**
- **Cross-Country Crisis**
- **In Too Deep**



# ASI Resources (continued)

## Pilot Safety Announcements:

- Flying Blind
- 178 Seconds to Live

Interactive VFR-into-IMC Accident Map

ASI Accident Database

“Spatial Disorientation” *Safety Advisor*