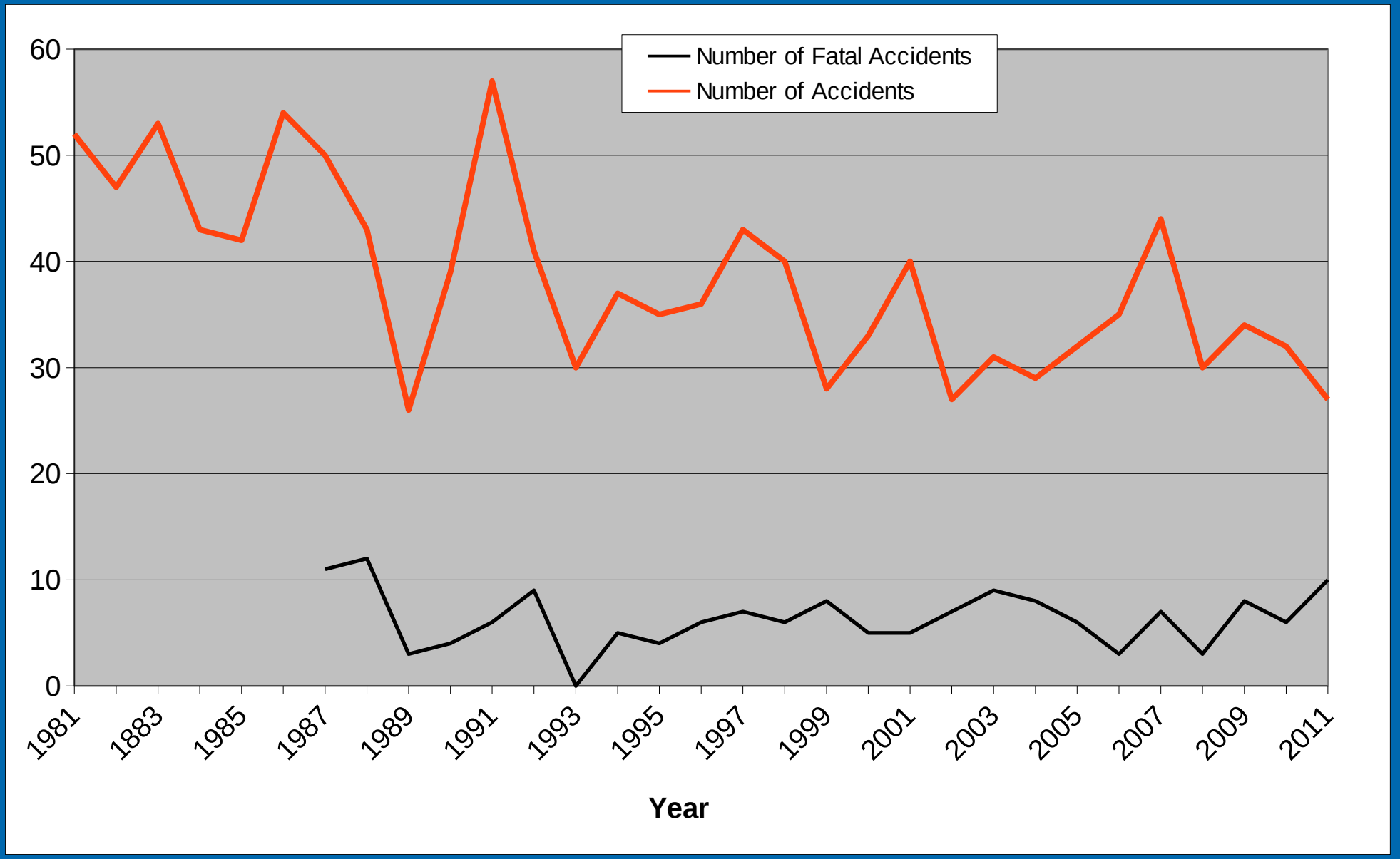
SSA/SSA Special Safety Seminar

Why Smart People do Dumb Things

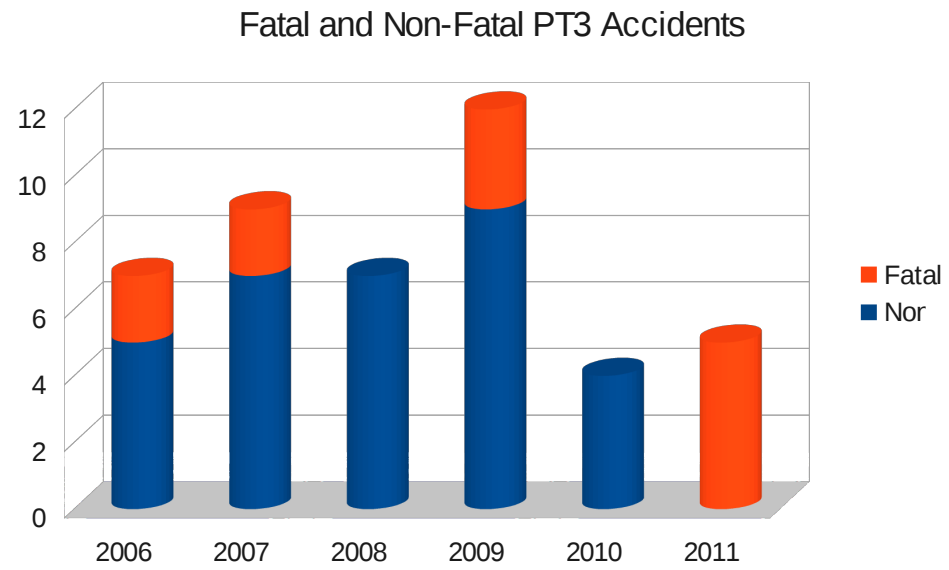
SSA Reno Convention 2012
Special Safety Seminal
Richard Carlson
SSF Chairman

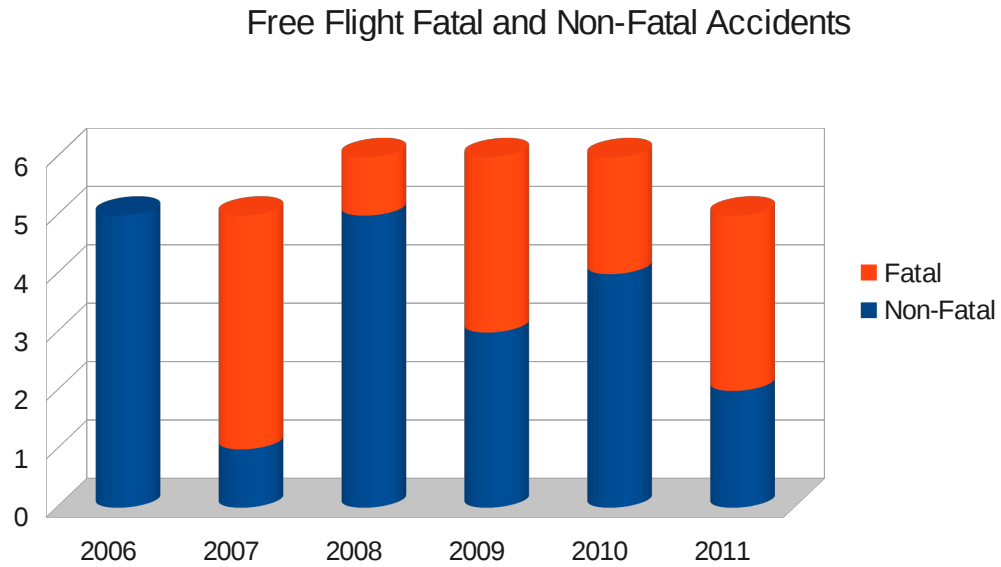
SSF Soaring Safety Foundation

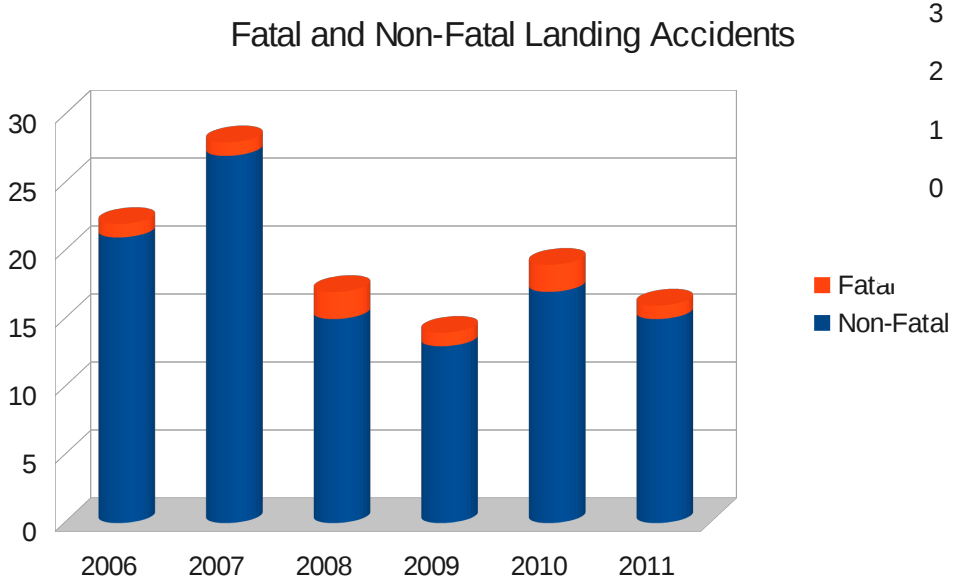
Number of Soaring Accidents



Soaring Accidents by Phase of Flight







Accidents and Incidents

- Data on the previous graphs comes from the NTSB database
- Not all accidents and the majority of incidents do not get reported to the NTSB
- Insurance claims spiked in July with nearly 1 claim per day during that month

SSA/SSF Letter – Aug

Dear Friends of our soaring community. WHAT'S WRONG WITH SOARING? Nothing? Is the fact that we had more fatalities - 9 - last year than the entire US Naval Aviation community had, and that we've already had 7 fatalities this year through the middle of August just an anomaly? Is the fact that July 2011 had more accidents than any month in our accident history just an anomaly? Is the fact that we've already had more contest accidents this year than any full year of contests we can remember just an anomaly?

Convention Safety Stand-Down

- Follow-on action to the response from the August letter
- Bring SSA leadership and members together to discuss a path forward
- Leadership representatives
  - SSA – Al Tyler and Gerry Molidor
  - SSF – Rich Carlson and Bernald Smith
  - Contest Committee – Ken Sorenson and Hank Nixon
  - Membership – everyone in this room

Risk Management

- Flight involves Risk!
- Pilots can, and must, be taught how to Managing that Risk
- All Aviation communities face this problem
  - Airlines and Air Carriers – CRM in the 80's
  - Military – CRM in the 80's
  - General Aviation – little progress
  - Soaring – some progress

Chapter 17
Aeronautical Decision-Making
Introduction
Aeronautical decision-making (ADM) is decision-making in a unique environment—aviation. It is a systematic approach to the mental process used by pilots to consistently determine the best course of action in response to a given set of circumstances. It is what a pilot intends to do based on the latest information he or she has.
Margin of Safety
Pilot Capabilities
Task Requirements
Time
FAA-H-8083-2
Risk Management Handbook
U.S. Department of Transportation
Federal Aviation Administration
FAA-H-8083-9A
Aviation Instructor's Handbook
Aeronautical Decision-Making
U.S. Department of Transportation
Federal Aviation Administration

Risk Management

- Potential responses to risk include:
  - Ignore potential risks
  - Eliminate potential risks
  - Mitigate potential risks
- Risk Mitigation framework (PAVE model)
  - Pilot
  - Aircraft
  - EnVironment
  - External pressures

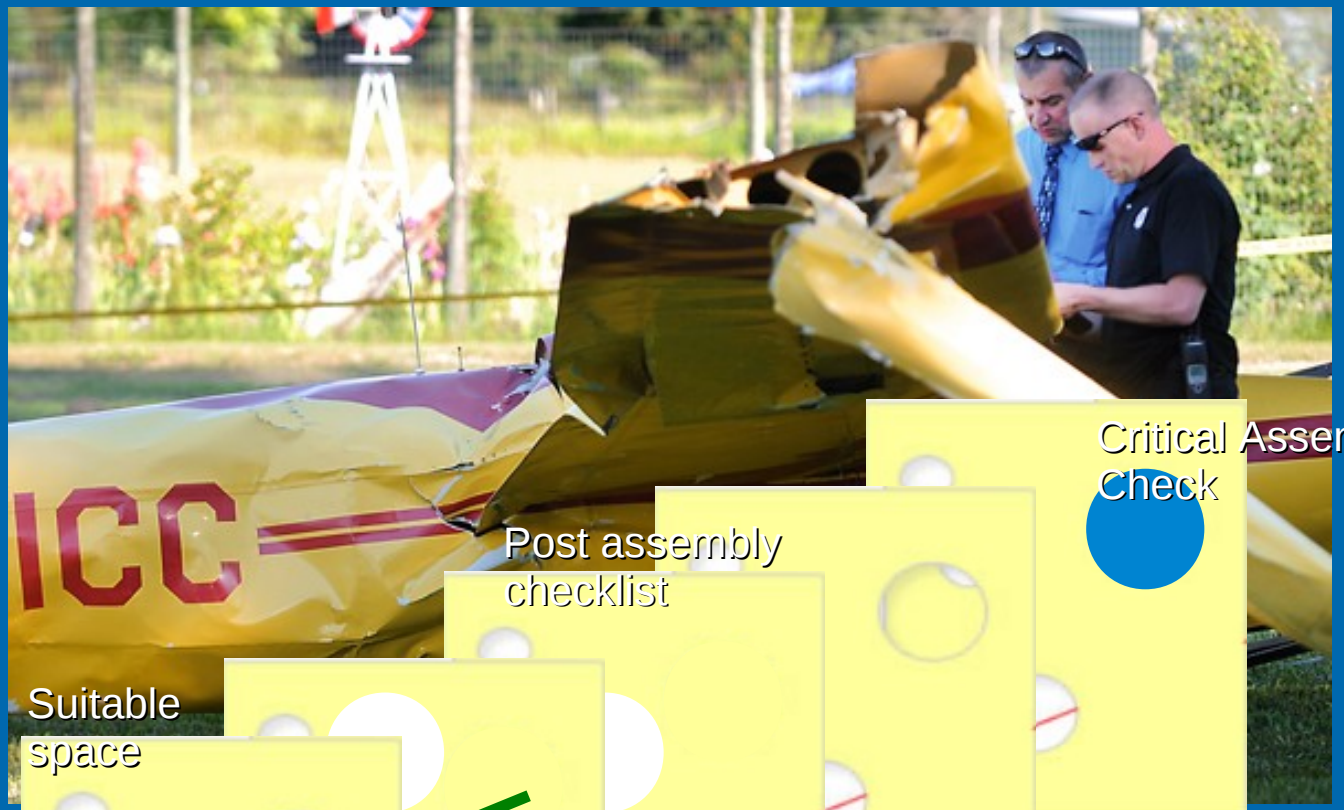
American Cheese

- Evaluate accident causes and create new rules and regulations based on causal factors
- Pilot in Command makes decisions
- Regulate the use of Checklists

Swiss Cheese

- Evaluate accident causes and create new barrier based on causal factors
- Multiple personnel involved
- Multiple barriers to detect mistakes

Glider Assembly Process



Critical Assembly Check

Post assembly checklist

Suitable space

Positive Control Check

Knowledgeable assistant

POH, or other written, instructions

Limit distractions

Underlying Principles

- Risk Management and Decision Making Skills are learned behavior
- No different than learning stick & rudder skills
  - Explicit training using available resources
    - Books, pamphlets, AC's, web sites
    - Flight instructor
  - Implicit training by example
    - what you do vs what you say
    - what do your peers do

New Glider Scenario

- Ingrid, a private glider pilot with 120 hours arrived at the club about 10:00 with the glider she just bought. As she is pulling it out of the trailer she tells you about the long drive and trailer problems she had, getting in about 4:00 this morning. Today promises to be a good soaring day and she is anxious to get started, will you help her assemble?

Dialog with You

- Begin tailoring a RM/ADM program for SSA members
- Representatives from the SSA general membership and contest pilots, will answer questions
- Bob Wander will moderate this session
- At the end Chartis, our insurance company, will make a donation to the SSF

Learn from your Mistakes

Learn from the Mistakes of others