**Volunteer Pilots Course Outline – Working Draft 12/17-22/2010**

**Air Care Alliance – AOPA Foundation Air Safety Institute**

**A. Course Objective/ Why it is Important/Who it’s Intended For**

 a. More Pilots Volunteering to Help Others, which is good

 i. But volunteer pilots face unique risks and accidents still happen even to pilots doing

 good deeds

 ii. Course intended primarily for pilots, but useful for trip coordinators

 b. Volunteer Flying Risk Profile Different from Pleasure Flying

 i. Risk of “Mission Imperative” - Perceived Pressure to Complete a Flight

 c. Course Intended to Address the Most Common Challenges Faced

 i. Make pilots aware of risks and help them develop strategies for mitigating the risks.

 ii. Ultimate Goal of Course: To Help Reduce Accidents

 d. Example Accident – Iowa, Tailwind takeoff, Child not properly restrained

**B. What is public benefit flying?**

 a. Many Organization each with unique Mission, Training & Risks

 i. Examples of the work done by these groups

 b. Air Care Alliance - Network of public benefit flying organizations with a variety of missions

 i. Good source of info on organizations that volunteer pilots can fly for

 c. Charitable Flying/Local event fundraisers

 i. Most of this course applies to charitable flying

 ii. There are special regulations that apply to these flights for fuel reimbursement

 iii. Resources

1. AOPA webinar for rules & regulations specific to charitable flying

**C. Risk Management**

 a. 80% of all accidents due to poor pilot Judgment

 b. Most situations the result of a chain of events

 i. Break the Chain by Making Good Decisions

 c. Don’t hesitate to Declare an Emergency

 i. Use ATC resources, but don’t let them distract you unduly

 ii. Remember to always Aviate first; then Navigate and Communicate

 d. Many frameworks for Risk Management

 i. 5 Ps is one framework Volunteer Pilots can use:

 1. Perceived Pressure, Plan, Passengers, Pilot, Plane

**D. Perceived Pressure to complete a flight**

 a. Single biggest issue facing Volunteer Pilots

 i. Pressure is often self-induced – A perceived need to complete mission at any cost

 ii. Powerful force that can result in poor decision-making and even death.

 1. Must be considered by all Volunteer Pilots before and during flight

 2. Caution: May not seem like an issue before the flight.

 3. But often evinces itself in flight, so pilots must plan for it ahead of time.

 b. Flights are usually non-emergency

 i. But pilots feeling an imperative to complete a flight may take higher risks

 1. Ironically, Passengers, if consulted would never agree to higher risk

 c. Or, a pilot may have personal obligations after the flight & feel need to press on

 d. Or, close proximity to destination may lead pilot to continue rather then divert

 e. Solutions to Perceived Pressure

 i. Rigorous Risk Management Analysis

 1. Identify all possible issues that may arise and develop contingency plans

 ii. Open communication with passengers throughout the process

 1. At booking, prior to departure, in flight

 f. Don’t Hesitate to Cancel a Mission for any Reason, especially Safety

 i. Could be Weather, NOTAM, TFR, mechanical issue, pilot or passenger sickness

**E. Plan**

 a. Identify Risks & Develop Plans to Mitigate the Risks

 i. Set Expectations with Passengers Before Booking Flight

 ii. Examples of Risks & Potential Backup Plans

 1. Poor weather

 a. Flexible Window for Weather– Fly a Day earlier or later

 b. Allow Backup Pilot with More Capable Aircraft to Fly

 c. Purchase Airline Tickets for Passengers

 d. Consider Ground Transportation alternatives

 2. Pilot Sick or Plane unavailable

 a. Arrange ahead of time for backup pilot and backup plane

 i. Don’t fly if you and/or airplane aren’t 100% capable!

 3. Delays to Start of Trip

 a. Remember JFK flight, which could have been completed safely in

 the daytime, but due to delays occurred in darkness.

 b. Fly in daytime when possible; fatal accident rate higher at night

 c. Plan ahead of time for delays and develop contingency plans

 d. Have personal minimums on how late at night you will fly

 4. High Density Altitude

 a. Carefully calculate performance and add a minimum of 50%

 b. Offload weight or takeoff later when temperatures are lower

 iii. Use good Aeronautical Decision Making principles

 1. When you have options, choose the more conservative option

 2. Identify what you’re unfamiliar with and seek answers

 a. E.g. Complex airspace along your route or at destination

 b. Airport Information and any gotchas

 i. Local hazards or obstacles

 ii. Noise abatement procedures

 iii. Ground transportation available

 iv. Call a local expert or FBO to learn details

 v. Consider bringing a 2nd pilot if flying into a difficult airport

 iv. Resources:

 1. Do the Right Thing: Decision Making for Pilots (course)

 2. ASI Flight Risk Evaluator

 b. Analyze Weather

 i. Start 3-5 days ahead of time if possible.

 1. Use weather.com or GFS forecast charts

 ii. 1-2 Days ahead of time

 1. Use FAA resources: Outlook Briefings and Forecasts

 iii. Require higher weather minimums than you might use for

 personal flight

1. Passengers less tolerant than pilots to high winds and
2. turbulen

 iv. Resources

 1. Many ASI Weather courses

 c. Route Selection

 i. Terrain, Alternate Landing Sites, Safe Altitudes, Freezing

 Level

 d. Appropriate Charts

 e. Use Flight following & Flight Plans

 f. Fuel planning and alternate fuel stops

 g. Use of “Compassion” and other callsigns (e.g. only on

 passenger legs)

 h. Planning Checklists

 i. See if your Volunteer organization has a planning checklist

 or create own

1. Example Accident – Ensenada, Fuel Planning, Gear

Inspection

 j. Resources (courses)

 i. Know Before You Go: Navigating Today’s Airspace

 ii. Accident Case Study: Cross-Country Crisis

**F. Passengers**

 a. Identify number of passengers and approximate weight & baggage weight

 b. Plan for passenger special needs before the flight

 i. Brief passenger during booking of flight

 1. Use your volunteer organization’s briefing list

 2. Advise passenger of the possibility of a cancellation due to weather, etc and

 let them know of any alternatives available.

 ii. Inquire about special need

 1. Do passengers have oxygen tanks or approved child restraint seats?

 2. Are passengers ambulatory and able to get in and out of your plane?

 3. Will there be any animals on flight?

 a. Discuss how to secure animal(s) in flight

 b. Plan to walk animal(s) prior to flight

 iii. Identify experience level

 1. Experienced or new General Aviation passenger?

 2. Nervous or Quiet

 3. Helpful or a Handful

 c. Brief Passengers again on the day of the flight

 i. TIES: Talking, Illness, Exit, Seatbelts

 ii. Sterile cockpit

 iii. Ask whether they have questions or concerns not previously identified

 d. Monitor Passengers and Keep Informed In Flight

 i. Determine if Passengers are Nervous or Concerned

 ii. Involve them in decision making; present alternatives

 e. Feedback

 i. Solicit feedback actively during and after flight

**G. Pilot**

 a. IMSAFE

 b. Currency versus Proficiency

 i. More than 3 takeoffs and landings in past 90 days

 ii. Not only instrument current but proficient

 c. Personal Minimums

 i. Create and/or review your personal minimums before a trip

 ii. Consider using higher personal minimums for volunteer flights

 d. Single-pilot IFR

 i. Nothing more challenging, especially for Volunteer pilots with added perceived

 pressure to complete the flight

 ii. Consider bringing a co-pilot

 iii. Use automation such as autopilot

 e. Example Accident – South Easton, MA - not instrument current

 f. Personal Equipment

 i. Personal Locator Beacon or GPS Location Devices

 ii. Portable (or panel mount) GPS with terrain awareness

 iii. Clothing appropriate to the Terrain Being Flown Over

 iv. Survival Gear

 g. Don’t stress out about whether flight will be cancelled

 i. Accept that either you’re going or you’re not going

 ii. Devote any nervous energy to additional contingency planning

 iii. Generally you’ll have a good idea 24 hours in advance about whether the flight may

 need to be cancelled.

 h. Resources (courses)

 i. Single Pilot IFR

 ii. IFR Insights: Charts

**H. Plane**

 a. Suitability for the Mission

 i. Useful Load and Weight Distribution

 ii. Familiarity with Aircraft and Systems

 1. Recency of Experience in Model

 2. Consider getting additional dual instruction or bring CFI along on trip

 iii. Backup Systems

 b. Airworthiness

 i. AROW

 ii. Maintenance

 1. Open squawks?

 2. ELT Functional

 iii. GPS and other databases current?

 iv. Preflight

 1. Check pitot heat if IFR flight; cockpit and external lights for night flight

 c. Knowledge of Avionics, especially GPS and autopilot

 **I. Information about Air Care Alliance and how to get involved**

 a. Link to online listing of all 65 volunteer groups

**J. Printable kneeboard-sized summary (and/or sample letter for volunteer pilots) with key points from the course**