

# 2022 PPC AirVenture Clinic Lesson Plan

*Provide educational resources and opportunities to develop better, safer pilots.*

**Clinic Title:** the Art of IFR

**Subtitle:** Instrument Flight

**Date:** Tuesday, July 26, 2022 from 8:00 - 12:00 & 12:30 - 5:00

**Description:** This clinic reviews the requisite IFR skills, procedures and situational awareness needed to successfully complete a challenging cross country flight in IMC. Two knowledge-based breakout sessions support a demanding flight simulation scenario that requires sound PIC decision making. Instrument rated pilots only.

## Morning Schedule

Daily Schedule	AM	Duration
Check/Breakfast	07:30	30
Keynote	08:00	
	08:45	45
	Break	5
Breakout 1	08:50	
	09:35	45
	Break	5
Breakout 2	09:40	
	10:25	45
	Break	5
Breakout 3	10:30	
Flight Simulation	11:15	45
Debriefing	11:20	
Check Out	12:00	40

## Afternoon Schedule

Daily Schedule	PM	Duration
Check-In/Lunch	12:30	30
Keynote	13:00	
	13:45	45
	Break	5
Breakout 1	13:50	
	14:35	45
	Break	5
Breakout 2	14:40	
	15:25	45
	Break	5
Breakout 3	15:30	
Flight Simulation	16:15	45
Debriefing	16:20	
Check Out	17:00	40

## About the Participants

- Pre-registered
- 66 total with 22 per Keynote and Breakout Sessions
- Have to be Instrument Rated

## Handouts for Participants

- Breakout Session slide decks
- Flight Sim Briefing and Scenario Packets

**Equipment:**

- 11 Redbird LD Sims with a combination of glass and steam gauges
- 1 Redbird LD for CFI training

**Keynote**

- 45 minutes
- "De-constructing Instrument Flight"
- Presenter: Doug Stewart
- Facilitator: Jason Archer

**Breakout Sessions**

- 45 Minutes each
- "Situational Awareness", Doug Stewart
- "Choosing the Approach", Jason Archer
- "Pilot in Command", CFII Staff

**Debrief**

- Presenters: Doug Stewart and Jason Archer
- 40 minutes

**PPC Volunteer Qualifications:** CFII, Real IFR experience in the system, know how to provide effective vectors, etc

**Wings Credit:** See attached

## **Presenter Bios**

**Doug Stewart**, the 2004 National Instructor of the Year, and twelve- time Master Instructor, is a full time flight instructor and Designated Pilot Examiner, focusing on real world IFR training conducted on multi-day training trips. To date he has provided more than 13000 hours of flight instruction. The Executive Director Emeritus of SAFE, Doug currently serves on the General Aviation Joint Steering Committee (GAJSC). He is also a subject matter expert for Pilot Workshops.com and Community Aviation. He has presented seminars to thousands of pilots from coast to coast and border to border and authored the monthly Vintage Instructor column for EAA's Vintage Airplane magazine for many years. When not flying he is often found riding his bicycle.

**Jason Archer** is the Chief Flight Instructor at Berkshire Aviation, LLC (KGBR) and holds CFI-I, MEI,G, AGI, and IGI certificates and ratings. Flying since 1991, he specializes in tailwheel, primary and instrument training. He is a professional educator with over 20 years experience working in flight schools, planetariums, science centers and aviation museums. Jason holds a degree in Astrophysics and is currently the Planetarium Director for the Glastonbury Planetarium, a state-of-the-art facility, where he creates and delivers astronomy/aerospace content. When not flying he serves as the a Lead FAASTeam Rep presenting workshops throughout New England. He was the 2021 - 2022 AOPA Distinguished Flight Instructor, 2018 FAASTeam Rep of the Year BDL FSDO and the 2021 CFI of the Year BDL FSDO.

## **Keynote**

### **Title: "Deconstructing Instrument Flight"**

Description: The Practical Test Standards for the instrument instructor state "... the applicant shall select either the primary and supporting or the control and performance method of teaching..." But the fact of the matter is that the good instrument pilot uses both techniques at different phases of instrument flight, either individually or in various combinations thereof. This presentation will discuss both techniques and how, when and why we use them.

#### Key Objectives:

- Better prepared for real IFR flying
- Maintaining Pilot in Command (PIC) authority,
- Improving situational awareness
- Proper use of equipment

Keynote Presenter: Doug Stewart

#### Agenda

<b><u>Topic</u></b>	<b><u>Presenter</u></b>	<b><u>Duration</u></b>
Welcome, Bathroom, Exits	Doug Stewart	5 mins
Deconstructing Instrument Flight	Doug Stewart	35 minutes
Logistics	Jason Archer	5 minutes

## **Breakout Session 1**

Title: "Situational Awareness"

Description: What does it mean to be situationally aware and how can we improve our this critical skill set? We'll take at the numbers, weather risks, tools and variety of things to consider on an IFR flight.

Key Objectives:

- What comprises situational awareness
- What tools do we have to improve SA
- The numbers, weather Risks
- Weather tools
- Environmental concerns

Type of Presentation: PowerPoint with Interactive Discussion

Presenter: Doug Stewart

Equipment: Whiteboard, Markers and AV for PowerPoint

Instructor Mindset:

- Lay the foundation for the lesson by reviewing key concepts.
- Facilitate deep thinking by posing questions rather than lecturing.
- Bring your unique style, techniques, and experiences to the lesson.

Participant Mindset:

- Be engaged and interactive.
- Visualize and simulate.
- Do the mental and physical work needed to answer the questions posed.

## **Breakout Session 2**

Title: "Choosing & Briefing the Approach"

Description: As pilot in command (PIC) you are ultimately responsible for the instrument approach you fly. And flying that approach is more than just briefing the numbers on the approach plate. We'll look at the skillful way to brief an approach considering ceilings, visibility, winds, the runway environment and more.

Objectives:

- Weather
- Ceilings and visibilities
- Lighting
- Runway environment
- Types of approaches
- Anatomy of approach systems
- Choosing the Approach
- Other Considerations

Type of Presentation: PowerPoint with Interactive Discussion

Presenter: Jason Archer

Equipment: Whiteboard, Markers, AV for PowerPoint, copies of Approach plates

Instructor Mindset:

- Lay the foundation for the lesson by reviewing key concepts.
- Facilitate deep thinking by posing questions rather than lecturing.
- Bring your unique style, techniques, and experiences to the lesson.

Participant Mindset:

- Be engaged and interactive.
- Visualize and simulate.
- Do the mental and physical work needed to answer the questions posed.

### **Breakout Session 3: Flight Scenario(s)**

**Special note:** Please do not discuss, reference, or allude to specifics about the "Pilot in Command" scenario. The goal is to see if participants can correlate and apply prior knowledge and experience to an unknown/unfamiliar scenario.

Title(s): "Pilot in Command"

Description(s): You're headed from Redding to Arcata, California for a business meeting. Leaving KRDD it's VFR, but the TAFs are calling for LIFR all along the Northern California coast. So you'll need to be on your game for the arrival. Your Cessna 172 is full of fuel and you're the only one on board. It's just you and your briefcase. Meet your CFI at the sim and arrive prepared. Remember, this mission is a scenario. The instructor will be there for you, but as a mentor, not a teacher. You've got all the information you need for this trip and everything is your call. Good luck. Today, you are Pilot in Command.

**CFI lesson(s):** See Attached

- Mission Summary
- Objectives
- Instructor Notes
- Training Elements
- Common Errors
- CFI Training Needs

## **Debrief**

Objectives: A post-clinic debrief that will tie together the keynote, breakout sessions and flight simulations.

Key Participant Take-aways:

- Aviate – Navigate - Communicate
- Use standard phraseology
- Listening is as important as talking
- Situational awareness of frequencies
- Pay attention
- Be here now
- Use all the tools
- Have fun
- Engaged with the flight: From initial planning – 'til the airplane is back in the hangar

Leading Questions/Group Discussion Ideas:

- Which approach did you choose? Why?
- How is what you learned today different than what you have been doing?
- How well did you fly the approach?
- What old habits (rule of primacy) are you finding hard to break?
- What did you miss in briefing/planning/flying the approach?
- Where was your attention?
- What would you say is your biggest take-away from today?

Presenters: Doug Stewart & Jason Archer

Equipment: Whiteboard, Markers and AV for PowerPoint



**List of Resources/Reference Materials:**

Section 9 Radar Vector - Vectors to Final Approach Course  
KENDL 4 Departure Procedure  
KACV Airport Diagram  
KACV RNAV Rwy 1  
KACV RNAV Rwy 14  
KACV RNAV Rwy 32  
KACV ILS Rwy 32  
C172 Checklist  
RNAV Approach Matrix  
IFR Procedures Checklist  
Airport Info  
Alternate Minimums