



Sean D. Tucker
Team Oracle

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Background

- **Since mid- 70s:**
 - Flown over 500 airshows
 - 1500 performances
 - Over 10,000 airshow practice flight
 - Over 100 million fans
- **In coming season:**
 - 20+ shows
 - Over 6 million fans



How I approach this business

- **Preseason:**
 - **30 Days/90 flights**
 - **3 flights/day; 22-28 minutes each**
 - **First 30: establish G-tolerance; higher alts**
 - **Next 60: airshow altitudes; surface – 4K'**
 - **20 flights: low ceiling; surface – 1200'**
 - **Complete, smoke-on, dress rehearsal, with crew**
 - **Videotape, team critique, choreography, safety**
 - **No changes after sequence finalized**



Critical

- **Must have margins if a maneuver doesn't work**
- **Must have an "out": be able to discontinue a maneuver safely**
- **Entry altitude and speed for each maneuver determined by "out"**



In-Season Training

Currency	Show up	Practice Flights	Thursday/Friday	Sat/Sun
Current	Wednesday	7	Off-site and on-site flights	<ul style="list-style-type: none"> •Off-site practice •Morning “teaser” •PM performance
One week off	Sunday	14	Off-site and on-site flights	<ul style="list-style-type: none"> •Off-site practice •Morning “teaser” •PM performance
Two weeks off	Earlier	20	Off-site and on-site flights	<ul style="list-style-type: none"> •Off-site practice •Morning “teaser” •PM performance
Three weeks	Earlier	25	Off-site and on-site flights	<ul style="list-style-type: none"> •Off-site practice •Morning “teaser” •PM performance
Month off	Earlier	30	Off-site and on-site flights	<ul style="list-style-type: none"> •Off-site practice •Morning “teaser” •PM performance

Maintenance

- **2 full-time, AI mechanics on team who oversee airplane**
- **Do full, 100-hr inspection at the end of every 10 hours of flight**



Personal Fitness

- **High performance, low-level airshow flying is an athletic event**
- **Fitness is important as aerial practice**
- **Without high level of fitness: prone to G-LOC, muscle fatigue, exhaustion**
- **Exercise: daily**



A Professional Performer

- **Understands demo flying is privilege not a right**
- **Trains like a champion**
- **Does not fly aircraft to failure**
- **Does not exceed technical skill sets**
- **Can score 80% or better in any international aerobatic competition**
- **Maintains a/c to very highest standards**
- **Always complies with guidelines of FAA waiver for sanctioned event**
- **Never, ever directs aerobatic energy toward spectators**



Observations

- Airshow industry has done very good job of protecting spectators
- No aerobatic energy toward the audience
- Since ACE in 1991, ICAS has significantly enhanced professionalism and reduced pilot deaths
- But, 5 deaths are too many
- Only the very best, well-trained, most prepared pilots should receive the privilege of performing before an audience



Observations

- **Need to do better job of protecting pilots**
- **Common thread: pilot error**
- **Low-level flying is currently accessible to individuals not qualified to safely execute their performances**
- **Goal: increase general level of airshow pilot competence**
- **Elevate acceptance criteria for applicant evaluation**
- **More robust testing protocols**
- **Enhanced training tools for ACEs**



Idea

- **Industry led, blue-ribbon panel to consider enhancements to ACE program**

