



Red Flag 2017 *Aerobat Category*

50 Pilots Invited Across Multiple Classes

Objective:

- To create an event which presents a challenge for participants by judging precision and flow, all while emphasizing spectator appeal.
- Use of a predetermined list of maneuvers with various levels of difficulty and reward helps encourage individuality by participants.
- Maneuver selection which allows for a variety of aircraft (combined length and wingspan greater than 120") being used which does not favor any particular type of airplane.
- Graduated levels of difficulty to allow pilots to operate within their comfort range while rewarding those selecting a more difficult sequence of maneuvers.
- An airshow presentation to minimize "dead time" yet prove challenging and rewarding for participants, while enhancing spectator appeal.

Overview:

Invited pilots fly against a ten (10) minute clock; to complete their flight presentation. This includes taxi time and touchdown for landing. Any pilot that uses more than 10 minute for his flight presentation will receive a 2% deduction from his final score for each minute over 10 minutes, starting at 10:01.

Pilots have a choice to participate in one of two classes: *Scale Jet* or *Sport Jet*. Each class would have a maximum of twenty (25) pilots. Scale Jets would use the well-known Pro-Am Scale static judging guideline requiring a recognizable scale paint scheme with accompanying photograph. The second class would encompass any Sport Jet. Each pilot will choose to participate in one class of the Aerobat Category but not both. Two flight-lines will be flown simultaneously with one line utilized by the Scale Jet class and the other used by the Sport Jet. It will be each pilot's responsibility to fly all upwind maneuvers on a defined inside line, while downwind maneuvers are flown on a defined outside line. The inside line would be no closer than the far edge of the asphalt runway and no further out than 50 yards from the runway's far edge. The outside line would be approximately 100 - 150 yards out from the far edge of the asphalt runway.

Using the attached maneuvers list, each pilot will select a total of ten (10) aerobatic maneuvers for Sport Jets and eight (8) aerobatic maneuvers for Scale or Electric jets to create their individual aerobatic sequence. Individual sequences will be presented to judges in advance and deviation from the submitted list is not allowed. Any deviation from their listed sequence results in a zero (0) score for any missed maneuvers. These individual maneuvers would be considered "*centered maneuvers*", with placement & precision being paramount to the pilot's score. Fidelity to scale flight will also be considered as an overall presentation score. Each "*centered maneuver*" will be followed by a turn-around maneuver (examples: Split S, Half Cuban 8, Reverse Half Cuban 8, Procedure Turn) at pilot's discretion which sets up their next "*centered maneuver*" for score. Each subsequent upwind or downwind pass requires the next "*centered maneuver*" be flown for score without deviations from their submitted sequence list. These turn-around (end box) maneuvers create a natural flow and overall airshow presentation for each flight. This also helps to reduce dead time and expedites time aloft for each flight. Depending on the maneuvers selected by

pilots, a total of 4 – 5 upwind/downwind passes would be required to complete each flight, limiting time in the aerobatic box to 5 minutes or less. Following each aerobatic sequence, a mandatory **Slow Fly-By** (gear down initial flaps deployed) is required for score, leading into a rectangular pattern and landing, also for score. Each flight will also be scored for overall presentation resulting in thirteen (13) individual scores for the Sport Jet class and eleven (11) individual scores for the Scale or Electric Jet class. For the sake of balance, Slow Fly-by, Presentation & Landing Score would have a K factor which is the average K for all aerobatic maneuvers available on the attached list. This assures that the Slow Fly-By, Presentation and Landing score are all of equal value, on average, as they relate to the aerobatic maneuvers.

Judging:

There will be 2 judges on each flight line, with changes made each round. Judges will score each of the aerobatic maneuvers for precision, placement and proper geometry on a scale of one (1) to ten (10), with 10 being a perfect score. All aerobatic maneuvers must be flown in the exact sequence submitted by pilots prior to each flight. In the event a planned maneuver is missed a zero (0) score is given for that maneuver. Following a missed maneuver, should a pilot find him/herself out of position, a **“break”** may be called allowing the pilot to get back into proper position for his/her next planned maneuver. A **“break”** results in a zero (0) score for a minimum of one maneuver. Only one **“break”** is allowed per round; if a second **“break”** is called, the pilot shall immediately land, with NO additional scoring allowed. Scoring begins when the pilot announces that he is beginning his sequence and initiates the first aerobatic maneuver, and concludes once he has completed the landing. No additional communication with judges is required once the intent to start has been announced. The exception to this would be a called **“break”** by the active pilot or his/her caller. Once a pilot has completed his/her aerobatic maneuvers, they will be allowed up to two additional circuits to get into position for the mandatory Slow Fly-By leading into a rectangular traffic pattern and full landing. Judges will score the mandatory Slow Fly-By, Presentation and Landing on a scale of one (1) to ten (10), with ten being a perfect score. Landing **must** follow the Slow Fly-By and rectangular pattern or a zero (0) score will be given. The only exception allowed is at the discretion of the head flight line judge, for any conflicting traffic. With only two airplanes operating simultaneously this should not be necessary.

It is planned that all Aerobat Category Pilots would fly one scored round daily during the course of the scheduled four day event. Final ranking will be based on the pilots three best flights scored, with the lowest score being dropped. Final round scores **may** be held confidential until the awards banquet Saturday evening.

Conclusion:

Because Red Flag 2017 is in its' second year, we feel it is important to keep the format simple and straightforward; allowing room for growth. The turnaround (airshow) format is easily flown by most proficient Jet Pilots with a little advanced practice. The maneuvers selected are designed to be challenging, but not troublesome, for the intended participants. The goal is to be innovative, time efficient and entertaining. Scoring with the use of K factor is easily accomplished, rewarding those participants pushing the envelope. The biggest challenge will be securing qualified judges that understand the balance between precision aerobatics and scale flight. I believe this can be overcome with advanced training and limiting the maneuvers flown as outlined here. Participation in the Aerobat Category may be viewed as a stepping stone to gain experience, with a goal of participating in future Team Demo or Individual Freestyle Categories. Our goal for the 2017 event would be a balanced class of 20 – 25 pilots competing in each of the Scale Jet or Sport Jet Classes.