RARA / Sport Class / Biplane Class / Formula Class

Draft Rules / SOP for Ramp Flow and Recovery

1. Sport Class Air Racing Ramp Staging, Start and Taxi-out Flow, Recovery Flow and Refueling Plan
	1. Sport Class Race Heat Staging. Sport Class will stage aircraft for race heats as follows:
		1. Aircraft will be staged on the front line, approximately 10 feet behind (south of) the yellow non-movement area markings.
		2. The pole position will be staged to the left (west side) of the front line, and subsequent racers will be staged to that aircraft’s right.
		3. The Sport Pace aircraft will be parked to the far right of the front line, just west of the dividing line between the Sport and T-6 ramp areas.
		4. Should a subsequent race heat need to be staged before the prior heat has taxied, due to heat scheduling, the second heat will be staged one row back, from left to right, in the same manner as the front-line heat.
	2. Sport Class Practice and Qualifying Staging: During NCAR Practice and Qualifying sessions, and during PRS training sessions, Sport Class will stage flights together on the front 2 lines of the staging area, in a manner similar to that used for race heat staging. A third line of aircraft may be staged if required, but lines 2 and 3 should be pushed forward to the front two lines after the front-line flights have taxied.
	3. Sport Class Aircraft Start and Taxi-out flow. During all NCAR and PRS Operations, the following start and taxi procedures apply to all Sport Class Aircraft:
		1. **The Ramp Chief will ensure only essential personnel are in the staging area when a flight is staged through to the time it is ready to start engines. He will be assisted in that duty by the Assistant Ramp Chief, all Crew Chiefs, and all Pilots.**
		2. Only aircraft in the front line of staged aircraft in the Sport Ramp may be started for taxi.
		3. **When a flight has started engines, the crews must use caution if moving into the area occupied by subsequent flights staged behind them, or the south area of the ramp that will be used for recovering aircraft.** Movement through flights with turning propellers is prohibited.
		4. If a recovery of aircraft is in progress while other aircraft are staged or starting engines, all crews must remain in the north (staging) area of the ramp until all recovering aircraft have shut down. They must not cross into the south (recovery) area of the ramp while recovering aircraft have turning propellers.
		5. If the Ramp Chief views crews moving from the staging area towards the recovery area while recovering aircraft are still under power, he will raise a red flag and freeze all movement on the ramp. All marshallers will stop all aircraft under their control if the red flag is raised.
		6. Once all recovery aircraft have stopped and been shut down, crews of taxiing aircraft may proceed to viewing areas behind the K-rails/Crowd Line or at the north end of the first Meiser hangar row.
	4. Sport Class Aircraft Recovery Flow. During all NCAR and PRS Operations, the following taxi-in and recovery procedures apply to all Sport Class Aircraft:
		1. Sport Class Aircraft landing on RWY 8, 14 or 32 will taxi west on taxiway A until reaching the west entrance to the Sport ramp, adjacent to taxiway A3.
		2. Sport Class Aircraft landing on RWY 26 will exit on A3. If an aircraft rolls beyond A3 on 26, they will exit left at the departure end of 26, and taxi east on A to A3, and be marshalled in sequence with other recovery aircraft. A 180 on 26 to exit at A3 is not desired or authorized, unless specifically directed by Race Control.
		3. All recovery aircraft will enter the Sport ramp at the west end, where Marshaller #1 will be positioned.
		4. Marshaller #1 will control the flow of aircraft along the west end of the Sport ramp, and will pass aircraft control to Marshaller #2.
		5. Marshaller #2 will turn all recovering aircraft into an eastbound single file line towards the fueling area, and will pass aircraft control to Marshaller #3.
		6. Marshaller #3 will stop the first aircraft in line at a point 2 aircraft lengths prior to the first fuel truck, and signal them to shut down. This spot will be marked with a red line on the ground.
		7. Marshaller #3 will stop and shut down each subsequent aircraft in the west-to-east single file line.
		8. **Crews for all aircraft must remain behind the K-rails/Crowd Line, or behind the red line at the north end of the Meiser hangars, until all recovering aircraft have stopped and shut down. The crews of the first and subsequent recovering aircraft must not approach their aircraft while other aircraft are taxiing into the ramp area under power.**
		9. **The Ramp Chief will ensure no crews or tow teams approach their aircraft until all recovering aircraft have stopped and shut down.**
		10. If the Ramp Chief views crews moving from the viewing areas towards the recovery area while recovering aircraft are still under power, he will raise a red flag and freeze all movement on the ramp. All Marshallers will stop all aircraft under their control if the red flag is raised.
		11. No aircraft will be allowed to taxi into the ramp area in any direction other than that described above.
		12. No aircraft will be allowed to shut down while moving and coast up to the fuel trucks at any time.
		13. Marshaller and Ramp Chief signals and instructions must be strictly followed and adhered to at all times.
	5. Sport Class Aircraft Refueling and tow back to parking. During all NCAR and PRS Operations, the following refueling and tow-to-parking procedures apply to all Sport Class Aircraft:
		1. Aircraft will be towed or pushed eastbound, parallel to the No Prop Turn Line (NTPL), to the 2 fuel trucks as opening occur.
		2. Aircraft will not be towed or pushed to form a circle or other crowded arrangement around the fuel trucks.
		3. Fueling will be accomplished with the aircraft facing east.
		4. Two aircraft may be fueled simultaneously via this method (one at each truck).
		5. When fueling is complete, aircraft will be towed or pushed eastbound beyond both fuel trucks, will then be towed or pushed in a right 180 degree turn into the lane between the NPTL and the K-rails/Crowd Line, and then to their assigned parking spot
		6. If a Formula or Biplane heat is refueling when a Sport heat is recovering, after shutdown, the sport heat will remain behind the red stop line and clear of the fuel trucks, until the Formula or Biplane heat has been towed away from the fuel trucks, across the NPTL, and to parking.
		7. If a Sport aircraft requires fuel prior to staging, and a Formula or Biplane heat is refueling after recovery, per section 2 below, the Sport aircraft will be towed to the fuel trucks on the south side of the NPTL, and will blend in with the Formula or Biplane fueling line, or will wait for the Formula or Biplane heat to complete fueling, then proceed to a fueling position. Cooperation between classes is desired to accommodate the staging Sport aircraft if time is critical for the staging Sport aircraft. The Sport Ramp Chief and the Formula or Biplane recovery lead will work together to determine priority.
2. Formula and Biplane Class Recovery Flow and Fueling Plan
	1. Formula and Biplane class Recovery Flow. During all NCAR and PRS Operations, the following recovery and tow-in procedures apply to all Sport Class Aircraft:
		1. Formula and Biplane aircraft exit RWY 8 or 26 at taxiway A-2.
		2. Formula aircraft shut down and hook up to tow vehicles upon exiting the runway.
		3. Biplane aircraft exit the runway and taxi to the area adjacent to pit rows 17 and 18, or near the chalet area, and shut down for hook-up to tow vehicles.
		4. Formula and Biplane aircraft, once under tow, will proceed, in a single-file line, across the NPTL in the area of pit rows 15-18, into the lane between the NPTL and the K-rails/Crowd Line, and will tow westbound, parallel to the NPTL in that lane, until just east of the fuel trucks.
		5. Formula and Biplane aircraft under two will remain in that lane, and clear of the staging areas for the Unlimited Class, the T-6 Class and the Sport Class, until reaching the fuel trucks.
		6. Formula and Biplane aircraft will be towed to the north side of the fuel trucks, and then westbound into fueling position, as openings occur.
		7. Aircraft will not be towed or pushed to form a circle or other crowded arrangement around the fuel trucks.
		8. Fueling will be accomplished with the aircraft facing west.
		9. Two aircraft may be fueled simultaneously via this method (one at each truck).
		10. When fueling is complete, aircraft will be towed or pushed westbound beyond both fuel trucks, will then be towed or pushed in a left 90 degree turn and then a right 90 degree turn, into the lane between the NTPL and the K-rails/Crowd Line, and then to their assigned parking spot.
		11. Formula and Biplane aircraft under tow must remain clear of the Sport Class recovery lane at the south side of the Sport ramp.