Sport Class Air Racing Association
Official Rules of Competition
2025

[Revised January 2025]

2025 Summary of Changes

Section I.:	Updated lists of Officers, Pilot Standards Committee/Advisory Board, Technical Committee and Ramp Boss
Section II.C.:	Updated the term dates for elected officers
Section II.D.:	Clarified the annual meeting location, and added the minimum notice required for calling the annual meeting.
Section II.K.1:	Changed the due date for class membership dues to May 1 of the year membership is sought.
Section II.K.2:	Updated the description of, and removed the fee for, Associate Membership.
Section III.A.:	Clarified and expanded the primacy of the Sport Class Rules of Competition, and clarified their relationship to Rules of Competition issued by AROs or Race Hosts.
Section III.B.:	Removed reference to RARA/NCAR, and made this paragraph applicable to any venue or Air Race Organization.
Section III.C.:	Added the Groups.io website to where these rules are available, and clarified verbiage in this section.
Section III.D.:	Made this paragraph applicable to any Air Race Organization's rules of competition.
Section III.E.:	Clarified that any waivers to the rules may be granted by the Class Officers and the Class Pilot Standards/Contest Committee.
Section IV.A.:	Revised the scope of aircraft eligibility by adding subsections 1-3, Aircraft Type, Aircraft Engines, Aircraft Maximum Weight. Removed subsection on aircraft minimum speed.
Section IV.A.1.:	Revised subsection to include Experimental-Amateur Built, Experimental-Exhibition and Experimental-Racing. Added Reference to FAI Classes. Removed reference to kit-built and plans-built.
Section IV.A.2.:	Redefined aircraft powerplant limitations, and added reference to FAI Groups.
Section IV.A.3.:	Added subsection on aircraft weight limitations, and added reference to FAI Classes.

Section IV.B.:	Revised subsection to correct grammar and clarified when aircraft adequacy demonstration will be evaluated
Section IV.C.:	Added adequate pilot field of view requirements, and clarified when aircraft adequacy demonstration will be evaluated.
Section IV.D.:	Added a separate subsection for the aircraft speed and g certification statement description. Added a note to apply to situations where an ARO requires percentages that differ from those listed in this rule.
Section IV.E.1-5.:	Added new section to authorize and define the addition of Divisions of race aircraft within Sport Class Air Racing
Section V.A.:	Clarified when aircraft documents must be available for submission and inspection
Section V.B.:	Updated the section on flight test completion and documentation submission requirements, to include all formation warm-up, air race training and air racing events.
Section V.C.:	Clarified the insurance COI document and submission requirements.
Section V.D.:	Minor grammar correction to this section.
Section V.H.:	Made this paragraph applicable to any air race training or air racing event.
Section VI.A.2.:	Made this paragraph applicable to any air race training or air racing event.
Section VI.A.4.:	Added responsibility for recommending and approving race pilots for credentialing.
Section VI.A.5.:	Made this paragraph applicable to any air race training or air racing event and clarified what requirements must be checked.
Section VI.A.6.:	Made this paragraph applicable to any air race training or air racing event.
Section VI.B.:	Made this paragraph applicable to any air race training, qualification racing event.
Section VI.B.2.:	Modified the Medical Certificate requirements, added that ARO requirements must be adhered to if they exceed Class requirements, and removed specific reference to NCAR.
Section VI.B.3.:	Removed specific reference to NCAR, and added demo racing.

Section VI.B.4.	Made this paragraph applicable to any air race training or air racing event, and removed specific reference to NCAR.
Section VI.B.8.	Removed specific reference to PRS and NCAR.
Section VI.B.9.	Added the term Air Race Organizer.
Section VI.B.9.	Added training and Certificate of Waiver to this section.
Section VI.C.1.	Made this paragraph applicable to any air race training event.
Section VI.D.:	Made this paragraph applicable to any air race training event.
Section VI.D.2.:	Increased the maximum number of pilot evaluations that may be completed in any single evaluation flight to three.
Section VI.D.5.(i).:	Added sub-section to add pylon cut and safe return to the course eval item.
Section VI.D.5.(j-m).:	Renumbered sub-sections.
Section VI.E.1.:	Renamed the Missing Man qualification, and made it applicable to any Sport Class Air Racing event.
Section VI.E.2.:	Clarified the applicability of Match Race Qualification to any Sport Class Air Racing event.
Section VI.E.3.:	Clarified the applicability of Air Race Demonstration Qualification to any Sport Class Air Racing event.
Section VI.F.	Section retitled to include “Qualification Reciprocity”
Section VI.F.1-7.:	Made these sections applicable to any air race or air race training event. Changed all reference of race organizer to Air Race Organization.
Section VI.F.3.	Added section to describe training and qualification reciprocity.
Section VI.G.1-5.:	Made these sections applicable to any air race or air race training event. Changed all reference of race organizer to Air Race Organization.
Section VII.A.1.:	Clarified pilot briefing requirements.
Section VII.A.4.:	Made grammar and spelling corrections.
Section VII.C.2.:	Added guidelines for placement of an aircraft that fails to qualify into an appropriate heat.

Section VII.C.3.:	Clarified that ARO and Class Contest Committees will monitor, judge and officiate during race qualifications.
Section VII.D.1.:	Added guidelines for the use of telemetry for qualification.
Section VII.D.4-6.:	Clarified communications during qualifying attempts, and added that verbiage about flags is applicable only when flags are in use.
Section VII.D.8.:	Made this section applicable to any race event and ARO. Removed specific reference to RARA/NCAR.
Section VII.D.11.:	Clarified that a re-attempt at qualifying may be started if adequate time remains in a flight's on-course period.
Section VII.E.3.:	Made this paragraph applicable to all air race venues, removed specific reference to NCAR, and clarified Sport Course names and applicability of race courses for various Sport Class Heats.
Section VII.E.4.:	Removed reference to Formula Course, and outlined that the Match Race Course will be designed specifically for that race's purpose.
Section VII.F.1.:	Added allowance to modify start, as needed, for Divisions within Sport Class.
Section VII.F.5.:	Clarified which entities could declare a slingshot on start, and the penalties for attempting a slingshot.
Section VII.F.6.:	Clarified which entities could declare a dive on start, and the penalties for committing a dive on start infraction.
Section VII.F.7.:	Slight verbiage change describing the Pace Aircraft pull up at start.
Section VII.F.8.:	Made this paragraph applicable to all air race venues, removed specific reference to NCAR.
Section VII.F.9.:	Clarified procedures and limitations for moving to the pylon-to-pylon course line during a race start.
Section VII.F.10:	Clarified the prohibition of and consequences of a right turn during a race start and at any time while on the race course.
Section VII.F.11.:	Removed reference to a specific NCAR pylon, and clarified Pace Procedures during start.
Section VII.F.12.:	Clarified Pace aircraft and Pace Pilot procedures after start completion.

Section VII.F.13.: Clarified when a Pace aircraft may join the field and enter the race course.

Section VII.F.14.: Separated the prohibition of Pace aircraft performing aerobatics into a new sub-section.

Section VII.F.15.: Re-numbered this sub-section.

Section VII.G.: Section body deleted to remove reference to Peavine Peak and NCAR. Section reserved for future use as needed for alternate race start procedures for specific race venues.

Section VII.H.: Added “Pairing” to title

Section VII.H.1.: Removed reference to which race course heats will fly on, and added guidance on pairing of separate Divisions of aircraft.

Section VII.H.2.: Added that course to be flown is a consideration on where to pair non-qualified racers.

Section VII.H.3.: Added finishing order and speed to items that may re-order a heat starting line-up.

Section VII.H.4.: Clarified procedures and limitations for an aircraft to rejoin a race flight after taxi or takeoff of the flight.

Section VII.H.5.: Changed “after line-up” to “after initiating takeoff”.

Section VII.H.6.: Added guidelines for pairing of added Divisions to this section.

Section VII.H.7-8.: Deleted duplicative H.7, and renumbered H.8 to H.7. Added authority to pair Match Race aircraft via any method agreed upon by the Class and the Air Race Organization.

Section VII.I.8.: Added a definition of excessively rolling to the right.

Section VII.I.9.: Removed reference to NCAR and made paragraph applicable to any Air Race Organization.

Section VII.J.1.: Clarified that the disqualification applies to the passing aircraft, removed reference to RARA/NCAR, and made paragraph applicable to any Air Race Organization.

Section VII.J.3.: Changed preceding aircraft to aircraft ahead.

Section VII.J.5.: Removed the word preceding.

Section VII.J.6.: Clarified justification and limitations for an inside pass.

Section VII.J.7.:	Removed reference to specific NCAR pylons and made this paragraph applicable to any race venue.
Section VII.K.4.:	Changed guidance to say climb towards a safe troubleshooting altitude or altitude commensurate with current aircraft performance.
Section VII.K.9.:	Punctuation correction.
Section VII.K.11.:	Added guidance that Pace/Safety Chase aircraft will not descend to or through the racecourse altitude while providing support of a MAYDAY aircraft.
Section VII.L.1.:	Made this paragraph applicable to all race venues and added “if Race Flags are in use”.
Section VII.L.2.:	Added clarifying verbiage about race course exit lap rules.
Section VII.L.3.:	Added clarifying verbiage about race course exit at finish line.
Section VII.L.3.:	Added clarifying verbiage about the Cooldown orbit.
Section VII.M.1.:	Added verbiage regarding Race Control traffic advisory calls.
Section VII.M.2.:	Added verbiage regarding self-sequencing out of Cooldown.
Section VII.M.3.:	Made this paragraph applicable to all race venues, and removed specific NCAR reference.
Section VII.M.4.:	Clarified “clearance to land” procedures.
Section VII.M.5.:	Minor grammar and punctuation changes.
Section VII.N.1.:	Made this paragraph applicable to all race venues, and removed specific reference to NCAR.
Section VII.N.3.:	Clarified that racers will continue on the racecourse.
Section VII.N.4.:	Minor grammar changes.
Section VII.N.5.:	Added reference to qualifying laps.
Section VII.N.6.:	Added reference to qualifying laps.
Section VII.N.7.:	Added reference to qualifying laps.
Section VII.O.1.:	Corrected grammar.

Section VII.O.1.a.: Removed reference to a specific ARO, and made the paragraph applicable to any event Sport Class participates in.

Section VII.O.1.b.: Made the paragraph applicable to any event Sport Class participates in.

Section VII.O.1.c.: Made the paragraph applicable to any ARO Sport Class participates with and clarified which committees may assess penalties.

Section VII.O.3.: Added Sport Class to the referenced committees listed.

Section VII.O.4.: Re-numbered the trailing note as sub paragraph 4, and clarified that decisions made, and penalties assessed, under this section are not subject to protest.

Section VII.P.: Removed specific reference to RARA and made the paragraph applicable to any ARO that Sport Class Participates with.

Section VII.Q.2.: Added clarifying verbiage about the cancellation of all or some racing for a given day, and added “pairings” reference.

Section VII.Q.3.: Added “pairings” reference.

Section VII.Q.3.: Added “pairings” reference.

Section VII.Q.4-5.: Reversed the order of these two paragraphs, added references to yellow and red flags, and defined the authorities responsible for determining the number of laps flown by each aircraft.

Section VII.R.: Sections re-named Supplementary Rules.

Section VII.R.1.: Added clarifying verbiage, and changed references from Special to Supplementary.

Section VII.R.2.: Added clarifying verbiage, and changed references from Special to Supplementary.

Section VII.S.1.: Added clarifying verbiage regarding the negotiation of prize money accounting and escrow accounts.

Section VII.S.2.: Added clarifying verbiage regarding the negotiation of prize money payout timing

Section VII.S.3.: Made this paragraph applicable to any race venue or ARO.

Section VII.S.4.: Made this paragraph applicable to any race venue or ARO.

Section VII.T.:	Made this section applicable to any air race event.
Section VII.T.1.:	Made this section applicable to any air race event or ARO.
Section VII.T.2.:	Made this section applicable to any air race event or ARO.
Section VIII.A.:	Changed Race organizer to Air Race Organization.
Section VIII.A.1.c.:	Pluralized Racecourse(s).
Section VIII.A.1.e.:	Slight verbiage change.
Section VIII.A.1.f.:	Added Safety and CFR topics.
Section VIII.A.1.g.:	Re-numbered section.
Section VIII.A.1.g.:	Re-numbered section. Specified ARO in this section.
Section VIII.A.2.:	Clarified Indoctrination Briefing requirement and alternate briefing options.
Section VIII.B.1.:	Clarified Daily Brief requirement and listed the Air Race Organization.
Section VIII.B.2.:	Clarified disqualification for attempting to fly with no Daily Brief.
Section VIII.B.3.:	Capitalized Daily Brief.
Section VIII.C.:	Clarified Flight Briefing requirements.
Section VIII.C.6-9.:	Re-ordered items and made slight verbiage clarifications.
Section VIII.C.6.:	Added Pace Pilot briefing item covering start chute speed, and start release speed and geographic position.
Section VIII.C.7-11.:	Subsections re-numbered.
Section IX.:	Listed Air Race Organization.
Section IX.B.2:	Specified Air Race Organization.
Section IX.B.3-4:	Corrected punctuation.
Section X.A.:	Clarified that a full field and the maximum number of race aircraft in an event is per the Class-ARO agreement. Specified that this section shows a sample of 4 heats and up to 36 aircraft, and is not a limit of heats or aircraft.

Section X.B.:	Added section defining how a racer that fails to qualify is paired into a heat.
Section X.C.:	Added Section defining how a field is paired should all or most of the field not be able to qualify due to weather or operational considerations.
Section X.D-J.:	Re-numbered sections.
Section X.D.:	Clarified and added speed to qualification order.
Section X.E.:	Spelling and punctuation changes.
Section X.H.:	Clarified placement of DNS racers in a pairing.
Section X.I.:	Clarified that Class Officers and the Class Contest Committee will assess bumping between heats flown on different race courses.
Section X.J.:	New sub-paragraph added to specify that a separate progression matrix will be formulated and applied to any new Divisions created within Sport Class for any event.
Section XI.B.:	New sub-paragraph added to specify that Sport racers must comply with any ARO or Class limitations on the use of fuels, additives, or chemical injection of fluids, liquids, or gasses, if applicable to any event.
Appendix 1:	Match Race Appendix modified to remove specific references to NCAR or specific Class race courses. Race field size and progression is defined as a sample to be used, and/or modified, for use at any venue where Match Racing is established. Course diagrams are listed as sample diagrams, to be modified and developed for each venue. Procedures and SOP for Match Racing are not changes in this Class Rules update.

I. SPORT CLASS AIR RACING ASSOCIATION - ORGANIZATION

Mission and Purpose

The mission and purpose of the Sport Class Air Racing Association is to foster a safe air racing environment for Sport Class Race Pilots and spectators, by establishing class Standard Operating Procedures, and Training and Evaluation Standards. Sport Class Air Racing highlights new and innovative work being done in the development of high performance experimental, kit-built, plans-built, or amateur built aircraft.

Scope

The Sport Class Air Racing Association has developed racing formats that demonstrates the capabilities of the popular and rapidly growing experimental, kit-built, plans-built, or amateur built genre of aircraft, and gives the designers and builders major Aviation Events/Air Races to showcase their designs.

Organization

The Sport Class Air Racing Association leadership structure is comprised of the following Elected Officers:

Officers

President	Bob Mills	(775) 544-3511 e-mail rvmills@sbcglobal.net
Vice President Operations	Sean VanHatten	(541) 480-7456 e-mail seanvanhatten@gmail.com
Vice President Administration	Conrad Huffstutler	(830) 591-8218 e-mail wildwarbirds@gmail.com
Secretary	George Catalano	(602) 524-1534 e-mail george@contessastone.com
Treasurer	Jason Rovey	(602) 619-1686 e-mail roveyjason@gmail.com

The above elected officers are supported by the following Departments, Boards and Committees.

The Flight Operations, Training and Safety Departments, and the Pilot Standards/Contest Committee, report to the VP Operations.

The Social Media/Marketing Department and the Class Advisory Board report to the VP Administration.

Pilot Standards/Contest Committee

Chairman	George Catalano	(602) 524-1534 e-mail george@contessastone.com
Members	Bob Mills	(775) 544-3511 e-mail rvmills@sbcglobal.net
	Rick Vandam	(775) 742-5640 e-mail rvandam162@aol.com
	Colleen Sterling	(858) 682-3310 e-mail aveightrix@gmail.com
	Sean VanHatten	(541) 480-7456 e-mail seanvanhatten@gmail.com
	David Robinson	(660) 238-4359 e-mail david@flyeps.com
	Andrew Findlay	(757) 617-7692 e-mail find3424@gmail.com
	Tim Slater	(847) 436-8170 e-mail tim@centurionpe.com
	Kirk Murphy	(928) 710-3105 e-mail murphyk79@aol.com

Advisory Board

Chairman	Rick Vandam	(775) 742-5640 e-mail rvandam162@aol.com
Member	Rob Monahan	(650) 588-5313 e-mail rmonaghan@westernallied.com
Member	Vicky Benzing	(408) 306-9128 e-mail vickybenzing@gmail.com
Member	Kevin Eldredge	(805) 801-9183 e-mail relentless@me.com
Member	Andrew Findlay	(757) 617-7692 e-mail find3424@gmail.com
Member	Bill Beaton	(403) 829-9722 e-mail bdbeaton@gmail.com

Technical Committee

Chairman	Bob Fair	(541) 382-4937 e-mail fairrobert@msn.com
Assistant Chairman	Seth Baker	(575) 640-5432 e-mail lcnmrv8r@gmail.com

Ramp Boss

Chief	Armando Carrion	(315) 240-4898 e-mail acarrion@corvusaviationusa.com
Assistant Chief	Jimmy Cox	(512) 429-0230 e-mail jcox@extremecomposites.com

II. ADMINISTRATIVE RULES

A. The Sport Class Air Racing Association is based in the State of Nevada as a “Non-Profit” corporation.

B. The Sport Class Air Racing Association is registered with the Internal Revenue Service as a “not for profit” organization.

C. The Officers will serve a term commencing on November 1 and concluding on October 31.

D. Election of Officers will be held at the Association’s Annual Meeting, which will take place during a scheduled air race event, or at an alternate event or meeting location. The meeting will be called for by the Class President, with a 30 day minimum notice to the membership.

E. Department Heads, Committee Chairpersons, and Advisory Board Chairperson will be appointed by the Officers, and serve as necessary to assist the Officers in administration of the Class.

F. All Departmental positions, Committee members, and Advisory Board members will be appointed by the Department Heads and Committee/Board Chairpersons.

G. Any Departmental position changes or Committee/Board member changes throughout the year will be at the discretion of the appointing authority, subject to approval by the Officers.

H. The Sport Class Air Racing Association does not have separate Class Bylaws. Class governance is as outlined in these Class Rules.

I. Any requests for changes to the rules must be submitted in writing to the Officers. Any changes will be discussed in an open forum, if possible, before consideration for implementation. In no case will a change to the rules be adopted with less than 30 days’ notice to the membership, unless a waiver to the 30 day rule is approved by the membership for a specific rule change.

J. Business that requires notification of the current membership will be transmitted via e-mail.

K. Membership: Sport Class Air Racing Association membership falls into two categories:

1. Full (Voting) Member. A Full (Voting) Member is a current race pilot or current race aircraft owner that is actively involved in Sport Class racing. The fee for Full (Voting) Membership is $200 per year, payable no later than the first day of May in that year. Each Voting Member is assigned a Race Number of their choice from the pool of available, unused, Race Numbers.

2. Associate Member. An Associate Member may be any person that wishes to support the Sport Class Air Racing Association, wishes to receive class updates and mailings, and wishes to participate in other than racing capacities during air race training and racing events. Race Team Crew Members and Family, Class Sponsors, Class Supporters, prospective race pilots (not yet flying a race aircraft), and prospective race aircraft owners are examples of members that fall into this category. There is no fee for an Associate Membership. Associate Members are not assigned Race Numbers, and Associate Members are not eligible to vote in Class business matters or elections.

L. Participation by any Sport Class Air Racing Association Member in any Sport Class Air Racing sanctioned air race or pilot certification event, whether hosted, organized and conducted solely by Sport Class Air Racing, or in association with a separate Air Race Organization, is at the absolute and sole discretion of the Officers and Pilot Standards Committee of Sport Class Air Racing.

M. Any Member that wishes to participate in any Sport Class Air Racing sanctioned air race or pilot certification event, whether hosted, organized and conducted solely by Sport Class Air Racing, or by another Air Race Organization, must sign any and all Release of Liability forms, Hold Harmless forms, Liability Limitation agreements, Binding Arbitration or Mediation agreements, Covenants not to Sue, or other release/indemnification forms that are presented by Sport Class Air Racing, or the event host/organizer, as part of the event application or on-site registration process. No Member will be allowed to participate in any Sport Class Air Racing sanctioned air race or pilot certification event prior to the applicable forms listed in this paragraph being signed and witnessed.

III. OFFICIAL SPORT CLASS AIR RACING RULES

A. The Sport Class Air Racing Association Rules are the only official and approved Class-issued Rules of Competition for the Sport Class Air Racing Association. These rules may be more restrictive, but not less restrictive than any Rules of Competition issued by an Air Race Organization or Air Race Host/Promoter. The class will be referred to as Sport Class Air Racing. The Sport Class Aircraft specifications contained herein are the official aircraft specifications for the class. The Sport Class Pilot Qualifications are the official pilot requirements for the class.

B. A participation agreement will be negotiated by Sport Class Officers between the any Air Race Organization or Race Host/Promoter, for any race events Sport Class Air Racing may participate in. The participation agreement will include, but not be limited to, such details as race dates, entry fees, deadlines, race course, aircraft pit configuration, emergency service, prize money, and contracts and relationships between the Air Race Organization and Sport Class Air Racing. Also included will be any specific requirements of the racers such as insurance requirements, airspace waivers, and any rules of competition. These Sport Class competition rules (this document) should be referenced in the competition rules published by the race promoter for each racing event.

C. The Sport Class Air Racing Rules will be available via the Sport Class website and/or the Sport Class Groups.io website. It is each competitor's responsibility to open or download, read and understand all aspects of the rules prior to competition. If any of the rules are not understood by a competitor, or a competitor desires clarification, it is the competitor's responsibility to request clarification from the Sport Class Officers. The Officers will be responsible for, and will administer the Sport Class Rules.

D. These Sport Class Rules will be the only official rules document for the Class. Air Race Organizations may have Rules of Competition for a race event. Those Rules of Competition must also be adhered to by all Sport Class Air Racing Members and Racers.

E. A waiver of any portion of these Sport Class Rules may only be granted by the Class Officers, with concurrence of the Chairman of the Sport Class Pilot Standards/Contest Committee.

IV. AIRCRAFT ELIGIBILITY

It is the intent of the Sport Class Air Racing Association to promote the manufacturers of experimental, kit-built, plans-built and amateur built aircraft.

A. Aircraft eligible for competition within the Sport Class shall meet each of the following criterion:

1. Aircraft Types: Any FAI Class C-1 (Landplane) aircraft that is certificated by the FAA as Experimental Amateur-Built, Experimental Exhibition, or Experimental-Racing, and has completed a phase 1 flight test. Foreign registered aircraft that meet the above criterion are eligible, and must meet the FAA and Air Race Organizer rules for aircraft documentation and Special Flight Authorization, as applicable.
2. Aircraft Powerplant/Means of Propulsion - Aircraft must be propeller-driven, and powered by powerplants that meet FAI Group I (Internal Combustion), Group II (Turboprop), Group VI (Electric) or Group VII (Mixed, a combination of Groups I, II and/or VI).
3. Aircraft Maximum Weight: Aircraft must meet FAI Class C-1a, C-1b or C-1c limitations (may not exceed 1,750 kilograms/3,858 pounds Maximum Gross Takeoff Weight [MGTOW]).
    a. Sport Class may consider aircraft in FAI Class C-1d (1,750-3,000 kilogram/3858-6614 pounds MGTOW) and FAI Class C-1e (3,000-6,000 kilogram/6614-13,228 pounds MGTOW). However, these aircraft would have to be operated in a separate division, or divisions, from lighter weight C-1a, b and c aircraft. (see section IV.E.)

B. Aircraft must be able to demonstrate adequate maneuverability and controllability at race speeds and altitudes. This will be evaluated during all air race training, qualification and racing events by the Sport Class Pilot Standards/Contest Committee.

C. Aircraft must be of a design that does not limit the field of view of the pilot in a manner that would create a hazard on the race course. This will be evaluated during all air race training, qualification and racing events by the Sport Class Pilot Standards/Contest Committee. Aircraft deemed to have inadequate pilot field of view to safely fly the race course and see and avoid other race aircraft are subject to disqualification.

D. For operations at any racing venue, when requested by the Air Race Organizer, and prior to any flight operation on a venue's race course, all primary race pilots must submit a statement, signed by the race pilot certifying the following:
That, at the anticipated density altitude of the race, the intended race aircraft has demonstrated a true airspeed of 105% of its projected qualifying speed, and a turn capability of 150% of the approved Sport Class race course maximum designed g-load. During qualification, any aircraft that exceeds the speed in the submitted certification statement, will be required to demonstrate, and sign a certification statement that states at the anticipated density altitude of the race, a true airspeed of 105% of the new qualifying speed and a turn capability of 150% of the approved

race course maximum designed g-load has been demonstrated. A new statement signed by the race pilot will be submitted to the Air Race Organization/Race Host prior to being permitted on the racecourse. Should an Air Race Organization/Race host require demonstrations to different percentages than those listed above, the required percentages will apply. Aircraft not in compliance are subject to disqualification.

E. Sport Class Air Racing, at the discretion of the Class Officers and the Class Contest Committee, may create Divisions within Sport Class.

1. The creation of Divisions may be done to increase safety, facilitate improved racing events, or respond to market demand factors. Justification for adding Divisions includes, but is not limited to:
   a. To separate disparate performance aircraft in order to promote safety. One example is to separate larger or heavier aircraft into their own division to mitigate wake turbulence safety issues.
   b. To respond to Air Race Organization requests for additional divisions of race aircraft for a specific event, or series of events.
   c. To enable Sport Class to more effectively fill the fields of the desired number of racing heats at an air race event.

2. The intent of this subsection is to allow, if and when necessary, the creation of Divisions within Sport Class, such as a specific aircraft type (Stock RV, Lancair/Glasair are examples), or of Divisions of other race aircraft types within Sport Class (Unlimited, T-6, Formula, etc., are examples).

3. Any creation of Divisions for an air race event must be developed in coordination with the event Air Race Organization, and should be defined in that event's contractual agreements, to include administration, logistics and prize money allocation.

4. Should any Divisions be created within Sport Class Air Racing for any racing event, these Divisions will maintain a separate race progression path from the standard Sport Class Heats (Gold, Silver, Bronze, Medallion).

5. Should Divisions be created within Sport Class Air Racing for aircraft that typically fly in other air race classes, those aircraft must utilize and adhere to these Sport Class Rules and Sport Class SOP, as modified at the time of the Division creation, for the inclusion of those aircraft.

V. REQUIRED AIRCRAFT DOCUMENTS, EQUIPMENT, MARKINGS AND INSPECTIONS

A. All aircraft must have current FAA issued Airworthiness Certificate, Aircraft Registration, Operating Limitations, and Weight and Balance documents. Foreign registered aircraft are eligible to participate, provided they provide the equivalent documentation, and comply with all Race Organizer rules pertaining to foreign registered aircraft, including any requirements for Special Flight Authorizations. For all aircraft, these documents must be available for inspection, prior to and during any air race training or racing event, by the Sport Class Technical Committee, the Air Race Organizer's or Event Host's Contest Committee, or the FAA. These documents must be available for submission with any application to participate in any air race training or racing event, by the respective document submission deadlines, as stated by the Air Race Organizer, in those applications. The respective Operating Limitations of any participating aircraft must not prohibit air racing.

B. All newly completed aircraft must have completed the phase 1 flight test requirements, and the owner must possess, and submit upon request, adequate proof that this has been accomplished, prior to flying in any Sport Class Formation Warm-up, air race training event or air racing event. Any aircraft that has had a Major Modification requiring re-entry into flight test, must comply with the Air Race Organizer rules of competition for reporting and testing the Major Modification. The flight test program for the modification must be completed, and the owner must possess, and submit upon request, adequate proof that this has been accomplished, prior to flying in any Sport Class Formation Warm-up, air race training event or air racing event. The flight test requirements in both cases listed above must be completed no later than any deadlines listed in the Air Race Organizer rules of competition, or no later than 14 days prior to the event to be participated in, whichever is earlier.

C. All aircraft must have a minimum of $1,000,000 of liability insurance. The insurance policy Certificate of Insurance must be valid for air racing and name the appropriate additional insured parties as outlined in the entry requirements for any race training or air race events, as applicable. Each participant must submit the proof of this insurance by the Air Race Organizer entry deadlines, and must possess the documents prior to flying on the race course in any air race training or air racing event.

D. All aircraft must be equipped with an operable VHF radio capable of two-way radio communication with race control. The radio will be tuned to race control during all practice, qualification, and racing events. A pilot must use a second radio if they desire to communicate with their respective ground crew during any practice, qualification, or race.

E. All aircraft must be equipped with an operable seat belt and shoulder harness.

F. All aircraft must be equipped with, and have readily available to the pilot, a cockpit-located fire extinguisher.

G. All aircraft must display the assigned racing number on each side of the fuselage or vertical stabilizer, and on the lower surface of the right wing and the upper surface of the left wing. The number must be as close to 30 in. tall as the surface areas permits, and be of high contrast so that it is easily readable by race officials.

H. All aircraft must pass an inspection by the Technical Committee prior to any on-course practice, qualification or racing operations during any air race training or air racing event. Aircraft are also subject to inspection by the Technical Committee at any time during any air race training or air racing event, at the discretion of the Technical Committee. The Technical Committee will ground an airplane that does not comply with class rules. Additionally, the Technical Committee may, at its discretion, ground an aircraft until a safety of flight item is suitably repaired or otherwise addressed.

VI. SPORT CLASS AIR RACING ASSOCIATION PILOT QUALIFICATIONS

These Sport Class Air Racing Association Specifications are the only officially sanctioned and approved pilot qualification requirements. They comprise a specific part of the Official Sport Class Racing Competition Rules and apply to all Pilots and designated Alternate Pilots participating in Sport Class Air Racing sanctioned events. Failure to comply with these rules will result in disqualification of the pilot and/or aircraft from competition. Disqualification procedures will be implemented by the Officers of the Sport Class Air Racing Association upon recommendation of the Pilot Standards/Contest Committee.

A. Responsibilities:

1. The Pilot Standards/Contest Committee will be responsible for developing, documenting, and maintaining the standards and procedures used in determining and evaluating pylon race pilot competency.

2. The Pilot Standards/Contest Committee will be responsible for evaluating the experience of applicants for all air race training and racing events, and their conformance with all requirements for participation in any event.

3. The Pilot Standards/Contest Committee will be responsible for the evaluation and qualification of applicants in accordance with current Sport Class Racing Pilot Qualification Test Standards, outlined in part D of this section.

4. The Pilot Standards/Contest Committee will be responsible for recommendation for, and approval for, issuance of credentials to applicants who meet the requirements for race participation as outlined in part B of this section.

5. The Pilot Standards/Contest Committee will review the credentials of entrant pilots and designated alternate entrant pilots of all air race training, qualification and racing events, to ascertain that they meet all experience, currency, and credential requirements.

6. The Pilot Standards/Contest Committee will be responsible for observing the performance of pilot participants in all air race training, qualification and racing events, for counseling pilots on performance that is questionable or fails to fully meet standards, and for withdrawing the credentials of those who exhibit unsatisfactory performance.

7. The Chairman of the Pilot Standards/Contest Committee will appoint Sport Class Instructor/Evaluator Pilots who will make recommendations for issuance of a **Sport Class Racing License.**

Sample Sport Class Racing License:

8. The Pilot Standards/Contest Committee will maintain all appropriate records necessary in observance and documentation of these responsibilities.

B. Pilot Certificate, Medical Certificate, and Pilot Experience Requirements:

Pilots and designated Alternate Pilots must provide the Officers and the Pilot Standards/Contest Committee evidence of meeting the following requirements before participating in any Sport Class Air Racing Association-sanctioned Formation Warm-up, air race training, qualification or racing event.

1. A current fixed-wing pilot certificate. The pilot certificate must be a Private Pilot Certificate or higher, issued by the FAA under 14 CFR part 61, or an equivalent and appropriate foreign pilot certificate, for pilots that are flying a foreign registered aircraft. Any additional Air Race Organizer rules for foreign pilots must also be complied with.

2. A current and valid Airman Medical Certificate, issued by the FAA under CFR 14 part 67, or for foreign pilots operating with their foreign pilot certificates, an equivalent current and valid medical certificate, issued by the same country that issued that pilot's pilot certificate. Sport Class pilots must comply with the Air Race Organization's rules of competition for medical certificates, which may specify a specific class of medical certificate and recency of issuance date.

3. A valid Pylon Racing License issued by the Sport Class Air Racing Association (required only for racing or demo racing events).

4. Documented Formation Experience. Pilots must possess adequate formation skills prior to acceptance to participate in Sport Class Formation Warm-up and any air race training, qualification or racing event. Pilots must be proficient and safe-for-solo in a 4-ship or larger formation, in all formations and maneuvers described in the Sport Class Formation Guidelines. Documented Formation Experience must include formation training/experience via any of the following sources:
a. Military Formation Training and Experience (Training Command, UPT, Fleet or Force).
b. FFI or FAST (Industry Formation Carded, or documented attendance at multiple FAST/FFI clinics, or other documented training with FFI/FAST carded pilots).
c. Other documented sources of formation experience, such as documented training with Sport Class pilots.

d. All prospective Sport Class pilots must have formation flying experience in their race aircraft type prior to attending Sport Class Warm-up and PRS.
e. All race pilots must have flown in formation in their actual race aircraft prior to participating in any air race heat.

5. All pilots must have a minimum of 500 hours of documented pilot-in-command flying time in fixed-wing aircraft.

6. All pilots must have documented 10 hours pilot-in-command flying time and 10 takeoffs and landings in the type of aircraft to be raced, prior to flying the race course. 3 hours PIC time and 3 full stop landings in the specific (actual) race aircraft must be documented prior to flying the race course.

7. All pilots must have a minimum of 3 takeoffs and landings in the type aircraft to be raced within the preceding 90 days.

8. At the discretion of the Class Officers and the Pilot Standards Committee Chairman, any pilot may be required to attend a Sport Class race training event in their specific race aircraft prior to participating in any air race event. Previously or currently qualified race pilots that wish to race in an aircraft with significantly increased performance characteristics and/or significantly increased operational complexity relative to previously raced aircraft, will, at the discretion of the Class Officers and the Pilot Standards Committee Chairman, be required to attend a Sport Class race training event in their specific race aircraft prior to participating in any air race event. A 50 mph increase in potential race speed, or moving from a normally aspirated aircraft to a turbocharged/supercharged aircraft are samples of the guidelines that will be followed in this situation.

9. All pilots must be familiar with, and abide by, the rules and regulations governing Closed Course Pylon Air Racing as set forth in the Official Sport Class Racing Competition Rules and the Air Race Organizer's Official Rules of Competition.

10. All pilots are required to wear fire protective clothing and helmets when training. practicing, test flying, qualifying, or racing in race-controlled airspace, or in any Certificate of Waiver.

C. Aircraft availability and utilization during Sport Class air race training:

1. All pilots attending a Sport Class air race training event must provide their own aircraft for training. Sport Class Air Racing does not provide loaner aircraft for race training. Due to the requirements to evaluate all Rookie Pilots and Prospective Racers in all required maneuvers, the sharing of one aircraft between more than one Rookie pilot during air race training events is not authorized. A Rookie pilot or a Certified Racer may utilize the aircraft of a Certified Racer that is also attending the training event, as long as the Rookie pilot completes a minimum number of flights required to demonstrate proficiency, as determined by the Pilot Standards Committee.

D. Race Pilot Qualification Oral and Flight Evaluations:

For issuance of a Sport Class Air Racing-issued Racing License, an oral and flight evaluation of each prospective race pilot will be conducted during PRTC, PRS or any additional Sport Class race training events. To be eligible for a flight evaluation (check ride), each prospective race pilot must be recommended for the evaluation by a Sport Class Flight Lead, Instructor Pilot or Check Pilot. To earn that recommendation, each prospective race pilot must satisfactorily demonstrate, to the recommending Sport Class Flight Lead, Instructor Pilot or Check Pilot, the following:

1. An in-depth understanding of the knowledge areas listed below.

2. Safe, consistent, and predictable flying, to Sport Class standards and SOP, while flying the maneuvers listed below, and in the Sport Class Formation Guidelines.

The recommending Sport Class Flight Lead, Instructor Pilot or Check Pilot will complete the Sport Class Evaluation Recommendation form for each prospective race pilot they recommend, and forward it to the Pilot Standards/Contest Committee for evaluation scheduling.

The oral and flight evaluation (check ride) will be conducted by a member of the Sport Class Pilot Standards/Contest Committee, or by a designated Sport Class Check Pilot. If a Check Pilot is the recommending pilot, they may not be the evaluating pilot for that prospective race pilot. The Evaluator will fly in the same flight as the prospective race pilot during the evaluation. Up to three prospective race pilots may be evaluated in a single flight.

Upon successful completion, all Recommendation forms and all Evaluation (Check Ride) forms will be forwarded to the Pilot Standards/Contest Committee Chairman for review and approval, and subsequent issuance of a Racing License.

3. Oral Evaluation Requirements and Knowledge Areas:

(a) Provide evidence of minimum pilot flight time and requirements as outlined in part B above, excluding item 3.

(b) Discuss aircraft speed and load factor (“g”) limitations, engine and propeller limitations, weight and balance limitations, and takeoff/landing limitations. Review and discuss the submitted flight test certification statement regarding speed and g flight test completion.

(c) Discuss Density Altitude considerations.

(d) Discuss wake turbulence considerations.

(e) Demonstrate knowledge of Official Sport Class Air Racing Competition Rules and Regulations.

(f) Race staging, start, and pylon procedures.

(g) Passing procedures.

(h) Method of communicating emergency-in-progress info to participants and required responses.

(i) Method of declaring emergencies and actions for various types of emergencies.

(j) Method of communicating emergency termination of race to participants and required responses.

(k) Normal race completion and recovery procedures.

(l) Missing-Man Flyby procedures (selected pilots)

(m) Match Race Exhibition procedures (selected pilots)

(n) Air Race Demonstration procedures (selected pilots)

(o) Pre-Race briefing requirements and outline of contents.

(1) FAA regulations and waivers applicable to air racing.
(2) Air race radio control frequencies.
(3) Crowd and Race show line requirements.
(4) Race schedules and relation to staging.
(5) Aircraft ground safety precautions.
(6) Race pylon locations.
(7) Course and airfield obstructions.
(8) Emergency landing facilities.
(9) Coordination with fire/rescue personnel.

4. General Pre-flight Procedure Evaluation Items:

(a) Sufficient fuel and oil for proposed time of flight.

(b) Seat belts and harness restraints.

(c) Loose objects in aircraft.

(d) Canopy and access latches.

(e) Controls and aircraft structure.

(f) Personal Protective Equipment as may be specified

5. Qualification Flight Evaluation (Check Ride) Maneuvers:

(a) Normal ground operating and taxi procedures.

(b) Normal takeoff procedures.

(c) Demonstrate formation join-up and formation flying.

(d) *** Demonstrate a 180 degree roll and recovery with minimum loss of altitude.

(e) *** Demonstrate a safe formation breakout.

(f) Demonstrate a race start.

(g) Demonstrate a minimum of three laps on a racecourse with other aircraft.

(h) Demonstrate proper passing procedures on a racecourse.

(i) Demonstrate a pylon cut and safe return to the racecourse.

(j) Demonstrate simulated engine failure procedures and approach.

(k) Demonstrate a power-off low approach or landing.

(l) Demonstrate Normal landings.

(m) Match Race Exhibition procedures (selected pilots), including ground operating and takeoff procedures, match race holding and race start procedures, match race on-course procedures, match race reversal turns, match race recovery procedures, and match race emergency procedures, per Appendix 1 of these Rules.

*** Note: Items 3d and 3e may be demonstrated to, and signed off by, a Sport Class Check Pilot, Instructor Pilot or Flight Lead during a Formation Warm-up flight, or during a PRTC/PRS syllabus flight, prior to the Recommendation Flight or the Check Ride Flight.

E. Additional Qualifications:

The holder of a Sport Class Air Racing Pylon Race License, may also earn additional qualifications, which will be annotated on the Racing License, if the pilot has demonstrated the procedures to qualify for them. These qualifications are:

1. Air Race Event Missing-Man Flyby Qualified. This qualification allows the pilot to participate in Missing-Man Flyby operations in an Air Race or Airshow

Certificate of Waiver that is utilized for any Sport Class Air Racing event. It is not valid in association with any other Aviation Event Certificate of Waiver. To earn this qualification, the pilot must qualify for a Sport Class Air Racing Pylon Race Pilot License, and have demonstrated a Fingertip Four formation that includes a Missing-Man pull-up procedure.

2. Match Race Qualified. This qualification allows the pilot to participate in Sport Class Match Racing during any Sport Class Air Race event that includes Match Racing. To earn this qualification, the pilot must qualify for a Sport Class Air Racing Pylon Race License, and the pilot must demonstrate the procedures outlined in Section VI.D.5.(m) above.

3. Air Race Demonstration Qualified. This qualification allows the pilot to participate in Air Race Demonstration performances at Aviation Events other than an air race event in which Sport Class is participating. It allows participation in these events in a Certificate of Waiver for an Aviation Event. It is not a FAST or FFI qualification, and only allows the holder to participate in such procedures as are required to demonstrate an Air Race, including Takeoff Rejoin and Departure, Simulated Start Procedures, Simulated Air Racing and Passing, and a normal post-race recovery. It does not authorize the holder to do airshow flybys of any other type at an Aviation Event. To earn an Air Race Demonstration Qualification, the pilot must have at least 3 years of air racing experience and must be selected by the Class Officers and the Pilot Standards Committee. The pilot must demonstrate an in-depth knowledge of Air Racing procedures and must pass an oral evaluation with a Sport Class Check Pilot on FAA Aviation Event Policy, Airshow Operations, and Air Race Demonstration procedures.

F. Pilot Qualification Reciprocity and Duration:

1. Sport Class Race Pilot Qualifications will remain valid provided the pilot meets Class requirements and remains active in recognized Sport Class Air Racing events. A Sport Class Racing License, issued per this section, will be issued for a one year period. Racing Licenses will be re-issued annually to all pilots that meet Race Class and Air Race Organization currency requirements.

2. Air Race Organization currency requirements, as outlined in their rules of competition, must be met, in order to race in the event.

3. Completion of PRTC, PRS, or other recognized Pylon Race Training events that may be developed, will be accepted as equivalent training, for the purpose of racing at any race venue, and with any Air Race Organizations that Sport Class races with. For pilots to race at a venue that is different than the venue at which they completed training (PRTC/PRS), Race Course Familiarization/Differences Training must be completed at the race venue. The scope of that training will be agreed upon by the Class and the ARO.

4. Currency may be maintained via racing at a Sport Class-sanctioned race event, via attendance at and completion of PRTC and/or PRS, or via currency

extension lap completion if authorized by the Air Race Organization of an air race event. Currency maintenance via currency extension lap is subject to the approval of Class Officers and the Chairman of the Pilot Standards Committee, and is limited to a one year extension. After a one time extension via currency extension laps, a pilot must either race in a recognized Sport Class racing event, or attend a Sport Class air race training event to remain current.

5. A Rookie racer must race in a Sport Class-sanctioned air race event in the same year as they attend PRTC or PRS, or their qualification expires, and they must attend PRTC, PRS or another Sport Class air race training event again, prior to racing in a Sport Class-sanctioned race.

6. Any previously qualified pilot that has not participated in a recognized event within the proceeding two calendar years will be reviewed by the Pilot Standards/Contest Committee, and may be required to attend Sport Class Formation Warm-up, PRTC/PRS, or other training as assigned by the Committee, prior to participating in any Sport Class-sanctioned racing event. Air Race Organization recency of experience rules for racing in any racing event also apply to all pilots.

7. Pilots who have had racing infractions, or who have demonstrated flying that does not meet Sport Class Air Racing Standards, may be required to attend PRTC/PRS and re-qualify at the discretion of the Pilot Standards/Contest Committee, or the Sport Class Air Racing Association Officers.

G. PRTC/PRS/Sport Class Training Event Timing Periods and Race Entry Selection in Size-Limited Race Fields:

1. If race entries are limited in total number by Sport Class or the Air Race Organization, Sport Class will, if able, conduct a timing period for rookies and those with new aircraft entries during PRTC, PRS, or other Sport Class on-course training events. A stand-alone timing period, specifically for this purpose, will be scheduled during the training event. Procedures for each timing period will be briefed by the class during the training event.

2. Rookies with aircraft that have never been raced at the venue, or Certified Racers with new or modified aircraft, may participate in the timing period described in G.1. above to post a new awarded speed.

3. Previously raced aircraft that have been modified with incremental changes, such as drag reduction, propeller changes, or chemical or forced air induction changes, must demonstrate the increased speed provided by these incremental changes during the timing period described in G.1. above to be awarded a faster speed for consideration in aircraft speed rankings.

4. The speed results of the time trials will be utilized as the awarded speed for each aircraft that participates. When race applicant numbers exceed available

race slots, awarded speeds for prospective entry aircraft that participated in the Timing Periods, and historical speeds for previously raced entry aircraft, will be vetted by the class. The class will rank all entered aircraft by speed, and provide this vetted, speed-ordered list to the Air Race Organization as a final entry list and waiting list for the race event.

5. The Timing Periods are available to any pilot that wishes to post a new speed for consideration in any air race applications. However, due to time constraints, priority will be given to aircraft in the <250 mph speed range.

VII. RACE QUALIFICATION AND RACECOURSE PROCEDURES

A. Pilot Briefing:

1. Pilots arriving at the race site for a race event must be briefed prior to practicing, qualifying or racing on the racecourse. Events typically have a mandatory in-brief, provided by the Air Race Organization, daily briefs with the Air Boss or Race Director, and Flight Briefs. Attendance at all briefs are mandatory for any pilot wishing to fly on the race course.

2. Race pilots must attend the daily pilot briefing on any day that the pilot intends to fly or is scheduled to fly. Any attempt to fly without attending the daily flight briefing will result in disqualification from the applicable race.

3. If the use of an alternate pilot is anticipated, the alternate pilot must also attend the daily brief.

4. Weather Minimums. For the purpose of practice, qualification and racing, the minimum weather required for Sport Class flight operations shall be a ceiling of not less than 3000 feet AGL, and visibility of not less than 6NM. Visibilities of less than 6NM, but not less than 3NM, may be considered for operations by the Class Officers and Contest Committee, in consultation with, and with the approval of the ARO and the FAA IIC. Sport Class Wind Limitations are 25 knots maximum steady wind, with gusts not to exceed 30 knots, and a crosswind component not to exceed 25 knots. Pilots may use personal limitations less than these maximum values, at their discretion.

B. Practice Periods:

1. Practice periods will be scheduled in advance of the race event to allow each competitor adequate time to become familiar with the racecourse.

2. Race control and the designated Flight Leads or Pace Pilots will be the sole racecourse aircraft controlling authorities, and their decisions on the control of aircraft will be final.

C. Qualifying Periods:

1. Qualification periods will be scheduled in advance and will allow every aircraft a fair chance to qualify.

2. All entries must qualify to establish their respective eligibility and starting positions for their respective race. If Air Race Organization Rules of Competition allow for placement of an aircraft that is unable to qualify into a racing heat, those rules will be followed. If this placement is utilized, to support race safety, Sport Class Pilot Standards and Officers will have the discretion to place non-qualified aircraft at the back of an appropriate Sport Class heat, based on the known speed range of the aircraft

3. All qualification periods will be monitored, judged and officiated by the Contest Committees (ARO and Class), race timers, and pylon judges.

4. Race control will be the controlling authority for all qualification periods.

5. Race control will control all aircraft from takeoff until landing and will permit aircraft onto the racecourse on a first come first serve basis. During Sport Class Qualifying periods, each Flight Lead or Pace Pilot will manage his or her flight in conjunction with Race Control. The Flight Lead or Pace Pilot may conduct the flight on a pre-briefed qualifying sequence, and may call qualifiers out of the Queue and onto the course, or off the course and into the Queue or cool down.

6. A maximum of four (4) aircraft will be permitted on the racecourse during qualification. Any ARO limitation that may reduce the maximum number of aircraft on the racecourse must also be adhered to.

7. Aircraft waiting for entry onto the racecourse will either wait on the ground or orbit the racecourse in the Queue, in a counterclockwise direction, at or above 2000ft AGL, or as directed in the ARO Rules of Competition.

D. Qualification of Aircraft:

1. In order to qualify for a race, all aircraft are required to fly one or two consecutive official qualification laps. These laps must be timed and recorded by the official race event Timer, in accordance with the rules and procedures set forth by the Air Race Organization. The resultant derived speed for the fastest lap will determine qualification and race pairing order for subsequent race heats. Telemetry for establishing times, speeds and pylon cuts may be utilized if agreed to by the Class and ARO. If telemetry is used for establishing timing and pylon cuts, the Class and ARO will establish rules for that use prior to the beginning of qualification.

2. Pylon cuts during a qualification lap will result in a disqualification of that qualifying lap.

3. A contestant desiring to attempt to qualify will notify the Timers by radio prior to passing a designated pylon, by requesting the clock. The Timers will acknowledge the call, if able. If the call is not acknowledged, race control may attempt to notify the Timers of the qualifying attempt. The qualifying lap will start only upon passing Home Pylon after requesting the clock. If flags are used, the pilot will receive a green flag from the starter prior to crossing the home pylon on the first qualifying lap.

4. At the end of the first lap of a two-lap qualifying attempt, if flags are used, the starter will give the racer a white flag to signify one lap remaining.

5. At the completion of the timed one-lap or two-lap qualification attempt, if flags are used, the starter will give a checkered flag to the racer to mark the end of the qualifying attempt. If there are other racers awaiting a qualifying attempt, the racer completing qualifying shall exit the course and return to the queue. Actual qualifying speeds will not be transmitted to the racer but will be posted following the session.

6. If a valid qualifying time/speed is received after a one-lap or two-lap qualifying attempt, that time/speed becomes the racer's qualifying time/speed. Pilots may not reject a one-lap or two-lap time in order to make another qualifying attempt.

7. The only way to abort a qualifying attempt, once the Timers have been notified of the attempt, is to pull off the race course prior to passing Home Pylon during the first qualifying lap. Timers should be notified of the aborted attempt with a radio call. Once Home Pylon has been passed at the end of the first qualifying lap, if a time/speed is assigned, that becomes the racer's qualifying time/speed.

8. Air Race Organizations may allow two or more qualification attempts per aircraft. However, due to the number of Sport Class aircraft that are attempting to qualify, and to allow Sport Class racers adequate post-qualification practice on the course they will fly in an air race event, Sport Class Air Racing may limit the number of qualifying attempts per aircraft to one. At each racing venue, the qualification process will be tailored, as required, to meet the Air Race Organization's policies, and Sport Class requirements.

9. Under specified circumstances, a pilot that has received a valid qualifying time/speed may verbally request that the Sport Class Air Racing Officers or Pilot Standards/Contest Committee authorize the opportunity to make a second attempt on a subsequent flight. Such requests will be reviewed, and a decision rendered, within 24 hours of the request being submitted. Circumstances that may warrant consideration of an additional attempt, include, but are not limited to, a mechanical irregularity or system malfunction that substantially impacted the speed of the aircraft during the attempt, or the qualification attempt being interfered with by another aircraft or race control

during the attempt. Small adjustments to aircraft to marginally increase qualifying speed are not eligible for consideration under this subsection.

10. If a valid qualifying time/speed is not received and the racer has landed, the racer may elect to try another attempt on a subsequent flight.

11. If a valid qualifying time/speed is not received, and the racer is still on the course, the racer may start a second attempt at that time, if adequate times remains in that flight's designated on-course period. If the racer has already exited the course the racer may try another attempt after being sequenced back onto the course by race control or the Flight Lead/Pace Pilot.

12. Race control and the Flight Lead/Pace Pilot will be the sole authorities on control of the racecourse and be responsible for the sequencing all racers onto the racecourse.

E. Race Course:

1. A chart of the racecourse will be made available to all pilots.

2. All racecourse markings will be readily visible to the pilots.

3. At each racing venue and event, Sport Class Heats will race on the course designated by Sport Class Officers and the Sport Class Contest Committee, in conjunction with the Air Race Organization. The Gold/A Heat will typically race on the Sport Outer Race Course. The Silver/B Heat and the Bronze/C Heat will typically race daily on the Sport Middle Race Course. Should all Silver or Bronze racers qualify at or below 250 mph, the Silver or Bronze Heat may be placed on the Sport Inner Course, at the discretion of the Sport Class Officers and Contest Committee. The Medallion/D Heat will typically race on the Sport Inner Race Course, provided all aircraft in that heat qualify at or below 250 mph. Should any Medallion racer qualify faster than 250 mph, the Medallion/D Heat will race on the Sport Middle Race Course. At the completion of qualifying, when the Bronze Heat's and/or Medallion Heat's course has been selected, based on qualifying speed, those Heats will remain on the specified course for the duration of the air race event, and will not cycle or change between courses on subsequent days. Air Race Organizers may utilize different names for the above courses. In that case, Sport Outer is the longest course on which Sport Aircraft will fly, Sport Middle will be the next longest course on which Sport Aircraft will fly, and Sport Inner will be the shortest course on which Sport Aircraft will fly.

4. The Sport Class Match Race Exhibition will be flown on a course specifically designed for the purpose of Match Racing. Appendix 1 shows one example.

F. Race Starting Procedures:

1. Air starts will be used for all Sport Class Pylon Racing events. A designated pace plane will be utilized when available. Race Starts for specific Divisions may be modified as needed for safety of operation or operational necessity.

Alternate start procedures, to include no-pace operations and ground starts, may be developed for specific venues or operational conditions, by the Class Officers and Contest Committee, as needed. Those procedures will be defined in sub-section G of this section, as required.

2. The Pace Pilot will be responsible for conducting the pre-race pilot briefing. When a pace plane is not available, the pole position pilot will assume the duties of the Pace Pilot.

3. The Pace Pilot will provide all guidance, and function as the flight lead during the formation join-up, and will be responsible for proper line-up of aircraft coming down the chute.

4. The start will be from a descending flight path at the required pre-briefed drop-off airspeed. The drop-off airspeed will be determined by the qualifying speeds and applicable speed limitations of the aircraft in each heat, and agreed upon by all pilots and the Pace Pilot during the pre-flight briefing.

5. During the start, any attempt to slingshot the start will be grounds for disqualification. Either the Event or Class Contest Committee, or the Pace Pilot, may determine if a slingshot was attempted. If a slingshot is determined, no protests will be allowed.

6. During the start, any attempt to dive from the release will be grounds for disqualification. Either the Event or Class Contest Committee, or the Pace Pilot, may determine if a dive on release was performed. If a dive on release is determined, no protests will be allowed.

7. The Pace Pilot will signal the release and race start by broadcasting the statement “You have a race” over the race control frequency and simultaneously making an abrupt pull-up to climb away from the race formation.

8. After release, all pilots must hold their start lanes until after passing the designated pylon for each race course or venue. That designated pylon will be clearly briefed by the Event ARO or the Class Contest Committee during each event. Aircraft to the outside that gain a nose-to-tail lead on aircraft to the inside during the race start may not complete a pass and move to the inside (towards the pylon-to-pylon course line) prior to the designated pylon, unless they are cleared to do so on the radio by the aircraft to the inside (the aircraft being passed).

9. Aircraft that fall behind all aircraft to their inside (to their left) during the start may move to the left towards the course line, as long as they visually clear the area to their left, and there are no aircraft behind them and to their left. Aircraft that do this may not pass to the inside of aircraft ahead that are maintaining their lane due to traffic to their left. Aircraft that move to the course line in this manner must maintain visual contact with, and remain behind, all aircraft that are ahead of them during the start.

10. Turning or rolling to the right during the start (or at any other time while on the race course), whether to avoid a pylon cut or to correct an aircraft flight path, is prohibited. The safer courses of action are to accept the pylon cut (whether forced by another aircraft, or due to pilot flight path management error), or to clear the area above and exit the course. Any pilot that turns or rolls right during a race start, or at any time during a race event, will be subject to disqualification.

11. After release, the Pace aircraft will follow the start field of aircraft partially through the first turn, without entering the course. The Pace Pilot will monitor the start, look for conflicts, act as a Sport Class race judge, and mitigate safety threats.

12. After monitoring the start, the Pace aircraft will climb to cool down, and the Pace Pilot will monitor the race as a safety observer and additional Sport Class race judge, remaining clear of the race course.

13. Pace will not enter the race course after the start, unless it has been briefed for the Pace Pilot to follow the heat onto the course, and join the field at the back of the heat, in order to fill the field of racers for that heat.

14. The Pace aircraft will not perform aerobatics after the start release or at any time while over the race course.

15. As outlined in Appendix 1, the Match Race Exhibition Start will be conducted from the Match Hold point, and will include the Pace aircraft as lead, with two contestants per race start. Remaining Match Race contestants will remain in Match Hold until directed by the Pace Pilot to join on the Pace Aircraft for their start.

G. Alternate Race Start Procedures:

1. This section reserved for future use as needed for specific race venues.

H. Race Alignment/Pairing:

1. After qualification, the racers will be aligned in descending order by speed. Depending on the field size, the racers will be divided, or paired, into a specified number of heats consisting of up to 8 aircraft per heat. The fastest heat of aircraft will be designated the Gold/A Heat. The next group will be designated the Silver/B Heat, the third group will be designated the Bronze/C Heat, and the fourth group will be designated the Medallion/D Heat. If Divisions within Sport Class have been created for a specified race event, those aircraft will be divided/paired into a separate heat, or heats, and their race progression will be separate from the Gold, Silver, Bronze or Medallion Heats.

2. In the event that a racer or racers are unable to qualify during the allotted qualifying periods, the Class Officers and the Class Contest Committee may elect to place the aircraft at the back of the class field, or at the back of a class heat. In the interest of safety, the above placement may be at the back of the heat the racer would likely have qualified for, or at the back of the heat below that. The course to be flown by the heats will be considered in the placement of the non-qualifying racer(s). Enacting this contingency is at the discretion of the Class Officers and Class Contest Committee, and not automatic. The reason for non-qualification must be verifiable as caused by weather, timer issues, or maintenance issues. Falsifying reasons for non-qualification is grounds for disqualification from racing, and rescinding of the racing license.

3. The racers will taxi, line-up on the runway, takeoff, and rejoin on the right wing of the Pace Plane in the briefed order for each respective heat. This will serve to position the fastest qualifier closest to the inside of the racecourse. This order may be modified on subsequent heats by finishing order and aircraft speed, by assessed penalties, or by Did Not Finish (DNF), Did Not Start (DNS), or Disqualification (DQ) results.

4. If an aircraft is unable to taxi with the respective heat, but subsequently taxis for takeoff and catches the heat prior to runway line-up, the Pace Pilot or Lead Aircraft may permit the aircraft to re-enter the heat in pairing position. After Lineup on the runway, no attempt to re-align the aircraft in pairing position for takeoff will be permitted. If an aircraft is able to taxi after the flight taxis, but is not able to re-align prior to takeoff, it may take off after the flight, and rejoin the flight, if it can rejoin before the flight is released for the start. The Pace Pilot will determine whether to allow the aircraft to join in its pre-briefed start position, or to start on the outside of, or behind, the flight, based on the location of the flight when the late aircraft joins the flight.

5. After initiating takeoff, if, for any reason, a plane is unable to takeoff in proper sequence, he will call “aborting” and will clear to the cold side of the runway, exit at the nearest taxiway, and return to the ramp. No attempt to rejoin the flight is permitted for an aircraft that aborts a takeoff.

6. Each succeeding day’s alignment will be determined by the fastest speeds from the previous day’s events (after any penalties are assessed) and separated into respective A, B, C and D Heats in descending order. Any added Divisions within Sport Class will be paired in the same manner, but separately from the Gold, Silver, Bronze and Medallion heats, as applicable.

7. The alignment of racers for the Match Race Exhibition will be in the form of a bracket. The bracket will be made up of selected and trained Match Race pilots. The bracket pairings (seedings) will be based on that event’s normal race qualification speeds, or via a method agreed upon by the Class and the Air Race Organization.

I. Pylon Turns:

1. All aircraft will remain outside of a line drawn that visually connects the racecourse pylons (in pylon numerical sequence), at all times during a race.

2. A pylon cut will be called anytime an aircraft, or portion of an aircraft, passes inside or over a pylon.

3. During a Match Race Exhibition, a pylon cut will be called anytime an aircraft, or portion of an aircraft, passes on the wrong side of, or over, a pylon.

4. The appropriate and assigned pylon judges will determine a pylon cut. A cut called by the pylon judge is a judgment call, deemed official, and protests will not be entertained.

5. In the event of a pylon cut, a penalty of 2 seconds per lap for each lap of the race will be assessed. This will be added to the racer's total race time to determine race speed.

6. In the event of a pylon cut during a Match Race Exhibition, the racer will be assessed a 2-second penalty for each pylon cut, which will be added to his total race time to determine finish position in that Match Race.

7. In the event of a forced cut, (aircraft being forced to the inside of a pylon or the race course by another aircraft), no penalty will be assessed to the aircraft cutting the pylon. A 10 second penalty will be given to the aircraft that caused the cut, and a forced cut may be grounds for disqualification. The determination of a forced cut will be at the sole discretion of the pylon judge. Time penalty assessment or disqualification decisions will be made by the Air Race Organization and/or the Sport Class Pilot Standards/Contest Committee. No protests will be entertained.

8. Turning or excessively rolling right at any time while on the race course, whether to avoid a pylon cut or to correct an aircraft flight path, is prohibited. The safer courses of action are to accept the pylon cut (whether forced or due to pilot flight path management error), or to clear the area above, and exit the course. Any pilot that turns right or excessively rolls right during a race start or a race event will be subject to disqualification. For the purposes of this paragraph, "excessively rolling right" will be defined as any roll to the right that brings the aircraft to the right of a wings-level attitude. A slight roll to aircraft right while in a left turn, to decrease the angle of bank in the left turn, is not considered excessively rolling right.

9. Minimum altitude on the course will be no lower than the height of a pylon (approximately 50 feet), or as defined by the Air Race Organization. Violations will result in disqualification from the heat. At the discretion of the Pilot Standards/Contest committee or the Air Race Organization Contest Committee, such violations may result in disqualification of the pilot for multiple heats, or the entire event.

J. Passing:

1. During a pass attempt, the overtaking pilot must keep the aircraft being overtaken in sight at all times during the pass. In the interest of safety, the requirement of the passing aircraft to maintain visual contact with the aircraft being passed shall be paramount. Any pass that causes the passed aircraft to alter its flight path may be deemed an illegal pass, and may result in disqualification of the passing aircraft, or other action, as deemed appropriate by the Sport Class Officers, the Sport Class Pilot Standards/Contest Committee, or the Air Race Organization Contest Committee.

2. After passing an aircraft, the passing aircraft must achieve 100 feet of nose-to-tail clearance, with nose-to-tail distance increasing (opening), before making any attempt to move back to the left towards the pylon-to-pylon course line, in front of the aircraft being passed. The passing aircraft may also move left towards the course line if verbally cleared by the aircraft being passed. Failure to comply with these passing rules may be deemed unsafe flying, and may result in disqualification.

3. The aircraft radio may be used to inform the aircraft ahead of an intended pass, but radio chatter must be kept to a minimum.

4. During a pass attempt, the aircraft being overtaken must not in any way impede or interfere with a faster overtaking plane.

5. At no time will an aircraft fly a wide course to allow another aircraft to pass on the inside of a turn or straightaway. The safer course of action is to fly a stable, low and tight course line, to allow the passing or lapping aircraft to maintain sight of the slower aircraft at all times during the pass.

6. Inside passes, to the left of the aircraft being passed, are prohibited, unless all of the following conditions are met:

    a. The aircraft being passed is flying a line so wide as to be considered off course or passing the aircraft to the right would create an unsafe situation (show line violation, etc.).
    b. The passing aircraft can maintain visual contact with the aircraft being passed throughout the pass.
    c. A radio call is made by the passing aircraft, and a clear call is made by the aircraft being passed.

7. During any heat or race start, all aircraft must ensure they remain in their start lane until passing the pylon, or point where passing is allowed, as designated by the Air Race Organization and/or the class, for the race venue. Passing prior to this point requires a verbal clearance from the aircraft being passed. Trailing aircraft that fall behind aircraft ahead may move to the left prior to the designated pylon only if all aircraft ahead remain in sight at all times. See Section VII.F.9.

K. Emergencies:

1. During every race in which the Pace aircraft is a capable formation Safety Chase aircraft, Pace will remain airborne for the duration of the race. Pace will assume the Safety Chase role, if requested by a Mayday Aircraft.

2. During any race in which the Pace aircraft is not an appropriate formation Safety Chase aircraft, Pace will land after the race start, unless it is more prudent, due to runway availability, to remain airborne and above the race course cool-down pattern. In either case in this situation, during the race brief, Pace will designate a Primary and Secondary Safety Chase, from among the racers. These Safety Chase pilots will assume the Safety Chase role, as described in VII.K.7-11 below, if requested by a Mayday Aircraft.

3. Any aircraft experiencing a problem that makes them unable to continue the race will announce, over the radio, “MAYDAY” and the aircraft race number.

4. After calling “MAYDAY”, the emergency aircraft will pull off the racecourse and climb towards a safe troubleshooting altitude, or to an initial altitude commensurate with that aircraft’s current performance envelope, given the nature of the emergency.

5. If an immediate landing is required, the emergency aircraft will, if possible and prudent, announce its race number and the planned landing runway. This alerts and assists CFR in making a timely response.

6. If an immediate landing is not required, the emergency aircraft will climb to an altitude of 2000 Feet AGL or above, notify Race Control, and orbit in a counter clockwise pattern over the racecourse (in “Cooldown”).

7. If the support or assistance of a Safety Chase is desired, the emergency Aircraft should announce, “MAYDAY, Sport XX needs Safety Chase” (or “needs assistance”). The request for assistance may also be made in a separate radio transmission, in which case, the emergency aircraft should make the request, but should not repeat the term “MAYDAY”.

8. If Safety Chase support is requested, and a Safety Chase has been designated among the racers, per VII.K.2 above, the Primary Safety Chase pilot will visually clear the area, and exit the course to provide support to the emergency aircraft. If the emergency aircraft is the Primary Safety Chase, then the Secondary Safety Chase aircraft will visually clear the area, exit the course, and provide the requested support.

9. If Safety Chase support is requested, Pace/Safety Chase will pull to a position to the lower left or right of the emergency aircraft and await direction or request for support from the emergency aircraft. If the emergency aircraft is NORDO, Pace/Safety Chase will pass to Race Control, if possible, info about possible intentions of, or hand signals received from, the emergency aircraft.

10. Safety Chase must fly in a manner that does not impede or distract the emergency aircraft, and must avoid flying directly behind and/or below the

emergency aircraft, to avoid possible debris or fluids from the emergency aircraft. Visually checking the status of emergency aircraft landing gear position, flight control integrity, or other items must be done with the utmost caution, to avoid flying too close to the emergency aircraft or flying in a possible debris path.

11. As the emergency aircraft enters the pattern and lands, Pace/Safety Chase will follow, maintaining a position so as not to interfere with the emergency aircraft or the race. Pace/Safety Chase will not descend to or through the racecourse altitude, and after supporting the emergency aircraft, will climb to cool down, monitor the remainder of the race, then sequence for landing after the completion of the race.

12. In the event of an emergency, the race will continue unless, at the discretion of Race Control, a condition exists that would be hazardous to the other racers.

L. Race Finish:

1. When the first aircraft crosses the finish line at the completion of the required number of laps, the finish will be signaled with a Checkered Flag, if Race Flags are utilized at the venue, and the Race Control radio call “Checkered Flag, Checkered Flag”. The race will end when all aircraft have passed home pylon at the end of the lap in which the Checkered Flag was waived and the “Checkered Flag” call was made.

2. When the “Checkered Flag” call is made, each aircraft in the race heat will then complete the lap they are on, and the first time crossing the home pylon after the “Checkered Flag” call, will pull up and off the racecourse into the cool down area for sequencing to land. Any aircraft that is lapped, that does not complete the scheduled number of laps for the heat, will be given a speed based on total laps flown divided by total time to complete those laps.

3. Aircraft must pass the finish line at race course altitude, to allow timers/judges to view the aircraft’s race finish with eyes, cameras, or video equipment. After crossing the finish line on the final lap each aircraft will climb to an altitude of 2000 feet AGL or above, and into the “Cooldown” orbit.

4. When in the Cooldown orbit, aircraft will fly a left-hand orbit, keeping the preceding aircraft in-sight.

5. After cooldown, aircraft will fly the Sport Class prescribed landing sequence procedures, and make the prescribed radio calls on Race Control frequency.

6. During Match Race Exhibition events, the race will end when both aircraft have crossed the finish line at the completion of the required number of laps.

7. Aircraft exiting the Match Race Exhibition course will either return to the Match Hold point, enter the cool down pattern, or land immediately, per

Appendix 1, and as briefed and directed by the Pace Pilot and/or Race Control.

M. Landing:

1. Race Control is the controlling authority for landing, and will support safe landing operations with traffic advisory calls, as needed.

2. Aircraft will self-sequence for landing by exiting the Cooldown orbit at the designated point, while referencing other aircraft in Cooldown. All heat aircraft will fly the prescribed pattern for the landing runway, and enter a normal downwind, base, and final approach for landing.

3. Each aircraft will make a call with their race number and “downwind abeam”, (i.e., “Sport 5, Downwind Abeam”) as they pass midfield downwind, or at the point prescribed by the Air Race Organizer or Race Class. Race Control may issue a sequence for landing at this point, which should be acknowledged, radio traffic permitting.

4. On the base leg of the approach, each aircraft will call race number, base, and gear checked. (i.e., “Sport 5, Base, Gear”). Race control will acknowledge, and issue clearance to land. Race Control clearance to land is advisory only, and not required for landing. This radio call may be acknowledged, radio traffic permitting, but is acknowledgement is not required. If a clearance to land is not received or is not heard or blocked, the aircraft may continue to land, at the pilot’s discretion.

5. All aircraft will land on the side of the runway opposite of the turnoff (hot side). Once the aircraft has slowed to a controllable speed, it will move over to the turnoff side (cold side) of the runway, the pilot will call “cold” (radio traffic permitting) and will exit the runway in sequence, at the designated taxiway in use.

N. Race Flags:

1. The following flags will be utilized, when and where available and appropriate, during all practices, qualifications, and race events. The location of the flags will be at the designated location for each race venues.

2. Black Flag: Specific aircraft disqualified. Aircraft will exit the racecourse and will be sequenced to land as soon as possible.

3. Yellow Flag: Emergency in progress. Racers will continue on the racecourse, but use extreme caution.

4. Red Flag: Race Cancellation. Racers will exit the racecourse, enter cooldown, and prepare to sequence for landing.

5. Green Flag: Start of race, or start of qualifying laps.

6. White Flag: Start of final lap, or start of final qualifying lap.

7. Checkered Flag: End of race, or end of last qualifying lap.

O. Penalties:

1. In addition to other offenses included herein, the following shall be deemed violations of the Class Rules, and will be grounds for fines, disqualification or other sanctions.

   a. Any action or proceeding that is harmful to the integrity of Sport Class Air Racing or the Air Race Organization hosting an event that Sport Class Air Racing is participating in, or that is not in the best interests of air racing in general.

   b. Any unsportsmanlike conduct formulated or performed against participants, officials, or committee members of any air race training or air acing event.

   c. Reckless flying, dangerous flying, or showboating, as determined by Air Race Organization or Class officials, will be grounds for disqualification. ARO/Class officials include, but are not limited to, the ARO Contest Committee, Race Control, Sport Class Officers or the Sport Class Pilot Standards/Contest Committee.

2. Penalties may include fines, disqualification, revocation of racing credentials or other sanctions.

3. Any contestant determined to have intentionally violated class rules may be permanently excluded from Sport Class competitions at the discretion of the Sport Class Officers or the Sport Class Pilots Pilot Standards/Contest Committee.

4. All decisions of the Sport Class Officers and the Sport Class Pilot Standards/Contest Committee made under this section of the Class Rules, including penalty assessment and sanctioning of class members and racers, are final, and are not subject to protest.

P. Protests:

1. Any protest must be filed by written notification to the Air Race Organizer Contest Committee via the ARO Official Scorer (or the entity identified by the ARO), per the sanctioning agreement.

Q. Race Cancellation or Postponement:

1. In the event that the race is postponed, all racers will be notified as early as possible and given a reasonable time to prepare for a re-schedule.

2. If all or some races are canceled for a particular day, that day's format and pairings will progress to the next day's race, unless modified by the Air Race Organizer or the Sport Class Officers and Contest Committee.

3. If the race is canceled after takeoff but prior to start, the race may be re-scheduled with the same format and pairings.

4. If the race is canceled after the start of the race, unless a yellow or red flag has been issued, all racers will continue around the course until passing the Home Pylon, at which time they will pull off the course and proceed to cooldown for sequencing for landing.

5. If the race is canceled after the start of the race, the race will be considered a complete race and race results will be determined by the order of the aircraft at the time that the race was cancelled. The racers speed over the course will then become the total time flown divided by the number of complete laps flown. If a yellow or red flag was issued, and the race is subsequently cancelled, the Class and ARO Contest Committee will be the authority for determining the number of laps completed by each aircraft.

R. Supplementary Rules:

1. It shall be permitted for the Air Race Organizers to formulate supplementary rules which apply to a specific event. Sport Class racers will abide by such rules, as with any event Rules of Competition.

2. A copy of any supplementary rules must be provided to Sport Class Officers, the Sport Class Contest Committee, and all Sport Class racers by the Air Race Organization.

S. Prize Money:

1. Sport Class will, to the best of its ability, negotiate with the Air Race Organization to ensure an accounting of all prize money to be paid to the Sport Class racers for any race event. This should include the holding of all prize money in escrow by the ARO prior to the race event, to ensure fair pay out to the racers.

2. The purse will be divided among, and paid out to, the qualifiers and starters of the various heats, at the conclusion of the event. Payout timing will be negotiated between Sport Class and the Air Race Organization.

3. A copy of the prize money payout scale will be made available to the racers prior to the race event.

4. Prize money paid out to Match Race Exhibition participants, above and beyond that paid to them for normal heat race participation, is discretionary. Prize money for Match Racing, if any, will be in the amount negotiated by the Class with the Air Race Organization for additional funds beyond the normal

class purse (if any), or will be in the amount determined by the class officers to be paid from the normal class purse funds, if deemed appropriate.

T. Pilot Withdrawal from an Air Race Event

1. A pilot may withdraw at any point prior to or during any air race event. Notification must be made to the Air Race Organization and the Class.

2. A refund of all or any portion of the entry fee for a withdrawing pilot is at the discretion of the Air Race Organization.

3. Once a pilot withdraws from an event, they may not be re-instated to that event, for the duration of the event.

VIII. PILOT BRIEFINGS

A. Event Briefings:

1. Upon arrival at a race, all racers will receive an indoctrination briefing from the Air Race Organization. This briefing will include at a minimum:

   a. FAA Waiver and Special Operating Rules.

   b. Local Operating Procedures.

   c. Racecourse layouts and markings.

   d. Pit Procedures.

   e. Schedule of Practices, Qualifying, and Racing events.

   f. Safety and Emergency Procedures and Crash, Fire and Rescue Procedures.

   g. Race Officials and Organization.

   h. Any additional information deemed beneficial to the racers by the ARO.

2. The Event Indoctrination Briefing in this section is mandatory for all racers. Any racer not able to attend this brief will not be allowed to participate in any practice, qualifying or race operation for the entire event, unless alternate briefing arrangements are made, and the brief is completed. This briefing will be made available to a racer that missed the indoctrination brief, at the discretion of the Operations Officer or the Air Boss, and as set forth in the Air Race Organization's Rules of Competition for the event. Such make up briefs will be completed by the Operations Officer or the Air Boss, or the person assigned by the ARO.

B. Daily Briefings:

1. Each pilot intending to fly that day must attend the Air Race Organization Daily Brief. This brief is mandatory, and any pilot that misses the brief, will not be allowed to fly in any event scheduled that day, unless a make-up brief is allowed and conducted with the Air Boss or official designated by the ARO.

2. Any pilot not attending the Daily Brief and then attempts to fly, will be disqualified.

3. The Daily Brief will include at a minimum:

   a. Daily Schedule.

   b. Daily Weather Forecast.

c. Any Special Subjects.

d. Questions.

C. Pace or Lead Pilot Flight Briefings. Every practice, qualifying and race event will include a Flight Briefing. This briefing will include, at a minimum:

1. Engine Start Time.
2. Takeoff Time.
3. Takeoff Position.
4. Takeoff runway and rejoin turn.
5. Rejoin speed and altitude.
6. Chute speed, and Start Release speed, altitude and geographic position.
7. Number of laps in race or other operation.
8. Emergency procedures. Primary and Secondary Safety Chase assignments.
9. Communications plan.
10. Other procedures as necessary.
11. Questions.

D. Post-Race Debrief:

1. At the conclusion of a race, all pilots involved in the race will meet at a designated area, typically at the Pace aircraft, for a post-race debrief with the Pace Pilot.

2. A member of the Pilot Standards/Contest Committee will also attend this debriefing. The Pace Pilot may waive this requirement if all committee members are flying, or are preparing to fly a race heat.

3. The purpose of this debriefing will be a formal get together to discuss details of the race. Comments concerning race conduct, race officials, other pilots, or other comments in general should be discussed at this time. Discussion of items of a sensitive nature should be conducted in a private location, such as a class briefing room.

IX. REQUIRED EVENT DOCUMENTS

Note: Not all of the documents listed below are required to be carried on the aircraft or the pilot's person during the race. The event waiver may also waive FARs that require the carriage of any of these documents during a practice, qualifying or race event. These documents are required to be made available to Air Race Organization or Class officials upon request.

A. Aircraft:

1. Current Airworthiness Certificate
2. Aircraft Registration
3. Operating Limitations
4. Aircraft Weight and Balance documents
5. Aircraft speed/g test certification documents (submitted to class and the race organizer, as required).

B. Pilot:

1. Current Fixed-wing Pilot Certificate
2. Current Medical Certificate that meets the Air Race Organization's requirements.
3. Sport Class issued Racing License.
4. Evidence of meeting the 500 Hours minimum pilot hour requirement, if requested.

C Insurance:

1. Proof of insurance with $1,000,000 Liability, or the amount specified by the Air Race Organization or Class.
2. Additional rider or notation permitting Air Racing
3. Additional rider or notation naming Additionally Insured parties, as required by the Air Race Organization or the Class.

X. SPORT CLASS RACE HEAT PAIRING

A. Sport Class Air Racing intends to pair racers into groups (heats) based on performance during qualification speeds and subsequent races. The number of racers specified in the agreement between the Class and the Air Race Organization, will constitute a full field and the racers will be divided into equal-sized heats. As an example, if there are 4 heats, they will be labeled A, B, C and D. Alternate procedures and a defined progression will accommodate additional racers to a maximum number as set forth in the agreement between the Class and the Air Race Organization. The sample progression in this section of the rules displays the process for 4 heats and up to 36 aircraft in s dingle Division. Similar procedures may be applied to fields of different sizes, to accommodate more or fewer aircraft and heats, and will be developed by the Class Officers and/or the Class Contest Committee. Each Division will have its own field size definition and progression rules, in accordance with this section.

B. Should one or more aircraft be unable to make a qualifying attempt or fail to post a qualification time/speed, the Sport Class Officers and Contest Committee, at their discretion, may pair those racers at the back of the heat in which they were expected to qualify, based on previous performance and/or type of aircraft. This must be in accordance with the applicable ARO's Rules of Competition, and/or coordinated with the ARO.

C. Should all or most of the Sport Class aircraft field be prevented from qualifying, due to weather, environmental or other operational considerations, the Sport Class Officers and Contest Committee may, at their discretion, pair the entire field of aircraft into heats, based on previous performance and/or type of aircraft. This must be in accordance with the applicable ARO's Rules of Competition, and/or coordinated with the ARO.

D. The Heat Races will take place before the event Finals or Championship Races, and will be conducted as follows: After all official qualification times and speeds are established, the racers will be aligned in decreasing order of 1-36 according to speed. The racers will be divided into four race heats consisting of from 6-8 aircraft per heat. The fastest speeds will be paired for the "A" Heat of each day, the second fastest paired for the "B" Heat, the third fastest paired for the "C" Heat, and the fourth fastest paired for the "D" Heat.

E. The number of available race aircraft will determine the number of aircraft per heat. The emphasis will be to ensure that the maximum number of racers will be allowed to race. Therefore, all qualifying aircraft will be divided into four heats based upon qualifying speed, the heats will be evenly divided with from 6-8 aircraft per heat. In the event that the heats are not evenly divided, the preference will be for the greater number to go to the faster heat. The following matrix applies to heat size based on 24-32 race eligible aircraft. This matrix may be altered by the Class Officers and the Class Contest Committee, if in the interest of safety or fairness, a different matrix is more appropriate:

Eligible Aircraft	Gold/A Heat	Silver/B Heat	Bronze/C Heat	Medallion/D Heat
24	6	6	6	6
25	7	6	6	6
26	7	7	6	6
27	7	7	7	6
28	7	7	7	7
29	8	7	7	7
30	8	8	7	7
31	8	8	8	7
32	8	8	8	8

F. In the event that there are 33 race eligible aircraft after qualifying ends, the following pairing rules will apply to ensure that every eligible racer gets to race. If there are 33 aircraft available for the first day of racing, the number 30 qualifier will act as the alternate aircraft. For the second day of racing, the number 31 qualifier will act as the alternate aircraft. For the third day of racing, the number 32 qualifier will act as the alternate aircraft. For the Championship Race, the number 33 qualifier will act as the alternate aircraft.

G. In the event that there are 34-36 race eligible aircraft the following pairing matrix will apply:

Race eligible aircraft 34			Heat 1A, 1B, 1C, 1D					
Heat 1A	1	2	3	4	5	6	7	8
Heat 1B	9	10	11	12	13	14	15	16
Heat 1C	17	18	19	20	21	22	23	24
Heat 1D	25	26	29	30	31	32	33	34

Race eligible aircraft 34			Heat 2A, 2B, 2C, 2D					
Heat 2A	1	2	3	4	5	6	7	8
Heat 2B	9	10	11	12	13	14	15	16
Heat 2C	17	18	19	20	21	22	23	24
Heat 2D	25	26	27	28	31	32	33	34

Race eligible aircraft 34			Heat 3A, 3B, 3C, 3D					
Heat 3A	1	2	3	4	5	6	7	8
Heat 3B	9	10	11	12	13	14	15	16
Heat 3C	17	18	19	20	21	22	23	24
Heat 3D	25	26	27	28	29	30	33	34

Race eligible aircraft 34			Gold, Silver, Bronze, Medallion					
Gold	1	2	3	4	5	6	7	8
Silver	9	10	11	12	13	14	15	16
Bronze	17	18	19	20	21	22	23	24
Medallion	25	26	27	28	29	30	31	32

Race eligible aircraft 35			Heat 1A, 1B, 1C, 1D					
Heat 1A	1	2	3	4	5	6	7	8
Heat 1B	9	10	11	12	13	14	15	16
Heat 1C	17	18	19	20	21	22	23	27
Heat 1D	28	29	30	31	32	33	34	35

Race eligible aircraft 35			Heat 2A, 2B, 2C, 2D					
Heat 2A	1	2	3	4	5	6	7	8
Heat 2B	9	10	11	12	13	14	15	16
Heat 2C	17	18	19	20	21	22	23	24
Heat 2D	25	26	30	31	32	33	34	35

Race eligible aircraft 35			Heat 3A, 3B, 3C, 3D					
Heat 3A	1	2	3	4	5	6	7	8
Heat 3B	9	10	11	12	13	14	15	16
Heat 3C	17	18	19	20	21	22	23	24
Heat 3D	25	26	27	28	29	33	34	35

Race eligible aircraft 35			Gold, Silver, Bronze, Medallion					
Gold	1	2	3	4	5	6	7	8
Silver	9	10	11	12	13	14	15	16
Bronze	17	18	19	20	21	22	23	24
Medallion	25	26	27	28	29	30	31	32

Race eligible aircraft 36			Heat 1A, 1B, 1C, 1D					
Heat 1A	1	2	3	4	5	6	7	8
Heat 1B	9	10	11	12	13	14	15	16
Heat 1C	17	18	19	20	25	26	27	28
Heat 1D	29	30	31	32	33	34	35	36

Race eligible aircraft 36			Heat 2A, 2B, 2C, 2D					
Heat 2A	1	2	3	4	5	6	7	8
Heat 2B	9	10	11	12	13	14	15	16
Heat 2C	17	18	19	20	21	22	23	24
Heat 2D	29	30	31	32	33	34	35	36

Race eligible aircraft 36			Heat 3A, 3B, 3C, 3D					
Heat 3A	1	2	3	4	5	6	7	8
Heat 3B	9	10	11	12	13	14	15	16
Heat 3C	17	18	19	20	21	22	23	24
Heat 3D	25	26	27	28	33	34	35	36

Race eligible aircraft 36			Gold, Silver, Bronze, Medallion					
Gold	1	2	3	4	5	6	7	8
Silver	9	10	11	12	13	14	15	16
Bronze	17	18	19	20	21	22	23	24
Medallion	25	26	27	28	29	30	31	32

H. The race lineup/pairing for each subsequent day's racing will be determined after the day's racing has been completed. The heat/race pairing line-up will be rearranged for the following day, based upon all racers' *most recent* speed. Following any DNF, DNS, or DQ result, those race pilots in any heat will be placed at the bottom of the same heat's pairing for the next day's heat/race, in that order (DNF, DNS, DQ). Such DNF/DNS/DQ pilots will not be moved to the next lower heat due to bumping, as described in subsection H below. If there is more than one DNF, the DNF pilots will be paired in the order of most laps completed before the pilot pulled off of the course. If the is more than one DNS, the DNS pilots will be paired in the order that they were scheduled to start in the previous day's heat. If there is more than one DQ, the DQ'd pilots will be paired in the order of most laps completed before the DQ event.

I. When pairings are generated for each subsequent day's racing, bumping between heats is allowed between any two adjacent race heats. Faster racers in a slower adjacent heat may bump up into the faster heat, if their speed results are faster than the bottom finishers in the faster heat. DNF, DNS and DQ racers are not subject to bumping, and will remain in their heats for subsequent racing. The Class Officers and Class Contest Committee will determine if bumping will be allowed between heats that are flown on different race courses in the same event, and may, in the interest of safety or fairness, place firewalls between specific heats, to prevent bumping between those heats.

J. If any separate Divisions of aircraft are created within Sport Class for a specific event, a separate progression matrix will be developed for each Division by the Class Officers and the Class Contest Committee. The rules in this Section X will be applied to each Division, with modifications as required for field size and heat size.

XI. AIRCRAFT FUELS AND ADDITIVES

A. Sport aircraft will be allowed to use any fluid, liquid or gas, sprayed externally or internally to promote engine performance.

B. If an Air Race Organization or Sport Class place any limitations on the use of fuels, additives, or chemical injection of fluids, liquids, or gasses, all Sport Class racers will abide by those limitations.

XII. RULES CLARIFICATIONS AND ADDENDUM'S

A. This section is included to highlight any Clarifications or Addendum's incorporated in the existing rules within the past year as a result of the previous year's critique. Its intent is to provide the user with a "quick reference" section to familiarize themselves with all recent modifications, including a short synopsis of the modification, as well as a reference to the specific section in which the modification has been incorporated. Subsequent years' will be posted in this section on an annual basis.

Appendix 1

Sport Class Air Racing Match Racing Exhibition Events

CONCEPT:

Sport Class Exhibition Match Racing is a one-on-one competition between two aircraft at a time, on a side-by-side slalom racecourse, utilizing existing pylons on a course specified for the Match Race event (see attachment 1). The competition will take place in a single-elimination bracket format, with a number specified in the agreement between the Class and the ARO. A bracket of 8 race aircraft is used in the example herein. The bracket will be entitled the Sport Class Match Race Bracket. The Match Race will be run as an invitational event. A specified number of pilots will be selected by Sport Class Air Racing Association Officers and the Pilot Standards/Contest Committee, and trained during PRTC, PRS, or another training event specified by Sport Class. The pilots and aircraft selected to fly in the Exhibition Match Races during any air racing event will be from among the pilots trained and qualified as Match Race pilots. Spare, or backup, pilots will also be selected from that trained and qualified group of pilots.

MATCH RACE PROGRESSION:

The Match Racing elimination bracket will be published at the end of normal event pylon race qualifying. The pairings for the Match Racing will be determined by speed, as indicated in attachment 2. During each Match Race Exhibition event, a quarterfinal heat, semifinal heat and final race will be conducted, and a Match Race winner will be declared during, or immediately following the event. The quarterfinals will consist of four match races, reducing the field from 8 to 4. The semifinals will consist of 2 match races, reducing the field from 4 to 2, and the final will consist of one match race. Each race is final, and the winner will continue in the bracket, while the loser will land. Racers will not switch courses and fly each heat twice. At the beginning of each event, the racers in the quarterfinal bracket will flip a coin to determine who gets their choice of the track they will fly on during the event. Once a track is selected, each racer will remain on the original track, unless paired with a racer that also selected the same track. In this event, the Match pace pilot will direct the racers as to which track to fly. Each event will take 25-30 minutes from launch to recovery.

RACECOURSE DESIGN:

The Match Racing Slalom Course will utilize pylons of the specified Match Race course. The course will be flown as a slalom, and will include two and one half laps, or passes, up and down the course, as outlined in attachments 3 and 4.

MATCH RACE EXECUTION:

Each Match Race event will stage, start, check-in, and taxi as a flight of 11 (2 Pace aircraft plus 8 racers and 1 spare racer). If Pace aircraft assets are limited, a single pace may be utilized. Spare aircraft procedures will be the same as in normal Sport Class races. Departure and rejoin of the 10 flying airplanes will be conducted in the same manner as a normal Sport Class race heat. Once the rejoin is complete, the flight will proceed to the "Match Hold" point, at the appropriate altitude (see attachment 5). From Match Hold, Pace will lead two aircraft in a modified "Vic" formation from "Match Hold", to "Match Entry" (see attachment 5). Pace will lead the racers to the course via a west-to-east chute, similar to the T-6 Start Chute (see attachment 5). Pace will spread the racers so as to align them just south of their respective first pylons. Pace will release the two Match Race aircraft with a radio call and a pull up, approximately one half mile from the first pylons. Pace will execute a turn to the north, clearing the course, and will then return to the Match Hold point to pick up two more racers. After release, the two active race aircraft will execute two and one-half laps of the Match Race course, flying a slalom course above pylon height (approximately 50 feet, or as designated). The race aircraft will fly west to east with a left reversal turn to the north, then will fly east to west, with a left reversal turn to the south, and then fly a straight dash to the finish on the south side of their respective pylons. The finish line will be abeam the Home Pylon. Timing will begin at the radio call or pull up for the start, and will end as each aircraft passes Home Pylon on the third pass. After passing Home Pylon, the race aircraft will pull up and off the course, and will either recover immediately, or return to Match Hold, as directed in the "Match Race Recovery" section of this Appendix.

MATCH RACE WINNER DECLARATION AND ELIMINATION:

After each Match Race, the winner will be declared after considering any pylon cut time penalties and/or disqualifications. If there are no pylon cuts or disqualifications, the winner is the first aircraft to pass Home Pylon on the final pass. If a pylon cut is assessed, a time penalty of 2 seconds will be applied for each pylon cut, and the winner will be the aircraft with the fastest resulting time from start to finish, including penalties. The winner will move forward in the bracket, and the loser will be eliminated from Match Race competition. Winners of quarterfinal and semifinal matches return to Match Hold, and match losers land. After the Match Race Final, the racers and pace aircraft will recover, and the event will be complete.

MATCH RACE RECOVERY:

During the Quarterfinal and Semifinal Match Racing, after each pair completes its Match Race, the race aircraft will pull up and off the course after passing the Home Pylon the third time. The winner will return to Match Hold, and the losing aircraft will recover. Upon completion of the Final, both racers will recover, followed by Pace, who will recover from a modified cool-down in trail of the Final Match Racers. Recovery will be to the runway specified in the Match Race Brief. Each aircraft will call downwind, and base with gear, just as in normal race operations.

SAFETY AND MAYDAY CONSIDERATIONS:

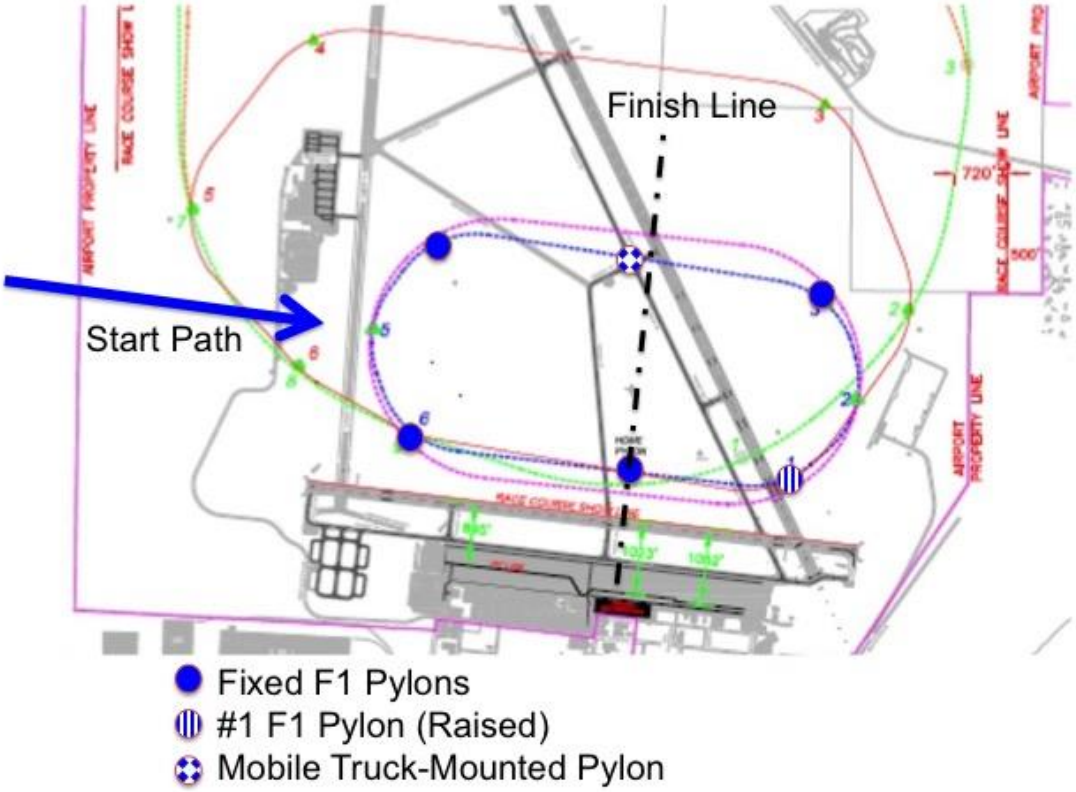
Pace will be responsible for the conduct of the flight at all times, supported by Race Control. In the event of a Mayday, the race will be immediately terminated, with the calls “MayDay” and “Knock it Off”. If this occurs, the aircraft in the Match Hold will remain there until the Emergency/Mayday is terminated. The other aircraft on the racecourse will terminate, clear the course, and climb to cool-down for holding and/or recovery. The Mayday aircraft will have priority, and will be supported by Pace, Race Control and Tower, as required.

ADDITIONAL MATCH RACE COURSE CONSIDERATIONS:

The Match Race aircraft will at all times be within the confines of the specified racecourse limits, so no additional waiver airspace will be required. Attachments 6 and 7 are samples of official course diagrams for the Match Race Slalom Course.

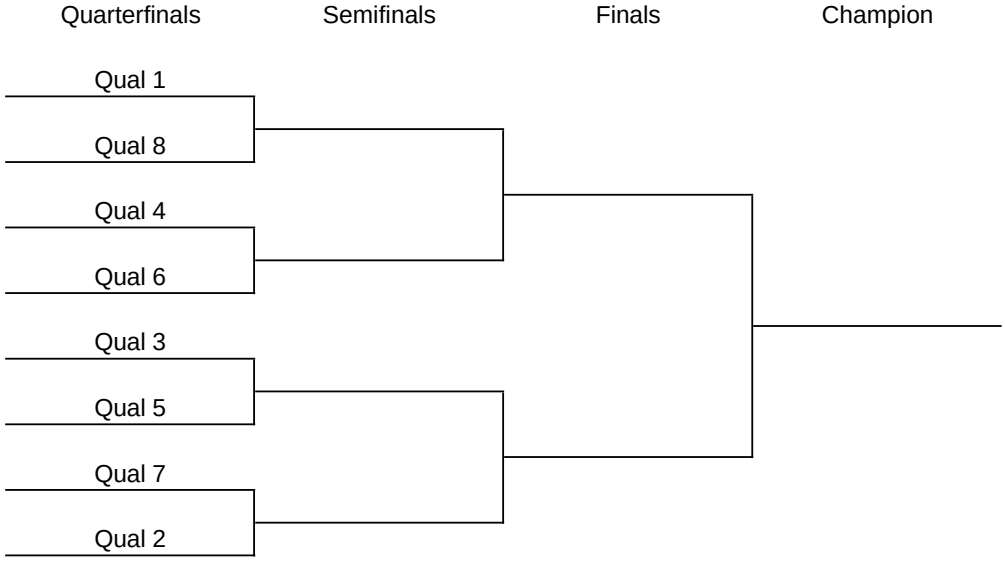
Match Race Pylon Layout

Attachment 1



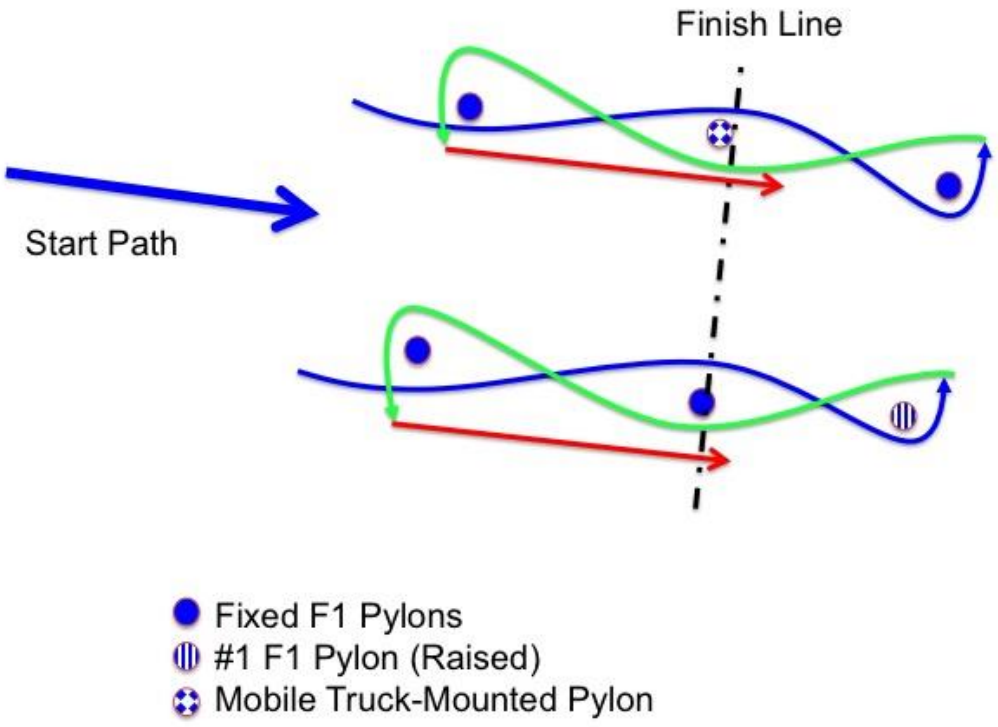
Match Race Bracket

Attachment 2



Match Race Course Layout

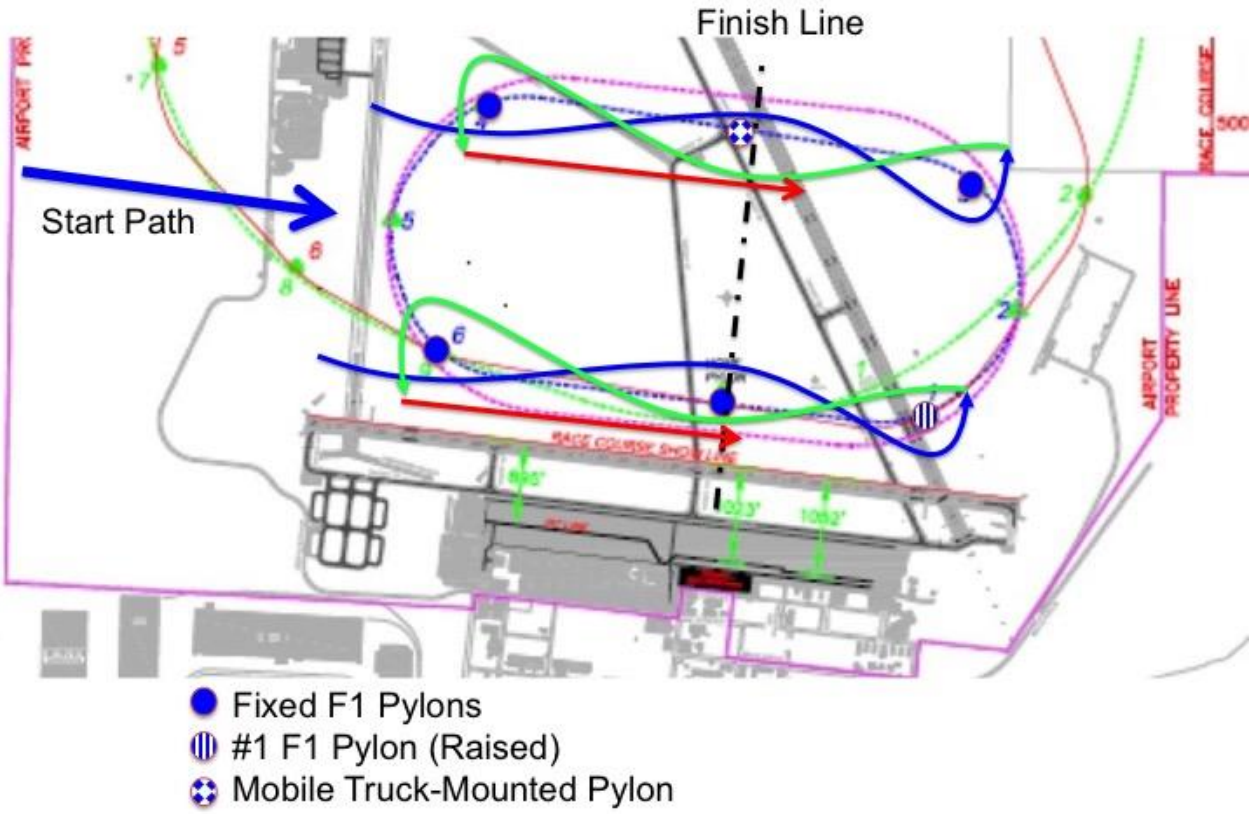
Attachment 3



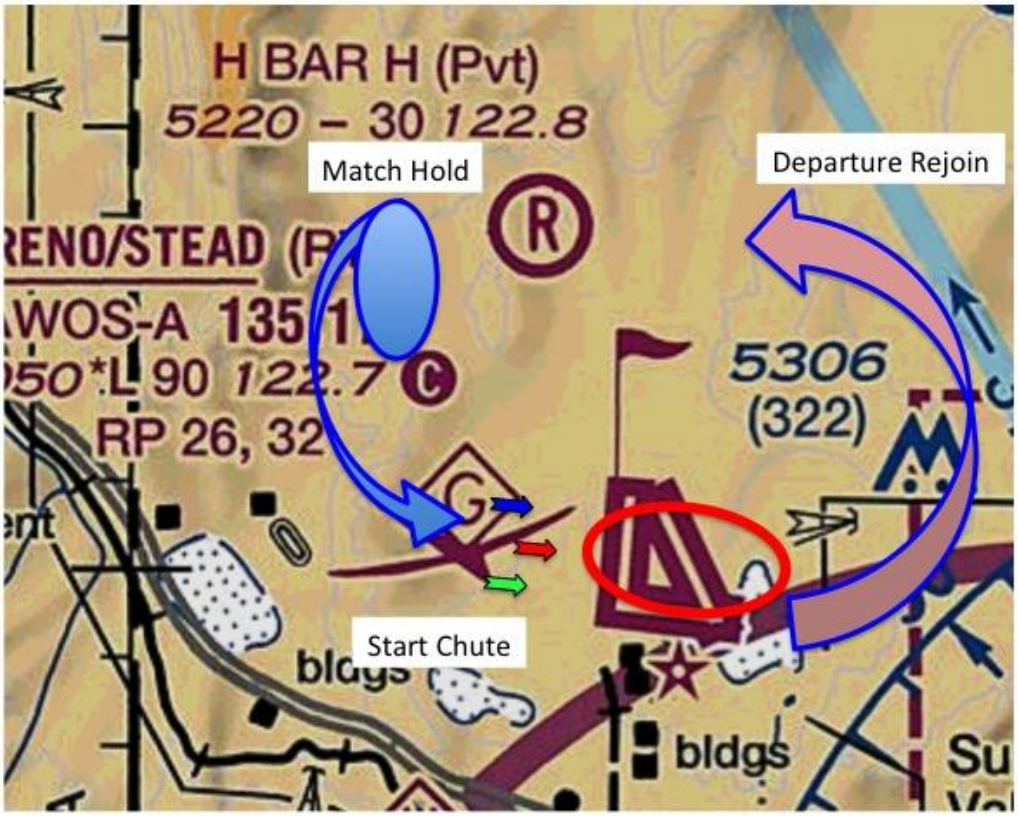
- Fixed F1 Pylons
- #1 F1 Pylon (Raised)
- Mobile Truck-Mounted Pylon

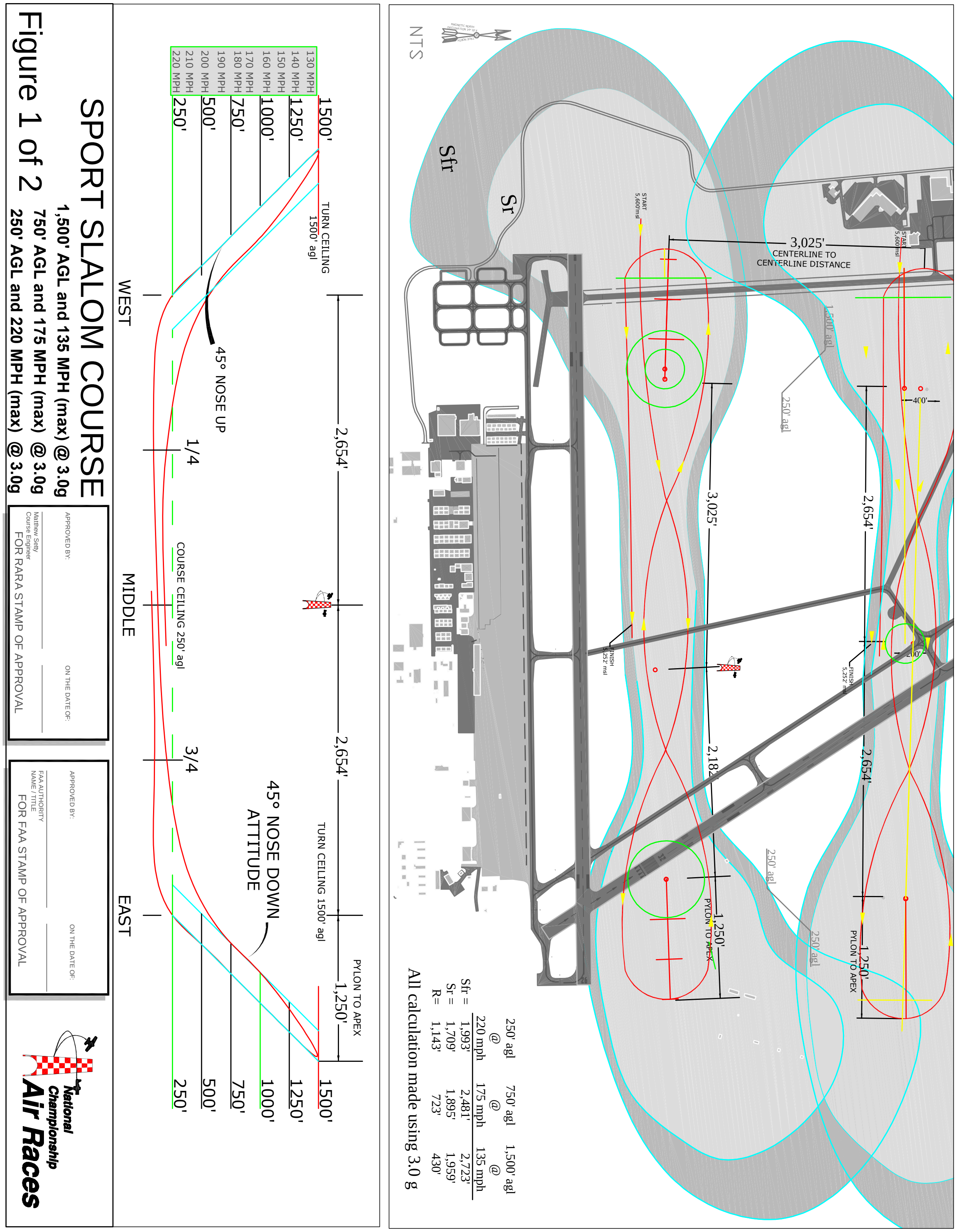
Match Race Course Layout

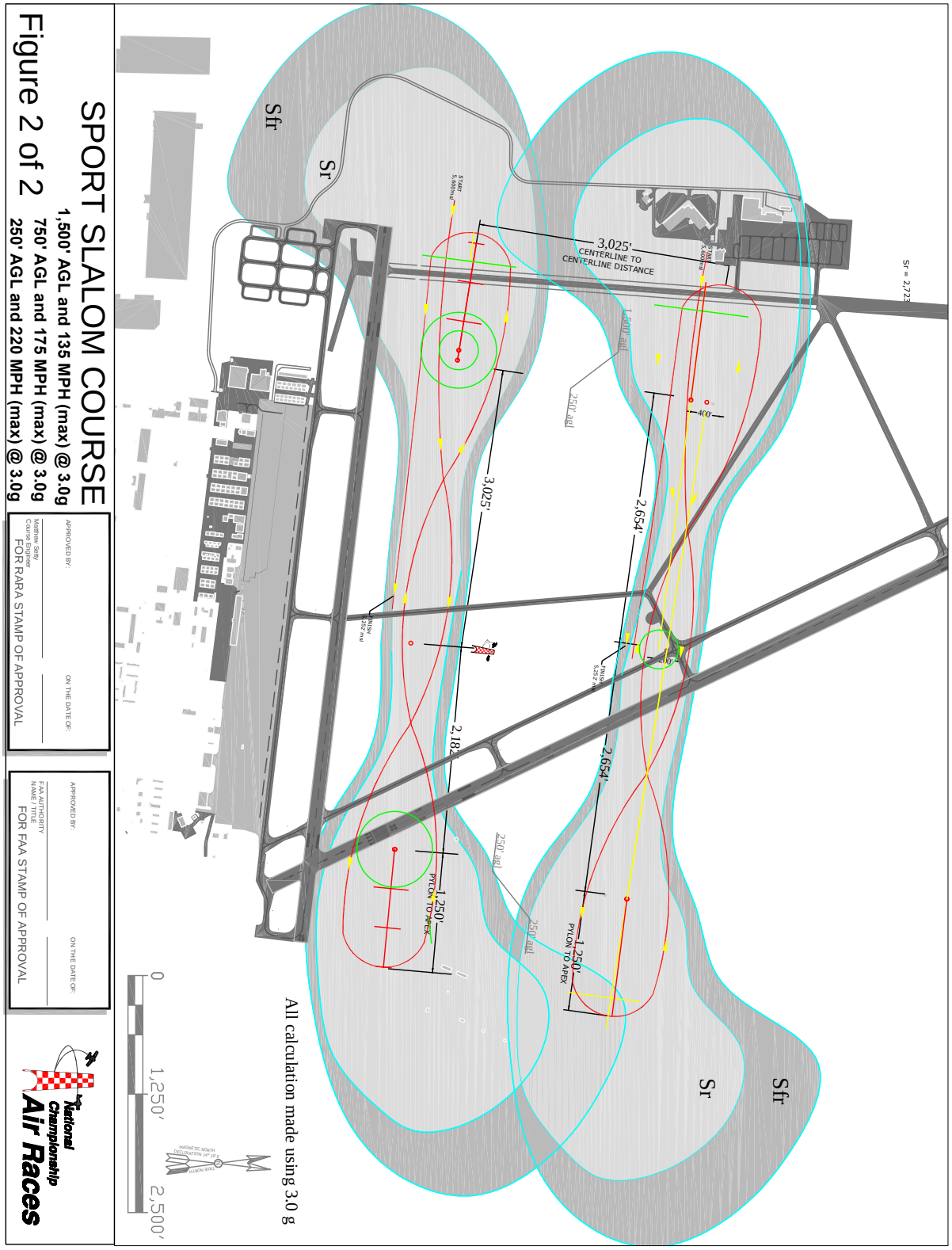
Attachment 4



Match Holding Pattern Attachment 5




SPORT SLALOM COURSE
Figure 1 of 2
1,500' AGL and 135 MPH (max) @ 3.0g
750' AGL and 175 MPH (max) @ 3.0g
250' AGL and 220 MPH (max) @ 3.0g
APPROVED BY:
ON THE DATE OF:
Matthew Sely
Course Engineer
FOR RARA STAMP OF APPROVAL
APPROVED BY:
ON THE DATE OF:
FAA AUTHORITY
NAME / TITLE
FOR FAA STAMP OF APPROVAL
National Championship Air Races
130 MPH
140 MPH
150 MPH
160 MPH
170 MPH
180 MPH
190 MPH
200 MPH
210 MPH
220 MPH
1500'
1250'
1000'
750'
500'
250'
TURN CEILING 1500' agl
45° NOSE UP
WEST
1/4
2,654'
COURSE CEILING 250' agl
MIDDLE
3/4
45° NOSE DOWN ATTITUDE
TURN CEILING 1500' agl
EAST
PYLON TO APEX
1,250'
NTS
Sfr
Sr
START 5,600'msl
3,025' CENTERLINE TO CENTERLINE DISTANCE
1,500' agl
250' agl
400'
3,025'
2,654'
FINISH 5,252' msl
2,182'
PYLON TO APEX
1,250'
250' agl
All calculation made using 3.0 g
250' agl @ 220 mph
750' agl @ 175 mph
1,500' agl @ 135 mph
Sfr = 1,993' 2,481' 2,723'
Sr = 1,709' 1,895' 1,959'
R= 1,143' 723' 430'


SPORT SLALOM COURSE
1,500' AGL and 135 MPH (max) @ 3.0g
750' AGL and 175 MPH (max) @ 3.0g
250' AGL and 220 MPH (max) @ 3.0g
Figure 2 of 2
APPROVED BY:
ON THE DATE OF:
Matthew Sirby
Course Engineer
FOR RARA STAMP OF APPROVAL
APPROVED BY:
ON THE DATE OF:
FAA AUTHORITY
NAME / TITLE
FOR FAA STAMP OF APPROVAL
National Championship Air Races
Sfr
Sr
Sr
Sfr
3,025'
CENTERLINE TO CENTERLINE DISTANCE
2,654'
3,025'
2,654'
2,182'
1,250'
PYLON TO APEX
1,250'
PYLON TO APEX
250' agl
250' agl
250' agl
400'
All calculation made using 3.0 g
0
1,250'
2,500'