



Racing Jets Incorporated

The Jet Class

Official Rules of Competition

February 15, 2019

Version 2.6.1

Changes in Red

Racing Jets Inc. Official Competition Rules

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I. RACING JETS INCORPORATED ORGANIZATION

Purpose

The purpose of Racing Jets Incorporated (RJI) is to manage the various functions and relationships required to ensure the successful participation of jet racers at sanctioned air racing events and other venues. RJI represents the participants in the Jet Class and is dedicated to the furtherance of the interests of Air Racing, the Jet Class and jet racing as a whole, and wherever possible the individual members of the organization.

Scope

RJI has developed a regulated racing format for jet aircraft operators to demonstrate the capabilities of these aircraft and showcase their upgrades, while marketing their products as “The World’s Fastest Motor Sport”

Board of Directors and Officers):

Pursuant to RJI’S corporate By-law documents the following positions and individuals are as follows:

<u>Board of Directors:</u>		<u>Term:</u>
Chairman:	Michael Steiger	2018-2019
Vice Chairman:	Rick Vandam	2018-2019
At Large Director:	Dianna Stanger	2018-2019
At Large Director:	Pete Zaccagnino	2018-2019
At large Director:	Bob McCormack	2018-2019
<u>Corporate Officers:</u>		
President:	Michael Steiger	
Vice President:	Rick Vandam	
Secretary:	Vicky Benzing	
Treasurer:	Kathy Cloke	

II. ADMINISTRATIVE RULES

- A. RJI manages the various functions and relationships required to ensure the successful participation of the jet racing community at sanctioned air racing events and other venues. RJI represents the participants in the Jet Class and is dedicated to the furtherance of the interests of Air Racing, the Jet Class and jet racing as a whole, and wherever possible the individual participants of the Class. *Participation in the Jet Class is open to Members and Competitors by invitation only.*
- B. RJI is a 501(c)(6) tax exempt, Nevada non-profit corporation.
- C. RJI has been accepted by RARA and the FAA as the governing organization of the Jet Class for the National Championship Air Races.
- D. From time to time, the Class Officers will select committee members and chairs from a pool of volunteers on an “as needed” basis.
- E. Any requests for changes to the Official Rules of Competition must be submitted to the Class Officers in writing. Any proposed changes will be discussed in an open forum, where possible, before implementation. For any given year, all Rules changes will be adopted no later than 60 days prior to the Race Entry submission deadline, unless mandated by the event organizer, the FAA, or as necessary for the Safety of the Class.
- F. Because of the unique qualifications required for racing jet aircraft, only a limited number of pilots, possess both the desire and the ability to participate in our sport. Because of this fact it is necessary to have competitors in “leadership” positions within the class. The BOD recognizes this conflict and has taken the following steps to insure that all participants can rely on a level playing field as well as an unbiased oversight committee to resolve disagreements on and off the race course.

The official rules for the jet class state that; “In the event of a conflict of interest where, and only where, an RJI officer, board or committee member is the direct subject of any Rules sanction provided herein, the involved individual shall recuse themselves from a decision making role in resolving the issue. In the event of such a conflict of interest, the next subordinate position shall act as decision maker; or if a vote is required, the remaining members of the Board shall vote on the issue”

In addition to the provision in the rules stated above and to further preclude potential conflicts the BOD has established, and amended the rules to reflect, the following:

Pilot Standards Committee (PSC);

The Pilot Standards Committee will be appointed by the Board of Directors and shall be composed of a minimum of three or more current or prior qualified Jet Race Qualified Pilots. The Committee will be responsible for adjudicating any disputes that arise concerning the performance or conduct of any RJI Race Pilot in conjunction with any RJI sanctioned event or while representing the Class. The Committee, with

at least a quorum of the appointed committee, will meet to collect all available evidence concerning any dispute. After collecting the evidence the Committee will make a recommendation to the Board of Directors for administration of any corrective action, which may warrant a requirement to re-attend the Pylon Racing Seminar for additional training and/or evaluation, suspension or revocation of current racing qualification, or an action deemed appropriate by the committee and forwarded to the Board of Directors for approval. *The Board of Directors will forward any such additional training requirements, suspension or revocation of racing qualifications, or other such actions, in writing, to the individual pilot.* The Pilot Standards Committee will be in continuous operation throughout the year and not just during RJI flying events. The Board of Directors shall remain solely responsible and the final appeal for any disciplinary action.

Technical Standards Committee (Tech):

The Technical Standards Committee will be appointed by the Board of Directors and shall be composed of a minimum of two individuals with the unique experience of technical expertise with experimental jet aircraft. The Committee will be responsible for the inspection and oversight of all technical aspects with the maintenance and safe operation of the aircraft. Any disputes that arise will be handled within the committee and the respective aircraft owner or operator. If a dispute occurs that the Committee is unable to solve will be referred to the Class Officers for a solution. The Board of Directors shall remain solely responsible and the final appeal for any corrective action.

III. OFFICIAL RACING RULES

- A. The class will be referred to as the “JET CLASS.” These rules are the only official rules of competition of the JET CLASS and are referred to herein as the “RULES.’. The JET CLASS RULES are the official aircraft specifications for the JET CLASS, and the Pilot Qualifications are the official pilot requirements for the JET CLASS.
- B. A sanctioning agreement will be negotiated between the official Air Race or event organizers and the RJI Board of Directors. The sanctioning agreement will include such details as event dates, entry fees, deadlines, race course, aircraft pit configuration, emergency service required, spectator location, air race or event organization, organizing committees, and prize money. Also included will be any specific requirements of the racers such as insurance requirements, airspace waivers, and any rules of competition. These JET CLASS RULES will be included in and referenced in the competition rules published by the event promoter for each event.
- C. These RULES will be provided to each competitor and or aircraft owner who has applied for an entry form for any air-racing event involving the JET CLASS. The Contest Committee of each specific event will be responsible for that particular event and that Committee will administer RULES. The RJI Board of Directors will be available to assist the Committee in rule interpretation.

- D. These RULES will be the only official rules for the Class except where superseded by race sponsor or government authority.

IV. AIRCRAFT ELIGIBILITY

- A. Aircraft eligible to race within the guidelines of the Jet Class shall be limited to production turbojet aircraft; the aircraft shall be of non-swept wing, non-afterburner design.. Due to racecourse limitations as well as operational considerations for the safety of the racers and the event spectators only approved aircraft will be operated within the Class. Any new aircraft model that has not previously been approved for operation shall request approval by type to the Board of Directors for approval. After preliminary approval the aircraft may be requested to perform a flight demonstration at the Pylon Racing Seminar to insure aircraft compatibility. The Board of Directors shall be the final judge as to aircraft eligibility.
- B. Once an aircraft has met the Board of Directors approval to race within the class it **may not** intentionally exceed the accredited race course speed for the designated race course venue. 525 MPH is the current accredited speed for the Jet Race Course at the Reno National Championship Air Races. An aircraft that initially exceeds 525 MPH on a qualification lap, or finishing race speed will be disqualified from that event in which it occurred. An aircraft that exceeds 525 MPH for the 2nd time will be disqualified from competing for the remainder of the race event.
- C. All aircraft must have a current FAA or equivalent, issued airworthiness certificate, registration, operating limitations, and approved maintenance program (as required). Phase One flight testing per the operating limitations must be completed and documented within the aircraft maintenance records prior to operation on the race course. All certification, registration, fly-off documentation, and current maintenance records for the aircraft will be available for inspection by the Technical Committee, the Race Organizers, or the FAA during any sanctioned racing event.
- D. All aircraft must display its assigned racing number on each side of the fuselage or vertical stabilizer and on the lower surface of the right wing with the number facing outward. The number should be at least 30 inches high and be of high contrast so that it is readily identifiable by race officials.
- E. The RJI Board of Directors will maintain a list of assigned race numbers. New race numbers will be chosen, reserved, or assigned annually no later than PRS for those attending, or the final day for NCAR entry submission. Pilots, Owners, or Race Teams must pay a \$50.00 Race Number registration fee to the class treasurer. Previous year race numbers remain taken until the next year's final date for NCAR entry submission or forfeited by the aircraft owner.

These rules are not written to cover every possible circumstance. When issues do arise that are not covered within these approval rules, the Jet Class, Event Organizer, and the FAA will address them with SAFETY being the number one priority.

V. AIRCRAFT EQUIPMENT

- A. All aircraft must have a current airworthiness certificate issued by the FAA or equivalent. All certification, registration, and current maintenance records must be available for inspection by the Technical Committee, the FAA or the air race organizers.
- B. 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 practices, qualifications, and racing. A pilot must use a second radio if he desires to communicate with his respective ground crew during any practice, qualification, or race. All radios must be operated utilizing the HOTAS concept, (Hands on Throttle and Stick). The rear cockpit must also have an operable VHF Radio and intercom if an instructor or evaluator occupies the rear cockpit.
- C. All aircraft must be equipped with a full pilot restraint system, which shall include both a seat belt and shoulder harness in good operable condition. This rule also applies to the rear cockpit if an instructor or evaluator occupies the rear seat.
- D. All Ejection Seats must be de-armed for practice, qualifying, and racing. If charges are installed, the seats must be pinned (cold) for all of practice, qualifying, and racing. Parachutes are required for each occupant allowing for a manual bailout option.
- E. **Canopy jettison system may not be of the pyrotechnic type for ground egress. No live canopies are allowed on the race course and must be pinned, disabled or pyrotechnics removed prior to PRS to NCAR .**
- F. All aircraft must pass a compliance inspection conducted by the Class Technical Committee prior to flying on the racecourse. Aircraft must also pass an inspection at any time at the discretion of the Technical Committee or the Board of Directors.
- G. All aircraft must have completed any Phase One flight test requirements and have adequate proof that this has been accomplished prior to flying on the race course.
- H. All experimental aircraft must have their current Operating Limitations available for inspection. Their respective limitations **must not prohibit air racing**.
- I. All aircraft must have a minimum of \$1,000,000 of liability insurance. The insurance policy rider must be valid for air racing and name RJI and the air race organizers as additionally insured. Each participant must have proof of this insurance prior to any flying on the race course at any time.
- J. All modifications in place during qualification and racing must be declared with supporting documentation to the tech committee at least 30 days before PRS or race

week arrival date for review and approval. The Race Organizer may require additional proof of race-worthiness of any modification, over and above FAA and RJI rules. Any changes to the aircraft after approval will disqualify the aircraft and must be reported to RJI, the FAA, and the race organizer.

- K. If a modification requires FAA notification and approval, those documents must be with the aircraft records and available for inspection. **In accordance with FAA and race organizer directives**, any modifications that may change the flight characteristics or controllability of the aircraft must be flight tested (separately) at the high speed and the max allowable G loading limits of the airframe.

Major modifications can be tested separately, but the final race configuration must be flight tested prior to the aircraft being allowed on the racecourse. The race organizer requires a detailed statement from the operator that all required flight-testing has been completed and the aircraft is fully controllable and safe to fly in race configuration. That statement is included in the Compliance Inspection Checklist contained in Attachment 1.

- L. The aircraft must use original airframe parts for all **primary** flight control surfaces.
- M. No modification that reduces the area of the original aircraft horizontal or vertical stabilizers is permitted.
- N. No modification that reduces the area of the original aircraft **primary** flight control surfaces is permitted.
- O. Weight and balance (CG) must be in accordance with the specified operating limitations of the aircraft, or if the CG is changed, it must be flight tested (Ref rule #J above), and documented by the Tech Committee before the aircraft can fly on the racecourse.
- P. Aircraft may not exceed V_{ne} or V_m during racing or qualifying. V_{ne} is defined as velocity-never-exceed and V_m is defined as Mach number-never-exceed.
- Q. Any and all jet aircraft desiring to compete in any Racing Jets Inc., racing, qualification, or training event that have installed a non OEM replacement engine must comply with the Event Organizer's requirements regarding Aircraft Eligibility and Major Modifications respectfully, no exceptions are permitted. Further, the Race Class may require that the modified aircraft undergo a Technical Inspection and perform a Flight Demonstration during the Pylon Racing Seminar in order to validate compatibility with the Race Class Technical Requirements. The Board of Directors maintains the sole option to waive the Inspection and /or Flight Demonstration requirement. All jet race aircraft engines must demonstrate by compliance inspection to operate within the manufacturer's published operating limitations.
- Q. All aircraft must depart with at least enough fuel for the race plus adequate fuel to divert to the designated emergency base for landing. This requirement may be

verified by the Technical Chairman prior to engine start of any race heat.

- R. The Board of Directors will have the right to request an observed test flight of any aircraft.
- S. Rear seats, Air scoops, ducts and instrument panels can be removed. The RAT and or APU units can be removed. Wing tips, tanks, winglets, etc. are at operator's discretion and again all in ref to Rules #I, J, K.
- T. All aircraft will conform to the requirements on the current Compliance Inspection form.
- U. In the event that an additional race venue occurs where RJI is the provider of racers and airplanes, special rules may be applied to adapt to the specific requirements for that racing event. These rules will be specific to that racing event and may be either more restrictive or less restrictive depending upon the requirements of the specific event, but in all cases safety will be the primary factor in allowing for any deviations from the RJI General Rules of Competition.

VI. PILOT QUALIFICATIONS

The following specifications are the only officially sanctioned and approved pilot qualification requirements. They comprise a specific part of the RULES and apply to all Pilots and designated Alternate Pilots participating in RJI sanctioned events. Failure to comply with these rules will result in disqualification of pilot and/ or aircraft from competition. The Board of Directors upon recommendation of the Pilot Standards Committee will implement disqualification procedures. Final approval will be the RJI Chairman.

A. Responsibilities:

1. The Pilot Standards Committee will be responsible for developing, documenting, and maintaining the standards and procedures used in determining pylon race pilot competency.
2. The Committee will be responsible for evaluating the experience of applicants for race participation credentials and conformance with the requirements for participation.
3. The committee will be responsible for the evaluation and qualification of applicants in accordance with Racing Pilot Qualification Test Standards, outlined in part C of this section.
4. The committee will be responsible for issuance of credentials to applicants who meet the requirements for race participation as outlined in part B of this section.
5. The committee will be responsible for observing the performance of pilot participants in race events, for counseling performance that is questionable or fails to fully meet standards, and for withdrawing the credentials of those who exhibit

unsatisfactory performance.

6. The committee will review the credentials of race entrant pilots and designated alternate pilots to ascertain the currency of experience, requirements, and credentials.
7. The BOD will designate the chairman of the Pilot Standards Committee. The Committee normally consists of three members.
8. The committee will maintain all appropriate records necessary in observance of these responsibilities.
9. The Chairman of the Pilot Standards Committee will be responsible for maintaining a list of all current, RJI Check airman, instructors, and designated flight leads.
10. The Chairman will recommend any new or re-qualification pilot, after completion of PRS, to the President for issuance of their respective Pilot Racing License. The President will be the sole individual authorized by the FAA to issue or revoke a pilots racing license.
11. **High Performance Pilot Training:** A previously qualified/certified race pilot who desires to compete in an aircraft that has significant performance characteristics that exceed those of the aircraft the pilot has previously raced may be required to re-attend the Pylon Racing Seminar for additional high performance training prior to racing the higher performance aircraft. The Pilot Standards Committee will be responsible for determining whether or not the pilot will be required to attend additional high performance training and will advise the Board of Directors for approval. *Any additional training requirements will be forwarded to the individual pilot, in writing, by the Board of Directors.*

B. Race Qualification Entrance Requirements:

Pilots and Alternate Pilots must be able to provide, if requested, the Pilot Standards Committee evidence of the following requirements before participating in any Jet Class Racing sanctioned Pylon Race or Race Qualification event.

1. A current fixed-wing pilot certificate with proper type rating endorsement.
2. In accordance with race organizer directives, all race pilots must be medically current and qualified to participate in the sanctioned racing event.
3. A valid Pylon Racing Pilot (License issued by RJI)
4. Pilots must have prior formation training and formation flight experience prior to attending any RJI sanctioned training event. The specific training must be either prior military training or have completed a FAST (Formation and Safety Team) training event.

5. All pilots must have a minimum of 1000 hours of documented pilot-in-command flying time in fixed-wing aircraft.

All pilots must have a minimum of 50 hours of documented pilot-in-command flying time in Turbine powered Aircraft. RJI recommends turbine time in ex-military turbine trainer/fighter type aircraft. All pilots must have a minimum of 25 hours in the race aircraft or similar type.

6. All pilots must have a minimum of 3 takeoffs and landings within the preceding 90 days prior to any qualification or race event.
7. All pilots must be familiar with, and abide by, the rules and regulations governing Closed Course Pylon Air Racing as set forth in the RULES
8. All pilots are required to wear fire protective clothing and helmets when practicing, test flying, qualifying, or racing in race-designated airspace.

C. Pilot Qualification Flight Evaluations:

All pilots and designated alternate pilots must demonstrate the following standards to a RJI Check Pilot prior to recommendation for the issuance of a Pylon Racing Pilot License.

The President at the recommendation of the Chairman of the Pilot Standards Committee has the final say on any matter related to flight operations.

1. Oral evaluation:

- (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 limitations, weight and balance limitations, and takeoff/landing limitations.
- (c) Discuss Density Altitude considerations.
- (d) Demonstrate knowledge of the Rules of Competition.
- (e) Race staging, start, and pylon procedures.
- (f) Passing procedures, during racing, qualifying, and training situations.
- (g) Method of communicating emergency-in-progress information to participants and required responses.
- (h) Method of declaring emergencies and actions for various types of emergencies.

- (i) Method of communicating emergency termination of a race to participants and required responses.
- (j) Normal race termination procedures.
- (k) 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
- (l) Other race aircraft wake turbulence recognition, avoidance and escape procedures.
- (m) Aircraft handling of flight control malfunctions at race speeds to minimize the risk to spectators and other non air race participants

2. General Pre-Flight procedure for qualification evaluation:

- (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.

3. Qualification flight evaluation procedures:

The race pilot prior to recommendation for the issuance of a Pylon Race Pilot License will demonstrate the following flight maneuvers. These maneuvers will be observed by a RJI designated check Pilot. Upon successful completion, all recommendations for the issuance of Pylon Race Pilot License will be given to the Chairman of the Pilot Standards Committee for review and forwarded to the President for approval.

- (a) Normal ground operating and taxi procedures.
- (b) Explain the procedures for an aborted takeoff.
- (c) Normal takeoff procedures.

- (d) Demonstrate 180 degree turns at 50% placard “g” without significant gain or loss of altitude. (+/- 100 feet)
- (e) Demonstrate formation join-up and formation flying.
- (f) Demonstrate location and knowledge of wake turbulence/wingtip vortices during wake turbulence training maneuver.
- (g) Demonstrate a race start.
- (h) Demonstrate a minimum of three laps on a race course with other aircraft.
- (i) Demonstrate proper passing procedures on a racecourse.
- (j) Demonstrate simulated engine failure procedures and approach.
- (k) Demonstrate a power-off landing.
- (l) Demonstrate Normal landings.

RJI’S Race Pilot Qualifications will remain valid provided the pilot meets requirements and remains active in recognized Association Racing events. Any previously qualified pilot that has not participated in a recognized event within the proceeding two calendar years must re-qualify with the Pilot Standards Committee prior to participating in any RJI’S sanctioned event. *Pilots who have had racing infractions may be required to re-qualify at the discretion of the Pilot Standards Committee, and the President.*

VII. RACECOURSE PROCEDURES

A. Pilot Briefing:

1. 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.
2. If the use of an alternate pilot is anticipated the alternate pilot must have attended the daily brief.
3. Pilots arriving at the race site prior to a race event must be briefed prior to flying on or practicing on the racecourse.

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 race course.

2. All practice periods will be open to all competitors
3. Aircraft will be assigned a designated flight pairing during all qualifying periods. The designated flight lead will be responsible for the safe operation of their flight and all flight maneuvers during their respective flight period.
4. Race control will be the sole controlling authority and their decisions on the control of aircraft will be final.
5. The design basis of the race course will be as set by RJI, the race sponsor and government authorities.
6. A chart of the race course will be made available to all pilots.
7. All race course markings will be readily visible to the pilots.

C. Race Qualification of Aircraft

1. All entries must qualify in order to establish eligibility and starting positions for their respective events. Jet Class aircraft have the option of running one or two timing laps. When ready to initiate their qualifying attempt, Jet Class aircraft must contact the Chief Timer at the appropriate pylon to request the clock for one or two consecutive laps. The Chief Timer will acknowledge this radio call and will place the aircraft on the clock when it crosses the start/finish line on that lap. The speed from the fastest lap will be used for qualification.
2. All aircraft will initiate their timing run from the Home Pylon. Additionally, each aircraft must fly one full level lap around the race course before receiving a green flag for the start of a qualifying attempt. This requirement will be monitored by a designated representative of the Jet Class. The race sponsor or its officials will not be responsible for this requirement. Violations will be reported to the Contest Committee by the Class President for appropriate action.
 - a. A Green start flag signal will be given as the first qualifying lap begins.
 - b. A White flag will be given at the end of the first timed lap.
 - c. A Checkered black and white finish flag will be given upon the completion of the qualification attempt.
3. If time permits, any race aircraft may be permitted a second attempt to obtain a qualifying speed. If a second qualifying attempt is requested, the first official recorded qualifying speed is relinquished with no right to fall back to the original qualification time. The previously recorded qualification time is relinquished when the aircraft calls for the clock prior to the second qualifying

run. An unsuccessful second qualification attempt will result in no official qualification time for subsequent racing purposes.

D. Race Starting Procedures:

1. Formation Air starts will be used for all RJI events. A designated pace plane will be utilized when available.
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 Plane 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 racers will taxi, line-up on the runway, takeoff, and rejoin on the right wing of the Pace Plane in pre-designated order for the heat.
5. If a primary racer is unable to taxi with the respective heat, the alternate will fill in the field in the last position with all other racers moving up one position. The primary racer may be permitted to rejoin the heat, in pairing position, prior to lineup on the runway with the permission of the pace aircraft or flight lead in the absence of a pace plane. In that event, the alternate will not takeoff with the primary race aircraft. After lineup on the runway, no attempt to rejoin or re-align the aircraft for takeoff will be permitted. After lineup, if, for any reason, a plane is unable to takeoff in proper sequence, he will call "aborting" and 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.
6. The planned release point will be approximately 500ft AGL at a distance of 1/2 mile from the starting line.
7. The start will be from a slightly descending flight path at the required pre-briefed drop off airspeed. The drop off airspeed will be determined for the heat and agreed upon during the preflight briefing.
8. During the start, any attempt to *slingshot* the start will result in a 10-second penalty or disqualification, at the discretion of the Pilot Standards Committee. . Either the Contest Committee or the Pace Pilot will determine if a slingshot was attempted. If a slingshot is determined, no protests will be entertained.
9. During start any attempt to dive from the release will be grounds for disqualification. This may be determined by: the Pace Pilot, the Pilot Standards Committee, Contest Committee, or the Event Safety Committee.
10. The Pace Pilot will signify the release and race start by broadcasting the statement "**you have a race**" over the race control frequency. In the event of radio failure the pace pilot will signify release and race start by making an

abrupt pull-up and turn away from the race formation.

(a) **Pace Safety/Chase Procedures**

- (1) Pace/Lead Pilot will designate a primary and secondary "Safety/Chase" aircraft for each race heat.
- (2) Pace aircraft launches racers and follows the start to pylon 5 without entering the racecourse. Pace pilot will monitor the start to identify any conflicts and mitigating safety threats.
- (3) Pace then pulls off to "cool down" and plans to land ASAP staying clear of the race course.
- (4) Pace aircraft will not enter the race course or perform aerobatic maneuvers while over the race course.

(b) **As a Racer**

- (1) If you require assistance/chase, call "MAYDAY RACE # NEEDS SAFETY CHASE" or "ASSISTANCE".
- (2) Primary Safety/Chase aircraft will position to the lower right of the "MAYDAY" aircraft and await your direction. If primary chase aircraft is a MAYDAY, the secondary chase aircraft will perform the duties.
- (3) In the absence of communication to the Safety Chase Aircraft, Safety Chase Aircraft will relay your hand signals to Race Control.
- (4) Safety Chase Aircraft will follow in a position so as not to interfere with the MAYDAY AIRCRAFT to a low approach.
- (5) Safety Chase Aircraft will then proceed to "cool down" to monitor the remainder of the race to provide additional assistance, as required, then sequence for landing after the completion of the race.

E. Pylon Turns:

1. All aircraft will remain outside of a line drawn that visually connects the race course pylons 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. The respective 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.
4. In the event of a pylon cut, the racer will be assessed a 2-second penalty per pylon cut times the number of laps in the race, will be added to his total race time to determine race speed.

5. In the event of a forced cut, (aircraft being forced to the inside by another aircraft), no penalty will be assessed to the aircraft cutting the pylon. A 2-second penalty times the number of laps in the race will be given to the aircraft that caused the cut. This determination will be at the sole discretion of the pylon judge. No protests will be entertained.
6. Minimum altitude on the course: The pilot's eye level will be no lower than the top of a pylon (approximately 40 feet) or below the bottom of the letter "R" in the word RENO when passing the Home Pylon. Protesting a Low flying call will not be entertained.
7. Escape Routes: Escape routes are provided to prevent an aircraft from violating the racecourse "Showlines". If an aircraft cannot maintain a path on the racecourse without violating a showline, that aircraft is required to climb to altitude of 1500' AGL, fly the appropriate escape route, and then re-enter the racecourse as described below:
 - (a) West and South Showline Escape Maneuver Procedure: Climb to an altitude of 1500' AGL, fly a path south behind the main grandstands and then re-enter the racecourse at pylon 3.
 - (b) East Showline Escape Maneuver Procedure: Climb to an altitude of 1500' AGL, fly a path north around pylon 4 then re-enter the racecourse at pylon 5.

Aircraft on the racecourse have "**right of way**" over aircraft re-entering from an Escape Route.

An aircraft that pulls up from the racecourse for any reason other than executing an Escape Route **will not** be permitted to re-enter the racecourse. That aircraft will proceed to Cool Down and sequence for landing.

F. Passing:

1. Any aircraft desiring to pass an aircraft will be required to fly outside the flight path of the preceding aircraft. The passing aircraft will be responsible to keep the aircraft being passed in-sight the entire time until the pass is complete.
2. After passing an aircraft, any attempt to cut back in front of the passed aircraft until at least 100 feet of nose-tail clearance and separating has been obtained may result in disqualification.
3. At no time will a preceding aircraft fly a wide course to allow another aircraft to pass on the inside of a turn or straightaway.
4. The aircraft radio may be used to inform the preceding aircraft of an intended pass, but radio chatter must be kept to a minimum.

G. Emergencies:

1. Any aircraft experiencing a problem that is unable to continue the race will announce over the radio “MAYDAY”. The aircraft race number, position, and intentions will follow the call if known at that time.
2. After calling MAYDAY, the aircraft will pull off the racecourse and climb to an initial altitude commensurate with a low key.
3. If an immediate landing is not required, the aircraft will climb to an altitude of 3000 Feet AGL, notify Race Control, and orbit in a counter clockwise pattern over the racecourse.
4. If an immediate landing is required, the aircraft will once again call “MAYDAY”, race number, position, and planned intention of landing runway.
5. 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.

H. Race Finish:

1. The race will end when the first aircraft crosses the finish line at the completion of the required number of laps.
2. Each following aircraft will then complete the current lap, and after crossing the home pylon, pull up and off the racecourse into the cool down area for sequencing to land. Any aircraft that does not complete the required amount of laps will be given a speed based on total laps flown divided by total time to complete those laps.
3. After crossing the finish line on the final lap each aircraft will climb to an altitude of 2500 feet AGL or above. The airspace at 2500 feet AGL and above over the racecourse is designated as the "Cool Down" Area.
4. The aircraft will start a left-hand orbit and will remain outside and behind the aircraft in front of them, keeping the preceding aircraft in-sight. All aircraft will remain within the confines of the race course.
5. After cool down, aircraft will contact Race Control for landing sequence.

I. Landing:

1. Race Control is the controlling authority for landing.
2. Once sequenced for landing, the aircraft will enter a normal downwind, base, and final approach for landing. Downwind altitude for the Jet Class is 1500'

AGL.

3. Each aircraft will call their respective position at each of these points to assist in overall situational awareness. The downwind call will be made abeam the home pylon and at downwind altitude at 1500'AGL. The call will be "**Race 5, Downwind, Abeam**"
4. On the base leg of the approach, each aircraft will call race number, base, and gear checked. (I.E. "**Race 5, Base, Gear**") Race control will then acknowledge, and issue clearance to land.
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 and call "**Race 5, cold side**" and exit the runway, there will be no mid field turnoffs.

J. Race Flags:

1. The following flags will be utilized during all practices, qualifications, and race events. The location of the flag will be at the base of the Start/Finish Pylon. The yellow flag may be displayed at any pylon.
2. **Black Flag:** Aircraft disqualified. Aircraft will exit the racecourse and will be sequenced to land as soon as possible.
3. **Red Flag:** Race Cancellation. Racers will exit the racecourse and set up to be sequenced for landing.
4. **Green Flag:** Start of race. Continue to race.
5. **White Flag:** Start of final lap.
6. **Checkered Flag:** End of race. Racers should exit course and proceed to cool-down for landing sequence.

K. Penalties:

1. In addition to other offenses included herein, the following shall be deemed violations of the rules and will be grounds for fines or disqualification.
2. Any action or proceeding harmful to the integrity of the sport, or not in the best interests of air racing.
3. Any unsportsmanlike conduct formulated against participants, officials, or committee members.
4. Reckless or dangerous flying as determined by race officials, who include the

Pilot Standards Committee, the Jet Racing President, Race Officials, Race Control, or the FAA will be grounds for disqualification.

5. Penalties may range from fines, additional training/evaluation requirements, to disqualification or revocation of racing credentials as deemed appropriate by the Pilot Standards Committee and approved by the Board of Directors. *Any fines, additional training requirements, or revocation of racing credentials will be forwarded, in writing, to the individual pilot by the Board of Directors.*

6. ALL PARTICIPANTS EXPRESSLY WAIVE ANY CLAIM IN ANY FORM IN ANY FORUM FOR ANY AMOUNT OR DAMAGE IN ANY FORM DUE TO ANY RJI OR RACE SPONSOR AND GOVERNMENT ACTION.

L. Protests:

1. Any protest must be filed by written notification to the Event Organizer, and a copy to the RJI Board of Directors no more than 1 hour after the end of the race. This time will be from the point at which the last aircraft touches down at the end of a respective race.
2. The protest must include all relevant detail under which the protest is made and the appropriate filing fee.
3. If protest is filed, all official results will be held up until the protest is resolved.
4. The Event Organizer Contest Committee will be the sole judge of any protests.
5. If the protest is found in favor of the protestor, the filing fee will be returned. If ruled against the protestor, the filing fee will go to the team against which the protest is made. If more than one team is involved, the money shall be split equally.
6. No protests will be entertained on low flying, pylon cuts, forced cuts, or other judgment calls ruled on by Race Officials.
7. **ALL PARTICIPANTS EXPRESSLY WAIVE ANY CLAIM IN ANY FORM IN ANY FORUM FOR ANY AMOUNT OR DAMAGE IN ANY FORM DUE TO ANY RJI OR RACE SPONSOR AND GOVERNMENT ACTION.**

M. 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 the race is cancelled for a particular day, that day's format will progress to the next day's race,
3. If the race is cancelled after takeoff but prior to start, the race may be re-scheduled with the same format.
4. If the race is cancelled after start, 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 laps flown.
5. If the race is cancelled after the start of the race, all racers will continue around the course until passing the start finish line, at which time they will pull off the course and proceed to cool down for sequencing for landing.

N. Special Rules:

1. It shall be permitted for the air race organizers to formulate rules, which will apply to a specific event. These rules supplement, and apply to the JET CLASS and RULES contained herein.
2. In the event additional rules apply, a copy of these rules must be provided by the race organizers to each racer.

O. Prize Money:

1. The Board of Directors will determine a payout scale for the racers prior to the event. This pay out plan will include at least fair reimbursement of all entry fee money and will be divided such that the finishers of the final race receive nominal payouts.
2. A copy of the prize money payout schedule will be made available to the racers prior to the race event.
3. If the race schedule is not completed as planned, then the RJI BOD will determine an alternative payout schedule based on the allocated prize money.

VIII. PILOT BRIEFINGS:

A. Event Briefings:

1. Upon arrival at a race, all racers will receive an indoctrination briefing. This briefing will include at a minimum:
 - a. FAA Waiver and Special Operating Rules.
 - b. Local Operating Procedures.
 - c. Racecourse layout and markings.
 - d. Pit Procedures.

- e. Scheduled Practices and Qualifying races.
 - f. Race Officials and Organization.
 - g. Other information helpful to the racers.
2. The Operations Officer or “Air Boss” must personally brief any racer unable to attend this briefing

B. Daily Briefing:

1. Each pilot intending to fly that day must attend the daily brief.
2. Any pilot not attending the brief and caught attempting 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. Post Race Debrief:

1. At the conclusion of a heat, all pilots involved in the race will meet at a designated location and time for the flight debrief (usually the winners aircraft or pit). The flight debrief will be the responsibility of the designated Flight Lead or the Pace Pilot.)
2. The purpose of the debrief is to share information to improve the performance and safety of jet class flight operations. The debrief should cover the entire flight operation from engine start to shutdown. If a situation requires a further or extensive debrief, a time and place will be designated for the debrief. If an additional debrief is required a member of the Pilot Standards Committee will be required to oversee the debrief.
3. A thorough debrief of any Mayday, incident, or malfunction to Class Officials is required so they can properly represent the individual and class with the FAA and race officials.
4. Any constructive inputs for the race officials should be consolidated and given to the Class representative attending the mass debrief for submission.

D. Pace Pilot Briefing (Minimum Items):

1. Start Engine Time.
2. Takeoff Time.
3. Takeoff Position.
4. Takeoff runway and rendezvous turn.

5. Rendezvous speed and altitude.
6. VHF radio frequency.
7. Number of laps in race.
8. Emergency procedures.
9. Other procedures as necessary.
10. Questions.

IX. REQUIRED EVENT DOCUMENTS:

A. Aircraft:

1. Current Airworthiness Certificate
2. Aircraft Registration
3. All Maintenance Logbooks
4. Operating Limitations
5. Race weight and CG location
6. Phase 1 Flight Test Signoff
7. Any other documentation required for Modifications

B. Pilot:

1. Current Fixed-wing Flight Certificate (Private or better)
2. Class 2 or better Medical Certificate issued within 6 months.
3. Flight Logs establishing 1000 Hours minimum
4. Flight Logs establishing 50 Hours of Jet Time
5. Current LOA or Type Rating as appropriate.

C. Insurance:

1. Proof of insurance with \$1,000,000 Liability
2. Additional rider permitting Air Racing
3. Additional rider naming RJI and Event Organizers

X. AIRCRAFT TECHNICAL SPECIFICATIONS:

- A. These technical specifications define the regulations that apply to all aircraft desiring to compete in racing events sanctioned by RJI. All registered aircraft will undergo a Compliance Inspection conducted by the CLASS appointed technical representative prior to qualifying and racing. Failure to submit to a Compliance Inspection will result in disqualification of the aircraft.
- B. Modification of airframes are permitted, however all modifications must be flight tested prior to actual racing and all modifications must comply with **Section V AIRCRAFT EQUIPMENT.**

C. Modification and installment of instrumentation, indicating or warning systems, and navigational equipment are solely at the discretion of the aircraft owner, and shall remain installed and operational for the purpose of racing.

(1) Avionics: FAR part 91 Day VFR VHF communications must be installed and operational in all race aircraft;

(2) Engine Instruments:

(a) Minimum required for safe engine operation

(3) Optional:

(a) External antenna

(b) Nav lights

(c) Static wicks

(d) Electrical equipment not required for operation of mandatory systems

(4) Maintenance: The following systems are mandatory and must be operational:

(a) All required systems for safe flight must be operational

D. Weight and Balance: All operators must provide weight and balance (CG) data in accordance with the Issued Operation Limitations for their aircraft. After any major modification, the weight and (CG) data must be derived from actual weighing of the aircraft. Prior to flying on the racecourse, the specific race configuration, weight, and CG of the aircraft must be test flown in race conditions exhibiting no adverse or unsafe flight characteristics. Written documentation of this satisfactory flight test must be enter in the aircraft logbook or elsewhere for review by the technical committee, the FAA, and the race organizer.

E. Fuel Requirements: All race aircraft must carry enough fuel to complete the race and cool down and divert to an alternate airport in the event of an emergency. This requirement is subject to verification by the Technical Chairman prior to engine start for any race heat.

F. Any and all disputes concerning violations of technical standards shall be brought to the attention of the Jet Class Technical Committee or RJI BOD for resolution.

XI. AIRCRAFT FUELS AND ADDITIVES:

All fuel additives or any fuel other than Jet A must be approved by the Technical Committee and the Board of Directors. The approval process will be on a case by case basis. The Board of Directors has the final approval authority.

JET CLASS COMPLIANCE INSPECTION CHECKLIST

Aircraft Info:

Aircraft Type _____ Race # _____ N # _____

Pilot _____ Owner _____

FAA Documents:

Airworthiness Certificate Type _____

Registration _____ Specific Ops Limits Issued _____

Condition Inspection _____ Date: _____

Aircraft race weight and balance CG data available _____

Acceptable FAA documentation for all modifications, including fly-off _____

Jet Class Compliance items:

Agency or individual responsible for maintenance of the aircraft.

Name: _____ Phone # _____

Maintenance Manuals for the aircraft are available upon request (Y/N)

Flight Control Operation: Elevator _____ Rudder _____ Ailerons _____

Flaps _____ Speed Brakes _____

Ejection Seat Safe _____ Parachute pack date _____

Lap belt, shoulder harness condition and operation _____

Helmet & Mic (Boom or Mask) _____

VHF radio and Intercom check (H.O.T.A.S.) _____

Loose articles in cock pit (Y/N)

Cameras (as applicable) secure (Y/N)

Oxygen system (Y/N) _____ Fuel Shutoff Valve(Y/N) _____ G-Suit(Y/N) _____

Throttle at full stop (Y/N)

Battery(s) secure (Y/N)

Fluid leaks _____

Over all conditions of tires and landing gears: acceptable _____ not acceptable _____

Race # location, size, & readable _____

Jet Class Compliance Verification Statements:

1. List ALL aircraft modifications: _____

After initial acceptance, any change in aircraft configuration, including CG and flight control adjustment, will require a flight test and updated compliance inspection.

2. "To the extent of my knowledge, my aircraft; Race # _____, N _____, complies with all FAA regulations, procedures, and directives for the issued type of Airworthiness Certificate."

X _____ Date: _____
Aircraft Owner or Race pilot signature

4. "I have personally flight tested aircraft; Race # _____, N _____, in its race configuration to _____ IAS, _____ TAS, and _____ G's and found the aircraft safe to operate with no adverse handling characteristics."

Aircraft Discrepancy Documentation

Discrepancy Noted	Corrective Action	By	Date

Aircraft accepted for Jet Class racing by:

Date: _____

Chairman, Technical Committee signature

Race pilot or owner signature

Date: _____

Attachment #3: Race Progression

A. Racing Jets Incorporated intends to advocate fair competition among race contestants and allow each participant maximum opportunity to compete in race heats based on ranking of qualification speeds and subsequent race results. Ideally, the class will evenly split the number of qualified racers into 3 heats. If there are more qualified racers than race heat slots, two alternates will be designated. One alternate may start engines with each race heat and fill-in before takeoff if a designated heat racer aborts (known as a DNS).

B. After all official qualification times are established, the racers will be aligned in decreasing order according to speed for the designated number of heats. The top third of fastest qualifiers will be paired for the "A" Heat; the second third of qualifiers will be in the "B" Heat, and the bottom third of qualifiers in the "C" Heat.

C. After the first round of heat races are complete, the entire field will be re-aligned according to published speeds for the next round of heats. This process will be repeated for subsequent race heats. A racer will always carry forward his most recent speed for alignment in subsequent heats, not necessarily the fastest.

D. In the event of an in-flight mechanical or other problem resulting in an early landing and did not finish a Race (known as a DNF), that Racer will be placed in the bottom of the heat for which his DNF occurred for the next round of heats.

E. Failure to start a race, (known as a DNS), will also place a racer in the bottom of the heat (where the DNS occurred) for the next round of heats. A DNS will always line up behind a DNF in the event that both apply. Failure to start two consecutive rounds of race heats will result in that racer moving to the last starting position of the field for the next heat round. A race start is defined as crossing the start line (extended centerline of the runway) in the race heat formation.

F. A DNS/ DNF will not be paid for the heat as the alternate will be paid instead. If an alternate does not start, the vacated purse will be allocated to the Class administrative fund. If the alternate is from an earlier heat of the same day he will be awarded the prize money accorded his finishing position as an alternate. His vacated purse from the previous heat will be allocated to the Class administrative fund. No alternate will be awarded multiple purses from the same day of racing.

G. In the event that a racer is disqualified from a race heat, either by the event organizer or the race class Pilot Standards Committee for a flying violation, that racer may be permitted to continue to race in subsequent race heats if applicable. In that event the disqualified racer will start behind any DNF or DNS from the applicable race heat.

H. The winner of the Final Bronze Race may elect to advance to the Final Silver Race. If this election is exercised, the Bronze Race winner will forfeit their prize money as the winner of the Bronze Race. The racer electing to "bump-up" will start in the last position of the Final Silver Race and awarded prize money according to finishing position in that race heat. Similarly, the winner of the Final Silver Race may elect to advance to the Final Gold Race. If this election is exercised, the Silver Race winner will forfeit their prize money as the winner of the Silver Race. The racer electing to "bump-up" will start in the last position of the Sunday Gold Race and awarded prize money according to finishing position in that race heat.

I. In the event that a circumstance occurs that is not covered; the RJI BOD reserves the right to decide the issue. In all cases the BOD will consider safety and then the best interests of the Class when rendering a decision.

Attachment 4: Prize Money Allocation

Prize Money Allocation will be determined by the Board of Directors and distributed to qualified racers during sanctioned racing events.