

Racing Jets Inc.
Jet Air Racing

Official Rules of Competition

2011

RACING**JETS.com**

Rule changes effective 4/19/2011

1. Page 6, Aircraft Eligibility, Delete, **Currently there are three aircraft approved for competition**, and insert approved aircraft are **Iskra, Fouga, L29, L39, Provost, and Vampire.**
2. Page 6, Aircraft Eligibility, Change to read All aircraft must have a current FAA, **or equivalent, issued airworthiness certificate.**
3. Page 7, Aircraft Equipment, A., Insert, **or equivalent**, after issued by the FAA.
4. Page 22, O. Prize Money, 1., Deletes **All prize money must be put in escrow by the event organizer prior to the race event to ensure fair pay out to the racers. 2.**, Changes the President, to **The Board of Directors** will determine a payout scale for the racers prior to the event.
5. X, Racing Venue and Race Heat Pairings, B., Deletes **Of 1-18, and the fastest 8 speeds will be paired for the first race heat, the second eight will be paired for the second race heat the two slowest qualifying aircraft will standby.** And deletes, **as alternates.**

Racing Jets Inc. Jet Air Racing Official Competition Rules

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I. RACING JETS INC. JET AIR RACING ASSOCIATION

Purpose

The purpose of the Racing Jets Inc. Jet Air Racing Association, ("RACING JETS"), is to highlight the new and innovative work being done in the development of high performance jet aircraft.

Scope

RJI has developed a racing format for jet aircraft class of racers that demonstrates the capabilities of these aircraft and gives the designers a major air show events to showcase their designs and market their products to an enthusiastic aviation audience as the fastest racing events near earth.

Organization

Pursuant to RJI'S corporate documents the following boards, positions and individuals are as follows:

Board of Directors:

President:	Phil Fogg
Vice President:	Mike Mangold
Secretary/Treasurer:	Trevor Schafer
Director of Flight Operations:	Curt Brown
Chairman Aircraft Technical Committee:	

II. ADMINISTRATIVE RULES

- A. RJI has been created to manage the various functions and relationships required to ensure the successful participation of the jet racing community at the Reno National Air Races and other venues. RJI represents the participants in the Jet Class and is dedicated to the furtherance of the interests of the Reno National Air Races, the Jet Class and jet racing as a whole, and wherever possible the individual participants of the Class.
- B. RJI is a Delaware based corporation registered with the IRS as a “not for profit” organization.
- C. RJI has been accepted by RARA and the FAA as the governing organization for the Jet Class for the Reno National Air Races.
- D. RJI is governed by its Board of Directors. The Board of Directors consists of the officers of the corporation. The Board will initiate changes in its membership from time to time, based on the needs of the Class, RARA, and the FAA.
- E. From time to time, committee members and chairs will be selected from a pool of volunteers on an “as needed” basis by the Board of Directors.
- F. Any requests for changes to the Official Rules of Competition must be submitted to the Board of Directors 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 Application submission deadline, unless mandated by RARA or the FAA.
- G. Because of the unique qualifications required to race jet aircraft only a limited number of humans 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.
- H. 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 not be allowed a vote or 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:

Race competition committee

The required pilot qualifications and procedures for becoming a race qualified pilot are well spelled out in the official rules of the jet class and shall continue to be governing UNTIL RACE WEEK. Once a qualified pilot arrives at the race location and for the duration of the event, the responsibility 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 will transfer to and rest solely with the Race competition committee.

The jet class Race competition committee will be chaired by the pace pilot or as appointed by the BOD and will include two additional members not on the BOD or in the race in question. The additional members will be appointed at the discretion of the committee chair. The members of the Race competition committee will be made public prior to the first mandatory briefing of race week and may be adjusted as required at any time prior to any race start. The Race competition committee will assume all of the roles and responsibilities of the pilot standards committee for race week. In the event that the Race competition committee cannot agree on a course of action for a specific circumstance they will forward their opinions and recommendation to the BOD for a final ruling. Either the unanimous decision of the Race competition committee or the decision by the BOD will be final.

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. These regulations are the only official RULES and are the RULES of competition 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 for competition within the CLASS shall be limited to production model jet aircraft of straight-wing design, equipped with a non-afterburning turbo jet engine. (Straight wing design is defined as wing sweep of 15 degrees or less.) The approved aircraft are the Iskra, Fouga, L-29, L-39, Provost, and Vampire. Each aircraft shall meet strict technical specifications listed herein to ensure compatibility. Aircraft not in compliance will be disqualified from the competition. The Director of Flight Operations will implement disqualification upon due consideration along with recommendation of the Technical Committee. The President will have final disqualification approval.

B. All aircraft must have a current FAA or equivalent, issued airworthiness certificate, registration, and operating limitations. Phase One flight testing per the operating limitations must be completed and documented within the aircraft maintenance records. All certification, registration, fly-off documentation, and current maintenance records must accompany the aircraft and be available for inspection by the Technical Committee, the Race Organizers, or the FAA.

C. 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.

D. The RJI Board of Directors will assign race numbers after applying for race entry. Numbers will be assigned to the aircraft on an annual reservation basis and requests for specific numbers will be examined on a case by case basis. Annual race number registration will be assigned prior to the completion of the Reno Air Racing Associations' Pylon Racing Seminar. Pilots, Owners, or Race Teams may reserve a specific race number by submitting an annual \$50.00 registration fee to the class treasurer. Any race number that has not been reserved by the completion of the Pylon Racing Seminar will be reserved on a first come-first served basis.

E. Approval of new aircraft types for Jet Racing.

1. Aircraft has to meet the basic requirements of wing sweep and non-afterburning engines.
2. Director of Flight Operations and the PRS Instructors of the Jet Class must approve the aircraft for compatibility (considering weight, wing span, handling qualities, visibility, production military, etc). This is not an all-inclusive list but some of the areas that will be considered. The President of the Jet Racing will have final approval authority. Aircraft must past this approval process to be considered for PRS.
3. The aircraft must attend PRS and demonstrate to the Jet Class, RARA, and the FAA that the aircraft is compatible and safe to race with the other aircraft already approved. The new aircraft must also be compatible with the race course.
4. Once the aircraft has been to PRS and approved by the Jet Class, RARA, and the FAA, the aircraft will be allowed to race in September.

These rules are not built to cover every possible circumstance. When issues do arise that are not covered within these approval rules, they will be addressed by the Jet Class, RARA, and the FAA 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.
- C. All aircraft must be equipped with an operable seat belt and shoulder harness.
- D. All Ejection Seats must be de-armed for practice, qualifying, and racing. If charges are installed in seats, the seats must be pinned (cold) for all of practice, qualifying, and racing.
- E. All aircraft must pass an inspection by the Technical Committee prior to flying on the race course. Aircraft must also pass an inspection at any time at the discretion of the Technical Committee and Director of Flight Operations.
- F. All aircraft must have completed the Phase One flight test requirements and have adequate proof that this has been accomplished prior to flying on the race course.
- G. All experimental aircraft must have their current Operating Limitations available for inspection. Their respective limitations must not prohibit air racing.
- H. 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.
- I. All modifications that will be in place during qualification and racing will be submitted to the tech committee at least 2 weeks before PRS if the aircraft will fly there (Rookies only), or 2 weeks prior to the show-up date for the races in September for review and approval (All Race Aircraft). Any changes to the aircraft after approval will be at the discretion of the Tech committee, Director of Flt Ops, and Jet Class President.
- J. If a modification requires FAA approval or notification, those documents must be with the aircraft records and available for inspection.

K. Any modifications that may change the flight characteristics or controllability of the aircraft must be completely tested at both the high speed limit of the airframe and the max allowable g loading for the type. Major modifications can be tested separately, but the final race configuration must be tested. This testing must be done prior to the aircraft being allowed on the race course. A statement that all testing has been completed and the aircraft is fully controllable in race configuration will be in the aircraft logbooks for review.

"I have flown and tested the aircraft to race speeds and g-levels and have found the aircraft safe with no unacceptable flying or handling qualities and all modifications that have been done are documented and performed IAW all FAA requirements/directives."

L. The aircraft must use the original aircraft structural parts and 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 flight control surfaces is permitted.

O. No modification that may affect structural integrity will be permitted.

P. If the CG is changed, it must be flight tested (Ref rule #K above), and documented by the Tech Committee before the aircraft can fly on the race course.

Q. No aircraft can exceed Vne or Vm during racing or qualifying. Vne is defined as velocity-never-exceed and Vm is defined as Mach number-never-exceed.

R. All aircraft will have a functional O2 system for the pilot and it must be used while on the race course. This may be waived by the Director of Flight Operations.

S. Maximum RPM cannot exceed 103% of normal rated RPM (per engine manufacturer's specifications) for that engine.

T. All engines at max power will remain within the engine manufacturer's EGT temperature and time limits for rated temperatures for that engine.

U. Concerning race engines, no modification are allowed to the engines. No engine adjustments will exceed engine manufacturer's specifications except as provided herein.

- V. All aircraft must depart with at least enough fuel for the race plus diverts to aux bases for landing (RNO).
- W. Maximum sweep on the aircraft wings is limited to 15 degrees or less. The sweep will be determined by using the scale drawing of the aircraft. If the sweep remains in question the RJI Board of Directors will be the final authority.
- X. No aircraft with afterburner.
- Y. The Director of Flight will have the right to request an observed test flight of any aircraft.
- Z. Rear seats, Air scoops, ducts and instrument panels can be removed. Rats 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.
- AA. No items are to be carried in the cockpit of the aircraft unless it is essential for racing or aircraft certification, unless express authorized in writing by the Technical Committee.
- BB. All aircraft will conform with the requirements on the current Technical Inspection form.

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'S sanctioned events. Failure to comply with these rules will result in disqualification of pilot and/or aircraft from competition. Disqualification procedures will be implemented by the Director of Flight Operations upon recommendation of the Pilot Standards Committee. Final approval will be the President.

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 Director of Flight Operations will be the chairman of the Pilot Standards Committee and will act as the designated pilot responsible for evaluation of pilot and designated alternate pilot qualification. He is also the FAA designee authorized to issue the Pylon Racing Pilot Competency Letter and Racing License. The Pilot Standards Committee will consist of the Instructors for the Class and any other race pilot that the President so nominates. The Committee normally consists of three members.
8. The committee will maintain all appropriate records necessary in observance of these responsibilities.

B. Race Qualification Entrance Requirements:

Pilots and designated Alternate Pilots must provide 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 (Private Pilot or Better).
2. A current medical certificate.
3. A valid Pylon Racing Pilot Competency Letter issued by RJI.
4. Pilots must have previous formation experience. Prior formal military training or an approved Formation and Safety Training (F.A.S.T.) program is recommended. Required formation skills must be demonstrate at PRS
5. All pilots must have a minimum of 1000 hours of documented pilot-in-command flying time in fixed-wing aircraft.
6. All pilots must have a minimum of 25 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 15 hours in the race aircraft or previously raced the type of aircraft at an RJI event.
7. All pilots must have a minimum of 5 takeoffs and landings within the preceding 90 days prior to any qualification or race event.
8. 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.
9. All pilots are required to wear fire protective clothing when practicing, test flying, qualifying, or racing in race controlled airspace.

C. Pilot Qualification Flight Evaluations:

All pilots and designated alternate pilots must demonstrate the following standards to RJI'S Pilot Standards Committee prior to recommendation for the issuance of a Pylon Racing Pilot Competency Letter.

The Director of Flight 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 these RULES.*
- e) *Race staging, start, and pylon procedures.*
- f) *Passing procedures.*
- g) *Method of communicating an 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 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 race.
 - (2) Air race radio control frequencies.
 - (3) Crowd and Race showline 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.

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 following checkout flight maneuvers will be demonstrated by both the primary race pilot and their designated alternate pilot in the aircraft intended for race entry prior to recommendation for the issuance of a Pylon Race Pilot Competency Letter. These maneuvers will be witnessed by a member of the RJI'S Pilot Standards Committee while flying with the pilot seeking qualification. Upon successful completion, all recommendations for the issuance of Pylon Race Pilot Competency Letters will be forwarded to the Pilot Standards Committee Chairman for review and 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 racecourse 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, Director of Flight Operations, 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 but will be restricted to a maximum of four aircraft on the course at any one time.
3. Aircraft will be allowed on the race course on first come first served basis and will be controlled by race control.
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. Qualification of Aircraft:

1. All entries must qualify in order to establish eligibility and starting positions for their respective events.

a) Jet Class aircraft have the option of running one or two timing laps.

b) When ready to initiate their qualifying attempt, Jet Class aircraft must contact the Chief Timer at their pylon #4 to ask for the clock and communicate their desire to run one lap only 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 level flight after passing the last pylon preceding the start-finish line (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 nor its officials will not be responsible for this requirement. Violations will be reported to the Contest Committee by the Class President for appropriate rules 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.

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 ¼ 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 morning briefing.
- (8) During the start, any attempt to slingshot the start will result in a 10-second penalty. 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 either the Pace Pilot, the Pilot Standards Committee, or the Event Safety Committee.
- (10) The Pace Pilot will signify the release and race start by broadcasting the statement "Gentlemen, 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.

D. 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 50 feet) or the "R" in the word RENO when passing the Home Pylon. Protesting a Low flying call will not be entertained.

E. 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 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.

F. 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 race course 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.

G. 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 2000 feet AGL or above. The airspace at 7000 MSL and above over the race course 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.

H. 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 6500 MSL or 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 (6500MSL). The call will be "Race 2, 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 2, cold side" and exit the runway at the far end. There will be no early turnoffs.

I. 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 timers' booth 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. Yellow Flag: Emergency in progress. Racers will continue but use extreme caution.
4. Red Flag: Race Cancellation. Racers will exit the racecourse and set up to be sequenced for landing.
5. Green Flag: Start of race. Continue to race.
6. White Flag: Start of final lap.
7. Checkered Flag: End of race. Racers should exit course and proceed to cool-down for landing sequence.

J. 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 Director of Flight Operations, the Jet Racing President, Race Officials, Race Control, or the FAA will be grounds for disqualification.
5. Penalties may range from fines, to disqualification, to revocation of racing credentials.
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 AUTHORITY.

K. Protests:

1. Any protest must be filed by written notification to the Event Sponsor, (RARA Contest Committee) and the Director of Flight Operations 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 details under which the protest is made and a filing fee of \$100.00.
3. If protest is filed, all official results will be held up until the protest is resolved.
4. The RARA 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 AUTHORITY.

8. Race Cancellation or Postponement:

- a) *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.*
- b) *If the race is cancelled for a particular day, that day's format will progress to the next day's race,*
- c) *If the race is cancelled after takeoff but prior to start, the race may be re-scheduled with the same format.*

d) 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.

e) 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.

L. 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.

M. 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 scale will be made available to the racers prior to the race event.

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 race, all pilots involved in the race will meet at a designated area for the race debrief (usually the winners aircraft or pit).
2. A member of the Pilot Standards Committee will also attend this debriefing.
3. The purpose of this debriefing will be a formal get together to discuss details of the race. Any comments towards race officials, other pilots, or comments in general should be discussed at this time.

D. Pace Pilot Briefing:

1. Start Engine Time.
2. Take off Time.
3. Take off 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. Phase 1 Flight Test Signoff
6. Any other documentation required for Modifications

B. Pilot:

1. Current Fixed-wing Flight Certificate (Private or better)
2. Current Medical, Class 3 or higher
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. JET AIR RACING VENUE AND RACE HEAT PAIRING:

This part of the rules is to be determined per event. If there is a full class, 18 aircraft, anticipate the following:

- A. The RULES intend to advocate fair competition among race contestants and allow each participant maximum opportunity to compete in race heats.
- B. After all official qualification times are established, the racers will be aligned in decreasing order of speed.
- C. A racer will carry forward the most recent speed for alignment in heats/subsequent heats. This process will be repeated each day for subsequent race heats. A racer will always carry forward the 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, (did not finish a Race, known as a DNF), that Racer will be placed in the bottom position for the next race heat. Failure to finish two consecutive race heats will result in disqualification from subsequent race heats. If there are two DNFs in a race, then the racer with the least laps completed will be put at the bottom of the next race heat and so forth.
- E. Failure to start a race, (known as a DNS), will also place a racer in the bottom position for the next race heat. A DNS will always line up behind a DNF in the event that both apply. Failure to start two consecutive days' race heats will result in disqualification from all subsequent race heats. A race start is defined as crossing the start line (extended centerline of the runway) in the race heat formation.

XI. 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 technical inspection conducted by the CLASS appointed technical representative prior to qualifying and racing. Failure to submit to a technical inspection will result in disqualification of the aircraft.
- B. Modification of airframes and engines are allowed. All modifications must be flight tested prior to actual racing. 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. Emergency Locator beacon;
 3. Engine Instruments:
 - a) *Tach N1 as applicable*
 - b) *Tach N2 as applicable*
 - c) *Turbine Temperature T5, EGT as applicable*
 - d) *Oil pressure*
 - e) *Oil temperature*
 - f) *Fuel pressure*
 - g) *Fuel quantity*
 - h) *Optional:*
 - i) *External antenna*
 - j) *Nav lights*
 - k) *Static wicks*

- l) Electrical equipment not required for operation of mandatory systems*
- m) Flare ejector*
- n) Maintenance: The following systems are mandatory and must be operational:*
 - o) Flight controls and trim system*
 - p) Speed brake if applicable*
 - q) Landing gear*
 - r) Engine*
 - s) Fuel quantity system*
 - t) Fuel boost pump(s)*
 - u) Hydraulic System(s)*
 - v) AC and DC electrical systems as applicable*
 - w) Warning and annunciation systems*
 - x) Pneumatic System(s)*

D. Weight and Balance: All aircraft must have a current and certified weight and balance certificate. This is subject to review by the technical committee and the FAA.

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.

F. Any and all disputes concerning violations of technical standards shall be brought to the attention of the RJIS Director of Flight Operations for resolution.

XII. AIRCRAFT FUELS AND ADDITIVES:

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

XIII. RULE CLARIFICATIONS AND ADDENDUM'S:

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.

- A. The Technical requirements and the approved aircraft have changed drastically from previous years.

Attachment #1

Technical Inspection Sheet

RACE NUMBER _____

TYPE AIRCRAFT _____ N _____

OWNER _____ S/N _____

DOCUMENTS

Registration _____ Airworthiness cert. _____ Ops limits _____

Weight And Balance _____ Current inspection _____

Required placards and numbers on aircraft _____

Required FAA/fly off documentation concerning modifications _____

Entry in logbook concerning pilot/owner test flight acceptability _____

INSPECTION

Landing gear and brakes L _____ R _____ N _____

Flight controls Elevator _____ Rudder _____ Ailerons _____

Flaps _____ Speed brakes _____ Trims _____

Canopy glass _____ Canopy latching _____

Parachutes/Packing dates _____ O2 System _____

Seat belts/harness _____

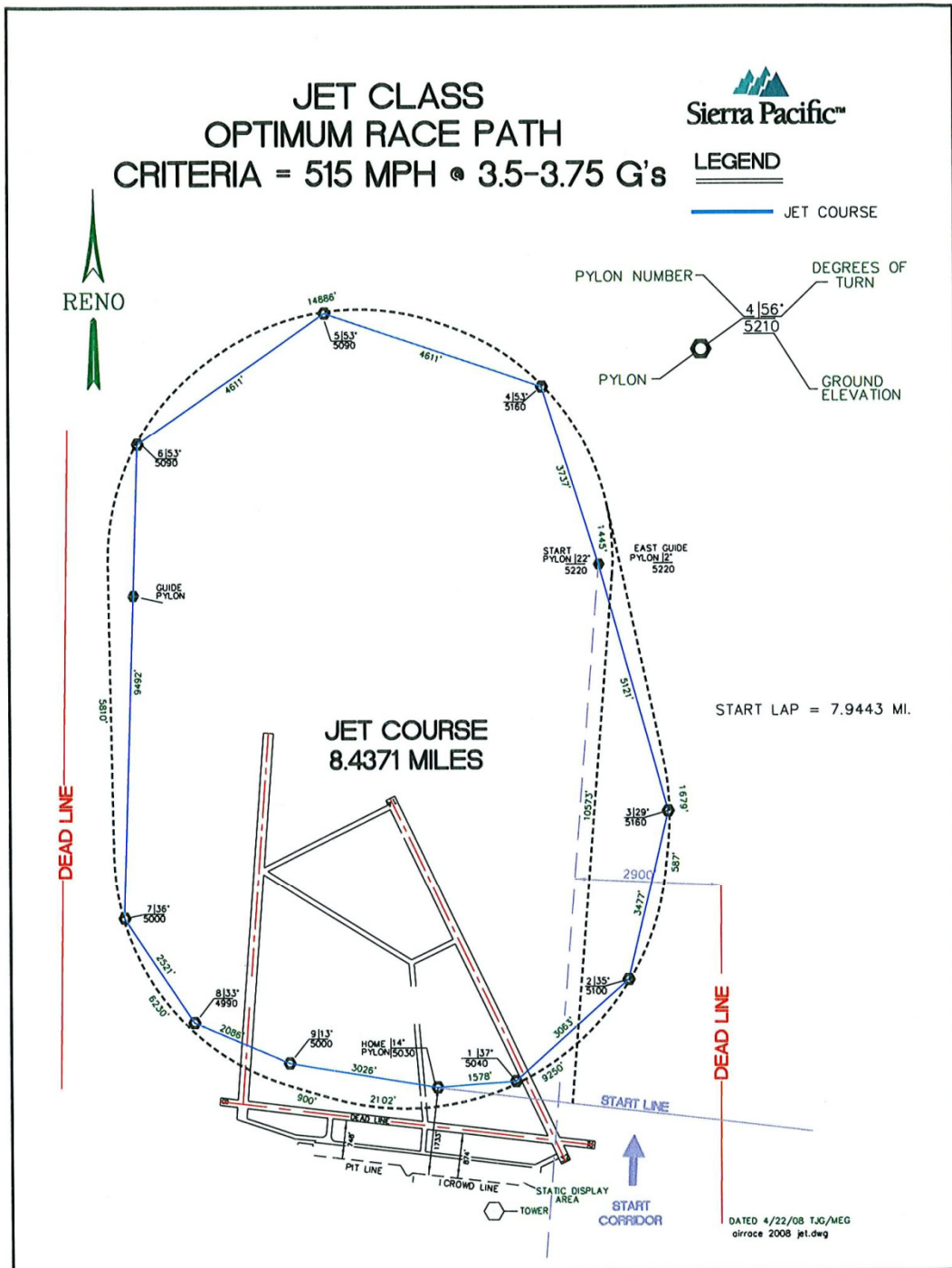
No fluid leaks _____ One Working comm. Radios _____

ENGINE RUN UP

Start normal _____ Oil temp and press _____ RPM _____

EGT _____ Fuel quantity indicator _____ Spin down _____

Attachment #2



Attachment #3

The 2011 prize money allocation is as follows:

The total purse will be divided between gold and silver heats at 65% gold, 20% silver, and 15% Bronze.

Then that amount will be divided by each day of racing as follows; 15% Heat 1, 15% Heat 2, 25% Heat 3, and 45% Heat 4.

Those amounts will be divide as follows for each place: 1 - 30%, 2 - 20%, 3 - 15%, 4 - 11%, 5 - 9%, 6 - 7%, 7 - 5%, and 8 - 3%.

GOLD

Place	1	2	3	4
1	2.925	2.925	4.875	8.775
2	1.95	1.95	3.25	5.85
3	1.4625	1.4625	2.4375	4.3875
4	1.0725	1.0725	1.7825	3.2175
5	.8775	.8775	1.4625	2.6325
6	.6825	.6825	1.1375	2.0475
7	.4675	.8125	.8125	1.4625
8	.2925	.2925	.4875	.8775

SILVER

Place	1	2	3	4
1	.9	.9	1.5	2.7
2	.6	.6	1.0	1.8
3	.45	.45	.75	1.35
4	.33	.33	.55	.99
5	.27	.27	.45	.81
6	.21	.21	.35	.63
7	.15	.15	.25	.45
8	.09	.09	.15	.27

BRONZE

Place	1	2	3	4
1	.65	.65	1.125	2.025
2	.45	.45	.75	1.35
3	.3375	.3375	.5625	1.0125
4	.2475	.2475	.4125	.7425
5	.2025	.2025	.3375	.6075
6	.1575	.1575	.2625	.4725
7	.1125	.1125	.1875	.3375
8	.0675	.0675	.1125	.2025

DNF, DNS, or disqualified will get nothing for that race. If less than 8 racers finish the balance of the money will be split evenly among the finishers.