

PARIS MADRID 2011 - AGREEMENT

PARIS MADRID 2011 GREEN AVIATION CHALLENGE

AGREEMENT

- Revision1 : Highlighted in grey

This agreement ("AGREEMENT") is entered into by the Association du Patrimoine Morane Saulnier ("ORGANISERS") and:

(Insert name of individual and/or name of company here.) ("TEAM") located at

(Insert address of individual and/or company here.) ORGANISERS and TEAM are collectively referred to as "the parties".

The purpose of this AGREEMENT is to establish the rules and the conditions for TEAM to participate in a technology demonstration flight competition that is called the PARISMADRID 2011 CHALLENGE ("CHALLENGE" or "PARIS-MADRID 2011") and that presents monetary awards from FUNDERS to its winners. The CHALLENGE will be conducted from June 17, 2011 to June 21, 2011 from Paris to Madrid.

The PARIS-MADRID 2011 commemorates the great Paris Madrid race lead in 1911 in the beginning of aviation history and encourages innovation and development of leading technologies for greater energy efficiency in aviation and so promotes the aviation of the future. During the CHALLENGE, the participants will have to take care about their CO2 emission and so to optimize their flight in an environmental point of view. Also noise test will be organized.

The participants must be the aircraft manufacturers or the aircraft manufacturer representative.

Participants can use aircraft for the 'Without CO2 emission' or the 'With low CO2 emission Group.

In the Without CO2 emission group, the aircraft may use one of the following fuel or energy types:

- Hydrogen
- Pressurized air
- Solar
- Electricity

In the With low CO2 emission group, the aircraft may use one of the following fuel or energy types:

- Unleaded 95 (EU) Petrol/Gasoline
- Liquefied Petroleum Gas (LPG)
- Gas To Liquid (100% GTL)
- Biomass To Liquid (BTL)

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- the use of hybrid technology is also allowed, Hybrid technology means the combined use of internal combustion engine and electric motors in aircraft supported by an electric power accumulation system.

All the aircraft of the race will be under the EASA regulations. So the aircraft must have an Identification Card or Certificate of Airworthiness. The pilots will have the adequate licenses updated.

Since the CHALLENGE will be limited in number of aircraft and the ORGANISERS will favor the most innovative and efficient aircraft. These Official Rules are designed to enable safe, technically sound and fair competitions. They intentionally leave various design parameters, technologies and tactics unspecified in order to stimulate creativity and allow for the competition of novel ideas and solutions.

To ensure that air aircraft are safe, sustainable and practical, the CHALLENGE is comprised of a series of separate flight attempts that measure key performance capabilities. In order to win any of its prizes, all TEAM aircraft are required to participate in all flight attempts. Winners will be determined by their aircraft's demonstrated flight performance as measured by ORGANISERS test equipment. Each of the flight performances to be measured is detailed below in Appendix A, "Rules".

ORGANISERS have written an Operational Manual, called MANEX. The MANEX will be known by participants and will be presented during the general briefing and given to each TEAM before the beginning of the CHALLENGE. The MANEX defines and describes operational rules (OPS) applicable to pilots during the CHALLENGE.

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1 – ORGANISATION

Acceptance

The entry forms must be sent completed, with all necessary documents, to the ORGANISERS who will accept TEAMS based on the quality of the proposed entry packet. Only aircraft designer or aircraft manufacturer or aircraft manufacturer representative will be accepted. All decisions by the ORGANISERS regarding the acceptance of TEAMS are final. By the simple fact of their entry, participants accept all the provisions of the present AGREEMENT and the TECHNICAL RULES attached and agree to abide by all decisions made by ORGANISERS. The ORGANISERS reserve the right to modify, delete or add any article of the present AGREEMENT and the TECHNICAL RULES until the 16 April 2011. In such an event, the Teams will be notified. The ORGANISERS are solely empowered to pronounce on cases not provided for in the present Official Rules.

The aircraft performances given at the registration will be used for the secondary grading. See TECHNICAL RULES.

The ORGANISERS reserve the right to modify, delay or even cancel the competition for any reason (bad weather, budget issue...). No claims for compensation will be accepted.

By entering PARIS MADRID 2011, all participants recognize the right of the ORGANISERS to use, if necessary, their images for publicity or materials promoting this project.

Categories

TEAMS will choose in which category they will participate. See Chapter 3 the definition. Each category have its own criteria for measuring the score and its own prices. See TECHNICAL RULES.

Entries

For each entry, a TEAM LEADER and a PILOT must be designated. The TEAM LEADER can only be responsible for one aircraft. He/she may also be a PILOT for that aircraft, but only for that aircraft.

A RESERVE PILOT is facultative and must be designated during the registration. A RESERVE PILOT may be assigned to two aircraft. However, once he/she has driven one of those aircraft (during practice or in competition), he/she may no longer pilot the other aircraft. The TEAM LEADER is the TEAM's sole official liaison with ORGANISERS. All information will be addressed to him/her. He/she will be responsible for the Team, must speak on behalf of the Team and must be able to understand and speak English.

The eligibility criteria for PILOTS are detailed in the relevant section of Chapter II. The PILOT for one aircraft cannot be the PILOT or the RESERVE PILOT for another aircraft.

Compliance

All aircraft must comply with current regulations to be allowed to participate. No aircraft will be allowed on the runway for competition until the ORGANISERS have accepted. The decisions of the ORGANISERS are final in all matters concerning the compliance of aircraft design and construction with the present Official Rules.

The ORGANISERS reserve the right to rescind aircraft approval upon further or more detailed checks. The ORGANISERS must be notified of any modifications to the aircraft during the competition. Non-compliance with this rule will lead to aircraft disqualification.

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Technical inspections

Aircraft must pass a **visual** inspection prior to be allowed to compete. When the inspection is passed and validated by inspectors, aircraft will receive stickers (competition numbers and sponsors logos).

After passing the technical inspection, the replacement of major engine or aircraft part will be subject to re-approval from Race Inspectors.

After any significant incident on the track the aircraft will be subject to a reinspection.

At any time, the ORGANISERS may perform unannounced inspections on the aircraft.

Identification

ORGANISERS may require to fix competition numbers and sponsor logos. If it is the case, logos, official partner logos and racing numbers must be fixed to the aircraft body (wing, fuselage, fairings) in accordance with the diagram provided such that they can be clearly read during any public presentation, in promotional films and on all photographs for team use, school use, press or promotional material.

Furthermore, the trademarks or logos of direct competitors of event partners, tobacco companies and alcoholic drinks producers are prohibited. All aircraft are subject to the ORGANISERS' approval concerning these provisions.

Timekeeping (Refer to MANEX OPS 1 4 2 3)

All aircraft will be equipped with a off-line GPS device (logger), supplied by organization that must be fitted after aircraft inspection inside or outside the aircraft according to the aircraft's characteristics.

The pilots will be responsible to switch on the logger for recording. The organizers will be responsible take the loggers after each flight.

----- PROTESTS AND DISPUTES -----

Protests

The TEAM LEADER is the only person authorized to lodge protests. Protests must be addressed in writing to the COMPETITION DIRECTOR with a cheque of 200 euros. Depending on their nature, said protests must be lodged within the following times:

- Aircraft: before the end of the competition.
- Team and Pilot behavior: within 30 minutes following the end of the attempt.
- Results: within 30 minutes after the results of an attempt have been posted.

The COMPETITION COMMITTEE¹ will validate or not the protest. If it is validated the cheque will be gave back to the protesters.

Disputes

In the event of any dispute, all decisions made by the COMPETITION COMMITTEE are binding and final.

¹

A COMPETITION COMMITTEE will be composed of 3 organisers and 2 pilots (random).

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Penalties

Non-compliance with the piloting rules will result in a warning, invalidation of the attempt or disqualification of the Team, depending on the severity of the breach.

The ORGANISERS will exclude, disqualify or otherwise penalize any competitor who, in the judgment of the COMPETITION COMMITTEE, has gained an unfair advantage as a result of any breach of these Official Rules, hindrance of other participants, departure from the normal course, or any act or omission capable of misrepresenting performance, especially with regard to fuel consumption or method of propulsion.

The ORGANISERS will apply the following penalties for non-compliance with safety or piloting rules (unsafe or unwise behavior):

1st infraction: Formal warning

2nd infraction: Best overall attempt invalidated at the end of the competition

3rd infraction: Immediate Team disqualification.

2 – SAFETY

Safety Rules

As with any activity there should be an understanding that certain inherent risks will be present. Recognizing and controlling the risks are vital for the well being of people and local surroundings. Safety is an essential consideration for the ORGANISERS. These Rules are to protect all individuals and surrounding area and are in no way intended to curtail the spirit of the competition. Any activity deemed unsafe or outside of the spirit of the event will be met with appropriate action by the ORGANISERS.

Therefore, compliance with safe piloting and sporting rules will be mandatory for everyone. All TEAM will comply with the safety measures and must notify ORGANISERS about any anomalies or incidents; and in the event that dangerous conditions are present leave areas immediately. During the event the taxiing areas will be monitored by the ORGANISERS to assist TEAM to comply with safe practices.

Non-compliance with any of the Official Rules may lead to disqualification from the competition at the sole and absolute discretion of the ORGANISERS.

----- PILOTING RULES-----

Piloting Knowledge and Test

Only the registered Pilot and the Reserve Pilot will be authorized to pilot the aircraft. During aircraft inspection, Pilots may be questioned to test their knowledge of the piloting regulations. Afterward, the ORGANISERS will reserve the right to disqualify the pilots.

Piloting on the pattern of the platform: In the interest of safety it is important that Pilots learn and apply smooth and predictable piloting techniques, e.g. thinking well ahead, avoiding sudden directional changes, and being fully aware of other competitors.

Piloting under the Influence of Alcohol / Illegal Substances

Piloting under the influence of any alcohol and or illegal substance(s) is forbidden. This applies to all Pilots, Reserve Pilots and assistants between the briefing and the arrival airfield.

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Procedures for alcohol or substance testing are detailed in Chapter II.

Any alcohol and substance related breach of the rules will be treated at least as '3rd infraction' of the TEAM, even if no prior violation has occurred. In addition, the affected Pilot (or assistant) is immediately banned from access to the aircraft as long as he /she is under the Influence. The Reserve Pilot may substitute the Pilot if he/she is eligible to drive.

Briefings (Refer to MANEX OPS 1 4 1 5)

The attendance of any briefing sessions by ORGANISERS is mandatory for TEAM LEADER and PILOT. Scheduled briefings will be posted.

The navigation briefing will be organized the day before a leg. Refer to MANEX OPS 1 4 3 2.

The weather briefing will be organized each morning before a leg. A complete weather folder (METAR + TAF + TEMSI + WITEM) will be given to each TEAM. The TEAM will sign off to acknowledge of receipt. Refer to MANEX OPS 1 4 3 3.

Departure and arrival briefing is organized every morning after the weather briefing. Refer to MANEX OPS 1 4 3 4.

Starting Point Area

The ORGANISERS will define an area for starting up engines. After this area, the pilot will not be allowed to push his/her aircraft.

Departure and arrival management (Refer to MANEX OPS 1 3 2)

Departures: Refer to MANEX OPS 1 4 3 6

Arrivals: Refer to MANEX OPS 1 4 3 9.

Departure order and rate: Refer to MANEX OPS 1 4 3 5.

Radio Communication (Refer to MANEX OPS 1 3 4)

Overtaking

The pilot of the overtaking aircraft is responsible for the safety of the manoeuvre following the air rules.

Intentional stops

For Category I, intentional stops are allowed on intermediary airfields declared by the PILOT before the leg. This stop is final for the competition and the results of the leg will be between the departure airfield and this stop. However if the TEAM reach the arrival airfield in the day (with the daylight), a bonus will be given. See technical rules. Stops out of Intermediary airfield will be considered as non intentional stop.

For Category II, intentional stops are not allowed.

Non Intentional stops

If an aircraft breaks down (failures) or in case of weather, it is allowed to land securely as necessary. For both category the stop will be final the leg of the day and will be penalized.

Refer to MANEX OPS 1 3 3 and Technical Rules for the malus. For Category II for refueling, the TEAM will have to call the ORGANISERS and wait for them.

Rerouting

Refer to MANEX OPS 1 4 3 10.

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Tarmac aircraft movements

All aircraft must be parked inside the designated area. When off the runway, aircraft must be moved without the use of the engine. They must be pushed or pulled. Test-driving in the park area is forbidden.

ORGANISERS will notify CHALLENGE Control of any breaches and any unsafe or unfair behavior.

----- TEAM SAFETY EQUIPMENT -----

Equipment and Materials

Teams are required to provide all materials to ensure their own safety and other safety on ground such as gloves, glasses, fire extinguishers, etc.

----- RESULT MEASUREMENT -----

Noise – Category I and II

The noise level will be measured following the noise test procedure. Refer to Technical Rules.

Payload – Category I and II

The payload (fuel + pax + luggages) will be weighted before each flight by ORGANISERS.

Speed– Category I and II

The speed between the departure and arrival points will be measured by GPS and also with satellite chronometer. The ORGANISERS will define these points. These points will be given during the briefing.

Distances– Category I

Distances will be between the departure and the first stop (intentional or not). It will be checked with the GPS data.

Fuel consumption– Category II

After all flights, the refueling will be managed by ORGANISERS in order to know what fuel has been consumed. The fuel quantity wanted by the PILOT for the next leg will be prepared by the ORGANISERS.

The refueling will be only performed by ORGANISERS. Any breach of this rule will lead to disqualification.

ORGANISERS will provide 100LL AVGAS and SP98, all other fuel must be provided by TEAMS.

----- Prices -----

Prices – Main grading

For the main grading and for each category, ORGANISERS intend to give prices to the first and second of each category.

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Prices – Second grading

All the aircraft will be graded in the second grading in each category. A hardware prices will be offered to the winners.

3 – CATEGORIES

3A – Category I - Without CO2 emission Group

This group concerns all aircraft that do not produce CO2.

Definition

Aircraft that will not issue CO2 in flight (from the starting point area to the holding point)

Aircraft Design

Aircraft design and construction must reply to all aspects of safety, i.e. Driver safety, the safety of other Team members and spectator safety.

Energy sources

The aircraft may only use the following fuels:

- Hydrogen.
- Solar
- Electricity-Battery cells: the battery will be charged into the mains supply. Generating set will not be allowed.

3B – Category II - With low CO2 emission Group

Definition

Aircraft that issues few CO2 emissions during all the flight phases and is efficient in terms of payload, speed and fuel consumption.

Energy sources

It is not permitted to preheat the engine after commencement of the fuelling operations for the attempt.

The aircraft may only use the following fuels:

- Unleaded 95
- Pressurized air
- Liquefied Petroleum Gas (LPG)
- Gas to Liquid (100% GTL)
- Biomass to Liquid (100% BTL)