



2021 ESA-ECB Air Rally

Article 0 – Date and Place

The 2021 ESA-ECB Air Rally will take place on Saturday 8 May 2021 starting from Egelsbach Airport at 10:00 am

Article 1 - Definition of Air Rally

- 1) 'Air Rally' is a competition where air crews compete in their ability to **plan** and **perform** a flight plan with the highest level of precision.
- 2) The precision in the planning and performance of a flight plan is measured as the deviation in terms of time and distance **for each leg** from those initially planned on the basis of assigned waypoints.
- 3) The precision of each leg is calculated as described in Article 5. The crew that completes the race with the lowest score resulting from time and distance penalties wins.
- 4) Planning and navigation are made on the base of the official paper map (to be acquired by each crew ahead of the race). Meteorological information and wind map will be made available to all crews.
- 5) No GPS, moving map or planning tool can be used for planning or navigation purposes.

Article 2 - Definition of Air Crews

- 1) An air crew must consist of a **pilot** and a **navigator**. No additional members are allowed unless from the list in 4).
- 2) The pilots can be:
 - a. a holder of aeronautical license
 - b. a holder of airport license
 - c. a student pilot for the licenses listed in 1) and 2). In this case, the conditions in 4) must



be respected.

The pilot is the 'pilot-in-command' and the sole responsible for the conduct of the plane, save otherwise if needed to face emergencies.

- 3) Any person can be designed as navigator. If the pilot is a student-pilot then the conditions of 4) apply.
- 4) Special additional requirements that crew may incur into are that:
 - a. if the pilot is a student-pilot, the navigator must be a flight instructor for the categories for which the student pilot is training.
 - b. No additional person is allowed on board of planes participating to the competition unless the race direction certifies that no risk of interference with the conduct of the race exists. Just as an example, this may be the case for photographers, supporters of the race.

Article 3 - Clubs and crews admitted

- 1) Given the nature of the race, **any crew** belonging to the flight clubs of the European Space Agency or the European Central Bank can participate to the competition.
- 2) The race is open to a **maximum of 2 crew, on a first come first based basis, belonging to the following categories:**
 - a) flight clubs or schools based in Egelsbach (EDFE)
 - b) flight clubs or school based in Mainz (EDFZ)
 - c) crews belonging to the Historic Aircraft Group Italy - HAG

Article 4 - The flight plan

- 1) The flight plan must consist of no less than 5 waypoints, for a total time calculated on average speed of **100kts of no less than 1 hour**.
- 2) The flight plan must be decided by impartial judges on the basis of the prevailing weather conditions expected, the duration of the route and presence of controlled airspace.



In case no judges with sufficient navigation experience are found, the route will be decided with the agreement of all crews participating before the race.

3) The flight will be communicated to the Deutsche Flugsicherung, by the race direction in order to ensure the safety of the race and the traffic of the area.

4) each crew must compile and communicate its flight plan in the electronic format made available by the race direction.

Article 5 - The score

1) Each crew must fly the flight plan as closely as possible to the plan.

2) Time Penalties are calculated for each individual leg only.

3) Distance penalties are calculated for each individual waypoint.

4) the following penalties for time deviation apply:

from 0 to 30 seconds: the number of seconds multiplied by a factor of 1

from 31 to 59 seconds: the number of seconds multiplied by a factor of 1.5

above 1 minute: the number of seconds multiplied by a factor of 2

5) the following penalties for distance from a way point apply:

from 0 to 49 metres: 0

from 50 to 99 metres: 25

above 100 metrese: 75

The use of GPS for navigation purposes results in disqualification of the team.

The above penalties may be adjusted following field testing in the month of April.

Article 6 - recording of flight plan and images

In order to record the flight plan, an independent GPS recorder will be placed in each aircraft by the judges.



Additionally, crews can record their own flight track. In this case the phone will be placed under seal for the duration of the competition.

To collect images and with the agreement of the crews, on-board cameras will be made available to document the Rally.

Article 7 – Registration and costs

It is possible to register and pay for the participation until Friday 30 April 2021.

Registrations must be made through the following website:

<https://theaeronaut.net/product/2021-esa-ecb-air-rally-registration/>

The cost is 10 EUR for each participating Crew. The funds will be used to purchase prizes, food, equipment used for the race and the offset of CO₂ emissions.

If a crew intends to withdraw, this can be done at any point in time. The fee will be refunded deducting the transaction costs charged by PayPal only for the withdrawals received before Monday 12 April 2021 at 0:00. Withdrawals must be submitted to theaeronautnet@gmail.com

Article 8 – Order of departure

- 1) The departure of crews will be defined in descending order of declared speed
- 2) An interval of at least 2 minutes will be left between departures.

Article 9 – Computation of scores

The GPS tracks of each flight will be uploaded to Google Earth and compared against the planned route in terms of distance and the flight plan in terms of times.