



NORDIC AIR SPORTS RACE CHAMPIONSHIPS

Rules and Regulations

2025 Edition

Approved by Denmark, Finland, Norway and Sweden
valid as of 01 03 2025

INTRODUCTION

The first agreement on rules for Nordic Air Sports Race Championship was made at a meeting held in Stockholm/via Zoom in February 2025 and the present rules and regulations was adopted by the four National Aero Clubs (NAC) at the GAC conference in Catania in mars 2025, and are to be valid as of 01 03 2025.

This English version of the Competition Rules is the Master Copy. Kungliga Svenska Aeroklubben (KSAK-M) has the responsibility to update the official version and distribute it to the other member nations. It is the responsibility of each NAC to make its own translation into its language if this is deemed necessary.

The word National Aero Club (NAC) in these Competition Rules refers to the following organizations:

KONGELIG DANSK AEROKLUB (KDA)

NORGES LUFTSPORTSFORBUND / NORSK AERO KLUBB (NLF/NAK)

SUOMEN ILMAILULIITTO - FINLANDS FLYGFÖRBUND (SIL)

KUNGLIGA SVENSKA AEROKLUBBEN (KSAK-M)

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AIMS FOR NORDIC AIR SPORTS RACE (ASR) CHAMPIONSHIP

When a Nordic ASR Championship is organized, competitors from at least 3 Nordic countries must participate, if it shall be considered as a Nordic Championship.

The competition shall be between pilots and/or pilots+navigators, representing the Nordic NAC's. Competitors from aero clubs of other countries and supplementary competitors from each Nordic country, will for goodwill reasons be allowed to participate outside the Nordic Championship, according to available capacity. If other competitors than those representing the Nordic NAC's are present, it will be in an Open Nordic ASR Championship, with its own result list.

The competition is designed for pilot and/or pilot+navigator flying single piston engine aircraft. ASR flying is aimed at improving fundamental flying skills, to enable competitor(s) to navigate and handle an aircraft under basic visual flying conditions independent of the use of technical systems thus enhancing flying safety.

The competition consists of the following two main groups of tests:

1. Navigation
2. Landing

The overall aim of the Air Sports Race is achieved by:

1. Emphasizing the ability to follow a precise track whilst adhering to a time schedule.
2. Emphasizing the ability to land an aircraft in short and narrow places with simulation of trees or other obstacles on the approach, thereby fully demonstrating a pilot's ability to handle an aircraft both accurately and safely.

Air Sports Race (ASR) is a hybrid between Precision Flying and Air Navigation Race (ANR) competitions. It has **not** the flight planning and special observations tests, typical for Precision flying, but it has secret time-checkpoints, that ANR normally does **not** have.

The ASLT (Air Sports Live Tracking) program and app will be used for course-building and tracking/scoring.

A COMPETITION RULES

A 1 INTRODUCTION

The competition is open for pilot and/or pilot + navigator in single engine, class C aero planes, as well as in "microlights" (RAL2T) with lowest allowed TAS = 60 Kn.

Each competing pilot-in-command should have a valid pilot license for the competition aircraft, and all competitors must have a valid FAI Sporting License.

Each competing aircraft must possess a certificate of airworthiness or permit to fly, that does not exclude competition flight. Each aircraft must be operated according to its airworthiness certificate.

Each participating country is allowed to send competitors that represents the NAC, as well as competitors to an "Open Nordic ASR Championship". They are also invited to send a team manager, engineers and observers as well as juror and judges.

The competition director might define the total number of competitors based on airfield capacity or possible other limitations.

The competition will consist of the following two groups of tests:

- ASR-NAVIGATION TEST, flying inside a corridor, with timed-checkpoints.
- LANDING TEST, according to FAI-GAC Landing appendix, precision flying.

The competition management defines a suitable number of ASR-tests, which can be one, or more (depending on the number of competitors and possible other limitations). The competition is to be held during a Saturday, with the Sunday as "reserve day". The number and length of each ASR-test and how the landings are to be carried out must be declared in the local rules.

A 2 USE OF LOGGERS

The ASLT-app (which must be downloaded to and installed on as well pilots as on navigators telephones) is used for logging and for scoring the ASR-courses. In addition, at least one complementary GNSS-logger should be carried in the airplane. Responsibility for the operation of flight data recording equipment rests with the competitors.

A 3 NORDIC AIR SPORTS RACE - NAVIGATION TESTS

A 3.1 FLIGHT PLANNING

The competitors enter the flight planning room at the assigned time and will receive:

- competition map(s) with the actual course, including start- and finish points
- a computer calculated flight plan, based on the desired TAS and prevailing wind direction and speed
- a set of instructions
- departure and arrival charts

For flight planning and map preparation, the competitors are allowed 30 minutes. Map preparation will take place in the flight planning room. From the time when the competitors are scheduled to leave the flight planning room, they shall be allowed 15 minutes to go to their aircraft, prepare it for flight and taxi to the take-off position.

A 3.2 NAVIGATION TESTS

The **total distance** for the ASR-test is not less than 80 but not more than 140 Nm (from the SP to the FP). This distance can, but must not, be divided into several navigation tests. Local rules will stipulate the number of navigation tests.

The object of each ASR-test is to assess the competitor's skill in precise navigation and timing. The test includes maintaining correct tracks (staying within a corridor) and ground speeds. The TAS chosen for each competitor must be mentioned in the entry form (lowest permitted is 60 Kts).

The **width** of each corridor can, but must not, be narrower and narrower. The Local Rules will stipulate the corridor widths used.

Each navigation test shall have min 5 max 17 legs. **No TP** should have a change of direction exceeding 110 degrees.

Times will be checked on take-off and on passing overhead the start and finish point, in addition to other **checkpoints** along the route (min 8 - max 15 timed checkpoints).

The route can, but must not, be completed with "**mine-fields**" and/or **restricted areas** after the final point, giving penalties if entered.

The aircraft must be established on the correct track of the first leg when crossing the start point. Circling after passing the start point is not allowed. The start and finish points must be well defined features, both on the map and on the ground.

During the navigation tests the recommended flying altitude is 1000 feet AGL. The organizer has the right to declare a different altitude for safety reasons. The minimum altitude to be flown is 500 feet AGL or the state limits, whichever is higher. If the state limit is higher than 500 feet AGL, it must be published in the local rules.

The departure and arrival charts will give the position of the start and finish points. The charts will be to an approximate scale of 1:50000 and will be defined in the local regulations.

Departure and return flight via prescribed route are mandatory.

At SP the gate has an extended "Gate line", of 1 Nm to the right and to the left of the SP.

- Crossing this "extended SP-gate line" opposite to the direction of flight at any time, gives penalties for circling.
- Timing at the SP takes place when the aircraft is for the first time passing the extended gate line in the direction of flight.

Only maps with good topographic information to a scale of 1:150000 or 1:200000 will be used for competition purposes. The used map scale has to be declared in the local rules.

For emergency uses only, an additional unmarked ICAO 1:500000 chart is permitted in the aircraft. No other maps or charts except arrival and departure charts, may be carried during the competition.

Use of receivers that determine their position by analyzing satellite signals are allowed (GNSS). Use of any electronic device capable of two-way communication is not allowed (iPad, tablets, mobile phones, any smart watch, etc.). Equipment showing maps below scale 1:500000 or enable plotting competition route is not allowed. Mobile equipment is not allowed to show any maps. Any electronic equipment and autopilots could be sealed and shall not be used during the competition except in case of emergency. Any broken seals could result in the disqualification of the competitor.

A 4 LANDING TEST

The landing test will follow the FAI-GAC Landing appendix, Precision Flying, but the Local rules will stipulate how it will be organized. One possibility is to score one of the landings at the return of the first ASR-test (normal landing) and then have the 3 remaining landings as a separate part of the competition. Another possibility is to have all four landings as a separate part of the competition.

A sufficient number of persons must be assigned to properly score and film the landings (at least one judge and at least 4 persons filming)

A 5 DISQUALIFICATION

Any misconduct or bad behavior on the ground or in the air including unsporting behavior or protests against other competitors could result in disqualification of the competitor.

If a competitor communicates with any unauthorized person from the time of entering the flight planning room until the debriefing after a navigation test or enters any restricted area on the competition site without permission, he/she runs the risk of disqualification of the national team.

Any competitor, found using non permitted equipment in the flight planning room or aircraft, or found to have tampered with any sealed navigation or radio equipment or manipulating the flight recording system will be disqualified and may risk disqualification of the national team.

A 6 JURY AND JUDGES

A Jury with functions as prescribed in the FAI Sporting Code shall be organized for the competition. Each participating NAC shall appoint one qualified member each to serve in the jury. The jury member should be a FAI/GAC approved judge/jury-member, or an experienced person within precision or ASR-flying, approved by the NAC.

The jury members shall be selected and appointed for the duration of the competition not later than before the first jury meeting, which shall be held at the place of competition before the first briefing is given to the pilots. The first jury meeting will elect one of the appointed jury members to serve as Chief Judge for the Championship. The jury's decision is final as concerns the results of the competition.

Judges will function as prescribed in the FAI Sporting Code. The judges shall normally be selected from the organizing NAC, however each participating NAC shall have the right to appoint one judge. The judges shall be appointed before the first jury meeting and be approved by the jury.

A 7 PROTESTS

The competition director will publish the results as quickly as possible by the best method available. The results will be marked “preliminary and subject to protest”.

Within 30 minutes of the release of the results the competitor and/or team manager may present a written request (“complaints”) to the chief judge for clarification. If not satisfied with the clarification, a “protest” may be filed with the competition director within 30 minutes after the clarification was given, accompanied by the relevant protest fee.

The video recordings of landing shall be used by the chief judge for checking the results of landings before the preliminary result is published. The video recordings of landings are also to be used by the jury when dealing with eventual protests.

The prescribed fee in connection with any protest submitted to the jury will be EURO 50.- and shall accompany the written protest. The fee will be returned in the case of a successful protest only.

A 8 NUMBER AND TYPES OF CHAMPIONS

There will be champions in three categories:

The Nordic Champion will be the competitor (pilot or pilot+navigator) with the best combined results (Navigation + Landings). This category will be awarded with gold, silver and bronze medals.

Navigation Champion will be the competitor (pilot or pilot+navigator) with the total best result in navigation test(s). This category will receive a Navigation Champion Diploma.

Landing Champion will be the competitor (pilot or pilot+navigator) with the best total result from all four landings, according to the FAI-GAC landing appendix, Precision flying, latest edition. This category will receive a Landing Champion Diploma.

All competitors will receive a **Nordic ASR-Championships Diploma**.

The organizer will decide upon any further rewards.

A 9 TABLE OF PENALTIES NORDIC AIR SPORTS RACE, NAVIGATION

	Penalties	Max. penalties
Preparation of flight plan		
Failure to leave flight planning room after 30 minutes	100	100
Take-off time (passing take-off gate)		
Limit +60 seconds	0	
Before or after time slot/not registered	200	200
Passing each timed point (including start- and finish point)		
limit + or - 2 seconds	0	
additional error per full second	3	100
not recorded, each time	100	100
Flying outside the corridor		
limit 5 full seconds	0	
additional error per full second	1	100
Other deviations from track (each time)		
Circling or backtracking limit 5 full seconds	0	
Circling or backtracking more than 5 sec each time	200	200
Not following described arrival/ departure routes and/or procedure	100	200
Entering restricted/prohibited areas		
Entering "mine field", each time	50	200
Entering restricted area, per second	3	200

A 10 PENALTIES NORDIC AIR SPORTS RACE, LANDINGS

The penalties in landing competition are described in the FAI-GAC Landing appendix, Precision Flying.

B. ORGANISATION RULES

The host aero club must be able to provide an airfield with limited traffic. In selecting a venue, the host aero club must be able to provide reasonable accommodation close to the airfield.

B 1 PLACE OF COMPETITION

The competition is to be arranged by the NAC's of Finland, Norway, Denmark and Sweden in turn and in that order. Only under special circumstances, to be approved by the NAC's, will this order be changed. The competition shall be held within the borders of the arranging country.

B 2 TIME OF COMPETITION

The competition shall take place each year in June/July. The normal competition days will be Saturday, with Sunday as "reserve day", and the latest arrival day will be the day before the competition.

B 3 VENUE

It is necessary when choosing the location of the competition to give careful consideration to the type of terrain. The ideal is a mixed terrain of flat and hill ground and to select an area that is not too easy to navigate.

It is of advantage if the airfield enjoys either a restaurant or adequate clubhouse facilities for competitors and spectators.

The airfield should be available for formal familiarization and practice in the week prior to the competition. There must be no charge for practice landings. Wi Fi and Internet access should be available at the airfield and the accommodation.

B 4 TRANSPORT

Participants are responsible for their own transportation, but the host aero club will try to be helpful. Local rules will inform about possible arrangements of transportation between the accommodation and the airfield.

B 5 ACCOMMODATION

Participants organize their own accommodation. The organizers will be happy to give recommendations, and the local rules will give at least two options.

B 6 AIRCRAFT HIRE

Participants organize their own aircraft. The organizers will try to give recommendations on request.

B 7 TRAINING PRACTICE

Practice and familiarization of the competition area should be available in the week prior to the competition. There should be no additional charges for landings.

Organizing NAC must provide a sample of the competition map at least two weeks before the competition.

Organizing NAC must prepare at least two training ASR- routes of the same level as competition routes and free of charge during the week before the competition.

B 8 BRIEFINGS

Opening briefing must be attended by jurors, judges, operational officials, team managers and competitors; the object being to explain the running of the competition, the program to be adhered to, channels of communication, and the basis of judging.

Specific issues concerning the use of Flight Data Recording (ASLT-app) and GNSS data transmitter equipment must be covered during the opening briefing.

Met. briefings are to be held before each part of the competition.

Landing briefing must be attended by jurors, judges, team managers and competitors; the object being to define procedures, circuit discipline, signals, etc.

B 9 METEOROLOGY

General forecasts will be taken from the Internet and will be communicated prior to the take-off for each part of the competition.

The weather minimum for the navigation tests will not be less than 5 kilometers visibility with the cloud base 1000 ft AGL of the highest point of the course. If any part of navigation racecourse is within controlled airspace, consent must be given for the minimum to apply.

Throughout the navigation race test there should be an aircraft available to check deterioration of weather. Either a juror or the chief judge will accompany the aircraft during any check flight.

The minimum cloud base for power landings will be 500 AGL and power off landings 1000 AGL. In both cases the visibility will be at least 1.5 kilometers. If the minimum is below those legally required in the host country, then the host country's rules must be applied. If the wind speed near the ground in the navigation competition area (including SP, FP and turning points) exceeds 25 kts, gusts included, flying will be stopped.

B 10 NORDIC AIR SPORT RACE CHAMPIONSHIP (NAVIGATIONS)

A single map will be used for the navigation test. Details of the map should include all roads and railways in normal use, large lakes, rivers and creeks, color coded and/or elevation contours, towns and villages, etc. It should also contain certain spot heights and location of high obstacles.

Positions of SP and FP must be well determined on the ground as well as on the map. Departure and arrival charts shall be given to competitors where the start- and finish points are defined, and where the departure and arrival routes also are described.

Turning-points (TP) **must** be determined points on the ground and on the map and must have a change of direction of **not more than 110 degrees**.

Secret timed-checkpoints (SC) must be well determined on the ground and on the map. A secret checkpoint shall be situated perpendicular to the track and not closer than 0,5 Nm to a TP (before and after).

A master clock shall be placed outside the flight planning room and will be synchronized with GPS-Time taken from a GPS-unit.

After flight planning, the competitors will be required to depart from the flight planning room to their aircraft. Under no circumstances will they be permitted to communicate with any other person apart from the competition management and it must be made clear to them that their start-up time, taxi and readiness for take-off at the prescribed time is entirely their responsibility.

On return from the competition, the competitor will be asked to give the GNSS-logger to the competition management.

If a team, by radio, reports deteriorating weather to the minimum allowed, this should be checked immediately by a weather aircraft. A team asking for assistance automatically terminates its navigation flight at the point.

B 11 NORDIC AIR SPORTS RACE CHAMPIONSHIP (LANDINGS)

The landings are described in the FAI-GAC Landing appendix, Precision Flying.

The local rules will describe how the landings will be performed: either all four landings in a series or split up. A possibility should be to perform landing 1 ("normal" powered landing) at the return of the first ASR-test, and then have the three remaining landings as a separate test. **At least** 1 judge and 4 other persons must be present to judge and film the landings when performed.

B 12 LIVE TRACKING

In case live tracking is in use, no landscape data or other landmarks shall be visible on the displayed maps (screens, internet and electronic devices in general). Only the Corridors and the logging data of the teams, without any other reference points may be visible. This applies to the entire competition and no distinction will be made for spectators or competitors.

B 13 RESULTS

It should be the aim of the competition director to post the results at the earliest possible moment after protests, if there are any, have been investigated, amendments made, and the results ratified by the chief judge.

All final results together with all maps and flight plans will be returned to each competitor as soon as the competition is closed. If necessary, the competition director will send these to the NAC immediately after the championship.

C LOCAL RULES AND REGULATIONS

C 1 INTRODUCTION

C 2 ORGANIZER

C 3 PLACE

C 4 DATES

C 5 ENTRY FEE

- a) for the aircraft: None
- b) for the pilot
- c) for the navigator
- d) for each additional team manager, observer ...
- e) for each judge (50% discount / judge and country)

C 5.1 ENTRY FEE INCLUDES:

- a) Opening ceremony
- b) Prize giving banquet
- c) Relevant maps for practice and competition
- d)
- e)

C.5.2 ENTRY FEE - PAYMENT

C 6 ARRIVALS

C.6.1 PROPOSED ACCOMODATION

C.6.2 TRANSPORTATION BETWEEN ACCOMMODATION AND AIRFIELD

C 7 COMPETITION PROCESS

C 7.1 The organizer must specify the number of ASR-navigations that will be flown. For each one of them the corridor width and approximate length (time from SP to FP) must be announced.

C 7.2 The organizer must specify how the landing competition will be performed.

C 8 COMPETITION MAP

The organizer must declare the scale of the competition map being either 1:150000 or 1:200000. An example of the competition map must be sent to competitors at least 2 weeks before the competition.

C 9 SHAPE OF THE CORRIDORS

The turning points of the corridors must not be rounded outside. If they are, this must be declared in the local rules and regulations.

C 10 APPLICATION FORM

Name: _____

- representing: FIN NOR DEN SWE (underline correct)
- or competing in the open championship, coming from _____

is participating as: pilot-in-command / navigator (underline correct)

- if navigator, competing together with _____

personal e-mail adress: _____

personal mobile telephone number: _____

FAI Sporting Licence number: _____

Aircraft (to be filled in by pilot-in-command only)

- Model and registration _____
- Demonstrated crosswind limitation _____
- TAS for the ASR-navigations _____

Type of GNSS logger used, more than the ASLT-app: _____