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SAPFA

SOUTH AFRICAN POWER FLYING ASSOCIATION

PRESIDENTS TROPHY AIR RACE

PRESIDENT'S TROPHY AIR RACE

SUPPLEMENTARY RULES AND REGULATIONS 2026 RACE

Revision 1
April 2026

AERO CLUB SOUTH AFRICA

FAI

FEDERATION AERONAUTIQUE INTERNATIONALE

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Amendments

Date	Revision	Change

1 GENERAL

These Supplementary Rules are issued in terms of Clause 2 of the Official Rules and Regulations of the PRESIDENT'S TROPHY AIR RACE.

The 2026 Edition of the PRESIDENT'S TROPHY AIR RACE will be held over 2 days with routes of approximately 250nm for each day.

2 DEFINITIONS

The terms defined in this section will be used during the event. The terms will have the meaning set forth below.

- 3D Speed: The average speed between two measuring points taken as the flown distance in 3 dimensions divided by the flown time. The distance in 3 dimensions takes into account deviations in the horizontal plane and vertical plane.
- Start 3D Speed: The 3D speed used by the Handicap Committee to calculate the Handicap Speed.
- Flown 3D Speed: The 3D speed recorded over the competition course.
- Handicap Speed: The speed calculated based on the formula in section 4 of this document. The handicap speed is derived from the 3D speed, taking the course characteristics into account.
- Par time: The expected flying time calculated for each entrant based on the course distance and the entrant's handicap speed.
- Time Gain: If the entrant finishes the course in less time than the calculated Par time, the entrant will record a time gain. For this to happen, an entrant must fly an average speed quicker than the handicap speed.
- Time Loss: If the entrant finishes the course in more time than the calculated Par time, the entrant will record a time loss. For this to happen, an entrant may fly an average speed slower than the handicap speed, or fly an average speed quicker than the handicap speed, but fly a distance longer than the course distance.

3 CHARTS

For the first day, the Race organisers will supply each entrant with a chart with the route pre-plotted and headings for each leg approximated to the nearest 5 degrees. The chart will be between 1:225 000 and 1:275 000 scale.

For the second day, the Race organisers will supply each entrant with a chart with a scale of 1:250 000. The route for day 2 will not be on the chart, and each crew will be responsible to prepare their route from a separate set of instructions.

4 HANDICAP FORMULA

The following handicap formula will be the basis for which this edition of the PTAR, and is based on two elements V^2 (to take into account turns in the course), and course distance. This speed will have as its baseline the aircraft's straight line speed or otherwise known as the 3D speed.

X = SP - SP^2*Turns/(4*10000)-SP^2/(Dist*10000/100)

where X is the resultant handicap speed, and SP is the input 3D speed.

The handicap speed will be used to calculate the par time of the course for each entrant. An entrant's time gain or time loss will be measured against the par time.

For Day 1, the 3D speed will be calculated from the aircraft's historic performance, or from a test flight to be conducted on Thursday 25 May 2023. Based on the recorded 3D speed from the Day 1 course, adjustments may be made to the 3D speed for day 2.

5 EVENT FORMAT

DAY 1:

Each competitor will receive their 3D speed, handicap speed and take-off time after the Morning Briefing. All competitors will go into quarantine after the morning briefing and when, contraband (cell phones and other electronic devices) will be sealed. The aircraft with the fastest handicap speed will take off first. 30 minutes before a competitor's take-off time, they will collect their race pack which includes their charts for day 1, Check-Point photo sheets and 2 GPS loggers. Aircraft will take of in sequence from fastest to slowest with 30 second spacing between them.

The course will be approximately 250nm. The charts will have the route pre-plotted with headings for each leg printed on the chart, rounded to the nearest 5 degrees.

The GPS track, time flown, 3D speed flown and distance flown will be recorded for each entrant. From this, the time gain/loss will be calculated. If the entrant's flown time is less than the Par time, they will record a time gain for Day 1. If the entrant's flown time is more than the Par time, they will record a time loss for Day 1.

The GPS track will be used to verify that the route was flown correctly. Penalties will be applied for cutting corners, altitude infringements, and dangerous flying manoeuvres.

The 3D speed flown will then be compared to the start 3D speed used to calculate the handicap speed.

- If the entrant's flown 3D speed exceeds the start 3D speed by 1.75% or more, their start 3D speed for Day 2 will automatically adjust to the 3D speed flown on Day 1. In addition, a 360 second penalty will be incurred, or their time gain will be reset to 0, whichever is the greater penalty. (Penalty applies if 3D speed flown >= 1.75%)
- If the entrant's flown 3D speed exceeds the start 3D speed by between 0.75% and 1.75%, their 3D speed for Day 2 will automatically adjust to the 3D speed flown on Day1. No adjustments will be made to the time gain or loss. (Applies when 0.75% <= 3D speed flown < 1.75%)
- If the entrant's flown 3D speed exceeds the start 3D speed by less than 0.75%, no adjustments to the 3D speed or time gain/loss will be made.
- If the entrant's flown 3D speed is more than 0.75% slower than the start 3D speed, the handicapping committee has the right to review the start 3d Speed and make adjustments to the handicap speed.

Day 2:

Each entrant will receive a 1:250 000 chart and instructions to prepare the route for Day 2. Entrants will receive sufficient preparation time. The same quarantine procedure will apply for day 2 as for day 1.

The course will be approximately 250nm. Take-off times will be calculated for each entrant based on the targeted finish time and the entrant's par time for day two, adjusted for the gain/loss from day 1.

The GPS track, time flown, 3D speed flown and distance flown will be recorded for each

entrant. The final results will be calculated by adding the gain/loss of the two race days. Bar any delays in take-off times, or other unforeseen circumstances, the finishing order should be the same order as the aircraft crosses the finish line.

The GPS track will be used to verify that the route was flown correctly. Penalties will be applied for cutting corners, altitude infringements, and dangerous flying manoeuvres.

The 3D speed flown will then be compared to the start 3D speed used to calculate the handicap speed. For day 2, if an entrant exceeds their 3D speed by 1.00% or more, a 360 second penalty will be incurred.

The scorer will prepare a statistical analysis of the flown 3D speed for the entire field to assess the conditions of the day. If this analysis shows that conditions allowed for a faster than expected race, and the 1.00% threshold proved to be too restrictive, the competition director, in consultation with the jury reserves the right to increase the threshold.

6 BULLETINS

Information bulletins will be issued by the competition director from time to time.

These information bulletins will be posted on the SAPFA web site and will be emailed to participants with entries that have been accepted by the Race Director.

7 DRESS CODE

The dress code for the prize giving banquet has always been formal, viz dress suit, dark lounge suit, National colours or Air Race winners jackets.