

**ROYAL AERO CLUB RECORDS RACING &  
RALLY ASSOCIATION**



# **OPERATIONS MANUAL**

## **PART D**

### **Training**

## **SECTION 1**

# **Pilot Assessment Syllabus**

## 1. CHANGE LOG

<b>Version</b>	<b>Changed/Removed/Added</b>	<b>Date</b>
1.0	Initial Issue	March 2019

### **Wording**

The use of “shall” and “must” implies that the aspect concerned is mandatory, the use of “should” implies a non-mandatory recommendation, “may” indicates what is permitted and “will” indicates what is going to happen. Words of masculine gender should be taken as including the feminine gender, and vice versa, unless the context indicates otherwise

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## **2. INTRODUCTION**

As part of the Safety Management System (SMS) Review in spring of 2018, and a Training paper submitted at the February 2018 Symposium, a new training syllabus was produced and published as Appendix E of SMS 2.0 with a view to moving it once an Operations Manual was in place. That has now happened and forms this part of the manual.

Air Racing requires high standards of airmanship, aircraft handling and discipline. Prior to flying a Race Practice and Race a pilot must successfully complete the training as laid out in the syllabus below.

Standard Operating Procedures (Part B Section 1) have been written to cover the normal and emergency procedures for the conduct of Race Practice and a Race. This will ensure all race participants follow the same procedures to ensure a high degree of safety and permit a reduction in the briefing time and ability to concentrate on items that are non-standard. It will also demonstrate a high level of professionalism to the host airfield, and its pilots, about how we conduct our operations.

A thorough knowledge of the SOPs is therefore essential to become a race pilot.

Air Race Check Pilots and Race Supervisors should ensure standardised instruction by referring to the SOPs and prospective racers should read the Air Race Handbook (Part D Section 2) too for additional information eg. Increased stalling speed when flying turns.

## **3. PILOT ASSESSMENT**

### **3.1 Pilot Assessment Section**

The Pilot Assessment Section is comprised of Check Pilots and Race Supervisors with the following responsibilities:

- A Check Pilot sits on the Safety Committee
- Check Pilots conduct the Race Check (Appendix A)
- Check Pilots or Race Supervisors conduct the Supervised Practice & Race (s) (Appendix A)
- Action any pilot assessment decisions made by the Safety Committee
- Recommend pilots/navigators suitable to be Race Supervisors
- Prior to the start of each race season review the Air Racing Handbook for accuracy (Part D Section 2)
- Make recommendations to the Safety Committee for changes to the Pilot Assessment and it's associated syllabus

## 3.2 Check Pilots

A number of established and experienced race pilots will be designated as 'Check Pilots'. Their function is to assess the flying skills of potential race pilots. Any Check Pilot must have at least:

- 500 hours as P1
- 5 years as a Race Pilot and raced within 5 years of appointment
- Experience in a similar type of aircraft to the one used in the check flight.

The Chairman is to record the experience assessment using the Check Pilot Verification form at Part F Section 4

## 3.3 Race Supervisors

These are experienced pilots or navigators who have been approved by the Safety Committee to supervise new pilots during the first race practice and race(s).

## 4. PILOT ASSESSMENT SYLLABUS

Before a pilot can apply to become a race pilot they are to have achieved 100 hours as Pilot in Command (PIC). If total experience is less than 500 hours PIC they must have 10 hours on type else they must have 5 hours on type.

The 3Rs do not carry out race training but Check Pilots and Race Supervisors can accompany prospective race pilots to offer advice prior to the Check Flight.

**In the interests of safety during a Supervised Race Practice or Race the advice of the Check Pilot/Race Supervisors should normally be followed. However, it must be noted that during any flights conducted within this syllabus the prospective race pilot remains the Pilot in Command of their aircraft and attention is drawn to the introductory paragraph of the Race SOP's regarding Commanders Responsibility (Part B Section 1 Paragraph 2).**

The 3Rs has a very basic Pilot Assessment syllabus and is recorded on the rear of the Pilot Assessment Form (Appendix A) and comprises:

- Brief
- Race Check
- Supervised Practice Race and Race (s)

## 4.1 Brief

The brief is based upon the Race SOP's (Part B Section 1) and Air Racing Handbook (Part D Section 2) and can be a self brief or given by a Check Pilot or Race Supervisor. Once complete sign the "BRIEF" section of the Pilot Assessment Form at Appendix A.

## 4.2 Race Check

This is also known in the 3Rs as the Check Ride. In order to be issued with a FAI Race Licence a prospective racer must pass the Race Check and the licence should be considered as provisional until signed off as "Fit to Race" on a supervised race (s).

The Race Check can only be conducted by a Check Pilot and upon completion will sign the "RACE CHECK" section of the Pilot Assessment Form at Appendix A.

Prospective race pilots may also attend an air race school recognized by the 3Rs where they will learn the basic techniques of handicapped air racing and follow the syllabus in this section.

**The Race Check is to be completed prior to a race weekend to ensure Check Pilots are free to carry out official duties, or race, without additional pressures or distractions.**

## 4.3 Supervised Practice Race and Race (s)

After successful completion of the Race Check the prospective racer must fly a Supervised Race Practice and one or more Races with a Check Pilot or Race Supervisor until signed off as "Fit To Race". There is no objective set of standards for this section of the Pilot Assessment and it will be down to the judgement of the Check Pilot/Race Supervisor, who are experienced race pilots/navigators.

Upon successful completion of the "SUPERVISED PRACTICE & RACE(S)" section of the Pilot Assessment Form at Appendix A the prospective racer's FAI Licence will no longer be provisional. **However, they will be monitored by the Safety Committee for a continued safe standard of racing.**

# APPENDIX A - RACE PILOT ASSESSMENT

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## RACE PILOT ASSESSMENT

(Candidate complete light shaded sections)

Pilot's Name				Race No			
Address							
Licence No				FAI Licence No			
Cert. of Validation Expiry				Medical Expiry			
Total Hours:							
P1		Total P1 Type		SEPL		MEPL	
Check Aircraft Type				Registration			
Engine HP		Single/Twin		Nosewheel/Tail		Check - Initial/Conversion/Reval	
V <sub>so</sub>		V <sub>sm</sub> 2G/60 deg		V <sub>sm</sub> 3G/70 deg			
Aircraft Documents Check ( <i>see overleaf</i> )				Satisfactory		Yes/No	
T/O ½ R/W (± ¼ R/W)				Tracking after unstick ½ R/W (± ¼ R/W)			

Full Power Mini Race Circuit and Scatter 1 Simulation	Tolerance	Standard Achieved	Remarks
2G/3G <sup>1</sup> Turns @ 700 ft	± 40ft		
Straight and Level @ 700 ft	± 20ft		
Straight and Level @ 700 ft	± 5 deg		
Loss of Visual Procedure	Safe and smooth		
Scatter 1 simulation (complete at beginning or end of flight)	Safe and smooth		

Nominated Approach IAS				Final IAS				Threshold IAS			
Actual IAS (± 5%)											
Line up		Nominated Threshold		Landing ½ R/W (± ¼ R/W)				Rollout ½ R/W (± ¼ R/W)			

<sup>1</sup> For aircraft capable of 70° bank turns, 3G turns will be tested

<b>BRIEF</b>				
<b>Race Brief Received?</b>	Yes	No	From (Name)	
		Check Pilot/Race Supervisor *		
Date				
Signed (Briefer)				
<b>If Race Brief Not Received</b>	I have not received a Race Brief but I have read and understand the Race SOPs (OM Part B Section 1) and Air Racing Handbook (OM Part D Section 2) prior to undertaking my Race Check			
Date				
Signed (Pilot)				
<b>RACE CHECK</b>				
I certify that the pilot overleaf has/has not * demonstrated the required standard of flying to be permitted to fly a supervised race practice.				
Location		Name (Check Pilot)		
Date		License No.		
Signed				
<b>SUPERVISED PRACTICE &amp; RACE (S)</b>				
Supervised practice and race(s) conducted by a Check Pilot or a Race Supervisor.				
<b>Race Location</b>	<b>"P" Practice "R" Race</b>	<b>Supervisor Name</b>	<b>Supervisor Signature</b>	<b>Fit to race unsupervised Yes/No?</b>
	P			N/A

\* (Delete as reqd)

<b>Document Check</b>	<b>Expiry Date</b>
Pilot Licence	
Medical	
Insurance (wording as per 3Rs current Rules)	
Certificate of Airworthiness (C of A)/Permit to Fly Validation	
Certificate of Registration	
Aircraft Radio Licence	
Certificate of Maintenance Review and Statement (C of A only)	
Noise Certificate (if Applicable)	