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RAFAT use of RAF Syerston for Winter Training

Temporary Danger Area Submission - Issue 1.1

Roles

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Introduction

The Ministry of Defence (MOD) has long held a desire to close RAF Scampton as part of a wider Defence Estates rationalisation programme. A 2019 basing study recommended that RAF Scampton be retained to allow continued use of EG R313 by the Royal Air Force Aerobatic Team (RAFAT) but investigated 3 other split-basing options: the use of a Practice Display Location away from the Teams home-base. The only option considered suitable was basing RAFAT at RAF Waddington while retaining use of EG R313 over Scampton. This option required a caveat on the site's sale to allow continued access to the airspace and was key to the proposal. The MOD agreed that this option was most suitable and confirmed the move of RAFAT to RAF Waddington in 2022 and the closure of RAF Scampton shortly after.

In mid-2021, and with preparations for the Teams move well underway, the MOD announced that it was removing all caveats to the sale of RAF Scampton. EG R313 was seen as a hindrance to the sale and as a result, the future of EG R313 for RAFAT could no longer be guaranteed beyond March 2023. Any continued use of Scampton would be entirely contingent on the new owners and their scale of development. Consequently, a feasibility study was commissioned to investigate alternative training locations for the Team. This study reported in late 2021 and suggested a number of MOD sites local to RAF Waddington that might allow RAFAT to achieve their annual training objectives. However, this plan involves a number of different sites not used to RAFAT flying and would require some testing and evaluating.

RAF Syerston was identified as potentially suitable for Synchro Pair training as other sites looked at were deemed either too hazardous or too busy. The Synchro Pair require a clearly defined line feature to practise their head-head passes safely and a runway is the best way to achieve this. While other MOD airfields were looked at, RAF Syerston was considered most suitable because it is located close to RAF Waddington and is not a busy flying station over the winter months. It is however located in the central Trent Valley, the main routing north/south for other airspace users and is surrounded by a number of military and civilian airports and smaller airfields. The RAF Syerston local population is also not used to fast jet noise as it is the RAF's Central Gliding School. Consequently, it was decided that an application for a Temporary Danger Area (TDA) would be made to the CAA to investigate whether or not the site could be used for limited RAFAT Synchro Pair training on an annual basis if required. This TDA is planned for early 2023 and if approved and considered successful, will not be used again unless use of EG R313 is lost. At that point, a full ACP will be conducted with the aim of establishing RAF Syerston for RAFAT use annually but only on similar lines to this TDA, with limited use over winter.

It is hoped that the successful bidder for RAF Scampton will allow the Team to continue training overhead but this can't be assumed. Should this be confirmed, this TDA can be cancelled but this is unlikely to occur before its start in January 2023.

RAFAT Synchro Pair

RAFAT fly the BAE Systems Hawk T1 jet trainer. The Team normally fly as a 9-ship and are widely considered to be one of the best display teams in the world. Indeed, their display routine and operating practices are often copied by other teams and they are often used to generate soft power strategic effects for the UK. Pilots are

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specially selected and are among the best in the RAF, normally flying on the Team for a 3-year tour of duty.

The Synchro Pair, Reds 6 and 7, provide a highly dynamic and visually exciting part of the display routine. They are characterised by their head-head passes and use a 100ft AGL minimum height. They aim to miss each other by 100ft wingtip to wingtip and working up safely to this miss distance is best achieved using a fixed width line feature such as a runway. Initial training for the Synchro Pair starts at 1500ft AGL and quickly comes down to the display minimum of 100ft AGL. During these head-head passes, they have a combined closure speed of 720kts, with only an 8-10 second reaction time before they cross from opposite ends of the display line. It is therefore imperative that they use a clearly defined line feature that allows them to focus on the basic techniques without distraction. Ideally, they would use a 9000ft runway for this early training but have assessed RAF Syerston, with a 6000ft runway to be acceptable. Once the basics have been learnt, training can be moved to more advanced sites that do not have such clearly defined display lines.

Timings

The TDA is being requested for a 3-month period from the 9 January – 7 April 2023. It will run Monday-Friday only during daylight hours.

3 x daily slots have been agreed with RAF Syerston and these times will not vary during the TDA period. The times are as follows (all Local):

- 0830-0915 (45 mins).
- 1200-1245 (45 mins).
- 1450-1530 (40 mins).

Only 30 minutes of each slot will be routinely used, but some allowance has been made to cater for aircraft unserviceability at crew-in.

RAFAT will promulgate by Notice to Airmen (NOTAM) the slots they plan to use at least 3 days in advance but will aim for one week prior. Planned use will also be forwarded to a distribution list to include local airports and airfields.

TDA Dimensions

The dimensions of the TDA at RAF Syerston are in Table 1 and illustrated in Figure 1 below.

Identification / Lateral Limits	Vertical Limits	Remarks
<p>CAA to enter name</p> <p>A circle, radius 5 NM, centered on the Airfield Reference Point (ARP): N53 01.40 W000 54.70 (WGS 84)</p>	<p>Upper Limit: 5000 ft AMSL (approximately 4769 ft AGL)</p> <p>Lower Limit: SURFACE</p>	<p>Activity: Dynamic pairs low level aerobatic manoeuvres along runway 06/24 with most of the positioning to the north of the runway (higher MSD)</p> <p>Hours: When notified by NOTAM</p> <p>DACS/LARS: RAF Waddington</p> <p>Frequency: Waddington Zone on 119.500MHz and 232.700MHz</p> <p>Tel: Waddington ATC Switchboard on 01522 727452</p> <p>Sponsor: MOD</p>

Table 1- Dimensions for TDA at RAF Syerston



Figure 1 - TDA at RAF Syerston

Airspace Management

The Operating Authority for the TDA is as follows together with details for the provision of a combined Danger Area Crossing Service (DACS)/Lower Airspace Radar Service (LARS). Provision of a Danger Area Activity Information Service (DAAIS) is being investigated:

- Operating Authority – ATC RAF Waddington.
- A DACS will be available during TDA hours of activation and will be subject to RAFAT activities within the TDA.
- A permanently manned common DACS/LARS during daylight hours (Monday-Friday only) provided by RAF Waddington is being investigated. This is currently stated as 0800-1800 Monday-Thursday and 0800-1300 Friday but is subject to station based operational requirements. Resource constraints may affect the availability of this service when the TDA is not active. As per EG R313, the Syerston TDA can be assumed to be inactive if, following an attempt to contact RAF Waddington ATC LARS, no response is received.
- Arrangements for the provision of a DAAIS using ATIS (VHF) is being investigated. It is considered unlikely that this will be possible due to time and financial constraints.
- East Midlands will also provide information on the status of the TDA.

Notification

The TDA slots planned for use by RAFAT will be activated via NOTAM, at least 3 days (72 hours) in advance of operations.

Engagement

Enclosure 1 has been compiled as a record of all engagement. It contains all material used to present this TDA application to stakeholders and any follow-on engagement that occurred.

Sponsor

The Sponsor for this TDA is the MOD, delegated to Display Wing Headquarters, RAF Coningsby. During activation periods, information about the TDA status can be obtained from RAF Waddington ATC on 01522 727452 or RAFAT Ops. The RAFAT Ops number is yet to be confirmed due to their imminent move to RAF Waddington but will be included on the NOTAM.