



AIRSPACE CHANGE PROPOSAL – ACP-2022-002

This document forms part of the Airspace Change Process (ACP) as defined in the Civil Aviation Publication (CAP) 1616. ACP-2022-002 has been commenced in order to implement segregated airspace in the form of a Temporary Danger Area (TDA) in the vicinity of RAF Syerston during early 2023. The ACP sponsor is the Ministry of Defence (MOD). Details of this ACP, including all supporting documents can be found on the CAA's online airspace change portal [here](#).

All changes to UK airspace are legally required to follow the process laid down in CAP 1616. Details of the process are available online [here](#). Following this process ensures a fair and transparent flow of information between the change sponsor and any affected stakeholders. The CAA, as an impartial regulator, will hold the change sponsor to account and ensure that CAP 1616 is followed correctly as part of its decision-making responsibility.

The aim of this letter is to inform all stakeholders of the proposed introduction of a TDA in the vicinity of RAF Syerston and to ensure that everyone has a full understanding of what, if any, effect it may have on them and to provide them with the opportunity to comment. This letter forms part of the ACP engagement activity and is being sent to you as an identified stakeholder for comment.

Background

The Royal Air Force Aerobatic Team (RAFAT), more widely known as the Red Arrows, are relocating to RAF Waddington prior to the sale of RAF Scampton. This move is planned for late 2022 with the sale of RAF Scampton going ahead in early 2023. The original decision to relocate RAFAT to RAF Waddington was contingent on continued access for training in restricted airspace (EG R313) over Scampton, which would provide the Team with all their training airspace requirements indefinitely.



Figure 1-The Red Arrows performing the 'Tornado'

The Red Arrows fly the BAE SYSTEMS Hawk T1 fast jet trainer. The Team normally fly a 9-ship display lasting approximately 21 minutes.

The first-half of the display focuses on flying different formation shapes as a 9-ship, before splitting into different elements for the second-half.

The Synchro Pair provide a more dynamic and exciting element, with signature head-head passes and inverted maneuvers.

Recently, the MOD has decided that RAF Scampton will be sold without caveats. This decision has placed the future of EG R313 in doubt as continued access to this airspace will now rely on the scale of development at Scampton and the willingness of the new owners to support RAFAT

operations. Consequently, a feasibility study was conducted in 2021 to identify alternative training locations that are accessible from RAF Waddington, which will remain the Team's new home. RAF Syerston has been identified as one of a number of potentially suitable locations that together, might provide enough training opportunities for the Team using their current display model.

RAFAT have also been integrated within ACP 2019-18, originally planned to enable safe Remotely Piloted Air System (RPAS) operations at RAF Waddington using the new Protector RG Mk1. Details of why and how this is envisaged is included in this document to help readers understand the airspace issues currently facing RAFAT and why multiple sites and ACPs are being considered.

Reasons for the TDA Application

RAF Syerston is being looked at as a potential site for early RAFAT training sorties, with the focus on the Synchro Pair because it has a runway and is located close to RAF Waddington. A runway is considered essential for safe initial Synchro Pair training to allow effective deconfliction between aircraft. The Synchro Pair use the runway to assess miss distance during head-on pass training, each using a different runway edge. It is envisaged that the site, if considered suitable following the results from this TDA assessment, will only be used on an annual basis for 2-3 months over winter for early training sorties, until more advanced training can be transferred to RAF Donna Nook Air Weapons Range on the East Coast. RAF Waddington is currently assessed as unsuitable for Synchro Pair training making RAF Syerston the only contingency option.



Figure 2-The Synchro Pair perform a head-head pass

The Synchro Pair operate down to 100ft, but only down the display line which stretches 1nm each side of the display centre point.

With a combined closing speed of 720kts and a miss distance of 100ft wingtip-wingtip, it is vital that early pilot training takes place along a clearly defined line feature.

A runway makes the perfect line feature as each aircraft can use different sides to ensure deconfliction. With practice, it becomes possible to assess closure and miss distance without a clearly defined line feature.

Any future use of RAF Syerston will likely require a full ACP to be conducted with the CAA to enable limited, but regular winter use. Such a process will only be considered if and when EG R313 becomes unavailable for RAFAT and if this is the case, the ACP will only begin if EG R313 is removed permanently. It is hoped that the new owners of Scampton will be favorable to allowing continued RAFAT training which would remove the need for RAF Syerston to be used. Until more is known about the future owners of RAF Scampton and their plans for the site's development, this TDA is required to assess RAF Syerston as a contingency against the loss of EG R313, primarily to support Synchro Pair training¹.

Should EG R313 become unavailable for RAFAT operations, and no other local sites are considered suitable, it is highly likely that the entire Red Arrows display will have to fundamentally change and would almost certainly lead to the removal of the Synchro Pair from the display routine. As they are such a popular and dynamic element of the display, the MOD is committed to doing all it can to ensure their continued existence by identifying safe training locations. The MOD wishes to see the Red Arrows continue as one of the finest display teams in the world and without suitable contingency planning, their future existence could be under threat.

¹ While Synchro Pair Training is the focus of any future use of RAF Syerston, use by other RAFAT elements for training could also be considered.

Establishment of the Proposed TDA

One single design has been created for RAF Syerston. The TDA is centered on the aerodrome reference point (ARP)² and is aligned with the main runway. The ARP and dimensions are as follows:

- ARP N53 01.40 W000 54.70 (WGS 84).
- 5nm radius, SFC-9500ft AMSL (9269ft AGL).
- Training will be conducted along runway 24/06 down to 100ft AGL with the majority of activity occurring to the north of the runway.

Proposed TDA

Figures 3-5 illustrate the lateral and vertical dimensions of the TDA at RAF Syerston. These dimensions are the same as EG R313 over RAF Scampton.



Figure 3 - RAF Syerston TDA

² Aerodrome Reference Point is the designated geographical location of an aerodrome, normally taken as the geometrical centre of the runways.

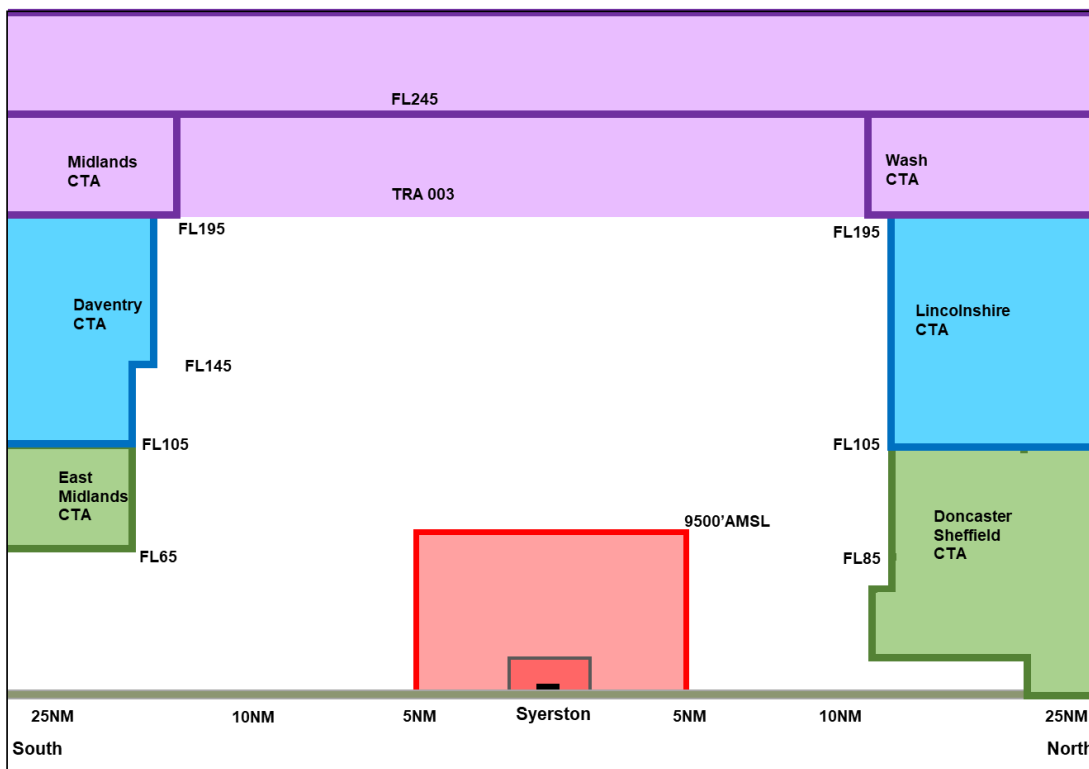


Figure 4 - RAF Syerston TDA N/S Cross-section

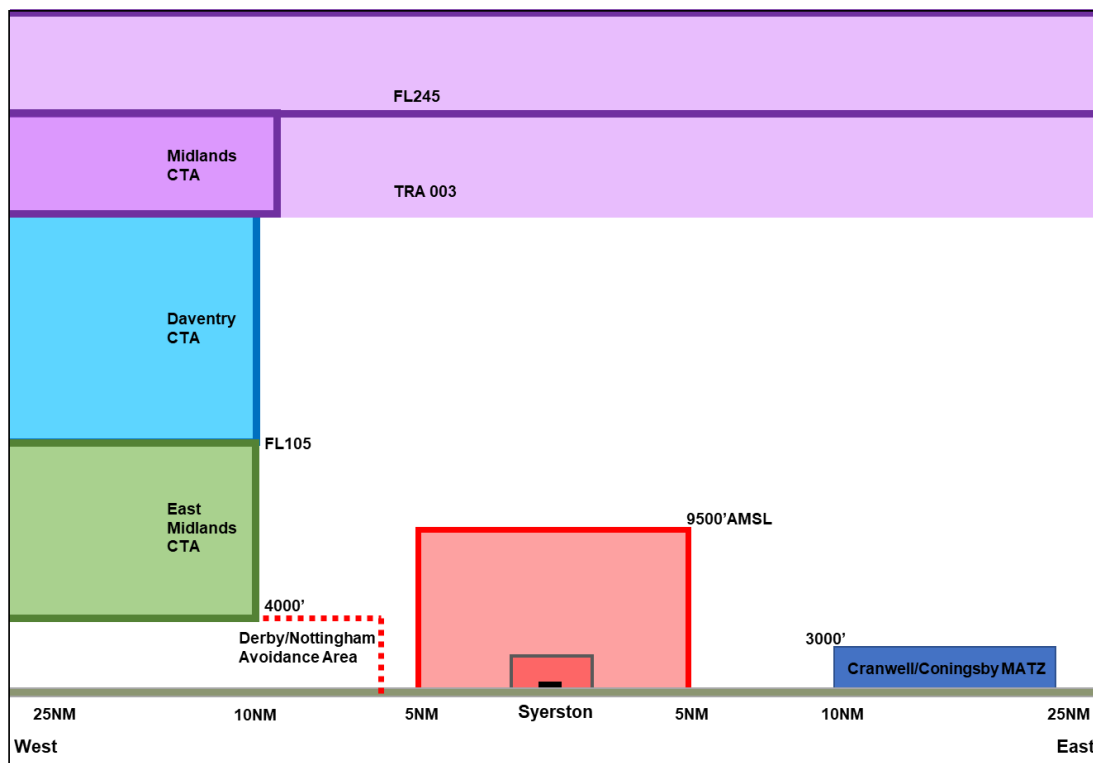


Figure 5 - RAF Syerston TDA E/W Cross-section

Utilisation

The proposed TDA is planned to run from the 9 Jan-7 Apr 23 and will not be permanently active. It will only be active Mon-Fri between the following times (local), but planned use of any slots will be confirmed the day before by NOTAM. If any slots are not NOTAM'd in advance, they will not be used.

Slot 1: 0830-0915 (45 mins)

Slot 2: 1200-1245 (45 mins)

Slot 3: 1450-1530 (40 mins)

Measures to Minimize the Impact on other Airspace Users

RAFAT will likely only require 30 mins of any slot used, but some flexibility has been built in to cater for small delays. These slots have also been agreed to minimize any impact on RAF Syerston flying which is planned to continue as normal outside of these windows. Also, it is very unlikely that RAFAT will use all these slots over the 90-day period, with a focus on maximizing use of the slots at the start of the TDA. Slot use can then be reduced depending on feedback from RAFAT, the local population and other airspace users. RAFAT are committed to minimizing any impact to other airspace users and can revert to using EG R313 if required; indeed, Scampton flying will continue throughout this TDA period although not at the same time.

RAF Waddington and East Midlands Airport will have up to date information on the status of the TDA and can provide information to aircraft along with vectors to remain clear if required. RAFAT will be using a VHF radar service with RAF Waddington and will be warned of any conflicting traffic. In the event of any inadvertent incursion, RAFAT will be warned and will curtail their training if necessary. It is also the intention to provide a Danger Area Crossing Service (DACS), meaning that, even if the airspace has been notified as active, it may be possible for both civil and military aircraft to transit through it under a clearance from RAF Waddington.

ACP 2019-18 Integration

ACP 2019-18 was commenced in 2019 to enable the operation of a large RPAS, Protector RG Mk1, from its main operating base when it comes into service at RAF Waddington from the early-2020s. This requirement remains in place and all supporting documents can be found on the CAA's online airspace change portal [here](#). Following an MOD report into the use of RAF Waddington by RAFAT following their relocation, it was felt that the Team could make occasional use of their new home for display flying and as a result, integration within ACP 2019-18 was sought as the proposed dimensions were similar to EG R313. This planned use would be limited to occasional winter practice displays for corporate visits and for supervision purposes, with any impact on local traffic considered minimal. EG R313 would remain the primary location for all training and both sites would not be active at the same time. If RAFAT integration into ACP 2019-18 was turned down by the CAA, RAFAT would likely conduct this activity anyway using Restricted Airspace (Temporary) (RA(T)), but it was felt that integration would provide a safer and more effective method for occasional airspace management.

Following the decision to remove all caveats to the sale of RAF Scampton, use of RAF Waddington and integration within ACP 2019-18 became more important for RAFAT and flying could be considered on a more regular basis. However, this would only happen if the Team lost the ability to train in EG R313. Should this happen, it is likely that RAF Donna Nook, an Air Weapons Range on the East Coast will be the primary alternate training location, but RAF Waddington could also be used more regularly. In this instance, RAF Syerston will only then be considered as a Synchro Pair training site as RAF Waddington is currently assessed as unsuitable for them, and RAF Donna Nook cannot be used until the Synchro Pair have completed early training over a runway. It is envisaged that these options will only be used if and when EG R313 is removed, effectively reducing the local airspace burden.

Conclusion

It must be stressed that this TDA is only being sought to allow RAFAT to evaluate the suitability of Syerston as a future contingency option for some limited training, primarily involving the Synchro Pair. If assessed as suitable, future annual use will only be considered if EG R313 is removed, and it is likely that a full ACP would be required. If this is necessary, any ACP will likely

be for limited winter training along similar lines to this TDA. It is hoped that any disruption will be minimal and the assistance and understanding of the General Aviation and local community is appreciated.

How to Provide Feedback

The MOD welcomes comments and feedback from all aviation stakeholders. All comments received regarding this proposal will be taken into consideration before final submission to the CAA. All the details of this airspace change proposal are available on the CAA's Airspace Change Portal. The ACP identification number is ACP-2022-002. Feedback on the proposed change and what is important to you should be sent to:

The Airspace Change Manager at james.turner708@mod.gov.uk

A feedback form is provided on the next page and a Word document is attached to the email containing this material for your use if you wish.

It is kindly requested that any responses regarding the proposed TDA submission are received by 8 July 2022.

ACP-2022-002 Response Form

Due to time critical deadlines it is requested that all feedback is returned no later than 8 July 2022. Please return completed forms to: james.turner708@mod.gov.uk

Name*	
Representing*	
Contact details (email, telephone or postal address including postcode)	
Feedback:	

*mandatory field (Continue on additional sheet if required)

