

MOD Airspace Trial Phase 2 – TDA 597 – Operating Principles and Practices

1 Introduction

The UK Ministry of Defence (MoD), through the Air and Space Warfare Centre (ASWC) at RAF Waddington, have a duty to provide a realistic live training environment to UK and NATO Forces, including large-scale collective training air exercises using the full range of combat aircraft tactics and simulated weapon systems.

To achieve the above, the MoD through the ASWC has undertaken an Airspace Change Proposal (ACP) to establish a Temporary Danger Area (TDA) on a trial basis, superseding previous arrangements between the ASWC and NATS Prestwick Centre (PC), associated to Cobra Advanced Combat Airspace (CACA).

The second Phase of the airspace trial shall take place between the 08 and 19 Mar 21.

2 Aim

The aim of this document is to set out the operating principles and practices associated to the activation, operation and de-activation of the TDA 597 volume as agreed between NATS and the MOD (ASWC).

The content of this document builds upon but ultimately supersedes arrangements made in support of Phase 1 of the Trial held in Oct 19 – 4 Nov 20.

This document does not cover trial metrics or associated internal operating requirements; but does act as an agreed methodology associated to the activation and use of the TDA 597 and supporting airspace structures throughout the Phase 2 trial period Scheduled 08 – 19 Mar.

3 Airspace Construct

3.1 DA Volume TDA 597

Vertical limits FL85 to FL660

To support the ASWC requirement to undertake advanced combat training:

| Point | Coordinates |
|-------|--|
| A | 561522.0091N 0003907.5792E |
| B | 554828.3171N 0020147.5592E |
| C | 542336.8487N 0012224.6980E |
| D | 550309.6454N 0010229.1251W |
| E | 550418.6752N 0010502.8039W A point connecting from point D intersecting an anti-clockwise arc centred on 550216.52N 0014123.32W with a radius of 21nm |
| F | 551920.1891N 0012006.5646W |
| G | 551609.6637N 0013433.3562W |
| H | 551426.4483N 0014100.0384W |
| I | 551402.9632N 0014228.5294W |
| J | 552951.7065N 0023046.9369W |
| K | 553928.3441N 0024211.5167W |
| L | 560121.5366N 0023945.4024W |
| M | 561317.0166N 0025226.3416W |
| N | 563754.0691N 0024600.5643W |
| O | 564943.6576N 0023058.8126W |
| A | ORIGIN |

3.2 Flight Planning Buffer Zone TDA 597Z

Vertical limits As per AUP

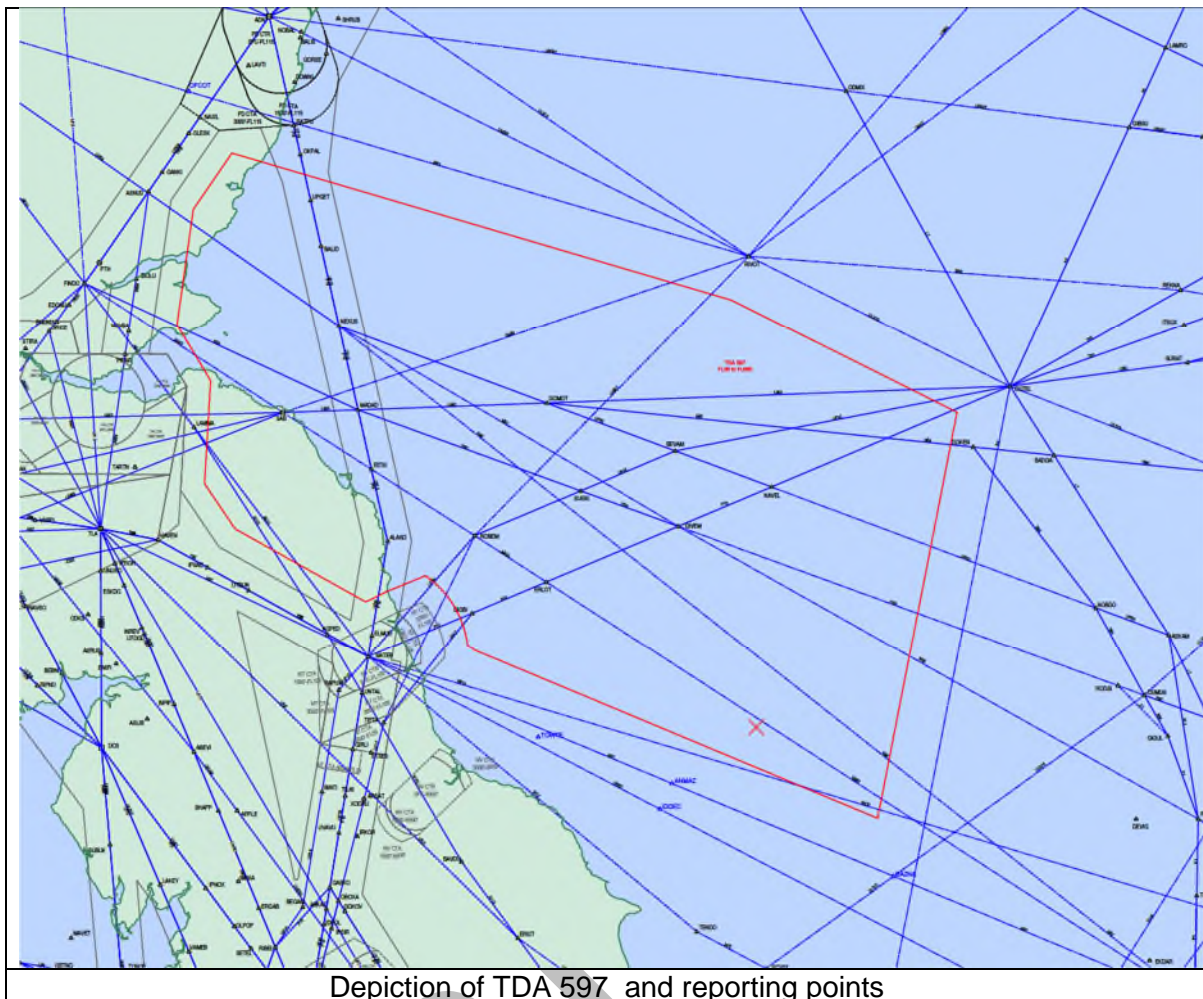
| Point | Coordinates |
|-------|----------------------------|
| A | 561955.4146N 0004252.0974E |
| B | 555153.9614N 0020853.7461E |
| C | 554846.9201N 0021107.6136E |
| D | 542003.3899N 0012939.0748E |
| E | 541805.3570N 0012216.5063E |
| F | 545851.4440N 0010700.5120W |

| | |
|---|--|
| G | 550148.6195N 0011335.6583W thence counter-clockwise arc of circle centred on 550216.5200N 0014123.3200W with a radius of 16nm to point G |
| H | 551337.5504N 0012146.7774W |
| I | 551133.9998N 0013108.0005W |
| J | 550954.9997N 0013719.0011W |
| K | 550825.5211N 0014255.7560W |
| L | 552605.9989N 0023654.9989W |
| M | 553804.9992N 0025110.9991W |
| N | 560008.0010N 0024849.0007W |
| O | 561214.4031N 0030145.0802W |
| P | 563946.7766N 0025440.0618W |
| Q | 565354.7506N 0023645.0242W |
| R | 565458.2490N 0023110.3455W |
| A | ORIGIN |

3.3 Additional Reporting Points

| RP Name | Coordinates |
|--------------|----------------------------|
| TOWTE | 544421.5167N 0004001.7187W |
| ANMAZ | 543321.6097N 0000810.6188E |
| IDDEC | 542803.5881N 0000324.3851E |
| OFCOT | 570253.4703N 0024733.7877W |
| BAZNA | 541110.5989N 0012655.9339E |

3.4 Depiction of Airspace Structure



Depiction of TDA 597 and reporting points

3.3 North Sea Reduced Co-ordination Area (NSRCA)

As detailed within the UK AIP (ENR 2.2) the NSRCA is permanently established and defines co-ordination procedures between Military and Civilian ATS providers¹. For the purposes of the trial, the activation of TDA 597 shall supersede the NSRCA for that portion of airspace encompassed within the TDA 597 volume. Out with the activated TDA 597 volume, extant procedures shall apply and will be used for the purpose of tactically re-routing GAT.

3.4 Additional Areas

In addition to the TDA 597 additional exercise areas will be used for activities such as Air-Air Refuelling (AAR) or Intelligence, Surveillance, Targeting, & Reconnaissance (ISTAR) aircraft. Where these activities take place below FL245, the airspace classification will be Class C (subject to the activity status of Temporary Reserved Areas (TRAs) between FL245 and FL195) and in Class G if below FL195. For activities above FL245, normal co-ordination processes, including the granting of tactical Non-Deviating Status, will be conducted between military agencies and NATS PC.

4 Operational Principles

4.1 NATS PC

NATS PC will manage the safe and efficient flow of GAT around the TDA by use of existing route structures or available Flight Plan Direct routings (DCT) established to facilitate circumnavigation of the TDA.

4.2 UK Airspace Management Cell (AMC) / Military Airspace Booking Coordination Cell (MABCC)

The UK AMC / MABCC shall undertake all booking, activation and deactivation activities associated to TDA 597 and associated FBZ. Furthermore, the Civil and Military Airspace Managers shall be responsible for the Pre-tactical Airspace Management (ASM Level 2) procedures.

4.2 ASWC

As the exercise sponsor the ASWC, in addition to providing military participants with training and sortie objectives, shall ensure that:

- a) A robust Ingress and Egress plan for Military Participants is devised and that Military ATS providers are appropriately manned to facilitate the safe arrival and departure of air assets into and out of the DA.
- b) That Military participants are fully briefed on the airspace volume to be used as well as the presence of permanent CAS structures and Upper Routes that surround the DA.
- c) That Military participants have sufficient mapping / overlays relevant to their platform depicting the airspace construct.
- d) That airborne activity which would impede compliance with the Rules of the Air is wholly contained within the DA volume.
- e) That any departure from the DA into CAS is appropriately co-ordinated between ATS providers to ensure the safety of both OAT and GAT¹.

4.3 SWN(Mil)

To ensure continued ATS provision for aircraft operating to / from EGNT and NV via the Copenhagen FIR, SWN(Mil) will provide services to such aircraft as set out in detail within agreed ATC procedures².

SWN(Mil) shall ensure that prioritisation is afforded to such ATS provision and appropriate staffing levels made available during TDA 597 activation to perform this function.

Confirmation of availability of ATS provision shall be provided by SWN(Mil) to the PC Ops Supervisor at D-1. Should SWN(Mil) be unable to work affected traffic the PC Ops Supervisor, shall initiate TDA 597 cancellation via the UK AMC and inform the ASWC of the reason.

4.3.1 Off Route Status North

¹ See NATS / MOD LOA – Standing Co-ordination Procedures.

² Procedures are set out in ATC Temporary Operating Instruction (TOI)

Due to the number of DCTs required to be applied for GAT to circumnavigate TDA 597 which do not conform to the published UAR structure; SWN(Mil) shall apply Off Route Status North¹ 30 min prior to the activation of TDA 597 until 30 min after deactivation. Notification and removal of Off Route Status North shall be provided to and acknowledged by the PC Ops Supervisor.

5 Activation and De-Activation

All activations of TDA 597 and associated FBZ shall be undertaken by the UK AMC via the publication of the Airspace Usage Plan (AUP) as well as associated NOTAMs in accordance with extant procedures.

Booking requests for activation shall be made by the ASWC to the MABCC.

Cancellation of activities will be undertaken by the AMC via the Updated Usage Plan (UUP) and NOTAM systems following confirmation by the SWN(Mil) 3rd Line (L3M) Airspace Management Cell.

Existing procedures associated with AUP and UUP promulgation will be adhered to for the purposes of notification of activity timings.

Note: Once cancellation and hand back of airspace has been undertaken it cannot be reversed or amended.

Within the trial period it is expected that activation will occur on approximately 3 separate occasions, per working week; for a duration of approximately 3hrs on each occasion.

5.1 Suppression of Adjacent Danger Areas in accordance with ASM protocol.

To assist in the safe and efficient flow of traffic, the UK AMC will undertake suppression of specified Areas, as set out in Para 5.1.1 and 5.1.2, during the trial period. This will enable GAT to FPL and operate along Conditional Routes (CDRs) and notified DCTs which avoid the TDA.

Suppression of these areas shall ensure that they are unavailable for booking by any military agency during TDA activation periods.

5.1.1 Specified Danger Areas – See UK AIP ENR 5.1

EG D323 – (Southern MDA) A, B, C, D E, F, G, H, J, K, L, M, N, P, Q, R
EG D613 – (Central MDA) A, B, C, D
EG D513 - (Druridge Bay) A, B, C
EG D412 – (Staxton)
EG D712 – (Northern MDA) A, B, C, D

5.1.2 Un-Specified Areas

In addition to the Danger Areas specified in para 5.1.1. Fast Jet Areas North, South and South East, associated to Exercise Joint Warrior, will not be available for activation during the trial period.

5.2 Temporal Buffers

Temporal buffers shall be applied between DA specified in para 5.1.1 and TDA 597 activity periods to allow GAT to reconfigure to alternating airspace configurations and thus ensure FPL acceptance and safe segregation of airspace structures for military use.

The following temporal buffers shall be applied:

MDA to TDA 597 Activity: Minus and Plus 1hr

Timeline example based on TDA activity between 09:00 and 12:00 UTC

| | |
|-------------------------|---|
| Prior to 08:00 | •D323 / D613 / D513/ 412 / 712 available for activation |
| At 08:00 | •D323 / D613 / D513 / D412 / 712 Suppressed and unavailable for reservation |
| At 08:45 | •FBZ Active TDA 597Z |
| Between 09:00 and 12:00 | •TDA 597 Active |
| At 12:00 | •TDA 597 In active |
| At 12:15 | •FBZ Deactivated TDA 597Z |
| At 13:00 | •D323 / D613 / D513 / D412 / 712 Become available for reservation |

5.3 USAFE Refuler Route

The track of the USAFE Refuler route³ conflicts with TDA 597. The MABCC is responsible for co-ordinating bookings for such flights in conjunction with EUCARF. During periods of TDA 597 activity the MABCC shall ensure that requests for activation of the USAFE Refueler route are not accepted and that alternative timings are scheduled that deconflict both activities.

6 Cat A Flight Handling

Should any CAT A flight under the control of PC require to penetrate TDA 597 when active, 1 ACC shall be contacted by GS Scot Upper to advise them of the flight status and co-ordinate transit of the active area.

7 Emergency Penetration of TDA 597

Irrespective of the TDA 597 activity status, PC and SWN(Mil) reserve the right to enter the airspace with any aircraft in emergency. GAT under the control of PC shall be instructed to squawk 7500, 7600, or 7700 as appropriate. Sectors shall advise the GS Scotland Upper, GS Scotland Lower, or the OS, who will inform the SWN(Mil) Sup and ASACS of the intention to enter the TDA, along with the pilot intentions.

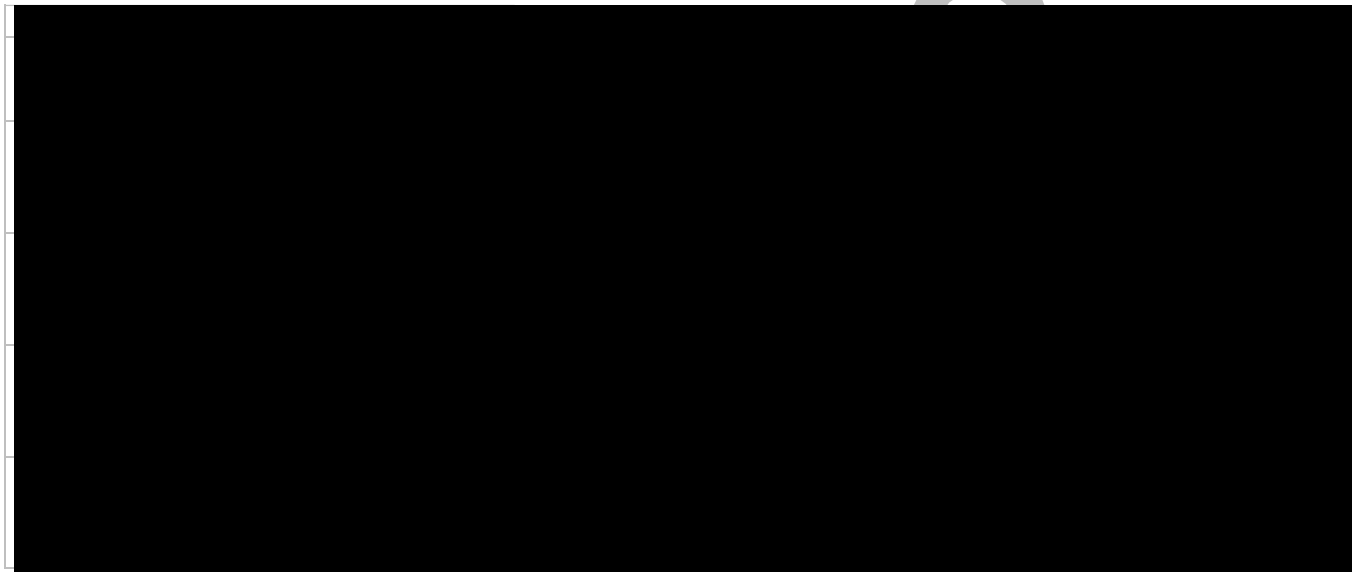
³ See NATS / MOD LOA – Standing Co-ordination Procedures.

8 Suspension of Trial

Should significant safety related issues be observed during the trial period, the PC OS shall discuss such observations with the ASWC in order to affect a resolution.

Both the ASWC and NATS PC reserve the right to suspend the airspace trial in the event that safety related issues cannot be resolved.

9 Contact Details



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| MABCC | |
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| Mabccclaccmil@nats.co.uk | 01489 612496 |