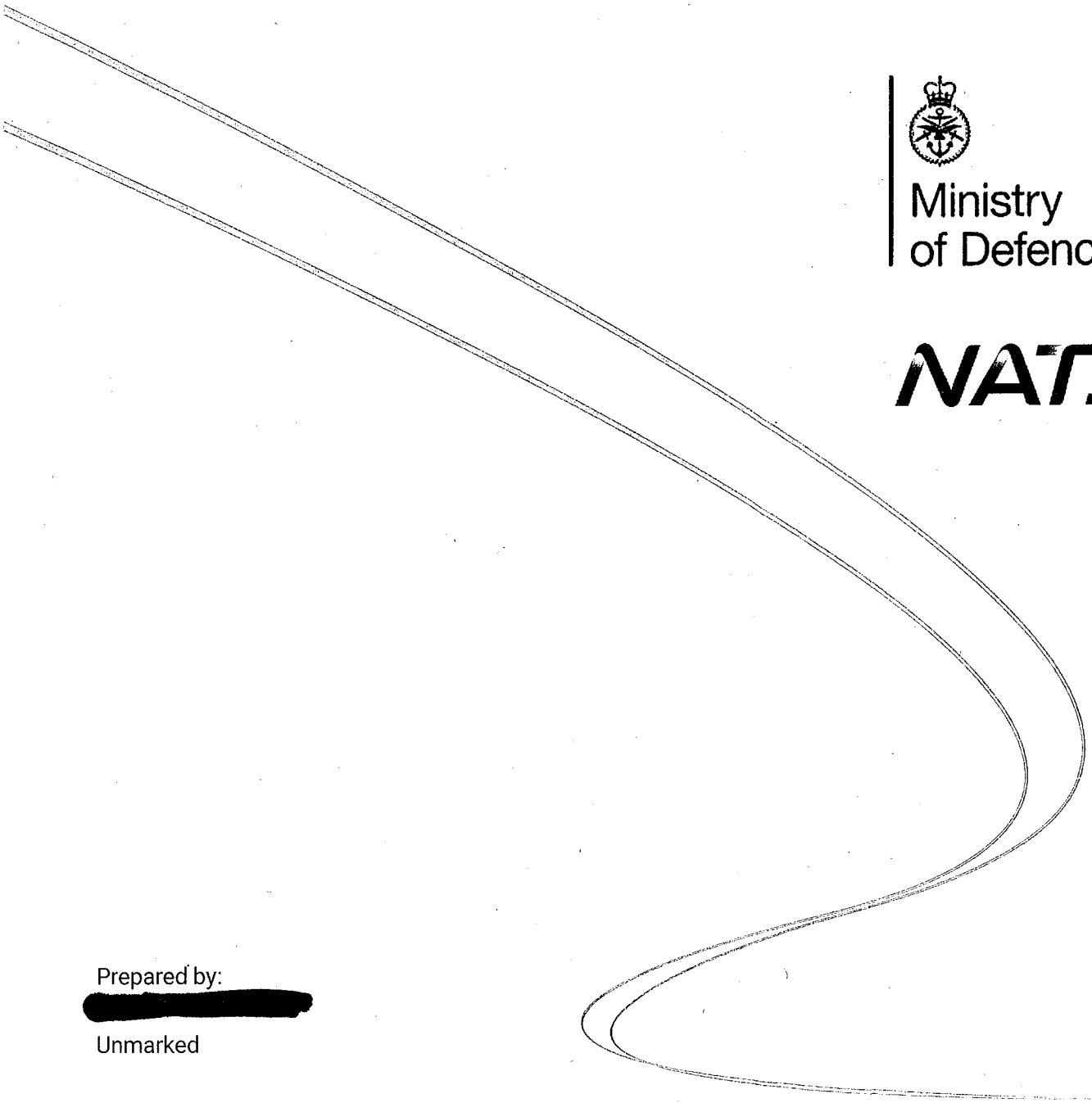
# Airspace Change Proposal: SAIP AD2.2

## Amendment to East Anglia Military Training (EAMTA) Area A



Ministry of Defence

NATS

Prepared by: [redacted]

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# 1. Introduction

## 1.1. About This Proposal

This proposal concerns the East Anglia Military Training Area (EAMTA) Area A, its hours of operation and its utilisation by military (OAT) and civil (GAT) traffic.

The proposal would see the existing EAMTA-A (see Figure 1) vertically split to form EAMTA High (FL285 to FL660) and EAMTA Low (FL245 to FL285) as illustrated in Figure 5.

The current processes for managing the EAMTA, whilst providing flexibility for military use, do not easily facilitate access for other airspace users when not required by the military.

This was raised by NATS at the Airspace Management Steering Group (AMSG). Following this, the MOD conducted an internal review of the EAMTA, which in turn lead to the AMSG requesting that the MOD implement changes to improve airspace management of the area.

The Joint Future Airspace Design Team (JFADT), comprising Defence Airspace & Air Traffic Management (DAATM) and NATS, developed a joint plan, which now requires an ACP to be submitted to the CAA for approval.

The proposed amendments to the published hours of CDRs P5, P144 and UM185 (see solid Blue routes, Figure 1) should lead to improved availability of these routes for airspace users however this will still be subject to activation of Danger Area D323. The AIP will be updated accordingly.

Adjacent RNAV5 routes (dashed Blue, Figure 1) L603, M16, UL613, UP6, P155 & N866 will be unaffected by this change.

The changes will be reflected in the appropriate AMC Letter of Agreement (LOA) between LAC (Swanwick), LTC (Swanwick) & UK AMC, Annex A, Page 10.

The changes are proposed for implementation in AIRAC 02/2018 (1st February 2018).

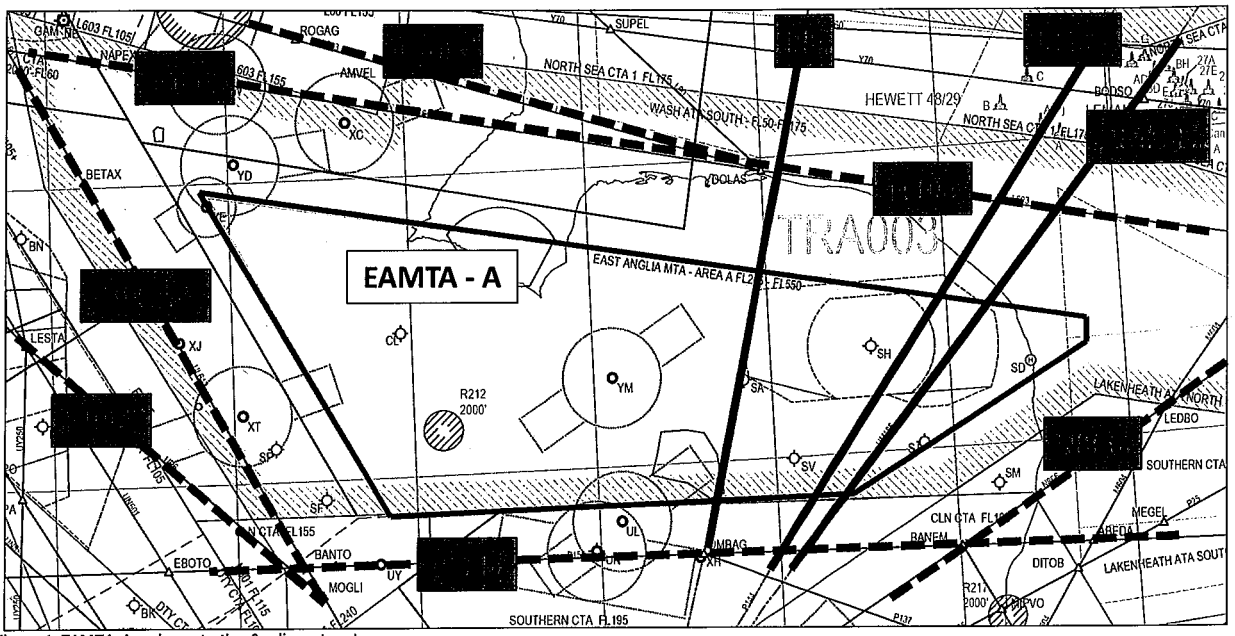


Figure 1: EAMTA-A and penetrating & adjacent routes

# 2. Justification and Objectives

## 2.1. Justification

The EAMTA is an important volume of airspace for military activities and it is a key requirement to maintain flexibility for its use. However, it is recognised that the current procedures do not provide the ability to take greater advantage of periods when the area could otherwise be access by other airspace users.

CDRs which currently route through the airspace could be greater utilised if the airspace were less restricted. Additionally, controllers could tactically route aircraft across the airspace if it were available more of the time.

## 2.2. Objectives

- Reduced complexity with regards to the booking and operating procedure.
- Increased use of the three CDRs that transit the EAMTA: P5, P144 and UM185.
- Greater scope for GAT traffic to receive tactical direct routes.

# 3. Current Airspace Arrangements

## 3.1. Description

The EAMTA-A is a military training area over the East Anglian region of the UK (see Figure 2).

Its lateral dimensions are outlined in Figure 2 (Red bordered volume) and its vertical dimensions are FL245 to FL550 inclusive.

TRA003 is sited underneath the EAMTA. See Figure 2, Black bordered volume.

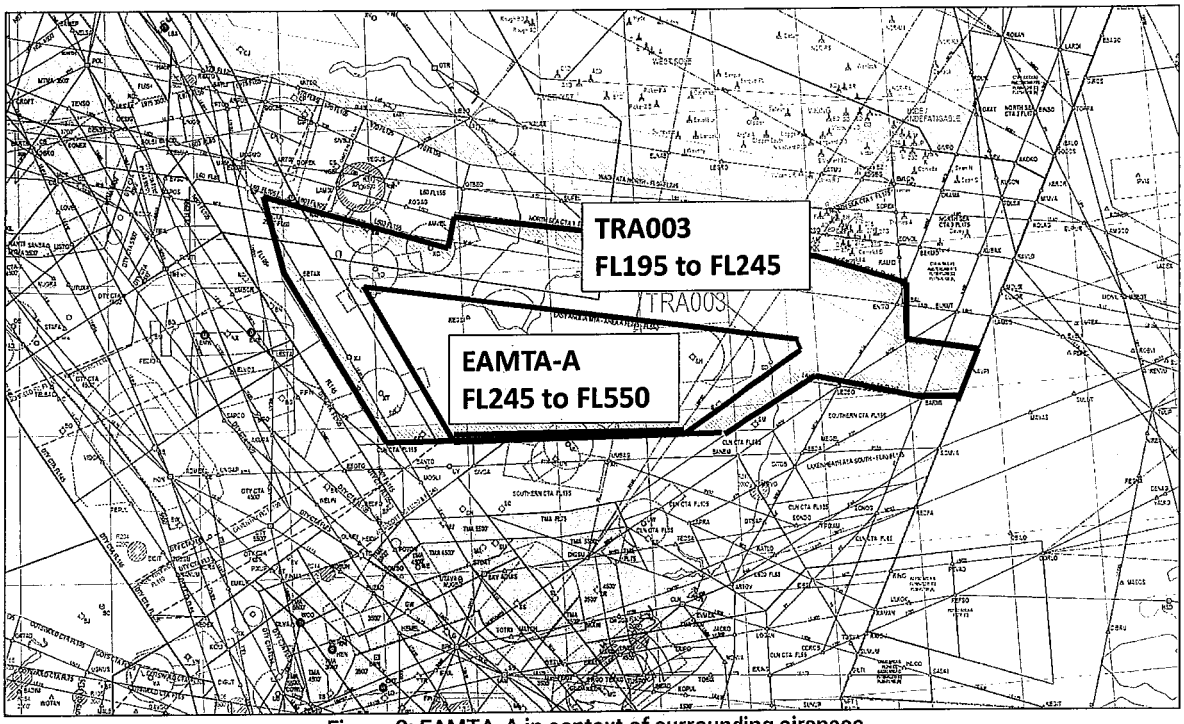


**Figure 2: EAMTA-A in context of surrounding airspace**

EAMTA-A has the following published hours contained in the AIP:

- Mon to Thurs 0830 - 2300 (0730 to 2200)
- Fri 0830 - 1800 (0730 to 1700)

Additional time can be booked 0800 to 0830, notified by NOTAM.

It has the following penetrating and adjacent routes (see Figure 3 & Figure 4):

Penetrating routes: P5, P144 & UM185

Adjacent Routes: L603, M16, N866, P155, UL613 & UP6.

Military aircraft have priority for use of the EAMTA-A during its notified hours of operation. However, when the EAMTA is not in use normal Class C apply.

### 3.1.1. Penetrating Routes (refer to Figure 3)

P5

CDR Category One (CDR 1) between DIGSU and CUTEL.

CDR 1 1800 Fri to 0600 Mon (1700 to 0500) or 2300 (2200) the day before or 0600 (0500) the day following a Public Holiday.

P144

CDR Category One (CDR 1) between DIGSU and LARGA.

CDR 1 1800 Fri to 0600 Mon Winter (1700 to 0500) or 2300 (2200) the day before or 0600 (0500) the day following a Public Holiday.

UM185

CDR Category One (CDR 1) between TIPAN and DIGSU.

CDR 1 1800 Fri to 0600 Mon Winter (1700 to 0500) or 2300 (2200) the day before or 0600 (0500) the day following a Public Holiday.

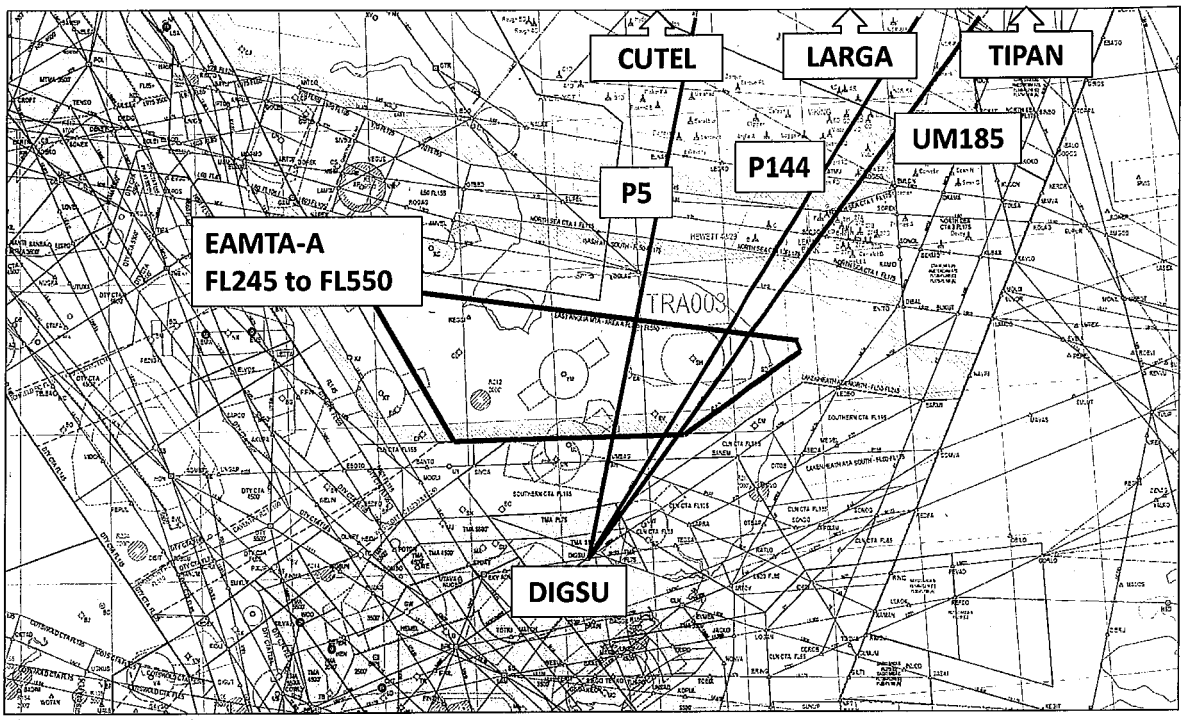


**Figure 3: Penetrating Routes**

### 3.1.2. Adjacent Routes

L603 is published from a lowest base level of FL85, P155 is published from a lowest base level of FL105 and N866 is published from a lowest base level of FL75 whilst UL613 and UP6 are published FL245 and above and M16 has a published base of FL285. All of these routes are RNAV5, H24 and extend up to FL460.

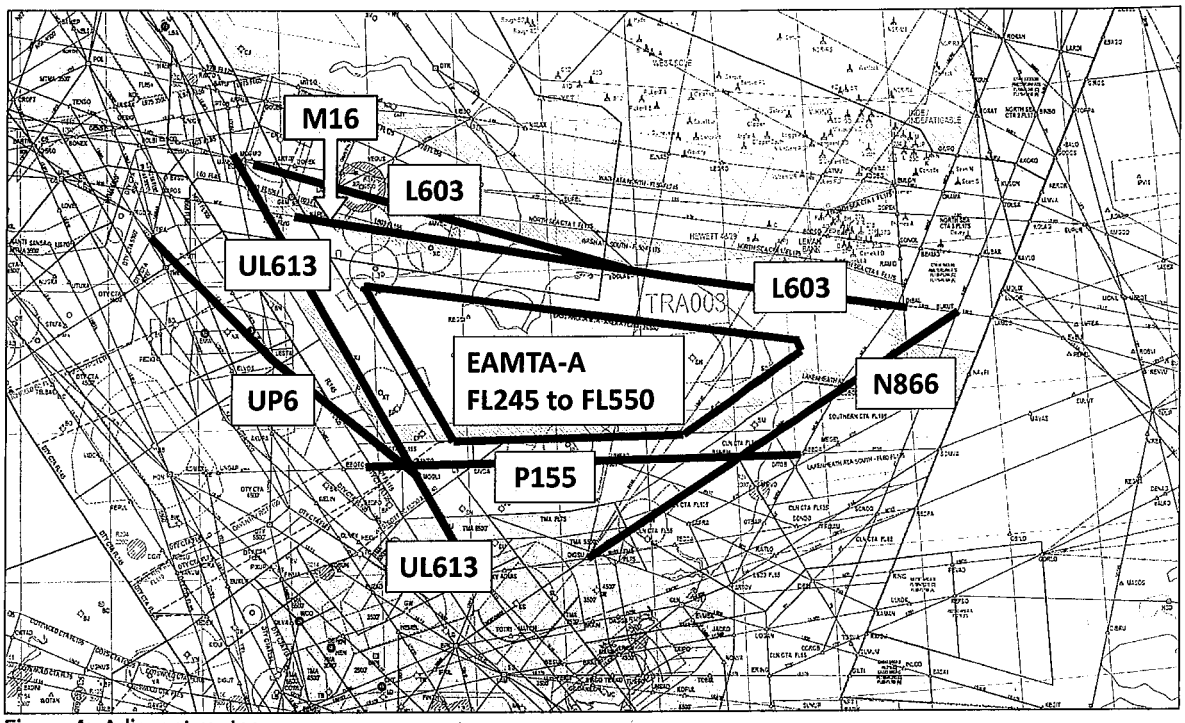


**Figure 4: Adjacent routes**

## 3.2. Traffic Figures for the year 2016

Year 2016 is the most recent full calendar year for calculation of traffic routes. It is difficult to quantify the precise numbers of aircraft which will use the CDRs as the routes are not solely restricted by the EAMTA; but are also affected by D323 and the operating times of this are not changing.

The traffic number quoted represent a years data for aircraft routing through the SAM and BUKUT areas Monday to Friday. The routes are currently only available for London FIR overflights.

### 3.2.1. Northbound

Northbound aircraft making use of the CDRs through the EAMTA save an average of 9.9nm per flight.

There were approximately 1500 flights from south west Europe to Scandinavia in 2016.

Approximately 800 of these 1500 flights could have taken advantage of the EAMTA CDRs if they were more widely available through flexible use arrangements with the EAMTA. Accepting that this does not account for D323 restrictions.

### 3.2.2. Southbound

Southbound aircraft making use of the CDRs through the EAMTA save an average of 13.4nm per flight.

Approximately 1650 flights were prevented from utilizing the EAMTA CDRs due to the notified hours of the EAMTA.

Approximately 925 aircraft used the CDRs to shorten their route. This would likely increase if the notified hours reduced but does not account for D323 activation.

### 3.2.3. Potential Fuel Saving

Across all flights in 2016 which could have utilised the EAMTA CDRs if they had been more widely available, the potential fuel saving would have been 180 tonnes. We would expect this to increase if the CDRs were more widely available but would be subject to D323 as well as EAMTA.

## 3.3. Traffic Forecast

The traffic figures as described in Section 3.2 is forecast to increase as follows:

2016 (source data) to 2019 (first full year of implementation): 2016 + 6.5%*

2016 (source data) to 2022 (implementation +4 years): 2016 + 13%*

* Eurocontrol Seven Year Forecast September 2016 to 2022.

## 3.4. Operational Efficiency, Complexity, Delays and Choke Points

There are no operational efficiency, complexity, delay or choke point issues to be resolved by this change.

## 3.5. Environmental Issues to be Resolved

Although there are no specific environmental issue to be resolved by this change there is a potential fuel saving of approximately 180 tonnes per annum.

There are no issues with tranquillity or AONBs as all changes are above FL245.

Local air quality is not an issue as all changes are above 1000ft.

## 3.6. Safety Issues to be Resolved

There are no current safety concerns to be resolved by the introduction of this change.

## 3.7. Other Airspace Users

The MOD and GAT are the major users of the airspace as the changes are FL245 and above. Both the MOD and Swanwick civil ATC are accepting of the change. See Section 5.1.2.

A trial is to commence on 9th November as part of SAIP AD2.1 to allow EGLL departures to use CDRs P5 and P144 on Saturdays and Sundays. This would be extended to include weekdays if this ACP enables the current EAMTA-A (proposed to be EAMTA Low and EAMTA High) to be split and utilised separately).

When EAMTA High is closed the CDR would be open above FL245. This will improve fuel consumption and emissions considerably, given the significantly reduced mileage that will be enabled.

# 4. Proposed Airspace Description

Existing EAMTA area A (see Figure 1) is to be vertically split and renamed EAMTA High and Low and could be independently operated by the military to enable greater access to crossing traffic including the use of three CDRs which cross through the area, subject to the activation of D323.

## 4.1. What would not change under this proposal

The lateral dimensions of EAMTA High & Low (see EAMTA-A in Figure 2) would not change under this proposal. Below this, the dimensions of TRA003 would be unaffected as would the Class G airspace below that.

## 4.2. What would change under this proposal

### 4.2.1. EAMTA-A

The vertical extent of current EAMTA High would increase from FL550 to FL660.

The EAMTA would be vertically split, see Figure 5. The new vertically separated sections would be named EAMTA High and EAMTA Low and would have different activation times, as follows:

*MTA High*: the top level of this volume would be variable from FL245 to a maximum of FL660. Booking would be achieved through MABCC at D-1 and at that time it would establish the upper level. Above this, after application of the buffer (as described in the LOA), the CDRs would be active and tactical direct routing could also take place. It would be notified through NOTAM but would have no set hours of activation. If no booking is notified the airspace would be deemed available to GAT.

*MTA Low*: would be a fixed volume FL245 to FL285 which will be considered active 0830 to 1800 (0730 to 1700) Monday to Friday, excluding public holidays. This represents a 20 hour increase in availability to GAT across a week with further opportunity for GAT to utilise the airspace if EAMTA High is closed separately from EAMTA Low.

It could be activated at other times via NOTAM and a booking of EAMTA Low would activate the whole of the 'Low' volume whilst High could be activated in increments to FL660.

*TRA003*: Activation details for TRA 003 would be unaffected but its standard times would become coincident with the standard activation times of MTA Low. It can be bookable outside of these standard activation times through MABCC, at D-1.

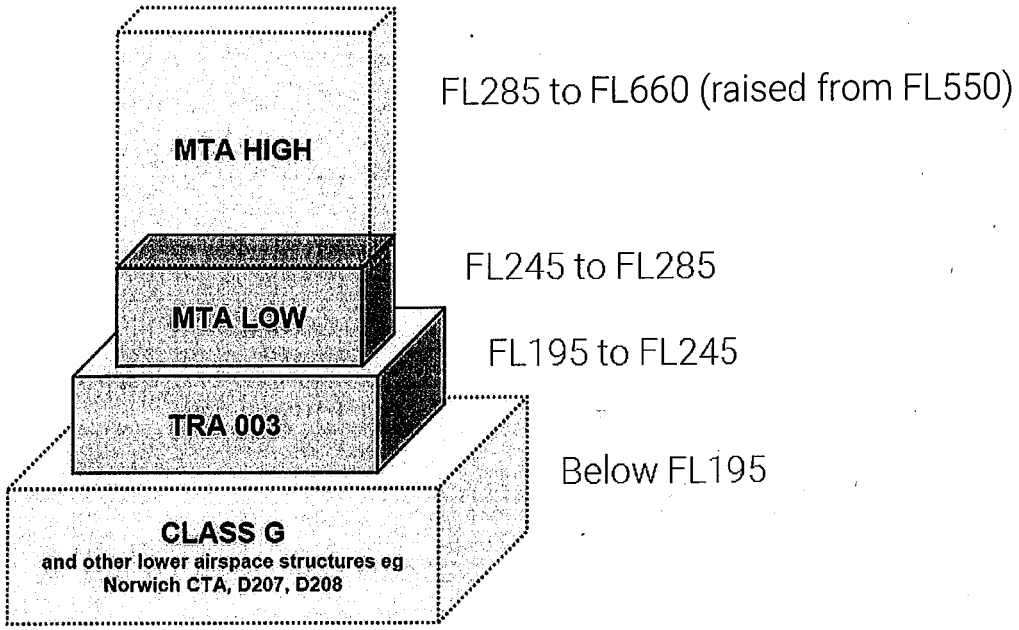


**Figure 5: Vertical profile of EAMTA-A and surrounding airspace**

### 4.2.2. CDRs

*P5*: would be CDR1/3 between DIGSU and CUTEL but would be H24 rather than having set hours of availability.

*P144*: would be CDR1/3 between DIGSU and LARGA but would be H24 rather than having set hours of availability.

UM185: would be CDR1/3 between TIPAN and DIGSU but would be H24 rather than having set hours of availability.

## 4.3. How would it operate?

The Airspace Management Cell (AMC) will apply the appropriate flight planning buffer policy, as defined by the parent ACC. Each activity is published by NOTAM which depicts the actual activity times and heights. Current policy requires that the AMC will take the following action for flight planning:

1. add a 15minute buffer to the start and finish times of each activity,
2. any gap between activities of 60 mins or less, the AMC will not make the associated routes available for flight planning
3. add FL 015 to each activity to ensure the lowest usable and flight plannable level is FL 020 above the actual activity
4. describe the upper and lower vertical limits of the activity in intermediate levels.

   For example: An activity from 1230 – 1545 and FL245 to FL 300.

   The UK Airspace Use Plan (AUP)will show activity as:

   EAMTA Low active 1215 – 1600, FL245 to FL 285.

   EAMTA High active 1215 – 1600, FL285 to FL 315

# 5. Consultation overview

## 5.1. Consultation

This proposal is a joint undertaking between NATS and the MOD.

Joint Future Airspace Design Team (JFADT) has led the development of this proposal.

A briefing paper has been circulated via JFADT and to NATS civil ATC (see 5.1.1) and both are supportive, with emails (see 5.1.2) included below.

### 5.1.1. Briefing Paper as Presented

This briefing was taken as a starting point. This ACP has since been reviewed and approved by DAATM.

EAMTA Briefing Paper.docx

**See Attachments pane (paperclip tab) for these**

### 5.1.2. Emails:

*Swanwick Civil:*

EAMTA.msg

**See Attachments pane (paperclip tab) for these**

*Swanwick Military:*

FW 20171024 - EAMTA Unit Support -

**See Attachments pane (paperclip tab) for these**

*MoD Kickoff Email:*

20170623-AMSG 8 Minutes.pdf

**See Attachments pane (paperclip tab) for these**

# 6. Design Principles

The following is a generic list of principles and considerations and is here for reference, to help compare the actual principles with the wording in typical consultation material.

More may apply, or some may not apply to your proposal specifically.

Use the headings and include technical wording as we are in ACP land not Consultation land here.

Consider referring to them throughout the document by the para number you give them here.

## 6.1. Safety

Safety is always the number one priority. Where possible we will always strive to improve safety.

There are no specific safety issues to be addressed by this change.

## 6.2. Environmental

### 6.2.1. Noise impact to those on the ground

This change is above FL245 therefore noise impact has not been considered or addressed in the design of this change.

### 6.2.2. Visual impact

This change is above FL245 utilising routes which are not changing therefore visual impact has not been considered or addressed in the design of this change.

### 6.2.3. $CO_2$ emissions and fuel economy

Fuel saving and flight efficiency is a key aspect to this change. There is uncertainty around traffic numbers due to the tactical nature of the airspace availability and direct routings.

### 6.2.4. Local Air Quality

All changes are above 1000ft therefore air quality has not been considered in this change.

# 7. Impacts Summary

## 7.1. Net impacts summary

| Category | Impact | Evidence |
|---|---|---|
| Safety, Complexity | Brief evidence, or No Impact | See para 3.6 |
| Capacity, Delay | Brief evidence, or No Impact | See para 3.4 |
| Fuel Efficiency/$CO_2$ | Brief evidence, or No Impact | See para 3.5 |
| Noise | Brief evidence, or No Impact | See para 3.5 |
| Tranquillity, visual intrusion (AONBs, National Parks) | Brief evidence, or No Impact | See para 3.5 |
| Local air quality | Brief evidence, or No Impact | See para 3.5 |
| Other airspace users | Brief evidence, or No Impact | See para 3.7 |

**Table 1 Net Impacts Summary**

# 8. Draft AIP Amendments

**ENR 3.3-60 4 Jan 2018**

**P5**

Route Remarks:

DIGSU – CUTEL

CDR 1/3

~~FRI 1800 (1700) or 2300 (2200) the day preceding a PH 1700 (1600) – MON or the day following a PH 0600 (0500)~~

Rest of P5 PERM

**ENR 3.3-70 4 Jan 2018**

**P144**

Route Remarks:

DIGSU – LARGA

CDR 1/3

~~FRI 1800 (1700) or 2300 (2200) the day preceding a PH – MON or the day following a PH 0600 (0500)~~

Rest of P144 PERM

**ENR3.2-39 9 Nov 2017**

**UM185**

Route Remarks:

LUGIS - DESNA CDR 1/3 ~~H24.~~

TIPAN - DIGSU CDR 1/3 ~~Fri 1800 (1700) or 2300 (2200) the day preceding a PH - Mon or the day following a PH 0600 (0500).~~

Rest of UM185 PERM.

**ENR 5.2-1 9 Nov 2017**

| Name<br>Lateral Limits | Upper - lower limit<br>System/means of activation, announcement/ information for Civil Flights | Remarks and time of activity |
|---|---|---|
| 1 | 2 | 3 |
| **Air combat and exercises** | | |
| MTA EAST ANGLIAN (EAMTA HIGH)<br>525836N 0003322W - 524210N 0015344E – 523947N 0015344E - 522528N 0011245E - 522624N 0000434W - 525836N 0003322W | Upper limit: FL660 Lower limit: FL285 | **Hours**:<br>Activation by NOTAM, to be issued by D-1 by the Military Airspace Booking Co-ordination Cell<br>**Remarks:**<br>Penetrating routes: P5, P144 and UM185. Adjacent routes: L603, M16, N866, P155, UL613 and UP6. |
| MTA EAST ANGLIAN (EAMTA LOW)<br>525836N 0003322W - 524210N 0015344E – 523947N 0015344E - 522528N 0011245E - 522624N 0000434W - 525836N 0003322W | Upper limit: FL285 Lower limit: FL245 | **Hours**:<br>Activation by NOTAM, to be issued by D-1 by the Military Airspace Booking Co-ordination Cell<br>**Remarks:**<br>Penetrating routes: P5, P144 and UM185.<br>Adjacent routes: L603, M16, N866, P155, UL613 and UP6 |

**ENR5.2-6**

| Name<br>Lateral Limits | Upper - lower limit System/means of activation announcement/information for Civil Flights | Remarks and time of activity |
|---|---|---|
| **Military operations** | | |
| TRA003<br><br>531755N 0010606W - 530618N 0000428W –<br>531232N 0000108W - 525820N 0020321E –<br>525206N 0023000E - 524010N 0023000E<br>523704N 0025356E - 522819N 0024644E –<br>522842N 0023414E - 523412N 0015410E –<br>522510N 0012816E - 522630N 0002732W –<br>530016N 0010043W - 531755N 0010606W | Upper limit: FL245<br>Lower limit: FL195 | Access requirements for civil aircraft are specified in ENR 1.1, paragraph 5.1.5.<br>Hours<br>Mon-Fri 0830 to 1800 UTC Winter<br>Mon-Fri 0730 to 1800 UTC Summer;<br>Excluding English Public Holidays.<br>TRA may be activated at other times by NOTAM. |

**ENR 6.1.4.1 9 Nov 2017**

Note 12 TEMPORARY RESERVED AREAS (TRA)
Hours (except TR003* and TRA005**):
Monday - Friday 0830 to 1700 (winter).
Monday - Friday 0730 to 1700 (summer).
*TRA003
Mon-Fri 0830 to 1800 (winter)
Mon-Fri 0730 to 1800 (summer)
Excluding English Public Holidays.
TRA may be activated at other times by NOTAM.
**TRA 005
Monday - Friday 0900 to 1700 (winter).
Monday - Friday 0800 to 1600 (summer).
Excluding English Public Holidays.
TRAs may be activated at other times by NOTAM.