Title: Amendment to East Anglia Military Training Area (EAMTA)	Post Implementation Review Feedback
ACP Ref: ACP-2017-40	**Approval Date:** 12/01/2018
Decision Letter: link	**Implementation Date:** 24/05/2018

1. Did the original proposal meet the intended objectives as described on the CAA's decision letter to approve the change?	**Yes**
2. Did the original proposal meet any conditions described on the CAA's decision letter to approve the change?	**Not applicable (no conditions)**
3. Did the Sponsor receive any observations from community stakeholders, aviation stakeholders or the Ministry of Defence from the 12 months following implementation?	**Yes**

This ACP was a jointly sponsored change by the Joint Future ATM Development Team (JFADT). The JFADT is a collaborative function formed between NATS and the MOD (DAATM) which seeks to deliver benefit to airspace users through a joint development of UK ATM where appropriate.

The following feedback has been collated by NATS and MOD (via the DAATM) for this joint response.

PIR Data Requirement 5c, 5d and 5e – Operational feedback:

Feedback from qualified operational staff in the affected region of change has reported no significant operational issues. The change of the upper level has had no impact on the current NATS operations. This applies to both centres. While the change has occurred in the Swanwick area of responsibility, the EAMTA ACP has had no adverse operational impact on Prestwick sectors or operations. It has been noted that airspace users' planning of available airspace has been somewhat inconsistent. For example, when CDRs are available to operators, only some take advantage and use them. The ATC operation has, however, been able to provide direct routes to more aircraft when the EAMTA has not been activated by the Military.

Operational coordination between the NATS and Military ATS (RAF(U) Swanwick Mil) has worked well where individual needs and opportunities have presented themselves.

Overall, the change has been positive, and the operational impact has been low from a NATS perspective.

Relating to management of the airspace, the UK AMC reported that EAMTA High, which is operated as an AMA, works very well and has proved the FUA principle for this airspace. The AMC has highlighted an opportunity to adjust the management process of the lower airspace to align with the upper area which would remove residual complexity associated with the lower portion of the EAMTA. This would not require further ACP activities and could also review opportunities to apply Procedure 3 processes. An overall observation is that the key is true FUA and a timely cancellation process is as important as the original booking.

MOD operators reported nothing significant in respect of the anticipated and observed impacts from the airspace change. There has been little impact on the daily function of the Sqns, but it has removed flexibility by reducing the opportunity for last minute changes (due to changing weather etc). The

configuration of the airspace is seen as a positive change but, due to the inflexibility for booking the upper airspace at short notice, there can be a compression of military assets in the lower level.

Swanwick Military stated that the processes developed with NATS to manage the EAMTA and associated airspace sharing processes are a marked improvement, allowing flexible use of airspace. On occasion military fast jet operations still have a tendency of requesting above FL285 without booking the EAMTA High airspace, though this is likely to be down to the dynamic nature of Fast Jet Operations and often a compromise between Civil and Military ATC ensures there is no impact to the sortie intentions.

There were no reported safety incidents reported in response to requests for PIR feedback in relation to this ACP.

PIR Data Requirement 5a and 5b – Analytics and Traffic figures:

NB the requirement stated in the CAA PIR letter exceeds the standard 12 month PIR reporting period: implementation (May 2018) to implementation +12 months (May 2019), thus the traffic figures are provided in accordance with the standard reporting period. Where possible this has been compared to available data from the 12 months prior to the change implementation.

The number of flights planning the East Anglia Military Training Area (EGMTAEA) before and after the change, the military booking hours and utilisation and the number of unplanned tactical flights utilising the EGMTAEA has been assessed by NATS analytics experts for this PIR.

All figures are taken for the following periods:

Monday – Thursday 08:30 – 23:00 and Friday 08:30 – 18:00 UTC to make a direct comparison of pre and post ACP airspace environment. Military/Circular flights (same origin and destination) and flights on bank holidays have also been removed.

In summary the flight plan count shows that since the change, **1,538** flights have flight planned to use the airspace that would not have been able to flight plan the area before the AD2.2 change.

Military utilisation of the airspace shows a decrease in booked hours overall with a significant decrease in the hours booked for the upper section of the EAMTA. This was an expected outcome in transitioning the airspace under managed policy.

EUROCONTROL (CFMU) data was used for the traffic counts and unplanned tactical use results. A small amount of CFMU data show anomalous/seemingly unplannable flight routings. These were removed from the data sets.

RADAR data (Node) and LARA data (AUPs) were used for the Military utilisation results. RADAR data is of variable quality and requires the radar to pick up the aircraft's transmissions. Therefore, the data only allows an estimate of the results.

We contend that this estimate is consistent with PIR Letter Item 6, i.e. *If certain data is unavailable or is disproportionately burdensome to provide, the CAA will consider representations to this regard and may adjust the requirements on this basis.*

CDR planning:

	P5 (N'bound)	P5 (S'bound)	P144 (N'bound)	UM185 (S'bound)	Grand Total
2018					
May*				1	1
Jun	9	3	10	16	38

Jul	13	-	54	14	81
Aug	24	1	55	18	98
Sep	12	1	34	16	63
Oct	19	1	28	22	70
Nov	19	2	40	46	107
Dec	9	-	115	32	156
2019					
Jan	1	2	121	31	155
Feb	2	1	116	34	153
Mar	3	7	74	50	134
Apr	23	8	151	67	249
May	9	11	168	45	233
Grand Total	143	37	966	392	1,538

***NB there was no planned utilisation of CDRs prior to the May 2018 implementation of this proposal.**

Unplanned tactical use of the airspace:

The following table highlights the number of aircraft that did not plan to use the airspace but were given tactical directs routes across the EAMTA or to follow the CDRs.

	CDR		DCT	
	Pre	Post	Pre	Post
Monday	78	28	1,059	1,242
Tuesday	50	87	1,640	1,867
Wednesday	77	71	1,691	1,901
Thursday	62	63	1,712	1,779
Friday	86	70	1,950	1,897
Total	353	319	8,052	8,686

PIR Letter Item 7 Other benefits: Enabled Fuel benefit

As stated in the ACP, although there were no specific environmental issues to be resolved by this change, a potential fuel saving of approximately 180 tonnes per annum was identified.

NATS Analytics have determined that approximately 150 tonnes of fuel savings per annum have been enabled through increased access to the CDRs as a result of this change. This is based on an average track distance saving per flight per CDR which is converted to average fuel burn saving per flight per CDR multiplied by the number of fights that planned to utilise the CDRs per year, as shown in the table below.

This figure is broadly consistent with the assumed opportunity identified in the ACP.

Savings associated with tactical use of the airspace have not been possible due to the complexity of matching comparable traffic routes to assess against. There is, however, a reported 600 extra fights that have utilised the airspace in the 12 months following implementation.

We contend that this is consistent with PIR Letter Item 6, i.e. *If certain data is unavailable or is disproportionately burdensome to provide, the CAA will consider representations to this regard and may adjust the requirements on this basis.*

	P5	P144	UM185	Grand Total

Distance Saving per flight (NM)	24.8	17.6	9.8	
Average fuel burn per flight (T/n)	0.15	0.10	0.06	
CO_2e saving per flight (T)	0.48	0.32	0.19	
Total flights planned use of CDR	180	966	392	
Total Fuel Burn saved (T) per year	27.17	100.55	24.07	**151.78**
Total CO_2e saved (T) per year	86.4	319.75	76.54	**482.66**

Military Utilisation:
Military bookings were determined for pre AD2.2 by the booking time of Monday – Thursday 8.30am – 11pm and Friday 8.30am – 6pm. Post AD2.2 were determined through AUP bookings and used radar data to assess utilisation (based on the caveats articulated above).

For utilisation, bookings were broken down into 5-minute sections and identified whether there were military flights present. If so, the area was considered utilised. The number of utilised segments was divided by the total number of booked segments to give the utilisation %.

	Hours Booked		Military Usage %	
	Pre AD2.2	Post AD2.2	Pre AD2.2	Post AD2.2
Lower	3,756	2,542	9%	14%
Upper	3,756	364	6%	9%

A reduction of 1,214 segregated hours is noted for what is now EAMTA Lower and 3,392 segregated hours for what is now EAMTA Upper. This has enabled 4,606 extra hours of availability for other airspace users. Whilst this is significant, it also noted that the military use of booked segregated airspace remains low; below 15%.

The evidence and feedback collated for this PIR leads both NATS and the MOD to conclude that, whilst the primary objective has been met through this ACP, there are further opportunities to increase the efficiency of this airspace in both utilisation and management processes.

Name of individual	[redacted]
Position	[redacted]
Date	08/01/2021

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Has the Sponsor indicated that the original proposal met the objectives as described in the CAA's decision to approve the change?	Choose an item.
Has the Sponsor indicated that the original proposal met any conditions as described in the CAA's decision to approve the change?	Choose an item.
Has the Sponsor highlighted any observations from community stakeholders, aviation stakeholders or the Ministry of Defence?	Choose an item.

Sign Off	
Does the CAA recommend that a post implementation review is conducted?	Choose an item.
Signed: Name: Manager Airspace Regulation/Principal Airspace Regulator (delete as applicable)	
Date: Click here to enter a date.	