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Dear Officer Commanding 92 Squadron,

Thank you for the opportunity to comment on your proposed Future Combat Airspace (FCA) trial ACP-2020-04.

NATS offers the following response to the paper received as part of your engagement process.

The magnitude of change proposed by the MOD in the trial will have significant impact on NATS, wider UK airspace users and ATM stakeholders. It is vital that the trial understands the impact on the current UK and European operational network. It must also understand, and not undermine, current and planned change programmes by aligning with initiatives agreed through UK Airspace Modernisation. This is especially important in the current and post COVID-19 pandemic aviation regeneration activities.

The Airspace Modernisation Strategy (AMS) (CAP1711) sets out the UK initiatives that will deliver a fit for purpose ATM environment and airspace for all users. Changes proposed in the MOD trial impact several of these initiatives and so must measure and consider the level of impact and align, as best it can, to the UK state ATM developments. This includes the implementation of Free Route Airspace and Systemised Airspace.

The development and management of UK Flexible Use of Airspace (FUA) and Airspace Management (ASM) is captured in the AMS, primarily in the Advanced Flexible Use of Airspace (AFUA) initiative. This initiative is managed by the FUA State Programme (FSP) which has recognised objectives and agreed delivery and performance improvement plans. The proposed trial should seek opportunities to develop and understand what is required to meet these objectives and capture them within its scope. The MOD trial should also align to the agreed plans mentioned above.

NATS believes that a full trial plan should be produced to clearly define objectives to do this and set out clear success criteria and measurements to report on. These objectives should seek to enhance safety, identify formal Flexible Use of Airspace processes to ensure safe and efficient management of Special Use Airspace and the ATM network to deliver a predictable and flight plannable airspace. They should also seek to mitigate the impact on wider ATM stakeholder flight planning, the environment and flight efficiency, Network capacity management and the impact on Operational delivery exercise periods.

I have included below responses to your direct questions as set out in Annex B of your engagement letter.

Safety

NATS welcomes the efforts of the MOD to improve safety related issues associated to previous activations of the Cobra Advanced Combat Airspace (CACA) volume; in particular a more structured ingress and egress plan as well as the introduction of temporary CAS to facilitate Newcastle arrivals and departures most affected by the MODs airspace requirements and associated increase in the number of combat aircraft operating within the area during periods of activation.

NATS would further welcome assurance of measures designed to safeguard other airspace users by wholly containing activity within the designated airspace volume as set out with CAP 740 (UK Airspace Management Policy) Appendix C (Military ASM Policy) C10-6.

It is however noted, for Stage 1, that unlike the CACA volume which has a base level of FL245, the proposed temporary danger area airspace volume (whilst using the same lateral dimensions) has a proposed base level of FL85. This produces 2 safety related issues:

1, The lateral dimensions no longer conform to the CAAs: SPECIAL USE AIRSPACE - SAFETY BUFFER POLICY FOR AIRSPACE DESIGN PURPOSES. In particular, the proposed temporary danger area would abut the Newcastle CTA.

2, Given the very short timeframe proposed to undertake the Stage 1 trial, there is no ability to modify the European Network Manager flight plan acceptance protocols and thus prevent operators from filing flight plans that cross the area below FL245 during periods of activation. Sole reliance is therefore placed on operators being aware of the temporary danger area and filing flight plan routes accordingly, with no ability to reject flight plans that penetrate this large volume of airspace.

The above issues are resolved by the airspace design proposed for Stage 2, along with additional time needed to revise the flight plan acceptance protocols with the European Network Manager.

In addition to these external factors, NATS is required to undertake processes as set out in CAP670 (Air Traffic Services Safety Requirements) GEN 03: Safety Requirements for Operational Trials in Air Traffic Services, to satisfy its regulated obligations. This includes testing of both internal and European Network Manager adaptation as well as safety hazard analysis and

amendment to procedures. In undertaking the MODs proposed trial, NATS would need to seek and understand the extent of these requirements from the CAA and put in place mechanisms to deliver these obligations to the satisfaction of its regulator. As discussed informally, the timeframe required to achieve this outcome is not viable for Stage 1 and hence the emphasis on improving identified safety related issues whilst retaining extant arrangements.

NATS would expect that a trial plan would identify Safety enhancements as an objective with suitable criteria and measurements to gather this data through the trial period.

Operational Impacts

The introduction of an additional large volume of segregated airspace will always produce operational impacts. The proposed orientation of the new area combined with protocols to suppress activity within the D323/513 and 613 complexes will likely produce benefit for some airspace users. This may include European to Oceanic transits via the Amsterdam FIR as well as a reduction of track mileage for ScTMA arrivals and departures via the Amsterdam FIR and a reduction in track mileage for Dublin and MTMA arrivals and departures via the Copenhagen FIR. However, It does produce additional track mileage for ScTMA and Belfast Group arrivals and departures from the Copenhagen FIR.

However, given the current unprecedented impact of Covid 19 it is impossible at this stage to provide a clear understanding of the overall benefit or disbenefit associated with the proposal based on historic track figures. We would expect that a trial plan would identify this as an objective with suitable criteria and measurements to gather this data through the trial period.

Design

It is noted that the MOD has used some of the diagrams provided by NATS following discussions on feasibility within its consultation document.

However, the design provided by the MOD for Stage 1 (as incorrectly depicted in Fig 2 and missing a co-ordinate in the supporting table) does not meet the CAAs: SPECIAL USE AIRSPACE - SAFETY BUFFER POLICY FOR AIRSPACE DESIGN PURPOSES; given the proposed lowering of the base level of existing CACA arrangements to FL85.

Furthermore, whilst the design illustration of Temporary CAS associated to Newcastle (Fig 4) is as expected the supporting table which provides associated details is wholly incorrect.

Additionally, the NATS illustrations used in both Fig 1 and 6 are again as expected; however, the co-ordinate details used in the table supporting Fig 6 are incorrect.

These inconsistencies and deficiencies within the document have the potential to undermine the credibility of the proposal and confuse those asked to respond to it.

Moreover, there are no details relating to how other airspace users would be expected to circumnavigate the area during periods of activation. This omission detracts from the overall

design and would therefore not allow airspace users, primarily commercial, to assess the operational impact as a result of the MOD proposal.

NATS would expect the trial plan to identify Airspace designs and configurations and how they impact other ATM stakeholders and airspace users as an objective with suitable criteria and measurements to gather data through the trial period in order to produce a trial report that can be shared as part of the trial process.

Airspace Management

NATS notes and welcomes the MOD's intent to put in place additional airspace management for the proposed trial and would welcome the opportunity to discuss further the detail on your plans noting your intent to conform to and promote FUA and ASM policy to deliver the trial.

You have indicated a series of measures and tests will be carried out. We would expect that a trial plan will be available which identifies Airspace management requirements and protocols and how they impact other ATM stakeholders and airspace users to be an objective with suitable criteria and measurements to gather data through the trial period.

In order to minimise the impact on other airspace users, ATM stakeholders and network management, it is imperative that the cumulative effect of simultaneous segregation of airspace across the UK is considered and mitigated. To that end, NATS would expect the suppression of other areas to form part of the management process for the trial airspace as you've indicated. This may be required beyond that presented in your engagement document.

NATS believe that the management of the airspace is most efficient when processed through the UK Airspace Capacity Management function and the UK AMC using extant processes such as the Airspace Utilisation Plan that ensures network and flight planning activities can be successfully notified through the European Network Manager. As the Military Airspace Booking and Coordination Cell is part of the joint UK AMC, we agree with this principle. The trial should also note any requirements to enhance tactical ASM (L3M) and capture any requirements or opportunities to utilise ASM tools (such as LARA) for transparent planning and management activities.

The efficient pre-tactical and tactical management of planned airspace activities is a key cornerstone of Flexible Use of Airspace and we agree that the MOD should use this trial as an opportunity to promote best practice within its organisation and align with the UK FUA strategy, Airspace Modernisation and FUA State Programme initiatives (including Advanced Flexible Use of Airspace (AFUA) and Free Route Airspace).

Environmental & Noise

Within the consultation document it is noted that the MOD do not intend to undertake a noise impact assessment as part of the proposed trial, citing that the majority of the proposed airspace structure is over the sea and or above 7000ft.

The consultation further notes that a small portion of airspace associated with the proposed introduction of temporary CAS to support the safety of aircraft operating from Newcastle airport does reside overland below 7000ft in the vicinity of Sunderland.

It should be stressed that the proposed introduction within the trial period of temporary CAS is intended to ensure the safety of aircraft and does not therefore constitute a Planned Permanent Redistribution (PPR) of traffic. Furthermore, the construct of this airspace is primarily designed to allow aircraft to remain over the sea until inception with the ILS for the predominant runway (25).

NATS would expect that a trial plan would identify Environmental impacts as an objective with suitable criteria and measurements to gather data through the trial period. Given the size of the airspace volumes proposed, this should include the impact on flight efficiency across the UK.

Other

Due to the number of Flight Plan Direct options required to be introduced to circumnavigate the proposed trial airspace within Phase 2, in lieu of the formal introduction of additional UARs. NATS would seek the granting of 'Off Route Status (North)' in line with the activation times of the proposed TDA. Off route status, as set out within the extant NATS/MOD LOA, defines co-ordination requirements between Mil ATS providers and NATS En-Route Sectors when commercial aircraft are not flying in conformance to a published route, as would be the case during trail airspace activation.

P18 is a flexible use ATS route (CDR1) with associated CAS structure, established between Newcastle and Aberdeen, usually available for flight planning during quiet hours and weekends. The proximity of the proposed airspace requires the proposed trials to take account of and deconflict the activation and availability times.

We look forward to further engagement on your ACP.

Regards



On behalf of
NATS Airspace and Future Operations Ops Policy