Annex A to ACP-2021-007 Future Combat Airspace Interim Solution Final Submission dated 14 May 21

External Stakeholder feedback (responses via email) covering the following topics in relation to TDA597 activation:

Safety - Did the airspace itself cause any safety issues or raise any safety concerns?

Operational Impacts - What effect did the dimensions and status of the airspace have on your operation?

Airspace Management - How well did the notification, activation and management of the airspace work?

Air Traffic Management - Did the handling of military Ex traffic and/or civil en-route traffic in and around TDA 597 cause any issues? Environment and Noise - Did the activation of TDA 597 cause any environmental or noise concerns? Responses
7 responses total received - NATS, Borders Gliding Club, Edinburgh Airport, Delta Airlines, Scandanavian Airlines System (SAS), Ryanair, Newcastle International Observation 1.On 08/03/2021 Prestwick Centre recorded an Occurrence. GAT initiated a TCAS RA Climb as exercise traffic climbed rapidly into CAS in the OTBED area. The civil sector controller observed military traffic climbing rapidly beneath Y70, this subsequently set off an SCTA alert as the aircraft climbed into CAS west of OTBED. The civil controller telephoned Swanwick Mil to confirm the intention of the aircraft who advised that the aircraft were climbing to FL240 to maintain 1000ft separation from GAT traffic until 5nm clear. This was coordinated. However, the GAT flight reported TCAS climb, which was acknowledged by the controller who advised that the pair of aircraft had been coordinated 1000ft below. The GAT flight climbed to FL256 before advising that they were descending back to FL250. The military formation maintained FL240 throughout and at least 1000ft separation existed between the aircraft. Comment: This occurrence happened around 70nm south of TDA597 in the normal Typhoon climb-out areas for RAF Coningsby. While the mil traffic may have been heading towards the TDA, Change Sponsor doesn't consider that this event is directly connected to TDA597 activation. 2.On 10/03/2021 Prestwick Centre recorded and Observation. GAT outbound from Aberdeen, routing via RIVOT to Amsterdam requesting FL310 was under service from the Tyne civil sector. On the routing were several military aircraft outside the TDA597 which was active. The GAT was climbed to an intermittent level as the Scottish controller attempted coordination with ASACS at approx. 12:18. The Scampton allocator transferred the Scottish controller to the ASACS controller of the military traffic which was operating at FL307 for some time outside the active TDA to the north. Scottish controller asked the intentions of both the two aircraft on the GAT track. The ASACS controller advised one was turning back south towards the TDA and the other military traffic was operating blocking FL280 to FL310 and that coordination was not possible. A few mins later ASACS phoned back and advised the military traffic would be turning back towards the TDA because it had finished task. At approx. 12:32 four or five military aircraft left the TDA and operated at FL310 on the same UAR. The GAT was well to the east of these aircraft by this time. The F4114 report on 10 March, when coordination could not be achieved between civil traffic VHLXZ and VALNT, was caused by bad weather requiring VALNT to set up a temporary towline in a civil air route. Comment: This observation seems to be the result of incomplete and untidy coordination activity between NATS PC and ASACS. While it would have been better to situate the AAR tanker below FL245, this will not always be possible due to weather and the requirement for receivers to join the tanker and refuel in a VMC block. The takeaway for future airspace work is that all exercise traffic should be located inside the Exercise airspace wherever possible. Safety - Other Deconflicting this military and civil activity outside the TDA was achiev eable due to the current low levels of civil traffic. But this would be more of an issue when normal traffic levels return. It is noted that TOI006C.21 PC states in para 1.6 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 coordination processes, including the granting of tactical Non-Deviating Status, will be conducted between military There were also some queries about the location of the RADHAZ providing support to the exercise. It is probably worth reminding the exercise planners that the locations for the additional tasks are subject to approval for NDS and could be denied if their impact on civil traffic was too great. Future: We do not currently foresee any safety issues with the airspace provided that the structures are promulgated and managed as designed previously and that the procedures agreed are adhered to. A review of these during the planning sessions should ensure this and resolve the issues with non-adherence to the procedures noted in the Mar 21 trial. Comment: Our intention is to use TDA597 in exactly the same way as we did in Mar 21. A planning and coordination session is scheduled for 25 May to address these concerns ahead of the On at least 2 occasions the D-1 telephone call to confirm that SWK Mil could provide a service to EGNT/EGNV traffic was not received on the PC OS desk. TOI006C.21.PC para 3.1 Swanwick(Mil) EGNT/NV Procedures - "Confirmation of availability of ATS provision will be provided by Swanwick (Mil) to the PC OS at D-1. Should Swanwick (Mil) be unable to work affected traffic the PC OS, shall initiate TDA 597 cancellation via the UK AMC and inform the ASWC of the reason." On at least 2 occasions Off Route status was not confirmed prior to activation of TDA597 in accordance with TOI006C.21.PC para 3.3 Off Route Status North "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; Swanwick (Mil) will apply Off Route Status North 30 minutes prior to the activation of TDA 597 until 30 minutes after deactivation. Notification and removal of Off Route Status North will be provided to and shall be acknowledged by the PC OS." Comment: MoD will address these issues ahead at the joint Coordination and Planning meeting on 25 May and make sure that processes are followed. There was one other minor observation when Exercise Chameleon was running concurrently and a request/notification for the activation of a paradrop within the active TDA597 was received. This caused some confusion as to status of airspace which required clarification. Whilst not any real significant impact it does highlight the need for clear communication and coordination/deconfliction across all nonparticipating airspace users. Comment: MoD acknowledges and will endeavour to deconflict Air Exercise Programme activities. Future: There will clearly be an impact to NATS' operations but we believe this has been mitigated in the development and trial of TDA597 and can be managed by the operation. Industry recovery is the unknown factor at present, which could increase complexity and impact as traffic recovers. With this regeneration of traffic will come an increasing burden on the Military ATS provision through RAF(U) SWK which should be considered. Continued consideration should also be given to the original proposals for network connectivity in the Newcastle area for operational, safety and environmental mitigation This was a key aspect of this trial with significant effort made to introduce improvements to the management of the previous CACA airspace. New FUA structures were introduced for this trial with **Management** associated procedures and protocols. NATS believes this area has been a great success. The MAMC and the AMC have carried out a post ops analysis of the TDA 597 activity that took place and agree: 1.All processes and procedures were followed to the letter by all stakeholders. 2. Flight planning scenarios put in place by Route Management worked as expected. 3. Eurocontrol were briefed on the activity and have no comments or complaints on the AMC management of the exercise. 4.LARA performed as expected due to correct and appropriate changes to LARA adaptation made by the LARA housekeeper. 5.TDA 597 FBZ activation worked as expected. The application of these ASM processes have contributed to safety improvements in our view and fully adhere to ASM Policy and best practise. NATS would strongly support and encourage these procedures and protocols are taken forward and applied as a positive trial output. Future: NATS are content that the proposed, and previously introduced, Airspace management processes work. Such processes shall become a dominant feature in future Airspace Management obligations and should also be viewed considering emerging UK Spaceport requirements, and other new entrants, which will add complexity as well as necessitate tri-party agreements to establish activation As with phase one in October 2020, analysis indicates an overall minor improvement in flight efficiency for the small amount of GAT during the trial. This is predominantly associated with more direct routes due to the suppression of MDA323 and MDA613 complexes during the TDA activities. This small net improvement offset the negative impact for GAT required to route around the TDA. It is hard to draw any firm conclusions as to the overall impact given the lack of network traffic and extremely low civil demand. This should be a consideration of any future activation and will require further modelling to be undertaken in order to gain insight into the effect of the MOD's permanent ACP. There is not a linear correlation between current levels of traffic (less than 20% of pre-pandemic levels) and regeneration. (For context, NATS has assessed that during this phase 92 aircraft were affected - compared with 114 during phase 1in Oct 2020.) Increased traffic introduces increased network complexity, with increased second and third order impacts, which has not been able to be measured during this trial. Again, this includes understanding any missed opportunities in support of Newcastle network connectivity as noted in feedback from phase 1. NATS would encourage the continued investigation of option here as previously proposed through the introduction of the Flamborough CTA. It should also be noted that between now and the proposed permanent ACP (and interim solutions put forward by MOD), Free Route will be introduced which may introduce subtle changes to the impact this TDA has on the network and environment. Future: With regard to the environmental impact, we fully expect there to be an impact as a direct result of this military activity as civil GAT have to circumnavigate the TDA. The previous trial could not provide a clear picture of this impact due to the historical low levels of traffic due to the on-going pandemic. This will need to be a consideration for the MOD approaching and during any future activations during the recovery should the CAA approve the continued use of this airspace. As with the phase one of the trial, the continued downturn across the aviation industry due to the COVID-19 pandemic has resulted in a slower than anticipated regeneration of the aviation sector. Unfortunately, as with phase 1, the network traffic levels during this period have been an unrealistic reflection of the usual aircraft routings and density which has constrained any effective measure of the overall effect during the trial times. That said, the introduction of TDA597 had an increased impact on the operation due to the increased volume of segregated airspace. NATS believes that the success of this trial from a civil perspective has been in the application of FUA structures and clear and timely ASM protocols to deconflict multiple activations of segregated airspace. This has and will continue to minimise the impact to other airspace users, has partly proven environmental benefit and made Military LFE exercises safer when compared to previous CACA airspace. Such processes shall become a dominant feature in future Airspace Management obligations and should be viewed considering emerging UK Spaceport requirements, and other new entrants, which will add complexity as well as necessitate tri-party agreements to establish activation priorities. NATS looks forward to continued engagement on your ACPs and seeing how the trial activities help to ensure a future design that supports the network and civil users as we navigate our way out of the current pandemic crisis. The operating protocols for the management of TDA597 activation have worked well. A couple of very minor tweaks have been identified by both civil and mil ANSPs already. With that in mind, ahead of any future activation, planning meetings should take place to provide opportunity to review these agreed operating protocols. This will help identify any emerging issues and/or opportunities to resolve or take advantage of them, especially in light of post COVID traffic regeneration. This will be critical as aviation recovers to understand where previous trials have not provided any insights into the impact of the changes due to lack of civil traffic. During the proposed interim activations of the TDA597, one of the biggest airspace changes to have taken place in UK airspace is planned to be implemented, Free Route. Consideration should be given to this as part of this ACP to determine any impacts to the civil network and en-route airspace users. Furthermore, NATS notes that the intent of the MOD is to activate the airspace up to ten times in each period. This is a 66% increase when compared with the trial in Mar 2021, four more activations. The network and operational impact will need to be considered for both these points and NATS would welcome more details as soon as possible to ensure that the plans fit with previous arrangements to minimise the impact on the network. As mentioned in the feedback from the MOD Trial phase two, the Airspace management aspects worked well and we would expect these to remain to ensure the safe management of non-participating network flight planning. This includes the promulgation of airspace structures in the UK AIP and Eurocontrol Network Manager systems. The current AIP SUP for TDA597 expires on the 6th May and while it is NATS' understanding that this ACP intends to rectify this, we would seek clarity on the timelines for maintaining this information so as not to expend further resources maintaining the airspace design. Finally, NATS believes that, where possible, any future use of TDA597 should also carry out a review similar to that carried out as part of the Mar 21 trial to inform the MOD permanent ACP. This could provide more insight and supplement the constrained trial data and outputs due to the low civil traffic levels caused by the pandemic during the trial. Comment: Change Sponsor acknowledges all of these constructive points and all will be addressed in the joint planning and coordination meeting on 25 May. Operational Gliding operations from Milfield were limited to FL60 and below during the hours when TDA597 was activated. This was only an issue on 12 and 19 Mar 21 as the Gliding Club was not operating on the other dates. Comment: The FL60 limit was self-imposed; BGC traffic could have operated up to the base level of TDA507 at FL85 if required. Management
Air Traffic
Gliding
(RGC)
Management

Management

Leeming to their play areas).

Management

Leeming to their play areas). Comment: These aircraft were transiting in Class G airspace underneath TDA597. It has always been made clear that military exercise traffic will be operating around the edges of, and Not possible to assess impact due to low traffic levels. Introduction of free-route airspace and flexible use of airspace will be useful mechanisms to maximise efficiency and minimise impact. Ry anair keen to Delta Airlines

Delta Airlines Other As much advance warning as possible would be appreciated. Other Volume of Scandinavia - UK flights is very low due to COVID. Further feedback will be provided following Sep activation if traffic levels increase.

Note Newcastle International also included engagement feedback previously received during the development of ACP-2020-026 and ACP-2020-042. This is not addressed directly as part of this submission. I'd assumed (incorrectly) that because Swanwick MIL would be taking traffic via TOWTE that this would include all our traffic intending to route South East (ERKIT N110), my understanding was that Swanwick MIL promised the necessary resources. Earlier Swanwick MIL declined VJT645 CRJ2 flight planned via ERKIT and forced us to co-ordinate the traffic via P18 with EAST. Having challenged Swanwick MIL the supervisor called back to advise that the Pennine Radar task was suspended UFN and they'd only take flights via TOWTE if such traffic had intended to route North East. Therefore zero benefit for any traffic hoping to route South East. Comment from Swanwick Mil: During the activation of the TDA, Swanwick Mil will continue to afford priority to Newcastle and Durham Tees departures and arrivals via TOWTE to the Copenhagen FIR. To reflect this and to ensure all controllers were aware of the requirement, local orders were changed to ensure priority. Acknowledging that GAT traffic levels were low, there was no relevant GAT to effect. Furthermore, prior to activation of the airspace, the Swanwick Mil Supervisor checked through Flight Plans and Flow whether there would be any aircraft to work. There is no indication that relevant traffic was denied an ATS. Departures via ERKIT is part of the Pennine radar derogated services task and whilst the availability of a provision of an ATS from Swanwick Mil is indicated by the Operational Customer Information Gateway traffic light system, it should still not be assumed. For clarity, provision of an ATS to TOWTE departures during TDA activation, is not considered to be a Pennine radar For the next activation of the TDA, Copenhagen FIR boundary crossers in/out of Newcastle and Durham Tees remain high priority for Swanwick Mil in accordance with the first two trials and controllers will be rostered accordingly. Overflight ZSKWP PA34 (EBOS-EGPC) @ FL80 receiving a Traffic Service from Newcastle beneath TDA597 within Class G. Received a call from the TAY sector controller advising that Scampton had requested that Newcastle reroute the traffic to the West due to exercise traffic operating beneath the TDA, placed the Seneca upon a heading and routed the traffic North West above D512B. Comment: Both References A and B state that exercise traffic may operate outside TDA597 in class G airspace. Dracken Falcons from EGNV have a specific entry point for the TDA to the North West of Newcastle and therefore requested routing through Newcastle airspace, although six aircraft this morning there was Management meant to be eight. Although not an issue this morning, potentially it could be during normal times. Entry into CAS is never guaranteed and the crews appreciate that, however they're always going to request a service. I wonder whether such traffic requesting a service from Newcastle, during an exercise, should be instructed to file a FPL so that we don't have to create multiple strips. Alternatively an email in advance with sufficient detail that would allow us to prepare. During normal times we'd have to ensure that manning included additional radar resource. Comment: Trial Sponsor views this as a local issue between EGNV, EGNT and Draken Europe Ltd. & Noise

Concerns - Increased fast jet traffic in the vicinity of Newcastle Class D Airspace. Comment: The TDA597 FBZ was put in place partly to mitigate this. Exercise aircrews are carefully briefed on the proximity Future 1 and sensitivity of Newcastle's CTZ. No evidence of any Ex traffic infringing EGNT airspace. Increased potential for confliction with general air traffic in Class D and G airspace. Comment: No evidence of this. The reason TDA597 was designed was to decrease the likelihood of civil/mil interaction by segregating airspace. Increase in likelihood of airspace infringement. Comment: No evidence of this. See above comment. Increased ATCO workload due to provision of services to exercise traffic. Comment: No evidence of this or context provided. TDA597 procedures developed and briefed to mitigate this issue. Increased potential for emergency recovery of exercise traffic to Newcastle. Comment: Any North Sea military exercise activity will raise this risk. Increased ATCO workload brought about by fast jet traffic requests to transit Newcastle controlled airspace. Comment: No evidence of this. Potential to require additional Radar ATCO resource and therefore cost. Comment: No evidence of this or requirement stated. Due to no suppression of D510 (Spadeadam) or D512 (Otterburn) resulting in exercise traffic transiting between the TDA and the danger areas above. Comment: D510 and D512 are both required for Ex activity. MoD is aware of the risk of mil/civil traffic interaction in the vicinity of the EGNT-TALLA airway and as a result deliberately minimises and carefully manages these transits in the middle Continued concern regarding service provision to commercial traffic to the South East of Newcastle. Service has been denied during phase 2 of the trial despite absolute assurances that service provision will be maintained by Swanwick Military. (See operational feedback at Annex B). See Comment above. Concerns - EGNT traffic routing to the North or East (MADAD, CUTEL etc) will have to route North West (TALLA) or South via P18 increasing track miles, fuel cost and CO2 emissions. Comment: Eastbound traffic is catered for in Refs A and B. No evidence presented of CO2, costs or incrased track mileage impacts. NATS have stated that TDA597 activation has resulted (thus far) in a net reduction in CO2 emissions and track mileage. Increase fuel burn and CO2 associated with the elongated routing of commercial traffic around the TDA. Comment: See NATS assessment above. Potential for noise complaints in the area surrounding Newcastle, particularly the area north of Newcastle Airport (Northumberland). Comment: No evidence of this presented. Public unaware that exercise traffic is not under Newcastle ATC control and therefore wrongly attribute noise to Newcastle Airport. Comment: This applies to any flying activity; not directly related to As stated at consultation meetings and formally through previous stakeholder correspondence, Newcastle are deeply concerned that any trial conducted during historically low traffic levels will not provide a fair representation of the safety and operational impacts. The success of the trials will form part of the evidence with regard to the full ACP approval and therefore it is critical that any associated trials provideproper and appropriate safety assurance. It is Newcastle's view that the appropriate assurance cannot be achieved in the current operating environment. Comment: See COVID-19 section in A significant increase in military danger area size surrounding Newcastle Airport will have a detrimental effect on future and existing route viability. Comment: No evidence of this presented, however this is a legitmate general concern which will be addressed during ACP-2020-026. It is our view that as a vitally important regional asset, the detrimental impact the TDA will have on route viability will have a negative impact not only on NIA but also on the regional economy. Comment: No evidence of this presented, however this is a legitmate general concern which will be addressed during ACP-2020-026. Safety For Edinburgh Airport (and our ANSP Air Navigation Services Limited (ANSL)) there were no safety issues in the Edinburgh Control Zone and Control Area Scottish (CTR, CTA and TMA) With very little traffic both inbound and outbound there was no effect on Edinburgh's traffic again in the CTR, CTA and TMA. Traffic inbound from the East would need to routWe look forward to a more realistic amount of traffic so we can look at the operational impact that the proposed trials will have. Again, routes to and from the North and East will be affected most.e around the active Danger area and this may result in certain traffic routing via STIRA and not TARTN but again the numbers will be minimal. Future: We look forward to a more realistic amount of traffic so we can look at the operational impact that the proposed trials will have. Again, routes to and from the North and East will be affected most. Airspace There were no issues at the Airport with airspace management because of the area where the trial took place, again because this is airspace controlled by NATS and they will answer this engagement Air Traffic Again, this is more of an issue for NATS at Prestwick but there were no issues in the TMA. Edinburgh International Noise

Future: This is more of an issue for NATS at Prestwick and with prior notification this should not provide any issues in TMA.

There were no noticeable effects due to the trial and a lack of traffic but again with the reduction in flight numbers there could well be issues in more normal circumstances. More aircraft may route inbound via STIRA which might have a noticeable effect in local communities and also extra track miles contribute to corben emissions. STIRA which might have a noticeable effect in local communities and also extra track miles contribute to carbon emissions. The trial was carried out during a pandemic and the lack of arrivals and departures to Edinburgh airport meant that a lot of issues were not tested. We look forward to a trial during a period where the traffic gives a much better representation of a more typical operational environment.

Future: These trials will be carried out after a break in operations and during a period of uncertainty. The lack of arrivals and departures to Edinburgh airport mean that a lot of the issues you mention will not

It is difficult to predict the effect that the operation of this airspace will have as we are unsure of future routes and indeed frequencies at the time of writing. We are currently restarting our airspace change proposal (ACP 2019-032) and intend to look at all options for flight paths as detailed in the CAP1616. We are sure that in the interests of modernisation and efficiency some of these routes will involve more direct network changes for aircraft arriving and departing Edinburgh by overflying the Firth of Forth. We would like to establish these routes, in conjunction with NATS during the ACP process and will probably

be tested. We look forward to a trial during a period where the traffic gives a much better representation of a more typical operational environment.

This route over the Firth of Forth is one which affects the least amount of people and will therefore be one of our flight path solutions.

insist that routes through your proposed area (ACP 2020-026) will not affect our choice of flight paths. Obviously when this area is active an alternative will need to be chosen.