CAA Environmental Assessment and Statement

Title of airspace change proposal	Removal of En-Route Dependency from Trent DVOR (TNT)
Change sponsor	NATS En Route PLC (NERL)
Project no.	ACP-2020-020
Account Manager	[redacted]

Instructions

In providing a response for each question, please ensure that the 'status' column is completed using one of the following options:

- Yes
- No
- Partially
- N/A

Please highlight the 'status' cell for each question using one of the three colours to illustrate if it is:

resolved Green not resolved Amber not compliant Red

1. Introduction

This CAA Environmental Assessment and Statement describes the considerations relevant to NATS En-Route PLC's (NERL) airspace change proposal (ACP) for the removal of en-route references from the Trent (TNT) Doppler Very High Frequency Omnidirectional Range (DVOR) navigation beacon. NERL (the 'sponsor') has submitted plans for the progressive rationalisation of elements of the UK's ground navigation infrastructure, including the TNT DVOR. This proposal is not anticipated to alter traffic patterns below 7,000 feet and is therefore scaled as Level 2C.

The scope of this proposal includes amendments to Standard Terminal Arrival Routes (STARs) and Holds which are dependent on the TNT DVOR, including procedures that serve East Midlands Airport, Liverpool Airport and Manchester Airport. It is proposed to replicate the existing design of the STARs and Holds to Area Navigation 1 (RNAV1) specification. Additionally, some STARs will be extended back[1] to existing waypoints to provide flight plannable options and retain important decent planning levels. Due to RNAV1 specification, any RNAV 5 aircraft unable to fly the RNAV1 replicated procedures, will either follow an Air Traffic Services (ATS) Route or a series of Directs (DCTs) which will replicate RNAV1 procedures. In addition, the ACP aims to rationalise a series of STARs and increase the availability of the KEGUN Hold[2].

[1] A process known as truncation

[2] Availability of the KEGUN Hold serving Liverpool Airport will be increased from 2000-0700 to H24.

In summary, this proposal is seeking to:

Procedures with TNT Dependency

- Replicate and rename 1no. East Midlands STAR with TNT DVOR dependency;
- Replicate, rename and truncate[3] 1no. East Midlands STAR with a TNT DVOR dependency;
- Replicate and rename 1no. Liverpool STAR with a TNT DVOR dependency;
- Replicate, rename and truncate 1no. Liverpool STAR with a TNT DVOR dependency;
- Withdraw 4no. Liverpool STARs with a TNT DVOR dependency;
- Replicate, rename and truncate 1no. Manchester STAR with a TNT DVOR dependency;
- Replicate and rename 1no. Manchester STAR with a TNT DVOR dependency;
- Replicate 1no. East Midlands Hold with TNT DVOR dependency;
- Replicate and increase availability (H24) of 1no. Liverpool Hold with TNT DVOR dependency.
- Replicate 1no. Manchester Hold with a TNT DVOR dependency; and
- Truncate Air Traffic Service (ATS) Route (U)M868 to remove coincidence with (U)N57[4].

Procedures without TNT Dependency

- Replicate, rename and truncate 1no. Liverpool STAR without a TNT DVOR dependency; and
- Withdraw 1no. Liverpool STAR without a TNT DVOR dependency.

For the 7 STARs set to be RNAV1 replicated as part this ACP, a series of ATS Routes/DCTs will be created that replicate the RNAV1 STAR to enable connectivity for RNAV5 aircraft.

This ACP is for the amendment of the above 16 procedures to allow the TNT DVOR to be decommissioned. The amendments will ensure that all associated STARs and Holds are compliant with modern RNAV 1 design. In addition, all STARs will be renamed in accordance with International Civil Aviation Organisation (ICAO) guidance which recommends that STARs are named according to their start point.

[3] Truncation of this STAR will lead to 3 new STARs; however, this is not anticipated to change aircraft flight behaviour.

[4] This will occur between TNT and TIPIL and is not anticipated to change aircraft flight behaviour.

2. Nature of the Proposed Change		Status
2.1	**Is it clear how the proposed change will operate, and therefore what the likely environmental impacts will be?**	**Yes**
	This ACP has been scaled as a Level 2C, therefore, in accordance with the Department for Transport's (DfT) altitude-based priorities[5], the environmental priority is to reduce aircraft CO_2 emissions in support of the objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. Due to this being a Level 2C ACP, the sponsor is only required to assess the impact of the change upon fuel burn and CO_2 emissions. For a level 2C change, if the anticipated impact is positive, a qualitative assessment and explanation is adequate. This ACP concerns 16 procedures which need to be updated in order to allow the TNT DVOR to be decommissioned. The sponsor does not anticipate a change to flight behaviours; therefore, the proposal is expected to provide a neutral environmental impact. However, the sponsor identifies that the rationalisation of TIPOD STARs "*would facilitate a flight-planned track mileage reduction of approximately 18 miles*" for aircraft arriving into Liverpool Airport due to aircraft no longer needing to flight-plan to TIPOD. Aircraft will instead fly along the coincident KEGUN STARs to the KEGUN Hold which will be updated to H24 availability. The AIP states that the KEGUN hold is currently operational between 2000-0700 and at TAC discretion at other times, therefore the hold has potential to be used during times outside of the published operational hours. Within the final submission the sponsor concludes there to be "no impact" upon tranquillity. However, the KEGUN hold is located above the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB) and the sponsor has not taken account of local circumstances (e.g. height of ground) as per the Air Navigation Guidance 2017 Altitude-Based Priority F[6] within their assessment. As per Paragraph B30 of CAP1616, the sponsor must confirm to the CAA that the proposal has taken account of the elevation (height) of the ground directly below the airspace change. As the base of the KEGUN hold (FL70) is in the vicinity of the Clwdyian Range and Dee Valley AONB, the summit of which is approximately 1,818 ft, the CAA requested that the sponsor provides a more detailed tranquillity assessment. NERL provided the following response: "*From the TNT Stage 2 documentation, analysis of historic radar data (whole year 2019) demonstrated that less than 1% of aircraft arriving into EGGP* [Liverpool Airport] *from the south or east enter either the KEGUN or TIPOD Holds. We would not expect aircraft to hold except under extenuating circumstances. All TIPOD STARS currently route via KEGUN, so there will be no change to tracks over the ground. We would therefore expect no impact to tranquillity of this AONB*". It is therefore considered unlikely that the ACP will result in additional adverse tranquillity impacts to the AONB.	

[5] Department for Transport, Air Navigation Guidance 2017: Altitude-Based Priorities

[6] Altitude-Based Priority F: "*All changes below 7,000 feet should take into account local circumstances in the development of the airspace design, including the actual height of the ground level being overflown, and should not be agreed to by the CAA before appropriate community engagement has been conducted by the sponsor*" (Air Navigation Guidance 2017, Pg. 18).

3. Secretary of State Call-in Noise Criterion		**Status**
3.1	**Is the proposal likely to meet the Secretary of State's criterion for call-in on noise impacts? If yes, has the additional assessment on that criterion been undertaken and what are the results? If no, what is the rationale for that conclusion?** ***The criterion, as set out in the DfT's Air Navigation Guidance (2017)[7] is that the proposed airspace change could lead to a change in noise distribution resulting in a 10,000 net increase in the number of people subjected to a noise level of at least 54 dB[8] as well as having an identified adverse impact on health and quality of life.[9]***	**No**
	The sponsor does not anticipate that the proposal will impact flight behaviour below 7,000ft above mean sea level (amsl). It is therefore considered unlikely that the proposal would affect noise exposure above 54 dB LAeq,16h or have an identified adverse impact on health and quality of life. The proposal is therefore unlikely to meet the noise criterion for call-in.	
4. Statement of Need		**Status**
4.1	**Does the Statement of Need include any environmental factors?**	**No**
	The Statement of Need does not include any environmental factors. It should be noted that the Statement of Need identifies why the airspace change is required and sets out what issues or opportunities the sponsor is seeking to address. There is no requirement for the airspace change to be driven by the need to improve environmental impacts.	
5. Design Principles		**Status**
5.1	**Does the final set of Design Principles include any environmental objectives?**	**Yes**
	The sponsor developed a set of five design principles (DPs), two of which are considered to include an environmental objective: • Design Principle 2 (DP2) No change to flight behaviours – This design principle seeks to ensure there are no changes to actual flight behaviour, laterally, vertically or in dispersal. Therefore, this DP helps ensure that from the ground, aircraft are perceived to continue to behave as currently and therefore ground based environmental impacts are minimised, for example noise, local air	

[7] The DfT's call-in criteria are set out in The Civil Aviation Authority (Air Navigation) Directions 2017, Section 6, paragraph (5). These Directions are replicated in Annex D of the DfT's Air Navigation Guidance 2017,

[8] $L_{Aeq,16h}$ noise exposure.

[9] The assessment of the number of people affected and the associated adverse impacts on health and quality of life of the airspace change proposal should be carried out by the sponsor in accordance with the requirements set out in DfT's Guidance.

	quality, biodiversity and tranquillity; and • Design Principle (DP5) Airspace Optimisation – This design principle aims to facilitate optimised airspace design and the sponsor states that this "*… could include* […] *environmental improvement*".	
5.2	**Does the proposal explain how and to what extent the final airspace design achieves any environmental Design Principles?**	**Partial**
	The sponsor developed four options (including a do-nothing option) which were evaluated against the DPs at stage 2. Option 2; "*Examine the use of existing STARs and Holds from a practical point of view, re-evaluate how they are used and how the network may be improved by rationalising/truncating/replicating them in a considered manner*", the proposed option, was evaluated by the sponsor to meet the two DPs with environmental objectives (DP2 and DP5 identified in Question 5.1). Options were evaluated to have met DP2 if "*none of the proposed changes would result in a change to flight behaviour*". Considering the rationalisation of the TIPOD STARs, and subsequent increased availability of the KEGUN STARs to H24, the sponsor evaluated Option 2 to meet DP2 as in 2019 aircraft arriving on the in-scope STARs, once past KEGUN, were being tactically vectored towards the airfield; therefore, publication of the KEGUN STARs on a H24 basis "*will not result in an increased number of aircraft holding at KEGUN, or have an impact on flight behaviours*". The sponsor continues to state that there are "*no other practical changes to connectivity and therefore, no other changes to lateral/vertical track patterns*". Regarding DP5, Options were evaluated to meet this DP by individually evaluating procedures for the "*potential application of the DP, and minor changes are made, with justification provided*". It was considered that Option 2 met DP5 as the "*Design Option would evaluate current IFPs* [Instrument Flight Procedure] *and where appropriate, propose changes which would facilitate an optimised airspace design*". The sponsor provided an example of how this is met by stating that the RNAV replication of a STAR and extension back to an existing waypoint would retain important descent planning restrictions. However, the sponsor does not explain how this would enable an environmental improvement and therefore it is considered that a full explanation regarding how Option 2 meets DP5 is not provided. Hence, this question is partially met.	
5.3	**Were there any proposed environmental Design Principles that were rejected from the final set? If so, is the rationale for rejecting those Principles reasonable?**	**No**
	The draft design principles included two design principles with environmental objectives (DP2 and DP5). Both draft environmental design principles were unchanged and therefore included within the final set of five design principles.	
5.4	**Were there any design options during the airspace change process that might have better met the environmental Design Principles than the final proposal as submitted to the CAA? If so, is the rationale for rejecting those options set out?**	**Partial**
	The sponsor developed a set of four Options (including the do-nothing option). Option 2 was the only option evaluated to meet both DP2	

	and DP5. As stated within Question 5.2 however, it is not clear how Option 2 will deliver the aim of improving environmental performance, which is embedded within DP5.	
6. Options Appraisal		**Status**
6.1	**Have environmental impacts been adequately reflected and assessed in the Options Appraisal?**	**Partial**
	This ACP is assigned as a Level 2C, therefore in accordance with CAP1616 and the Department for Transport's (DfT) altitude-based priorities, the environmental priority is to reduce aircraft CO_2 emissions in support of the objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions. For a Level 2C change with an anticipated negative impact (i.e. an increase in fuel and CO_2 emissions), the sponsor must undertake a quantitative assessment of the fuel and CO_2 impacts using WebTAG. If the anticipated impact is positive, a qualitative assessment and explanation is adequate. The anticipated fuel and CO_2 impact has been assessed to be neutral (i.e. no change in fuel burn and CO_2) within the final submissions. However, the sponsor does state within the Initial Options Appraisal that removal of the TIPOD STARs for Liverpool arrivals via KEGUN "*would facilitate a flight-planned track mileage reduction of approximately 18 miles*". The sponsor continues to state within the submission that fuel uplift savings are "*difficult to quantify*" and that the proposal will not impact the actual distance flown or vertical profile of aircraft. This question is partially met as it could be argued that an 18-mile flight-planned track mileage reduction would result in a slight reduction to fuel burn and CO_2. However, as the ACP is not anticipated to provide a negative impact to fuel burn and CO_2, as per Level 2C requirements, it can be considered reasonable that a quantitative assessment was not undertaken by the sponsor. In addition to the anticipated fuel and CO_2 impacts, high-level statements regarding the environmental impacts of the proposed option (Option 2) upon greenhouse gas emissions, local air quality and noise were provided within the Initial Options Appraisal at Stage 2. The following conclusion were made: • For greenhouse gas emissions, the sponsor concludes "*no impact*" as there are "*no changes to lateral or vertical tracks*". As stated above, removal of the TIPOD STARs for Liverpool arrivals via KEGUN would facilitate a flight-planned track mileage reduction of approximately 18 miles, which could be argued to provide slight fuel burn and CO_2 savings. It should be noted the level of analysis quoted by the sponsor is "*monetise and quantify*", however only a high-level qualitative assessment is provided. • For local air quality no conclusion is made by the sponsor; however, the sponsor does state "*no changes below 1,000ft*". It is therefore considered that there will be no impact upon local air quality as the ACP does not propose to change flight behaviour below 1,000ft. As detailed in CAP1616 [page 171]; "*due to the effects of mixing and dispersion, emissions from aircraft above 1,000 feet (amsl) are unlikely to have a significant impact on local air quality*". • For noise the sponsor concludes "*no impact*" as there are "*no changes to lateral or vertical tracks*".	

	The options appraisal does not consider the impact upon tranquillity however within the final submission the sponsor concludes "no change" to tranquillity. Due to the proposed rationalisation of the TIPOD STARs and considering that the base of the KEGUN hold (FL70) is in the vicinity of the Clwdyian Range and Dee Valley AONB, the summit of which is approximately 1,818 ft, the CAA requested that the sponsor provided a more detailed tranquillity assessment. NERL provided the following response: "*From the TNT Stage 2 documentation, analysis of historic radar data (whole year 2019) demonstrated that less than 1% of aircraft arriving into EGGP* [Liverpool Airport] *from the south or east enter either the KEGUN or TIPOD Holds. We would not expect aircraft to hold except under extenuating circumstances. All TIPOD STARS currently route via KEGUN, so there will be no change to tracks over the ground. We would therefore expect no impact to tranquillity of this AONB*". It is therefore considered unlikely that the ACP will result in additional adverse tranquillity impacts to the AONB. An assessment of the impacts upon biodiversity was not provided by the sponsor; however, due to the ACP being scaled as Level 2C these impacts do not require assessing. It is considered unlikely that any impacts upon biodiversity will arise as this ACP does not propose to change flight behaviour below 7,000 ft.	
6.2	**Is the final proposal as submitted to the CAA the airspace design option that also produced the best environmental impacts as assessed by the Options Appraisal? If not, does the rationale for selecting the preferred option adequately explain this choice?**	**Yes**
	The sponsor developed a set of four options at Stage 2, however, none of the options were evaluated by the sponsor to deliver environmental benefits. Although not assessed by the sponsor within the Options Appraisal, it could be argued that Option 2; "*Examine the use of existing STARS and Holds from a practical point of view, re-evaluate how they are used and how the network may be improved by rationalising/truncating/replicating/altering them in a considered manner*", provides the best environmental impacts. This is due to the 18-mile flight-plannable track mileage reduction which has potential to result in a slight reduction to fuel burn and CO_2 emissions. It should be noted that in accordance with the Department for Transport's (DfT) altitude-based priorities, the environmental priority is to reduce aircraft CO_2 emissions in support of the Government's objective to ensure that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions.	
7. Noise [for Level 1 and Level M1 airspace change proposals]		**Status**
7.1	**Has the noise impact been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?**	**N/A**
	As detailed in Question 2.1, this ACP is not anticipated to impact flight behaviour below 7,000 ft. It has therefore been scaled as Level 2C meaning there is no requirement to assess noise. The sponsor has however provided a high-level statement regarding the impact upon	

	noise, stating "*no change*".	
7.2	**If a noise assessment has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?**	**N/A**
	This ACP is scaled as Level 2C, therefore, there is no requirement for the sponsor to assesses noise. The high-level statement provided by the sponsor regarding the impact upon noise is adequate.	
7.3	**Summary of anticipated noise impacts for the final proposed airspace change.**	
	This ACP is not anticipated to introduce changes to flight behaviour below 7,000 ft and therefore there is unlikely to be an identified adverse impact on health and quality of life as a result of noise impacts. This is concluded on the basis that noise from aircraft flying at or above 4,000 ft is considered less likely to affect the key noise metrics used for determining adverse effects.	
8. CO_2 Emissions		**Status**
8.1	**Has the impact on CO2 emissions been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?**	**Partial**
	The sponsor states there will be "*no change in fuel, CO_2 or greenhouse gas emissions as a result of the proposed changes because there would* [be] *no change to lateral or vertical tracks, or* […] *impact* [to] *adjacent IFPs*". In addition, the sponsor does not anticipate any change to fuel uplift as the "*proposal will not impact the distance flown or vertical profile*" of aircraft. The sponsor does state however within the Stage 2 submission that the rationalisation of the TIPOD STARs "*would facilitate a flight-planned track mileage reduction of approximately 18 miles*" due to aircraft no longer needing to flight-plan to TIPOD. This is not stated within the final submission. This question is partially met as the sponsor has not qualitatively considered whether the 18-mile flight-planned track mileage reduction could result in a slight reduction to fuel burn and CO_2 emissions.	
8.2	**If an assessment of the impact on CO2 emissions has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?**	**Yes**
	The sponsor has provided a high-level qualitative assessment of CO_2 impacts which is considered proportionate for an ACP of this nature.	
8.3	**Summary of anticipated impact on CO2 emissions for the final proposed airspace change.**	
	This ACP does not propose to impact upon flight behaviour, or adjacent IFPs, however it does offer an 18-mile flight plannable	

	track mileage reduction due to the rationalisation of the TIPOD STARs. The sponsor concludes that there will be no change to CO_2 impacts.	
9. Local Air Quality [for Level 1 and Level M1 airspace change proposals]		**Status**
9.1	**Has the impact on Local Air Quality been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?**	**N/A**
	As detailed in Question 2.1, this ACP is not anticipated to impact flight behaviour below 7,000 ft. It has therefore been scaled as Level 2C meaning there is no requirement to assess local air quality.	
9.2	**If an assessment of the impact on Local Air Quality has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?**	**N/A**
	This ACP is scaled as Level 2C; therefore, there is no requirement for the sponsor to assesses the impact upon local air quality.	
9.3	**Summary of anticipated impact on Local Air Quality for the final proposed airspace change.**	
	This ACP is not anticipated to impact flight behaviour below 7,000 ft; therefore there is not expected to be any impact upon local air quality. As per CAP1616 [page 171]; "*due to the effects of mixing and dispersion, emissions from aircraft above 1,000 feet* [above mean sea level] *(amsl) are unlikely to have a significant impact on local air quality*".	
10. Tranquillity [for Level 1 and Level M1 airspace change proposals]		**Status**
10.1	**With specific reference to Areas of Outstanding Natural Beauty and National Parks - Has the impact on tranquillity been adequately considered and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?**	**Partial**
	This ACP is a scaled as a Level 2C meaning there is no explicit requirement to assess tranquillity. However, as an outcome of the proposed rationalisation of the TIPOD STARs, availability of the KEGUN STARs and HOLD will be updated to 24hrs. The current AIP entry states that the KEGUN hold is currently operational between 2000-0700 and at TAC discretion at other times. The KEGUN hold is located above the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB) and the sponsor has not taken account of local circumstances (e.g. height of ground) as per the Air Navigation Guidance 2017 Altitude-Based Priority F[10] within their assessment. As per Paragraph B30	

[10] Altitude-Based Priority F: "*All changes below 7,000 feet should take into account local circumstances in the development of the airspace design, including the actual height of the ground level being overflown, and should not be agreed to by the CAA before appropriate community engagement has been conducted by the sponsor*" (Air Navigation Guidance 2017, Pg. 18).

	of CAP1616, the sponsor must confirm to the CAA that the proposal has taken account of the elevation (height) of the ground directly below the airspace change. As the base of the KEGUN hold (FL70 ~ 7,000ft) is in the vicinity of the Clwdyian Range and Dee Valley AONB, the summit of which is approximately 1,818 ft, the CAA requested that the sponsor provides a more detailed tranquillity assessment. NERL provided the following response: "*From the TNT Stage 2 documentation, analysis of historic radar data (whole year 2019) demonstrated that less than 1% of aircraft arriving into EGGP* [Liverpool Airport] *from the south or east enter either the KEGUN or TIPOD Holds. We would not expect aircraft to hold except under extenuating circumstances. All TIPOD STARS currently route via KEGUN, so there will be no change to tracks over the ground. We would therefore expect no impact to tranquillity of this AONB*". In addition to this, NERL stated that in 2019 there were 8689 arrivals into Liverpool Airport using the STARs which are in-scope of this ACP. Of these arrivals, NERL stated that 0 aircraft appeared to commence holding at TIPOD and 21 aircraft appeared to commence holding at KEGUN (0.24%). Based on the information provided by the sponsor it can be considered unlikely that this ACP will result in additional adverse tranquillity impacts to the AONB.	
10.2	**If consideration of the impact on tranquillity has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?**	**No**
	The sponsor did not consider the full impacts of the change and neglected to assess the impact of the rationalisation of the TIPOD STARs and updated availability of the KEGUN STARs and Hold. However, based on the sponsor's clarification response it is considered unlikely that this ACP will result in additional adverse impacts to tranquillity. Additionally this ACP was scaled as Level 2C and therefore there is no requirement for the sponsor to assess tranquillity.	
10.3	**Summary of anticipated impact on tranquillity for the final proposed airspace change.**	
	With specific reference to Areas of Outstanding Natural Beauty (AONBs) and National Parks, any adverse impact upon tranquillity is considered unlikely as the proposal is not anticipated to increase the number of aircraft holding at KEGUN or have an impact on flight patterns over the AONB.	
11. Biodiversity [for Level 1 and Level M1 airspace change proposals]		**Status**
11.1	**Has the impact on biodiversity been adequately assessed and presented in both the consultation material and the final submission to the CAA, taking account of scalability and proportionality?**	**N/A**

	This ACP is not anticipated to impact flight behaviour or traffic patterns below 7,000 ft. It has therefore been scaled as Level 2C meaning there is no requirement to assess the impacts upon biodiversity. As per CAP1616 [page 162] "*Most airspace change proposals are unlikely to have an effect upon biodiversity and therefore the inclusion within the design principles is expected to be the full extent of any consideration in most instances*".	
11.2	**If assessment of the impact on biodiversity has not been undertaken by the sponsor, has this decision been adequately explained and evidenced in both the consultation material and the final submission to the CAA, and is the rationale reasonable?**	**N/A**
	This ACP is scaled as Level 2C meaning there is no requirement to assess biodiversity. As per CAP1616, explicit consideration and assessment of biodiversity is only required where necessary.	
11.3	**Summary of anticipated impact on biodiversity for the final proposed airspace change.**	
	This ACP is unlikely to have an impact upon biodiversity as there are no proposed changes to flight behaviour below 7,000 ft. As per CAP1616 [page 162] "*Most airspace change proposals are unlikely to have an effect upon biodiversity and therefore the inclusion within the design principles is expected to be the full extent of any consideration in most instances*".	
12. Traffic Forecasts		**Status**
12.1	**Have traffic forecasts been provided, are they reasonable, and have these been used to reflect the anticipated environmental impacts of the proposal?**	**N/A**
	No forecasts have been provided however the sponsor states that the "*proportions of aircraft at the relevant airports, including fleet mix and operators, would not differ as an outcome of the proposed changes*". As this is a Level 2C change which is not anticipated to result in a negative impact there is no requirement for the sponsor to undertake quantitative assessments, therefore, there is no requirement for traffic forecasts.	
13. Consultation		**Status**
13.1	**Has the sponsor taken account of any environmental factors (noise, CO2 emissions, Local Air Quality, tranquillity, or biodiversity) raised by consultees or has evidence been provided to indicate why this has not been possible?**	**N/A**
	In 2018, the CAA Manager Airspace Regulation agreed with the sponsor that no further consultation was required for individual DVOR rationalisation ACPs where there were no changes to flight behaviour. Therefore no consultation was undertaken and hence no environmental factors were raised by consultees.	

13.2	**Has the sponsor taken account of any consultation response submitted by ICCAN? If so, what are the outcomes?**	**N/A**
	No consultation was undertaken and therefore ICCAN did not provide a consultation response to this ACP.	
14. Public Evidence Session (if held)		**Status**
14.1	**If a Public Evidence Session has been held, was any new evidence on potential environmental impacts presented?**	**N/A**
	A public evidence session was not held for this airspace change proposal.	
14.2	**If so, was the new evidence relevant and material to the CAA's consideration of the environmental impacts of the submitted airspace change proposal?**	**N/A**
	A public evidence session was not held for this airspace change proposal.	
15. Compliance with policy and guidance from Government, ICCAN or the CAA		**Status**
15.1	**Has the sponsor satisfied all relevant policy and/or guidance from either the Government, ICCAN or the CAA, with regards to environmental impacts of the proposed airspace change?**	**Yes**
	The sponsor has satisfied all relevant policy and guidance for an ACP of this nature.	
15.2	**Has the sponsor adequately considered the DfT's Altitude-Based Priorities[11]?**	**Yes**
	The sponsor has adequately considered the DfT's Altitude Based Priorities. This ACP is not anticipated to impact flight behaviour below 7,000 ft; therefore, the environmental priority is the reduction of CO_2 as per Altitude-Based Priority D.	
16. Other aspects		**Status**
16.1	**Are there any other aspects of the airspace change proposal that have not already been addressed in this report but that may have a bearing on the environmental impact?**	**No**
	None.	
17. Recommendations/Conditions/PIR Data Requirements		**Status**

[11] Paragraph 3.3, DfT's Air Navigation Guidance 2017

17.1	**Are there any environmental recommendations which the change sponsor should address either before or after implementation?**	**No**
	There are no recommendations that the sponsor should try to address either before or after implementation (if approved).	
17.2	**Are there any environmental conditions which the change sponsor must fulfil either before or after implementation?**	**No**
	There are no environmental conditions that the sponsor must fulfil either before or after implementation (if approved).	
17.3	**Are there any environmental requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review?**	**Yes**
	For this ACP it is recommended that the sponsor starts to collect the following information from the date of implementation for the Post Implementation Review: • Monitor and assess flight numbers and behaviour before and after the change, to ensure there are no changes to traffic patterns or flight behaviour; • Monitor and assess flight behaviours below 7,000ft to ensure there is no change; and • Engage with relevant airports to ensure that the proposal does not have an impact below 7,000ft.	

18. Summary of Assessment of Environmental Impacts & Conclusions

This ACP proposes to remove references to the TNT DVOR from 16 procedures in order to facilitate its rationalisation. This ACP has been scaled as Level 2C as it is not anticipated to alter traffic patterns below 7,000 ft. Therefore, in accordance with the Department for Transport's (DfT) altitude-based priorities, the environmental priority is to reduce aircraft CO_2 emissions in support of the objective to ensure that the aviation sector makes a significant and cost effective contribution towards reducing global emissions. As this is a Level 2C ACP there is no explicit requirement for the sponsor to assess other environmental aspects, including impacts on local air quality, noise, tranquillity and biodiversity.

The sponsor does not anticipate changes to actual flight behaviours and therefore concludes no change to CO_2 impacts. It should be noted that the proposed rationalisation of the TIPOD STARs and updated H24 availability of the KEGUN STARs and Hold leads to a flight plannable track mileage reduction of 18-miles which could result in a fuel burn and CO_2 benefit.

Environmental assessment and statement sign-off and approval			
	Name	**Signature**	**Date**
Environmental assessment and statement completed by:	[redacted]	[redacted]	30/11/2021
Environmental assessment and statement reviewed by:	[redacted]	[redacted]	22/12/2021

Principal Airspace Regulator – Approval		
Name	**Signature**	**Date**
[redacted]	[redacted]	17/02/2022