

INTERNATIONAL CIVIL AVIATION ORGANIZATION



FINAL

SUMMARY OF DISCUSSIONS AND CONCLUSIONS OF THE SIXTIETH MEETING OF THE NORTH ATLANTIC SYSTEMS PLANNING GROUP

Paris, France, 25 to 28 June 2024

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INTRODUCTION

0.1 The Sixtieth Meeting of the North Atlantic Systems Planning Group (NAT SPG/60) was held in the European and North Atlantic (EUR/NAT) Office of ICAO from 25 to 28 June 2024.

0.2 The Meeting was chaired by Mrs. Hlin Holm (Iceland). Mr. Nicolas Rallo, ICAO EUR/NAT Regional Director, acted as Secretary, assisted by the ICAO staff as listed in **Appendix A**.

0.3 In connection with the 60th anniversary of the NAT SPG, the Meeting highlighted that for six decades, the NAT SPG had been an example of what could be achieved through cooperation among States. With ICAO providing the framework, the NAT SPG had brought together Member States, Air Navigation Service Providers, international organizations and other partners to shape the future of aviation in the North Atlantic region. Through innovation and the adoption of new technologies, the NAT SPG had achieved remarkable milestones in air navigation, safety, capacity and efficiency. With enhanced resilience and sustainability of civil aviation being the priority topics for the years to come, the NAT SPG was well positioned to tackle the current and future challenges in the same manner as before. On the occasion of this anniversary, the Meeting congratulated and thanked all past and present members and observers of the NAT SPG, its contributory bodies and the ICAO EUR/NAT Secretariat for their hard work and commitment. To mark this special Anniversary, a short NAT SPG video had been developed to be distributed and posted on social media. The Meeting thanked all who were involved in the production of the anniversary video.

0.4 The list of meeting participants and contacts is provided at **Appendix A**. The list of meeting documentation is included in **Appendix B**.

0.5 In the opening session, the following agenda was agreed:

Agenda Item 1: Review of significant international aviation developments

Agenda Item 2: NAT planning and implementation programmes

Agenda Item 3: NAT safety performance and oversight issues

Agenda Item 4: NAT economic, financial and forecast issues

Agenda Item 5: NAT Documentation updates

Agenda Item 6: Work programme, including sub-groups

Agenda Item 7: Any Other Business

1. REVIEW OF SIGNIFICANT INTERNATIONAL AVIATION DEVELOPMENTS

1.1 ICAO UPDATE

1.1.1 The Meeting was provided with a summary of the recent significant international aviation developments including the latest adopted amendments and proposals for amendment to a number of ICAO Annexes and documents, publication of new ICAO Documents and forthcoming ICAO global and NAT Region-related meetings.

1.2 OUTCOMES OF THE EUR/NAT-DGCA/2024 MEETING

1.2.1 The Meeting noted the outcomes of the 2024 Directors General of Civil Aviation Meeting (EUR/NAT-DGCA 2024) that took place in Toulouse, France, on 23 April 2024.

1.3 STATUS OF FOLLOW UP ACTIONS ON NAT SPG CONCLUSIONS

1.3.1 The Meeting reviewed the progress of follow-up actions on NAT SPG Conclusions. It was noted that the following NAT SPG/60 Conclusions had been approved by correspondence prior to the present meeting:

- NAT SPG Conclusion 60/1 – PfA to NAT Doc 004, version 1.6
- NAT SPG Conclusion 60/2 – Annotation of outdated text in NAT SUPPs “Working Copy”
- NAT SPG Conclusion 60/3 – PfA to NAT SUPPs Chapter 6, para 6.2.7
- NAT SPG Conclusion 60/4 – PfAs to NAT Doc 006 Parts I, version 2.2, and II, version 2.2.0
- NAT SPG Conclusion 60/5 – PfA to NAT Doc 008, version 1.13

1.3.2 With regard to NAT SPG Conclusion 55/8 on the implementation of the uplink latency timer, it was noted that the remaining action by the United States was planned to be completed with their next system upgrade. Similarly, on NAT SPG Conclusion 58/14 (Financial arrangement on a joint financing of the NAT HMS (Height Monitoring System)), it was noted that the work was nearing its completion for signing by the United States through a separate Agreement with ICAO. It was noted that the signed Agreement would be submitted as an appendix to the Financial Arrangement that had been signed by all other signatory States. For the sake of transparency, it was agreed that all signatories of the new Arrangement should receive a copy of this document once it had been signed.

1.3.3 Concerning NAT SPG Conclusions 59/7 (Data link logs retention), 59/11 (Coordination on safe integration of CSOs), 59/15 (Use of ADS-B data for NAT CMA), 59/17 (Publication of NAT SUPPs) and 59/19 (PfA to NAT Doc 011), it was agreed that these could be closed based on the updates received. In particular on Conclusion 59/7, it was noted that Collins, in the absence of contractual or regulatory requirement, currently could not commit to a period of more than 90 days for the data communication log retention, which had been agreed through the NAT SPG Safety Policy outlined in the *NAT SPG Handbook* (NAT Doc 001) encouraging Air Navigation Service Providers (ANSP) and Communication Service Providers (CSP) to retain logs for a period of at least one year.

1.3.4 Concerning the draft NAT SPG Conclusion regarding the Operational trial to support data collection for utilisation of even flight levels (FLs) above FL410 with a 2000 feet separation which had been proposed by correspondence (email of 21 December 2023 refers), it was noted that this Conclusion had not been endorsed by NAT SPG. Nevertheless, the discussions on this topic resulted in some proposals that were documented further in this report.

1.3.5 With regard to NAT SPG Conclusion 59/14, it was noted that the North Atlantic Safety Oversight Group (NAT SOG) had established a project team to determine the steps for the removal of the Minimum Navigation Performance Specification (MNPS)/High Level Airspace (HLA) approvals (NAT SOG Decision 30/05 on Removal of the MNPS/HLA approvals PT (RMHA PT) refers).

1.3.6 The Meeting noted an update from Denmark on the progress of the work towards the establishment of a new area control center (ACC) in Greenland to conduct air traffic control in Nuuk Flight Information Region (FIR). The preliminary project to outline a plan and budget was advancing. As previously agreed, Denmark would continue providing such updates to the NAT SPG meetings.

1.3.7 With respect to NAT SPG Conclusion 58/05 (NAT cybersecurity workshop 2023), the Meeting was informed that the organisation of the NAT cybersecurity workshop was delayed and currently planned in 2025.

1.3.8 The updated list of NAT SPG Conclusions and NAT SPG follow up actions are provided in **Appendix C** and **Appendix N**.

1.4 REVIEW BY THE AIR NAVIGATION COMMISSION OF THE NAT SPG/59 REPORT

1.4.1 The Meeting was provided with an information paper on the outcome of the NAT SPG/59 (June 2023) report review by the Air Navigation Commission (ANC) presented to the 224th Session of the ANC.

1.5 NAT PROJECT TEAMS STATUS

1.5.1 The NAT SPG noted the status of the ongoing NAT project teams (**Appendix D** refers).

1.5.2 With regard to the NAT SOG Trajectory-based Collision Risk Modelling Project Team (TBCRM-PT) that was tasked to improve Collision Risk Estimation in the NAT by using actual aircraft flown profiles, it was noted that the report of the PT had been presented to the NAT SOG. The NAT SOG agreed that the new approach offered several advantages but required more resource-intensive computation. Therefore, the NAT SOG agreed that sharing of the extensive data sets was not practical, rather the North Atlantic Mathematicians Working Group (NAT MWG) members should share the processes and deliverables developed in support of the new methodology. The next step was for NAT States to commit resources to implement the trajectory-based modelling approach. Accordingly, the NAT SOG agreed on Decision 30/04 recognizing that the NAT TBCRM-PT objectives had been successfully met and therefore the TBCRM-PT could be disbanded.

1.5.3 The Meeting was informed that the NAT SOG had established a Project Team on the Oversight of CSPs/SSPs (Surveillance Service Providers) (OCS PT) with designated leads and a project period of July 2024 to May 2025 (NAT SOG follow up action 29-01 refers).

1.5.4 The Meeting noted that the work of the North Atlantic Economic, Financial and Forecast Group's (NAT EFFG) Traffic Forecast Methodology Review Project Team (TFMR PT) to review the current traffic forecast methodology in the post-COVID-19 period was on-going to determine reliable sources of historical data to replace the current data that was outdated (2015-2016). In view of the further work required in order to achieve its objectives, the NAT EFFG agreed to extend the project timeline until the end of 2024.

2. NAT PLANNING AND IMPLEMENTATION PROGRAMMES

2.1 VOLCANIC ASH EXERCISES

2.1.1 The Meeting was provided with an update on the Volcanic Ash Exercises for the EUR and NAT Regions (VOLCEX), including the outcomes of the VOLCEX23 Debrief and VOLCEX24 Planning Meeting that was held in Vila do Porto, Azores, Portugal from 22 to 23 January 2024. The Meeting noted the main outcomes of VOLCEX23, main attributes and milestones for the VOLCEX24 exercise that would take place on 19 November 2024 simulating the eruption of the Santa Barbara volcano in the Azores, Portugal. The Meeting participants were encouraged to actively participate in the upcoming exercise.

2.2 NAT OCEANIC CLEARANCE REMOVAL

2.2.1 The Meeting was provided with an update on the status of Oceanic Clearance Removal (OCR) implementation in the NAT. It was recalled that per NAT SPG Conclusion 59/9, the NAT OCR implementation on 21 March 2024 for all NAT ANSPs except Shanwick, and 09 April 2024 for Shanwick, had been endorsed, subject to submission of written confirmation by implementing States to the ICAO Secretariat that national safety cases for OCR had been completed. The Meeting noted that Iceland and Portugal had implemented the OCR on the planned date and that, considering the project readiness, summer traffic, and controller rostering, the earliest possible aligned date for OCR implementation by Canada, Norway and the United Kingdom was agreed as 4 December 2024.

2.2.2 The Meeting took note of the concerns by the International Air Transport Association (IATA) related to the impact on operator and flight crew training and related financial resources due to the delayed OCR implementation. In addition, Spain reported some increased workload for ANSPs in clarifying the OCR change for flight crews taking into account that Madrid interfaces both with Santa Maria that has implemented OCR procedures and Shanwick that has not yet implemented OCR procedures. IATA reiterated to the Group that the current edition of the *North Atlantic Operations and Airspace Manual* (NAT Doc 007) did not reflect the current state of OCR implementation which could add to flight crew confusion.

2.2.3 While recognising that the NAT SPG/59 endorsed implementation dates had not been met by Canada, Norway and the United Kingdom, the Meeting also acknowledged that the decision to delay was fully justified and based on safety considerations and operational readiness. The Meeting also noted that the notification process to the NAT SPG on the planned implementation delay could be improved so that the potential issues could be identified earlier with subsequent early notification to the NAT SPG. In this regard, the NAT Implementation Management Group (NAT IMG) Decision 64/6 on enhancement of the NAT communication process concerning potential implementation delays was noted that urged the NAT provider States and Air Navigation Service Providers (ANSPs) to ensure that potential implementation delays were identified and notified as early as possible to enable a coordination process within the NAT SPG structure.

2.2.4 The Meeting noted that the NAT OCR implementation task list had accordingly been updated through NAT IMG Decisions 64/7 in coordination with the NAT SOG. In addition, the need for a change to the OCR RCL response messages had been identified because of two occurrences where pilots had initiated an un-cleared flight level change and queries from pilots indicated that the previous RCL response message had not been fully understood by some pilots. The Meeting noted that the new RCL response message had already been implemented by Reykjavik and Santa Maria. Those changes had resulted in updates to the NAT OPS Bulletin on Oceanic Clearance Removal (OCR) that had been implemented through NAT IMG Decision 64/8.

2.2.5 In addition, proposals for amendment to NAT Doc 007 (version 2024) and the OCR NAT Regional Safety Case had been developed and presented to the Meeting. Based on the above, the NAT SPG agreed on the following:

NAT SPG Conclusion 60/6 – Update NAT Doc 007 (v2024) and NAT OCR NRSC

That, the ICAO Regional Director, Europe and North Atlantic, take appropriate actions to publish the NAT SPG endorsed amendment to the *North Atlantic Operations and Airspace Manual* (NAT Doc 007 (v2024)) and Oceanic Clearance Removal (OCR) NAT Regional Safety Case (OCR NRSC) as provided in **Appendix E** and **Appendix F**.

2.2.6 Furthermore, the Meeting noted NAT SOG Decision 30/01 on the establishment of the NAT Safety Case Enhancements and Fast Track Project Team (NAT SCEFT) to enhance the NAT safety case, aiming to strengthen the communication process for necessary adjustments to implementation procedures, and to review the NAT fast track process to ensure its efficiency. In this regard, the Meeting agreed that the work on the fast track procedure should be directed towards its complete revision taking into account the organisational changes that had been introduced in the NAT working methods since the fast track procedure had first been developed. Namely, the regular teleconferences of the NAT SPG chair-team should now become the main vehicle for rapid communication on any urgent issues of safety concern in the NAT. It was agreed that the NAT SCEFT PT would present its outcomes to the next meetings of the NAT SOG and NAT IMG for further recommendations to the NAT SPG.

2.2.7 The Meeting further discussed the need for an analysis of the lessons learnt from the implementation of the NAT OCR programme. In particular, it was noted that the implementation of such a complex programme as OCR should, from the onset, incorporate the need for more flexibility for the implementers and carefully assess the benefits of a phased approach versus a region-wide synchronised approach.

2.3 NAT CRISIS RESPONSE PROCESSES

2.3.1 With regard to NAT SPG Conclusion 56/13 (Review of NAT regional crisis response processes), the Meeting was informed that the work undertaken under the European Aviation System Planning Group (EASPG) to review the *EUR Crisis Management Framework Document* (EUR Doc 031) had been completed. It was noted that with the 2nd Edition of EUR Doc 031 that was approved by EASPG/5 in December 2023, the NAT activities related to NAT SPG Conclusion 56/13 (Review of NAT regional crisis response processes) would be re-initiated and that the NAT IMG and NAT SOG Chairs would prepare a draft Terms of Reference (ToR) for a NAT project team to be established to address the foregoing NAT SPG Conclusion. The draft ToR would be reviewed by the NAT IMG and NAT SOG meetings in the Fall 2024.

2.4 SPACE WEATHER CONTINGENCIES

2.4.1 The Meeting was provided with a summary outcomes of the Space Weather exercise that was conducted by the European Aviation Crisis Coordination Cell (EACCC) in November 2023. It was recalled that this update was provided in follow up to NAT IMG Action 61-6 (Submit a WP on space weather exercises after the EACCC exercise) with the objective to revisit the NAT IMG/61 discussion on a possible NAT Space Weather exercise.

2.4.2 In this regard, the Meeting noted that a task had been added to the work programme of the North Atlantic Procedures and Operations Group (NAT POG) to prepare an implementation plan to conduct a NAT Space Weather exercise in 2025.

2.5 NAT SPG CONCLUSION 59/8 – FLIGHT LEVEL USAGE ABOVE FL410

2.5.1 The Meeting was informed about the NAT IMG discussion on preparatory work in support of an operational trial allowing utilisation of even FLs above FL410. This was to support the work of the ICAO Separation and Airspace Safety Panel (SASP) in developing 1000 feet separation minima above FL410. It was noted that following the initial discussions on the proposed Concept of Operations (CONOPS), it was proposed that a more effective method of gathering data would be to request that the NAT Central Monitoring Agency (NAT CMA) collect and filter data on aircraft operating above FL410 from the SB (Space-based) ADS-B (Automatic Dependent Surveillance – Broadcast) data available to them. It was noted that this data collection exercise may eventually negate the need for the data collection trial. The initial response from the NAT CMA indicated that the data collection could be done with a few modifications in their system which would take a few months to implement.

2.5.2 Therefore, the following was agreed:

NAT SPG Conclusion 60/7 – Data collection for aircraft operating between FL410 and FL470

That, the:

- a) NAT Central Monitoring Agency (NAT CMA) be invited to collect and validate height monitoring performance data from aircraft that are operating between FL410 and to FL470 (inclusive);
- b) results of the data collection and validation for the first six months be submitted to the NAT Implementation Management Group (NAT IMG), NAT Safety Oversight Group (NAT SOG) and Regional Monitoring Agencies Coordination Group (RMACG) for further direction; and
- c) NAT IMG and NAT SOG Chairs agree by correspondence on the validity of the data and ensure that the results be sent to the ICAO Separation and Airspace Safety Panel (SASP).

2.6 BLUE SPRUCE ROUTES PT (BSR PT)

2.6.1 The Meeting was presented with a report of the NAT Blue Spruce Routes Project Team (BSR PT) that was established in follow up to NAT SPG Conclusion 59/12 and NAT IMG Decision 63/2.

2.6.2 The main results of the BSR PT research were detailed as follows:

- a) considering the sparsity of the available ground-based navaids and the gaps in navaid coverage, the BSR PT considered it questionable if the continuity and accuracy requirements of Annex 6 and the RNAV 10 navigation specification could be met using a single Long Range Navigation Systems (LRNS) and the ground-based navaids supporting the Blue Spruce routes as the back-up navigation system;
- b) low usage of the Blue Spruce routes and low number of aircraft equipped with a single LRNS and FANS (Future Air Navigation System) data link did not warrant maintaining the Blue Spruce routes;
- c) the difference in flight distance between the Blue Spruce routes and the surveillance corridor was not prohibitive and did not warrant retaining the Blue Spruce routes; and
- d) an alternative means of routing using a single LRNS exists in the form of the Iceland – Greenland corridor and is considered as a sufficient replacement for the Blue Spruce routes.

2.6.3 Consequently, the Meeting agreed to the following conclusions:

- a) the Blue Spruce routes were not required and should be discontinued; and
- b) the Iceland – Greenland VHF and Surveillance corridor as supported by the provisions in the *NAT Regional Supplementary Procedures* (NAT SUPPs, Doc 7030) section 6.9.1 provided a sufficient alternative mechanism to support aircraft operations with degraded navigation capabilities.

2.6.4 It was also noted that the BSR PT considered that the question on retainment of the ground-based navaids in the NAT Region was outside their scope and it would be a regulatory decision to be taken at the States' level. This decision would be influenced by various factors such as airport needs, State and military requirements and possible mitigation against GNSS (Global Navigation Satellite System) interference. In this regard, it was agreed that the NAT IMG should review the *NAT Air Navigation Plan* (NAT eANP, Doc 9634) requirements concerning the need for NDBs (Non-directional beacons) and VORs (VHF omnidirectional range) in the NAT. Also, an ICAO State letter addressed to the NAT States and the NAT airspace users soliciting their feedback on the continuing need for NDBs and potential for implementation of additional ground-based navaids such as VORs in the NAT should be circulated. A report on the outcome of these activities would be provided to the next NAT SPG. IATA reiterated to the Group that the cost of NDBs supporting the Blue Spruce Routes should not be charged to commercial airline operators.

2.6.5 Based on the foregoing, the Meeting thanked the BSR PT and its lead, Mr. Bjarni Stefansson from Iceland, for the excellent work in this very short timeframe, and agreed to the following:

NAT SPG Conclusion 60/8 – NAT Blue Spruce routes deletion

That, the:

- a) NAT Blue Spruce routes be deleted with effect from AIRAC 20 March 2025; and
- b) NAT Blue Spruce Routes Project Team (BSR PT) be disbanded.

2.6.6 Furthermore, the Meeting noted the BSR PT proposal to investigate the feasibility of raising the lower limit of the NAT HLA from FL285 to FL315 accounting for reported reduced usage of FL290, FL300 and FL310. It was noted that the use of these FLs needed to be further monitored as some new aircraft

were reported to have started operations in the NAT that were predicted to use these FLs and that the investigation of the feasibility had been added to the NAT POG work programme.

2.7 NAT NER PT – COMMERCIAL SPACE OPERATIONS (CSO)

2.7.1 The Meeting was presented with the progress from the NAT New Entrant Readiness Project Team (NER PT) addressing the comments made since NAT SPG/59 on the draft Operational Guidance Material for integration of Commercial Space Operations (CSO) (NAT SPG Conclusion 59/11 refers).

2.7.2 The Meeting expressed their sincere appreciation to the NAT NER PT members and rapporteurs Mr. Colin Scott (United Kingdom) and Mr. Joe Ryan (Ireland) for their hard work in developing the new NAT Document that would be very useful in facilitating safe and efficient airspace integration of CSO.

2.7.3 Based on the foregoing, the following was agreed:

NAT SPG Conclusion 60/9 – *NAT Operational Guidance Material for Commercial Space Operations (CSO)* (NAT Doc 013)

That, the:

- a) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the *NAT Operational Guidance Material for Commercial Space Operations (CSO)* in **Appendix G** as NAT Doc 013; and
- b) NAT New Entrant Readiness Project Team (NER PT) be disbanded.

2.7.4 It was agreed that as part of the publication and promulgation process, NAT Doc 013 would also be disseminated to the CSOs.

2.7.5 In this regard, Meeting noted the discussions from the NAT New Entrants Integration Workshop (13-14 May 2024) which had been held with the main objective to facilitate a dialogue to discuss practical measures to facilitate the integration of various new entrants in a safe, efficient and environmentally sustainable manner.

2.7.6 The Meeting supported the need for additional workshops to ensure the continuation of the dialogue and more complete representation from other new entrants and CSOs that were not present in the first Workshop. It was noted that a follow up workshop focusing on CSO could be planned in 2025 and outreach to other new entrants would be needed to probe their willingness and readiness for a NAT workshop to focus on other new entrants, including super/hypersonic aircraft, higher airspace operations, etc. It was also agreed that further harmonisation of practices in the NAT in support of CSOs based on the lessons learnt and anticipated global developments, such as the upcoming 14th ICAO Air Navigation Conference (AN-CONF/14, Montréal, Canada, 26 August-6 September 2024), would need to be pursued prior to the convening of the next NAT workshop on CSO.

2.7.7 The Meeting noted with thanks information from the United States on their planned initiative to develop a document summarising best practices for CSO airspace integration which would be presented to the NAT groups once ready. Also, it was noted that the United Kingdom NATS were working on identifying different options for possible charging mechanisms that would be shared with the NAT groups when available.

2.8 NAT SPG COMMON METRICS PROJECT TEAM (NAT CM PT)

2.8.1 The Meeting was informed about the progress of the NAT SPG Common Metrics Project Team (NAT CM PT) that had been convened in accordance with NAT SPG Conclusion 59/6 and focusing on the following 4 deliverables per its ToR:

- a) establish a baseline from which to measure performance;

- b) develop Key Performance Indicators (KPI) and Key Performance Areas (KPA), to include service delivery and environment;
- c) highlight possible interdependencies with current NAT safety KPIs (SKPI); and
- d) determine data collection, resource and process requirements.

2.8.2 It was noted that the CM PT had reached consensus on one KPA that stood out as being most common and applicable to all NAT ANSPs, related to the percentage of flights eligible for Performance-based communication and surveillance (PBCS) based separation minima which was already being monitored through the work of the North Atlantic Technology and Interoperability Group (NAT TIG).

2.8.3 The Meeting noted the difficulties that the CM PT faced despite their numerous meetings and efforts in trying to progress on the tasks that had been assigned by the NAT SPG. The PT identified challenges with establishing an operational performance baseline, specifically relating to horizontal and vertical efficiency because the optimum profile the aircraft would fly (for any specific operator on any given day) in absence of any air traffic management (ATM) imposed limitations was not known. As an example, routing restrictions before NAT entry could lead to the NAT entry point already being located away from the unknown optimum profile, in addition some aircraft operational decisions were based on preference, schedule, technical or other human factor considerations that were not known. Effectively, it was not possible to calculate a performance gain if the baseline was not known. It was also noted that the effect of the application of separation minima should not be considered as inefficiency in terms of performance because it was a safety requirement. Two aircraft could not occupy the same airspace at the same time, and any efficiency gained in that regard was dependent on development of smaller separation minima by ICAO, which was outside the direct control of NAT ANSPs.

2.8.4 In consideration of suggested performance areas and indicators, the PT determined that basic performance data metrics applicable to the NAT should be developed in a manner that would facilitate performance improvements in the Region. The view of the NAT ANSPs in the PT was that improvements in vertical and horizontal efficiency would best be achieved by identifying the NAT State- and ANSP-imposed “impediments” on aircraft operations that were imposed in addition to global ICAO provisions, and scrutinizing the applicability and effect of those “impediments”. An example of such an impediment was the requirement to flight plan at half or whole degrees of latitude at every ten degrees of longitude, or by not implementing published reduced separation minima. As detailed in the paragraph above, it was however recognized that, in the absence of a known optimum flight profile baseline, it would be difficult to quantify any gains from “impediment” removals or amendments.

2.8.5 The Meeting, while acknowledging the challenges faced by the CM PT, also agreed that it was worthy to pursue the NAT efforts on identifying common service delivery and environment related performance network. It was recalled that the NAT Vision improvements included those related to the vertical and horizontal flight efficiency and cost per 100 km. In this regard, a proposal from the NAT MWG to analyse data already available to them and propose possible common NAT metrics was noted. It was agreed that the NAT MWG would proceed with this task in coordination with other NAT groups, as required, and present its outcomes to the next NAT SOG and NAT IMG.

2.8.6 Consequently, the Meeting expressed their sincere appreciation to the CM PT and its lead, Mr. Jeff Miller (IATA), for their excellent work and efforts, and agreed the following:

NAT SPG Conclusion 60/10 – NAT Common Metrics

That, the:

- a) NAT Mathematicians Working Group (NAT MWG), in coordination with other NAT contributory bodies, as required, review data available with the view of proposing possible NAT common metrics to support the implementation of the NAT Vision operational improvements related to the horizontal and vertical flight efficiency and cost per 100 km and report to the spring 2025 NAT Safety Oversight Group (NAT SOG) and NAT Implementation Management Group (NAT IMG) meetings; and

- b) NAT Common Metrics Project Team (CM PT) be disbanded.

3. NAT SAFETY PERFORMANCE AND OVERSIGHT ISSUES

3.1 ADT LADR EXERCISE (NAT DISTREX PT)

3.1.1 The Meeting was provided with an update of the ongoing work of the NAT Autonomous Distress Tracking (ADT) Exercise with Location of an Aircraft in Distress Repository Project Team (NAT DISTREX PT) that had been established (NAT SPG Conclusion 59/4 refers) to develop and conduct an exercise to test the operation of the LADR (Location of an Aircraft in Distress Repository) and the coordination between ANSPs, Search and Rescue (SAR)/Rescue Coordination Centres (RCCs), and air operators upon receipt of an ADT (Autonomous Distress Tracking) notification.

3.1.2 The Meeting was informed that ICAO had sent a State letter on 24 June 2024 announcing the operational availability of the LADR and requesting aircraft operators, Air Traffic Service (ATS) providers and SAR centres to register. Accordingly, the DISTREX PT would proceed to the next steps in the planning and organising of the NAT exercise and report to the Fall meetings of the NAT.

3.2 NAT ANNUAL SAFETY REPORT (ASR) 2023

3.2.1 The Meeting was presented with the NAT Annual Safety Report (NAT ASR). It was noted that the 2023 data indicated that the performance targets had not been met for 8 of the 11 agreed SKPIs which may be attributed to the significant increase of traffic compared to the 2020-2022 period and an increase in ANSPs' reporting culture.

3.2.2 The Meeting noted that the Vertical Collision Risk Estimate (CRE) for NAT HLA increased in 2023 to 20.3×10^{-9} fatal accidents per flight hour (fapfh) from the previous year. The 2023 lateral risk estimate decreased slightly compared to 2022, to 12.7×10^{-9} fapfh. Both the vertical and lateral CREs exceeded the Target Level of Safety (TLS) for operational and technical errors, set at 5×10^{-9} fapfh. The Meeting noted that this was primarily due to two longer duration events of 170 and 77 minutes that took place in the area where ADS-B was not available to enable their earlier detection. Without these two events, both estimates would be below or close to the TLS.

3.2.3 The Meeting noted that the number of events scrutinized in 2023 increased by 26% in comparison to those scrutinized in 2022. The top four common causal factors remained the same as 2022, these were: flying Flight Plan vs. Clearance, not adhering to ATC clearances, weather and ATC coordination errors. The Meeting noted that the NAT OCR implementation was expected to have significant impact on the two top common causal factors and the future trends would be monitored.

3.2.4 The Meeting noted that, in accordance with the NAT SOG ToRs, the SKPIs must be reviewed every three years, and a review was due in 2024. Given that the last review was extensive and SKPIs needed a certain consistency for proper tracking, it was agreed that only a minor review would be necessary. Therefore, the North Atlantic Scrutiny Group (NAT SG) would review the SKPIs at their next meeting and report back to NAT SOG/31 for further discussion.

3.2.5 Consequently, the following was agreed:

NAT SPG Conclusion 60/11 – NAT Annual Safety (ASR) Report 2023

That, the:

- a) NAT Annual Safety Report (NAT ASR 2023) be endorsed; and
- a) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the NAT SPG-endorsed NAT ASR 2023 (**Appendix H** refers).

3.3 GNSS INTERFERENCE ISSUES

3.3.1 The Meeting took note of information provided on GNSS interference, including the ICAO State Letter Ref: E 3/5-24/54 with recommendations emanating from the ICAO EUR/MID (Middle East) Radio Navigation Symposium (Antalya, Türkiye, February 2024), and updates provided by States and ANSPs on their experience and planned activities in this regard. It was noted that the recent increase in occurrences of GNSS jamming and spoofing had raised concerns about the potential impact on flight safety and operational efficiency. Although the jamming and spoofing events took place outside the NAT region, the effects of these events were carried into the NAT Region by affected aircraft. IATA informed the Group that NDBs were not a mitigation for the current airline operations. Today's modern aircraft did not have Automatic Direction Finder (ADF) instrumentation and flight crews of major airline operators were not trained in NDB procedures.

3.3.2 The Meeting noted updates on the current NAT discussions related to the GNSS interference, including the latest amendment to the *North Atlantic Operations and Airspace Manual* (NAT Doc 007) and potential work on avionics upgrades to enable inflight recovery of GNSS receivers following a GNSS interference event. The Meeting agreed that further regionally coordinated efforts under the NAT IMG would be required to develop harmonised ANSPs' contingency procedures on GNSS interference. This work may potentially result in a NAT OPS Bulletin being prepared for the Fall 2024 meetings of the NAT IMG and its contributory bodies.

3.3.3 In connection with the foregoing, the Meeting noted information on the planned GNSS interference exercises to be conducted by the EACCC in March 2025 and a planned availability of the EUROCONTROL's Network Manager (NM) on-line map of known areas with GNSS interference.

4. NAT ECONOMIC, FINANCIAL AND FORECAST ISSUES

4.1 UPDATE ON THE ISSUE OF CHARGING SCHEME FOR COMMERCIAL SPACE OPERATIONS AT THE ICAO AIRPORT ECONOMICS PANEL AND AIR NAVIGATION SERVICES ECONOMICS PANEL (AEP-ANSEP)

4.1.1 The Meeting was apprised of the outcomes of the Ninth joint meeting of the ICAO Airport Economics Panel and Air Navigation Services Economics Panel (AEP-ANSEP/9, Montréal, Canada, 17-19 October 2023) specifically concerning review of ICAO's *Policies on Charges for Airports and Air Navigation Services* (Doc 9082) and economic aspects of unmanned aircraft systems (UAS) and potential cost recovery mechanisms for UAS operations.

4.1.2 It was noted that the scope of tasks of Working Group 5 (AEP-ANSEP WG5) had been expanded to account for new entrants, particularly AAM (Advanced Air Mobility), commercial space transportation launches and higher altitude operations; and to address the applicability of the key charging principles to UAS, AAM, commercial space transportation launches, and higher altitude operations, and propose an appropriate way forward.

4.1.3 In noting the increasing number of commercial space operations in the NAT airspace and therefore the urgency to address this complex issue, the NAT EFFG expressed their availability to provide support to any work initiated at the regional and global levels. Accordingly, the NAT EFFG agreed to begin sharing information and best practices concerning the financial impact and potential charging mechanisms of regional CSO activities.

4.2 NAT EFFG ASSESSMENT AND NAT SPG APPROVAL OF THE TRAFFIC FORECAST 2024-2028

4.2.1 The Meeting was provided with the traffic forecast for the period 2024-2028 as prepared by the NAT EFFG. It was noted that, as the usual practice, this version would be used for the calculation of user charges for the DEN/ICE (Danish and Icelandic) Joint Financing Agreements (JFA) in September 2024.

4.2.2 The Meeting noted the NAT EFFG discussions and decision to continue the transition process from the ad hoc methodology that had been adopted during the COVID-19 crisis back to the standard model.

The transition was being accomplished by evaluating and comparing the standard model forecast against the ad hoc forecast. It was noted that the forecast for the period 2024-2028 would not include the peak week data for July 2024. It was expected that aircraft delivery schedules would have stabilized sufficiently by 2025 to allow normal use of the standard model forecast.

4.2.3 Therefore, the following was agreed:

NAT SPG Conclusion 60/12 – Approval of the NAT Traffic Forecast (2024-2028)

That, the ICAO Regional Director, Europe and North Atlantic, take appropriate measures to publish the NAT traffic forecast for the period 2024-2028 as provided in **Appendix I**.

5. NAT DOCUMENTATION UPDATES

5.1 NAT VISION AND NAT eANP UPDATES

5.1.1 The Meeting was presented with a proposal for updates to the *NAT Air Navigation Plan* (eANP) Volume III (NAT eANP, Doc 9634) regarding the NAT Vision in accordance with the progress made at various NAT meetings since NAT SPG/59.

5.1.2 Based on the above, the following was agreed:

NAT SPG Conclusion 60/13 – PfA to NAT eANP Volume III (Doc 9634)

That, the ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the *NAT Air Navigation Plan* (eANP) Volume III (NAT eANP, Doc 9634) which includes the updated NAT Vision information as provided in **Appendix J**.

5.2 UPDATE OF NAT DOC 001 – NAT SPG HANDBOOK

5.2.1 The Meeting was provided with a proposal for amendment to the *North Atlantic Systems Planning Group (NAT SPG) Handbook* (NAT Doc 001) to include:

- a) Update to Section 1: #18 – NAT SPG representative of Portugal, United Kingdom and United States;
- b) Update to Sections 1, 2:B and 3:B – related to Observer status at NAT SPG and its contributory groups; and
- c) Updates to Section 6:A — Documents promulgated by the NAT SPG.

5.2.2 Therefore the following was agreed:

NAT SPG Conclusion 60/14 – PfA to the NAT SPG Handbook, NAT Doc 001

That, the:

- a) *North Atlantic Systems Planning Group* (NAT SPG) *Handbook* (NAT Doc 001) be amended as presented at **Appendix K**; and
- b) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish and promulgate the updated *North Atlantic Systems Planning Group (NAT SPG) Handbook* (NAT Doc 001).

5.3 UPDATE OF NAT DOC 007 – NORTH ATLANTIC OPERATIONS AND AIRSPACE MANUAL

5.3.1 The Meeting was presented with a proposal for amendment to the *North Atlantic Operations and Airspace Manual* (NAT Doc 007) focusing on changes resulting from the conclusions of the Blue Spruce Routes (BSR) PT, addition of two new sections regarding space weather and GNSS interference, simplification of the document by deleting chapters 12 and 13 and various other smaller changes. It was agreed that the publication date of this edition be deferred to 20 March 2025 to allow for the consolidation of the OCR implementation that had been addressed in the previous edition. IATA thanked the NAT Document Management Office (NAT DMO) for the work involved and for providing an excellent document for operators and flight crews.

5.3.2 Therefore the following was agreed:

NAT SPG Conclusion 60/15 – PfA to NAT Doc 007, version 2025

That, the ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the updated *North Atlantic Operations and Airspace Manual* (NAT Doc 007) (version 2025) with the effective implementation date of 20 March 2025 as provided in **Appendix L**.

5.4 UPDATE OF NAT DOC 008 – APPLICATION OF SEPARATION MINIMA NORTH ATLANTIC REGION

5.4.1 The Meeting was presented with a proposal for amendment to the *Application Of Separation Minima - North Atlantic Region* (NAT Doc 008) to include some minor changes in section 3.3.1 G and table of separations applied in the NAT in connection with the recent implementations in the New York Oceanic Control Area (OCA).

5.4.2 Based on the above, the following was agreed:

NAT SPG Conclusion 60/16 – PfA to NAT Doc 008, version 1.14

That, the ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the updated *Application of Separation Minima - North Atlantic Region* (NAT Doc 008, version 1.14) as provided in **Appendix M**.

6. ANY OTHER BUSINESS

6.1 FAREWELLS

6.1.1 The Meeting was informed that this was the last NAT SPG meeting for Ms. Patricia Cuff (ICAO) and Mr. Stuart Lindsey (United Kingdom). The Meeting expressed their sincere appreciation for their significant contributions and continuous support to the NAT SPG over the past years and wished them all the best in their future endeavours.

6.2 ACCESS TO THE NAT SPG DOCUMENTATION ON THE ICAO SECURE PORTAL AND PUBLIC WEBSITE

6.2.1 The Meeting was informed about the NAT IMG/63 (November 2023) discussion regarding some concerns about the access to restricted ICAO documentation. Notably, the ICAO Secure Portal and NAT SPG Reports posted on the ICAO EUR/NAT public website often contained proprietary and/or time sensitive information from the NAT SPG and its contributory groups earmarked for a later publication date. Misuse of this information by some external parties was reported.

6.2.2 In this regard, the Meeting noted updates from the Secretariat on verification and cleaning of the lists of subscribers to different NAT groups. It was agreed that this exercise would be repeated on an annual basis. In addition, the members and observers of the NAT groups should be reminded about their

responsibilities vis-à-vis further recirculation of the information available on the ICAO Secure Portal. With regard to the NAT SPG Report being available on the ICAO public website, it was agreed that although there was no formal requirement for publication of the reports on the public website, this practice should continue for the time being.

6.2.3 Therefore, the following was agreed:

NAT SPG Conclusion 60/17 – Access to the NAT documentation on the ICAO secure portal and public website

That, the ICAO Regional Director, Europe and North Atlantic, take appropriate measures to ensure that annual reviews of subscriptions to the NAT groups on the ICAO secure portal are conducted.

6.3 REQUEST FROM ICCAIA

6.3.1 The Meeting was informed that a request had been received from the International Coordinating Council of Aerospace Industries Associations (ICCAIA) to become an observer at the NAT SPG. It was noted that ICCAIA was an organisation endorsed by the ICAO Council to participate in ICAO meetings and some Original Equipment Manufacturers (OEM) were already actively participating in the work of the various NAT SPG contributory bodies.

6.3.2 With this information and introduction from the ICCAIA (Boeing) representative, the Meeting agreed to accord a NAT SPG observer status to the ICCAIA with appropriate amendments to the *NAT SPG Handbook* (NAT Doc 001).

6.4 NAT IMG CHAIR TEAM ELECTIONS

6.4.1 The Meeting confirmed the re-elections of Mr. Sean Patrick (Ireland) as the Chairperson and Ms. Thordis Sigurdardottir (Iceland) as the Vice-Chairperson, of the North Atlantic Implementation Management Group (NAT IMG), which took place at the NAT IMG/63 meeting in November 2023.

6.5 PLANNING OF THE FUTURE MEETINGS

6.5.1 The Meeting noted that the calendar of the NAT meetings for 2025 had been revisited to ensure sufficient time between meetings, in particular in preparation for the NAT SPG.

6.6 NEXT MEETING

6.6.1 It was agreed that the NAT SPG/61 would be held from 24 to 27 June 2025 in Paris, France.

APPENDIX A — LIST OF PARTICIPANTS*(Paragraphs 0.2 and 0.4 refer)***CHAIRPERSON**

Hlin HOLM*

CANADA

Vanessa ROBERTSON*

Michael MUNRO

Noel DWYER

DENMARK

Patrick Alexander LIEBGOTT*

Christoffer Vahl BENDIXEN

Hans-Lars PEDERSEN

FRANCE

Christophe GUILPAIN*

ICELAND

Thordis SIGURDARDOTTIR

Bjarni K. STEFANSSON

Arni GUDBRANDSSON

IRELAND

Paul KENNEDY*

Sean PATRICK

NORWAY

Baard LARSEN*

PORTUGAL

Angela ALVES*

Carlos ALVES

Luis TOJAIS

SPAIN

Rafael MONTORO BERNARD

UNITED KINGDOMStuart LINDSEY* (*out-going member*)

Ben LIPPITT*

Jacob YOUNG

Iain BROWN

Colin SCOTT (*remotely*)**UNITED STATES**

Tracey JOHNSON*

Coleen HAWRYSKO

Jennifer KILEO

Steven PINKERTON

Holly KING

Gary MILLER

EUROCONTROL

David BRAIN

International Air Transport Association (IATA)

Julie MAILHOT

Rich STARK

International Federation of Air Line Pilots Association (IFALPA)

Kathi HURST

International Federation of Air Traffic Controllers' Associations (IFATCA)

Silja JOHNSDOTTIR

International Coordinating Council of Aerospace Industries Associations (ICCAIA)

Eric DEMONEY

NAT Central Monitoring Agency (NAT CMA)

David LUNAN

ICAO EUR/NAT

Nicolas RALLO (Secretary)

Elkhan NAHMADOV

Bryan DECOUTO

Sarantis POULIMENAKOS

Patricia CUFF

* NAT SPG Member

Participants and Members Contact List

(Paragraph 0.4 refers)

To be included only on Restricted Website of NAT SPG

APPENDIX B — LIST OF MEETING DOCUMENTATION

(paragraph 0.4 refers)

WP / IP#	Ag item	Title	Presented by
WP01	0	Draft Agenda	Secretariat
WP02	1	Status of NAT SPG Conclusions	Secretariat
WP03	5	Updates to NAT SPG Handbook (NAT Doc 001)	Secretariat
WP04	3	Outcomes of NAT SOG/30 Meeting	Secretariat
WP05	4	Outcomes of NAT EFFG/45 and NAT EFFG/46	Secretariat
WP06	2,3,5,6	Coordinated outcomes of NAT IMG/64 and NAT SOG/30	Secretariat
IP01	0	Meeting schedule	Secretariat
IP02	0	Meeting documentation	Secretariat
IP03	1	ICAO Update	Secretariat
IP04	6	Status of NAT Project Teams	Secretariat
IP05	3	VOLCEX Events	Secretariat
IP06	1	Review of NAT SPG/59 Report by the ANC Working Group of the Whole for Strategic Review and Planning (WG/SRP)	Secretariat
IP07	2	Workshop On New Entrants Integration In The NAT Region (13-14 May 2024)	Secretariat
IP08	1	Outcomes of the EUR/NAT-DGCA/2024 Meeting	Secretariat
IP09	6	NAT DISTREX PT Update	DISTREX PT Lead
IP10	1	ICAO SL 2024/54: Aviation safety concerns regarding interference to the Global Navigation Satellite System (GNSS)	Secretariat
IP11	6	IATA Position Concerning Deletion of NDBs Supporting Blue Spruce Routes from Regional Documentation	IATA
IP12	2	Oceanic Clearance Removal Bodø Oceanic	Norway
IP13	1	GNSS Interference Issues	Ireland
IP14	1	Results From The ICAO/EUROCONTROL Space Weather Exercise 2023	Secretariat
IP15	2	Oceanic Clearance Removal for Gander and Shanwick OCAs	Canada & United Kingdom
IP16	1	New Area Control Centre in Greenland - Status	Denmark
FL01	2	In support of WP/06 regarding BSR PT Outcomes	BSR PT Lead

APPENDIX C — UPDATED NAT SPG CONCLUSIONS

(paragraph 1.3.8 refers)

STATUS OF EXTANT NAT SPG CONCLUSIONS

Reference/Title	Description	Comments	Status
C 55/08 - Implementation of the uplink latency timer function by NAT ANSPs	That: a) NAT air navigation service providers (ANSP) implement the message “SET MAX UPLINK DELAY VALUE TO [seconds] SEC” on or after 24 May 2018 to give aircraft operators two AIRAC (Aeronautical Information Regulation And Control) cycles to distribute guidance material to flight crews; b) the value in the uplink message in a) above be 300 seconds on a trial basis and the NAT IMG monitor the trial and report findings and proposals on the way forward to the NAT SPG; and c) the NAT OPS Bulletin with guidance material concerning the CPDLC Uplink Message Latency Monitor Function (NAT OPS Bulletin 2018_002) be published.	c) Published - email: "180604 - NAT OPS Bulletin 2018_002_Rev01 - CPDLC Uplink Message Latency Monitor Function" refers.	On-going Iceland, Canada, UK and Portugal implemented Further update to be provided by United States.
C 56/13 Review of NAT regional crisis response processes	That: a) the NAT SPG initiate a review of the NAT SPG crisis response processes based on experience from the COVID-19 pandemic; b) task the NAT IMG and NAT SOG to establish a specific project team led by the NAT IMG/NAT SOG Chairs; c) the NAT IMG and NAT SOG Chairs, in consultation with the Groups' members, to prepare a draft ToR and report to the NAT SPG.	Pending the outcome of the EUR Doc 031 on crisis management framework	On-going
C 57/10 - PfA to NAT SUPPs (Doc 7030/5)	That the ICAO Regional Director, Europe and North Atlantic process the proposed amendment to the NAT Regional Supplementary Procedures (NAT SUPPs, Doc 7030/5) as detailed in Appendix H.	211126 PfA submitted to HQ for clearance to circulate.	On-going
C 58/05 - NAT cybersecurity workshop 2023	That, the ICAO Regional Director, Europe and North Atlantic, take appropriate measures to organise in coordination with NAT States, international organisations and industry a NAT workshop on cybersecurity in the first half of 2023.	Postponed to 2024 due to the global event in 2023.	On-going

Reference/Title	Description	Comments	Status
C 58/14 - Financial Arrangement on the Joint Financing of a North Atlantic Height Monitoring System Using ADS-B Data	That: a) the following principles be applied for the Financial Arrangement on the Joint Financing of a North Atlantic Height Monitoring System Using ADS-B Data: i) All ANSP costs, both set-up costs and operating costs, be recovered through each ANSP Oceanic Route Charges; and ii) all NAT CMA costs be recovered through the RVSM charge, based on the current charging system, i.e., collected for each crossing over the Atlantic, in conjunction with the DEN/ICE charges; b) the Joint Financing Section of ICAO be invited to finalize the financial arrangement as shown in Appendix J for the NAT height monitoring system using ADS-B data; and c) NAT SPG/59 to be provided with a progress report on the above.	b) completed. c) progress report provided. Arrangement being circulated for signature - United States pending.	On-going
C 58/17- PfA to NAT SUPPs and NAT Doc 007 related to NAT communication failure procedures	That, a) proposed amendment to the NAT Regional Supplementary Procedures (NAT SUPPs, Doc 7030/5) related to communication failure procedures as detailed in Appendix M be endorsed; b) proposed amendment to the North Atlantic Operations and Airspace Manual (NAT Doc 007) related to communication failure procedures as detailed in Appendix N be endorsed; and c) ICAO Regional Director, Europe and North Atlantic, take appropriate action to process the proposed amendment to the NAT Regional Supplementary Procedures and publish and promulgate the updated NAT Doc 007.	a) IOM EUR/NAT 22-286.TEC of 9 August 2022 refers. b) Update Doc 007 after SUPPs PfA approved or on date of OCR implementation (whichever comes first).	On-going

STATUS OF NAT SPG/59 CONCLUSIONS

Title	Description	Comments	Status
C 59/1 – Amendments to NAT Doc 006 Part I and new Part III	That: a) NAT Doc 006 Air Traffic Management Operational Contingency Plan be amended as presented in Appendix G (of the NAT IMG/61 Summary of Discussions); and b) the ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the amended version of the NAT Doc 006, Part I and new Part III.	Published on EUR/NAT website. ICAO EUR/NAT State letter ref: EUR/NAT 23-0032.TEC of 24 January 2023 refers.	Closed
C 59/2 – Amendments to NAT Doc 007 (North Atlantic Operations and Airspace Manual)	That: a) the proposal to amend the North Atlantic Operations and Airspace Manual (NAT Doc 007, v.2023-1) as presented in Appendix H (of the NAT IMG/61 Summary of Discussions) is endorsed; and b) the ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the updated NAT Doc 007, v.2023-1.	Published on EUR/NAT website. EUR/NAT State letter ref: EUR/NAT 23-0032.TEC of 24 January 2023 refers.	Closed
C 59/3 – Amendments to NAT Doc 008 (Application of Separation Minima - North Atlantic Region) and NAT SUPPs, (ICAO Doc 7030)	That: a) the Application of Separation Minima - North Atlantic Region (NAT Doc 008) provision 3.4.2.D be amended as presented in Appendix I (of the NAT IMG/61 Summary of Discussions); b) the NAT Regional Supplementary Procedures (NAT SUPPs, Doc 7030/5) be amended as presented in Appendix I (of the NAT IMG/61 Summary of Discussions); c) the ICAO Regional Director, Europe and North Atlantic take appropriate action to publish the amended version of the NAT Doc 008; and d) the ICAO Regional Director, Europe and North Atlantic process the proposed amendment to the NAT Regional Supplementary Procedures (NAT SUPPs, Doc 7030/5).	a)+c) Completed. Published on EUR/NAT website. ICAO EUR/NAT State letter ref: EUR/NAT 23-0032.TEC of 24 January 2023 refers. b)+d) Submitted to ICAO HQ.IOM ref: EUR/NAT 23-0033.TEC of 25 January 2023 refers.	On-going
C 59/4 – NAT Autonomous Distress Tracking Exercise with Location of an Aircraft in Distress Repository Project Team (NAT DISTREX PT)	That the NAT SPG establish the NAT DISTREX PT by written correspondence with the Project Definition as outlined in Appendix E (of the NAT SOG/27 Summary of Discussions).	Call for nominations sent on 2 March 2023 for reply by 17 March 2023	Closed

Title	Description	Comments	Status
C 59/5 - Update to NAT eANP Volume III (Doc 9634)	That the ICAO Regional Director, Europe and North Atlantic, take appropriate actions to publish the NAT Air Navigation Plan (eANP) Volume III (NAT eANP, Doc 9634) which includes the updated NAT Vision information as provided in Appendix E.	State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	Closed
C 59/6 - NAT SPG Common Metrics Project Team (CM PT)	That the NAT SPG Common Metrics Project Team (CM PT) be established with the Project Definition as outlined in Appendix F.	Email 230726 PLS REPLY BY 18 AUG 2023: Nominations for the NAT Common Metrics Project Team (CM PT) refers.	Closed
C 59/7 - Data link communication log retention by ANSPs and CSPs	That, the ICAO Regional Director, Europe and North Atlantic, take appropriate action to: a) encourage the NAT Air Navigation Service Providers (ANSPs) and Communication Service Providers (CSPs) to retain data link communication logs for a period of at least one year to support effective investigation of data link problem reports (PR) by the Data Link Monitoring Agency (DLMA) and other stakeholders; and b) update the Safety-related Policy in the NAT SPG Handbook (NAT Doc 001) (para 5:A) to include the recommendation to retain data link communication logs for a period of at least one year.	b) Completed.	Closed
C 59/8 - Flight Level usage Above FL410	That: a) the NAT Vision Work item "Consider RVSM above FL410" be closed; and b) the ICAO Regional Director, Europe and North Atlantic, coordinate within ICAO to signal the potential operational benefit from the availability of additional flight levels such as FL420 and FL440 in order to respond to the increased demand in Flight Level usage above FL410, and invite the relevant ICAO bodies to expedite its work on this matter.	a) Completed. b) further action reflected in NAT SPG Follow Up Action List.	Closed
C 59/9 - The NAT OCR Implementation dates	That, subject to submission of written confirmation by implementing States to the ICAO Secretariat that national safety cases for OCR have been completed, the NAT Oceanic Clearance Removal (OCR) implementation on the AIRAC dates of 21 March 2024 for all NAT ANSPs except Shanwick, and 09 April 2024 for Shanwick, be endorsed.		On-going

Title	Description	Comments	Status
C 59/10 - PfA to NAT Doc 007 related to removal of oceanic clearances	That the: a) proposed amendment to the North Atlantic Operations and Airspace Manual (NAT Doc 007, version 2024_1) be endorsed; b) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the North Atlantic Operations and Airspace Manual (NAT Doc 007, version 2024_1) as shown in Appendix G on 23 October 2023 with the effective date of AIRAC 21 MAR 2024.		Closed
C 59/11 - Coordination of safe integration of Commercial Space Operations (CSO)	That: a) the ICAO Regional Director, Europe and North Atlantic, take appropriate action to: i) invite NAT Regulators and Air Navigation Service Providers (ANSPs) to enhance sharing of available information on safety risk management related to commercial space operations (CSO); ii) highlight the urgency for ICAO to take priority actions for the safe integration of CSO with civil aviation operations; b) the NAT IMG and NAT SOG be tasked to: i) support the sharing of available information on safety risk management related to CSO integration with civil aviation operations; ii) review and enhance the proposed operational guidance material for integration of CSO with civil aviation operations in the NAT, as needed.		Closed
C 59/12 - Review of NAT Region NDBs and Blue Spruce routes	That the NAT SPG invite concerned NAT provider States to: a) consider the need for the: i) Blue Spruce routes containing NDBs within the NAT Region; ii) Blue Spruce routes or an alternative mechanism to support aircraft operations with degraded navigation capabilities; and iii) NDBs covered by the DEN/ICE Joint Financing Agreements; and b) provide an update to the NAT POG and NAT IMG meetings in autumn 2023.		Closed

Title	Description	Comments	Status
C 59/13 - NAT Annual Safety (ASR) Report 2022	That, the: a) NAT Annual Safety Report (NAT ASR 2022) be endorsed; and b) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish the NAT SPG-endorsed NAT ASR 2022 (Appendix H refers).	State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	Closed
C 59/14 - Minimum Navigation Performance Specification (MNPS)	That, the NAT SOG: a) determine what steps are necessary to remove the requirement for a MNPSA/HLA-specific approval for operation in the NAT High Level Airspace (NAT HLA): i) consider whether there are any safety factors if MNPSA/HLA approvals are no longer required for the NAT Region; and ii) identify the steps necessary to mitigate any related risks; and b) if the NAT SUPPs (Doc 7030) requirements are no longer required for the NAT Region as a whole, that the steps, measures, and coordinated timelines necessary to remove the NAT SUPPs (Doc 7030) requirements be identified and submitted to the NAT SPG/60 for endorsement.		On-going
C 59/15 - Use of ADS-B data for NAT CMA Height Monitoring Activities	That: a) the use of ADS-B Height Monitoring data as the sole source of data for the NAT CMA height monitoring activities be endorsed; b) the ICAO EUR/NAT Regional Director take appropriate action to include the suggested update into the Safety Related Policies section (para. [05] Minimum Height Monitoring Requirements for the NAT Region) of the NAT SPG Handbook (NAT Doc 001) and publish it in the next update to the NAT SPG Handbook (Appendix I refers); c) all required NAT documentation be updated accordingly; d) the ICAO EUR/NAT Regional Director, in coordination with the United Kingdom, take appropriate action to terminate the contract of the Strumble HMU as soon as possible.	a) No action. b) State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	Closed

Title	Description	Comments	Status
C 59/16 - PfA to the NAT SPG Handbook, NAT Doc 001	That: a) North Atlantic Systems Planning Group (NAT SPG) Handbook (NAT Doc 001) be amended as presented at Appendix I; and b) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish and promulgate the updated North Atlantic Systems Planning Group (NAT SPG) Handbook (NAT Doc 001).	State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	Closed
C 59/17 - Publication of NAT SUPPs (Doc 7030)	That, based on identified safety concerns, the ICAO Regional Director, Europe and North Atlantic, take appropriate action to: a) urge ICAO Headquarters to process the outstanding Proposals for Amendment (PfAs) to the NAT Regional Supplementary Procedures (NAT SUPPs, Doc 7030); b) request ICAO Headquarters to remove the current officially published NAT SUPPs from the ICAO Secure Portal website until the SUPPs have been updated; and c) urge ICAO Headquarters to publish a new version (with all Council approved amendments) of the NAT SUPPs without further delay and ensure that the document is kept up to date in the future on the ICAO Secure Portal website.		Closed
C 59/18 - PfA to NAT SUPPs and NAT Doc 008 related to longitudinal separation	That the: a) proposed amendment to the NAT Regional Supplementary Procedures (NAT SUPPs, Doc 7030) related to section 6.2.2. (Longitudinal separation) as detailed in Appendix J be endorsed; b) ICAO Regional Director, Europe and North Atlantic, take appropriate action to process the proposed amendment to the NAT Regional Supplementary Procedures and integrate these changes into the new version which is expected to be published by ICAO Headquarters; c) proposed amendment to the Application of Separation Minima North Atlantic Region (NAT Doc 008) as detailed in Appendix K be endorsed; and d) ICAO Regional Director, Europe and North Atlantic, take appropriate action to publish and promulgate the updated NAT Doc 008.	a) & c) No action. d) State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	On-going

Title	Description	Comments	Status
C 59/19 - PfA to NAT Doc 011 PBCS Monitoring and Reporting Guidance	That the ICAO Regional Director, Europe and North Atlantic, a) take appropriate action to publish the amended version of the PBCS Monitoring and Reporting Guidance (NAT Doc 011) as shown in Appendix L; and b) coordinate with ICAO Headquarters to arrange for the guidance to be published on the PBCS web pages as soon as possible and make it available for the use of the ICAO Operational Data Link Specific Working Group (OPDLWG).	a) State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	Closed
C 59/20 - NAT TIG ATSP Analyst Handbook (NAT Doc 012)	That the: a) NAT TIG ATSP Analyst Handbook in Appendix M be endorsed; b) ICAO Regional Director, Europe and North Atlantic take appropriate action to publish the NAT TIG ATSP Analyst Handbook as NAT Doc 012; and c) NAT IMG be delegated the responsibility for approval of future changes to the NAT TIG ATSP Analyst Handbook (NAT Doc 012).	State Letter Ref: EUR/NAT 23-0249.TEC of 26 July 2023 [Publication of NAT Region Documents] refers.	Closed

APPENDIX D — STATUS OF ONGOING NAT PROJECT TEAMS AS OF 26 JUNE 2024

(paragraph 1.5.1 refers)

Created at	Project Team	Parent Group	Supervisor	Project Title	Start date	End date	Lead	Report
NAT SOG Dec 30/05	RMHA PT	NAT SOG	NAT SPG	Removal of MNPS/HLA Approvals Project Team	07/01/2024	31/12/2024	Baard Larsen (Norway)	NAT SOG/31
NAT SOG Dec 30/01	NAT SCEFT	NAT SOG	NAT SOG	NAT Safety Case Enhancements and Fast Track Project Team	09/01/2024	31/05/2025	Paul Kennedy (Ireland)	NAT SOG/32
NAT SOG Dec 29/01	OCS PT	NAT SOG	NAT SOG	Oversight of CSPs and SSPs Project Team	01/07/2024	31/05/2025	Julia Harvey (UK) / Danielle Crudden (USA)	NAT SOG/31
NAT EFFG Dec 44/01	TFMR PT	NAT EFFG	NAT EFFG	NAT EFFG Traffic Forecast Methodology Review Project Team	10/10/2023	30/12/2024	Jonathan Corning (USA)	NAT EFFG/48
NAT SPG Con 59/04	DISTREX PT	NAT SPG	NAT SOG /NAT IMG	NAT Autonomous Distress Tracking Exercise with Location of an Aircraft in Distress Repository Project Team	01/01/2023	30/12/2024	Steven Pinkerton (US FAA)	NAT SPG/61
NAT POG/06	OCR PT	NAT POG	NAT POG	NAT Oceanic Clearance Removal (OCR) PT	01/09/2018	30/12/2024	Shelley BAILEY, Canada	NAT IMG/63

**APPENDIX E — UPDATES TO THE NORTH ATLANTIC OPERATIONS AND AIRSPACE MANUAL (NAT
DOC 007, VERSION 2024_1)**

(paragraph 2.2.5 refers)

See separate Attachment (click on  on left-hand side)

APPENDIX F — UPDATES TO THE OCR NAT REGIONAL SAFETY CASE (OCR NRSC)

(paragraph 2.2.5 refers)

See separate Attachment (click on  on left-hand side)

**APPENDIX G — NEW NAT OPERATIONAL GUIDANCE MATERIAL FOR COMMERCIAL SPACE
OPERATIONS (CSO) (NAT Doc 013)**

(paragraph 2.7.3 refers)

See separate Attachment (click on  on left-hand side)

APPENDIX H — NAT ANNUAL SAFETY (ASR) REPORT 2023

(paragraph 3.2.5 refers)

See separate Attachment (click on  on left-hand side)

APPENDIX I — NAT TRAFFIC FORECAST FOR THE PERIOD 2024-2028

(paragraph 4.2.3 refers)

Annual Growth Rates, Percent

	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028
Total NAT	4.6	3.0	2.4	2.4	2.5
Reykjavik CTA	4.0	2.2	3.3	3.6	2.9

**APPENDIX J — PROPOSED AMENDMENTS TO NAT AIR NAVIGATION PLAN VOLUME III (NAT
EANP, DOC 9634)**

(paragraph 5.1.2 refers)

See separate Attachment (click on  on left-hand side)

APPENDIX K — PROPOSED AMENDMENTS TO THE *NAT SPG HANDBOOK* (NAT Doc 001)

(paragraph 5.2.2 refers)

See separate Attachment (click on  on left-hand side)

**APPENDIX L — PROPOSED AMENDMENT TO THE NORTH ATLANTIC OPERATIONS AND AIRSPACE
MANUAL (NAT DOC 007, VERSION 2025_1)**

(paragraph 5.3.2 refers)

See separate Attachment (click on  on left-hand side)

APPENDIX M — PROPOSED AMENDMENTS TO THE *APPLICATION OF SEPARATION MINIMA NORTH ATLANTIC REGION* (NAT DOC 008)

(paragraph 5.4.2 refers)

See separate Attachment (click on  on left-hand side)

APPENDIX N — NAT SPG FOLLOW-UP ACTIONS LIST

*(paragraph 1.3.8 refers)**Note: unless otherwise specified, x-refs are to paragraphs and Appendices of the NAT SPG Report***Table 1 - Items arising from NAT SPG/59**

ID	Description	Who	When	x-Ref	Status
59-1	Provide regular updates on the progress of the new ACC project in the Nuuk FIR.	Denmark	NAT SPG	1.7.1	<i>On-going</i>
59-4	Provide written assurance (confirmation) of completion of the national safety cases for OCR to the NAT SOG Secretariat.	OCR implementing States	Prior to implementation	2.4.2	<i>On-going</i>

Table 2 - Items arising from NAT SPG/60

ID	Description	Who	When	x-Ref	Status
60-1	Present the outcomes of the NAT SCEFT PT work on the revision of the NAT FTP.	SCEFT PT	NAT IMG and NAT SOG –Fall 2024	2.2.6	
60-2	Prepare a draft Terms of Reference (ToR) for a NAT project team to be established to address the foregoing NAT SPG Conclusion 56/13.	NAT IMG and NAT SOG Chairs	NAT IMG and NAT SOG –Fall 2024	2.3.1	
60-3	Review NAT ANP requirements concerning the need for NDBs in the NAT.	NAT IMG	NAT SPG/61	2.6.4	
60-4	Coordinate and circulate an ICAO State letter addressed to the NAT States and the NAT airspace users soliciting their feedback on the continuing need for NDBs and potential for implementation of additional ground-based nav aids such as VORs in the NAT.	Secretariat/Chairteam	Fall 2024	2.6.4	
60-5	NAT Doc 013 to be disseminated to the CSOs.	Secretariat	Summer 2024	2.7.4	

ID	Description	Who	When	x-Ref	Status
60-6	Coordinate a follow up workshop focusing on CSO in 2025 and outreach to other new entrants to probe their willingness and readiness for a NAT workshop to focus on other new entrants.	Secretariat/NAT IMG Chair	Fall 2024	2.7.6	
60-7	Continue work on further harmonisation of practices in the NAT in support of CSOs based on the lessons learnt and anticipated global developments, such as the 14th ICAO Air Navigation Conference.	NAT IMG/Secretariat	Fall 2024	2.7.6	
60-8	Coordinated efforts to develop harmonised ANSPs' contingency procedures on GNSS interference with a dedicated NAT OPS Bulletin being prepared for the Fall 2024 meetings of the NAT IMG and its contributory bodies.	NAT IMG	Fall 2024	3.3.2	

LIST OF ACRONYMS

AAM	Advanced Air Mobility
ACC	Area Control Centre
ADF	Automatic Direction Finder
ADS	Automatic Dependent Surveillance
ADS-B	Automatic Dependent Surveillance – Broadcast
ADT	Autonomous Distress Tracking
ANC	Air Navigation Commission
ANSP	Air Navigation Service Provider
ATM	Air Traffic Management
ATS	Air Traffic Service
CONOPS	Concept of Operations
COVID-19	Coronavirus Disease 2019
CRE	Collision Risk Estimate
CSO	Commercial Space Operations
CSP	Communication Service Providers
DEN/ICE	Danish and Icelandic Joint Financing
EACCC	European Aviation Crisis Coordination Cell
EASPG	European Aviation System Planning Group
EUR	(ICAO) European (Region)
EUR/NAT	European and North Atlantic
EUR/NAT-DGCA	European and North Atlantic Directors General of Civil Aviation Meeting
FANS	Future Air Navigation System
fapfh	fatal accidents per flight hour
FIR	Flight Information Region
FL	Flight Level
GNSS	Global Navigation Satellite System
HLA	High Level Airspace
IATA	International Air Transport Association
ICAO	
SASP	ICAO Separation and Airspace Safety Panel
ICAO Doc	
Doc 7030	<i>Regional Supplementary Procedures (SUPPs)</i>
Doc 9634	<i>Regional Air Navigation Plan – North Atlantic (NAT eANP)</i>
ICCAIA	International Coordinating Council of Aerospace Industries Associations
JFA	Joint Financing Agreement
KPA	Key Performance Area
KPI	Key Performance Indicator
LADR	Location of an Aircraft in Distress Repository
LRNS	Long Range Navigation Systems
MNPS	Minimum Navigation Performance Specification
NAT	(ICAO) North Atlantic (Region)
NAT CMA	North Atlantic Central Monitoring Agency
NAT DMO	North Atlantic Document Management Office
NAT Doc	

NAT Doc 001	<i>North Atlantic Systems Planning Group (NAT SPG) Handbook</i>
NAT Doc 007	<i>North Atlantic Operations and Airspace Manual</i>
NAT Doc 008	<i>Application Of Separation - Minima North Atlantic Region</i>
NAT Doc 011	<i>PBCS Monitoring and Reporting Guidance</i>
NAT Doc 013	<i>North Atlantic Operational Guidance Material for Commercial Space Operations (CSO)</i>
NAT EFFG	North Atlantic Economic, Financial and Forecast Group
TFMR PT	NAT EFFG Traffic Forecast Methodology Review Project Team
NAT MWG	North Atlantic Mathematicians Working Group
NAT POG	North Atlantic Procedures and Operations Group
NAT SG	North Atlantic Scrutiny Group
NAT SOG	North Atlantic Safety Oversight Group
NAT OCS PT	NAT SOG CSPs/SSPs Oversight Project Team
NAT RMHA PT	NAT SOG Removal of the MNPS/HLA Approvals Project Team
NAT SCEFT PT	NAT SOG Safety Case Enhancements and Fast Track Project Team
NAT TBCRM PT	NAT SOG Trajectory-based Collision Risk Modelling Project Team
NAT SPG	North Atlantic Systems Planning Group
NAT CM PT	NAT SPG Common Metrics Project Team
NAT DISTREX PT	NAT SPG Autonomous Distress Tracking Exercise with Location of an Aircraft in Distress Repository Project Team
NAT NER PT	NAT New Entrant Readiness Project Team
NAT TIG	North Atlantic Technology and Interoperability Group
NATIMG	
NAT BSR PT	NAT Blue Spruce Routes Project Team
NAT ASR	NAT Annual Safety Report
NAT eANP	<i>Regional Air Navigation Plan – North Atlantic (Doc 9634)</i>
NAT HLA	NAT High Level Airspace
NDB	Non-directional beacon
OCA	Oceanic Control Area
OCR	Oceanic Clearance Removal
OEM	Original Equipment Manufacturer
PBCS	Performance-based communication and surveillance
PfA	Proposal for Amendment
RCC	Rescue Coordination Centres
RMACG	Regional Monitoring Agencies Coordination Group
SAR	Search and Rescue
SASP	ICAO Separation and Airspace Safety Panel
SB ADS-B	Space-based Automatic Dependent Surveillance – Broadcast
SKPI	Safety Key Performance Indicator
SSP	Surveillance Service Providers
SUPPs	<i>Regional Supplementary Procedures (Doc 7030)</i>
TLS	Target Level of Safety
ToR	Terms of Reference
UAS	Unmanned Aircraft Systems
VHF	Very High Frequency
VOR	VHF omnidirectional range

— END —