



REPORT OF

THE FIFTY-EIGHTH MEETING OF

THE EUROPEAN AIR NAVIGATION PLANNING GROUP

(Paris, 28 November to 1st December 2016)

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0. INTRODUCTION

Place and duration

0.1 The Fifty-Eighth Meeting of the European Air Navigation Planning Group (EANPG) took place in the premises of the European and North Atlantic (EUR/NAT) Office of ICAO from 28 November to 1st December 2016.

Attendance

0.2 The Meeting was attended by 87 representatives of 35 member and non-member States and by observers from 9 international organisations. A list of participants is at **Appendix A** to this Report.

Officers and Secretariat

0.3 Mr Phil Roberts, the Chairman of the EANPG, presided over the meeting throughout its duration. Mr Luis Fonseca de Almeida, ICAO Regional Director, Europe and North Atlantic, and Mr George Firican, Deputy Director, acted as Secretary to the EANPG; they were assisted by Mr Celso Figueiredo, Mr Christopher Keohan, Mr Sven Halle, Mr Elkhan Nahmadov, Mr Arkadii Merkulov, Mr Sarantis Poulimenakos, from the ICAO EUR/NAT Office, Mr Saulo Da Silva from ICAO Headquarters and Mr Abbas Niknejad from the MID Office. Additional assistance was provided by Ms Patricia Cuff, Ms Leyla Suleymanova and Ms Isabelle Hofstetter from the European and North Atlantic Office.

Conclusions, Decisions and Statements

0.4 The EANPG records its action in the form of Conclusions, Decisions and Statements with the following significance:

Conclusions deal with matters which, in accordance with the Group's terms of reference, merit directly the attention of States or on which further action will be initiated by ICAO in accordance with established procedures.

Decisions deal with matters of concern only to the EANPG and its contributory bodies.

Note: in order to qualify as such, a Decision or a Conclusion shall be able to respond clearly to the "4W" criterion (What, Why, Who and When)

Statements deal with a position reached by consensus regarding a subject without a requirement for specific follow-up activities.

Agenda and Documentation

0.5 The Group agreed to the following agenda for organising the work of the Meeting and the structure of the report:

- Agenda Item 1:** Review of significant international aviation developments
- 1.1 Update from ICAO Secretariat; NCLB Campaign
 - 1.2 Updates from States and International Organisations
- Agenda Item 2:** Previous EANPG follow up
- Agenda Item 3:** Aviation safety
- 3.1 Update from RASG-EUR; IE-REST

3.2 Air navigation safety related issues

3.3 Interregional LPRI Workshop

3.4 Outcome of the Black Sea Task Force

Agenda Item 4: Planning and Implementation

4.1 Amendments to ICAO documents

a) Update on the work on the EUR e-ANP

4.2 Inputs from the Contributory Bodies (AFSG, FMG, METG, RDGE, PBN-TF etc)

4.3 Update on the Performance Framework and ASBU Implementation reports

4.4 Update on Search and Rescue Task Force activities

4.5 AIS/AIM activities

Agenda Item 5: Monitoring

5.1 RMA Operations

Agenda Item 6: Deficiencies

Agenda Item 7: Any other business

0.6 The list of documentation reviewed by the Meeting is at **Appendix B** to this Report.

1. REVIEW OF SIGNIFICANT INTERNATIONAL AVIATION DEVELOPMENTS

1.1 UPDATE FROM ICAO SECRETARIAT

ICAO update

1.1.1 The EANPG was informed about recent significant international aviation developments and took note of the significant number of amendments to the ICAO Annexes and Procedures for Air Navigation Services (PANS) including Annexes 1, 2, 3, 4, 6, 8, 9, 10, 11, 13, 14, 15, 19, and *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM, Doc 4444), *Procedures for Air Navigation Services – Aerodromes* (PANS-Aerodromes, Doc 9981) and the *Procedures for Air Navigation Services - Aircraft Operations* (PANS-OPS, Doc 8168) that had become applicable on 10 November 2016. The EANPG was also informed about the new proposed amendments to ICAO Annexes and PANS Documents (Annexes 1, 6, 8, 10, 16, 17 and 19 and *Procedures for Air Navigation Services – Training* (PANS-TRG, Doc 9868) and the *Procedures for Air Navigation Services - Aircraft Operations* (PANS-OPS, Doc 8168)). A number of ICAO State Letters and ICAO Documents on a wide range of subjects had also been published since the last meeting. Several ICAO global and EUR/NAT region-related meetings taking place in 2017 were also noted. It was informed that the full schedule of ICAO EUR/NAT meetings in 2017 could be found on the ICAO Paris public website at www2010.icao.int/EURNAT/.

1.1.2 The EANPG noted the comments about unavailability of some newly amended documents on their date of applicability (10 November 2016) on the ICAO Secure Portal. The EANPG recognised that the delay in availability could have been due to the 39th ICAO Assembly proceedings and invited ICAO to investigate this issue.

1.1.3 The EANPG recalled that the Proposal for Amendment of the EUR *Regional Supplementary Procedures* (Doc 7030/5) (Serial No.: EUR/NAT-S 13/14-EUR 6-4), concerning procedures related to initiation of a visual departure that had been endorsed by EANPG/54 (Conclusion 54/2 refers) had been circulated to States and Organizations and a number of comments had been received. In this respect, it was agreed that the ICAO Secretariat and EUROCONTROL would work together to review the comments and expedite the progress on the foregoing proposal for amendment and report to COG/68 (May 2017).

Planning and Implementation of Regional Group (PIRG) Activities in Other Regions

1.1.4 The EANPG was presented with an update on the activities of the planning and implementation regional groups (PIRGs) in other Regions.

1.1.5 The EANPG was informed that during 2016 two Planning and Implementation Regional Groups (PIRGs) and one Review Committee meetings took place; the 52nd North Atlantic Systems Planning Group (NATSPG/52) (Paris, France 27-30 June), the 27th Asia/Pacific Planning and Implementation Regional Group (APANPIRG/27) (Bangkok, Thailand 5-8 September) and the 4th CAR/SAM Planning and Implementation Regional Group (GREPECAS) Programmes and Projects Review Committee (PPRC/4) (Lima, Peru, 12-14 July).

1.1.6 From the NATSPG/52 report it was highlighted that the incorrect filing of equipage in the flight plan appeared to be a persistent issue and, despite of previously undertaken informal actions, it continued to occur. Based on the flight planned equipage, the air traffic service (ATS) units would determine the operational service to be provided, hence, the incorrect filing of flight plans could result in operational issues.

1.1.7 From the APANPIRG/27 report it was highlighted the efforts to harmonize the information on the flight plan regarding the RNP2 navigation specification through the use of the designator 'Z' in item 10 and 'NAV/RNP2' in item 18.

1.1.8 From the PPRC/4 report it was highlighted the difficulties associated to the process to update the GREPECAS air navigation deficiencies database (GANDD), resulting in States failing to update the information periodically. The meeting was also informed on the progress of implementation of performance-based navigation (PBN) in the CAR and SAM Regions.

No Country Left Behind

1.1.9 The EANPG was informed that under ICAO's global initiative "No Country Left Behind" (NCLB), the European and North Atlantic (EUR/NAT) Office of ICAO developed a Capacity Building Programme to be implemented through several Technical Assistance projects (EUR CBP-TA). The EANPG noted that since last year (2015), five (5) Technical Assistance projects had been developed and/or were on various stages of implementation. One (1) additional project was under development to assist in the resolution of an SSC, at the request of one concerned State.

1.1.10 The EANPG noted that the following States would benefit from this regional Technical Assistance programme: Azerbaijan, Belarus, Georgia, Israel, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkey and Turkmenistan.

1.1.11 The EANPG was invited to note that partnerships and resource mobilisation from the Region were an important and integrated part of this Programme.

1.1.12 The EANPG noted that the EUR/NAT Office was planning to organize during the first half of 2017, a Pan European partnerships and donors meeting to coordinate all relevant offers from States and Organisations and avoid duplication of efforts within the region.

Development in Cybersecurity

1.1.13 The EANPG was updated with information on developments on cybersecurity work that took place since December 2014. The EANPG recalled the key role of the Industry High Level Group (IHLG) (comprised of ICAO, ACI, IATA, CANSO and ICCAI, established in December 2014) tasked to formalize and structure the cybersecurity work done by the different players and foster a common understanding of cyber threats and risks. It was noted the progress report provided by the IHLG to the Aviation Security (AVSEC) Panel on 27th March 2016 and specifically the cybersecurity Resolution agreed upon by the 39th ICAO Assembly that proved the success of the joint efforts and achievements of the IHLG. This Assembly Resolution is a clear statement calling for a high priority for cybersecurity as a horizontal issue requiring aligned and coordinated actions by all relevant stakeholders within ICAO, e.g. ANB and ATB (AVSEC) as well as between ICAO, States, Industry and regional organizations.

1.1.14 The EANPG noted that the AVSEC Panel/27 had decided to strengthen the existing two recommended practices (RP) 4.9.1 and 4.9.2 in Annex 17 to better reflect the necessity to protect the confidentiality, integrity and availability of technology systems and data. An upgrade of the recommended practices to the level of standards was discussed, however a majority of States considered it to be premature.

1.1.15 In this respect, the EANPG was informed that EUROCONTROL (CMC and IANS) was developing the first ICAO training for ATM security (including cyber). The pilot course was expected to be made available by 2nd half of 2017. This training package was done under the ICAO GAT (global aviation training) umbrella and as a result of IANS nomination as an ICAO RTCE (regional training centre of excellence).

Environmental Protection

1.1.16 The EANPG recalled that with the adoption of Resolution A37-19 in 2010, the Assembly defined a basket of measures designed to help achieve ICAO's global aspirational goals of 2 per cent fuel efficiency improvement per annum and carbon neutral growth from 2020. The 39th Session of the ICAO Assembly adopted several Resolutions related to environmental protection. The Assembly Resolutions reflect the determination of ICAO's Member States to continue to play a leading role in limiting or reducing the number of people affected by significant aircraft noise, the impact of aviation emissions on local air quality, and the impact of aviation greenhouse gas emissions on the global climate. Progress on the implementation of all elements of the basket of measures were reported to the 39th Assembly, namely technological improvement, operational measures, sustainable alternative fuels and a global market-based measure scheme for international aviation. The 39th Assembly also supported the ICAO global aspirational goals on CO₂ emissions from international aviation.

1.1.17 In particular, the EANPG noted the acknowledgement of the 39th Assembly on the successful outcome of the ICAO initiatives with respect to the development and submission of States' action plans on CO₂ emissions reduction from international aviation. The Assembly encouraged Member States to submit more complete and robust data in their action plans to facilitate the compilation of global emissions data by ICAO, and emphasized the need for the Secretariat to provide further guidance and other technical assistance. Responding to this request, ICAO convened a series of back-to-back seminars in 2014, 2015 and in 2016 on International Aviation and Environment and on States' Action Plans.

1.1.18 It was noted that as of 28 September 2016, 100 States representing over 90 percent of the global international air traffic submitted action plans to ICAO. ICAO continued to assist States in developing and updating action plans. The voluntary submission of new or updated action plans to ICAO was expected by the end of June 2018, as encouraged by the 39th Session of the ICAO Assembly. The Assembly also noted that a substantial strategy for capacity building and other technical and financial assistance was undertaken by ICAO to assist the preparation and submission of States' action plans, including the holding of regional seminars, the development and update of ICAO Doc 9988, *Guidance on the development of States' Action Plans on CO₂ Emissions Reduction Activities*, an interactive web-interface, the ICAO Fuel Savings Estimation Tool (IFSET) and the ICAO Environmental Benefits Tool (EBT)

1.1.19 The EANPG was informed about the ICAO assistance project with the EU funding, *Capacity Building for CO₂ Mitigation from International Aviation*, which was a project to assist fourteen selected States from Africa and the Caribbean in the development of voluntary action plans, setup Aviation Environmental Systems (AES) to establish emission inventories and monitor CO₂ emissions from aviation, and implement measures to reduce aviation emissions.

1.1.20 The EANPG also noted that in November 2014, a second partnership was signed with the United Nations Development Programme (UNDP) with financing from the Global Environment Facility (GEF) to undertake a global Capacity Building Project *Transforming the Global Aviation Sector: Emission Reduction from International Aviation* including the implementation of a pilot project on renewable energy in a Small Island State. The ICAO assistance project with UNDP and GEF funding includes identifying and facilitating the implementation of measures to reduce international aviation CO₂ emissions.

1.1.21 The EANPG was provided with the 2016 ICAO Environmental Report, in which the progress of ICAO's environmental activities over the last three years was highlighted. This fourth edition of the report provided an update on the current state of aviation and the environment by presenting the work of CAEP, showcasing key partnerships and illustrating quantifiable benefits of mitigation actions through case studies.

1.1.22 In view of the foregoing, the EANPG agreed to the following conclusion:

EANPG Conclusion 58/01 – Environmental Protection Actions

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, invite States to:

- a) update and submit their quantified State action plans on CO₂ emissions reduction activities by the end of June 2018;
- b) continue to consider environmental issues in the planning and implementation of national and regional air navigation systems;
- c) use the ICAO environment tools, or any other tool which is compliant with the CAEP models and methodologies, to estimate the emissions reductions from the implementation of the mitigation measures as part of the development of States' action plans; and
- d) note the availability of further assistance by ICAO in the preparation and submission of States' action plans.

1.2 UPDATE FROM STATES AND INTERNATIONAL ORGANISATIONS

EUROCONTROL Activities Update

1.2.1 The EANPG noted the information received from EUROCONTROL reflecting their current State of affairs:

- Traffic evolution between January-September 2016 shows an increase of 2.3% compared to the similar period of last year, in line with February 2016 forecast base scenario;
- Airspace design continued to improve between autumn 2015 and summer 2016 as a result of the European Route Network Improvement Plan (ERNIP) part 2. Route extension due to airspace design decreased to an annual average of 2.48% for the year 2016, already meeting the network performance plan target for that year;
- Regarding traffic and capacity performance, the European Route Network Improvement Plan, their preparations of the new editions of the Network Operations Plan and of the European Route Network Improvement Plan, their institutional reform and their Centralized Services.

1.2.2 The EANPG noted the preparations of the new editions of the Network Operations Plan and of the European Route Network Improvement Plan, to include measures identified and agreed with the NM board addressing performance gaps identified for both capacity and flight efficiency.

1.2.3 The EANPG recalled that the Study Group of Alternates (CN-SG) was established by the Permanent Commission of EUROCONTROL in December 2013, entrusted to carry out preliminary work in what manner the EUROCONTROL legal framework could require to be amended. The CN-SG work was nearing completion and a final report will be submitted to the Provisional Council in December 2016.

1.2.4 The EANPG noted that EUROCONTROL launched in 2013 the concept of several (9) Centralized Services (CS), with the aim to reduce the costs resulting from overlapping investments, improve performance, improve the level of interoperability and help put Europe at the cutting edge of ATM. On the basis of Directive No. 14/83 the procurement process for the above mentioned CS was conducted in accordance with the Contract Regulations of the EUROCONTROL Organisation; it included a call for interest and a call for tenders, followed by evaluations and negotiations of the bids received. All Cost Benefit Analysis (CBAs) in supports of the CS, which were performed in 2013, have been updated recently in preparation of the procurement decision, using the financial figures of the binding offers of the consortia participating in the call for tenders and (being) negotiated with the winning consortia, showed positive results. In compliance with agency's financial regulation the respective contracts, in their final stage of

negotiation, would be submitted in the Restricted Session of PC/46 (Dec. 2016) for approval. Another set of CBAs' updates would then be produced by EUROCONTROL at the end of Phase 1 (i.e. once the system developed, set up and ready to be demonstrated to the Member States), prior to the decision making of the Member States on whether to entrust the Agency with the operation of the service on their behalf.

Progress on SES and SESAR

1.2.5 The EANPG noted the information received from European Commission concerning the progress of the Single European Sky (SES) regulatory framework, on the more recent developments on the SES ATM Research Project (SESAR), the European ATM Master Plan and the adoption of a new ATM Annex to the existing EU/ICAO Memorandum of Cooperation.

1.2.6 In particular, in respect to the European ATM Master Plan, EANPG recalled that it defined a longer term vision of ATM modernization bringing together performance and technology with an extended horizon up to 2035. It was noted that to support global interoperability, the Master Plan remained consistent with the ASBU modules in the ICAO GANP and included an updated mapping between SESAR operational improvements/solutions and the ICAO's ASBU's modules covering as relevant Blocks 0 – 3. Further refinement of these operational improvements stemming from the SESAR workprogramme would be used to support the next update of the GANP/ASBUs in 2019 with validated results.

1.2.7 Furthermore, the EANPG noted that in addition to the existing MoC between EU and ICAO, an ATM Annex was signed during the 39th ICAO Assembly. The ATM Annex provided a framework to contribute to greater harmonisation of standards, global interoperability of new technologies and systems and closer coordination of ATM activities. To that end, it set out areas for cooperation in the form, inter alia of :

- (1) regular exchange of relevant ATM data/information, including standards and regulatory matters;
- (2) monitoring and analysing States' compliance with ICAO Standards and adherence to Recommended Practices in the domain of ATM/ANS;
- (3) cooperation in the further development and implementation of the ICAO Global Air Navigation Plan (GANP);
- (4) regional cooperation, in particular within the ICAO European (EUR) region, with specific consideration to the EU Single European Sky (SES) and to the work of the European Aviation Safety Agency (EASA) on ATM/ANS matters;
- (5) the possible exchange of technical ATM experts.

IFAIMA

1.2.8 The EANG was provided with a presentation by International Federation of Aeronautical Information Management Association (IFAIMA) on their global and regional activities since its establishment in 2008. The EANPG was apprised of the objectives and working structure of IFAIMA. It was noted that the next IFAIMA Global AIM Conference will be held in Kampala, Nigeria from 23 to 25 May 2017.

2. PREVIOUS EANPG FOLLOW UP

Update on follow-up actions to EANPG/57 conclusions and decisions

2.1 The EANPG was informed on the actions stemming from EANPG/57 and noted that from the 34 EANPG/57 Conclusions, 21 (2, 3, 8, 12, 13, 14, 15, 17, 18, 20, 21, 22, 23, 24, 26, 28, 29, 30, 31, 32 and 33) had been closed while the remaining 13 were on-going and their status of implementation would be addressed at the present meeting. The EANPG was also informed that 4 (1, 3, 4 and 5) of the 5 EANPG/57 Decisions had been closed while the remaining one was on-going and its outcome would be addressed during the meeting.

3. AVIATION SAFETY

3.1 UPDATE FROM RASG-EUR

Update on the activities of RASG-EUR and Its Contributory Bodies

3.1.1 The EANPG noted the information provided by ICAO secretariat describing the activities and outcomes of RASG-EUR and its contributory bodies since EANPG/57 meeting. In particular EANPG/58 took note of two RASG-EUR/05 conclusions related to the implementation of USOAP and SSP related activities, as follows :

RASG-EUR Conclusion 05/01 – ICAO USOAP CMA Implementation

That by 31 December 2016 the ICAO Regional Director, Europe and North Atlantic, on behalf of the RASG-EUR will issue a State letter urging States to fulfil their obligations under the USOAP CMA Memorandum of Understanding (MOU) and to take actions as needed to provide up-to-date information on their safety oversight systems, with particular attention to:

- a) States with an SSC, focusing on implementing sustainable corrective actions to resolve the SSC with a high priority;
- b) updating the content and implementation progress of their CAPs on the OLF;
- c) completing the self-assessment of the PQs on the OLF;
- d) requesting assistance from the ICAO Regional Office, if required; and
- e) informing the ICAO Regional Office once significant updates have been made on the OLF.

RASG-EUR Conclusion 05/02 – Safety Management Implementation

That by 31 December 2016 the ICAO Regional Director, Europe and North Atlantic, on behalf of the RASG-EUR will issue a State letter urging ICAO EUR/NAT States of accreditation to:

- a) continue the implementation of SSP and report on progress using the SSP Gap Analysis Tool on iSTARS and completing the USOAP SSP related PQ self-assessments on the online framework (OLF);
- b) identify any additional areas of clarification needed or additional subjects that need to be covered in the fourth edition of the SMM;

- c) inform ICAO of any additional activities which could be provided to support States with the implementation of SSP; and
- d) support ICAO in the implementation of the established Safety Management Programme (Ref. SL AN 8/3-16/89).

3.1.2 During follow-up discussion a concern was raised regarding additional reporting requirements initiated by sub bullet e) of RASG-EUR Conclusion 05/01. It was clarified that such reporting was necessary to ensure that ICAO would be made aware of significant updates made by the State in the OLF. Moreover the proposed way forward was not an obligation but another alternative way of informing ICAO of such developments.

3.1.3 The EANPG also noted the review made by RASG-EUR to the priority safety targets and metrics adopted for the ICAO EUR Region. As the RASG-EUR identified several concerns in the way the initial targets had been selected, it was agreed to modify several priority safety targets and metrics and to create a task force aiming to review the list of regional safety metrics, identify new safety targets (as current ones are set for 2017) and align them with the one proposed in the GASP 2017-2019.

3.1.4 The EANPG noted the invitation received from Georgia to participate in the upcoming next IE-REST meeting and workshop of voluntary and mandatory occurrence reporting to be held in Tbilisi in June 2017 as well as support stated by Georgia to ICAO Safety Management Implementation Program.

3.1.5 The EANPG noted the publication of RASG-EUR 2015 annual safety report and the request to review and spread the information provided in the report as part of safety promotion activities.

3.1.6 The EANPG also noted progress in implementation in the safety enhancement initiatives (SEI) in the region, a proposal to create a new SEI related to reducing LOC-I accidents, information about the current activities of the helicopter operations safety team that resulted in a draft proposal for a SEI related to vortex ring state recovery and the information about creation of the ad-hoc group tasked to develop SEIs in the area of ANS safety oversight (IE-ANS SO).

3.1.7 The EANPG noted that the RASG-EUR/05 endorsed publication of the following five RASG-EUR Safety advisories:

- a) RASG-EUR Safety Advisory 01 on development of Standard Operating Procedures (SOPs);
- b) RASG-EUR Safety Advisory 02 on Flight Data Analysis Programmes (FDAPs);
- c) RASG-EUR Safety Advisory 03 on Regulatory Framework on Occurrence Reporting; and
- d) RASG-EUR Safety Advisories 04 and 05 on safety oversight in the area of Flight Data Analysis.

3.1.8 The EANPG also noted the RASG-EUR, based on the information received on the EANPG activities, agreed to support the activities of EUR and EURASIA RMAs as well as resolution of Air Navigation Deficiencies through the following Conclusion:

RASG-EUR Conclusion 05/12 – Usage of EUR RMA bulletin for RVSM non-approved aircraft

That by 31 of December 2016 the ICAO Regional Director, Europe and North Atlantic, on behalf of the RASG-EUR and in coordination with EANPG, will issue a State letter inviting member States:

- a) to nominate RVSM Points of Contact for them to be registered at EUROCONTROL One Sky Team portal; and
- b) in regard to non-approved aircraft identified in the EUR RMA bulletin for RVSM take actions to get relevant aircraft approved or banned from operations in RVSM airspace.

RASG-EUR Conclusion 05/13 – Resolution of Air Navigation Deficiencies

That by 31 of December 2016 the ICAO Regional Director, Europe and North Atlantic, on behalf of the RASG-EUR and in coordination with EANPG, will issue a State letter inviting member States:

- c) to foster activities aiming to resolve safety-related Air Navigation Deficiencies; and
- d) to review possibilities of assistance from other States and RASG-EUR partners in resolution of Air Navigation Deficiencies in the region.

3.1.9 Finally the EANPG noted the outcome of the discussion during RASG-EUR/05 supporting the proposed future working arrangements in the ICAO EUR Region.

3.2 BLACK SEA TASK FORCE***Outcomes of the Black Sea Task Force***

3.2.1 The EANPG was provided with the report of the Black Sea Task Force (BSTF) (**Appendix C**) compiled by the Rapporteur and the Secretariat which was not agreed by the Russian Federation. The EANPG recalled that the BSTF was established as a follow up of the EANPG Conclusion 57/01 (*Resumption of Normal Flight Operations in the Airspace Over the Black Sea*) that invited the the ICAO Regional Director, Europe and North Atlantic, on behalf of EANPG to establish a Task Force composed of Russian Federation, Ukraine and all other affected States in the Region and airspace users organisations, to consider and develop mutually acceptable proposals for normalisation of the flight operations in the Black Sea airspace.

3.2.2 As a follow-up of the EANPG Conclusion 57/01 it was noted that there had been 4 meetings of the Black Sea Task Force (BSTF) (21 March 2016, 17-18 May 2016, 7-9 September 2016 and 1 November 2016). All meetings had been well attended, the latest with more than 40 participants from all of the States surrounding the Black Sea and IATA representing the airspace users. The last two meetings had the EUROCONTROL Network Manager in attendance (at the request of and as a part of the Ukrainian delegation). The agreed Terms of Reference of the BSTF are presented at **Appendix D**.

3.2.3 The ICAO Regional Director, Europe and North Atlantic reminded the EANPG that since 2014 several other activities had been undertaken at the ICAO level in order to find a solution to the existing situation in the airspace over the Black Sea. These activities included two bilateral meetings (Ukraine, Russian Federation) hosted and chaired by ICAO (Regional Director) in 2014 and two missions of the former Secretary General to the States concerned.

3.2.4 The Regional Director advised EANPG that in preparing, facilitating and reporting on the works of the BSTF, ICAO had to comply with the following principles:

- a) “According to the extant European Air Navigation Plan, Ukraine is responsible for the provision of air traffic services in the entire Simferopol flight information region (FIR)”;
- b) “ICAO follows the United Nations policy regarding Ukraine, as found in the relevant resolution of the United Nations General Assembly which called on States, international organizations and specialised agencies not to recognize any alteration of the status of the Autonomous Republic of Crimea and the city of Sevastopol and to refrain from any action or dealing that might be interpreted as recognizing any such altered status”.

3.2.5 During the BSTF/02 meeting the following principles had been agreed:

- a) work in full observance of the ICAO Chicago Convention, its Annexes and Documents;
- b) must work in full compliance with UN and ICAO Assembly Resolutions;
- c) develop operational and technical solutions, which might be different from the existing conventional ones;
- d) identified solutions should provide for safety and efficiency;
- e) identified solutions should allow for the resumption of the normal flight operations in the High Seas airspace over the Black Sea as soon as possible;
- f) identified solutions should be acceptable to all parties involved.

Notes: 1. The revision of the existing FIR boundaries in the airspace over the Black Sea will not be addressed by BSTF. There was no intention to change/modify the European Air Navigation Plan.

2. The delegation from the Russian Federation suggested to underline that ICAO Resolutions, which are technical (especially the Resolution A38-12), should be addressed with priority.

3. The ICAO Secretariat reminded the BSTF that the adherence to UN Assembly Resolutions is mandatory for all United Nation Agencies.

3.2.6 The EANPG noted that the Russian Federation consistently disputed the above principles on the basis that, in their view, the UN General Assembly resolutions had no mandatory status and should be rather seen as recommendations to States; as the Russian Federation did not agree/were not signatories to the UN General Assembly Resolution 68/262 they considered not bound by it.

3.2.7 The EANPG was informed that the BSTF had discussed 6 potential scenarios (**Appendix C** refers) that had been identified during BSTF/02 and further refined and discussed during BSTF/03 and BSTF/04 and tested each of them against 5 criteria, namely:

- Likelihood of leading to a safe and successful outcome;
- Timeliness of implementation;
- Simplicity of operational arrangements;
- Complexity of institutional arrangements;
- Cost-efficiency.

3.2.8 The EANPG noted that the discussions in the BSTF had proven to be extremely challenging and as there was no consensus on the scenarios proposed within the ToRs of the BSTF. Ultimately the aim remained to meet the needs of the operators using this airspace and to facilitate their specific request to see some normalisation of traffic flows by summer’ 2017.

3.2.9 The Russian Federation contested the objectivity of the report on BSTF activities and presented the EANPG their perspective on the workings of the BSTF and the way the meetings had been handled by the Rapporteur and the ICAO Secretariat (**Appendix E** refers), questioning their objectivity and observance of the principles of the work of BSTF.

3.2.10 The view expressed by the Russian Federation was not supported by the other States who were members of the BSTF. In addition, Ukraine stated that BSTF proved to be a proper platform for comprehensive discussions on the state of affairs and for identifying and addressing the specific issues related to the existing situation concerning air navigation services provision in the high seas air space over the Black Sea. Ukraine underlined that the activities of the BSTF had been organized in strict adherence with the ToRs as agreed and signed by all BSTF participants including Russian Federation and praised the excellent work done by the *Rapporteur* and the ICAO Secretariat (the complete statement made by Ukraine can be found at **Appendix F**).

3.2.11 The ensuing discussions were extremely challenging and there was no consensus on any of the scenarios proposed within the ToRs of the BSTF for the High Seas portion of the Black Sea. IATA underlined that in the lack of any agreement concerning Scenarios 1 to 5 that remained under the decision power of the States involved in the BSTF, Scenario 6 (**Appendix C** refer), or a subset thereof, would, subject to confirmation of the legal position, merit additional elaboration as a way forward to achieve the ultimate aim to meet the needs of the operators using this airspace and to facilitate the gradual normalisation of traffic flows by summer 2017.

3.2.12 As there was no consensus of the way forward, the EANPG addressed the proposed Conclusion in the BSTF report. The Russian Federation proposed that the Conclusion should be redrafted as follows:

- a) Invite ICAO to consider actions to enable for the normalisation of flight operations and especially:
 - i) Request the Legal and External Relations Bureau of ICAO provide clarifications concerning the power of ICAO to temporarily suspend specific portion of the Air Navigation Plan;
 - ii) Based on the outcome of i) above, invite the BSTF to consider options and/or any other scenarios outside i) above that would achieve the normalisation of traffic flows;
 - iii) Continue the BSTF activities only on condition that its Terms or Reference are extended to include discussion of changes to Simferopol FIR boundaries (according to the BSTF objective and the ICAO mandate);
 - iv) Appoint an independent representative of the Secretariat from the ICAO Headquarters as *Rapporteur* (Chairman) of the BSTF able to lead the group with equidistance from all interested States.

3.2.13 The above proposed changes have not been supported by the rest of the EANPG and therefore, with the objection of the Russian Federation, the EANPG agreed to the following:

EANPG Conclusion 58/02 – Outcome of the Black Sea Task Force

That, in order to ensure the resumption of normal flight operations in the airspace over the Black Sea:

- a) Invite ICAO to consider actions similar to those that enabled the normalisation of flight operations in previous cases and specifically:
 - i) Request the Legal and External Relations Bureau of ICAO provide clarifications concerning the power of ICAO to temporarily suspend specific portion of the Air Navigation Plan;
 - ii) Based on the outcome of i) above, invite the BSTF to consider options and/or any other scenarios outside i) above but within the existing BSTF ToRs that would achieve the normalisation of traffic flows;
- b) the ICAO Regional Director, Europe and North Atlantic, in the behalf of EANPG;
 - i) Inform the ICAO Secretary General and President on the outcome of the Black Sea Task Force;
 - ii) Report to the COG/68.

Post-Implementation monitoring (PIM) on safety and utilization of ATS route available for flight planning within the airspace over the High Seas where the responsibility for ATS is delegated to Ukraine by international agreements

3.2.14 Ukraine presented the EANPG with an overview of the post-implementation monitoring (PIM) activities on the safety aspects and the utilization of ATS routes available for flight planning within the airspace over the High Seas where the responsibility for ATS was delegated to Ukraine through international agreements.

3.2.15 The EANPG noted the information that in order to provide sufficient evidence to support the statements that the declared types of air navigation services within the airspace under the responsibility of Ukraine guaranteed the provision of the safety at a level not lower than it was before March 2014, Ukraine prepared a Safety that included a phased approach of mitigating identified hazards.

3.2.16 ICAO Headquarters confirmed that the safety case presented an in-depth analysis and the provided information was comprehensive and proven. The related correspondence addressed to Ukraine under the signature of the ICAO Secretary General mentioned: *"It is noticed that an analysis of the risk associated with the proposed procedures has been documented, detailing hazards and mitigations, consistent with the guidance found in ICAO Safety Management Manual (SMM) (Doc 9859)."*

3.2.17 The EANPG noted that since 27 August 2015 Ukraine had implemented special procedures within the defined portion of Odesa CTA/UTA airspace in the western the High Seas part of Simferopol FIR as the first stage of normalisation of flight operations over the High Seas and that a 24/7 post implementation monitoring (PIM) of the special procedures started immediately after the implementation of the first phase.

3.2.18 The EANPG also noted that Ukraine closely cooperated with EASA concerning the post implementation monitoring results based on which EASA had updated their Safety Information Bulletin (SIB) No 2015-16R2 in February 2016, as follows: *"...EASA invites airspace users to consider the use of ATS routes L851 and M856 when planning flights within the Simferopol FIR, and to take into account the relevant aeronautical information published by Ukraine"*.

3.2.19 ICAO had also assessed the PIM report, and the Secretary General of ICAO mentioned in a letter addressed to Ukraine that: *"The technical experts within the Air Navigation Bureau (ANB) have*

reviewed the PIM report...The PIM report demonstrates a robust and candid approach to monitoring ongoing operations within the Simferopol FIR. In this respect, it is my view that the PIM report may assist in building confidence among airspace users and facilitate a resumption of operation”.

3.2.20 The EANPG was informed that since August 27, 2015, Ukraine had provided air navigation services to more than 19,000 flights and no safety reports (mandatory and voluntary schemes) had been received from aircraft operators.

4. PLANNING AND IMPLEMENTATION

4.1 AMENDMENTS TO ICAO DOCUMENTS

Update on EUR eANP

4.1.1 The EANPG was presented with a progress report on the work that had been carried out to finalise the new Council-approved eANP templates (Volumes I, II and III). The EANPG noted that in follow up to EANPG Conclusion 57/06 [*PfAs to Volumes I and II of the EUR eANP*], the PfA to Volume I (Serial No: EUR/NAT-I 16/01 - AOP-CNS-ATM-MET-SAR-AIM) had been circulated and approved by the President of the Council on 27 April 2016 (Approval letter circulated under cover of ICAO EUR/NAT State letter reference: EUR/NAT 16-0233.TEC of 3 May 2016 refers).

4.1.2 With regard to Volume II, the EANPG noted that the PfA to Volume II, Serial No: EUR/NAT-II 16/03 - AOP-CNS-ATM-MET-SAR-AIM, was circulated to States for comments (EUR/NAT State letter ref: EUR/NAT 16-0382.TEC of 8 August 2016 refers).. It was reported that a number of replies were received and the approval letter of Volume II would be issued by end of 2016.

4.1.3 The EANPG was advised that during the consultation process of the PfA to Volume II, a number of deletions and insertions of aerodromes to Table AOP II-1 had been brought forward. Unfortunately, as they had not been provided during the consultation process of the PfA to Volume I early this year, they could not be taken into account in Volume II. It was therefore noted that the Secretariat would issue a PfA to Volumes I and II of Tables AOP I-1 and AOP II-1 as well as Table MET II-2 in 2017. It was recalled that all aerodromes listed in the Tables AOP I-1 and II-1 should also be reflected in Table MET II-2. Therefore, MET-related information for the inserted aerodromes would be requested from the States concerned. In addition, further clarifications on Table AOP II-1 data would be requested from some States.

4.1.4 The EANPG was informed that the approved and circulated versions of Volumes I and II of the EUR eANP were available on the ICAO EUR/NAT public website under “EUR/NAT Documents”, at www.icao.int/EURNAT/Pages/EUR-and-NAT-Document.

4.1.5 With regard to the EUR eANP Volume III and follow-up to EANPG Conclusion 57/07 [*First Draft of Volume III of the EUR eANP*], the ICAO Secretariat reported that changes to Volume III had been kept to a minimum pending developments at ICAO Headquarters following the adoption of the revised edition of the *Global Air Navigation Plan (2016-2030, GANP, Doc 9750)* at the 39th ICAO Assembly. The new edition addressed changes to the Aviation System Block Upgrades (ASBU) elements and also included components from the Global Aeronautical Distress Safety System (GADSS) and would have possible impact on Volume III.

4.1.6 It was recalled that the EANPG endorsement of Volume III covered the requirement of approval as per the 2014 Council-approved Procedure for amendment of Regional Air Navigation Plans. It was also recalled that any proposed changes to Parts 0 (Introduction) and I (General Planning Aspects) of Volume III required inter-regional coordination and endorsement of all ICAO Regions before they could be adopted. Consequently, in order to facilitate the approval of Volume III, the EANPG agreed that changes in

this edition (Volume III, v2016) should be kept to Part II (Air Navigation System/ASBU Implementation) as it was under the jurisdiction of the EANPG.

4.1.7 With regard to the information in Part II on the implementation status of ASBU Modules, the EANPG was reminded of the mechanism for monitoring and reporting the implementation status of ASBU Block 0 Modules that had been established for the ICAO EUR Region using the combined efforts of the EUROCONTROL ESSIP/LSSIP mechanism and the revised ICAO EUR ATMGE questionnaire (EANPG Conclusion 55/02b refers). It was noted that the monitoring results were consolidated in the ASBU Implementation Monitoring Report which was presented for EANPG endorsement annually. It was therefore agreed to adopt the annual ASBU Implementation Monitoring Report as a Companion Document to the EUR eANP, Volume III. In addition, it was agreed that the previously proposed Appendix A [EUR ASBU Handbook], which had been intended to contain mapping of the component elements of the ASBU Modules against the European ATM Master Plan, would be removed in order to avoid duplication of efforts and erroneous information.

4.1.8 Additionally, the EANPG was apprised that the ICAO EUR/NAT Office issued a State letter (ref: EUR/NAT 16-0535.TEC of 19 October 2016 refers) requesting States to provide updates to the Tables related to B0-DATM. It was noted that the updated B0-ATM Tables would be included in Volume III, v2016, before its publication in January 2017.

4.1.9 The EANPG noted the summary of the updates to Volume III agreed the following EANPG Conclusion:

EANPG Conclusion 58/03 – Volume III of the EUR eANP, v2016

That the ICAO Regional Director, Europe and North Atlantic, on behalf of EANPG, take the necessary actions to publish the 2016 edition of the *ICAO European Air Navigation Plan*, Volume III (EUR eANP, Doc 7754, Vol III, v2016) as contained at **Appendix G** to this report.

Updated Version of ICAO EUR Doc 032 (Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management)

4.1.10 The EANPG recalled that during the work of the Baltic Sea Project Team (BSPT) the aspect of promulgation of national regulations regarding the operation of State aircraft under due regard were addressed. As a result of this work, it was recommended to include this material into EUR Doc032, so that it can be easily accessed by aviation stakeholders. The purpose of this Interim Guidance Material was to assist States in the improvement of civil/military coordination and cooperation by sharing best practices in airspace management and aircraft operations.

4.1.11 It was recalled that, following this discussion, EANPG/57 invited States to submit their national examples on the “due regard” operation of State aircraft over the High Seas for inclusion into EUR Doc032. The first version of the EUR Doc032 was published shortly after the EANPG/57 meeting in January 2016, together with the focal point table and the ICAO EUR OPS Bulletin 002. In August 2016, the ICAO Secretariat received the due regard examples from Finland and a new version of the EUR Doc032 was developed. Therefore, the EANPG reviewed the ICAO EUR Doc 032 (Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management, 2nd edition) and agreed to the following conclusion:

EANPG Conclusion 58/04 – Endorsement and Publication of the ICAO EUR Doc 032

- a) That the ICAO Regional Director, Europe and North Atlantic take necessary measures to publish the document on the ICAO EUR/NAT website/portal, as provided in **Appendix H** to this report;
- b) That the updated version of the ICAO EUR Doc 032 would be submitted to other aviation fora, e.g. the ATMOPS Panel Study Group, NATO Aviation Committee, EUROCONTROL CMIC for further considerations.

4.1.12 The EANPG was also informed about recent activities where the results of the BSPT were presented to the NATO Council. As a result of this interest in aviation safety within the Baltic Sea region, the representative from Finland indicated that a BSPT-like (specifically referring to the civil and military experience from the former BSPT members) ad-hoc group would be invited to a meeting in Helsinki, Finland in the February/March 2017 timeframe. The ad-hoc group would review the implementation of BSPT recommendations and could discuss any additional enhancements of air safety in the Baltic Sea area.

4.1.13 The EANPG noted that the BSPT results and EUR Doc032 were forwarded to the ICAO ATMOPS Panel study group, which started to work on the Circular 330 revision process. Unfortunately, the worked stopped in May 2016 and there had been no further developments from the ATMOPSP in the meantime. The EANPG stressed the importance that the work on the development of the new civil/military cooperation manual should continue in the study group. Thus the EANPG agreed that the regional document will be maintained in the foreseeable future and may only be withdrawn once the new ICAO circular/document on civil military cooperation in ATM was finalised at the global level.

Optimized Wake Vortex Separation Minima

4.1.14 The EANPG was presented with a joint working paper from France, Germany and the United Kingdom addressing the possible implementation of a six-category wake vortex separation scheme, named RECAT EUR. This scheme had been developed in Europe with a view to optimizing wake vortex separation minima, taking account of the traffic mix at European airports.

4.1.15 The use of more categories than currently provided for by PANS-ATM would allow the application of reduced separation minima, especially in peak traffic hours. In some cases, the RECAT EUR scheme would provide for enhanced wake turbulence protection, notably for light aircraft. Numerous flight tests, simulations and measurements, as well as the operational experience accumulated in several locations worldwide, demonstrated that PANS-ATM wake turbulence separation minima should and could be further optimized by use of more categories.

4.1.16 The EANPG noted that RECAT EUR should not be deployed at all airports, but only in that terminal airspace and at airports where operational conditions would warrant and there would be a positive benefits case. Flight plan filing and phraseology would remain unchanged from current practices with the implementation of RECAT EUR, but in view of the reduced longitudinal separation distances, runways should be vacated as soon as possible by landing aircraft.

4.1.17 A State which would decide to deploy RECAT EUR would have to maintain an up-to-date list of aircraft types for each category. To that effect, an aircraft type list was part of the RECAT EUR safety case available from EUROCONTROL. Changes to local flight data processing systems could be needed in order to display aircraft turbulence categories to air traffic controllers. States implementing RECAT EUR should ensure that air traffic controllers would be adequately trained.

4.1.18 The EANPG addressed a proposal for amendment to ICAO Doc 7030 allowing implementing a six-category wake vortex separation scheme with the expectation to increase the efficiency and underlined the importance of the ICAO WTSG work. The EANPG analyzed the proposal, revised it during the meeting and concluded that it would not be in conflict with any ICAO Annex or PANS provisions. After further discussions on the need to update the PANS-ATM provisions and/ or the necessity to safely increasing airport capacity, while also providing enhanced wake turbulence protection, the EANPG agreed to the following:

EANPG Conclusion 58/05 – Optimized Wake Vortex Separation Minima

That the ICAO Regional Director, Europe and North Atlantic:

- a) Undertake the necessary action to process the proposed amendment to ICAO Doc 7030, as detailed in **Appendix I** to this report, and point out the relationship of this proposal to the WTSG work;
- b) Invite EASA and ICAO to study if a list of aircraft types for each RECAT EUR aircraft grouping, in particular with respect to future aircraft types, can be developed and maintained at the regional level.

RECAT EU Implementation

4.1.19 The EANPG was informed about the RECAT-EU implementation at Paris CDG, Le Bourget and Pontoise airports deployed on 22 March 2016. RECAT-EU, a six-category wake vortex separation scheme, had been developed in Europe with a view to optimizing wake vortex separation minima, taking account of the fleet mix at European airports. RECAT EU was deployed after a one year local safety study in order to ensure safety would not be negatively impacted. The RECAT EU separation minima had been applied in lieu of conventional separation minima, in the very same airspace, i.e. the airspace within a 50 NM radius from CDG where aircraft in flight were in radio contact with CDG approach, down to the runway threshold. The RECAT EU separation minima were most useful in peak hours, when the traffic is mixed from a wake turbulence point of view.

4.1.20 Local ATC systems were upgraded in order to process unchanged “3 category” flight plans, assign them RECAT EU turbulence categories, and display these categories to ATC. Separation minima reminders had been placed at air traffic controllers’ desks and on the backs of controllers’ badges. While the EUROCONTROL RECAT EU categories were named A, B, C, D, E, F France retained the old S, H, M, L and added G and K as follows : S, G, H, K, M, L.

4.1.21 A thorough training of about 300 air traffic controllers (briefings, simulator and computer assisted training (CAT)) had been organised for a period of about three months. The aircraft type list used by the ATC systems had been provided by EUROCONTROL. The ANSP also informed air carriers in order to make them aware them about RECAT EU implementation. In addition to aeronautical information publications (AIP, AIC) written briefings had been made available to airspace users.

4.1.22 Flight crews did not seem to have issues with the new separation minima. Even though a handful of them complained that they felt being spaced too closely to other aircraft, the situation was quite stabilized by now. Even though a EUROCONTROL Lidar was still under the installation, no substantiated incidents had taken place to date, in spite of about 1500 aircraft movements per day (close to 2000 in the Paris CDG airspace) since 22 March 2016.

4.1.23 The EANPG noted that time-based separations for taking-off aircraft would only be implemented after a suitable controller timing tool is available, which was expected to be deployed next year.

4.2 INPUT FROM CONTRIBUTORY BODIES

Outcome of the Twenty-Second Meeting of the All-Weather Operations Group (AWOG/22)

4.2.1 The EANPG was presented with the results from the work of the All-Weather Operations Group of the European Air Navigation Planning Group, which took place in the European and North Atlantic (EUR/NAT) Office of ICAO on 19 September 2016 and which was attended by 15 experts (a new member from Slovenia was welcomed to the AWOG/22) from 10 States and 3 international organizations. The EANPG was informed that following the discussions at the EANPG/57 and the COG/65 meetings, Mr. Andreas Lipp from EUROCONTROL was nominated as a candidate for the AWOG chairperson. In line with the provisions of the EANPG Handbook on the election process for the election of the Chairperson and Vice Chairperson, the AWOG members unanimously elected Mr. Lipp as the new AWOG chairman.

4.2.2 The EANPG noted that AWOG/22 reviewed and discussed latest significant developments from ICAO and EUROCONTROL in the areas of GBAS, LATO and SESAR GBAS projects. It was noted that currently over 2600 aircraft are GBAS equipped or GBAS pin-upgradeable, that new GBAS installations are planned in various States and that FRAPORT has launched a financial incentive (reduced landing fees until 2018 for GBAS equipped aircraft) for GBAS equipage/operations.

4.2.3 EASA gave a detailed overview on the rulemaking task RMT.0379 related to All Weather Operations to AWOG/22, which will address regulations in the airworthiness, air operations, aircrew, aerodromes, ATM/ANS as well as in SERA domains, where a number of deficiencies have been observed. The RMT has quickly progressed and the stakeholder reviews on first deliverables (Regulatory Impact Assessment, Description of Operations, Rules) have already been completed. The proposed rules will affect the areas of airworthiness, air operations, flight crew training, ATM/ANS and Aerodromes. EASA has planned to complete the Rulemaking Task by 30.11.2017. The AWOG meeting was also informed that the work in the All Weather Operations Harmonization Aviation Rulemaking Committee (AWOHARC) has been put on hold (the mandate of this committee was not renewed in 2016) and that the AWO parts are now discussed in the AWO working group (with a focus on the flight operations parts and not on the aerodrome operations) of the FLTOPS Panel.

4.2.4 The EANPG was also informed about the activities of the other AWOG Project Teams. It was noted that the Project Team/AWO (all Weather Operations) prepared an updated version of ICAO EUR Doc 013 (EUROPEAN GUIDANCE MATERIAL ON ALL-WEATHER OPERATIONS AT AERODROMES) which included ICAO Annex 14 amendments that had a significant impact on the document, introduced the new approach classification and improved the wording. All the issues related to the use of new technologies such as HUD, EVS, SVS and CVS as well as the introduction of flexible aerodrome operating minima had not been addressed since they were still in the development or validation phase. The EANPG was informed that AWOG/22 produced the new 5th version of ICAO Doc 013 which was also reviewed by the COG/66 meeting. Therefore, the EANPG agreed the following:

EANPG Conclusion 58/06 – Revised European Guidance Material on All-Weather Operations at Aerodromes, (EUR Doc 013)

That the ICAO Regional Director, Europe and North Atlantic take necessary measures to publish the document on the ICAO EUR/NAT portal/website, as provided in **Appendix J** to this report

4.2.5 The EANPG also noted that the PT/AWO would not continue, during 2017, to work on the ICAO EUR Doc 013, but rather support EASA in their RMT 0379 activities, which foresaw the development of European All Weather Operations regulations (IR-CS-GM). PT/AWO activities will be re-started again once this RMT has been finished.

4.2.6 The EANPG took note of the AWOG/22 discussions on the ICAO EUR Doc 017 (Transition Methodology for the introduction and application of non-visual aids to All Weather Operations (AWO) in the EUR Region) and its companion TKI document (Identified Transition Key Issues for the introduction and application of non-visual aids to All Weather Operations (AWO) in the European Region of ICAO) which were completely outdated and that there had been no real demand for updated versions of these documents. The AWOG members concluded that there was more up-to-date and more detailed material available from a variety of other sources and that the challenge to keep the EUR Doc 017 and its TKI abreast would not justify the required efforts anymore. The AWOG also concluded that with the publication of the new ICAO All Weather Operations manual (Doc 9365), the description of AWO in the GANP and the European ATM Masterplan and the introduction of the EASA European All Weather Operations regulation in 2018, the EUR Doc 017 (including its TKI companion document) would become obsolete. Therefore, the EANPG supported the AWOG/22 decision to close the PT/ROAD and to stop the work on EUR Doc 017 and its TKI document.

4.2.7 The EANPG noted the updated AWOG work programme and that the AWOG members introduced several topics such as the need to develop European guidance material on adverse weather operations, the need to investigate the effects from the introduction of performance based aerodrome

operating minima (as currently discussed in the FLTOPS Panel) and the review of the interim ILS CSA guidance material in line with the upcoming Annex 10 CSA guidance material into the future AWOG work programme.

4.2.8 The EANPG noted that the next meeting of AWOG (AWOG/23) was jointly planned with the LATO/29 meeting and the EUROCAE WG-28 (GBAS) meeting at the ICAO EUR/NAT Office in the week from 2 to 6 September 2017. The EANPG encouraged States to actively participate in the various AWO activities. Due to the considerable amount of GBAS installations (over 100 aerodromes) in the Russian Federation, the Russian delegation was invited to share their best practices (via AWOG or LATO meetings) within the GBAS rulemaking development activities (EASA RMT.0680 on GBAS which was planned to start after adoption of GBAS SARPS in the NSP/3 meeting in December 2016).

Outcome of the Twenty-Second Meeting of Frequency Management Group (FMG/22)

4.2.9 The EANPG was presented with the outcomes of the twenty-second meeting of the Frequency management Group of the EANPG (FMG/22) held in Paris from 14 to 18 November 2016.

4.2.10 The EANPG noted that the FMG/22 discussed and agreed several amendments to the EUR Frequency Management Manual (EUR Doc 011).

4.2.11 In particular, the EANPG noted the report on the activities undertaken by the FMG data link sub group, which was progressing its work in follow up to EANPG Conclusion 57/13 and Decision 57/02 tasking the FMG to develop a revised version of the EUR data link allotment plan, taking into consideration the outcome of the relevant SJU studies and addressing the eventual ACARS sunset dates and present the final version of the EUR data link allotment plan for the endorsement of EANPG/58.

4.2.12 The EANPG noted the outcome of this work which was provided in the form of a proposal for the EUR Frequency Management Manual (EUR Doc 011) amendment.

4.2.13 In addition, the EANPG noted that a number of proposals for amendment to the EUR Frequency Management Manual (EUR Doc 011) had been developed by the FMG related to the following topics:

- a. Recording of terrain masking in SAFIRE;
- b. New permanent 25 or 8.33 KHz DSB-AM voice assignments;
- c. Future evolution of the data link band;
- d. VDL licensing recommendations;
- e. Use of VDL Mode 4 channels;
- f. Revision of Planning Rules for ILS-VOR – Doc 011 Amendment;
- g. Protection of Frequency Assignments in the COM 2 AS band – Doc 011 Amendment;
- h. AS sub-band reorganization and SAFIRE Amendment with DOC Values;
- i. Amendment of Part III, Section 1 on NDB;
- j. Adjacent Planning Rules for Sectorised DMEs;
- k. Utilization of the Frequency Band 117.975 – 137MHz;

1. Common channel concept.

4.2.14 Based on the above, the EANPG agreed the following:

EANPG Conclusion 58/07 – EUR Frequency Management Manual, (EUR Doc 011)

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action

- a) Update the *EUR Frequency Management* (EUR Doc 011) as provided at **Appendix K to this report**;
- b) Publish the revised *version* on the ICAO EUR/NAT website as soon as possible.

Election of the FMG Vice-Chair

4.2.15 The EANPG approved the election of the Vice-Chairperson, Mr. Edgars Dreijers from Latvia, and thanked Latvia for this nomination and their continuous support of the EANPG work. The EANPG also thanked the FMG for its excellent and very valuable work in addressing very complex issues in a very professional and timely manner.

Outcomes of the EANPG Aeronautical Fixed Service Group

4.2.16 The EANPG was provided with the reports on the outcomes of the 20th meeting of the AFSG and proposes some follow up actions. The EANPG noted that a number of amendments to the EUR documents were approved by the 65th Meeting of the EANPG COG, namely:

- a) COG Conclusion 65/06 – Update of EUR AMHS Manual (EUR Doc 020)
- b) COG Conclusion 65/07 – Update of EUR ATS Messaging Management Manual (EUR Doc 021)
- c) COG Conclusion 65/08 – EUR NSAP Address Registry (EUR DOC 028) update.

4.2.17 Also, the 66th Meeting of the EANPG COG was presented the updated version of the renamed *AMHS/Third Party Interconnection Architecture document*, incorporating the findings and requirements of the workshop and describing the existing and future topologies, procedures and requirements of the communication between AFS and SITA.

4.2.18 Therefore, based on the COG/66 input, the EANPG agreed to the following:

EANPG Conclusion 58/08 – AMHS/Third Party Interconnection Architecture Document

That the ICAO Regional Director, Europe and North Atlantic, undertake the necessary action to:

- a) publish the AMHS/Third Party Interconnection Architecture document (EUR Doc 035), Version 3.0, as provided at **Appendix L** to this report; and
- b) mandate the AFSG with further development and maintenance of the AMHS/Third Party Interconnection Architecture document.

4.2.19 Furthermore, the EANPG was provided with the updated *EUR IPv6 address space allocation document* as *version 1.0* (**Appendix M** refers). It was noted that *Appendix A* of the referred document depicting the *EUR IPv6 address space allocation*, would be published only in the EUROCONTROL IPv6 Resources SharePoint, a restricted access controlled Repository on EUROCONTROL extranet. *Appendix A* would be updated in annual basis and remain under the strict control of ICAO and EUROCONTROL and

might become available upon request and after thorough assessment by the EUR/NAT Office on exceptional circumstances.

4.2.20 Therefore the EANPG agreed to the following:

EANPG Conclusion 58/09 – EUR IPv6 Address Space Allocation Document, (EUR Doc 037 R)

That the ICAO Regional Director, Europe and North Atlantic, undertake the necessary action to:

- a) publish the *EUR IPv6 address space allocation document*, version 1.0, **Appendix M to this report** as EUR Document 037 R (without *Appendix A*) as a Restricted ICAO EUR Document;
- b) invite EUR States to apply for IPv6 address allocation using the process set out by EUR Doc 037R; and
- c) mandate the AFSG with further development and maintenance of EUR Doc 037R.

4.2.21 The EANPG was also presented with the *EUR AGVN Legacy Numbering Plan document as version 1.0* (**Appendix N** refers). It was noted that *Appendix A* of the referred document depicting the *AGVN Legacy Number range allocation* would be also published only in the EUROCONTROL AGVN database on EUROCONTROL extranet. The *Appendix A* would be available upon request on exceptional circumstances and after a positive assessment by the EUR/NAT Office.

4.2.22 Therefore the EANPG agreed to the following:

EANPG Conclusion 58/10 – EUR AGVN Legacy Numbering Plan Document as Version 1.0, (EUR Doc 036)

That the ICAO Regional Director, Europe and North Atlantic, undertake the necessary action to:

- a) publish EUR AGVN Legacy Numbering Plan document, version 1.0 **Appendix N** to this report, as EUR Document 036 (without Appendix A); and
- b) mandate the AFSG with further development and maintenance of EUR Doc 036.

4.2.23 The EANPG was informed that, to address the long standing problem associated with the accuracy of the information contained within ICAO Doc 7910, the ICAO EUR/NAT Secretariat was coordinating with the responsible staff in ICAO Headquarters to take action.

4.2.24 In that respect, an agreement was achieved to reevaluate the proposed actions to review the procedures for maintaining the ICAO Doc 7910, including the establishment of a more effective, unambiguous process for amending information in this document, in coordination with the AFSG/OG and AFSG/PG rapporteurs.

4.2.25 In this respect the EANPG reiterated their concerns with regard to the consistency of data published in Doc 7910.

Performance Based Navigation Issues

4.2.26 The EANPG was presented with the main outcomes of the joint 11th ICAO EUR Performance Based Navigation Task Force and 23rd EUROCONTROL Navigation Steering Group Meeting (PBN TF/11-NSG/23) which took place in the European and North Atlantic (EUR/NAT) Office of ICAO from 3 to 5 October 2016. The joint meeting was attended by 66 experts from 21 States and 3 international organizations and 3 Service Providers.

4.2.27 The EANPG was informed about a specific discussion concerning the RNP Chart naming related amendment which became applicable in November 2014. In this regard, it was noted that there were some transition challenges that included the non-standardized use of chart titles during the six year transition period and the absence of a regional- coordinated transition plan. The EANPG noted that discussions on this issue took place at the 39th Assembly, EUR PBN TF and COG/66 meetings. The EANPG was informed that following these meetings, the ICAO PBNSG/17 meeting and the ICAO PBN Programme manager agreed that by mid December 2016, a communication from ICAO related to transition requirements identified for changes in RNP Charting naming would be sent. The communication would discuss the need for a regional transition plan as well as synchronized regional transition planning to be put in place prior to further implementation of the change to RNP chart naming.

4.2.28 The development of synchronised regional transition planning material was identified as an urgent task from the PBNSG and it is expected that the revised guidance material will be available in July 2017 (e.g. updated ICAO Circular 336). In the discussions the delegations from France and Israel requested further information on the ICAO communication and it was confirmed by the ICAO PBN programme office, that the Electronic Bulletin on this topic will be send out before the end of the year.

4.2.29 The EANPG was also informed that information on the status of PBN implementation in the EUR Region on the ICAO portal (iSTARS) and the ICAO PBN website had not been updated and was not valid anymore. The EANPG invited ICAO to take appropriate measures to ensure tht the above-mentioned sources of information were up to date. In this respect it was noted that as part of the EUR ASBU implementation monitoring report 2015, the status of ICAO Global ANP ASBU Block 0-APTA module implementation was predicted reaching 85% in 2018.

4.2.30 The EANPG was informed about the planned ICAO, EUROCONTROL, EASA Final Approach Operations symposium on 31 January-2 February 2017, at EUROCONTROL in Brussels. It was noted that an invitation (EUR/NAT 16-0586.TEC, dated 22 November 2016) had been sent and the symposium would have several dedicated sessions such as: the introduction to the recent ICAO changes for Final Approaches; airport aspects on the transition to final approach; airborne aspects on the transition to final approach; challenges of modern approaches (from NPA to 2D/3D operations) from the ANSP perspective and the challenges of modern approaches from the pilot and airspace user perspective. New concepts, such as the Performance Based Aerodrome Operations, negative side effects and operational needs/aspects would also be addressed in this event.

4.2.31 In conclusion, the EANPG took note of the revised PBN TF ToRs/work programme which was approved at the last COG/66 meeting. The EANPG noted that the next joint meeting of the ICAO EUR Performance Based Navigation Task Force and EUROCONTROL Navigation Steering Group Meeting (PBN TF/12-NSG/25) has been scheduled for the week from 11 to 15 September 2017 (pending meeting room availability either at the EUR/NAT Office in Paris or at EUROCONTROL in Brussels).

Outcome of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE) Meetings

4.2.32 The EANPG was presented with the main outcomes of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE/24 and RDGE/25) meetings which took place respectively in the European and North Atlantic (EUR/NAT) Office of ICAO in June 2016 and in Tbilisi, Georgia, in October 2016. It was also noted that the 25th “Anniversary” Meeting of the RDGE (RDGE/25) was followed by the first meeting of the Advanced Inter-Regional ATS Route Development Task Force (AIRARD-TF/1) which had been organised in response to decisions that had been made at the ICAO 4th Inter-Regional Coordination Meeting (IRCM/4).

4.2.33 The EANPG noted that at RDGE/24, 21 State reports were presented, indicating traffic trends between a decrease of 22%, including a drop of 38.5% in one FIR/State in 2015, and a maximum increase of over 8.8%, with an average of 0.3% of overall traffic increase when compared with the traffic figures for the same time period in the previous year. The reasons for this decline were related to the

situation in Syria and Iraq, as well as the avoidance of the Simferopol (UKFV) FIR and some parts of the European airspace (Ukraine) for flights to/from Europe. Significant flows had been redirected as a result of airspace unavailability and traffic increased significantly in several FIRs, but it was also noted that most of the new flows were still concentrated in a small area over the Black Sea and at the interface area between Turkey and I. R. Iran.

4.2.34 In response to the EANPG Conclusion 57/18 [*Importance of States Participation to the Route Development Group – East*], several meetings took place between Bulgaria, I. R. Iran, Romania, Turkey, IATA and EUROCONTROL before RDGE/24 aimed at preparing the necessary airspace improvements in the interface areas between the involved States. The EANPG was informed that the UDROS/ODERO package, implemented on AIRAC 28 APR 2016, consisting of parallel airways in order to provide the necessary capacity to deal with the increased traffic due to the avoidance of UKFV FIR, provided additional capacity and aimed to reduce delays in the Black Sea Region.

4.2.35 In addition, a number of scenarios addressing the interface issues between Ankara FIR and Tehran FIR which focussed on the establishment of uni-directional eastbound and westbound flows, the necessary avoidance of crossing or interfering flows, the geographical distribution of both flows in downstream FIRs and the acceptability of the proposals/scenarios by the military had been addressed. The EANPG noted with satisfaction that a complete reorganisation of the interface area between Ankara FIR and Tehran FIR, which re-aligned the traffic flows and established a new FIR boundary waypoint for flows from Kuwait and Bahrain FIRs, was eventually agreed for implementation on AIRAC 02 FEB 2017.

4.2.36 As part of the discussions of the Middle Asia area and its interface Subgroup at RDGE/24, the increase of awareness of State aircraft operations in the Caspian Sea area was highlighted and riparian States were invited to consider requesting their State aircraft operators to submit flight plans with the routings described as DCTs from the exit/entry point of the FIR to the exit/entry point of the FIR. For example, it was noted that ATC controllers which were responsible for Turkmenbashi FIR would highly benefit from flight plan information when State aircraft flew north-/southbound from/to KERUL direct from/to PUTMA, crossing all international east-/westbound ATS routes.

4.2.37 The EANPG was also advised of the concerns raised by Turkey concerning the unilateral implementation of DCTs over the high seas without initiation of the ICAO High Seas Coordination Procedure. Turkey had already requested officially that ICAO and EUROCONTROL take necessary measures against such unilateral implementations of DCTs over the High Seas, however, despite several discussions, Turkey highlighted that these infringements continued to take place. Additionally, some ANSPs, in order to comply with EU requirements on Free Route Airspace (FRA), were issuing DCTs with the remarks of mandatory use of these DCTs to airspace users (asking airspace users to flight plan via these DCTs, especially for flights over the High Seas). Further discussions and actions to be taken to improve the “High Seas Coordination Procedure” can be found in paragraph 7.1 under *EANPG Handbook Updates* (paragraph 7.1.3-7.1.4 refer). The EANPG recognised the importance of the use of the ICAO High Seas Coordination Procedure for all related ATS route network and airspace changes over international waters (High Seas) and consequently agreed on the following EANPG Conclusion:

EANPG Conclusion 58/11 – Adherence to the ICAO High Seas Coordination Procedure

That, the ICAO Regional Director, Europe and North Atlantic, urge States to ensure proper coordination of ATS route developments and airspace improvements (particularly the implementation of DCTs), in High Seas airspace and adhere to the ICAO High Seas Coordination Procedure, as defined in the EANPG handbook, Appendix B.

4.2.38 The EANPG was advised that at RDGE/25, 22 State reports were presented, indicating a similarly volatile picture in traffic figures which ranged between a decrease of 20.3% and a maximum increase of over 7.8%, with an average of 1.7% of overall traffic decrease when compared with the traffic figures for the same time period in the previous year.

4.2.39 The EANPG was informed that I. R. Iran, Iraq and Turkey together with IATA and ICAO discussed proposals presented by Iraq related to the shifting of traffic to the eastern part of Baghdad FIR away from the current conflict zone area. These proposals were supported by the information that a new ATM system would be operational on 7 December 2016 and that additional projects for the improvement of communication and surveillance within Baghdad FIR were planned. The EANPG noted that the implementation date of the new proposal was agreed tentatively, at the latest, by AIRAC 02 MAR 2017. It was reported that I. R. Iran, Iraq and Turkey, were invited to provide feedback as soon as possible aiming for a publication cut-off date on 07 DEC 2016, and in any case, by end of December 2016 for the publication cut-off date on 05 JAN 2017. The EANPG was apprised of the RDGE's concern that no traffic would be permitted to enter Tehran FIR from Baghdad FIR in case of weather deviation. Moreover, Iraq was invited to internally implement the proposed route to ensure the traffic operations were safely displaced from the conflict zones. It was also noted that Turkey supported the proposal in principle, however before initiating coordination and approval with the relevant authorities in Turkey taking into consideration the current conflict situation, Turkey requested that the airlines willing to use these routes be identified.

4.2.40 The EANPG also learnt that a number of ATS route proposals which focussed on the reorganisation of the traffic flows at the waypoint SIMLI between P. R. China and the Russian Federation had been discussed at the 2016 China-Russia CNS/ATM Coordination Meeting, held in Shanghai, China, from 21 to 22 September 2016. The outcomes of this meeting were the slight modification of the SIMLI package and agreement on the coordinates for a new waypoint west of SIMLI. However, 2 proposals for the coordinates of a new waypoint east of SIMLI still required agreement between the Federal Air Transport Agency of Russian Federation (FATA) and Air Traffic Management Bureau of P. R. China (ATMB). The EANPG noted the intensifying urgency for the SIMLI reorganisation package to be agreed and implemented as traffic figures for 2016 indicated 1200 additional flights over this waypoint, representing a 67% increase in traffic when compared to the traffic figures from the date of the initial proposal in 2011, resulting in considerable increase in ATC workload. It was also reported that the airspace situation around SIMLI had increased in complexity in 2016 due to 2 recently established restricted areas in addition to RVSM transition areas for China. The EANPG was advised that, in the case that the restricted areas (from GND to 10000m) were activated, some of the current ATS routes above SIMLI could be closed or become PPR (prior permission required) Routes, which would seriously impact the current traffic flows.

4.2.41 The EANPG was informed that at RDGE/25, the delegation from P. R. China agreed that they would consider the results from the Shanghai meeting and the revised SIMLI package. It was agreed that the results of this review should be further discussed at a special SIMLI coordination meeting, to be held in Beijing, China, at the end of February 2017, with the support of IATA. As a follow up to the EANPG Conclusion 57/19 [*Progress on the Implementation of the SIMLI Dualisation Airspace Project*] and in recognition of the latest developments, the following EANPG Conclusion was agreed:

EANPG Conclusion 58/12 – Progress on the Implementation of the SIMLI Dualisation Airspace Project

That, recognising the importance of the implementation of the “*SIMLI dualisation project*”, the ICAO Regional Director, Europe and North Atlantic, in the behalf of EANPG:

- a) support the Russian Federation at the special SIMLI coordination meeting in Beijing, China, in February 2017; and
- b) address the necessary airspace improvements to P. R. China so that the implementation of the “*SIMLI dualisation project*” can be finalised before envisaged airspace changes negatively impact the traffic flows.

4.2.42 The EANPG also noted with satisfaction that a total of 123 new ATS route proposals had been implemented and 11 major airspace change projects became operational since the RDGE/23 and RDGE/24 meetings, which resulted in more efficient and optimized use of the routes.

4.2.43 The active participation of the delegations from P. R. China, I. R. Iran and Iraq at the RDGE meetings was noted with appreciation in view of the highly beneficial outcomes for improvement of the interface between the ICAO EUR Region and the adjacent ICAO Regions. In this respect, the EANPG underlined the increasing need for an improved inter-regional coordination mechanism between all ICAO Regional Offices in order for ATS route proposals to be coordinated efficiently and expediently managed. Due to the growing complexity of ATS route developments which went beyond the geographical limits of the ICAO EUR Region, the EANPG recognised the good efforts and significant role of the RDGE and its effective results. The EANPG reconfirmed the importance of continuous participation/support from States to RDGE meetings in order to progress the optimization of the ATS route network.

4.2.44 The EANPG was informed that the RDGE received a formal IATA recognition on its role in development of safety and efficient route network from the Regional Vice President of IATA Europe as part of the 25th Anniversary celebrations (which were supported by IATA HQ, IATA EUR and IATA MID). During the celebrations, EUROCONTROL (Director Network Manager (NM)) also thanked the RDGE for the excellent cooperation over the last decade and reconfirmed the full support of the NM to the RDGE activities in the future. The EANPG commended the RDGE on the reception of this formal recognition.

4.2.45 The EANPG was also informed of the outcomes of the first meeting of the Advanced Inter-Regional ATS Route Development Task Force (AIRARD-TF/1) where the Regional Officers from the ICAO APAC, EUR and MID Regions discussed the initial setup (development of draft ToRs, nomination of chairpersons from I. R. Iran and IATA and meeting arrangements) and the main focus of this new Task Force. Despite the presentation of the APAC Seamless ATM principles and the PBN highways concept, which were supported on the generic level, the EANPG noted that meeting participants expressed the wish to focus on specific problems in the interface areas between the 3 Regions. It was noted that IATA expressed the preference to address the existing problem areas (e.g. bottlenecks on FIR boundaries, FUA and use of military areas, stalled ATS route implementation, ATM system capabilities, ATFM and sector loads), discuss the reasons why specific airspace/ATS route proposals had not been implemented so far and to increase the interoperability of flows between the 3 Regions. The EANPG noted that the AIRARD-TF Terms of Reference (ToRs) and a more precise work programme would be coordinated before the next meeting in autumn 2017.

4.2.46 The EANPG noted that Twenty-Sixth meeting of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE/26) will take place from 3 to 7 April 2017 at the ICAO (EUR/NAT) Office in Paris. The Twenty-Seventh meeting of the Route Development Group – Eastern Part of the ICAO EUR Region (RDGE/27) is scheduled from 23 to 27 October 2017 based on the kind invitation from our colleagues in Kazakhstan. It is currently also planned to host the second meeting of the AIRARD-TF in conjunction with the RDGE/27.

Five Letter Name Code Issues

4.2.47 The ICAO Secretariat presented the EANPG with a report on the increasing need for a more robust worldwide removal of five-letter name-code (5LNC) duplicates in compliance with ICAO provisions concerning the uniqueness of significant points. It was reported that following the increasing implementation of the Free Route Airspace (FRA) concept (including cross-border free route airspace) by ECAC States as well as by States in the North Atlantic Region, the demand for 5LNCs had increased considerably. In addition, more and more States from the ICAO EUR/NAT Region had been reporting ATC system problems due to worldwide duplicated 5LNCs. The majority of such cases were between points assigned to the ICAO EUR/NAT Region and those also used in States from other ICAO Regions.

4.2.48 The EANPG recalled that adherence to the ICAO Annex 11 and Annex 15 provisions, specifically Annex 11 Chapter 2.14, Annex 11 Appendix 2 paragraphs 1 and 3 and Annex 15 ENR 4.4 and ENR 3, and PANS-OPS provisions on 5LNCs was a very important requirement. The EANPG was apprised that the clean-up of duplicated 5LNCs in the ICARD data base and the alignment of ICARD with 5LNCs published in national AIPs had been ongoing for several years and was not yet completed as States (and also other Regional Offices) were not following the ICAO provisions for significant points (5LNCs).

4.2.49 A list of more than 140 duplicated 5LNCs identified based on a study related to States' ATC system performances in FRA flight plan processing was presented to the EANPG. All these 5LNCs were examples of duplications of 5LNCs used in the EUR/NAT Region and other ICAO Regions and in most cases, assignments in ICARD were to the European States. An analysis of this list indicated that ICARD was most likely not being used extensively by States in other ICAO Regions due to severe inconsistencies in the static data content in ICARD and the actual use of these 5LNCs. In the ensuing discussions, clarifications were provided to representatives from Latvia and Sweden concerning the examples shown on the list.

4.2.50 The EANPG was informed that these concerns had been raised at the RDGE/25 and AIRARD-TF/1 meetings in Tbilisi, Georgia (17-21 October 2016), at which ICAO representatives from the APAC and MID Offices were in attendance. It was reported that the ICARD Data Managers from the APAC and MID Offices agreed to work together with the EUR/NAT Office to resolve the identified duplicates. It was however emphasized that a clear and fair mechanism for the resolution of duplicated 5LNCs needed to be established. Additionally, it was highlighted that despite the ICARD State Letter (SL 2015/32) which was sent out in May 2015, increased global awareness and thus training on the use of ICARD was urgently required. It was also agreed that inter-regional coordination of airspace development plans such as the annual AIRARD-TF meetings could provide an opportunity to identify and resolve such issues between the States concerned. It was reported that in relation to the examples shown in the list of 140 duplicated 5LNCs and the process to clear duplicated 5LNCs at the worldwide level, States in the ICAO EUR/NAT Region had expressed readiness to cooperate with the States concerned in other Regions to remove these duplicated 5LNCs.

4.2.51 The EANPG noted that whilst a large number of such duplicates were simply due to States not using ICARD as the central system for reservation and allocation of 5LNCs, they were also being created by the serious malfunctioning of the current ICARD system, with incidents relating to increasingly erroneous information such as States to which 5LNCs are allocated, coordinates of 5LNCs and dates when these were allocated and more severely, allowing new reservations of already allocated 5LNCs due to loss of records. The EANPG was informed that, at present, ICAO Headquarters and all Regional ICARD Data Managers were making great efforts to expedite the roll-out of ICARD on a new platform by the first quarter of 2017. With respect to the system breakdowns, despite being released from the ICARD database, certain waypoints were still displayed on the map function of ICARD. It was suggested that this technical shortcoming be addressed in the improvements to the ICARD platform and future verification and coordination processes for the establishment FIR boundary points. It was noted that a balance between this verification requirement and flexibility for cross-border FRA implementations needed to be achieved.

4.2.52 It was noted that this had become a safety issue and there were examples/incidents when aircraft were deviating from their initial flight track/ATC clearance because the flight management system (FMS) has gone to the wrong/second/duplicated 5LNC in the FMS database. The EANPG was advised that an initiative had been launched with the EUROCONTROL Voluntary ATM Incident Reporting (EVAIR) programme to monitor and track these deviations in specific reports. So far, "only" incidents with a loss in horizontal/lateral separation, which had fortunately been detected by ATC, had occurred. However it was underlined that there should be corrective measures taken against States that did not adhere to the principles of the relevant SARPs provisions. During the discussion, the representative from ICAO Headquarters expressed interest to receive information from such safety reports so that it could be taken into account in a future safety analysis on the effects of 5LNC duplicates.

4.2.53 In the ensuing discussions, the EANPG agreed that a clear and fair mechanism to coordinate and resolve duplicated 5LNCs at the worldwide level needed to be carefully established before embarking on such a tremendous task. In this respect, the representative from ICAO Headquarters confirmed that after the roll-out of the new ICARD platform in 2017, an initial draft would be presented to the Regional Offices and PIRGs for agreement before proceeding with the clean-up exercise. It was recalled that in the clean-up exercise conducted in the EUR/NAT Region, the principle of "first-reserved, first-served" had been applied. The representatives from Turkey and United Kingdom suggested that the amendment of ICAO SARPs to allow duplicated 5LNCs if they were separated by a suitably large protective radius, e.g. 1000 NM be considered. In the same vein, the representative from Germany proposed to further study the Annex 11

provisions vis a vis the today's operating environment with the view to better understand for what cases the "uniqueness" requirements would be essential.

4.2.54 In light of the above, the EANPG confirmed that the following aspects of the management of 5LNCs worldwide required particular attention by ICAO Headquarters, in coordination with Regional Offices:

- a) Ensure that the new ICARD platform performs all required 5LNCs validations and prevents duplicated reservations of 5LNCs;
- b) Establish a clear and fair mechanism to coordinate and resolve duplicated 5LNCs at the worldwide level to comply with ICAO SARPs provisions;
- c) Increase awareness and training in all Regions to fully and extensively use ICARD in 5LNC assignment;
- d) Support and improve inter-regional coordination at the planning level for any airspace development related to more than one Region; and
- e) Conduct of a future safety analysis on the impact of 5LNC duplicates.

4.2.55 Accordingly, the following EANPG Conclusion was agreed:

EANPG Conclusion 58/13 – Duplicated Five-Letter Name-Codes

That:

- a) ICAO be urged to:
 - i. take necessary measures to remind States on the adherence to the ICAO Annex 11, Annex 15 and PANS-OPS provisions regarding 5LNCs;
 - ii. address, with the rollout of the new ICARD System in 2017, the specific aspects of the global management of 5LNCs and clarify how States which are not complying to the ICAO provisions could be put on the deficiency lists;
 - iii. establish a clear and fair mechanism to coordinate and resolve duplicated 5LNCs at the worldwide level to comply with Annex 11 provisions;
 - iv. provide for a safety study on the 5LNCs duplication; and
- b) the ICAO Regional Director, European and North Atlantic, take necessary measures to monitor the 5LNC developments and that a review/update on the 5LNC situation within the ICAO EUR and NAT Regions be presented at the next EANPG.

4.2.56 In conclusion, the EANPG expressed their appreciation for the efforts and excellent support of the ICARD Data Manager in expediting the significant number of 5LNC requests.

Outcomes of the Twenty-Sixth Meeting of the Meteorology Group (METG/26)

4.2.57 The EANPG noted that the twenty-sixth meeting of the Meteorology Group (METG/26) of the European Air Navigation Planning Group (EANPG) was held at the European and North Atlantic Office of ICAO, Paris from 20 to 23 September 2016. The METG/26 meeting was attended by 100 experts from 39 States to which EUR/NAT Office is accredited and the United States as well as 5 international organizations (European Aviation Safety Agency (EASA), European Organisation for the Safety of Air Navigation

(EUROCONTROL), International Air Transport Association (IATA), International Civil Aviation Organization (ICAO) and the World Meteorological Organization (WMO)).

4.2.58 The EANPG also noted that the sixty-sixth meeting of the EANPG Programme Coordination Group (COG/66) held in Paris from 10 to 13 October 2016 reviewed outcomes of the METG/26 meeting and agreed to one COG Conclusion and formulated eight draft Conclusions for consideration by the EANPG noting one of these is incorporated in the deficiencies section.

English Language Proficiency (ELP)

4.2.59 The EANPG recalled COG Decision 63/03 that tasked the METG ad-hoc group consisting of representatives from Germany (rapporteur), Croatia, France, Georgia, United Kingdom, World Meteorological Organisation and ICAO to continue its work on the ELP of appropriate MET personnel in coordination with COG Language Proficiency Requirements Implementation (LPRI) Task Force. Specifically, the LPRI TF and METG ad-hoc group were tasked to develop guidance taking into account: i) the proposed ELPR-MET of Common European Framework of Reference for Language – threshold or intermediate (CEFR-B1); ii) establish English training procedures from selected METG Members; and iii) work done previously.

4.2.60 The EANPG also recalled that appropriate MET personnel included those providing oral aeronautical meteorological briefings and/or consultations to flight crew members and/or ATC personnel in the context of Collaborative Decision Making (CDM) as well as those coordinating between aeronautical meteorological offices in different States.

4.2.61 The EANPG noted that METG/26 expressed concerns about CEFR-B1 as the proficiency level for appropriate MET personnel considering it would take several years to implement in some cases. In addition, they expressed concern that not all aeronautical meteorological personnel would need to have this level of proficiency in English. As a result, the draft guidance was adapted to indicate that this document was guidance material with an intended goal, noting that the State had the jurisdiction over selecting the appropriate aeronautical meteorological personnel and associated ELP as an additional requirement to perform their duties.

4.2.62 The EANPG agreed that the draft guidance material as provided at **Appendix O** to this report should be published as an EUR document in order to allow States to use this guidance material to improve the ELP of their aeronautical meteorological personnel. In addition, the guidance material may serve as reference for ICAO Montréal to develop global provisions concerning ELP of aeronautical MET personnel (Meteorology Divisional Meeting 2014 Recommendation 4/6 refers). Therefore, the EANPG agreed to the following Conclusion:

EANPG Conclusion 58/14 – Publication of English Language Proficiency for Aeronautical MET Personnel – Guidance Material, (EUR Doc 038)

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action to publish the *English Language Proficiency for Aeronautical MET Personnel – Guidance Material* as provided at **Appendix O** to this report as EUR Document 038.

Note: Appropriate MET personnel includes those providing oral aeronautical meteorological briefings and/or consultations to flight crew members and/or ATC personnel in the context of CDM as well as those coordinating between aeronautical meteorological offices in different States.

4.2.63 The EANPG noted that METG/26 thanked the ad-hoc group on ELP for their good work, which also agreed to disband this ad-hoc group since their work was completed.

EU Regulation

4.2.64 The EANPG noted that EASA provided METG/26 the latest developments related to EU Regulation 2016/1377, Annex V Part – MET which was in line with Amendment 77 to Annex 3 (applicable 10 November 2016). METG/26 noted that EU Regulation 2016/1377 was in force; however, would be repealed due to translation issues and that a revote would occur by the end of the year. A new EU Regulation number would be expected after the revote. The Acceptable Means of Compliance (AMC) guidance material would be posted on the EASA website shortly afterwards with one book Part MET and the associated AMC.

World Area Forecast System (WAFS) and Secure Aviation Data Information Service (SADIS)

4.2.65 The EANPG noted a summary of WAFS developments which highlighted the following: updated guidance and training for States on the use and visualization of new gridded WAFS forecasts for cumulonimbus, icing and turbulence; additional flight levels (FL080, FL210 and FL480) of WAFS Upper Air Forecasts to be implemented on 9 November 2016 (effect from the forecast issued based on 1200 UTC analysis data); and introduction of WAFS GRIB2 clear air turbulence, cumulonimbus and icing verification data.

4.2.66 The EANPG noted a summary of SADIS developments which included the cessation of the SADIS 2G satellite broadcast on 31 July 2016. No EUR/NAT SADIS users contacted the SADIS Provider to indicate that they had been unaware of the cessation of the SADIS 2G service, or that they had suffered data loss as a result of the cessation of SADIS 2G. The EANPG noted that this was likely due to the extensive notification process that began 15 months prior to cessation and due to the support of SADIS Workstation suppliers. Other SADIS developments included an upgrade to the SADIS Gateway; increased FTP bandwidth; and file housekeeping on the SADIS FTP.

Volcanic Ash Exercises - VOLKAM

4.2.67 The EANPG noted that the Volcanic Ash Exercises Steering Group for the (far) Eastern part of the EUR Region (EUR (EAST) VOLCEX/SG) planned and conducted a volcanic ash exercise called VOLKAM16 that simulated a volcano eruption of Karpinsky (Northern Kurile Islands) from 2200 UTC on 21 April 2016 to 0130 UTC on 22 April 2016. One volcanic ash plume with height to FL400 moved to the southeast impacting trans-east and Northern Pacific (NOPAC) routes as well as Pacific Organized Track System (PACOTS). The other plume with height to FL200 moved to the northeast in order to test VAAC Tokyo to VAAC Anchorage handover on their border at 60N.

4.2.68 VOLKAM16 demonstrated proper flow of volcanic ash information (verified on SADIS); coordination on contingency routing between Petropavlovsk-Kamchatsky and Fukuoka FIRs; transferring flights between Anchorage and Oakland FIRs; adjusting Track 1 of PACOTS between Fukuoka and Oakland FIRs; and Main Air Traffic Management Centre (MATMC) Moscow coordination with Russian ACCs in the east (Petropavlovsk-Kamchatsky, Khabarovsk and Magadan) in that reroutes were reviewed and accepted into Russian Federation airspace. This exercise also demonstrated tactical re-routes between six airlines and seven ACCs serving seven FIRs, noting a majority of reroutes would not require an unplanned stop for fuel. Other points noted from this exercise included: successful VAAC Tokyo to VAAC Anchorage handover; successful dissemination of special air-reports; and successful telecons.

4.2.69 The VOLKAM16 debrief meeting (Paris, 11 May 2016) developed eight recommendations. Those relating to routing around volcanic ash included the need for: standardized reroute requests (e.g. FPL format); coordination procedures in exercise letter of agreement on contingency routes; and procedures to publish ad-hoc traffic management initiatives in a volcanic ash event. Expanding on the last item, operators requested to have ANSPs provide various options to fly north or south of a volcanic ash cloud to reduce reroute requests which was observed to be time consuming for operators and air traffic services.

4.2.70 The VOLKAM17 planning meeting that took place in Kamchatka from 8 to 10 August 2016 produced a first draft Exercise Directive for VOLKAM17. A simulated volcano eruption of a volcano named Koshelev located on the southern tip of Kamchatka would take place from 2200 UTC on 20 April 2017 to 0130 UTC on 21 April 2017. The simulated volcanic ash cloud to FL450 would move south-east to impact trans-east routes, NOPAC routes and possibly PACOTS. The meeting noted that the objectives were similar to those from the previous exercise except that the plume would warrant a VAAC handover from VAAC Tokyo to Anchorage and then from VAAC Anchorage to Washington. In addition, Magadan and Fukuoka ACCs would develop a draft letter of agreement for contingency routes around ash for VOLKAM17 that may include Petropavlovsk-Kamchatsky. The reason for this was that by VOLKAM17, Magadan was expected to control en-route airspace in both sectors in the vicinity of Kamchatka. Lastly, KVERT would publish aeronautical information (e.g. FIR boundaries) on the website containing a volcanic ash dispersion model output called PUFF.

Volcanic Ash Exercises - VOLCEX

4.2.71 The EANPG noted that the European and North Atlantic Volcanic Ash Exercises Steering Group (EUR/NAT VOLCEX/SG) planned and conducted a simulated volcano eruption of Bárðarbunga in Iceland from 11 to 12 October 2016 from 0800-1600 UTC on both days. The volcanic plume spread over a large part of northwest Europe and extended to the Baltic Sea Region by the end of the second day. The continuous eruption impacted the northwest part of Europe on the second day as well.

4.2.72 The objectives of VOLCEX16 included exercising the recently merged EUR/NAT Volcanic Ash Contingency Plan (EUR Doc 019, NAT Doc 006, Part II). In addition, the objectives included testing the origination, dissemination, reception and use of volcanic ash related aeronautical/meteorological information which includes VAA/VAG, VA concentration charts on Day 1 and column mass loading charts and data on Day 2. The objectives also included: exercising and evaluating the crisis coordination between the various stakeholders through the European Aviation Crisis Coordination Cell (EACCC) and Aircraft Operator Crisis Coordination Cell (AOCCC); testing the ATM responsiveness to the need of AO operational flexibility; and testing the dissemination of special air-reports on volcanic ash for display on the Network Manager NOP Portal/EVITA Tool.

4.2.73 The VOLCEX16 debrief meeting held in Reykjavik, Iceland on 15 November 2016 determined that Column Mass Loading (CML) products did not meet operational needs (e.g. more vertical granularity needed). As a result, improvements to supplementary products including review of the fixed vertical levels would be considered by VAACs London and Toulouse. The suggested changes would be circulated to VOLCEX/SG for feedback before any proposal would be presented to the EANPG COG and NAT IMG. Other outcomes included: modify EVITA to be more user friendly; consider practicing ATM response considering greater concentration of traffic flow at low and mid-levels as well as non-standard re-route options and opportunities provided by ANSPs (promoted by airspace users) promulgated in an efficient manner (e.g. via NM NOP); consider chat forum; compare receipt of special air-reports on NOP and those received at VAACs; provide NOTAM in accordance to the EUR/NAT VACP; practice cross-border FIR coordination on SIGMET; consider participation of industry that supports AOs; and consider adjusting NAT tracks based on location of forecasted volcanic ash.

4.2.74 The VOLCEX17 planning meeting held in Reykjavik, Iceland on 16 November 2016 agreed to simulate a volcanic eruption of Terceira (Azores, Portugal) that would impact the Mediterranean belt on 29 and 30 November 2017. The exercise times would be from 0800 – 1600 UTC and test the same objectives as VOLCEX16 as well as verify the number of special air-reports received at Network Manager and VAACs and test cross-border SIGMET coordination.

EUR SIGMET and AIRMET Guide (EUR Doc 014) – proposed revision

4.2.75 The EANPG agreed there was a need to include guidance on SIGMET on Tropical Cyclone since some EUR States (e.g. Portugal, Russian Federation, Spain and the United Kingdom) issued this type of SIGMET. In addition, the METG SIGMET ad-hoc group (United Kingdom – rapporteur, Austria, Croatia,

France, Latvia, Norway, Spain, Russian Federation, IATA and ICAO) agreed to the following proposals (**METG Decision 25/3** refers):

- a) introduction of a framework guidance and coordination template as well as letter of agreement template;
- b) express speed of movement with two digits for 09 and less;
- c) use of SEV TURB (severe turbulence) instead of CAT (clear air turbulence);
- d) use of ENTIRE FIR for all SIGMET types;
- e) introduction of guidance for expressing the vertical extent of a phenomenon using altitudes (M, FT) in combination with FL depending on the transition altitude; and
- f) express mid-night as dd0000.

4.2.76 Lastly, the EANPG agreed that a number of items (use of OBSC (obscured), EMBD (embedded), FRQ (frequent), SQL (squall line), change in intensity and when to issue special air-report) should be included in EUR Doc 014 labelled as ‘best practice’ in order to promote harmonization of SIGMET in the EUR Region. Therefore, the EANPG agreed to the following Conclusion:

EANPG Conclusion 58/15 – EUR SIGMET and AIRMET Guide, (EUR Doc 014)

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action to publish the revised *EUR SIGMET and AIRMET Guide* (EUR Doc 014) to include the proposals as provided at **Appendix P** to this report that includes:

- a) guidance material for cross-FIR SIGMET coordination procedures between MET ANSPs;
- b) changes related to the alignment with Amendment 77 to Annex 3;
- c) ‘best practices’ on use of OBSC, EMBD, FRQ, SQL, change in intensity and when to issue special air-report; and
- d) guidance to those EUR States with responsibility for issuance of SIGMET for FIRs that may be affected by tropical cyclone.

4.2.77 The EANPG noted a pilot project on SIGMET coordination in 2016 between the Russian Federation and Belarus. This project was successful in developing ways to eliminate inconsistencies for SIGMET at the FIR boundary. A single web platform was created for information exchange and interaction between MWOs. To expand on coordination, since 1 September 2016, other MWOs in the Russian Federation have joined the project and further participation of some PT/EAST countries (Azerbaijan, Armenia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan) was planned. The Russian Federation encouraged further cooperation with all countries concerning SIGMET coordination and proposed organizing and hosting a SIGMET Training Workshop for the PT/EAST countries, preferably back-to-back with PT/EAST/17 that will assist in reducing travel costs of participants. Given the aforementioned, the EANPG agreed to the following Conclusion:

EANPG Conclusion 58/16 – Workshop on SIGMET Coordination for PT/EAST States

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action to coordinate with the Russian Federation on organizing and conducting a *Workshop on SIGMET coordination for PT/EAST States* in 2017, preferably back-to-back with PT/EAST/17.

Guidelines for the Implementation of OPMET data exchange using IWXXM (ICAO Meteorological Information Exchange Model) in the EUR Region (EUR Doc 033) – proposed revision

4.2.78 EANPG noted the proposed changes to *Guidelines for the Implementation of OPMET data exchange using IWXXM in the EUR Region* (EUR Doc 033) in order to stay in line with the related draft global template being maintained by the Meteorology Panel (METP) Working Group on Meteorological Information Exchange (WG-MIE). These proposed changes included the following: renaming the document to *Guidelines for the Implementation of OPMET data exchange using IWXXM in the EUR Region*; update to the way requests for IWXXM data are made to RODBs (use text body part); update to file naming to include 4 digits that express the year; clarity on use of extensions (e.g. enables use of additional parameters not yet defined in Annex 3); clarity on validation using principles agreed by WG/MIE; and restructuring the document. The EANPG noted that the related draft global template was endorsed and recommended by MET Panel/2 (17-21 October 2016, Montreal) as guidance for Planning and Implementation Groups (PIRGs) and subject to approval by the Air Navigation Commission (ANC) (MET Panel/2 Recommendation 5/5 refers). The EANPG appreciated the work of METG in that the related global template was based on EUR Doc 033. Given the above, the EANPG agreed to the following Conclusion:

EANPG Conclusion 58/17 – Guidelines for the Implementation of OPMET Data Exchange using IWXXM in the EUR Region, (EUR Doc 033)

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action to publish the *Guidelines for the Implementation of OPMET data exchange using IWXXM in the EUR Region* (EUR Doc 033) as provided at **Appendix Q** to this report.

EUR OPMET Data Management Handbook (EUR Doc 018)

4.2.79 The EANPG agreed proposed changes to the *EUR OPMET Data Management Handbook* (EUR Doc 018) which included modifications such as a) updating the composition of DMG; b) updating references to ICAO Annex 3 Amendments 76-78 for IWXXM data exchange; c) referencing ICAO Docs 020, 033 and 10003; d) replacing FASID MET Table 2A with eANP Table MET II-2; e) providing clarity on RODB procedures; f) including bulletin header for SIGMET on tropical cyclone in IWXXM; and g) including IWXXM message correction procedures.

4.2.80 Furthermore, the following modifications were proposed to Appendix A and C to EUR Doc 018: a) Regional OPMET Centre (ROC) FTP sites for documentation removed; and b) addition of IWXXM request/reply for Regional OPMET Data Banks (RODB) including the new bulletin headers for IWXXM bulletins. The following modifications were proposed to Appendix B to EUR Doc 018: a) IWXXM data was added; and b) AIRAC dates were included for 2016 to 2019. In addition, Appendix E to EUR Doc 018 was modified to include the Regional OPMET Data Exchange (RODEX) area of responsibility and AFTN addressing. Lastly, the following changes were proposed to Appendix F to EUR Doc 018: a) FTP sites were removed; b) reference to EUR eANP Table MET II-2 was included; and c) thresholds used in determining timeliness of OPMET data were updated.

4.2.81 Given the aforementioned, the EANPG agreed to the following Conclusion:

EANPG Conclusion 58/18 – EUR OPMET Data Management Handbook, (EUR Doc 018)

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action to publish the revised *EUR OPMET Data Management Handbook* (EUR Doc 018) as provided at **Appendix R** to this report.

IWXXM workshops – past and future

4.2.82 EANPG was informed of the outcomes of the *Workshop on Implementing the ICAO Meteorological Information Exchange Model (IWXXM) for the exchange of OPMET data* held in Paris,

France from 31 May to 2 June 2016 (**EANPG Conclusion 57/23 refers**). Eleven of the fourteen OPMET exchange hubs around the globe were present at the workshop. Regional representation included AFI, APAC, EUR and MID Regions. General outcomes of the workshop included addressing IWXXM validation, translation, implementation of extended AMHS and testing IWXXM between Regional OPMET Centres; available documentation (e.g. EUR Doc 033, IWXXM 2.0); EUR RODBs IWXXM implementation; inter-regional harmonization of IWXXM implementation survey; and steps to consider in implementing IWXXM. Details of the outcomes can be found on the ICAO EUR/NAT website (<http://www2010.icao.int/EURNAT/Pages/Other-Meetings.aspx> under IWXXM Workshop).

4.2.83 The workshop also requested each Region should have subsequent workshops for States using the experts from the ROCs and RODBs in 2017. For the EUR Region, this was in line with the note in EANPG Conclusion 57/23, *this proposed workshop (for ROCs and RODBs) is expected to be the first in a series of workshops which would follow in order to consider training and capacity building related to the migration to IWXXM*. In addition, the EANPG noted that the Inter-regional APAC/EUR/MID Seminar on service improvement through integration of AIM, MET and ATM information would be held from 2 to 5 October 2017 at Eurocontrol (note that the location changed since the COG/66 meeting).

Traditional Alphanumeric Codes (TAC) to IWXXM translation issues for SIGMET

4.2.84 The EANPG noted possible problems in translating SIGMET messages from TAC to IWXXM. Specifically, the cancellation of SIGMET for those MWOs issuing separate numbering for WS, WC and WV would not be able to translate since IWXXM did not include the SIGMET type (e.g. WS) in the data model which can lead to ambiguity in this case. Another issue identified was how to translate relative position indicators and use of ENTIRE FIR, which in many cases would have more than the recommended 7 point maximum in a polygon. The EANPG agreed there was a need for a global practice, such as representing SIGMET as a polygon for both TAC and IWXXM, which would require an update to Appendix 6 Table A6-1 to Annex 3. Lastly, current Annex 3 provisions only allow for FIR, FIR/UIR and CTA in SIGMET, but IWXXM only allows the use of one of these (e.g. FIR or UIR and not FIR/UIR). Therefore, a MWO should issue a SIGMET for the FIR separate to that of the UIR for proper translation. The EANPG concurred that these issues should be considered by the appropriate global group and therefore, agreed to the following Conclusion:

EANPG Conclusion 58/19 – Translating SIGMET TAC to IWXXM

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, request the appropriate global ICAO working group to consider resolving the following issues identified related to translating SIGMET from TAC to IWXXM:

- a) ambiguity when cancelling SIGMET;
- b) various interpretations of the position of phenomena in SIGMET when polygons are not used; and
- c) the use of FIR/UIR in Annex 3 is incompatible with IWXXM.

MET ToRs

4.2.85 The EANPG agreed to synchronize the METG tasks associated with the MET Panel and its' associated working groups as provided at **Appendix S** to this report (table at end). Furthermore, inclusion of Terms of Reference for DMG and PT/EAST were proposed and agreed upon. Consequently, the EANPG agreed to the following:

EANPG Conclusion 58/20 – Update to the METG Terms of Reference in EANPG Handbook, (EUR Doc 001)

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, undertake the necessary action to update the *EANPG Handbook* (EUR Doc 001) to reflect the updated Terms of Reference of the Meteorology Group as provided at **Appendix S** to this report

Election of METG Chair and Vice-Chair

4.2.86 The EANPG noted the newly elected METG Chairperson, **Ms. Dorothea Banse** – *Head of the Systems and Operations Division, Aeronautical Meteorology Department, Deutscher Wetterdienst, Offenbach am Main, Germany*. The EANPG also noted the newly elected Vice-Chairperson, **Ms. Larisa Nikitina** – *Chief of the Forecasts Verification Group, ATM Met Department, Aviamettelecom of Roshydromet, Russian Federation*. Both Ms. Banse and Ms. Nikitina received strong endorsements by METG members. The EANPG confirmed the METG Chair and Vice-Chair elections with immediate effect.

The EANPG noted that the METG/27 would be held from 19 to 22 September 2017 at the ICAO EUR/NAT Regional Office in Paris.

Improved Contingency Planning and Readiness for Nuclear Events, Global Process

4.2.87 The EANPG recalled EANPG Conclusion 57/05 that called for EUROCONTROL to inform COG on the global progress of the MET Panel activity on a ‘Nuclear CONOPS’ and ‘initial guidance’ to support aviation stakeholders in the case of a nuclear event. This Conclusion stemmed from the gaps identified in nuclear information for aviation as a result of an exercise on the network-wide response in case of a nuclear emergency in Europe (NUCLEAR14) conducted by the Network Manager (NM) and the European Aviation Crisis Coordination Cell (EACCC) from 19 to 20 November 2014. These gaps identified included the need for improved information and improved guidance to enhance the readiness and appropriate response to all aviation stakeholders in case of a nuclear incident or accident.

4.2.88 The EANPG noted that the Meteorology Panel Working Group on Meteorological Information Service Development (METP/WG-MISD) was informed of the results of NUCLEAR14 and agreed that the prepared ‘Nuclear CONOPS’ and ‘initial guidance’ should be made available to European Members of the METP for use in a EACCC context and at the same time be made available to the METP for final endorsement (October 2016) subject to ANC approval.

4.2.89 The EANPG was informed that the draft initial guidance under review by METP/WG-MISD entailed four phases as described below:

- Phase 1: Information on event available, no further information and issuance of a default SIGMET with default radius;
- Phase 2: Information on event available, dispersion model output available to aviation stakeholders based on default parameters agreed for aviation including issuance of relevant SIGMET;
- Phase 3: Quantitative and qualitative information on event available, dispersion model output available to aviation stakeholders based on this information including decision support information for aviation including issuance of relevant SIGMET; and
- Phase 4: End of event, cancellation of valid SIGMET.

4.2.90 An intermediate approach that was agreed upon by the Second Meeting of the MET Panel included the following:

- Phase 1 would be proposed to be included in Amendment 78 to Annex 3 (applicable November 2018) in the form of SARPs that States shall issue a SIGMET for a cylinder with a radius of up to 30KM around the nuclear accident; and
- In parallel, initiatives at the regional level were encouraged to develop further modelling and the definition of appropriate thresholds for modelling and the levels to apply in operations (phase 2 focus). Outcomes of these regional initiatives would feed the METP/WG-MISD activities to ensure further integration at the global ICAO level.

4.2.91 It was noted that to support this regional developments, the EUROCONTROL Network Manager (NM) and the competent European bodies that included the two Regional Specialized Meteorological Centres (RSMCs), agreed to start with a workshop on 7 December 2016 at EUROCONTROL. Given the above, the EANPG agreed not to formulate any action at this time. The COG would be provided with a status update and proposed remedial action when appropriate.

4.3 REGIONAL PERFORMANCE FRAMEWORK AND ASBU

Regional Performance Framework Implementation

4.3.1 The EANPG was presented with an update of the work carried out in 2016 as follow up of the conclusions of EANPG/57 by the COG Performance Task Force and the ICAO Secretariat to support the implementation of the regional performance framework, providing reports to COG in the course of the year.

4.3.2 The EANPG was informed on the coordination process established by the ICAO Office with the European Commission and EUROCONTROL requesting support to States in order to avoid the duplication of activities related to the collection, analysis of performance data and provision of performance results for those States subject to EU Performance Scheme or EUROCONTROL performance activities. Both organizations confirmed their support also highlighting that for European Union and EUROCONTROL States support was available upon request through pre-filled templates (via mail to icaodoc030support@eurocontrol.int).

4.3.3 The EANPG was informed that EUROCONTROL had prepared pre-filled templates for 40 States (Serbia and Montenegro have a joint template) and dispatched these to States requesting support. This process also helped in ensuring a certain level of consistency in the understanding of performance data and provision of performance results. State Letter EUR/NAT 16-0539.TEC (HAS/DAC) was circulated on 21 October 2016 requesting States to provide the performance results according to ICAO EUR Doc 030 provisions by 4 November 2016. 19 responses in total had been received at the time of EANPG/58.

4.3.4 The EANPG noted that the high level report to EANPG was aimed at presenting the status of activities, raising awareness and showing initial results and findings in order to further mature in the implementation phase in the course of 2017 with the final goal to have a more mature and comprehensive report at EANPG/59 at the end of 2017. It was highlighted that the current status could be considered as a good initial step with some promising achievements, in particular:

- a) Participation by about one third of the States was reasonable for a new activity although a better involvement of States might be expected considering the preparatory work;
- b) Demonstrated that it was technically and organisationally possible to collect the data as specified in Doc030;
- c) The support provided to EU/Eurocontrol States shown to be clear and effective, although some fine-tuning was needed. The additional effort was marginal and would be further reduced based on the identified issues that the COG PERF TF would address in the course of 2017 in preparation for next year's report;

- d) The set-up of this new process was the most complex and demanding activity; once systemised next year it would be smoother and less demanding for all parties involved;
- e) The knowledge gained allowed to make a first evaluation of the usefulness and appropriateness of the data items collected. This may lead to some re-prioritisation in the KPAs and KPIs. In this context, the COG Performance Task Force would also have to consider the link with the performance based approach for the GANP 2019 and the RASG-EUR activities.

4.3.5 The EANPG was informed that experience shown that further improvement of the support mechanism for EU/Eurocontrol States would be possible taking into consideration the lessons learnt.

4.3.6 The EANPG noted the activities to be carried out in 2017 to support the participation of all States, in particular the States in the Eastern part of the Region as well as in Northern Africa. The activities at the global and regional levels would need to be monitored including those related to ICAO GANP and global performance framework and EU Performance Scheme

4.3.7 The EANPG noted that the foregoing regional efforts were fully consistent with the activities in place at the ICAO Global level. The European Commission confirmed the full support to the activity and the availability of reports existing in the framework of the EU Performance Scheme, while also stressing the importance of the participation of all States in the Region, especially the States which are not covered by the EU/Eurocontrol activities related to performance.

4.3.8 Finally the EANPG, in order to support the planned activities and ensure wider participation of States in the implementation of the regional performance framework, agreed the following:

EANPG Conclusion 58/21 – Implementation of the ICAO EUR Region Performance Framework

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG:

- a) continue to promote the regional framework especially through the State Support Missions that are planned in the Mid-Asia Area and the Mediterranean Area of the EUR Region;
- b) request States to actively participate and provide performance results according to ICAO EUR Doc 030 provisions, in order to have a comprehensive and mature regional report at EANPG/59 in 2017.

ASBU Implementation Report

4.3.9 The EANPG was informed that after the endorsement of the first report regarding the regional monitoring of ASBU implementation in response to EANPG Conclusion 55/03 at EANPG/57, a number of improvements had been developed by the EUROCONTROL PEPR unit and the ICAO EUR/NAT office in order to increase the number of responses and enhance the quality of the reported information from those States not covered by the LSSIP mechanism. The updated version of the ASBU implementation questionnaire introduced more detailed guidance material, practical examples and specific explanations on the implementation activities/status that needed to be reported. This questionnaire was used in the specific State Support Missions to States in the Mid-Asia part of the EUR Region, so that States could include this information in their State Report for the ATMGE 22 meeting which was held in Paris from 14 to 17 March 2016.

4.3.10 The EANPG noted that from the 11 States (Monaco, Andorra and San Marino are included into other States) outside the LSSIP process, 8 States replied to the monitoring questionnaire with detailed explanations on their status of ASBU implementation. Only 3 States, Algeria, Morocco and Tunisia, did not submit their replies. However, as a result of the ICAO/ACAC GANP and ASBU Symposium which took place in Algiers from 4 to 6 September 2016, Algeria and Tunisia agreed to organise National ASBU Implementation workshops (with support from ICAO) where the questionnaire should be filled in with all the

required details and afterwards formally submitted for inclusion in the next reporting cycle (2016) of the monitoring report.

4.3.11 The EANPG noted that the number and quality of the replies received from the questionnaire represented a considerable improvement in relation to the information obtained on the previous year and did allow to enhance the content of the 2015 ASBU Implementation Monitoring report and provide more progress details. In addition, structural changes were made to the report in all chapters to further explain objectives, scope and the processes. The 2 main chapters address and analyse the status of ASBU Block 0 module implementation and the newly developed geographical implementation maps for all States in the EUR Region make view on implementation progress much easier. A new chapter with conclusions and recommendations was included with ASBU Block 0 Modules Implementation Dashboard 2015 and implementation outlook 2018 tables.

4.3.12 The EANPG highlighted that as the Global Air Navigation Plan requires States to report the status of their ASBU implementation, this report was a key document for the EANPG to monitor and analyse the ASBU implementation within the EUR Region. The EANPG reviewed the 2015 ICAO/EUROCONTROL ASBU implementation monitoring report (Version 0.9.1) and agreed to the following statement:

EANPG Statement 58/01 – Endorsement of the 2015 ASBU Implementation Monitoring Report

That the EANPG endorses the 2015 ICAO/EUROCONTROL ASBU implementation monitoring report (Version 0.9.1, from 9 November 2016), as provided in **Appendix T** to the report

4.3.13 Furthermore, the EANPG recalled that the ASBU Block 0 modules B0-WAKE, B0-AMET, B0-ASEP, B0-OFPL and B0-CCO had not been included into the current EANPG prioritization table and the monitoring mechanisms (EANPG Conclusion 55/03 on the regional planning for ASBU implementation refers). As some of these modules, e.g B0-CCO, had become one of the key ICAO GANP priorities and its implementation was successfully completed in some States, or B0-AMET which is implemented by a number of States in the Region under the METG work programme objectives, the proposed inclusion of those two B0 modules into the implementation monitoring mechanisms for the 2016 reference period was supported by the EANPG. When further considering the EANPG Conclusions 55/02 and 55/03 and taking into account the need to review some of the implementation objectives which were included in European ATM Master Plan that are linked to ASBU Block 0 modules, the EANPG also agreed to update the EUR ASBU Implementation Plan (Appendix G of the EANPG/55 Report) in accordance with the following tables:

ASBU Block 0 Priority 1 Modules	Objective designator (ESSIP)	Other Block 0 Modules	Objective designator (ESSIP)
B0-ACAS	ATC16	B0-ACDM	AOP05
B0-APTA	NAV10	B0-ASUR	ITY-SPI
B0-DATM	INF04	B0-CDO	ENV01
	ITY-ADQ		NAV03
B0-FICE	ATC17	B0-FRTO	AOM19.1
	ITY-COTR		NAV03
	ITY-FMTP	B0-NOPS	FCM01

BO-SNET	ATC02.2		FCM03
	ATC02.8		
BO-SURF	AOP04.1	BO-RSEQ	ATC07.1
	AOP04.2		ATC15.1
		BO-TBO	ITY-AGDL

4.3.14 The revised ASBU implementation report questionnaires (v.4 from 17.11.2016) were presented and the EANPG agreed that the new version of the questionnaire would be attached to the ATMGE State Report format, as presented in Appendix B to this WP/12. Based on the current experiences, it was recommended that the progress/status of implementation of ASBU Block 0 modules is reported, for monitoring purposes, by States regardless of their assigned priority in the EANPG/55 conclusions. In further support of the ASBU implementation monitoring and to achieve a complete overview of the status of ASBU Block 0 implementation from all States within the ICAO EUR Region in the future the EANPG agreed to the following conclusion:

EANPG Conclusion 58/22 – Enhanced ASBU Implementation Monitoring within the ICAO EUR Region

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG:

- a) include the ASBU B0 modules (CCO and AMET) into the list of modules which are monitored within the ICAO EUR Region;
- b) invite States to use the revised ATMGE State Report format, as presented in **Appendix U** to the report, on the status of implementation of ASBU Block 0 modules;
- c) continue to promote the collaborative implementation monitoring approach by asking States to nominate an ASBU implementation focal point;
- d) support Algeria and Tunisia in their national workshops during the 1st Quarter 2017 so that the questionnaires from those 2 States can be included into the 2016 report;
- e) request States to provide their ASBU implementation data to the next ATMGE/23 meeting in March 2017, so that the 2016 version of the ASBU implementation monitoring report can be presented at EANPG/59 in 2017.

4.3.15 Furthermore, the EANPG noted that the endorsed ASBU implementation monitoring report would be forwarded as one of the contributions from the ICAO EUR Region to the annual ICAO Global Air Navigation Report and that relevant parts of the report had been used for the ICAO EUR eANP Vol III. The EANPG appreciated this significantly improved version of the report and noted that this was a successful example of cooperation using combined efforts and existing resources/processes and avoiding unnecessary duplication.

4.4 SEARCH AND RESCUE

Update on Search and Rescue Task Force Activities

4.4.1 The EANPG was provided with a report on recent and future activities of the European Search and Rescue Task Force (EURSAR/TF). As part of their activities, the EURSAR/TF/2 meeting took place in Larnaca, Cyprus from 11 to 14 October 2016, with a two-day plenary meeting, one day reserved for a Search and Rescue Exercise (SAREX). The EANPG thanked Cyprus, particularly the JRCC Larnaca, for the outstanding organization of the event and continuous support for the EUR SAR TF activities. The EANPG noted that the EUR SAR/TF/2 was presented with the first draft of the EUR Region SAR plan. The

Task Force agreed that some changes would be necessary to align the draft plan with the specific characteristics of the EUR Region and that an updated version would be provided at the next COG meeting.

4.4.2 Regarding the Cross Border Cooperation initiative, the EANPG noted that the EUR SAR/TF/2 was presented with the SAR Agreement sample from the IAMSAR Manual (International Aeronautical and Maritime Search and Rescue Manual), 2016 Edition, Volume I, Appendix I. The EANPG also noted that, in order to avoid duplication of efforts and use of a common template, the EUR SAR/TF/2 agreed to evaluate the structure and contents of the SAR Agreement sample and provide comments not later than May 2017.

4.4.3 The EANPG noted the efforts to establish an internationally-recognised SAR Training Centres to attend the urgent expectations from the EUR Region States and offer a wide range of operational and management SAR programs. Furthermore, the EANPG noted that the EUR SAR/TF/2 agreed to evaluate the proposals from Cyprus (JRCC Larnaca) and EUROCONTROL, in coordination with the EUR/NAT Office, and provide comments at the next EUR SAR/TF Teleconference scheduled for the 1Q of 2017.

4.4.4 Furthermore, the EANPG noted information that on 3 November 2016, a Memorandum of Understanding (MoU) on Regional SAR cooperation was signed during the Regional SAR Conference organized by the Civil Aviation Directorate (CAD) of the Republic of Serbia and EUROCONTROL. The Republic of Serbia would chair the SAR Advisory Committee and the CAD of Serbia was assigned to communicate on behalf of the Committee Members and Observers with the ICAO EUR/NAT Office, EUROCONTROL and other States and organizations.

4.5 AIS/AIM ACTIVITIES

Update on AIM activities

Amendment 39 to Annex 15

4.5.1 The EANPG noted that the Amendment 39 to Annex 15 was adopted by the ICAO Council with the effective date of 11 July 2016 (State Letter Ref.: AN 2/2.4-16/18 dated 1 April 2016 refers). The Amendment was published into two parts:

- a) Amendment 39 A (Applicability date 10 November 2016):
 - recommendations of the third meeting of the Aerodrome Panel (AP/3) relating to the publication of information on runway end safety area (RESA) and arresting system in the aeronautical information publication (AIP);
 - recommendations of the twelfth meeting of the Instrument Flight Procedures Panel (IFPP/12) relating to en-route airway directional use restrictions; and
 - recommendations of the second meeting of the Operational Data Link Panel (OPLINKP/2) relating to performance-based communication and surveillance (PBCS) and satellite voice communications (SATVOICE).
- b) Amendment 39 B (Applicability date 5 November 2020):
 - recommendations of the Friction Task Force of the Aerodrome Design and Operations Panel (ADOP) relating to the use of a global reporting format for assessing and reporting runway surface conditions.

4.5.2 It was also noted that the time between the effective date and the applicability date of the Amendment 39B was longer than usual due to the nature and complexity of the amendment.

4.5.3 The EANPG was informed that the EUROCONTROL AIM/SWIM Team-11 (Brussels, Belgium, 27-28 September 2016) and COG/66 reviewed the foregoing Amendment and raised concerns about the complexity of the implementation of Amendment 39B to Annex 15 which would involve a number

of stakeholders and consequently would require coordinated initiatives at the global level, to be led by the ICAO HQ. Accordingly, the EANPG agreed on the following:

EANPG Conclusion 58/23 – Appropriate Initiatives for Coordinated Implementation of the Amendment 39B to Annex 15

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, takes necessary actions to coordinate with the ICAO HQ for conducting appropriate initiatives (e.g. training, awareness campaigns, etc.) at the global level for a coordinated and harmonized implementation of the amendment 39B to Annex 15 related to the use of a global reporting format for assessing and reporting runway surface conditions.

Amendment 59 to Annex 4

4.5.4 Furthermore, the EANPG noted that the adoption of Amendment 59 to Annex 4 was issued on 11 April 2016 (Ref.: AN 9/1.3-16/38) with the applicability date of 10 November 2016 concerning satellite voice communications (SATVOICE); visual segment surface (VSS) penetrations charting requirements; and update of the provisions relating to publication depiction and functionality requirements of fly-by and fly-over significant points, area minimum altitude (AMA), CAT H procedures and en-route airway directional use restrictions.

EASA NPA 2016/02: Technical requirements and operational procedures for AIS and AIM

4.5.5 The EANPG noted that EASA issued a Notice of Proposed Amendment (NPA 2016-02) on 28/04/2016/2016 regarding Technical requirements and operational procedures for AIS and AIM. The NPA and its appendices were available on the EASA website at: <https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2016-02>.

Support States in the AIM Implementation

4.5.6 The EANPG recalled its Conclusion 57/27 and agreed that in order to provide support to States with a better understanding of the planning and implementation issues related to the transition from AIS to AIM, and foster the implementation of the AIS/AIM requirements in a harmonized manner, in particular in the QMS and WGS-84 implementation, specific actions were required, in coordination with the COG/AIM TF Chairman and EUROCONTROL, for the organisation of AIM Capacity Building/Support Missions to Seven (7) States, as a Special Implementation Project (SIP).

4.5.7 The EANPG noted that despite of the previous efforts, neither ICAO nor EUROCONTROL could so far provide the funds for the intended assistance initiatives due to budget constraints. It was also noted that in the meantime some assistances was already provided by ICAO and EUROCONTROL to some of the intended States to motivate/assist them in the implementation of the AIS/AIM requirements. The EANPG noted that any further support should be planned subject to progress in those States, their continuous interest and official request for further assistance. In this respect, it was highlighted that Malta (one of the seven intended States) recently completed the implementation of QMS in AIS (and ATS) and is certified ISO 9001-2008.

Interregional APAC/EUR/MID Seminar on “Service Improvement through Integration of Digital AIM, MET and ATM Information Services”

4.5.8 The EANPG recalled that the Fourth Inter-Regional Coordination meeting between APAC, EUR/NAT and MID (IRCM/4) (Bangkok, Thailand, 14-16 September 2015) agreed that an Interregional Seminar would be held on “Service Improvement through Integration of Digital AIM, MET and ATM Information Services” in 2017 to address the implementation issues of the appropriate ASBU Block 0 Modules (i.e. B0-DATM, B0-AMET and B0-FICE) and associated challenges/lessons learned and to focus

on the pre-requisites for an efficient and timely planning for the implementation of the Block 1 Modules related to SWIM (B1-DATM, B1-AMET, B1-SWIM and B1-FICE).

4.5.9 In this regard, the EANPG was informed that the Seminar had been planned to be held in EUROCONTROL, Brussels, Belgium, from 2 to 5 October 2017. It was confirmed that this would be a privilege to conduct the seminar jointly with EUROCONTROL in Brussels in order to take the advantage of the active role of EUROCONTROL in the development of SWIM.

4.5.10 Accordingly, the EANPG agreed on the following:

EANPG Conclusion 58/24 – Support the Interregional Seminar on “Service Improvement through Integration of Digital AIM, MET and ATM Information Services”

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG invite States, Organizations and Industry to support, participate in and share their experience with the Interregional Seminar on “*Service Improvement through Integration of Digital AIM, MET and ATM Information Services*” (Brussels, Belgium, 2-5 October 2017).

Outcome of the COG/AIM TF/31

4.5.11 The EANPG was apprised of the outcome of the COG/AIM TF/31 meeting (Astana, Kazakhstan, 31 May-2 June 2016). It was noted that the COG/AIM TF reviewed and updated the status implementation of the AIS/AIM requirements in the Eastern part of the EUR region. It was also noted that the COG/AIM TF discussed the necessity for publication of State’s designated authorities (State aviation authorities) in AIP, the requirement for establishing formal arrangements between AIS and data originators and the implementation of AIXM 5.1.

4.5.12 The EANPG recalled that, taking into consideration the developments in the AIS/AIM field, COG/66 agreed that the Terms of Reference (TORs) and working arrangement of the COG/AIM TF should be reviewed and updated by the COG/AIM Task Force and the ICAO Secretariat in order that the outcome be presented to COG/69 for endorsement.

National eTOD Policy

4.5.13 The EANPG recalled that both the EUROCONTROL AIM/SWIM Team and COG/AIM TF/31 highlighted the importance of national eTOD policy on the provision of electronic terrain and obstacles datasets and indicated that one of the main possible causes for non-implementation of these provisions could be the absence in States of an agreed National TOD policy framework, which should clearly identify the roles and responsibilities for origination, collection, maintenance and provision of these data among the relevant TOD stakeholders.

4.5.14 Accordingly, the EANPG agreed on the following:

EANPG Conclusion 58/25 – National eTOD Policy

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, invite States to develop their National eTOD policy identifying roles and responsibilities for origination, collection, maintenance and provision of terrain and obstacle data.

Inconsistency Issues of AIS/AIM Services

4.5.15 The EANPG was apprised of the issues related to the publication of aeronautical information over the high seas portion of Simferopol FIR, presented by Ukraine. It was noted that Russian Federation had issued several aeronautical information publications (NOTAMs, AIP, AIC) related to portions of airspace that according to the European Air Navigation Plan Ukraine was responsible for the provision of air traffic

services (the entire Simferopol flight information region (FIR)). As these publications were in contradiction with the provision of the EUR Air Navigation Plan, Annex 11 and Annex 15 Ukraine invited the EANPG to agree the inclusion of the Russian Federation on the AN Deficiencies List.

4.5.16 The EANPG recalled that in accordance with the uniform methodology for the identification, assessment and reporting of air navigation deficiencies (as approved by the Council on 30 November 2001) and published in the EANPG Handbook “*a deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.*”

4.5.17 The EANPG also recalled that the same methodology established the necessary procedures for the collection of information, safety assessment of reporting problems, the identification of suitable correction actions and the method to report to the EANPG. After a careful assessment of the reported deficiencies, the majority of the EANPG agreed it fully responded to the definition as established by the uniform methodology and that it was addressed through an appropriate process. The Russian Federation objected to this assessment and considered that in their view it did not qualify as a deficiency and the established procedure had not been followed.

4.5.18 With the record of the above objection the EANPG agreed to the inclusion of the Russian Federation on the AN Deficiency List for non-observance of relevant provisions of Annexes 11 and 15 and agreed to the following:

EANPG Decision 58/01 – Update of the EUR Region Air Navigation Deficiencies Table

That, the Russian Federation be included into the EUR Region Air Navigation Deficiencies Table for non-observance of ICAO Annex 11 items 2.1.2, 2.1.3 and ICAO Annex 15 item 2.1.2.

4.5.19 In addition and in order to ensure the safety of air navigation, the EANPG agreed as well to the following:

EANPG Conclusion 58/26 – Aeronautical Information Provision to ensure the Safety of Air Navigation

That, the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG; in order to avoid potential threats to the safety of air navigation, urges States to publish aeronautical information in a strict accordance with the requirements of the ICAO provisions.

4.5.20 The Russian Federation presented the EANPG with a map showing several danger areas in the airspace of Simferopol FIR to be activated through NOTAMs issued by Ukraine on 24th of November 2016 and later with applicability date starting on 1st and 2nd of December 2016.

5. MONITORING

5.1 RMA REPORTS

RVSM Safety Monitoring Reports for 2015 from both RMAs

5.1.1 The EANPG noted that both Regional Monitoring Agencies conducted their programme of aircraft height monitoring, RVSM approval verification and safety assessment for the RVSM Airspace in the EUR Region in accordance with the requirements of Annex 11 (13th Edition), Annex 6 (9th Edition) and the ICAO Docs 9574 (2nd Edition) [*Manual on Implementation of a 300 m (1000 ft) Vertical Separation Minimum between FL 290 and FL 410 inclusive*] and ICAO Doc 9937 (1st Edition) [*Manual of Operating Procedures and Practices for Regional Monitoring Agencies in Relation to the Use of a 300 m (1000 ft) Vertical Separation Minimum above FL 290*].

5.1.2 The EANPG was presented with the results of the 2015 EUR RMA Safety Monitoring Report and with the results of the flight safety monitoring in the airspace of the Eastern part of the ICAO European Region by the RMA EURASIA for 2015.

5.1.3 The EANPG noted that the EUR RMA and EURASIA RMA calculations/estimations had indicated that the level of overall and technical collision risk in the EUR and Eurasian RVSM airspaces in 2015 met the established target values. The EANPG noted that for the year 2015, the flight safety level for the both RMAs' regions met the requirements of ICAO, and all four objectives of the Safety Policy had been achieved.

5.1.4 The EANPG also noted that the total number of altitude deviation (LHD) reports received by the EUR RMA increased from 35 in 2014 to 113, due in most part to a concerted effort on the part of France to implement an effective reporting system. This total was supplemented by the addition of a further 87 reports extracted from the EUROCONTROL ESARR2 Mandatory Incident Reporting scheme. To enable a quantitative risk estimate to be produced it is necessary that reports include quantifiable values for the magnitude of any vertical deviation as well as the duration. The majority of reports (except those submitted by France) did not provide this second important parameter of duration, which has had to be estimated by the application of standard models for various types of incident. The distribution of reports from across the region was irregular with reports received from only 14 States, 4 fewer than 2014.

5.1.5 Consequently, the EANPG noted that the number, quality and distribution of reports received still did not appear representative, resulting in a very low confidence in the risk estimate. Accordingly, the EANPG recalled that it previously raised its concern regarding the low confidence in the accuracy of the estimation which was due to the poor level of reporting from accredited States for the estimation of the operational risk component. The EANPG reminded States their obligation to report the LHD reports and where no incidents occur in a sector, the State or ATC unit responsible for that sector should return a 'NIL' report on a regular, preferably monthly, basis.

5.1.6 The EANPG also noted that the number of flights confirmed by non-approved EUR aircraft remains low at less than 1%. Steps to reduce these numbers further include the implementation of the RMA bulletin by both the EUR RMA and RMA EURASIA.

5.1.7 In this connection, the EANPG was informed that the RMAs of the ICAO EUR started maintaining the RMA Bulletin and states have access to the RMA Bulletins. RMA EURASIA together with EUR RMA commenced to publish information on all aircraft from other regions in the world operating without approvals in the ICAO RVSM Region in the regional RMA Bulletin.

5.1.8 The EANPG noted that all its previous conclusions and decisions associated with RVSM that were active when the 2015 Safety Monitoring Report was issued have been addressed satisfactorily.

5.1.9 The EANPG was informed that the results from the data sample and analysis conducted by the EUR RMA and the analysis the risk of collision due to all causes indicated that the objective has been satisfied. However, there was sufficient evidence to suggest that the data sample used for the analysis was not representative and additional effort was required to improve the reporting of operational incidents in RVSM airspace to the RMA.

5.1.10 The EANPG also noted that the performance analysis of both individual airframes and generic aircraft types indicated that there was no general technical safety issue currently affecting RVSM airspace.

5.1.11 Therefore, the EANPG agreed to the following:

EANPG Statement 58/02 – 2015 EUR RVSM Safety Monitoring Report

That the EANPG, noting the reports provided by the European Regional Monitoring Agencies (EUR RMA and RMA EURASIA), is satisfied that Reduced Vertical Separation Minimum (RVSM) operations in the ICAO European Region met the four safety objectives for the year 2015.

Note: It should be noted that confidence in the accuracy of the estimate for the total risk remains very low due to the low number of LHDs and other operational error reports sent to the RMA.

5.1.12 The EANPG highlighted that it was necessary for the both RMAs to include the status of their infrastructure including also implementation of the RVSM height monitoring system in their annual report.

5.1.13 The EANPG was also apprised of the preliminary assessments of the RMAs of the EUR Region for the first nine months of 2016 (01/01/2016 to 01/10/2016). The preliminary assessments of the both RMAs show that the four safety targets of 2016 would be satisfactorily met.

Reporting period for the RVSM Safety Monitoring Reports

5.1.14 The EANPG noted that the both RMAs provided the preliminary assessment of the RVSM Safety Monitoring Report for the calendar year 2015 as well as the first nine months of 2016 (from 01/01/2015 till 01/10/2016).

5.1.15 The EUR RMA also expressed that it is feasible to change the reporting period for the annual RVSM SMR presented to EANPG in November. It was noted that it would be necessary for the RMA to ensure that all height monitoring data is validated and available as early in October as practical. It may also be necessary to adapt the schedule related to existing height keeping performance investigations and determining compliance with approval requirements and monitoring targets.

5.1.16 The EANPG confirmed that any change in the reporting schedule may impact on the accuracy of the interim results presented to the Autumn EANPG COG meeting. The changes will also necessitate ensuring that all RMA resources are fully available for the month of October.

Based on the above, the EANPG agreed to the following:

EANPG Conclusion 58/27 – Reporting Period for the EUR RVSM Safety Monitoring Report

That,

- a) the reporting period of the annual RVSM Safety Monitoring Report to be changed to cover:
 - i. the previous calendar year
 - ii. the first nine months of the current year (in which the report is submitted to EANPG); and
- b) the EUR RMA and RMA EURASIA are invited to implement the new time frame for the annual RVSM Safety Monitoring Reports;
- c) States are invited to support the RMAs with providing them the relevant data to enable the consolidation of the RVSM reports, not later than the end of September each year

6. DEFICIENCIES**6.1 ETOD DEFICIENCIES**

6.1.1 The EANPG recalled that EANPG/56 tasked COG to assess the appropriateness of adding new deficiencies related to the lack of provision of eTOD data for Area 1 and Area 4 to the list of Air

Navigation Deficiencies. The EANPG also recalled that the issue was addressed by COG/63 and noted that the EUROCONTROL AIM/SWIM Team-8 and COG/AIM TF/29 meetings supported the addition of these new deficiencies. Nevertheless, when discussing the issues, the COG/63 identified a number of concerns (extent of non-implementation in the region, reasons/rationales for non-implementation, State corrective action plans, clear benefits of eTOD, financial issues, etc.) and agreed to keep the subject open until a detailed status/analysis of eTOD implementation in the region became available through the work of the EUROCONTROL AIM/SWIM Team and the COG/AIM Task Force.

6.1.2 The EANPG noted that the COG/65 received a comprehensive report from the EUROCONTROL AIM/SWIM Team, in the light of the experience gained by the EUROCONTROL TOD WG. The report covered the Area 1 and 4 obstacle data and terrain data requirements, the extent of non-implementation in the region, the reasons/rationales for non-implementation together with the State corrective action plans and financial aspects

6.1.3 It was recalled that the COG/65 noted the reconfirmed position of members of the EUROCONTROL AIM/SWIM Team, represented by the ECAC States AISP managers, AIS regulators, industry and international organizations to support the inclusion of eTOD Area 1 and 4 into the list of air navigation deficiencies. The COG believed that this was a good initiative in support of ESSIP INF07 objectives and to expedite the implementation of terrain and obstacle data (TOD) in the region.

6.1.4 It was agreed that, considering the absence of demand from users for Area 1 terrain dataset in its current numerical requirements and its availability with the National Geodetic Authorities, this dataset should not be included in the list of air navigation deficiencies.

6.1.5 The EANPG noted that the COG/65 further agreed to support the AIM/SWIM Team conclusions and agreed to propose to EANPG/58 to include the lack of provision of electronic obstacle data for Area 1 and electronic terrain and obstacle for Area 4 to the list of Air Navigation Deficiencies.

6.1.6 The EANPG was presented with a draft list of eTOD area 1 (obstacles only) and area 4 (terrain and obstacles), reviewed by COG/66, as at **Appendix V**. The EANPG also agreed with COG/66 to assign Priority “B” as the ‘DEF priority’ for the eTOD Deficiencies.

6.1.7 Based on the above, the EANPG agreed on the following:

EANPG Conclusion 58/28 – Inclusion of Deficiencies related to eTOD Area 1 and Area 4 in the List of Air Navigation Deficiencies

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, add deficiencies related to eTOD Area 1 (obstacles only) and Area 4 (terrain and Obstacles) (as per **Appendix V**) to the list of EUR air navigation deficiencies.

6.2 MET DEFICIENCIES

6.2.1 The EANPG was informed that the deficiency for Norway (WAFS forecasts not provided for briefing and flight documentation) would be removed from the list of EUR Air Navigation Deficiencies because the SADIS FTP Service was operational as of 0100 UTC on 19 August 2016 (COG Conclusion 66/01 refers).

6.2.2 With reference to migrating from SADIS 2G to SADIS FTP, the updated status of implementation of SADIS revealed Uzbekistan was not registered with SADIS FTP and therefore the EANPG agreed that Uzbekistan would be added to the list of EUR Air Navigation Deficiencies since WAFS forecasts were needed for briefing and flight documentation (Annex 3, 9.1.4, 9.3.1, 9.4.1 and Appendix 2, 2.1.1).

6.2.3 In this respect, the EANPG noted that there were no updates for the same deficiency for Belarus, Kyrgyzstan, Tajikistan and Turkmenistan.

6.2.4 The EANPG noted that COG/65 agreed to remove the deficiency for Finland since compliance was verified by ICAO in coordination with the Regional OPMET Centre London in that METAR was received on SADIS with indication type, *METAR*.

6.2.5 The EANPG was pleased to note that Regional OPMET Centre London and ICAO confirmed on 29 June 2016 that the required 24-hour TAF was produced and disseminated for UTAA (Ashgabat, Turkmenistan) and that the associated deficiency for Turkmenistan would be removed from the list of EUR Air Navigation Deficiencies (COG Conclusion 66/01 refers).

6.2.6 Furthermore, the EANPG noted there were no updates provided for the required OPMET data for Monaco (METAR required for LNMC) and Tajikistan (24-hour TAF required for UTDD).

6.2.7 Given the above, the EANPG agreed to the following EANPG Conclusion:

EANPG Conclusion 58/29 – Update to Air Navigation Deficiencies in the EUR Region for MET

That the ICAO Regional Director, Europe and North Atlantic, on behalf of the EANPG, update the list of *Air Navigation Deficiencies in the EUR Region* for MET as provided at **Appendix W** to this report which adds the deficiency EUR-MET-01-14 for Uzbekistan.

6.2.8 The comprehensive list of Air Navigation Deficiencies in the EUR Region provided at **Appendix X** takes into consideration EANPG Conclusion 58/28 and 58/29.

7. ANY OTHER BUSINESS

7.1 EANPG HANDBOOK UPDATE

7.1.1 The EANPG was presented with the proposed amendments to the EANPG Handbook concerning the RDGE Terms of Reference, Task List and Working Procedures which included:

- update to the tasks currently performed by RDGE on airspace improvement projects in addition to ATS route network improvements;
- alignment of the work of the RDGE with its support to implementation of relevant modules of the Aviation Systems Block Upgrades (ASBU) as included in the *Global Air Navigation Plan* (ICAO Doc 9750, GANP) and the new *European Air Navigation Plan* (EUR eANP, Doc 7754);
- references to the new *ICAO Air Navigation Plan* (eANP); and
- references to the coordination procedure for regional air navigation agreements.

7.1.2 It was also agreed to insert the EANPG/53-agreed regional air navigation agreement coordination procedure for airspace changes over the High Seas as a new Appendix B of the EANPG Handbook, following Appendix A on “Uniform methodology for the identification, assessment and reporting of Air Navigation Deficiencies” and to renumber the subsequent Appendices.

7.1.3 With reference to this coordination procedure, the EANPG recalled that EANPG/53 (Paris, December 2011) had re-confirmed that the “High Seas Coordination Procedure” in order to obtain regional air navigation agreement should be conducted by States before implementing all airspace changes over the High Seas and reminded States to use the proposed template for the initiation of this procedure [EANPG Conclusion 53/3 - *Implementation of the Free Route Airspace Concept*] (EANPG/53 Report, paragraph 4.1.16 refers). It was underlined that this procedure was in compliance with Annex 11 provisions where paragraph 2.1.2 defines that “*Those portions of the airspace over the high seas or in airspace of*

undetermined sovereignty where air traffic services will be provided shall be determined on the basis of regional air navigation agreements.”

7.1.4 The EANPG recalled the concerns raised by Turkey regarding the unilateral implementation of DCTs over the High Seas without initiation of the ICAO High Seas Coordination Procedure (paragraph 4.2.37 *under RDGE Outcomes* refers) and requested that this procedure be reviewed and that corrective measures be considered for States that continued to infringe this requirement. The EANPG agreed that the ICAO Secretariat, with the support of EUROCONTROL, identify the specific airspace changes (DCTs, controlled airspace, significant points, etc.) over the High Seas that had been implemented unilaterally in order to provide an overview and for a corrective action plan to be established giving due regard of the safety implications. The COG was also tasked to review the EANPG/53-approved procedure to address the need for more transparency and propose any improvements to the text.

EANPG Conclusion 58/30 – Coordination Procedure for Regional Air Navigation Agreements to Airspace Changes over the High Seas

That:

- a) the ICAO Regional Director, Europe and North Atlantic, with the support of EUROCONTROL, identify the specific airspace changes (DCTs, controlled airspace, significant points, etc.) over the High Seas that had been implemented unilaterally in order to provide an overview and corrective action plan;
- b) COG be tasked to review the EANPG/53-approved procedure to address the need for more transparency and propose any improvements to the text; and
- c) the outcomes of a) and b) above be presented to EANPG/59.

7.1.5 The EANPG agreed to proposed amendments to the EANPG Handbook concerning the METG Terms of Reference which synchronized the METG tasks associated with the MET Panel and its' associated working groups. Furthermore, inclusion of Terms of Reference for DMG and PT/EAST were agreed upon.

7.1.6 The EANPG was also informed that the latest updates to the EUR Documents based on the current EANPG/58 approvals would be included in the Reference Documentation Section in this Amendment.

7.1.7 In light of all the changes proposed above, the following EANPG Conclusion was approved:

EANPG Conclusion 58/31 – Amendment 3 to the First Edition of EUR Doc 001, EANPG Handbook (2013)

That, the ICAO Regional Director, Europe and North Atlantic:

- c) take the necessary steps to update the EANPG Handbook (EUR Doc 001) with Amendment 3, as shown in **Appendix Y** to this Report; and
- d) publish Amendment 3 of the First Edition (2013) of the EANPG Handbook (EUR Doc 001), on the ICAO EUR/NAT website no later than 15 January 2017.

7.2 PROPOSED FUTURE WORKING ARRANGEMENTS IN THE ICAO EUR REGION

7.2.1 The EANPG was presented with an update on the initiatives taking place within the EUR region to streamline the working arrangements between the PIRG and the RASG with the overall aim to improve the efficiency and effectiveness of the arrangements for co-ordination of the safety and implementation and planning activities within the Region.

7.2.2 The EANPG was informed that COG/65 and COG/66 discussions determined that it was necessary to consider the proposed activities performed in 4 groupings:

- Level 0 - DGCA level;
- Level 1 - Aviation System Planning Group level (EANPG and RASG-EUR);
- Level 2 - Co-ordinating Group and RASG Co-ordinating Group (COG and R-COG) level; and
- Level 3 - Subject matter team level (eg, IE-REST or FMG or METG).

7.2.3 The EANPG was informed that this initiative was presented to the ICAO EUR/NAT 70th Anniversary meeting (7 July 2016, Paris, France) and at the Third PIRGs-RASGS Global Coordination Meeting (5 October 2016, Montreal, Canada) and received a good feed-back from the President of the Council and several ICAO Regional Offices. Although it was recognised that one size would not fit all, the EUR region was encouraged to further explore this avenue and report back.

7.2.4 The EANPG recognised that more work was required to better understand what could happen at Level 2 and 3, but it was acknowledged that the current activities could be either maintained with some changes or re-assigned along a number of different of thematic or functional lines. The critical importance of having the appropriate technical expertise related to the subject matter was fully recognised.

7.2.5 The EANPG agreed the following way forward:

- a) Level 0: First DGCA's coordinating meeting is proposed to be held back-to-back with one of existing DGCA meetings of European Civil Aviation Conference (ECAC) incorporating the broader ICAO EUR DGCA's participation;
- b) Level 1: It is agreed to prepare, on a basis of a trial, combine and organize the back-to-back the EANPG/59 and RASG-EUR/06 meetings in the autumn of 2017 (targeted date: 30 October to 3 November 2017). To support this:
 - i) All EANPG air navigation related issues would be addressed during the first two day and ½ of the meeting – no change from the current allocated time; this part of the meeting would take place from Monday morning till Wednesday noon;
 - ii) All safety related issues would be combined in one day and ½ - 2 days of the meeting, with a broader participation of combined EANPG/RASG-EUR members, observers and partners (technical/safety committee meeting).
 - iii) Each member, observer and partner should decide individually on the main representative and composition of delegation to the combined EANPG/RASG-EUR meeting;
 - iv) Current Chairmen of RASG-EUR and EANPG should co-chair the first combined meeting with follow-up chairing model to be agreed at the meeting;
 - v) Due to the synergy reached by combining the meeting resulted in combining available budgets to host the meeting and in order to increase participation of French speaking countries, the combined meeting would be held in three working languages: English, Russian and French;
- c) Level 2: It was intended to organize the COG/R-COG meeting(s) the last day of the back-to-back meetings (i.e. 3 November 2017);
- d) Level 3 structure should be kept unchanged until a revised working model would be developed and agreed upon and a transition period be approved.

7.2.6 In view of the above, the EANPG agreed to the following:

EANPG Conclusion 58/32 – New EUR Working Structure

The EANPG:

- a) continues coordination with the RASG-EUR to refine the proposed changes to establish the potential future EASPG;
- b) agree, in principle, on the proposed transition approach (as specified in para 7.2.5); and
- c) task COG with support of ICAO Secretariat to work in cooperation with the R-COG to prepare the back-to-back EANPG/59 - RASG-EUR/06 meetings in 2017 modelling potential future EASPG arrangements

7.3 NEXT MEETING

7.3.1 The EANPG agreed to convene its next meeting in the European and North Atlantic Office of ICAO in Paris, France, back to back with the RASG-EUR meeting in the week from 30th October to 3rd November 2017.

7.3.2 The EANPG noted the following dates for EANPG-COG meetings:

- EANPG-COG/67, Paris, France, 2st December 2016
- EANPG-COG/68, Budapest, Hungary, 22 to 26 May 2017

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EUROPEAN AIR NAVIGATION PLANNING GROUP

FIFTY-EIGHTH MEETING

(Paris, France, 28 November to 1st December 2016)

Appendix B – Meeting documentation

(paragraph 0.6 refers)

WP	Ag It	Title	Presented by
WP01	0	Provisional Agenda	Secretariat
WP02	2	EANPG conclusions and decisions follow-up	Secretariat
WP03 + Att	4.2	METG/26 Outcomes	Secretariat (KEC)
WP04 Rev1	1.1	Environmental Protection	Secretariat (BLF)
WP05	3.4	Black Sea Task Force Outcomes	Secretariat (FIG)
WP06 + Att	4.1 a)	Update on EUR eANP	Secretariat (CUP)
WP07 + Att	7	EANPG Handbook Update	Secretariat (CUP)
WP08 + Att	6	eTOD Deficiencies	Secretariat (NIA)
WP09	4.5	Update on AIM activities	Secretariat (NIA)
WP10 Rev2	4.1	Optimized Wake Vortex Separation Minima	FRA/DEU/UK
WP11	4.5+6	Inconsistency issues of AIS/AIM Services	Ukraine
WP12 + Att	4.3	ASBU Implementation Report	ECTL+Secretariat
WP13 + Att	4.2	AWOG	Secretariat (HAS)
WP14	4.2	RDGE	Secretariat (HAS)
WP15	4.1	Updated Version of ICAO EUR Doc 032 (Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management)	Secretariat (HAS)
WP16	4.2	PBN TF	Secretariat (HAS)
WP17	4.3	Regional Performance Framework Implementation	Secretariat (HAS)
WP18	4.2	Five-letter name codes issues	Secretariat (HAS/CUP/HOI)
WP19 + Att	4.2	FMG Outcome	Secretariat (NAE/FIC)
WP20	5	Interim results of the EUR RVSM Safety Monitoring Report for the 2015/16 Reporting Period	EUR RMA
WP21	5	Results of the EUR RVSM Safety Monitoring Report for the 2015 Reporting Period	EUR RMA
WP22 + Att	6	Air Navigation Deficiencies in the EUR Region	Secretariat (MEA)
WP23	7	Proposed Future Working Arrangements in the ICAO EUR Region	Secretariat (FIG)
WP24	5	Report on Flight Safety Monitoring in EURASIA RVSM Airspace	RMA EURASIA

WP25 + Att	4.2	Outcome of the EANPG Aeronautical Fixed Service Group (AFSG)	Secretariat (FIC)
IP	Ag It	Title	Presented by
IP01	-	Meeting schedule	Secretariat
IP02	-	Meeting documentation	Secretariat
IP03	1.1	ICAO Update	Secretariat (HOI)
IP04	1.1	Developments in Cybersecurity	Secretariat (LUC)
IP05	1.1	Other Planning and Implementation Regional Group (PIRG) activities	Secretariat (FIG)
IP06	4	RECAT EU Implementation	France
IP07 Rev1	3.4	Post-implementation monitoring (PIM) on safety and utilization of ATS routes available for flight planning within the airspace over HS t	Ukraine
IP08	1.2	EUROCONTROL activity update	Eurocontrol
IP09	4	Improved Contingency Planning and Readiness for Nuclear Events, Global Process	Eurocontrol
IP10	3.1	Update on the activities of RASG-EUR and Its Contributory Bodies	Secretariat (MEA)
IP11	1.2	Update on SES, SESAR and EU activities	EC
IP12	5	Reporting Levels of Large Height Deviations by Accredited States to the EUR RMA	EUR RMA
IP13	4.4	Update Search and Rescue Task Force Activities	Secretariat (FIC)
PR	Ag It	Title	Presented by
PR01	1.2	Presentation for Introduction of IFAIMA	IFAIMA
PR02	1.1	No Country Left Behind	Secretariat (POS)
FL	Ag It	Title	Presented by
FL01	3.4	In support of WP05: Outcome of the Black Sea Task Force	Russian Federation
FL02	4.1 a	In Support of WP06: Update of EUR EANP, Update Vol III (B0-DATM)	Secretariat (CUP)
FL03	1.1	In Support of IP03: ICAO Update on approved EUR SUPPs PfA on Abbreviated Position Reports	Secretariat (CUP)
FL04	4.3	In Support of discussion WP05: Outcome of the Black Sea Task Force	Secretariat / Russian Federation
FL05	7	In Support of discussion WP23: ICAO Future Working Arrangements	Secretariat
FL06	5	In support of discussion WP24: SMR RMA EURASIA	Czech Republic

Appendix C – Report of the Black Sea Task Force

(paragraph 3.2.1 refers)

EANPG/58 – WP/05

**EUROPEAN AIR NAVIGATION PLANNING GROUP
FIFTY-EIGHTH MEETING**

(Paris, France, 28 November to 1 December 2016)

Agenda Item 3.4: Outcome of the Black Sea Task Force

Report of the Black Sea Task Force

(Presented by the Rapporteur and the Secretariat)

SUMMARY

This working paper presents the output of the Black Sea Task Force (BSTF).

According to the extant European Air Navigation Plan, Ukraine is responsible for the provision of air traffic services in the entire Simferopol flight information region (FIR).

ICAO follows the United Nations policy regarding Ukraine, as found in the relevant resolution of the United Nations General Assembly which called on States, international organizations and specialised agencies not to recognize any alteration of the status of the Autonomous Republic of Crimea and the city of Sevastopol and to refrain from any action or dealing that might be interpreted as recognizing any such altered status

The Russian Federation disputes this position on the basis that in their view, the UN General Assembly resolutions had no mandatory status and should be rather seen as recommendations to States; as Russian Federation did not agree/were not signatories to the UN General Assembly Resolution 68/262 they considered not bound by it.

Introduction

The EANPG is invited to recall that during EANPG/57 all parties expressed their readiness for continuation of the dialogue in order to find the optimal way forward to ensure safe and efficient aircraft operation in the EUR Region and encouraged continuation of consultations between the parties concerned, with the support of ICAO.

The EANPG invited ICAO to establish a Task Force (TF) to advance the work. The Task Force would work under specific Terms of Reference (to be developed) and in full compliance with the ICAO Chicago Convention and its Annexes, and relevant ICAO and UN Assembly Resolutions. After a considerable debate regarding the precise drafting of a commonly agreed conclusion, the EANPG agreed to the following:

EANPG Conclusion 57/01 - Resumption of Normal Flight Operations in the Airspace Over the Black Sea

That, the EANPG:

- a) urge the States concerned and the ICAO Secretariat to work together and use all necessary means to support the normalisation of the flight operations within the airspace over the Black Sea as soon as practical;
- b) invite the ICAO Regional Director, Europe and North Atlantic, on behalf of EANPG to establish a Task Force composed of Russian Federation, Ukraine and all other affected States in the Region and airspace users organisations, to consider and develop mutually acceptable proposals for normalisation; and
- c) remind States and airspace users to use all pertinent available information, including ICAO SL EUR/NAT 15-0420 of 18 August 2015, to reassess flight safety risk in the airspace over the Black Sea.

With respect to the EANPG Conclusion 57/01 the EANPG is invited to note the position of ICAO, as follows:

- c) According to the extant European Air Navigation Plan, Ukraine is responsible for the provision of air traffic services in the entire Simferopol flight information region (FIR).
- d) ICAO follows the United Nations policy regarding Ukraine, as found in the relevant resolution of the United Nations General Assembly which called on States, international organizations and specialised agencies not to recognize any alteration of the status of the Autonomous Republic of Crimea and the city of Sevastopol and to refrain from any action or dealing that might be interpreted as recognizing any such altered status.

Discussion

As a follow-up of the EANPG Conclusion 57/01 there have been 4 meetings of the Black Sea Task Force (BSTF) (21 March 2016, 17-18 May 2016, 7-9 September 2016 and 1 November 2016). All meetings had been well attended, the latest with more than 40 participants from all of the States surrounding the Black Sea and IATA representing the airspace users. The last two meetings had the Eurocontrol Network Manager in attendance (at the request of and as a part of the Ukrainian delegation). The agreed Terms of Reference of the BSTF are presented at **Appendix A**.

The **1st (BSTF/01)** meeting was held at the ICAO European and North Atlantic Office in Paris, France, on 21 March 2016 and was attended by 32 participants from Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine, IATA and ICAO.

The meeting spent most of its time to discuss in detail the proposed Terms of Reference of the BSTF (previously circulated attached to the invitation letter) and participation. Following a comprehensive exchange of views, the meeting agreed to limit the participation in the BSTF meetings to only the riparian States which have a direct border with the Black Sea. It was further agreed to limit the direct

participation from international organisations to IATA and ICAO. It was also agreed that States could include in their delegations, representatives from International/Regional Organisations (e.g. Eurocontrol as Network Manager invited by Eurocontrol Member States to provide support at the operational and technical level and EASA invited by EU Member States in an advisory role on safety and regulatory matters).

Regarding the chairmanship of the Task Force, following long discussions the meeting agreed that the Task Force should be served, as a *Rapporteur*, by the EANPG Chairman (Mr Phil Roberts, United Kingdom) or a representative of the ICAO Secretariat. As a result of lengthy discussions, the meeting also agreed on a revised task list.

A comprehensive discussion on the BSTF task list took place and a number of different proposals were presented and discussed. Several delegates requested further clarification of the EANPG 57/01 conclusion, as the geographical scope of the BSTF tasks could be interpreted in different ways. The meeting agreed to address this issue with more level of detail. As a result of lengthy discussions, the meeting was also able to agree on the following revised task list that was included in the ToRs:

- a) Facilitate, at the operational and technical level, a constructive dialogue amongst all parties concerned;
- b) Identify and address specific issues related to the current situation which support the resumption of normal flight operations in the High Seas airspace over the Black Sea;

Note: the addressed solutions would be only those responding to operational and technical aspects (exclude solutions contradicting the ICAO and UN Assembly Resolutions)

- c) Identify potential solutions and develop plans for the resolution of existing shortcomings and implementation of operational improvements as soon as practically possible but not later than the end of 2016;
- d) Make recommendations for any changes to the current situation or, if considered appropriate, propose new solutions which would support the normalisation of flight operations; and
- e) Any other related issues.

The Secretariat presented the meeting with an initial set of principles (such as the BSTF must work in full observance of the ICAO Chicago Convention, its Annexes and Documents, the BSTF must work in full compliance with UN and ICAO Assembly Resolutions, or the BSTF should develop new solutions, which would be different from the existing-conventional practices that were currently in place etc). The meeting agreed with the proposal that the ICAO Secretariat develop a first set of principles, which would be circulated amongst the BSTF members and be approved by correspondence before the second BSTF meeting.

The 2nd (BSTF/02) meeting was held in the ICAO European and North Atlantic Office in Paris, France, from 17 to 18 May 2016. The meeting was attended by 31 participants from Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine, IATA and ICAO.

Following a request from the delegation of the Russian Federation, the BSTF/02 reviewed again the Terms of References, although the comments from Russian Federation (on the version that was approved at BSTF/01 meeting) had been sent to the ICAO Secretariat 3 weeks after the agreed deadline. After a comprehensive discussion, the BSTF/02 meeting agreed and accepted a final version of the Terms of References (Appendix A).

The BSTF/02 spent significant time to discuss the principles for the normalisation of the traffic flows in the High Seas airspace over the Black Sea. Several delegations presented different positions, which led to the different interpretations of the BSTF agreed tasks. The BSTF members agreed that the Agreed Principles were to be applied only to the activity of BSTF and therefore after several reiterations, all delegations agreed to the following principles:

Agreed Principles for the BSTF

- g) work in full observance of the ICAO Chicago Convention, its Annexes and Documents;
- h) must work in full compliance with UN and ICAO Assembly Resolutions;
 - i) develop operational and technical solutions, which might be different from the existing conventional ones;
- j) identified solutions should provide for safety and efficiency;
- k) identified solutions should allow for the resumption of the normal flight operations in the High Seas airspace over the Black Sea as soon as possible;
- l) identified solutions should be acceptable to all parties involved.

Notes: 1. The revision of the existing FIR boundaries in the airspace over the Black Sea will not be addressed by BSTF. There was no intention to change/modify the European Air Navigation Plan.

2. The delegation from the Russian Federation suggested to underline that ICAO Resolutions, which are technical (especially the Resolution A38-12), should be addressed with priority.

3. The ICAO Secretariat reminded the BSTF that the adherence to UN Assembly Resolutions is mandatory for all United Nation Agencies.

The delegation from Ukraine gave a presentation of a proposal for the resumption of flight operations in the High Seas airspace over the Black Sea, detailing all stages of a phased approach for the normalization of traffic flows. With the transfer of Air Traffic Service to Odessa ACC and Dnepropetrovsk ACC, Ukraine stated that they were in a position to fulfil all their responsibilities of providing ATS in the High Seas airspace over the Black Sea which was under their responsibility based on the ICAO Council decision back in 1997. The delegation from Ukraine identified the different publications (National Aeronautical information Publications AIPs, Aeronautical Information Circulars - AICs, Notice to Airmen - NOTAMs) issued by the Russian Federation for the same airspace, as being in contradiction with ICAO provisions (paragraph 2.1.2 of Annex 11 and paragraph 2.1.2 of Annex 15) and being the main obstacle which prevented the resumption of normal flight operations in this area.

The delegation from the Russian Federation presented in detail their operational and technical capabilities (based *inter-alia* on the facilities located in the Crimea peninsula) to provide all Air Navigation Services, including Search and Rescue for the concerned airspace over the Black Sea. The Russian Federation stated that the ATS Routes had never been closed or restricted for use by the Russian AIP and that they offered all technical capabilities for the normalisation of traffic flows, as a whole and at one point in time, over the Black Sea. The Ukrainian delegation strongly objected and reminded the meeting that the use by Russian Federation of facilities located in the Crimea peninsula would contradict the UN General Assembly Resolution (UN GA) 68/262 and therefore could not be considered by the BSTF. In a direct response to the objection expressed by Ukraine, the Russian Federation delegation stated that, in their view, the UN General Assembly resolutions had no mandatory status and should be rather seen as recommendations to States; as Russian Federation did not agree/were not signatories to the UN General Assembly Resolution 68/262 they considered not bound by it.

Due to the absence of additional scenarios, the BSTF *Rapporteur* presented jointly with the IATA representative, a non-exhaustive list of additional scenarios (see Scenarios 2 to 6 covered under BSTF/03 report). The ICAO Secretariat accepted the task to elaborate on the details for these additional scenarios to be sent to the BSTF Members for review and comments before the 31 August 2016.

The 3rd (BSTF/03) meeting was held in the ICAO European and North Atlantic Office in Paris, France, from 7 to 9 September 2016. The meeting was attended by 42 participants from Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine, IATA and ICAO.

The BSTF/03 discussed the 6 potential scenarios that had been developed during BSTF/02 and assessed each of them against 5 criteria, namely:

- Likelihood of leading to a safe and successful outcome.
- Timeliness of implementation.
- Simplicity of operational arrangements.
- Complexity of institutional arrangements.
- Cost-efficiency.

In addition, any solution that was devised had, from the ICAO perspective, to respect the existing FIR boundaries and UN General Assembly Resolution 68/262.

Scenario 1 (proposed by Ukraine) - the provision of ATS in the High Seas portion of the Simferopol FIR be reinstated as was the case prior to April 2014 (i.e. service provision by Ukraine in the entire Simferopol FIR). This scenario would be implemented in several phases and assumed the withdrawal of the concerned aeronautical information publications by the Russian Federation (actions proposed by Ukraine and supported by the Safety Case). The successful implementation of this scenario would depend on the withdrawal by the Russian Federation of the published AIS information related to the High Seas portion of the Simferopol FIR., which were in contradiction with ICAO provisions.

A further assessment of implementation of this Scenario showed it could be implemented rapidly and it would require (in addition to the withdrawal of aeronautical information publications made by Russian Federation) to update the Letters of Agreements (LoAs) between Ukraine and the Russian Federation. Although this Scenario would not be complex or cost-intensive to implement and would allow fully restoring the previous traffic flows over Black Sea, the likelihood of a successful implementation was seen as low as long as the competing AIS publications would continue to exist. At the request of Russian Federation, Ukraine presented their Safety Case identifying the technical (Surveillance, Navigation and Communications) and operational (ATS routes) capabilities to support the provision of ATS in the Simferopol FIR. The Phase 1 of the Safety Case provided for the opening of only 4 (four) routes in the western part of the FIR. The Russian Federation clearly stated that the Ukrainian information contained, in their view, only statements and did not provide for clear information about technical means for communications, surveillance and search and rescue within the whole FIR. The Russian Federation also stated that they were not supporting this scenario and they would not withdraw any publication in the Russian AIP. No consensus was achieved on the implementation of Scenario 1.

Scenario 2 (proposed by Russian Federation) – this scenario, presented by Russian Federation, assumed the full responsibility for air traffic services provision in entire Simferopol FIR¹ by the Russian Federation, considering their technical capabilities to provide all types of air navigation services, including search and rescue. The implementation of this scenario would require the redefinition of the

¹ The definition/geographical scope of Simferopol FIR depicted in the Ukraine AIP is different from the one in the Russian Federation AIP

FIR boundaries and an amendment of the EUR Air Navigation Plan which could be achieved only through bilateral and multilateral agreements amongst all parties concerned. The presented technical solution indicated, *inter-alia*, the use of several facilities inside the Crimea peninsula. Ukraine clearly stated that this proposed solution could not be considered as it contradicted the UN General Assembly Resolution 68/262.

The Russian Federation delegation stated that, in their view, the UN General Assembly resolutions would have no mandatory status and should be rather seen as recommendations to States. In their opinion, as the Russian Federation did not agree to it they consider not to be bound by it. The ICAO Secretariat reminded the meeting that the adherence to UN Assembly Resolutions was mandatory for all United Nation Agencies and therefore any solution contradicting the UN General Assembly Resolution 68/262 could not be considered in an ICAO meeting.

The assessment of all implementation factors showed that this scenario could not be implemented as proposed in a timely manner as it would require FIR boundary changes, a long and difficult process and outside the terms of reference of BSTF. The *Rapporteur* reminded the meeting that the provision of Air Navigation Services within portions of airspace extending over the High Seas was delegated by the ICAO Council to a State, who assumed that responsibility, and not to a specific ATC unit.

Under these circumstances and without changing the FIR boundaries, the provision of services in the airspace covered in Scenario 2 could only be achieved through delegation of the ATS from the responsible State (Ukraine) to another State (in this case Russian Federation). The Russian Federation underlined their disagreement to this solution, the delegation of the provision of ATS remaining, in their view, a “vision” of the ICAO Secretariat, contradicting the provisions of the Annexes to the Chicago Convention. The Russian Federation delegation also stated that Ukraine had no rights to provide ATS in this region and therefore no delegation should be under consideration, especially taking into account the fact that Ukraine had closed the Simferopol Area Control Centre and deleted the FIR from their AIP². No consensus was achieved on the implementation of Scenario 2.

Scenario 3 (proposed by the Secretariat and IATA) – shared responsibilities in the provision of ATS between Ukraine and Russian Federation, assuming the delegation of the provision of ATS from Ukraine to Russian Federation. This scenario would imply a West-East split, allowing the hand-over of the traffic between ATC units in Ukraine and Russian Federation. The western part of the proposed split would include the 4 ATS routes (L851, M856, M860, M854) already made available under Phase 1 of the Safety Case developed by Ukraine. The successful implementation of this scenario would require an agreement on the delegation of the provision of ATS from Ukraine and the Russian Federation, the withdrawal of the AIS information related to the High Seas portion of the Simferopol FIR published by the Russian Federation, the alignment of the provisions of the AIPs issued by both States and the update of the Letters of Agreements (LoAs) between the ATC units concerned in Ukraine and the Russian Federation.

This scenario was not objected to by the delegations from Bulgaria, Georgia, Romania and Turkey. IATA supported this scenario as one of the preferred options towards the normalisation of traffic flows. The further assessment on the other implementation factors showed this scenario could be implemented rapidly as it would involve only Ukraine and the Russian Federation, would be simple, offered a low cost and would restore the normal traffic flows over the High Seas portion of the Black Sea. Despite the identified advantages, this scenario was objected to by both States concerned and therefore the likelihood of its successful implementation was rated as low. No consensus was achieved on the implementation of Scenario 3.

² The Ukraine AIP does contain the Simferopol FIR – page ENR 2.1-27 of AIP of Ukraine refers

In support of Scenario 4 (proposed by the Secretariat and IATA), Turkey, as requested by the Secretariat at the previous meeting (BSTF/02), gave a detailed presentation on the technical and operational capabilities for the provision of ANS in the High Seas portion over the Black Sea covered by Simferopol FIR. This scenario assumed shared responsibilities in the provision of ATS between Ukraine and Turkey (delegation of the provision of ATS from Ukraine to Turkey) and envisaged a North-South split, allowing handing-over of the traffic between ATC units in Turkey, Ukraine and Russian Federation.

The BSTF noted the technical and operational capabilities available from Turkey (e.g. full CNS coverage over concerned airspace, operational capacity etc) would ensure the full usage of the previously existing ATS route structure (and only one ATS-Route would require realignment in the northern part in order to remain over the High Seas). The implementation of this scenario would require the delegation of the provision of ATS from Ukraine to Turkey and the withdrawal of the AIS information related to the High Seas portion of the Simferopol FIR published by the Russian Federation. Turkey stated that although they have the necessary technical and operational capabilities to provide the services, they would not volunteer to do so, unless requested by the concerned parties and approved by ICAO. In their view the ICAO's approval and a consensus on this scenario from all involved States would be an absolute pre-condition for the planning of a possible implementation.

IATA supported this scenario as another preferred options towards the normalisation of traffic flows. The further assessment on the other implementation factors found this scenario could be achievable in the mid-term due to the required agreements from all States but would not be complex or cost-intensive due to the use of existing facilities and personnel. This scenario would also restore the normal traffic flows over the High Seas portion of the Black Sea but the likelihood of a successful implementation was seen as low to moderate. No consensus was achieved on the implementation of Scenario 4.

Scenario 5 (proposed by the Secretariat and IATA) – shared responsibilities in the provision of ATS, with multiple delegation of provision of ATS from Ukraine to Bulgaria, Romania, Russian Federation and Turkey. The exact sharing of the responsibilities should be determined based on the traffic patterns, availability of radar and radio coverage, operational capacity etc.

Bulgaria and Romania stated that their technical surveys indicated their current communication and surveillance infrastructure would need further enhancements. The BSTF recognised that this scenario would be the most complex to implement as it would require multiple delegation of ATS provision from Ukraine to four States and their ANSPs. The successful implementation of this scenario would have as prerequisites the delegation arrangements between Ukraine and the involved States and the withdrawal of the AIS information related to the High Seas portion of the Simferopol FIR published by the Russian Federation. The assessment of the other implementation factors showed Scenario 5 to be a lengthy process (due to the required agreements from all 5 States) and a rather complex and possibly more costly solution (due to the required enhancement of the infrastructure in 2 States, as well as the use of multiple facilities and personnel). Although this scenario would be able to restore the normal traffic flows over the High Seas portion of the Black Sea, it was apparent that the likelihood of its successful implementation should be rated as low. No consensus was achieved on the implementation of Scenario 5.

Scenario 6 (proposed by the Secretariat and IATA) – provision of services from an ATC unit ("blue flag sector") under the responsibility of an international organisation (e.g. ICAO, EUROCONTROL). This unit could use, as one option, its own recruited/hired properly qualified and licensed staff and would bear full accountability over the operations or, as another option, delegate the provision of services to already established/existing ATC facility/facilities. In any of the two options, the "blue flag sector" would be physically located in existing ATC facility/facilities. The selection of the location of the ATC facility/facilities should be based on commonly agreed and accepted operational, technical, institutional and economic criteria. Once a location was agreed, the "blue flag sector" controlling organisation should

enter a contractual agreement with the hosting State(s)/ACC(s)/service providers in order to ensure the requirements for appropriate functioning.

This scenario would require the temporary suspension by ICAO of specific elements/portions of the EUR Air Navigation Plan (related to the Simferopol FIR). Although exceptional, such a procedure had been used in the past as the only solution to ensure provision of air navigation services from a "blue flag sector/unit" (party/parties different than the one defined in the ANP) and resuming of flight operations. The assessment of the other implementation factors showed that this scenario, although it could be triggered quickly, depending on the solution selected for the provision of services could require the development of a specific project implying complexity and additional costs.

The Secretariat informed that a similar approach was used to allow for the provision of ANS in the airspace of the province of Kosovo. The decision to temporarily suspend specific elements of the EUR ANP concerning the Federal Republic of Yugoslavia was presented in a letter of the President addressed to the ICAO Council in December 1999 (Letter PRES AK/695 of 21 December 1999 refers). Although the likelihood of a successful implementation was initially rated as low, it was recognised that in the case no other solutions could be agreed upon its rating could change to high. The Russian Federation did not consider that a legal precedent existed for this scenario. No consensus was achieved on the implementation of Scenario 6.

Different versions/options of Scenario 6 had been developed by the *Rapporteur* and the Secretariat and presented to the BSTF/04 to facilitate discussion only potential solutions.

The 4th (BSTF/04) meeting was held in the ICAO European and North Atlantic Office in Paris, France, 1 November 2016. The meeting was attended by 39 participants from Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine (including a representative from the Network Manager), IATA and ICAO.

The BSTF/04 spent significant time discussing the approval of the Agenda. The Russian Federation continued to express their view that there was no legal basis concerning the implementation pre requirements of Scenario 6; therefore, in their view, until clarifications on the legal basis would be provided by ICAO there was no reason to further discuss the subsets/options of Scenario 6.

Ukraine insisted that the Scenario 1 (presented by Ukraine) was proven feasible and should be the way forward. Ukraine also expressed their full support to the BSTF work and was willing to continue discussing the way forward within this framework. Ukraine also made a short presentation on their combined maritime and aviation SAR capabilities within the whole Simferopol FIR.

The Secretariat reminded the BSTF members of several previous ICAO initiatives serving as models/precedents, undertaken and implemented by ICAO to normalize traffic within the region and beyond, when required by the circumstances.

IATA, Bulgaria, Georgia, Romania, Turkey reiterated their expectations to have the traffic normalized sooner rather than later and ideally before the summer season of 2017. Turkey explained again, that although they would have the technical and operational capabilities for the provision of ANS in the High Seas portion over the Black Sea within the Simferopol FIR, as indicated during BSTF/03, it was not their intention to offer this capability, unless mandated by ICAO and with the consensus of the involved States.

The discussions had proven to be extremely challenging and as there was no consensus in the BSTF on the scenarios proposed within the ToRs of the BSTF for the High Seas portion of the Black Sea. The position of IATA and the Secretariat was that in the lack of any agreement concerning Scenarios 1 to 5 that remained under the decision power of the States involved in the BSTF, Scenario 6 (paragraphs 0 to 0

refer), or a subset thereof, would, subject to confirmation of the legal position, merit additional elaboration as a way forward to achieve the ultimate aim to meet the needs of the operators using this airspace and to facilitate the gradual normalisation of traffic flows by summer 2017.

Therefore, the following draft EANPG Conclusion is proposed:

Why	Unavailability of specific portions of the High Seas airspace Over the Black Sea
What	Resumption of normal flight operations in the airspace over the High Seas of the Black Sea
Who	ICAO Regional Director, Europe and North Atlantic, ICAO
When	31 December 2016 and before summer 2017

Draft EANPG Conclusion 58/_ eanpg58wp05/1 – Outcome of the Black Sea Task Force

That, in order to ensure the resumption of normal flight operations in the High Seas airspace over the Black Sea:

- a) Invite ICAO to consider actions similar to those that enabled the normalisation of flight operations in previous cases, *mutatis mutandis*;
- b) Based on the outcome of a) above, invite the BSTF to consider viable options within Scenario 6 that would achieve the normalisation of traffic flows not later than summer season of 2017;
- c) the ICAO Regional Director, Europe and North Atlantic, in the behalf of EANPG;
 - i) Inform the ICAO Secretary General and President on the outcome of the Black Sea Task Force;
 - ii) Report to the COG/68.

Action by the Meeting

The EANPG is invited to:

- e) note the information presented; and
- f) endorse the draft Conclusion.

Appendix A - RESUMPTION OF NORMAL FLIGHT OPERATIONS IN THE AIRSPACE OVER THE BLACK SEA TASK FORCE (BLACK SEA TF)

Terms of Reference

The resumption of normal flight operations in the airspace over the Black Sea was agreed by EANPG Conclusion 57/01 as an important objective. It was agreed to create a Black Sea Task Force (BSTF) to support the ICAO initiative to progressively normalize the air traffic flow in the airspace over the Black Sea and create the necessary co-ordination mechanism to enable and implement operational and technical solutions mutually acceptable to all parties. It was also agreed that any such arrangement and identified tasks would be conducted under the umbrella of ICAO and in full compliance with the ICAO Chicago Convention and its Annexes, and relevant ICAO and UN Assembly Resolutions.

In carrying out the work under its terms of reference, the working group shall take into account aviation safety aspects, the need for close civil/military coordination, the requirements for supporting technical infrastructure and the safe and efficient provision of all air navigation services³.

The Black Sea TF is expected to present regular updates to the EANPG COG and a final report is expected for the EANPG/58. On completion of its task the Black Sea Task Force will be disbanded unless formally tasked by the EANPG to complete any other tasks that go beyond these ToRs.

Note: The revision of the existing FIR boundaries in the airspace over the High Seas will not be addressed by BSTF

Composition

a) Members:

Riparian States neighboring the Black Sea: Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine, supported by the Secretariat of ICAO.

b) Observers:

Representatives from IATA

Note: States may include in their delegations, representatives from International/Regional Organizations (e.g. EUROCONTROL as Network Manager invited by EUROCONTROL Member States to provide support at the operational and technical level and EASA invited by EU member States in an advisory role on safety and regulatory matters).

The *Rapporteur* of the Task Force will be the EANPG Chairman (Mr Phil Roberts, United Kingdom) or a representative of the ICAO Secretariat.

The ICAO EUR/NAT Office will provide the necessary secretariat support.

Tasks

³ Air navigation services. This term includes air traffic management (ATM), communications, navigation and surveillance systems (CNS), meteorological services (MET) for air navigation, search and rescue (SAR) and aeronautical information services/ aeronautical information management (AIS/AIM). These services are provided to air traffic during all phases of operations (approach, aerodrome control and en route). (ICAO Doc 9161 – Manual on Air Navigation Services Economics, Fifth Edition 2013 and ICAO Doc 9082 - ICAO's Policies on Charges for Airports and Air Navigation Services, Ninth Edition – 2012)

-
- a) Facilitate, at the operational and technical level a constructive dialogue amongst all parties concerned;
 - b) Identify and address specific issues related to the current situation, which support, the resumption of normal flight operations in the airspace over the Black Sea;
 - c) Identify potential solutions taking into account aviation safety aspects, the need for close civil/military coordination, the requirements for supporting technical infrastructure and the safe and efficient provision of all air navigation services;
 - d) Develop plans for the resolution of existing shortcomings, if any, and implementation of operational improvements as soon as practically possible but not later than the end of 2016;
 - e) Make recommendations for any changes to the current situation or, if considered appropriate, propose new solutions which would support the normalisation of flight operations; and
 - f) Any other related issues
-

Appendix D – Agreed Terms of Reference of the Black Sea Task Force

(paragraph 3.2.2 refers)

RESUMPTION OF NORMAL FLIGHT OPERATIONS IN THE AIRSPACE OVER THE BLACK SEA TASK FORCE (BLACK SEA TF)

Terms of Reference

The resumption of normal flight operations in the airspace over the Black Sea was agreed by EANPG Conclusion 57/01 as an important objective. It was agreed to create a Black Sea Task Force (BSTF) to support the ICAO initiative to progressively normalize the air traffic flow in the airspace over the Black Sea and create the necessary co-ordination mechanism to enable and implement operational and technical solutions mutually acceptable to all parties. It was also agreed that any such arrangement and identified tasks would be conducted under the umbrella of ICAO and in full compliance with the ICAO Chicago Convention and its Annexes, and relevant ICAO and UN Assembly Resolutions.

In carrying out the work under its terms of reference, the working group shall take into account aviation safety aspects, the need for close civil/military coordination, the requirements for supporting technical infrastructure and the safe and efficient provision of all air navigation services⁴.

The Black Sea TF is expected to present regular updates to the EANPG COG and a final report is expected for the EANPG/58. On completion of its task the Black Sea Task Force will be disbanded unless formally tasked by the EANPG to complete any other tasks that go beyond these ToRs.

Note: The revision of the existing FIR boundaries in the airspace over the High Seas will not be addressed by BSTF

Composition

c) Members:

Riparian States neighboring the Black Sea: Bulgaria, Georgia, Romania, Russian Federation, Turkey, Ukraine, supported by the Secretariat of ICAO.

d) Observers:

Representatives from IATA

Note: States may include in their delegations, representatives from International/Regional Organizations (e.g. EUROCONTROL as Network Manager invited by EUROCONTROL Member States to provide support at the operational and technical level and EASA invited by EU member States in an advisory role on safety and regulatory matters).

The *Rapporteur* of the Task Force will be the EANPG Chairman (Mr Phil Roberts, United Kingdom) or a representative of the ICAO Secretariat.

The ICAO EUR/NAT Office will provide the necessary secretariat support.

⁴ Air navigation services. This term includes air traffic management (ATM), communications, navigation and surveillance systems (CNS), meteorological services (MET) for air navigation, search and rescue (SAR) and aeronautical information services/ aeronautical information management (AIS/AIM). These services are provided to air traffic during all phases of operations (approach, aerodrome control and en route). (ICAO Doc 9161 – Manual on Air Navigation Services Economics, Fifth Edition 2013 and ICAO Doc 9082 - ICAO's Policies on Charges for Airports and Air Navigation Services, Ninth Edition – 2012)

Tasks

- g) Facilitate, at the operational and technical level a constructive dialogue amongst all parties concerned;
 - h) Identify and address specific issues related to the current situation, which support, the resumption of normal flight operations in the airspace over the Black Sea;
 - i) Identify potential solutions taking into account aviation safety aspects, the need for close civil/military coordination, the requirements for supporting technical infrastructure and the safe and efficient provision of all air navigation services;
 - j) Develop plans for the resolution of existing shortcomings, if any, and implementation of operational improvements as soon as practically possible but not later than the end of 2016;
 - k) Make recommendations for any changes to the current situation or, if considered appropriate, propose new solutions which would support the normalisation of flight operations; and
 - l) Any other related issues
-

Appendix E – Russian Federation Statement on the Black Sea Task Force (Flimsy01 of EANPG/58)

(paragraph 3.2.9 refers)

EANPG/58 – Flimsy 01

Agenda Item 3.4: Outcome of the Black Sea Task Force

**In Support of Discussion of WP/05
Outcome of the Black Sea Task Force**

**THE ASPECTS OF THE RESUMPTION OF NORMAL FLIGHT OPERATIONS IN THE
AIRSPACE OVER THE BLACK SEA AND THE REPUBLIC OF CRIMEA,
THE OUTCOMES OF THE BSTF ACTIVITIES**

(Presented by the Russian Federation)

1. In accordance with the provisions of Article 44 of the Chicago Convention signed on 1944 the aims and objectives of the ICAO are to develop the principles and techniques of international air navigation and foster the planning and development of international air transport so as to:
 - meet the needs of the peoples of the world for safe, regular, efficient and economical air transport;
 - ensure the safe and orderly growth of international civil aviation throughout the world;
 - avoid discrimination between contracting States.

2. Guided by these ICAO aims and objectives, the Russian Federation is once again appealing to the members of the European Air Navigation Planning Group (EANPG) urging them to focus on the flight safety aspects within the entire airspace over the Black Sea. These aspects, in the opinion of the Russian Federation, should be solved comprehensively, regardless of the political situation in the region.

3. Based on ICAO Resolution A38-12, Appendix G, “*established ATS airspaces should not be segmented for reasons other than technical, operational, safety and efficiency considerations*”, the Russian Federation is convinced that for the safety of international civil aviation, all parties involved should choose an approach based on Air Navigation Services Providers technical capabilities and resources that can ensure provision of safe and efficient air traffic flows management, as well as timely and competent search and rescue operations in any portion of the international airspace recognizing that “*the provision by a State of air traffic services within airspace over the high seas does not imply recognition of sovereignty of that State over the airspace concerned*”.

4. Ukraine had closed the Simferopol Area Control Center (ACC) and transferred the air traffic services in this portion of airspace to Odessa ACC and Dnepropetrovsk ACC having introduced the respective changes in their AIP. Such unilateral actions of Ukraine are considered non-compliant with the procedure for the amendment of European Air Navigation Plan (Doc 7754) adopted by the ICAO Council on 18 June 2014 (Appendix A).

5. The absence of any reaction of ICAO EUR/NAT Office to the abovementioned actions performed by Ukraine has aroused our concern.

6. Moreover, during BSTF/03 the Ukrainian delegation could not provide the sufficient technical evidence supporting the existence of necessary capabilities to provide safe and continuous air traffic services within Simferopol FIR in the entire range of operating altitudes. At the same time, the Ukrainian delegation was referring to the so-called “Safety Case” which in fact described the possibility of opening the four routes in the western part of Simferopol FIR and did not reflect the general picture of flight operations of all airspace users in this area, which can obviously pose a direct threat to the flight safety of civil aircraft. Despite such limited demonstration of capabilities to resume flight operations in a portion of Simferopol FIR and without necessary technical evidence supporting the existence of appropriate communication and surveillance capabilities to provide air traffic services in the whole range of operating altitudes even within the airspace described in the Safety Case, the ICAO Secretariat from EUR/NAT Office, however, in its letter EUR/NAT 15-0420.TEC (FOL/CUP) dated August 18, 2015 supported this proposal as a possible way forward.

7. In this regard, the Russian Federation during the four BSTF meetings was demonstrating evidence in terms of operational and technical capabilities to ensure safe and continuous air navigation services provision within the entire Simferopol FIR that appeared to be deliberately ignored by the ICAO Secretariat throughout the discussions and this fact raises doubts about the **genuineness of their commitment to the expeditious resumption of normal flight operations in this airspace. It is necessary to emphasize, that the UN General Assembly Resolution 68/262, extensively referred to by the ICAO Secretariat, does not implicitly or explicitly concern the establishment of ATS airspace boundaries and the high seas airspace in particular.**

8. Simferopol ACC continues to provide a full-scale air traffic services within its area of responsibility by means of appropriate equipment, resources and qualified personnel.

9. A comprehensive set of measures has been implemented to ensure technical retrofitting, CNS facilities upgrading, ATCOs ab-initio and advanced training and airspace structure improvement of Simferopol FIR to enhance flight safety and efficiency of civil aircraft.

10. To demonstrate and confirm Simferopol ACC capabilities to ensure the required level of flight safety of international civil aviation, the Russian delegation repeatedly expressed its readiness to arrange a visit to the ATS centre in Simferopol for experts from ICAO, other international aviation organizations, aviation authorities of the States concerned at any time convenient for them. The invitation is still valid for any experts of the parties involved and at any convenient time.

11. The Russian Federation, for its part, has been making consistent efforts and proposals aimed at expeditious resumption of air traffic in the airspace concerned. As a member of BSTF, established at EANPG/57 meeting on the initiative of the Russian Federation (letter 9-1159 of RF Minister of Transport dated 10.04.2015 addressed to the President of ICAO Council) the Russian Federation throughout the four meetings made technically justified proposals to resolve the current situation based on the technical projects on COM and SUR facilities modernization implemented in accordance with ICAO SARPS and capable of providing safety and regularity of air traffic in the region concerned.

12. Regrettably, the arguments of the Russian delegation presented during the TF meetings, were either excluded from the final summary of discussions or, due to position of the ICAO Secretariat, became politically biased supported by a usual reference to the UN Resolution regarding which the Russian Federation had made a caveat. At that, the ICAO Secretariat while preparing the Summary of

Discussions of each BSTF meeting continued to indicate that the Russian Federation remarks in reference to the UN Resolution were made “in their view”. In that regard, we would like to draw the attention of the *Rapporteur* and the ICAO Secretariat that ICAO has not been vested with authority to make judgements on “the position” and “the view” of a sovereign State. Within this framework, the Russian Federation points out that the approach towards the organization of the BSTF work chosen by the ICAO Secretariat and the *Rapporteur* who shall be the Organization’s mediators to guide discussions at the level of sovereign States of the Black Sea region is inconsistent with the spirit and letter of the Chicago Convention which urges to “*avoid friction*” and promote “*cooperation between nations and peoples upon which the peace of the world depends*”. We would like to reiterate that the main objective of the BSTF activity is to develop a technical solution that would ensure safety and efficiency of air traffic in the Region and serve as a basis for further negotiations at the level of foreign policy officials of the States concerned. In this regard, the Russian Federation insists that if the decision is made that the BSTF should continue its work, these activities are to be performed in strict adherence to ICAO mandate and ethical norms established within the UN system, and exclusively with the aim to develop a required technical solution without prejudicing the rights of sovereign States as far as bilateral and multilateral negotiations are concerned to ensure further agreements at political level.

13. Based on this position of our State as a full-fledged member of all events held under the auspices of ICAO in the region and as a party interested in resolving the situation concerning flight operations within Simferopol FIR, the Russian Federation is authorized to declare that the BSTF has so far been unable to fulfill its task and has failed to achieve any result that would be suitable and acceptable for all States of the region involved, due to an unconstructive and inappropriate approach by the ICAO Secretariat to solving one of the most important and significant flight safety issues within the Black Sea region.

14. In addition, we would like to point out that throughout the BSTF work, the Secretariat, seemingly acting in the interests of certain States, declined to consider the objective picture of events occurring in the Black Sea region, including humanitarian dimensions; did not take into account the interests of each State of the region involved; as well as left suggestions made by the Russian Federation without due attention, violating the main principle of the BSTF activity, i.e. consensus. Instead of observing the ethical norms for international civil servants of the United Nations system and providing necessary technical support for the BSTF activities, the ICAO Secretariat, at its own discretion, made efforts to promote ideas and proposals that are inconsistent both with the interests of involved States and the spirit and letter of the Chicago Convention.

15. Thus, the proposals unilaterally prepared by the Secretariat (sub-scenarios) developing one of the scenarios for the provision of air navigation services in the airspace above the Black sea, notably Scenario 6 (“blue flag sector”), were presented for review by the BSTF members only three days prior to BSTF/04. Such short notice made it absolutely impossible to perform a satisfactory expert review for all parties to prepare their positions. At the same time, we should bear in mind that Scenario 6 in particular, as well as the other Scenarios, was not accepted by all member States for discussion during BSTF/03. Moreover, Scenario 6 was regarded as the most “doubtful” option that is not valid from the standpoint of international law. Nevertheless, regardless this position supported by BSTF members, it is Scenario 6 that the Secretariat continues “lobbying” without any coordination with the parties involved, referring to ICAO’s alleged rights and powers to suspend or cancel, by way of some arbitrary decision, certain provisions of the EUR Air Navigation Plan. The Russian delegation has requested the Secretariat to provide valid legal grounds for the above statement made by the Secretariat and no response has been received so far.

16. We also consider it worth noting that the Kosovo precedent proposed by the Secretariat is fundamentally inapplicable to the situation in Crimea. In the Kosovo case, the solution had been UN

Security Council Resolution 1244. No equally authoritative decisions with regard to Crimea have been issued up to now. Thus, the ICAO Council President does not have similar authority with regard to Crimea. Moreover, the Kosovo case had to do with flights above the territory of a sovereign state, whereas now airspace over the high seas is being considered.

17. We would also like to inform EANPG/58 that the BSTF/02, BSTF/03 and BSTF/04 Summaries of Discussions, as well as the Draft Report of the Black Sea Task Force prepared by the Secretariat for EANPG/58 had not been approved and agreed by the Russian Federation in their presented and allegedly ‘consolidated’ versions as a result of the Secretariat’s refusal to duly consider the main and fundamental comments and suggestions made by the Russian Federation. The final versions of the aforementioned documents do not objectively reflect the opinion and position of the Russian Federation, do not provide an adequate assessment of civil aviation safety aspects within Simferopol FIR, do not contain the results of the common efforts by BSTF members, and, most importantly, do not establish a basis for potential consensus as part of BSTF potential further work. Moreover, we would like to reiterate our position concerning the inappropriate organization of the BSTF work, which was particularly owed to the obvious attempts by the *Rapporteur* and the ICAO Secretariat to present in reports and draft reports their own vision and understanding as the only appropriate way to resolve a rather complicated situation that is associated with an immediate need to resume international civil aviation operations within Simferopol FIR, which in fact is a breach of the ethical norms accepted within the UN system.

18. In addition, we would like to emphasize that, when submitting the BSTF/04 draft report and the report for EANPG/58 for coordination, the Secretariat made a condition for BSTF members to keep comments and proposals to a minimum. In case a very considerable number of comments and amendments were provided by BSTF members, the Secretariat reserved the right to present “at its own discretion” its own version of the final documents to the EANPG. We would also like to highlight that the final report on BSTF activities is compiled from reports of BSTF/02, BSTF/03 and BSTF/04, which had not been agreed by the Russian Federation. We insist that the final document prepared is the private subjective opinion of the *Rapporteur* and certain employees of the ICAO Regional Office, for which reason the report on BSTF activities presented to the EANPG is not considered as report and should be withdrawn from consideration by the EANPG.

19. Given the above, the Russian Federation continues to suggest that the key aspect that guarantees the possibility of normalizing flights above the Black Sea is the agreement on bringing the BSTF Terms of Reference (in case the EANPG/58 decides to continue the BSTF activities) in line with its task and the ICAO mandate. We also believe that the BSTF ToRs should particularly include the revision of Simferopol FIR boundaries, which should exclusively proceed from a technical standpoint and serve the interests of international air navigation safety and preventing any economic and environmental damage to international civil aviation operations. The suggested idea of the revision of the existing FIR boundaries should not be associated with issues pertaining to sovereignty of States and should not apply any FIR delineation principles other than those stipulated by Assembly Resolution A38-12, Appendix G.

20. The Russian Federation recommends appointing an independent representative of the Secretariat from the ICAO Headquarters as *Rapporteur* (Chairman) of the BSTF, in order to avoid any prejudice and undue interference with the BSTF activities by interested employees of the Secretariat of the Regional ICAO Office.

19. The Russian Federation is ready to present a detailed and substantiated proposal of amendment to the EUR Air Navigation Plan (Doc 7754), which could be used as a basis for further discussion with the adjacent States of the region.

CONCLUSIONS AND PROPOSALS:

1. Withdraw the Report on BSTF Activities from consideration by the EANPG meeting;
 2. Recognize the organization of the BSTF activities as unsatisfactory;
 3. Continue the BSTF activities only on condition that its Terms or Reference are extended to include discussion of changes to Simferopol FIR boundaries (according to the BSTF objective and the ICAO mandate);
 4. Appoint an independent representative of the Secretariat from the ICAO Headquarters as *Rapporteur* (Chairman) of the BSTF able to lead the group with equidistance from all interested States.
-

Appendix F – Statement of Ukraine to the Report on Black Sea Task Force Activities

(paragraph 3.2.10 refers)

We commend the EANPG, ICAO secretariat for the work done in order to organize the activities of the Black Sea task force as well as BSFT members for their active participation in the meetings.

It should be noted that the discussions were very lively and indeed quite hectic at times and we praise the excellent work done by George Firican and rapporteur Phil Roberts who acted in an independent and objective manner throughout the BSTF meetings.

BSTF has proved to become a proper platform for comprehensive discussion of the state of affairs and identifying and addressing the specific issues related to the current situation concerning air navigation services provision in the high seas air space over the Black Sea.

In particular, during the discussions the main obstacle for normal flight operation was clearly identified. That is: RF AIS publications for Simferopol FIR, that contradict ICAO standards (para 2.1.2 of Annex 11, para 2.1.2 of Annex 15), which was reflected in the summary of discussions of all BSTF meetings as well as in the WP presented by the Secretariat.

All the BSTF participants were invited to present their comments to the summaries prepared by the Secretariat after each BSTF meeting as well as to the report to the EANPG. We believe that the final report to the EANPG objectively reflects the discussions that took place during the BSTF meetings.

As far as the flimsy presented by RF is concerned we would like to make the following comments:

1. The activities the BSTF were organized in strict adherence with the ToRs that were agreed and signed by all BSTF participants including RF.
The ToR foresee that BSTF must work in full observance of the ICAO Chicago Convention, its Annexes and Documents as well as in full compliance with UN and ICAO Assembly Resolutions.
2. Responsibility for ATS over the High Seas within Simferopol FIR is delegated to Ukraine by international agreements establishing FIR boundaries between the Black Sea States including the Russian Federation, approved by the decision of the ICAO Council on February 17, 1997 (ref. no. EUR/NAT 96/38-ATS) and with appropriate amendment DOC 7754. Here we would like to highlight that DOC 7754 contains a list of States with the relative FIRs but not ACCs.
 - 1.
 2. In accordance with Annex 11 to the Chicago Convention Ukraine designated Simferopol ACC as authority responsible for providing ATS within this airspace.
 - 3.
 3. On February 28, 2014 unknown gunned men in a military uniform appeared on the sites of the Simferopol ATM Centre, its Operational Room and related CNS facilities. They were present there on a daily basis and exerting a significant psychological pressure on employees.
On March 10, people wearing police uniform and civil casual dress penetrated into the Operation room of the Simferopol ATM Centre and forced ATCOs to leave the premises in an urgent manner.
 4. Since April 2014 Russian Federation, has unilaterally declared its intention to provide the air navigation services within Simferopol' FIR followed by illegal aeronautical information publications. Such actions clearly demonstrate the breach of the basic provisions of the Convention on International Civil Aviation (Chicago Convention) and its Annexes, in particular Annex 11 (p.2.1.2, p.2.1.3) and Annex 15 (p.2.1.2), and ICAO Doc 7754 and Doc 7910.
 5. The Russian Federation has unlawfully captured radio frequency resources of Ukraine, assets and property belong to the Ukrainian State Air Services Enterprise (UkSATSE) which are located on

the Crimean peninsula and is utilized at present by an illegal organization "Krymaeronavigatsiya".

6. Ukraine has been always strongly adhering to the principles international law and under those circumstances all measures were taken in order to ensure continuation of the air traffic services provision.
4. In line with Annex 11 Ukraine has organized ATC services provision over the High Seas at the ATM Centers, located in the cities of Odesa and Dnipropetrovs'k. Infrastructure and technical equipment of these ATM Centers allows to ensure the safety of international air navigation. That has been repeatedly and clearly demonstrated by Ukraine during BSTF meeting.

In conclusion we would like to emphasize that it is obvious - the main cause of problems with the flight operations over the High Seas within the Simferopol FIR is due to aeronautical information publications of Russian Federation that contradict with the Chicago Convention and its Annexes. The resumption of flights in the international airspace over the High Seas within Simferopol FIR can be achieved by one simple step - withdrawing of illegal aeronautical publications made by Russian Federation for the High Seas within Simferopol FIR. That applies to all scenarios that have been discussed by the BSTF.

Ukraine is fully open for constructive cooperation according to the terms of reference of the group and once again draw attention of the participants to the UN General Assembly Resolution A/RES/68/262 on March 27, 2014 "Territorial integrity of Ukraine".

Appendix G – Volume III of the EUR eANP, v2016

(paragraph 4.1.9 refers)

Appendix provided in a separate file

**Appendix H –Interim Guidance Material on Civil/Military Cooperation in Air Traffic Management,
ICAO EUR Doc 032, 2nd Edition**

(paragraph 4.1.11 refers)

Appendix provided in a separate file

Appendix I – Proposed Amendment to ICAO Doc 7030 Regional Supplementary Procedures

(paragraph 4.1.18 refers)

6.2.2.1 Longitudinal separation minimum based on time and radar-observed distance

6.2.2.1.1 A minimum longitudinal separation of three minutes may be applied between aircraft on the same track or crossing tracks, whether at the same level, climbing or descending, provided that:

a) their flight progress is continuously monitored by radar forming an integral part of the ATC unit concerned; and

b) the distance between the aircraft, as observed by radar, is never less than 37 km (20 NM).

Note.— Use of this separation is subject to all the limitations in the use of radar specified in the PANS-ATM, 8.1.

6.2.2.1.2 Wake turbulence separation minima are provided in PANS-ATM. Following an appropriate safety analysis, a State may decide to implement EUR Wake Turbulence Categorisation and Separation Minima on Approach and Departure (RECAT EUR). In that case, the following wake turbulence aircraft groupings and associated separation minima should be used. Any such implementation should provide clear operational benefits.

6.2.2.1.3 RECAT EUR aircraft groupings:

6.2.2.1.3.1 Wake turbulence separation minima are based on groupings of aircraft types into six categories according to both maximum certificated maximum take-off mass (MTOM) and wing span as follows:

- a) “SUPER HEAVY” — all aircraft types of 100.000 kg or more, and a wing span above 72 m;
- b) “UPPER HEAVY” — all aircraft types of 100.000 kg or more, and a wing span between 60 m and 72 m ;
- c) “LOWER HEAVY” — all aircraft types of 100.000 kg or more, and a wing span below 52 m;
- d) “UPPER MEDIUM” — aircraft types less than 100.000 kg but more than 15.000 kg; and a wing span above 32 m;
- e) “LOWER MEDIUM” — aircraft types less than 100.000 kg but more than 15.000 kg; and a wing span below 32 m;
- f) “LIGHT” — all aircraft types of 15.000 kg or less (without wing span criterion).

6.2.2.1.3.2 Aircraft types of 100,000kg or more, and wing span between 52 m and 60 m are included in one of the above categories on the basis of specific analyses of their wake turbulence effects.

6.2.2.1.4 A State which has decided to implement RECAT EUR shall maintain an up-to-date list of aircraft types for each RECAT EUR aircraft grouping, in particular with respect to future aircraft types.

Note.— : An aircraft type list is part of the RECAT EUR safety case available from EUROCONTROL.

6.2.2.1.5 Based on specific assessments, States may move individual aircraft types from one of the above categories to another.

6.2.2.1.6 RECAT EUR wake turbulence distance-based separation minima:

Leader	Follower					
	Super Heavy	Upper Heavy	Lower Heavy	Upper Medium	Lower Medium	Light
Super Heavy	3 NM	4 NM	5 NM	5 NM	6 NM	8 NM
Upper Heavy		3 NM	4 NM	4 NM	5 NM	7 NM
Lower Heavy		2.5 NM	3 NM	3 NM	4 NM	6 NM
Upper Medium						5 NM
Lower Medium						4 NM
Light						3 NM

Note.— : The separation minimum to be applied is the greater of the wake turbulence separation minimum and the surveillance separation minimum, and should remain compatible with runway capacity.

6.2.2.1.7 RECAT EUR wake turbulence time-based separation minima on departure:

Leader	Follower					
	Super Heavy	Upper Heavy	Lower Heavy	Upper Medium	Lower Medium	Light
Super Heavy		100s	120s	140s	160s	180s
Upper Heavy			60s	100s	120s	140s
Lower Heavy				80s	100s	120s
Upper Medium						120s
Lower Medium						100s
Light						80s

Note.— : Wake turbulence separation minima on departure should be applied by ATC by determining airborne times between successive aircraft, and by ensuring that applicable distance-based separation minima will be achieved under surveillance.

6.2.2.1.8 An additional 60 seconds shall be applied to all wake turbulence time-based separation minima in 6.2.2.1.7 when taking-off from:

- a) an intermediate part of the same runway; or
- b) an intermediate part of a parallel runway separated by less than 760 m (2 500 ft).

6.2.2.1.9 Appropriate processing of FPL aircraft type information by ATM systems may need to take place so that the aircraft RECAT turbulence category is made available to air traffic controllers, and correct separation provided.

6.2.2.1.10 States which have deployed RECAT EUR, or parts thereof, shall provide sufficient information to aircraft operators, including at least information in their AIPs, so that airspace users are aware of the portions of airspace where RECAT EUR is applied, and associated special procedures if applicable.

- END -

Rationale

ICAO's existing wake turbulence separation minima (based upon Heavy, Medium and Light categories) were designed over 40 years ago. Numerous flight tests, simulations and measurements, as well as the operational experience accumulated in several locations worldwide, have demonstrated that PANS-ATM wake turbulence separation minima can be further optimized by use of more categories than currently provided for.

Airport traffic mixes vary by regions, and it is therefore proposed to amend the EUR section of Doc 7030 in order to promote the introduction of an optimized six-category scheme for the ICAO EUR region, named RECAT EU, where there are positive safety and efficiency benefits. Such a scheme aims at safely increasing airport capacity, while also providing enhanced wake turbulence protection, notably for light aircraft.

Following Annex 11 standards, Paragraph 2.28, any significant safety-related change to the ATS system, including the implementation of a reduced separation minimum or a new procedure, shall only be effected after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted. When appropriate, the responsible authority shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.

In Europe, EUROCONTROL performed a safety case (reference to be provided) on RECAT EU and this was endorsed by EASA (attached letter refers). As an example, before RECAT-EU was introduced in France in 2016, extensive consultation with airspace users took place, both through an outreach campaign and through an AIC publication (attached AIC refers).

**Appendix J – European Guidance Material on All Weather Operations at Aerodromes, ICAO EUR
Doc 013, Fifth Edition**

(paragraph 4.2.4 refers)

Appendix provided in a separate file

Appendix K – EUR Frequency Management Manual, EUR Doc 011

(paragraph 4.2.14 refers)

Appendix provided in a separate file

Appendix L – AMHS/Third Party Interconnection Architecture document, EUR Doc 035, Version 3.0

(paragraph 4.2.18 refers)

Appendix provided in a separate file

Appendix M – EUR IPv6 Address Space Allocation Document, EUR Doc 037R, Version 1.0.

(paragraph 4.2.20 refers)

Appendix provided in a separate file

Appendix N – EUR AGVN Legacy Numbering Plan document, EUR Doc 036, version 1.0

(paragraph 4.2.21 refers)

Appendix provided in a separate file

Appendix O – English Language Proficiency for Aeronautical MET Personnel – Guidance Material, EUR Doc 038

(paragraph 4.2.62 refers)

Appendix provided in a separate file

Appendix P – Updates to EUR SIGMET and AIRMET Guide, EUR Doc 014

(paragraph 4.2.76 refers)

Detailed Outcomes of the SIGMET Coordination Action: METG/25 Decision 25/3

The information provided below sets out the detail outcomes (deliverables) of the Ad Hoc group established to undertake a study of EUR SIGMET coordination activities under METG/25 Decision 25/3.

In relation to the first outcome, MET/25 Decision 25/3 item f) i), the ad hoc group was tasked to:

f) i) Develop appropriate guidance material for cross-FIR SIGMET co-ordination procedures between MET ANSPs that may be used as a common minimum standard

As such, the following guidance material is provided:

- 1) Managers of the meteorologists who will be engaged with coordination activities establish contact, and agree on the principles of coordination. Consider if Letters of Agreement or Memorandum of Understanding are necessary. A template Letter of Agreement is provided as **Attachment A**.
- 2) A template 'coordination process' is provided as **Attachment B**, and has been used by a number of States with regard to establishing coordination. It is intended that the template be adapted as necessary, but is also intended to help establish a degree of commonality.
- 3) Meteorologists who will be involved in the process should be involved early in the process of establishing the coordination activity.
- 4) Agree the language under which coordination will take place.
- 5) Share the names of meteorologists who will be involved in the coordination process in advance. This seems to help overcoming any initial reluctance to contact the adjacent MWO. Where feasible within budgetary constraints, liaison through workshops of operational meteorologists should be encouraged.
- 6) Encourage meteorologists to be receptive to the ideas/opinions of adjacent MWO meteorologists. Whilst the MWO retains the ultimate right to issue the SIGMET as it considers most appropriate, a professional approach includes acknowledgement of the validity of additional opinions from fellow professionals.
- 7) Monitor the occasions where coordination has taken place to demonstrate the benefits of undertaking the process. Maintenance of logs, particularly where agreement cannot be reached, can provide great benefit in converging practices. **Attachment C** provides an example form for the monitoring of SIGMET coordination between MWOs.
- 8) Seek feedback from the meteorologists concerned.
- 9) Arrange an appropriate time for a review of the process between coordinating MWOs.

10) Introduce coordination activities in a gradual process – it may not be practical to implement coordination activities with all adjacent States in one go, but once coordination activities begin the process is easier to implement with additional States.

In relation to the second outcome, MET/25 Decision 25/3 item f) ii), the ad hoc group was tasked to:

f) ii) Develop a proposal to address harmonisation of the more complex aspects of the co-ordination process (for example, intensity of phenomena)

Accordingly, the ad hoc group has identified 4 tiers of 'guidance' in relation to addressing harmonisation of more complex aspects of the coordination processes.

Tier 1) The group identified a number items where it was felt, in line with Amendment 77 to ICAO Annex 3, clear guidance could be offered. The proposals are:

Speed of movement:

When the rate of movement is 9 units or less, then a leading zero is to be included: i.e. 05KT, 07KMH.

Use of CAT in SIGMET.

CAT is not an accepted abbreviation in SIGMET, and severe clear air turbulence should be referred to simply as SEV TURB.

Use of 'ENTIRE' FIR.

ENTIRE FIR may be used effective with Amendment 77 to ICAO Annex 3.

Altimetry reference: Amendment 77 to ICAO Annex 3 permits mixing of the vertical reference such that altitudes (M, FT) may be used in combination with FL. Therefore, it now becomes possible to refer to altitudes in M or FT below transition altitude, and to FL above. Given that transition altitudes vary across EUR, it is proposed that it falls to State guidance as to when and where altitude is used and when and where FLs are used.

Referring to midnight: Annex 3 is clear in its examples (Table 6-1A) that when referring to midnight '0000' should be used to refer to hours and minutes and that the day number should be that of the day commencing, so midnight on the 23rd of the month would be '240000' not '232400'. This is also consistent with ICAO Annex 5 guidance in this regard.

Tier 2) The group identified a number of items where it felt interim 'best practice' advice could be provided for the EUR region which would help in harmonisation of SIGMET without contradicting ICAO Annex 3. However, it is considered that these items should be further considered and endorsed by ICAO groups with a global remit. The proposals are:

OBSC: Within EUR, it is considered that the following guidance be followed. "*when interpreting the definition of OBSC in ICAO Annex 3, it is considered that obscuration through two thirds or more of expected vertical depth is an appropriate threshold on which to base a decision to include in SIGMET.*"

EMBD: Within EUR, it is considered that the following guidance be followed. "*when interpreting the definition of EMBD in ICAO Annex 3, it is considered that phenomenon embedded through two thirds or more of expected vertical depth and when associated with frontal structure or*

organised mesoscale convective systems is an appropriate threshold on which to base a decision to include in SIGMET".

FRQ: Within EUR, it is considered that the following guidance be followed. " *when interpreting the definition of FRQ in ICAO Annex 3, it is considered that a distribution assessed over a domain of approximately 100 KM by 100 KM, or the FIR domain if smaller, is an appropriate threshold on which to base a decision to include in SIGMET. In addition, the assessment should be considered ACROSS FIR boundaries, and SIGMETs coordinated accordingly between MWOs*". It is also noted that that the abbreviation 'FRQ' (for 'frequent') is a temporal descriptor, yet the ICAO definition is spatial. It is proposed that for simplification the spatial definition is retained when assessing need to include reference to FRQ in SIGMET.

SQL: Within EUR, it is considered that the following guidance be followed. " *when interpreting the definition of SQL in ICAO Annex 3 the thunderstorms along a line without gaps of at least 100 KM in length, or minimum 50 KM in length where the FIR is less than 100 KM wide, is an appropriate threshold on which to base a decision to include in SIGMET. In addition, the assessment should be considered ACROSS FIR boundaries, and SIGMETs coordinated accordingly between MWOs* "

Dealing with reports of observed phenomena when SIGMET is already valid. On receipt of a Special air-report a MWO is expected to consider if the report warrants re-issue as a Special air-report UPLINK (if transient) or a SIGMET (if persistent). This does not appear to capture the scenario if a SIGMET is already valid. In such instances it is proposed that there is no need to re-issue as a Special air-report UPLINK nor to re-issue the SIGMET, since a SIGMET already exists.

Change in intensity: It is only permitted to make a single reference to change in intensity, and of course the change in intensity may be different within different areas of the phenomena. It is proposed that to err on the side of safety, INT (intensifying) would take priority if any sub-area of the region intensifies; NC (no change) would take priority if applicable to a sub-area of the region and if INT does not apply; and WKN (weakening) would only be used if applicable to the entire area.

Proposed Updates to EUR Doc 014 - EUR SIGMET AND AIRMET GUIDE Relating to Tropical Cyclone

1)

Update:

1.2 In respect of SIGMET messages, this document only includes guidance concerning SIGMET messages for significant en-route weather phenomena and volcanic ash SIGMET messages. The third type, tropical cyclone SIGMET messages, are excluded as this phenomenon does not occur in the EUR Region.

To:

1.2 In respect of SIGMET messages, this document includes guidance concerning SIGMET messages for significant en-route weather phenomena and volcanic ash SIGMET messages. Guidance is also included for those States with responsibility for issuing SIGMET messages for FIRs that may be affected by tropical cyclone.

2)

Incorporate relevant parameters relating to tropical cyclone in the EUR Doc 014 - *EUR SIGMET AND AIRMET GUIDE*.

Note: In view of the imminent applicability of Amendment 77 to ICAO Annex 3, it is proposed that such work be undertaken as soon as practicable, and in coordination with other activities relating to updating EUR Doc 014 in relation to Amendment 77.

Attachment A

TEMPLATE for LETTER OF AGREEMENT
Directives for the cross-FIR SIGMET coordination
between MWOs of adjacent States

General Guidelines

The present Template for Letter of Agreement (hereinafter referred to as **the LoA template**) may be used by the MET Service Providers (METSPs) in drafting their operational Letters of Agreement (LoA) and facilitate the implementation of SIGMET coordination procedure between MWOs of adjacent States. However, it is unable to provide for all aspects of a given situation between two MWOs. The structure and the content of the LoA template should be considered as guidelines and as such, may have to be adapted as required. The detailed cross-FIR SIGMET co-ordination procedure is recommended to be addressed in Annex to a LoA. Normally, a LoA should be signed by the representatives of the METSPs.

Structure and content of the LoA template	Comments/Notes
--------------------------------------------------	-----------------------

1. GENERAL**1.1 Objective**

The objective of this Letter of Agreement between [METSP¹] and [METSP²] is to establish the directives for the necessary coordination between [MWO¹] and [MWO²] to provide the aviation community with consistent SIGMET information when cross-border weather phenomenon is observed or forecast.

1.2 Operational Status

Both METSPs as early as practicable should keep each other informed of any changes in the MWOs' operational contact details which may affect the procedures specified in this Letter of Agreement.*

Also, the following may be considered for inclusion in the LoA:

Both MWOs should keep each other informed of any change in the operational status of the resources, including technical facilities, which may affect the procedures specified in this Letter of Agreement.

2. AREAS of RESPONSIBILITY

The lateral and vertical limits of the Areas of Responsibility (FIR/UIR) of the [MWO¹] and [MWO²] are provided in Appendix.

3. PROCEDURES

3.1 The procedures to be applied by [MWO¹] and [MWO²] are detailed in the Annexes to this Letter of Agreement:

Annex 1: SIGMET Coordination Procedure

** This is especially important to be included in LoA if a relocation of MWO or assignment, to third MWO, of the responsibility for providing meteorological watch is planned to be implemented as contingency measures.*

Reference should be made to the appropriate State AIPs.

Annex 2: Definitions and Abbreviations

3.2 These procedures shall be promulgated to the operational staff of the MWOs concerned.

4. REVISIONS and DEVIATIONS

4.1 Revision of the Letter of Agreement

The revision of this Letter of Agreement, excluding Annexes and Appendix, requires the mutual written consent of the signatories.

4.2 Revision of the Annexes to the Letter of Agreement

The revision of Annexes to this Letter of Agreement requires the mutual written consent of the representatives of the respective MWOs designated by the respective signatories, normally the chiefs of the MWOs.

4.3 Temporary Deviations

When necessary, the respective chiefs of the MWOs may introduce by mutual agreement and for a specified time period temporary modifications to the procedures laid down in the Annexes to this Letter of Agreement. These temporary changes are not intended to last more than.....*days.

** - figure to be agreed upon locally*

4.4 Incidental Deviations

Instances may arise where incidental deviations from the procedures specified in the Annexes to this Letter of Agreement may become necessary. Under these circumstances the operational meteorologists are expected to exercise their best judgement to ensure the safety of air traffic.

5. CANCELLATION

5.1 Cancellation of this Letter of Agreement by mutual agreement of the respective approving authorities of the METSPs may take place at any time.

5.2 Cancellation of this Letter of Agreement by either approving authority of the METSP is possible at any time, provided that the cancelling party declares its intention to cancel the Letter of Agreement with a notice period of ...*days before the date the cancellation is to take effect.

** - time period to be agreed upon locally*

6. COORDINATION MEETINGS

Regular and/or ad-hoc coordination meetings (e-mail/phone communication or teleconferences as alternative) between the chiefs of the MWOs and MWO representatives to discuss implementation of SIGMET coordination process or any planned changes will be convened as appropriate and at least every* months.

** - time period to be agreed upon locally*

7. VALIDITY

This Letter of Agreement becomes effective [*date*]. **or**

This Letter of Agreement becomes effective [date], and supersedes the Letter of Agreement between [METSP¹] and [METSP²] dated [date].

8. APPENDIX. AREAS of RESPONSIBILITY

9. ANNEX 1. SIGMET COORDINATION PROCEDURE

9.1 Purpose of the procedure.

9.2 Initiation of the process (criteria for coordination activity, including issuance of special air report (uplink) as the equivalent of SIGMET^{1,2,3}).

1.

9.3 Means to be used for operational communication, including, if necessary, for exchanging/supplying information (for example, forwarding of special air-reports additionally to their dissemination via ROC).

9.4 Contact details (phone, fax etc.).

9.5 Language.

2.

9.6 Responsibilities⁴.

9.7 Maintaining of logs when agreement is not reached.

3.

9.8 Special arrangements for contingency situation (notification about change of MWO operational status and new contact details⁵), as well as any other arrangements as reasonably required.

Appendix with map of the appropriate FIRs/[UIRs]

1. When at least one MWO applies the procedure for issuing a special air report (uplink) as the equivalent of SIGMET in case of the phenomenon reported is “of a transient nature”.

2. For cases when the phenomenon reported is expected to persist but moves away from the FIR in which it is observed to the territory of adjacent FIR (the phenomenon reported is “of a transient nature” with regard to own FIR only).

3. At least information about applicability/non-applicability of the procedure by each MWO involved should be clearly indicated and promulgated to the meteorologists.

4. Each MWO retains the right to issue SIGMET at its final discretion within its FIR when the MWOs involved cannot agree on the content of SIGMET information.

5. See comments above for paragraph 1.2 “Operational Status”.

10. ANNEX 2: DEFINITIONS and ABBREVIATIONS

10.1 Definitions.

10.2 Abbreviations.

Attachment B**SIGMET Coordination between State_X
(Name_of_State_X MWO) and State_Y
(Name_of_State_Y MWO).***Explanatory note:*

It is intended that each State would have what is effectively a reciprocal version of the template below. Of course, if necessary where one or other or both States have multiple mutually adjacent FIRs, then additional FIRs, and perhaps even MWO contact details will need to be included. The template is a framework. It is intended to be adapted as necessary to meet the aims of each State, yet also providing a common approach to establishing SIGMET coordination. It is also intended that this Explanatory note be deleted from the final version agreed between States.

Language in which SIGMET Coordination will be undertaken: Xxxx

Customer location / forecast area:

Any SIGMET which affects the [State_X_FIR_Name](#) FIR [[CCCC_of_FIR](#)] which may also affect the [State_Y_FIR_Name](#) FIR [[CCCC_of_FIR](#)] and vice versa.

See Annex 1 and 2 for detailed FIR maps.

Purpose of Service:

To allow for consistency of SIGMETs between the [State_X_Met_Provider](#) and [State_Y_Met_Provider](#). This is in terms of the content, horizontal position, vertical extent, severity, timing and movements of SIGMET phenomena between the [State_X](#) and [State_Y](#) FIR regions with mutual boundaries.

Description of requirement:

1. Telephone/email consultation between the [State_X_Met_Provider](#) meteorologist responsible for [State_X](#) Meteorological Watch Office (MWO) and

State_Y_Met_Provider meteorologist responsible for the **State_Y** MWO to agree on proposed content, horizontal location, vertical depth, boundaries and speeds of movement of any SIGMETs affecting, or expected to affect, both States' FIR regions of responsibility.

2. The caller should clearly identify who is calling, what function and from what office. It should also be clearly stated that the purpose of the call is SIGMET coordination.

Production methodology:

- Whenever practicable, approximately 15 minutes before the issue of a SIGMET for the **State_X** FIR, the **State_X** MWO meteorologist is to consider if the phenomena may also affect the **State_Y** FIR. If so, the **State_X** MWO meteorologist is to contact the **State_Y** meteorologist (Tel +yyyyyyyyy) to discuss the content of the SIGMET and the proposed location on the boundary with **State_Y** FIR(s).
- **State_Y** meteorologist will follow the same procedure and will contact **State_X** MWO (Tel +xxxxxxxxx) to discuss any SIGMETs they are proposing to issue for **State_Y** FIR(s) which they believe may also affect the **State_X** FIR.
- Refer to the SIGMET FIR maps to discuss boundaries of proposed SIGMETs, in order to agree consistent forecasts in terms of where the SIGMET crosses the FIR boundaries.
- Current issued SIGMETs can be visualised graphically by the **State_X_Met_Provider** on **System** to aid discussion. Current issued SIGMETs can be visualised graphically by the **State_Y_Met_Provider** on **System** to aid discussion.
- In the event of any disagreement, each MWO will retain the right to the the final details relating to the phenomenon over their own area(s) of responsibility.
- To facilitate understanding of reasons for differences, and to permit further coordination, under circumstances of differences of opinion a brief summary should be provided to the meteorologists manager.
- This procedure to be made effective dd/mm/yy

Amendment criteria:

SIGMETs are not amended. If they are incorrect they are cancelled and the correct version transmitted as a new SIGMET. If the phenomenon changes intensity, location etc, enough to make the existing SIGMET misleading, it should be cancelled and a new one issued. The cancelled SIGMET should be numbered according to the normal sequential daily numbering system.

The **State_Y** meteorologist should be consulted as per the process above in relation to any cancellation and re-issuance of SIGMET that may affect **State_Y**'s area of responsibility.

Annex 1 – Map of State_X and State_Y FIR(s):

Include appropriate map.

Annex 2 – Larger Scale Map Map of State_X and State_Y FIR(s):

Include appropriate map.

Attachment C
Example proforma for logging of SIGMET coordination – bilateral phone calls
statistics

MWO:		Date/Time (UTC)		
SIGMET Phenomenon :				
Exchange with MWO(s) (Name, FIR):		Call made before the issuance of the SIGMET?: <input type="checkbox"/> YES <input type="checkbox"/> NO		
Who called whom?				
Result of the Discussion:	Agreement on SIGMET issuance	Agreement on duration	Agreement on horizontal extent	Agreement on vertical extent
	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
Additional remarks:				
Signature: (Forecaster on duty)				

MWO:		Date/Time (UTC)		
SIGMET Phenomenon :				
Exchange with MWO(s) (Name, FIR):		Call made before the issuance of the SIGMET?: <input type="checkbox"/> YES <input type="checkbox"/> NO		
Who called whom?				
Result of the Discussion:	Agreement on SIGMET issuance	Agreement on duration	Agreement on horizontal extent	Agreement on vertical extent
	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> yes <input type="checkbox"/> no
Additional remarks:				
Signature: (Forecaster on duty)				

Appendix Q – Guidelines for the Implementation of OPMET Data Exchange using IWXXM in the EUR Region, EUR Doc 033

(paragraph 4.2.78 refers)

Appendix provided in a separate file

Appendix R – EUR OPMET Data Management Handbook, EUR Doc 018

(paragraph 4.2.81 refers)

Appendix provided in a separate file

Appendix S – Update to the METG Terms of Reference in EANPG Handbook, EUR Doc 001

(paragraph 4.2.85 refers)

EUR MET SG ToRs**METEOROLOGY GROUP (METG)****Terms of Reference and Composition**

Establishment Renamed in 1990. EANPG Decision 32/9

Terms of reference

The Meteorology Group (METG) is established by EANPG to pursue the tasks of the Group in the field of aeronautical meteorology in support to the relevant ICAO Strategic Objectives (mostly Safety and Efficiency, and to certain extent, Environment and Continuity) with the following TORs:

- a) Ensure the continuous and coherent development of the MET Part of the European electronic Air Navigation Plan (eANP) and other relevant regional documents taking into account the evolving operational requirements in the EUR Region and the need for harmonization with the adjacent regions in compliance with the Global Air Navigation Plan;
- b) Monitor and coordinate implementation of the relevant ICAO SARPs and regional meteorological procedures, facilities and services by the EUR States and where necessary ensure harmonization, taking due account of financial and institutional issues;
- c) Review, identify and address deficiencies and shortcomings that constitute major obstacles to the provision of safe and efficient MET service, and recommend remedial actions;
- d) Foster implementation by facilitating the exchange of know-how and transfer of knowledge and experience, in particular, between the Western and Eastern parts of the Region;
- e) Provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the EUR/NAT ANP and ASBU methodology;
- f) Provide input to the work of appropriate ICAO bodies in the field of aeronautical meteorology, according to the established procedures;
- g) Receive and discuss proposals from States for developing new or amending existing ICAO provisions.
- h) Discuss consequences of scientific issues impacting operational aeronautical meteorology including and developments of latest technology from pilot research programmes and findings from local/ regional initiatives with the aim to improve the service provision in the EUR region.

Work Programme

To ensure that the objectives of METG are met in accordance with the TORs, the group shall conduct its work according to a Work Programme endorsed by EANPG and kept under review by the COG. The following are the main principles to be followed in setting up the Work Programme of METG:

- a) The work programme shall be composed of tasks and projects with clearly identified deliverables, target dates and responsibilities;
- b) The tasks/projects should cover the main ~~implementation~~ areas of aeronautical meteorology MET which are subject to regional planning and implementation; the tasks/ projects should be realistic and synchronized with other ICAO regional or global tasks/projects. c) The progress on the tasks/projects should be reviewed regularly by METG and reported to COG and EANPG to ensure that the target dates are met and the deliverables are of required quality.
- d) To facilitate the execution of its work programme, METG may set up Project Teams, if and when required, charge them with specific tasks and define target dates for their completion. After completion of the task(s), the Project Team(s) will be dissolved. In the case a Project Team or Group is needed for a significant duration (several years or more) such as the Data Management Group (DMG) and Project Team on Implementing of MET Services in the Eastern Part of the EUR Region including Central Asia (PT/EAST), Terms of Reference are provided under the METG Terms of Reference.

In conducting its activities, METG should follow the following guidance given to the Group by the EANPG and COG:

- a) Maintain close coordination with relevant EANPG contributory bodies to ensure harmonious development of the EUR air navigation system as a whole;
- b) Conduct periodic reviews and originate, as necessary, proposals for amendment of Part V - MET of the EUR electronic Air Navigation Plan (eANP). and EUR SUPPs (Doc 7030);
- c) Seek co-ordination and harmonization with the relevant planning and implementation activities in other ICAO Regions;
- d) Use different techniques to monitor implementation in the States (such as, regional surveys, monitoring exercises, regional tests and simulations, etc.) and identify deficiencies; conduct risk analysis to prioritize the identified deficiencies and prepare proposals to EANPG to ensure the urgent resolution of safety-related MET deficiencies;
- e) Identify areas where assistance to individual States or sub-regions is necessary to eliminate deficiencies and improve harmonized implementation of the MET facilities and services through the established mechanisms (e.g., SIP or ICAO TCP projects) and prepare proposals thereon;
- f) Ensure close liaison between EANPG and the Meteorology Panel (METP) and its associated working groups (Working Group on MET Requirements & Integration (WG-MRI), Working Group on MET Information and Service Development (WG-MISD), Working Group on Meteorological Information Exchange (WG-MIE) and Working Group on MET Operations Group (WG-MOG)) established by ANC. Relevant tasks associated with the METP and its working groups are provided in the Attachment. Provide feed-back received from States on problems impeding implementation which need to be addressed by appropriate ICAO bodies;
- g) Assist the Secretariat in developing and keeping up-to-date of regional guidance material as necessary, to foster the implementation by the States of the global requirements and regional procedures on aeronautical meteorology;
- h) Prepare proposals and support organization of regional seminars and workshops in the field of aeronautical meteorology with emphasis on implementation issues;
- i) Pay appropriate attention to activities in the field of aeronautical meteorology within other international bodies (WMO, EASA, EUROCONTROL, EC) on regional issues and analyze related implementation aspects;

- j) Identify and refer to COG and EANPG emerging institutional issues related to the planning and implementation of the meteorological services and facilities in order to ensure that such issues are addressed in a coherent manner with the respective ICAO plans, strategies and provisions.

4. Composition of the METG

Representatives from all ICAO Contracting States in the EUR air navigation region and part of EUR ANP, Iceland, United States and International Organisations (CANSO, EUROCONTROL, IAOPA, IATA, IFALPA, WMO)

Attachment – relevant tasks associated with the MET Panel and its' associated working groups

Parent Group	Task	Who	When
WG-MRI	Activate EUR MET/ATM TF to address regional implementation of provisions (Annex 3, PANS-MET) for MET support to selected ASBU Block 1 modules (e.g. support to trajectory based operations, terminal area operations) that would become applicable in 2018 2020.	COG (METG recomm.)	Late 2016 2018
WG-MISD	Provide WG MISD input on gaps identified in the nuclear exercise called NUCLEAR14 conducted by the EUROCONTROL Network Manager (NM) with support of the European Aviation Crisis Coordination Cell (EACCC) from 19 to 20 November 2014.	ICAO EUR/NAT RO	July 2015
	Provide WG MISD input on recommendations developed at the EUROCONTROL workshop to identify short term improvements to support aviation crisis management decision making to be held 22 or 28 September 2015.	ICAO EUR/NAT RO	Oct 2015
	Monitor global developments that may assist in the development of EUR/NAT contingency plan for nuclear emergency (COG Conclusion 50/07 and NAT SPG Conclusion 47/07 refers). Proposals for Amendment of ICAO Annex 3 with respect to release of radioactive material into the atmosphere for endorsement by the MET Panel expected in September October 2016. Short term solution likely with 3D contamination charts and associated guidance for EACCC. Long term solution would include advisory dimension, use of initial source parameters and eventually threshold levels acceptable to passengers, crew and aircraft	METG, COG, NAT SPG, EACCC	Sep 2016 Oct 2016 Nov 2018+

	components.		
	Monitor developments associated with Regional Hazardous Weather Advisory Centres, and where applicable, an implementation strategy needed by EANPG in 2019 for 2020 applicability date. Selection process to be provided by ICAO.	METG, COG, EANPG	2018- 2019 2020
	Monitor developments associated with space weather information (e.g. impact to HF, GNSS, aircraft systems, aircrew and passengers) and space weather selection criteria (with assistance by WMO). An implementation strategy needed by EANPG in 2016 and/or 2017 is needed for 2018 applicability date.	METG, COG, EANPG	2016-2017
	Monitor developments associated with volcanic ash information in ASBU Block 1 (2018-2023) since two VAACs reside in the EUR Region and States may have to assist in implementation (e.g. possible SO2 provisions; providing VAACs information from sensors located within their State).	METG	2018
	Monitor developments associated with World Area Forecast System, particularly ASBU Block 1 (2018-2023).	METG	2018
WG-MIE	<p>Monitor developments related to testing of the ATS message handling system (AMHS) in relation to the exchange of digital aeronautical meteorological information (global OPMET information and WAFS forecasts). Results may have an impact on implementation and these results may be considered at the proposed workshop on IWXXM for implementation by ROCs in 2016 as well as the proposed inter regional workshop, Service Improvement through integration of Digital AIM, MET and ATM information in 2017.</p> <p>Prepare for exchange of METAR and SPECI, TAF, SIGMET, AIRMET, VAA and TCA in IWXXM by November 2020 by addressing designation and responsibilities of Regional Translation</p>	DMG, METG in coordination with AFSG	2016- 2017 2020

	Centres, validation, extended AMHS implementation (in coordination with AFSG) and inter-regional exchange.		
	Consider developments of WG-MIE in proposed inter-regional workshop, <i>Service Improvement through integration of Digital AIM, MET and ATM information in 2017</i> , as well as any regional workshops on IWXXM.	DMG	2017
	Monitor developments related to MET-in-SWIM	DMG, METG in coordination with AFSG	2018+ 2020+
WG-MOG	Assure SADIS 2G users acquire Secure SADIS FTP before termination of SADIS Satellite Broadcast in July 2016.	METG	April 2016
	Provide first draft WMO abbreviated header lines for SIGMET and advisories developed by the EUR DMG.	DMG, METG	Sep 2015
	Monitor feasibility study on making area forecasts for low-level flights issued in graphical form available on Secure SADIS FTP as this may impact exchange of information in this regard by States.	DMG, METG	2015-2016 2017
	Monitor developments related to volcanic ash provisions in order to adapt exercise directives with new provisions if adopted (e.g. confidence levels, T+24 VAG, special air-report on no-ash, re-suspended ash). IAVWOPSG tasks still open (e.g. improving dissemination of aircraft reports on volcanic ash to VAACs that could be included in regional guidance material).	DMG, METG	2015-2016 2017-2018

(whole section added)**Data Management Group (DMG) of METG****Terms of Reference and Composition****Establishment:**

EUR Bulletin Management Group (BMG) replaced by EUR Data Management Group (METG Decision 20/06 refers, METG/20 held from 6-10 Sep 2010 in Paris)

Objectives

The Data Management Group of the METG (DMG) was established by METG to optimize and manage OPMET data distribution within the EUR Region as well as interregional OPMET distribution to and from the EUR Region.

- Support the implementation of System Wide Information Management (SWIM)
- ICAO Weather Information Exchange Model (IWXXM)
 - Monitor and consider outcomes from WG/MIE, IMP and coordinate when necessary with AFSG and other inter-regional groups
 - Develop implementation plan
 - Update EUR Doc 033 and EUR Doc 018 when necessary
- Availability management
 - RODEX
 - Routine monitoring and ad-hoc exercises
- Quality management
 - Validation
 - Timeliness
 - Performance indices
- Change management
 - METNO procedure
 - RODC
 - IWXXM support
- Problem management
 - PHP (only for AOP aerodromes)
- Ad-hoc tasks received from METG relating to the OPMET data distribution
- Any other task in support of data management

Composition of the DMG

One to two experts from

Algeria

Austria (ROC rep., SIGMET and Special AIREP test focal point, RODB)

Belgium (Vice Chair, DMG focal point, RODB, RODB focal point)

Denmark (EUR Doc 18 and RODC focal point)

France (Chair, ROC representative, volcanic ash focal point, RODB)

Netherlands (SADIS User – Monitoring Reference Point)

Romania (Secretary)

Russian Federation (focal point for PT/EAST States on implementation of OPMET related provisions (e.g. IWXXM, PHP))

United Kingdom (ROC representative, SADIS OPMET Gateway, PHP manager)

ICAO

Note: a limited number of experts from States beyond those listed may at times be necessary to support complex DMG activities. MID ROC Jeddah and back-up ROC Bahrain are encouraged to participate in DMG meetings, when deemed necessary.

Abbreviations:

ROC – Regional OPMET Centre

RODB – Regional OPMET Data Bank

RODC – Regional OPMET Data Catalogue

RODEX – Regional OPMET Data Exchange

PHP – Problem Handling Procedure

Meetings

Three meetings occur each year, noting that ICAO support is expected for three meetings per year.

Documentation

- DMG procedures should be documented and kept up-to-date in the EUR OPMET Data Management Handbook
- Working and information papers as well as summary of discussions should be provided on the ICAO Portal under the group name DMG.

Parent group

The DMG reports to the METG. Updates to the DMG procedures, composition and terms of reference are subject to approval by the METG

(whole section added)**Project Team on Implementing of MET Services in the Eastern Part of the EUR Region including Central Asia (PT/EAST) of METG****Terms of Reference and Composition**

Establishment: PT/EAST was established in 2000

The PT/EAST reports to METG to address the following:

- Deficiencies
 - Identify, mitigate and monitor deficiencies related to the provision of meteorological services to international civil aviation.

- Competency assessment
 - Implement competence assessment of aeronautical meteorological personnel according to WMO provisions;
 - Exchange experience on implementation and documentation in this regard.

- Space weather
 - Prepare proposals on implementing Global and/or Regional Centre(s) of Space Weather in accordance to ICAO selection process when it becomes available.

- Hazardous weather
 - Prepare proposals on implementing Regional Hazardous Weather Advisory Centre(s) in accordance to ICAO selection process when it becomes available;
 - Implement necessary weather information network (e.g. Doppler meteorological radars) to support the above.

- IWXXM implementation
 - Implement the ICAO Meteorological Information Exchange Model (IWXXM) and share implementation experience with PT/EAST States.

- QMS
 - Implement Quality Management System (QMS) with ISO 9001:2015 standards

- English language proficiency
 - Determine need of implementing ELP based on guidance material expected to be available at the end of 2016;
 - Develop implementation plan on ELP where applicable.

- Implementation of Amendment 77 to Annex 3
 - implement Amendment 77 to Annex 3 (noting 77B that removes state of the runway in supplementary information in METAR and SPECI is not applicable until 5 Nov 2020) and subsequent amendments in the future;

- provide assistance in implementation by sharing related changes in national regulatory documents of PT/EAST States.
- to facilitate participation in implementing the WMO Strategic and Operating Plan and ICAO Global Air Navigation Plan.
- Prepare proposals/sub regional initiatives in the field of aeronautical meteorology (MET) contributing to the **safety** and **efficiency** of international air navigation

Composition of the PT/EAST

Armenia

Azerbaijan

Belarus

Georgia (Rapporteur)

Kazakhstan

Kyrgyzstan

Republic of Moldova

Russian Federation

Turkmenistan

Ukraine

Uzbekistan

Meetings

One meeting should occur each year and work should be done through correspondence between meetings.

Documentation

Working and information papers as well as summary of discussions should be provided on the ICAO Portal under the group name PTEAST.

Note that the Project Team Meteorological Information Services Operations (MET-OPS) manages the harmonization of all aspects related to the operational service delivery of MET information for International Air Navigation in the ICAO EUR Region, excluding elements related to the international MET information exchange in scope of the Data Management Group (DMG).

Appendix T – 2015 ASBU Implementation Monitoring Report

(paragraph 4.3.12 refers)

Appendix provided in a separate file

Appendix U – ICAO ASBU Implementation Monitoring Questionnaire

(paragraph 4.3.14 refers)



ICAO ASBU Implementation Monitoring Questionnaire

Reference period 2016

V.4 – 17/11/2016

Please fill in the information highlighted in yellow.

For those objectives that are reported “Ongoing” (Partially Completed) and “Late” please indicate in the respective field the estimated percentage of completion (eg 25%, 40%, 80%, etc).

In each Module, a number of relevant actions is provided that define the actions to be taken in order to implement the concerning Module. Please note the list of relevant actions is not exhaustive, more information related to the relevant actions can be found in the European ATM Mater Plan Level 3 Implementation Plan (ESSIP Plan 2016), Engineering View and Implementation View:

1-http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/guidance/2016-implementationobjectives_detailed.pdf

2-<http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/2016-masterplan-implementationplan.pdf>

Annex A presents the guidance on how to determine the progress of each Module.

Annex B contains the detailed description of relevant actions for Priority 1 Modules.

Annex C includes the detailed description of relevant actions for Other Block 0 Modules.

Requested information on Block 0, Priority 1 Modules

<State>

B0-ACAS

ATC16	Implement ACAS II compliant with TCAS II change 7.1	12/2015	Status
ACAS Improvements		Completion Date	Percentage of completion (%)
Relevant actions: <ul style="list-style-type: none"> • Deliver operational approval for ACAS II version 7.1 equipped aircraft • Establish ACAS II (TCAS II version 7.1) performance monitoring • Obtain airworthiness certification for ACAS II version 7.1 equipped aircraft • Obtain operational approval for ACAS II version 7.1 equipped aircraft 			
Explain how and when you intend to complete this objective			

B0-APTA

NAV10	Implement APV procedures	
Optimization of Approach Procedures including vertical guidance	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Design and Publish APV/Baro and/or APV/SBAS procedures Publish in AIPs all coordinates data in WGS-84 in accordance with ICAO Annex 15 requirements 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

B0-DATM

INF04	Implement integrated briefing	
Service Improvement through Digital Aeronautical Information Management	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Implement integrated briefing 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

ITY-ADQ	Ensure quality of aeronautical data and aeronautical information	
Service Improvement through Digital Aeronautical Information Management	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Implement a quality management system (QMS) Implement data quality requirements Implement the common dataset and digital exchange format Establish formal arrangements 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

B0-FICE

ATC17	Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer	
Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	12/2015	Status
Relevant actions: <ul style="list-style-type: none"> Upgrade and put into service ATC system to support the Basic procedure (specifically PAC and COD) Upgrade and put into service ATC system to support electronic dialogue procedure in Transfer of communication process Upgrade and put into service ATC system to support electronic dialogue procedure in Coordination process Develop safety assessment for the changes 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

ITY-COTR	Implementation of ground-ground automated co-ordination processes	
Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	12/2015	Status
Relevant actions: <ul style="list-style-type: none"> Implement flight data processing and exchange systems Implement processes such as, Notification; Initial Coordination; Revision of Coordination, etc. 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

ITY-FMTP	Apply a common flight message transfer protocol (FMTP)	
Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	12/2015	Status
Relevant actions: <ul style="list-style-type: none"> Upgrade and put into service communication systems to support information exchange via FMTP between FDPS(s) for the purpose of notification, coordination and transfer of the flights between ATC units Develop safety assessment for the changes 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

B0-SNET

ATC02.2	Implement ground based safety nets – Short Term Conflict Alert (STCA) - level 2		
Increased Effectiveness of Ground-Based Safety Nets – STCA		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Conduct safety oversight of the changes Implement the STCA function Develop safety assessment of the changes 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

ATC02.8	Implement ground based safety nets (level 2) of - Area Proximity Warning, Minimum Safe Altitude Warning		
Increased Effectiveness of Ground-Based Safety Nets – APW, MSAW		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Implement the APW function Implement the MSAW function 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

B0-SURF

AOP04.1	Implement Advanced Surface Movement Guidance and Control System (A-SMGCS) Level1		
Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Install required surveillance equipment Publish A-SMGCS Level 1 procedures (including transponder operating procedures) in national aeronautical information publications Implement approved A-SMGCS operational procedures at airports equipped with A-SMGCS Equip Ground vehicles Mandate the carriage of required equipment 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

AOP04.2	Implement Advanced Surface Movement Guidance and Control System (A-SMGCS) Level 2		
Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Install required A-SMGCS control function equipment Implement approved A-SMGCS Level 2 operational procedures at airports equipped with A-SMGCS Level 2 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

Additional information on other Block 0 Modules**B0-ACDM**

AOP05	Implement Airport Collaborative Decision Making (CDM)	
Improved Airport Operations through Airport- CDM	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Define and implement local Air Navigation Service (ANS) procedures for information sharing through Letters of Agreement (LoAs) and/or Memorandum of Understanding (MoU) Define and implement local procedures for turnaround processes Define and implement variable taxi-time and pre-departure sequencing procedure Define and implement procedures for CDM in adverse conditions, including the de-icing 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

B0-ASUR

ITY-SPI	Surveillance performance and interoperability	
Initial capability for ground surveillance	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Conduct safety oversight for the existing surveillance chain Ensure interoperability of surveillance data Conduct Safety Assessment for the existing surveillance chain Conduct Safety Assessment for changes introduced to the surveillance infrastructure Carriage and operation of Mode S Elementary Surveillance Carriage and operation of ADS-B Out 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

B0-FRTO

AOM19.1	ASM support tools to support A-FUA	
Improved Operations through Enhanced En-Route Trajectories	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> • Deploy automated ASM support systems • Improve planning and allocation of airspace booking • Implement interoperability of local ASM support system with NM system 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

NAV03	Implementation of P-RNAV	
Improved Operations through Enhanced En-Route Trajectories	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> • Develop and implement RNAV arrival and departure procedures for P-RNAV approved aircraft • Provide appropriate terrestrial navigation infrastructure to support RNAV operations • Install appropriate RNAV equipment • Implement P-RNAV routes where identified as providing benefit • Develop a Local P-RNAV Safety Case 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		

B0-CDO

ENV01	Implement Continuous Descent Operations (CDO) techniques for environmental improvements	
Improved Flexibility and Efficiency in Descent Profiles (CDO)	12/2018	Status
Relevant actions: <ul style="list-style-type: none"> • Coordinate activities and implement rules and procedures for the application of CDO techniques whenever practicable in Approach Control Service in close cooperation with aircraft operators • Support CDO measures, implement monitoring of performance and feedback to ANSP and users where equipment is available. Provide the main link with the local community • Include CDO techniques in the aircrew training manual and support its implementation wherever possible 	Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective		
NAV03	Implementation of P-RNAV	
Improved Flexibility and Efficiency in Descent Profiles (CDO)	12/2018	
See FRTO same actions and status		

B0-NOPS

FCM01	Implement enhanced tactical flow management services		
Improved Flow Performance through Planning based on a Network-Wide view		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Supply ETFMS (Enhanced Tactical Flow Management System) with Basic Correlated Position Data Supply ETFMS with Standard Correlated Position Data Receive and process ATFM data from the NM Inform NM of flight activations and estimates for ATFM purposes Inform NM of re-routings inside FDPA for ATFM purposes Inform NM of aircraft holding for ATFM purposes Supply NM with Departure Planning Information (DPI) 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

FCM03	Collaborative Flight Planning		
Improved Flow Performance through Planning based on a Network-Wide view		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Provide flight plan message processing in ICAO format Automatically process FPLs derived from RPLs Provide flight plan message processing in ADEXP format Processing of APL and ACH messages Automatically provide AFP for missing flight plans Automatically provide AFP message for change of route Automatically provide AFP message for a diversion Automatically provide AFP message for a change of flight rules or flight type Automatically provide AFP message for a change of requested cruising level Automatically provide AFP message for change of aircraft type Automatically provide AFP message for change of aircraft equipment 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

B0-RSEQ

ATC07.1	Implement arrival management tools		
Improve Traffic flow through Runway Sequencing (AMAN/DMAN)		12/2018	Status
Relevant actions: <ul style="list-style-type: none"> Implement initial basic arrival management tools Implement initial basic AMAN procedures Adapt TMA organisation to accommodate use of basic AMAN Implement basic AMAN functions 		Completion Date	Percentage of completion (%)
Explain how and when you intend to complete this objective			

ATC15.1	Implement, in En-Route operations, information exchange mechanisms, tools and procedures in support of Basic AMAN		
Improve Traffic flow through Runway Sequencing (AMAN/DMAN)		12/2018	Status
Relevant actions:		Completion Date	Percentage of completion (%)
<ul style="list-style-type: none"> Adapt the ATC systems that will implement arrival management functionality in En-Route sectors in support of AMAN operations in adjacent/subjacent TMAs Implement ATC procedures in En-Route airspace/sectors that will implement AMAN information and functionality Develop safety assessment for the changes 			
Explain how and when you intend to complete this objective			

B0-TBO

ITY-AGDL	Initial ATC air-ground data link services above FL-285		
Improved Safety and Efficiency through the initial application of Data Link En-Route		12/2018	Status
Relevant actions:		Completion Date	Percentage of completion (%)
<ul style="list-style-type: none"> Ensure the publication of relevant information in the national aeronautical information publication Ensure ATN/VDL-2 availability, security policy and address management Procedures Ensure ground communication systems comply with air-ground communication requirements Deploy communication infrastructure to handle air-ground data link services Ensure the conformity of communications, flight data and initial flight plan processing systems and associated procedures Equip aircraft with data link equipment supporting the identified services Specify relevant operational procedures Arrange air-ground ATS data link service provision 			
Explain how and when you intend to complete this objective			

B0-CCO


Improved Flexibility and Efficiency Departure Profiles – Continuous Climb Operations		12/2018	Status
Relevant actions:		Completion Date	Percentage of completion (%)
<ul style="list-style-type: none"> Coordinate activities and implement rules and procedures for the application of CCO techniques (e.g. develop and implement PBN SIDs) whenever practicable in Terminal Area Control Service in close cooperation with aircraft operators Support CCO measures, implement route changes to facilitate CCOs, implement monitoring of performance and feedback to ANSP and users where equipment is available. Provide the main link with the local community Include CDO techniques in the aircrew training manual and support its implementation wherever possible 			
Explain how and when you intend to complete this objective			

B0-AMET

Meteorological Information supporting enhanced operational efficiency and safety	12/2018	Status
<p>Relevant actions:</p> <ul style="list-style-type: none"> • Availability of forecasts provided by: <ul style="list-style-type: none"> ○ world area forecast centres (WAFC) ○ volcanic ash advisory centres (VAAC) ○ tropical cyclone advisory centres (TCAC) • Implement required systems to provide aerodrome warnings including wind shear warnings and alerts • Make available at least the following operational meteorological information: <ul style="list-style-type: none"> ○ SIGMETs to provide information on occurrence of specific en-route weather phenomena ○ Other OPMET information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to occur at the aerodrome 	<p>Completion Date</p>	<p>Percentage of completion (%)</p>
<p>Explain how and when you intend to complete this objective</p>		

Annex A: ICAO ASBU monitoring – guidance and template

The following colours apply to the assessment of progress of each implementation objective and for each ICAO EUR State, where maps are used to illustrate progress.

 Completed	 No Plan
 Ongoing	 Not Applicable
 Planned	 Missing Data
 Late	

Definitions of individual progresses have been defined as follows in the LSSIP documents:

"Progress"	"Progress" Definition
Completed	<p>The development or improvement aimed by the Objective is reportedly fulfilled (it is either in operational use or there is reported on-going compliance by the stakeholder(s) as applicable).</p> <p>Relevant info should be provided confirming the completion, e.g. reference(s) to a national plan or publication(s), evidences of compliance with relevant national regulations, an audit confirming compliance or completion etc.</p>
Ongoing	<p>Implementation has started and is reportedly on-going, however not completed:</p> <ul style="list-style-type: none"> Some actions are completed or implemented, but the aimed development or improvement is not yet operational; or The development or improvement aimed through this objective is operational, but compliance with the applicable requirements or specifications is only partially achieved. <p>The Stakeholder's situation must be briefly but clearly explained in the "Comment" field, so that the reader may understand what is the current status and what are the local plans/schedule to achieve full completion.</p>
Planned	<ul style="list-style-type: none"> A planned schedule and proper (budgeted) action are specified and the activity is planned but implementation has not yet started.
Late	<ul style="list-style-type: none"> Part or all of the actions leading to completion of the objective are "Planned" to be achieved after the ESSIP target date; or their implementation is ongoing but will be achieved later than that date; or None or only too little actions have started vs. the timing needed for full implementation/ completion; or The ESSIP target date is already exceeded.
No Plan	<p>1) The Stakeholder has reviewed the Objective and:</p> <p>a) has no intention (yet) to plan or implement it (implying that the Stakeholder has given some consideration to the Objective and its possible benefits), or</p> <p>b) has not (yet) a defined or approved implementation plan and/or budget for the Objective concerned</p> <p>In the 1st situation, the Stakeholder should provide a clear rationale for his decision; while in the 2nd situation, the Stakeholder should at least provide a statement of intentions. Or</p> <p>2) The Stakeholder has neither reviewed the Objective nor considered its participation in the Objective concerned. The Stakeholder must then provide a statement of intentions.</p>
Not Applicable	<p>The Objective is found to be not applicable for this Stakeholder or State.</p> <p>Important: Do not confuse with "No Plan":</p> <p>So the difference between "No Plan" and "N/A" is like between "does not want to; has no intention" and "is not able to; cannot because of a justified reason".</p>
Missing Data	<p>Lack of data from a Stakeholder makes it impossible to define "Progress", for a State.</p> <p>"Missing Data" can be used as another means to challenge the Stakeholders for more consistent info, when other requests have failed. This is one of the ways in which can be indicated to the Stakeholders that the Agency considers insufficient or cannot accept their inputs so far for that particular SLoA/ Stakeholder/ Objective.</p>

Annex B: Detailed description of relevant actions for Priority 1 Modules

The objective of this Annex is to provide more detailed information on the activities required for the actions indicated in the questionnaire associated to each ESSIP Objective. More information can be found in European ATM Mater Plan Level 3 Implementation Plan (ESSIP Plan 2016), Engineering View and Implementation View:

1-http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/guidance/2016-implementationobjectives_detailed.pdf

2-<http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/2016-masterplan-implementationplan.pdf>

B0-ACAS

ATC16	Implement ACAS II compliant with TCAS II change 7.1
ACAS Improvements	
<ul style="list-style-type: none"> • Deliver operational approval for ACAS II version 7.1 equipped aircraft - The tasks to be done are as follows: <ul style="list-style-type: none"> - Instruction of the certification application file delivered by the applicant in accordance with the appropriate certification process; - Approval of pertinent training programs, checklists, operations manuals or training manuals, maintenance programs, minimum equipment lists or other pertinent documents or document revisions applicable to that operator. • Establish ACAS II (TCAS II version 7.1) performance monitoring - Establish a monitoring of the performance of ACAS in the ATC environment, as described in PANS-ATM (Procedures for Air Navigation Services - ICAO Doc. 4444 Fifteenth Edition 2007-ATM/501) • Obtain airworthiness certification for ACAS II version 7.1 equipped aircraft - Provide a certification application case to the competent authority for the state of registry of the aircraft to obtain airworthiness certification for their airframes equipped with ACAS II equipment. • Obtain operational approval for ACAS II version 7.1 equipped aircraft - In order to obtain operational approval by the Competent authority of the State from which they hold an Air Operator Certificate, operators must provide evidence which pertains to: <ul style="list-style-type: none"> - Changes to training and maintenance programmes; - Changes to manuals, operational procedures, minimum equipment lists; and - Other areas necessary for safe and effective TCAS use and the qualification of aircrews through the approved training programmes. 	

B0-APTA

NAV10	Implement APV procedures
Optimization of Approach Procedures including vertical guidance	
<ul style="list-style-type: none"> • Design and Publish APV/Baro and/or APV/SBAS procedures - Develop APV procedures at all instrument runway ends, either as the primary approach or as a back-up for precision approaches. The APV level to be implemented at different locations depends upon local requirements. This action includes the following tasks: <ul style="list-style-type: none"> - Identify runways where APV should be introduced; - Design APV procedures; - Publish APV procedures in national AIPs. • Publish in AIPs all coordinates data in WGS-84 in accordance with ICAO Annex 15 requirements - It is an essential requirement for RNAV procedures that all coordinates data published in AIPs, e.g. Runway Thresholds, Navigation Aids, Waypoints, etc, are surveyed with reference to the WGS84 standard. Following survey which may be undertaken in accordance with the Eurocontrol standard for WGS 84 survey (Doc 006), the data must be maintained with adequate integrity. 	

B0-DATM

INF04	Implement integrated briefing
Service Improvement through Digital Aeronautical Information Management	
<ul style="list-style-type: none"> • Implement integrated briefing - Implement and provide integrated briefing function. The data required during the pre-flight phase is provided and presented into one package in a flexible manner. This is about integrating all information relevant to a flight (AIS, Flight Plan, MET and ATFM) into one single output that can be tailored to the user-s needs. <p>Note: Level 5 is optional and it defines a single report to be provided by systems. At this level full integration is achieved and a single front-end application is used to access the briefing services. However these may have separate background applications hidden from the user. Level five allows the various briefing products (MET, AIS etc.) to be combined into a single output which may be tailored as requested by the pilot.</p> 	

ITY-ADQ	Ensure quality of aeronautical data and aeronautical information
Service Improvement through Digital Aeronautical Information Management	
<ul style="list-style-type: none"> • Implement a quality management system (QMS) – Implement and maintain a Quality Management System for the provision of Aeronautical Information Services. An ISO 9001 certificate issued by an appropriate accredited organisation shall be considered as a sufficient means of compliance. Additionally safety management and security management objectives are included in the QMS as described in Art 10 of EU regulation 73/2010. As part of the QMS it should be ensured that personal responsible for tasks in the provision of Aeronautical data/information are adequately trained, competent and authorised for the job they are required to do. • Implement data quality requirements – Implement the data quality requirements as per Annex 15, in terms of completeness, timeliness, consistency, accuracy, resolution and integrity. • Implement the common dataset and digital exchange format Aeronautical Data/Information shall be provided according to a common dataset specification (IAIP, TOD, Aerodrome Mapping Data) (reference Annex 15), ensuring that the data and information are transferred in accordance with the data exchange format requirements (AIXM). • Establish formal arrangements between Aeronautical Information providers and data originators for the exchange of Aeronautical data/information. 	

B0-FICE

ATC17	Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer
Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	
<ul style="list-style-type: none"> • Upgrade and put into service ATC system to support the Basic procedure (specifically PAC and COD) - When bilaterally agreed between ANSPs, upgrade and put into service ATC system to support the Basic procedure, specifically Preliminary Activation Message (PAC) and, if applicable, SSR Code Assignment Message (COD). • Upgrade and put into service ATC system to support electronic dialogue procedure in Transfer of communication process - When bilaterally agreed between ANSPs, upgrade and put into service ATC system to support electronic dialogue procedure in Transfer of communication process using OLDI. • Upgrade and put into service ATC system to support electronic dialogue procedure in Coordination process - When bilaterally agreed between ANSPs, upgrade and put into service ATC system to support electronic dialogue procedure in Coordination process using OLDI. • Develop Safety case for the changes - Develop safety assessment of the changes, notably upgrades of the system to support Electronic Dialogue during Coordination and Transfer. The tasks to be done are as follows: <ul style="list-style-type: none"> - Conduct hazard identification, risk assessment in order to define safety objectives and safety requirements mitigating the risks; - Develop safety assessment; - Deliver safety assessment to the NSA, if new standards are applicable or if the severity class of identified risks is 1 or 2. This safety assessment shall be based on fully validated/recognised method. 	

ITY-COTR	Implementation of ground-ground automated co-ordination processes
Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	
<ul style="list-style-type: none"> • Implement flight data processing and exchange systems - The system shall provide all the information required for the display, processing and compilation of the system information exchanged in the process specified. • Implement processes such as, Notification; Initial Coordination; Revision of Coordination, etc. <ul style="list-style-type: none"> - Implement a process of initial coordination of flight between ATC units. <p>The Initial Coordination process satisfies the following operational requirements: - Replace the verbal boundary estimate by transmitting automatically details of a flight from one ATC unit to the next prior to the transfer of control; - Update the basic flight plan data in the receiving ATC unit with the most recent information; - Facilitate distribution and display of flight plan data within the receiving ATC unit to the working positions involved; - Enable display of correlation in the receiving ATC unit; - Provide transfer conditions to the receiving ATC unit.</p> <p>The Revision of Coordination process is used to transmit revisions to co-ordination data previously sent in an Initial Coordination message provided that the accepting unit does not change as a result of the modification.</p>	

ITY-FMTP	Apply a common flight message transfer protocol (FMTP)
Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	
<ul style="list-style-type: none"> • Upgrade and put into service communication systems to support information exchange via FMTP between FDPS(s) for the purpose of notification, coordination and transfer of the flights between ATC units - Ensure that the communication systems supporting the coordination procedures between ATC units using a peer-to-peer communication mechanism and providing services to general air traffic shall apply the flight message transfer protocol (FMTP). The tasks to be performed are as follows: <ul style="list-style-type: none"> - Define requirements based on relevant standards/regulations; - Upgrade communication systems to comply with defined requirements; - Verify compliance with Interoperability Regulation(s); - Integrate upgraded communication systems into the EATM Network; - Put into service upgraded communication systems. • Develop safety assessment for the changes - Notify the NSA of planned changes and develop safety assessments of the changes for the upgrades of communication systems which support information exchange using a peer-to-peer communication mechanism via FMTP between FDPS(s). The tasks to be performed are as follows: <ul style="list-style-type: none"> - Notify the NSA of planned changes; - Conduct hazard identification, risk assessment in order to define safety objectives and safety requirements mitigating the risks; - Develop safety assessment; - Deliver a safety assessment report to the NSA, if new standards are applicable or if the severity class of identified risks is 1 or 2. <p>This safety assessment shall be based on fully validated/recognised method.</p> 	

B0-SNET

ATC02.2	Implement ground based safety nets – Short Term Conflict Alert (STCA) - level 2
Increased Effectiveness of Ground-Based Safety Nets – STCA	
<ul style="list-style-type: none"> • Conduct safety oversight of the changes - Verify that a safety assessment is conducted and review the safety assessment report before acceptance. Conduct the safety oversight of changes introduced by the introduction of Short Term Conflict Alert - level 2 ground safety net. The tasks to be done are as follows: <ul style="list-style-type: none"> - Analyse the provided safety assessment in detail; - Review safety arguments provided in the safety assessment report; - Notify the ANSP/ANS by written letter of the accepted change. The safety case shall be developed in accordance with a validated / recognised safety assessment method. • Implement the STCA function - Implement STCA systems and associated procedures in line with EUROCONTROL Specification and related guidance material in En-Route airspace, applicable TMAs and Military ATC units providing radar services. • Develop safety assessment of the changes - Develop safety assessment of the changes, notably ATC systems and procedures that will implement Short Term Conflict Alert (STCA) - level 2 functionality and associated procedures. The tasks to be done are as follows: <ul style="list-style-type: none"> - Conduct hazard identification, risk assessment in order to define safety objectives and safety requirements mitigating the risks; - Develop safety assessment; - Deliver a safety assessment report to the NSA, if new standards are applicable or if the severity class of identified risks is 1 or 2. This safety assessment shall be based on fully validated/recognised method. 	

ATC02.8	Implement ground based safety nets (level 2) - Area Proximity Warning and Minimum Safety Altitude Warning
Increased Effectiveness of Ground-Based Safety Nets – STCA	
<ul style="list-style-type: none"> • Implement the APW function - Put into service ground-based safety tool systems and associated procedures supporting the APW function in En-Route airspace, applicable TMAs and Military ATC units providing surveillance services. • Implement the MSAW function - Put into service ground-based safety tool systems and associated procedures supporting the MSAW function. 	

B0-SURF

AOP04.1	Implement Advanced Surface Movement Guidance and Control System (A-SMGCS) Level1
Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	

- **Install required surveillance equipment** - Install all the surveillance equipment and related systems as specified in the functional specifications for A-SMGCS, in order to enable aerodrome controllers to locate and identify aircraft and vehicles on the manoeuvring area (in co-operation with Airport operators, as appropriate).
- **Publish A-SMGCS Level 1 procedures (including transponder operating procedures) in national aeronautical information publications** - Incorporate the agreed and validated A-SMGCS Level 1 operating procedures into national aeronautical information publications.
- **Implement approved A-SMGCS operational procedures at airports equipped with A-SMGCS** - Develop and apply agreed and validated A-SMGCS Level 1 procedures as an integral part of the aerodrome control service.
- **Equip Ground vehicles** - Ensure vehicles operating on the manoeuvring area of airports equipped with A-SMGCS Level 1 are equipped with the necessary systems as specified in the functional specifications for A-SMGCS, to provide their position and identity to the A-SMGCS Level 1 surveillance system.
- **Mandate the carriage of required equipment** - Mandate the equipage of aircraft operating into airports equipped with A-SMGCS Level 1 with the necessary systems to provide their position and identity to the A-SMGCS Level 1 surveillance system.

AOP04.2**Implement Advanced Surface Movement Guidance and Control System (A-SMGCS) Level 2****Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)**

- **Install required A-SMGCS control function equipment** - Install A-SMGCS control function systems in order to enable the detection of conflicts & intrusions in accordance with A-SMGCS Level 2 requirements (in co-operation with ANSPs, as appropriate). Such equipment should be provided in addition to the equipment requirements for A-SMGCS Level 1.
- **Implement approved A-SMGCS Level 2 operational procedures at airports equipped with A-SMGCS Level 2** - Apply agreed and validated A-SMGCS Level 2 procedures as an integral part of the aerodrome control service.

Annex C: Detailed description of relevant actions for Other Block 0 Modules

The objective of this Annex is to provide more detailed information on the activities required for the actions indicated in the questionnaire associated to each ESSIP Objective. More information can be found in European ATM Mater Plan Level 3 Implementation Plan (ESSIP Plan 2016), Engineering View and Implementation View:

1-http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/guidance/2016-implementationobjectives_detailed.pdf

2-<http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/2016-masterplan-implementationplan.pdf>

B0-ACDM

AOP05	Implement Airport Collaborative Decision Making (CDM)
Improved Airport Operations through Airport- CDM	
<ul style="list-style-type: none"> • Define and implement local Air Navigation Service (ANS) procedures for information sharing through Letters of Agreement (LoAs) and/or Memorandum of Understanding (MoU) - Agree, define and implement local procedures for information sharing and information management systems based on A-CDM Implementation Manual, in co-operation with other stakeholders involved.(consult the supporting material for AOP05 concerning full references of A-CDM Manuals) http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/reports/2015-essiplan-detailedobjectives.pdf. • Define and implement local procedures for turnaround processes - Define and implement local procedures for turnaround processes (milestone approach) based on A-CDM Implementation Manual and through LoAs. • Define and implement variable taxi-time and pre-departure sequencing procedure - Agree, define and implement local procedures for pre-departure sequencing taking into account preferences based on A-CDM Implementation Manual, in co-operation with other stakeholders involved. • Define and implement procedures for CDM in adverse conditions, including the de-icing - Agree, define and implement local CDM procedures to manage adverse conditions based on A-CDM Implementation Manual, in co-operation with other stakeholders involved. 	

B0-ASUR

ITY-SPI	Surveillance performance and interoperability
Initial capability for ground surveillance	
<ul style="list-style-type: none"> <li data-bbox="196 512 1437 688">• Conduct safety oversight for the existing surveillance chain - Verify that the necessary safety assessments for the existing surveillance chain (systems identified in Art. 2.1 (b), (c) and (d) of Regulation (EU) No 1207/2011 (SPI-IR)), as required by Art 9.1 of the Regulation are conducted by the parties concerned and review, as appropriate, the safety assessment report(s) before their acceptance. Note :‘existing’ refers to systems in place at the date of entry into force of Regulation (EU) 1207/2011 <li data-bbox="196 726 1437 846">• Ensure interoperability of surveillance data - As required by Article 5(1) of the Regulation (EU) No 1207/2011 (SPI-IR), air navigation service providers shall ensure interoperability of all surveillance data transferred from their ground-based surveillance systems and their surveillance data processing systems to other navigation service providers are subject to a common protocol. <li data-bbox="196 884 1437 1003">• Conduct Safety Assessment for the existing surveillance chain - Conduct a safety assessment: for all existing ground-based surveillance systems, surveillance data processing systems and ground-to-ground communications systems used for the distribution and processing of surveillance data, as required in Art. 9.1 and Annex VI of SPI-IR. <li data-bbox="196 1041 1437 1371">• Conduct Safety Assessment for changes introduced to the surveillance infrastructure - Conduct a safety assessment of the changes introduced to systems and associated procedures, identified in Art. 2.1 (b), (c) and (d) of SPI-IR in order to achieve compliance with Article 9.2 of the aforementioned regulation. The tasks to be done are as follows: <ul style="list-style-type: none"> <li data-bbox="245 1188 1437 1245">- Conduct hazard identification, risk assessment in order to define safety objectives and safety requirements mitigating the risks; <li data-bbox="245 1251 1437 1278">- Develop safety assessment; <li data-bbox="245 1285 1437 1341">- Deliver a safety assessment report to the NSA, if new standards are applicable or if the severity class of identified risks is 1 or 2. This safety assessment shall be based on fully validated/recognised method. <li data-bbox="196 1409 1437 1528">• Carriage and operation of Mode S Elementary Surveillance - Equip and certify for operational use of secondary surveillance radar transponders having the Mode S Elementary Surveillance capability, as set out in Part A of Annex II of the SPI-IR, the State aircraft operating as GAT in accordance with IFR rules. <li data-bbox="196 1566 1437 1730">• Carriage and operation of ADS-B Out - Equip with and certify for operational use of Mode S Enhanced Surveillance and ADS-B Out on 1090 Extended Squitter avionics, as set out in Part B and Part C of Annex II of the SPI-IR the transport-type State aircraft operating as GAT in accordance with IFR rules with a maximum certified take-off mass exceeding 5 700 kg or having a maximum cruising true airspeed capability greater than 250 knots. This is in addition to the capability set out in Part A of that Annex (Mode S Elementary Surveillance). 	

B0-FRTO**AOM19.1****ASM support tools to support A-FUA****Improved Operations through Enhanced En-Route Trajectories**

- **Deploy automated ASM support systems** - Deploy Airspace Management (ASM) support systems (LARA or locally developed ones) to support the local or subregional airspace planning and allocation.
- **Improve planning and allocation of airspace booking** - Improve planning and allocation of reserved/segregated airspace at pre-tactical ASM level 2 by:
 - Planning reserved/segregated airspace utilization in accordance with actual need.
 - Releasing reserved/segregated non used airspace as soon as activity stops.
 - Utilizing reserved/segregated airspace that has not been planned in AUP (ad-hoc allocation - Procedure 3 as defined in the ERNIP Part 3 -ASM Handbook).
 This should be enabled by the measurement of FUA Indicators, described in detail in Section 7 of the EUROCONTROL Handbook for Airspace Management, using PRISMIL (Pan-European Repository of Information Supporting Military) or a similar tool providing the required functionality. The measurement of FUA performance is required by Article 4(1)(m-n) of the FUA Regulation (Regulation (EC) No 2150/2005) and by the SES Performance Scheme (Regulation (EU) No 390/2013).
- **Implement interoperability of local ASM support system with NM system** -- Adapt local ASM support systems to make them interoperable with NM system.

NAV03**Implementation of P-RNAV****Improved Operations through Enhanced En-Route Trajectories**

- **Develop and implement RNAV arrival and departure procedures for P-RNAV approved aircraft** - Design, develop and implement RNAV arrival and departure procedures, and continuous descent approaches and declare these in the appropriate AIPs.
- **Provide appropriate terrestrial navigation infrastructure to support RNAV operations** – Implement P-RNAV using basic GNSS (i.e. standalone GPS without ground or space based augmentations with RAIM and possibly also with Inertial Augmentation) or DME/DME modes of navigation. However, RNAV procedures are dependent upon sufficient DME transponders being distributed geographically to allow for DME/DME navigation in the absence of onboard GNSS equipment or GNSS failure. This requirement may mean new DME stations and/or the relocation of existing stations.
- **Install appropriate RNAV equipment** – Install equipment meeting TGL 10. Where existing RNAV/FMS equipment meets only B-RNAV requirements, there will be a need to update or replace the systems. Many aircraft are already equipped with RNAV/FMS meeting TGL 10. For these it will be necessary to gain regulatory approval which will include operational approval for the application of the system on P-RNAV routes.
- **Implement P-RNAV routes where identified as providing benefit** - Implement P-RNAV routes where such implementation can be demonstrated to provide additional capacity and where the implementation of such routes can be identified as operationally acceptable.
- **Develop a Local P-RNAV Safety Case** - Demonstrate that the implementation of the new P-RNAV procedures designed is safe. The Safety Case shall comply with the ESARRs and shall take into account the national requirements established by the Regulatory Authorities. The P-RNAV Safety Argument could be used as a basis for the development of the Local P-RNAV Safety Case.

B0-CDO

ENV01	Implement Continuous Descent Operations (CDO) techniques for environmental improvements
Improved Flexibility and Efficiency in Descent Profiles (CDO)	
<ul style="list-style-type: none"> • Coordinate activities and implement rules and procedures for the application of CDO techniques whenever practicable in Approach Control Service in close cooperation with aircraft operators - Provide the tactical and operational situational awareness support to allow aircrew to apply CDO. • Support CDO measures, implement monitoring of performance and feedback to ANSP and users where equipment is available. Provide the main link with the local community - In partnership with ANSPs and airlines select the most appropriate form of CDO from guidance material, to support activities and to report performance feedback to allow continual improvement. • Include CDO techniques in the aircrew training manual and support its implementation wherever possible - Provide suitable training, ensure awareness and encourage application of CDO techniques. 	

NAV03	Implementation of P-RNAV
Improved Operations through Enhanced En-Route Trajectories	
<ul style="list-style-type: none"> • Develop and implement RNAV arrival and departure procedures for P-RNAV approved aircraft - Design, develop and implement RNAV arrival and departure procedures, and continuous descent approaches and declare these in the appropriate AIPs. • Provide appropriate terrestrial navigation infrastructure to support RNAV operations – Implement P-RNAV using basic GNSS (i.e. standalone GPS without ground or space based augmentations with RAIM and possibly also with Inertial Augmentation) or DME/DME modes of navigation. However, RNAV procedures are dependent upon sufficient DME transponders being distributed geographically to allow for DME/DME navigation in the absence of onboard GNSS equipment or GNSS failure. This requirement may mean new DME stations and/or the relocation of existing stations. • Install appropriate RNAV equipment – Install equipment meeting TGL 10. Where existing RNAV/FMS equipment meets only B-RNAV requirements, there will be a need to update or replace the systems. Many aircraft are already equipped with RNAV/FMS meeting TGL 10. For these it will be necessary to gain regulatory approval which will include operational approval for the application of the system on P-RNAV routes. • Implement P-RNAV routes where identified as providing benefit - Implement P-RNAV routes where such implementation can be demonstrated to provide additional capacity and where the implementation of such routes can be identified as operationally acceptable. • Develop a Local P-RNAV Safety Case - Demonstrate that the implementation of the new P-RNAV procedures designed is safe. The Safety Case shall comply with the ESARRs and shall take into account the national requirements established by the Regulatory Authorities. The P-RNAV Safety Argument could be used as a basis for the development of the Local P-RNAV Safety Case. 	

B0-NOPS

FCM01	Implement enhanced tactical flow management services
Improved Flow Performance through Planning based on a Network-Wide view	
<ul style="list-style-type: none"> • Supply ETFMS with Basic Correlated Position Data - Provide ETFMS (Enhanced Tactical Flow Management System) with correlated Position Data for all airborne flights inside its Flight Data Processing Area. For the initial implementation of ETFMS, the NM accepts a limited number of existing message formats. • Supply ETFMS with Standard Correlated Position Data - Provide ETFMS with Correlated Position Data for all airborne flights inside its Flight Data Processing Area in ASTERIX Category 062 format. • Receive and process ATFM data from the NM - Ensure that all ATFM messages received from the NM are automatically correlated to the ATC Flight Plan data. The ATFM data is automatically presented to the Air Traffic Controllers (as a minimum to the TWR Controllers) on strips or on electronic displays. • Inform NM of flight activations and estimates for ATFM purposes - Send to NM a First System Activation (FSA) message as evidence of flight activations in the local ATC system. The FSA informs the NM of the actual position of the aircraft (i.e: the actual time of departure or the time and flight level at the FDPA entry co-ordination point). • Inform NM of re-routings inside FDPA for ATFM purposes - Send an FSA message for flights for a route change which does not affect the exit point and when this information has not already been sent by an AFP message. • Inform NM of aircraft holding for ATFM purposes - Send an FSA to inform the NM that the flight is holding. • Supply NM with Departure Planning Information (DPI) - Supply the NM/ETFMS with flight data related updates that are only available shortly before departure. The DPI is used to supply the NM with the taxi-time and SID per flight and with the Take-Off Time based upon the departure sequence. 	

FCM03**Collaborative Flight Planning****Improved Flow Performance through Planning based on a Network-Wide view**

- **provide flight plan message processing in ICAO format** - Receive and automatically process IFPS output of all ICAO-defined flight plan messages for input into the local ATC systems. This excludes FPLs derived from RPLs (see also below).
Note :Processing of IFPS output without manual intervention. The SLoA can be considered as not applicable if the amount of IFR/GAT traffic does not justify automation.
- **Automatically process FPLs derived from RPLs** - Receive and automatically process IFPS output derived from RPL to suppress the need for RPL bulk-output from IFPS.
Note :No longer requiring RPL bulk-output or transmission of FPLs derived from RPLs by the NM. The SLoA can be considered as not applicable if the amount of IFR/GAT traffic does not justify automation.
- **Provide flight plan message processing in ADEXP format** - Receive and automatically process IFPS output of all defined flight plan messages for input into local ATC systems in ADEXP format in line with ICAO State Letter (AN 13/2.1-08/50) - 25 June 2008.
Impact of Flight Plan 2012 changes:
The basic flight plan form and the field composition within the FPL message remains unchanged, but the content of some fields will change.
 - changes to indications in Items 10 and 18 (including the use of digits) describing the precise NAV/COM/SUR capabilities of the flight
 - the ability to file a FPL up to 5 days (120 hours) before the flight, using the Date of Flight (DOF/) in Item 18
 - addition of new Item 18 indicators and changes to the contents of several existing indicators.
 - a change to the description of a significant point which may now be described by range and bearing.
 The field composition within associated messages (CHG, DEP, CNL, ARR, RQP) will change to include the EOBT and Item 18 DOF/ thus ensuring association to the correct FPL.
- **Processing of APL and ACH messages** - Process automatically, in the local ATC systems, real time updates to flight plan information as provided by IFPS via APL and ACH messages.
Note :The SLoA may be implemented as a manual processing if the amount of IFR/GAT traffic does not justify automation.
- **Automatically provide AFP for missing flight plans** - Automatically provide IFPS with updated flight plan information on airborne flights by means of AFP message. Provide the AFP in case an IFR-GAT flight exists but no IFPL has been received from IFPS. The related AFP message can be sent in either ICAO or ADEXP format.
- **Automatically provide AFP message for change of route** - Automatically provide IFPS with updated flight plan information on airborne flights by means of AFP message; provide the AFP in case of a change of route where the exit point from the flight data processing area (FDPA) has changed. The related AFP message must be provided in ADEXP format only.
- **Automatically provide AFP message for a diversion** - Automatically provide IFPS with updated flight plan information on airborne flights by means of AFP message; provide the AFP in case of a diversion. The related AFP message must be provided in ADEXP format only.
- **Automatically provide AFP message for a change of flight rules or flight type** - Automatically provide IFPS with updated flight plan information on airborne flights by means of AFP message; provide the AFP in case of a change of flight rules from VFR to IFR, or IFR to VFR, or a change of flight type from OAT to GAT, or GAT to OAT.
- **Automatically provide AFP message for a change of requested cruising level** - Automatically provide IFPS with updated flight plan information on airborne flights by means of AFP message. Provide the AFP in case of a change of requested cruising level. The SLoA refers to a permanent change of a Requested Cruising Level and not to flight level changes allocated on a tactical basis by ATC.
- **Automatically provide AFP message for change of aircraft type** - Automatically provide IFPS with updated Flight Plan information on airborne flights by means of AFP message. Provide the AFP in case of a change of aircraft type.
- **Automatically provide AFP message for change of aircraft equipment** - Automatically provide IFPS with updated Flight Plan information on airborne flights by means of AFP message. Provide the AFP in case of a change of aircraft equipment. The related AFP message must be provided in ADEXP format only.

B0-RSEQ

ATC07.1	Implement arrival management tools
Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	
<ul style="list-style-type: none"> • Implement initial basic arrival management tools • Implement initial basic AMAN procedures - Define, validate and implement ATC procedures for operational use of basic AMAN tools. • Adapt TMA organisation to accommodate use of basic AMAN • Implement basic AMAN functions - Prepare and adapt ground ATC systems to support and implement basic AMAN functions. 	

ATC15.1	Implement, in En-Route operations, information exchange mechanisms, tools and procedures in support of Basic AMAN
Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	
<ul style="list-style-type: none"> • Adapt the ATC systems that will implement arrival management functionality in En-Route sectors in support of AMAN operations in adjacent/subjacent TMAs – Implement, in selected ATC systems, the necessary functionality and information exchanges to support the use of AMAN information in En-Route sectors requiring data exchange generated from AMAN systems and operations in adjacent/subjacent TMAs. • Implement ATC procedures in En-Route airspace/sectors that will implement AMAN information and functionality - Define, validate and implement the necessary ATC procedures in selected En-Route airspace/sectors, to support the use of AMAN information in En-Route sectors that are interfacing with AMAN systems operating in adjacent/subjacent TMAs. • Develop safety assessment for the changes - Develop safety assessment of the changes, notably ATC systems and procedures that will implement arrival management functionality in En-Route sectors and associated procedures. The tasks to be done are as follows: <ul style="list-style-type: none"> - Conduct hazard identification, risk assessment in order to define safety objectives and safety requirements mitigating the risks; - Develop safety assessment; - Deliver a safety assessment report to the NSA, if new standards are applicable or if the severity class of identified risks is 1 or 2. This safety assessment shall be based on fully validated/recognised method 	

B0-TBO**ITY-AGDL****Initial ATC air-ground data link services above FL-285****Improved Safety and Efficiency through the initial application of Data Link En-Route**

- **Ensure the publication of relevant information in the national aeronautical information publication** - Ensure that relevant information on the use of data link services is published in the national aeronautical information publications [Regulation (EC) No 29/2009, Article 13(8)].
- **Ensure ATN/VDL-2 availability, security policy and address management**
Procedures - Member States which have designated ATS providers in the applicable airspace shall:
 - Ensure that air-ground communications services satisfying requirements for ATN and VDL-2 are available to operators for aircraft flying within that airspace under their responsibility for CM and CPDLC data exchanges, with due regard to possible coverage limitations inherent in the communication technology used [Regulation (EC) No 29/2009, Article 7(1)];
 - Ensure that air navigation service providers and other entities providing communication services implement an appropriate security policy for data exchanges of the DLIC, ACM, ACL and AMC services, notably by applying common security rules to protect distributed physical resources supporting those data exchanges [Regulation (EC) No 29/2009, Article 7(2)];
 - Ensure that harmonised procedures apply for the management of addressing information in order to unambiguously identify air and ground communications systems supporting data exchanges of the CM and CPDLC air/ground applications [Regulation (EC) No 29/2009, Article 7(3)].
- **Ensure ground communication systems comply with air-ground communication requirements**
 - Entities providing communication services shall ensure that the ground communication systems and their constituents apply air-ground communications for CM and CPDLC data exchanges in compliance with Article 9 of Regulation (EC) No 29/2009, allowing either ATN/VDL-2 or an alternative communication technology.
- **Deploy communication infrastructure to handle air-ground data link services** - Ensure that the entities providing communication services for data exchanges of the air-ground applications deploy the appropriate telecommunication infrastructure (e.g. based on ATN/VDL-Mode 2).
- **Ensure the conformity of communications, flight data and initial flight plan processing systems and associated procedures** - Ensure that air-ground communications systems, flight data processing systems and human-machine interface systems serving ATS units providing service to general air traffic within the applicable airspace areas comply with the following articles of Regulation (EC) No 29/2009:
 - Article 1(3) on the operational coverage;
 - Article 3(1) on the capability to provide and operate the DLIC, ACM, ACL and AMC data link services;
 - Article 4 on procedures for CPDLC establishment, operation and termination, and for the filing of flight plans regarding information pertaining to data link capability;
 - Article 5(1) on ground systems support of CM and CPDLC;
 - Article 5(2) on seamless provision, message set and integrity requirements of end-to-end communications for data exchanges of the CM and CPDLC air-ground applications;
 - Article 5(3) on service level agreement for communication services for CM and CPDLC data exchanges that may be provided by other organisations (i.e. CSPs);
 - Article 5(4) on ensuring that data exchanges can be established with all compliant aircraft flying in the airspace under their responsibility;
 - Article 5(5) on automated notification, coordination and transfer of flights between ATC units (Note that this requires implementation of LOF/NAN processes in accordance with Regulation (EC) No 1032/2006 - as complemented by Regulation (EC) No 30/2009 - refer to SES-related implementation objective ITY-COTR);
 - Article 5(6) on performance monitoring;
 - Article 9 on the application of air-ground communications in ground communication systems and their constituents for CM and CPDLC data exchanges, allowing either ATN/VDL-2 or an alternative communication technology;
 - Article 13(1) and (2) on the ground-based recording of data link communications.

- **Equip aircraft with data link equipment supporting the identified services** - Their aircraft operating IFR/GAT flights within the applicable airspace above FL285 have the capability to operate the DLIC, ACM, ACL and AMC services [Article 1.(2).2 of COMMISSION IMPLEMENTING REGULATION 2015/310]
 - Aircraft air-ground communication systems and their constituents support the CM and CPDLC air-ground applications [Regulation (EC) No 29/2009, Article 6(1)];
 - Aircraft air-ground communication systems and their constituents apply end-to-end communications for data exchanges of the CM and CPDLC air-ground applications in compliance with Regulation (EC) No 29/2009, Article 6(2);
 - Aircraft air-ground communication systems and their constituents apply air-ground communications for data exchanges of the CM and CPDLC air-ground applications in compliance with Regulation (EC) No 29/2009, Article 6(3), allowing either ATN/VDL-2 or an alternative communication technology.
 - **Specify relevant operational procedures** - Specify and apply common standardised procedures consistent with relevant ICAO provisions for CPDLC establishment, operation and termination, and for the filing of flight plans regarding information pertaining to data link capability, in compliance with Regulation (EC) No 29/2009, Article 4.
- Arrange air-ground ATS data link service provision** - Make appropriate arrangements (with a CSP) to ensure that data exchanges can be established between their aircraft and all ATS units which may control the flights they operate in the applicable airspace, with due regard to possible coverage limitations inherent in the communication technology used [Regulation (EC) No 29/2009, Article 6(4)].

Appendix V – Deficiencies related to eTOD Area 1 and Area 4 in the list of AN Deficiencies

(paragraph 6.1.7 refers)

Appendix provided in a separate file

Appendix W – Update to Air Navigation Deficiencies in the EUR Region for MET

(paragraph 6.2.7 refers)

Appendix provided in a separate file

Appendix X – Updated List of EUR Air Navigation Deficiencies

(paragraph 6.2.8 refers)

Appendix provided in a separate file

Appendix Y – Amendment 3 of the First Edition (2013) of the EANPG Handbook, EUR Doc 001

(paragraph 7.1.7 refers)

Appendix provided in a separate file

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