IBAC Technical Report

Subject: ICAO-EANPG

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Summary:

The Forty-Ninth Meeting of the European Air Navigation Planning Group (EANPG/49) was held in the European and North Atlantic Office of ICAO from 27 November to 27 November 2007

M. Dirk Nitschke, the Chairman of the EANPG, presided over the meeting throughout its duration. Mr Karsten Theil, ICAO Regional Director, Europe and North Atlantic, was Secretary for part of the meeting and was assisted by M. Firican, Deputy Director.

The Meeting was attended by 90 Members and representatives of 41 States and by observers from 7 international organisations. A list of participants is given in Annex 1.

Most of the meeting concentrated on Air Trafic Management safety, frequency resources management , procedures and data exchange harmonization , documentation updating and cleaning

Of direct interest for Business aviation operators were the precisions given concerning

- Data link services implementation (page 9) in European airspace and subsequent requirements for operators taking into account the available benefits of ADS-C; the EASA Implementing Rules will have to consider the conclusions of the EANPG/NAT Data Link Steering Group to promote a future common and harmonised system.
- The expansion of 8.33khz airspace , and delays to extend it below Fl 195.
- The proposal to introduce the practice of " lateral offset " procedure as an available mean to ease the traffic over Europe

Several subjects related to safety may be also given considerations:
- The 2007 Eurocontrol annual report on RVSM shows that safety objectives, but the purely technical one, are not met, and confirms the trend of increasing operational deviations reported by ATC's. "Non reporting" by States in the RVSM report will be added as a deficiency . The correct appreciation of the overall safety risk needs to be better understood, and remains a serious concern .This report reproduce the official ICAO reports on the subject.(see 5. Monitoring ,page 15)
- WGS 84 non compliance, Flight levels conversions of the metric system , control and communication over Nicosia FIR remain in the deficiencies list

The following report addresses the various subjects which were discussed with emphasis on the above subjects; the official ICAO report is made available on the ICAO website.

The next EANPG meeting which will celebrate its 50th anniversary is planned on the first week of December 2008.

Decisions Required:

To follow the requirements on Data Link requirements in Europe and SESAR initiatives.

To follow the efforts for a safer RVSM airspace over Europe.

To respond, as an international operators organization, to the invitation when issued , of the ICAO Eur/Nat secretary to request improvement to the situation over Nicosia FIR.

To continue participation to this meeting

1. REVIEW OF SIGNIFICANT DEVELOPMENTS

Election of the President of the ICAO Council

The group was informed of the re-election Roberto of Mr.Kobeh González on 19 November 2007 for a full three-year term, as President of the Council of the International Civil Aviation Organization

Action by the Air Navigation Commission and the Council on the EANPG/48 Report

The meeting reviewed the actions taken by the ANC on the Report of EANPG/48, which was held in Paris, France, from 28 to 30 November 2006.

Comprehensive Regional Implementation Plan for Aviation Safety in Africa and Special AFI RAN Meeting

The Meeting noted that the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (the AFI Plan), was developed by ICAO in close cooperation with stakeholders and aimed at sustained improvements in aviation safety throughout the continent.

The Meeting noted that the Council agreed on the convening of the next AFI RAN meeting in 2008. In South Africa

ICAO 36th Assembly

The Group was informed on highlights of the ICAO's 36th Assembly (Montreal, 18 – 28 september 2007). Concerning

- language proficiency requirements, which would come in force on 5 March 2008,

-The Group noted that a new Group on International Aviation and Climate Change composed of senior government officials was created with a mandate to recommend an aggressive ICAO Program of Action on International Aviation and Climate Change that would formulate an "implementation framework" consisting of strategies and measures that Contracting States of ICAO can use to achieve emissions reductions.

-In terms of Performance based navigation (PBN) implementation, the Assembly decided on various issues, including the need for familiarization seminars and training in all ICAO regions. In this context, the Group was also informed on trials in progress related to Continuous Descent Approaches (CDA) at several airports in Europe.

-a proposal for amendment to Annex 2 provisions regarding the Table of Cruising Levels with an expected applicability date of the amendment would be November 2009.

Proposal for a Fifth Edition of Doc 7030

The Fifth Edition of the *Regional Supplementary Procedures* (SUPPS) (Doc 7030) is in preparation : the new Fifth Edition would become available and be published in electronic format early 2008. Work had been completed on re-formatting the document along similar lines as the Procedures for Air Navigation Services (PANS ATM) Doc 4444.

SATCOM Data Link performance issues

The Meeting was informed on the latest developments taking place in the ICAO NAT Region in connection with a degradation in the performance capabilities of the data link infrastructure. The performance degradation was related to the unilateral actions taken by the ground earth stations service providers to shut down numerous ground earth stations, thus leading to the reduced redundancy in the system. The decision to shut down these stations was dictated by pure economical considerations of the service providers that were totally independent private entities. These actions would have a chain effect on the sustainability of the further NAT Region development in terms of increased airspace capacity, HF infrastructure regression and other development programs. The Meeting noted that two task forces were formed by the NAT SPG Special meeting in order to address this problem and recommend further actions for the NAT SPG in 2008. The Meeting noted that the issue would have broader implications and an impact on other Regions as well.

2. AVIATION SAFETY

ATM safety framework monitoring (WP/08)

The presentation and the report outlined the objectives of the ATM maturity survey monitored by Eurocontrol in the ECAC states , the methodology used and the results of the level of maturity achieved by Air Navigation Service Providers and Regulators.

Reporting and analysis system - WP/09

EUROCONTROL, through two presentations exposed the needs, the benefits and the existing tools to support establishment of national harmonised reporting and investigation systems. In particular, the working paper emphasised the usage of a unique Taxonomy (i.e. ICAO ADREP2000) and of a harmonised safety occurrence analysis process supported by compatible software tools, avoiding duplication but ensuring consistency and encouraging the culture of reporting for a better safety.

Amongst the various tools they had developed, EUROCONTROL highlighted the "Skybrary", an electronic encyclopaedia for ATM and aviation safety, which had been developed in partnership with ICAO and Flight Safety Foundation.

ATM safety – double regulation in some ICAO EUR Region States – (WP/10)

EUROCONTROL explained to the meeting the necessity to harmonise EU regulations and implementation of EUROCONTROL Safety Regulatory Requirement (ESARR). Ukraine drew the attention of the meeting that the problem associated with double regulation extended beyond the European Union – Eurocontrol membership framework.

ICAO Regional Director should continue to support the work being undertaken by EUROCONTROL and the European Commission to remove the double ATM safety regulation that exists in some ICAO EUR Region States, and

continue to encourage ICAO EUR Region States who are not members of EUROCONTROL to use ESARRs as guidance.

3.*PLANNING AND IMPLEMENTATION ISSUES*

Use of emergency channel 121.5 MHz (WP/21)

In order to ensure, to the greatest extent possible, that pilots keep watch on the emergency channel 121.5 MHz, it was considered necessary that the provisions in Annex 10 Volume II relating to watch keeping on the emergency channel be strengthened.

Therefore, it was proposed that the emergency channel be guarded continuously, except for those periods when aircraft are carrying out communications on other VHF channels or when airborne equipment limitations or cockpit duties do not permit simultaneous guarding of two channels. An amendment to Annex 10, volume II , 5.2.2.1.1 to strengthen this requirement was proposed

Use of SSR code A2000 and the carriage and operation of SSR mode S airborne equipment (WP/22)

Proposal for amendment of the EUR SUPPs Doc 7030 on use of SSR A2000 Code in accordance with the standard procedure ICAO P-ATM chapt 8.

Use of discrete codes to maintain individual aircraft identification (WP/23)

The Group noted that the operational introduction of the Mode S Elementary Surveillance (ELS) in European Mode S notified airspace allowed for the substitution of assigned discrete SSR codes with a single Mode A "*conspicuity*" code, in accordance with ATC procedures established for that purpose.

The ICAO Doc 4444 – *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM), Chapter 8 – Radar Services, SSR Code Management, paragraph 8.5.2.2.7 stipulated that: should be amended in order to avoid any misinterpretation, as follows:

"Except when Mode S is used for identification purpose**,** where there is a need for individual aircraft identification, each aircraft shall be assigned a discrete code, except when mode S was used. Whenever possible, be retained throughout the flight."

Carriage and operation of SSR Mode-S airborne equipment.

The Group agreed that the EUR SUPPS, Doc 7030/4, paragraph 9.5, *Carriage and operation of SSR Mode S Airborne Equipment*, be reviewed and amended in order to reflect the current status of the requirements as agreed by the States implementing Mode-S and also to allow for the extension of Mode-S surveillance services in other areas of the ICAO EUR Region where planning for a Mode-S infrastructure was currently ongoing.

24 bit aircraft address in the flight plan

The Meeting reviewed the proposal for amendment to the ICAO EUR *Regional Supplementary Procedures* (SUPPS) (Doc 7030) related to the inclusion of 24-bit aircraft address in the ICAO flight plan (FPL). It was noted that for the correct operation of the controller-pilot data link communications (CPDLC)

between an air traffic services (ATS) unit and a specific aircraft, it was essential that the specified aircraft was correlated with the corresponding flight plan available for the ATS unit. This is achieved during the log-on process where the ATS system compares the aircraft identification, aerodrome of departure (ADEP) and aerodrome of destination (ADES) received from the aircraft with the aircraft identification, ADEP and ADES from the flight plan.

The Meeting noted that the LINK2000+ Programme Steering Group had agreed and Central Flow Management Unit (CFMU), EUROCONTROL Safety Regulation Commission (SRC), European Aviation Safety Agency (EASA), and pioneer airlines have supported the use of 24-bit aircraft address as the second independent parameter. It was also noted that the proposed amendment had been agreed and proposed for submission to ICAO by the EUROCONTROL EATM Air Navigation Team (ANT).

Formation flights in the EUR RVSM airspace (wp24)

Proposal for amendment to the EUR Regional Supplementary Procedures (SUPPS) (Doc 7030), on the subject of Formation flights in the EUR RVSM airspace as follows:

"6.1.2 With the exception of State aircraft, ATC clearance into the EUR RVSM airspace shall not be issued to formation flights of aircraft."

Flexible Use of Airspace (wp25)

It was proposed to extend the concept of the Flexible Use of Airspace (FUA) over the High Seas. To do so, it would be necessary to extend the concept of Temporary Reserved Areas (TRA) and Temporary Segregated Areas (TSA) to the High Seas. To support this implementation, the ICAO provisions relating to the application of the FUA would need to be amended.

A task force composed of State representatives from the European and North Atlantic Regions and EUROCONTROL and the European Commission for their technical expertise, with participation of the ICAO headquarters will be established for that matter.

Proposal for amendment to Annex 15

To move towards complete automation of the AIS chain.

Short term conflict alert (STCA) procedures

The Group was informed that during the drafting of the EUROCONTROL Specification for Short Term Conflict Alert (STCA) document, some differences with the ICAO Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444) had been identified. The Group agreed that the EUROCONTROL and ICAO documentation needed be in harmony to the highest degree possible. The differences between the EUROCONTROL Specification for STCA and the text in the PANS-ATM should therefore be reconciled

Tactical parallel offset (see Annex 2)

The Group was presented with a proposal to implement the use of ATC-initiated tactical parallel offsets in the EUR Region (referred as "lateral offset" in ICAO doc). In introducing the proposal, it was stressed that tactical parallel offsets were not a separation method, but a technique to achieve lateral distance in order to

apply radar separation. Contrary to strategic lateral offsets, which were initiated by pilots and used in oceanic or remote areas, tactical parallel offsets shall be used on instruction from ATC only.

Tactical parallel offset procedure could contribute to increases in capacity and reductions in controller workload by:

- facilitating uninterrupted climb/descend;
- facilitating situations with overtaking aircraft;
- creating temporary tracks to solve specific ATC-situations;
- reduction in R/T as compared with radar vectoring therefore reducing communications congestion; and
- reducing the amount of controller intervention as compared with radar vectoring.

It was noted concerning the use of this procedure careful attention should be given to

- terrain clearance;
- communication failure;
- definition of tactical parallel offset in ICAO documentation;
- differences in onboard capability;
- additional phraseology;
- explicit ICAO provision for the use of tactical parallel offset in the EUR Region
- safety assessment.

3. COMMUNICATIONS, NAVIGATION AND SURVEILLANCE

Communication roadmap

The congestion in 108-111.975MHz, 111.975-117.975MHz, 117.975-137MHz and 960-1215MHz frequency bands remained of the major concern for aviation in respect of the spectrum availability. Furthermore, the subject was expanded to outline a future roadmap for the ICAO EUR Region in order to cope with outstanding VHF frequency spectrum congestion in short, medium and long term time frame, it considers:

- the 8.33 kHz channel spacing implementation programme, is a key element to mitigate the frequency spectrum congestion in the VHF band in the short to medium term. The full implementation of 8,33 kHz in all airspace would most probably meet aviation needs in the VHF-COM band until about 2020. However, the current partial implementation plans would not satisfy the projected demand.
- An improved Spectrum and Frequency Information Resource (SAFIRE) coordination tool was seen as a means capable to provide some spectrum congestion alleviation in the short term. It should be implemented by 2008 .
- The Controller Pilot Data Link Communications (CPDLC) large-scale implementation would reduce routine communications requirements.

However, the data link services implementation in the ICAO EUR Region was aiming at 2015 as a start of mandatory carriage of the data link capable equipment in the European Union (EU) member States airspace. Therefore, considerable benefits could be expected in 2015-2020 timeframe only. Moreover,

the magnitude of the data link implementation impact on the frequency spectrum was not completely determined yet.

The Future Communications Systems (FCS) should solve the aviation frequency spectrum congestion in the long term and studies were currently conducted by a joint FAA and Eurocontrol group and reviewed by the ICAO Aeronautical Communication Panel (ACP). However, even the initial implementation of such systems was not foreseen before 2020. As such a change would be usually coupled with a long and expensive transition period, it was not anticipated that the future communication systems would bring any significant spectrum release earlier than 2020-2025.

Implementation of 8.33 kHz channel spacing

The mandatory carriage above FL195 was currently enforced in all States that previously introduced the 8.33 kHz channel spacing above FL245, with the addition of Albania and Greece, but with the exception of Spain and Portugal.

An analysis of the flight plan data performed by the Eurocontrol Central Flow Management Unit (CFMU) indicated that the 8.33 kHz aircraft equipage rate above FL195 was 99.67%.

The frequency planning benefits that could be derived from the 8.33 kHz programme would be influenced by the number of 25 to 8.33 kHz channel conversions and their successful coordination with the ICAO EUR ANP FASID Supplement Table COM-2. The conversions concluded by the States were currently progressing well; 78 more conversions were planned to be implemented by July 2008.

The Group noted that the European Commission Regulation (EC) No 1265/2007 of 26 October 2007, laying down the requirements on air-ground voice channel spacing for the single European sky was published in the Official Journal of the European Union (L283 pages 25-36) on the 27th October 2007 with entry into force 20 days thereafter. The Implementation Rule identified the following transitional arrangements and implementation dates:

a) by 15 March 2008, EU States which have not already enforced 8.33kHz mandatory carriage above FL195 would be required to do so;
b) by July 2008, air navigation service providers would be required to implement ground radio conversions subject to constraints such as climax and sector lower-limits.
c) regarding the accommodation of 8.33 kHz equipage of state aircraft, dates and transitional arrangements have been identified.

The Meeting expressed its concern that the planning for 8.33 kHz implementation below FL195 has not progressing as it was expected. It was indicated that it would be difficult to progress the 8.33 kHz implementation below FL195, until the concerns about the frequency usage would be properly addressed. However, the Meeting agreed that studies on the efficiency of the frequency usage should not delay the progress of the 8,33KHz implementation programme.

Implementation of SAFIRE

The Group was informed on the status of the implementation of the SAFIRE frequency coordination. It was noted that the system availability was 99.79% with the application availability of 100%. Since December 2006, 40 States and organizations registered for participation in the SAFIRE. There were currently

eleven States not enrolled with SAFIRE, namely: Albania, Algeria, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan and Uzbekistan.

Data link services implementation

The Meeting was informed about the progress of the Single European Sky (SES) interoperability implementing rule on the Data Link Services (DLS). The Final Report for the Draft Implementing Rule on DLS was circulated on 23 October 2007. Presentation and discussions at the Single Sky Committee (SSC) would take place early 2008 and would be followed by formal discussions in the SSC and adoption by the EC.

The Final Report for the Draft Implementing Rule on Data Link Services suggested that the implementing rule should apply to all flights operating as general air traffic in accordance with instrumental flight rules within:

a) The airspace above FL285 from 7 February 2013 within the following Flight Information Regions (FIR) and Upper Flight Information Regions (UIR):

Amsterdam FIR, Wien FIR, Barcelona UIR, Brussels UIR, Canarias UIR, France UIR, Hannover UIR, Lisboa UIR, London UIR, Madrid UIR, Milano UIR, Rhein UIR, Roma UIR, Scottish UIR and Shannon UIR

b) The airspace above FL285 from 5 February 2015 within the following Flight Information Regions (FIR) and Upper Flight Information Regions (UIR):

Bratislava FIR, Bucuresti FIR, Budapest FIR, Kobenhavn FIR, Ljubljana FIR, Nicosia FIR, Praha FIR, Sofia FIR, Warszawa FIR, Finland UIR south of 61°30', Hellas UIR, Malta UIR, Riga UIR, Sweden UIR south of 61°30', Tallinn UIR, Varna FIR, Vilnius UIR

Operators should ensure that all aircraft with an individual certificate of airworthiness first issued on or after 1 January 2011 and operating in the airspace concerned would have the capability to operate the data link services as defined in Annex II of the DLS IR. Operators shall ensure that all aircraft with an individual certificate of airworthiness first issued before 1 January 2011 and operating in the airspace concerned would have the capability to operate the data link services as from 5 February 2015.

The above paragraph provisions would not be applicable to aircraft with an individual certificate of airworthiness first issued before 1 January 2014 and fitted with data link equipment certified against Eurocae requirements. These provisions would also not be applicable to aircraft with a certificate of airworthiness first issued before 21 December 1997 and which would cease operation in the referred airspace before 31 December 2017. These provisions would not apply to State aircraft and to aircraft flying for testing, delivery and for maintenance purpose.

Member States which decided to equip new transport type State aircraft entering into service after 1 January 2014 with data link capability relying upon standards not specific to military operational requirements, should ensure that these aircraft would have the capability to operate the data link services defined in Annex II of the DLS IR.

The regulation would apply to the ground European Air Traffic Management Network (EATMN) and constituents in line with paragraph 4.24 and article 1.3 of the DLS IR.

The Meeting recognised that the DLS Implementing Rule would necessitate an amendment to the EUR *Regional Supplementary Procedures* (SUPPS) (Doc 7030)

to reflect the mandatory carriage requirements. Therefore to meet the Implementing rule deadlines the ICAO process should start as early as possible. In this regard the Group agreed the following conclusion:

VHF Data Link sub-band

The implementation of the ATN/VDL2 Data Link Services in the ICAO EUR Region will require the availability of 25 kHz-frequency channels located inside the aeronautical VHF band.

The Meeting noted that VDL2 traffic was constantly rising and a steeper increase was anticipated in connection with the Data Link Services Implementing Rule in the 2009-2015 timeframe. This trend would require a second protected VDL2 channel to become available from 2009 onward. If the second VDL2 frequency channel would not be established and protected by 2009, it would represent a significant capacity limiting factor for the data link services implementation in the ICAO EUR Region.

It was concluded that ICAO Regional Director, on behalf of the EANPG, will invite States to review and remove their assignments, such as OPC, in VHF data link sub-band and update EUR FASID Supplement COM2 Table content accordingly.

Data Link Steering Group (DLSG) report

The DLSG was created in response to the EANPG and the NAT SPG Conclusions, with the main objective to halt divergence and define a path **for a future converged data link solution**. Of particular concern was to investigate issues that prevented to accommodate the Aeronautical Telecommunication Network (ATN) equipped aircraft in the Future Air Navigation System (FANS) environment. However, on the later stages, DLSG terms of reference were expanded to cover the revision of the ICAO Doc9694 Part III, related to Automated Dependent Surveillance-Contract (ADS-C) application.

The EANPG concluded that the ICAO Regional Director, on behalf of the EANPG, takes the necessary action to include the following planning strategy in the ICAO EUR ANP.

"When planning for data link implementation in the ICAO EUR Region, the following strategy shall be used:

1. with respect to any additional Automatic Dependent Surveillance-Contract (ADS-C) implementation:
    a. utilise, without change, the existing Future Air Navigation Systems (FANS 1/A) DO-258A/ED-100A ADS-C,
    b. or move to the full implementation of the common technical definition that will be defined based on relevant provisions and guidance material *(Manual of Air Traffic Services Data Link Applications (Doc 9694))* developed by ICAO and its technical bodies.

Note: Partial or divergent ADS-C evolutions should not be pursued, as this would continue to promote divergent paths to the detriment to the broader community

2. with respect to any additional Controller Pilot Data Link Communications (CPDLC) implementation:

> a. utilise, without change, the existing FANS 1/A (DO-258A/ED-100A) or ATN (DO-280B/ED-110B CPDLC for ACM/ACL/AMC data link services),
> b. or move to the full implementation of the internationally agreed common technical definition, based on *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444), and other operational material as appropriate. A common technical definition might be the technical provisions for the CPDLC application (*Manual on detailed technical specifications for the aeronautical telecommunications network (ATN) based on ISO/OSI standards and protocols* (Doc 9880, First edition).

Note: Partial or divergent CPDLC evolutions that result in excluding messages from aircraft systems should not be pursued, as they will continue to promote divergent paths to the detriment to the broader community.

Common procedures for the implementation of the ADS-C and CPDLC packages are considered to be essential. Regional and other implementation groups should harmonise and adopt common guidance material, rather than each region develops and promulgates their specific procedures with respect for common functions."

Digital broadcast/Aeronautical systems immunity
The Meeting was informed of the Digital broadcast (DB) transmissions currently under implementation in Europe, in the frequency band below 108 MHz. These transmissions, using reportedly high compression rate and high power emissions, would require a higher level of protection than conventional analogue Frequency Modulation (FM) broadcasting transmitters in order to prevent any harmful interference that may affect the safe operations of flight systems.

The Group agreed with the opinion of IATA stating that the introduction of the new broadcasting services should not cause any changes in the existing FM immunity requirements in order to avoid any modification needs on board aircraft.

Aviation spectrum pricing
The Meeting was presented with the latest trends taking place in the international telecommunication arena that could influence the allocation of the current and future frequency spectrum. Increased availability of radio devices that do not require licensing by radio communication authorities, economic pressure and trends, could affect the availability of adequate and protected spectrum for aviation.

Therefore it was considered important that the ICAO Planning and Implementation Regional Group (PIRG)s and the Contracting States closely monitor if similar intentions are proliferating and if required, take consolidated and unified actions to ensure that the aeronautical community needs are considered.

The Meeting has also noted the strong opposition from the IATA to the potential introduction of the aeronautical frequency spectrum charging and concluded that the ICAO Regional Director, on behalf of the EANPG:
a)   Inform States on the ongoing aeronautical spectrum pricing studies;
b)   Invite States to inform the EANPG on any further developments; and
c)   Invite the ANC to consider the issue and provide advice.

AMHS address register
> To consider the necessary actions to enable a global ATS Message Handling System (AMHS) addresses registration and coordination mechanism , using the available structure and procedure of the European AMHS Management Center

AFS location indicator
> Issues raised within the EANPG Aeronautical Fixed Services (AFS) Group related to the entries in the current EUR ATS Message Handling System (AMHS) Private Management Domain (PRMD) Names and Addressing Plan Registry.

AFS training, documentation and development study issues
> As Aeronautical Fixed Services (AFS) in the ICAO EUR Region evolved towards a wide scale deployment of the ATS Message Handling System (AMHS), as an element of the global and integrated Aeronautical Telecommunication Network (ATN), it would necessitate that training and documentation matters would be timely and diligently addressed to ensure smooth and safe transition.: AMHS workshop to be organised in 2008.
> It was concluded that ICAO Regional Director, on behalf of the EANPG, invites States and expert organisation (e.g. EUROCONTROL) to provide support in the further development and refinement of the "EUR AFS Security Guidelines".

24-bit aircraft address
> The Meeting has recalled the EANPG Conclusion 48/17 that encouraged States to proceed with Mode-S implementation. It was recognized that to enable the full Mode-S implementation benefits, properly assigned and distinct 24-bit aircraft addresses were essential, as they would provide for the correct operation of the airborne collision avoidance system (ACAS) and several communication and surveillance systems.
> States to be invited to review their national 24-bit aircraft address allocation procedures and ensure strict compliance with ICAO Annex 10 requirements and required to ensure operators have a system or procedure in place to ensure that correct 24-bit address allocation is kept properly installed on the appropriate aircraft.

RNAV-1 Infrastructure assessment procedure
> The Meeting was presented with the EUROCONTROL *Guidance material for RNAV-1 infrastructure assessment* document describing methods and processes that should be used to evaluate if a specific navigation infrastructure is suitable to support RNAV-1 procedures.
> It was asked to ICAO to encourage States and Air Navigation Service Providers to make use of the guidance material to evaluate if their navigation infrastructure is suitable to support RNAV-1 procedures.

Language Proficiency Requirements Implementation Workshops
> The Group recalled that the 36th Session of the ICAO Assembly decided on Resolution A36/11, confirming the applicability date of 5 March 2008 for the Language Proficiency Requirements (LPR) in Annex 1 for pilots and air traffic controllers. The Resolution also allowed States, which were not able to implement the LPR by 5 March 2008, to benefit from a three-year transition period.

ICAO Regional Director will initiate a Special Implementation Project (SIP), in order to conduct, in early 2008, a workshop to assist States from the Eastern part of the ICAO EUR Region in implementing the ICAO language proficiency requirements.

Language Proficiency Testing Requirements

ICAO EUR/NAT Office to circulate the Recommended practices to select (or develop) a language proficiency test to all States concerned and make arrangements to publish them on the ICAO EUR/NAT Office Website and develop an Action Plan to assist States in implementing the language proficiency requirements

Aeronautical Information Management (AIM)

To satisfy new requirements arising from the Global ATM Operational Concept promoted by ANC, aeronautical information services (AIS) must transition to the broader concept of aeronautical information management (AIM). It was agreed that there was a need for an AIM strategy and concept in this respect.

ICAO to consider the creation of a multi-disciplinary group in order to, inter-alia: develop a global strategy/roadmap for the transition from AIS to AIM; and prepare new AIM related SARPs and guidance material based on the AIM documents developed by Eurocontrol, in line with the Recommendations of the Global AIS Congress;

and

States and international organizations (Eurocontrol, IATA, etc) to support the activities of the above-mentioned multi-disciplinary group and participate actively in the development of the AIM strategy/roadmap and related SARPs and guidance material.

To keep pace with the developments related to the transition from AIS to AIM, States are encouraged to attend the "Quality AIM Congress" which would be held in Singapore in June 2008 and the "Implementing AIM Congress" which would be held in South Africa in the spring of 2009.

As a pre-requisite for the transition from AIS to AIM, States that have not yet done so, are urged to give high priority to the implementation of existing Annex 15 SARPs, in particular, WGS-84, Quality Management System and automation.

Electronic Terrain and Obstacle Data (eTOD)

European States are facing difficulties to comply with the dates of applicability as specified in para. 10.6 of Annex 15 as well as the required level of informations.

States are encouraged to adopt an aggressive approach on the subject using as much as practicable the synergy of those States having already produce significant progress. (Italy ,France Switzerland, Germany) and to proposed amendment to ICAO published "GUIDELINES FOR ELECTRONIC TERRAIN, OBSTACLE AND AERODROME MAPPING INFORMATION – DOC 9881", which contains a lot of guidance material on electronic Terrain and Obstacle Data (eTOD) as well as on Aerodrome Mapping, in an coordinated and harmonised manner.

4. METEOROLOGY

Guidance on the use of the term "Meteorological Authority"

The Group noted the difficulties expressed by the METG with regard to the interpretation of the term "meteorological authority" used throughout ICAO Annex 3, on the one hand, referring to regulatory functions in some cases and, on the other, referring to service provider functions.

Status of implementation of the IAVW in the EUR Region

To improve the procedures for the issuance of volcanic ash advisories and SIGMET;and coordinate the test procedures between the MET, AIS and ATS units concerned

Implementation of SIGMET and AIRMET

New version of the EUR SIGMET Guide, EUR Doc 014, which has been aligned with the Amendment 74 to Annex 3, was posted on the ICAO Paris website on 26 October 2007.

Transition to an optimized regional OPMET exchange scheme (RODEX)

Rationalisation of the current MOTNE exchange system in the EUR Region towards the new Regional OPMET Data Exchange (RODEX) system

Implementation of the new provision related to TAF in Amendment 74 to Annex 3

The Group noted the important changes of the provisions related to the terminal aerodrome forecasts (TAF) in Amendment 74 to Annex 3 which would become applicable on 5 November 2008. The changes included the extension of the TAF period of validity from 24 to 30 hours which was necessary for the new "ultra-long-haul" operations. Amendment 74 introduced also the requirement for issuing only one valid TAF for each aerodrome at any time.

MET support to ATM

The Group noted the on-going activities carried out by the METG (through its sub-group on MET support to ATM (METATMG)) aimed at enhancing the meteorological support for the air traffic management: development of standards for MET data link applications; development of Community Specifications (CS) on interoperability for MET products and services; development of the MET component of the SESAR ConOps; and the development of the weather exchange data model (WXXM).

The meeting acknowledged the importance of an issue raised by IFALPA related to the current provisions in Annex 3 on the reporting of freezing rain (FZRA). Currently, these provisions covered only situations with "supercooled water droplets". IFALPA advised that, from an operational point of view, rain falling on a frozen ground and "supercooled" freezing rain had the same effect, therefore, it was considered necessary that both events should be reported in the relevant OPMET messages.

5.   MONITORING

THE EUR REGION RVSM SAFETY MONITORING REPORT IN 2007 (WP39)

<u>General</u>
It was recalled that the EUROCONTROL Agency, acting as the EUR Regional Monitoring Agency (RMA), carries out an annual calculation of the vertical collision risk between FL 290 and FL410 to ensure that the continued operation in European airspace meets the defined safety criteria established by the ICAO European Air Navigation Planning Group (EANPG Conclusion 43/36 refers)[1].

<u>Principal elements of the 2007 Safety Monitoring Report</u>
As noted above, four safety objectives have been defined and the Safety Monitoring Report was largely based on the evidence from the monitoring exercise. The reporting periods for the 2007 report were:
1st June 2005 to 31st May 2007 for technical height-keeping assessment;
1st December 2006 to 31st May 2007 for estimation of horizontal overlap frequency;
And 1st June 2005 to 31st May 2007 for operational risk assessment.

<u>2007 Safety Monitoring Report Assumptions were the same as in previous report</u>
<u>Total Vertical Risk estimation – Safety Objectives 1 and 2</u>

To assess the total vertical risk, the risk posed by technical height-keeping must be combined with the operational vertical risk. Operational risk is considered

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[1] To ensure that the EUROCONTROL EUR RVSM Safety Policy was being met and, in accordance with the safety objectives contained in ICAO Doc 9574, the following must be demonstrated:

- o **Safety Objective 1** – That the vertical collision risk in EUR RVSM airspace due solely to technical height-keeping performance meets the ICAO Target Level of Safety (TLS) of 2.5 x 10-9 fatal accidents per flight hour. In the 2007 Report, the technical height-keeping risk estimate was 0.001 x 10-9. This compared with an estimate of 0.26 x 10-9 in the 2006 Report.

- o **Safety Objective 2** – That the vertical collision risk between FL 290 and FL 410 meets the ICAO overall TLS of 5 x 10-9 fatal accidents per flight hour. In the 2007 Report, the vertical collision risk was estimated at 5.58x10-9 fatal accidents per flight hour. This compared with the value of 4.07 x 10-9 estimated in the 2006 Report.

- o **Safety Objective 3** – That the continuous operation of EUR RVSM has not adversely affected the overall risk of en-route mid-air collision.

- o **Safety Objective 4** – That all the issues raised in the previous safety monitoring report, in this case the 2006 Safety Monitoring Report, have been satisfactorily addressed.

to be the risk from all sources of deviation from the assigned altitude due to operational errors and in-flight contingencies. Such deviations are calculated on the basis of operational reports of assigned altitude deviations to provide an estimate of operational vertical risk.

The increase in the overall vertical risk was dominated by the increase of the calculated operational vertical risk based on the ADRs received by the RMA. This had increased from 3.81×10^{-9} estimated in the 2006 Report to 5.57×10^{-9} estimated in the 2007 Report.

The calculation of operational risk was primarily based on the ratio of duration of assigned altitude deviations against the total number of flight hours. For this purpose, an assigned altitude deviation occurs when an aircraft reports a mode C altitude of 300 feet or more from the ATC-cleared flight level. States have been requested to submit reports on assigned altitude deviations of 300 feet or greater to the EUR Regional Monitoring Agency (RMA) safety assurance purposes (State Letter of date).

The 2007 Report indicates that human errors, which resulted in aircraft operating at un-cleared levels, had increased from the previous reporting period. With regards to pilot errors, reported causes of altitude deviations of 300 feet or more from the assigned flight level included:

- climb or descent without ATC clearance, including reports of pilots incorrectly commencing climb/descent based on an ATC clearance issued to another aircraft;
- failure to climb or descend as cleared, including level busts; and
- altitude insertion errors.

With regards to air traffic controller error, reported errors included:

- ATC clearances to incorrect flight levels;
- failure by ATC to detect and correct erroneous read-back of clearances from pilots; and
- ATC clearance for non-RVSM approved civil aircraft to operate in EUR RVSM airspace.

Effect of RVSM on Overall Safety Risk – Safety Objective 3

Unlike Safety Objectives 1 and 2, Safety Objective 3 relies more on qualitative analysis than quantitative calculation. Nonetheless, Safety Objective 3 provided a useful opportunity for analysis of trends over the years since the implementation of RVSM in January 2002. As was the case for the 2006 Safety Monitoring Report, an increased trend of operational errors had been noted in the 2007 Report.

Also noted in the 2007 Report was the limited number of States who reported assigned altitude deviations on a consistent basis. Such a small sample of States may not give a true representation of the effect of RVSM on the overall safety risk.

An additional difficulty in concluding on this objective was the lack of reports of any operational errors specific to RVSM operations from interfaces between RVSM and non-RVSM airspace, or between airspaces using different tables of cruising levels.

Issues raised in the 2006 Safety Monitoring Report – RVSM Safety Objective 4

All the issues outstanding when the 2006 RVSM Safety Monitoring Report was released had either been resolved or were being addressed as ongoing issues in 2007 Report. Therefore, this safety objective was being met.

Actions arising from the EUR RVSM 2007 Safety Monitoring Report

STATES actions to reduce the operational risk in EUR RVSM Airspace

That, having regard to the RVSM importance, the increase in traffic and the increased trend in the operational errors (highlighted in the EUR RVSM Safety Monitoring Report 2007), States take the necessary action(s) within their administrations as follows:

a) require operators registered in their State, to strictly adhere to the EUR RVSM operating practices and procedures as specified in the Joint Aviation Authorities Administrative and Guidance Material, Section One: General, Part 3: Temporary Guidance Leaflet No. 6, Revision 1;

b) require operators registered in their State to strictly adhere to the flight plan requirements for EUR RVSM airspace specified in the ICAO Regional Supplementary Procedures for Europe (Doc 7030),

c) require the ANSPS within their State to:
   i) adhere to the EUR RVSM related procedures specified in the ICAO Regional Supplementary Procedures for Europe (Doc 7030);
   ii) address the factors that contribute to the operational errors in the RVSM airspace;
   iii) report to the RMA all deviations from assigned flight level in RVSM airspace; and
   iv) report to the RMA all flights of non-RVSM approved aircraft who incorrectly insert the letter W in Item 10 of a flight plan for operation in EUR RVSM airspace.

EUROCONTROL actions to reduce the operational risk in EUR RVSM Airspace

That, in line with the EANPG Conclusion 49/xx EUROCONTROL be invited to issue a Safety Bulletin to:

a) address the increase in reported operational error and flight plan errors over the previous reporting period with regards to flight operations within EUR RVSM airspace; and

b) stress the importance of compliance with the ICAO requirements and procedures for operation in EUR RVSM airspace.

ICAO actions to reduce the operational risk in EUR RVSM Airspace

That, the European Regional Monitoring Agency (RMA):

a) continue its work of active monitoring of the technical risk and liaison with airspace users;

b) continue to work with ICAO to encourage States to continuously provide reports to the EUR RMA;

c) using inputs from States and ICAO, develop proposals on:
   a. possible improvements to the methodology to be applied, in light of experience gained, in calculating vertical collision risk estimates in EUR RVSM airspace; and

> b. expanding assessments and risk mitigation measures of technical and operational risk including non RVSM airspace; and

d) report progress to the EANPG COG.

Conclusions

Of the four Safety Objectives for which evidence had been presented, it was only possible to conclude that two were being met, specifically Safety Objective 1 relating to technical height-keeping risk and Safety Objective 4 relating to issues raised in the 2006 Report.

The Group noted that, using the same basis as the calculations in the 2005 and 2006 Reports, Safety Objective 2 had not been met. Given the uncertain error bound in the risk estimation, actions would be taken to review the assumptions made and achieve a better understanding of the factors which contributed to operational errors, would improve reporting of operational errors and the treatment of operational errors in the collision risk models.

It had not been possible to conclude on Safety Objective 3, relating to continuous operation of EUR RVSM airspace not adversely affecting the overall risk.

In the light of the actions proposed in the above Conclusions, a further assessment on this objective would be made in the next reporting period.

Finally, the Group had noted that the principal driver for the estimated increase in overall vertical collision risk was due to that portion of the risk derived from operational errors. The Group had agreed that pressing actions were required to reduce the number of operational error being reported. Such measures included providing feedback to States and operators as to what had been observed

6.   *DEFICIENCIES*

WGS 84 implementation and flight levels harmonisation in the Eastern states adjacent to Europe remain on the deficiency list. In addition two subjects were discussed to add on the list

Nicosia FIR ATS Coordination Procedures Deficiency

The Group considered the safety situation in the Northern part of the Nicosia FIR that had been identified as such by EANPG/48. Despite the complex political situation, it was agreed that the current situation in that particular airspace. constituted a continuous and serious threat to the safety of the operations

Turkey requested to be deleted from the Deficiency List on the above subject and informed the meeting that they sent two letters to the ICAO EUR/NAT Office highlighting their position. From Turkey's point of view, although the deficiency may reflect a real problem, it should be agreed that it did not concern Turkey. In their view, the root of the problem was mainly political, under the concern of the two communities existing in Cyprus which should cooperate and find a solution.

IATA and IFTACA stated their major concerns regarding the safety of operation in the area and urged all concerned parties to sit together and find an acceptable solution to this issue. The EC supported the situation presented by the Secretariat and agreed with the statement made by the airspace users' organisations. It

underlined the fact that this safety issue was under the agenda of the negotiations taking place between Turkey and EC concerning the candidature of Turkey to the EU.

The ICAO EUR/NAT Regional Director addressed and invitation to all parties concerned, mainly Cyprus and Turkey, EC and international organisations: Eurocontrol, IATA, IBAC, IFATCA to consider participation to a meeting of States, to be organised in 2008. Cyprus welcomed the ICAO initiative and confirmed their readiness to participate in such event.

"non-reporting" in the EUR RVSM Safety Monitoring Report added as new deficiency to the database

The EANPG agreed that the non-reporting of the height monitoring data by a State should be considered as a deficiency related to non-compliance with the ICAO Standard set up in Annex 11, 3.3.5.1, as well as, the EUR RVSM Safety Policy set up in accordance with ICAO Doc 9574. It was agreed that this new deficiency should be filed in the database in respect to all States listed as "non-reporting" in the EUR RVSM Safety Monitoring Report prepared by Eurocontrol.

7.   ANY OTHER BUSINESS

AIG Divisional meeting:

The Meeting was informed that the AIG Divisional meeting will be held at ICAO Headquarters, from 13 to 18 October 2008.

CCAMS development by Eurocontrol:

The Meeting noted the information presented by Eurocontrol on the ongoing issues with the Originating Region Code Assignment Method (ORCAM) system and on a progress of the Centralised Code Assignment and Management System (CCAMS) Implementation Project. Developed as a solution to the problems being encountered with the ORCAM, the project to implement the CCAMS made good progress since November 2006.

Ground Earth Stations Service

The Meeting was informed on the latest developments taking place in the ICAO NAT Region in connection with a reduction in the performance capabilities of the data link infrastructure. The reduction in the performance was related to the unilateral actions taken by the ground earth stations service providers to shut down numerous ground earth stations, thus leading to the reduced redundancy in the system. The decision to shut down these stations was dictated by pure economical considerations of the service providers, that were totally independent private entities. These actions would have a chain effect on the sustainability of the further NAT Region development in terms of increased airspace capacity, HF infrastructure regression and other development programmes. The Meeting noted that two task forces were formed by the NAT SPG Special meeting in order to address this problem and recommend further actions for the NAT SPG in 2008. The Meeting noted that the issue would have broader implications and an impact on other Regions as well.

New aircraft accident prevention and investigation course

The Member for Czech Republic informed the meeting on the new aircraft accident prevention and investigation course which would take place in Prague, Czech Republic, 14-25 April 2008. More information about this event could be found on the website: www.scsi-inc.com

AIG Divisional Meeting

The Group was informed that an Accident Investigation Group (AIG) Divisional Meeting would be held between 13-18 October 2008 in ICAO HQ, Montreal.

EANPG work programme and associated task list

The Group agreed on its work programme as contained in Appendix x.

EANPG Handbook

A revised version of the EANPG handbook was to be expected to the next EANPG(EANPG/50).

Appendix 1   **List of Participants**

CHAIRMAN
   Mr Dirk NITSCHKE*

ALGERIA
   Mr Mamar KIDOUCHE
   Mr Omar ZOUAOUI

BALTIC STATES* *(Estonia*, Latvia, Lithuania)*
   Mr Viktor POPOV *(Estonia)*
   Mr Kazimieras JAKAS **(***Lithuania)*

BELARUS *
   Leanid CHURO
   Tatiana PANACHEVNAYA

BENELUX* *(Belgium*, Netherlands, Luxembourg)*
   Mr Roland MOINEAU *(Belgium)*

BULGARIA
   Plamen Ivanov TASEV

CAUCASIAN   STATES* (Armenia,   Azerbaijan, Georgia)
   Mr Bala MIRZAYEV (*Azerbaijan*)
   Mr Giorgi EDISHERASHVILI *(Georgia)*
   Ms Natali ASLAMADZE *(Georgia)*
   Mr Vladimir GOGASHVILI *(Georgia)*
   Mr Igor GORDIENKO *(Georgia)*
   Mr Nino KVASKHVADZE *(Georgia)*

CENTRAL   ASIAN   STATES* (Kazahkstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan)
   Mr Yury SOLOMONIK *(Kyrgyzstan)*
   Mr Karim BUTABAEV *(Kyrgyzstan)*
   Mr Neymatulla SAHIBOV (Tajikistan)
   Mr Tadjieva GUZAL (Uzbekistan)
   Mr Alisher Khamidovich ASHUROV(Uzbekistan)
   Mr Igor TARASOV (Uzbekistan)

CYPRUS
   Mr Nicos NICOLAOU

CZECH REPUBLIC *
ROMANIA
   Mr Mihai NECULA

Mr Ladislav MIKA* *(EANPG Vice Chairman)*

FRANCE *
   Ms Geneviève EYDALEINE*
   Mr Denis LEMARCHAND
   Mr Denis BOUVIER#
   Mr Bertrand HURON#
   Mr Denis LAMBERGEON#
   Mr Olivier MROWICKI#

GERMANY *
   Mr Bernd RANDECKER
   Mr Michael HOVENBITZER#
   Mr Bodo HEINZL#
   Mr Erland LORENZEN#

GREECE *
   Mr Vasileios TAGKALOS

IRELAND *
   Mr Donie MOONEY

ITALY *
   Mr Pierluigi D'ALOIA *
   Mr Alessandro GHILARI

NORDIC STATES * (Denmark, Finland, Norway*, Sweden)
   Mr Geir INGEBRETHSEN

POLAND
   Mr Piotr GOZDZIK
   Mr Andrzej GIEROCZYNSKI

PORTUGAL *
   Mr Carlos ALVES*
   Mr Abel PARAIBA
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REPUBLIC OF MOLDOVA
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   Ms   Silvia   RAILEAN

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Mr Vasily TOPCHIEV
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Mr Sergey POGREBNOV
Ms Galina SAVINA
Ms Elena STEPANOVA
Mr Yury TOKAREV
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Ms Branislava CULAJEVIC
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Mr Beat BAUMGARTNER
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Mr Alfonso ARROYO

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Mr Günter MARTIS

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Mr Patrick EXPERTON

IFALPA
Mr Christian DENKE

IFATCA
Mr Patrik PETERS

NATMC
Mr Javier CRIADO

ICAO
Mr Karsten THEIL #
Mr George FIRICAN
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Mr Dimitar IVANOV
Mr Victor KOURENKOV
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Mr Herman PRETORIUS
Mr Mohamed SMAOUI
Mr Jacques VANIER
Mrs Nikki GOLDSCHMID
Mrs Patricia CUFF

#part time   *Member

Appendix 2

Proposal for amendment of the EUR SUPPS on Air Traffic Control initiated Tactical Parallel Offset Procedure

17.8.3 Tactical parallel offset procedures – ATC initiated

Note 1─ Tactical parallel offset is not a separation method, but a technique to achieve lateral distance. Horizontal separation will be based on radar or ADS-B. This procedureis also distinct and in no way affects the pilot initiated Strategic Lateral Offset Procedure which is used to mitigate risk and wake vortex encounters.

Note 2─ See PANS-ATM, 12.3.2.9 for related RTF phraseology and Annex 2, 3.6.5 for communication failure procedures.

17.8.3.1   Tactical parallel offset shall be achieved by ATC instructing an aircraft to fly parallel to a route(s), left or right, at a specified distance.

17.8.3.2   Tactical parallel offset shall only be applied to aircraft with automatic offset programming capability. A flight crew unable to comply, as a result of RNAV system limitations, shall immediately advise ATC.

17.8.3.3   The tactical parallel offset procedure shall only be used at or above established minimum flight altitudes or lowest usable flight levels and when continuous ATS surveillance service is provided. When issuing a clearance for tactical parallel offset the controller shall ensure that the offset path will remain inside controlled airspace.

17.8.3.4   Tactical parallel offset shall only be used after the last point of a SID and before the first point of a STAR.