



International Civil Aviation Organization

**The Fourth Meeting of the Asia/Pacific ICAO Flight Plan and ATS Messages  
Implementation Task Force (FPL&AM/TF/4)**

Bangkok, Thailand, 2 – 3 June 2011

---

**Agenda Item 3: Review outcomes of related meetings**

**AIR NAVIGATION COMMISSION REVIEW OF SUPPLEMENTARY REQUIREMENTS**

(Presented by the Secretariat)

**SUMMARY**

This paper presents the results of Air Navigation Commission (ANC) deliberations on the matter of regional supplementary designators, principally as a result of European submission related to this matter.

This paper relates to –

**Strategic Objectives:**

*A: Safety – Enhance global civil aviation safety*

*C: Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

**Global Plan Initiatives:**

GPI-12 Functional integration of ground systems with airborne systems

**1. INTRODUCTION**

1.1 The EUR (European) region has used supplementary designators such as STS/NONRNAV, STS/EXM833, STS/RNAVINOP to indicate the status of exempted flights, RVR/XXX to indicate the lowest authorized RVR value and RFP, as an option to the use of CHG, to indicate replacement flight plans. Although not published in the EUR Supplementary Procedures (SUPPS, Doc. 7030), the term PROTECTED is used by the EUR Region in Field 18 as an indication of the need for protection of the FPL information. In addition, CPDLCX is described in the EUR SUPPS for item 18 as following RMK/.

1.2 EUROCONTROL had stated that the implementation of amendment 1 to PANS-ATM (Doc 4444) would be expected to cause a loss of functionality for the EUR region as regards the transposition of this information from the indicator STS/ to RMK/. The main concern was that the information would now be structured text within a free text field, without syntax checks and still requiring processing by all automation systems globally. The lack of syntax checks was considered by EUROCONTROL to increase the risk of errors and loss of information, resulting in rejection and the need for manual correction of the flight plan.

**2. DISCUSSION**

2.1 The ANC had been requested by the European Air Navigation Planning Group (EANPG) to approve an amendment to EUR SUPPS to allow the use of supplementary designators in order to continue using the current EUROCONTROL system. Europe proposed to use at least one non-standard indicator, "EUR/. Previous discussion from the APAC FPL and AM TF/3 noted this would be at odds with the Asia/Pacific Guidance Material which stated "*Systems should not accept indicators in Item 18 which are not defined in the PANS-ATM.*".

2.2 A copy of the Discussion Paper (DP2 Related to AN-WP/8539) which provided analysis on the various options available is attached as **Attachment 1**. The ANC, in its review of AN-WP/8539 on Thursday, 19 May 2011, did not approve the request by the European Air Navigation Planning Group (EANPG) to progress the EUR requirements through an amendment to Doc 7030 (Regional Supplementary Procedures).

2.3 The ANC agreed that a post-implementation review be conducted in relation to the 2012 flight plan. The ANC recommended, as a future step, the development of proposals for Standards and Recommended Practices (SARPs) related to flight plans and, if needed, Procedures for Air Navigation Services (PANS) to supplement the SARPs. Furthermore, the ANC requested the ICAO Secretariat to prepare a response to the EANPG, conveying the decision of the ANC and providing an explanation of the process leading to the decision.

2.4 **Attachment 2** contains a proposal for an amendment proposal for PANS-ATM, Appendices 2 and 3 concerning indications of aircraft equipage or capabilities exemption information in Items 10 and 18 of the ICAO flight plan form (Alternative 4 in Attachment 1). It should be noted that the ANC has not currently decided which alternative to accept and so this proposal is provided as background information only.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to note the information within this paper.

.....



International Civil Aviation Organization

**WORKING PAPER**

Discussion Paper No.2  
Related to AN-WP/8539  
5/5/11

**AIR NAVIGATION COMMISSION**

**AN Programme No. D3.FWK-IPP: Air Navigation Integrated Programme (ANIP)**

**Report from the Ad-Hoc Working Group on Conclusion 52/34 - European requirement for additional indicators in Item 18 of FPL from 15 November 2012**

(Presented by the Chairperson of the AHWG on FPL 2012)

**1. Introduction**

1.1 The Commission agreed to establish an ad hoc working group, to be chaired by Mr. B. Eckerbert, with the task to identify and analyse the problems and to find the best global solution.

**2. Summary**

2.1 The report from the ANC Ad-Hoc WG is contained in Appendix 1 to this discussion paper. Actions by the Air Navigation Commission are in paragraph 3 below.

**3. Action by the Air Navigation Commission**

3.1 The Air Navigation Commission is invited to

- a) Note this report;
- b) Agree provisionally that the alternative 3 and 4 should be progressed and consequently agree to alternative 2, i.e. disapproving the request by EANPG to progress the EUR requirements through an amendment to Doc 7030;
- c) Instruct the Secretariat to develop a SL based upon alternatives 3 and 4;
- d) Agree that, as a second step, proposals for SARPs related to flight plans and, if needed, PANS to supplement the SARPs should be developed;
- e) Instruct the Secretariat to prepare a response to the EANPG conveying the decision of the ANC and explaining the progress of the matter;
- f) Ensure that the Council is kept up to date on this matter

**- END -**

**REPORT FROM THE AD-HOC WORKING GROUP ON CONCLUSION 52/34 -  
EUROPEAN REQUIREMENT FOR ADDITIONAL INDICATORS IN  
ITEM 18 OF FPL FROM 15 NOVEMBER 2012**

(Presented by the chairperson of ANC AHWG on FPL 2012)

**Executive summary**

The AHWG comprises members of the ANC, industry observers and relevant secretariat members. The task is to find the best global solution of the requirements put forward from the EUR region.

The AHWG has identified and evaluated five alternative solutions.

- Amd 1 to PANS-ATM as it currently stands (**Alternative 0**)
- The use of SUPPS to promulgate the EUR requirements (**Alternative 1**)
- The use of European AIPs to promulgate the EUR requirements (**Alternative 2**)
- The use of a PANS-ATM amendment to introduce up to eight regional designators behind which the regional requirements would be listed or to restrict this to EUR until needs arise (**Alternative 3**)
- The use of a PANS-ATM amendment to introduce a possibility to also indicate non-compliance with certain requirements via item 10 in conjunction with item 18 of the flight plan (COM/NAV/DAT) (**Alternative 4**)

In its work the AHWG has consulted a limited number of experts from States, ANSPs, air operators and vendors.

The AHWG has eliminated alternatives 1 and 2 as not being feasible. In its analysis of alternatives 3 and 4, the AHWG concludes that alternative 3 could be structured to accommodate the needs of the EUR region. Alternative 4, which could also be structured covers the needs of the EUR region as regards exemptions, while issues of PROTECTED and RVR/RFP would have to be covered by the RMK/. Alternative 3 is considered to be the most flexible solution, adaptable to the needs of other regions and needs of the future. Alternative 4 partly covers the needs of the EUR region and may be easier and quicker to implement from an ICAO point of view. It is probable that alternative 4 will avert the use of AIPs to introduce the EUR requirements. The AHWG has not been able to express a preference for alternative 3 or 4 in lack of conclusive evidence due to the time constraints. The AHWG therefore proposes that both alternatives are included in a State Letter as the most expeditious way to move forward with an amendment to PANS-ATM. The AHWG is aware that the presentation of two alternatives in an SL is unusual but considers this to be feasible.

Additionally the AHWG proposes that, as a separate activity, work is undertaken to include provisions for flight plans in the SARPS to ensure better harmonization.

**References** - EANPG/52 Report, conclusion 52/34 and consequent documentation provided by EUR region, Amendment 1 to PANS-ATM State Letters 2007/35 and 2008/50), AN-WP/8280, ANC Minutes 177-1 and -2.

## **1. Introduction**

1.1 The Commission agreed to establish an ad hoc working group, to be chaired by Mr. B. Eckerbert, with the following Terms of Reference:

- a) The group would begin with an objective analysis to clearly identify the problem
- b) To find the best global solution on the particular issues raised by EANPG
- c) When looking for the solution, the group should consult with subject matter experts
- d) The group shall begin its work immediately and, if possible, to report back to the Commission during the current session

1.2 The AHWG consists of the following members: T Brady, D Behrens, M Comber, C Dalton, B Eckerbert, P Fleming, T Feng, R Gonzalez, E Hoeuven, P MaCarthy, H Matthiesen, R Monning, C Schleifer, R Stilwell, A Tiede, F Zizi.

1.3 The AHWG has had informal contacts with flight plan experts from some stakeholders, i.e. States, operators and ANSPs.

1.4 The description of the consequences and the analysis are based upon the information that was possible to collect through informal requests. The Secretariat produced and distributed a questionnaire on behalf of the AHWG to ANSPs, predominantly outside the European region, in an effort to elicit specific information relating to field length, how the information would be treated by the ANSP and the perceived impact of alternate 4 on ANSP automated systems. The cumulative response was from 6 specific ANSPs, 1 ICAO region, 2 vendors, 2 airlines and IATA. Efforts have been made to retrieve information that is as representative and relevant as possible but the information is not complete. The technical expertise available to the AHWG is limited whereas the issues cover several areas, such as operational circumstances, flight plan contents and distribution as well as software solutions. It has not been possible to evaluate all these areas fully, consequently it is envisaged that any alternative that involves other than minor changes, must be evaluated based on the responses by States and international organizations to State Letter.

1.5 It should also be recognized that the work of the AHWG is confined to issues raised or closely associated with EANPG/52 Report, conclusion 52/34 and Amendment 1 to PANS-ATM (State Letters 2007/35 and 2008/50).

## **2. Background**

2.1 Historically the EUR region has been using special descriptors like NONRNAV, EXM 833, RNAVINOP in conjunction with the STS/ indicator of Item 18. In addition, CPDLCX is indicated in association with the RMK/ indicator.. This has been promulgated through Doc 7030 (SUPPS). During the development of the PANS-ATM amendment a possibility to promulgate special requirements through the SUPPS was retained until the final review by the

ANC, when the ANC approved the deletion suggested in AN-WP/8280, as proposed by the FPLSG, so as to improve harmonization and standardization of FPL contents. Through the EANPG/52 Report, Conclusion 52/34, the EUR regions proposed to use the indicator “EUR” instead of “STS” or “RMK”, e.g. “EUR/NONRNAV”, in item 18 to indicate, for example, exemption from RNAV. The EUR proposals are contained in Appendix O to the EANPG/52 Report. (Not reproduced here)

2.2 In P/ANC 2011/09, dated 15 March 2011, the NAM region has requested an approval of a Regional Supplementary Procedure related to flight plans described in draft version NACCS-11/01 NAM. The AHWG have had this proposal in mind when progressing the task of finding a solution, which is globally feasible. The SAM region has also requested approval for a SUPPS amendment proposal related to flight plans (SAM-S10/01-SAM) circulated as memo P/ANC 2011/07.

2.3 The AHWG has identified five alternatives to resolve the situation. The aim is to find a solution that is globally feasible and interoperable while maintaining the desired functionality without causing undue costs or practical problems for other regions.

2.4 The Secretariat has indicated that it foresees a need to undertake a post implementation review, which could address future requirements including the issues raised by EUR in the EANPG/52 Report if not resolved prior to the proposed review.

### **3. Problem description**

3.1 Currently the EUR region is using indicators like STS/NONRNAV, STS/EXM833, STS/RNAVINOP. The region also uses RVR/XXX in ATFM to indicate the lowest RVR value authorized for the operator and the aircraft and RFP, as an option to the use of CHG, used to indicate replacement flight plans. Although not published in the EUR Supplementary Procedures (Doc. 7030), the term PROTECTED is used by the EUR Region in Field 18 as an indication of the need for protection of the FPL information. In addition, CPDLCX is already in the EUR SUPPS and is today placed behind RMK/, placed in item 18.

3.2 The implementation of amendment 1 to PANS-ATM will cause loss of functionality for the EUR region as regards the transposition of this information from the indicator STS/ to RMK/, still in item 18 but now as structured text within a free text item/field, i.e. without syntax checks and still requiring processing by all automation systems globally. The lack of syntax checks may increase the risk of errors and loss of information. Such errors in syntax will cause rejection and need of manual correction of the flight plan.

3.3 From the European perspective it has been stated that they consider the use of free text to be both costly and unreliable. Introduction of more free text is viewed as development in the wrong direction for ensuring correct flight plan data.

## **4. Discussion**

### **4.1 Alternatives identified**

4.1.1 To avoid confusion with the “options” described in DP 1 to AN-WP/8539, the word “alternative” has been selected. Alternative 0 is used to describe a “no change” alternative. It is necessary to describe this alternative since it will have consequences, which are described below.

4.1.2 **Alternative 0** means adhering fully to amendment 1 to PANS-ATM, i.e the amendment to Doc 7030 requested by EANPG/52 is not approved for circulation to States. The special EUR requirements would be handled under RMK/ in item 18 and as such be “free text”. In DP 1 to AN-WP/8539 this alternative was described as “Option 2”.

4.1.3 **Alternative 1** involves approving the EANPG/52 request. This alternative is characterized by allowing a new item 18 indicator “EUR/” by means of Doc 7030 (SUPPS). The new indicator would be used where STS/ is used today and where RMK will be used instead in accordance with Amendment 1 to describe exemptions and other non-compliance. Likewise RVR/XXX, RFP and “PROTECTED” would go behind the EUR/ indicator. This alternative was described as Option 4 in Flimsy 1 to AN-WP/8539.

4.1.4 **Alternative 2** involves disapproving the EANPG/52 request, in which case the EUR States are expected to implement the same requirements as those described in alternative 1 through the AIPs of the 56 European States. This alternative was described as a consequence of Option 2 in DP 1 to AN-WP/8539.

4.1.5 **Alternative 3** is characterized by allowing a regional three-letter indicator for each of the ICAO regions (e.g. AFI, NAM, SAM). Alternatively this possibility could be made available only to the EUR region and to other regions as the need arises This new indicator would be placed in item 18. Likewise RVR/XXX would go behind this indicator. RFP should be deleted and revisions to flight plans be handled by a CHG message as provided for in Amendment 1 to PANS-ATM. Similarly “PROTECTED” should follow Amendment 1 and consequently go behind RMK/. In DP 1 to AN-WP/8539 this alternative was described as “Option 1”.

4.1.6 **Alternative 4** is characterised by using item 10 (its rules of use to be the subject of an amendment to PANS-ATM) to insert a Z, which indicates that there is additional information behind the NAV/DAT/COM indicators in item 18 as free text. Notwithstanding the free text nature of these fields, the relevant information would be structured by means of associated provisions in the relevant SUPPS. This alternative would resolve other indicators, like RVR or RFP, through SUPPS or AIP. This alternative would be available to all regions as an amendment to PANS-ATM. In DP 1 to AN-WP/8539 this alternative was described as “Option 3”.

### **4.2 Consequences of the alternatives**

4.2.1 **Alternative 0** - This alternative will mean that the EUR region will have to change from using controlled indicators (STS or the proposed new EUR) to using RMK. This part of the FPL will not have syntax checks, which will increase the risk of errors and loss of

information. Such errors in syntax may cause rejection or need of manual correction of the flight plan, only to then find that the information is actually only applicable in one region. This alternative will not require an amendment to PANS-ATM.

4.2.2 **Alternative 1** - The impact is expected mainly to involve reprogramming of the European ANSP systems for handling of flight plans. However, for the States outside EUR, their systems must recognize the EUR indicator and subsequent descriptors as information to be disregarded, i.e. adjustments are necessary. However, even if the parameters are the same as today, they are to be filed in a different manner, hence adjustments to current systems are deemed to be required. Having knowledge of the EANPG request, some States and vendors of software have started to take actions to handle the EUR designator. This alternative will require an amendment to PANS-ATM.

4.2.3 **Alternative 2** - According to available information this alternative might result in the EUR region implementing the desired FPL requirements through publication in the AIPs of the 56 States in the region. All users of EUR airspace will have to identify the requirements from the respective AIPs to ensure compliance in flight planning and filing of flight plans. The impact on ANSPs is expected only to involve reprogramming of the European ANSP systems for handling of flight plans. However, even if the parameters are the same as today, they are to be filed in a different manner, hence adjustments to current systems are deemed to be required. For the States outside EUR, this will mean that their systems must recognize the EUR indicator as information to be disregarded. This alternative will not require an amendment to PANS-ATM.

4.2.4 **Alternative 3** - The global impact is deemed to involve reprogramming of the systems for handling of flight plans, both for the ANSPs and the airspace users. This proposal involves changes for all regions in order to handle flight plans to/from regions using a regional indicator, which had not been specified in Amendment 1. It could also inspire to other changes, which in turn could lead to delays and increased costs. This option requires an amendment to PANS-ATM.

4.2.5 **Alternative 4** - The global impact is deemed to involve reprogramming of the systems for handling of flight plans, for ANSPs within regions making use of the alternative and the airspace users. If other regions than EUR were to adopt this alternative, some measures will need to be implemented to specify the applicability of the information. With this alternative the EUR needs are expected to be partly satisfied. The relevant text behind the COM/NAV/DAT indicators would be structured text within a free text field, hence the risk of erroneous or missing data is mitigated but not eliminated. This option will require an amendment to PANS-ATM.

## 4.3 Analysis

4.3.1 The EUR region has been questioned whether all possibilities to use RMK/free text have been evaluated fully. The response received says very clearly that EUR considers the use of free text has been evaluated thoroughly and found to be costly and unreliable. Introduction of more free text is viewed as development in the wrong direction for ensuring correct flight plan data. Based on information about how the EUR systems are designed and the related needs for FPL data, established since several years, it must be concluded that a solution that addresses the needs of the EUR region is necessary. This is widely recognized.

4.3.2 Alternative 0 does not satisfy the needs of the EUR region. Given that the region has one other alternative (No 2) available, alternative 0 is very unlikely to be accepted by the EUR region as the sole solution.

4.3.4 Alternative 1 is what started the discussion in the ANC. Use of Doc 7030 (SUPPS) for amendments of this character is a recognized practice. However, there are some concerns about this. On a formal level it can be argued that several of the issues related to flight plans and many other procedures have a global impact and should therefore be handled in PANS or SARPS to ensure global harmonization. Some of the matters discussed here are truly regional operational procedures which need to be reflected in the flight plan, while some other matters, like RFP or “Protected”, are mainly related to the flight plan handling itself and thus not really a regional procedure. This distinction can be debated, but at any rate, the SUPPS consultation/approval procedure is fragile, since it can be stopped or at least interrupted and delayed by the disagreement of a single state outside the region. One argument for using the SUPPS is that it is much better and transparent than using the AIP for promulgating special requirements.

4.3.5 Some of the EUR proposals have been in the SUPPS for a long time, which clearly indicates the need for these procedures. Even if this circumstance does not constitute grandfather rights, it is questionable if sufficient consideration has been given to existing needs and procedures. This is underlined by the fact that the possibility to use SUPPS as a means to deviate from amendment 1 was removed at the very last stage in the process and then not based on a direct suggestion from any State but from the FPLSG when considering the comments from the States.

4.3.6 Alternative 2 is technically identical to alternative 1. The difference is that in alternative 2 the AIPs of 56 different States would be used to promulgate the same requirements. The consequence is however that it may be difficult for the EUR region to have fully coordinated and harmonized requirements. This may cause confusion both inside and outside the region. The difficulties to obtain knowledge of the EUR requirements are more severe for this AIP solution than for any other alternative.

4.3.7 While the EUR region is convinced that it needs procedures, which are additional to or different from those in PANS-ATM, Amendment 1, it can be noted that the NAM region intends to mainly use the provisions in PANS-ATM to indicate NAV capabilities as opposed to the EUR method of indicating the lack of capabilities. However, the NAM region also appears to see a need for additional FPL procedures related to RNAV in the SUPPS.

4.3.8 Alternative 3 offers a solution to the needs of the EUR and can make the same functionality available to all regions, should such need exist or arise. The AHWG is uncertain about the impact on ANSPs and airspace users in terms of reprogramming and changing of procedures (however see 4.2.4 above). It has been argued that this alternative would not have a greater impact than alternative 1 or 2, at least in regions where there is currently no need for a regional indicator. It has also been argued that alternative 3 offers the most flexible and “future-safe” solution. In order to promote global harmonization, the descriptors following the regional indicator, should be agreed globally and included in PANS-ATM and only in truly regional cases be handled through SUPPS. The procedures for using the regional indicators should also be described in PANS-ATM. The need for supplementary procedures for flights in the NAM and SAM regions, raises the question whether those needs could perhaps better be handled under a regional indicator as described under alternative 3.

4.3.9 Regardless whether SUPPS or AIP are used to promulgate the special procedures in EUR, NAM and SAM regions, a difference in philosophy between the regions can be noted.

The EUR procedures focuses on non-compliance, i.e. exemptions whereas the NAM procedure focuses on describing compliance, i.e. listing the existing capabilities. In isolation, either of these two 2 principles will work. When combined the effect may create confusion, i.e. in one region there is a need to file the capabilities but in the next the lack of capabilities shall be filed. Currently PANS-ATM requires filing of capabilities while lack of capabilities shall be filed under RMK as reasons for special handling. It can be argued that compliance with regional requirements for NAV, COM and DAT are likely to be much more frequent than non-compliance, hence filing of lack of capabilities may be assumed to require less space in the flight plan leading to less risk of truncations.

4.3.10 Alternative 4 resolves some of the needs of the EUR region, in particular those related to NAV, COM and DAT. However, not all of the needs are addressed and in combination with the associated negative consequences of free text, this alternative may be likely but not certain to avert the risk of EUR preferring the AIP solution (Alt 2). This alternative comprises structured text within a free text field, which significantly mitigates the negative consequences of the so-called free text. This alternative would be available to other regions as an amendment to PANS-ATM to be used as needs exist or arise. The AHWG is uncertain about the impact on ANSPs and airspace users in terms of reprogramming and changing of procedures. It has been argued that this alternative could require a more complex logic than alternative 3 and hence be more demanding in terms of re-programming.

4.3.11 Alternatives 1, 3 and 4 will involve an amendment to PANS-ATM. The amendments associated with alternatives 1 and 4 are simple. In alternative 1, it is a matter of reinserting the possibility to allow variations to PANS-ATM through SUPPS as circulated in State Letter 07/35. It can be debated whether this particular alternative really would need to be circulated to States, since they have already expressed support for this text. In alternative 4 the amendment will be to allow the revised use of the letter “Z” in item 10 to lead to additional information in item 18 COM/NAV/DAT. Alternative 3 requires the insertion of one or more regional indicators and preferably a list of descriptors to be used behind the regional indicator.

#### 4.4 **Conclusions**

4.4.1 As regards global interoperability alternatives 0, 3 and 4 are considered equal. Since indications are that full adherence to alternative 0 by the EUR region is unrealistic, alternative 3 remains as the best alternative in this respect with alternative 4 as the next best. Alternative 2 is deemed to be clearly the worst and alternative 1 is deemed to have a moderate negative impact on interoperability.

4.4.2 As for the cost impact alternative 0 is the best although it is deemed to involve costs for the EUR region because of the need to build systems to handle free text automatically and with high precision. On the other hand these costs can be shared between the States in the region, which reduces the cost for the individual States. Of the other alternatives number 2 is deemed to involve very high costs due to the complexity to retrieve the information and the risk of varying procedures. The remaining alternatives are deemed to involve variable costs depending on how software changes are obtained and which arrangements have been done in preparation for implementation of amendment 1. The costs for alternative 3 is likely to be reduced if only implemented as needs arise in regions outside EUR.

4.4.3 As for the risk of delay of implementation, alternative 0 is deemed to be the best with the caution that it would contain comprehensive software development for the EUR region. Since it is unlikely that the EUR region will apply alternative 0 (PANS-ATM) as the sole

solution, the risk of delay for that region is obvious but has not been possible to estimate. Alternative 1 is deemed to involve the highest risk of delay and it is not possible to estimate the associated delays if States outside the EUR region would oppose the SUPPS proposals. Alternative 2 is deemed to be second best since it is already prepared in the EUR region and even foreseen by some States outside the region and by some vendors. In connection herewith it may be noted that some States have not made such preparations and also expect the costs to be very high. Alternatives 3 and 4 are deemed as equal in terms of delay. In summary, however, none of the alternatives are deemed to necessitate a delay beyond November 2012 with the possible exception of alternative 1.

4.4.4 The needs of the EUR region are satisfied by alternatives 1, 2 and 3 and partly by alternative 4 but not by alternative 0. Alternative 0 is clearly unacceptable to the EUR region and in view of this and the availability of other alternatives, it should be discarded as a sole solution. However, if none of the other alternatives are chosen, alternative 0 will prevail by default.

4.4.5 Alternative 4 satisfies some of the needs of the EUR region. This alternative builds closely on the provisions of amendment 1 to PANS-ATM. However it is deemed to require moderate changes to the systems of ANSPs and airspace users.

4.4.6 Alternative 2 is might be used if the needs of the EUR region are not satisfied by other means, i.e. through alternatives 1, 3 or 4. The application of this alternative is the decision of the EUR region, as a consequence of the decision by the ANC as regards the other alternatives.

4.4.7 The ANC is obliged to make a decision on alternative 1 as requested by the EANPG through the EANPG/52 report.

4.4.8 While alternative 3 is deemed to be the most flexible and robust in relation to future needs, it might inspire to special regional procedures/requirements. It may however be noted that at least three regions have already implemented special regional procedures for flight plans.

4.4.9 Having eliminated alternatives 0 and 2 as well as alternative 1, alternative 3 and 4 remain as the possible candidates to resolve the situation. In comparison between these two, it appears as if alternative 4 appears offering a reasonably simple patch to amendment 1 to PANS-ATM. It is however a patch whereas alternative 3 appears to offer a more flexible and comprehensive solution likely also to be able to cover future needs. The software changes required and thus cost and delay implications of the two alternatives may be rather comparable.

4.4.10 In conclusion, the AHWG has not been able to agree whether recommend alternative 3 or 4 based on the information that was possible to retrieve. In order to give the ANC the necessary information it was suggested that a small Task Force should be formed. The TF should consist of experts from the States, ANSPs, air operators, related industry organizations and the Secretariat. It is noted that a group called TRASAS is already involved in i.a. trans-regional flight plan matters. Experts drawn from this group supplemented by experts from one or more other regions and the Secretariat could form the TF. It was also noted that the Flight Plan SG was never disbanded and consequently could be reactivated. Given the time constraints and in spite of the time lines presented in Attachment 1 to this report and the statement in paragraph 4.4.3 above, there is concern that delays of implementation can result from amendments to PANS-ATM. A quicker way of obtaining the necessary information would be to consult the States via a State Letter. The AHWG suggests that such a State Letter should contain both alternatives 3 and 4. The AHWG is aware that providing more than one option for a PANS amendment is highly unusual.

However, the AHWG still sees this a possibility. If the responses result in a clear preference the situation is resolved. However, even if the preferences were evenly split between the alternatives the analysis of the reasons for preferring one alternative or the other would provide sufficient basis for a decision.

4.4.11 The AHWG proposes that the post implementation review mentioned in paragraph 2.4 should be undertaken within 6 months after the implementation dead line, i.e. before 15 May 2013. When performing this review, alternative 3 should be kept in mind if not already implemented.

## 5. **Actions by the ANC**

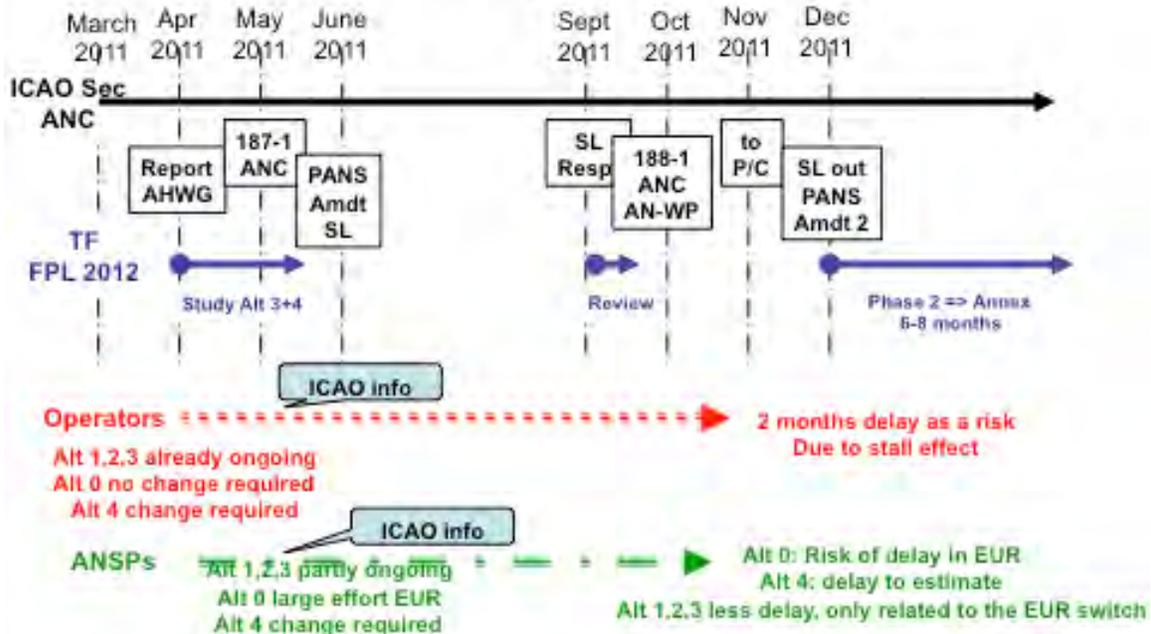
5.1 The Air Navigation Commission is invited to

- a) Note this report;
- b) Agree provisionally that the alternative 3 and 4 should be progressed and consequently agree to alternative 2, i.e. disapproving the request by EANPG to progress the EUR requirements through an amendment to Doc 7030;
- c) Instruct the Secretariat to develop a SL based upon alternatives 3 and 4:
- d) Agree that, as a second step, proposals for SARPs related to flight plans and, if needed, PANS to supplement the SARPs should be developed;
- e) Instruct the Secretariat to prepare a response to the EANPG conveying the decision of the ANC and explaining the progress of the matter;
- f) Ensure that the Council is kept up to date on this matter

Attachment 1. Preliminary timelines for the remaining work

Attachment 2. An overview of the alternatives and associated impact

## FPL AHWG proposal process



Perspective	Impact for alternatives 0 – 4				
	Alternative 0 PANS-ATM strictly	Alternative 1 EUR by SUPPS	Alternative 2 EUR by AIP	Alternative 3 7 REG indicator	Alternative 4 Items 10+ 18
Software chg ANSP	Global 0; EUR 4	3	4	3	2
Software chg OPS	0	3	4	3	2
Costs ANSP	Global 0; EUR 2	3	4	3	3
Costs Operators	0	3	4	3	2
Interoperability	0	2	4	0	1
Functionality	Global 1; EUR 3	1	1	0	Global 1; EUR 2
Regulatory change	0	1	0	3	2
Delay risk	Global 0; EUR 3	3	3	3	2
Flexibility	1	2	0	0	1
Risk for data loss	Global 1; EUR 3;	1	1	2	2
<b>Summary</b>	<b>Global 3 EUR 16</b>	<b>23</b>	<b>25</b>	<b>20</b>	<b>Global 18 EUR 19</b>

The figures have the following meaning.

- 0 – No negative impact
- 1 – Minor negative impact
- 2 – Moderate negative impact
- 3 – High negative impact
- 4 – Very high negative impact



International Civil Aviation Organization

AN-WP/8562  
29/4/11

**WORKING PAPER**

**AIR NAVIGATION COMMISSION**

**AN Programme No. D1-ANS-CMT: Conflict management**

**PRELIMINARY REVIEW OF PROPOSED AMENDMENT TO THE  
PANS-ATM RELATED TO THE FLIGHT PLAN  
(Item No. 18717)**

(Presented by the Director of the Air Navigation Bureau)

<b>SUMMARY</b>	
This paper proposes an amendment, developed by the Secretariat, to Appendices 2 and 3 to the PANS-ATM concerning indications of aircraft equipage or capabilities exemption information in Items 10 and 18 of the ICAO flight plan form.	
Action by the Air Navigation Commission is in paragraph 5.	
<b>COORDINATION</b>	
CNS, OPS	
<b>REFERENCES</b>	
*AN-WP/8539 & DP No. 1	Doc 7030, <i>Regional Supplementary Procedures</i>
*AN Min. 186-5	State letter AN 13/2.1-08/50
PANS-ATM, Doc 4444	
This working paper relates to Strategic Objective A.	
*Principal reference	

**1. INTRODUCTION**

1.1 Approval of Amendment 1 to the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444), relating to flight plan provisions, was promulgated by way of State letter AN 13/2.1-08/50 dated 25 June 2008 (applicability: 15 November 2012).

1.2 On 1 March 2011, the Air Navigation Commission (186-5) considered the report of the fifty-second meeting of the European Air Navigation Planning Group (EANPG/52) (AN-WP/8539 and DP No. 1 refer), which included a proposal for amendment to the *Regional Supplementary Procedures* (Doc 7030, SUPPs) of the European Region, on the subject of an additional indicator (i.e. “EUR/”) for Item 18 of the flight plan. The Commission concluded that the proposal could not be circulated on the basis that it conflicted with Amendment 1 to the PANS-ATM. In this respect, the objective of the EUR indicator being proposed, to provide for indication of reasons for requests for special handling by ATS, was already covered by Amendment 1 (2.1.1 refers).

1.3 As a means of identifying a way forward for addressing the need expressed by the EANPG for the additional indicator(s), the Commission established an ad hoc working group with terms of reference which included defining the optimal global solution for indicating in the flight plan exemptions granted from mandatory equipment carriage or capabilities requirements, with due consideration for the timely and adequate implementation of Amendment 1 itself.

1.4 Stemming from discussions within the ad-hoc working group, the Secretariat developed a proposal for amendment to the PANS-ATM (contained in the Appendix) which, in the view of the Secretariat, represents the best way forward. Consequential amendments to Doc 7030 will be developed in due course in coordination with the relevant planning and implementation regional groups (PIRGs).

## 2. DISCUSSION

### 2.1 Aircraft equipage and capabilities exemptions

2.1.1 The EANPG proposal for the use of a new indicator EUR/ included its use for the indication, on a regional basis, of requests for special handling by air traffic services (ATS) based on exemptions from mandatory aircraft equipment carriage or capabilities requirements<sup>1</sup>. Amendment 1 to the PANS-ATM, however, requires that all reasons for requests for special handling not listed in the amendment itself, be indicated in Item 18 in conjunction with the RMK/ indicator. In this context, the EANPG proposal was in conflict with the PANS-ATM (as of November 2012).

2.1.2 The proposal for establishing a new regional EUR/ indicator was based on European assessments of processing limitations associated with the RMK/ indicator. Specifically, the information included in conjunction with the RMK/ indicator, being of a free text nature, was assessed as not being conducive to automated extraction of relevant equipage exemption information. In addition, the aspect of the RMK/ indicator being prescribed by Amendment 1 as the last indicator in Item 18 was assessed as increasing the possibility for the information's truncation, due to limitations in the aeronautical fixed telecommunication network (AFTN) message length.

2.1.3 The ad hoc working group was cognizant of the importance of minimizing, to the extent possible, risks associated with delays to, or non-implementation of, Amendment 1 to the PANS-ATM. Accordingly, it sought to minimize implications which any change to the PANS-ATM could bring to bear on adaptations to air navigation service providers' and operators' automated flight data processing systems (particularly those outside the European Region) currently ongoing in support of their timely implementation of Amendment 1.

2.1.4 The ad hoc working group concluded that one of the ways in which the matter could be addressed, after having considered several options and undertaking limited implementation impact assessments, was for the use of COM/, NAV/ and DAT/ indicators of Item 18, to be expanded so as to also accommodate indications of reasons for special handling by ATS, based on exemptions granted from aircraft mandatory equipage carriage or mandatory capabilities requirements. The use of these indicators was considered to mitigate (to a significant extent) truncation risk and, since the information inserted after the aforementioned indicators is of a free text nature, minimize impact on global flight data processing systems and users' automated flight plan filing systems.

2.1.5 The ad hoc working group also recognized that information concerning regional exemptions from mandatory aircraft equipage carriage and capabilities requirements, which would be included with the COM/, NAV/ and DAT/ indicators, should be of a structured nature by means of

---

<sup>1</sup> i.e.: EUR/EXM833 CPDLC RNAVINOP RNAVX

promulgation (in Doc 7030) of the format to be used. Consequently, the specific information pertaining to exemptions, although within a free text field, would itself be structured.

2.1.6 Information received by the Secretariat supports the use of the COM/, NAV/, DAT/ indicators as a viable way forward on the matter.

## 2.2 Indicators of RVR and RFP

2.2.1 A consequential review of Doc 7030 was undertaken for the purpose of ensuring consistency of other existing regional indicators with respect to PANS-ATM (as amended by Amendment 1). Notably, the EUR Regional Supplementary Procedures of Doc 7030 currently provide for the use of the indicators RFP/<sup>2</sup>, supplementing the use of the CHG message, and RVR/<sup>3</sup> for reasons specific to that region. In the understanding that the indicators have been in existence for a considerable period of time and are not in conflict with the Amendment 1 to the PANS-ATM, both indicators should remain in the EUR Regional Supplementary Procedures.

2.2.2 As a means of ensuring global interoperability in this regard, States, aircraft operators and international organizations will need to be informed of the continued existence of the indicators RVR and RFP, in the context of their current operations and in the context of their Amendment 1 implementations.

## 3. BENEFITS AND COST IMPACT

### 3.1 Benefits

3.1.1 The proposal will provide a globally interoperable means for indicating new reasons for special handling requests, stemming from exemptions granted from regional or national mandatory equipment carriage or mandatory capabilities requirements. The proposal, in recognizing the operational significance of such information, will ensure that risks of truncation are minimized.

3.1.2 Although the information which can be included after the COM/, NAV/, DAT/ indicators is of a “free text” nature, information specific to exemptions can be “structured” by the supplementary procedures of Doc 7030. In this way, the extraction and/or processing of the text by flight data processing systems is facilitated. The proposal will provide clarity as to the means by which such exemption information is to be indicated in the flight plan, namely in conjunction with the specific indicator associated to the equipment for which an exemption was granted.

### 3.2 Cost impact

#### 3.2.1 *Operators*

3.2.1.1 Costs are expected to be similar to those which would have been incurred for adapting automated systems to allow for the indication of exemption information in accordance with the Amendment 1 to the PANS-ATM (i.e.: in conjunction with the RMK/ indicator).

3.2.1.2 Operators who currently submit data associated with RVR/ and RFP/ would continue to do so at no additional cost.

---

<sup>2</sup> RFP: Replacement Flight Plan

<sup>3</sup> RVR: Runway Visual Range

### 3.2.2 *Air Navigation Service Providers (ANSPs)*

3.2.2.1 As regards ANSPs outside the EUR Region, as Amendment 1 to the PANS-ATM supports the use of free text in conjunction with the indicators COM/, NAV/, DAT/, no additional costs are expected. These ANSPs will not be required to extract or perform extra processing of such information over and above that originally envisaged by Amendment 1.

3.2.2.2 As regards ANSPs within the European region, there could be costs related to ensuring effective automated extraction and processing of the exemption information from indicators which allow for the use of free text (COM/, NAV/, DAT/). Since these regions do have a requirement in this regard, the costs are expected to be comparable to costs which would have been incurred to perform such automated extraction and processing in conjunction with the RMK/ indicator required by Amendment 1.

3.2.2.3 ANSP automated flight data processing systems currently address RVR/ and RFP/ and should continue to do so in the same manner at no additional cost.

## 4. **APPLICABILITY DATE**

4.1 It is proposed that the applicability date for the amendments to the PANS-ATM be 15 November 2012, coinciding with that of Amendment 1.

## 5. **ACTION BY THE AIR NAVIGATION COMMISSION**

5.1 The Air Navigation Commission is invited to:

- a) review the proposed amendment to the PANS-ATM presented in the Appendix;
- b) agree that the amendment proposal, as may be modified by action taken in a) above, be transmitted to States and appropriate international organizations for comments;
- c) agree that, in conjunction with the transmittal of the proposal in b) above, particular attention of States and international organizations be drawn to the continued existence of RVR and RFP indicators in the *EUR Regional Supplementary Procedures* (Doc 7030) after 15 November 2012;
- d) agree that the applicability date for the proposed amendment to the PANS-ATM be 15 November 2012; and
- e) request the Secretary to present the results of the consultation in b) above for final review by the Commission in the 188th Session.

-----

## APPENDIX

### NOTES ON THE PRESENTATION OF THE AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

~~Text to be deleted is shown with a line through it.~~

text to be deleted

New text to be inserted is highlighted with grey shading.

new text to be inserted

~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading.

new text to replace existing text

**PROPOSED AMENDMENT TO**  
**PROCEDURES FOR**  
**AIR NAVIGATION SERVICES**  
**AIR TRAFFIC MANAGEMENT**  
**TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

**INITIAL PROPOSAL 1**

**APPENDIX 2. FLIGHT PLAN**

...

**2. Instructions for the completion of  
the flight plan form**

...

**ITEM 10: EQUIPMENT AND CAPABILITIES**

...

Radio communication, navigation and  
approach aid equipment and capabilities

*INSERT* one letter as follows:

N if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable,

*OR* S if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable (see Note 1),

AND/OR

*INSERT* one or more of the following letters to indicate the serviceable COM/NAV/approach aid equipment and capabilities available:

A	GBAS landing system	J7	CPDLC FANS 1/A SATCOM (Iridium)
B	LPV (APV with SBAS)	K	MLS
C	LORAN C	L	ILS
D	DME	M1	ATC RTF SATCOM (INMARSAT)
E1	FMC WPR ACARS	M2	ATC RTF (MTSAT)
E2	D-FIS ACARS	M3	ATC RTF (Iridium)

E3	PDC ACARS	O	VOR
F	ADF	P1–P9	Reserved for RCP
G	GNSS ( <i>See Note 2</i> )	R	PBN approved ( <i>see Note 4</i> )
H	HF RTF	T	TACAN
I	Inertial Navigation	U	UHF RTF
J1	CPDLC ATN VDL Mode 2 ( <i>See Note 3</i> )	V	VHF RTF
J2	CPDLC FANS 1/A HFDL	W	RVSM approved
J3	CPDLC FANS 1/A VDL Mode 4	X	MNPS approved
J4	CPDLC FANS 1/A VDL Mode 2	Y	VHF with 8.33 kHz channel spacing capability
J5	CPDLC FANS 1/A SATCOM (INMARSAT)	Z	Other equipment carried, <del>or</del> other capabilities <del>or</del> exemptions granted from either mandatory equipment carriage requirements or mandatory capabilities requirements ( <i>see Note 5</i> )
J6	CPDLC FANS 1/A SATCOM (MTSAT)		

Any alphanumeric characters not indicated above are reserved.

...

*Note 5.— If the letter Z is used, specify in Item 18 the other equipment carried, ~~or~~ other capabilities or exemptions granted from either mandatory equipment carriage requirements or mandatory capabilities requirements, preceded by COM/ , NAV/ and/or DAT, as appropriate.*

...

<b>ITEM 18: OTHER INFORMATION</b>
-----------------------------------

...

Hyphens or oblique strokes should only be used as prescribed below.

*INSERT* 0 (zero) if no other information,

*OR*, any other necessary information in the sequence shown hereunder, in the form of the appropriate indicator selected from those defined hereunder followed by an oblique stroke and the information to be recorded:

*STS/* Reason for special handling by ATS, e.g. a search and rescue mission, as follows:

ALTRV: for a flight operated in accordance with an altitude reservation;

ATFMX: for a flight approved for exemption from ATFM measures by the appropriate ATS authority;

FFR: fire-fighting;

FLTCK: flight check for calibration of nav aids;

HAZMAT: for a flight carrying hazardous material;

HEAD: a flight with Head of State status;

HOSP: for a medical flight declared by medical authorities;

HUM: for a flight operating on a humanitarian mission;

MARSA: for a flight for which a military entity assumes responsibility for separation of military aircraft;

MEDEVAC: for a life critical medical emergency evacuation;

NONRVSM: for a non-RVSM capable flight intending to operate in RVSM airspace;

SAR: for a flight engaged in a search and rescue mission; and

STATE: for a flight engaged in military, customs or police services.

Reasons for special handling by ATS based on exemptions granted from mandatory equipment carriage or capabilities requirements shall be denoted under the designators NAV/, COM/, DAT/, as appropriate. All other reasons for special handling by ATS shall be denoted under the designator RMK/.

...

NAV/ Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, e.g. NAV/GBAS SBAS. Indicate exemptions granted from mandatory navigation equipment carriage or capabilities requirements.

COM/ Indicate communications applications or capabilities not specified in Item 10a, and exemptions granted from mandatory communications equipment carriage or capabilities requirements.

DAT/ Indicate data applications or capabilities not specified in 10a, and exemptions granted from mandatory datalink equipment carriage or capabilities requirements.

...

**APPENDIX 3. AIR TRAFFIC SERVICES MESSAGES**

**1. Message contents, formats and data conventions**

...

1.6 Data conventions

...

*Field Type 10 — Equipment and Capabilities*

Format:- 

a	/	b
---	---	---

**SINGLE HYPHEN**

(a)	<i>Radio Communication, Navigation and Approach Aid Equipment and Capabilities</i>	
	1 LETTER as follows:	
OR	N	no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable
AND/OR	S	Standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable ( <i>See Note 1</i> )
	ONE OR MORE OF THE FOLLOWING LETTERS to indicate the serviceable COM/NAV/approach aid equipment and capabilities	
	A	GBAS landing system
	B	LPV (APV with SBAS)
	C	LORAN C
	D	DME
	E1	FMC WPR ACARS
	E2	D-FIS ACARS
	E3	PDC ACARS
	F	ADF
	G	GNSS ( <i>See Note 2</i> )
	H	HF RTF
	I	Inertial Navigation
	J1	CPDLC ATN VDL Mode 2 ( <i>see Note 3</i> )
	J2	CPDLC FANS 1/A HFDL
	J3	CPDLC FANS 1/A VDL Mode 4
	J4	CPDLC FANS 1/A VDL Mode 2
	J5	CPDLC FANS 1/A SATCOM (INMARSAT)
	J6	CPDLC FANS 1/A SATCOM (MTSAT)
	J7	CPDLC FANS 1/A SATCOM (Iridium)
	K	MLS
	L	ILS
	M1	ATC RTF SATCOM (INMARSAT)
	M2	ATC RTF (MTSAT)
	M3	ATC RTF (Iridium)
	O	VOR
	P1–P9	Reserved for RCP
	R	PBN approved ( <i>see Note 4</i> )
	T	TACAN
	U	UHF RTF
	V	VHF RTF
	W	RVSM approved
	X	MNPS approved
	Y	VHF with 8.33 kHz channel spacing capability
	Z	Other equipment carried, or other capabilities or exemptions granted from either mandatory equipment carriage requirements or mandatory capabilities requirements ( <i>see Note 5</i> )

...

Note 5.— If the letter Z is used, specify in Item 18 the other equipment carried, ~~or~~ other capabilities or exemptions granted from either mandatory equipment carriage requirements or mandatory capabilities requirements, preceded by COM/ , NAV/ and/or DAT, as appropriate.

...

*Field Type 18 — Other information*

...

STS/ Reason for special handling by ATS, e.g. a search and rescue mission, as follows:

ALTRV: for a flight operated in accordance with an altitude reservation;

ATFMX: for a flight approved for exemption from ATFM measures by the appropriate ATS authority;

FFR: fire-fighting;

FLTCK: flight check for calibration of nav aids;

HAZMAT: for a flight carrying hazardous material;

HEAD: a flight with Head of State status;

HOSP: for a medical flight declared by medical authorities;

HUM: for a flight operating on a humanitarian mission;

MARSA: for a flight for which a military entity assumes responsibility for separation of military aircraft;

MEDEVAC: for a life critical medical emergency evacuation;

NONRVSM: for a non-RVSM capable flight intending to operate in RVSM airspace;

SAR: for a flight engaged in a search and rescue mission; and

STATE: for a flight engaged in military, customs or police services.

Reasons for special handling by ATS based on exemptions granted from mandatory equipment carriage or capabilities requirements shall be denoted under the designators NAV/, COM/, DAT/, as appropriate. All other reasons for special handling by ATS shall be denoted under the designator RMK/.

...

NAV/ Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, e.g. NAV/GBAS SBAS. Indicate exemptions granted from mandatory navigation equipment carriage or capabilities requirements.

COM/ Indicate communications applications or capabilities not specified in Item 10a, and exemptions granted from mandatory communications equipment carriage or capabilities requirements.

DAT/ Indicate data applications or capabilities not specified in 10a, and exemptions granted from mandatory datalink equipment carriage or capabilities requirements.

...

<i>Origin:</i>  Secretariat	<i>Rationale:</i>  Specific provision is made for the indication of reasons for special handling by ATS, based on exemptions granted from mandatory equipment carriage or capabilities requirements, under the indicators NAV/, COM/, DAT/ as appropriate. The information being ATS safety related, it is considered that flight data processing will consequently be improved as compared to the information's indication under the indicator RMK/.
-----------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

— END —