



**Thirteenth Meeting of the Asia/Pacific Air Navigation Planning
and Implementation Regional Group (APANPIRG/13)**

Bangkok, Thailand, 9 to 13 September 2002

Agenda Item 3: CNS/ATM Implementation and Related Activities

**REVISION OF THE GUIDANCE MATERIAL ON
CNS/ATM OPERATIONS IN THE ASIA/PACIFIC REGION**

(Presented by the Secretariat)

SUMMARY

This working paper presents the results of a review by ICAO Headquarters of the *Guidance Material on CNS/ATM Operations in the Asia/Pacific Region*. This review was requested by the Air Navigation Commission to ensure that the guidance was in accordance with the procedures contained in the *Procedures for Air Navigation Services — Air Traffic Management* (Doc 4444, PANS-ATM).

1. INTRODUCTION

1.1 On 28 May 2002, the President of the Council approved Amendment 1 to the *Procedures for Air Navigation Services—Air Traffic Management* (PANS-ATM, Doc 4444) (Fourteenth Edition) applicable on 28 November 2002. Following this amendment, the Air Navigation Commission (159-7), also agreed that ICAO should review the *Guidance Material on CNS/ATM Operations in the Asia/Pacific Region* (hereafter referred to in this working paper as the *Guidance Material*) to ensure that the guidance was in accordance with the procedures contained in PANS-ATM. Emphasis was to be placed on identifying and highlighting material that was included as a result of differences between the FANS-1/A implementation and the progress of ICAO panels in developing the operational and technical requirements for ATS data link applications (e.g. automatic dependent surveillance (ADS) and controller-pilot data link communications (CPDLC)).

1.2 ICAO carried out a detailed technical analysis of the *Guidance Material* and found a significant number of anomalies in relation to the amendment referred to above, as well as amendments to Annex 10 — *Aeronautical Telecommunications*, Volume II — *Communication Procedures* including those with PANS status and the PANS-ATM that became applicable 1 November 2001. Issues associated with the extent the *Guidance Material* should be used to advance provisions better suited to Annex and PANS documentation were also covered. The Asia/Pacific Regional Office was advised of the results and requested to take action. ICAO Headquarters was of the view that the *Guidance Material* would require some adjustments to meet with existing Standards and Recommended Practices (SARPs) and the PANS-ATM provisions as well as those that would become applicable on 28 November 2002.

1.3 Whilst it is not the intent of this paper to go into the detail of the review, it was also of note that ICAO identified some differences in procedures that may not be able to be aligned or removed for technical reasons (e.g. differences between the displayed text of CPDLC messages as

contained in the PANS-ATM and those used as part of the FANS-1 and FANS-A packages). On such occasions it was noted that it would be appropriate that an explanation as to why the *Guidance Material* does not specifically duplicate the procedures contained in another ICAO document should be provided. Also, the differences should be highlighted to the extent that, should a State agree to accept the guidance, the appropriate authority would be made aware of what the differences entailed. Such action would also support the Annex 15 — *Aeronautical Information Services* requirement for States to include in their Aeronautical Information Publications a list of significant differences between the national regulations and practices of the State and the related SARPs and Procedures

1.4 In the view of ICAO, it was also of some concern that increasing numbers of another level of guidance material, developed by informal ATC coordinating groups, was also being developed and published to advance standardized ATM procedures. These include the South Pacific Operations Manual (SPOM), the Indian Ocean Operations Manual (IOOM) and the North and Central Pacific Operations Manual (NCPOM). Further, ICAO stated that this material to a large extent was a duplication of the *Guidance Material*. However, once this *Guidance Material* is amended to be aligned with ICAO SARPs and PANS provisions, it was unclear to what extent transparency between the various regional guidance could be guaranteed. ICAO was interested to obtain views on these additional guidance documents, particularly in terms of promoting uniform application of ATS data link applications and supporting transparency between ICAO regions¹.

2. DISCUSSION

2.1 It will be recalled that due to the absence of any documents containing comparable information on CNS/ATM operational procedures, ISPACG prepared the *South Pacific Operations Manual* (SPOM), which was issued on 18 July 1996. This manual was required to ensure that States in the South Pacific Region operating ADS and CPDLC systems, had common detailed procedures and requirements for the operation of FANS-1/A aircraft systems.

2.2 Under APANPIRG/6 (October/November 1996) (Conclusion 6/3 refers) the ATS/AIS/SAR/ Sub-Group was developing the *Asia/Pacific RNP Operations Guidance Material*. APANPIRG/7 (October 1997), **Decision 7/1 - Development of Asia/Pacific Guidance Material for CNS/ATM Operations**, established a Task Force to prepare the *Guidance Material* taking into account the SPOM, and other relevant material. The RNP Operations Guidance Material was incorporated into a new document, which became the *Guidance Material on CNS/ATM Operations in the Asia/Pacific Region* adopted by APANPIRG/8 (September 1997) (Conclusion 8/11 refers). In this regard, the Commission noted the conclusion and emphasized that the vision of the end state should be kept in mind in the further development of CNS/ATM related guidance material.

2.2.1 It will also be recognized that detailed operational SARPs and procedures applying to ADS and CPDLC, in 1997, were still being developed. This is not the case in 2002 where significant operational requirements have been developed and incorporated into ICAO Annexes and the PANS-ATM to support global implementation of CNS/ATM systems.

¹ Whilst the SPOM, IOOM and the NCPOM guidance are, to a large extent, similar, except for information specific to the area concerned, they do differ editorially, and in substance, to guidance material under development outside of the Asia and Pacific Region. The documents are also used to bring attention to differences in data link procedures between State implementations and across FIR boundaries.

3. CONCLUSION

3.1 As a result of the review of the *Guidance Material on CNS/ATM Operations in the Asia/Pacific Region* by ICAO, it is evident that a number of action items should be advanced to support uniform application of ATS data link applications. These tasks include, but would not be limited to the following:

- a) the need to amend the *Guidance Material* to align it with existing ICAO SARPs and procedures, as well as Amendment 1 to the PANS-ATM (applicability date 28 November 2002);
- b) where the guidance has been superseded by sufficient provisions in the Annexes and PANS-ATM and the guidance does not expand on applicable provisions, consider enhancement, expansion or removal of redundant guidance;
- c) differences between information contained in the *Guidance Material* and procedures contained in the PANS-ATM should be highlighted to the extent that, should a State agree to accept the guidance, the appropriate authority is made aware of what the differences entail. Such action would support the Annex 15 requirement for States to include in their Aeronautical Information Publications a list of significant differences between the national regulations and practices of the State and the related ICAO Standards, Recommended Practices and Procedures;
- d) if necessary, notify ICAO of those issues that should be advanced more appropriately in the form of international Standards, Recommended Practices and/or procedures or, in the event the issues are specifically regional and supplement existing ICAO Procedures, develop proposals for the amendment of the *Regional Supplementary Procedures* (Doc 7030); and
- e) develop a strategy to ensure that the regional guidance material remains aligned with the Annexes and PANS-ATM and, where global procedures are not available, a degree of transparency between State implementations, across FIR boundaries or even across regions can be observed.

3.2 It will be recognized that Task No. 19 on the work programme of the ATS/AIS/SAR Sub-Group already provides for the update of the *Guidance Material*. In view of this, it is suggested that the ATS/AIS/SAR Sub-Group be requested to update the *Guidance Material* and assume the tasks presented in paragraph 3.1 as soon as practicable.

4 ACTION BY APANPIRG/13

4.1 The meeting is invited to:

- a) note that a review of the *Guidance Material* was conducted by ICAO Headquarters; and
- b) request the ATS/AIS/SAR Sub-Group to develop an amendment to the *Guidance Material*, as soon as practicable, taking into account the review undertaken by ICAO, including the tasks listed in paragraph 3.1.
