FOURTH MEETING OF THE ALLPIRG/ADVISORY GROUP

(Montreal, 6 – 8 February 2001)

Agenda Item 2.1: Interregional coordination and harmonization mechanism – Status of implementation of the world geodetic system – 1984 (WGS-84)

WORLD GEODETIC SYSTEM – 1984

NEW REPORTING FORMAT FOR WGS-84 IMPLEMENTATION

(Presented by the Secretariat)

SUMMARY

During a review of the global implementation of WGS-84 in June 2000, the Air Navigation Commission noted that progress had been made since the previous report was reviewed and that the format of reporting was inadequate to make a detailed assessment of the level of implementation. The individual elements had not previously been reported separately to ascertain the level of implementation and therefore the results could be ambiguous. To accurately reflect the status of each individual element of WGS-84 implementation, the Air Navigation Commission called upon the PIRGs to develop similar tables to be used as a tool to survey the States to assess the level of WGS-84 implementation in detail and to report the findings to the relevant ICAO bodies. (AN-WP/7539) Data in the new reporting format (APPENDIX A) should be available after the next cycle of PIRG meetings is completed.

Action by the meeting is at paragraph 3.

1. INTRODUCTION

1.1 The previous update on the status of implementation of the world geodetic system – 1984 (WGS-84) by States was presented to the Air Navigation Commission on 8 June 2000 (154-9) The last update presented the status of implementation of WGS-84 as of 10 April 2000. The Air Navigation Commission noted that progress had been made since the previous report was reviewed and agreed that the format of reporting was inadequate as some full analyses of the status of implementation reflecting all the requirements could not be made.

1.2 To improve the method of reporting, the Air Navigation Commission called upon the PIRGs to develop similar tables on WGS-84 requirements to be used as a tool to survey States to assess the level

of WGS-84 implementation in detail. This standardized format, which appears at the appendix to this paper, has already been presented to various PIRG meetings and will assist States and regional offices in compiling up-to-date, detailed information on the implementation of WGS-84 by States. With this in mind, a number of regional offices have prepared a State letter to request States to compile the data required in the new, standardized format. It should be recognized that this exercise is labour-intensive and time-consuming for the States concerned, as well as for the various regional offices.

2. STATUS OF IMPLEMENTATION IN THE OLD REPORTING FORMAT

2.1 The following table reflects the overall status of implementation in the old reporting format.

		At ALLPIRG/2	15 March 1999	10 April 2000
1	Percentage of States that have fully implemented WGS-84	23%	28%	42%
2	Percentage of States that have partially implemented WGS-84 and work is in progress	7%	59%	49%
3	Percentage of States that have a plan for implementing WGS-84 at a future date	17%	3%	1%
4	Percentage of States that have no known plan or have not responded to the survey	23%	10%	8%

2.2 As can be seen from the above table, noticeable progress has been made by States in full implementation, partial implementation or in proceeding with an implementation plan for WGS-84. The individual elements had not previously been reported separately to ascertain the level of implementation and therefore the results could be ambiguous. Furthermore, a decrease of percentage against part 3 above indicates that many of the States that had plans to implement WGS-84 at a date in the future, have already commenced or completed their plans. The decrease of percentage in part 4 of the above table also confirms that awareness of the importance of implementation of WGS-84 has increased. One State has filed a difference regarding the implementation of WGS-84.

2.3 With the level of implementation increasing, it is now important to refine the reporting method to easily assess the overall status of implementation in accordance with Annex 15 – *Aeronautical Information Services*. Data in the new reporting format should be available after the next cycle of PIRG meetings is completed. With this information, the exact status of implementation can be determined as well as elements of implementation requiring attention.

3. WGS-84 REQUIREMENTS

3.1 The main air navigation points for which geographical coordinates are needed are shown in the following two general groups of requirements. The standard reporting format will require States to accurately reflect the status of each individual element of WGS-84 implementation and publish the WGS-84 coordinates in the relevant aeronautical information publication.

Area/en-route coordinates	*Aerodrome/heliport coordinates*
ATS/RNAV route points	Aerodrome/heliport reference points
Holding points	Runway, FATO thresholds
En-route radio navigation aids	Terminal radio navigation aids
Restricted/prohibited/danger areas	FAF, FAP and other IAP essential points
Obstacles – en-route	Runway centre line points
FIR boundaries	Aircraft standpoints
CTA, CTZ	Aerodrome/heliport obstacles
Other significant points	

4. ASSISTANCE TO STATES

4.1 ICAO's regional offices also continue to ascertain what assistance ICAO could provide to States in their implementation efforts. In this relation, a special implementation project (SIP) was approved by the Council of ICAO to respond to Armenia, Azerbaijan and Georgia — States that have indicated to ICAO that they are encountering difficulties with their WGS-84 implementation. The SIP is scheduled to commence in 2001.

5. FUTURE WORK

5.1 ICAO's regional offices will continue to monitor the situation and encourage and assist States as much as possible with the implementation of WGS-84. The regional offices will also continue to assist PIRGs with the development of standard tables on WGS-84 requirements to enhance the reporting methods and to identify implementation in accordance with Standards and Recommended Practices.

6. ACTION BY ALLPIRG

6.1 The meeting is invited to:

a) note the table in the appendix hereto, as a uniform format for reporting WGS-84 implementation by PIRGs; and

b) provide any advice it deems necessary too further improve and expedite the implementation of WGS-84.

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APPENDIX

STATUS OF WGS-84 IMPLEMENTATION

EXPLANATION OF THE TABLE

Column

1 Name of the State, territory or aerodrome for which WGS-84 coordinates are required with the designation of the aerodrome use:

RS — international scheduled air transport, regular use
RNS — international non-scheduled air transport, regular use
RG — international general aviation, regular use
AS — international scheduled air transport, alternate use

2 Runway designation numbers

3 Type of each of the runways to be provided. The types of runways, as defined in Annex 14, Volume 1, Chapter I, are:

NINST — non-instrument runway;
NPA — non-precision approach runway
PA1 — precision approach runway, Category I;
PA2 — precision approach runway, Category II;
PA3 — precision approach runway, Category III.

4 Requirement for the WGS-84 coordinates for FIR, indicated by the expected date of implementation or an “X” if already implemented.

5 Requirement for the WGS-84 coordinates for En route points, indicated by the expected date of implementation or an “X” if already implemented.

6 Requirement for the WGS-84 coordinates for the Terminal Area, indicated by the expected date of implementation or an “X” if already implemented..

7 Requirement for the WGS-84 coordinates for the Approach points, indicated by the expected date of implementation or an "X" if already implemented.

8 Requirement for the WGS-84 coordinates for runways, indicated by the expected date of implementation or an “X” if already implemented.

9 Requirement for the WGS-84 coordinates for Aerodrome/Heliport points (e.g. aerodrome/heliport reference point, taxiway, parking position, etc.), indicated by the expected date of implementation or an “X” if already implemented.

10 Requirement for geoid undulation indicated by the expected date of implementation or an "X" if already implemented.

11 Requirement for the WGS-84 Quality System, indicated by the expected date of implementation or an “X” if already implemented.

12 Requirement for publication of WGS-84 coordinates in the AIP indicated by the expected date of publication or an “X” if already published.

13 Remarks

STATE, TERRITORY OR AERODROME FOR WHICH WGS-84 IS REQUIRED			WGS-84 IMPLEMENTATION									
CITY/AERODROME	RWY No	RWY TYPE	FIR	ENR	TMA CTA CTZ	APP	RWY	AD/ HEL	GUND	QUALITY SYSTEM	AIP	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13

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