WORLD METEOROLOGICAL ORGANIZATION

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CBS/OPAG-IOS/ET-ABO-1/3.1.3

COMMISSION FOR BASIC SYSTEMS
OPEN PROGRAMME AREA GROUP
ON INTEGRATED OBSERVING SYSTEMS

30.08.2013

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EXPERT TEAM ON AIRCRAFT-BASED OBSERVING SYSTEMS

FIRST SESSION

Geneva, Switzerland, 10-13 September, 2013

ITEM: 3.1

Original: ENGLISH

STATUS OF THE AIRCRAFT-BASED OBSERVATIONS PROGRAMS

Reports of Operational National & Regional Programs

(*Submitted by Li Wei, China*)

SUMMARY AND PURPOSE OF DOCUMENT

Provides a status report on the national/regional AMDAR Program of China.

ACTION PROPOSED

The Session is invited to review and discuss the content of the document.

Appendices

1. Program Metadata

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PROGRESS AND ACTIVITY REPORT

Current Status

1.   The China AMDAR Programme has been operational smoothly in the past year under the work and cooperation of the Civil Aviation Administration of China (CAAC) and China Meteorological Administration (CMA).

2.   With the effort of CAAC, 2 airlines (Southern Airlines and Shandong Airlines) with 27 aircraft have participated in the China AMDAR Programme in the past year. After being examined and evaluated by the Quality Control System, about 11000 meteorological reports are disseminated via GTS per day.

3.   ***The AMDAR data real-time analysis and application platform*** has been operational by CAAC. It provides warning and forecast products derived from AMDAR data to forecasters in Beijing, Chengdu, Guangzhou and Urumqi airports and AOC personnel of Air China via intranet.

4.   CMA continued its endeavor on the application of AMDAR data. CMA has been conducting research to further test the impact of AMDAR data on the output of CMA Global/Regional Assimilation and PrEdiction System (GRAPES) NWP meso-scale model. The work will be finished in September 2013.

Development & Other Activities

5.   Quite plenty AMDAR data received have been discarded by the quality control system due to unreasonable wind direction/speed or invariable altitude. Cooperating with airlines and instrument vendors, CAAC has made some improvement on the software to ensure the former unreasonable or invariable parameters correct in form and in physics roughly. After further quality analysis and control, these data will be qualified and disseminated soon hopefully.

6.   CMA is upgrading its AMDAR quality control scheme to better analyse AMDAR statistically, including the amount of data discarded in every step, and all sorts of statistic data. The upgrading will be finished in October 2013.

Future Plans

7.   The AMDAR data are scarce at night because of the less number of night-time commercial flight in China. CAAC are in discussion with some cargo airlines inviting them to participate in the China AMDAR programme. CAAC will provide AMDAR-related training to these cargo airlines, and evaluate and test the possibility of their cargo aircraft to relay AMDAR data in next months.

8.   AMDAR data in WXM format from 3 aircraft from Jiangsu Airlines have been discarded by the Quality Control System the total temperature is a constant number. CAAC will look into this issue and find a solution.

9.   CAAC will continue is work on AMDAR turbulence data, including monitoring, analysis and quality control.

APPENDIX 1

PROGRAM METADATA

Operational Fleet

Airline	Country of Airline	Aircraft Type (e.g. B737-400)	Number of Aircraft	AMDAR Software	Format On GTS (BUFR / FM42)
China Southern Airlines	China	B737-800	8	ADCC* Software	FM42
Shandong Airlines	China	B737-800	19	ADCC Software	FM42

Program Coverage

[If possible, provide here a summary estimate of the national or regional AMDAR program coverage as at July 2013. Indicate in the last column which measure is being used as necessary. Information should ideally be based on 1 month of data.]

*: ADCC: Aviation Data Communication Company

Airport Country	Airport Name	Airport ID (IATA)	Profiles per day/week
China	Beijing Capital	PEK	
China	Guangzhou Baiyun	CAN	
China	Shanghai Hongqiao	SHA	
China	Chengdu Shuangliu	CTU	
China	Shenzhen Bao'an	SZX	
China	Kunming Changshui	KMG	
China	Xi`an Xianyang	XIY	
China	ChongqingJiangbei	CKG	

China	Hangzhou	HGH	
China	Xiamen Gaoqi	XMN	
China	Changsha Huanghua	CSX	
China	Wuhan Tianhe	WUH	
China	Zhengzhou Xinzheng	CGO	
China	Sanya Phoenix	SYX	
China	Shenyang Taoxian	SHE	
China	Harbin Taiping	HRB	
China	Guiyang Longdongbao	KWE	
China	Fuzhou Changle	FOC	
China	Nanning Wuxu	NNG	
China	Taiyuan Wu Xu	TYN	
China	Changchun LONGJIA	CGQ	
China	GUILIN	KWL	
China	Wenzhou Longwan	WNZ	
China	Yincuan	INC	
China	Dalian	DLC	
China	Lanzhou	LHW	
China	Yantai	YNT	
China	Huhehaote	HET	
China	Zhuhai Jinwan	ZUH	
China	Mianyang	MIG	
China	Weihai	WEH	

Notes

a) [Include here any notes on the above program coverage including a brief description of how the metadata was compiled.]