WORLD METEOROLOGICAL ORGANIZATION

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

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EXPERT TEAM ON AIRCRAFT-BASED OBSERVING SYSTEMS
FIRST SESSION

ITEM: 3.1

Original: ENGLISH

Geneva, Switzerland, 10-13 September, 2013

STATUS OF THE AIRCRAFT-BASED OBSERVATIONS PROGRAMS

Reports of Operational National & Regional Programs

(*Submitted by South Africa)*

SUMMARY AND PURPOSE OF DOCUMENT

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

ACTION PROPOSED

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

Appendices

1. Program Metadata

PROGRESS AND ACTIVITY REPORT

Current Status

1. The current size of the SA-AMDAR fleet is thirty-four (34) aircraft and includes two recently added A320-200 airbuses. Data statistics containing the newly added aircraft was initially observed in July on the monthly reports from the Canadian Regional Specialised Meteorological Centre (RSMC) for the monitoring of observational data quality.

2. South African Airways (SAA) informed SAWS that they have implemented new routes into Africa departing from the OR Tambo Int. Airport (FAOR) since October 2012 and the overall regional coverage is included in Appendix 1

3. Data transmission problems were identified towards the end of May 2013 and these emanated from an executed migration to a standby server by South African Weather Service (SAWS) ICT. The cause for the non-transmission of the data to the GTS was that the standby server was not properly configured for AMDAR scripts. The problem was resolved and data transmission restored.

Development & Other Activities

4. SAWS have not yet secured finances to acquire humidity sensors and after engaging its sole commercial partner, SAA, the indication was that the airline has no plans yet for obtaining the instruments due to financial constraints. SAWS still maintains its interest in the humidity sensors for the SA-AMDAR program.

Future Plans

5. Upon introducing the additional aircraft (A320-200) into the SA-AMDAR fleet, SAA indicated its intention to withdraw some of its (A319-100) airbuses, which will in turn be replaced by the A320-200 series. This will be done in staggers and the estimated time of completion for this process has not been specified.

6. 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)
South African Airways (SAA)	Republic of South Africa (RSA)	A340-600	9	Amdar3 AAA	
SAA	RSA	A340-300	6	Amdar3 AAA	
SAA	RSA	A330-200	6	Amdar3 AAA	
SAA	RSA	A319-100	11	Amdar3 AAA	
SAA	RSA	A320-200	2	Amdar3 AAA	

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.]

Airport Country	Airport Name	Airport ID (IATA)	Profiles per day
South Africa	Cape Town	CPT	5.3
South Africa	East London	ELS	3.6
South Africa	Durban	DUR	8.3
South Africa	JOHANNESBURG	JNB	65
South Africa	Port Elizabeth	PLZ	4.5
Mozambique	Maputo	MPM	2.3
Zimbabwe	Harare	HRE	0.6
Kenya	Nairobi	NBO	3.6
Tanzania	Dar-es-Salaam	DAR	2.7
Zambia	LUSAKA	LUN	1.0
Uganda	Entebbe	EBB	2.3
Mauritius	Port Louis	MRU	0
Angola	LUANDA	LAD	2.1
Senegal	Dakar	DKR	4.9

Notes

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

Program Potential Coverage

[If possible, provide here a summary estimate of the national, international or regional AMDAR program ***potential*** coverage as at July 2013. Data should be provided here only for airports that are able to be serviced by the ***existing operational national or regional AMDAR fleets*** (i.e. enabled through configuration or optimisation control alteration) and only for those airports **not** listed under Program Coverage. Information should ideally be based on 1 month of data.]

Airport Country	Airport Name	Airport ID (IATA)	Profiles per month
USA	WASHINGTON	IAD	29
USA	New York	JFK	29
Argentina	MINISTRO PISTARINI	EZE	8
Brazil	Sao Paulo	GRU	37
India	Mumbai	BOM	25
Hong Kong	Hong Kong	HKG	30
Australia	Perth	PER	16
CHINA	BEIJING	PEK	13
Benin	COTONOU CADJEHOUN	COO	9
Congo	BRAZZAVILLE MAYA MAYA	BZV	8
Congo	POINTE NOIRE	PNR	17
Cameroon	DOUALA	DLA	10
Gabon	LIBREVILLE	LBV	23
Zimbabwe	Victoria Falls	VFA	30
Zaire	KINSHASA	FIH	7
Burundi	BUJUMBURA INTL	BJM	17
Rwanda	KIGALI	KGL	3
Namibia	HOSEA KUTAKO INTL WINDHOEK	WDH	32
Zimbabwe	Harare	HRE	4
Malawi	Lilongwe	LLW	3
Ghana	Accra	ACC	27
Cote D' Ivoire	ABIDJAN	ABJ	8
Nigeria	LAGOS	LOS	28
Germany	FRANKFURT MAIN	FRA	29
Germany	Munich	MUC	23
UK	London	LHR	47

Notes

a) [Include here any notes on the above program coverage including a brief description of how the metadata was compiled. Please also indicate what practical measures would/might be necessary to activate this potential source of AMDAR data and, if possible, an indication of the likely cost per unit of data (estimates only).]

Program Potential International Coverage

[If possible, provide here a summary estimate of the ***international*** AMDAR program ***potential*** coverage as at July 2013. Data should be provided here for airports that are able to be serviced by the equipping of international-operating aircraft within the fleets of ***existing*** AMDAR partner airlines (i.e. enabled through implementation of AMDAR software for the aircraft fleet) and only for those airports **not** listed under Program Coverage and Program Potential Coverage. Information should ideally be based on 1 month of data.]

Airport Country	Airport Name	Airport ID (IATA)	Airline & Fleet (Aircraft model)	Profiles per day/week

Notes

b) [Include here any notes on the above program coverage including a brief description of how the metadata was compiled. Please also indicate what practical measures would/might be necessary to activate this potential source of AMDAR data and, if possible, any information on avionics type and AMDAR software requirements.]