



# INTERNATIONAL CIVIL AVIATION ORGANIZATION WESTERN AND CENTRAL AFRICA OFFICE

Twenty-fifth Meeting of the AFI Satellite Network Management Committee (SNMC/25) (Freetown, Sierra Leone, 18-22 December 2017)

#### Agenda Item 2: Review of AFISNET operational and technical statistics of availability

(Presented by Nigerian Airspace Management Agency, NAMA)

## **SUMMARY**

This paper gives the circuit availability statistics of NAMA AFISNET links to international

#### 1. INTRODUCTION

1.1 This working paper reports on the AFTN and ATS/DS circuit availability status with NAMA from January to November, 2017

#### 2.0 DISCUSSIONS

- 2.1 SATCOM circuits status and performance.
- 3.0 ACTIONS REQUIRED BY THE MEETING.

Table1: LAGOS CENTER ATS/DS CIRCUIT AVAILABILITY FROM JAN' - NOV' 2017

STATION	ACCRA	DOUALA	LIBREVILLE	сотомои	NIAMEY	LOME	MALABO	AVERAGE	4 level reportin g index
Month	%	%	%	%	%	%	%		
Jan	28.7	100	100	100	100	99.9	0	88.1	1, 2
Feb	76.7	100	100	100	100	100	0	96.12	1, 2
Mar	100	89.5	89.5	89.5	37.8	90.3	0	82.77	1,2
Apr	92.4	100	99.4	99.4	99.4	99.2	0	98,30	2, 3
May	99.3	99.5	99.7	99.5	99.7	99.7	0	99.56	2,3
June	96.23	99.8	99.8	99.8	99.6	99.8	0	99.20	1, 2, 3, 4
July	96.7	97.5	99.1	99.9	98.4	92.9	0	97.42	1, 2, 3
August	100	100	100	100	100	95.6	0	99.27	2, 3
Sept	99.3	73.5	97.2	97.2	98.6	98.7	0	94,08	1, 2, 3
Oct	86.3	96.1	90.8	99.8	100	99.4	0	95.5	1, 2, 3
Nov	74.8	99.7	100	100	100	100	0	96.73	1, 2, 3
								95.19	

FOUR LEVEL REPORTING INDEX

LEVEL 1: (CO + NO)/NO

LEVEL 2: Eb/NO

LEVEL 3: BASE BAND EQUIPMENT





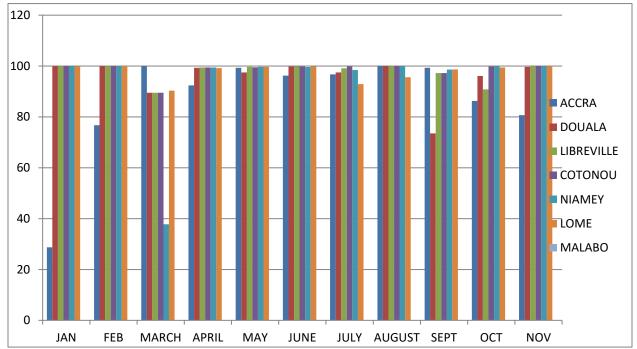


Figure 1: ATS/DS CIRCUIT AVAILABILITY FOR LAGOS CENTER FROM JAN' - NOV' 2017

Table 2: LAGOS CENTER AFTN CIRCUIT AVAILABILITY FROM JAN' - NOV' 2017

STATION	ACCRA	DOUALA	LIBREVILLE	COTONOU	NIAMEY	LOME	MALABO	AVERAGE	4 level reporting index
Month									
	%	%	%	%	%	%	%	%	
Jan	28.7	100	100	100	100	99.9	0	88.1	1, 2
Feb	76.7	100	100	100	100	100	0	96.12	1, 2
Mar	100	89.5	89.5	89.5	37.8	90.3	0	82.77	1,2
Apr	92.4	99.3	99.4	99.4	99.4	99.2	0	98,30	2, 3
May	99.3	97.5	99.7	99.5	99.7	99.7	0	99.56	2,3
June	98.1	99.5	99.5	100	99.4	88.9	0	99.20	1, 2, 3, 4
July	97.7	96.2	99.6	99.8	99.8	96.6	0	97.42	1, 2, 3
August	89.5	96.4	97.6	99.2	99.6	99.6	0	99.27	2, 3
Sept	99.3	73.5	97.2	98.7	98.6	98.7	0	94.08	1, 2, 3
Oct	89.8	98.1	92,3	99.9	99.9	99.9	0	95.5	1, 2, 3
Nov	77.7	99.7	99.7	100	100	100	0	96.73	1, 2, 3
	•	•	•		•	•	•	95 19	

FOUR LEVEL REPORTING INDEX

LEVEL 1: (CO + NO)/NO

LEVEL 2: Eb/NO

LEVEL 3: BASE BAND EQUIPMENT





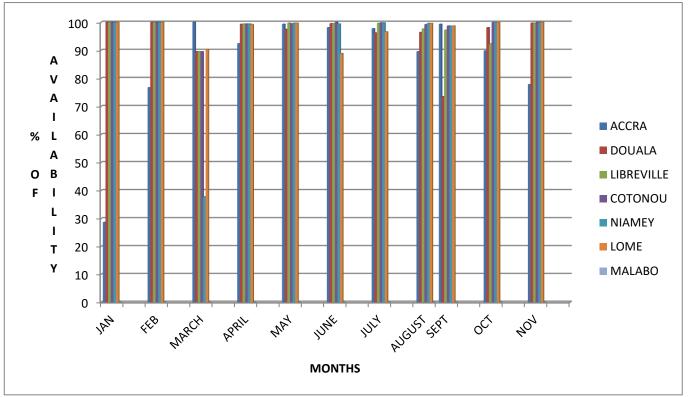


Figure 2: AFTN CIRCUIT AVAILABILITY FOR LAGOS CENTER FROM JAN' – NOV' 2017

Table 3: KANO CENTER ATS/DS CIRCUIT AVAILABILITY FROM JAN' - NOV' 2017

STATION								AVERAGE	4 level reporting index
	ACCRA	BRAZZA	DOUALA	LIBREV	LOME	NDJAM	NIAMEY	%	
Month									
	%	%	%	%	%	%	%		
Jan	0	100	100	100	100	100	100	100	2, 3
Feb	0	100	100	100	100	100	100	100	1, 2
Mar	0	100	99.86	99.73	100	99.87	100	99.91	2, 3
Apr	0	100	99.86	99.86	99.86	99.86	99.86	99.88	2, 3. 4
May	0	100	100	100	100	99.35	97.45	99.45	2,3
June	0	96.38	100	100	96.38	96.38	98.05	97.87	1, 2, 3, 4
July	0	100	96.51	99.46	99.46	100	98.79	99.04	1, 2, 3
August	0	90.00	90.00	90.00	90.00	90.00	90.00	90.00	1, 2, 3, 4
Sept	0	99.00	100	100	100	100	99.10	99.68	2, 3
Oct	0	100.00	99.86	98.99	100	97.84	99.46	99.36	2, 3
Nov	0	98.00	100	100	80.02	100	100	96.34	2, 3
	•	•	•	•	•	•	•	98.32	

## FOUR LEVEL REPORTING INDEX

LEVEL 1: (CO + NO)/NO

**LEVEL 2: Eb/NO** 

**LEVEL 3: BASE BAND EQUIPMENT** 





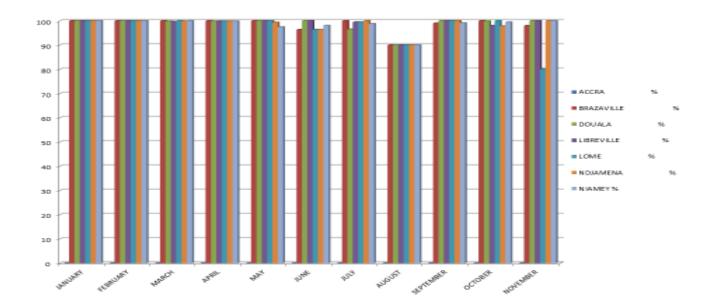


FIGURE 3: KANO CENTER ATS/DS CIRCUIT AVAILABILITY FROM JAN' - NOV' 2017

Table 4: KANO CENTER AFTN CIRCUIT AVAILABILITY FROM JAN' - NOV' 2017

STATION									4 level reporting index
	ACCRA	BRAZZA	DOUALA	LIBREV	LOME	NDJAM	NIAMEY	AVERAGE	
Month									
	%	%	%	%	%	%	%	%	
Jan	99.60	93.55	93.55	85.48	100	90.45	100	94.66	1, 2
Feb	98.21	100	100	96.43	97.17	98.36	100	98.60	1, 2
Mar	99.86	99.86	99.72	99.72	98.61	99.86	99.86	99.64	1,2
Apr	99.86	99.86	99.86	99.03	99.86	99.30	99.86	99.66	2, 3
May	99.73	100	99.87	100	99.87	99.73	100	99.89	2,3
June	83.33	100	100	100	100	99.40	100	97.53	1, 2, 3, 4
July	95.97	0	95.97	95.97	95.97	95.97	95.97	82.26	1, 2, 3, 4
August	90.00	0	90.00	90.00	90.00	90.00	90.00	77.14	2, 3, 4
Sept	100	0	100	100	100	100	100	85.71	2, 3
Oct	100	0	97.45	97.45	100	95.08	100	84.28	2, 3
Nov	100	0	99.59	100	80.00	99.50	100	83.72	2, 3
	•	•	•	•	•	•	•	91.10	

FOUR LEVEL REPORTING INDEX

LEVEL 1: (CO + NO)/NO

LEVEL 2: Eb/NO

**LEVEL 3: BASE BAND EQUIPMENT** 



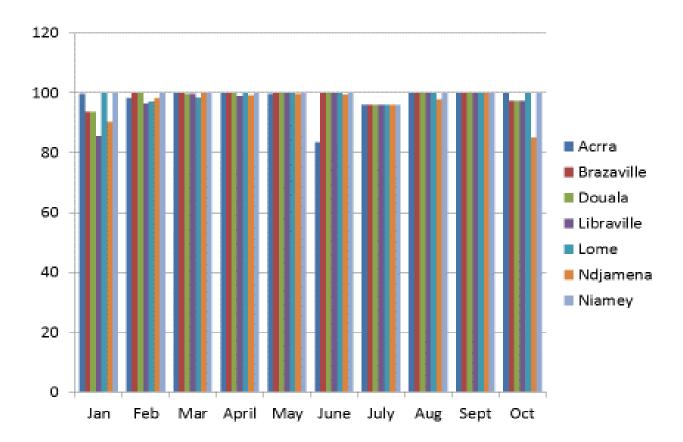


FIGURE 4: KANO CENTER AFTN CIRCUIT AVAILABILITY FROM JAN' - Oct' 2017

On the average, some ATS/DS and AFTN circuits performed below the ICAO recommended level. Malabo circuit with Lagos was not activated both on AFTN and ATS/DS.

## 3.0 ACTION REQUIRED

- 3.1 The meeting is invited to:
  - To take note of the information contained in this paper
  - Strategize on mitigation action against the noticeable under performance of some circuits.