



ICAO

SNMC/27 WP03B2

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICA OFFICE**

Twenty-seventh Meeting of the AFI Satellite Network Management Committee

(SNMC/27)

(Accra, Ghana, 25-29 November 2019)

Agenda Item 2: Missing Flight Plan

Presented by GCAA

SUMMARY

The present Working Paper present a report on missing Flight Plans in Accra FIR for the month of November,2019.

Reference: SNMC/26 Report

APIRG 21/22 Report

Action by the meeting in paragraph 3

1. Introduction

1.1 All AFISNET SNMC meetings had the cause to repeatedly enumerate the menace associated to ATS missing FPLs.

ANSPs are doing all they can to reduce to the barest minimum in percentage terms this phenomena.

In APIRG 21and 22 meetings , the issue of missing FPLs was topical.

In all these discussions, the issue of non-existence of ATS Messages and missing FPLs detailing all the statistics, that about 80% of missing FPLs are associated to Africa.

It is important to put in place measures to mitigate the issue of missing flight plans since it can be a threat to safety in our air spaces.



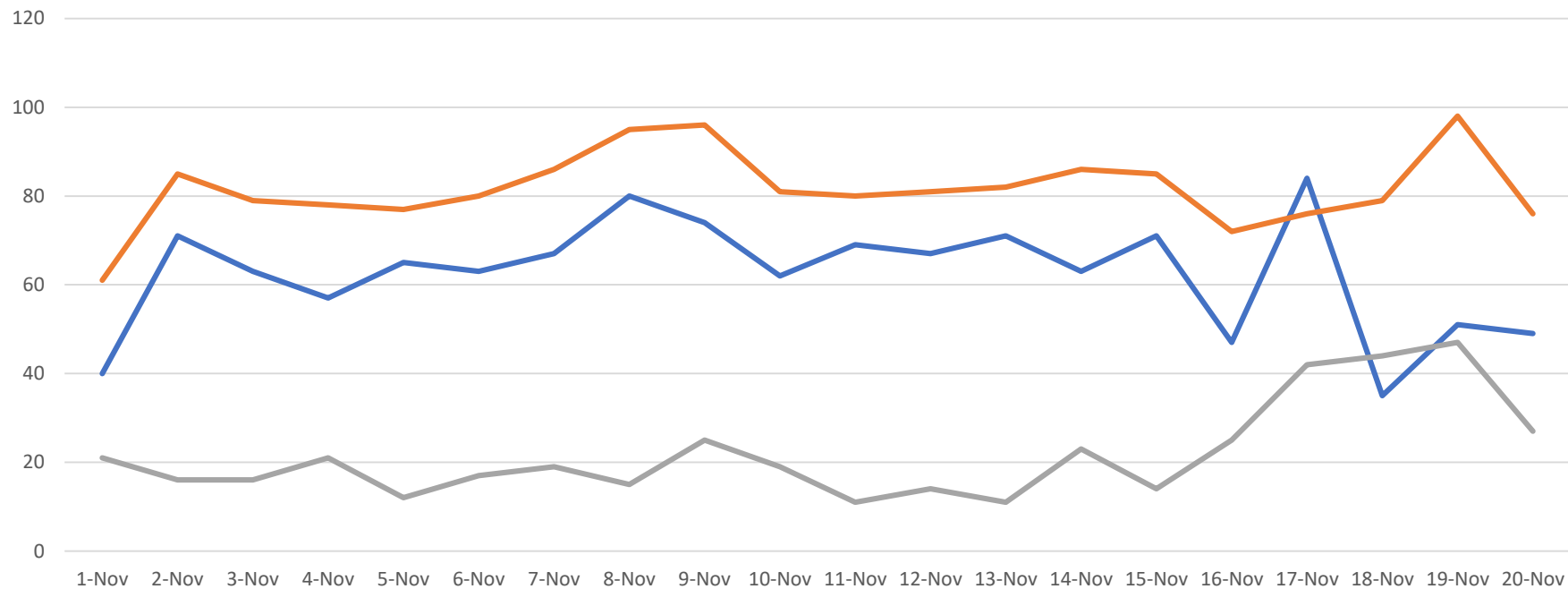
2.0 Discussions

2.1 Accra Overflight Missing Flight plan data for November 2019

DATE	OVERFLIGHT RECEIVED	OVERFLIGHT ACTUAL	MISSING FPL
1-Nov	40	61	21
2-Nov	71	85	16
3-Nov	63	79	16
4-Nov	57	78	21
5-Nov	65	77	12
6-Nov	63	80	17
7-Nov	67	86	19
8-Nov	80	95	15
9-Nov	74	96	25
10-Nov	62	81	19
11-Nov	69	80	11
12-Nov	67	81	14
13-Nov	71	82	11
14-Nov	63	86	23
15-Nov	71	85	14
16-Nov	47	72	25
17-Nov	34	76	42
18-Nov	35	79	44
19-Nov	51	98	47
20-Nov	49	76	27
TOTAL	1249	1633	423



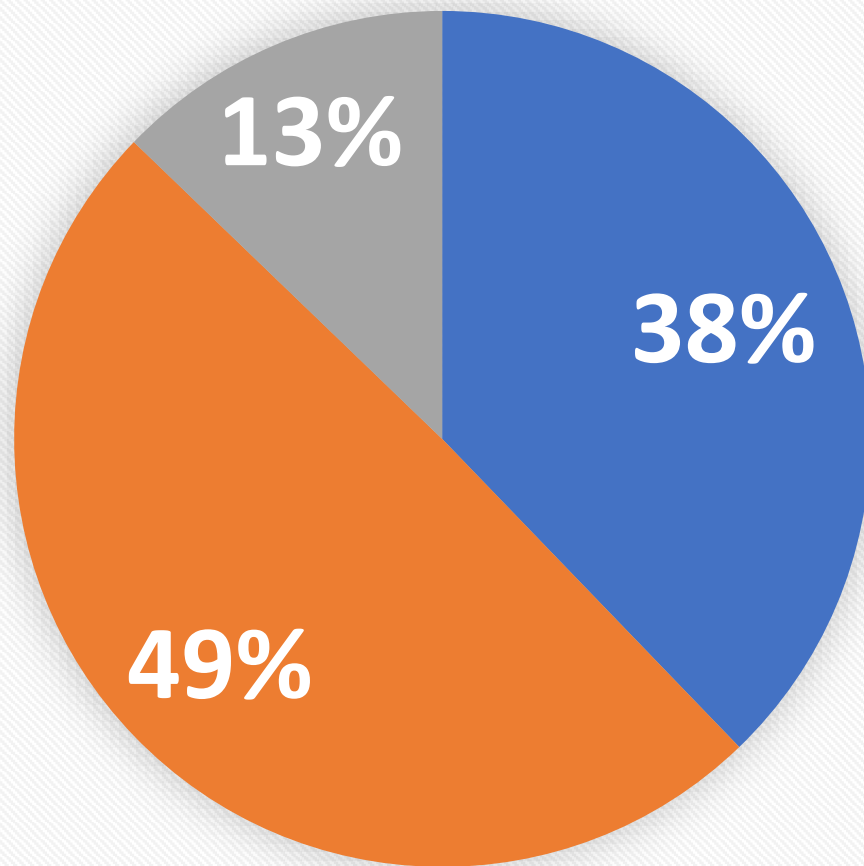
ACCRA FIR OVERFLIGHT MISSING FPL FOR NOV 2019



— OVERFLIGHT RECEIVED — OVERFLIGHT ACTUAL — MISSING FPL



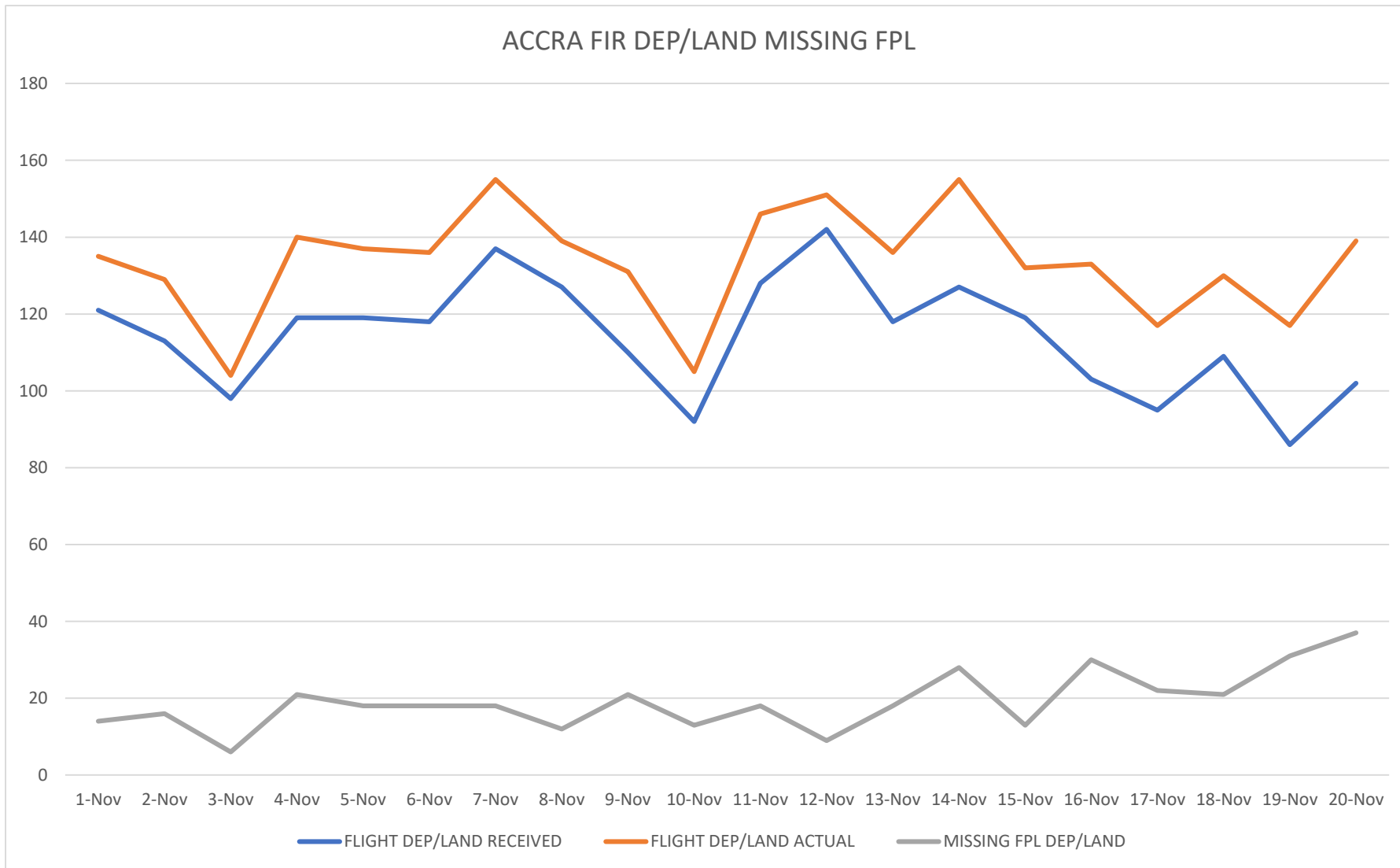
1-20 Nov-19



■ OVERFLIGHT RECEIVED ■ OVERFLIGHT ACTUAL ■ MISSING ■



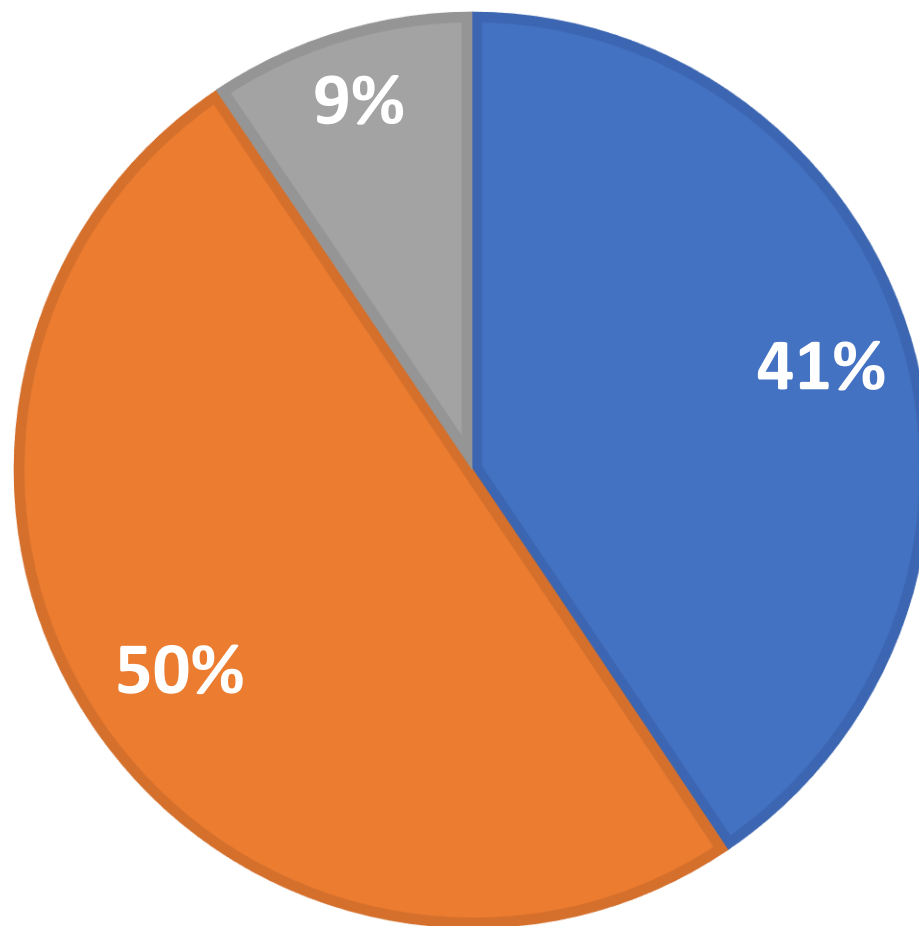
DATE	FLIGHT DEP/LAND RECEIVED	FLIGHT DEP/LAND ACTUAL	MISSING FPL DEP/LAND
1-Nov	121	135	14
2-Nov	113	129	16
3-Nov	98	104	6
4-Nov	119	140	21
5-Nov	119	137	18
6-Nov	118	136	18
7-Nov	137	155	18
8-Nov	127	139	12
9-Nov	110	131	21
10-Nov	92	105	13
11-Nov	128	146	18
12-Nov	142	151	9
13-Nov	118	136	18
14-Nov	127	155	28
15-Nov	119	132	13
16-Nov	103	133	30
17-Nov	95	117	22
18-Nov	109	130	21
19-Nov	86	117	31
20-Nov	102	139	37
TOTAL	2164	2667	503





1-20 NOV 2019

■ FLIGHT DEP/LAND RECEIVED ■ FLIGHT DEP/LAND ACTUAL ■ MISSING FPL DEP/LAND ■





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Oss12@AIDA:OPS: Operator SUPER_USER

09:39:08 06.11.2019 AFTN_BOX 34 AMHS 0 REJECTED 1 QUEUES 2:8:274 ALARMS 2 CSS A STANDBY RSS 1 OP+ CSS B OP+ RSS 2 OP+

System Parameters Offline Parameters System Inspection Traffic Operation Window Commands System Commands Help COMSOFT

LA AFRI AFDV LADV LAPS DIAG AFTN BYTE LAN MAPS STAT EVENT ITRAF OTRAF EVENT ITRAF OTRAF AFTN DUPE CD-IMP CD-EXP

Time\	State	LA	MsgT
07.10.2019 19:13:17,149	REJECTED	LA_GIA_ABIDJAN	AFTN
13.10.2019 00:06:29,459	REJECTED	LA_GIA_ABIDJAN	AFTN
14.10.2019 15:12:10,035	REJECTED	LA_GIA_ABIDJAN	AFTN

ONLINE: Filter="CAT(FP) AND INC_MSGTYPE(AFTN) AND INC_LAHANDLE(LA_GIA_ABIDJAN)"

Respecifu Operate Reply Trace Compare 2 Msgs -> Full Detail

```

CCMS: all services running
AIDA CssB: started
AIDA Oss12: started
AIDA Rss2: started
CADAS Message Handler2: started
CADAS Terminal Server2: started

Host: server-2.gcaa.com.gh
Location: OPS
IPv4: 10.10.10.2 10.10.12.3 172.16.10.2 172.16.10.3 172.16.10.4 172.16.10.5
  
```

Oss12@AIDA: Detail

INCOMING MESSAGE

```

=====
Date : 13.10.2019 00:06:29
Source LA : LA_GIA_ABIDJAN
Message Type : AFTN
Message State : REJECTED

MESSAGE INFO
=====
IGAO017 130006
FF DGACZQZX DGACZRZX DGFCZQZX
130005 KRCHYXX
(FPL-30
?(LIRYXX005 KR
-10RRX0ZDY01TYE/ZQZX8DR GX0A PBN/01YM
TXL101SKT
NZ DOFZ ? DE/V0ZMT011TX000FANZ DOF/
NZKT MYX21YMZKT MY2VZSZX/K 1R COEB?(EDN
X PR/GXACPER/GM7MK/30?ST00R A32R 06CHYX30GMMET051MPEMPRRMZEXX
BENP PBS1VZ
EZRYXMET68DDOB
CHECK
TEXT
NEW ENDING ADDED GOOYFYX

Message Text Length : 283

FORWARDER INFO
=====
Reception Time : 13.10.2019 00:06:29,458
Received Bytes : 370
Protocol : ASYNC

CONVERSION AND CHECKING
=====
Generated SVC Message : SVC TXT 130005 KRCHYXX INVALID CHARACTERS
Auto SVC Errors : Invalid character in Message Text
Add Artificial Ending : No
Expand HT Character : No
Remove Control Chars : No
Remove High Bit Chars : No
Full Character Set : On
Long Text Lines : On
Standard Alignment : On
Maximum Text Length : 1800
Alphabet : IA-5(ZCZC)
Address Lines : 3
Max. Messages QTA MIS : 100
  
```

Prev Next Print Exit

Applications Places System Oss12@AIDA:OPS: ... Rss 2@AIDA Wed Nov 6, 09:39:10



ICAO

Oss12@AIDA:OPS: Operator SUPER_USER

10:48:48 AFTN_BOX AMHS REJECTED QUEUES ALARMS CSS A STANDBY RSS 1 OP+ 1 11 99
 06.11.2019 41 0 1 2:8:314 2 CSS B OP+ RSS 2 OP+ 2 4 12

System Parameters Offline Parameters System Inspection Traffic Operation Window Commands System Commands Help COMSOFT

LA AFR1 AFDV LADV LAPS DIAG AFTN BYTE LAN MAPS STAT EVENT ITRAF OTRAF EVENT ITRAF OTRAF AFTN DUPE CD-IMP CD-EXP

Oss12@AIDA: Retrieval

Time\	State	LA	MsgI
10.10.2019 07:39:05,222	NORMAL	LA_GLA_LAGOS	AFTN
10.10.2019 08:41:15,570	NORMAL	LA_GLA_LAGOS	AFTN
10.10.2019 12:04:15,277	NORMAL	LA_GLA_LAGOS	AFTN
10.10.2019 12:12:37,930	NORMAL	LA_GLA_LAGOS	AFTN
10.10.2019 12:25:09,043	NORMAL	LA_GLA_LAGOS	AFTN
10.10.2019 20:37:05,185	NORMAL	LA_GLA_LAGOS	AFTN
10.10.2019 21:29:18,542	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 01:26:11,077	REJECTED	LA_GLA_LAGOS	AFTN
11.10.2019 02:25:22,212	REJECTED	LA_GLA_LAGOS	AFTN
11.10.2019 06:56:25,760	REJECTED	LA_GLA_LAGOS	AFTN
11.10.2019 08:15:46,512	REJECTED	LA_GLA_LAGOS	AFTN
11.10.2019 13:17:35,996	REJECTED	LA_GLA_LAGOS	AFTN
11.10.2019 15:48:51,967	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 19:19:05,517	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 20:41:18,374	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 20:54:30,425	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 21:36:12,989	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 21:36:15,325	NORMAL	LA_GLA_LAGOS	AFTN
11.10.2019 21:37:27,505	NORMAL	LA_GLA_LAGOS	AFTN

ONLINE: Filter="CAT(FP) AND INC_MSGTYPE(AFTN) AND INC_LAHANDLE(LA_GLA_LA

Respecify Operate Reply Trace Compare 2 Msgs -> Full Detail

Oss12@AIDA: Detail

INCOMING MESSAGE

```

Date : 11.10.2019 02:25:22
Source LA : LA_GLA_LAGOS
Message Type : AFTN
Message State : REJECTED

MESSAGE INFO
=====
LCA013 11022703
FF DIAPZTZx DIYOZTZx
110225 DNMZPFZx
(FPL-VRE531-IS
-DH8D/M-SDGIRY/C
-DNMM0825
-N0326F240 LAG DCT POLTO UL433 POLTIQ ACC UB600 AFO AF03D
-DIAP0136 DIY0
-PBN/A1B1C1D1O1 DOF/191011 REG/TUTSI EET/DGAC0009 GOO00113 SEL/ADB6
OPR/AIR COTE DIVOIRE RMK TCAS EQUIPPED)

Message Text Length : 228

FORWARDER INFO
=====
Reception Time : 11.10.2019 02:25:22,212
Received Bytes : 302
Protocol : ASYNC

CONVERSION AND CHECKING
=====
Fatal Errors : Circuit Identification unexpected
Add Artificial Ending : No
Expand HT Character : No
Remove Control Chars : No
Remove High Bit Chars : No
Full Character Set : On
Long Text Lines : Off
Standard Alignment : On
Maximum Text Length : 1800
Alphabet : IA-5(ZCZC)
Address Lines : 3
Max. Messages QTA MIS : 100
Midnight Wrap : Off
Expected TMI : LGA009

MESSAGE DUMP
=====
0000 5a 43 5a 43 20 4c 43 41 30 31 33 20 31 31 30 32 ZCZC LCA013 1102
  
```

Prev Next Print Exit

CCMS: all services running
 AIDA CssB: started
 AIDA Oss12: started
 AIDA Rss2: started
 CADAS Message Handler2: started
 CADAS Terminal Server2: started

Host: server-2.gcaa.com.gh
 Location: OPS
 IPv4: 10.10.10.2 10.10.12.3 172.16.10.2 172.16.10.3 172.16.10.4

Applications Places System Oss12@AIDA:OPS: ... Rss 2@AIDA Wed Nov 6, 10:48:50



ICAO

Oss12@AIDA:OPS: Operator SUPER_USER

11:09:20 06.11.2019 AFTN AMHS REJECTED QUEUES ALARMS 2 CSS A STANDBY RSS 1 OP+ CSS B OP+ RSS 2 OP+

System Parameters Offline Parameters System Inspection Traffic Operation Window Commands System Commands Help COMSOFT

LA AFR1 AFDV LADV LAPS DIAG AFTN BYTE LAN MAPS STAT EVENT ITRAF OTRAF EVENT ITRAF OTRAF AFTN DUPE CD-IMP CD-EXP

Oss12@AIDA: Retrieval

Time\	State	LA	MsgT
01.10.2019 15:05:57,978	REJECTED	LA_GRA_KANO	AFTN
02.10.2019 11:27:46,078	REJECTED	LA_GRA_KANO	AFTN
02.10.2019 11:38:23,078	REJECTED	LA_GRA_KANO	AFTN
03.10.2019 08:33:14,487	NORMAL	LA_GRA_KANO	AFTN
03.10.2019 09:22:46,508	NORMAL	LA_GRA_KANO	AFTN
04.10.2019 01:17:38,737	NORMAL	LA_GRA_KANO	AFTN
04.10.2019 07:49:43,831	NORMAL	LA_GRA_KANO	AFTN
04.10.2019 08:04:24,515	NORMAL	LA_GRA_KANO	AFTN
04.10.2019 11:46:49,917	NORMAL	LA_GRA_KANO	AFTN
05.10.2019 06:03:28,200	NORMAL	LA_GRA_KANO	AFTN
05.10.2019 06:03:58,099	NORMAL	LA_GRA_KANO	AFTN
05.10.2019 06:11:17,313	NORMAL	LA_GRA_KANO	AFTN
05.10.2019 09:20:31,633	NORMAL	LA_GRA_KANO	AFTN
06.10.2019 00:10:34,793	NORMAL	LA_GRA_KANO	AFTN
06.10.2019 00:24:11,231	NORMAL	LA_GRA_KANO	AFTN
06.10.2019 08:18:30,435	NORMAL	LA_GRA_KANO	AFTN
06.10.2019 08:50:26,850	NORMAL	LA_GRA_KANO	AFTN
06.10.2019 11:28:53,625	NORMAL	LA_GRA_KANO	AFTN
07.10.2019 02:44:20,120	NORMAL	LA_GRA_KANO	AFTN

ONLINE: Filter="CAT(FP) AND INC_MSGTYPE(AFTN) AND INC_LAHANDLE(LA_GRA_KA

Respecifu Operate Reply Trace Compare 2 Msgs -> Full Detail

Oss12@AIDA: Detail

INCOMING MESSAGE

```

=====
Date           : 03.10.2019 08:33:14
Source LA      : LA_GRA_KANO
Message Type   : AFTN
Message State  : NORMAL

MESSAGE INFO
=====
RGA0032 03083131
FF DGACZQZX
030831 DNAAZPX
(FPL-VRES35-IS
-A319/M-SDGIRWXY/C
-DNAAD820
-ND452F380 ABC IKSE1Q IKSEM DCT VONUJ UH340 LAG UL433 POLTO ACC UB600
-AFO AFO3D
-DIAP0141 DIYO
-PBN/A1B1C1D101 DOF/191003 REG/TUTRC EET/DGAC0041 GOO00123 SEL/KRHL
OPR/AIR COTE DIVORE RMK/TCAS EQUIPPED)

Message Text Length : 252

FORWARDER INFO
=====
Reception Time   : 03.10.2019 08:33:14,487
Received Bytes   : 311
Protocol         : ASYNC

CONVERSION AND CHECKING
=====
Ignored/Corr. Errors : Message Ending invalid
Add Artificial Ending : No
Expand HT Character  : No
Remove Control Chars : No
Remove High Bit Chars : No
Full Character Set   : On
Long Text Lines     : On
Standard Alignment  : On
Maximum Text Length  : 1800
Alphabet             : IA-5(ZC2c)
Address Lines        : 3
Max. Messages QTA MIS : 100
Midnight Wrap       : Off
Expected TMI        : RGA0032

MESSAGE DUMP
=====

```

Prev Next Print Exit

CCMS: all services running
AIDA CsbB: started
AIDA Oss12: started
AIDA Rss2: started
CADAS Message Handler2: started
CADAS Terminal Server2: started

Host: server-2.gcaa.com.gh
Location: OPS
IPv4: 10.10.10.2 10.10.12.3 172.16.10.2 172.16.10.3 172.16.10.4

Applications Places System Oss12@AIDA:OPS: ... Rss 2@AIDA Wed Nov 6, 11:09:22



2.2 **Identified** Causes of missing flight plans in Accra Center

- Flights without FPL at KIA.
- FPL not received
- Circuit interruption
- AFTN Link failures between centers (specifically the obsolete IBS satellite network eg the MOL2P multiplexers)
- Wrong addressing of flight plans causing the AFTN system to reject the messages
- Wrong setting of address between systems (eg. AFTN to ATM systems)
- Wrong AFTN protocol setting between centers
- Failure to update routing tables of the AFTN systems
- Time synchronization between the AFTN and ATM systems
- ANSP's internal procedures.
- Wrong use of circuit identification/channel IDs.
- Defective circuits.
- Human factors (individuals & systems).
- Lack of coordination at the various AFTN/AMHS centers

2.3 **Mitigation measures**

Establish a flight plan taskforce to examine the causes of the missing FPL on a timely and systematic basis.

Exchange on Monthly basis data on missing flight plan among states

Implementation of collective addressing has helped remedy the situation.

Improvement on system failures due to a better management platform by way of Whatsapp groups.



3. Action Required

The meeting is invited to:

Note the information related to the missing FPL

SNMC members to share their experiences in the area of missing FPLs Encourage regular training technical and Operational personnel as a means to mitigating the causes of missing Flight plans

To encourage AFI states to continue to share data on ATS missing FPLs.

-----END-----