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.

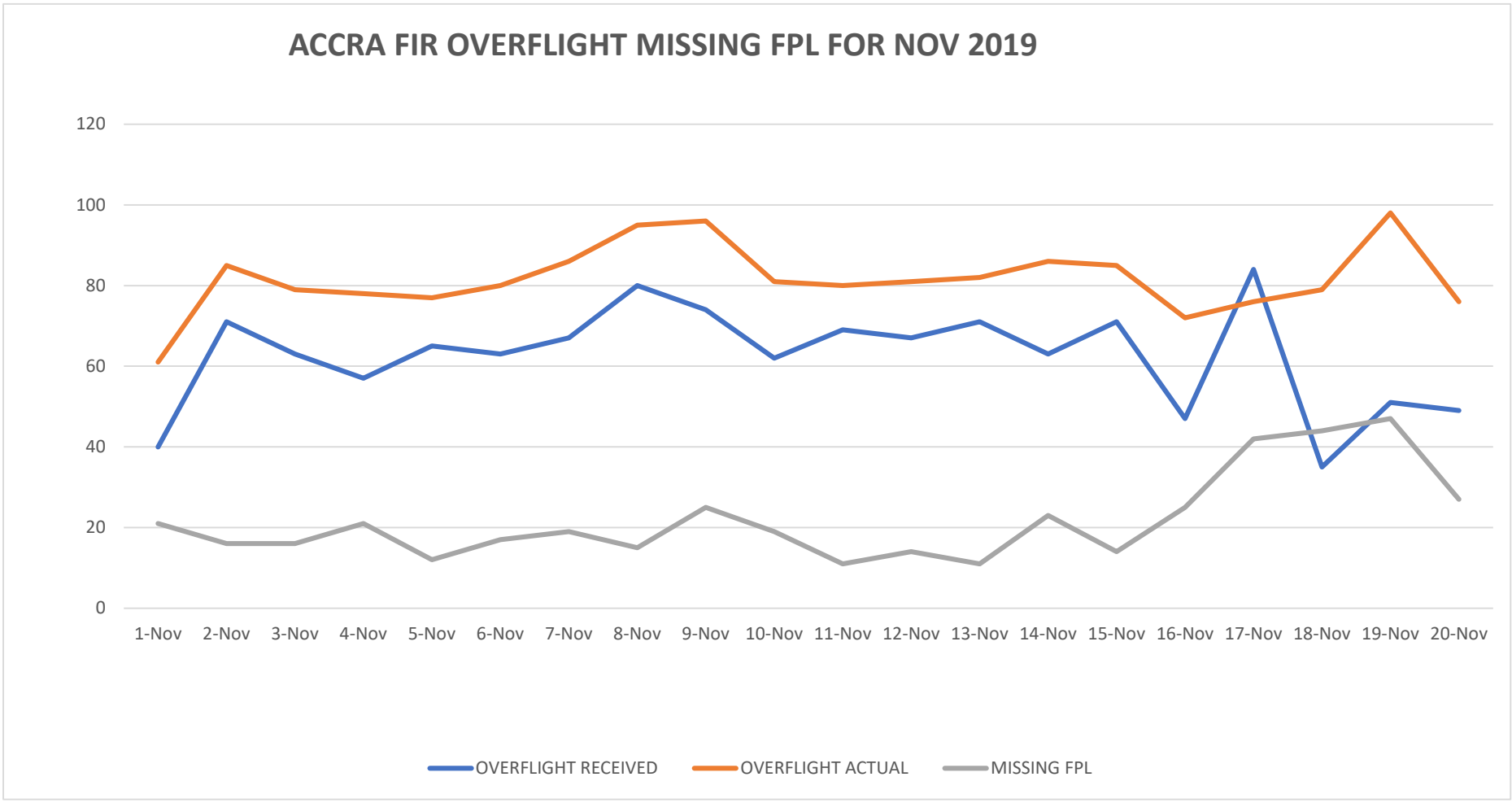
It is important to put in place measures to mitigate the issue of missing flight plans since it can be a threat to safety in our air spaces.

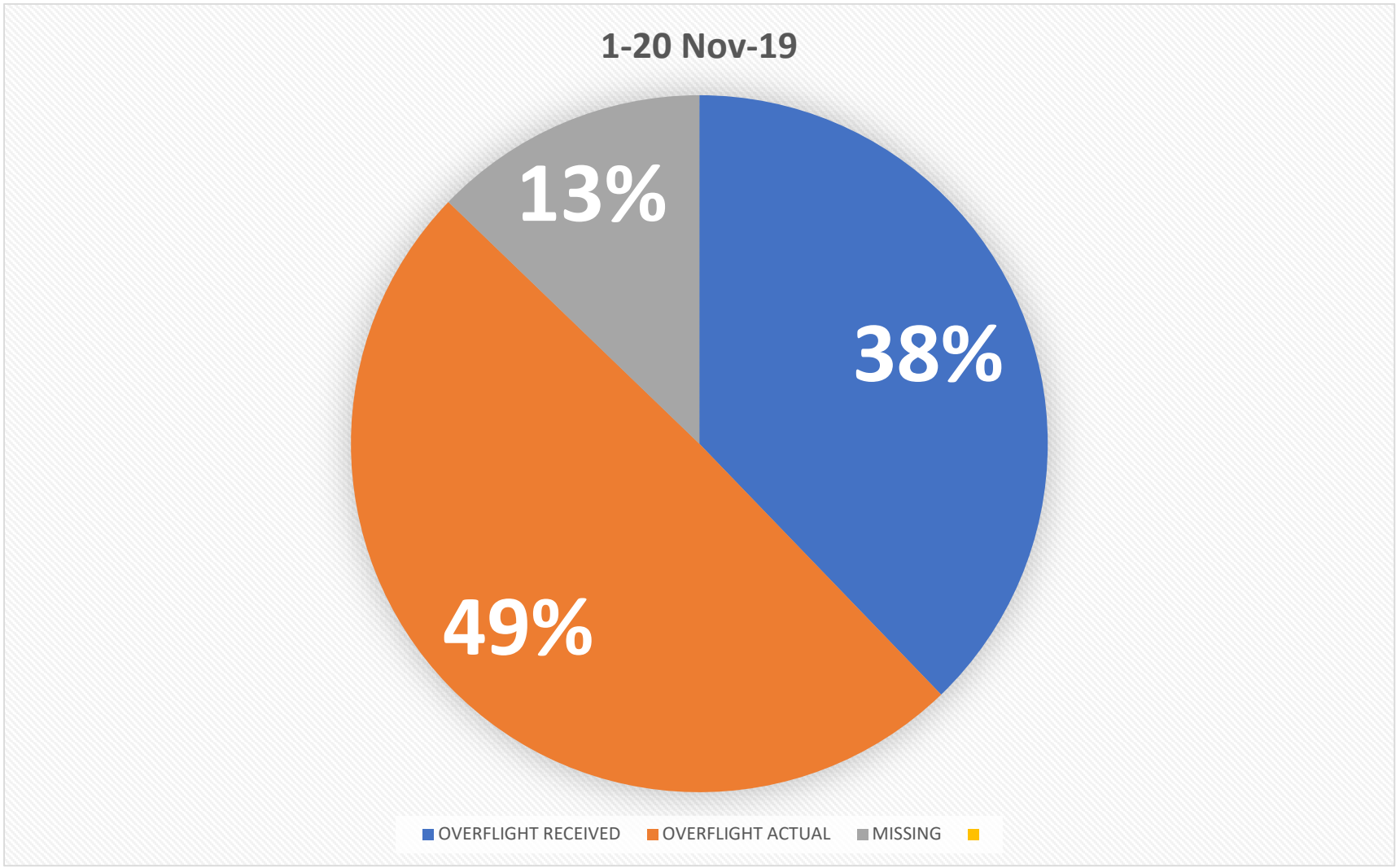
2.0 Discussions

2.1 Accra Overflight Missing Flight plan data for November 2019

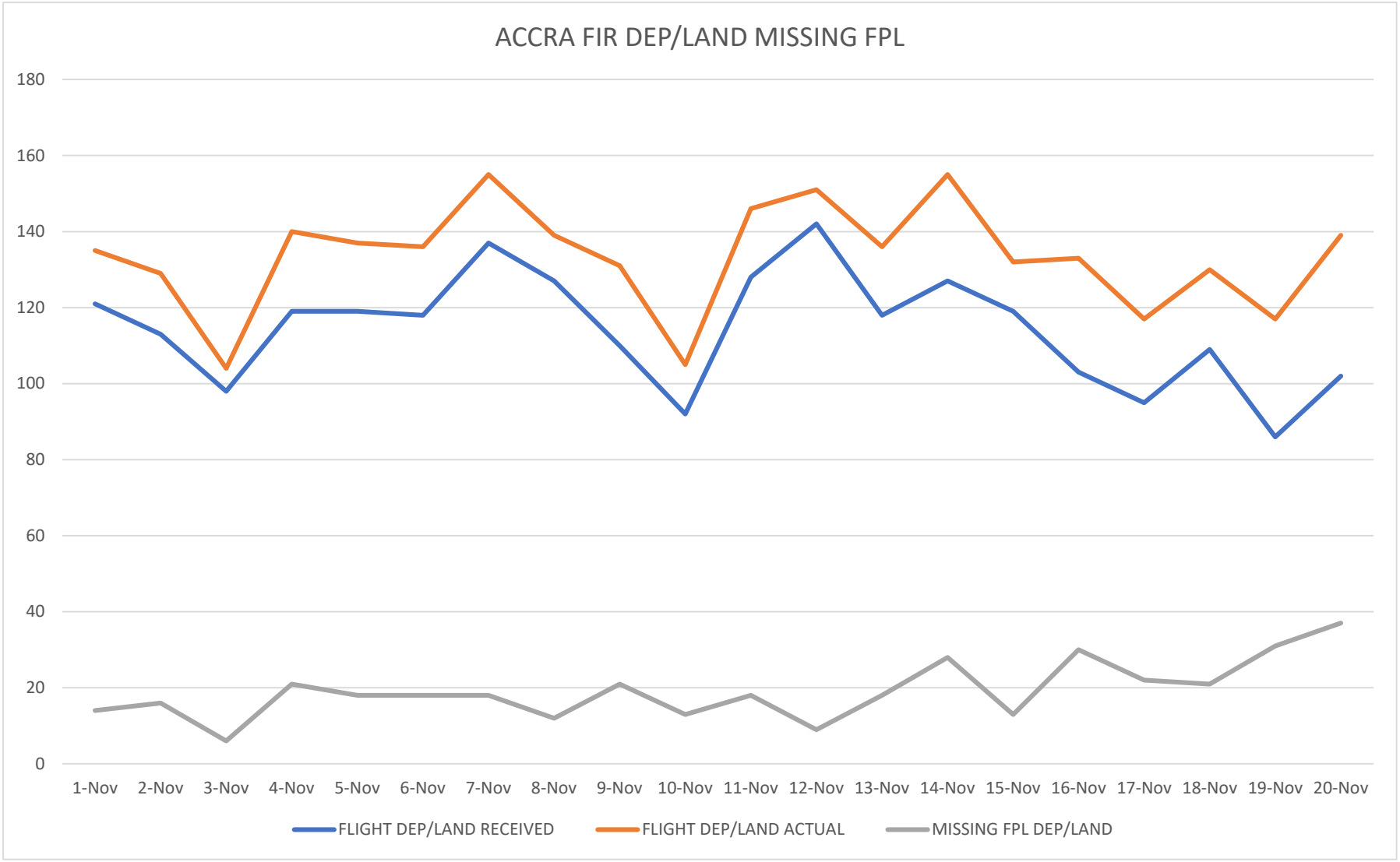
DATE	OVERFLIGHT RECEIVED	OVERFLIGHT ACTUAL	MISSING FPL
1-Nov	40	61	21
2-Nov	71	85	16
3-Nov	63	79	16
4-Nov	57	78	21
5-Nov	65	77	12
6-Nov	63	80	17
7-Nov	67	86	19
8-Nov	80	95	15
9-Nov	74	96	25
10-Nov	62	81	19
11-Nov	69	80	11
12-Nov	67	81	14
13-Nov	71	82	11
14-Nov	63	86	23
15-Nov	71	85	14
16-Nov	47	72	25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

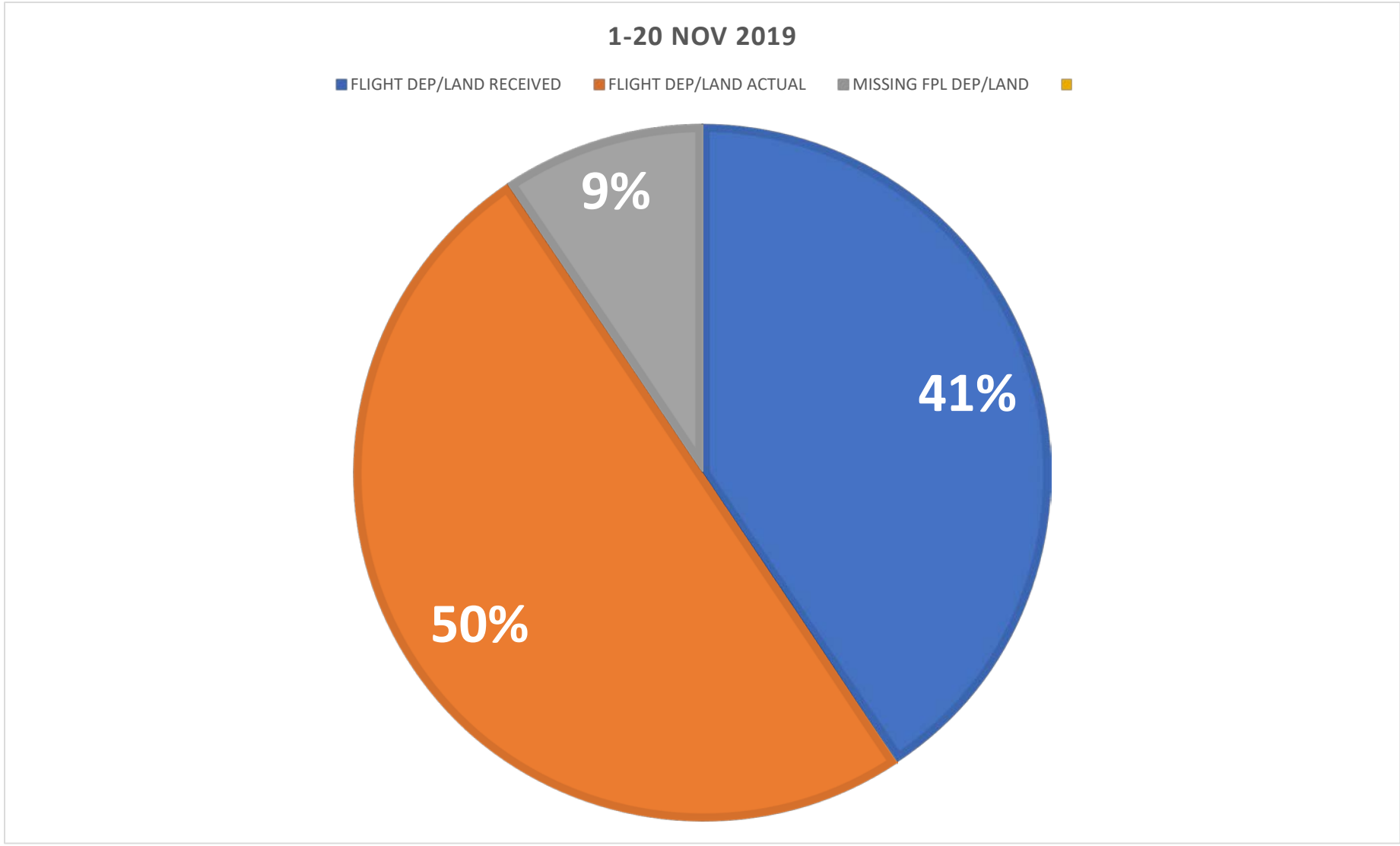
ICAO

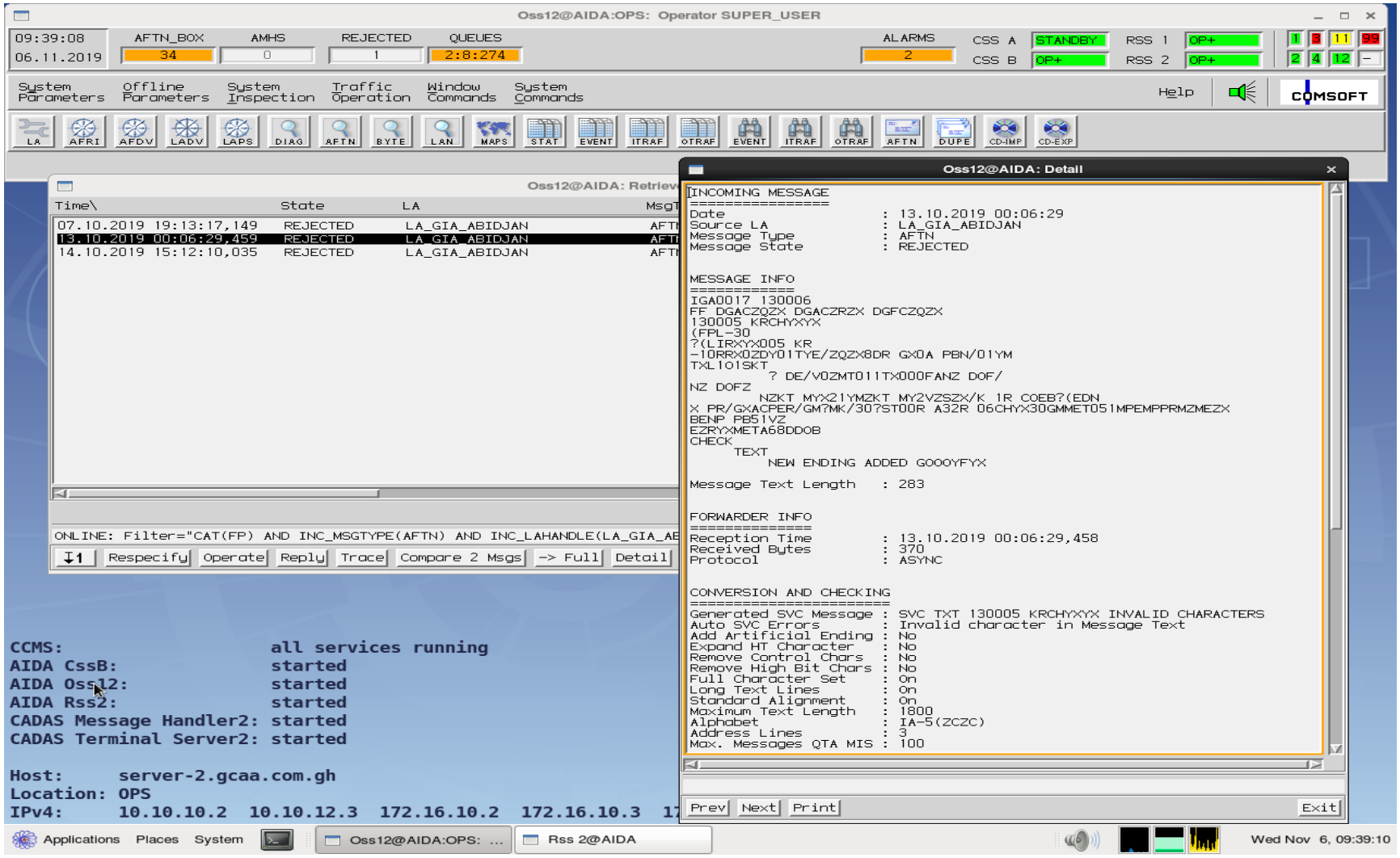

ACCRA FIR OVERFLIGHT MISSING FPL FOR NOV 2019
120
100
80
60
40
20
0
1-Nov
2-Nov
3-Nov
4-Nov
5-Nov
6-Nov
7-Nov
8-Nov
9-Nov
10-Nov
11-Nov
12-Nov
13-Nov
14-Nov
15-Nov
16-Nov
17-Nov
18-Nov
19-Nov
20-Nov
OVERFLIGHT RECEIVED
OVERFLIGHT ACTUAL
MISSING FPL

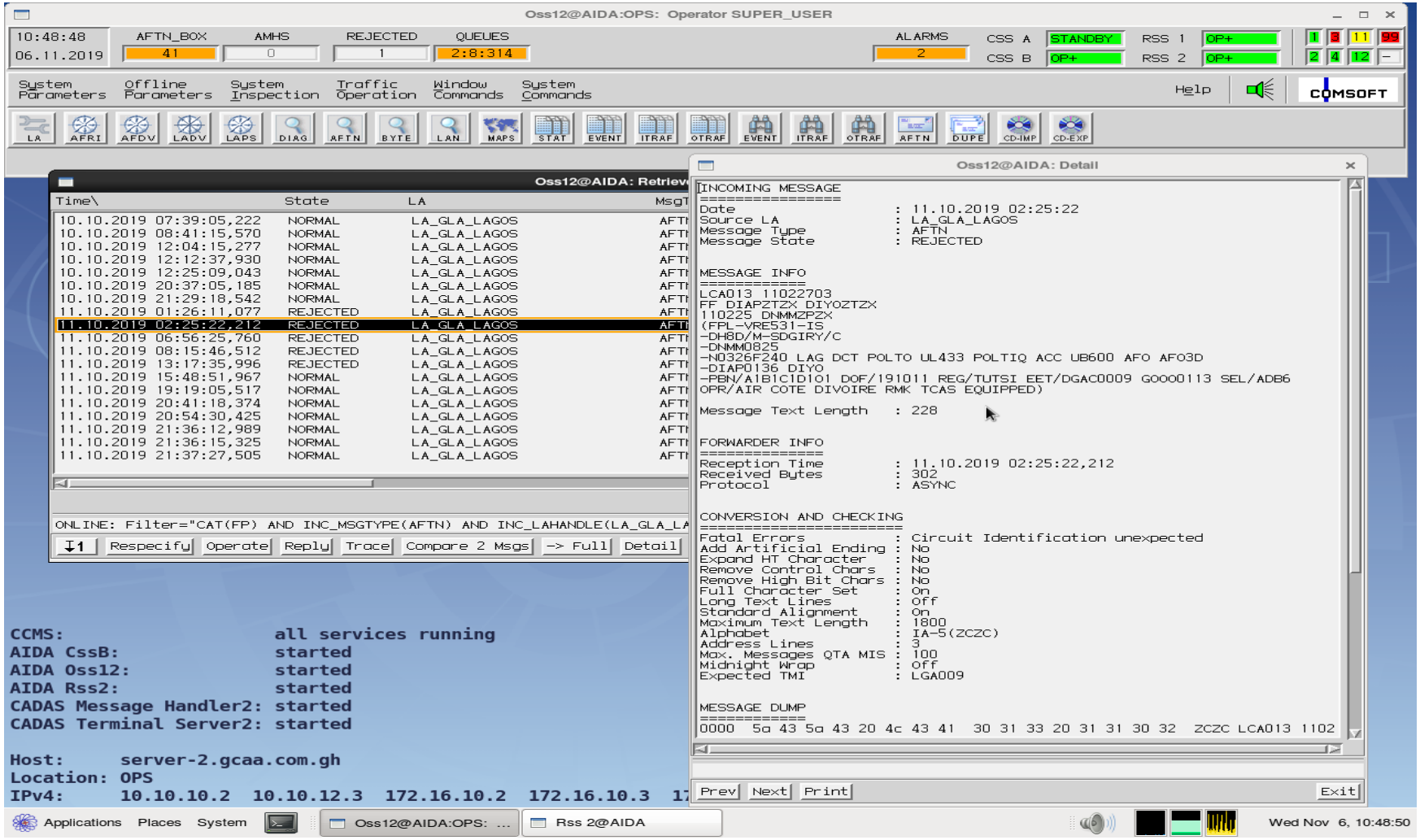

1-20 Nov-19
13%
38%
49%
OVERFLIGHT RECEIVED
OVERFLIGHT ACTUAL
MISSING

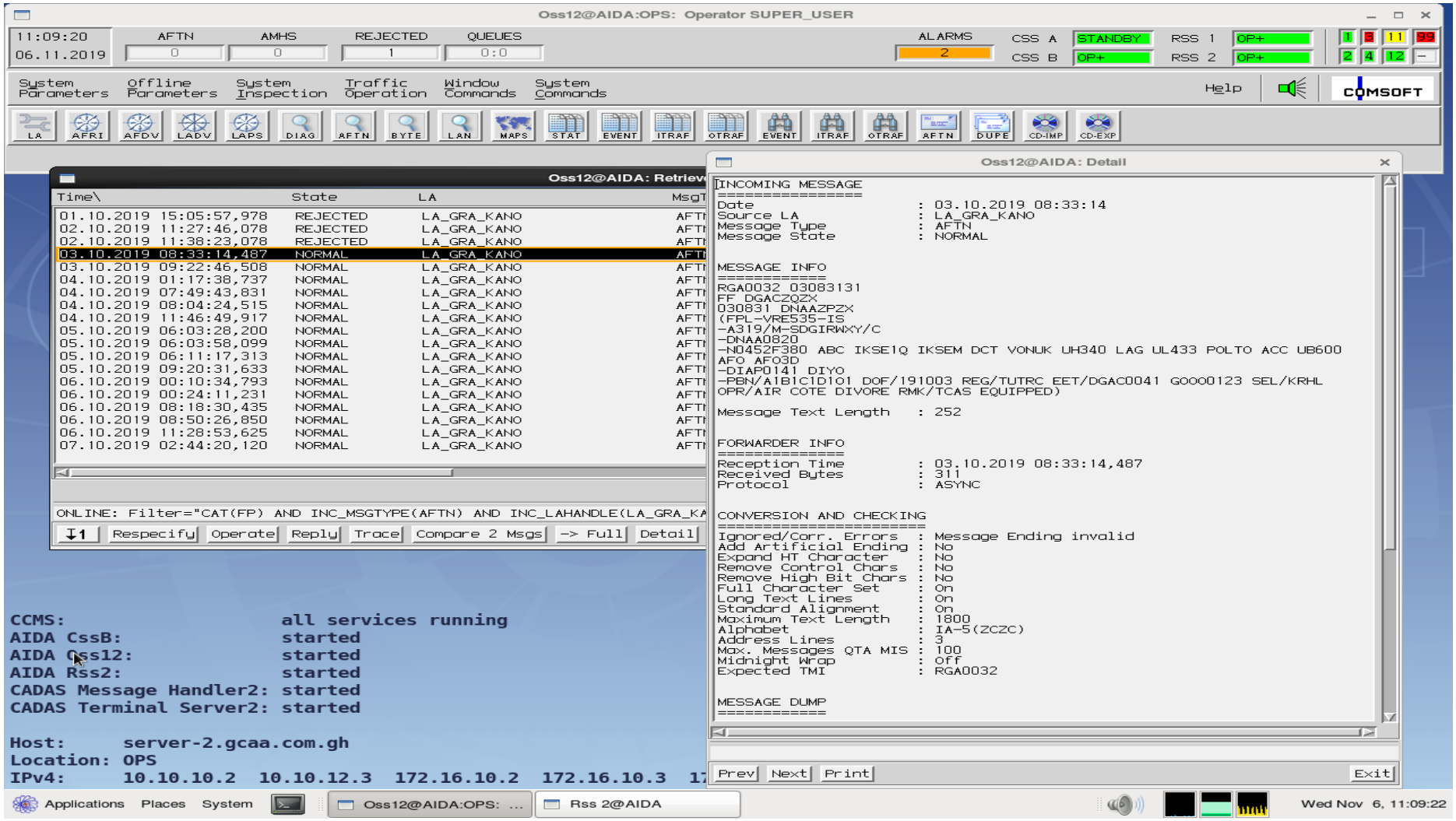
DATE	FLIGHT DEP/LAND RECEIVED	FLIGHT DEP/LAND ACTUAL	MISSING FPL DEP/LAND
1-Nov	121	135	14
2-Nov	113	129	16
3-Nov	98	104	6
4-Nov	119	140	21
5-Nov	119	137	18
6-Nov	118	136	18
7-Nov	137	155	18
8-Nov	127	139	12
9-Nov	110	131	21
10-Nov	92	105	13
11-Nov	128	146	18
12-Nov	142	151	9
13-Nov	118	136	18
14-Nov	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**


ACCRA FIR DEP/LAND MISSING FPL
180
160
140
120
100
80
60
40
20
0
1-Nov
2-Nov
3-Nov
4-Nov
5-Nov
6-Nov
7-Nov
8-Nov
9-Nov
10-Nov
11-Nov
12-Nov
13-Nov
14-Nov
15-Nov
16-Nov
17-Nov
18-Nov
19-Nov
20-Nov
FLIGHT DEP/LAND RECEIVED
FLIGHT DEP/LAND ACTUAL
MISSING FPL DEP/LAND


1-20 NOV 2019
FLIGHT DEP/LAND RECEIVED
FLIGHT DEP/LAND ACTUAL
MISSING FPL DEP/LAND
9%
41%
50%


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
CSS B
OP+
RSS 1
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
Oss12@AIDA: Retriev
Time\
State
LA
07.10.2019 19:13:17,149 REJECTED LA_GIA_ABIDJAN
13.10.2019 00:06:29,459 REJECTED LA_GIA_ABIDJAN
14.10.2019 15:12:10,035 REJECTED LA_GIA_ABIDJAN
ONLINE: Filter="CAT(FP) AND INC_MSGTYPE(AFTN) AND INC_LAHANDLE(LA_GIA_AE
Respecify
Operate
Reply
Trace
Compare 2 Msgs
-> Full
Detail
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
IGA0017 130006
FF DGACZQZX DGACZRZX DGFCZQZX
130005 KRCHYXYX
(FPL-30
?(LIRXYX005 KR
-10RRX0ZDY01TYE/ZQZX8DR GX0A PBN/01YM
TXL101SKT
? DE/V0ZMT011TX000FANZ DOF/
NZ DOFZ
NZKT MYX21YMZKT MY2VZSZX/K 1R COEB?(EDN
X PR/GXACPER/GM?MK/307ST0OR A32R 06CHYX30GMMET051MPEMPPRMZMEZX
BENP PB51VZ
EZRYXMETA68DDOB
CHECK
TEXT
NEW ENDING ADDED GOOOYFYX
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 KRCHYXYX 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
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
Applications
Places
System
Oss12@AIDA:OPS: ...
Rss 2@AIDA
Wed Nov 6, 09:39:10


Oss12@AIDA:OPS: Operator SUPER_USER
10:48:48
06.11.2019
AFTN_BOX
41
AMHS
0
REJECTED
1
QUEUES
2:8:314
ALARMS
2
CSS A
STANDBY
CSS B
OP+
RSS 1
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
Oss12@AIDA: Retriev
Time\
State
LA
MsgT
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
↧1
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 DNMMZPZX
(FPL-VRE531-IS
-DH8D/M-SDGIRY/C
-DNMM0825
-N0326F240 LAG DCT POLTO UL433 POLTIQ ACC UB600 AFO AFO3D
-DIAP0136 DIYO
-PBN/A1B1C1D1O1 DOF/191011 REG/TUTSI EET/DGAC0009 GOOO0113 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
Applications
Places
System
Oss12@AIDA:OPS: ...
Rss 2@AIDA
Wed Nov 6, 10:48:50


Oss12@AIDA:OPS: Operator SUPER_USER
11:09:20
06.11.2019
AFTN
AMHS
REJECTED
QUEUES
ALARMS
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
Oss12@AIDA: Retriev
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
Respecify
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 DNAAZPZX
(FPL-VRE535-IS
-A319/M-SDGIRWXY/C
-DNAA0820
-N0452F380 ABC IKSE1Q IKSEM DCT VONUK UH340 LAG UL433 POLTO ACC UB600
AFO AFO3D
-DIAP0141 DIYO
-PBN/A1B1C1D1O1 DOF/191003 REG/TUTRC EET/DGAC0041 GOOO0123 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(ZCZC)
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 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
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 recieved
- 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 FPLsEncourage regular training technical and Operational personel 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----------