



COCESNA'S FLIGHT PLAN STATISTICS

Flight Plan

Form with fields for flight details, including origin, destination, and aircraft information.

Flight Plan
International Flight Plan

Form with fields for international flight details, including origin, destination, and aircraft information.

Flight Plan

Form with fields for flight details, including origin, destination, and aircraft information.

Line	Origin	Destination	Aircraft	Operator	Class	Altitude	Speed	Time	Weight	Passengers	Crew	Fuel	Remarks
1	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
2	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
3	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
4	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
5	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
6	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
7	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
8	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
9	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ
10	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ	MDZ

get data
getConnection.
connection.
SQL = "SELE
statement.e





FLIGHT PLAN IN CENTRAL AMERICA

In different parts of the world the problem in the flight plans is a well-known issue, Central America is not the exception, the problems did not arise after the changes of the format in the year 2012.

COCESNA so that the change was not so shocking in Central America enabled each of the member countries. Converters were installed in those systems that could not be updated in a different way.

Examples of changes to the flight plan format were installed in each of the AIS offices in the region.

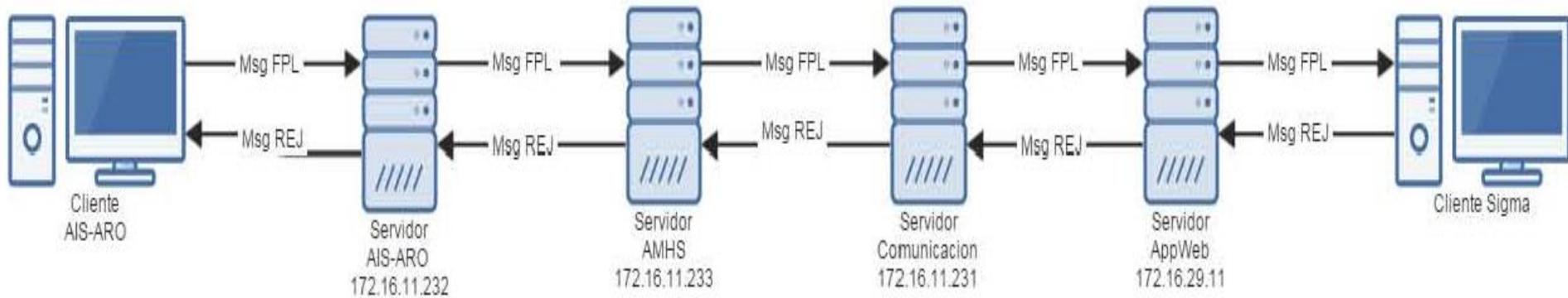
Even so, the flight plan errors continued....



COCESNA'S effort to flight plan issues in Central America

Since 2016 COCESNA developed an application called Flight Plan Validator the main objective was to filter each flight plan coming to CENAMER Control, it was a measure implemented by COCESNA to mitigate flight plan issues, for statistics purposes and to increase safety.

FLIGHT PLAN VALIDATOR DIAGRAM





FLIGHT PLAN VALIDATOR PHASES

PHASE 1

- The flight plan validator will have a three month trial period in which the application will be verified and if necessary the period will be increased.
- Users questions will be answered during this period.
- The database will be updated with the types of aircraft that are rejected due lack of information.

ADVANCE PHASE 1: 90%



FLIGHT PLAN VALIDATOR PHASES

PHASE 2

- The route of flight will be checked according to ICAO specifications. .
- Users questions will be answered during this period.
- This phase will have a three month trial period and if necessary it will be increased.

ADVANCE PHASE 2: 0%



COCESNA'S effort to flight plan issues in Central America

COCESNA developed a course specially designed for AIS personnel and flight dispatchers.

In order to reinforce the basic knowledge of AIS officers in Central America, the course was approved by ICAO personnel, using the TRAIN AIR PLUS methodology.

Staff have been trained in almost all Central American countries has also been supported in resolving specific flight plan situations in each country.



ANALYSIS

- Most of the problems that arise are related to deficiencies and non-compliance with the standards and recommended practices in the PANS ATM Doc. 4444, mainly by the operators, as well as by AIS/ATS units that amend or modify the plans already sent by the operators.
- COGESNA found that the problem lies in the basic knowledge that must have the AIS officer, flight dispatchers and air traffic controllers.
- The person delivering the physical flight plan is not always aware of the ICAO standard used to fill each part of the flight plan
- The airline doesn't have a copy of the AIS flight plan this results in lack of knowledge of the flight plan issued to all control centers, this results in no complain to the flight plan originator.
- In cases the flight plan on board the aircraft is in part different from the one transmitted by the AIS office, this can result in an air traffic incident.



FLIGHT PLAN STATISTICS

2017 MESES	Costa Rica		El Salvador		Honduras		Guatemala	
	Sent	Rejected	Sent	Rejected	Sent	Rejected	Sent	Rejected
Enero	1591	188	2340	301	2483	209	2355	416
Febrero	1368	60	2143	129	2212	201	1883	231
Marzo	1591	33	2388	24	2580	98	2116	113
Abril	1381	42	2217	33	2436	156	2065	264
Mayo	1132	26	2366	29	2323	142	2022	191
Junio	1092	11	2362	29	2283	132	2001	135
Julio	1188	28	2461	29	2814	103	2087	139
Agosto	1039	26	2444	18	2665	86	2080	125
Septiembre	848	6	2297	30	2366	71	1902	67
Octubre	681	12	1808	18	1731	72	1538	51
	11911	432	22826	640	23893	1270	20049	1732



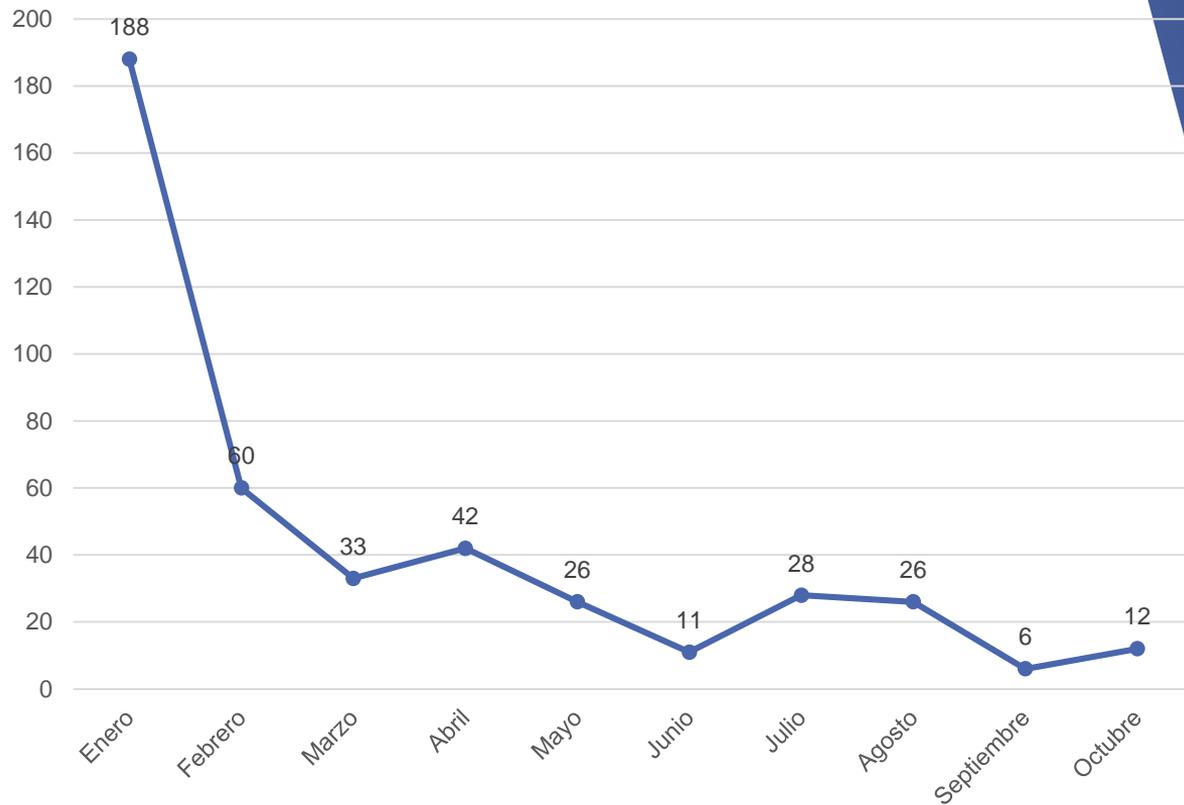
FLIGHT PLAN STATISTICS

2017 MESES	Nicaragua		Belize		Panamá	
	Sent	Rejected	Sent	Rejected	Sent	Rejected
Enero	1024	169	663	92	4960	250
Febrero	993	126	543	28	3937	189
Marzo	1118	29	598	4	4180	265
Abril	1057	67	577	7	4231	548
Mayo	1059	65	478	6	4290	510
Junio	1046	44	535	2	4251	497
Julio	1167	42	543	4	4462	495
Agosto	1026	26	477	4	3899	390
Septiembre	875	23	320	0	5420	488
Octubre	723	8	299	8	3962	146
	10088	599	5033	155	43592	3778



FLIGHT PLAN STATISTICS

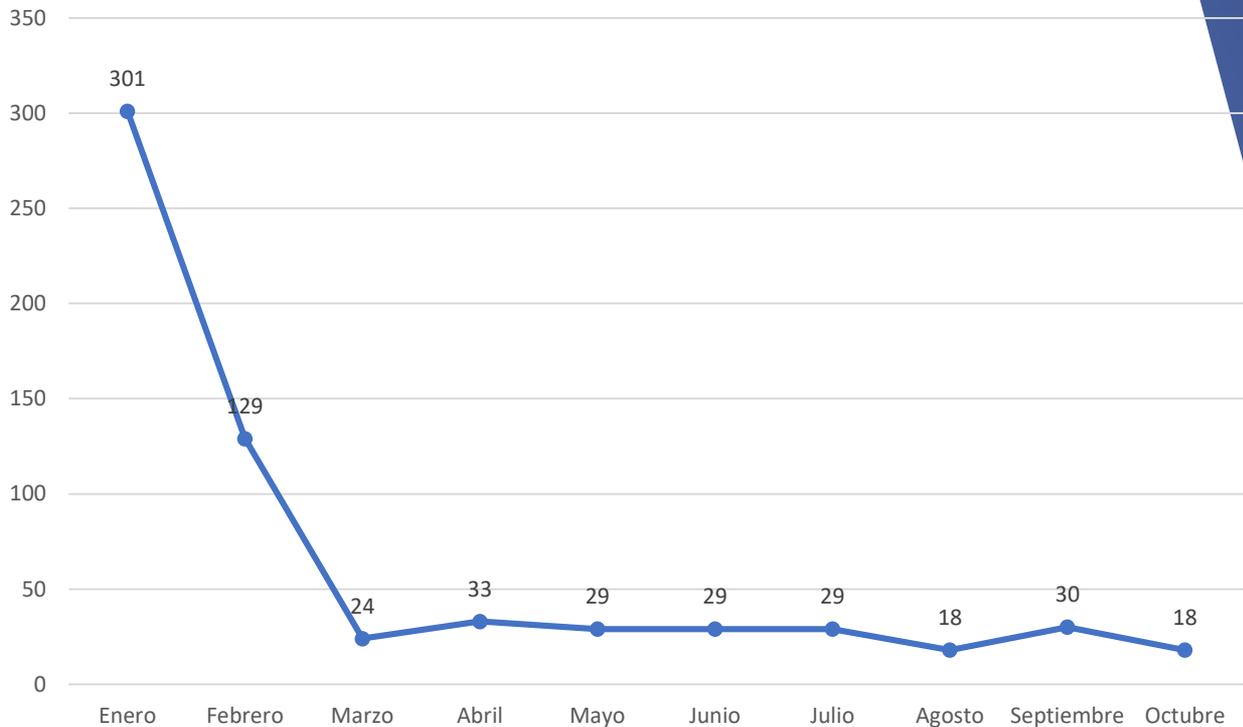
Costa Rica -Rejected





FLIGHT PLAN STATISTICS

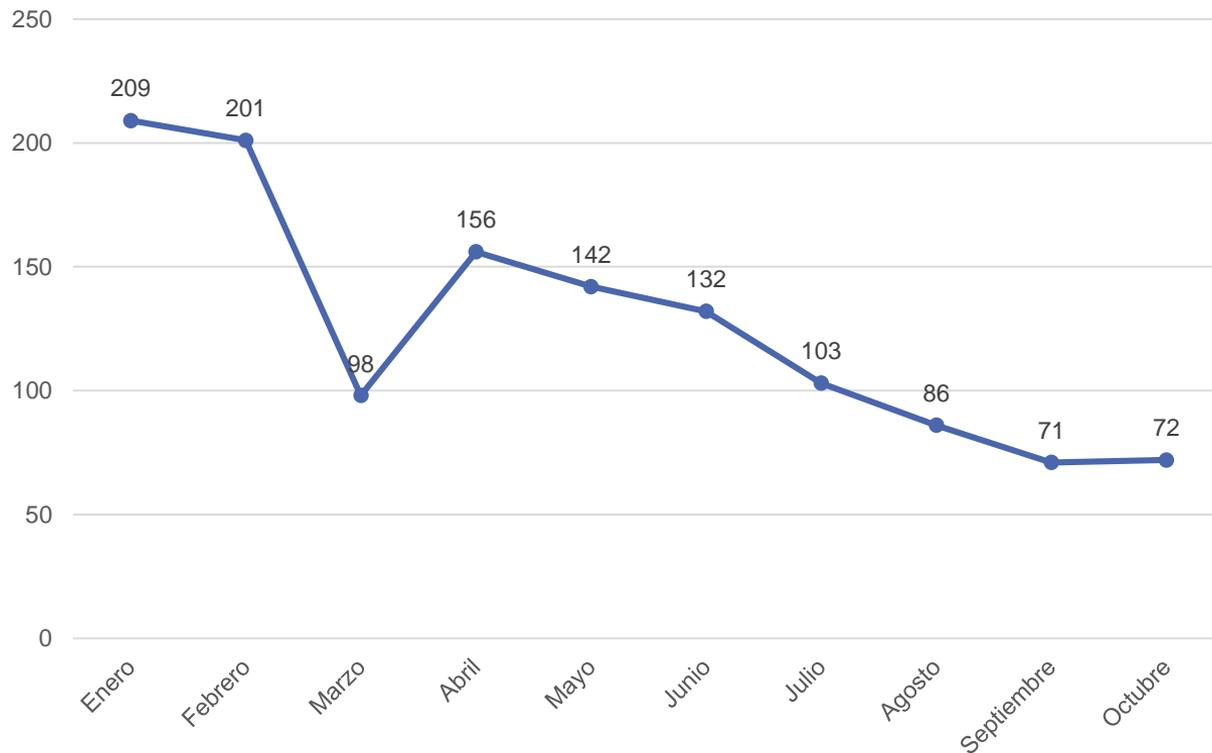
El Salvador - Rejected





FLIGHT PLAN STATISTICS

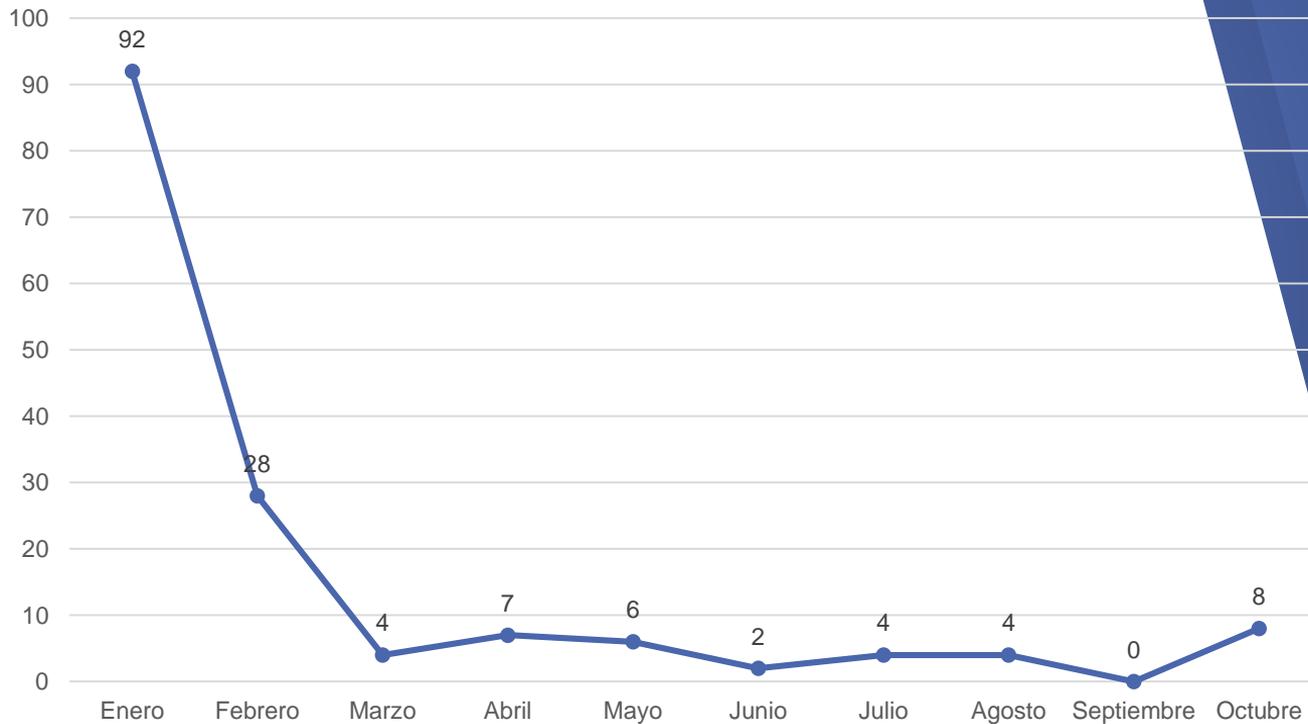
Honduras - Rejected





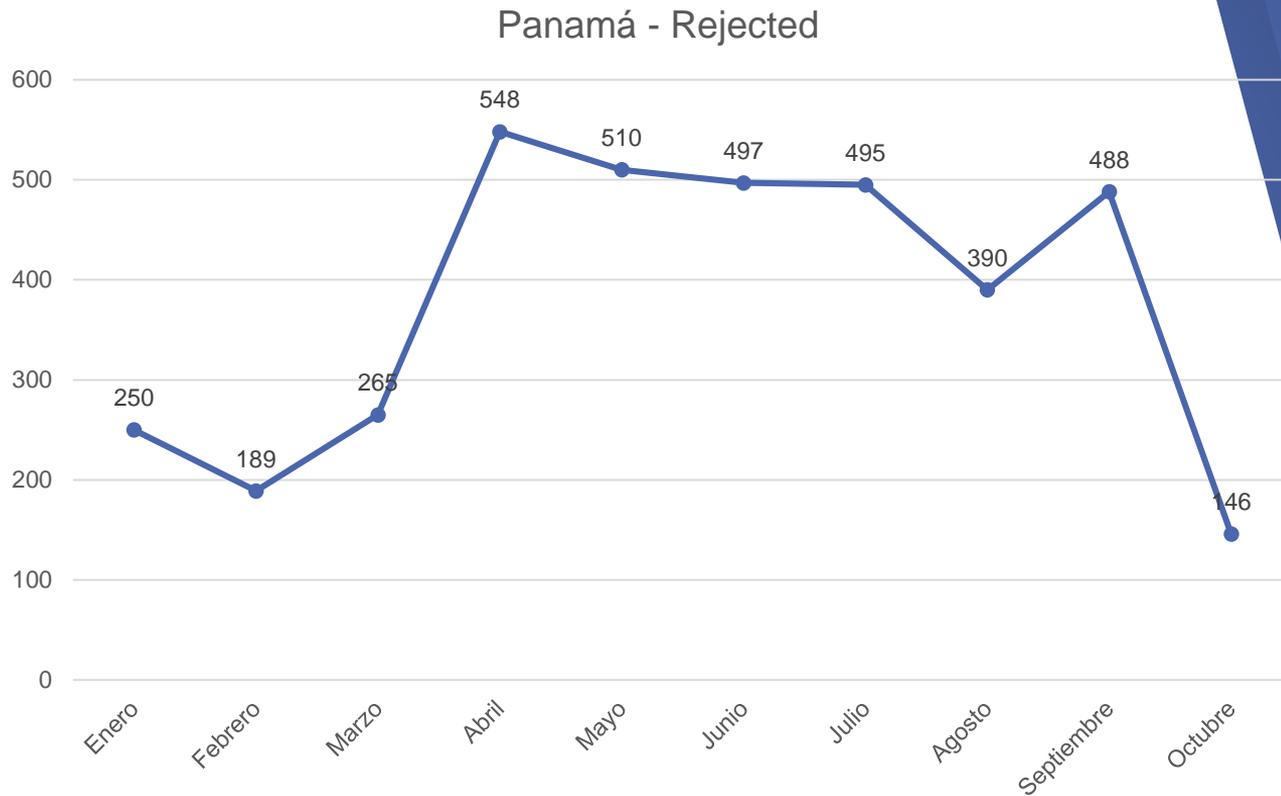
FLIGHT PLAN STATISTICS

Belize - Rejected





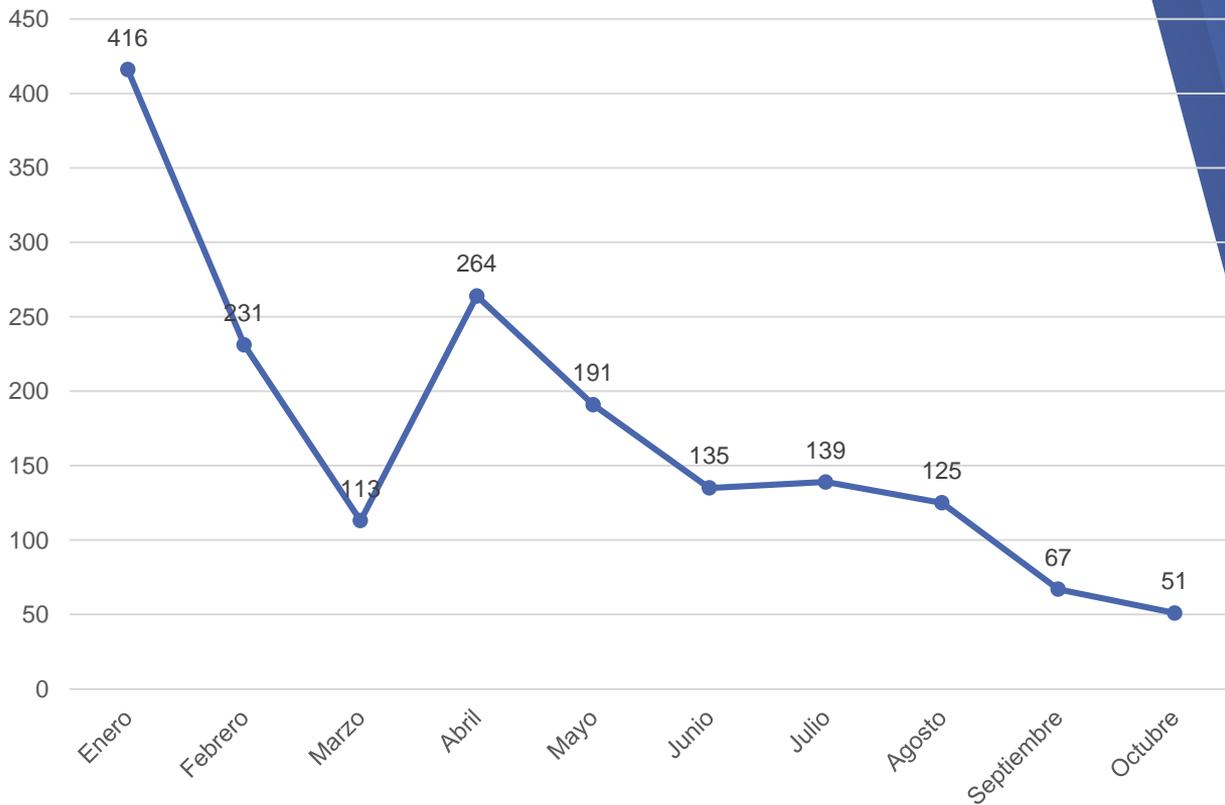
FLIGHT PLAN STATISTICS





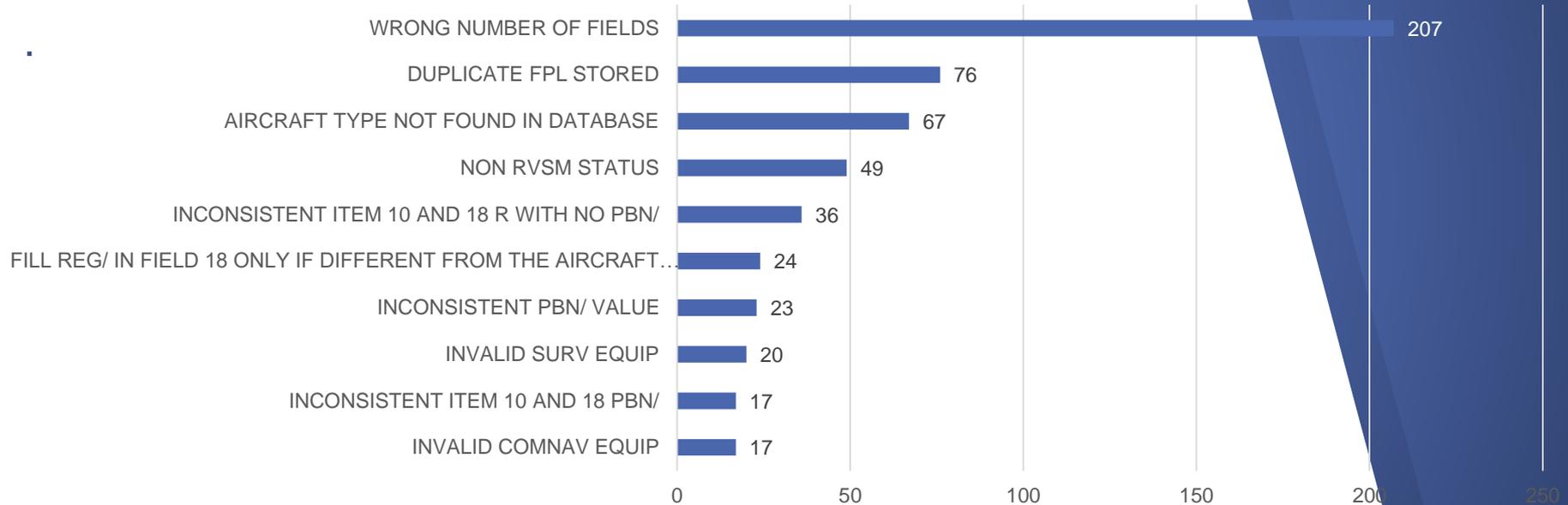
FLIGHT PLAN STATISTICS

Guatemala - Rejected



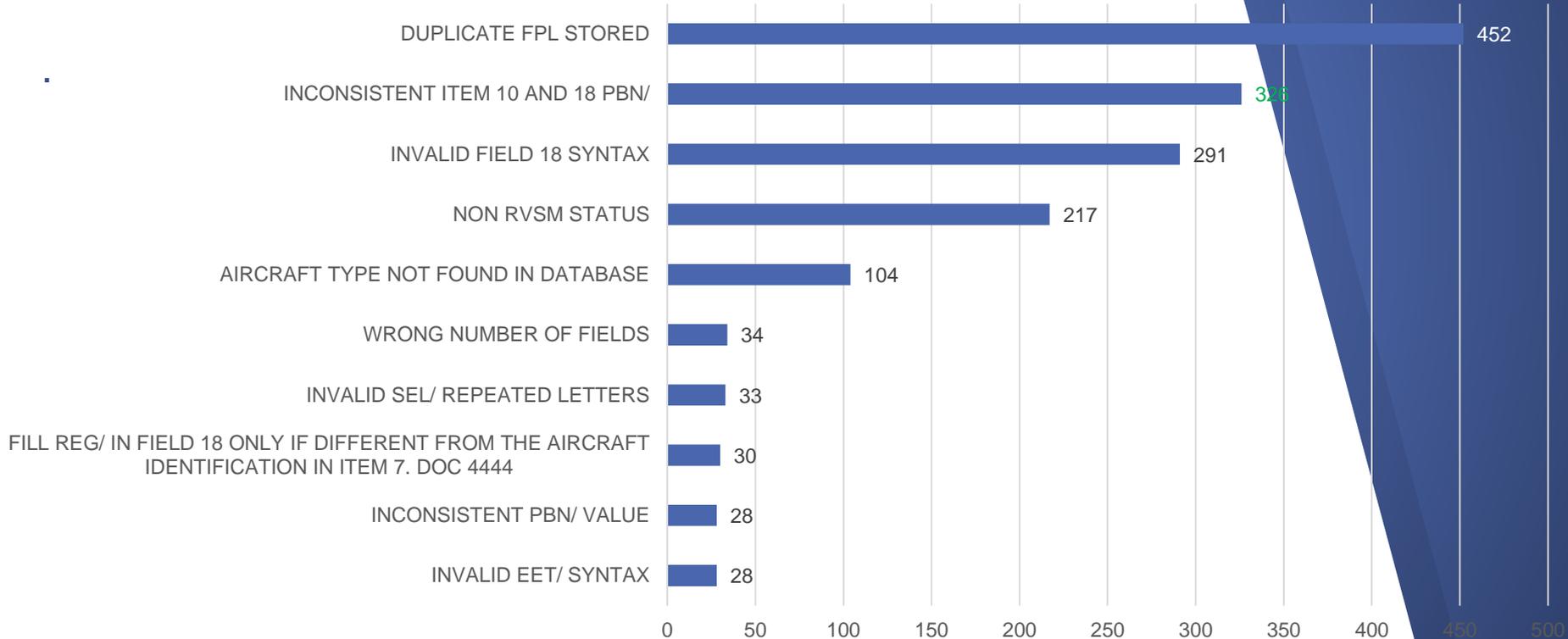
FLIGHT PLAN STATISTICS

EI Salvador – Common errors



FLIGHT PLAN STATISTICS

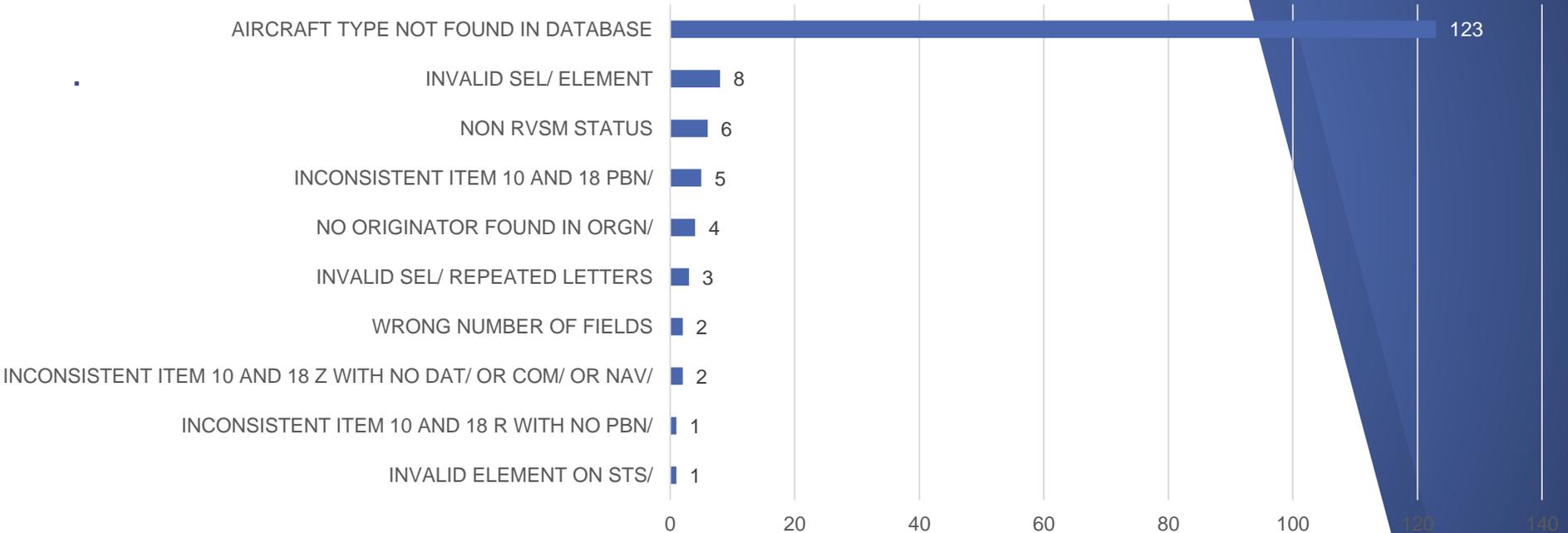
Guatemala – Common errors





FLIGHT PLAN STATISTICS

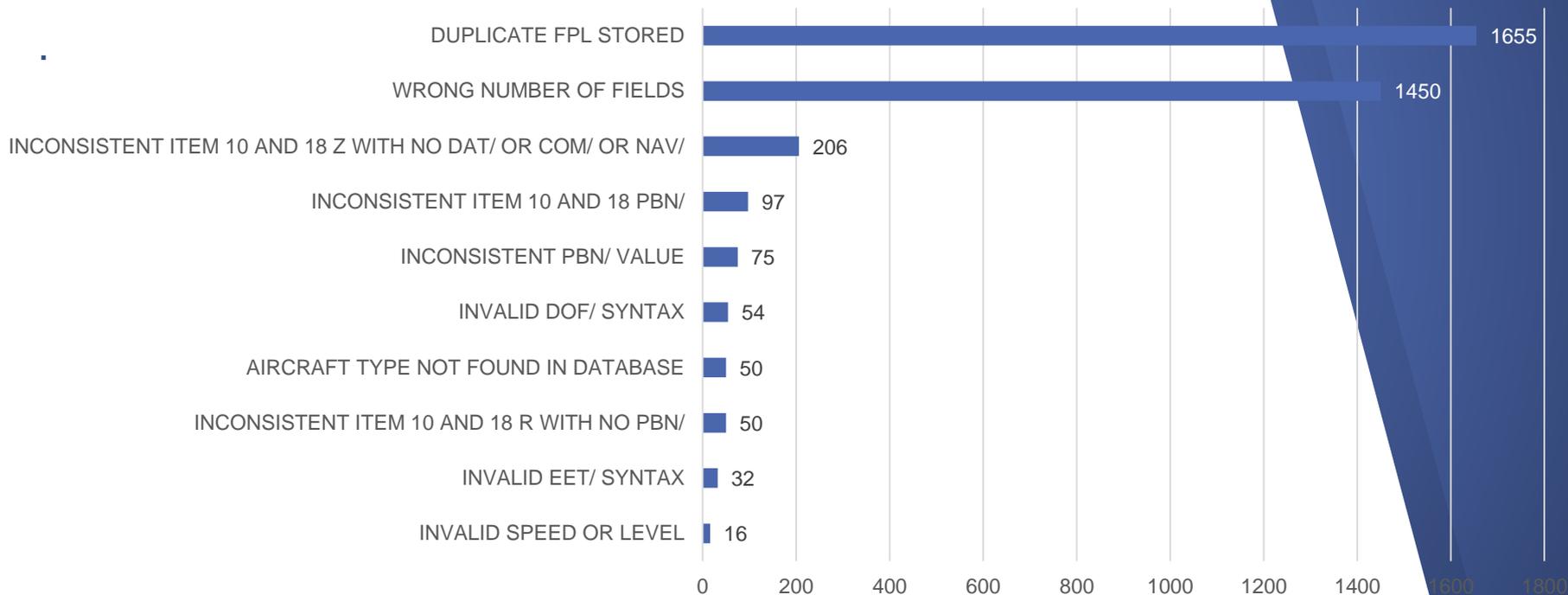
Belize – Common errors





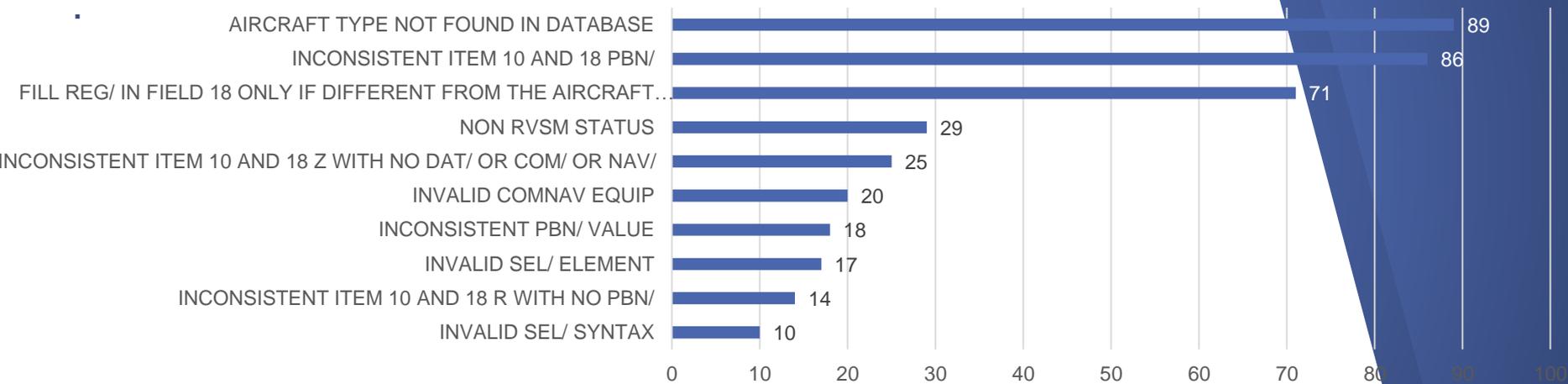
FLIGHT PLAN STATISTICS

Panamá – Common errors



FLIGHT PLAN STATISTICS

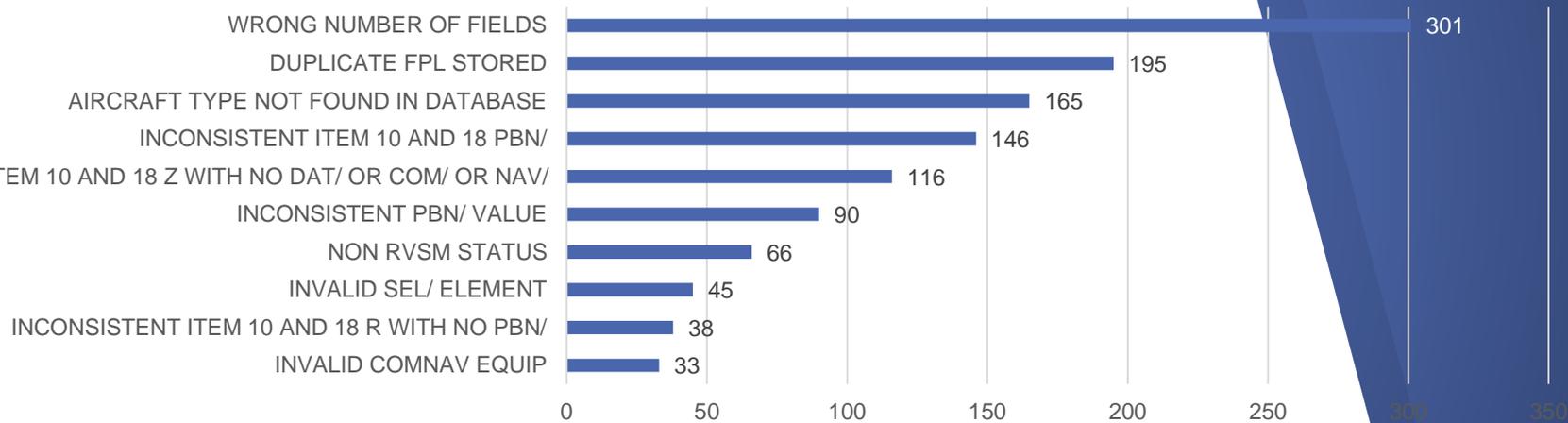
Costa Rica - Errores más comunes





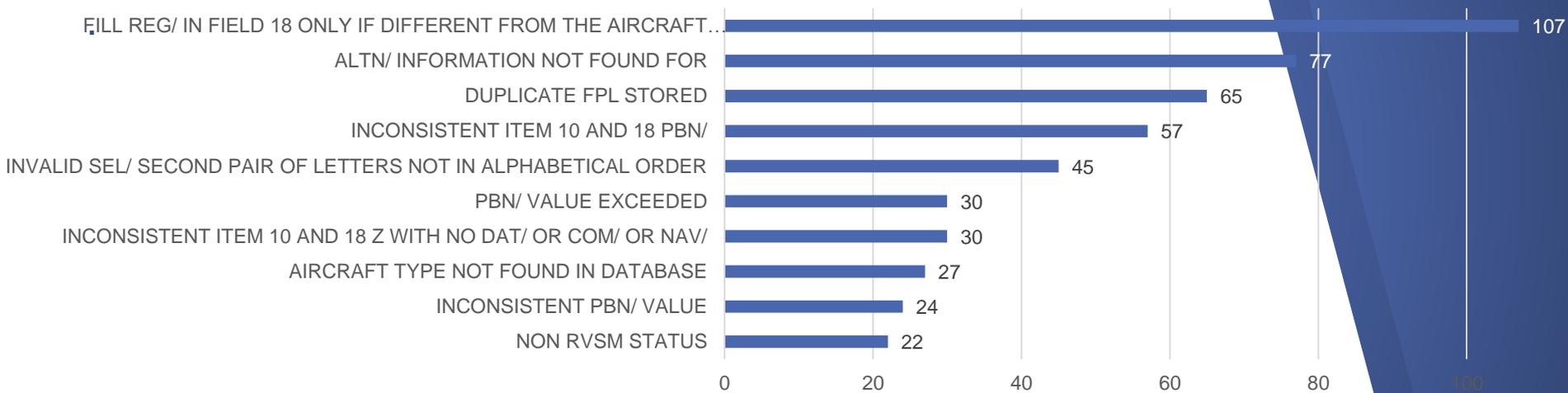
FLIGHT PLAN STATISTICS

Honduras - Errores más comunes



FLIGHT PLAN STATISTICS

Nicaragua - Errores más comunes





COSTA RICA

□ AYA331 090613
FF MHCCZQZX
090613 MROCZPZX
□ (FPL-PST9905-IS
-F100/M-SDFGRZ/C
-MROC0630
-N0239F270 UG440 TBG DCT TBG DCT
-MPPA0100 MPMG MROC
-PBN/A1C1D1S1B1 NAV/GNSS GPS DOF/171009 REG/HP1896
EET/MPZL0018)
□□

ITEM 10 - PBN TABLE



*INCONSISTENT ITEM 10 AND 18 PBN/ IF PBN HAS B1
THEN COMNAV EQUIP MUST HAVE R AND G AND D AND I AND O
OR S
*INCONSISTENT ITEM 10 AND 18 PBN/ IF PBN HAS C1 OR D1
OR O1 THEN COMNAV EQUIP MUST HAVE R AND G AND D AND I



□AYA076 271444
FF MHCCZQZX
271444 MSLPZPZX
□ (FPL-OMNI04-IM
-P8/M-SDGHIM1RTWXY/B1S
-MSLP1545
-N0440F290 MUTAL3H MUTAL UA754 TNT UR635 CRUTA DCT AMBIN
DCT LETEX
UA511 SILVA DCT XOKEM DCT GEECE DCT DUNTA/DUE REGARD 1
30/DUTNA/N0440F340 IFR DCT GEECE DCT XOKEM DCT SILVA
UA511 LETEX DCT
AMBIN DCT CRUTA UR635 TNT UA754 CAT
-MSLP0930 MHSC MGGT
-DOF/170927 REG/169003 EET/MKJK0100 TNCF0200 SVZM0300
TTZP0315
SVZM0630 TNCF0630 MKJK0730 MHTG0830 OPR/DOD PER/D
RMK/OPERATIONAL
DUE REGARD AT DUNTA MDCN MH 16121606 SQ 6304 MP TA
8801)

EL
SALVADOR



*INCONSISTENT ITEM 10 AND 18 R WITH NO PBN/



NICARAGUA

□ AYA571 161907
FF MHCCYSYX
161913 MNMGZPZX
□ (FPL-N204MH-VG
-B206/L-S/C
-MNMG1930
-N0100A045 GABOS DCT YSV
-MSSS0130 MSLP ZZZZ
- DOF/170916 REG/N204MH OPR/CREDIEXPRESS RMK/E0300)
□□

ITEM 10 - PBN TABLE



*AIRCRAFT TYPE NOT FOUND IN DATABASE

*ALTN/ INFORMATION NOT FOUND FOR ZZZZ



BELICE

□ AYA050 251526
FF MHCCZQZX
251526 MZBZZPZX
□ (FPL-TP04-IM
-GLF5/M-SBDE2E3FGHIM1RWXYZ/H
-MZBZ1755
-N0450F470 BZE UH229 EMADA UG633 VSA UJ5 MEX
-MMMX0145 MMTO
-STS/ESTATE PBN/A1B1C1D1L1O1S2 DAT/SV DOF/171025 REG/XCLOCK
OPR/EMP)
□□

ITEM 10 - PBN TABLE



*INVALID ELEMENT ON STS/



PANAMA

□ AYA564 131134
FF MHCCZQZX
131134 MPTOZPZX
□ (FPL-WARR70-VG
-HEL/L-SDFGHLTU/S
-MPPA1530
-N0100A015 DCT DAV DCT POXON DCT PARRI
-MRLB0330 MPTO
-PBN/B2S1 DOF/171013 EET/MHCC0200 SEL/DSEF OPR/USA GVMT
PER/H
RMK/REG-26960 26980 26990 26956 26957)
□□

ITEM 10 - PBN TABLE



*WRONG NUMBER OF FIELDS . DO NOT INCLUDE A
HYPHEN WITHIN ANY FIELD. DO NOT INCLUDE ADDITIONAL
FIELDS (E.G. FIELD 19)



PANAMA

□ AYA564 131134
FF MHCCZQZX
131134 MPTOZPZX
□ (FPL-WARR70-VG
-HEL/L-SDFGHLTU/S
-MPPA1530
-N0100A015 DCT DAV DCT POXON DCT PARRI
-MRLB0330 MPTO
-PBN/B2S1 DOF/171013 EET/MHCC0200 SEL/DSEF OPR/USA GVMT
PER/H
RMK/REG-26960 26980 26990 26956 26957)
□□

ITEM 10 - PBN TABLE



*WRONG NUMBER OF FIELDS . DO NOT INCLUDE A
HYPHEN WITHIN ANY FIELD. DO NOT INCLUDE ADDITIONAL
FIELDS (E.G. FIELD 19)



Expected results for implementation

- Flight plans completely based on the regulations prescribed in Doc.4444.
- To provide the originator of the message with the immediate knowledge of an error in a flight plan.
- Allows to communicate with the specialists in charge to clarify the reason of the error and to take the action that corresponds.
- Air traffic controllers do not spend time on auxiliary work and focus their own activities.
- More efficient AIDC coordinations.



COGESNA'S EFFORT TO ELIMINATE FLIGHT PLAN ISSUES IN CENTRAL AMERICA

⋮

- Flight plans completely based on the regulations prescribed in Doc.4444.
- Facilitate the message originator change the .
- Allows to communicate with the specialists in charge to clarify the reason of the error and to take the action that corresponds.
- Air traffic controllers do not waste time on auxiliary work and focus their own activities.
- More efficient AIDC coordinatios.



CONCLUSION

The implementation of this application brings major changes for Central America, allowing ATS operators and AIS dependencies to comply with ICAO regulations, preventing flight plan errors from negatively impacting the operation of automated systems as well air traffic control services.



THANK YOU!