

FPL Monitoring Group 2019 Data Collection

Presented by
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NAM/CAR Air Traffic Services Inter-facility Data Communication (AIDC) and North American Interface Control Document (NAM/ICD) Implementation Follow-up Meeting (AIDC/NAM/ICD)
Mexico City, Mexico, from 8 to 11 April 2019

FPL Error Data Collection

- A recurring activity
- Used to measure effectiveness of error mitigation measures



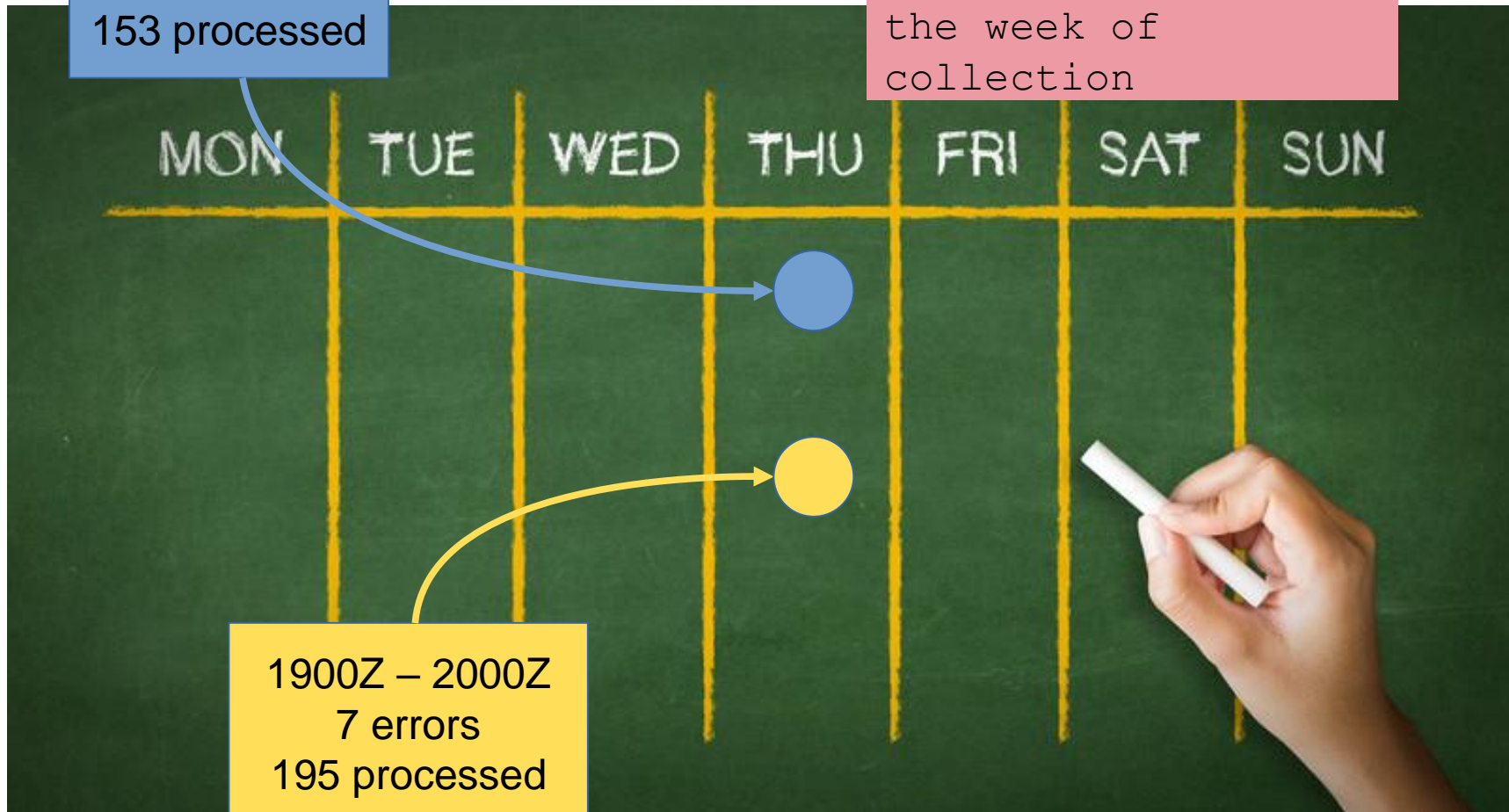
2019 Data Collection

- Data has been collected from:
 - Barbados
 - Grenada
 - Guadeloupe
 - Haiti
 - Martinique
 - Mexico
 - St. Kitts
 - Trinidad and Tobago (PIARCO)
 - United States

Methodology – Collection

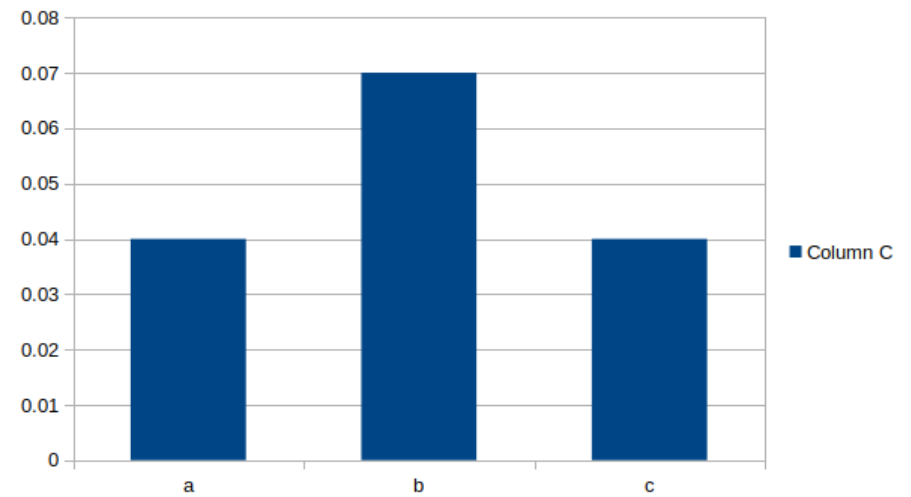
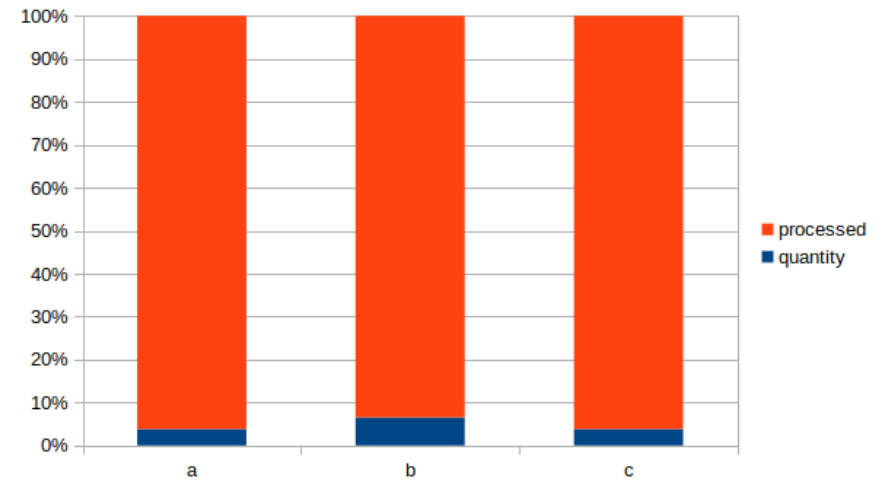
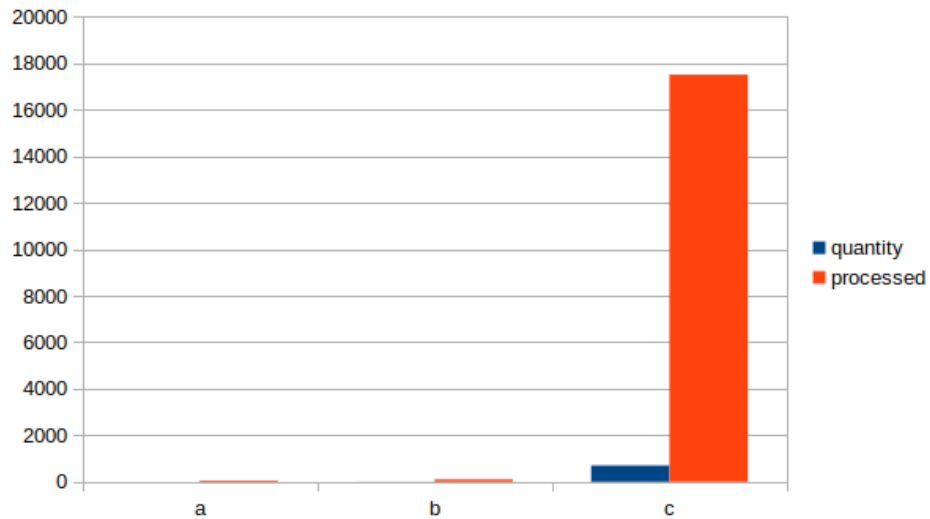
1200Z – 1300Z
10 errors
153 processed

States take one
hour samples during
the week of
collection



Methodology – Data Analysis

Absolute values skew results. Percentages or ratios are better.



Methodology – Data Analysis

Suppose that the flight plans reported by the States totalled 100

State	Total processed	Total errors
State A	350	70
State B	1200	480



State	Ratio	Per 100 FPLs
State A	0.2	10
State B	0.4	20

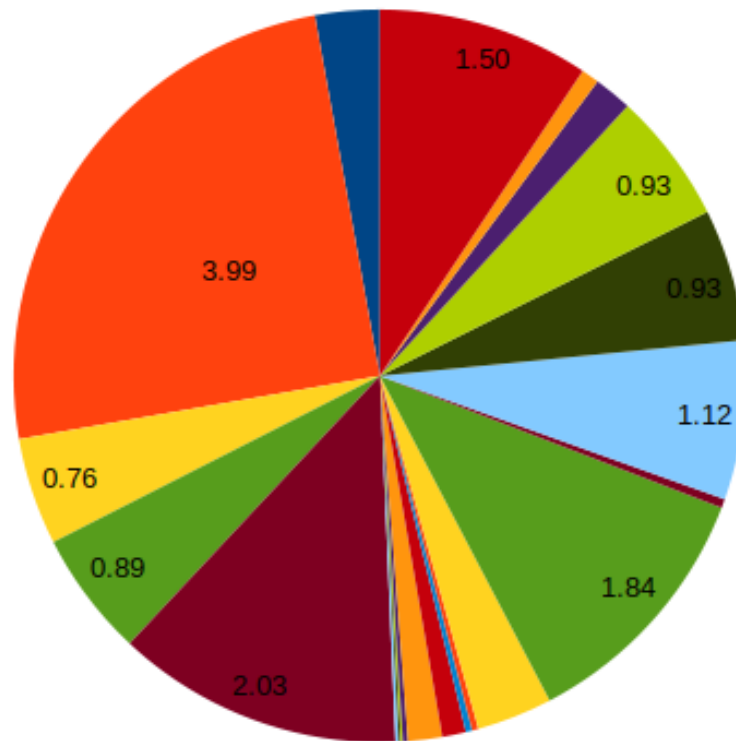
Results of Data Collection

ID | - all -

Date | - all -

Errors by type
March 18 to 24, 2019

Data



Error

- ATS FDP System Problem
- Duplicated FPL
- FPL No Belongs to FIR/State
- ICAO Doc 4444 Format Incorrect
- Inconsistent ATS Route
- Inconsistent Item 10 G/ and 18 NAV/
- Inconsistent Item 10 R/ and 18 PBN/
- Inconsistent Item 10 Z/ and 18 COM/ NAV/ DAT/ SUR/
- Inconsistent Item 10A (M Filed)
- Inconsistent SID or STAR Designator
- Inconsistent Type of Aircraft and Speed or Level
- Inconsistent Wake Cat with Aircraft
- Incorrect RVSM Status
- Invalid Aircraft Model
- Invalid Date of Flight
- Invalid EET Data
- Invalid FL or Altitude
- Invalid Item 18 Data
- Missing FPL
- No Alternate Aerodrome
- Other (no in the list)
- Similar FPL
- SPL Information Included

Results of Data Collection

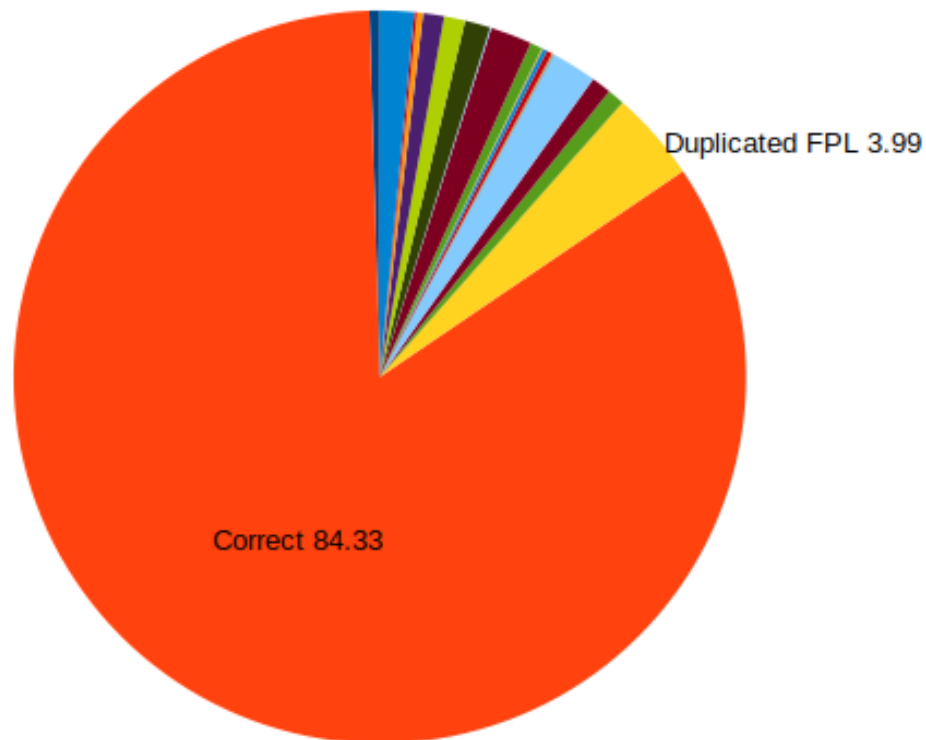
ID | - all -

Date | - all -

Errors/Correct FPLs

March 18 to 24, 2019

Data



- ATS FDP System Problem
- Correct
- Duplicated FPL
- FPL No Belongs to FIR/State
- ICAO Doc 4444 Format Incorrect
- Inconsistent ATS Route
- Inconsistent Item 10 G/ and 18 NAV/
- Inconsistent Item 10 R/ and 18 PBN/
- Inconsistent Item 10 Z/ and 18 COM/ NAV/ DAT/ SUR/
- Inconsistent Item 10A (M Filed)
- Inconsistent SID or STAR Designator
- Inconsistent Type of Aircraft and Speed or Level
- Inconsistent Wake Cat with Aircraft
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- Invalid Date of Flight
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- Missing FPL
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Error

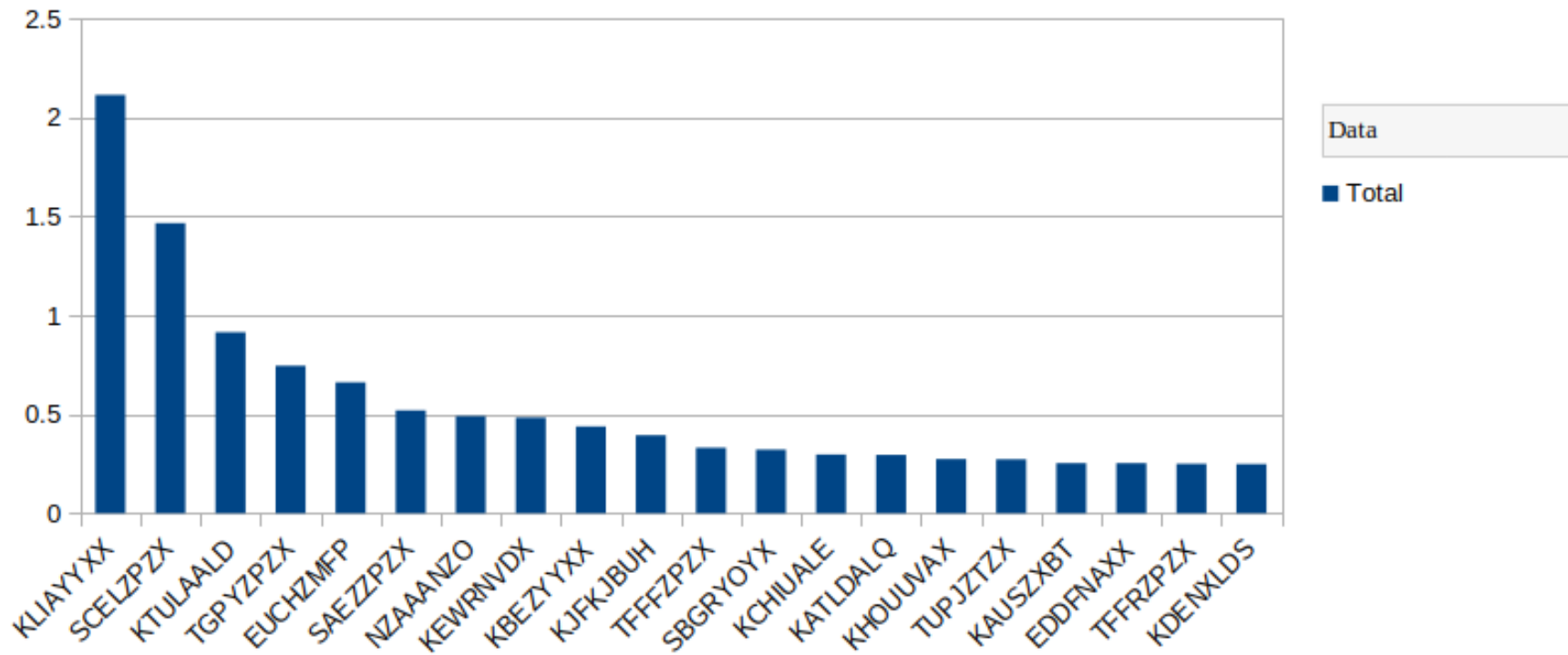
Results of Data Collection

ID | - all -

Date | - all -

Errors by Originating Address

March 18 to 24, 2019

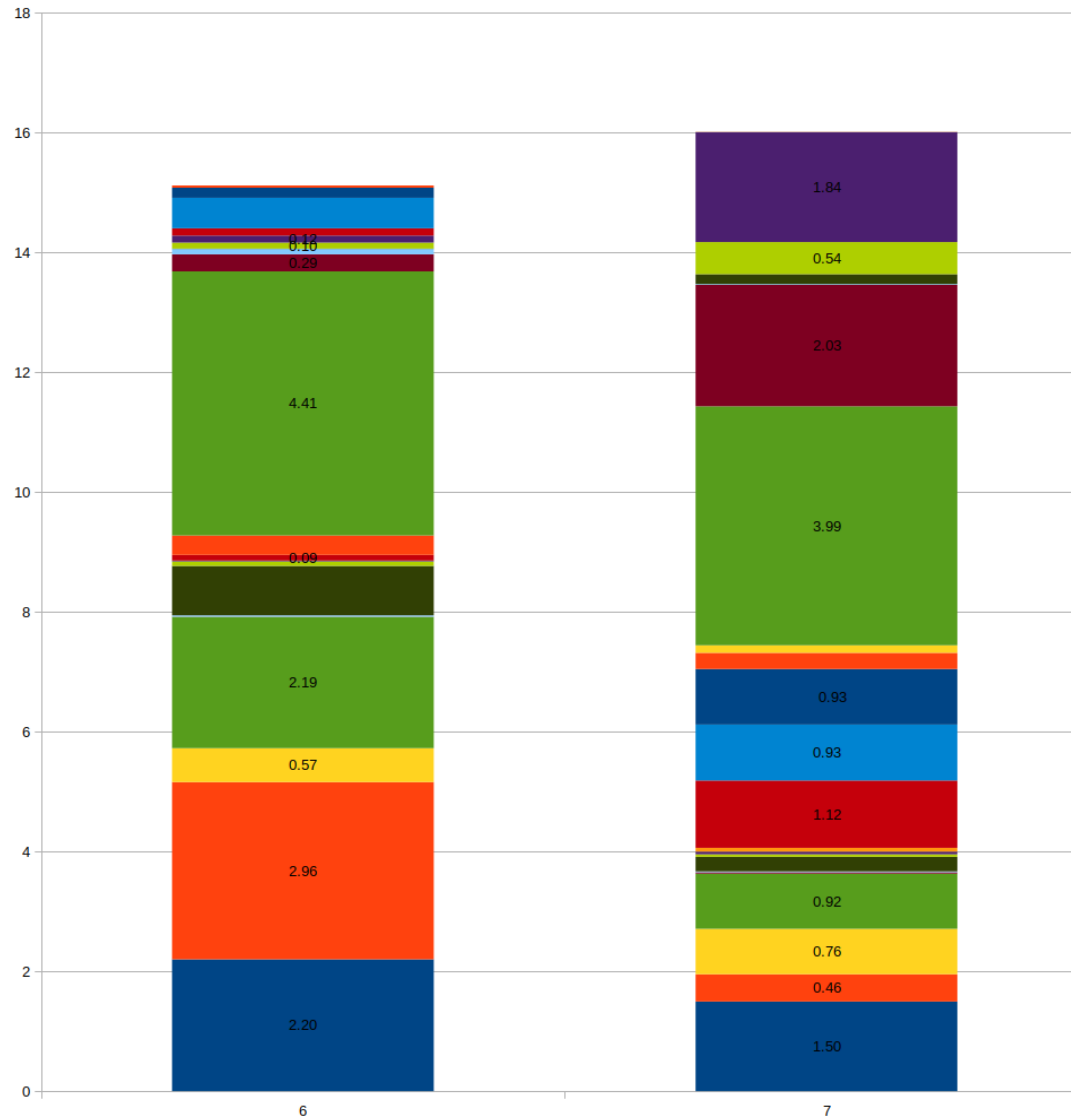


Originating Address

Results of Data Collection

ID | - all - Date | - all - Originating Address | - all -

Errors Comparison
Phases 6 (2018) and 7 (2019)



Data

Error

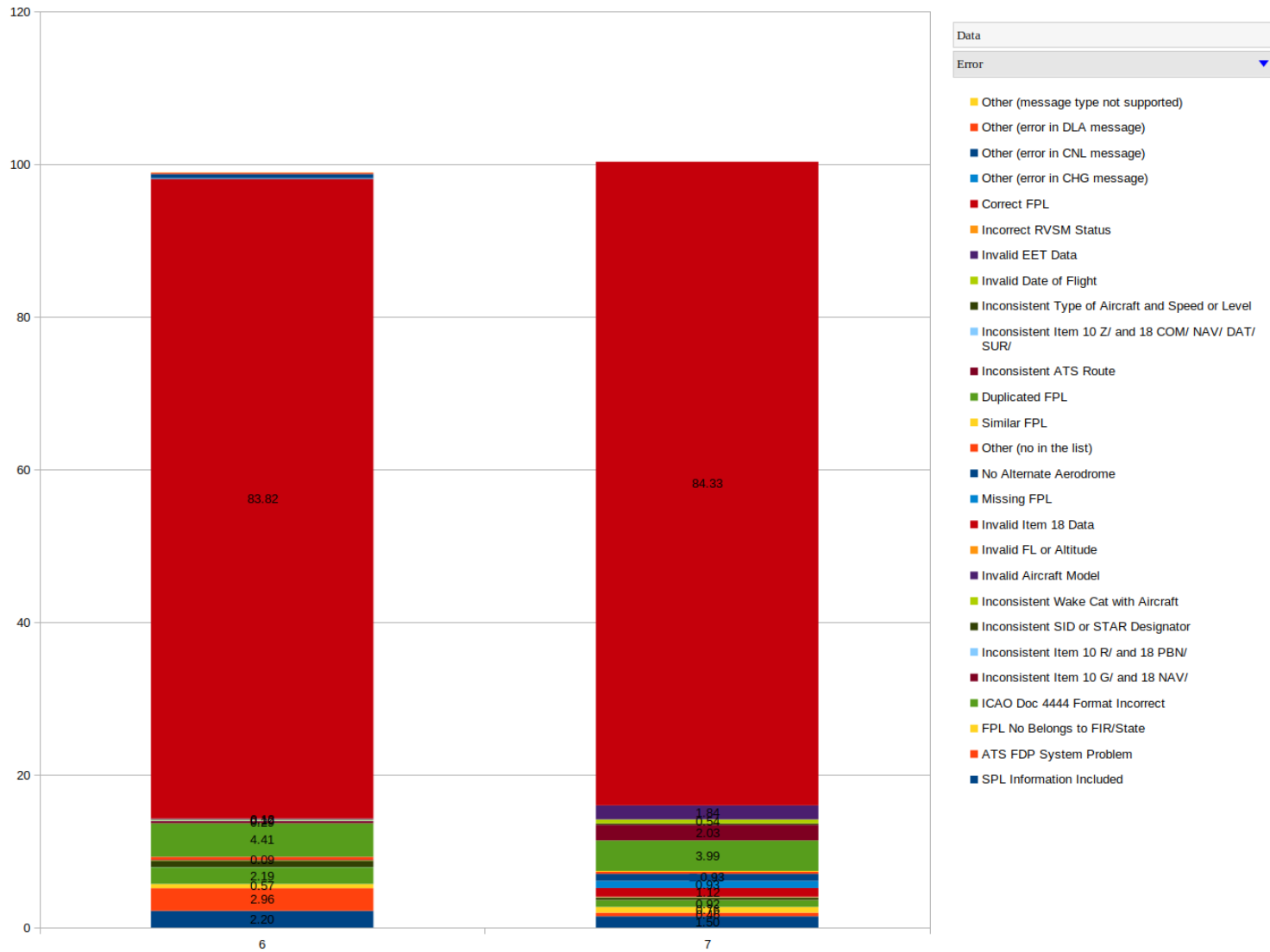
- Other (message type not supported)
- Other (error in DLA message)
- Other (error in CNL message)
- Other (error in CHG message)
- Incorrect RVSM Status
- Invalid EET Data
- Invalid Date of Flight
- Inconsistent Type of Aircraft and Speed or Level
- Inconsistent Item 10 Z/ and 18 COM/ NAV/ DAT/ SUR/
- Inconsistent ATS Route
- Duplicated FPL
- Similar FPL
- Other (no in the list)
- No Alternate Aerodrome
- Missing FPL
- Invalid Item 18 Data
- Invalid FL or Altitude
- Invalid Aircraft Model
- Inconsistent Wake Cat with Aircraft
- Inconsistent SID or STAR Designator
- Inconsistent Item 10 R/ and 18 PBN/
- Inconsistent Item 10 G/ and 18 NAV/
- ICAO Doc 4444 Format Incorrect
- FPL No Belongs to FIR/State
- ATS FDP System Problem
- SPL Information Included

Phase

Results of Data Collection

ID | - all - Date | - all - Originating Address | - all -

Errors/Correct FPLs Comparison
Phases 6 (2018) and 7 (2019)



Data
Error

- Other (message type not supported)
- Other (error in DLA message)
- Other (error in CNL message)
- Other (error in CHG message)
- Correct FPL
- Incorrect RVSM Status
- Invalid EET Data
- Invalid Date of Flight
- Inconsistent Type of Aircraft and Speed or Level
- Inconsistent Item 10 Z/ and 18 COM/ NAV/ DAT/ SUR/
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- Duplicated FPL
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Phase

Summary

- Data collection is necessary to discover where the problems are.
- Errors are still high.
- Duplicates have slightly gone down, but remain as the main type of error.
- Other errors have a significant share of total.
- Mitigation measures need to produce more impact.

Questions



Credit: iStock/BraunS

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