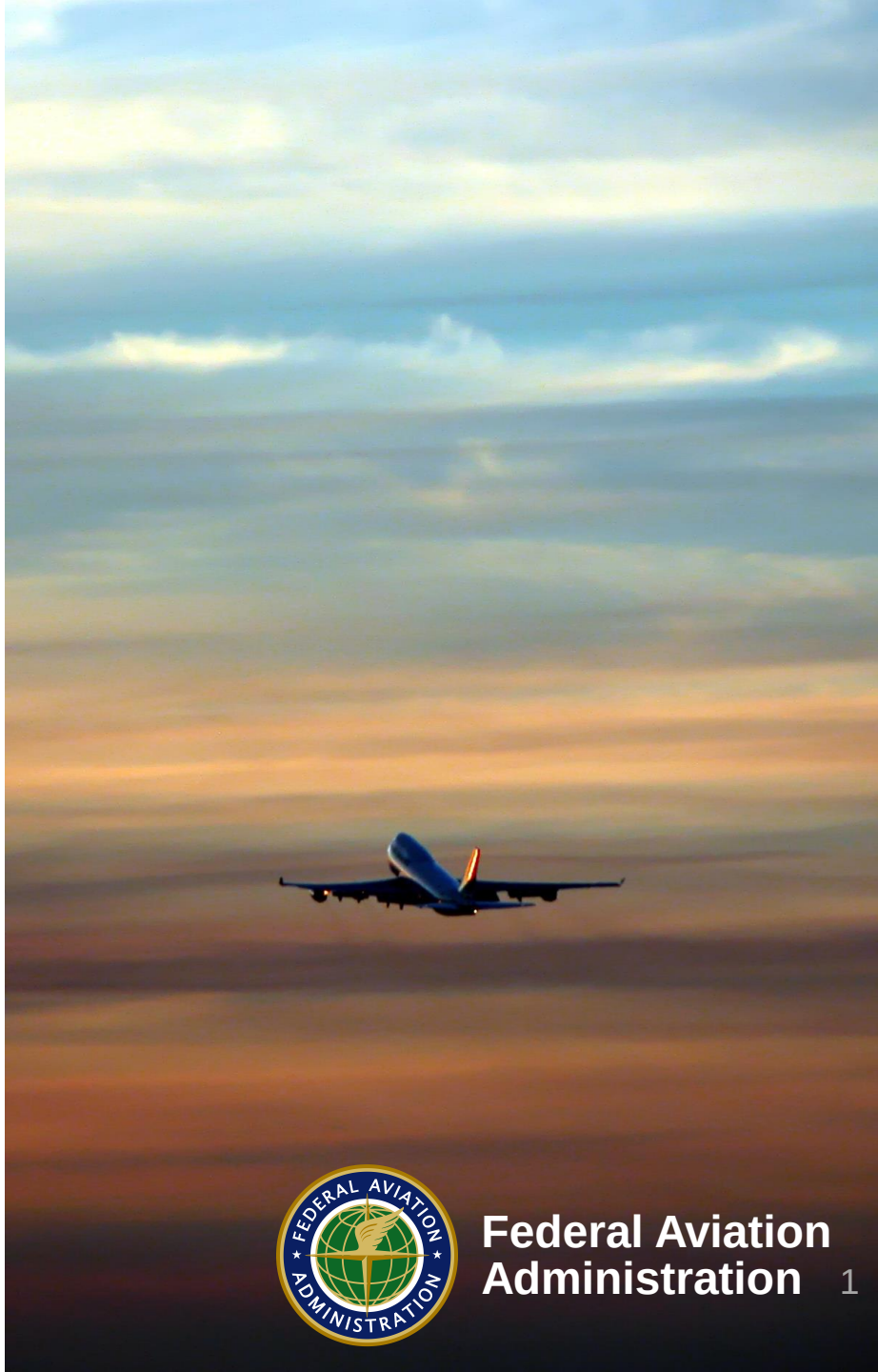
RASMAG/26 WP/16
Horizontal Safety Monitoring Report
Pacific Airspace

CALENDAR YEAR 2020

Presented to: RASMAG/26

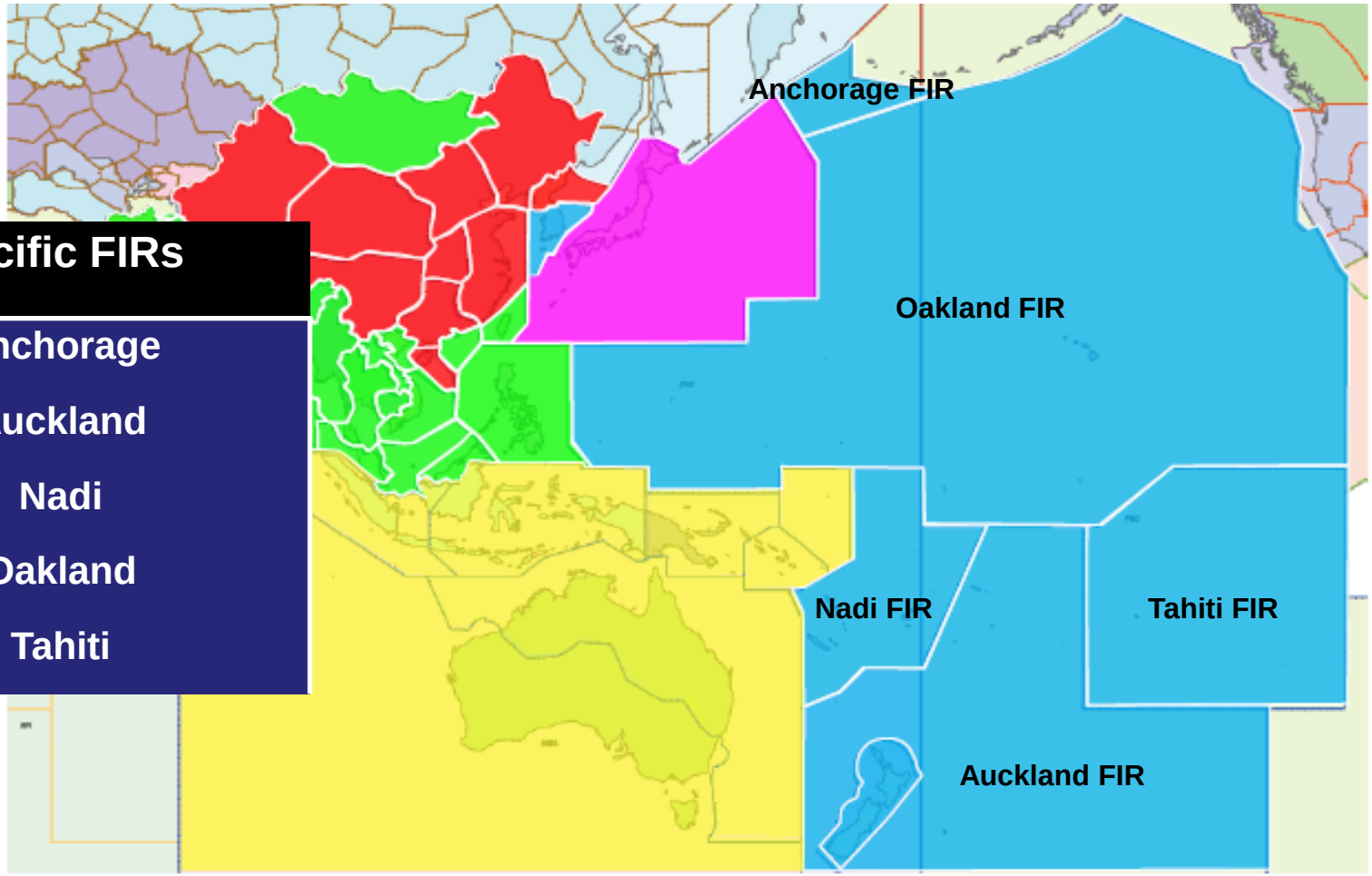
By: PARMO

Date: 20 - 23 September 2021



Federal Aviation Administration

Pacific Airspace



Pacific FIRs

- Anchorage
- Auckland
- Nadi
- Oakland
- Tahiti

Pacific Airspace: Traffic Flows

Sub-Region of Pacific	Flow	Description of Flow
North Pacific	North Pacific (NOPAC)	North America west to Japan/Korea/beyond plus Japan/Korea to and from Alaska and beyond
	Central Pacific (CENPAC)	Japan/Korea/other Asian origins east to North America
	Central East Pacific (CEP)	North American mainland to and from Hawaii
	Hawaii/Japan (JPHAWA)	Japan/Korea to and from Hawaii
	Japan/Guam (JPGUAM)	Japan/Korea to and from Guam/Saipan/other proximate destinations
	Other (OTHER)	All other North Pacific flights not covered above
South Pacific and Pacific trans-equatorial	Australia/New Zealand/South Pacific States (AUSNZSP)	Australia to and from New Zealand; Australia to and from South Pacific island states; New Zealand to and from South Pacific states
	Nadi (NADI)	Fiji to and from all airports except those in Australia or New Zealand
	Australia-New Zealand/Japan (AUSNZJP)	Australia to and from Japan/Korea; New Zealand to and from Japan/Korea
	South Pacific (SOPAC)	Australia to and from airports in northern hemisphere; New Zealand to and from airports in northern hemisphere

Reported LLDs – Pacific Airspace

LLD Category	2017	2018	2019	2020
A	5	14	9	6
B	2	7	3	1
C	0	0	0	0
D	0	2	1	0
E	3	9	11	1
F	0	0	0	0
G	1	1	2	0
H	5	0	0	1
I	0	0	0	0
J	0	1	0	1
Totals	16	34	26	10

Table 6 in WP16 attachment

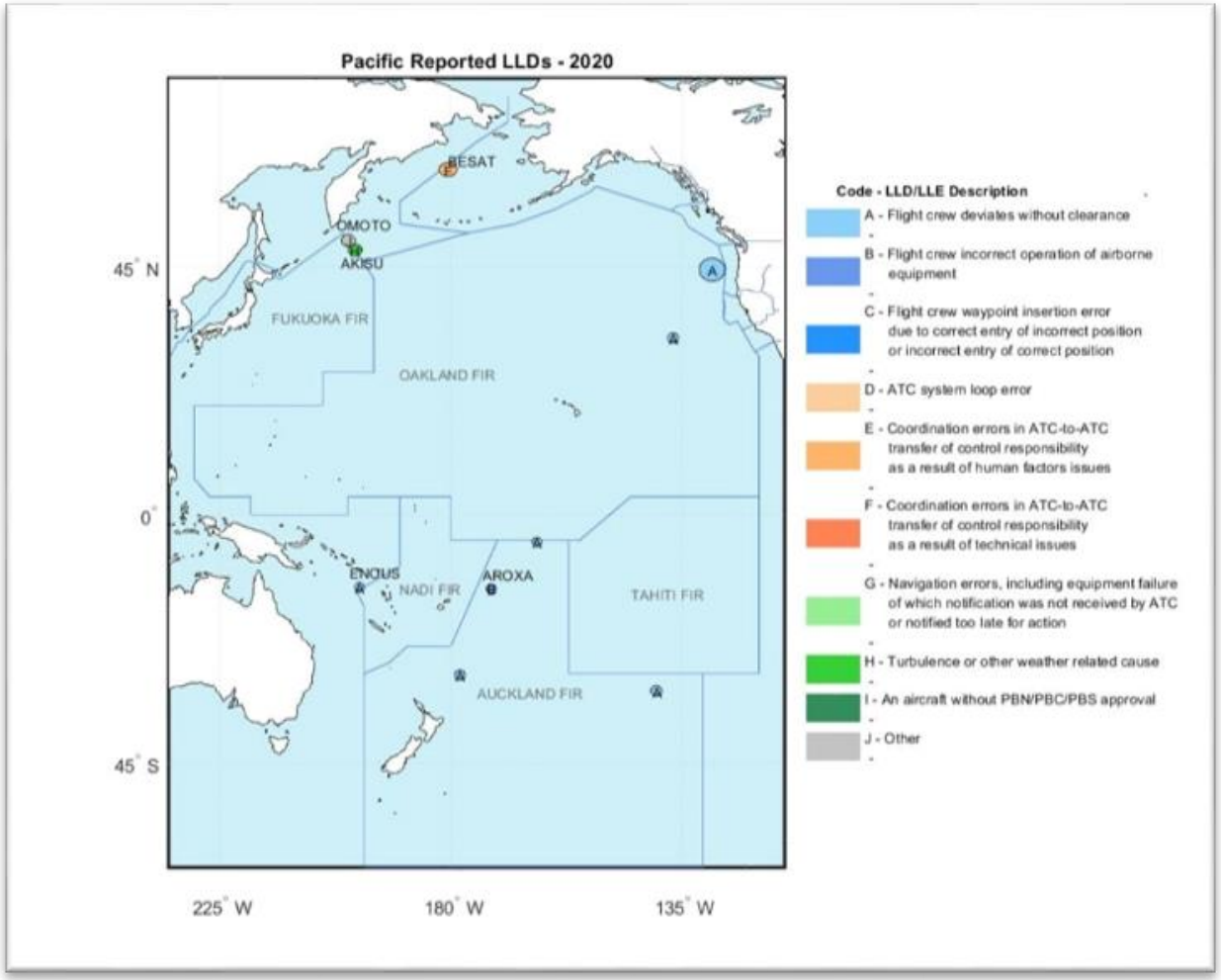


Figure 5 in WP16 attachment

Reported LLDs – Pacific Airspace

Figure 3 in WP16 attachment

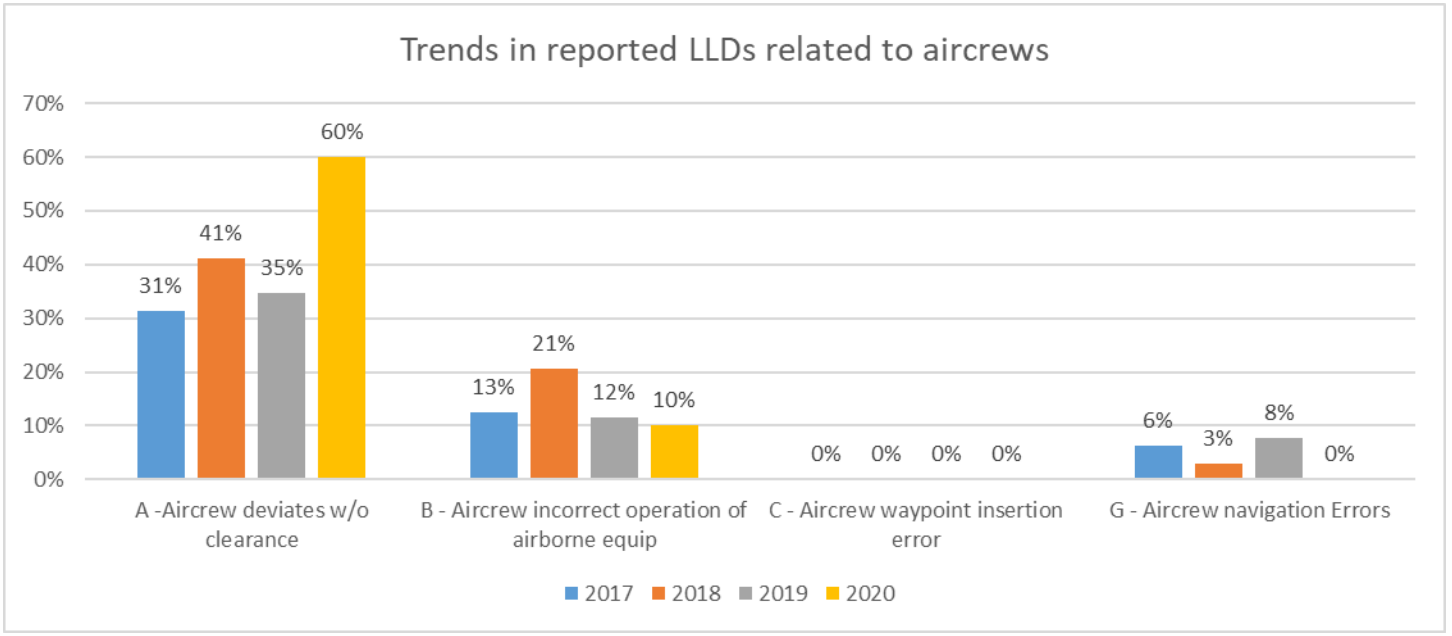
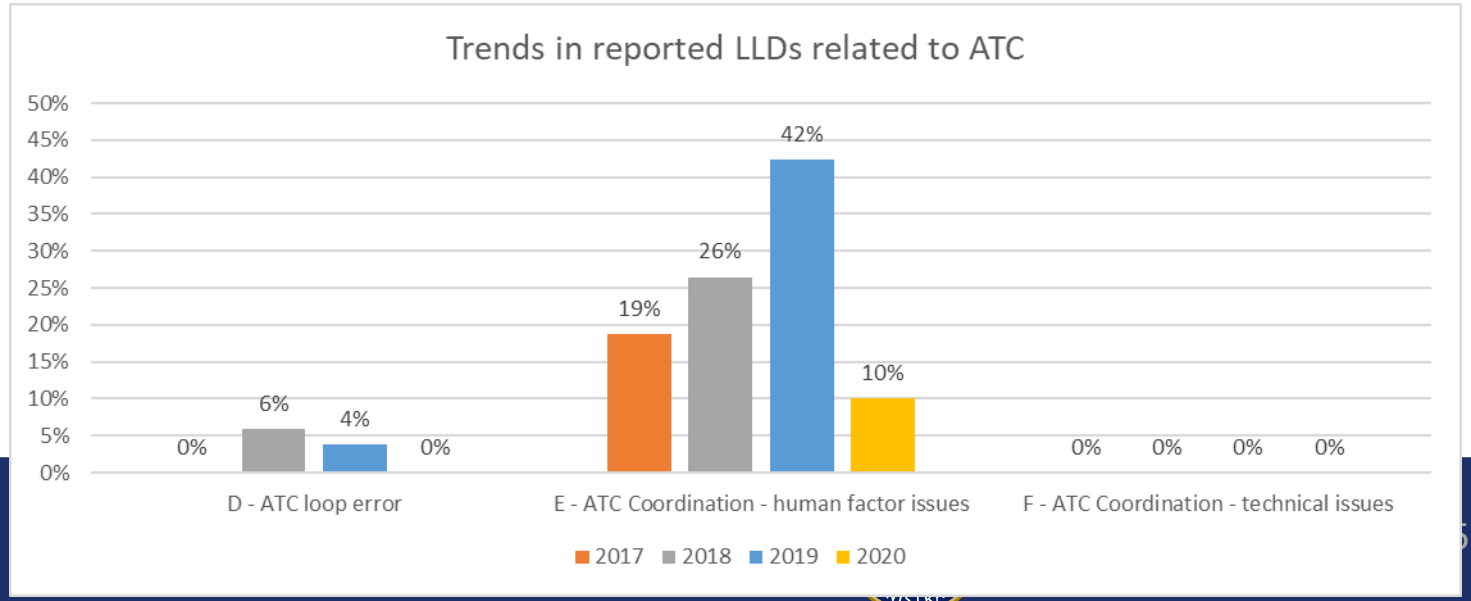


Figure 4 in WP16 attachment



Reported LLDs – Pacific Airspace

- **Data show a trend in category A LLDs for aircrews deviating without ATC clearance**
  - In 2020, three of the six reported category A LLDs indicated that weather (category H) was a secondary causal factor
  - Two of the six category A LLDs involved pilot returning to departure airport without ATC clearance
  - One of the six category A LLD reports did not specify cause, but reported small deviation magnitude (6 NM)

Pacific Airspace - Reported LLEs

Category	2018	2019	2020
A	0	1	0
B	1	0	0
C	0	0	0
D	0	0	0
E	2	62	64
F	1	1	0
G	0	0	0
H	0	0	0
I	1	0	0
Total	5	64	64

Table 7 in WP16 attachment

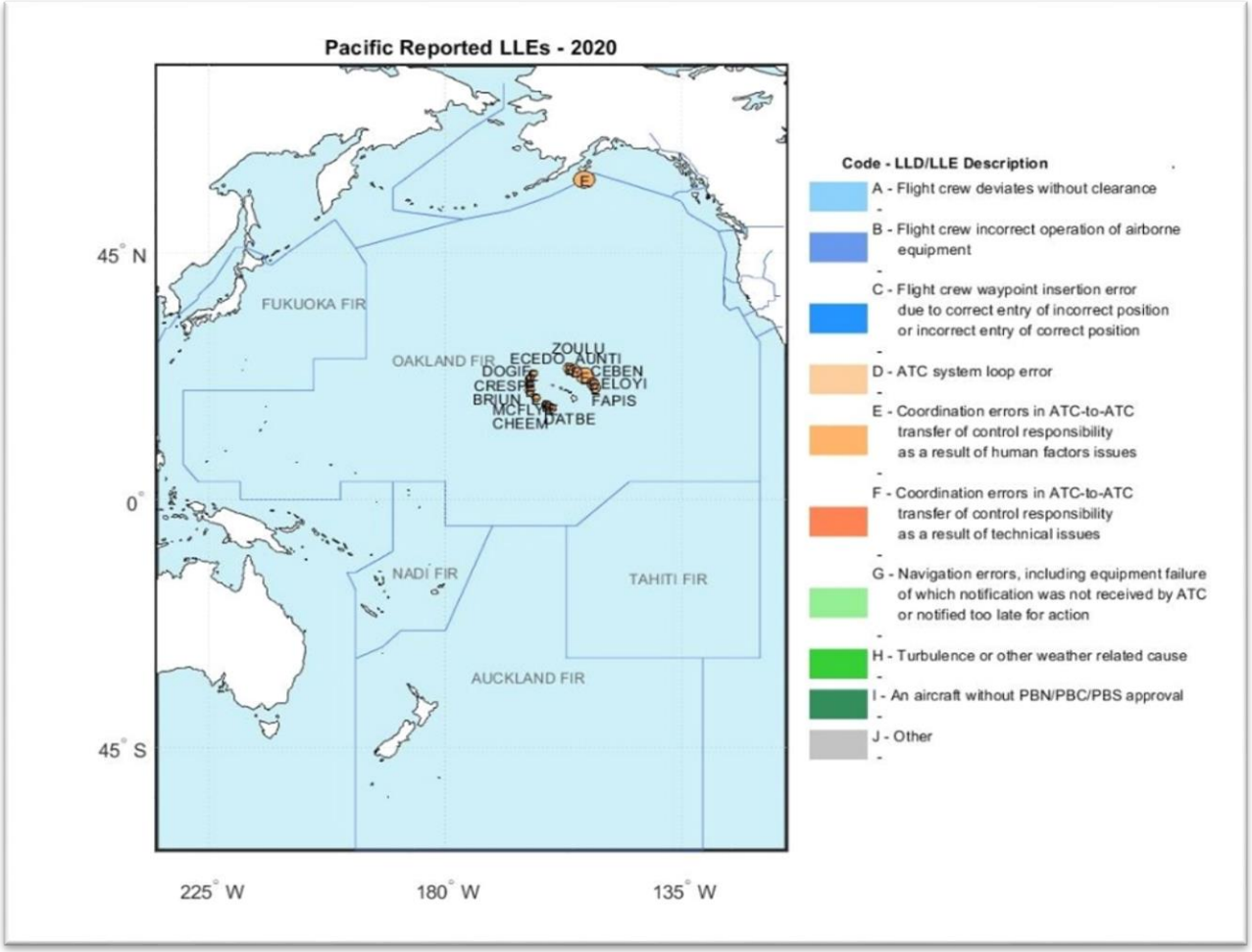


Figure 6 in WP16 attachment

Horizontal Risk Estimates

Pacific Airspace – estimated annual flying hours = 858,079 hours *(note: estimated hours based on Dec 2020 traffic sample data)*			
Source of Risk	**Risk Estimation**	**TLS**	**Remarks**
RASMAG 25 Lateral Risk	3.35×10^{-9}	5.0×10^{-9}	*Below TLS*
RASMAG 25 30NM Longitudinal Risk	4.08×10^{-9}	5.0×10^{-9}	*Below TLS*
RASMAG 25 50NM Longitudinal Risk	2.22×10^{-9}	5.0×10^{-9}	*Below TLS*
Lateral Risk	**0.09×10^{-9}**	5.0×10^{-9}	**Below TLS**
30NM Longitudinal Risk	**4.08×10^{-9}**	5.0×10^{-9}	**Below TLS**
50NM Longitudinal Risk	**2.22×10^{-9}**	5.0×10^{-9}	**Below TLS**

- **Paragraph 4.3 in WP16 attachment describes Lateral Infringement Distance (LID) used to determine time spent on incorrect route and number of tracks crossed incorrectly**
  - Based on filed capabilities of the aircraft (e.g. PBN, PBCS)