

Asia Pacific Consolidated Safety Report and Hot Spot Management

Airspace Safety Seminar

Bangkok, Thailand

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Outline

APAC Consolidated Safety Report

- Background
- Main Elements

Hot Spot Management

- Identification
- Monitoring
- Removal



Asia Pacific Consolidated Safety Report



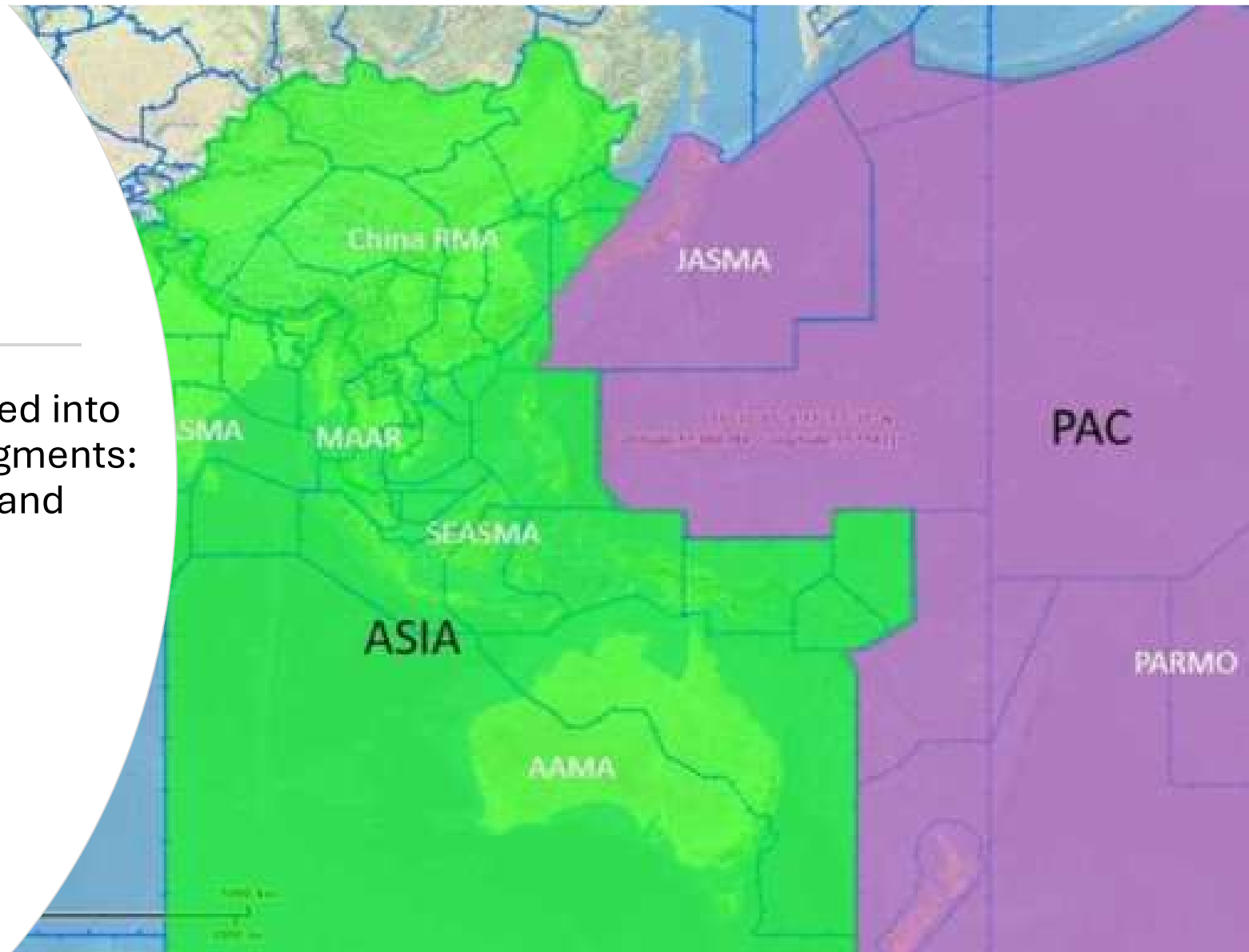
Background

The Asia Pacific Consolidated Safety Report is a collaborative effort by Asia Pacific Regional Monitoring Agencies, including the AAMA, BOBASMA, China RMA, JASMA, MAAR, PARMO, and SEASMA, to provide a comprehensive overview of airspace safety risks across the Asia Pacific region.

The primary purpose of the report is to consolidate and communicate safety analysis results to the Regional Airspace Safety Monitoring Advisory Group (RASMAG) and the Asia Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) in a more effective presentation format.

Main Elements

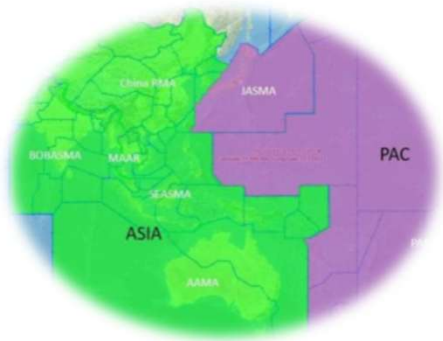
- The reports are divided into two geographical segments:
- the Pacific Area; and
 - the Asia Area.



Main Elements

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- the Pacific Area; and
- the Asia Area.



For each area, the following elements are detailed:

1. Collision Risk Estimates
 - Vertical & Horizontal
 - Technical & Operational
2. Operational Error Summaries
 - LHD, LLE, LLD
3. Geolocations
4. Hot Spot Analysis
5. Reporting Rates



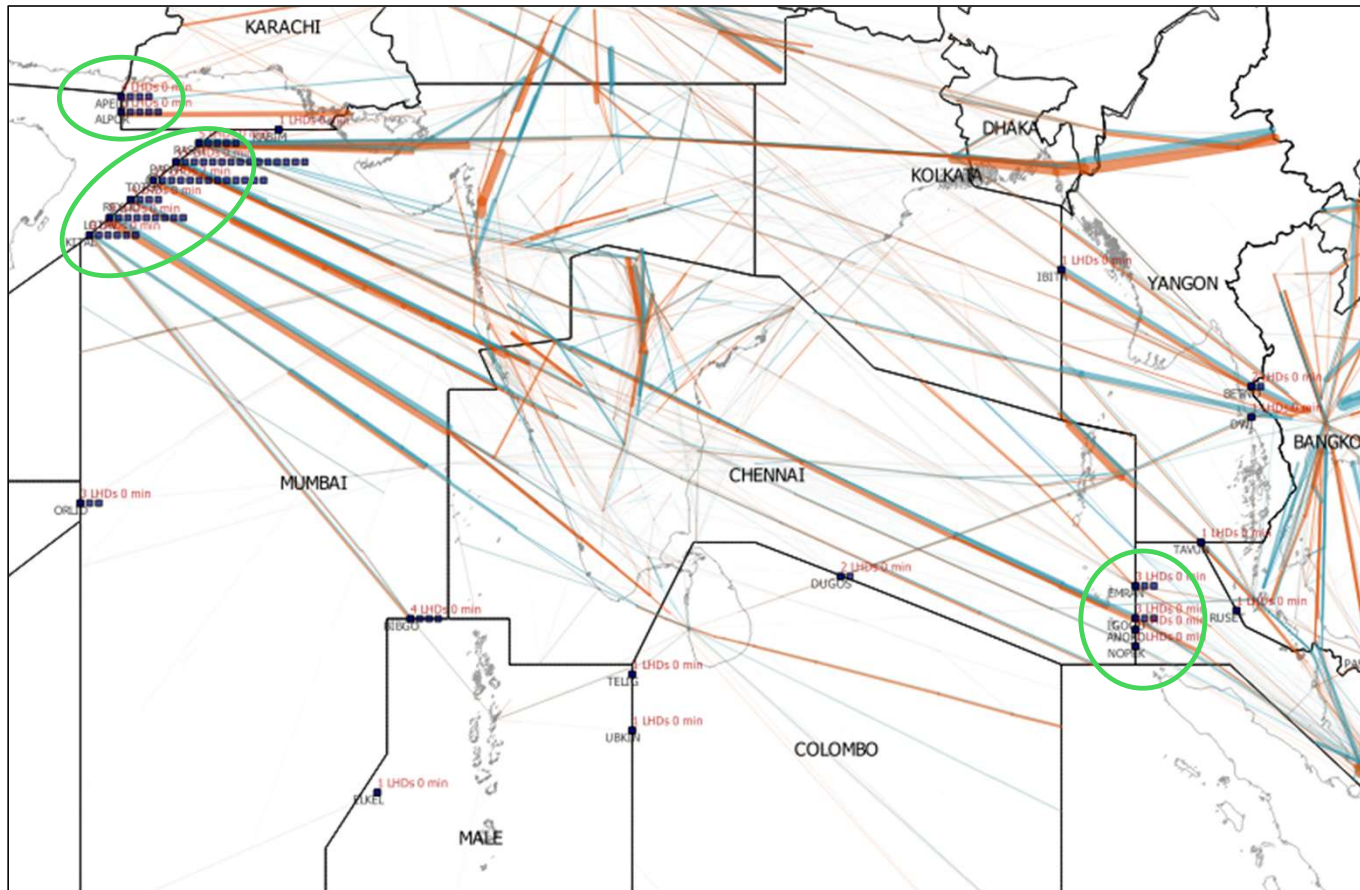
Hot Spot Management



Identification



Step 1 – Identify clusters of reported events



Step 2 – Calculate hot spot criteria

3 criteria are calculated for each specific region annually.

- a) The number of occurrences - the number of all occurrences in the cluster takes up a “relatively big portion” of the total number of occurrence reports of that specific region.
- b) The risk estimate - the sum of operational risk estimates of all occurrences in the cluster takes up a “relatively big portion” of the region’s operational risk estimate.
- c) Exceeding the TLS - the sum of operational risk estimate of all occurrences in the cluster reaches or exceeds the overall TLS of 5×10^{-9} FAPFH.

Step 3 – Classify clusters as hot spots

Compare the properties of each identified cluster from step 1 against the criteria calculated from step 2.

If any cluster fits at least one of the 3 criteria: number, risk, or TLS, it will be classified as a hot spot.

Monitoring



Monitoring

- The list of LHD, LLD or LLE hot spots in APAC is maintained and reviewed by RASMAG.
- During the annual RASMAG meeting, papers or presentations are expected from the relevant States and administrations to update the meeting on the actions being taken to address each hot spot.
- After its annual meeting, the RASMAG will report the current list of LHD, LLD or LLE hot spots in APAC together with progress updates in a consolidated manner to the APANPIRG.

Removal



Removal of Hot Spots

- To remove an LHD, LLD, or LLE hot spot from the list, proof of mitigation and/or prevention measures should be presented to the RASMAG meeting and the implementation results should reflect the effectiveness of risk controls in terms of reduction in the number of occurrences and operational risk of the hot spot.
- The risk assessment report from the responsible monitoring agency should demonstrate that the hot spot no longer satisfies any of the hot spot criteria for at least 2 consecutive years. With approval from the RASMAG meeting, the hot spot will be labelled as 'potential non-hot spot' after the first year and 'removed' after the second year.

Hot Spot List from RASMAG/30

Hot Spot	Involved FIRs	Identified	Remarks
A1	Chennai/Dhaka/Kolkata/Yangon	2015	Cat. E LHDs and risk decreasing.
B1	Incheon (Transfer-of-Control Point between Incheon ACC and Shanghai ACC)	2015	Cat. E LHDs increasing. Risk decreasing.
D1	Fukuoka/Manila	2015	Cat. E steady; risk decreasing. Mitigation in place. Potential non-hotspot.
D5	Ho Chi Minh/Manila	2015	Cat. E LHDs and risk slightly increasing.
D7	Kota Kinabalu/Manila	2015	Cat. E LHDs slightly increasing. Risk slightly decreasing.
D8	Manila/Ujung Pandang	2015	Cat. E LHDs and risk decreasing. Mitigation in place. Potential non-hotspot.
F	Mogadishu/Mumbai	2015	Cat. E LHDs decreasing. Risk slightly increasing
G1	Mumbai/Muscat	2015	Cat. E LHDs slightly decreasing. Risk decreasing.
G2	Mumbai/Sanaa	2015	Cat. E LHDs slightly increasing. Risk decreasing.
J	Jakarta/Kota Kinabalu/Singapore	2018	Cat. E LHDs and risk decreasing. Mitigation in place. Potential non-hotspot.
N	Hawaii CEP/Oakland USA	2019	Cat. E LHDs and risk slightly increasing.
O	Bangkok/Ho Chi Minh/Kuala Lumpur/ Singapore	2023	Cat. E LHDs and risk decreasing.



THANK YOU

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