



# **Thirtieth Meeting of the Communications/Navigation and Surveillance Sub-group (CNS SG/30) of APANPIRG**

## **WP/33**

### **Outcome of Survey on ATS Surveillance and Direct Controller and Pilot Communication (DCPC) VHF Coverage Charts for APAC Region**

Presented by Hong Kong, China

# Introduction

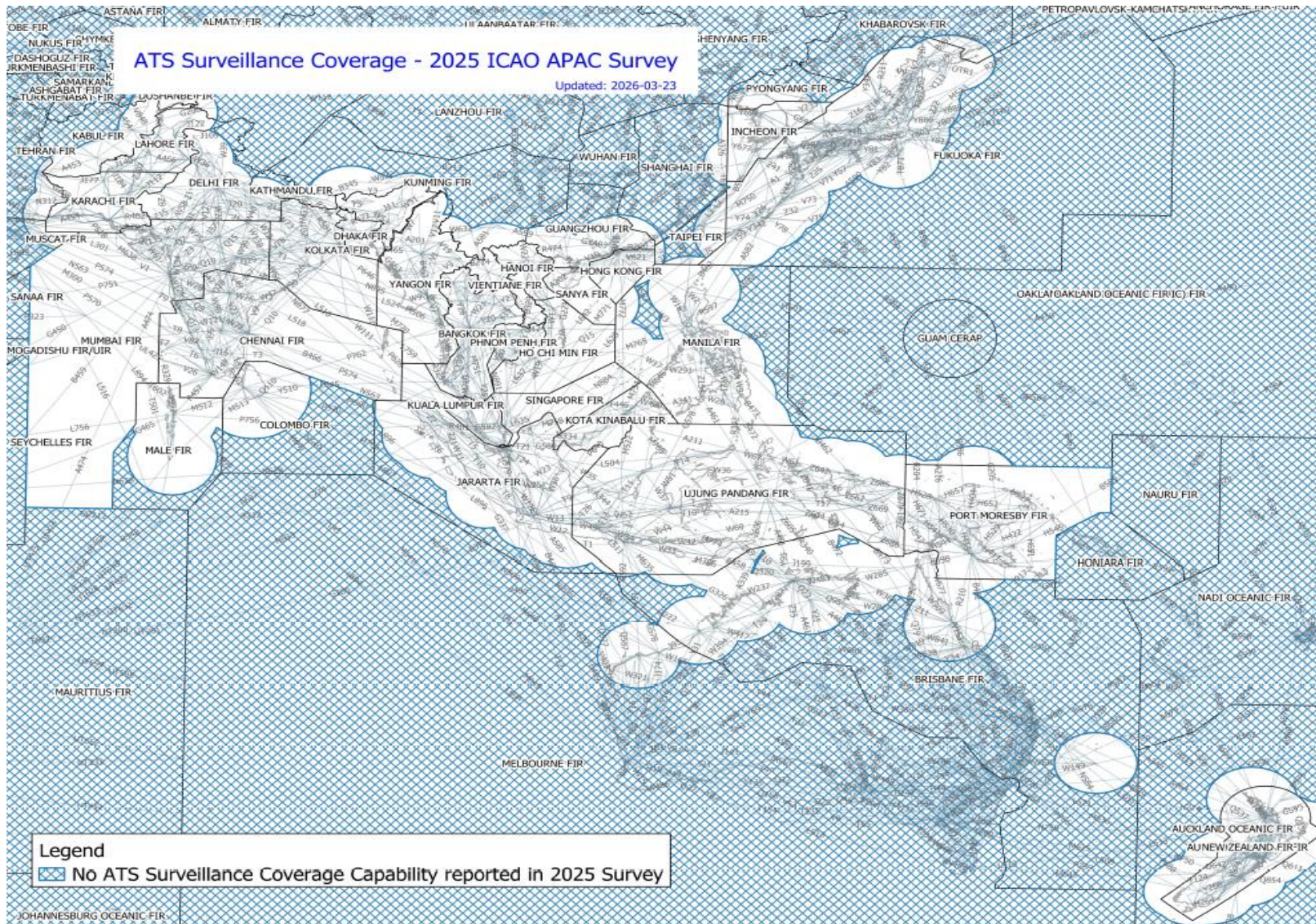
- To identified the need to enhance the surveillance and Direct Controller and Pilot Communication (DCPC) VHF coverage where gaps exist in APAC Region along some of the busy air traffic routes at boundaries between FIRs.
- Mechanism to produce charts and regularly update them in a sustainable manner to show the latest situation in ATS surveillance and DCPC VHF coverage in the Asia Pacific Seamless ANS Plan.
- With the need for a regular update, the ICAO APAC Regional Office issued the State Letter T 8/5.4: AP099/25 (CNS) issued in July 2025 for States/Administrations to update their ATS Surveillance and DCPC VHF coverage information.

# Discussion

- Based on the inputs from States/Administrations, the overall pictures of ATS surveillance and DCPC VHF coverage are given as follows in Figures 1 and 2 respectively.
- Detailed comparison in each main area of region identified in the APAC Seamless ANS Plan:-

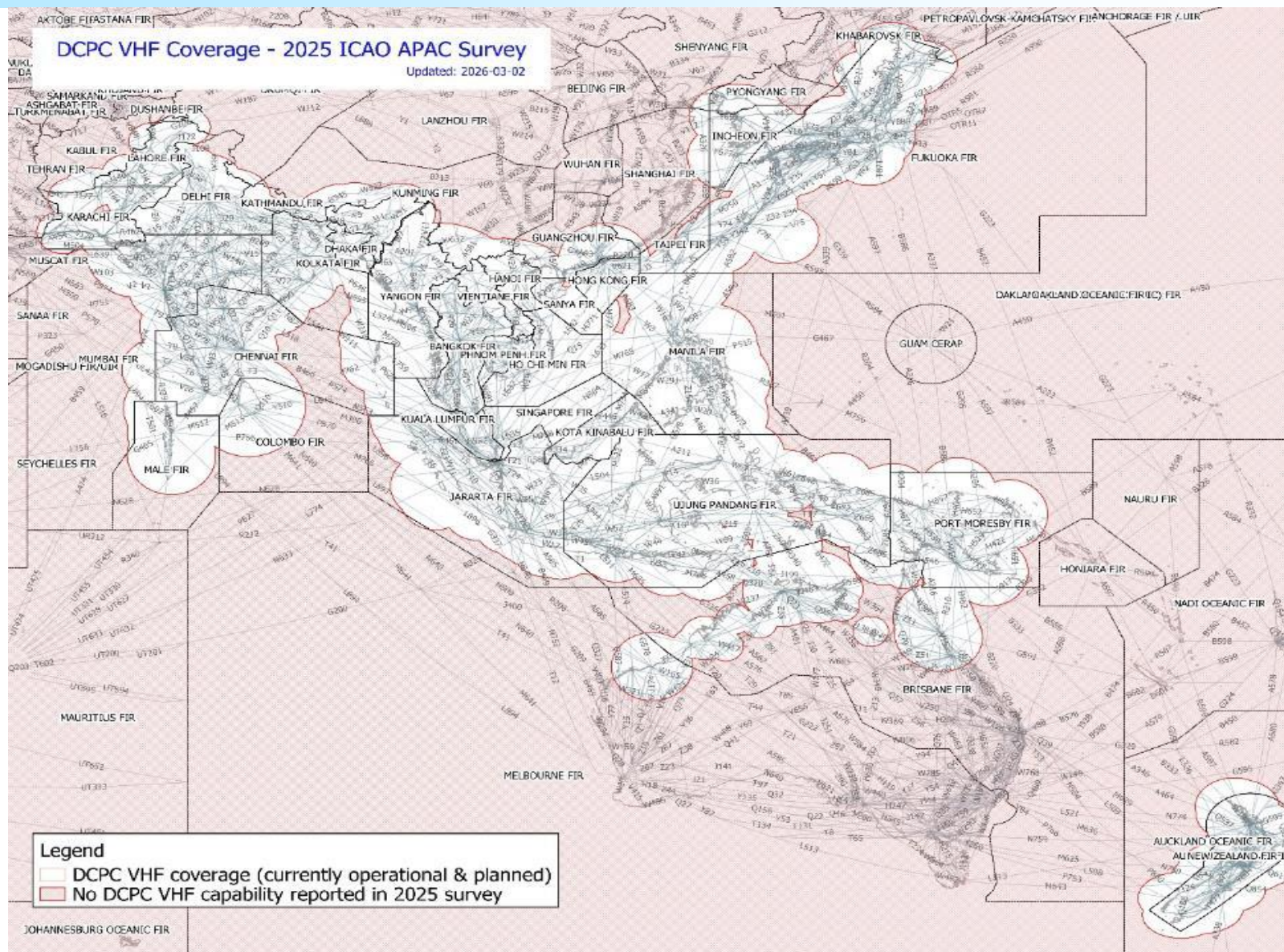
## Updated ATS Surveillance Coverage

### Figure 1: Updated ATS Surveillance Coverage:



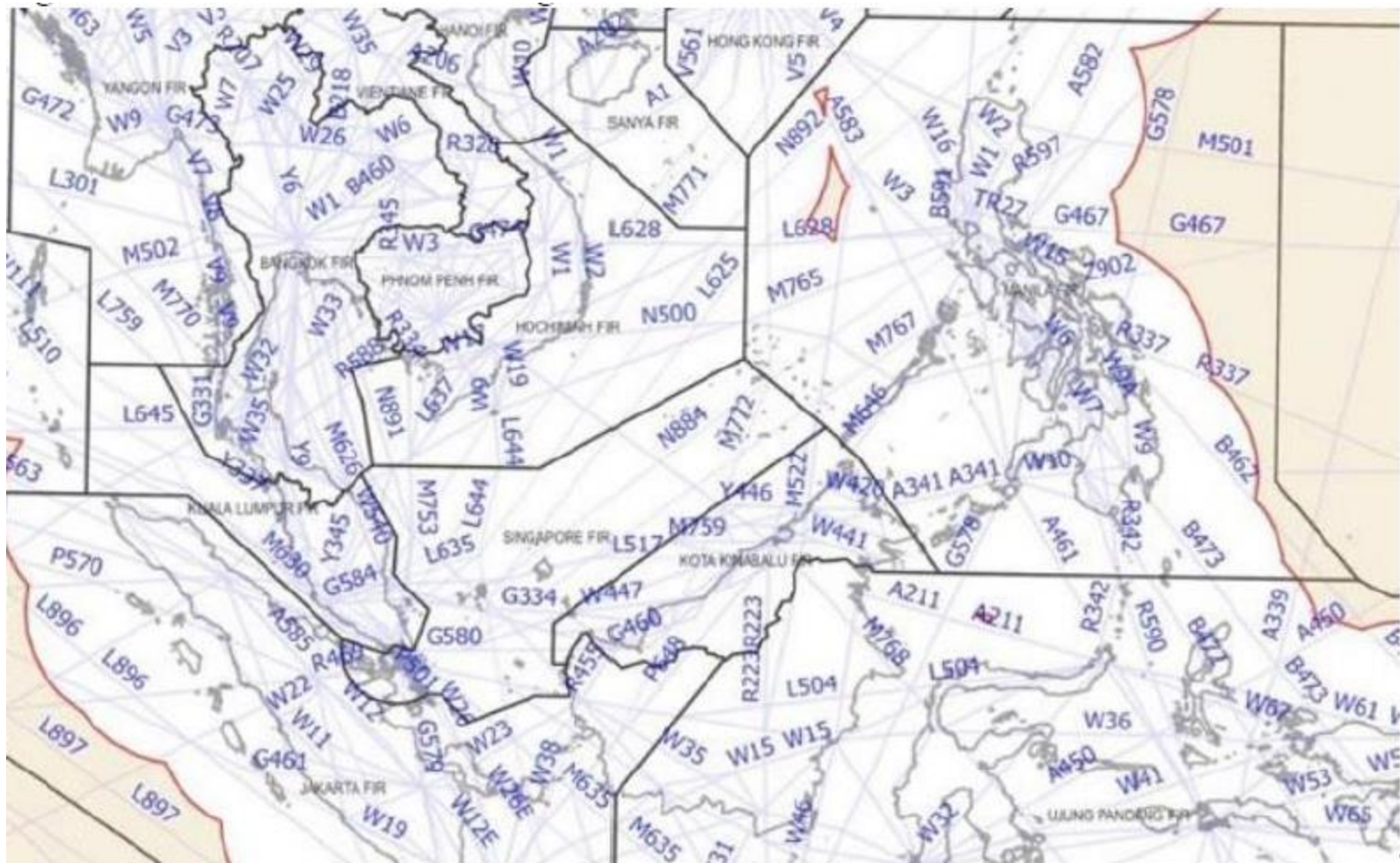
# Updated DCPC VHF Coverage

Figure 2: Updated DCPC VHF Coverage:



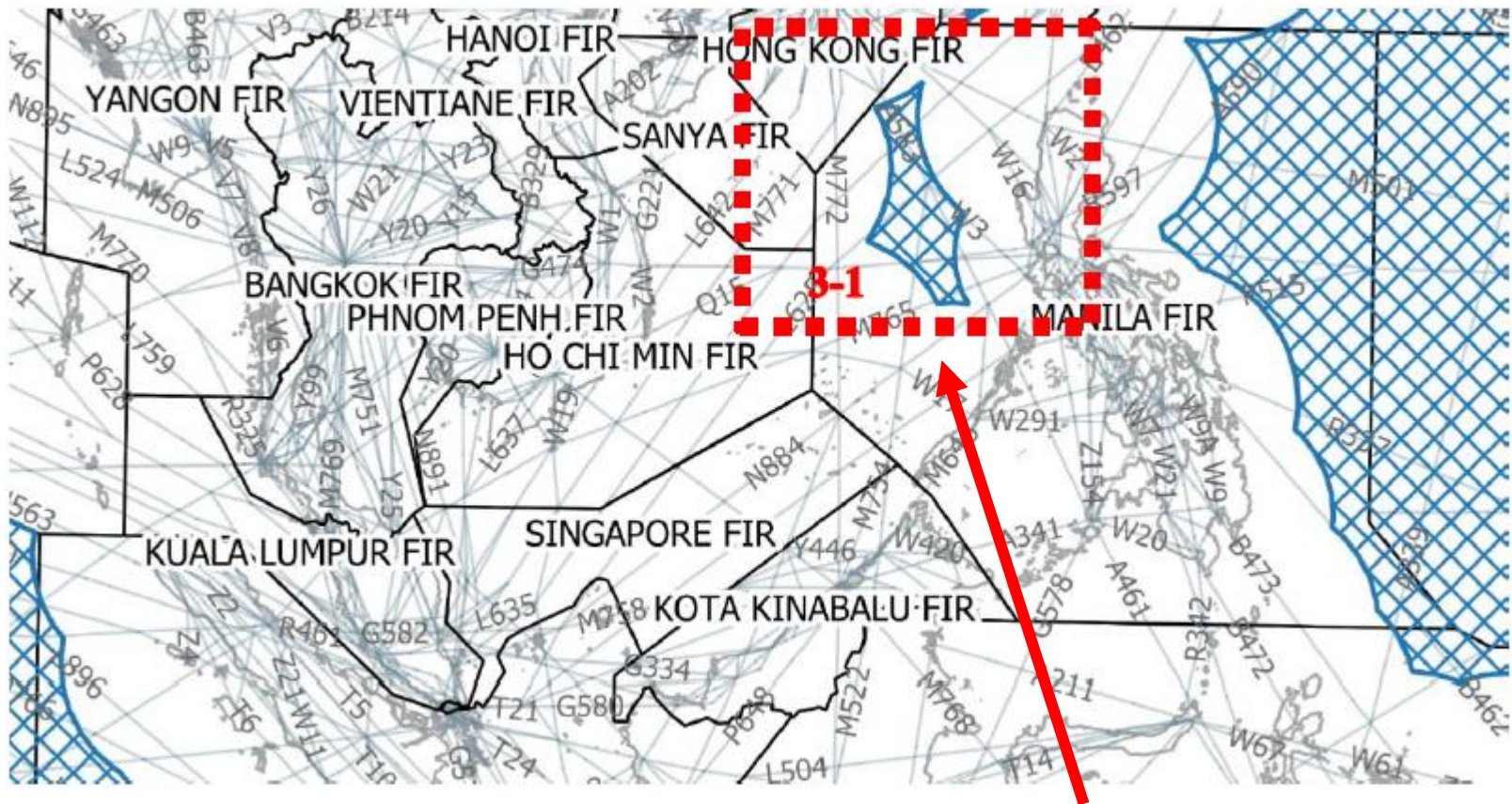
# Highest Priority: South China Sea airspace and the northwestern portion of the Manila FIR

Figure 3a: ATS Surveillance coverage in the area of **2022**



## Highest Priority: South China Sea airspace and the northwestern portion of the Manila FIR

### Figure 3b: ATS Surveillance coverage in the area of 2025

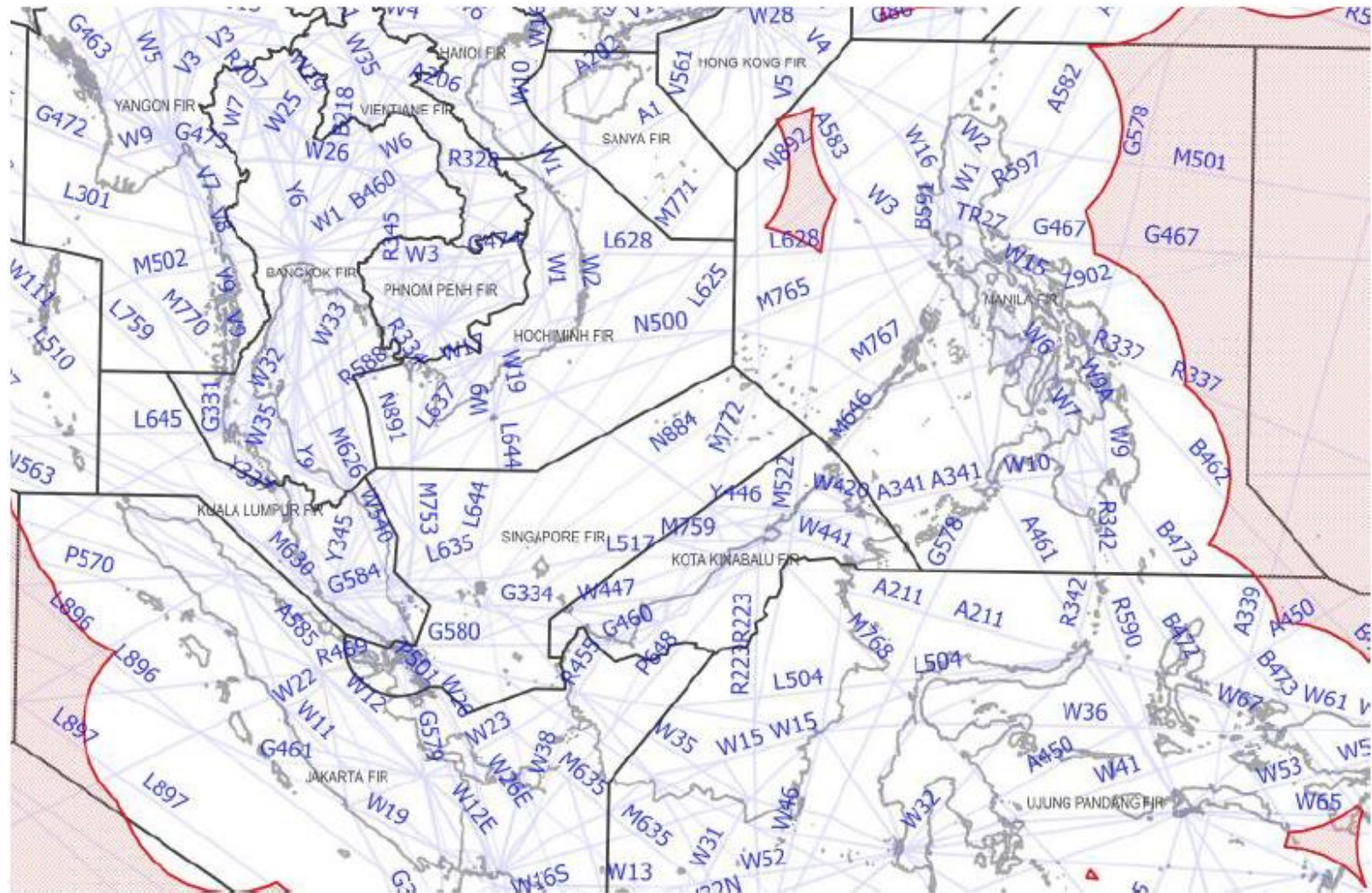


## Major changes highlighted

- The comparison in coverage area was identified as marked as 3-1 compared to last input.
- For information, Hong Kong CAD has procured the ADS-B data service from Sanya FIR by CAAC for ATS for separation for Hong Kong ATC in the area.

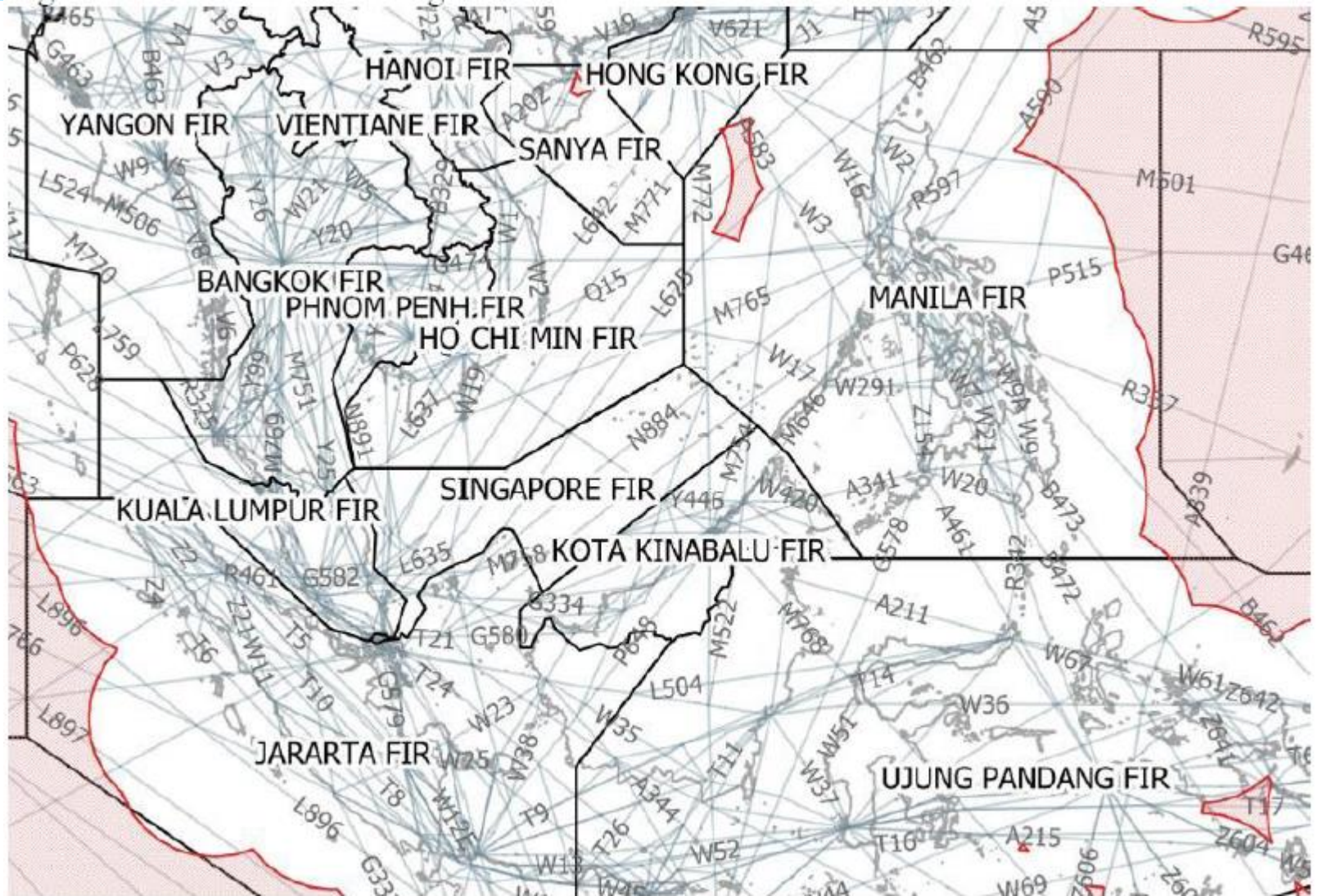
## Highest Priority: South China Sea airspace and the northwestern portion of the Manila FIR

Figure 4a: DCPC VHF coverage in the area of **2022**



## Highest Priority: South China Sea airspace and the northwestern portion of the Manila FIR

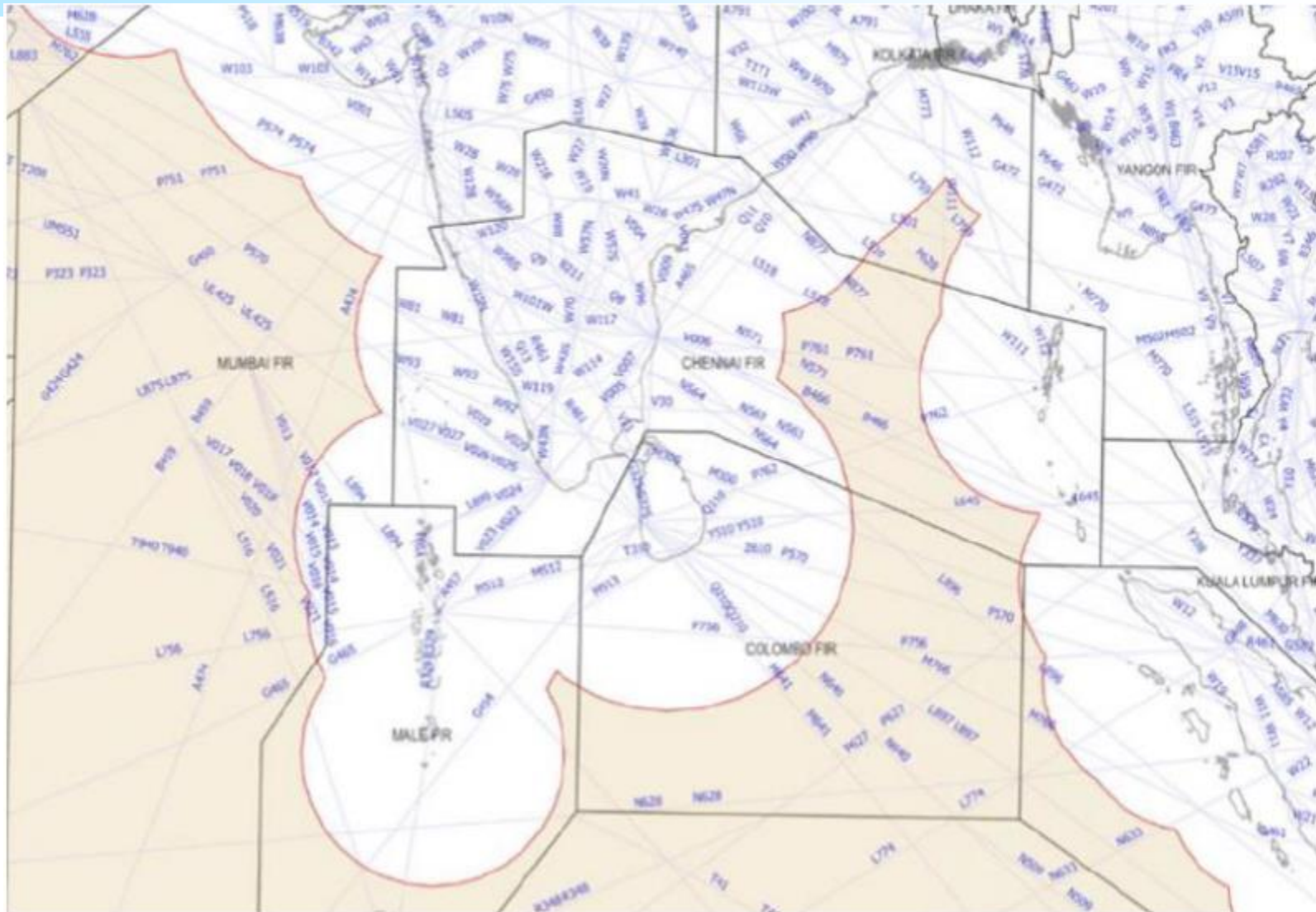
Figure 4b: DCPC VHF coverage in the area of **2025**



 **No major update was observed for DCPC VHF coverage compared with last input.**

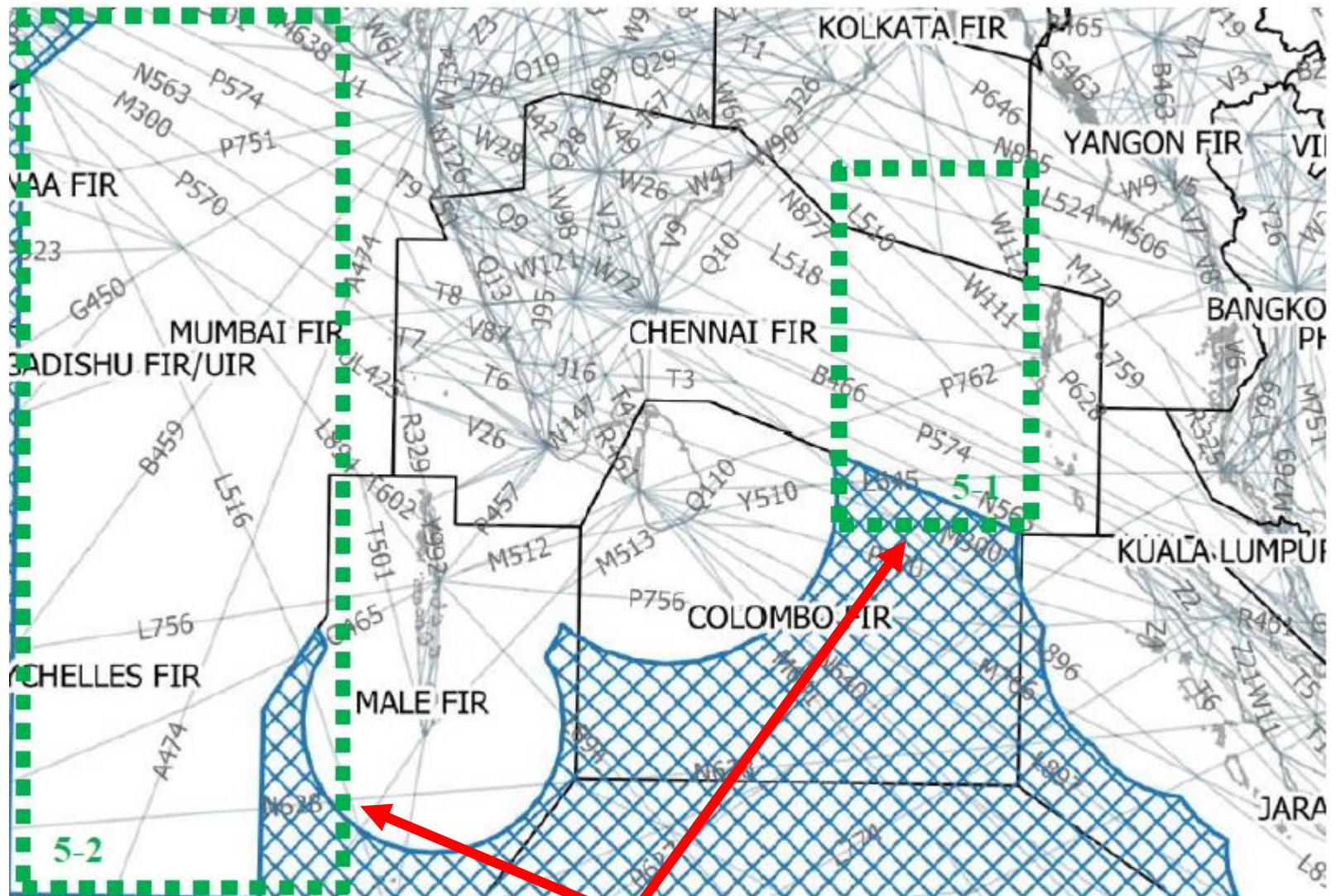
## Priority 2: Bay of Bengal airspace between the Indian subcontinent and the Andaman Islands, the Indian subcontinent and the Arabian Sea

Figure 5a: ATS Surveillance coverage in the area in **2022**



**Priority 2: Bay of Bengal airspace between the Indian subcontinent and the Andaman Islands, the Indian subcontinent and the Arabian Sea**

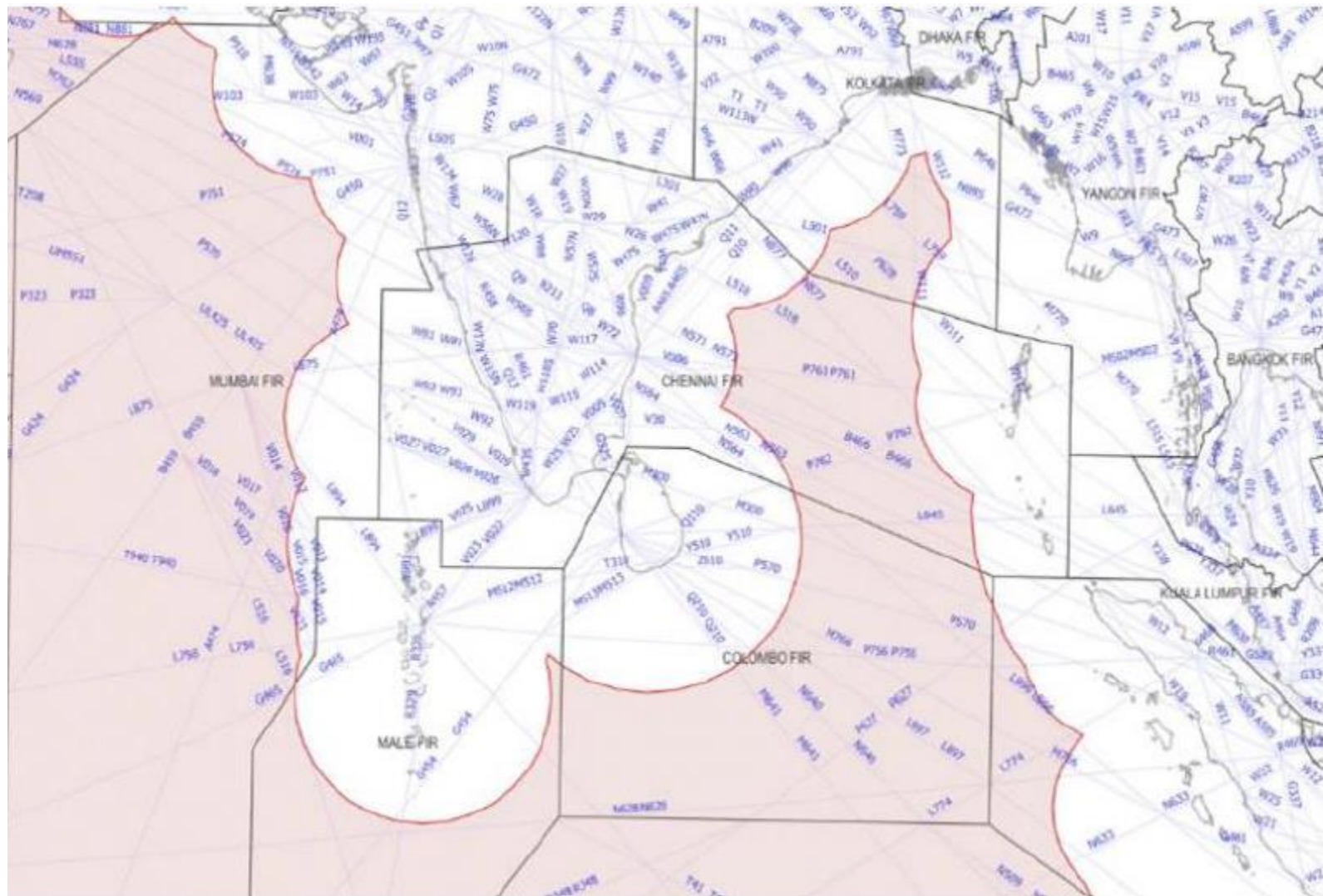
Figure 5b: ATS Surveillance coverage in the area in **2025**



- It is noted an increase in ATS surveillance coverage in the area marked as 5-1 and 5-2.

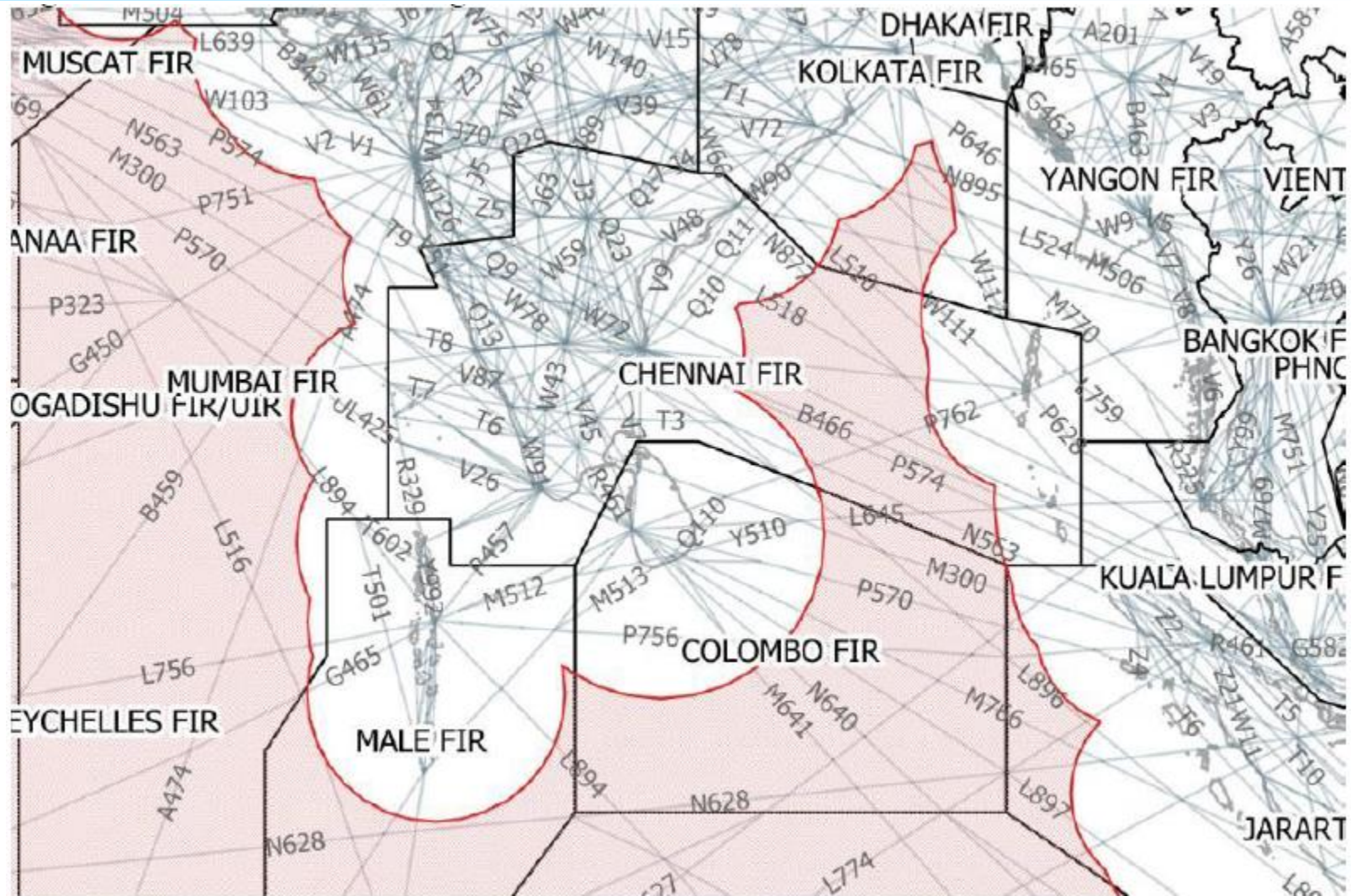
## Priority 2: Bay of Bengal airspace between the Indian subcontinent and the Andaman Islands, the Indian subcontinent and the Arabian Sea

Figure 6a : DCPC VHF coverage in the area in **2022**



## Priority 2: Bay of Bengal airspace between the Indian subcontinent and the Andaman Islands, the Indian subcontinent and the Arabian Sea

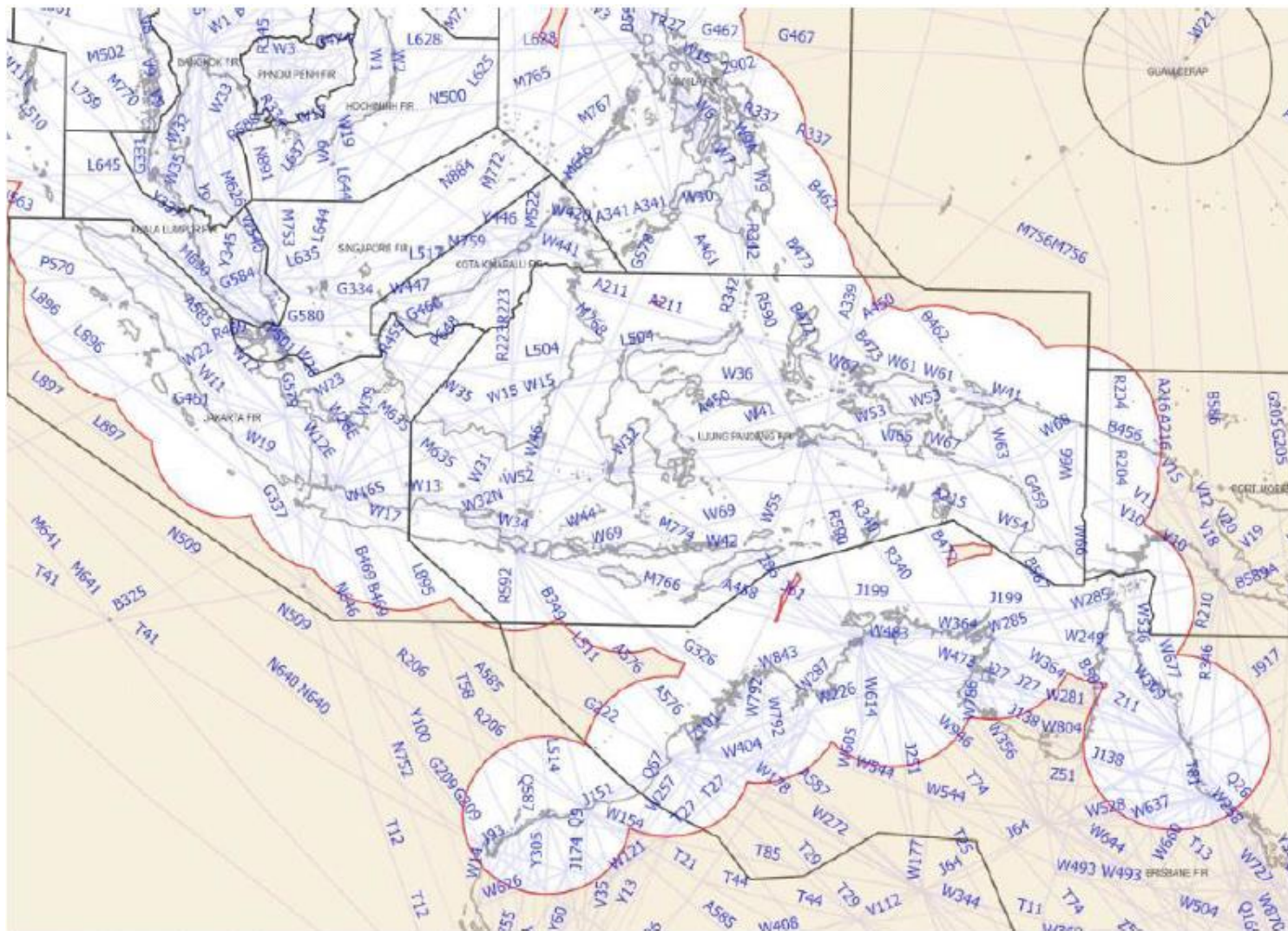
Figure 6b : DCPC VHF coverage in the area in **2025**



➤ No major update was observed for DCPC VHF coverage compared with last input.

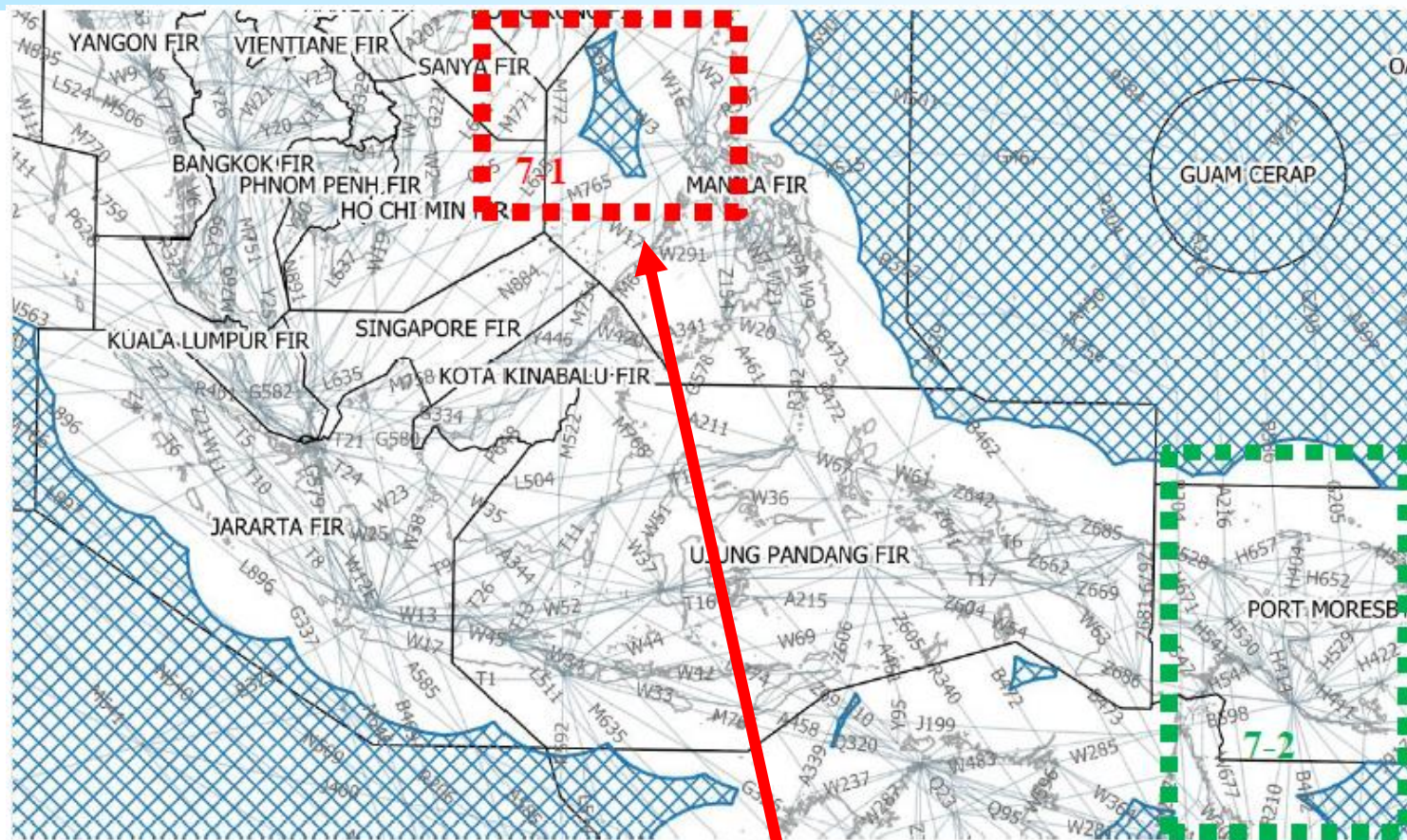
### Priority 3: airspace between Indonesia and Australia (between Java and West Australia)

### Figure 7a : ATS Surveillance coverage in the area in **2022**



### Priority 3: airspace between Indonesia and Australia (between Java and West Australia)

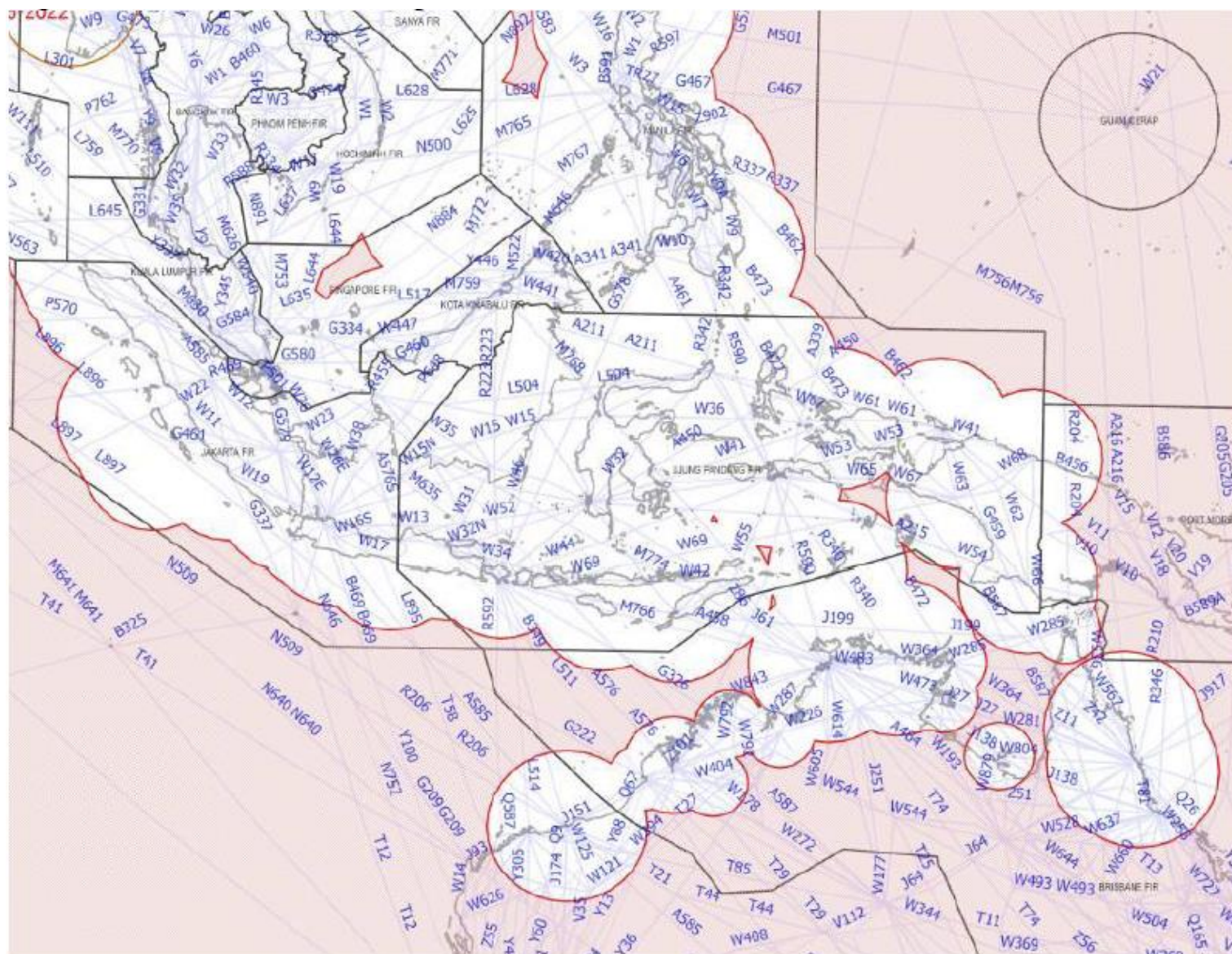
Figure 7b : ATS Surveillance coverage in the area in **2025**



- The reduction in area was identified as marked as 7-1 compared to last input.
- It is noted an improved ATS surveillance coverage in the area marked as 7-2.

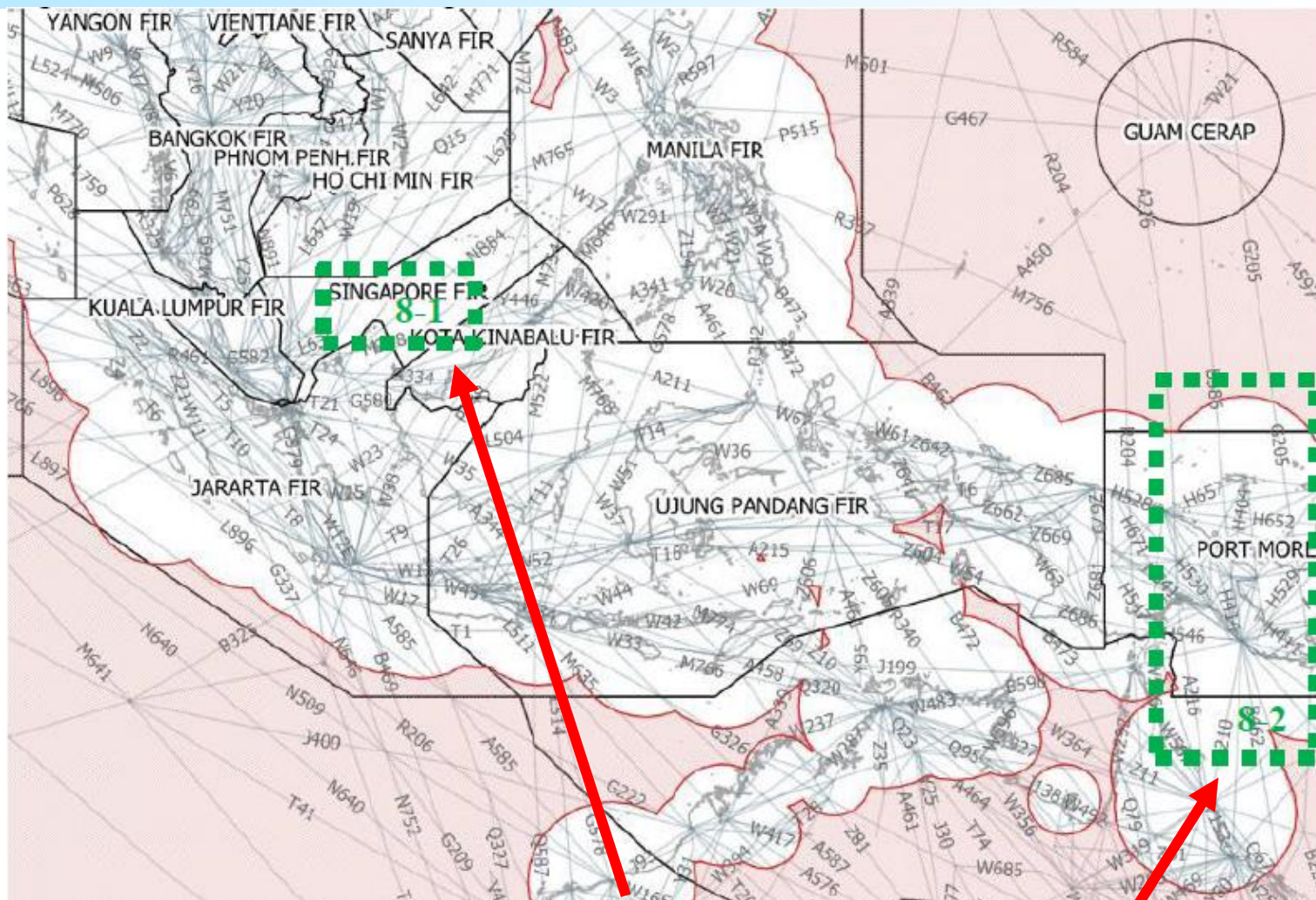
### Priority 3: airspace between Indonesia and Australia (between Java and West Australia)

Figure 8a : DCPC VHF coverage in the area in **2022**



### Priority 3: airspace between Indonesia and Australia (between Java and West Australia)

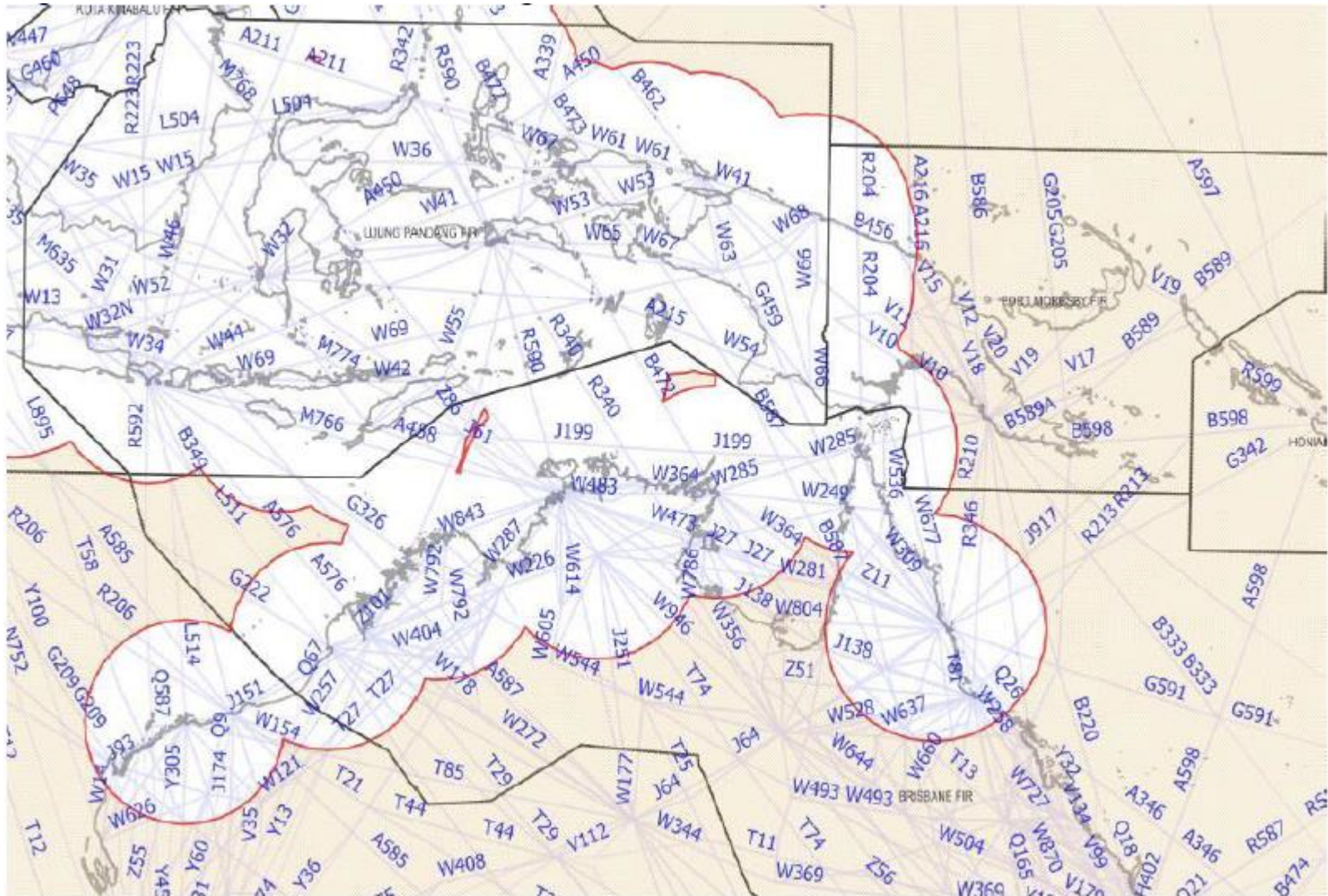
Figure 8b : DCPC VHF coverage in the area in **2025**



- The small gap identified in area marked as 8-1 compared to last input.
- Similar to ATS surveillance coverage, it is noted an increase in DCPC VHF coverage in the same area marked as 8-2

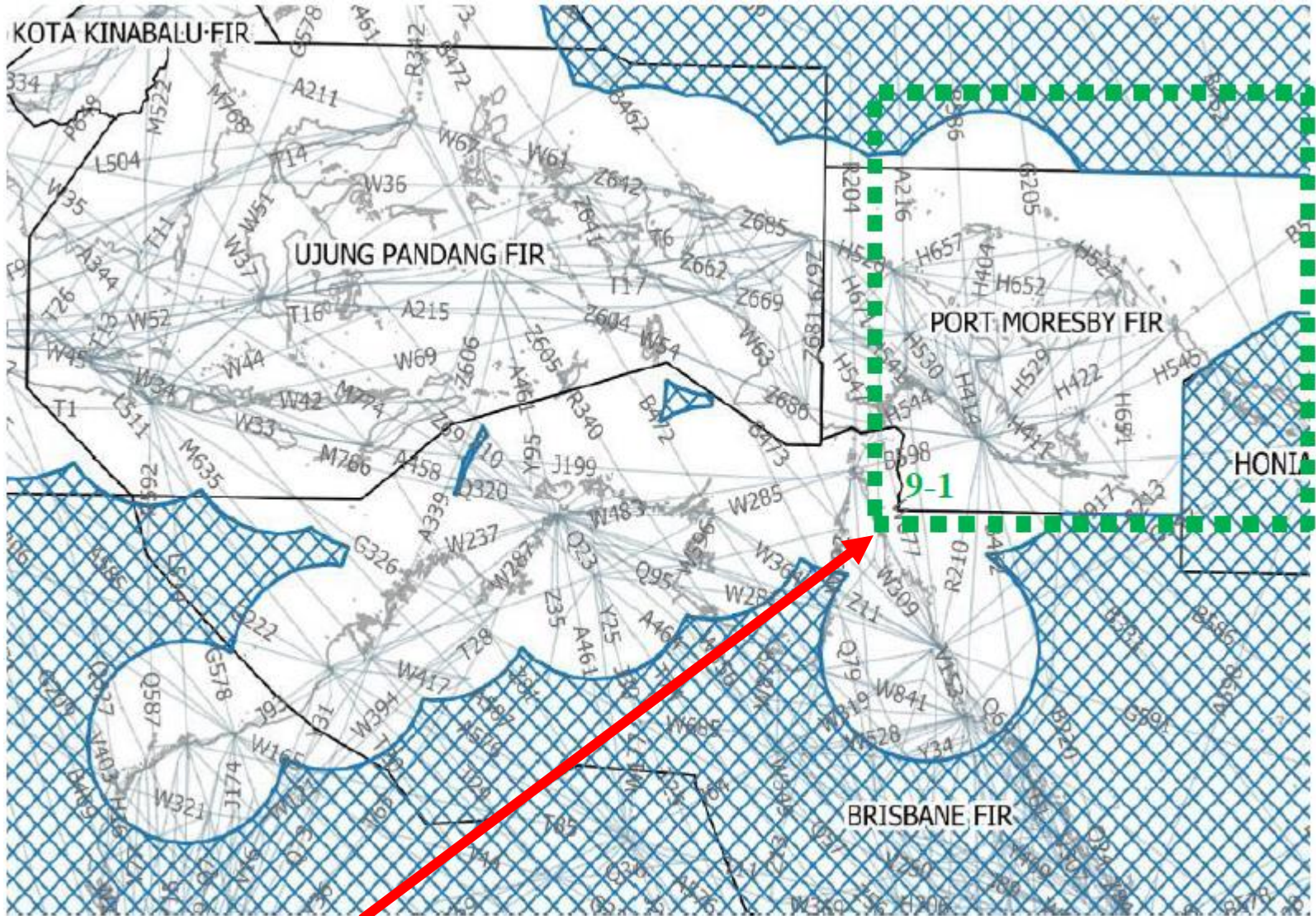
## Priority 4: Coral Sea between Papua New Guinea and Australia

Figure 9a : ATS Surveillance coverage in the area in **2022**



## Priority 4: Coral Sea between Papua New Guinea and Australia

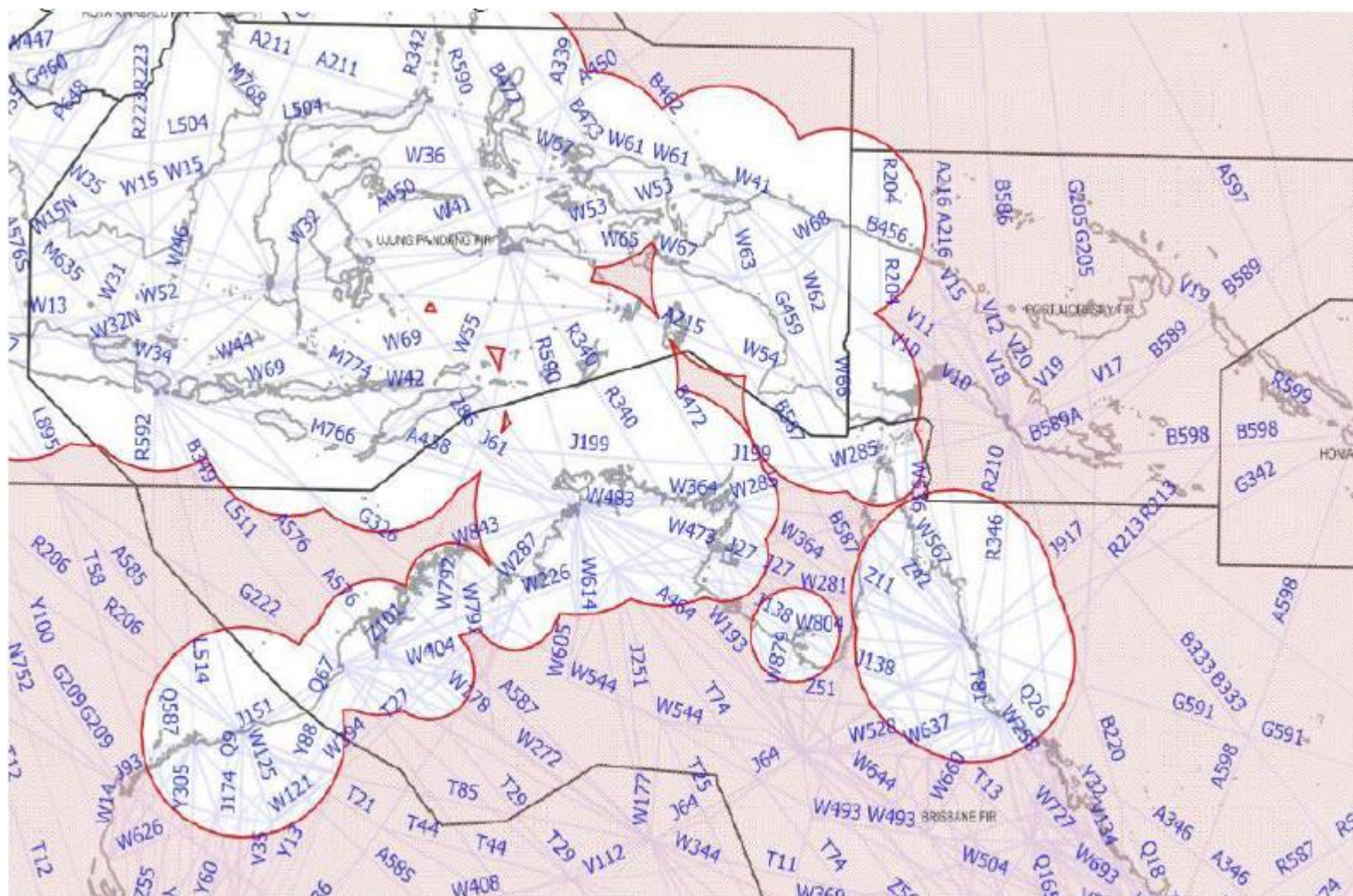
Figure 9b : ATS Surveillance coverage in the area in **2025**



➤ **It is noted major improvement in ATS surveillance coverage in the area as marked as 9-1.**

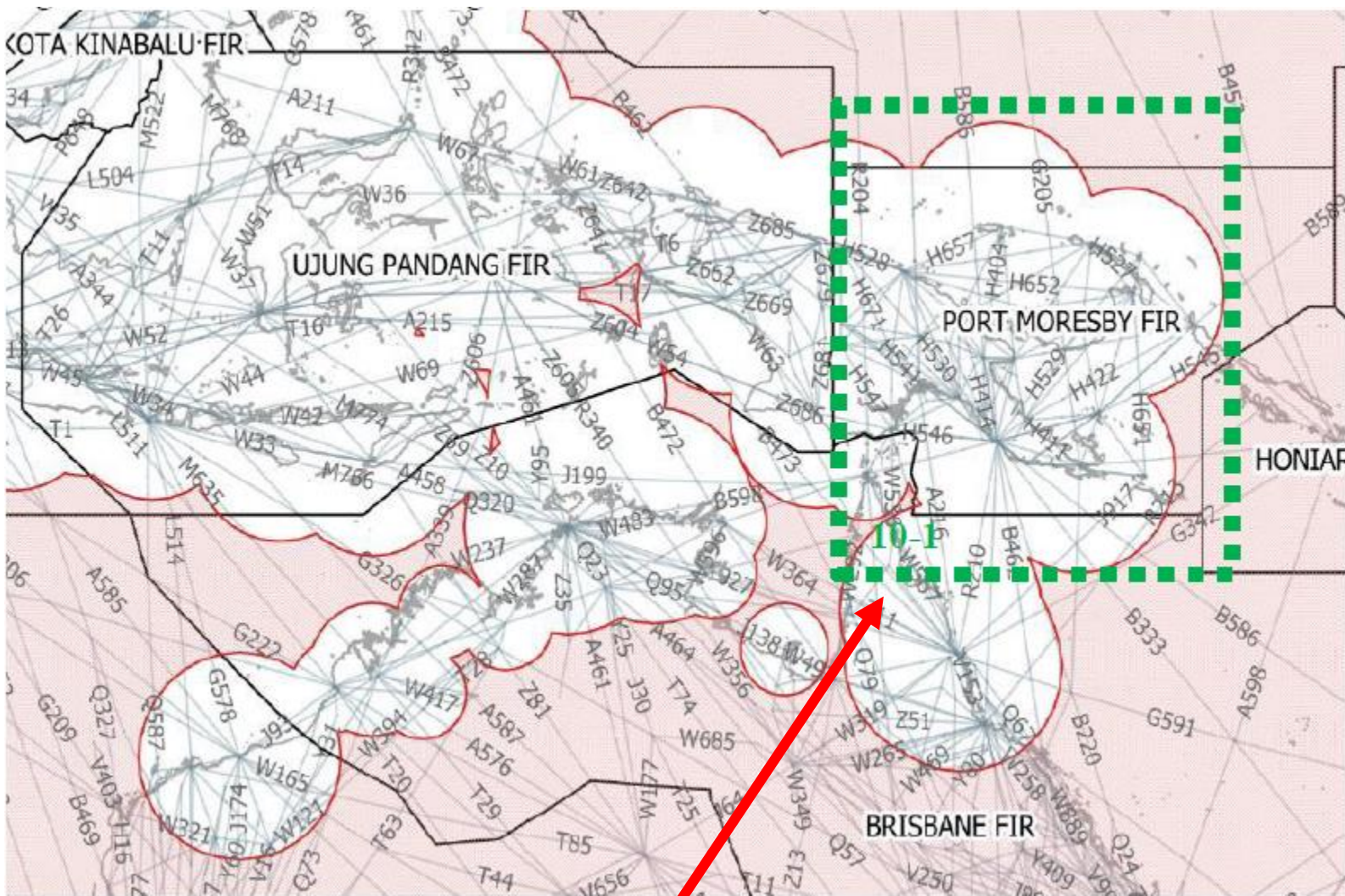
### Priority 4: Coral Sea between Papua New Guinea and Australia

Figure 10a : DCPC VHF coverage in the area in **2022**



### Priority 4: Coral Sea between Papua New Guinea and Australia

Figure 10b : DCPC VHF coverage in the area in **2025**



- **Similar to ATS surveillance coverage, it is noted major reported improvement in DCPC VHF coverage in the area marked as 10-1.**

# Discussion

## Observation and Conclusion:

- During plotting of coverage map, it is observed that data could be incorrect, causing the change in coverage area.
- Based on the coverage charts above, relevant States/Administrations are encouraged to work with appropriate parties to derive plans in addressing the coverage gaps identified above, such as surveillance data sharing between FIRs or adoption of space-based surveillance as appropriate. For States/Administrations which have not yet responded to the survey, they are reminded to contribute relevant information to complete the charts.
- It is proposed that the updated coverage charts of the ATS surveillance and DCPC VHF coverage to be reviewed by States via CNS Sub-group and incorporated into the next update of the Asia Pacific Seamless ANS Plan.
- Coverage of space-based ADS-B has been included in this round of input/update. Special thanks to Thailand for the meticulous work done and human resources paid to update the coverage maps.

# Action by the Meeting

## The meeting is invited to:

- a) note the information contained in this paper;
- b) encourage relevant States/Administrations to work with appropriate parties and/or other States/Administrations to derive plans in addressing the coverage gaps identified in the coverage charts; and
- c) discuss any relevant matter as appropriate



# Thank you

