



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

PACIFIC SMALL ISLAND
DEVELOPING STATES
(PSIDS) LIAISON OFFICE



ICAO APAC ATM Contingency Coordination



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Topics

India/Pakistan FIR Boundary Closure February – July 2019

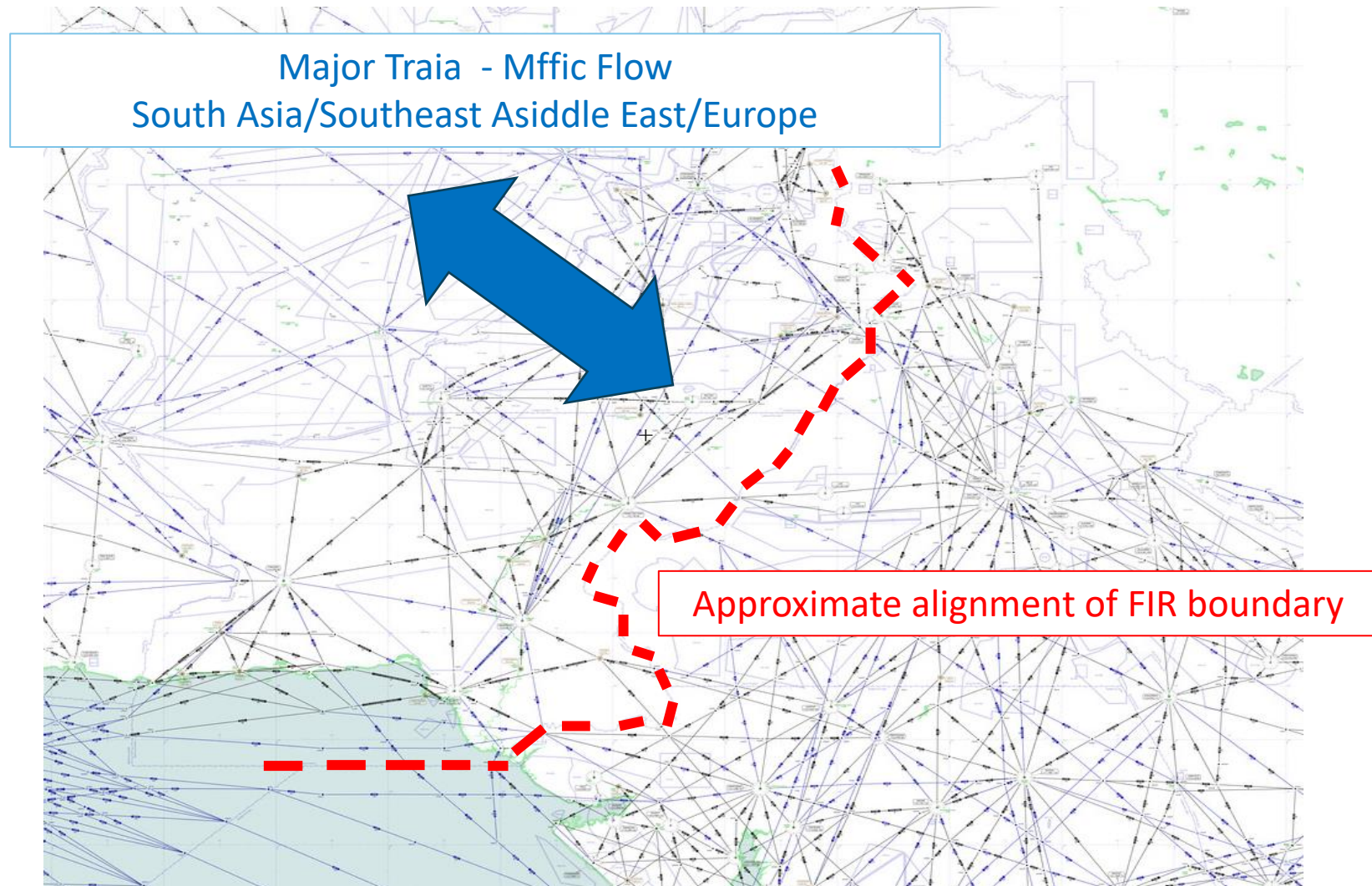
Myanmar Withdrawal of ATS February 2020

Afghanistan Withdrawal of ATS August 2021 - ongoing

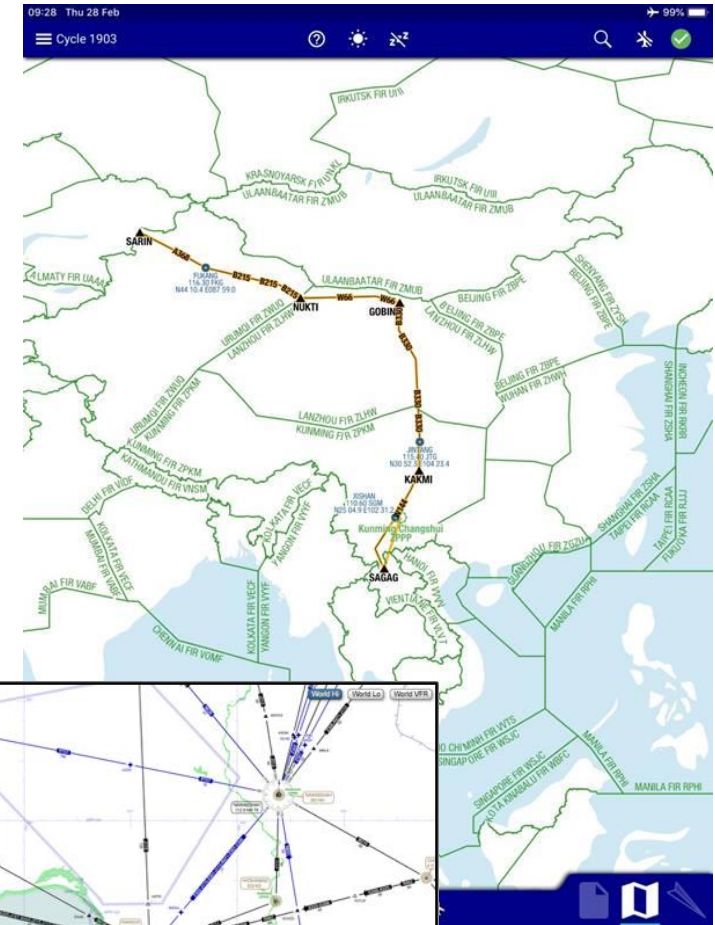
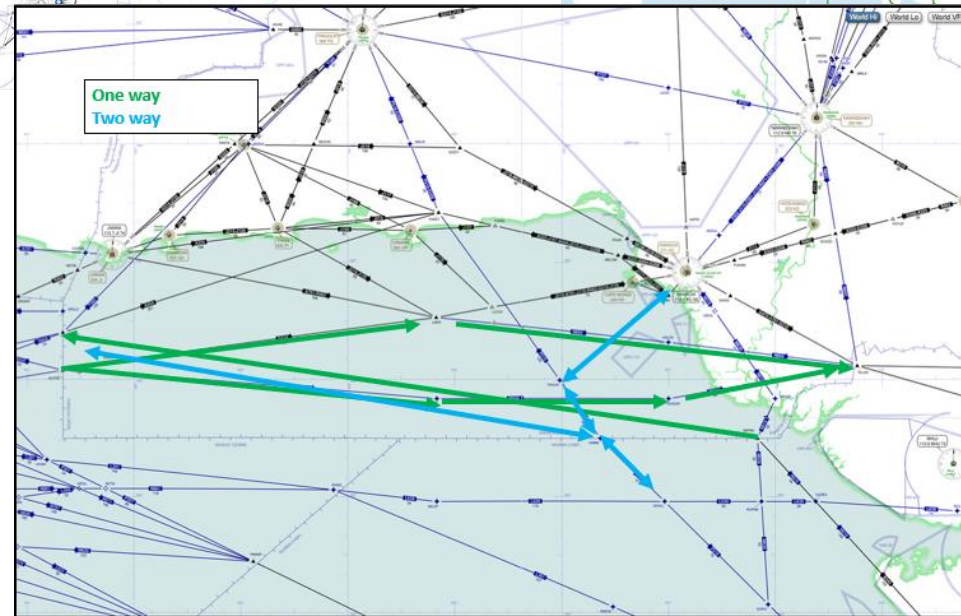
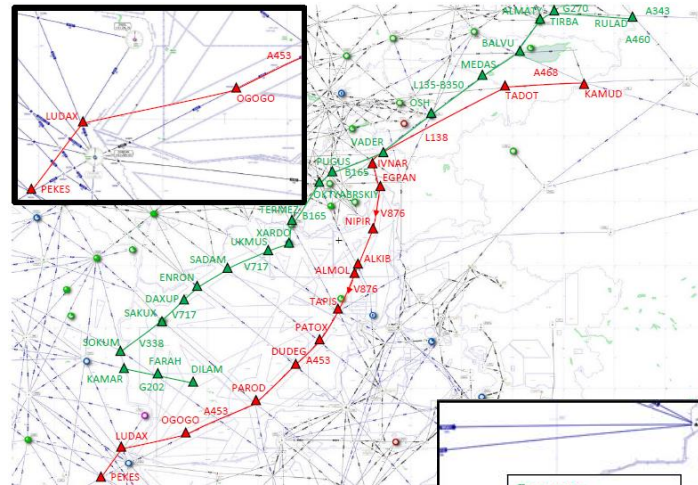
Taipei FIR Danger Areas August 2022

India - Pakistan FIR Boundary Closure

Feb to July
2019



ATS Contingency (Bypass) Routes



Major Impacts



Contingency Coordination Team

- CCT formed **27 February 2019**
Afghanistan, Armenia, Azerbaijan, Bahrain, China, **India**, **Iran**, Kuwait, Kyrgyz Republic, **Oman**, **Pakistan**, Qatar, Saudi Arabia, Tajikistan, Thailand, Turkey, Turkmenistan, UAE, USA, EUROCONTROL, IATA, IFALPA, ICAO
- 40 CCT Bulletins
 - Airspace declared open for normal traffic **15 July 2019**
 - CCT dissolved **19 July 2019**
- **RECOVERY PLANNING**
 - BOBCAT ATFM System (Kabul FIR)
 - Pre-contingency – approx. 50 slot requests per day
 - Wednesday 17 July – 34 slot requests
 - Thursday 18 July – 38 Slot requests

APAC AND MID REGIONS STRATEGY AND ACTIONS LIST FOR THE FULL RESUMPTION OF NORMAL OPERATIONS – PAKISTAN AIRSPACE

1. RECOVERY STRATEGY

1.1 Establish an agreed, common time of resumption of normal operations or *agreed resumption time*, i.e. the common time on any day, agreed by the *Core Contingency States* (Afghanistan, India, Iran, Oman, Pakistan), within the daily periods of least transit traffic through the *Core Contingency FIRs* – KABUL, DELHI, MUMBAI, TEHRAN, MUSCAT, KARACHI and LAHORE.

Note 1: FIRs listed among Core Contingency FIRs specifically exclude India's Chennai and Kolkata FIRs.

1.2 **THE AGREED RESUMPTION TIME IS 1600 UTC ON ANY DAY**

1.3 Prior notification of resumption of normal operations at the agreed resumption time via NOTAMS promulgated not less than 14 hours before the *agreed resumption time*.

Note 2: Some ultra-long haul flights may already be in the air, and planned via contingency routes, at the 14-hour prior-notification time.

1.4 Existing NOTAMS detailing contingency arrangements will be reviewed, to end their validity at the *agreed resumption time*.

1.5 New NOTAMS notifying the resumption of normal operations in each of the *Core Contingency FIRs* will be promulgated:

1. Valid from the *agreed resumption time*; and
2. valid for 24 hours.

1.6 The abovementioned new NOTAMS for the *Core Contingency FIRs* will specify that:

1. They specifically refer to the *Pakistan Airspace Contingency – Resumption of Normal Operations*;
2. only flights that will enter *Core Contingency FIRs* at or after the *agreed resumption time* may plan via non-contingency routes.
3. Aircraft operators and flight crews of aircraft that are within *Core Contingency FIRs* at the *agreed resumption time* shall not re-file FPL routes or request amended route clearances or track shortening, except in cases of emergency, or diversion for landing at aerodromes other than flight planned;

Note 3: India will also include this requirement in any relevant new or reviewed NOTAMS for the CHENNAI and KOLKATA FIRs.

4. ATC may tactically offer improved tracking to aircraft that are within *Core Contingency FIRs* during the transition to normal operations; and

Lessons

- Steep learning curve for all parties
- Need for close and regular communication:
 - States and IOs with ICAO RO and CCT
 - Between ICAO ROs
 - Multi-Region impact
- Need for expedition of overflight approval requests
- National ATM Contingency Plans to ensure both civil and military authorities understand international obligations
 - Continued transit of international aircraft within non-sovereign airspace (airspace over high seas) – cannot be unilaterally closed or restricted

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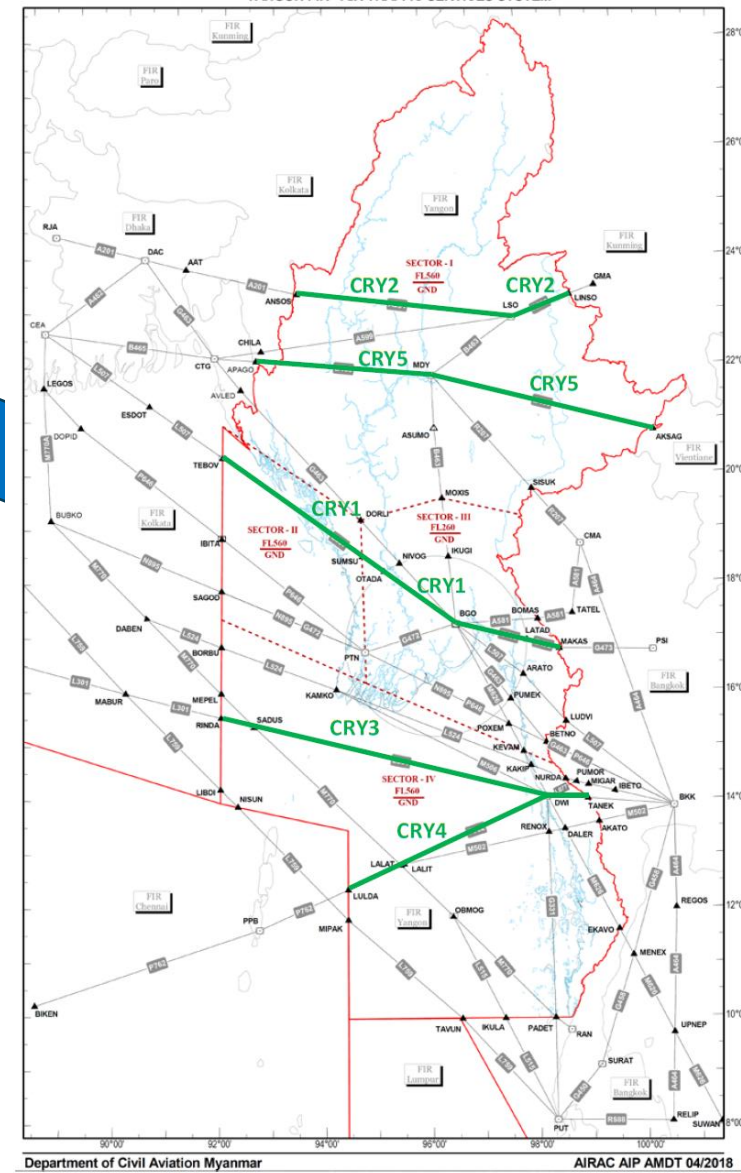
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Myanmar Withdrawal of ATS Feb 2021



Major Traffic Flow
East Asia/Southeast
Asia – India/Middle
East/Europe

Source: DCA Myanmar - Yangon FIR Level 2 Contingency Plan

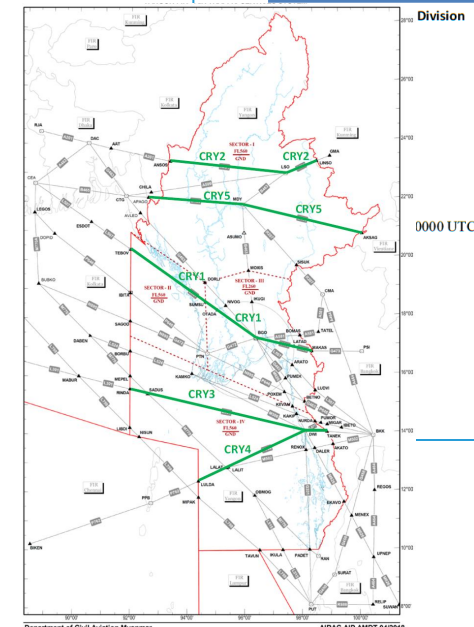
Contingency Coordination Team

- Myanmar *Level 2* ATM Contingency Plan
 - Included contingency routes and FLAS for unavailability of ATS in the Yangon FIR
 - Only formally coordinated/agreed with one State
 - Superseded version on DCA website
- Email notification to neighbouring States. No notification to ICAO
- CCT formed **08 February 2021**
 - Bangladesh, China, India, Lao PDR, Myanmar, Thailand, USA, IATA, ICAO
- Five CCT Bulletins
 - Protracted and difficult coordination between ICAO and Myanmar
 - Normal ATC operations **16 February 2021**
 - CCT dissolved **17 February 2021**
- **RECOVERY PLANNING**
 - State declined to participate in recovery plan development

The Republic of the Union of Myanmar
Ministry of Communications and Transport
Department of Civil Aviation
Air navigation Service



Level 2 - Myanmar ATS Contingency Plan
Yangon FIR



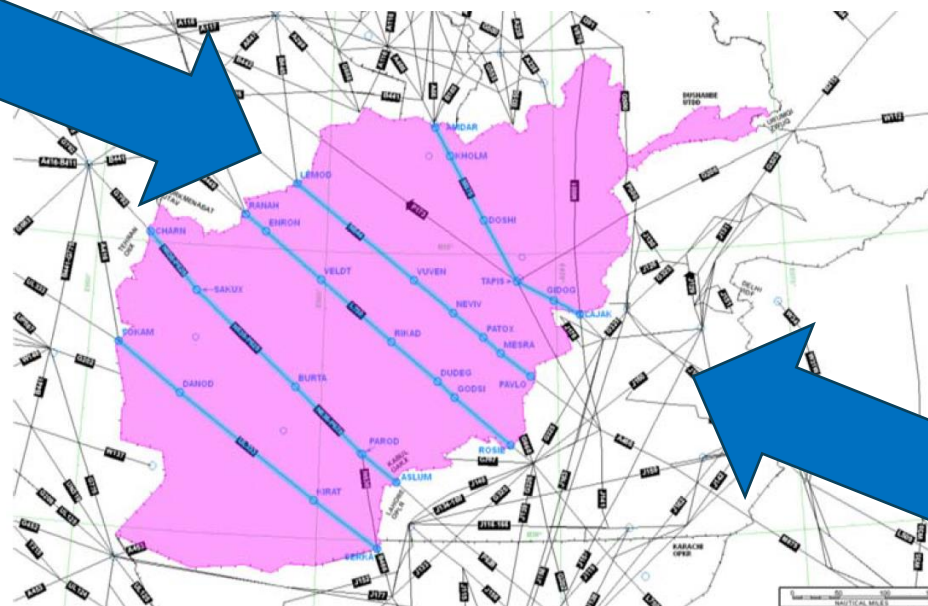
Lessons

- Significant benefit of pre-arranged 'Level 2' Contingency Plan'
- Aligned with direction of Regional ATM Contingency Plan (53% implementation – *incomplete*)
 - but
 - Importance of coordinated contingency plan testing
 - Need for additional contingency routes
 - Formalization of contingency plan in operational letters of agreement with all neighbouring States
 - COVID Pandemic traffic volumes – normal pre-COVID traffic would have presented substantially greater challenges
 - Bypass routes
- Difficulties in engagement
- State not understanding the seriousness of impact on airspace users and other ANSPs
 - Declined to participate in development of coordinated recovery plan
- Contingency Plan primarily for pre-preparation of ANSP and adjoining FIRs
 - Operational information in the plan must be published in AIP and activated by NOTAMs
 - Authoritative information for inclusion in navigational data/information
 - ATS contingency routes, flight levels, operational restrictions, frequencies, TIBA

Kabul FIR
(Afghanistan)
Withdrawal
of ATS

August 2021

Ongoing



Major Traffic Flow
East
Asia/Southeast/South
Asia –Middle
East/Europe

Contingency Coordination Team

- June 2021 Initial communication from ICAO APAC to Afghanistan
 - Requesting clarification on contingency planning
 - Referencing withdrawal of foreign military
- Afghanistan Contingency planning
 - Inter-Regional (Kabul Bypass) Plan not formally agreed
 - Kabul FIR Contingency Plan included erroneous assumptions
 - EUROCONTROL and AEROTHAI ATFM
- **16 August 2021** ICAO Regional Office formed Kabul FIR CCT
 - Information received on major political/government instability, security challenges and potential ATS and AIS disruption
 - First CCT Bulletin issued
- Large CCT

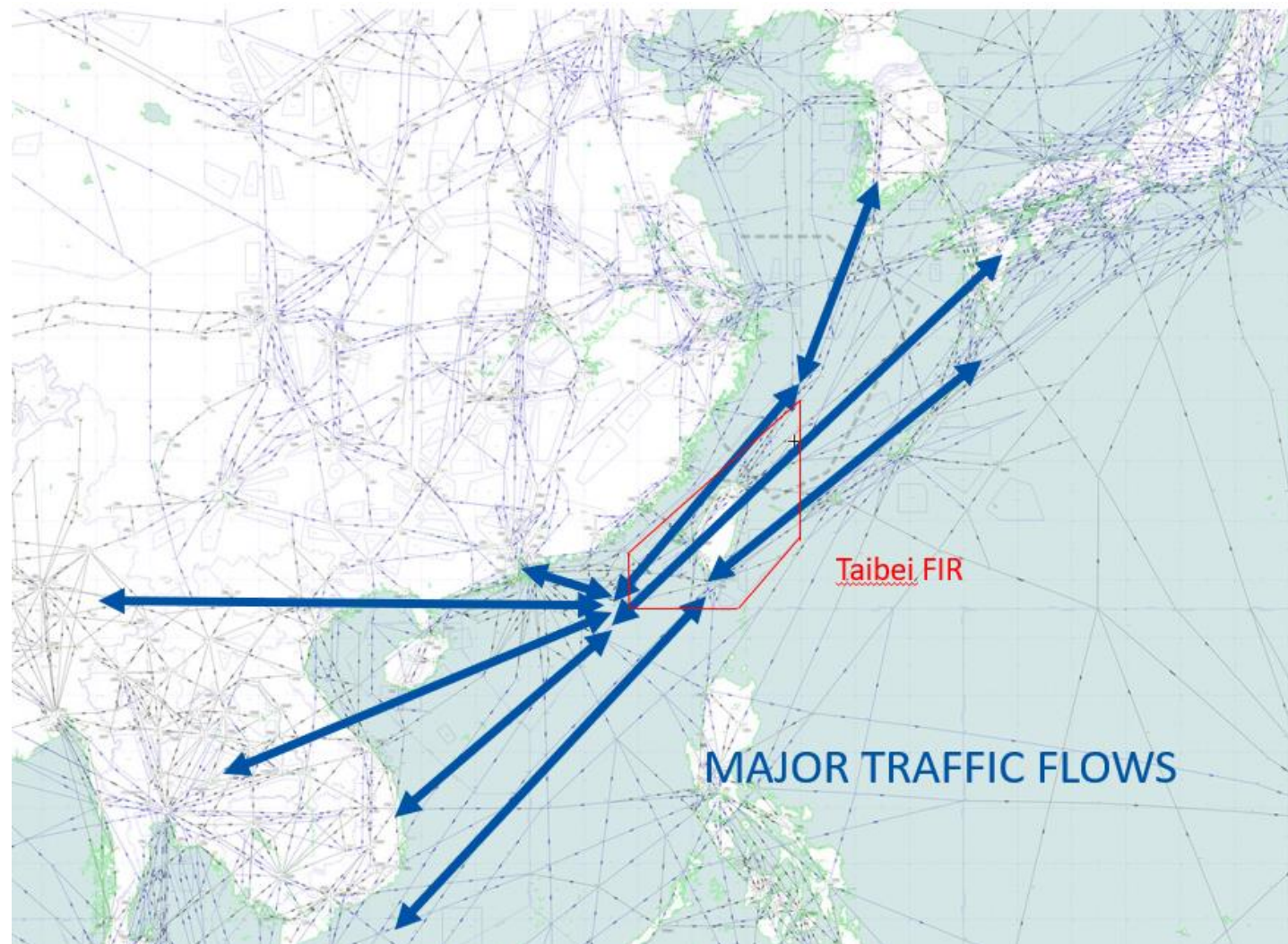
Afghanistan, Armenia, Azerbaijan, Bahrain, China, India, Iran, Iraq, Kuwait, Kyrgyz Republic, Oman, Pakistan, Qatar, Saudi Arabia, Tajikistan, Turkmenistan, Thailand, UAE, USA, Uzbekistan, CANSO, EUROCONTROL, IATA, ICRC, IFALPA, ICAO.,
- **Contingency Situation Ongoing....**

Lessons

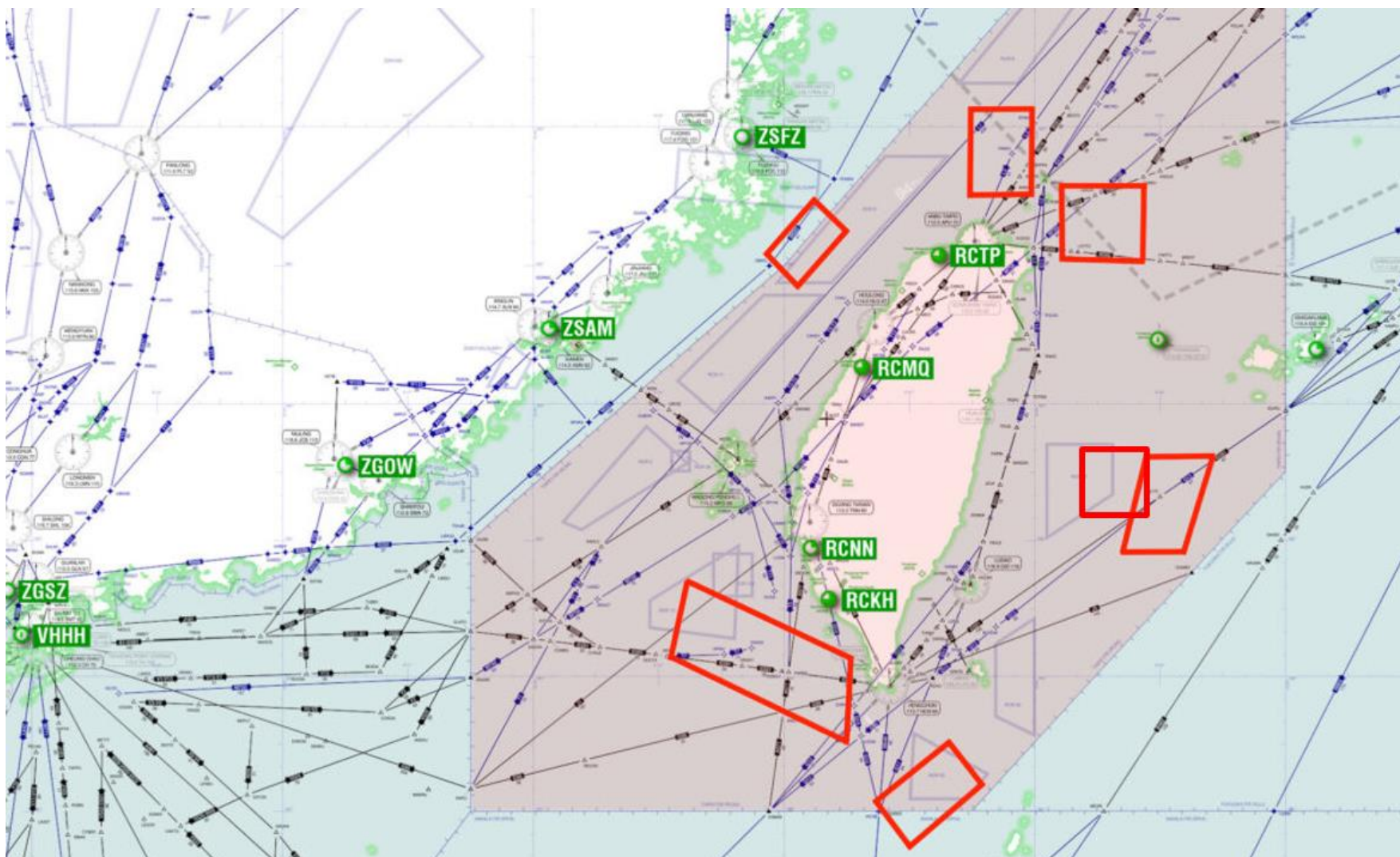
- Regular full review of contingency plans
- Contingency plan exercises to test all elements
- Formal agreement of all neighbouring States and service-providing agencies
- Formal arrangements for delegation of support services (e.g. NOTAM, MET)
- Stakeholder understanding of the purpose of contingency plans;
- Stakeholder understanding that the elements of a contingency plan are not formally in effect unless published in AIP, AIP Supplement or NOTAM;
- Engagement in the CCT by all neighbouring States;
- Maintenance of ATM Contingency POCs of all ANSPs
- Early and frequent communication with ICAO, all neighbouring States, and the CCT.

Taipei FIR Military Activity – Danger Areas

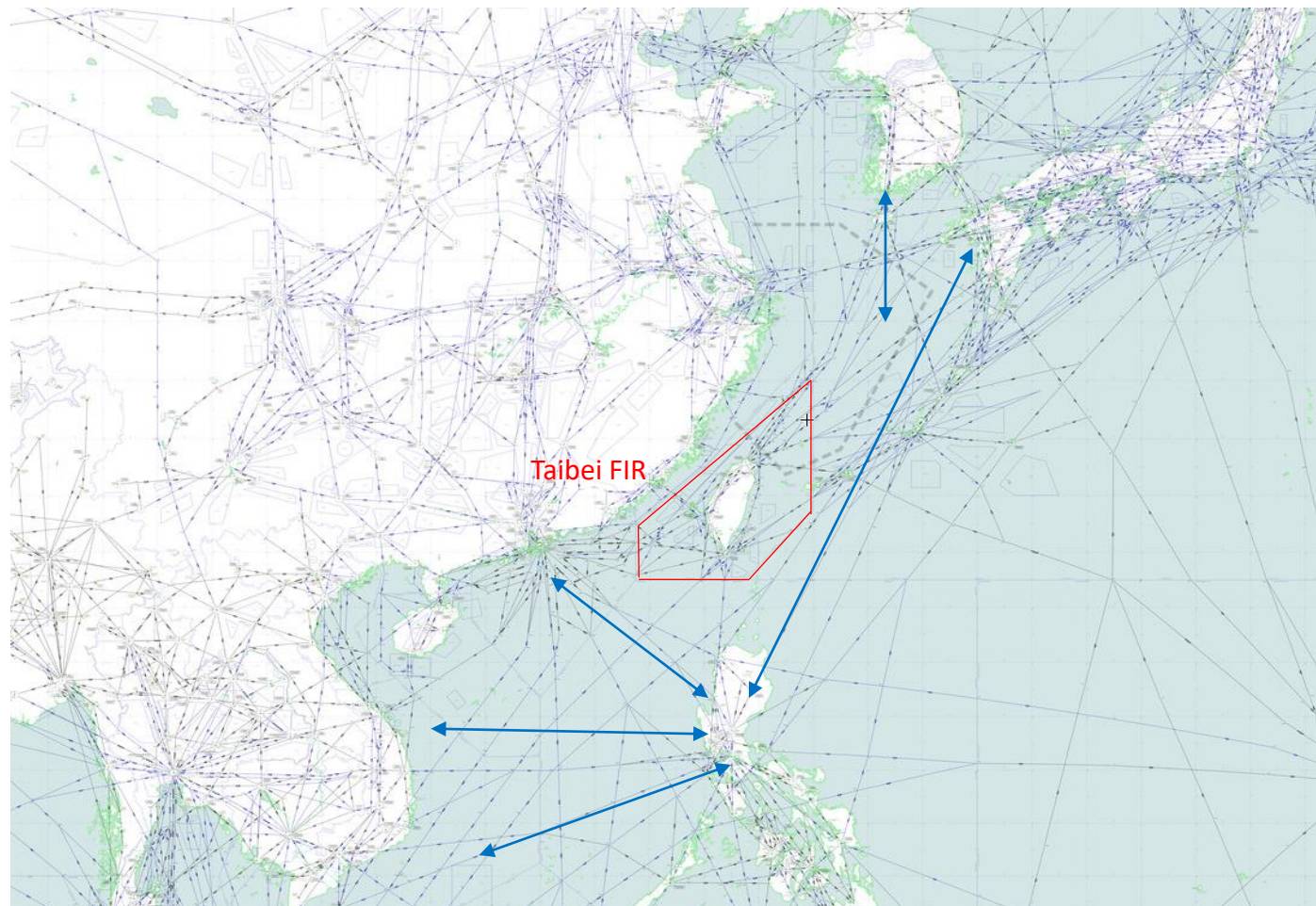
August 2022



Military Activity – Danger Areas Promulgated



Alternate Routes Used



Contingency Coordination Team

- Taipei FIR CCT formed **03 August 2022**
- Four bulletins, one CCT meeting
- Issues coordinated
 - Incorrect Location Indicator used for NOTAMS promulgating temporary Danger Areas
 - Danger Areas infringing FIRs administered by other State – not coordinated per Annex 11 2.19
 - Parallel NOTAMs imposing significant delays on routes potentially useable to the west
 - 2 x Administrations non-responsive
 - No surveillance (radar/ADS-B) in parts of the RPLL FIR
 - No regional ATFM service
- Processes applied
 - Information sharing
 - Direct coordination with RPLL ATC
 - ATFM applied to flights departing Japan

Lessons

- Value of early formation of CCT
- Knowledge gaps in AIS (NOTAM promulgation)
- Lack of knowledge of State responsibility under Annex 11 Section 2.19
- Communications
 - Phone not feasible for contacting all possible CCT members (sometimes 50+ in first iteration)
 - Messaging applications not necessarily used by, or available to, all potential CCT members
 - Email
 - Standard contemporary business/professional communications method
 - expectation that personnel sufficiently senior and empowered to actively engage in CCTs will have their email pushed to their cellphone or other personal device.



Thank You!