



ICAO

International Civil Aviation Organization

**Fifth Meeting of the Asia/Pacific Regional Search and Rescue Working Group (APSARWG/5)**

Video Teleconference, 09 – 11 June 2020

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**Agenda Item 4: Asia/Pacific and inter-regional SAR planning, coordination and cooperation**

- *SAR capability status update*

**RCCNZ, NADI ARSC AND JRCC AUSTRALIA SAREX**

(Presented by New Zealand)

**SUMMARY**

This paper presents information on the conduct of the SAREX between New Zealand RCC, Fiji ARSC and Australia JRCC.

**1. INTRODUCTION**

1.1 In the Asia/ Pacific Search and Rescue Plan, it requires that all States should conduct SAREXs with the SAR authorities of adjacent SRRs. The SAREX is expected to review bilateral agreements, SAR operational systems and SAR operational procedures to improve these systems through the post SAREX review and report to ICAO. This will enhance the ability of neighbouring States to conduct coordinated operations, especially if an incident occurs in the area of SRR boundaries. In response to this New Zealand, Fiji and Australia agreed to a joint SAREX in July 2019 which was conducted on 19 November 2019.

**2. DISCUSSION**

Planning

2.1 On returning from the APSARWG/4 New Zealand thought that there would be benefit by proposing a SAREX between New Zealand, Fiji and Australia given the confluence of the FIR/ SRR boundaries. The purpose of the agreed SAREX was to test the communications and coordination between RCCs, to establish a search area and task appropriate SRUs. The SAREX particularly focused on the initial stages of an incident which are critical to a successful outcome. Therefore the scope of the SAREX was to exercise the early stages of Awareness, Initial Action and Planning and Coordination with neighboring RCCs.

2.2 As this was the first large scale aviation SAREX between the participating countries it was decided to involve only the RCCs. Later SAREXs will be expanded to include SRUs, ATSU, other RCCs and aircraft operators.

2.3 The scenario and supporting documents were distributed to the participants other than the Operations Room at RCCNZ who conducted the SAREX as an actual incident. Ex-cons were set up in the three countries. The scenario included a brief, timeline, scripts for the injects and contact details. See **Attachment A** SAREX brief including evaluation forms.

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SAREX

2.4 The SAREX started at 2030 UTC on 18 November 2019, preceded by communications checks. The SAREX was conducted from the three RCCs rather than at one location, this reduced costs and made the scenario more realistic for participants. Most communication were conducted by telephone to either EX-Con or the operations rooms. Email was used to simulate AFTN message promulgation.

2.5 The SAREX was initiated in the Fiji FIR/SRR, where the aircraft reported an engine problem but elected to continue the flight into the Australian FIR. The aircraft proceeded into the Australian FIR/SRR but failed to report at the boundary but made a mayday call inside the Australian FIR diverting to Norfolk Island within the NZ FIR/SRR. The last known position being on the boundary between the Australian and New Zealand SRRs. The SAREX was terminated when a search area had been determined and SRUs tasked.

2.6 A hot debrief followed with all participants via a conference call. A report was written by RCCNZ after the evaluation forms were reviewed taking into consideration comments from the hot debrief. See **Attachment B** Final Report.

Review/ Lessons Learnt

2.7 The review of the SAREX confirmed that coordination and procedures between the RCCs are appropriate and were conducted as expected. There were slight differences in operational procedures for New Zealand which are being addressed with New Zealand ATS (namely responsibilities of ATC and RCC when an incident is declared).

2.8 During the debriefing it was agreed that an expanded SAREX would be conducted in the future, involving ATS, respective Defense Forces, Airline operators and other adjacent RCCs, in order to exercise these agencies procedures and to make the exercise more realistic.

2.9 JRCC Australia tasked appropriate SRUs from Australia and provided them with detailed tasks. It was suggested by JRCC Australia that if New Zealand was also tasking assets into the same area then JRCC Australia should take over the tasks so as to work all the air assets into a coordinated response. From a safety point of view and an efficient use of resources this was a good lesson to learn. JRCC Australia's NEXUS Incident Management System is set up to manage these tasks.

2.10 Although it was agreed between all parties that the SAREX was realistic and worked with all participants remaining in their respective countries it was commented that there should be more liaison visits to respective RCCs to cement relationships and understanding. This would also comply with the SAR Plan (paragraph 7.4h).

2.11 The success of the SAREX was due to the participation of all involved. It has given confidence to the RCCs that if a large scale aviation incident were to happen that the RCCs would prosecute the incident in accordance with international best practice.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) note table top exercises can be conducted remotely; and
- c) note there is a common understanding of SAR procedures between the participating countries

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## **EXERCISE FANZ**

**SAREX Proposed date 18 November 2019 start time 2030 UTC between:**

**Rescue Coordination Centre New Zealand**

**Australia Joint Rescue Coordination Centre**

**Nadi Aeronautical Rescue Coordination Centre**

### **Background**

- Two major air crashes have happened at the confluence of FIRs and during the handover of the a/c between ATSUs worldwide, this resulted in a slow SAR response.
- All ICAO signatories have an international obligation to participate in cross border aviation SAREXs on a regular basis. See Item 38 of the Regional SAR Plan Monitoring and Reporting Form measured against the Asia/ Pacific SAR Plan.
- NZ FIR borders Nadi FIR and the Australian FIR in approx. position 30 02.75S 162 57.22E
- RCC Nadi Fiji, JRCC Australia and JRCCNZ have never participated in a joint aviation SAREX although we work closely together in the BAU environment.
- The initial stages of aviation incidents are critical and therefore the scope of this SAREX is to exercise the early stages of Awareness, Initial Action and Planning which are always the busiest and most crucial during any SAR Operation.

### **Objectives/ Outcomes**

- To conform with Item 38 on the Regional SAR Plan Monitoring and Reporting Form with reference to the Asia/ Pacific SAR Plan
- The purpose of the SAREX is to test the communications and coordination between ARCC/ JRCCs and to establish a search area. It will not involve outside agencies.
- To understand each other's alerting procedures and to confirm all RCCs are operating to international best practice.
- The SAREX is expected to review SAR operation systems and procedures to improve them through a post-SAREX review and report
- After establishing the search area between the 3 RCCs and "tasking" SRUs the SAREX will be complete
- A SAREX hot debrief will be held immediately after the exercise via conference call.
- A report will be compiled by each participating RCC and shared with the others, using the evaluation form defined in advance between the 3 countries, (see Appendix A and attachment). They will then be amalgamated into a final report to be presented at ICAO APSARWG/5.

## **Planning**

- JRCCNZ will write the briefing. The briefing will be disseminated to Australia and Fiji for comment/ additions
- A planning meeting shall be convened early October
- A communications check shall be completed 18 November between all parties

## **Logistics/ Administration**

- Each RCC will follow their SOPs up to the determination of a search area and the tasking of assets
- ATSU's will not be involved the ex-cons in each country will role play the Oceanic injects and any tasks required of them by RCCs or other agencies
- All participants shall log all actions in a suitable system for comparison during the debrief and report compilation

## **Ex-con set-up**

- The participants will remain in their respective countries and operate as would be expected for an actual incident.
- JRCCNZ ex-con will be in overall control of the exercise
- All unplanned additions/ injects shall be approved by JRCCNZ ex-con

## **JRCCNZ**

- Ex-con consisting of a SARO role playing; the NZ OAC, the distress a/c, any assets in NZ to be tasked, airline operators and providing any injects required from NZ (including MOC) and CAA NZ other than the JRCCNZ Operations Room
- An observer (Kevin Banaghan)
- The operational component will be run from the actual Operations room unless real incidents prevent this where another SARO will role play the JRCCNZ

## **ARCC Nadi**

- Ex-con consisting of a SARO role playing; the NFFF Oceanic ATSU
- The operational component will be run from the actual Operations room unless real incidents prevent this where another SARO will role play RCC Nadi and any other agencies as required

## **JRCC Australia**

- Ex-con consisting of a SARO role playing; the YBBB Oceanic ATSU
- The operational component will be run from the actual Operations room unless real incidents prevent this where another SARO will role play RCC Nadi
- And any other agencies as required TBA

## **Communications Plan**

- Most communication between the RCCs will be by phone
- Maps and messages will be relayed by email
- All communications will be prefixed with “EXERCISE EXERCISE EXERCISE”
- If the exercise has to be terminated because of operational necessity the prefix “NO DUFF” will be used

## **JRCCNZ**

Ex-con phone: +64 4 577 8036

Email: [tracy.brickles@maritimenz.govt.nz](mailto:tracy.brickles@maritimenz.govt.nz)

Ops Rooms phone: +64 4 577 8030

Email: [rccnz.exercise@maritimenz.govt.nz](mailto:rccnz.exercise@maritimenz.govt.nz)

## **JRCC Australia**

Ex con phone:

Email: [clf@amsa.gov.au](mailto:clf@amsa.gov.au) Cindy Francis

Ops room phone: 0061 2 6230 6899

Email: [rccaus@amsa.gov.au](mailto:rccaus@amsa.gov.au)

## **RCC Nadi**

Ex con phone: Elik Raiwalui and Mr Joseva Vatubuli 00679 6731183

Email:

Ops room phone:

Email:

## **Scenario**

(All times in UTC)

B738 QFA102 departed Nadi enroute Sydney.

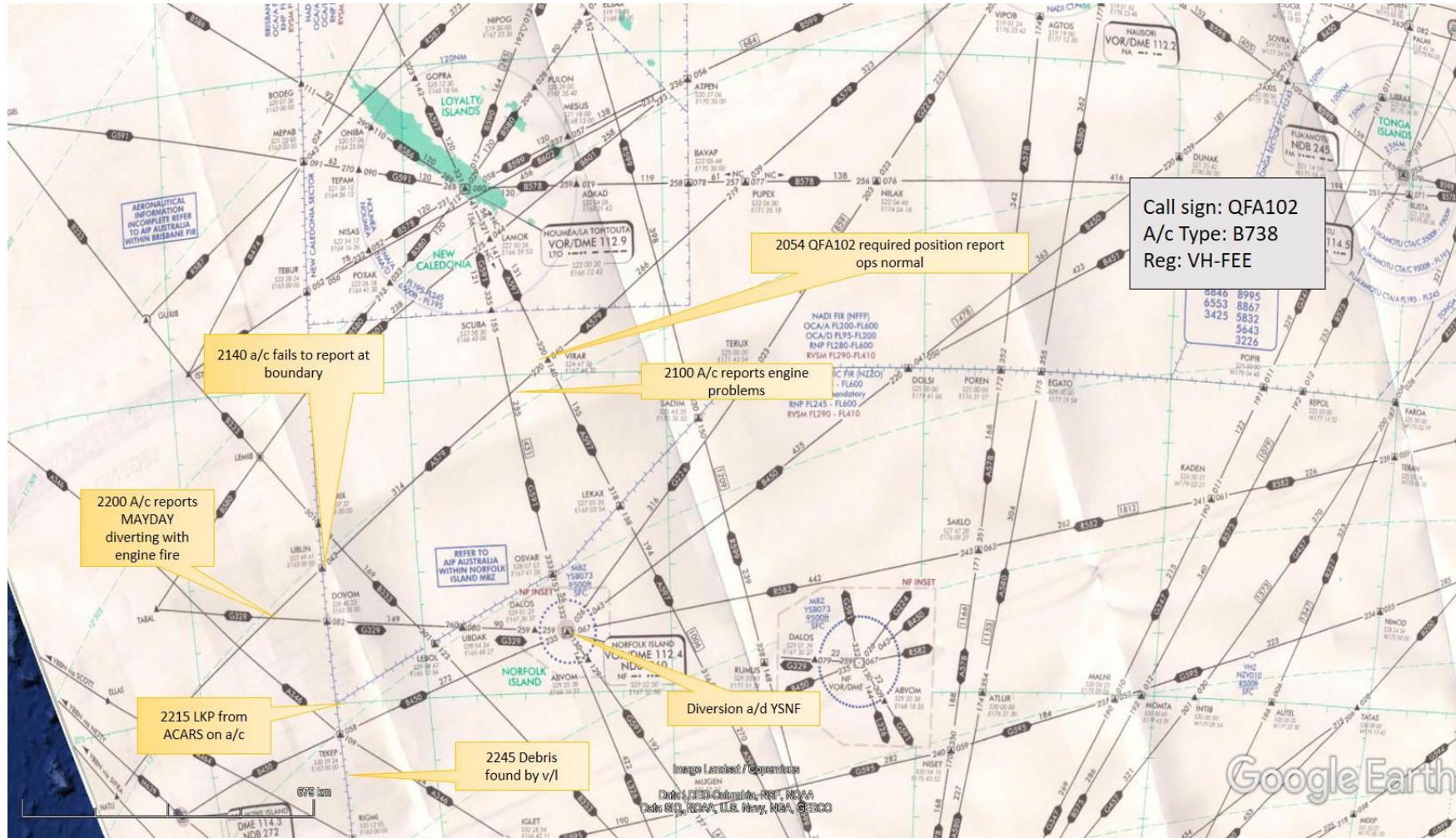
The a/c reports an engine problem while still in Nadi FIR, but elects to continue to Sydney.

At the boundary the a/c fails to report either leaving Nadi FIR or entering Brisbane FIR.

While in Brisbane FIR the a/c broadcasts a Mayday with an engine fire and elects to divert to Norfolk Island in NZs FIR.

Nothing is heard from the a/c again. No ELT activation is received.

Weather is VMC along the entire route.



AERONAUTICAL INFORMATION INCOMPLETE REFER TO AIP AUSTRALIA WITHIN BRISBANE FIR

2140 a/c fails to report at boundary

2200 A/c reports MAYDAY diverting with engine fire

2215 LKP from ACARS on a/c

2245 Debris found by v/l

2054 QFA102 required position report ops normal

2100 A/c reports engine problems

Diversion a/d YSNF

Call sign: QFA102  
A/c Type: B738  
Reg: VH-FEE

Imago Limited / Copernicus  
Data Provided by: NOAA, NOAA  
Data by: NOAA, U.S. Navy, NSA, GEBCO

Google Earth

## Timeline

Time in UTC	Event
2100	QFA102 reports that the a/c has an unspecified engine problem and has requested a local standby at YSSY, and elects to continue the flight. RCCNZ Ex-con phones Nadi Oceanic Ex-con as the a/c
2105	NFFF issues an INCERFA to YBBBZQZX
2140	QFA102 fails to report at UBLIN at time 2140 (on boundary). NFFF contacts the a/c and hands the a/c to YBBB in accordance with normal procedures between the 2 countries. (phones JRCCNZ ex-con as a/c) <b>A/c fails to respond.</b>
2150	NFFF issues an ALERFA (or phase as they see fit according to their procedures) to YBBBZQZX at time 2150
2155	YBBB contacts NFFF for further information, in accordance with their procedures JRCC Australia ex-con role playing YBBB contacts NFFF ex-con (depending on their procedures NFFF can pass LKP and time of report, FL, cse and intentions and any action they are taking)
2200	QFA102 broadcasts a MAYDAY to YBBB diverting to Norfolk Island ETA 2245 with an engine fire (Diverting from psn 28 52.70S 161 02.89E – only to be given to an RCC when asked for, obtained from the operator) JRCCNZ ex-con calls JRCC Australia ex-con YBBB as a/c and bxs a MAYDAY
2205	YBBBZQZX issues a ALR DETRESFA to NZZOZQZX NFFFZQZX YSARYCYX NZWNYCYX AUSSAR as YBBB issues an ALR DETRESFA to the above (preformatted ALR for transmission by email, or a version of in accordance with YBBB procedures)
	QFA102 makes no further contact with any other a/c, the operator or any ATSU

2205	What actions are taken by each RCC? Each ARCC/ JRCC will keep a log of their actions to enable reconciliation at the end of the SAREX.
2215	LKP sourced from ACARS from Qantas Operations 29 56.50S 162 59.83E at time 2215
2245	Fm MOC reporting a v/l has found debris in posn 31 03.19S 163 02.77E
2330	<b>SAREX ends</b>
0000	<b>Hot debrief via conference call</b>

In black – the scenario

In red – the actions to be taken by RCCs/ ATSU

In blue – ex-con injects (RCCNZ will take the role of the a/c)

## Timeline Injects for each Ex-Con

### JRCCNZ

- 2100: Phones Nadi ex-con as QFA102 to report an engine problem and is continuing the flight but requests a local standby at Sydney
- 2140: Nadi ex-con contacts RCCNZ ex-con, role playing the a/c, no response
- 2200: QFA102 broadcasts a MAYDAY to YBBB (AUSSAR ex-con) diverting to Norfolk Island ETA 2245 with an engine fire

*“Mayday Mayday Mayday*

*Brisbane Oceanic*

*QF102*

*Engine Fire*

*Diverting to Norfolk Island*

*FL290 descending ETA2245”*

- When asked by other RCCs advise as NZZO that all a/c in the NZ SRR have been spoken to and have not heard a 121.5MHz signal or have been able to contact the a/c direct and have not seen any wreckage
- Role play as Qantas Ops to pass information of LKP. (If asked)
  - Divert psn 28 52.70S 161 02.89E at time 2200
  - LKP from Operator ACARS 29 56.50S 162 59.83E at 2215
- 2245: When MOC is requested to make broadcasts and vessel reports finding a wing like object and other debris in position 31 03.19S 163 02.77E
- 2250 Requests to JRCCNZ, JRCC Australia and RCC Nadi for media comment

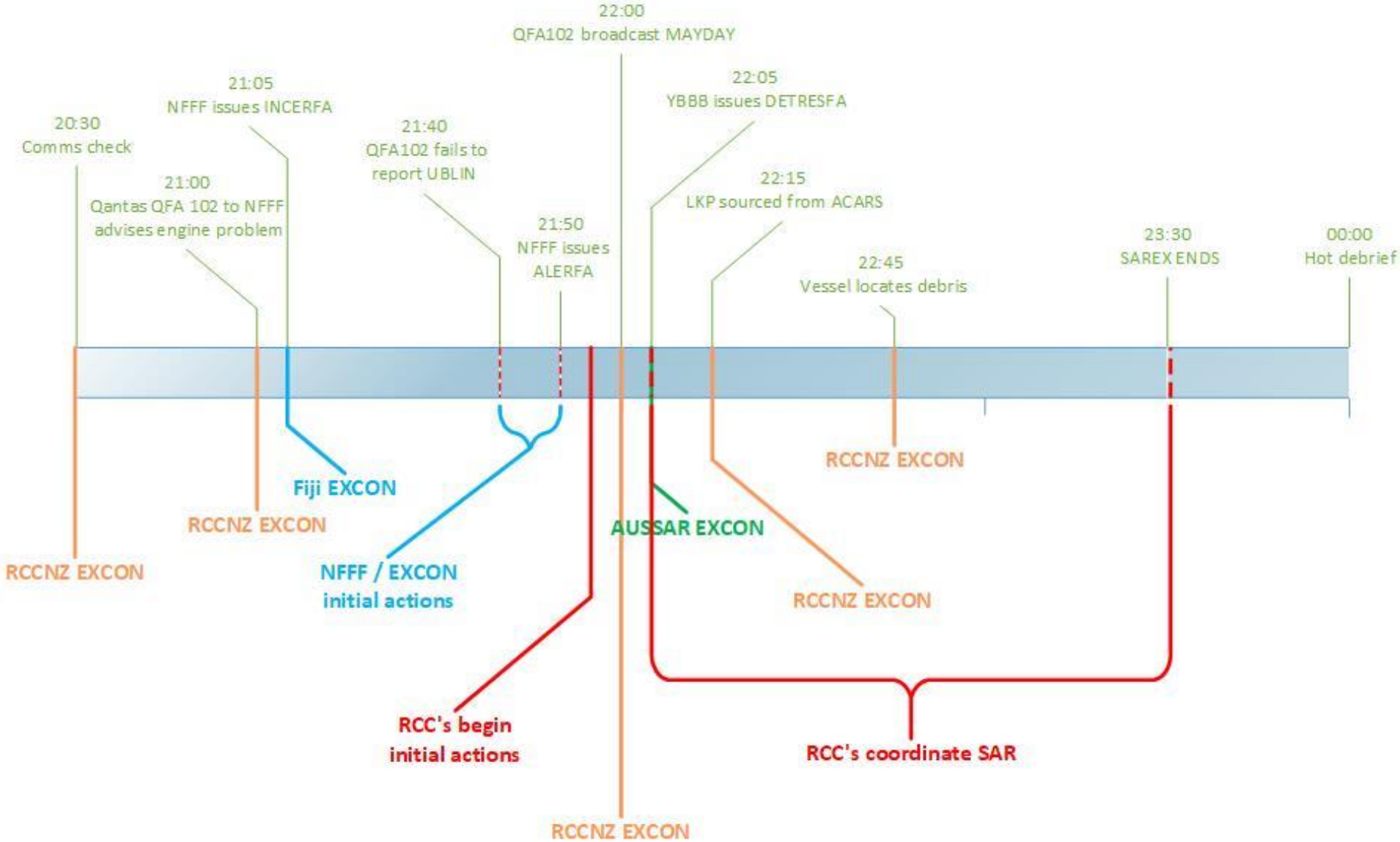
### RCC NADI

- 2105: NFFF issues an ALR as per their procedures
- 2139: NFFF contacts QFA102 (JRCCNZ ex-con) to hand aircraft over to YBBB at the FIR boundary UBLIN
- 21:55 NFFF responds to YBBBs questions regarding the ALR msg
- LKP VIRAR 24 47.60S 167 44.50E at time 2054 UTC UBLIN 2140 (did not get a position when a/c reported engine problem)

## **JRCC Australia**

- 2105: YBBB receives ALR msg from NFFF regarding engine problem
- 2150: YBBB receives ALR msg regarding fail to report on the boundary
- 2155: YBBB phones NFFF for further information
- 2200: YBBB receives a MAYDAY broadcast from QF102
- 2200: YBBB issues an ALR DETRESFA msg

# EXERCISE TIMELINE FOR SAREX FANZ



**Sample ALR messages**

SS NZWNYCYX YSARYCYX YBBBZQZX NZZOZQZX NFFNYCYX

192000 NFFFZQZX

(ALR-INCERFA/QFA102 REPORTS UNSPECIFIED ENGINE PROBLEM – VH-FEE/A1234-IS –B738/M –SDE1E2GHIJ4J5M1RWXYZ/LB1V1D1

-NFFN1930

N0480F320 –DCT TEPEK A579 NATLI DCT ABARB DCT RIKNI N774 MARLN

YSSY0455 YSCB

EET/YBBB0200 SEL/BJHQ OPR/ QANTAS

(ALR-ALERFA/QFA102 NOT IN NORMAL COMMS – VH-FEE/A1234-IS –B738/M –SDE1E2GHIJ4J5M1RWXYZ/LB1V1D1

-NFFN1930

N0480F320 –DCT TEPEK A579 NATLI DCT ABARB DCT RIKNI N774 MARLN

YSSY0455 YSCB

EET/YBBB0200 SEL/BJHQ OPR/ QANTAS RMK/QFA102 DID NOT REPORT AT UBLIN

SS NZWNYCYX YSARYCYX YBBBZQZX NZZOZQZX NFFNYCYX NFFFZQZX

192200 YBBBZQZX

(ALR-DETRESFA/QFA102 REPORTS ENGINE FIRE DIVERTING TO NORFOLK ISLAND – VH-FEE/A1234-IS –B738/M –SDE1E2GHIJ4J5M1RWXYZ/LB1V1D1

-NFFN1930

N0480F360 -DCT TEPEK A579 NATLI DCT ABARB DCT RIKNI N774 MARLN

YSSY0455 YSCB

EET/YBBB0200 SEL/BJHQ OPR/ QANTAS

## Appendix A Evaluation Form

### 1. General

	Description	Y/N
1.1	Were you able to communicate with the SAREX ex-con in each country by phone	
1.2	Were you able to communicate with the SAREX ex-con in each country by email	

### 2. Evaluation of SAREX Players

	Description	Y/N
2.1	<b>Communications</b>	
2.1.1	Was JRCCNZ able to communicate with RCC Nadi by phone and vice versa	
2.1.2	Was JRCCNZ able to communicate with RCC Nadi by email and vice versa	
2.1.3	Was JRCCNZ able to communicate with JRCC Australia by phone and vice versa	
2.1.4	Was JRCCNZ able to communicate with JRCC Australia by email and vice versa	
2.1.5	Was RCC Nadi able to communicate with JRCC Australia by phone and vice versa	
2.1.6	Was RCC Nadi able to communicate with JRCC Australia by email and vice versa	
2.1.7	Were RCCs able to communicate within their own teams effectively	
2.2	<b>Sharing information</b>	
2.2.1	Did RCCs/ OCA share the information of the initial a/c problem to the correct agencies	
2.2.2	Did RCCs/ OCA share the information of the communication problem with the correct agencies	
2.2.3	Did RCCs/ OCA share the information of the distress with the correct agencies	

2.2.4	Did RCCs/ OCA share information gathered from other sources	
2.2.5	Did RCCs/ OCA share information on the assets available for a search	
2.2.6	Did RCCs/ OCA share information regarding the SAD	
2.3	Coordination	
2.3.1	Did RCCs comply with ICAO Annex 12 IAMSAR Vol II	

### 3. Acquisition of information

3.1	Did RCCs acquire the FPL information	
3.2	Did RCCs acquire the ALR information	
3.3	Did RCCs acquire information from maritime broadcasts	
3.4	Did RCCs acquire information from other a/c in the area	
3.5	Did RCCs acquire information from the a/c operator	

### 4. Comments

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## General SAREX Review

### 1. Coordination of the SAREX

	Description	Y/N
1.1	Was it an appropriate time for the SAREX	
1.2	Was the role sharing appropriate	
1.3	Are there any items to be improved in the coordination of the SAREX	


### 2. About SAREX

2.2	Communication	
2.2.1	Were you able to communicate effectively with the other ex-cons	
2.2.2	Were you able to communicate effectively with the other RCCs	
2.2.3	Are there any items to be improved in the communications (including the means) for the next SAREX	
2.3	Scenario	
2.3.1	Was the scenario of the SAREX suited to the objective	
2.3.2	Were the contents of the scenario of the SAREX appropriate	
2.3.3	Was the term of the scenario of the SAREX appropriate	
2.3.4	Are there any additional items to be included in the scenario for the next SAREX	

### 3. Review SAREX

3.1	Was the evaluation method of the SAREX appropriate	
3.2	Was the hot debrief useful	
3.3	Are there any additional items to be included in the review for the next SAREX	

#### 4. Comments

A large, empty rectangular box with a thin black border, intended for entering comments. It is positioned below the '4. Comments' header.

## Glossary

ALR	Alert
ARCC	Aeronautical Rescue Coordination Centre
a/c	Aircraft
BAU	Business as Usual
CAA	Civil Aviation Authority
EXCON	Exercise Control
FIR	Flight Information Region
JRCC	Joint Rescue Coordination Centre
JRCCNZ	Joint Rescue Coordination Centre New Zealand
LKP	Last Known Position
MOC	Maritime Operations Centre
MRCC	Maritime Rescue Coordination Centre
NZ	New Zealand
NZSRR	New Zealand Search and Rescue Region
OCA	Oceanic Area Control
PACSAR	Pacific Island Search and Rescue
PICTs	Pacific Islands Countries and Territories
RCC	Rescue Coordination Centre
SAD	Search Area Determination
SAR	Search and Rescue
SAREX	Search and Rescue Exercise
SARO	Search and Rescue Officer
SOPS	Standard Operating Procedures
SRR	Search and Rescue Region

SRUs

Search and Rescue Units

UTC

Universal Time Constant

v/l

vessel

# Functional Exercise FANZ - SAREX Evaluation Report

## Exercise Purpose

To test coordination procedures between neighbouring Rescue Coordination Centres for an incident involving an international aircraft across search and rescue boundaries.

## Exercise Date

18<sup>th</sup> November 2019

## Participants

This was a joint exercise between:

- Rescue Coordination Centre New Zealand
- Australian Maritime Safety Authority
- Fiji Aeronautical Rescue Coordination Centre

## Exercise Objectives

1. To conform with Item 38 on the Regional SAR Plan Monitoring and Reporting Form with reference to the Asia/ Pacific SAR Plan
2. Test the communications and coordination between ARCC/ JRCC's
3. Understand each other's alerting procedures and to confirm all RCC's are operating to international best practice
4. Review SAR operation systems and procedures
5. Establish the search area between the three RCC's and effective "tasking of" SRU's

## Scenario

B738 QFA102 departed Nadi en-route Sydney.

The a/c reports an engine problem while still in Nadi FIR, but elects to continue to Sydney.

At the boundary the a/c fails to report either leaving Nadi FIR or entering Brisbane FIR.

While in Brisbane FIR the a/c broadcasts a Mayday with an engine fire and elects to divert to Norfolk Island in NZs FIR.

Nothing is heard from the a/c again. No ELT activation is received.

Weather is VMC along the entire route.

## Observations

### From Fiji ARCC

- They expected a flight plan with full information on the aircraft (to be noted for further exercises)
- Fiji made up the POB during the exercise as 101 and they got this information from "Nadi Twr". The reason no POB was included in the scenario was so that this would force the respective RCCs to try and find the POB. This is a realistic for RCCNZ as a/c operating into and out of NZ do not give POB on departure or first contact with ATC. It appears from Fiji's comments that POB is given to the twr as the a/c departs therefore always known. Question what happens with a/c inbound to the Fiji FIR, how is the POB determined?
- Fiji OCA would retain coordination of an incident until it is known that an a/c has crashed as ATS are best placed to assist the a/c. At present Nadi RCC and OCA are co-located but they are establishing a remote ARCC (from Nadi OCA) so it will be interesting to find out how their procedures will work when it is established.

### From AMSA JRCC

- Australia also get the POB on departure. Note the full manifest would take longer to acquire
- It is noted that Brisbane OCA would retain coordination of an incident until it is known that an a/c has crashed as they are best placed to assist the a/c in an in-flight emergency but AUSSAR would run a parallel enquiry/ incident until it is handed over to them by OCA.
- Australia had tasked 2 Challenger a/c to assist with search and dropping survival equipment and were aware that a P3 from NZ had also been tasked. AUSSAR supply tasking to their aviation assets by prescribing search patterns and search parameters. It was suggested that NZ tasked a/c assets would come under Australia as ADO (air directing officer(NZ term)) for the safety of the assets and that NZ a/c assets would be tasked by Australia accordingly, with the agreement of JRCCNZ and the NZDF.
- Suggestions were made for the next SAREX to make it more realistic. Because of the procedures in Australia and Fiji and to a lesser extent NZ it would be beneficial to include air traffic services as the notifications would be as expected for a real SAR
- AUSSAR provided a SAD promptly and followed up with SAR tasking for the Challengers which were good to see the documentation from another RCC.

### From RCCNZ

- RCCNZ took coordination of the incident when the LKP was established after a discussion with Australia.
- There was good comms between all parties.
- NZ has learnt from the SAREX as it has shown how the other countries would proceed with coordination and notifications if a large international SAR was to happen in our respective SRRs/FIRs.
- It was a valuable first aviation SAREX
- NZ will review the AUSSAR tasking forms and compare to RCCNZ's

- It has been suggested that JRCCNZ rerun the exercise in house with the 2 watches that didn't participate in this exercise as it was such a valuable learning experience.

#### From Excon

- There was a timing misunderstanding as Fiji thought the SAREX was for Wednesday due the date and time not being clear on the documentation(a big thanks to Fiji for still participating)
- IT issues, simulated a normal working day. The Exercise RCC email address was not functioning correctly as it was sending from the senders address which meant they were receiving the reply. The IMS exercise area was not readily available due to the wrong selection of window. *This has since been rectified.*
- More info could have been prepared for injects, i.e. the weather on scene and an Aireon excel spread-sheet and KML. Also initial media report could be pre-formatted for promulgation.

#### **Evaluation of objectives**

No	Objective	Achieved/not achieved	Comments
1	Adherence to Asia Pacific Plan	Achieved	Cross border aviation SAREX completed which meets the requirements of the plan
2	Communications and Coordination	Achieved	Communications and coordination procedures were correctly established
3	Alerting procedures	Achieved	The alerting procedures for each RCC were followed, but this did highlight a difference in procedures as RCCNZ is different to AMSA and Fiji ( <i>see action point 4</i> )
4	SAR systems and processes	Achieved	Systems and processes were evaluated throughout exercise with recommendations made for enhancements.
5	SAD and SRU tasking development	Achieved	SADs and SRU tasking's were efficiently managed

## **Action Points & Recommendations**

1. RCCNZ needs a list/ KML file of all IFR reporting points in adjacent FIRs

Achieved using Flight Explorer overlay. (Flight Explorer provides RCCNZ with a real-time feed from the NZ ATMS)

2. Need ENC paper charts of the Melbourne and Brisbane FIRs.
3. Need an Air Operators repository of first contact phone numbers for just such a real SAR.

ICAO has been contacted for access to the OPS CTRL Directory and is working with Airways Corporation regarding this.

4. RCCNZ to review aircraft alerting procedures with Airways to ensure they correctly align with international protocols
5. RCCNZ to look at rerunning the exercise with other watches.

## **Conclusion**

This was a valuable exercise for all countries involved. NZ thanks all the participants for their enthusiasm and commitment to make it a worthwhile exercise and learning opportunity.