



*International Civil Aviation Organization*

**First Meeting of the Asia/Pacific Regional Search and Rescue Working Group  
(APSAR/WG/1)**

Bangkok, Thailand, 15 – 19 August 2016

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

**SHARING SAR EXPERIENCES – LESSONS FROM RECENT SAR INCIDENT**

(Presented by New Zealand)

**SUMMARY**

This paper presents lessons learnt from a SAR incident involving loss of communications with an aircraft flying New Zealand to Argentina.

**1. INTRODUCTION**

1.1 New Zealand has the third largest SRR in the world covering 30 million square kilometers, the majority of which is ocean. The SRR stretches from five degrees below the equator to the South Pole, half way to Australia and half way to Chile and the FIR is coincidental with the SRR.

1.2 Aircraft arriving and departing New Zealand often fly over vast oceanic areas and sometimes deep into the Antarctic Ocean. Until recently, it was common for aircraft in the Antarctic Ocean area to be reported overdue as a result of atmospheric conditions affecting HF radio communications and aircraft not being in radio contact for one to two hours at a time. This occurrence has reduced significantly with the introduction of satellite based communications.

1.3 This Paper is a case study of one incident involving a loss of communications with flight ARG01 when 1340nm from the nearest airfield.

**Flight ARG01 Case Study**

1.4 At 161143 UTC Nov 2014 Flight ARG01 departed Christchurch, New Zealand, bound for Rio Gallegos in Argentina. The aircraft, a chartered Dassault Falcon X7 jet, was carrying passengers following a conference in Australia.

1.5 At 1505 UTC, Auckland Oceanic Air Traffic Control rang RCCNZ and declared an INCERFA for ARG01 after it failed to report at a reporting point. The last communication was at 1357 UTC at FL390 and the next was expected at 1434 UTC. Auckland OCA reported hearing the aircraft responding with its call sign but was getting no further responses. Auckland OCA also advised they had called Tahiti ATC and requested they attempt communications with ARG01. AUCKLAND OCA forwarded a copy of the FPL to RCCNZ.

1.6 At 1526 UTC, Auckland OCA informed RCCNZ they had tried calling the aircraft operator but the call was unanswered. Auckland OCA considered the aircraft was safe and would be in South American airspace in 50 minutes.

1.7 At 1614 UTC, Auckland OCA informed RCCNZ that ARG01 was about to leave its airspace and they asked the receiving controller to handshake with the aircraft confirming they have communication with him. Santiago OCA controller stated they could see the aircraft on their software. The Auckland OCA controller told RCCNZ he had a high confidence the aircraft was still flying and discussed cancelling the INCERFA.

1.8 At 1821 UTC, Auckland OCA informed RCCNZ that Santiago OCA had upgraded the incident to ALERFA.

1.9 At 1822 UTC, the NZ Area Control Centre Supervisor called RCCNZ and asked who had coordination of the incident and was told that because Santiago OCA had upgraded the incident to ALERFA then Chile had assumed coordination.

1.10 At 1830 UTC, Auckland OCA informed RCCNZ they had sent a message to the aircraft operator in Switzerland. Although Santiago OCA had upgraded the incident to ALERFA, it was decided by RCCNZ that because the last communication with the aircraft was in the NZ SRR, NZ was responsible for coordinating the response and this decision was passed to Auckland OCA.

1.11 At 1858 UTC, RCCNZ was informed by Auckland OCA that Santiago OCA was in contact with ARG01 at 1710 UTC.

1.12 At 1910 and 1912 UTC, RCCNZ attempts to contact Santiago OCA were unsuccessful.

1.13 At 1930 UTC, another call to Santiago OCA revealed it was the aircraft operator that spoke with the aircraft at 1710 UTC and ARCC Chile was aware of the incident.

1.14 At 1936 UTC, a call was made to ARCC Chile but communication was difficult and they requested RCCNZ communicate via email.

1.15 At 1939 UTC, Auckland OCA informed RCCNZ that Santiago ATC was in VHF communication with ARG01 and also had it on radar.

## **2. DISCUSSION**

2.1 As with all incidents involving loss of communications with aircraft transiting from New Zealand to South America, this incident ended well with the crew and passengers arriving safely in Argentina, however, had the situation been different there were some issues that would have had an impact on search efforts.

### What didn't go well.

2.2 During the initial call from Auckland OCA, RCCNZ did not request the last known position (LKP) of ARG01, or the position of the reporting point the aircraft failed to report at. This information is required if a search is necessary.

2.3 During the initial call from Auckland OCA, it was assumed by Auckland OCA that once they had notified RCCNZ then RCCNZ accepted coordination of the incident but it was not made clear to Auckland OCA that RCCNZ accepted coordination.

2.4 RCCNZ did not communicate with ARCC Chile to discuss the incident and who had coordination. As a result, confusion arose as to who had coordination of the incident.

2.5 Although Auckland OCA called Tahiti ATC to request they contact the aircraft, RCCNZ did not communicate with the Tahiti ARCC to inform them of the overdue aircraft in case the aircraft changed direction toward their FIR.

2.6 Although the aircraft could be heard responding with their call sign initially, there were no further communications heard thereafter and an assumption was made the aircraft was still flying.

2.7 RCCNZ did not attempt to contact the aircraft operator to see if there was a satellite phone on board.

2.8 RCCNZ was not notified that contact had been established with ARG01 via satellite phone until 2 hours and 20 minutes after the contact.

2.9 RCCNZ was not aware at any time during the incident of how many people were on board flight ARG01.

2.10 RCCNZ did not consider upgrading the incident phase to ALERFA.

2.11 Chile authorities upgraded the incident to ALERFA when they did not have coordination of the incident.

2.12 Because ARG01 was in a known area of communication blackouts, the incident was treated with complacency.

#### Lessons learned

#### Procedures

2.13 All declared emergencies must be treated seriously and although an aircraft may be in an area of known communication blackouts, Standard Operating Procedures for overdue aircraft should be followed in full.

2.14 Ensure all agencies that are informed of an incident are notified when the INCERFA/ALERFA/DETRESSFA is cancelled.

2.15 Obtain the LKP, altitude and time the aircraft was heard from and position of next reporting point.

2.16 Request from ATC what other agencies have been informed so they can kept informed of updates and to ensure only one agency is coordinating the incident response.

2.17 Obtain the number of people on board the aircraft and a manifest of passengers and crew from the aircraft operator or appropriate government authority.

2.18 Consider upgrading the incident to ALERFA if no further contact or information is received confirming the safety of the aircraft.

#### Coordination

2.19 Contact the JRCC/ARCC of the SRR/FIR the aircraft is due to enter and clearly agree upon who shall coordinate of the incident.

2.20 The RCC agreeing to accept coordination of an incident should formally state they accept coordination.

### Communication

2.21 Contact the aircraft operator to see if they have communication with the aircraft or if the aircraft has a satellite phone. Ensure the operator knows to contact the coordinating RCC immediately if they make contact with the aircraft.

2.22 Ensure all agencies that have been informed of the incident are kept updated and notified at the conclusion of the incident.

### Conclusion

2.23 A formal review of this incident was undertaken and the following recommendations were made:

- Standard Operating Procedures were adequate, however, they could be made clearer;
- Replace the RCCNZ AFTN;
- Refresher training be given to Search and Rescue Officers on overdue aircraft;
- An approach be made to the United States Antarctic Programme at McMurdo Base in Antarctica to seek approval for their McMurdo Centre (Mac Centre) to attempt radio communication with aircraft reported overdue in the Antarctic Ocean region in future.

2.24 All recommendations were accepted and implemented.

## **3 ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss any relevant matters as appropriate; and
- c) Use the lessons learned from this incident as guidance for similar future incidents.

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