



*International Civil Aviation Organization*

**Fourth Meeting of the Asia/Pacific Regional Search and Rescue Task Force (APSAR/TF/4)**

Bangkok, Thailand, 06 – 10 July 2015

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

**INDONESIA-SINGAPORE SAREX**

(Presented by Indonesia and Singapore)

**SUMMARY**

This paper presents information on the successful conduct of the 32nd Joint Indonesia-Singapore Search and Rescue Exercise (SAREX) codenamed SAREX INDOPURA XXXII/2014 on 8 October 2014. ASEAN Member States were invited to participate in the SAREX as observers.

**1. INTRODUCTION**

1.1 Indonesia and Singapore has been conducting joint SAREX annually since 1982. These SAREX were conducted jointly between the National SAR Agency of Indonesia, BASARNAS and Singapore Rescue Coordination Centre involving the various SAR Offices and SAR Posts located within Indonesia.

1.2 The 32nd Indonesia and Singapore joint SAREX (code named SAREX INDOPURA XXXII/2014) was conducted on 8 October 2014. This SAREX was coordinated between the SAR Post in Batam and Singapore Rescue Coordination Centre. This physical joint SAREX was conducted in accordance with the standards and recommended practices of ICAO Annex 12 and the provisions captured in the bilateral SAR Agreement between Indonesia and Singapore.

1.3 For this physical SAREX, BASARNAS provided two SAR helicopters for air search and one Catamaran and a rescue boat for surface search. Singapore Air Force provided one SAR helicopter and one Fokker 50 for air search and a Singapore Navy Patrol Vessel for surface search. No electronic signal was used in this exercise and all SAR assets involved conducted visual search.

1.4 The participants of the SAREX were from the various SAR supporting agencies of Indonesia and Singapore. Two representatives from the Civil Aviation Authority of Philippines attended as observers at the SAREX in Singapore.

**DISCUSSION**

Objectives of the SAREX

- 2.1 This joint physical SAREX was conducted with the following objectives:
- a) To provide continuation of SAR exercises and improve cooperation between Indonesia and Singapore SAR authorities;
  - b) To provide continuation training for personnel of SAR organization from both Indonesia and Singapore;
  - c) To test the communication facilities, procedures between Batam SAR Post/BASARNAS and Singapore RCC and
  - d) To test and determine the effectiveness of the Search and Rescue units, SAR facilities of Indonesia / Singapore and practices of the two SMCs.

Coordination Meeting and Pre-SAREX Briefing

2.2 The SAREX INDOPURA XXXII/2014 was planned by BASARNAS and the Civil Authority of Singapore (CAAS). A coordination meeting was held in Singapore from 7 to 8 May 2014 for exercise planners from both sides to discuss and finalize all the necessary details and requirements for the SAREX.



**Figure 1:** 32nd SAREX INDOPURA Coordination Meeting in progress

2.3 A Pre-SAREX brief for all exercise participants was held simultaneously in Batam SAR Post and Singapore Rescue Coordination Centre on 7 October 2014, the day before the SAREX at 0700 UTC. This briefing was to ensure that all participants were informed of the requirements for the physical exercise.



**Figure 2:** Pre-SAREX Brief held in Singapore RCC on 7 October 2014 at 0700 UTC



**Figure 3:** Pre-SAREX Brief held in Batam SAR Post on 7 October 2014, 0700 UTC

#### Scenario for the exercise

2.4 The SAREX scenario was a Fokker 27, call sign PKSRX with 8 persons on board, departed from Matak Island for Halim Airport in Indonesia. The pilot reported 'MAYDAY' due to fire on left engine. The pilot reported that he was unable to extinguish the fire and the aircraft was unable to maintain height. Pilot requested to make an emergency landing in Kijang Airport in Tanjung Pinang Island, Indonesia. Singapore ATC immediately declared "DETRESFA" (distress phase) on PKRSX. Shortly, radio and radar contact were lost with the aircraft and the last known position was 005351N 1051123E (about 40NM east of Tanjung Pinang Island).

2.5 There was no reply from PKSRX after repeated calls by Singapore ATC. Singapore ATC immediately activated the Singapore Rescue Coordination Centre (RCC). Singapore RCC informed Tanjung Pinang SAR Office and National SAR Agency of Indonesia, BASARNAS. Tanjung Pinang SAR Office activated Batam SAR Post. The planning and coordination of SAR effort was conducted jointly by Batam SAR Post and Singapore RCC.



**Figure 4:** Scenario for the SAREX

Exercise Search Object

2.6 BASARNAS provided the search target, a platform with two orange flags and two green flags representing the eight survivors. Each flag represented two survivors and the search target is marked with the words “SAREX INDO PURA XXXII/2014”. BASARNAS deployed the search target on the day of the SAREX at the location of the distress at 0200 UTC.



**Figure 5:** Search target prepared and deployed by BASARNAS

Alerting and activation

2.7 At 0155 UTC, “DETRESFA” for PKSRX was declared by the Singapore ATC when aircraft reported “May Day” due to its left engine on fire. At 0200 UTC, Singapore ATC lost radar and radio contact with PKSRX and the last position observed on radar was 40 NM east of Kijang Airport. Both the Singapore RCC and Batam SAR Post were activated. BASARNAS was also informed. The planning and coordination of SAR effort was jointly conducted by Batam SAR Post and Singapore RCC.



**Figure 6:** Batam SAR Post in action



**Figure 7:** Singapore RCC in action

2.8 The two search areas as determined by Batam SAR Post and Singapore RCC overlapped each other. The two SMCs agreed that the two search areas determined would be combined as one common search area. The two SMCs also agreed to divide the common search area into two search areas. The two search areas were named as Indonesia's search area and Singapore's search area. NOTAM action was immediately taken by Singapore RCC to promulgate the two search areas as restricted areas for SAR operations. Maritime Port Authority Singapore provided broadcast to sea going vessels regarding the SAR activities in the two areas.



**Figure 8:** Search areas as determined by SMCs from Batam and Singapore

2.9 A simulated flight plan for PKSRX was provided by BASARNAS. Weather conditions and forecasts en-route as well at the search area were provided by the Singapore Meteorological Service throughout the SAREX. Communications arrangements between the Batam SAR Post and Singapore RCC were as agreed upon during the SAREX Coordination Meeting. Diplomatic clearance was requested through BASARNAS at time 0240 UTC. The clearance was obtained at 0300 UTC from BASARNAS for Singapore Search and Rescue Units (SRUs) to operate within Indonesia's territorial waters.

#### Search and Rescue Operation

2.10 By 0245 UTC, two SAR assets (Catamaran and Rescue Boat) from Batam SAR Post were launched. By 0400 UTC, there were five SAR assets from both Indonesia and Singapore conducting search. The FK50 from Singapore Air Force assumed the role of the On Scene Coordinator (OSC) providing communication links between Singapore RCC and all the SRUs at both search areas.

2.11 At 0430 UTC, SAR Helicopter from Singapore Air Force reported the sighting of the search object simulating some survivors in life rafts at position 005307N 1051207E. The simulated rescue operation was carried out by SAR helicopter from Singapore Air Force and surface vessels from BASARNAS.

#### Termination of the SAREX

2.12 After having ascertained that all eight persons on board PKSRX were rescued and the SRUs had safely returned to base, the two SMCs reported to the Chief SAREX Controllers that the rescue operation was completed. The Chief SAREX Controllers at both Batam SAR Post and Singapore RCC declared the exercise terminated at 0710 UTC. All concern parties that were aware of the RCC activation were advised of its termination.

SAREX Debrief

2.13 The SAREX De-brief was held at BATAM SAR Post on 9 October 2014. The participants and observers that were at Singapore RCC also proceed to Batam for the SAREX Debrief. The two SMCs from Indonesia and Singapore provided a brief on their operation and the SAREX Controller provided the lesson learnt for all involved. The recommendations will be tested at the next SAREX in 2015.



**Figure 9:** Briefing on the conduct of SAR operations by Singapore RCC SMC



**Figure 10:** Briefing on the conduct of SAR operations by Batam SAR Post SMC



**Figure 11:** Comments and lessons learnt by SAREX Controllers on the exercise

### Conclusion

2.14 The SAREX INDOPURA XXXII/2014 was a success. All objectives were met and all the SRUs allocated for the exercise participated. There was very good coordination and understanding between the two Search Mission Coordinators (SMCs) as well as all the Search and Rescue Units (SRUs) in the search area. This close cooperation between the two rescue units had ensured a very successful exercise in a timely manner. Both Indonesia and Singapore believed that they will be able to face any challenge if a real incident would occur one day in this region.



**Figure 12:** Close cooperation enjoyed by BASARNAS and Singapore RCC





**Figure 13:** Another successful Joint Search and Rescue Exercise

Next SAREX - SAREX INDOPURA XXXIII/2015

2.15 The 33<sup>rd</sup> Joint Indonesia-Singapore Search and Rescue Exercise (SAREX INDOPURA XXXIII/2015) will be held on 26 August 2015 with Tanjung Pinang SAR Office. A coordination meeting was held at BASARNAS Headquarters in Jakarta on 8 April 2015 to discuss and finalize details for this coming SAREX. Invitations had already been sent to ASEAN Member States, ICAO Regional Office (Bangkok), Hong Kong and stakeholders to send representatives as observers to the coming SAREX.

**3 ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) consider how the lessons learnt from such exercises can be incorporated into the Asia/Pacific SAR Plan to ensure more efficient SAREX.

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