



# Safe Waters

NEWSLETTER

On Maritime Safety and Security

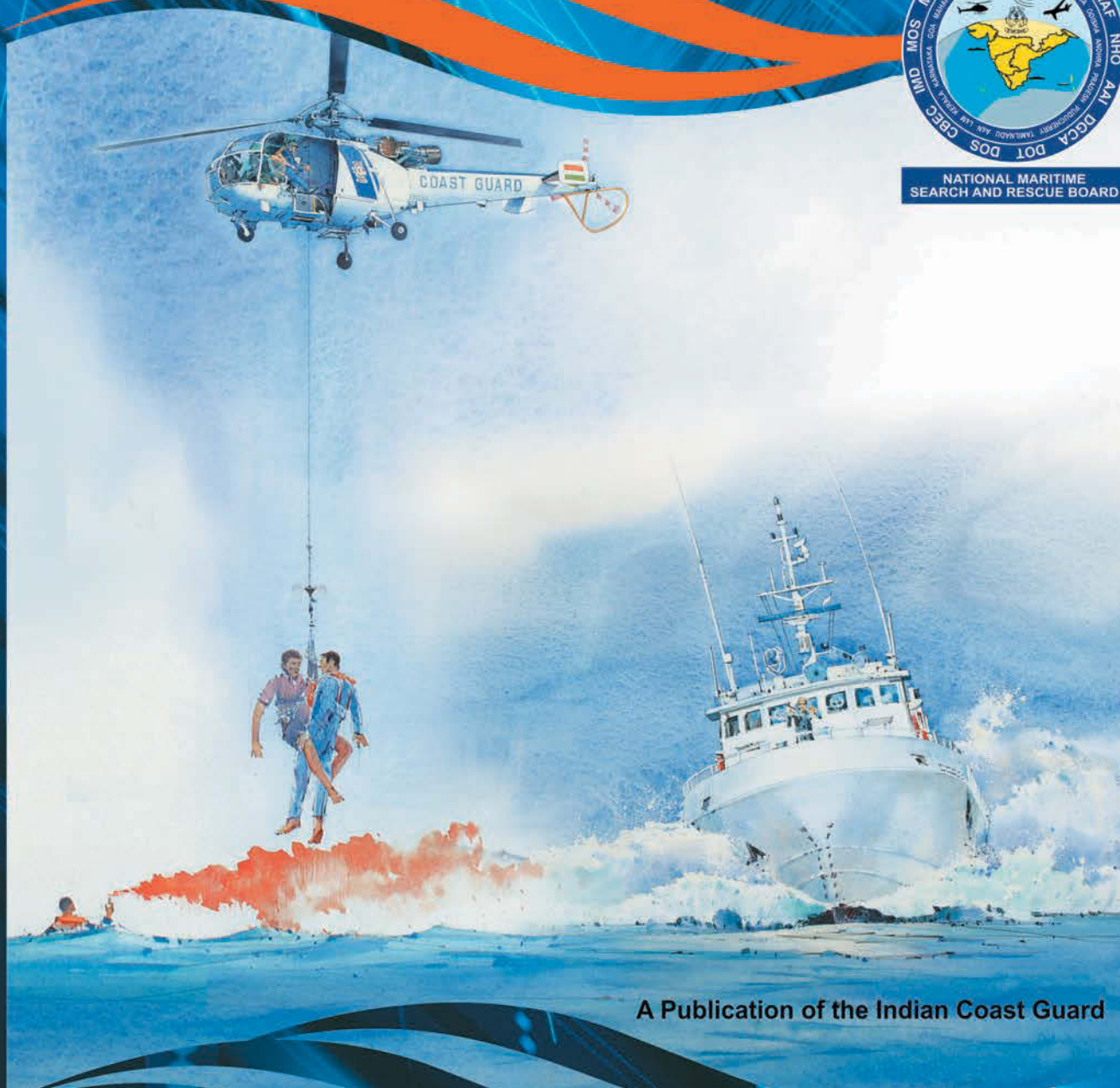
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## From the Desk of The Chairman National Maritime Search & Rescue Board



The maritime domain has historically been mysterious and challenging and yet it has so much to offer to the mankind that it attracts thousands of humans to venture into the sea daily for trade and living. India being a maritime nation also has its fair share of seafarers and mariners. Under these circumstances, the requirement of a robust Maritime Search and Rescue (M-SAR) organisation is essentially required to minimise the loss of life and property at sea.

At the time when maritime pundits were professing that use of high-end technology has made ocean safe, and the word 'Search' was losing its significance in the era of satellite coverage, precise position reporting and SAR beacons, the unfortunate and mysterious disappearance of Malaysian Airline flight MH 370 has made us all don our 'Thinking Caps' and revisit our beliefs. We need to sit together and learn lessons to avert such incidents in future.

M-SAR being primarily a humanitarian task puts its coordinators under tremendous strain to perform against time and the forces of nature in an effort to save precious human lives. It is no exception that the task requires meticulous planning and timely execution which is derived out of continuous training during the near 'real time' exercise scenarios. In continuation of our efforts to bring together all the M-SAR stakeholders, including those from the adjoining Search & Rescue Regions (SRRs), for synergising and validating our M-SAR plans and efforts, the Indian Coast Guard conducted the 6<sup>th</sup> Search and Rescue Workshop and Exercise -2014 (SAREX-14) at Mumbai, from 19-20 Mar 14, under the aegis of the National Maritime Search and Rescue Board. The response to SAREX -14 was very encouraging as all the resource agencies and members of the National Maritime SAR Board participated in the exercise. Additionally, for the first time, 18 International Observers from nine maritime nations also participated in SAREX-14 in order to promote regional cooperation and strengthen maritime linkages in the field of Maritime Search & Rescue.

Besides 83 M-SAR incidents coordinated during the period Oct 13 - Mar 14 resulting in saving 211 lives, several other measures including conduct of training capsule for personnel manning Rescue Coordination Centres at Civil Aviation Training Centre, Allahabad in Apr 14 and distress 'Beacon' exercise to check the efficacy of COSPAS-SARSAT system in Dec 13 were also undertaken. These efforts are not only indicative of the 'jointmanship' that exists amongst the stakeholders but also our will to further enhance our skills by sharing of resources.

I am confident that with the continued support of all the stakeholders the ICG will be able to ensure much 'safer seas' to our maritime community.

"VAYAM RAKSHAMAH"

(Anurag G Thapliyal)  
Vice Admiral  
Chairman  
National Maritime  
Search & Rescue Board

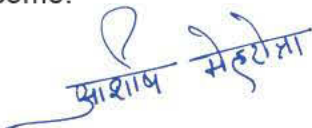
New Delhi  
16 June 14

The increase in the maritime traffic within the Indian Search & Rescue Region (ISRR) has further strengthened our resolve to collectively move ahead alongwith the stake holders towards ensuring safer waters in and around our SRR.

A testimony to these efforts was the conduct of 6<sup>th</sup> Maritime Search and Rescue Workshop and Exercise (SAREX-14) at Mumbai, from 19-20 Mar 14 under the aegis of the National Maritime Search and Rescue Board. For the first time, 18 International Observers from 09 maritime nations participated in SAREX-14 to promote regional cooperation and strengthen maritime linkages in the field of search & rescue.

Having taken over the responsibility recently, I look forward to continued support and interaction with the esteemed NMSAR Board members and their representatives.

Further, any feedback and suggestions from readers to improve upon the contents of this newsletter are most welcome.

  
(Ashish Mehrotra)  
Commandant  
Jt Director (Ops & SAR)

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## NATIONAL MARITIME SEARCH AND RESCUE WORKSHOP AND EXERCISE (SAREX) - 2014

The Indian Coast Guard is the National Maritime Search and Rescue Coordinating Authority for executing/coordinating SAR missions in the Indian Search and Rescue Region (ISRR) and Director General Coast Guard being the National Maritime SAR Coordinating Authority (NMSARCA), is obliged to spearhead various exercises and workshops for promoting SAR training. Conduct of a National level Maritime Search and Rescue exercise every alternate year is a part of NMSAR Board activity and provides ample opportunity to the NMSAR Board member agencies to exercise their response in a SAR scenario.

In series with bi-annual National level search and rescue exercise under the aegis of National Maritime Search and Rescue Board (NMSARB), the Indian Coast Guard conducted a large scale exercise off Mumbai on 19-20 Mar 14. The exercise was code named SAREX-14 and witnessed participation of 10 Coast Guard ships, 01 Naval ship, 02 Coast Guard helicopters, 02 Coast Guard Dornier aircraft and one Indian Air Force helicopter.



Participants at SAREX-14

The exercise was witnessed by all Stake holders of NMSAR Board and Observers from other resource agencies in India including foreign Observers from 09 Maritime nations (Bangladesh, Indonesia, Japan, Malaysia, Maldives, Seychelles, Sri Lanka, Thailand and Vietnam).

The exercise involved one day Workshop and Table top exercise on 19 Mar 14 followed by sea exercise off Mumbai on 20 Mar 14. During the sea exercise, SAR scenario arising from a collision between passenger ship, cargo ship and a fishing boat was simulated. The simulated passenger vessel with 2500 passengers was on passage from Dubai to Mumbai when it collided with cargo ship and lost steering way resulting in collision with a fishing boat.



*Rescue of Survivors during SAREX-14*

On receipt of the information, ships and aircraft were diverted from routine operations, while additional ships and helicopters were also deployed for large scale rescue operation. Contingency plan of all resource agencies were revalidated during the rescue and evacuation of casualties to shore based hospitals in addition to revalidation of medical facilities onboard Naval and Coast Guard ships.

The successful National Maritime Search and

Rescue Exercise reiterated India's Maritime capabilities besides imbuing confidence in National and International Maritime fraternity which operate in and around Indian waters.



*Rescue of Survivors during SAREX-14*

The exercise coupled with effective cooperation from all resource agencies was appreciated by all observers. This is in sync with Indian Coast Guard's commitment to attend all maritime distress situations and save precious lives within our area of responsibility.

## **SAR NEWS**

### **Assistance to Fishing Boat 'Maa Durga'**

At about 2330 h, on 05 Oct 13 Maritime Rescue Sub Centre (MRSC), Paradip received an information from Fisheries Association, Paradip about fire in engine room of fishing boat 'Maa Durga' which was 24 n miles South West of Paradip. It was also informed that 05 of the 10 crew have suffered severe burn injury due to fire and subsequent explosion in engine room of the distressed boat.

Upon receipt of the information, ICGS Rajkiran was deployed from Paradip at 0100 h on 06 Oct 13 for rendering assistance to the distressed fishing boat. ICG ship arrived datum at about 0400 h on



*Distressed Fishing Boat Undertow*

06 Oct 13 and sighted fishing boat 'Maa Durga'. The distressed fishing boat was taken under tow by ICG ship and was brought off Paradip harbour at about 0840 h on 06 Oct 13, wherein all injured crew alongwith medical assistant and 04 CG personnel were disembarked to Paradip Port trust pilot boat.



*Injured Crew being Shifted to Pilot Boat*

Subsequently, all injured crew were admitted in Paradip Port Trust Hospital for further medical management.

### **Assistance to Fishing Boat Anuchara**

At about 0400 h on 07 Oct 13, ICGS Rajkamal on patrol sighted fishing boat 'Anuchara' adrift in position 48 miles North East of Krishnapatnam. On enquiry, master of the boat intimated that the

boat was having engine failure and was adrift since 1400 h on 06 Oct 13.

The disabled fishing boat was taken under tow by ICG ship at about 0430 h on 07 Oct 13 and was subsequently taken to Krishnapatnam harbour for handing over to Port Security Boat at about 1400 h on 07 Oct 13.

### **Assistance to Fishing Boat Tigris**

At about 1230 h on 07 Oct 13, Indian Coast Guard Station, Bepore received an information from Assistant Director of Fisheries, Cannanore about adrift fishing boat 'Tigris' due engine failure in position 19 n miles South West of Cannanore, Kerala.

Upon receipt of information, Coast Guard Interceptor Boat ICGS C-144 was deployed at 1340 h on 07 Oct 13 to search and locate the distressed boat. ICGS C-144 arrived datum at about 1630 h same day and located the disabled boat. Thereafter, ship's technical team boarded the disabled fishing boat and ascertained that both Out Board Motors (OBM) were non operational view ingress of sea water. The disabled boat was made operational by ICG ship's technical team post fitment of spare OBMs brought by another fishing boat 'Roshan' (belonging to same owner). Thereafter fishing boat 'Tigris' entered Ayikkara harbour (near Cannanore) under own power.

### **ICG Assistance to Civil Administration for Flood Relief, Mayabunder, A&N**

At about 1300 h on 09 Oct 13, Indian Coast Guard Station, Mayabunde received request from Deputy Commissioner North & Middle Andaman for rescue/ evacuation assistance of local populace from flood hits areas of Tugapur (10 KM South of Mayabunder).

Upon receipt of the information, Indian Coast Guard Station, Mayabunder constituted a rescue team in coordination with forest personnel. The joint rescue team was dispatched at about 1430 h on 09 Oct 13 to Tugapur flood affected area. The joint team was able to rescue 20 personnel including 08 ladies. Further, the rescue team cleared surrounding nallahs / drainage to prevent further flooding of low lying areas and also cleared uprooted trees from the road for restoring traffic.

### Search and Rescue – ‘MV Bingo’

At about 1600 h on 12 Oct 13, Maritime Rescue Coordination Centre (MRCC) Chennai received COSPAS – SARSAT distress alert from MV Bingo and the same was relayed to ICGS Vajra operating in area. At about 1704 h ICGS Vajra sighted MV Bingo listing to stbd. All the crew had abandoned the vessel on a life raft, approximately 01n mile in vicinity of the vessel. At about 1710 h ICGS Vajra made three attempts to rescue the abandoned crew from the adrift life raft but could not recover the crew view extreme cyclonic weather conditions, heavy swell and poor visibility. Subsequently, MV Bingo sank on 12 Oct 13 and a NAVAREA warning was promulgated promptly for safety of mariners.

After cyclone cleared the area, ICGS Vajra



*Distressed vessel - ‘MV BINGO’*

continued sea air coordinated search but the adrift life raft alongwith crew could not be located. On 13 Oct 13, Odisha and West Bengal state administration were requested to direct all the coastal police stations/ shore authorities for maintaining sharp lookout and vigil for the adrift crew close to coast. On 14 Oct 13 at about 0715 h, CG Dornier located 18 survivors and directed the local Police/ search party towards the survivors. Later, Bograi Police Station confirmed that all 18 crew ex MV Bingo were recovered safely at 0800 h on 14 Oct 13.

### Assistance to Fishing Boat Appa Sitaram

At about 0600 h on 12 Oct 13, Indian Coast Guard Ship Meera Behn whilst on routine patrol received a VHF call from fishing boat ‘Appa Sita Ram’ with 06 crew on board in position 45 n miles North West of Okha. The fishing boat reported flooding on board and requested for assistance.

Soon on receipt of information, ICG ship Meera Behn was diverted to assist fishing boat and arrived datum at 0835 h on 12 Oct 13. The ICG ship took the distressed fishing boat alongside and ascertained that engine room, fish hold and forward compartments were submerged, rendering all machinery non operational. Damage Control (DC) team ex ICG ship de-flooded the boat using submersible pumps and found a crack on port bow. ICG DC team repaired the damage with oakum and quick drying cement. Subsequently, the distressed vessel was towed to Okha. The distressed fishing boat arrived Ohka at 2100 h on 12 Oct 13.

### Rescue of Fishing Boat ‘Bismillah’

At about 1700 h on 08 Nov 13, Maritime Rescue Sub Centre (MRSC), Kochi received an information from Deputy Director (Fisheries) Thrissur intimating

about missing/overdue fishing boat 'Bismillah' with 04 crew off Chavakkad (36 n miles North of Kochi, Kerala). Upon receipt of the information, ICG Interceptor Boat (IB) ICGS C-404 and ICG interceptor craft IC-115 were deployed to search and locate the missing fishing boat. ICG Dornier aircraft was also tasked from Kochi at 0930 h on 09 Nov 13 for sea-air coordinated search. In the meantime, at about 1200 h on 09 Nov 13, owner of the fishing boat intimated that 'IFB Bismillah' had sunk off Chavakkad at about 0730 h on 09 Nov 13 and all 04 crew have been rescued by another fishing boat 'Kadalmata' operating in area.

### **Rescue of Fishing Boat 'Maa Sundari'**

At about 1300 h on 09 Nov 13, Maritime Rescue Sub Centre (MRSC), Paradip received an information from Marine Fish Producer's Association, Odisha intimating about engine failure of fishing boat 'Maa Sundari' with 07 crew on board in position 28 n miles South of Paradip.

Upon receipt of the information, ICGS Sarang and ICG Interceptor Boat ICGS C-425 on patrol were diverted to search and locate the disabled fishing boat. ICGS Sarang located the disabled fishing boat at about 1700 h on 09 Nov 13 and provided food and water to the stranded crew. A technical team from ICGS Sarang embarked the disabled fishing boat for defect rectification; however defect could not be rectified. ICGS C-425 took the disabled fishing boat under tow and arrived off Paradip at about 2330 h on 09 Nov 13. Thereafter, the disabled fishing boat was anchored off Paradip and subsequently shifted to Paradip fishing harbour using another boat.

### **SAR for Disabled Fishing Boat off Isakapalle, Andhra Pradesh**

At about 1000 h on 17 Nov 13, Indian Coast Guard Station, Krishnapatnam received an

information from Assistant Director of Fisheries, Nellore intimating about a fishing boat (Reg. TN-553) with 06 crew onboard, adrift in position 10 n miles (approx) North East of Isakapalle (24 n miles North of Krishnapatnam), since 16 Nov 13 due engine failure.

Upon receipt of information, Indian Coast Guard Ship 'ICGS Sarang' on EEZ patrol was diverted to search and locate the distressed fishing boat. ICG ship arrived datum at about 0645 h on 18 Nov 13 and located the distressed fishing boat. Subsequently, the distressed fishing boat was towed by ICG ship till off Krishnapatnam and handed over to a port security boat along with 06 crew, at about 2000h on 18 Nov 13.

### **SAR Post Cyclone 'Lehar': Andaman & Nicobar**

On 25 Nov 13, Coast Guard Regional Headquarters at Port Blair was informed by Andaman Nicobar Command (ANC) that about 38 fishing boats with approximately 115 crew were missing/overdue Post Cyclone Lehar. Upon receipt of the information, a major SAR operation was launched wherein, three ICG ships i.e. ICGS Varad, Bhikhajji Cama and Aruna Asaf Ali were sailed with despatch AM 25 Nov 13 for SAR operations.

Three ICG Dornier aircraft sorties and 06 Helicopter sorties were also undertaken on 26/27 Nov 13 after restoration of airfield facilities. On 27 Nov 13, 02 ICG Interceptor Boats (IBs) were also deployed from Diglipur for augmenting SAR efforts. ICGS Aruna Asaf Ali located 02 boats with 21 crew off Wandoor and brought them safely to Port Blair PM 25 Nov 13. ICG Helicopter rescued 11 fishermen from Tarnugli Island and Twin Island. ICG Dornier aircraft also located 04 fishing boats safe in Bumila creek (North of Little Andaman). On 27 Nov 13, Andaman and Nicobar Administration

intimated that remaining boats and crew except one fisherman have returned harbour safely.

### Search for Missing Fishing Boat 'J.M.S.R.- 4'

At about 1400 h on 06 Dec 13, Maritime Rescue Coordination Centre, Chennai received information from Assistant Director of Fisheries, Chennai regarding missing fishing boat J.M.S.R.-4 along with 09 crew. The fishing boat ventured into sea from Chennai on 28 Nov 13 and was due to return harbour by 04 Dec 13. The last known position of the boat was 42 n miles South East of Chennai.

Upon receipt of information, Coast Guard Dornier aircraft was tasked from Chennai to search and locate the missing fishing boat on 07 and 08 Dec 13. CG Dornier Aircraft was again launched at 0900 h on 09 Dec 13 for sea-air co-ordinated search for the boat. The aircraft located the boat at anchorage in position 05 n miles South East of Pt. Calimer at 0955 h and vectored ICGS Rajkamal. The boat had exhausted all the fuel and was stranded. ICGS Rajkamal provided necessary assistance to the boat and took her under tow. The ship along with boat arrived off Mandapam at 2330 h on 09 Dec 13. Subsequently the boat and crew were handed over to AD Fisheries, Rameshwaram at 0730 h on 10 Dec 13.

### Assistance to Fishing Boat 'Arogya Matha'

At about 0930 h on 10 Dec 13, Maritime Rescue Coordination Centre, Mumbai received an e-mail from 'MV Atria' on passage from Mumbai to Singapore, reporting about an Indian fishing boat Arogya Matha with 08 crew adrift due engine failure in approx position 46 n miles South West of New Mangalore.

Upon receipt of information, Maritime Rescue Coordination Centre, Mumbai requested 'MV Atria' to provide necessary assistance to the disabled fishing



*Distressed Fishing Boat 'Arogya Matha'*

boat. 'MV Atria' took the disabled fishing boat under tow and arrived off New Mangalore at about 1650 h on 10 Dec 13. ICGS Abheek on patrol was diverted to take over the disabled fishing boat from 'MV Atria' and tow her to old Mangalore port fishing harbour.

### Assistance to Disabled Fishing Boat with 05 Crew

At about 1215 h on 14 Dec 13, Maritime Rescue Sub Centre (MRSC), Tuticorin received an information from Assistant Director, Fisheries, Tuticorin regarding drifting Fishing Boat with 05 crew in position 45 n miles south of Tuticorin due engine failure. Upon receipt of information, ICGS Naikidevi on patrol was diverted at 1330 h on 14 Dec 13 to search and locate the disabled fishing boat. ICG ship located the disabled fishing boat at 1820 h on 14 Dec 13 and took her undertow. Disabled fishing boat with 05 crew was brought to Tuticorin and handed over to another fishing boat arranged by AD fisheries at about 0700 h on 15 Dec 13.

### Rescue of Missing Personnel from FB 'Mussafariya'

At about 2035 h on 25 Dec 13, Indian Coast Guard District Headquarters No.12, Kavaratti received an information from Superintendent of





*Distressed Fishing Boat 'Mussafariya'*

Police, Kiltan Island intimating about missing fishing boat 'Mussafariya' with 08 persons (04 crew, 02 adults, and 02 children) onboard. The fishing boat departed Kadmat Island at 0800 h on 25 Dec 13 and was scheduled to arrive at Bitra Island at about 1600 h on 25 Dec 13.

Upon receipt of the information, Indian Coast Guard Interceptor Boat C-148 was deployed from Kavaratti to search and locate the missing fishing boat. An ICG Dornier Aircraft was also tasked from Kochi at about 0900 h on 26 Dec 13 for sea-air coordinated search. Indian Coast Guard Dornier aircraft located the distressed fishing boat in approx position 20 n miles West of Kadmat Island and diverted ICGS C-148 to the boat. At about 1150 h on 26 Dec 13, ICGS C-148 reached



*ICG Providing Assistance to FB*

the boat and rescued all eight personnel from the disabled boat. Rescued personnel were provided with food / water and medical care by ICG Ship. On investigation it was found that the fishing boat 'Mussafariya' was adrift due to engine failure.

Subsequently, the distressed fishing boat was taken under tow by ICGS C-148 and brought to Kadmat Island. The boat was handed over to local authorities at about 1630 h on 26 Dec 13.

### **Rescue of Adrift Wooden Raft With 03 Persons**

At about 2030 h on 31 Dec 13, Maritime Rescue Coordination Centre (MRCC), Port Blair received an information from Motor Tanker 'Palchem-1', a Malta flag vessel, intimating about sighting of one adrift wooden raft with three persons onboard in approx position 200 n miles West - North - West of Port Blair. Upon receipt of the information, Indian Coast Guard Ship "ICGS Durgabai Deshmukh" was deployed from Port Blair at 0200 h on 01 Jan 14 to search and locate the distressed wooden raft. ICG Dornier aircraft was also tasked from Port Blair with first light on 01 Jan 14 for sea air coordinated search. The Dornier aircraft located the distressed wooden raft at 0700 h on 01 Jan 14 and diverted ICG Ship to the scene of incident. ICG Ship arrived at the scene of incident at about 1430 h on 01 Jan 14 and embarked 03 persons, Myanmar nationals from the dilapidated wooden raft. The rescued persons were brought to Port Blair by ICG ship at 1500 h on 02 Jan 14 and handed over to police for further formalities.

### **Rescue of Adrift Fishing Boat 'Al Arafat'**

At about 2200 h on 31 Dec 13, Indian Coast Guard Station, Vadinar (Gujarat) received an

information from Fishing Association Mandvi, about a fishing boat 'AL Arafat' with 02 crew onboard reported adrift due engine failure in approx position 12 n miles South East of Mandvi, since 1400 h on 31 Dec 13.



*Rescued Crew of Distressed Boat*

Upon receipt of the information, ICG Interceptor Boat ICGS C-401 was deployed from Mundra, at 0300 h on 01 Jan 14 to search and locate the disabled vessel. ICGS C-401 arrived at the scene of incident at about 1210 h on 01 Jan 14 and located the disabled fishing boat.

Thereafter, the disabled fishing boat was brought to off Mandvi at 1600 h on 01 Jan 14 and handed over to another fishing boat for further towing her inside fishing harbour.



*Distressed Boat under Tow*

### Rescue of Disabled Fishing Boat off Ponnani

At about 1230 h on 01 Jan 14, Indian Coast Guard Station, Beypore (Kerala) received an information from Deputy Director (Fisheries), Ponnani, intimating about missing/overdue of a fishing boat with 03 crew onboard, since 0500 h on 01 Jan 14. The last known position of the fishing boat was reported to be 09 n miles West of Ponnani.

Upon receipt of the information, ICG Interceptor Boat ICGS C-404 which was on close coast patrol was diverted to search and locate the missing fishing boat. ICGS C-404 located the disabled fishing boat in position 22 n miles South West of Beypore.



*Rescued Crew of Distressed Boat*

Thereafter, disabled fishing boat was brought to Ponnani at 1830 h on 01 Jan 14 and handed over to another fishing boat for towing to fishing harbour.

### Rescue of Disabled Fishing Boat 'Amme Narayana'

At about 1300 h on 02 Jan 14, Indian Coast Guard Station, Beypore, Kerala received an information from Assistant Director (Fisheries), Beypore, intimating about a fishing boat 'Amme Narayana' with 03 fishermen onboard, which had

capsized in position 30 n miles West of Ponnani, Kerala.

Upon receipt of the information, ICG Interceptor Boat CGS C-404 was deployed at 1400 h on 02 Jan 14 from Beypore to render assistance to distressed fishing boat. After extensive search, ICGS C-404 located the distressed fishing boat and towed the boat to Beypore. Subsequently, the boat was handed over to Assistant Director (Fisheries), Beypore at about 1930 h on 02 Jan 14.

### **Search for Overdue Dhow 'MSV Betheal Jeeva'**

At about 1100 h on 05 Jan 14, Indian Coast Guard Station, Beypore, (Kerala) was informed by Beypore Port Authorities that Dhow 'MSV Betheal Jeeva' carrying 06 crew on passage from Beypore was overdue since 03 Jan 14 and had not arrived at destination (Minicoy). Upon receipt of the information, ICG Dornier aircraft was tasked from Kochi at 1500 h on 05 Jan 14 to search for overdue dhow. The ICG Dornier aircraft located the missing dhow at about 1830h on 05 Jan 14 about 144 n miles West South West of Kochi and ascertained that the dhow was drifting since 1500 h on 03 Jan 14 due to engine failure. Indian Coast Guard Ship 'Rajdoot' in area was diverted for assistance. The ICG Ship arrived at the scene of incident at 0845 h on



*Distressed Dhow 'MSV Betheal Jeeva'*

06 Jan 14. The ICG ship's technical team boarded the disabled dhow for defect rectification and repaired the defective engine. Meanwhile the Lakshadweep administration had deployed MV Kiltan from Kavaratti at 0230 h on 06 Jan 14 to provide assistance to the disabled dhow.

On completion of repairs, the Dhow was detached by the ICG ship to proceed towards Minicoy under the escort of MV Kiltan. At about 1530 h on 06 Jan 14, the engine of the Dhow failed once again. Subsequently, MV Kiltan towed the disabled Dhow and arrived Minicoy at about 0600 h on 07 Jan 14.

### **Assistance to Adrift Dhow 'MSV Messiah'**

At about 2300 h on 09 Jan 14, Indian Coast Guard Ship 'Abheek' whilst on area patrol sighted dhow 'MSV Messiah' with eight crew onboard adrift due to engine failure in approx position 68 n miles East of Kalpeni Island.

Boarding Party of ICG Ship 'Abheek' boarded MSV 'Messiah' at 0145 h on 10 Jan 14. It was ascertained that the dhow was disabled due to broken shaft of main engine fuel pump and was adrift since 2200 h on 09 Jan 14. As in-situ repair of the pump was not feasible, master of the dhow requested that the Dhow be towed till Beypore port. The ICG ship took the dhow under tow and arrived off Beypore at 0800h on 11 Jan 14. Thereafter ICG Interceptor Craft IC-116 was deployed at 0600 h on 11 Jan 14 for co-ordinating handing / taking over of dhow MSV 'Messiah' alongwith all eight crew to agent of the vessel.

### **Rescue of Crew from Fishing Boat 'Ridhi Sidhi'**

At about 0905 h on 15 Jan 14, ICG Dornier aircraft on surveillance sortie, intercepted communication on MMB Channel 16 from Indian Fishing Boat Ridhi Sidhi requesting assistance in

view of engine failure due flooding onboard. Thereafter, ICG Dornier aircraft commenced search and located the fishing boat at about 0930 h on 15 Jan 14 which was under tow of another Fishing Boat 'Sagar Ratna' in position 18 n miles South west of Porbandar.



*Rescued crew of Fishing Boat 'Ridhi Sidhi'*

The ICG Interceptor Boat ICGS C-143 on patrol was diverted by ICG Dornier to IFB Ridhi Sidhi for assistance. On arrival at the scene of incident, ICG ship observed that the fishing boat was listing by 20 Deg to the starboard due ingress of water since 0300 h on 15 Jan 14. As de-flooding of water manually proved futile and boat was about to sink, ICG ship advised the crew to abandon the boat and board another IFB Sagar Dev operating in close proximity. Accordingly, all crew abandoned the distressed boat and boarded IFB Sagar Dev. Subsequently, the distressed boat sank at about 1300 h on 15 Jan 14 in approximate position 13 n miles South West of Porbandar. Thereafter, ICG ship embarked all the rescued crew onboard and arrived Porbandar at 1400 h on 15 Jan 14. On arrival, all the 06 rescued crew were handed over to the owner of the boat at Porbandar.

### **Assistance to Adrift Fishing Boat Off Kanniyakumari, Tamilnadu**

At about 1130 h on 17 Jan 14, Indian Coast Guard

Station Tuticorin received an information from Assistant Director Fisheries, Tuticorin intimating about a fishing boat (Reg IND-TN-MO-866) with 07 crew adrift in position 25 n miles East of Kanniyakumari.



*ICG preparing for towing*

Upon receipt of information, Indian Coast Guard Ship Naikidevi on patrol was diverted to search and assist the distressed boat. ICG ship located the distressed fishing boat at about 1600h on 17 Jan 14 in position 23 n miles South West of Mannappad, Tamilnadu. ICG ship towed the fishing boat till off Tuticorin and handed over to another fishing boat at about 0730 h on 8 Jan 14.

### **Assistance to 'MFB Sahitaya'**

At about 0615 h on 02 Feb 14, Maritime Rescue Sub Centre (MRSC), Goa received an information from Signal Station, Marmugao Port Trust intimating about flooding onboard 'MFB Sahitaya' with fourteen crew onboard in approx position 26 n miles South West of Marmugao. Upon receipt of the information, Indian Coast Guard Ship 'ICGS C-148' was deployed from Goa at 0805 h on 02 Feb 14 to search and locate the distressed fishing boat. ICG Ship C-148 arrived at datum and located the distressed boat at 0930h on 02 Feb 14 in position 26 n miles south west of Goa. 'MT Courcheville' which had also

received the distressed call from 'MFB Sahitaya' on VHF Ch-16 also proceeded for providing necessary assistance to the distress boat. On arrival ICGS C-148 ascertained that the engine room of the fishing boat was taking in water and was flooded, thereby rendering its engine non operational. The Motor Tanker was assisting in deflooding of the fishing boat. On arrival of ICG ship, the Motor Tanker was relieved and she resumed her passage. The ICG ship lowered its Diesel Driven pump and undertook de-flooding of the boat. Subsequently, the distressed boat was taken under tow till Marmugao harbour and handed over another fishing boat MFB 'Ocean Queen' for further towing inside fishing harbour.

#### **Assistance to Adrift Fishing Boat 'Aagman'**

At about 1230 h on 26 Feb 14, ICG Dornier aircraft on surveillance sortie sighted fishing boat 'Aagman' with 12 crew onboard, adrift in position 86 n miles North West of Mumbai due engine failure since 25 Feb 14.

Upon receipt of the information, Indian Coast Guard Ship 'ICGS Subhardra Kumari Chauhan' on patrol was diverted to search and assist the disabled fishing boat. ICG Ship arrived at scene of incident at about 1800 h on 26 Feb 14 and ship's technical team boarded the disabled fishing boat. Ship's technical team ascertained abnormal noise from fuel injection pump resulting in nil supply of fuel to engine. Repair could not be undertaken by ship's technical team due non availability of spares. Thereafter, ICG ship towed the disabled fishing boat upto off Vasai and handed over to fisheries authorities.

#### **SAR Assistance of Stranded FB 'Maa Kamala'**

At about 1100 h on 28 Feb 14, Coast Guard District Headquarter No. 7 at Paradip received an

information from President, Balasore Trawler Association regarding stranded mechanised fishing boat 'Maa Kamala' with 15 crew onboard due to loss of propeller. The boat was adrift in position 40 n miles East of Dhamra since 0900 h on 28 Feb 14.

Upon receipt of information, Coast Guard Dornier aircraft on EEZ surveillance was diverted to locate the stranded boat. At 1130 h on 28 Feb 14, CGDO located the stranded boat anchored in position 35 n miles East of Paradip and directed ICGS Sucheta Kripalani which was on EEZ patrol to the scene of incident. ICG ship on arrival in the area at about 1355 h on 28 Feb 14 took the boat under tow and arrived off Dhamra. Subsequently, at about 2315 h on 28 Feb 14, the fishing boat along with 15 crew were handed over to Dhamra Port Authority.

#### **Search for Missing Fishing Boat off Kanniyakumari**

At about 2030 h on 03 Mar 14, Indian Coast Guard Station Tuticorin received an information from Assistant Director, Fisheries, Nagarcoil intimating about a fishing boat (IND/KL/02/MM/ 2314) with 10 crew missing since 0600 h on 02 Mar 14. The last known position of the fishing boat was 40 n miles South of Kanniyakumari. Upon receipt of the information, Indian Coast Guard Dornier aircraft was tasked from Chennai at 0915 h on 04 Mar 14 and ICGS Aadesh was deployed from Tuticorin at 1330 h on 04 Mar 14 to search and locate the missing fishing boat. ICG Dornier aircraft located the fishing boat in position 44 n miles South of Kolachal and established communication with the fishing boat. Fishing boat intimated that boat had developed technical snag and requested for towing assistance. Subsequently, the fishing boat was towed by another fishing boat in area and arrived Muttom point, Kanniyakumari District at 2330 h on 04 Mar 14.

## ICG Efforts for Search of Missing Malaysian Airlines Aircraft MH-370

Malaysian Airlines Aircraft MH-370 with 239 passengers including five Indian passengers was reported missing since 08 Mar 14. Malaysia Maritime Enforcement Agency (MMEA) had requested all Coast Guard agencies in the region to assist in search for missing aircraft. ICGS Sagar was at Maura, Brunei at the time of disappearance of MH-370. The ship was immediately put on short notice for SAR operation in South China Sea and while on passage to Port Blair from Maura was directed to carry out search for the missing airliner. ICG units were deployed alongwith IN ships, aircraft and IAF aircraft for search in Bay of Bengal and Andaman Sea as per extended area of probability appreciated by Malaysian authorities. The incident of missing MH-370 is an indicator that the distress alerting and tracking systems have scope for improvement. While the investigation into the incident is yet to provide any tangible results, we should revalidate our own systems and procedures to identify any lacunae.

## **MEDICAL EVACUATION**

### Fishing Boat 'Divya Mangal'

At about 1215 h on 06 Oct 13, Maritime Rescue Sub Centre (MRSC), Porbandar received an information from Fisheries Association, Porbandar intimating about one crew of IFB 'Divya Mangal' sustaining injury due parting of wire rope. The fishing boat was in position 06 n miles South West of Navadra, Gujarat.

Upon receipt of the information, ICG interceptor Boat, ICGS C-143 on patrol, was diverted at about

1300 h on 06 Oct 13 for rendering necessary assistance. ICG ship arrived datum at about 1430 h, embarked the injured crew on board and subsequently, brought him to Porbandar. The crew was later handed over to Fisheries authorities at about 1600 h on 06 Oct 13 for further medical management.

### MV Asian Adonis

At about 1237 h on 03 Nov 13, Maritime Rescue Coordination Centre (MRCC), Mumbai received an e-mail from master of motor vessel 'Asian Adonis' requesting for medical evacuation of one crew (Mr Danilo M Taberna, Age 37 yrs, Nationality Philippines), who was suffering from stomach pain and high fever. The ship was in position 26 n miles South West of Panaji.

Upon receipt of information, ICG Interceptor Boat, ICGS C-133 on patrol was diverted to evacuate the patient. The ICG Ship evacuated the patient at 1500 h on 03 Nov 13, 06 n miles West of Mormugao harbour. On arrival at Mormugao, patient was handed over to local agent at 1630 h on 03 Nov 13 for further medical care. Subsequently, patient was admitted at SMRC hospital, Goa.

### MV 'Shandong Hai Tong'

At about 2300 h on 09 Dec 13, Remote Operating Station, Vishakhapatnam received an information from master of MV 'Shandong Hai Tong' requesting for medical evacuation of one crew (Mr. Ding Xio chun, Age 22 yrs, nationality-Chinese), who was suffering from stomach pain. The ship was in approx position 50 n miles South of Sacramento Lt.

Upon receipt of information, Indian Coast Guard Ship Rajtarang was deployed from Kakinada at about 0330 h on 10 Dec 13 to evacuate the patient.



*Medical Evacuation of MV Shandong Hai Tong*

The ICG Ship evacuated the patient at about 0852 h on 10 Dec 13 from approx position 45 n miles South East of Kakinada. The patient was provided with necessary first aid by ship's medical assistant. On arrival at Kakinada, the patient was examined by Medical Officer, Coast Guard Station, Kakinada and subsequently, handed over to local agent for further medical care.

### **MT Alihuras**

At about 2000 h on 04 Mar 14, Maritime Rescue Coordination Centre (MRCC), Mumbai received an information from Babaji Shipping, Mumbai requesting for medical evacuation of two crew who were injured due accidental fire on board MT Alihuras in position 72 n miles South of Porbandar.

Upon receipt of the information, the vessel was directed to head towards Porbandar for medical evacuation. Meanwhile, Indian Coast Guard Interceptor boat ICGS C-143 was sailed with despatch from Porbandar with medical team embarked for evacuation of the patients. Coast Guard Interceptor Boat effected R/V with MT Alihuras at about 2330 h on 04 Mar 14 and the two patients were evacuated from MT Alihuras at about 0115 h on 05 Mar 14. One patient had suffered 70% (3rd

degree) burns and other patient had suffered hearing loss on left ear. The ICG Ship with patients arrived Porbandar at 0255 h on 05 Mar 14 and the two patients were shifted to hospital for further medical care.

### **MT 'Maharishi Vamadeva'**

At about 1130 h on 09 Mar 14, Maritime Rescue Coordination Centre (MRCC), Mumbai received a distress alert from MT 'Maharishi Vamadeva' in position 06 n miles South West Mumbai. MRCC, Mumbai contacted the vessel and ascertained that three of the crew members were in semi conscious state as they were on hunger strike for last 36 hours on board. The master requested Indian Coast Guard assistance for medical evacuation.

Upon receipt of the information, Indian Coast Guard Interceptor Boat ICGS C-154 was sailed with despatch from Mumbai with medical team. The team boarded MT Maharishi Vamadeva at about 1400 h on 09 Mar 14 and evacuated three patients at about 1600 h. The ICG Ship with patients arrived Mumbai at 1800 h on 09 Mar 14 and all three patients were handed over to Rep of M/s Varun Shipping Co. Ltd for further medical care.

### **Tug 'Albartoss-7'**

At about 1130 h on 13 Mar 14, Maritime Rescue Sub Centre, Haldia received an e-mail from Operations Manager of M/s Smit Singapore Pvt. Ltd intimating about a crew (Mr. Halim Murat, 63 yrs) onboard tug 'Albartoss-7' who had sustained injury on both limbs. The tug was engaged in salvage operation of MV Bingo and was 27 n miles south of Sagar Island.

Upon receipt of information, Coast Guard Air Cushion Vessel (ACV) H-182 was deployed from

# ARTICLES ON MARITIME SAFETY AND SECURITY

## COMPUTER AIDED SEARCH AND RESCUE

Successful conclusion of a Maritime Search and Rescue (M-SAR) operation depends on several factors. Some, like the weather and sea conditions, are uncontrollable while others can be optimized and made more effective by the employment of information and communication technologies. A system able to localize a vessel in trouble and to define the most efficient plan for search and rescue activities is of great importance for ensuring safety at sea.

The first step in building such a system is an accurate localization of vessels in trouble. Normally, the last known position of a vessel is communicated to the rescuers by the people on board. This apparently simple action can become extremely difficult with adverse weather and sea conditions. To add to the difficulty, those on board may only know their positions approximately or, at worst, not at all. The vessel may not be equipped with a global positioning system or even a suitable compass to obtain at least some bearings. Thus the localization provided by the people on board a vessel in trouble may generate imprecise or useless information.

However, if a rescue request is received by radio, localization can be achieved in a few seconds with good precision and without any specific information communicated by the vessel in trouble. As a rule, a couple (or a net) of Radio Direction Finders (RDFs) can detect the direction of an incoming radio signal via voice on VHF channel 16 or by digital selective calling (a distress signal on VHF). Hence, automatic localization is possible via a simple triangulation if at least two or more RDFs, placed in different points, get a bearing from a radio signal. If the people

Haldia at 1330 h on 13 Mar 14 to carry out the medical evacuation, however the ACV could not reach datum view unfavourable sea conditions. ICGS Sucheta Kripalani in area was subsequently diverted and arrived datum at 0050 h on 14 Mar 14. On arrival, the ICG medical team boarded the vessel and observed that the patient had a history of swelling /skin infection on both legs since last five years. Accordingly, first aid was provided to the patient by the ICG medical team. The patient reported no pain and had stable vitals. Meanwhile, the local agent arranged tug 'Capricorn', which arrived alongside tug 'Albartoss-7' at about 0230 h on 14 Mar 14. The patient was transferred to Haldia by Tug 'Capricorn' for further Medical management.

### MV 'Ocean Skipper'

At about 1020 h on 17 Mar 14, Maritime Rescue Coordination Centre (MRCC), Port Blair received an information from MV Ocean Skipper intimating that a crew (Mr Zhou Jia Cai, Nationality PRC) on board had sustained head injuries. The ship, on voyage from Singapore to Dhamra, was 160 n miles South East of Port Blair and requested for medical evacuation of the injured crew.

Upon receipt of information, MRCC Port Blair provided necessary guidance to the vessel and requested owner/master of the vessel to appoint a local agent at Port Blair for undertaking customs/immigration clearance. MV Ocean Skipper arrived Port Blair at about 2315 h on 17 Mar 14. The patient was disembarked by PMB tug and admitted in GB Pant Hospital, Port Blair for further medical care.



awaiting rescue continue to communicate via radio, the system can track a vessel by successive localizations. With an accurate localization of the vessel, search and rescue operations have a higher probability of success.

SAR Operations are regulated at the international level by a set of standard procedures defined and described in the IAMSAR volume II (International Aeronautical and Maritime Search and Rescue). IAMSAR procedures require many meteorological parameters, they employ many data tables and curve plots in order to evaluate the datum (a geographic point, line or area used as reference in the search planning). However, such procedures involve several complex computations and require a lot of valuable time thus delaying the start of a SAROP.

Thus, the use of a computer system incorporating all the procedures involved in SAROPs can reduce errors and the time needed to define a SAR plan indicating that their use shall be an integral part of future SAR plans.

### **LOW COST DISTRESS ALERT TRANSMITTER FOR FISHERMEN**

The Indian Coast Guard, ISRO's Ahmadabad based Space Application Centre and Faridabad based VXL Technologies Ltd had jointly developed a low cost GPS (Global Positioning System) transmitter based fisheries alert system for use by fishermen at sea.

The transmitter has a battery life of 24-28 hours after activation. The transmitter post fitment onboard fishing boat, is required to be registered and allotted boat ID. The data bank is available with Coast Guard MRCC (Maritime Rescue Coordination Centre) for immediate identification on receiving any distress message. Distress alerts will be picked up and received by INSAT 3A satellite and through GMDSS

network, relayed to the reception centre at Maritime Rescue Co-ordination Centre at Chennai. Situations like medical emergency, fire on board, sinking of boat, man overboard can be reported to authorities on shore for immediate action.

The transmitter operates through a DRT transponder and can transmit continuous alerts for 24 hours once every 5 minutes on an average while staff at the rescue centres track the boat as it appears on a GIS map on their computer screens.



The cost of the equipment has been subsidized to approx Rs.12000/- (Rupees Twelve Thousand Only) by the Government. The equipment is floatable and uses Omni directional antenna making it suitable for fishing fleet. Quite often, Coast Guard stations/ authorities receives reports for assistance to fishing vessel in distress without the exact location (only place of departure is known) making it difficult to provide timely assistance. However, the usage of DATS has shortened the search period, thus expediting rescue. During regular Community Interaction programmes conducted by the District Headquarters and Coast Guard Stations, the emphasis on the importance of DATS is conveyed to the fishing community. Despite all these efforts, the equipment is yet to become part and parcel of many fishing vessels. It is recommended that if, fitment of DATS is made mandatory prior registration of any fishing vessel a significant progress in enhancing the safety of numerous fishing boats plying across the country may be achieved.

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The Indian Coast Guard is responsible for co-ordinating SAR operations in the Indian Maritime SRR. The Indian SRR is divided into three sub-regions, each with an assigned MRCC at Mumbai (Bombay), Chennai (Madras) and Port Blair.

The MRCCs are co-located with Coast Guard Regional Headquarters (RHQs) and co-ordinate missions with other agencies via a network of MRSCs. Merchant vessels plying through the Indian SRR may participate in a Computerised Vessel Reporting System for SAR known as "INDSAR". Position reporting by using two digit INMARSAT service code 43 via LES Arvi is voluntary and free of charge. The INDSAR system is co-ordinated by MRCC Mumbai, MMSI 004192203, e-mail: [indsar@vsnl.net](mailto:indsar@vsnl.net)

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## **Safe Waters**

An Indian Coast Guard Publication

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