



Safe Waters

NEWSLETTER

On Maritime Safety and Security

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NATIONAL MARITIME
SEARCH AND RESCUE BOARD



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



Rapid economic development is causing significant increase in maritime traffic, in the waters surrounding India. This is being supplemented by the development of a number of new ports and notable impetus to creation of ancillary infrastructure along the Indian Coast. With increasing maritime activity in the neighbourhood, there undoubtedly exists a requirement to augment our Search and Rescue Capability, so as to meet future challenges in the Region. As the recent search effort for the missing Coast Guard aircraft off the East Coast of India has revealed, pooling of resources and a coordinated approach to Search and Rescue, will be the key to success.

In order to continue providing SAR services with alacrity, there are certain issues that require to be addressed. Firstly, the numbers of requests for assistance in situations other than distress is on the rise. Requirements pertaining to non operational machinery, defects in propulsion system etc, need to be met through technical and commercial assistance coordinated by shipping companies or appointed agents. The tendency to call in SAR agencies in these situations draw away scarce and valuable SAR assets, thereby diluting the quality of response in an actual distress situation.

Secondly, the non-availability of minimum emergency equipment onboard fishing vessels, remains an area of concern, as it directly impinges upon the safety of our fishermen. The carriage of Distress transmitters and other basic life-saving equipment, such as floatation devices would go a long way in providing speedy and effective response to fishermen in distress.

It must also be highlighted that proactive support from DG Shipping in terms of circulars & directives and assistance from ISRO in satellite aided Search and Rescue has effectively prevented many potential threats to lives of mariners and aviators.

I take this opportunity to congratulate all the M-SAR awardees, who have upheld the tradition of assisting their fellow mariners in distress.... My felicitations to them.

“VAYAM RAKSHAMAH”

(HCS Bisht)
Vice Admiral
Chairman
National Maritime
Search & Rescue Board

The active participation of the NMSARB members has resulted in expeditious implementation of decisions and recommendations of the XIII NMSAR Board meeting. The actions are not only indicative of the enhanced synergy among inter-governmental agencies but also the positive contributions of the private players.

The issue of distress beacon management, registration and de-registration is being very positively addressed by the user as well as the regulators. The recent circulars / notices by the regulatory authorities stand testimony to collective resolve.

As we move forward to the next year we hope to see improved distress management and symmetric planning tools between the MRCCs and RCCs together with efforts to integrate the littoral States into the SAR matrix.

While thanking all the esteemed NMSAR Board members and their representatives, I look forward to any feedback and suggestions from readers to improve upon the contents of this newsletter.


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

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Please send your queries and articles to :

'Safe Waters'

Directorate of Operations

Coast Guard Headquarters, National Stadium Complex

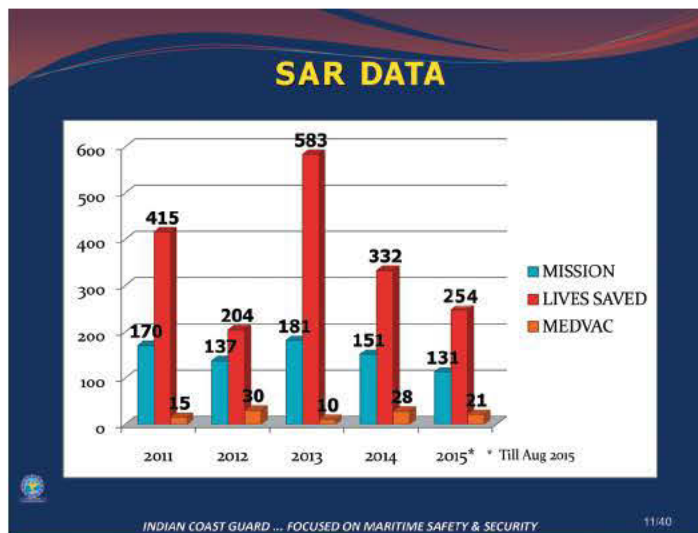
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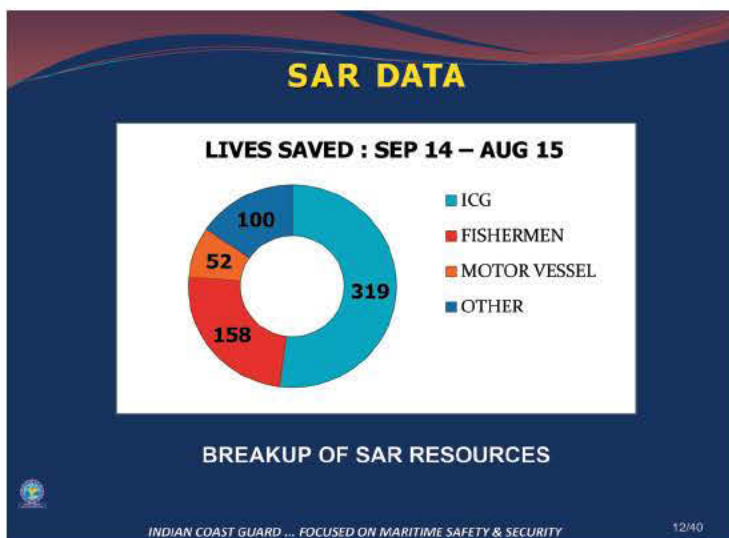
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SAR DATA

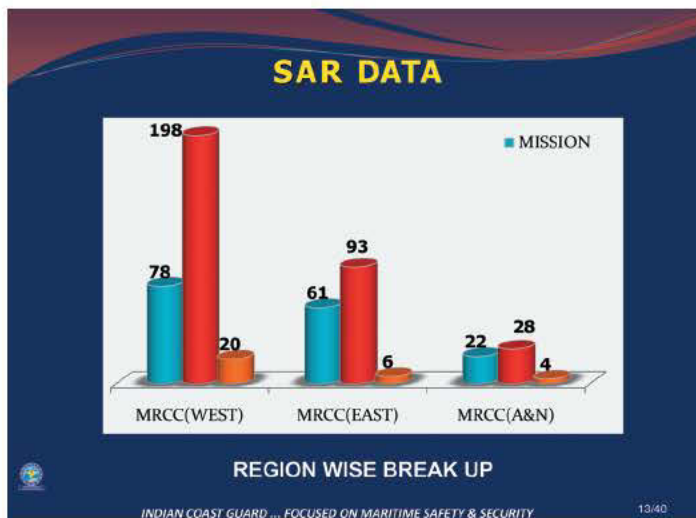
Graph below indicates number of missions undertaken, life saved and medical evacuations done by ICG.



Graph below indicates lives saved by ICG, Fishermen, Motor Vessel and other resource agencies during period Sep 14 - Aug 15.



Graph on the next page indicates the SAR missions and lives saved under three MRCCs.



SAR NEWS

Assistance to Fishing Boat “Yelunthu Oli Veesu”

At about 1500 h on 31 Oct 14, Maritime Rescue Coordination Centre (MRCC), Chennai received information from Coastal Security Group (CSG), Chennai that a fishing boat *Yelunthu Oli Veesu* (Reg. No. IND-YN-12-MO-2162) with six crew was adrift view engine failure 15 n miles off Vedalai, Ramnad, Tamilnadu.

On receipt of information, ICGS Abhiraj on patrol was diverted for assistance of the distressed fishing boat. ICG ship located the distressed fishing boat at about 1040 h on 01 Nov 14 and towed it to Tuticorin. Thereafter, the distressed fishing boat alongwith six crew was handed over to another fishing boat at 1700 h on 01 Nov 14.

Assistance to Fishing Boat ‘Mangala Maa’

At about 1255 h on 19 Sep 14, Vice President Paradip Trawlers Association telephonically intimated CGDHQ-7 that Indian fishing boat ‘Mangala Maa’ was stranded with eight crew in position 10-12 n miles South East of Devi Point (off Devi river) due to fishing nets entangled in her

propeller and non-availability of power supply.

On receipt of information, ICGS Sarojini Naidu, on patrol was diverted to render assistance to the fishing boat. At about 1645 h on 19 Sep 14, ICGS Sarojini Naidu located the stranded boat and took it under tow. The fishing boat alongwith eight crew were brought till/off Paradip and handed over to fishing boat ‘Satya Sai’ arranged by fisheries department in approx position 4.5 n miles North East of Paradip at 0935 hrs on 20 Sep 14 for further towing to Nehru Bungalow fishing harbor, Paradip.



Assistance to Fishing Boat ‘Mangala Maa’

Assistance to Fishing Boat Morning Star

At about 2030 h on 30 Nov 14, Maritime Rescue Coordination Centre (MRCC), Port Blair received an information from INS Jarawa about fishing boat Morning Star with 13 crew on board adrift in position 10 n miles South-South-East of Car Nicobar view engine failure since 0800 h on 30 Nov 14.

Upon receipt of the information, ICGS Kanaklata Barua in area was diverted for assistance. ICG ship arrived on scene at 0520 h on 01 Dec 14 and ship’s technical team embarked the fishing boat. Ship’s technical team repaired the engine and made the fishing boat fully operational. Thereafter, fishing boat

resumed fishing and the SAR operation was terminated.

Assistance to Indian Fishing Boat “Abraham”

At about 0900 h on 11 Dec 14, Coast Guard Regional Headquarters (East), Chennai was informed by Coastal Security Group, Nagapattinam that an Indian Fishing Boat “Abraham” with eight crew was adrift due to engine failure, 14.5 n miles South of Mannappad.

Upon receipt of the information, ICGS Abhiraj, was diverted to render assistance. After extensive search, ICG Ship located the disabled boat “Abraham”. The fishing boat “Abraham” was towed up to Tuticorin and at 1750 h on 11 Dec 14 handed over to another boat arranged by the owner.

Assistance to Fishing Boat “Jai Jalaram”

At about 0450 h on 25 Dec 14, ICGS Savitribai Phule received distress alert on MMB channel 16 from fishing boat “Jai Jalaram” with five crew onboard regarding flooding in engine room in position 63 n miles South West of Mitha port.



Assistance to Fishing Boat “Jai Jalaram”

On receipt of the information, ICGS Savitribai Phule arrived at the scene of incident at 0640 h on 25 Dec 14 and dispatched Damage Control Party

onboard fishing boat “Jai Jalaram”. Damage Control Party ascertained that flooding in engine room was due to uprooted side plank at waterline. Subsequent to containment of flooding by ICG Damage Control Party, the fishing boat was towed off Okha and handed over to another fishing boat arranged by owner in presence of ICG Interceptor Boat ICGS C-411. Thereafter, the fishing boat safely entered Okha at about 1940 h on 25 Dec 14 under escort of ICGS C-411.

Rescue Operation for Passengers Stranded off Elephanta Island Ex-Passenger Craft “Navrang”

At about 1630 h on 17 Feb 15, Maritime Rescue Coordination Center, Mumbai received an information from local authority (Police Station Navi Mumbai) regarding assistance to stranded passenger boat ‘Navrang’ with 78 passengers onboard (34 Males, **33 Females and 11 Children**) in position near Gharapuri, NE edge of Elephanta Island at Mumbai.



Rescue Operation for Passenger Craft ‘Navrang’

Upon receipt of information, ICGS Air Cushion Vehicle (ACV) H-194 was deployed at 1700 h on 17 Feb 15 to undertake the mass rescue operation. At about 1736 h on 17 Feb 15, H-194 evacuated all 78 passengers and safely disembarked them at hoverport Belapur.

Reported Fire in Engine Room of Supply Vessel “Vestfonn”

At about 1420 h on 31 May 15, MRCC (MB) received a VHF DSC distress alert from Supply Vessel ‘Vestfonn’ in position 10 n miles west of Bombay High (ODA). MRCC(MBI) contacted the vessel and it was ascertained that there was fire in engine room which was spreading. No causality was reported onboard. CG Dornier 781 coordinated Search and Rescue through VHF channel 16 and communicated with supply vessels ‘Ocean Diamond’, ‘BS Negi’, ‘Greatship Ahalaya’ in vicinity and requested to proceed towards datum for assistance. ICGS Achook on patrol off Mumbai was immediately diverted to proceed with best speed for rendering necessary assistance.



ICG Ship s carrying out boundary cooling

Two Offshore Supply Vessels ‘BS Negi’ and ‘Ocean Diamond’ arrived datum at 1518 h on 31 May 15, Ocean Diamond engaged in boundary cooling and BS Negi commenced evacuation of the crew of distressed vessel. Meanwhile, ICGS Sankalp and Samudra Prahari were sailed from Mumbai to augment assistance. Second Coast Guard Dornier was also launched from Daman to augment the SAR effort. MRCC Mumbai issued International Safety Net (ISN) to provide wide

berth for fire fighting and to keep clear of the incident site.

At about 1720 h, Offshore Supply Vessel Ocean diamond intimated that the fire was brought under control by operating major firefighting CO₂ system in engine room at 1700 h on 31 May 15 while boundary cooling was simultaneously being undertaken. All 33 crew were reported to be safe. 28 crew were evacuated by vessel in vicinity while five continued to man the distressed vessel. On 31 May 15, Offshore Supply Vessel Malaviya-24 connected tow in position 280 Prongs Lt. 102 n miles and commenced towing the disabled vessel. Offshore Supply Vessel Vestfonn safely came to Bravo Anchorage, Mumbai at 1700 h on 01 Jun 15.

Missing fishing boat “Immanuel” with 03 Crew at Poovar, South of Vizhinjam

At about 1630 h on 14 Jul 15 ICGS Vizhinjam received a fax message from District Collector, Thiruvananthpuram regarding missing fishing boat ‘Immanuel’ alongwith three crew onboard off Poovar area, South of Vizhinjam Coast. Coastal Police and Marine Enforcement Wing (MEW), Vizhinjam boats alongwith other local fishing boats were launched at 0800 h & 1400 h on 13 Jul 15. On receipt of the information, ICGS C- 427 was deployed from Vizhinjam for SAR mission off Poovar, Vizhinjam.

At about 0900 h on 16 Jul 15, Master of MV Smyrni (Type – Tanker) telephonically intimated MRCC Mumbai regarding one capsized fishing country boat in position 41 n miles SW of Vizhinjam light and located three fishermen floating in water, requesting for assistance. MRCC Mumbai requested master of MV Smyrni to render necessary assistance and be in area till arrival of CG Ship. At about 0952 h on 16 Jul 15 MV Smyrni rescued all the three fishermen. MRCC Mumbai established

communication with ICGS C-427 and directed C-427 to proceed with max speed for assistance. On effecting R/V, the three fishermen were embarked onboard ICGS C-427 at 1105 h on 16 Jul 15. At about 1630 h on 16 Jul 15 ICGS C- 427 along with three crew entered Vizhinjam harbour and handed the fishermen to AD Fisheries, Vizhinjam.



Rescue for 03 crew from fishing boat 'Immanuel' by "MV Smyrni"

MEDICAL EVACUATION

MV Puffin Bulker

At about 1500 h on 31 Oct 14, Maritime Rescue Coordination Centre (MRCC), Mumbai received an information from M/s Merchant Shipping Services Pvt Ltd that one crew (Mr Nuke Miron, Age-54 yrs, Nationality Russian) of MV Puffin Bulker anchored at Dahanu anchorage had sustained injuries to his ribs. The vessel therefore, requested for medical evacuation.

Upon receipt of the information, ICG Medical Officer advised first aid treatment to the patient before evacuation. An ICG helo with Medical Officer embarked was launched at about 1700 h on 31 Oct 14 from Daman which evacuated the patient

at about 1800 h and arrived Daman at 1825 h. Thereafter, the patient was handed over to local agent and was admitted to Jaslok Hospital, Mumbai for further treatment.



Medical Assistance to Crew of "MV Puffin Bulker"

Medical Evacuation from Suheli Out Post Lakshadweep Island

At about 1530 h on 18 Nov 14, Coast Guard District Headquarters No.12 at Kavaratti received information from Superintendent of Police, Lakshadweep that Shri N Aboosla, Head Constable, in-charge Suheli outpost was suffering from severe diarrhea for the past two days and requested for Medical Evacuation.

On receipt of information, helo from ICGS Samrat which was in area was tasked to evacuate the patient. ICG helo evacuated the patient at 1715 h on 18 Nov 14 and arrived Kavaratti at 1745 h on 18 Nov 14. The patient was admitted at Indira Gandhi Hospital for further medical management.

MV Gas Esco

At about 1438 h on 22 Nov 14, Maritime Rescue Coordination Center. (MRCC), Mumbai received information from Operation Superintendent, Mr. Somesh Kudre from Oman regarding medical

assistance to MV Gas Esco view third officer of the vessel (Babiera Danny Boy Villaruel, Age-35 yrs, Filipino) had infected abrasion wound on right knee (Anterior Tibial).



Medical Assistance to Crew of "MV Gas Esco"

On receipt of information, Indian Coast Guard Ship Achook, on patrol, was diverted for assistance and medical evacuation of the patient. ICGS Achook proceeded with best speed and evacuated the patient at 0045 h on 23 Nov 14. The patient was handed over to Tug Godavari off Mumbai for further assistance.

MV Ile De Batz

At about 2118 h on 27 Dec 14, Coast Guard Regional Headquarters (West), Mumbai received a request from French Maritime Rescue Coordinating Center for medical evacuation of a crew member from "MV ILE DE BATZ". The 46 years old patient, Mr Palos Jesus (Philipino National), was suffering from heart problem.

The vessel was 270 n miles South West of Prongs Lt, Mumbai at the time of reporting. On receipt of information, at about 2118 h on 27 Dec 14 MRCC (MB) established communication with vessel and advised her to head toward Mumbai.



CG Helo Evacuating the Patient from "MV Ele De Batz"

ICGS Samrat on patrol was diverted for Medevac and arrived datum at about 0625 h on 28 Dec 14. Medical Officer ex- ICGS Samrat boarded onboard MV Ile De Batz and provided SOS medication to the patient, after which the patient was embarked onboard ICGS Samrat. Subsequently, ship borne helicopter evacuated the patient and brought him to INS Shikra, Mumbai at 1651 h on 28 Dec 14. Thereafter, the patient was handed over to local agent and was admitted in Jaslok hospital at 1830 h on 28 Dec 14 for further medical management.

LNG Mubaraz

At about 2122 h on 04 Jan 15, Maritime Rescue Coordination Center, Mumbai received a request from Master of LNG Mubaraz for medical evacuation of a crew member suffering from dislocated left elbow. The Master requested for evacuation of the crew from the ship off Goa, as the condition of the crew was stable.

The ship arrived off Goa at 1430 h on 06 Jan 15. ICG helicopter launched from Goa evacuated the crew from the ship and handed over to local agent for further care/treatment.

MV Van Cherry

At about 1620 h on 16 Jan 15, Maritime Rescue Coordination Center, Mumbai received a telephonic message from local agent of MV Van Cherry for medical evacuation of a crew member suffering from eye injury. The local agent requested for evacuation of the crew from the ship off Mumbai 18 n miles NW of Prongs Lt.

On receipt of information, ICG Interceptor Boat C-154 on patrol was diverted to evacuate the patient. C-154 evacuated the patient at 1715 h on 16 Jan 15. At about 1855 h on 16 Jan 15, the patient was handed over to local agent alongwith one Indian crew and admitted at Jaslok Hospital, Mumbai for further care/ treatment.



Medical Evacuation from "MV Van Cherry"

MT Bunga Angsana

At about 1740 h on 07 Feb 15, Maritime Rescue Coordination Center (MRCC), Mumbai received a request from MT Bunga Angsana for medical evacuation of a crew member suffering from appendicitis in position 57 n miles North West of Beypore.

On receipt of information, ICG Interceptor Boat C-404 was deployed from Beypore at 2010 h on



Medical Evacuation from "MT Bunga Angsana"

07 Feb 15 with medical team embarked for evacuation of the patient. ICGS C-404 arrived datum at 2120 h and evacuated the patient. The patient was brought to Beypore at 2350 h on 07 Feb 15 and was admitted in MIMS hospital, Kozhikode at about 0130 h on 08 Feb 15.

MT Ratna Puja

At about 1150 h on 11 Feb 15, Maritime Rescue Coordination Center (MRCC), Mumbai received a request from MT Ratna Puja for medical evacuation of a crew member suffering from jaundice in position 124 n miles West of Mumbai.



Medical Evacuation from "MT Ratna Puja"

On receipt of information, Indian Coast Guard Ship Samrat on patrol was diverted at 1315 h on

11 Feb 15 for evacuation of the patient. Medical team ex-ICG ship boarded the vessel and evacuated the patient at 1945 h on 11 Feb 15.

The patient was then brought to Mumbai at 0300 h on 11 Feb 15 and was handed over to local agent M/s JM Baxi for further medical treatment at Sujoy Hospital Vile Parle, Mumbai.

MV Mangalam

At about 1550 h on 15 Feb 15, ICGS Samar while on patrol received a call from MV Mangalam on MMB CH 16 regarding medical evacuation of a crew suffering from severe head injury in position 35 n miles West of Mumbai.

On receipt of information, Indian Coast Guard Ship Samar proceeded with maximum speed to evacuate the patient. At about 1730 h on 15 Feb 15, ICGS Samar effected R/V with "MV Mangala" and evacuated the patient at 1800 h. The patient was disembarked onboard ICGS C-154 at 2248 h for handing over to local agent M/s Timeline Ship Management Pvt. Ltd. at MBPT, Mumbai for further medical management.

MV Ile De Batz

At about 1900 h on 07 Mar 15, Maritime Rescue Coordination Center (MRCC), Chennai received a request from Maritime Rescue Coordination Center (MRCC), Gris Nez, France for medical evacuation of a sick crew on board MV Ile De Batz. MV Ile De Batz was engaged in cable laying operation in position 15 n miles South East of Chennai. The patient was advised evacuation without a doctor by the Telemedical Maritime Assistance Services, France.

On receipt of information, ICG Interceptor Boat

ICGS C-430 was deployed from Chennai at 0630 h on 08 Mar 15 for evacuation of the patient.

ICGS C-430 arrived datum at 0755 h and evacuated the patient. The Patient was brought to Chennai at 0915 h on 08 Mar 15 and was handed over to local agents for further medical treatment.

MV Saga Frontier

At about 0100 h on 14 Mar 15, Maritime Rescue Coordination Center (MRCC), Chennai received an information from local agent of MV 'SAGA FRONTIER' regarding head injury to a crew onboard in position 87 n miles South East of Kanyakumari and requested for medical evacuation.



Medical Evacuation from "MV Saga Frontier"

On receipt of the information, ICGS Abhiraj was deployed with Medical team embarked from Tuticorin at 0810 h on 14 Mar 15 for evacuation of the patient.

ICGS Abhiraj arrived datum at 1130 h and provided first aid and evacuated the patient. The patient was brought to Tuticorin at 1430 h on 14 Mar 15 and was handed over to local agents for further medical treatment at AVM Hospital, Tuticorin.

MV Ocean Reef

At about 1502 h on 09 Apr 15, Maritime Rescue Coordination Center (MRCC), Chennai received a request from Master of MV Ocean Reef regarding medical evacuation of a crew suffering from GERD (Gastro Esophageal Reflux Disease) and Hypertension in position 14.8 n miles South East of Paradip Light.

On receipt of information, MRSC Paradip was directed to initiate necessary action. Indian Coast Guard Interceptor Boat C-426 on patrol was diverted to evacuate the patient.



Medical Assistance to Crew of "MV Ocean Reef"

C-426 evacuated the patient at 1725 h on 19 Apr 15 and handed over to local agent for further care/treatment at Paradip Port Trust Hospital, Paradip.

MT Karolos

At about 1230 h on 10 Jun 15, MRCC (MB) received a message from Master of MT Karolos regarding medical evacuation of a crew suffering from severe lower abdominal pain on right side in position 140 n miles South West of Porbandar Light.



Medical Evacuation from "MT Karolos"

On receipt of information, vessel was directed to proceed towards Mangrol to evacuate the patient by Coast Guard Helicopter. Medical Officer, District Headquarters No. 2 advised the master on first aid and recommended for evacuation. Master was also advised to contact District Medical Officer every four hours for updating the status of the patient.



Medical Evacuation from "MT Karolos"

At about 1635 h on 10 Jun 15, Coast Guard Advanced Light Helicopter (ALH) was launched with the Medical Officer and affected R/V with the vessel in position 53 n miles South West of Mangrol Light at 1730 h. The patient was evacuated from the vessel and landed at Coast Guard Air Enclave, Porbandar at 1805 h.

SAR TRAINING/EVENTS

M-SAR Training for MRCC/RCC Operators

The National Maritime Search and Rescue Board (NMSARB) conducted fourth refresher course on Search and Rescue for MRCC/RCC operators at Civil Aviation Training Centre (CATC), Allahabad from 22-24 Dec 14. 15 participants from Indian Coast Guard and Airport Authority of India attended the course.

The classes were conducted on various subjects related to Maritime and Aeronautical Search and Rescue operations. During the course, the participants also shared their experience, which resulted in enhancing inter-agency coordination between operators of RCCs and MRCCs.

XIV National Maritime Search and Rescue Board Meeting

The XIV National Maritime Search and Rescue (NMSAR) Board meeting was held at Gandhinagar on 17 July 2015, under the chairmanship of Vice Admiral HCS Bisht, AVSM, Director General Indian Coast Guard. The meeting was attended by Board Members from Coastal States/UTs and other agencies involved with Search and Rescue (SAR) operations in their region.

The Indian Coast Guard (ICG) is mandated to undertake duties of National Maritime Search and Rescue for assisting mariners in distress within the Indian Search and Rescue Region (SRR). Coordination for Maritime SAR Operations is done from the Maritime Rescue Coordination Centers (MRCCs) of the Indian Coast Guard, located at



MV 'Maersk Privilege' Being Awarded

Mumbai, Chennai and Port Blair.

In the last few years, the Govt. of India has accorded additional impetus towards strengthening bilateral, regional and international cooperation in the domain of Maritime SAR, as envisaged under International Search and Rescue Convention, 1979. The ICG has accordingly formulated cooperative mechanisms and signed Memorandum of Understanding (MOUs) with a number of maritime states in the Indian Ocean Region. It also conducts regular exercises with the maritime agencies of these states.

The Annual Board Meeting aims to evolve long term plans, discuss inter-agency co-ordination issues and workout modalities towards a strengthened framework for Maritime SAR in the Indian SRR. In the meeting held at Hotel Narayani Heights, Gandhinagar, the Chairman reiterated the requirement to augment SAR capabilities so as to cater for growing maritime activity in the Indian SRR. A few important subjects discussed included mechanism for testing of Distress Beacons, synergy between aeronautical and maritime SAR and

enhanced participation of merchant men in the SAR Operations.

It was for the first time that the meeting was conducted under the aegis of the Coast Guard Regional Headquarters (North West). During the meeting, the Chairman NMSAR Board Vice Admiral HCS Bisht, AVSM also presented awards to ships/units/ boats for their contribution towards Search and Rescue at sea. The ICG award for best merchant vessel was awarded to MV 'Maersk Privilege', while the ICG award for fishermen was awarded to Fishing boat 'L Aster' from Kanyakumari. In the category of Government owned SAR unit, the M/s Essar SAR award was jointly presented to ICG Hovercraft H-194 and NIOT Offshore Research Vessel 'Sagar Manjusha'.

ARTICLES ON MARITIME SAFETY

Indian Mission Control Centre (INMCC) – New Developments

The Indian Mission Control Centre (INMCC) situated in Bangalore (India) at the ISTRAC/ISRO campus provides COSPAS-SARSAT distress alerting services to Search and Rescue (SAR) authorities globally in maritime, aviation and land environments. The COSPAS-SARSAT System provides distress alerts from 406 MHz beacons using a constellation of Low Earth orbiting (LEO) and Geostationary Earth Orbiting (GEO) satellite systems, including the INSAT system of India. The ship/aircraft/land users carry emergency transmitters (EPIRBs/ELTs/PLBs), which radiate

distress signals in 406 MHz. These alerts are received at Mission Control Centres (MCCs) around the world, including the INMCC, through these satellite systems, where they are further processed to provide the location of the distress beacon and identification of the beacon owner. Alerts are relayed to respective Rescue Coordination Centers (RCCs) for necessary SAR action.

GEOSAR System Enhancement:

New satellite INSAT-3D and New Geolut system were commissioned after carrying required testing as per the COSPAS-SARSAT procedures. Both COSPAS-SARSAT Joint Committee and Council reviewed the test results and approved, and declared the system at full operational capability in October 2014. New satellite INSAT-3D and new Geolut processing system are operational and providing the SAR services from 1st November 2014 in addition to the services from INSAT-3A.

Online Alert Distribution:

New Software module was developed with the support of ISTRAC software development team and implemented on trial run, which is well received by user community.

The following are the features of the module.

- All the alerts are provided online, along with the location information and owners details, which is helpful in the SAR operations for faster search and rescue response.
- Additional e-mails are sent to the respective owners, MRCCs, RCCs and registration Points of Contact for faster support, which also serves

as hot standby to AFTN communication system provided by Airports Authority of India (AAI).

- Centralized, online feedback is provided by the owners, MRCCs, RCCs and INMCC, by which system operations improved in terms of turn-around time, action taken by SAR authorities concerned, and every distress alert is made accountable.

Bifurcation of Land & Sea Search and Rescue Regions:

- So far, INMCC alert distribution was based on four Rescue Coordination Centers-RCCs (as per FIR provided by AAI: Delhi, Mumbai, Kolkata and Chennai). This distribution does not discriminate land and sea alerts. There was a long pending need to bifurcate the sea and land alerts, which are to be supported independently by RCCs (AAI) and Maritime Rescue Coordination Centers-MRCCs (ICG).
- By carefully studying the Aviation and Maritime alert distribution requirements and by having discussion with RCCs and MRCCs representatives, the boundary issues were resolved with mutual consent, and new data distribution scheme was worked out providing land and sea alerts separately.
- The existing four RCCs were divided into seven Search and Rescue Regions (four RCCs and three MRCCs – Mumbai, Chennai, Port Blair) and implemented, to meet the aviation and maritime SAR requirements.

MEOSAR System:

Keeping pace with the latest developments in international scenario, INMCC is working to establish Meolut system, which is currently under demonstration and evaluation phase, and would be fully operational by 2018-20. New American **GPS**, Russian **GLONASS** and European **Galileo** navigation satellites will carry 406 MHz repeaters on medium Earth altitude orbiting (**MEO**) satellite constellations. The constellations will be fully compatible with existing 406 MHz beacons. The demonstration and evaluation phase is under way, and the operational alerts expected to be available by 2018-20 time frame.

Some of the major benefits of MEOSAR system are improved speed and reliability of alerting with location data from 406 MHz distress beacons. The system will have real-time global coverage, independent location capability on single burst, continuous detection with updated location info from moving beacons, resilience to beacon-to-satellite link obstructions, no Doppler mirror image location generated, additional features like Return Link Service for acknowledgment of message reception, and high level of satellite redundancy and availability. Once fully operational, minimum 18 satellites will be always available anywhere in the world. Standalone MEOLUT system will have coverage of about 6000 km radius.

*- M. Ambarish Babu, Dr. NK Shrivastava
INMCC, ISTRAC/ISRO, Bangalore*



IMPORTANT NOTIFICATIONS



GOVERNMENT OF INDIA
CIVIL AVIATION DEPARTMENT
DIRECTOR GENERAL OF CIVIL AVIATION

AIRWORTHINESS
ADVISORY CIRCULAR

Subject: Coding and Registration of ELTs

1. Introduction

- 1.1 CAR Section 8 Series O details the requirements for Installation of Emergency Locator Transmitter (ELT) on all aircraft. Further, Para 5 of CAR Section 9 Series D Pt IV (Section-II) details the requirements for operation, specifications and registration of ELT with INMCC (ISRO). Para 5.10 of this CAR also defines the responsibility of owner /operator to register the ELT with INMCC. Indian Mission Control Centre (INMCC) is responsible for maintaining 406 MHz ELT register in India and provides ELT register information for search and rescue operations
- 1.2 Contracting States are required to establish, maintain and operate search and rescue services within their territories to ensure that assistance is rendered promptly to persons in distress whether individually or in cooperation with other States.
- 1.3 The COSPAS - SARSAT (Cosmicheskaya Sistema Poiska Avariynyh Sudov which translates to "Space System for the Search of Vessels in Distress" – 'Search And Rescue Satellite-Aided Tracking'), a satellite-based international distress alert detection and information distribution system, established by ISRO at Bangalore to detect and locate emergency beacons (ELTs) activated by aircraft in distress.
- 1.4 Experience and statistics show that many times the particulars of the aircraft, operator and contact personnel details are either not available or not correctly provided in the INMCC registration database. In some cases, Emergency Locator Transmitter (ELT) or not programmed/coded as required depriving the timely assistance to those in distress. Operators acquiring/leasing aircraft from outside India are found to have unintentional error in coding the ELTs with a country other than India (419).
- 1.5 Activating a 406 MHz beacon for even a very short time will generate a COSPASSARSAT distress alert message that will be relayed to the respective Rescue Coordination Centres (RCCs) through Indian Mission Control Centre (INMCC) for the immediate action. As such it is most important to ensure that false distress signals are not emitted by the ELT units held by any organisation triggering chain of infructuous action consuming invaluable time and resources.
- 1.6 It is therefore essential to
 - (i) programme the individual ELT to transmit correct particulars of the nationality, aircraft and operator;
 - (ii) registered with the INMCC through online web-portal;
 - (iii) maintain the registration data updated specially emergency contact details; and
 - (iv) restrain from emitting false distress alerts.
- 1.7 ELT register information shall include, at least the following:
 - (a) transmitter identification (expressed in the form of an alphanumerical code of 15 hexadecimal characters);
 - (b) transmitter manufacturer, model and, when available, manufacturer's serial number;
 - (c) COSPAS-SARSAT type approval number;
 - (d) name, address (postal and e-mail) and emergency telephone number of the owner and operator;

- (e) name, address (postal and e-mail) and telephone number of other emergency contacts (two, if possible) to whom the owner or the operator is known;
- (f) aircraft manufacturer and type; and
- (g) colour of the aircraft; and
- (h) aircraft nationality and registration marks.

- 1.8 In order to effectively utilize the COSPAS - SARSAT system for identifying aircraft in distress and relaying the information to the rescue authorities/personnel concerned without loss of time, it is vital to ensure that all the 'Emergency Locator Transmitters - capable of emitting 406 MHz signals' used in the Indian Civil Aviation Sector are correctly programmed and registered with the "Indian Mission Control Centre (INMCC)"
- 1.9 This circular stipulates the procedure to be adopted by the owners/operators relating to programming the ELT, registering with the Indian Mission Control Centre and maintaining records thereof.

2. Applicability

- (a) All Indian registered aircraft operators.
- (b) All approved organisation holding one or more ELTs in their stores.

2.1 Programming (coding) ELT

- 2.2 The programming (coding) of ELT shall be performed by the OEM or any organisation authorised by the OEM or a person trained to programme the ELT.
- 2.3 If the programming (coding) is performed by a trained individual the details shall be verified and certified by an Aircraft Maintenance Engineer in the Aircraft Radio Logbook or equipment History Card.
- 2.4 Prior to transfer of an ELT to any other organisation or exporting the aircraft or change of ownership / operator of the aircraft, the programming (coding) should be updated and certified in the equipment history card or aircraft radio logbook as the case may be, and must be deregistered from the INMCC database.

3. Fitment of ELT on Aircraft

- 3.1 Records of ELT programming (coding) shall be verified for the correctness with respect to the data downloaded from the equipment by the AME concerned and certified
- 3.2 Upon fitment of an ELT the AME concerned shall update the ELT registration data

4. Registration of ELT

- 4.1 Irrespective of whether an ELT is fitted on to an aircraft or not shall be registered with Indian Mission Control Centre (INMCC) through online registration portal (<https://inmcc.istrac.org/>). Spare ELTs should also be registered with, which could be traceable.
- 4.2 The information registered with the INMCC shall be maintained upto date by the organisation or operator concerned at all time.

Note: Operators operating foreign registered aircraft under wet lease shall ensure that ELT installed on the aircraft are coded according to state of registry and registered with respective monitoring agency. Confirmation to that effect shall be submitted to DGCA prior to start of wet lease operation.

5. Deregistration of ELT

- 5.1 After transfer of an ELT to other organisation or change of ownership / operator of the aircraft, the registration data should be updated or deregistered if required and records maintained by the organisation.

5.2 The new operator should re-programme/code the ELT as per operator's nationality, aircraft registration number and reregister with MCC concerned if used outside India.

6. Records

6.1 Consolidated records and details of registration in respect of each ELT either fitted on to an aircraft or held in the stores shall be maintained by the manager responsible for Maintenance of the Aircraft or the Continuing Airworthiness of the Aircraft as the case may be.

6.2 The above records shall be presented to the authorised officials of DGCA for inspection.

7. Testing of ELT

7.1 The ELT shall be subjected for test in 'Self-Test Mode' only.

8. Emission of Actual Signals

8.1 No person shall cause emission of 406 MHz signals unless in distress or obtained a specific advance permission from INMCC and/or respective RCC.

9. Inadvertent Signal Transmission

9.1 All instances of inadvertent emission of signals shall immediately be reported to the respective RCC/MRCC with a copy to INMCC. The status shall be updated online through the registered user account under which the ELT is registered.

9.2 All approved organisations and aircraft operators shall investigate instances of false transmission of 406 MHz beacons when reported by INMCC or RCC and take necessary preventive action.

9.3 Action taken against each false transmission of signals shall be provided to the INMCC, respective RCC (Appendix II) and DGCA regional office.

Sd/-

(K P Srivastava)

Deputy Director General of Civil Aviation
For Director General of Civil Aviation

Appendix – I

Address:

Indian Mission Control Centre (INMCC)
ISRO Telemetry Tracking and Command Network (ISTRAC)
Indian Space Research Organization (ISRO)
Govt. of India/Dept. of Space
Plot no. 12, Peenya Industrial Estate
Bangalore-560058
For operations related matters:
Indian Mission Control Centre (INMCC), Bangalore

AFTN: VOBLZSZX

Telephone + 91 80 2809 4546

TeleFax + 91 80 2837 1857

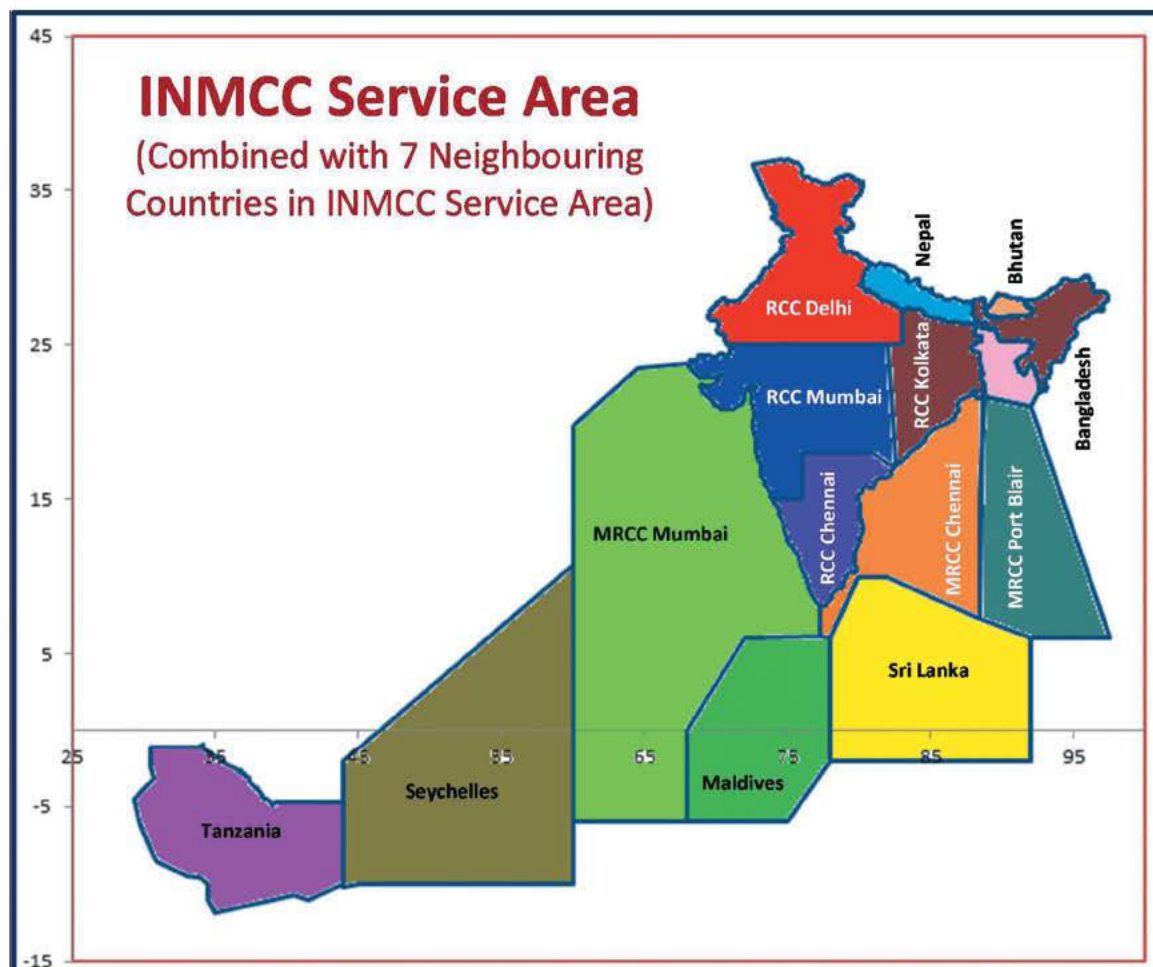
e-mail inmcc@istrac.org

INMCC Website <https://inmcc.istrac.org/>

INDIAN SERVICE AREA:

The Indian Mission Control Centre (INMCC), responsible for providing distress alerting services to National Aeronautical and Maritime Rescue Coordination Centres (ARCCs and MRCCs), Search and Rescue Points of Contact (SPOC) in seven neighbouring countries and other international Mission Control Centres (MCCs), is co-located with the Bangalore LUT.

Following diagram represents the INMCC service area covering 7 national Search and Rescue zones supported by ARCCs and MRCs, and 7 SPOCs.



Indian Ground Systems: Bangalore (LEOLUT, GEOLUT, INMCC), Lucknow LEOLUT

Indian Space Systems: INSAT-3A and INSAT-3D

National RCCs: 4 Aeronautical RCCs supported by Airports Authorities of India situated at metro airports (Chennai, Mumbai, Delhi and Kolkata)

National MRCCs: 3 Maritime RCCs supported by Indian Coast Guard situated at Mumbai, Chennai, and Port Blair

INMCC SPOCs (7 Neighbouring Countries): Nepal, Bhutan, Bangladesh, Sri Lanka, Maldives, Seychelles, Tanzania



Safe Waters

An Indian Coast Guard Publication

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Fax : +91 11-2338 3196
E-mail : dte-ops@indiancoastguard.nic.in
www.indiancoastguard.nic.in

For Search and Rescue Incident

CALL 1554

AT SEA : INMARSAT 'C' Code 43 (TOLL FREE)

