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

I am indeed privileged to have assumed the chair of the National Maritime Search and Rescue Board on taking over as the Director General Indian Coast Guard. With the changing economic and maritime environment and the consequent exponential increase in shipping traffic around the Indian Search and Rescue Region (ISRR), the need for an efficient framework for Maritime Safety and Security assumes greater importance. To this extent the role played by the Indian Coast Guard and the tireless efforts put in by the rescue agencies have inspired considerable confidence in SAR management amongst the seafarers.

The importance of preventive measures like safety inspections, drills, availability of appropriate communication and life saving equipment, have contributed effectively in reducing the distress incidents at sea. However, it has been observed that Indian Mechanised Sailing Vessels (MSV) due poor hull and machinery conditions continue to operate at sea, risking the precious lives onboard. The recent incidents of sinking of two Mechanised Sailing Vessels off Beypore and New Mangalore in fair weather conditions, necessitates the requirement of appropriate seaworthiness checks of these MSVs by the concerned authorities prior voyage clearance. Efforts put in by the fisherfolk in rescuing the seafarers in distress have been remarkable in the recent times. This aspect emphasises the importance of each rescue agency in instilling confidence in SAR management, amongst the mariners.

No Search and Rescue (SAR) mission can be successful, unless the personnel manning Rescue Co-ordination Centre have thorough knowledge of the system and procedures. To address this issue, a biannual training capsule was planned in co-ordination with Airport Authority of India and Indian Mission Control Centre (INMCC), Bangalore. As the National Maritime Search and Rescue Co-ordinating Authority (NMSARCA), I am extremely pleased to commend the co-ordination efforts among the resource agencies which led to successful conduct of the first refresher course for RCC operators on Search and Rescue at Civil Aviation Training Centre (CATC), Allahabad from 09-11 Jan 13. I request all NMSAR Board members and resource agencies to continue this effort in order to strengthen the Search and Rescue mechanism in India.

The National SAR Plan 2003 has been revised and the revised Plan 2013 has been circulated to all the NMSAR Board members. I express my deepest gratitude to all the NMSAR Board Members for providing their valuable comments to enable the update.

The 12th National Maritime Search and Rescue Board is planned to meet at Mumbai on 08 Aug 2013 to deliberate on issues concerning the implementation of National Maritime Search and Rescue Plan and also to facilitate review of progress on issues pending from earlier meetings. I am certain the working groups on Technical and Legal issues, constituted by the Board will submit value based solutions to various problem areas, at the meeting.

"VAYAM RAKSHAMAH"

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

New Delhi
04 Jun 13

From the Editor's Desk

The Maritime Rescue Coordination Centres continue to receive numerous undesignated COSPAS-SARSAT false distress alerts, which not only places undue strain on the Search and Rescue (SAR) system including wasteful deployment of resources but also increases the risk of undermining the credibility of alerting system leading to doubt about reliability of information. It would be prudent if every stake holder pays due regard and ensures safe practices while handling distress alerting beacons.

The Search and Rescue missions undertaken and the lives saved during emergencies at sea stand testimony to the concerted efforts of the National Maritime Search and Rescue Board & resource agencies. During the preceding six months, a total of 268 lives were rescued at sea through 73 missions in co-ordination with resource agencies.

Through these columns, I request all National Maritime Search and Rescue Board members to spare their valuable time to participate in the forthcoming XIIth NMSAR Board meeting scheduled to be held at Mumbai on 08 Aug 2013.

(Pintu Bag)
Commandant (JG)
Dy Director (SAR & CS)

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SAR NEWS

Sinking of Vessel and Rescue Operation in Andaman Sea

At about 1230 h on 05 Dec 12, Maritime Rescue Co-ordination Centre (MRCC), Port Blair received an information from vessel 'MV Express Hooghly' intimating about sinking of vessel 'Nagu' with approximately 250 personnel (50 Bangladeshi and 200 Myanmarese) onboard at the night of 04 Dec 12 in position 58 nautical miles East of Great Coco Island. The ill fated vessel had no mechanism onboard for transmitting distress alert.

Upon receipt of information, Coast Guard Dornier aircraft in 'Search and Rescue (SAR)' configuration was launched at about 1500 h from Port Blair to search and locate the survivors. In addition, one Coast Guard Ship and two Indian Naval Ships were also deployed to augment Search and Rescue efforts. International Safety Net (ISN) was activated and NAVAREA warning was promulgated to alert other merchant vessels passing through the area to provide assistance to the distressed crew.

Maritime Rescue Co-ordination Centre (MRCC), Yangon was requested for SAR co-ordination as the position of the reported distress was within Myanmar Search and Rescue Region (SRR). Vessel 'MV Nosco Victory' which was transiting through the area responded to the Safety Net Message and joined the vessel 'MV Express Hooghly' in search and rescued efforts. Together both the vessels rescued 49 survivors.

Coast Guard Dornier aircraft was again

tasked from Port Blair on 06 Dec 12 to search and locate remaining survivors. Subsequently, MV Nosco Victory with 40 survivors and MV Xpress Hoogly with 09 survivors departed search area for next port of call at Singapore.

Despite, extensive search by ICG/IN units, remaining 201 personnel could not be located and subsequently Search and Rescue operation was terminated at 0015 h on 08 Dec 12.

Subsequent investigation revealed that the vessel 'Nagau' had sailed from Bangladesh with 50 Bangladeshi nationals and en-route embarked 200 Myanmarese from Myanmar prior shaping course for Malaysia. At about 2300 h on 04 Dec 12, the boat sank due overloading and was not in possession of any life saving gears onboard.

Search for Sri Lankan Fishing Boat Sea Eagle 'Syan-1'

At about 1400 h on 18 Jan 13, Maritime Rescue Co-ordination Centre (MRCC), Mumbai received an information from Sri Lankan Consulate, Mumbai intimating about a Sri Lankan fishing boat "Syan-1" which was adrift in position 123 nautical miles South West of Kanyakumari since 17 Jan 13, due engine failure.

Upon receipt of information, MRCC, Mumbai activated International Safety Net (ISN) message to alert vessels transiting through the area. An Indian Coast Guard ship 'ICGS Samudra Prahari' on patrol was diverted and ICG Dornier aircraft was also launched with first light next day to search and locate the distressed Sri Lankan fishing boat. At about 1050 h on 19 Jan 13, 'ICGS Samudra Prahari' arrived in area and located Sri Lankan fishing boat 'Syan-1'. The of the distressed boat was provided with food and water by ICG ship. Meanwhile, the technical team of the ICG ship attempted to operationalise the defective engine, however, efforts to operationalise the engines of the distress was not successful and subsequently boat was taken under tow. Whilst the disabled boat was being towed to place of safety, two more Sri Lankan fishing boats were sighted enroute by ICG ship.

Sri Lankan Boat 'Syan-1' under Tow

The disabled boat was subsequently handed over to the Sri Lankan fishing boats for towing it safely to port in Sri Lanka.

Rescue of 03 Indonesian Fishermen

At about 1300 h on 08 Jan 13, CG Dornier on surveillance sighted one wrecked foreign boat with 03 personnel in position 1.25 nautical miles South of Tillanchang Island in Andaman & Nicobar Island. The personnel onboard the boat was reported signaling for help. The information was relayed to Coast Guard Regional Headquarters (A&N) by ICG Dornier.

On receipt of information, Coast Guard Regional Headquarters (A&N) at Port Blair requested Indian

Air Force for services of MI-8 helicopter from Carnicobar Island to rescue stranded personnel. At about 1440 h on 08 Jan 13, the MI-8 helicopter was launched from Carnicobar and subsequently rescued all 03 stranded Indonesian fishermen from the wreaked boat.

Grounding of Launch 'Basanta Moyee'

At about 1110 h on 08 Jan 13, Coast Guard District Headquarters No. 8, Haldia received a request from 'Digha Mohana' Marine Police Station for assistance to rescue stranded passengers from ferry launch "Basanta Moyee" which had grounded in position 4.6 n miles South East of Dariapur Light. The launch was transiting from Rasulpur Ghat to Sagar Island and was carrying approx 375 passengers onboard.

Rescue of stranded Passengers

The ICG ACV H-188 rescued 125 passengers (majority of them were ladies and Children) and disembarked them at Hizli Shariff near Rosulpur river mouth. Gemini of the ACV was also used to embark balance 250 stranded passengers to a police boat for further transferring them to place of safety.

Air Cushion Vehicle H-188 rescuing stranded Passengers

Search for Missing Fishermen from Fishing Boat 'Sobia'

At about 1230 h on 01 Feb 13, Maritime Rescue Coordination Centre (MRCC), Chennai received information from South Asian Fishermen Fraternity intimating about toppling of fishing boat 'Sobia' with 04 crew onboard in position 14 nautical miles South of Vizhinjam. All crew were reported to be missing.

Upon receipt of information, Coast Guard Ship ICGS Naikidevi on patrol, was diverted at about 1400 h on 01 Feb 13 to search and locate the missing fishermen. Another Coast Guard Ship ICGS Samar with integral helicopter was also deployed at 2315 h on 01 Feb 13 to augment search and rescue efforts. Further, at about 0630 h on 02 Feb 13, Coast Guard Dornier aircraft was tasked for sea-air coordinated search. At about 1100 h on 02 Feb 13, one body of fisherman ex fishing boat 'Sobia' was located by the local fisherman. Subsequently, information was received from Deputy High Commissioner, Sri Lanka at Chennai, intimated that remaining three fishermen were rescued by a Sri Lankan Fishing Trawler 'Randika Putha' in Sri Lankan water and were taken to Negombo, Srilanka on 05 Feb 13.

Assistance to Adrift FB Jai Koddiyar

At about 1045 h on 24 Feb 13, Coast Guard Interceptor Boat ICGS C-131 during coastal patrol sortie, sighted one fishing boat 'Jai Koddiyar' with two crew onboard adrift in position five nautical miles South West of Veraval.

On investigation, it was found that the boat was adrift for about 08 h due failure of Out Board Motor (OBM).

ICGS C-131 Towing FB Jai Koddiyar

Thereafter, the Coast Guard Interceptor boat towed the fishing boat to Veraval harbour and handed over to another fishing boat off Veraval at about 1145 h on 24 Feb 13.

Assistance to Adrift Fishing Boat 'Kadal Matha'

At about 0800 h on 25 Feb 13, Indian Coast Guard Ship 'ICGS Samrat' whilst on patrol in the area received a distressed call from fishing boat 'Kadal Matha' in position 159 nautical miles West of Ratnagiri, Maharashtra.

Meanwhile, Naval Ship INS Nashak which was operating in area responded to the distress call and took the distressed boat under tow. Subsequently, ICGS Samrat was diverted from patrol area for taking over the boat from INS Nashak. At

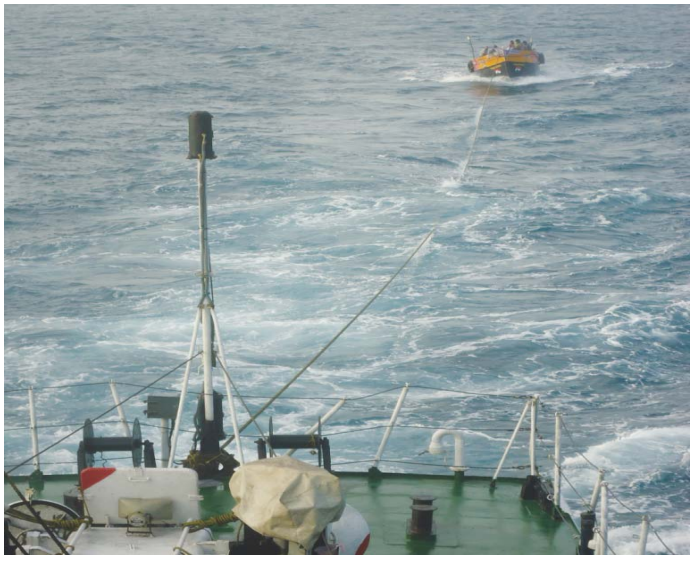
ICG Ship C-148 providing towing assistance to FB 'Kadal Matha'

about 0200 h on 26 Feb 13, upon taking over of the disabled boat from INS Nashak and ship's technical team was deputed to the distressed boat for defect rectification. However, the efforts of ICG technical team went futile, for want of spares. Thereafter, ICG ship towed the disabled boat till off Mormugao harbour and handed over to another Coast Guard ship 'ICGS C-148' for further towing the boat inside Mormugao harbour. The boat was subsequently handed over to owner at 1400 h on 27 Feb 13.

Rescue of Wooden Vallam with Six Crew

On PM 01 Mar 13, Indian Coast Guard Station at Tuticorin received an information from Asst. Director (Fisheries), Tuticorin intimating about one wooden craft with 06 fishermen reportedly adrift in position 25 nautical miles South of Manappad in Tamilnadu since 1400 h on 01 Mar 13, due engine failure.

Upon receipt of information, an Indian Coast Guard Ship 'ICGS Naikidevi' was deployed from Tuticorin at about 1830 h on 01 Mar 13, to search and locate the adrift boat.



ICGS Naikidevi Towing the Distressed Boat

The ICG ship located the distressed boat at about 2245 h on 01 Mar 13, and the boat was taken under tow. The Coast Guard Ship along with the disabled boat entered Tuticorin harbour at about 0730 h on 02 Mar 13 and the boat was subsequently handed over to Asst. Director (Fisheries), Tuticorin.

Rescue of Fishing Boat off Vizhinjam

At about 1730 h on 18 Mar 13, Maritime Rescue Coordination Centre (MRCC), Mumbai received a COSPAS- SARSAT distress alert from position 17 nautical miles South West of Vizhinjam.

Upon receipt of information Indian Coast Guard Interceptor Boat (IB), 'ICGS C-150' was deployed to search and locate the distressed vessel. The Interceptor Boat arrived at datum at about 2215 h on 18 Mar 2013 and located the distressed boat with 03 crew onboard in position 13.5 nautical miles South West of Vizhinjam. Upon investigation it was ascertained that the disabled boat was adrift due loss of primary OBM and failure of secondary OBM. The disabled boat along with crew was taken under towed by Coast Guard Interceptor Boat 'ICGS C-150' and brought to Puthiyathura, near Vizhinjam, Kerala at about 2245 h on 18 Mar 13.

Fire Onboard Fishing Boat 'Shri Raj'

At about 1935 h on 25 Mar 13, Coast Guard Dornier aircraft on surveillance sortie noticed fire onboard fishing boat 'Shri Raj' in position 86 nautical miles North West of Okha. The information about distress onboard fishing boat was passed by the Dornier aircraft to a Coast Guard ship 'ICGS Meera Behn' which was operating in the area for Exclusive Economic Zone patrol.

Upon receipt of information, Coast Guard Ship 'ICGS Meera Behn' shaped course for the position of the distressed fishing boat and arrived in area at about 2000 h. On arrival in area the Coast Guard Ship embarked all 06 fishermen of the ill fated boat, who were rescued by another fishing boat 'Man Mandir' operating in vicinity.

Fire on board Fishing Boat 'Shri Raj'

All out efforts were made by ICG ship to extinguish fire onboard the fishing boat 'Shri Raj' with ship's fire main system and submersible pumps. However the fire could not be extinguished and the boat subsequently sank at about 2330 h on 25 Mar 13 in position 82 nautical miles North West of Okha.

Subsequent investigation of the incident revealed that the fire broke out due to electrical short circuit whilst hauling the nets and converted into a major fire leading to gutting of the boat. Subsequently, the Coast Guard ship 'ICGS Meera Behn' entered Okha at 1200 h on 26 Mar 13 to disembark the rescued fishermen.

MEDICAL EVACUATION

MV Maharshi Krishnatreya

At about 1045 h on 05 Nov 12, Maritime Rescue Sub Centre (MRSC), Porbandar received an information from a vessel 'MV Maharshi Krishnatreya' which was operating in position 140 nautical miles South West of Porbandar, intimating about urgent requirement for medical evacuation of 06 crew, who fell unconscious whilst working in a compressor room.

Upon receipt of information, Coast Guard Interceptor Boat ICGS C-143 along with medical team embarked, was deployed from Porbandar.

Medical Assistance to Crew of MV Maharshi Krishnatreya

Subsequently, another Interceptor Boat of Coast Guard ICGS C-153 was also deployed from Veraval for assistance. In the mean while, the vessel was advised to head towards Porbandar with maximum available speed. Upon effecting rendezvous with the vessel, ICG medical team boarded the vessel for providing initial medical assistance and subsequent evacuation of the patients. The medical team upon examination of the patients ascertained that out of six casualties only one person survived. The Indian Navy Helicopter, which was launched from Mumbai, evacuated the only survivor at 1640 h on 26 Mar 13 and brought the patient to Porbandar. Thereafter, the patient was admitted in Lions Hospital, Porbandar for further medical care.

MV EMA Querida

At about 1330 h on 07 Nov 12, Maritime Rescue Sub Centre (MRSC), Porbandar received information from vessel 'MV EMA Querida' operating in position 60 nautical miles South West of Porbandar, requesting for requirement for urgent medical evacuation of a crew, who was suffering from stomach ache, suspected to be appendicitis.

Upon receipt of information, Coast Guard Helicopter was tasked from Porbandar to evacuate the patient. In the mean time, the vessel was advised to proceed towards Porbandar with maximum available speed to facilitate early evacuation.

Medical Evacuation from MV EMA Querida

The patient was subsequently evacuated by ICG Helicopter and was brought to Porbandar at about 1620 h on 07 Nov 12. On arrival, the patient was initially admitted to Lions Hospital, Porbandar and subse-quently shifted to Rajkot, where he was operated upon.

MT Malhari

At about 0400 h on 28 Nov 12, Remote Operating Station (ROS), Porbandar received an information from vessel 'MT Malhari' which was operating in position 15 nautical miles South West of Dwarka, requesting for medical evacuation of one crew who was suffering from high fever and breathlessness.

Medical Evacuation from MT Malhari

Upon receipt of information, Coast Guard Interceptor Boat (IB) ICGS C-136 was deployed from Okha at about 0500 h on 28 Nov 12, to evacuate the patient. The Interceptor Boat ICGS C-136 affected rendezvous with the vessel at about 0700 hrs on 28 Nov 12, evacuated the patient and brought to Okha, where he was handed over to local agent for further treatment. Later, the patient was admitted to Govt Hospital, Dwarka for further medical care.

MV Yangtze Rainbow

At about 1450 h on 28 Dec 12, Maritime Rescue Co-ordination Centre (MRCC) (MB) received information from the master of vessel 'MV Yangtze Rainbow' requesting for immediate medical assistance for the Chief Engineer of the vessel, who was suffering from excessive blood pressure and abnormally high pulse rate. The vessel was on its passage from Zirku Island to Kaoshiung (Taiwan) and was scheduled to arrive off Okha by 0500 h on 29 Dec 12. Subsequently, at about 0300 h on 29 Dec 12, Coast Guard Interceptor Boat, ICGS C-135 with medical team embarked was deployed from Okha for assistance. Since the tanker was fully loaded and was drawing a draught of 21 mtrs, it could not close Okha less than 25 nautical miles. The Coast Guard Interceptor Boat affected rendezvous with the vessel in position 27 nautical miles West-South West of Okha and despite rough sea conditions the patient was successfully evacuated from the merchant vessel and was administered first aid. The Coast Guard Interceptor Boat subsequently entered Okha at about 0830 h on 29 Dec 12 and handed over the patient to the local agent for further medical care.

SAR TRAINING

M-SAR Training for MRCC/RCC Operators

The National Maritime Search and Rescue Board (NMSARB) conducted first ever refresher course on Search and Rescue at Civil Aviation Training Centre (CATC), Allahabad from 09-11 Jan 13. Fifteen participants from Indian Coast Guard and Airport Authority of India attended the course.

M SAR Training at CATC, Allahabad

The classes were conducted on various subjects related to Maritime and Aeronautical Search and Rescue operation. During the course, the participants also shared their experience, which resulted in better understanding between operators of RCCs and MRCCs. All participants of the maiden SAR Course expressed their strong views on the utility of the refresher course.

ARTICLES ON MARITIME SAFETY AND SECURITY

DISTRESS BEACONS: IMPORTANT GUIDELINES TO USERS

By: INMCC, Bangalore

Beacon Carriage Requirements

Emergency Locator Transmitter (ELT)/ Personal Locator Beacon (PLB)/Emergency Position Indicating Radio Beacon (EPIRB) on aircraft/ships are always to be used as per **DGCA and DG(Shipping)** guidelines. It is recommended to use 406 MHz Beacons with internal GPS. New generation **406 MHz beacons with GPS** technology are cost effective and provide instantaneous and accurate location of distress within 500 m. Appropriate COSPAS-SARSAT approved beacon model need to be selected for specific application. List of approved manufacturers and beacon models are available on COSPAS-SARSAT website.

Beacon Coding

Ensure that the beacon is coded with the **Indian country code (419)** by the beacon manufacturer at the time of purchase including leased aircraft/vessels from outside. Before purchase, ensure that the beacon is coded using a protocol approved by the COSPAS-SARSAT for that beacon model. Approved coding protocols are listed on the beacon's type approval certificate, which can be found on the COSPAS-SARSAT website. In India, for maritime beacons (EPIRBs), DG Shipping made it mandatory to code the beacons using **MMSI** (Maritime Mobile Service Identity). For aviation beacons (ELTs) any authorized coding protocol is allowed. Coding with serial aviation protocol is recommended for airlines having a large fleet of aircraft so as to have flexibility to replace ELTs from one aircraft to another for maintenance if needed. For PLBs, it is generally advised to code using serial protocol. Indian Mission Control Centre (INMCC), Bangalore provides block of serial numbers on request for coding the beacons using serial protocol. The format for requesting block of serial numbers is made available on the INMCC website (http://inmcc.istrac.org). It is recommended that the manufacturer provides the serial numbers for coding to maintain the unique beacon codes.

Beacon Registration

Registration of the beacons with INMCC is mandatory and it is free of cost and available online at INMCC website. It is very helpful to get SAR assistance without any delay during emergencies. Ensure de-registration of beacon once vessel/ aircraft is sold/leased or scrapped.

Beacon Testing

Testing of the beacons with operational protocol is not permitted. One should use the self-test function of the beacon, which is not detected by the satellite system. If there is any requirement for operational testing, the request has to be sent to INMCC in a prescribed format (available at INMCC website). Testing with operational protocol will be permitted only if it is found to be absolutely necessary.

Avoid False Alarms

Take extreme care to avoid false alarms. In case of inadvertent activation, immediately inform nearest RCC/MRCC/MCC and send false activation report by email to **India_sar@istrac.org**, giving specific reason for inadvertent activation. Familiarize all the crew members with the importance of beacon operations and maintenance, which plays a vital role in saving life in most difficult emergency situations.

General Precautions

Carryout periodic maintenance checks and replace the beacon battery, prior to the expiry date. If the beacon has been transmitted inadvertently for more than 6 hours, the battery needs to be replaced

immediately to ensure its normal operation during real emergency. In an emergency, it is recommended to activate 406 MHz beacon always, even if the vehicle or person in distress has voice or other communication with owner or SAR authorities. The COSPAS-SARSAT system has a well organized network of MCCs worldwide which ensures a swift distribution of alerts and has a close cooperation with RCCs/MRCCs/SPOCs. Thus, it provides efficient support and ensures an efficient response of SAR services. All types of SAR users {Beacon owners, SAR agencies (RCCs & MRCCs), Regulatory authorities (DG Shipping & DGCA), System operators, Vendors} can join as registered users using INMCC website link, for access to different types of data and information etc.

ONLINE REGISTRATION OF 406 MHZ BEACONS (ELTS/EPIRBS/PLBS)

By: INMCC, Bangalore

"It is all about time…. The sooner we know you are in distress, where you are and who you are, the sooner help can get underway"

It is extremely important that 406 MHz distress beacons are registered in INMCC beacon registration databases which will be accessible to search and rescue authorities at all times. The information contained in these databases concerning the beacon, its owner, and the vehicle/vessel on which the beacon is mounted is vital for the effective use of Search and Rescue resources. The proper registration of a beacon could make the difference between success and failure of a Search and Rescue mission. During distress, "time" is a very critical factor and every minute spent directly affects the potential lives at risk. Hence, registration of radio beacons with INMCC is in the interest of the user and is very useful in the emergency situations, when you most need it. The SAR help is extended with no loss of time in case of distress. The registration of beacon helps discriminate false alarms quickly saving SAR resources and efforts by the SAR forces. The registration information is stored securely at the INMCC and used only for Search and Rescue purposes. Following are some of the important guidelines for the users for registration of the beacons:

- Verify and confirm the correctness/ accuracy of information made available at INMCC database periodically.
- It is the duty of units to keep the data updated as and when there are changes.
- Provide correct and working phone numbers and email ids for future correspondence.
- Beacons are to be registered online only, which is available at website (http:// inmcc.istrac.org), no manual registration is accepted at INMCC.
- The online registration offers to update the existing beacon registration data, register new beacons, deregister and re-register beacons, change ownership, update the user profile, get the certificate of registration/deregistration printed, search based on 15 hex id, call sign, MMSI, aircraft reg. id, vehicle name etc.

REDUCTION IN PIRACY ATTEMPTS OFF THE COAST OF SOMALIA

By: SAR Secretariat

The joint efforts of the international community and the private sector to counter piracy off the coast of Somalia have had initial success, with the latest reports from the International Maritime Organization (IMO) showing a sharp decline in pirate attacks and hijackings in 2012 compared to 2011. In 2012, there were 75 attacks against ships in waters off the coast of Somalia, resulting in the hijacking of 14 ships. The majority of attacks leading to hijacked vessels took place in the western Indian Ocean. This figure is far better than 236 reported attacks

and 28 ships hijacked during the same period in 2011. However, piracy continues to pose a serious threat, since 127 seafarers and 08 vessels were held hostage as of December 2012. This figure is also much lesser in comparison to 339 people and 16 vessels (including four fishing vessels and two dhows) held hostage in 2011.

The number of attacks continues to vary seasonally. However, spikes in pirate activity are less pronounced now than in the past. The proportion of successful attacks has reduced. The declining trend is attributable to several efforts like the combined actions by naval forces both at sea and ashore to disrupt pirate operations, the improved implementation of the IMO guidance and industry-developed Best Management Practices for protection against Somalia-based piracy, better application of self-protection measures and situational awareness by merchant ships, including through the use of fortified safe rooms and the prosecution of suspected pirates and the imprisonment of convicted pirates. The deployment of privately contracted armed security personnel on-board ships and of vessel protection detachments have also contributed to deterring pirate attacks.

According to the United Nations Office on Drugs and Crime (UNODC), Somali pirates reportedly received about $170 million in ransom in 2011 for hijacked vessels and crews, up from $110 million in 2010. The figures for 2012 are not yet available. The overall cost of piracy to States and societies remains high. According to an assessment by the non-governmental organization One Earth Future Foundation, the economic cost of Somali piracy in 2011 was between $6.6 and $6.9 billion owing to, inter alia, increased insurance premiums, ships transiting at faster speeds over longer routes to deter pirates, hiring of privately contracted armed security personnel and equipment, ransom payments and higher labour charges. The shipping industry bore over 80 per cent of these costs, while Governments bore the rest.

REGIONAL COOPERATION IN REPRESSING PIRACY OFF THE COAST OF SOMALIA

By: SAR Secretariat

The Djibouti Code of Conduct concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden became effective on 29 January 2009. The signatories committed to sharing and reporting relevant information, interdicting ships suspected of engaging in acts of piracy or armed robbery, ensuring that persons suspected of piracy are apprehended and prosecuted and facilitating proper care, treatment and repatriation for seafarers, fishermen, other shipboard personnel and passengers subject to acts of piracy. The total number of signatories to the Djibouti Code of Coduct is 20 as on date which includes Comoros, Djibouti, Egypt, Eritrea, Ethiopia, Jordan, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Oman, Saudi Arabia, Seychelles, Somalia, South Africa, Sudan, United Arab Emirates, United Republic of Tanzania and Yemen. A ministerial meeting on the review and future of the Djibouti Code of Conduct, convened by IMO on 14 May 2012, confirmed the region's willingness to undertake further action to implement the Code.

IMO has been delivering training on the Code of Conduct through the Djibouti Regional Training Centre. The information-sharing centres in Sana, Mombasa, Kenya, and Dar es Salaam, United Republic of Tanzania, are fully operational and linked to all 20 Djibouti Code of Conduct signatory States through a web-based information-exchange network. Further, work to improve maritime situational awareness in the region, including reporting on dhow movements, is in progress. IMO has conducted consultations with Djibouti, Kenya, Madagascar, Mauritius, Mozambique, Saudi Arabia, South Africa and the United Republic of Tanzania to meet specific capacity-building needs to help suppressing piracy.

The African Union and regional economic communities, including the Common Market for

Eastern and Southern Africa, the East African Community, the Intergovernmental Authority on Development (IGAD), the Indian Ocean Commission and the Southern African Development Community (SADC), continued to keep the focus on addressing piracy in all its aspects. Several international conferences reiterated that piracy continues to pose a grave threat to the peace, security and prosperity of Somalia, the region and the world as a whole. These conferences provided useful opportunities to exchange information and draw lessons on counter piracy activities in South-East Asia, the Indian Ocean, the Gulf of Aden and the Gulf of Guinea, including the necessary legal framework for prosecuting piracy.

The last convened IMO mini-summit on Somalia on the margins of the General Assembly, underlined the primary role of the Somali authorities in combating piracy and armed robbery, and hostage-taking off the coast of Somalia. It recognized the need for continued efforts to repress piracy and tackle its underlying causes through a combination of deterrence at sea, strengthening rule-of-law institutions, developing an appropriate legal framework, maritime capacity-building, and supporting sustainable livelihood and development of initiatives on land.

INCREASING MARITIME SAFETY : INTEGRATION OF DSC, VHF MARINE RADIO COMMUNICATION SYSTEM AND ECDIS

By: RHQ(W)

Technical progress of modern digital navigation and communication technologies has provided new technical systems appeared and maintained in practical navigation such as: Global Maritime Distress and Safety System (GMDSS), Automatic Identification System (AIS), Global Navigational Satellite System (GNSS), Global Positioning System (GPS), Electronic Chart Display and Information System (ECDIS), etc. At the same time, increasing the level of safety at sea demands the effective operation of the specified systems under common fatigue of the officer of the watch (OOW).

Presently, in various institutes, research is in progress for the safety of navigation and development of electronic navigation (e-navigation), automatic identification of VHF radio telephone transmissions in real time and increasing DSC efficiency by means of integration with AIS and ECDIS. The obtained results have been formulated in the form of the technical proposal for discussion in the 14th Session of IMO Sub-Committee on Radio Communications, Search and Rescue (COM-SAR) that have been passed in London in Feb 2010. The given proposal was unanimously supported by the participants of the Session.

Digital Selective Calling (DSC) is one of the basic features of GMDSS Radio Communication Sub-Systems. In accordance with International Telecommunication Union recommendations, all radio telephone transmissions of any priority (distress, urgency, safety and routine) must be preceded by the proper digital selective call. Nevertheless, the procedures of radio communication with the use of DSC are often neglected either in cases of distress or with other priorities. In particular, VHF channel 16 is often used incorrectly for distress calls as it was foreseen in the old system instead of using DSC on channel 70. The reasons for such neglect were analyzed in numerous documents of COMSAR and mainly attributed the navigator's non-conformity with the DSC procedures.

Navigators, as usual, neglect DSC process and directly pick up the telephone on channel 16. An important objective of the VHF radio communication improvement is the development and implementation of such technical improvements which could give ability to:

(a) Simplify the process of providing DSC radio communication.

(b) Select the called/calling vessel among others which are displayed on the electronic navigational chart. This element is specifically important for the urgent reaction of the watch officer on the called vessel under difficult navigation conditions, i.e. to provide the automatic identification of the called/calling vessel in the live navigational situation.

The completion of these two tasks can be achieved within the frame work of the currently used equipment onboard through the integration of the VHF DSC controller and the navigation equipment composed of the Automatic Identification System (AIS) and the Electronic Chart Display and Information System (ECDIS). In this case all of the basic functions of integrated systems are preserved. Currently AIS is an obligatory equipment to be carried onboard all vessels. ECDIS has been man-dated recently, nevertheless even now it is widely used as a supplement to the traditional paper charts. AIS provides exchange of information which includes an Identification Number (MMSI). ECDIS, while operating with AIS, enables it to indicate vessels on a navigation display within the AIS operating area, i.e. approximately 30 nautical miles, and to reflect them on electronic navigational charts. The combination of VHF DSC with ECDIS-AIS system will allow following:-

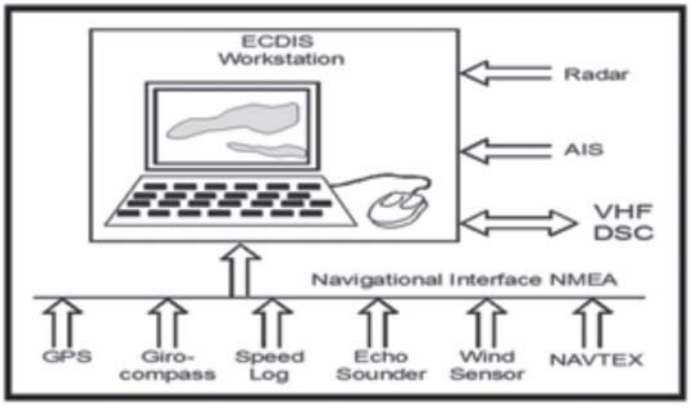
(a) To eliminate the procedure of DSC forming while substituting manual operations by a computer mouse “click” on the ECDIS display.

(b) To provide the authentication of a calling vessel on the electronic chart and thus to make the process of attachment of the called/calling vessel to the navigation situation automatically. A calling vessel can be indicated on the display by a blinking mark which will allow OOW (Officer of the Watch) of the called vessel to quickly estimate the navigational situation for making effective decision.

The unique character of the vessel’s authentication is provided by the presence of vessel identifier (MMSI) both in DSC and AIS. In other words, the calling vessel is automatically attached to the current navigational situation represented on a navigation display. During the manual preparation of the call procedure an operator need to enter a nine-character long digital identifier (MMSI) and working channel number. While doing this, about 20 pressings of the DSC controller keyboard buttons are required. More difficult calls require more number of key pressing. The proposed method gives the ability to form a call through a mouse click only on the chosen vessel (or the coast station). The series of parameters, for example, the working channel number, can be set by default (or can be chosen manually if necessary). The entering of the MMSI is not required in the proposed method because it can be sent from the AIS - ECDIS system to the DSC controller automatically. Integration of the DSC-VHF and AIS-ECDIS may be realised through a separate interface block connected to the DSC equipment of any equipment manufacturers. Replacement of the DSC equipment is thus not required.

Integration of the DSC-VHF and AIS-ECDIS enquires no changes to the existing radio communication operational procedures. All regular DSC forming and viewing functions are retained. The present manual method of forming/viewing calls will be preserved as a supplementary means to the automatic method of forming/ viewing calls in the AIS-ECDIS System. DSC-VHF integration with the AIS-ECDIS will ensure further enhancement of safety of navigation while simplifying the navigator’s interface with radio communication and navigational equipment and accelerating actions of the operator. This suggestion is fully compatible with the e-navigation development strategic direction which envisages further development of means of radio communications & navigation and the implementation of modern digital information

technologies in navigation. Technical implementation of this suggestion is also compatible with the new regulations for the mandatory carriage requirement of ECDIS.



8th Heads of Asian Coast Guard Agencies Meeting (HACGAM)

The 8th meeting of Heads of Asian Coast Guard Agencies Meeting (HACGAM) was held on 03 Oct 2012 in New Delhi. This was the first ever meeting of the HACGAM in the South Asian Region which was co-hosted by the Indian Coast Guard and Japan Coast Guard under the auspices of Nippon foundation, Japan.

IG Rajendra Singh, then Dy Director General addressing HACGAM

HACGAM is an apex level forum facilitating congregation of all the major Coast Guard Agencies of Asian region. This initiative was developed initially in 2004 to discuss cooperation among the member organizations to combat piracy in the region. However, the scope of discussions has been expanded to include law enforcement, maritime security, disaster prevention and relief and capacity building. Presently, there are 21 member organizations from 17 countries including ReCAAP ISC Singapore that are part of the initiative.

On completion of the meeting a mission statement was adopted which states following:

'*To promote safe, secure and cleaner seas in Asia through sustained cooperation and collaboration between the Asian Coast Guard Agencies and to achieve coordinated response and synergy to common maritime issues related to search & rescue, environment protection, countermeasures against massive natural disasters and control of unlawful acts at sea*'

To accomplish the mission formulated for achieving the cooperation among the HACGAM member agencies, five pillars of cooperative activities have been identified to enable focused and goal oriented approach towards co-ordinated response and synergy to common maritime issues. Search and Rescue has been considered as one of important pillar wherein Indian Coast Guard has been assigned the lead role and aims at ensuring prompt response to any distress at sea within the Asian region. The proposed activities on Search and Rescue include information sharing, compiling best practices, sharing of expertise through conduct of exercises and conferences.

Delegates of HACGAM with Hon'ble Defence Minister

Safe Waters

An Indian Coast Guard Publication

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