



BLUE WATERS

Newsletter

On Marine Environment Protection

May 2023

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From the Director General's Desk



India employs a range of administrative, penal and social regulations to preserve & protect environmental resources as is practiced world over. The marine environment, in particular, has been the focus of a flurry of both international and domestic legal reforms. The International Convention on Oil Pollution Preparedness Response and Cooperation (OPRC) 1990, to which India is a party states that the Coastal nations to establish national contingency plan and pollution response capability to address oil spills that may occur in their coastal areas. Further, preservation and protection of marine environment and prevention and control of pollution is a statutory duty of the Coast Guard under the Coast Guard Act 1978. The Coast Guard has accordingly prepared the National Oil Spill Disaster Contingency Plan (NOSDCP). Despite the advancements in technology, oil and HNS spills at sea will continue to pose a significant threat to marine environment.

Indian Coast Guard, amongst its many important roles, is mandated for taking such measures as necessary to preserve and protect the marine environment. The endeavours of the Government of India such as 'Swachh Bharat Abhiyan', 'Swachh Sagar Abhiyan' and 'Swachta Hi Seva' are major contributors towards both awareness amongst common man and cleanliness in the society. On 17 Sep 2022, ICG along with other organisations conducted the 'Swachh Sagar Abhiyan' with a mission to simultaneously conduct ICC across 75 beaches spread along the 7500 km coastline of our country. ICG had also conducted plantation drive and planted about 7500 trees all along the coast.

The tussle between commercial viabilities in terms of economic balance is mostly acting as detrimental effects on the marine environment. As the focus shifts towards the resources of oceans for the ever growing needs of humankind, it is incumbent upon all of us to pull on the oars together.

I am sanguine that the readers of this newsletter and stakeholders would contribute towards the noble cause of preserving the fragile marine environment and would continue to extend their wholehearted support to the ICG endeavours at sea.

Vayam Rakshamah. Jai Hind.

27 May 2023
New Delhi

A handwritten signature in red ink, appearing to read 'Rakesh Pal', with a long horizontal line extending to the right.

(Rakesh Pal)
Additional Director General
Director General (Addl. Charge)
Indian Coast Guard

Editorial

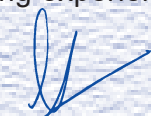
Preservation of environment is an intergenerational responsibility. We, the present generations have inherited this environment from our previous generations; and, we hold it as a custodians for our future generations.

The demand for food and energy has pushed countries into the vast yet limited ocean spaces as the land based resources are dwindling fast. India is the second largest consumer of oil in the World today. The transshipment of this oil in the maritime zones of our country poses a significant challenge towards protecting the country's fragile marine ecosystems.

Coupled with the challenges of pollution by oil, there are many more pollutants including land based run-offs, plastics, hazardous and noxious substances that are causing marine pollution to an unprecedented extent.

To counter these scenarios clear hierarchies in terms of leadership, command and management are prerequisite. Such an endeavor also requires seamless synergy and collaboration amongst the stakeholders backed by solid legislation. ICG provides that trunnion on which the entire aspects of marine environment protection is pivoted as the Central Coordinating Agency.

The editorial team conveys a warm gratitude to all the contributors to this edition of "Blue Waters" and wishes happy and information filled reading experience to all.



(PV Gopal)
Commandant
Joint Director (FE)

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Website : www.indiancoastguard.gov.in

ARTICLES

SAVING THE ENDANGERED TURTLES FROM GHOST NETS

*Commandant AS Ali
CGRHQ (East)*

Ghost nets are fishing nets that have been abandoned, lost or discarded at sea. They contribute to Ghost gear, which includes all types of fishing gear, nets, lines, traps, pots and fish aggregating devices that are no longer actively managed by fishermen. Ghost nets are unintended by-product of fishing and occurs when the fishermen loses the control of these nets. These nets finally land up in beaches, ocean beds, coral reefs and open seas endangering the flora and fauna of these places.

Ghost nets can entangle all sorts of marine life. Turtles, owing to its physical features are one of the most vulnerable species to get entangled in these nets. Especially, this concerns the Olive ridley turtles which are endangered species categorised in schedule 1 of Wildlife protection Act 1972.



Fig 1. Rescue

ICGS Vajra rescued 07 Turtles in GoM. On 25 Mar 23, ICGS Vajra whilst on area patrol off

Pamban, sighted a considerably large ghost net floating in sea in position 090°01'.78" N 079°16'.94E (166 Pamban Lt 16). On closer observation, around 07 Olive Ridley turtles were found to be entangled in the ghost net. The ship lowered the sea-boat along with Boarding Party. The Boarding party carefully maneuvered close to the ghost net and cautiously started cutting the net to free the turtles one by one. After persistent efforts of about 40 minutes, the Boarding Party freed all the 07 turtles. The ghost net which weighed about 80-90 kg, still posed danger to the marine fauna and was recovered onboard.



Fig 2. Rescued turtles

Preservation and protection of maritime environment is one of the duties under ICG charter. The Olive Ridley sea turtles, one of the endangered species declared under Schedule-I of Indian Wildlife (Protection) Act, 1972, are exposed to numerous threats resulting in the decline of their population. Abandoned ghost nets pose such threat not only to the turtles but other marine life forms as well. Fishermen are regularly sensitised during Community Interaction Programmes (CIPs) to refrain from leaving behind weathered nets and dump garbage at sea. They are appraised about keeping

the marine environment clean is a collective responsibility of all stakeholders and should be given due importance.

WRECKS IN INDIAN WATERS – A LEXI-CULTURAL OVERVIEW

*{DIG Rajesh Mittal, Principal Director
(Fisheries & Environment), CGHQ}*

The only inscriptional evidence referring to the shipwrecks is the Motupalli Pillar inscription 'Abhayasasana' (charter of security) of King Ganapatideva (1244-45 AD) (Hultzsch, 1882) and AnnapottuReddi (1358 AD) of Andhra Pradesh, east coast of India (Srinivasan, 1990). As the cargo of the wrecked ships was taken away by the local chiefs of this region, in the inscription the king had ensured the safety to the lives and cargo of both foreign and inland traders and offered protection from piracy. Further, the inscription states that the lives of both foreign and Indian mariners are treated as valuable as that of the ruler King Ganapatideva himself (Tripathi, 2019).

However, the hazards and dangers that wrecks can pose may require actions in consonance with legal instruments, both international and domestic. The problems due to wreck are three-fold: first, a wreck may constitute a hazard to navigation, potentially endangering other vessels and their crews; second, wreck has a potential to cause damage to the coastal and marine environment, depending on the nature of the cargo; and third, there is the issue of costs involved in the marking and removal of hazardous wrecks.

There are several international conventions, such

as the Nairobi International Convention on the Removal of Wrecks (WRC) and the different conventions related to oil pollution that can be relevant in relation to these hazards and dangers. There are also domestic regulations, in terms of the Merchant Shipping Act, 1958 and Merchant Shipping (Wrecks and Salvage) Rules, 1974.

A situation can be further complicated by the different maritime zones in which a wreck may be located and jurisdictional matters as to which legal system that is to govern the wreck. Careful scrutiny may be required in order to determine which legal framework or frameworks that are relevant in relation to a wreck in light of this complexity. Furthermore, questions concerning proprietary interests and contractual issues in relation to wrecks can, among other things, impact on the situation and especially so when assessing rights in respect of a wreck and liability issues (Kern, 2021).

The public aspects of the law of wrecks is primarily focussed on the issues pertaining to marine pollution. The wrecks may emanate multitude of pollutants – principally hydrocarbons (such as oils and lubricants) and potentially polluting cargoes which may even be hazardous and noxious in nature. The Merchant Shipping Act, 1958 was enacted to foster the development and efficient maintenance of an Indian mercantile marine sector in a manner best suited to serve the national interest. International Maritime Organisation (IMO), as the global standard-setting authority for the safety, security and environmental performance of international shipping, creates fair and effective regulatory framework for the shipping industry in the form of Conventions for universal adoption and implementation.

India is a member of IMO and as and when Government of India approves to be a party to an International Convention by accession/ratification, the Convention is given effect by suitably incorporating its provisions in the concerned domestic legislation, i.e., the Merchant Shipping Act, 1958. India has already acceded to three International Conventions of the IMO viz., the International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (hereafter referred to as Bunker Convention); the Nairobi International Convention on the Removal of Wrecks, 2007 (hereafter referred to as Nairobi Convention); and the International Convention on Salvage, 1989 (hereafter referred to as Salvage Convention). India is already a party to the Nairobi Convention and Salvage Convention and accession to Bunker Convention has now been approved and for implementing the Convention, the Merchant Shipping Act, 1958 requires further amendments.

The Bunker Convention was adopted to ensure that adequate, prompt and effective compensation is available to persons who suffer damage caused by spills of oil (hydrocarbon mineral oil including lubricating oil), when carried as fuel in ships. Under the provisions of the Merchant Shipping (Amendment) Bill, 2020, the registered owner of a vessel has to maintain compulsory insurance cover which allows claim for compensation for bunker pollution damage to be brought directly against an insurer. Ships of 1000 Gross Ton and above have to carry a certificate onboard to the effect that it maintains insurance or other financial security, without which these vessels will not be allowed to enter or leave India. The liability cover for bunker pollution damage shall be equal to the limits

of liability under the applicable national or international limitation regime, but in all cases, not exceeding an amount calculated in accordance with the Convention on Limitation of Liability for Maritime Claims, 1976.



Fig 3. Fire onboard SSL Kolkata

The amendments, based on the Bunker Convention, are necessary as it is difficult to obtain compensation to pollution caused by bunker oil spill/leakage from ships other than tankers. Local Authorities/Government find it difficult to recover costs on preventive measures and clean-up operation on such type of pollution. This problem can be suitably addressed if India becomes party to this Convention and incorporates its provision into the Merchant Shipping Act, 1958. However, vessels on the coast of India may have to take additional insurance cover. Further, India would be able to ensure that all foreign flag vessels entering Indian territorial waters or Exclusive Economic Zone are duly covered by insurance as required under the Convention.

The Nairobi Convention provides the legal basis to remove shipwrecks that may have the potential to affect adversely the safety of lives, goods and property at sea, as well as the marine environment.

The Convention fills the gap in the existing international legal framework by providing the first set of uniform international rules aimed at ensuring the prompt and effective removal of wrecks located beyond the territorial sea.

It is a considered opinion that the existing provision in Part XIII of the Merchant Shipping Act, 1958 relating to wreck removal are not adequate in dealing with increasing amount of wrecks on the coast of India. The Convention will provide uniform international rules aimed at ensuring the prompt and effective removal of wrecks located beyond the territorial sea. The Convention also includes an optional clause enabling countries to apply certain provisions to their territory, including their territorial sea. However, spatial jurisdictional are quite clear. In that if an incident happens in a Port of call, it is the Deputy Conservator of Ports who would then take necessary action as he would be the receiver of wrecks. Similarly, beyond the port limit, this power is delegated to the District Collector or District Magistrate.

The International Convention on Salvage 1989 (Salvage Convention) replaced the prevalent “no cure, no pay” principle where a salvor is only rewarded for services if the operation is successful. India is already a signatory to this Convention and has obligation to give full and complete effect to the provision of the Convention. The present provision of Part XIII of the Merchant Shipping Act, 1958 is inadequate in dealing with salvage operation as the salver will only be awarded, if the salvage is successful. Salvage Convention seeks to remedy this deficiency by making provision for an enhanced salvage award taking into account the skill and efforts of the salvors in preventing or minimizing damage

to the environment (article 13 and 14).

In the year 2022 alone, three major incidents of shipwrecks, MV Princess Miral, MT Parth and MV Global King-1 occurred in Indian waters. The Merchant Shipping Bill, 2020 and Indian Ports Bill, 2022 are welcome steps towards further strengthening and harmonising municipal law with international legal regime aimed to implement a clear policy on shipwrecks and adopt a unified, informed and comprehensive system for dealing with wrecks.

To conclude, the respective rights of states in maritime zones are set out in the UN Convention on the Law of the Sea 1982, which includes general provisions on protecting Underwater Cultural Heritage (UCH) such as wrecks. Further, the respective responsibilities of States for wrecks and other forms of UCH were elaborated by the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001 elaborating rights and obligations of States towards UCH in each maritime zone (Firth, 2018.). It would be apposite to use tools of environmental law for reducing disaster risk on the preventive side of spectrum rather than reactive mitigation measures.

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ENVIRONMENT INITIATIVES & MEASURES AT NAYARA ENERGY

(Capt Alok Kumar, M/s Nayara Energy Pvt Ltd)

India has approximately 250 MMTPA of refining capacity making it the 2nd largest in Asia. More than 60% of crude docks in the Gulf of Kutch, Gujarat making it one of the most strategic locations. Within the Gulf of Kutch, there is a small coastal town called Vadinar, located in the Devbhumi, Dwarka district, which is home to one of the most complex refineries in the world, the cornerstone of Nayara Energy's existence.

Nayara Energy's Vadinar refinery is India's second largest, single-site refinery with an annual capacity of 20 MMTPA. It is capable of processing diverse range of crudes and producing high quality Euro IV, Euro VI grade products and Bharat Stage (BSVI) compliant fuels that meet international standards. This brings us at par with global emission standards.

Nayara Energy owns and operates integrated, state of the art Marine Oil Terminal located at Vadinar coast, Gujarat within conservancy of Deendayal Port Authority, the largest port in the country. The Terminal has a capacity of 41 MMTPA and can handle both crude oil and petroleum products. The facilities include an off-shore single point mooring (SPM) capable to handle crude tankers up to size 350,000 DWT and two berths capable of accommodating tankers up to 100,000 DWT. It is located in close proximity to India's first Marine National Park. This area serves as nature's own laboratory to studying the complexities and integrity of living and non-living

organisms, with over seven varieties of mangroves, 52 coral species, 80 bird species, and other abundant resources, making the area rich in biodiversity.

The key initiatives for safe and robust operation and maintenance regime include:

- Well defined ship acceptance criteria.
- Ship shore environment Checks.
- In-house diving team for maintenance and inspection of offshore assets.
- Strict compliance to OCIMF, OISD and ABS guidelines.
- Highly experienced, trained, and motivated human resource.



Fig 4. M/s Nayara Energy Pvt Ltd

Nayara Energy is aware of its vast responsibilities, which includes social and environmental duties and has developed well-defined Environmental Management System for mitigating the impacts on the environment. Some of the important measures include:

Mangrove Plantation.

Plantation of mangroves covers an area of 175 hectares, and another 200 hectares are in the final

stage of plantation in Marine National Park/Sanctuary area.

Oil Spill Preparedness and Response.

Nayara Energy strongly believe that prevention is better than cure. Therefore, all our offshore assets, equipment, and ancillaries comply with strict service life and retirement criteria under classification from ABS. A robust mechanism for oil spill management is in place, comprising of an Oil Spill Disaster Contingency Plan (OSDCP), Tier-I OSR equipment and trained manpower. Mutual Aid Agreement with the Port Authority and nearby Oil handling agencies is also in place for resource pooling.



Fig 5. Preparedness for Oil spill combat

Air Pollution Prevention/ Control Measures.

Refinery fuel gas, natural gas and fuel oil containing low Sulfur are used in heaters and furnaces. Nayara Energy have installed various systems and equipment in process units for emission control across the refinery.

Hazardous Waste Management.

Nayara Energy is committed to effective management of waste generated in our refinery. To

this end, we have implemented documented management procedure for both hazardous and non-hazardous wastes management. Our waste management procedure is strictly followed, and we strongly believe in the maximum utilization of waste. Therefore we adopt the principles of reduce, reuse, recycle, co-processing, preprocessing, and so on for the disposal of any kind of waste.

Greenbelt Development.

The main objective of setting up a green belt is to mitigate fugitive emissions or accidental releases, control soil erosion, facilitate wastewater utilization, control noise pollution, and improve the aesthetic view of the refinery. Nayara has developed well-established greenbelt in 410 Ha area having more than 300,000 plants.

Marine Environment Monitoring.

Comprehensive annual ecology monitoring through the CSIR- National Institute of Oceanography (CSIR-NIO) has been conducted since the commissioning of the facilities. The monitoring includes water and sediment sampling and analysis at identified stations. Coral, Mangroves, and other biota monitoring are also covered under the annual monitoring. The monitoring covers an area of approximately 200 km², spanning seven coastal stations as well as Kalubhar, Narara Island, and the intertidal areas of Vadinar. The annual monitoring is compared with the baseline data. To date, no gross changes have been observed due to our operations for more than 16 years. In addition, monthly marine environment monitoring is done through the Gujarat Institute of Desert Ecology (GUIDE) for water, sediment quality and biological characteristics.

Waste Water Management.

The wastewater from different production units of refinery is collected and treated at the wastewater treatment plant. The entire quantity of treated waste water is reused / recycled for various purposes, such as cooling towers, fire water make-up, green belt, and feed to RO plant. More than 95% of Treated wastewater is reused inside the Refinery.



Fig 6. Nayara Energy operations in pristine water



Fig 7. Rich Biodiversity surrounding our operations

Environment Quality Monitoring.

Nayara Energy has installed two Continuous Ambient Air Quality Monitoring Stations. Continuous stack emissions, ambient air quality, and effluent monitoring, which are connected to CPCB. Nayara has also implemented Leak Detection and Repair Program for monitoring fugitive emission. Ground water quality monitoring is also carried out within and outside the refinery.

Rain Water Harvesting.

Nayara has also developed six reservoirs / ponds within refinery premises to storage and recharge groundwater. The total capacity of these ponds is 625,000 m³.

Due to its incredible location and the highly complex refinery, Nayara Energy Marine Terminal leverages its assets and experience to operate in the most efficient and effective manner. It has completed over 6000 days of safe operations and has handled more than 5400 ships without any incidents of oil spill. This speaks volumes about our perseverance towards Environment Protection. We are dedicated to meticulous work in order to keep our coast and waters among the safest and purest in the world, taking into account the incredible biodiversity of the area.

EVENTS

8th NATIONAL LEVEL POLLUTION RESPONSE EXERCISE (NATPOLREX-VIII)

NATPOLREX-VIII was conducted off Goa from 18-20 Apr 22 wherein 13 CG Ships, 01 Heli-skimmer, 09 Aircraft, Sri Lankan Coast Guard Ship Suraksha and Bangladesh Coast Guard Ship Kamaruzamman and four vessels of stakeholders participated. A total of 172 representatives participated in the exercise including observers from 19 countries, reps from international organisations and reps of 50 national stakeholders (Central and State departments, Major Ports, Non-major Ports, Oil Handling Agencies, Oil Installation Onshore). The exercise showcased ICG capability to respond to any major oil and HNS spill in Indian EEZ and to extend support to friendly countries in case of any contingency.

invitees for the inaugural session by the Chairman NOSDCP. NATPOLREX-VIII was inaugurated by Defence Secretary by lighting of lamp in presence dignitaries on 19 Apr 22 .



Fig 9. Defence Secretary, Inaugural Session

Nineteen Friendly Foreign Countries and various international organisation like South Asia Cooperative Environment Programme (SACEP), International Tanker Owners Pollution Federations Limited (ITOPF), M/s Smit Salvage, Desmi etc. participated in the exercise. An Ice breaking ceremony was organised on 18 Apr 22. 22 observers from Friendly Countries and three representatives from International organisations were invited for the ice breaking ceremony held at Goa.



Fig 8. Sea Exercise

Dr. Ajay Kumar, IAS, Defence Secretary was the chief guest of the inaugural session. Dr. M Ravichandran, Secretary, MoE&S, MD Masumur Rahman, Director General, SACEP and Shri K Sanjay Bariar, Additional DG Shipping were the special



Fig 10. Foreign delegates

During the ceremony the representative discussed various issues and pollution response capabilities of their countries and participating agencies. The participants displayed keen interest towards the various forthcoming events related to NATPOLREX-VIII.



Fig 11. Table Top Exercise

A Table Top exercise was conducted on 19 Apr 22 with participation of 72 national and international delegates. The delegates were distributed in 6 syndicates of 12 members each. The Table Top Exercise was conducted by DIG Pradeep B Mandal, Officer-in-Charge, CG PRT(W). During the Table Top Exercise three situations were simulated for the syndicates to work in sync as stakeholders and list down measures to mitigate the challenges in initial phase, Operations phase and Post-Operations phase. Each session was moderated for appropriate actions for understanding of each syndicate along with innovative ideas generated during the discussions.

Bi-lateral talks were held between Director General VS Pathania, PTM, TM, DGICG and MD Masumur Rahman, DG, SACEP on 19 Apr 22. During the talks various aspects of bi-lateral cooperation and matters related to training for Oil and HNS pollution

response and preparedness were discussed. The bi-lateral talks also saw participation of ships from SACEP member countries (Bangladesh and Sri Lanka) in NATPOLREX- VIII.



Fig 12. DGICG and DG SACEP

INTERNATIONAL COASTAL CLEANUP DAY - 2022

Taking forward the vision of the Hon'ble Prime Minister and his constant emphasis on cleanliness across the nation including Coastal States/UTs, a cleanliness campaign "Swachh Sagar Surakshit Sagar" and 'Puneet Sagar Abhiyan' was conducted on 17 Sep 2022.



Fig 13. ICGS Porbandar



Fig 14. ICGS Mundra



Fig 17. Radhanagar Beach Havelock

The International Coastal Cleanup day is conducted in various parts of the world in third week of September every year under the aegis of

United Nations Environment Programme (UNEP) and South Asia Co-operative Environment Programme (SACEP) in the South Asian Region. The Indian



Fig 15. Chandrabhaga



Fig 18. ICGS Gopalpur



Fig 16. ICGS Mandapam



Fig 19. Mallakadu Beach



Fig 20. Auroville Beach, Puducherry



Fig 23. Kilinjalmedu Beach, Karaikal

Coast Guard has been coordinating this activity in India since 2006.

The campaign was integrated with Ministry of

Earth Science (MoES), Ministry of Environment Forest and Climate Change (MoEF&CC), Indian Coast Guard, National Service Scheme (NSS), National Disaster Management Authority (NDMA),



Fig 21. ICGS Kavaratti



Fig 24. ICGS Ratnagiri



Fig 22. Kalipur Beach



Fig 25. Rushikonda Beach, Vishakhapatnam

Seema Jagran Manch, Akhil Bharatiya Vidarthi Parishad (ABVP), Paryavaran Sanrakshan Gatividhi (PSG) alongwith other social organisation and educational institutions. The event was conducted with an aim to maintain the sea shores neat and clean and to avoid further pollution of marine environment by man-made activities and also educate and motivate the local populace.



Fig 26. Suryalanka Beach, Nizampatnam

**OPERATION 'OLIVE RIDLEY TURTLES'
(OPS OLIVIA: 2022) FOR PROTECTION
OF ENDANGERED SPECIES**

The *Lepidochelys Olivacea*, popularly known as the Olive Ridley Turtles come to the beaches of Odisha coast every year between Nov/ Dec and remain till Apr/May for nesting. The Olive Ridley Turtles are included in the endangered species list under Schedule I of Wild Life Protection Act, 1972. These turtles face severe nesting problems at Odisha coast due to dwindling beach space, human intervention and fishing activities off Odisha. The importance of conservation of the endangered species needs no emphasis. The whole conservation project falls under the purview of the Forest Department, where in the state authorities consisting of fisheries and local administration coordinate activities for the turtle

conservation. Since the operation is maritime in nature, the Coast Guard also participates in the conservation efforts.



Fig 27. Olive Turtle

The Olive arrive at the beaches of Odisha coast annually between November and December and continue to stay until April and May for nesting. The turtles choose the narrow beaches near estuaries and bays for laying their eggs. Each adult female lays approximately 100 to 140 eggs at a time.

Operation Olivia code named as “Ops Olivia” is launched every year by Indian Coast Guard to support the efforts of Forest Officials. Operation Olivia commenced w.e.f. 01 Nov to 31 May every year coordinated by Coast Guard District Headquarters No.7 (Odisha) under overall coordination and control of COMCG (NE). The operation terminated on 31 May 22 Indian Coast Guard along with the Marine Police and Forest Officials also undertake Special Community Interaction Programme (CIP) to spread awareness about the species and the importance of conserving it.

The three patrol areas are designated along the coast of Odisha in order to maintain an effective and gapless patrol off Gahirmatha, Rushikulya and Devi

River Mouth. The areas are continually under supervision by the extensive deployment of surface and air platforms of ICG. A close coordination is maintained with Fisheries and Forest officials. Nodal Officers from both departments are designated prior to commencement of operations for smooth conduct of Ops Olivia.

During Operation Olivia fishing boats found close to marine reserve area were regularly checked by ship's boarding party for confirming the usage of Turtle Excluder Devices (TEDs). Boats violating the promulgated regulation of TED were warned and the matter reported to the AD fisheries. A close coordination was maintained by ICG units with two way communication established with fisheries and forest departments during the entire period of operation. During the entire operation, no violation of Odisha Marine Fishing Regulation Act, 1982 (OMFRA) was observed.

**24TH NATIONAL OIL SPILL DISASTER
CONTINGENCY PLAN
(NOS-DCP)
AND PREPAREDNESS MEETING**

24th NOS-DCP & Preparedness meeting was held at Chennai on 30 Nov 22. Director General VS Pathania, PTM, TM, DGICG, Chairman NOS-DCP chaired the meeting. About 84 delegates including representatives of various Ministries, Central and State Govt. departments and agencies, State Pollution Control Board, Ports and Oil Handling Agencies participated in the meeting. The national capabilities with the common aim to ensure collective preparedness to respond to any oil and chemical spill contingency in Indian waters was reviewed during

the meeting.

During the inaugural address, Chairman NOS-DCP expressed his concern about oil spill incidents. He appreciated efforts of all the agencies in common thread linking our response to each of the oil spill incidents over the years. He highlighted about the national plan is the glue that binds us all together and serves as our guiding light in responding to contingencies. He expressed personal appreciation to all stakeholders for support to contingencies. He commends all the statutory authorities and facilities for the excellent support and cooperation in conduct of joint inspections. He expressed compliment to all the distinguished members for their active participation in the contingency planning process, which is reflected in the action taken report and the agenda proposals.



Fig 28. Overview by PD(FE)

The inaugural address was followed by an overview of NOS-DCP activities since the last meeting held in Aug 2018 by DIG Rajesh Mittal, Principal Director (Environment). The presentation highlighted the need for early submission of Contingency Plans and provisioning of Pollution Response equipment at each facility to meet the obligation of NOS-DCP. Activation of online submission for Annual returns, reports on Joint

Inspections and uploading of facility contingency plans with stakeholder’s login through ICG Webpage, training and cleanup operation undertaken were also highlighted in the presentation.

A Presentation on Preparedness of Nayara Energy Limited in Combating Oil Spill was delivered by Capt. Capt. Alok Kumar, Vice President & Head Marine, Nayara Energy Limited, Vadinar, Gujarat.



Fig 29. Captain Alok Kumar

Presentation on Preparedness of Paradip Port in combating oil and chemical spills was delivered by Capt. AC Sahoo, Dy Conservator.



Fig 30. Capt. AC Sahoo, Dy Conservator

Presentation on ‘Preparedness for coastline cleanup during an oil and chemical spill incident’ delivered by Mr. M Nagarjuna, Senior Environment

Engineer Andhra Pradesh State Pollution Control Board.



Fig 31. Mr. M Nagarjuna, Senior Environment Engineer

In the concluding remarks, the Chairman appreciated active participation by sharing of professional knowledge from all stakeholders during the proceedings. He also emphasised on cohesiveness amongst stakeholders, frequent interaction and exercises at various levels for sharing of professional knowledge will enhance the robustness of the national system, for meeting the future challenges of pollution response.



Fig 32. 24th NOS-DCP meeting

Lastly, the Chairman pledged to work together to make our marine environment largely pollution free by our concerted efforts.

REPORTS

INDIA WATCH

GROUNDING OF MV PRINCESS MIRAL OFF NEW MANGALORE



Fig 33. MV Princess Miral

MV Princess Miral, a Belize flag vessel while proceeding to Beirut ran aground off New Mangalore on 21 Jun 22. All 15 crew (Nationality- Syrian) were rescued by ICG units. The vessel had 160 tons of Very Low Sulphur Fuel Oil and 60 ton of engine oil grade LSMGO. ICG surface and air assets at New Mangalore were deployed in PR configuration for undertaking response measures in case of any oil spill. Proactive approach by ICG in ensuring immediate action by all stakeholders resulted in timely commencement of removal of oil from the vessel. The removal of oil with adequate response measures in place to contain any spill, is in progress to ensure protection of marine environment.

SINKING OF MT GLOBAL KING 1

On 06 Jul 22 MT Global King 1, a Panama flag vessel sank due to flooding onboard in approx



Fig 34. MT Global King 1

position 272 Porbandar light 92 NM. The vessel is carrying Approx. 6058.659 MT of Bitumen and 95 MT/55 MT/9 MT of HFO/FO/DO/LO. All 22 crew were rescued by ICG ship and CG ALH with coordination with MT FOS Anthens and MV Inter Sydney. ICG surface and air assets at Gujarat Coast were deployed in PR configuration for undertaking response measures in case of any oil spill. Proactive approach by ICG resulted in saving 22 human lives.

SINKING OF MT PARTH OFF RATNAGIRI



Fig 35. MT Path

MT Parth, Gabonese Republic vessel reported flooding onboard due to water ingress off Ratnagiri, Maharashtra on 16 Sep 22. The vessel was carrying 131.1 MT HFO and 36.67 MT DO. ICG Ships and

Aircrafts were deployed to mitigate the risk of oil pollution. Oil sheen was observed about 1.5 nm from the casualty location. ICG has been continuously monitoring the vessel through routine deployment of surface and air assets. Also, coordination with DG Shipping for ensuring action by P&I club has been pursued by ICG.

WORLD WATCH

FIREFIGHTING TUGS SET TO TACKLE BURNING FELICITY ACE



Source: <https://www.seatrade-maritime.com/casualty/firefighting-tugs-set-tackle-burning-felicity-ace>

Fig 36. Felicity Ace, Fire onboard

The Felicity Ace, Panama-flagged, a purpose-built car carrier constructed in 2005, and owned by Snowscape Car Carriers S.A., a subsidiary of MOL on a voyage from Germany to the US caught fire on 16 Feb 22, 90 n miles southwest of the Azores. The 22 crew of the Mitsui OSK Lines (MOL) vessel were evacuated after a fire broke out onboard the car carrier at 1130 hrs CET on 16 February 22. Carrying 3,965 new and used vehicles, the ship sank beneath the waves on 01 March 22, a little less than two weeks after the crew was safely evacuated from the smoking hulk.

Firefighting and salvage included efforts of a local patrol boat that had arrived on scene with the initial salvage team. The Portuguese Navy remained on scene providing 24-hour monitoring of the vessel. Two large firefighting Tugs arrived on the scene from Gibraltar on 20 and 21 Feb 22 to augment firefighting efforts. A salvage craft with firefighting equipment arrived from the Netherlands on 23/24 Feb 22. Smit Salvage had mobilised 16 salvage experts along with large equipment from Spain and the Netherlands.

Onboard the ill fated vessel were not just any new and used cars, as it turns out. The vessel held 189 Bentleys, 1,110 Porsches, and the very last batch of Lamborghini Aventadors. To fulfill all the final customer orders for the vehicle, the Italian automaker had to restart production of the supercar, which ended not long ago.



Fig 37. Felicity Ace

The cause of the fire is still unknown. After the incident, electric vehicles onboard were widely suspected as the culprit that contributed to the intensity of the blaze. As a result, some auto shipping companies have since refused to transport used EVs, opting to lose that business instead of risking a potentially devastating fire.

**HANDLING A TANKER FIRE IN
NEW YORK HARBOUR**

Endo Breeze, Maltese flag, 47,000 dwt, built-2003, a 600-foot chemical tanker caught fire outbound in Raritan Bay. The vessel was then tied up at buoys within New York waters, and a marine unit of New York City’s fire department (FDNY) responded to the fire.

The vessel had reportedly completed discharging reformat (a blend used to produce motor gasoline) at one of the many terminals in the Arthur Kill, which separates New York and New Jersey soon after which there were reports of fire in the engine room.

Apparently, the tanker was not carrying any product. Following the fire the ship activated its internal fire control systems possibly a CO2 system to confine the fire to the engine room. Further in a prolonged firefighting/mitigating efforts that were coordinated by the USCG, wherein USCG marine units boarded the ship and assisted the crew in securing the engine room and make sure that the onboard suppression system was working satisfactorily. USCG continued to monitor conditions in the engine room for approximately 36 hours.

A week later it was reported that there was a crack on a fuel pipe in the engine room that sprayed on the turbo-charger and started a fire.

The vessel was later towed to an anchorage area just outside the Verrazanno Bridge, and then to a lay berth in Port Newark, New Jersey.

**EVERGREEN OBTAINS
DOUBLE CERTIFICATION
FOR GHG INVENTORY**



Source: <https://www.seatrade-maritime.com/containers/evergreen-obtains-double-certification-ghg-inventory>

Fig 38. Evergreen Marine Corp has completed a systematic inspection and calculation of greenhouse gas emission (GHG) inventories for its business operations

In order to implement the company's environmental protection policy and carbon reduction goals, Evergreen Marine Corp. has reportedly completed a systematic inspection and calculation of greenhouse gas emission inventories for its business operations, including its global operating fleet, office buildings and container terminals in Taiwan. The methodology and results of the survey were recently certified by BSI (British Standards Institution) in compliance with ISO14064-1:2018 and the GHG Protocol in July 2022.

In view of the impact caused by climate change and the international community's concerns on sustainability issues, Governments around the world have proposed carbon reduction targets. The FSC (Financial Supervisory Commission) in Taiwan has also launched its "Sustainable Development

Roadmap for Listed Companies" in March 2022, requiring companies to disclose their Greenhouse Gas emission inventories in stages. Listed companies such as Evergreen Marine, with capital of more than NTD 10 billion thereby are mandated to complete the survey of its Greenhouse Gas emission sources and inventories in 2023, and obtain third-party verification by 2024. In addition, surveys and verification of its subsidiaries must be completed in 2025 and 2027, respectively.

To comply with relevant regulations and meet various information needs about Greenhouse Gas emission of customers and other stakeholders, Evergreen Marine established a Task Force responsible for the inspection of its Greenhouse Gas inventory and the design of a carbon footprint platform. Following a thorough inspection and verification of its Greenhouse Gas emissions for all business operations, the company simultaneously obtained the two international environmental protection standard certificates of ISO14064-1:2018 and GHG Protocol in July, ahead of the schedules required by the competent authorities.

Evergreen has brought out that it regards these measures as part of its responsibility as a "Guardian of the Green Earth" and also that the company is using advanced technologies to build a fleet of eco-friendly vessels, which comply with the IMO's Energy Efficiency Existing Ship Index (EEXI) regulations and enable best fuel efficiency, and continues to replace old ships with new ones. At present, 80% of ships in its operating fleet are less than ten years old. This young fleet allows the carrier to operate with maximum efficiency in providing transportation service with lower energy consumption.

Contributing to this efficiency, Evergreen's investment in the 7th Container Center in Kaohsiung is expected to come to fruition with operations beginning in the 2nd half of 2023. It is envisaged that the terminal will gradually replace current operations in the separated transit hubs of the fourth and fifth container centres located in different parts of the Port. Consolidation of operations at the brand new transit hub will effectively reduce the shunting of transshipments between the two terminals and eliminate the carbon emissions arising from such transportation.

Indian Coast Guard
Annual Calendar of Pollution Response Training and Exercise - 2023

Date	Venue	Event	Coordinator
30 Jan 23 - 03 Feb 23	CGPRT(NW)	IMO Level-I Training for ICG and Stakeholders	CGPRT(NW), Vadinar
13-18 Feb 23	CGPRT(W), Mumbai	IMO Level-I Training for officers and sailors of Friendly Foreign Countries (FFCs)	CGPRT(W), Mumbai
20-24 Feb 23	CGPRT(W), Mumbai	IMO Level-II Training for officers of Friendly Foreign Countries (FFCs)	CGPRT(W), Mumbai
20-24 Feb 23	HMS Rehman/ VITS Mumbai	IMO Level-II Training for ICG and Stakeholders	M/s OSCT, Mumbai and CGPRT(W), Mumbai
20-24 Feb 23	AMET University,	IMO Level-II Training for ICG Officers	CGPRT(E), Chennai
20-24 Feb 23	CGPRT(A&N)	IMO Level-I Training	CGPRT(A&N), Port Blair
21-22 Feb 23	CGDHQ-1, Porbandar	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-1, Porbandar
22-23 Feb 23	Off Vizag Port	Area Level PR Exercise	VPT
13-17 Mar 23	CGPRT(E)	IMO Level-I Training for ICG Staff	CGPRT(E), Chennai
13-17 Mar 23	CGPRT(W), Mumbai	IMO Level-I Training for Stakeholders	CGPRT(W), Mumbai
14-15 Mar 23	CGDHQ-2, Mumbai	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-2, Mumbai
16-17 Mar 23	Off Vadinar	Area Level PR Exercise	Conducted by DPT, Kandla.
20-24 Mar 23	CGPRT(W), Mumbai	IMO Level-II Training for ICG Officers and SOs	CGPRT(W), Mumbai
23-24 Mar 23	CGDHQ-5, Chennai	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-5, Chennai
27-31 Mar 23	CGPRT(NW), Vadinar	IMO Level-I Training for ICG and Stakeholders	CGPRT(NW), Vadinar
28-29 Mar 23	CGDHQ-9, Diglipur	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-9, Diglipur
05-06 Apr 23	Off Paradip Port	Area Level PR Exercise	To be conducted by PPT
05-06 Apr 23	Off Mumbai Port	Area Level PR Exercise	To be conducted by MbPT.
11-12 Apr 23	Off Kochi Port	Area Level PR Exercise	To be conducted by Cochin Port Trust.
11-12 Apr 23	CGDHQ-15, Okha	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-15, Okha
11-13 Apr 23	Off Kakinada	Regional Level PR Exercise (Day 1 – Paper Exercise, Day 2 – Sea Exercise and Day 3 – Shoreline Cleanup)	To be conducted by RHQ(E)/ CGDHQ-6, Vizag.
17-20 Apr 23	CGPRT(W)/ HMS Rehman	IMO Level-III Training for ICG and Stakeholders	M/s OSCT, Mumbai and CGPRT(W), Mumbai

Date	Venue	Event	Coordinator
17-21 Apr 23	CGPRT(W), Mumbai	IMO Level-I Training for ICG Officers/SOs & EPs	CGPRT(W), Mumbai
20-21 Apr 23	CGDHQ-11, Goa	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-11, Goa
24-28 Apr 23	CGPRT(E), Chennai	IMO Level-I Training for Stakeholders	CGPRT(E), Chennai
01-02 May 23	Off New Mangalore Port	Area Level PR Exercise	To be conducted by NMPT
08-12 May 23	CGPRT(W), Mumbai	IMO Level-I Training for ICG Officers/SOs & EPs	CGPRT(W), Mumbai
16-17 May 23	CGDHQ-8, Haldia	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-8, Haldia
29 May 23 – 02 Jun 23	CGPRT(NW), Vadinar	IMO Level-I Training for ICG and Stakeholders	CGPRT(NW), Vadinar
05-09 Jun 23	CGPRT(W), Mumbai	IMO Level-I Training for Stakeholders	CGPRT(W), Mumbai
08-09 Jun 23	CGDHQ-16, Tuticorin	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-16, Tuticorin
15-16 Jun 23	CGDHQ-6, Vizag	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-6, Vizag
15-16 Jun 23	CGDHQ-3, New Mangalore	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-3, New Mangalore
19-23 Jun 23	HMS Rehman/ VITS Mumbai	IMO Level-II Training for ICG and Stakeholders	M/s OSCT, Mumbai and CGPRT(W), Mumbai
20-21 Jun 23	CGDHQ-13, Puducherry	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-13, Puducherry
03-07 Jul 23	CGPRT(A&N), Port Blair	IMO Level-I Training	CGPRT(A&N), Port Blair
10-14 Jul 23	CGPRT(E), Chennai	IMO Level-I Training for ICG officers	CGPRT(E), Chennai
17-21 Jul 23	CGPRT(W), Mumbai	IMO Level-I Training for ICG Officers/SOs & EPs	CGPRT(W), Mumbai
07-11 Aug 23	AMET University, Chennai	IMO Level-II Training for ICG Officers and Stakeholders	CGPRT(E), Chennai
07-11 Aug 23	CGPRT(NW), Vadinar	IMO Level-I Training for ICG and Stakeholders	CGPRT(NW), Vadinar
09-10 Aug 23	CGDHQ-4, Kochi	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-4, Kochi
21-24 Aug 23	CGPRT(W)/ HMS Rehman	IMO Level-III Training for ICG and Stakeholders	M/s OSCT, Mumbai and CGPRT(W), Mumbai
23-24 Aug 23	CGDHQ-10, Campbell Bay	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-10, Campbell Bay
28 Aug 23 - 01 Sep 23	CGPRT(W), Mumbai	IMO Level-I Training for Stakeholders	CGPRT(W), Mumbai
11-15 Sep 23	CGPRT(E), Chennai	IMO Level-I Training for Stakeholders	CGPRT(E), Chennai

Date	Venue	Event	Coordinator
11-15 Sep 23	CGPRT(W), Mumbai	IMO Level-II Training for ICG Officers and SOs	CGPRT(W), Mumbai
14-15 Sep 23	Off Haldia Dock Complex	Area Level PR Exercise	To be conducted by Kolkata Port Trust/Haldia Dock Complex.
14-15 Sep 23	CGDHQ-7, Paradip	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-7, Paradip
28-29 Sep 23	Off Mormugao Port	Area Level PR Exercise	To be conducted by Mormugao Port Trust.
03-05 Oct 23	Gulf of Kutch (Off Vadinar)	Regional Level PR Exercise (Day 1 – Paper Exercise, Day 2 – Sea Exercise and Day 3 – Shoreline Cleanup)	To be conducted by RHQ(NW)/CGDHQ-15, Okha.
.04-05 Oct 23	Off Chennai Port	Area Level PR Exercise	To be conducted by Chennai Port Trust
09-13 Oct 23	CGPRT(A&N), Port Blair	IMO Level-I Training	CGPRT(A&N), Port Blair
09-13 Oct 23	CGPRT(NW), Vadinar	IMO Level-I Training for ICG and Stakeholders	CGPRT(NW), Vadinar
09-13 Oct 23	HMS Rehman/ VITS Mumbai	IMO Level-II Training for ICG and Stakeholders	M/s OSCT, Mumbai and CGPRT(W), Mumbai
11-13 Oct 23	Paradip	Regional Level PR Exercise (Day 1 – Paper Exercise, Day 2 – Sea Exercise and Day 3 – Shoreline Cleanup)	To be conducted by RHQ(NE)/DHQ-7, Paradip.
25-26 Oct 23	CGDHQ-14, Port Blair	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-14, Port Blair
01-03 Nov 23	Off New Mangalore	Regional Level PR Exercise (Day 1 – Paper Exercise, Day 2 – Sea Exercise and Day 3 – Shoreline Cleanup)	To be conducted by CGRHQ(W)/CGDHQ-3, New Mangalore.
06-10 Nov 23	CGPRT(E), Chennai	IMO Level-I Training for ICG Staff	CGPRT(E), Chennai
20-24 Nov 23	CGPRT(W), Mumbai	IMO Level-I Training for ICG Officers/SOs & EPs	CGPRT(W), Mumbai
29-30 Nov 23	CGDHQ-12, Kavaratti	PR Seminar/ Workshop and Mock Drill/ Table Top Exercise	CGDHQ-12, Kavaratti
04-08 Dec 23	CGPRT(W), Mumbai	IMO Level-I Training for Stakeholders	CGPRT(W), Mumbai
11-14 Dec 23	CGPRT(W)/ HMS Rehman	IMO Level-III Training for ICG and Stakeholders	M/s OSCT, Mumbai and CGPRT(W), Mumbai
11-15 Dec 23	CGPRT(E), Chennai	IMO Level-I Training for ICG officers	CGPRT(E), Chennai
12-14 Dec 23	Port Blair	Regional Level PR Exercise (Day 1 – Paper Exercise, Day 2 – Sea Exercise and Day 3 – Shoreline Cleanup)	To be conducted by RHQ(A&N)/CGDHQ-14.
14-15 Dec 23	Off VOC Port, Tuticorin	Area Level PR Exercise	To be conducted by VOC Port, Tuticorin

Editorial Office : Directorate of Fisheries & Environment

Coast Guard Headquarters, National Stadium Complex, New Delhi 110 001, India

Tel : (+91)(11) 23115106

E-Mail: dte-fe@indiancoastguard.nic.in

Website : www.indiancoastguard.gov.in