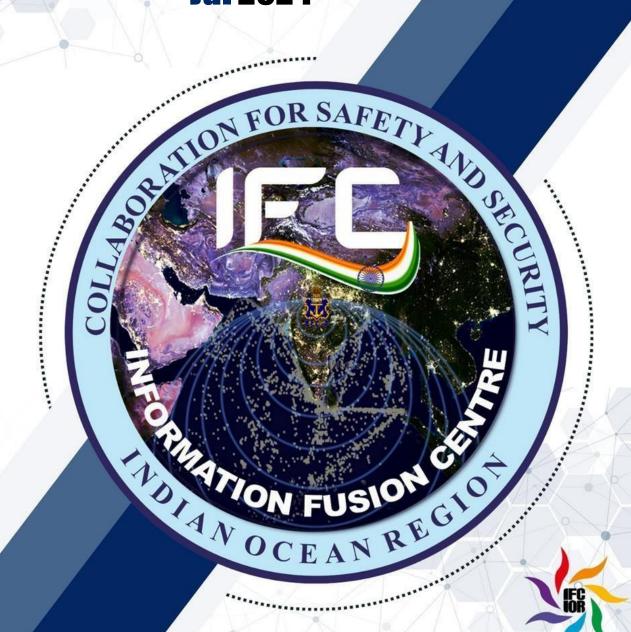
MONTHLY MARITIME SECURITY UPDATE

Jul 2024



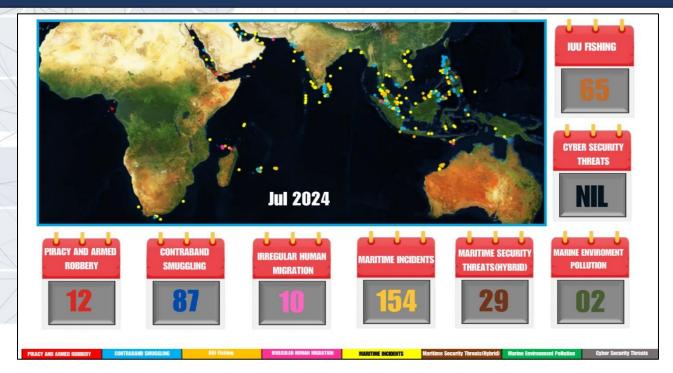
INFORMATION FUSION CENTRE

Disclaimer

Information collated in the IFC-IOR's reports have been derived from various internal and external linkages such as partner nations, other maritime stakeholders, agencies and open sources. The report aims to undertake analysis of incidents by establishing trends and anomalies to ensure safety and security of mariners and seafarers. While due care and effort has been taken to ensure veracity of data, due diligence may be exercised for subsequent usage of information contained therein. The positions of incidents depicted in some cases may be approximate or indicative. IFC-IOR requests and seeks assistance of all stakeholders to report incidents in the region to undertake accurate predictive and prescriptive analysis so as to build a comprehensive picture of existing threats in the maritime domain. The information contained in the report and the analysis thereon, is not reflective of the views of the Government of India or Indian Navy in any manner.



EXECUTIVE SUMMARY



Overview

359 incidents comprising piracy and armed robbery (12), contraband smuggling (87), illegal, unreported and unregulated fishing (65), irregular human migration (10), maritime incidents (154), maritime security threats (hybrid) (29) and marine environment pollution (02) were monitored in Jul 24.

Piracy and Armed Robbery 12 incidents of piracy and armed robbery (actual and attempted) were monitored in Jul 24, compared to 17 incidents last month. *High-value items such as engine parts, spare items, pleasure crafts, unmanned fishing boats were reportedly stolen.* However, no injuries to crew members was reported.

Contraband Smuggling 87 contraband smuggling incidents were monitored in Jul 24, compared to 94 incidents in Jun 24. A total of 782 kg drugs was seized in Jul 24. In the reported incidents, smugglers attempted to evade detection by hiding contraband inside vessel's compartments, concealment in containers and mis-declaring contraband content as domestic products.

IUU Fishing 65 IUU fishing incidents were



recorded in Jul 24, compared to 49 in Jun 24. 71% of the reported incidents were of local IUU fishing. A total of 78 fishing vessels were seized and 346 fishermen were apprehended.

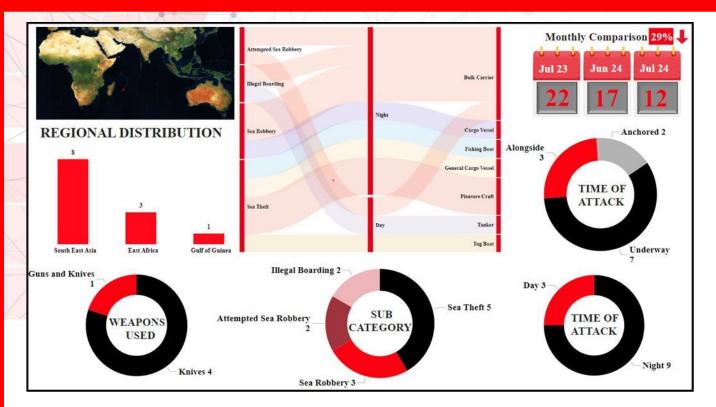
Irregular Human Migration 10 incidents were recorded in Jul 24, compared to 23 in Jun 24. The decrease in IHM incidents is likely due to prevailing rough weather conditions and enhanced vigilance by law enforcement agencies.

Maritime Incidents 154 maritime incidents were recorded by the Centre in Jul 24, compared to 118 incidents in Jun 24. Vessel detention, MEDEVAC, groundings and man overboard were the most frequently reported incidents.

Maritime Security Threats (Hybrid) 29 maritime security threats (hybrid) incidents were recorded during Jul 24, compared to 39 in Jun 24. Analysis of incidents reveals that ships with AIS activated or deactivated have both been attacked. "While switching off AIS can hinder tracking, it also limits military assistance" (IMCA Security Bulletin No 1660 of Feb 24).

Marine Environment Pollution Two incidents of oil spill were reported during Jul 24.

PIRACY AND ARMED ROBBERY



Overview

12 incidents of piracy and armed robbery (actual and attempted) were monitored in Jul 24, a decrease of 29% compared to Jun 24 (17 incidents). The detailed analysis of subcategories and regional analysis is elucidated in the succeeding paragraphs.

Analysis of Incidents

Sea Thefts/ Robberies Sea thefts and robberies (10) (actual/attempted) accounted for 83% of incidents. Most of the incidents were reported on vessels underway (06) followed by vessels alongside (03) and anchored vessels (01). Eight incidents were reported during dark hours and two incidents were reported during day time. The number of perpetrators involved in these incidents varied from a minimum of one to a maximum of 10. Stolen items included engine spares, ship items, scraps and unmanned pleasure craft.

boarding Two incidents of illegal boarding were reported in Jul 24. Bulk carrier and a tanker were the affected vessels in these incidents. The analysis of these incidents indicates that the watchkeepers were alert and were quick to raise alarm, which resulted in the perpetrators escaping empty handed. Further, in one of the incidents, vessels in the vicinity of the targeted tanker, intercepted the radio communications of small boat carrying three armed perpetrators. The vessels in the vicinity were able to alert the targeted tanker. Both vessel and crew were safe in these incidents.

Regional Analysis

East Africa accounted for three incidents of sea thefts. All incidents of sea thefts were reported off Mauritius and during dark hours. Stolen items included unmanned a pleasure craft, a fishing boat and boat items. All incidents of thefts were reported onboard unmanned vessels and no crew was harmed.



PIRACY AND ARMED ROBBERY

Gulf of Guinea On 03 Jul 24, an incident of illegal boarding was reported onboard the Panama flagged LPG tanker CORINTHIAN at Owendo Anchorage, Gabon. Three armed perpetrators onboard a small boat approached and boarded the vessel. Vessels in the vicinity had intercepted radio communications of the perpetrators and alerted the tanker. Owendo anchorage faces heightened security risks due to its location in the piracy-prone Gulf of Guinea, proximity to shore, and the presence of valuable cargo within the port, making it a lucrative target for criminal activities. LPG tankers, like the CORINTHIAN, are particularly favoured targets due to the cargo value and specialised equipment on board that can be stolen for resale. This incident calls for a more stringent security measures at anchorage locations to prevent recurrence. Also, there exist a need for increased vigilance and coordination with maritime security agencies to reduce risks and protect vessels at anchor.

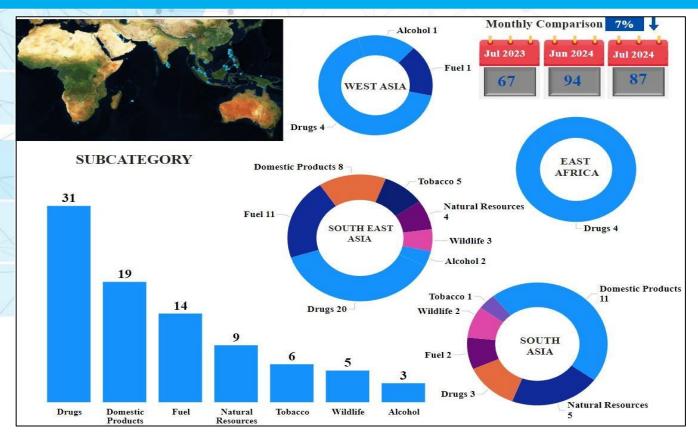
South East Asia accounted for a total of eight incidents which included five incidents of sea robbery (actual and attempted), two incidents of sea theft and one incident of illegal boarding. All the incidents were reported during dark hours except two incidents which were reported during day time. Vessel spares, engine parts, etc. were the items reported stolen. No injuries to crew members were reported. The analysis of incidents reveals that the slow-speed and low-freeboard vessels such as bulk carriers and tugs in the Phillip Channel are targeted by the perpetrators during night time. All vessels transiting through Phillip Channel, Singapore Strait and while at anchor are advised to remain vigilant and follow BMP5 practices.

IFC - IOR Comments

Piracy and armed robbery incidents in Jul 24 witnessed a slight decrease compared to Jun 24. This decrease is attributable to substantial reduction of piracy incidents, off the Somalian coast. The prevailing monsoon conditions may have severely affected the activities of Pirate Action Groups of Somalia coast. However, the possibility of pirate attack cannot be ruled out especially in east Gulj of Aden and Somalian coast. High-value items such as engine parts, spare items, pleasure crafts. unmanned fishing boats comprised the stolen categories in Jul 24. No injuries to crew members were reported. Alert watchkeeping by vessels while underway and at anchorage is highly recommended especially off Somalia Coast, in Singapore Straits and Phillip Channel. Vessels transiting through these areas are advised to maintain heightened vigilance, follow BMP5 practices and maintain contact with regional authorities for risk mitigation and report any suspicious activities to ior.gurugram@nic.in.



CONTRABAND SMUGGLING



Overview

87 incidents of contraband smuggling were monitored in Jul 24, a slight decrease compared to Jun 24 (94 incidents). The detailed analysis of the subcategories is elucidated in succeeding paragraphs.

Analysis of Incidents

Drugs 31 drug seizures were recorded in Jul 24, similar numbers as compared Jun 24 (30 incidents). These incidents primarily included seizures of cannabis and methamphetamine. Out of these, 13 incidents specifically involved activities at sea, including interceptions of boats carrying contraband and recoveries of drugs washed ashore. The seizures were carried out by national authorities of Indonesia, Mauritius, Kuwait, India, Philippines and others, indicating widespread efforts to combat illegal drug trafficking through maritime routes.

Domestic Products 19 incidents of domestic product smuggling were recorded this month, a 46% increase compared to Jun 24 (13 incidents). The products seized in these incidents involved rice, cooking oil, medical items, granulated sugar, dry fish, frozen meat and assorted goods.

Wildlife Five incidents of wildlife smuggling were recorded in Jul 24, compared to 11 in Jun 24. The species seized included protected birds reptile species (python, monitor lizard, turtles), crabs, lobster seeds, sharks and chickens.

Tobacco Six incidents of tobacco smuggling were recorded in Jul 24, as compared to eight in Jun 24. A total of 2,790 kilograms of tobacco products (cigarettes) were seized across various incidents and locations. The seizure value was approximately USD 185,261.



CONTRABAND SMUGGLING

recorded in Jul 24, a slight increase compared to 12 in the last month. Most (11) of the incidents were recorded in South East Asia and involved seizure of diesel, petrol and LPG Cylinders.

Alcohol Three incidents of alcohol smuggling were recorded in Jul 24, a decrease as compared to five in Jun 24. A total of 735 bottles of liquor were seized in these incidents. In one of the incident, Kuwait authorities seized undetermined quantity of liquor at Shuwaikh Port, Kuwait on 20 Jul 24.

Natural Resources Nine incidents of natural resources smuggling were recorded in Jul 24, as compared to 12 in Jun 24. The seizures involved 3,892 kg of turmeric, 6,359 kg of kendu leaves, 171 kg of palm sprouts and 2,200 m³ of sand.

Regional Distribution

East Africa accounted for a total of four incidents in Jul 24 compared to three in Jun 24. It is pertinent to note that all these incidents involved drug smuggling and were reported off Mauritius and South Africa. The analysis of incidents indicates that in the recent past, there has been an upsurge in drug smuggling (especially Cocaine and Cannabis) in East African countries. In one of the incidents, around 3 kg of hashish, with an estimated value of USD 154,830 were found on a boat undergoing repairs in the port. The contraband was concealed in three packages and hidden inside boat.

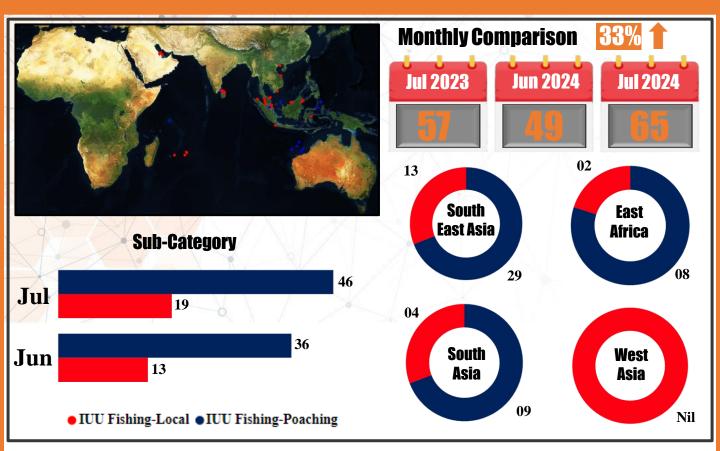
West Asia accounted for six incidents of contraband smuggling, compared to three incidents in Jun 24. Four incidents of drug smuggling and one each of fuel, alcohol smuggling were monitored in this region. A large quantity of cannabis, captagon pills, hashish and methamphetamine was seized during this month. In one of the incidents, an attempt to smuggle 3,633,978 Captagon pills was thwarted by Saudi Arabia authorities at Jeddah Islamic Port. The consignment was found hidden in a consignment consisting of 'iron equipment' destined to Saudi Arabia. The contraband was hidden inside the shipment of grains which was inspected by the Custom Authorities. Two suspects likely to be recipients of the contraband inside Saudi Arabia were apprehended by the law enforcement agencies.

South Asia accounted for 24 incidents contraband smuggling in Jul 24, compared to 27 in Jun 24. Domestic products (11), drugs (03), natural resources (05), wildlife (02), tobacco (01) and fuel (02) smuggling incidents were monitored in this region. In the recent past, there has been an upsurge in the incidents involving turmeric off the Coast of Sri Lanka. Turmeric is a valuable spice with high demand for culinary, medicinal and cosmetic purposes. In Dec 20, Sri Lanka implemented a ban on turmeric imports to support local farmers. However, this restriction led to a shortage, driving up market prices and creating an opportunity for smugglers to profit from illegally bringing turmeric into the country. Smugglers use sea routes to transport turmeric, frequently arriving in small vessels such as fishing boats and dinghies, to evade detection by authorities. The ban on turmeric imports, high demand and substantial profit margins fuel the illicit transportation of turmeric across the Palk Strait, making it a hotspot for smuggling activities.

South East Asia accounted for 53 incidents of contraband smuggling in Jul 24, compared to 61 in Jun 24. Drug (20), wildlife (3), fuel (11), Domestic Products (8), tobacco (5), natural resources (4) and alcohol (2) smuggling incidents were monitored in this region.



ILLEGAL UNREPORTED AND UNREGULATED FISHING



Overview

65 IUU fishing incidents were recorded in Jul 24 compared to 49 in Jun 24. Among these, 46 incidents were local and 19 were poaching incidents. The total illegal fish catch (including lobsters, Prawns, shark, sea cucumbers and turtle) recorded was 8567 kgs, with Madagascar, Myanmar, Malaysia, India, Sri Lanka, Mayotte and Philippines catching 5,665 kg, 1,180 kg, 1,060 kg, 300 kg, 207 kg, 125 kg and 30 kgs respectively.

Analysis of Incidents

Local IUU Fishing. 46 incidents of local IUU fishing were recorded in Jul 24 compared to 36 in Jun 24. These incidents involved violations of fishing licenses by local fishermen, illegal fishing techniques, banned fishing methods, use of blast fishing, etc. 144 fishermen were apprehended and 42 boats were seized by the authorities.

Poaching. 19 incidents of poaching involving foreign fishing vessels were recorded compared to 13 in Jun 24. 202 fishermen were apprehended, and 36 boats were seized by the authorities.

Regional Distribution

South East Asia. 42 incidents of IUU fishing were reported in this region in Jul 24 compared to 30 in Jun 24. 29 incidents were of local IUU fishing and 13 of poaching incidents. These incidents were recorded in the waters of Malaysia (25), Philippines (07), Australia (06), Indonesia (03) and Thailand (01). A total of 51 boats were seized and 190 fishermen were apprehended.



ILLEGAL UNREPORTED AND UNREGULATED FISHING

South Asia. 13 incidents of IUU fishing were reported in this region during Jul 24 compared to 10 in Jun 24. Nine incidents were of local IUU fishing and four of poaching. The incidents were recorded in the waters of Sri Lanka (11) and one each off India and Myanmar. A total of 22 boats were seized and 109 fishermen were apprehended.

East Africa. 10 incidents of IUU fishing were reported in this region during Jul 24 compared to five in Jun 24. Eight incidents of local IUU fishing were reported in the waters of Mauritius and two poaching incidents in Madagascar and Mayotte.

Significant Incident

On 08 Jul 2024, the vessel ATSANTSA (fishing support vessel) on patrol in the Mozambique Channel intercepted the Kenyan flag longliner MAAB AQUA 1, with 11 crew members (08 Sri Lankans and 03 Kenyans), fishing illegally 47 nautical miles (87 km) north-west of Nosy Be. During the inspection, the authorities discovered 250 kg of fish, including 150 kg of sharks, as well as several protected marine species that are prohibited. Under the Madagascar law, this activity is illegal and punishable by a fine ranging from USD 1,97,728 to USD 4,61,366. The Kenyan flagged longliner was detained at Nosy Be with the crew and products for legal proceedings.

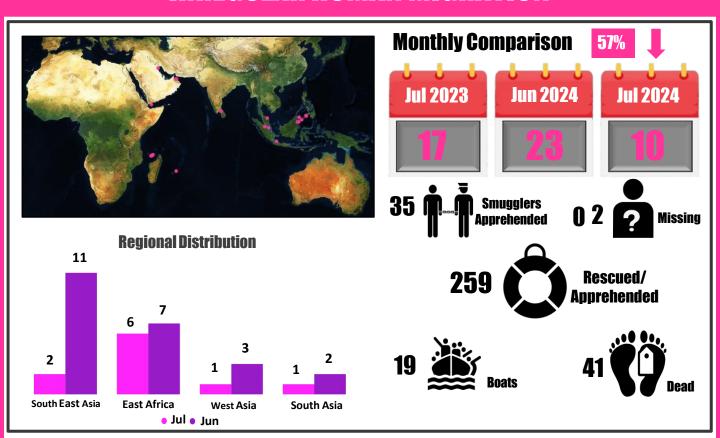








IRREGULAR HUMAN MIGRATION



Overview

In Jul 24, 10 incidents of IHM were recorded, compared to 23 incidents in Jun 24. The decrease in IHM incidents is likely due to prevailing rough weather conditions and enhanced vigilance by law enforcement agencies. These incidents involved 259 migrants and 35 smugglers/ traffickers. 41 migrant fatalities were reported this month.

Regional Distribution

East Africa. The region witnessed six incidents of irregular human migration compared to seven incidents in Jun 24. 14% decrease in the number of individuals attempting to enter Mayotte illegally via sea routes was observed this month compared to Jun 24. Kwassa-kwassa (small boats) and local cargo vessels remain the preferred mode of transport for migrants in this region. The incidents involved migrants from Comoros, Madagascar and few other countries of Africa attempting to enter Mayotte. Law enforcement agencies seized a total of 16 boats, apprehended 35 smugglers, and

apprehended/ rescued 200 migrants in Jul 24. A 48% decrease has been observed in the number of migrants apprehended/ rescued this month compared to Jun 24.

West Asia. One incident of irregular human migration was reported in Jul 24, compared to three incidents in Jun 24. On 24 Jul 24, a boat with 45 migrants capsized off the coast of Taiz, Yemen, because of heavy weather and overloading. Law enforcement agencies were successful in rescuing four migrants. However, 41 migrants lost their lives whilst attempting to reach the Arabian Peninsula in an overcrowded boat. The incident analysis indicates that the maritime routes between Yemen and the Horn of Africa have become a common route for migrants in both directions. The route remains one of the "busiest and most perilous" migration routes in the world, according to the International Organization for Migration (IOM).



IRREGULAR HUMAN MIGRATION

South East Asia. The region witnessed two incidents of irregular human migration compared to 11 incidents in Jun 24. Reportedly, Malaysia and Indonesia were the destination countries for the migrants. Law enforcement agencies seized two boats and rescued 50 migrants. Further, two migrants lost their lives, and one was reported missing.

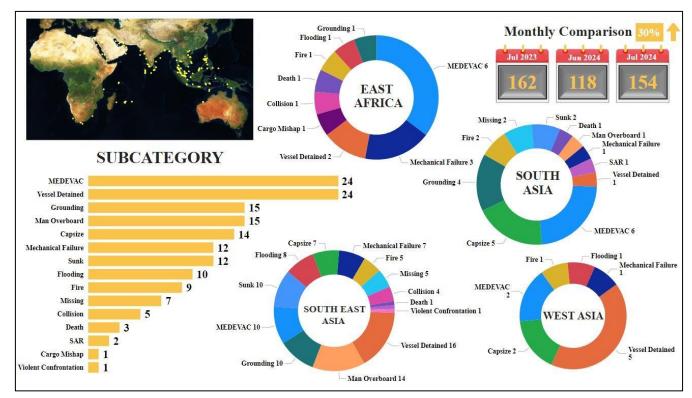
South Asia. One incident of irregular human migrati on was reported in Jul 24 compared to two in Jun 24. Law enforcement agencies apprehended/rescued five migrants and seized a boat.

Migration Trends

	No. Of Incidents	Rescued/ Apprehended	Smugglers Apprehended	Boats Involved
East Africa	6	200	35	16
West Asia	3	4	=	-
South East Asia	2	50	6	2
South Asia	12	5	2	1



MARITIME INCIDENTS



Overview

154 maritime incidents were recorded in Jul 24 compared to 118 incidents in Jun 24. Vessel detained (24) and MEDEVAC (24) constituted the highest number of reported incidents, followed by grounding and man overboard (15 each), capsize (14), sinking of vessels and mechanical failure (12 each), flooding (10), fire (09), missing (07), death (03), SAR (02), violent confrontation and cargo mishap (01 each).

Analysis of Incidents

Vessel Detained. The Centre monitored 24 incidents of vessel detentions in Jul 24 compared to 19 incidents in Jun 24. Majority of detentions were recorded in South East Asia and West Asia. In South East Asia, the causes for vessel detention included operating without valid documents, carrying passengers beyond permissible limits and on suspicion of engaging in illicit activity such as sand dredging, illegal anchoring, illegal transshipment etc. Further, vessels failing to

comply with IMO and state maritime regulations were reasons for vessel detentions in West Asia.

Man Overboard, Death, SAR, MEDEVAC and Missing.

A total of 52 incidents were recorded in Jul 24 compared to 35 in Jun 24. A total of 35 individuals were rescued, 24 individuals were missing, and 07 lives were lost. South East Asia accounted for the highest number of these incidents followed by South Asia and East Africa. The analysis of the incidents indicates that 44% of incidents involved fishing vessels and small boats, however, few incidents of SAR, MEDEVAC and man overboard were also reported onboard merchant vessels.

Capsize and Sinking of Vessels. In Jul 24, 14 incidents of vessel capsizing, and 12 incidents of vessel sinking were recorded, compared to 12 and 10 incidents in the same categories in Jun 24. South East Asia and South Asia accounted for most of these incidents due to the prevailing weather conditions and rough seas during the ongoing monsoon season. The authorities have rescued 192 individuals in these incidents while 51 lives were lost and 31 individuals reported missing.



MARITIME INCIDENTS

Mechanical failures 12 incidents of mechanical failures were recorded in Jul 24 compared to 14 in Jun 24. In most incidents, the local authorities assisted vessels in distress to be towed ashore for repairs/ rectification. Regular inspections, timely repairs and adherence to recommended operating procedures can significantly reduce the risk of mechanical issues.

Fire and Flooding Nine incidents of fire and 10 incidents of flooding were recorded in Jul 24, compared to eight incidents of fire and six incidents of flooding in Jun 24. Causes of fire included explosions, short circuits, fire in machinery/ engine room compartments and cargo. The prevailing rough weather conditions in the Indian Ocean Region, due to the ongoing monsoon season, resulted in flooding in many incidents involving small boats and fishing vessels. The law enforcement agencies were prompt in responding to emergent situations and were successful in rescuing 62 individuals. However, 21 lives were lost in these incidents.

Violent Confrontation and Cargo Mishap.

One incident each of violent confrontation and cargo mishap was reported in Jul 24. The incident involved confrontation between a fishing vessel and law enforcement agency wherein one law enforcement officer lost his life.

Grounding and Collision 15 incidents of groundings and five incidents of collisions were recorded in Jul 24 in comparison to five and eight incidents of groundings and collisions in Jun 24. 50% of the incidents involved cargo vessels and passenger vessels. Two incidents of collisions resulted in oil spills in Indonesian waters.

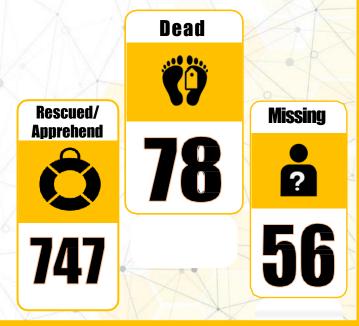
Regional Distribution

East Africa A total of 17 incidents were reported in East Africa compared to 20 in Jun 24. These included MEDEVACs (06), mechanical failures (03), vessels detained (02) and one each incident of cargo mishap, collision, fire, flooding, death and grounding.

West Africa Accounted for 12 incidents compared to three incidents in Jun 24. These include vessel detained (05), MEDEVAC and capsize (02 each) and one incident each of fire, flooding and mechanical failure.

South Asia Accounted for 26 incidents compared to 17 in Jun 24. MEDEVAC (06), capsize (05), grounding (04), fire, missing and sunk (02 each) and one incident each of death, MOB, mechanical failure, SAR and vessel detained were reported.

South East Asia Accounted for 99 incidents compared to 78 in Jun 24. These included vessels detained (16), man overboard (14), grounding, MEDEVAC and sunk (10 each), flooding (08), capsize and mechanical failure (07 each), missing and fire (05 each), collision (04), and one each incident of death, SAR and violent confrontation.





MARITIME INCIDENTS

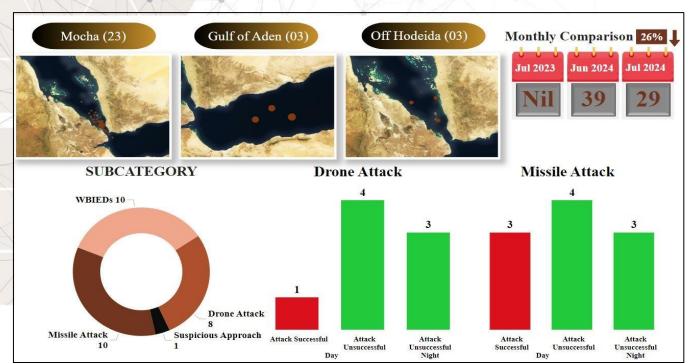


Maritime Bulletin

On 22 Jul 24, an incident of fire was reported onboard Panama flagged container vessel Maersk Frankfurt, off the coast of Goa. Three Indian Coast Guard ships, including a pollution control vessel (involved in boundary cooling), were diverted to assist the vessel in firefighting and damage control. Further, offshore Supply vessels Albatross 5, Creative 1 and Valiant Vortex were also engaged in boundary cooling firefighting on rotational basis. The cause of fire was unknown and yet to be identified



MARITIME SECURITY THREATS (HYBRID)



<u>Overview</u>

29 maritime security threats (hybrid) incidents were recorded by the Centre in Jul 24, compared to 39 in Jun 24. These included the interception of missiles, drones (UAS) and WBIEDs (USVs) by the international forces. Missiles, drones and WBIEDs targeted 27 MVs, with eight attacks being successful. The incident analysis indicates that the status of AIS, whether on or off, does not influence the likelihood of vessels being targeted.

Location of Incidents

Drone and missile attack incidents were primarily monitored off Hodeidah, Mocha, Bab-el-Mandeb, and the western parts of the Gulf of Aden. The positional analysis of the attacks indicates that the between 19°17'24.0"N 38°57'36.0"E and area 12°39'00.0"N 47°10'48.0"E witnessed these attacks. Further, in the recent past, most of the attacks have been reported west of Bab al Mandap, off Mocha.

Drone / Unmanned Aerial Systems Attacks

In Jul 24, eight drone attacks were monitored, compared to 16 in Jun 24. Five incidents occurred during the day time and three during the night. The international forces operating in the area shot down 07 drones/ Uncrewed Aerial Systems.

Missile Attacks

10 missile attack incidents were monitored in Jul 24 compared to 14 in Jun 24. Of the 10 missile attacks, seven occurred during daylight hours and three at night. Of these, three resulted in damage to the targeted ships, specifically MV PUMBA and LOBIVIA. MV PUMBA suffered two missile strikes while navigating the southern Red Sea.



MARITIME SECURITY THREATS (HYBRID)

WBIEDs

10 WBIEDs attacks were recorded by the Centre in Jul 24. Seven incidents occurred during the day time and three during the dark hours. Two of the 10 incidents of WBIEDs attacks were successful in causing damage to the targeted vessels. Reportedly, eight Uncrewed Surface Vessels were destroyed by US Navy Ship/ US CENTCOM Forces.

Suspicious Approaches

One incident of suspicious approach was recorded by the Centre in Jul 24. On 15 Jul 24, the Panama flagged tanker *BENTLEY* was attacked by 03 skiffs (02 manned & 01 unmanned) about 70 nm SW of Al Hudaydah, Yemen.

Significant Incidents

On 15 Jul 24, a Panama-flagged tanker Vessel, BENTLEY I (IMO: 9253129), was attacked four (missiles skiffs-WBIEDS) times and transiting through Southern Red Sea, approximately 70 nm SW of Al-Hudaydah, Yemen. The initial attack involved three skiffs, two of which were manned and one seemingly unmanned. There was an exchange of small-arms fire and the unmanned skiff attempted twice to ram amidships, with no detonation or damage. Further, the vessel was targeted with four missiles subsequently at different timings. All missiles were unsuccessful in inflicting damages and impacted water within 10-100 meters of the vessels on both sides. No damage was reported and the vessel continued its voyage with AIS switched off to the next port of call. All crew were reported to be safe.



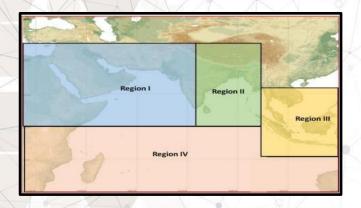


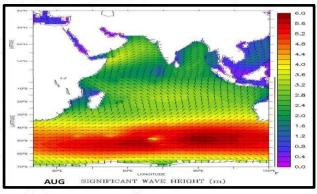
On 20 Jul 24, a Liberia-flagged container Vessel, PUMBA (IMO: 9302566), was attacked four times (UAV - 01, WBIEDs – 01 and Missiles – 02) while transiting through Southern Red Sea. The first attack was by a UAV, which exploded 5-10 meters off the starboard side, causing minor damage to containers on deck and starting a small fire that the crew was able to control. Subsequently, the vessel was approached by three skiffs, two of which were manned and one seemingly unmanned (USV / WBIED). Armed security team opened fire on unmanned skiff which subsequently exploded approximately 30 meters off the Port quarter, causing no damage to the vessel. Further, there were two missile attacks reported at different times. Minor damages were reported, including a hole in the stern of the vessel, six meters above the waterline. The vessel was underway with AIS switched on when it was attacked. However, AIS was turned off after the attacks began. All crew members were reported to be safe, and the vessel continued its passage to the next port of call.



WEATHER FORECAST - AUG 24

Weather Forecast. A monthly weather forecast for the month of Aug 24 has been uploaded on the IFC-IOR website for reference.





Region I: Arabian Sea (AS) – Surface pressure of 1008 -1010 hPa is seen over South Arabian Sea and gradually decreases towards higher latitudes to about 1000 -1002 hPa over Northern Arabian Sea. The average Sea Surface Temperature (SST) is likely to be 27 - 28°C over most parts of the Arabian Sea. No cyclonic storms have ever formed over this region during this month. Moderate to Rough Seas (Sea State 4-5) prevail over most parts of the Arabian Sea, reducing to Sea State 2-3 over the Equatorial Indian Ocean.

Region II: Bay of Bengal – The weather over Bay of Bengal likely to be originate between 18°N and 92°E, gradually tracking WNW ward. In general, weather systems are likely to form to the West of long 80°E, tend to curve towards the North. A total of 14 cyclonic disturbances have formed in the Bay during the past 30 years. The probability for intensification of these systems into Severe Cyclonic Storms is very less in this month due to high vertical wind shear. The average minimum Surface (Air) Temperature is likely to be 28 - 32°C over the Bay of Bengal.

Region III: Southeast Asia – Mean sea level pressure over the area is likely to be of the order of 1004-1010 hPa. During this month, there is likely to be a reduction in swell with a mean height of 0.2 - 1.0 m over most parts of the region. The average minimum Surface (Air) Temperature is likely to be of 28-32°C over the South China Sea and 20-24°C over the Malacca Strait. The Sea State is likely to be around 2 - 5 over most parts of the region.

Region IV: South Indian Ocean – During the month of Aug, the sea level pressure over central parts of the Southern IOR is likely to be of the order of 1024 hPa over the central parts of the Southern Indian Ocean. High pressure cells are tentatively seen between 25°-35°S and 40°-80°E. The tropical disturbances are likely to be almost absent in this month. Dry winds are predominant over South Indian Ocean Region and adjoining land masses. The average minimum Surface (Air) Temperature is likely to be of 20-27°C over Southern IOR. Surface current is likely to be maximum off Somalia's coast and is of the order of 0.6-3.1 knots.



ARTICLES OF INTEREST

INDIAN OCEAN HEADING TOWARD NEAR-PERMANENT MARINE HEAT WAVE

Marine heat waves are periods during which ocean temperatures rise abnormally higher than usual for a particular season or region. These abnormally high temperatures must last at least five days to be considered a heat wave. By 2050, marine heat waves are likely to last between 220 and 250 days per year in the Indian Ocean. Further, according to Indian Institute of Tropical Meteorology Climate Scientist Roxy Mathew Koll, "Marine heat waves are intensifying cyclones which go through a stage of rapid intensification wherein a cyclone goes from Category 1 cyclone to Category 3 or Category 5 cyclone in a short duration of time". 90% of cyclones in the Bay of Bengal and Arabian Sea were preceded by marine heat waves between 1980 and 2020.

Marine heatwaves are also putting the future viability of fishing in the Indian Ocean into question, as they cause migratory shifts in marine species and worsen harmful algal blooms. The impacts of a near-permanent marine heat wave are placing highly populated areas in such countries as India directly in danger. Fishing communities are already living on the edge. Various development projects on the coast are encroaching on fishing villages and worksites of fishers. They are also polluting the sea, and global warming and marine heat waves are worsening their plight. Issues likely to arise from near-permanent heat waves include intensified cyclones, reductions in primary production and therefore, loss of income for fisheries and coastal communities. Coastal residents and marine species are not the only ones at risk from intensified heat waves; Indian Ocean warming has been linked to both more frequent droughts and heavy flooding across South Asia. It has also contributed to frequent droughts and locust outbreaks in East Africa, threatening food security in regions beyond India.

Warming ocean surface water hinders nutrient circulation from the cold, deep waters to the surface, leading to a reduced population of phytoplankton that limits a key food source for many marine species. Additionally, marine heatwaves trigger mass mortality events of non-mobile species such as coral. When temperatures rise, coral expel algae living in their tissues to reduce irritants, causing the coral to become white, a process known as bleaching. Prolonged bleaching, such as during marine heatwaves, leads to coral starvation, as they depend on algae for food production.

Investment in advanced ocean observation technology to keep up with rapid changes in the environment, improving early warning systems

<u>Source:</u> https://www.seafoodsource.com/news/environment-sustainability/indian-ocean-heading-toward-near-permanent-marine-heat-wave-report-warns



EVENTS – JUL 2024





Visit of Hellenic delegation led by Ambassador a. h. Michel Spinellis, General Director of GDNDPIR - 02 Jul 24





Visit of delegation led by Amb Ong Keng Yong & VAdm Pradeep Chauhan (Retd), DG NMF - 11 Jul 24





Visit of Malaysia delegation led by RAdm Farizal Bin Myeor, Asst Chief of Ops & Trg - 24 Jul 24



EVENTS - JUL 2024





Centre shared insights and initiatives, and had fruitful discussions with the shipping community and shipowners associations on enhancing maritime security and safety of seafarers, during a seminar organised by DG Shipping at Mumbai – 31 Jul 24



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