



### International Cheetah Day

They are mother nature's precision, high-performance machine, designed to do one job and to do it with incredible skill and effectiveness. They can accelerate faster than a Ferrari, tearing up the ground from 0-75 mph in just 3 seconds, and they come with a self-grown paint-job that would make the fanciest muscle cars blush with envy. That's right, we're talking about the cheetah! International Cheetah Day celebrates these incredible animals while raising awareness about their threat of extinction. So, get ready to enjoy Cheetah Day!

### #AWARENESS

## World Wildlife Conservation Day

Dedicated efforts to protect our planet's incredible creatures and their habitats, ensuring that future generations get to share in the wonder of nature.



The sad truth is that the world's best loved, beautiful and fascinating species are being slaughtered by widespread and dangerous criminal networks, that will stop at nothing to get what they want. And what they want are animal parts and products, that for reasons no sane person really understands, are worth lots of money.

There are plenty of synthetic substitutes for things like ivory and fur that don't require the brutal slaughter of an animal, not to mention how hard it actually is to tell the difference between high quality synthetic substitutes and the real thing. And do you mean to tell us no other dish in the world tastes as good as shark fin soup, and that we really have to mutilate live sharks, and then throw them back into the ocean to die? Long story short, there is simply no

excuse for the amount of animals being poached every year. And yet, they are. In 2011 alone, for example, there were 13 large-scale seizures of ivory, and over 23 tons of ivory confiscated, which is equivalent to at least 2,500 elephants. A 2010 United Nations report suggests that gorillas could disappear altogether from large parts of the Congo Basin by the mid-2020s.

And it is not just the animals that are suffering. Park rangers get killed on a regular basis by poachers they're trying to stop, and the local economies of entire towns and villages suffer terrible damage once enough wildlife is wiped out to make them irrelevant as wildlife tourism destinations. Corruption and intimidation are weakening law enforcement efforts. Unscreened wildlife and wildlife parts increase the risk of human health pandemics such as bird flu. Everyone involved is suffering.



### History of World Wildlife Conservation Day

A call to action was put out by Secretary of State Hillary Clinton in 2012 to raise awareness and engage conservationists on Wildlife Conservation Day, December 4. During a Call to Action event, held at the State Department on November 9th, 2012, Secretary Clinton and others lined the White House's strategy to address the global problem of wildlife trafficking. These efforts were estimated to cost between \$7 and \$10 billion dollars a year.

"Wildlife cannot be manufactured. And once it's gone, it cannot be replenished. Those who profit from it illegally are not just undermining our borders and our economies, they are truly stealing from the next generation," she said.

### How to Celebrate

Raise awareness and contribute to the conservation and protection of endangered species such as elephants, rhinos and tigers on World Wildlife Conservation Day's website. This global occasion provides everyone with the opportunity to learn more about wildlife conservation and to be part of the solution to wildlife crime. Go online and join thousands of other individuals who have taken the wildlife pledge.

Promise to learn more about wildlife conservation, to spread the word about the importance of protecting our planet's most endangered species and the impact of poaching on our environment. Learn how to become a responsible consumer in order to stop illicit wildlife trade.



# Celebrating with a New Port Galathea Bay

The island was scantily populated and had hills with very thick forests. The population was mainly at Campbell Bay, a few miles away, where a few ex-servicemen Sikh families from Punjab were settled, who were mainly engaged in farming. A project officer of the Border Roads Organisation, with a workforce from UP and Bihar and some natives of the Galathea bay area, was also there. The terrain was hostile and local help or facilities were unavailable.



Commander Madan Lal Sharma  
Indian Navy (Retd)

Recently, the Govt. has approved establishment of a major port at Galathea Bay in the southernmost part of Andaman-Nicobar Islands. This would be our 13th Major port, and the first such port in these islands. It is intended to provide international transshipment of container cargo on the busy East-West shipping route passing through Strait of Malacca, through which almost 35% of global trade passes. This shipping route passes close to Galathea.

Sites for such ports are selected after a detailed survey of the harbour concerned to determine the depth of the water in the proposed harbour, approach channels, nature of the bottom (whether it is sandy, mud or rocky etc.), tidal currents, wind directions, tidal range (heights of high and low water), siltation rates etc.

This is done by Officers and Sailors of the Hydrographic Survey Branch of the Indian Navy, who, at times, go where no one has gone before.

### Hydrography

It is the science that measures and describes the physical features of bodies of water and the land areas



Turtles on the Galathea Beach.

below and adjacent to those bodies of water. So, a word about our Hydrographic Organisation would be in order, today being Navy Day 2024.

Just as we need maps to go from one place to another on land and to get detailed information about these places, similarly, we need 'marine maps' or 'navigation charts' to identify safe navigational routes for ships at sea. These nautical charts are prepared after extensive hydrographic surveys. Land maps can be prepared by only surveying the land surface, but to prepare sea maps (called charts), a survey of the sea surface alone is not enough. In addition, the depth of seawater and the sea bottom also needs to be surveyed. Complete information about the seashore (coastline) is also collected. Collecting so much information about the sea surface, the depths of the sea, and the seashore becomes a sensitive issue. Because of this, most countries have their own hydrographic survey department with their respective navies. In India too, the Hydrographic Department is part of the Indian Navy. The Indian Navy, among other capabilities, has a formidable fleet of modern survey ships and associated infrastructure. The Naval Hydrographic Department of the Indian Navy is one of the world's most advanced Hydrographic organizations.

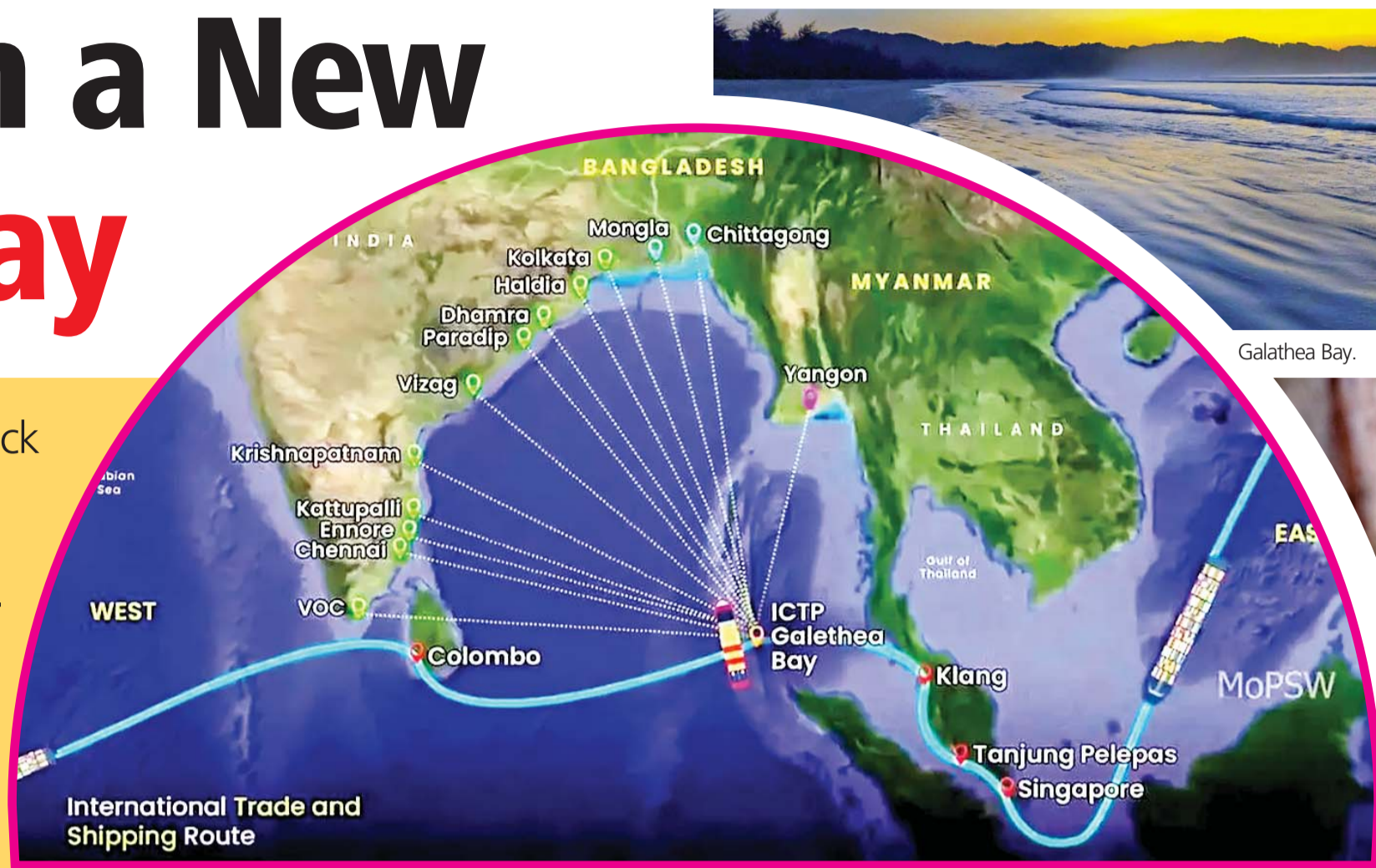
70% of the Earth's surface is covered by the oceans. In this huge maritime environment, hydrographic surveys are of utmost importance. Hydrographic surveys are useful and necessary for both military and non-military purposes. Be it naval ships, cargo ships, or

the operation of submarines, hydrographic surveys are a necessity. Whether it is the development of a new port, the expansion of any existing port, or exploration of mineral wealth from sea, hydrographic survey work is a primary requirement. The determination of the maritime boundary between any two countries cannot be done without a detailed Hydrographic survey. The calculation and determination of the country's territorial waters and its exclusive economic zone (EEZ), from which we can harvest all resources, are done on a 'baseline' drawn along the country's coast, which is established by detailed hydrographic surveys and has to be accepted internationally. Islands, that are not accessible by land or air, require assistance in times of emergency through naval ships. Hydrographic surveys are essential for finding suitable coastal stretches for landing of personnel and vehicles through naval ships (amphibious operations). With India now having a Nuclear Submarine fleet, it is essential to chart undersea hazards such as

mountains. Hydrography has now become a new 'front' in the battle for influence in our maritime domain. There is growing competition among India, China, and other countries to chart international waters as well as the 'Exclusive Economic Zones' of countries around the region.

British hydrographer, Lieutenant Archibald Blair. Also, many sea channels and straits in the area are named after hydrographers, who first rediscovered them and surveyed them. I was part of the Hydrographic Survey team on board Indian Navy's Survey Ship, *INS Sandhayak* (The first one). The ship was tasked to undertake a detailed hydrographic survey around the southernmost part of Great Nicobar Island, which included Galathea Bay.

The island was scantily populated and had hills with very thick forests. The population was mainly at Campbell Bay, a few miles away, where a few ex-servicemen Sikh families from Punjab were settled, who were mainly engaged in farming. A project officer of the Border Roads Organisation, with a workforce from UP and Bihar and some natives of the Galathea bay area, was also there. The terrain was hostile and local help or facilities were unavailable. The ship was to undertake the measurement of depth of water (sounding) in the sea in and around Galathea Bay and the survey parties from the ship were to



International Trade and Shipping Route



Galathea Bay.



A chart prepared to commemorate the Review of the Fleet by President Kalam on 12 Feb, 2006 at Vishakapatnam.

### DO YOU KNOW ?

1. What is the length of our total coastline, including Islands? - 7517 KMS
2. Length of Coastline of the mainland- 6100 KMS
3. How many Islands do we have? - 1382
4. Of these, how many are in Andaman and Nicobar? - 572
5. How many in Lakshadweep? - 39
6. How many islands along the mainland coast? - 771
7. Which is the southern most point in India? - Indira Point (Great Nicobar Island)
8. How far is it from Indonesia? - Approx-150 KMS
9. What is the Area of the Indian Ocean, of the Arabian Sea and of the Bay of Bengal? - Indian Ocean: 70,560,000 Sq Kms Arabian Sea: 3,862,000 Sq Kms Bay of Bengal: 2,173,000 Sq Kms
10. Which is the deepest point in the Indian Ocean? - Sunda Trench/ Java Trench- 7432 Mtrs

### #NAVY DAY



The author (on left) discussing finalisation of a chart with Admiral Nandi, the Chief Hydrographer of the Navy.



Boat aground with shoring to prevent toppling.

undertake the mapping of the coast by walking over it and recording measurements. The latter part was a little adventurous one, as the coast was infested with crocodiles. Extra men had to be deputed with arms and ammunition for protection.

The adjacent jungle also had a lot of snakes. The ship's helicopter, which used to ferry us between the ship and landing points ashore, had to hover above the beach for a couple of minutes to scare away the crocodiles by the sound of its rotors. It was a sight to see the cro-

codiles basking on the beach and then crawling back into the sea, as the helicopter hovered over them. The available working time on the coast was also restricted as we had to finish work well before sunset, because the recovery of the survey parties from ashore after the survey was not possible. We traversed the entire length of this tortuous coastline on foot to measure and record every possible detail, which is now of great use in planning the Galathea Port.

To ascertain the accurate position of the survey ships and boats,



Beautiful thick forests of the area.

India has been an active and influential member of the International Hydrographic Organization (IHO), since 1955. India played a very important role during the deliberations of the United Nations Convention on the Law of the Sea (UNCLOS).

Some position fixing electronic equipment has to be put up at suitable places ashore. There was a tapered rock, called 'Snake rock,' just off the Campbell bay harbour that was ideally located for this equipment. This rock actually had snakes on it, which could be seen slithering themselves and crawling around, and we were required to install this equipment on this rock. A tough task indeed, as only one or two persons could be lowered onto the rock. We followed the same drill of making the helicopter hover above the rock to create noise and vibrations, forcing the snakes to slither down into the water. I was lowered on the rock along with one sailor, and thereafter, one by one, the survey gear was lowered. We had to quickly fix up the gear, before the snakes started climbing back up! The helicopter remained close to the rock, during the entire period of fixing up the gear, in case of any emergency evacuation.

Indian Naval Hydrographic Department: The Indian Naval Hydrographic Department is about 150 years old and is headed by the Chief Hydrographer to the

Government of India (a three star Vice Admiral rank officer). The National Hydrographic Office, which coordinates the national hydrographic requirements, is located at Dehradun. The National Hydrographic Institute, which is a training facility, is at Vasco-da-Gama (Goa). It is also the regional training institute for Southeast Asia, and is recognized by the International Hydrographic Organization (IHO). Many training courses of this institute are sought after by foreign Navies and are recognized by Goa University for undergraduate (B.Sc.) and postgraduate (M.Sc.) degrees.

### Survey Ships

The Indian Navy has a fleet of survey ships, both large and small. All these survey ships are capable of surveying both deep and shallow waters. Survey ships are equipped with modern instruments and equipment. These include remotely controlled Autonomous Underwater Vehicles (AUV) for sea bottom profiling. All the hydrographic ships of India are inde-

pendent maritime countries in the Indian Ocean region.

### Boat Aground

While the deeper parts of the sea are surveyed by the survey ship, the shallower part near the coast are surveyed by Survey Motor Boats (SMB). These boats are carried by the Survey ship and lowered into water, as and when required. These survey boats attempt to go as close to the shore as possible to obtain complete details. The rise and fall of the tide is taken into account while doing survey using SMBs. On some occasions, especially in areas with uncharted waters or with high tidal range, the boats can run aground due to insufficient depth of water. In places like Bhavnagar or Kandla (where the range of tide can be 20 to 30 feet), the tide may fall so fast that the boat is unable to reach safe depths. In such incidents, the biggest risk is that the boat might run aground and topple over on its side. The crew has to be alert and very fast in putting wooden supports (what we call shoring) on the sides of the boat to prevent the boat from toppling on its side.

### Prime Minister's ahoj

During the Galathea Bay survey, another interesting and historic event occurred. The southern part of the island had a lighthouse (then known as Pygmalion Lighthouse), marking the southern most point of India. The then Prime Minister of our country, Smt. Indira Gandhi, decided to visit the Nicobar Island and go to the lighthouse area, being the southern most part of India.

Those days, there was neither a National Security Guard (NSG) nor a Special Protection Group (SPG) for VIP security. On the appointed day, the Commanding Officer of INS Sandhayak nominated me as the Officer-in-charge of the landing party for the security of the VIP, along with one section strength of armed sailors. The Prime Minister was flown in by Helicopter. There was a small gathering from various sections of the inhabitants of Great Nicobar Island and the lighthouse staff. Tea with the Prime Minister was organized during her brief stay. Being responsible for her security, I stayed close to her during the visit. This was the only occasion when I had the privilege of being close to the Prime Minister and being responsible for her security. This is unthinkable in today's security environment! This lighthouse was later renamed as *Indira Point Lighthouse* and it continues to guide ships approaching the area.

Once the boat was lightened, it was re-floated with the next high

tide and was brought on board and reassembled. This was probably first such incident in India where a stranded boat was recovered by dismantling it and using a helicopter to lift its parts.

Such an incident happened in Nicobar island. A survey motor boat ran aground on a rocky shore. There was no external help available. When all efforts to re-float the boat, by pulling with other boats, failed, it was decided by the Commanding Officer, to dismantle the boat to make it lighter. First, the canopy was removed, then, the engine was disconnected from boat hull. Thereafter, all the parts were lifted by the ships, Chetak helicopter and brought on board.

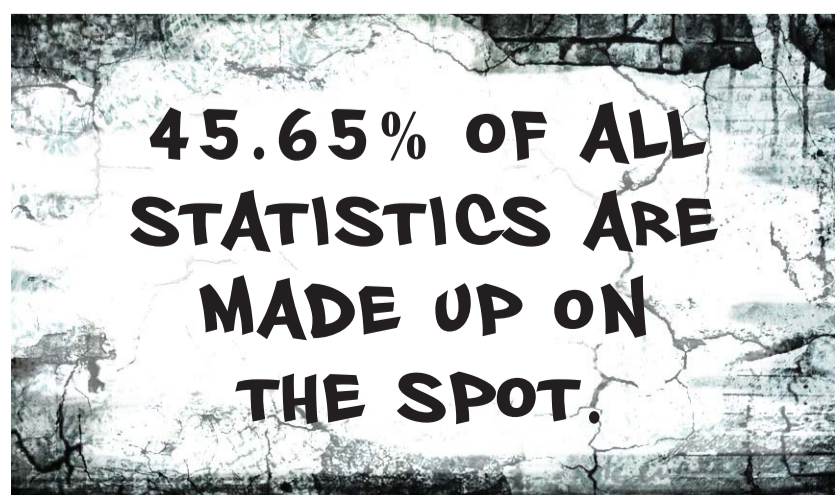
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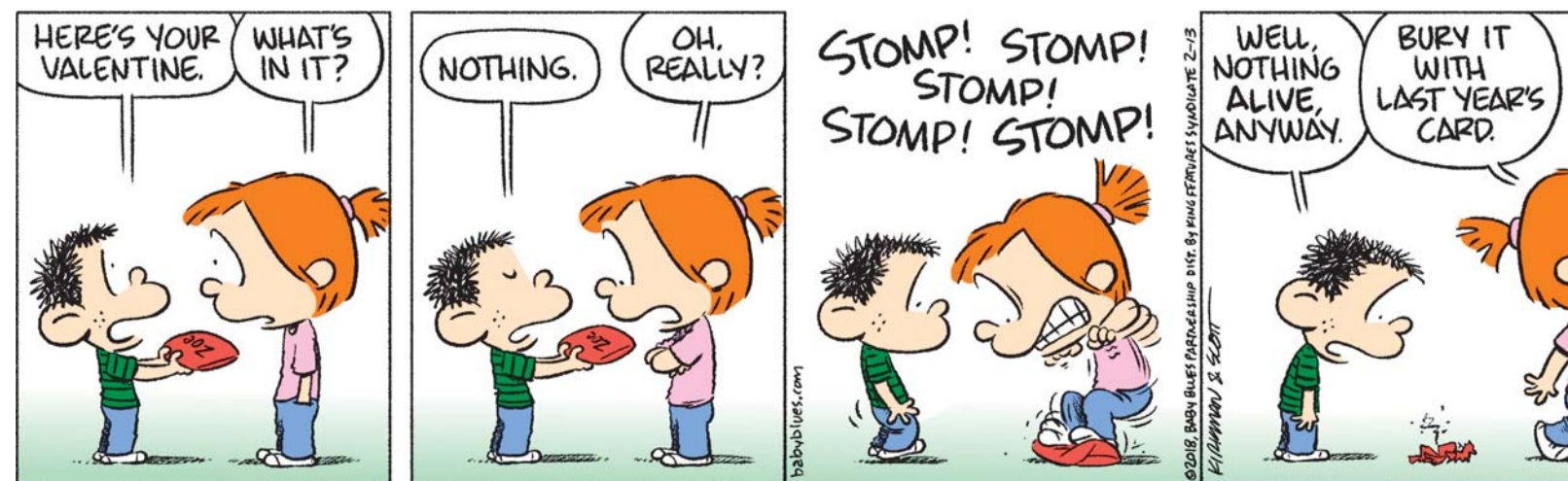


Underwater corals in the bay.

### THE WALL



### BABY BLUES



By Rick Kirkman & Jerry Scott

### ZITS



By Jerry Scott & Jim Borgman