



# MARITIME REVIEW

A PUBLICATION OF THE MARITIME LEAGUE

Issue No. 19-3

May - June 2019

## Consolidating Our Maritime Forces

### Also Inside:

- ▶ **Cleaning up Manila Bay: The SC Mandamus and Corruption**
- ▶ **MARINA Inaugurates New Central Office Building**
- ▶ **MARINA Opens 8 Industry-Proposed RoRo Routes**
- ▶ **Creditors Bail out Hanjin Heavy Industries**
- ▶ **Deuterium: Truth or Hoax?**

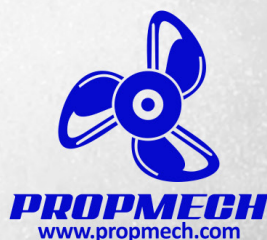


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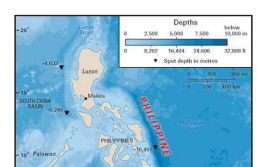
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*About the Cover:*  
PN sailors, marines and other maritime elements render honors during the Philippine Fleet anniversary.  
Photo by Naval PIO



# MARITIME EVENTS CALENDAR

## MAY '19

- 6-8 SEA-AIR-SPACE 2019 (GAYLORD NATIONAL CONVENTION CENTER, NATIONAL HARBOR, MD, USA)
- 6-9 OFFSHORE TECHNOLOGY CONFERENCE (NRG PARK, HOUSTON, TX, USA)
- 8-9 UNMANNED MARITIME SYSTEMS TECHNOLOGY (COPTHORNE TARA HOTEL, SARSDALE PLACE, KENSINGTON LONDON, UK)
- 14-16 MEGARUST 2019 (RENAISSANCE PORTSMOUTH-NORFOLK WATERFRONT HOTEL, PORTSMOUTH, VA, USA)
- 14-16 IMDEX ASIA (CHANGI EXHIBITION CENTRE, SINGAPORE, SG)
- 20-22 INLAND MARINE EXPO (THE DOME AT AMERICAS CENTER, SAINT LOUIS, MO, USA)
- 23-25 SUMMIT OF THE INTERNATIONAL TRANSPORT FORUM (LEIPZIGER MESSE INTERNATIONAL GMBH, LEIPZIG, DE)
- 23-25 IMABARI MARITIME FAIR (TEXPORT IMABARI, IMABARI, JP)
- 24 MARITIME FORUM #145 (PHILIPPINE NAVY (PN) HEADQUARTERS PHILIPPINE NAVY, ROXAS BOULEVARD, MANILA)**

## JUNE '19

- 4-7 NOR-SHIPING (NORWAY TRADE FAIRS, LILLESTRØM, NO)
- 10-14 CIMAC CONGRESS 2019 (VANCOUVER CONVENTION CENTRE, VANCOUVER, CA)
- 11-13 SEAWORK 2019 (MAYFLOWER PARK, SOUTHAMPTON, UK)
- 17-19 MARINE MONEY WEEK (THE PIERRE HOTEL, NEW YORK CITY, NY, USA)
- 17-19 MAST ASIA 2019 (MAKUHARI MESSE, TOKYO, JP)
- 18-20 CRUISE SHIP INTERIORS EXPO 2019 (MIAMI BEACH CONVENTION CENTER, MIAMI, FL, USA)
- 18-20 PHILMARINE 2019 (SMX CONVENTION CENTER, SM MALL OF ASIA, PASAY CITY)
- 20 MARITIME FORUM #146 (PHILIPPINE COAST GUARD (PCG) SMX, MOA, PASAY CITY)**
- 23-25 AUTONOMOUS SHIP TECHNOLOGY SYMPOSIUM (RAI AMSTERDAM, AMSTERDAM, NL)
- 25-26 MDSG COUNCIL MEETING 2019 (HQ5 WELLINGTON, LONDON, UK)
- 25-27 ELECTRIC & HYBRID MARINE WORLD EXPO CONFERENCE (RAI AMSTERDAM, AMSTERDAM, NL)

## JUNE '19 - JULY '19'

- 29-10 LA MER XXL L'EXPOSITION 2019 (EXHIBITION CENTER ROUTE DE SAINT-JOSEPH DE PORTERIE, NANTES, FR)

## JULY '19

- 3-4 PTG COUNCIL MEETING 2019 (THREADNEEDLE ST, LONDON, UK)
- 4-5 CMG COUNCIL MEETING 2019 (THREADNEEDLE ST, LONDON, UK)
- 7-9 TORONTO VINTAGE BOAT SHOW (RESIDENCE INN BY MARIOTT GRAVENHURST MUSKOKA WHARF, GRAVENHURST, CA)
- 10-11 MASG COUNCIL MEETING 2019 (THREADNEEDLE ST, LONDON, UK)
- 20-21 WIND & WATER BOAT SHOW (MARINA GDYNIA, GDYNIA, PL)
- WINE COUNTRY CLASSIC BOAT SHOW (DEPOT PARK, 7 WATER ST, HAMMONDSPORT, NY, USA)
- 26 MARITIME FORUM #147 (NATIONAL COAST WATCH COUNCIL (NCWC))**

## AUGUST '19

- 1-5 AUSTRALIA INTERNATIONAL DIVE EXPO AIDE 2019 (INTERNATIONAL CONVENTION CENTRE SYDNEY, SYDNEY AU)
- 2-5 DALIAN INTERNATIONAL BOAT SHOW DBS CHINA (DALIAN XINGHAI BAY MARINA, DALIAN, CN)
- 10-13 NAPLES ANTIQUE AND CLASSIC BOAT SHOW (NAPLES CITY DOCK, NAPLES, USA)
- 13-15 16TH MARINETECH SOUTH AMERICA (SULAMERICA CONVENTION CENTER, RIO DE JANEIRO, BR)

- 18-20 NATIONAL OUTDOORS FISHING AND BOATING EXPO 2019 (MELBOURNE SHOWGROUNDS, MELBOURNE, AU)
- 20-22 INDONESIA MARINE & OFFSHORE EXPO 2019 (SWISS-BELHOTEL BAY, BATU AMPAR, ID)

## **23 MARITIME FORUM #147 (PHILIPPINE PORTS AUTHORITY (PPA))**

- 18-20 CRUISE SHIP INTERIORS EXPO 2019 (MIAMI BEACH CONVENTION CENTER, MIAMI, FL, USA)

## SEPTEMBER '19

- 3-6 OFFSHORE EUROPE (ABERDEEN EXHIBITION AND CONFERENCE CENTER, ABERDEEN, UK)
- 10-12 SHIPPING, MARINE SERVICES & OFFSHORE FORUM (ONE MOORGATE PLAZA, LONDON, UK)
- 11-13 SEATRADE EUROPE (HAMBURG MESSE, HAMBURG, DE)
- 14-19 MAST ASIA (MAKUHARI MESSE, TOKYO, JP)
- 17-19 MARINE MILITARY EXPO (QUANTICO STATION, QUANTICO, USA)
- 17-20 NEVA 2019 (EXPOFORUM CONVENTION AND EXHIBITION CENTRE, SAINT PETERSBURG, RU)
- 18-21 MARINETEC INDEONESIA (JAKARTA INTERNATIONAL EXPO, JAKARTA, ID)
- 23-25 SEATRADE OFFSHORE MARINE & WORKBOATS (ABU DHABI NATIONAL, ABU DHABI, UAE)

## **25 MARITIME FORUM #149 (NATIONAL DEFENSE COLLEGE OF THE PHILIPPINES (NDCP))**

## OCTOBER '19

- 2-3 OILCOMM AND FLEETCOMM 2019 (HOUSTON MARIOTT WESTCHASE, HOUSTON, TX, USA)
- 5-9 INTERFERRY 2019 (INTERCONTINENTAL LONDON, LONDON, UK)
- 10-12 CHINA INTERNATIONAL LOGISTICS & TRANSPORTATION (SHENZHEN CONVENTION & EXHIBITION CENTER, SHENZHEN, CN)
- 17-18 3RD ANNUAL SEADATACLOUD (SHENZHEN CONVENTION & EXHIBITION CENTER, SHENZHEN, CN)
- 17-19 GLOBALHAB 2019 (VICTORIA CONFERENCE CENTER, VICTORIA, BC, CA)
- 18 MARITIME FORUM #150 (NATIONAL DEFENSE COLLEGE OF THE PHILIPPINES (NDCP))**
- 24-26 SHIPTEC CHINA (DALIAN WORLD EXPO CENTER, DALIAN, CN)
- 13-15 OIL AND GAS VIETNAM (PULLMAN VUNG TAU, VUNG TAU, VN)

## NOVEMBER '19

- 1-3 SHIPPING & LOGISTICS INDIA (CHENNAI TRADE CENTER, CHENNAI, IN)
- 5-6 FUTURE FUELS FOR SHIPPING SEMINAR (INTERNATIONAL MARITIME ORGANIZATION BLDG, LAMBETH, LONDON, UK)
- 18-20 EUROPORT 2019 (ROTTERDAM AHOY, ROTTERDAM, NL)
- 12-14 HWY H2O CONFERENCE (HILTON TORONTO AIRPORT HOTEL & SUITES, MISSISSAUGA, CN)
- 13-15 OIL & GAS VIETNAM 2019 (PULLMAN VUNG TAU, VUNG TAU, VN)
- 19-21 LATIN AMERICAN CONGRESS OF PORTS (INTERCONTINENTAL MIAMI, MIAMI, FL, USA)
- 22 MARITIME FORUM #151 (DEPARTMENT OF TRANSPORTATION (DOTR))**
- 26-27 TANKER SHIPPING & TRADE CONFERENCE (ILEC CONFERENCE CENTRE, LONDON, UK)
- 28-29 LNG & LPG SHIPPING SHIP/SHORE INTERFACE CONFERENCE (LONDON, UK)

## DECEMBER '19

- 3-6 MARINETEC CHINA 2019 (SHANGHAI NEW INTERNATIONAL EXPO CENTRE, SHANGHAI, CN)
- TBD MARITIME FORUM #152 (UNIVERSITY OF THE PHILIPPINES-)**

# CONSOLIDATING OUR MARITIME FORCES

by VAdm Emilio C Marayag Jr AFP (Ret)



*PN ships reprovision in preparation for a multinational maritime exercise in the West Philippine Sea.*

To be relevant and to survive, many profit-oriented organizations positively react to their changing operational environment. They are cognizant that the very thing to expect over time is change. As a consequence, they revise their structure to support a new corporate strategy with the aim to improve efficiency, promote teamwork and reduce cost. These changes could lead to mergers, acquisitions, or even closures of many companies.

The same is true with bureaucratic and service-focused organizations including the maritime forces. Given the developing situation in the **West Philippine Sea** and the **Philippine Rise**, the country's seagoing services may have to be integrated to create a synergy that would optimize their effectiveness. This in turn will support our national security policy and its concomitant strategy.

Our **National Security Strategy** defines

national security as a "state or condition wherein the nation's sovereignty and territorial integrity, the people's well-being, core values, way of life, and the State and its institutions, are protected and enhanced." The paper also articulated one national interest: the protection and preservation of ecological balance.

This national interest should lead to the attainment of end-states, namely: (1) developing a dynamic, inclusive and sustainable economy; (2) ensuring maritime and airspace security; (3) safeguarding national sovereignty and territorial integrity; and (4) promoting human and ecological security. In order to attain these end-states, there is a need to build a credible deterrence capability in defense and law enforcement, and enhance mutual defense arrangements with other countries.

The maritime forces – navy, coast guard and selected air units – are at the forefront



The Integrated Bar of the Philippines (IBP) and fishermen from Palawan and Zambales have asked the high court to issue a Writ of Kalikasan directing the government to enforce Philippine environmental laws, including fisheries laws, in the West Philippine Sea. The petition said Philippine environmental laws should be enforced at the Ayungin Shoal, Panganiiban Reef and Panatag Shoal, all within the Philippines' EEZ. Photo Credit: The Philippine Star

in protecting the country's borders, marine and seabed resources, and ecological balance. Unfortunately, they are not under a single department with a common operating environment. Hence, having two different chains of command violates the **unity of command principle**.

A case in point is the recent transfer of command and control of the **Chinese Coast Guard** from civilian to military. Barely five years under a civilian agency, Oceanic Administration, China decided to put its **Coast Guard** under the **People's Armed Police** that directly reports to the **Central Military Commission**. This set-up allows China to harmonize its maritime operations in **South China Sea** involving its **maritime militia, Coast Guard** and **PLA Navy** to implement its "cabbage strategy," a coercive, sustained, and gray zone naval campaign. Likewise, the US started deploying its **US Coast Guard** units in the same maritime zone in coordination with the **US Navy** to conduct freedom of navigation patrols to ensure unhampered transit of merchant ships traversing that waterway.

Transferring the **Philippine Coast Guard (PCG)** to the Defense Department will hasten the realization of a credible deterrence capability in defense and maritime law-enforcement. Having acquired military culture and ethos while under the defense establishment for over three decades, the transition would not be difficult. **PCG's** military character will sharpen its "warrior edge," enhance its logistics support including basing, procurement, and ship maintenance, and supplement its intelligence capacity and training programs. Further, it will have a clear operational focus on the "whole of the nation approach" in protecting the national patrimony. There will be stability in planning and execution of missions and tasks during extreme emergencies other than war, something that the current PCG law does not provide. Merging will create efficiencies thereby reducing cost, improving interoperability, and most importantly, strengthening the chain of command.

As one strategist puts it: "In dearth of resources, the commander must consolidate, not disperse, his forces."



**Happy 121st Anniversary to the Philippine Navy!**



## MARITIME FORUM

The League organized the Maritime Breakfast Forum (MBF) series in 1995 as a venue for developing plans and programs to discuss and resolve issues in the maritime industry. The MBF is attended by stakeholders in the maritime sector and resource persons in the government and private agencies involved in maritime concerns. The MBF is regularly held, without fail, every month except December, hosted by different agencies and organizations in the maritime industry. Policies and projects presented during the forum are published in the Maritime Review for information and dissemination to the general public.



# CLEANING UP MANILA BAY: THE SC MANDAMUS AND CORRUPTION

by Commo. Carlos L Agustin AFP (Ret)



"Informal settlers" along Manila Bay. Photo Credit: ZipMatch / Philippine News

The neglect by the government in implementing environmental laws and regulations caused some concerned residents to file suit, and this resulted in the issuance of the **Supreme Court Continuing Mandamus** on the **Clean-up of Manila Bay**. Lead Counsel **Antonio Oposa Jr** stated it succinctly: *"If there is lack of political will on the part of government agencies, it is the function of the judiciary to supplant it with the will, the force, and the power of the law."*

We in the **Maritime League** have been continuously assessing the implementation of the **Supreme Court's Continuing Mandamus** on the preservation and protection of the **Manila Bay environment**. At least twice a year, we include an update on this from the **DENR**, specifically the **Coordinating Committee on the Mandamus**, which is directly under the **DENR-NCR**. One of these occasions was the **Maritime Forum** hosted by the **DENR** itself, except that this year we were caught amidst the Boracay rehabilitation

project, but nevertheless the amiable **DENR Sec Roy A Cimatu** showed up at the **Maritime Forum** and impressed our attendees as a hard-working, hands on, and focused cabinet member. We can say that as well about his Undersecretary **Rodolfo C Garcia**, who was also present to Co-Chair that **Maritime Forum**. I've known both of them for many years.

As stated by **DLSU** researchers **Katherine Pia M. Cabatbat** and **Teresa M. Camarines** in a paper analyzing its relevance to **Laudato Si** of **Pope Francis**, *"the writ of continuing mandamus issued by the Supreme Court in the year 2008 in the case, MMDA vs Concerned citizens of the Philippines with G.R. Nos. 171947-48 is a concrete way by which the Filipino people through its judicial system responds to the challenges posted by the environmental pollution and environmental destruction in the present world."*

*"Continuing mandamus is a writ issued by a court in an environmental case directing any agency or instrumentality of the government or officer thereof to perform an act or series of acts*

decreed by final judgment which shall remain effective until judgment is fully satisfied." It is a command of continuing compliance, which aims to ensure the successful implementation of the order of the court for the protection of a specific environment.

The Supreme Court (SC) has a Committee continuously reviewing the implementation of the **Mandamus**, chaired by a SC Justice.

The **Biodiversity Management Bureau** identifies the players involved in the implementation of the **Mandamus**: **DENR, DILG, DPWH, DA, DEPED, DBM, LWUA, PCG, PNP-MG, PPA, BFAR, MWSS** and its two concessionaires, but the **Biodiversity Management Bureau** is in charge of only one cluster, one that is concerned with biodiversity and wildlife habitat.

As a result of the failure of the **SC Mandamus** to achieve its goal reasonably and because of the initial success of the Boracay rehabilitation project, **President Rodrigo Duterte** last February 2019 issued Administrative Order No. 16, creating the task force to ensure "the complete rehabilitation, restoration, and conservation of the **Manila Bay**."

For many years, we've seen the massive garbage collection effort from the shores of Metro Manila in particular during **World Environment Day**. In 1994, I recall an accomplishment report announcing that our effort resulted in a world record haul of garbage collected in a clean up effort that made many to comment that it also proved that we rampantly violate the law by disposing of trash illegally into our waterways. How true.

This practice continues up to now, and even as the periodic visits by media teams together with local and national teams performing their tasks expose this openly, we still do not see the point that **the single most important cause of environmental degradation of Manila Bay due to solid and liquid waste is**



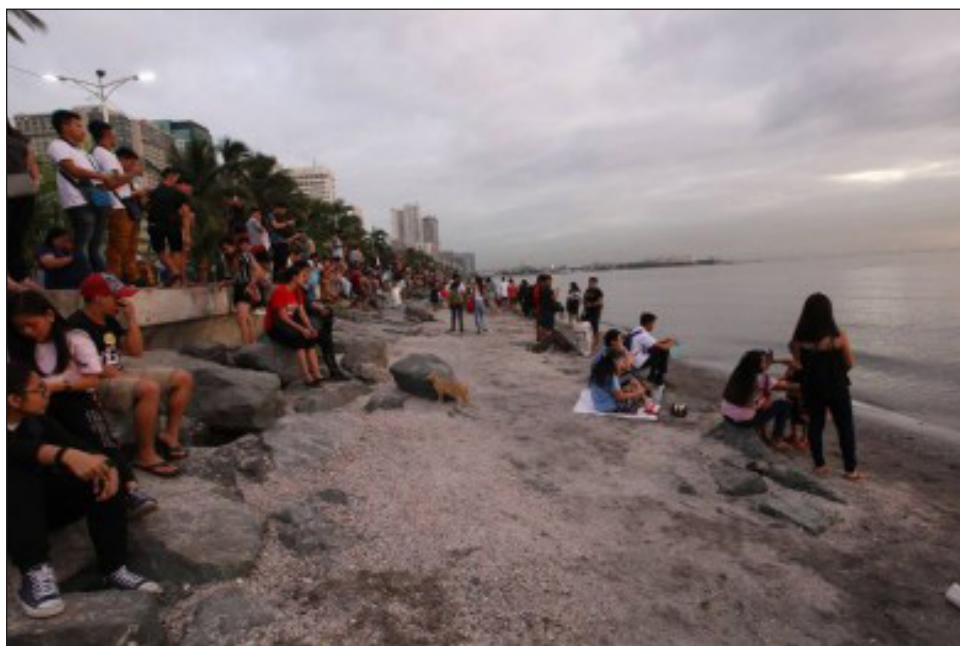
**the proliferation of squatter communities on our coasts. The removal of these shanties is a sine qua non to the solution of this problem.**

The Government normally uses the politically correct term "illegal" or "Informal" settlers, highlighting the kid gloves treatment we give to the squatters, quite a few of whom are professional or habitual squatters that keep coming back after collecting some money after having been relocated.

### The PACC and the Mandamus

Having learned of certain anomalies pertaining to garbage collection, **President Duterte** last year directed **Presidential Anti-Crime Commission (PACC) Chairman Dante Jimenez** to look into the issue of how corruption may have affected the implementation of the **Mandamus**.

As a result, Chairman **Jimenez** invited us together with various agencies involved to an initial meeting at the **Manila Yacht Club** on 28-March-2019. During the meeting, the following were taken up: **PACC Executive Asst Joseph L Sorra** briefed on the **PACC's** past accomplishments, the **PACC** tasking on the environment as covered by the 2018 SONA, ABS CBN item on illegal quarrying by Chinese nationals; the Al Jazeera broadcast on **Manila Bay** pollution, 6-October-2017; news item on 6-June-2018 that the Philippines ranks third as worst ocean polluter, following China and Indonesia; news item ABS CBN on continuous dumping of garbage on the esteros, 21-March-2019; In reaction, **Martin B Dino**, USEC for Barangay Affairs of the DILG commented



**TOP:**  
Garbage washed ashore Manila Bay along Roxas Boulevard after the Southwest Monsoon on July 2018;

**LEFT:**  
People sitting and watching the sunset after the Manila Bay clean-up drive.

**PHOTO CREDIT:**  
Avito Dalan, [pna.gov.ph](http://pna.gov.ph)



that one of the bigger problems on the **Manila Bay** clean up is the non-implementation of environmental laws by LGUs, particularly at the barangay level. He stated that on review, he discovered that DBM had provided P50 billion for relocation of informal settlers, and up to now, LGUs could not account for the funds remitted to them.

The various agency representatives present briefed on their specific tasks with emphasis on the **SC Mandamus**. The focus was on informal settlers and the problem of relocation and inability of government to accomplish their tasks unless they are relocated.

**Amb Alberto A Encomienda** commented on the focus of his NGO, **Balik Balangay**, which includes raising awareness on pollution from ships. In this regard, he cited Greece's PHILMEPA, which **PACC** Chair **Jimenez** created years ago, patterned after the HELMEPA of Greece.

### Update from the 144th Maritime Forum

During the 144th **Maritime Forum** held at the **AMOSUP** Conference Hall on 26-April-2019 at Intramuros, I reported on the **PACC** meeting at **MAAP**, as well as the matter of anomalies in river and bay dredging in Batangas and Zambales.

News media in early April 2019 revealed the presence of a Chinese dredger in Lobo, Batangas. Details later showed questionable acts by the LGU, which indicates lack of clear policy or proper implementation with respect to silt removal and black sand mining. This case is similar in nature to issues in Zambales province where illegal dredging/mining have been exposed since the Mt Pinatubo eruption in 1991.

I stated that silt dredging is necessary, especially due to destruction caused by flooding of affected areas. Likewise, mining of black sand together with dredging is necessary and can be lucrative for the LGU and the national government, if done properly.

### Reactions on influence of corruption on environmental issues

**RAdm Amable B Tolentino**, **PACC** Chief of Staff, emphasized the importance of anti-corruption component in the inter-agency cooperation in the protection of the environment, and basically reiterated the matters taken up by Chairman **Jimenez** during the initial meeting at the **Manila Yacht Club**.

**DILG** **USEC Martin Diño** raised the issue on the alleged corruption or misuse of the P50-billion allocation of the informal settlers relocation fund. He commented that one of the larger issues in the **Manila Bay** clean-up is the problem of the implementation of laws by the LGU's, particularly at the Barangay level. He stated that corruption is caused by political patronage.

### Conclusion

Without **downplaying** the role of various Committees on the **SC Mandamus**, the relocation of squatters must be given top priority. Removal of such colonies, and placing the areas vacated under complete LGU control for development, must be fully institutionalized to include empowering and enabling LGUs to develop the capability to guard against squatting.

The directive of President Rodrigo Duterte to engage the **PACC** to take action against corrupt LGU officials must be pursued, for not only has the national government wasted funds, worse, the problem has continued to be there, and the environmental issues on disposal of solid and liquid waste continues. Moreover, the issue of dredging of river silt must be thoroughly studied with the view of expedient action to desilt, making the matter transparent, and beneficial to the common good, not to the officials of national and local government. ⚓

# PHILIPPINE COAST GUARD BAGS DSWD "PANATA AWARD"

by PCG News



The **Philippine Coast Guard (PCG)**, through its **Civil Relations Service (CRS)**, conducted four sorties of relief, psychological, social, medical and dental missions in the evacuation areas of **Iligan** and **Marawi City**.

The **PCG** also sent alternately **BRP Corregidor** and **BRP Pampanga** to transport food packs from **DSWD**, and school supplies from Manila to the **Iligan Port**.

**Captain Armando Balilo**, Acting Commander of CRS, thanked in behalf of the **PCG**, the **DSWD** leadership for the accolade. He also expressed **PCG's** gratitude to the **Philippine Coast Guard Auxiliary**, the **PCGA Medical and K9 Support Squadron**, **Fast Craft CEO Chet Pestrana**, and to the International Ferris Association as well as media partners who supported the **PCG** in the activity.

**DSWD** OIC Secretary **Emmanuel Leyco**, and Presidential Liaison Undersecretary **Luzviminda Ilagan** handed the **PaNata Award** during the agency's anniversary held in March.

Meanwhile, **BRP Corregidor** arrived yesterday, 15-March-2018 in **Iligan Port** with 3,000 food packs and school supplies intended for the elementary and high school students of **Marawi City**, the capital of Lanao del Sur, Mindanao.

**Captain Balilo** said the **PCG** is also preparing to transport materials to **Marawi** for the **Brigada Eskwela** of the Department of Education. ⚓



**TOP:**  
Top: The Department of Social Welfare and Development (DSWD) awarded on 8-March-2018 the Philippine Coast Guard with the prestigious "PaNata Award" in recognition of its valuable contribution in the disaster relief operations effort in Marawi

**RIGHT:**  
PCG's 2018 Pagkilala sa Natatanging Kontribusyon sa Bayan (PaNata) Award.

**PHOTO CREDIT:**  
PCG

# MARINA INAUGURATES NEW CENTRAL OFFICE BUILDING

by Aerol John Pateña / Philippine News Agency



**F**inally, after more than 4 decades, the **Maritime Industry Authority (MARINA)** has a home to call its own.

The **Maritime Industry Authority (MARINA)** has inaugurated its newly constructed central office building on Bonifacio Drive corner 20th Street at Port Area, Manila. The 12,000-square meter 12-storey building was constructed with a cost of PHP382 million through the assistance of the **Department of Public Works and Highways** and **Angkla** party-list.

**MARINA** Officer-In-Charge **Vice Admiral Narciso Vingson Jr.** said the construction of its new office is a manifestation of its commitment to strengthen its organization.

*"The structure signifies our commitment to transform into a world-class and capable organization. We are favored in such a pivotal time where we are housed, furnished and equipped in a facility where we would be able to produce results that we can be proud of. From here on, truly we can all be positive that we have built something that will end up building us,"* **VAdm Vingson** said during the blessing ceremony of the building.

**Department of Transportation (DOTr)** Secretary **Arthur Tugade**, meanwhile, lauded the **MARINA** for implementing various initiatives to strengthen maritime education in compliance with the audit of the **European Maritime Safety Agency (EMSA)**.

A major initiative is the issuance of Executive Order No. 63 that mandates the **MARINA** to be the single maritime agency that will be in charge of the implementation of the International Convention on **Standards of Training, Certification, and Watchkeeping for Seafarers (STCW)**. This will ensure seamless administration of maritime education programs and promote coordination among agencies such as the Commission on Higher Education (**CHED**), Department of Health (**DOH**), and the Philippine Coast Guard (**PCG**).

*"The takeaway for this inauguration are the efforts of previous administrations to address issues cited by **EMSA**. This has been the*

*issue of **CHED** and **MARINA** for several years, but this problem was already addressed because **CHED** and **MARINA** had an agreement where the control of management of operations are handed over to **MARINA** wherein the technical working committee now is controlled by **MARINA**. This is a major change),"* **DOTr Sec. Tugade** said.

The blessing of the new building was also graced by OIC Undersecretary for Maritime **Fernando Juan Perez**, Philippine Ports Authority (**PPA**) General Manager **Jay Santiago**, Philippine Coast Guard (**PCG**) **Commandant Elson Hermogino**, **Angkla** Rep. **Jesulito Manalo** and Deputy Administrator for Operations **Nanette-Villamor Dinopol**.

The construction of the new central office building took place from 2015 to 2018 due to space programming to accommodate adjustments on manpower complement for the enhancement of the agency's organizational structure.

Partial operations in the new building will start early 2019. Its full operation is expected before the end of 2019.

The **MARINA-Standards of Training, Certification, and Watchkeeping for Seafarers (STCW)** Office and the **MARINA-Manpower Development Service (MDS)** will be the last to move in the new facility to reduce possible disruption in the delivery of public service to seafarers such as the issuance of exam permits and necessary certificates.

*"The construction of **MARINA** central office building in Manila, and **MARINA** regional office buildings inside government service centers across the country such as in Cebu, Iloilo, Bacolod, and Legazpi are intended to provide convenience to maritime stakeholders through more effective and more efficient delivery of services and to promote maritime industry development through better information dissemination and collaboration of efforts among maritime industry partners,"* **MARINA** said.

**(With reports from Catherine Datiles, OJT/PNA)** 

*DoTr Sec. Arthur Tugade lead the ceremony. Photo: Roman Prospero*



# PCG PERSONNEL GRADUATE AT USCG TRAINING CENTER IN VIRGINIA



In 22-February-2019, another member from the **Philippine Coast Guard (PCG)** completed the Boatswain's Mate "A" Course at **US Coast Guard Training Center** in Yorktown, Virginia.

Seaman Second Class **John Daryl Paglinawan** PCG finished the 14-week course designed to equip Coast Guard personnel with knowledge in deck operations such as open-water navigation, international rules and regulation, vessel responsibility, search and rescue planning, and familiarization on navigation and communication devices onboard.

A total of 36 students mostly assigned in coast guard cutters/vessel or small boats participated in the said training where 33 are from the **USCG**, two from Indonesia **BAKAMLA** (Badan Keamanan Laut/Indonesian Maritime Security Agency), and one from the **PCG**.

The training also includes boat trailering, boat towing, basic lifesaving, helicopter operations, knot tying and splicing, operate and pass a portable pump, open-water survival skills, rescue and survival raft procedure. Simulation rooms equipped with latest technology are provided for every student before they go underway.

Students were also required to do physical training every morning such as swimming, running off-base, and sports and physical training tests. Moreover, students also completed the team coordination training and first-aid/CPR certification as part of the course.

Last 21-November-2018, a Philippine Coast Guard (**PCG**) personnel emerged as the top student after graduating in the Electrician's Mate "A" School in **US Coast Guard Training Center (TRACEN)** in Yorktown, Virginia.

Seaman First Class **Stephen Bondesto** PCG garnered the highest average of 99.85, while Seaman Second Class **Rommel Fabros** ranked fifth, and Petty Officer Third Class **Lexter Levita** ranked eighth. The class was composed of 18 students, 15 from USCG counterparts and 3 **PCG** personnel.

The Electrician's Mate "A" School is a 19-week intensive course of instruction designed to train non-rated personnel to perform the duties of a **Coast Guard** Third Class Electricians Mate.

The American Council on Education has evaluated this course and recommends the following credits in the Lower-Division Baccalaureate/Associate degree category: three semester hours in basic electricity, three semester hours in AC & DC circuit theory, three in electrical power distribution, three in electrical circuits troubleshooting and maintenance, one in industrial safety, and one in blueprint reading.

The course includes training and practical exercises in a wide range of topics including: battery, power distribution system, lighting systems, motors and controllers, interior communication system, galley, scullery and laundry equipment, electric damage control equipment, small boat electrical system, deck machinery equipment and shore power.

There are 9 PCG personnel are undergoing different courses such as **International Maritime Officer's Course (IMOC)**, Gunner's Mate "A" School, Boatswain's Mate "A" School and Machinery Technician "A" School at **USCG TRACEN**, Yorktown.



#### SOURCES:

"PCG personnel graduates at USCG Training Center in Virginia." *Mintfo*, 26-February-2019.  
"PCG tops class at USCG Training Center in Virginia." *PCG News*, 27-November-2018.

# WHAT ARE THE ROARING FORTIES?

by Vicky Viray Mendoza

Sailors call the latitudes between 40 and 50 degrees south of the equator the **Roaring Forties**. In 1611, Dutch explorer **Hendrik Brouwer** first used this band by which it effectively halved the duration of the trip from Europe to Java. "To run the easting down" was the phrase used to describe the fast passages achieved through the **Roaring Forties**.

During the **Age of Sail** (circa 15th-19th centuries), these strong prevailing winds propelled ships across the Pacific, often at breakneck speed despite the fact that sailing west into heavy seas and strong headwinds, especially around Cape Horn at the southern tip of South America, is one of the most treacherous sailing passages in the world.

Global wind currents like the **Roaring Forties** are influenced by the Earth's shape and spin, and by the basic thermodynamics of rising hot air.

The **Roaring Forties** have strong, and often gale-force winds throughout the year, and don't stay in their exact latitudinal designations but rather roam north and south across the Earth's surface as seasons change. The winds also vary in their strength throughout the seasons.

The **Roaring Forties** winds shift towards the South Pole in the southern summer, but towards the Equator in the southern winter. During the Australian summer, the **Roaring Forties** take shape as warm air near the equator rises and moves toward the poles. Warm air moving poleward on both sides of the equator is the result of nature trying to reduce the temperature difference between the equator, and at the poles created by uneven heating from the sun. During the Australian winter, the latitudinal band at 23.5 degrees north gets the 90-degree angle sunlight, and the mighty **Roaring Forties** in the Southern Hemisphere move north into mid-latitudes.

This process sets up global circulation cells, which are mainly responsible for global-scale wind patterns. The air descends back to Earth's surface at about 30 degrees latitude north and south of the equator. This is known as the high-pressure subtropical ridge, also known as the **horse latitudes**. Here, as the temperature gradient decreases, air is deflected toward the poles by the Earth's rotation, causing strong westerly and prevailing winds at approximately 40 degrees. These winds are the **Roaring Forties**.

The **Roaring Forties** in the Northern



Hemisphere don't pack the same strength that they do in the Southern Hemisphere. This is because the large land masses of North America, Europe, and Asia obstruct the airstream, whereas, in the southern hemisphere, there is less land to break the gusty winds in South America, Australia, and New Zealand.

While the **Roaring Forties** may be fierce, just 10 degrees south has even stronger gale-force winds called the **Furious Fifties**. And 10 degrees south of the **Furious Fifties** lay the **Screaming Sixties!** Thanks to the sailors of yore for discovering these wild but faster passages.



Sources: NOAA; Encyclopedia Britannica; ABC Science.

**TOP:**  
Research vessel amidst westerly winds of the **Roaring Forties** during an expedition to measure levels of dissolved CO<sub>2</sub> on the ocean surface;

**ABOVE:**  
The horse latitudes are regions located at about 30 degrees north and south of the equator. These latitudes are characterized by calm winds and little precipitation.

**PHOTO CREDIT:**  
NOAA



U.S. Coast Guard cutter "Tampa" crew offloaded 27K lbs of cocaine haul at Coast Guard Base Miami Beach worth \$360 million wholesale. Photo Credit: USCG.

# IMO TO INCLUDE ANTI-CORRUPTION ON FORMAL AGENDA

by Maritime Anti-Corruption Network (MACN)

In the first week of April, the **International Maritime Organization (IMO)** showed massive support agreeing to include **maritime corruption** as a regular work item on its agenda. A paper on the topic of **maritime corruption** was presented by the **Marshall Islands** with many countries and international organizations expressing their endorsement of a proposal to develop guidelines to assist all stakeholders in embracing and implementing anti-corruption practices and procedures at the 43rd meeting of the **Facilitation Committee (FAL)**. The **IMO** will now work on a Guidance document to address **maritime corruption**. This is expected to be completed by 2021.

According to the **Maritime Anti-Corruption Network's (MACN)** anonymous reporting mechanism, which was set up in 2011, there have been over 28,000 incidents already reported, confirming that this is a widespread issue.

**Danish Shipping** welcomed the support from the international community for this initiative. "We have a long-standing commitment to stamping out **maritime corruption**. Thanks to the targeted efforts of **MACN**, we have seen tangible change in locations such as the Suez Canal, where facilitation payments have decreased considerably. With the **IMO's** 174 member states working together on this agenda, we will stand even stronger in the fight against maritime corruption. Putting maritime anti-corruption on the **IMO** agenda marks a significant milestone for the maritime community as a whole," says **Anne H. Steffensen**, Director General and CEO, **Danish Shipping**.

The **Maritime Anti-Corruption Network** applauds the efforts the **IMO** has taken to address **maritime corruption** as a regular work item. **MACN's** Director, **Cecilia Müller**

**Torbrand**, commented "It is important for the industry to have maritime corruption recognized as a problem by the **IMO** in its role as the international regulator for shipping. Issues such as the wide discretionary powers held by some port officials have the potential to impact all ship owners, managers, and operators. The requirements for port entry too often lack transparency, are deliberately misapplied, or widely interpreted for private gain."

**Background.** In 2018, **MACN**, together with leading maritime associations, started to engage the **IMO** on the consequences and risks facing the maritime industry in relation to **maritime corruption**. An **IMO** submission was sponsored by 12 NGO's and submitted to the **IMO's Facilitation Committee** in June 2018 (FAL 42/16/3). The submission was supported by a presentation to **IMO** delegates from **MACN** and **ICS**.

**Maritime corruption** has far-reaching consequences, it is detrimental to shipping operations and port communities, can have damaging effects on trade and investment, which in turn can have a negative effect on social and economic development. The **IMO Facilitation Committee** requested the **IMO** Secretariat provide advice on how to address this problem and invited Member States and international organizations to submit documents to the next **FAL** meeting with suggested actions to address this problem.

**What does this mean for the industry?** "This is a significant milestone both for **MACN's** work and for the industry to have the **IMO** recognizing the damaging effect corruption has on shipping and trade" says **MACN's** Director **Cecilia Müller Torbrand**. "Our hope is that **MACN's** work will gain more leverage with **IMO** member states and that we can further strengthen the public-private dialogue in **MACN's** collective action programs (i.e., in country work)." 🇩🇪



Photo Courtesy: Environment Protection News

# THE NETHERLANDS RATIFIES HK SHIP RECYCLING CONVENTION

by Environmental Protection News

Under the treaty, ships to be sent for recycling are required to carry an inventory of hazardous materials, specific to each ship. Ship recycling yards are required to provide a "Ship Recycling Plan" specifying the manner in which each ship will be recycled, depending on its particulars and its inventory.

The **Netherlands** recently became the **8th** country to become a party to the **Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships**, the **International Maritime Organization's (IMO)** treaty for safe and environmentally sound ship recycling.

The **Convention** covers the design, construction, operation, and maintenance of ships and preparation for ship recycling in order to facilitate safe recycling.

Under the treaty, ships to be sent for recycling are required to carry an inventory of hazardous materials, specific to each ship. Ship recycling yards are required to provide a "Ship Recycling Plan" specifying the manner in which each ship will be recycled, depending on its particulars and its inventory.

**Dick Brus**, Directorate for **Maritime Affairs of the Netherlands**, met **IMO Secretary-General Kitack Lim** at **IMO Headquarters** in London on 20-February-2019 to deposit the instrument of acceptance.

Adopted in May 2009, the Convention will enter into force 24 months after ratification by 15 states representing 40% of world merchant shipping by gross tonnage, combined maximum annual ship recycling volume not less than 3% of their combined tonnage. Its aim is to ensure that ships, when being recycled after reaching the end of their operational lives, pose no unnecessary risk to human health, safety, or the environment.

The **Convention** has been designed to try to improve the health and safety of current ship breaking practices. Ship breaking is considered to be "amongst the most dangerous of occupations, with unacceptably high levels of fatalities, injuries and work-related diseases by the **International Labour Organization (ILO)** as large ships are often beached and then dismantled by hand by workers with very little personal protective equipment (PPE). This is most common in Asia — with India, Bangladesh, China, and Pakistan holding the largest ship breaking yards. ⚓



IMO Secretary General Kitack Lim and Dick Brus of The Netherlands meet at IMO in London.  
Photo Credit: IMO

# WORLD'S FIRST APPROVED VIKING LIFECRAFT™ SURVIVAL CRAFT

by Viking-Life News



Viking LifeCraft™.

Photo courtesy of Viking-Life.com

Following successful heavy weather trials in November 2018, the Survival Craft component of VIKING Life-Saving Equipment's unique hybrid lifeboat/liferaft solution, the VIKING LifeCraft™ System, has now received official approval from the **Danish Maritime Authority (DMA)**.

The approval, awarded on 8-March-2019, is the culmination of a long development and approval process. But that's not the real news. While the LifeCraft™ itself is a remarkable development in evacuation systems, the **DMA** approval marks the first time a truly Novel **Lifesaving Appliance (LSA)** has been approved anywhere in the world.

**World's First.** Prior to VIKING LifeCraft™ Survival Craft's approval, maritime safety products and systems with Novel Life-Saving Appliance approvals have been adaptations or variations of conventional life-saving appliances. The VIKING LifeCraft™ System is an entirely novel and innovative concept.

The solution comprises 2 main elements: 4 inflatable VIKING LifeCraft™ survival craft, each with a 203 person-capacity, giving 812 in total, and a fully self-contained stowage and launching appliance either placed on deck or built into the ship's side.

The VIKING LifeCraft™ system consists of a self-propelled inflatable vessel with 4 engines, a storing and launching unit either placed on deck or built-in, and an **EscapeWay™** chute system to bring evacuees from the boarding point on deck to the

craft - a complete high capacity evacuation solution.

With 4 independent electric engines at its corners, each Survival Craft is highly maneuverable. Its ability to rapidly turn 360 degrees on the spot, which is unmatched by conventional motor-propelled survival craft, is a critical feature for safely clearing a ship's side in an emergency evacuation. This design is, however, just one of a long list of innovations that take the system far beyond the capabilities of existing lifeboats, marine evacuation systems or liferafts.

**Contributing innovations.** The **Danish Maritime Authority** Senior Ship Surveyor, **Kasper Raunskov Rasmussen**, sees the Survival Craft's approval is solid proof that Danish-based maritime companies have innovative contributions to make across a wide range of aspects, which include safety and sustainability.

*"The **Danish Maritime Authority** has been engaged in the approval of the LifeCraft™ since the very beginning, and we have been in close contact with VIKING and all involved parties throughout the entire approval process. We have, in particular, worked at ensuring the required and sufficient safety level and also overseen the fulfillment of the approval process for a novel life-saving appliance. However, it isn't just the result of many years of work," he says. "It's also evidence of a particular mindset of innovation in Denmark as a major seafaring nation. VIKING has*

*made a significant investment that will pay off, not just for its business, but surely for the safety of passengers and crew on some of the largest ships around the world."*

**Next level.** *"This is a crucial step that our customers have been waiting for,"* says VIKING CEO, Henrik Uhd Christensen. *"Now they can take their plans for incorporating VIKING LifeCraft™ into newbuilds and existing ships to the next level."*

The final piece of the puzzle, slated for August 2019, is **Novel Lifesaving Appliance (NLSA)** approval for the chute portion of the VIKING LifeCraft™ System.

*"The Survival Craft™ itself is something completely new and innovative, while the launching appliance is, in fact, well-proven technology,"* says **Henrik Uhd Christensen**. *"So, we expect the necessary approval process to go every bit as smoothly as this latest NLSA approval."*

VIKING Life-Saving Equipment is a global market leader in maritime and offshore safety. Headquartered in Denmark, the corporation manufactures, supplies and services everything from chute and slide-based evacuation systems to liferafts, lifejackets, immersion suits, firefighting equipment, aviation safety gear, lifeboats, hooks, davits and more. ⚓

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# WHAT ARE TOTTEN BEACONS?

by NOAA

**T**hese Totten Beacons – 19th century aids to navigation – are protected historical resources.

In 1513, Spanish explorer **Ponce de León** sailed into the strong currents of the **Florida Straits**. Little did he know that within a few years, these uncharted waters, which feed into the Gulf Stream, would become a major international shipping route to and from Europe and the New World.

As Europeans explored and colonized the Americas, they took advantage of the **Florida Straits'** winds and currents. However, the winds changed direction often, easily pounding countless vessels against miles of treacherous submerged coral reefs off the southern Florida coast.

By 1852, Lieutenant **James Totten**, the **U.S. Army's** assistant to the **Coast Survey**, had installed 15 wooden signal poles in the reefs to create more accurate charts of the Florida Keys. Local mariners quickly recognized that the poles themselves helped them safely



navigate the reefs, and by 1855, Totten and his team installed a second generation of 16 poles using a more permanent material – iron. The "beacons" each displayed a letter, starting with "A" and ending with "P." Today, remnants of **Totten Beacons** are protected as historical resources by the **Florida Keys National Marine Sanctuary (FKNMS)**.

At present, GPS and sophisticated electronic navigation systems along with lighted navigational aids, buoys, radar beacons, and other visual aids maintained by the **U.S. Coast Guard** help warn mariners of dangerous coral reefs and shoals.

**FKNMS** installs and maintains more than 700 buoys for resource management purposes. Mooring buoys, which are **round with a blue stripe**, make it possible for a vessel to linger on a reef without using an anchor and potentially damaging fragile marine resources. **Round yellow regulatory buoys** in the sanctuary mark areas that have specific regulations, while **cylindrical white buoys** delineate special zones. ⚓

**THIS PAGE, FROM TOP:**  
The rusty remnants of a Totten Beacon (foreground) located near American Shoal lighthouse;  
Main beacon pile centered among three significantly shorter support posts.

**PHOTO COURTESY OF:**  
M. Lawrence and [oceanservice.noaa.gov](http://oceanservice.noaa.gov)



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RADM MARGARITO V SANCHEZ JR AFP (RET)  
Chairperson, SERGS Cooperative

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Photo Credit: Maritime Executive

# INTERFERRY LOOKS TO THE PHILIPPINES FOR SAFETY LESSONS LEARNED

by Maritime Executive

A four-man team from global trade association Interferry were in Manila from March 18-22 in the first stage of a project to study significant safety improvements in Philippines ferry operations and produce a “lessons learned” report to help other developing nations.

The **FerrySafe** project team had arranged one-hour meetings with a wide range of stakeholders to learn how fatal incidents have been reduced to almost nil in recent years from a peak of 1,001 deaths in 2008.

Following Manila, a second round of dialogue in the Philippines is scheduled for this summer with visits to shipyards and operators in the Cebu area.

**FerrySafe** furthers **Interferry’s** longstanding engagement with safety issues on domestic routes in developing nations, which account for 93 percent of an almost certainly under-estimated 1,200 fatalities per year. The project was conceived by the association’s domestic safety committee and is being backed by a £40,000 (\$53,000) grant from U.K. charity the **Lloyd’s Register Foundation**. The grant covers all direct expenses of the project, while team members are contributing man-hours worth an additional £30,000 (\$40,000).

The team leader is **Dr. Neil Baird**, founder and chairman of Australia’s **Baird Maritime**, who last year completed a doctorate on the causes and prevention of fatal ferry accidents. He is joined by two fellow members

of the domestic safety committee – **Interferry** regulatory affairs director **Johan Roos** and naval architect **Edwin Pang**, general manager of **Leadship’s U.K.** office and current chair of the **Royal Institution of Naval Architects IMO** committee. The team is completed by writer and editorial researcher **Nelson Dela Cruz**, a volunteer with Philippine non-profit organization the **Maritime League**, who is acting as facilitator.

Preliminary findings from the two visits will be presented at **Interferry’s 44th annual conference** in London in October and the final report is due by the end of the year. Dissemination to other developing nations will be primarily through the association’s involvement with the ongoing **ASEAN Regional Forum** on ferry safety and through its consultative status at the **International Maritime Organization (IMO)**.

*“The ambition is to take the findings from our Philippines research to other countries and facilitate their implementation,” says Roos. “This will require additional external funding and cooperation. The largest improvement potential is found in Southeast Asia and Africa, but – apart from the funding – we would need political support from the respective countries as well as the IMO.”*



Reprinted with permission from the Maritime Executive.  
Source: <https://maritime-executive.com/article/interferry-looks-to-the-philippines-for-safety-lessons-learned>

# JOINT LAW ENFORCEMENT OPERATION CONFISCATES ILLEGAL DRUGS AND FIREARMS

by Naval Forces Western Mindanao

In Calarian, Zamboanga City, a Joint Law Enforcement Operation resulted to the confiscation of Methamphetamine Hydrochloride (Shabu), and recovery of Firearms in Barangay Tenan, Ipil, Zamboanga Sibugay on 13-March 13-2019.

The **Joint Law Enforcement Troops** were composed of:

- ♦ Naval Intelligence Support Unit - 63, Naval Intelligence and Security Group-Western Mindanao (NISG-WM);
- ♦ Provincial Intelligence Branch (PIB);
- ♦ Provincial Drug Enforcement Unit Zamboanga Sibugay Provincial Police Office (PDEU ZSBPPO);
- ♦ Provincial Mobile Force Company, Ipil Municipal Police Station (PMFC, Ipil MPS);
- ♦ NagA Municipal Police Station; Highway Patrol Group-Ipil;
- ♦ Regional Intelligence Division-9 (RID-9);
- ♦ Regional Mobile Force Battalion-9 (RMFB9);
- ♦ Provincial Intelligence Branch, Zamboanga Sibugay Provincial Police Office (PIB ZSPPO);
- ♦ Criminal Investigation Detection Group (CIDG) Sibugay;
- ♦ 102nd Brigade, 441st Infantry Battalion;
- ♦ Philippine Drug Enforcement Agency Region 9 (PDEA R9); (12) NBI, National Intelligence Coordinating Agency-9 (NICA9);
- ♦ Coast Guard Intelligence Group - Southern Mindanao, PCG;
- ♦ Wing2-TOG9, PAF;
- ♦ 300th Air Intelligence and Security Wing (300th AISW), PAF;
- ♦ 11 Light Armored Cavalry Troops (11 LACT);
- ♦ 1st Cavalry Division (1st CAV);
- ♦ 12 Military Intelligence Company (12 MICO);
- ♦ 1 Military Intelligence Battalion PA (1MIB PA); and
- ♦ S2 1st Cavalry Mil Intelligence Division (S2, 1st CAV-MID PA).

The **Joint Law Enforcement Operation** was conducted against **Lawless (LLE) Element, Hashim Sandami** who is under **Kidnap for Ransom Group / Lawless Element Leader Barahama Alih**, wherein a 20-minute fire fight ensued between the said target personalities and government troops. There were no casualties on the government side and undetermined on the enemy side. Three persons were apprehended who are for identification.

After clearing the area, the **Joint Law Enforcement Operation** resulted in the confiscation of the following:  
**ILLEGAL DRUGS**

- ♦ 22 pieces medium plastic heat sealed sachets containing white crystalline substance of suspected shabu;
- ♦ 1 piece plastic heat sealed sachet containing brownish crystalline substance of suspected shabu;
- ♦ big plastic heat sealed sachet containing white crystalline substance of suspected shabu;
- ♦ sack of plastic heat sealed sachet containing white crystalline substance of suspected shabu;





- ◆ 2 pieces plastic heat sealed sachets containing white crystalline substance of suspected shabu.

#### FIREARMS

- ◆ 1 unit M16 Rifle
- ◆ 1 unit CAL. 45
- ◆ 1 unit CAL. 40mm Taurus

#### AMMUNITIONS

- ◆ 19 pieces .40mm live ammos
- ◆ 5 pieces .45 live ammos
- ◆ 16 pieces M16 live ammos

#### MAGAZINES

- ◆ 3 pieces long M16 magazines

- ◆ 4 pieces short M16 magazines

#### DRUG PARAPHERNALIAS

- ◆ empty plastic sachets believed to be used in illegal drugs
- ◆ 1 broken scale
- ◆ various kinds of drug paraphernalia

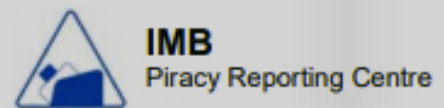
#### OTHERS

- ◆ 2 pieces 20 peso bills
- ◆ 1 piece bandolier (olive green)
- ◆ 6 pieces jungle hammocks
- ◆ 2 pieces wallets with verification cards
- ◆ 19 bottles of liquid substance labeled 0.9% sodium chloride.

The expected total kilo of illegal drugs confiscated is about 1.5 kilos with a **street value of P10.2 million pesos**. The confiscated items and arrested persons are at the **Zamboanga Sibugay Provincial Police Office** for proper disposition.

The successful confiscation of illegal drugs and recovery of loose firearms is a result of the support to law enforcement operations of the **Philippine Navy** in collaboration with several partner agencies to boost up the Administration's **Anti-Illegal Drugs Campaign**.

With this accomplishment, **Rear Admiral Erick A Kagaoan** AFP commends the troops for another job well done. **Rear Admiral Kagaoan** further emphasized that the **Philippine Navy** through the **Naval Forces Western Mindanao** will remain vigilant in the conduct of its mandate to support law enforcement operation to stop proliferation of illegal drugs in Western Mindanao. ⚓



## IMB Piracy Reporting Center

The ICC - **International Maritime Bureau (IMB)** was established in 1981 to act as a focal point in the fight against all types of maritime fraud, malpractice and piracy. The **United Nations (UN) International Maritime Organization (IMO)** in its resolution A 504 (XII) (9) adopted on 20-November-1981 has among other things urged all governments, interests and organizations to exchange information and provide appropriate cooperation with the **IMB**. The **IMB** also has an observer status with the **International Criminal Police Organization (ICPO – INTERPOL)**.

#### IMB MARITIME SECURITY HOTLINE:

The **IMB PRC** dedicated hotline for Seafarers, Port Workers, Shipping Agents, Shipyard Personnel, Brokers, Stevedores and all concerned parties, enables them to report of any information that they may have seen / heard / known of, etc. relating to any maritime or other illegal crimes including security threats

All information received will be treated in strict confidence and will be passed on to the relevant authorities for their action. Maritime crime and security concerns us all with your help, we can try to minimize the risks, and help save lives and property.

The Maritime Security Hotline can be contacted 24 hours a day, every day.

**EMAIL:** [IMBSECURITY@ICC-CCS.ORG](mailto:IMBSECURITY@ICC-CCS.ORG)

**TEL:** +603 2031 0014

**FAX:** +603 2078 5769

**REMEMBER: YOUR INFORMATION MAY SAVE LIVES. PLEASE CIRCULATE WITH YOUR CREW.**  
THE IMB PRC WISHES ALL SEAFARERS A SAFE AND SECURE VOYAGE.



Photo Credit: Philippine Navy Fleet

# PHILIPPINE NAVY AIR GROUP TO GET WING STATUS

by Frances Mangosing/Inquirer.net

**W**ith the **Philippine Navy's** expanding operations and growing capabilities, its Air Group is poised to be upgraded to wing status.

The restructure of the **Naval Air Group**, the first time since it was formed 7 decades ago, has become imminent due to increasing demands for maritime situational awareness and expertise.

*"With this wide reach of **Naval Air Group** nowadays, the higher headquarters have recognized its capacity to be upgraded as a unit. The organizational upgrade into becoming a **Naval Air Wing** was defended before the OPB GHQ (Operational Planning Board, General Headquarters) and was collectively endorsed by the board. We are now awaiting for the blessings and thumbs up from our CSAFP (chief of staff, Armed Forces of the Philippines),"* said **Naval Air Group** Commander **Captain Juario Marayag** in his speech during the activation ceremony of the **fourth C-90** aircraft from **Japan**.

He also took the opportunity to highlight the importance of **naval air operations** and its outputs in providing critical information to decision makers in the government.

*"As a provider of naval air assets... I believe that having these capabilities give an unparalleled advantage to our decision makers in the frontlines. I cannot overemphasize the value of maritime situational awareness as a factor in achieving archipelagic maritime security,"* **Capt. Marayag** said.

Japan had earlier donated 5 C-90 patrol aircraft to the

Philippine Navy. Three are already being used for maritime patrols and intelligence, surveillance and reconnaissance operations across the country – including Scarborough Shoal and Kalayaan Island Group in the West Philippine Sea.

The Navy Air Group is also currently operating 5 AW-109 helicopters. Two more brand new AW-159 anti-submarine helicopters are expected in May. "The Naval Air Group has greater reach in maritime operations because of these new assets. These are the reasons for the organizational upgrade," Capt. Marayag said in a separate statement to INQUIRER.net.

With the new wing structure, he said they will continue to perform their mission of securing the country's maritime domain and ensuring that all activities at sea are captured and recorded but at the same time, sovereignty patrols will become much more frequent and will span wider coverage.



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# MARINA OPENS 8 INDUSTRY-PROPOSED RORO ROUTES

by MARINA News

The **Maritime Industry Authority (MARINA)** has opened 8 **RoRo** missionary routes proposed by shipping operators in support of the **Road Roll-on / Roll-off Terminal System (RRTS)** and the priority program relating to the upgrading of the domestic shipping in support of the nautical highway development under the 10-year **maritime industry development plan (MIDP)**.

At the latest Oversight Meeting of the House Committee on Transportation chaired by House Speaker Gloria Macapagal-Arroyo, **MARINA OIC Vice Admiral Narciso Vingson Jr** presented the 8 industry-proposed **RoRo** missionary routes, in addition to the 19 newly-opened **RoRo** missionary routes in January 2019.

House Speaker Gloria Macapagal-Arroyo commended the MARINA of its effort to promote greater connectivity and economic interactions of the various islands of the archipelago.

The 8 industry-proposed RoRo missionary routes are the following:

- ◆ Daanbantayan, Cebu to Calbayog City, Samar
- ◆ Tabuelan, Cebu to Ajuy, Iloilo
- ◆ Laoay, Bohol to Cagayan de Oro
- ◆ San Juan, Batangas to Calapan, Oriental Mindoro
- ◆ Iloilo City to Cuyo, Palawan
- ◆ San Pascual, Burias Island, Masbate to Pasacao, Camarines Sur
- ◆ San Andres, Quezon to Pasacao, Camarines Sur
- ◆ Lucena, Quezon to San Fernando, Masbate

The **MARINA** will issue a letter approval that will give a proponent shipping-operator 4 months to start vessel operation on its proposed route, while processing the acquisition of its **Certificates of Public Convenience (CPCs)**.

Upon granting of the **CPC**, the proponent shipping operator shall enjoy a 5-year route protection or protection of investment, as well as 50% discount on the processing on the regular fees of all applications and renewal of ship documents, licenses, certificates, and permits.

In February 2019, 7 of the 19 newly-opened **RoRo** missionary routes were already applied for by shipping operators, signifying their interest to serve the unserved routes within the Philippine nautical highway.

The other 12 **RoRo** missionary routes that have been opened for prospective shipping operators include the following:



- ◆ Basco, Batanes – Currimaog, Ilocos Norte
- ◆ San Juan, Batangas – Abra de Ilog, Occidental Mindoro
- ◆ Real, Quezon – Polillo Island, Quezon
- ◆ Lucena, Quezon – Buyabod, Marinduque
- ◆ Pantao, Albay – San Pascual, Masbate
- ◆ Calbayog City, Samar – Cataingan, Masbate
- ◆ Cuyo, Palawan – San Jose de Buenavista, Antique
- ◆ Oslob, Cebu – Dumaguete, Negros Oriental
- ◆ Punta Engano, Mactan Island, Cebu – Jetafe, Bohol
- ◆ Poro, Camotes, Cebu – Isabel, Leyte
- ◆ Lipata, Surigao del Norte – Dapa, Surigao del Norte
- ◆ Siaton, Negros Oriental – Dipolog City

Shipping companies are further encouraged to propose new missionary routes, in addition to the existing list, that could be developed. These will become operational once a qualified applicant is determined based on evaluation of its documents, and has been issued the necessary permits by **MARINA**. ⚓

# ABB TO POWER ICELAND'S FIRST ELECTRIC FERRY

by ABB News

**N**ew electric ferry to operate on an Icelandic route known for its harsh weather conditions will benefit from efficiency and sustainability enabled by **ABB's** technology.

**ABB** will supply integrated power and electric storage solutions to the Icelandic Road and Coastal Administration's new ferry that will take 3,600 annual trips in the rough waters between Landeyjahöfn on the mainland and the Westman Island, covering 13 km in about 45 minutes.

The 70m-long ferry, with a capacity of 550 passengers and 75 cars is due for delivery from the **Crist S.A. Shipyard** in 2019. **Polarkonsult** completed conceptual design of the ferry, while

**StoGda Ship Design & Engineering** was responsible for the class design and production documentation of the vessel. The vessel will feature a large battery pack (3000kWh) and is designed to operate in a fully electric mode for most of the time, with onshore charging in both harbors.

During particularly challenging weather conditions, when the consumption of battery power may exceed the available energy, the ferry will utilize its diesel-electric generator set.

The new ferry will replace the 1992-built MF Herjólfur in line with Iceland's incentives to promote electric modes of transportation. With 80% of Iceland's energy coming from non-fossil resources, led by hydropower and geothermal energy, the newly built vessel will be well positioned to support Iceland's sustainability goals.

*"Opting for ABB's electric solutions allows the vessel to meet design constraints that initially seem in conflict: it is optimized for cleaner operation and reduced greenhouse gas emissions, whilst power is sufficient to navigate some very hazardous waters safely,"* said **Sigurdur Gretarsson**, Director of Maritime Division, **Icelandic Road and Coastal Administration**.

**ABB's** power distribution system **Onboard DC Grid™** will ensure the high efficiency of the new ferry by allowing the batteries to connect directly to the DC link, which helps avoid losses of power during charging and discharging. Additionally, the system can allow for variable speed operation of the diesel engines, which results in reduced fuel consumption.

The scope of **ABB** supply also includes generators,

transformers, switchboards, the **Power and Energy Management System (PEMS)** and the **Energy Storage Control System (ESCS)**. The ferry will be connected to **ABB Ability™ Collaborative Centers Infrastructure**. This network uses remote equipment monitoring and data analytics to enable remote technical support, as well as predictive maintenance and planned interventions.

Crucial to the supporting infrastructure shoreside is the shore power connection delivered by **ABB** to recharge the battery with a power of 2500kW while the ferry is in the dock. On average, it will take about 30 minutes to recharge.

*"Selection of ABB's technologies for a vessel operating on such a tough route, where the water depth is sometimes limited to 4.5 meters, but wave heights can reach 3.5 meters, sets a new benchmark for battery power on board a ship,"* said **Juha Koskela**, Managing Director, **ABB Marine & Ports**. *"In line with our vision for electric, digital and connected shipping, this project demonstrates how system integration – whether on board the ship or between the ship's crew and shoreside expertise – is a key success factor for vessel management."*

The ferry will not only reduce the environmental impact, but also improve the regularity of the connection. Previously, during rough weather, the ferry operating the route would travel to an alternative harbor to dock safely, extending the sailing time from 45 minutes to close to 3 hours and causing motion sickness in passengers. The new ferry will be able to enter the destination harbor in challenging weather conditions most of the time, with the rare exception of particularly rough seas.

**ABB** is a pioneering technology leader in power grids, electrification products, industrial automation and robotics and motion, serving customers in utilities, industry, transport, and infrastructure globally. Continuing a history of innovation spanning more than 130 years, **ABB** is writing the future of industrial digitalization with two clear value propositions: bringing electricity from any power plant to any plug; and automating industries from natural resources to finished products. **ABB** operates in more than 100 countries with about 147,000 employees. ⚓



Iceland's first electric ferry. Image by Polarkonsult.





HHIC's Subic Bay shipyard. Photo Credit: HHIC Philippines

## CREDITORS BAIL OUT HANJIN HEAVY INDUSTRIES

**T**he creditors of Hanjin Heavy Industries and Construction (HHIC), the financially troubled South Korean shipbuilder, are expected to receive compensation for unpaid loans in a debt-for-equity swap, which will leave them in control of the company.

Korea Development Bank (KDB), the state-owned policy bank which holds the largest share of HHIC's outstanding debt, said that the group of creditors have agreed to accept HHIC shares in exchange for retiring debts of about \$610 million. The deal, along with a 5:1 share reduction for current public shares, will leave the creditors holding about 84 percent of HHIC's stock.

The creditors selected Prof. Lee Byung-mo of Inha University to take over the management of HHIC. Lee Byung-mo has shipbuilding experience: he served as a vice president at DSME in 2011, and as president of now-defunct offshore shipbuilder STX in 2015.

The agreement covers debts owed to a group of Philippine banks for projects at HHIC Phil, the shipbuilder's giant yard in Subic Bay. HHIC Phil has struggled to find new orders since the start of the shipbuilding downturn four years ago, and in December it laid off 7,000 workers due to a lack of work. It sought court receivership in January, and with the help of the Philippine government, it had been seeking a buyer.

The news that HHIC Phil's creditors have bailed it out will assuage fears that a Chinese state-owned shipbuilder could step in to buy the yard. This would have given China a strategic foothold in Subic Bay, the former home of the largest American overseas naval base, the sprawling U.S. Naval Base Subic Bay.

Other parties have also expressed interest in the possibility of purchasing all or part of the yard, including the Dutch shipbuilder Damen and an unnamed American company. Damen spokeswoman Harriet Slager told Nikkei Asian Review that Damen might enter into some form of cooperation with the yard rather than pursuing ownership.

The Philippine Navy is also interested in taking a minority stake if another company will join them in a buyout. The service plans to buy at least two dozen (24) vessels over the next decade, and it would benefit with lower costs and a local boost in employment if it built ships domestically.

"Maybe we will inject money through the Development Bank of the Philippines (DBP) and Land Bank of the Philippines so there will be a takeover but by a private sector or a government corporate sector. But right now, there are no complete details yet," Budget Secretary Benjamin E. Diokno told reporters. LandBank has the biggest exposure of the 5 leading creditor banks of HHIC-Phil. The 4 others are Metropolitan Bank and Trust Co. (Metrobank), BDO Unibank, Rizal Commercial Banking Corporation (RCBC), and Bank of the Philippine Islands (BPI).

The Philippine Department of Finance (DOF) pointed out that the government is ready to help the creditors of HHIC-Phil, and is just awaiting the 5 banks with their proposal on how they will go about resolving the debt issue.



Sources: *Maritime Executive*; and *Business Mirror*.



# DNV GL CERTIFIES NORSEPOWER WIND PROPULSION SOLUTION

by Norsepower News

Finland's **Norsepower** wind propulsion solution, the **Rotor Sail**, has received the first-ever type approval design certificate granted to an auxiliary wind propulsion system on-board a commercial ship.

**DNV GL** granted the type approval following a design assessment of **Norsepower's** 30m x 5m **Rotor Sail**. The certification means that vessels operating with the **Rotor Sail** are technically capable of navigating all operational and environmental situations.

The **Rotor Sail** has independently verified fuel savings of up to 20%, and is a solution that could help the shipping industry meet **IMO** greenhouse gases (**GHG**) emissions reduction target by 2050.

The **wind propulsion technology** has to date been installed on 3 vessels, with over 35,000 hours of operation, achieving reported CO2 savings of more than 4,500 tons. Two of these

solutions are installed on-board the **Maersk Pelican LR2 Tanker**.

**Norsepower** CEO **Tuomas Riski** commented: "We are very proud to be the first company to have type approval granted to an **auxiliary wind propulsion system** onboard a commercial ship. Having a type approval design certificate is very important to us. Clearly, it provides shipowners, operators, and charterers with a level of assurance when investing in the **Rotor Sail Solution**, but in the long term, it removes yet another hurdle to the realization of **renewable wind energy propulsion systems** at a scale that supports shipping's transformation to a low carbon transport sector."

**Geir Dugstad**, director of ship classification and technical director, **DNV GL**, added: "To help reduce shipping's environmental impact we will need many different fuel and technology options, which is why we were very pleased that **Norsepower** asked us to be part of this innovative **wind propulsion** project."

**Norsepower** is also proud to announce that in February 2019 it was crowned the winner of the **2018 International Quality Innovation Award**, in recognition of its **Rotor Sail Solution** technology's ability to demonstrate positive environmental contributions for the global maritime community. **Norsepower** CEO **Tuomas Riski** described the award as a "prestigious accolade" that **Norsepower's** team were humbled to receive. ⚓



**TOP:**  
*Norsepower Rotor Sails installed on-board the Maersk Pelican*

**LEFT:**  
*Seppo Liukkonen, Principal Surveyor, DNV GL (centre), presenting the type approval design certificate to Jarkko Väinämö, Norsepower CTO (right), and Otto Valkeisenmäki, Norsepower Certification Engineer (left)*

# STENA RORO ACQUIRES JAPANESE FERRY FOR ROPAX REBUILD

by Vicky Viray Mendoza



Sweden's **Stena RoRo** has purchased a used ferry, **Yamato**, from the Japanese shipping company **Hankyu Ferry**. It is intended for the European market. The ferry vessel is the 2003- **Yamato** built by **MHI SHIMON-OSEKI SHIPYARD** measures 195 meters in length and disposes of 2,350 lane meters.

The **Yamato** ferry will be rebuilt at a shipyard in Europe and adapted to European standards for **RoPax**, after which it will be chartered out. This process will begin in spring 2020 and the ferry may be in blue traffic perhaps by the summer.

*"This is a typical **Stena RoRo** project. Through adaptation and flexibility, we design and rebuild vessels to meet our customers' specific requirements. It's what we call **Stenability**,"* **Mikael Abrahamsson**, conversion and project manager for Stena RoRo, commented.

*"On the European market, demand is greater than availability for this type of vessel, which is why we have turned to the Asian market, primarily Japan,"* CEO **Per Westling** of **Stena RoRo**, concluded.

Since 1977, **Stena RoRo** has led the development of new marine RoRo, freight and passenger concepts. It consists of especially constructed and standard **RoRo** and **RoPax** vessels. The company charters around twenty vessels to operators around the world. **Stena RoRo** primarily specializes in using its technical competence for the design and conversion of existing vessels in order to be able to provide tailor-made transport solutions for its customers.

**Stena RoRo** charters out a number of vessels such as RoRo and RoPaxes. The RoRo vessels carry a mixture of rolling cargo dominated by road trailers, creating sea bridges on short sea routes worldwide. The RoPax vessels combine the cargo capacity of RoRo vessels with the passenger

amenities of modern ferries.

**Stena Line** is an international transport and travel service company with a comprehensive route network in Northern Europe. Stena Line is specialized in transport solutions for freight and passengers and is one of the largest ferry companies in the world.

**Stena AB** is one of the largest family-owned companies in Sweden and has global operations in 5 business areas: Ferry Operations, Offshore Drilling, Shipping, Property, Finance and New Business.



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- Photos Courtesy of: Stena RoRo and [marinetraffic.com](http://marinetraffic.com)



© Sabrina  
MarineTraffic.com

# NEW PROPELLER TECHNOLOGY REDUCES CAVITATION BY 14%

by Vessel Performance Optimization (VPO) News

**A** new technology that reduces propeller cavitation volume by nearly 14% and underwater radiated noise (**URN**) by up to 21 dB has been developed by **Strathclyde University** and **Oscar Propulsion**, a UK-based innovation and technology transfer company.

The patented **Oscar PressurePores** system reduces propeller tip vortex cavitation by applying a small number of strategically bored holes in the propeller blades. The addition of these pressure-relieving holes enables ships to operate with a more silent propeller with a minimum of compromise on its efficiency or having to slow steam. Reducing cavitation also reduces its associated erosive effect.



Propeller tip vortex cavitation from a modified propeller. Photo credit: Oscar Propulsion

**David Taylor**, CEO, **Oscar Propulsion**, explained: *"Underwater radiated noise is one of the most adverse environmental by-products from commercial shipping, yet unlike other forms of marine pollution, there is no legislation yet in place to prevent this type of environmental damage. Increased levels of shipping noise, especially in the low-frequency range, disorientate marine fauna and disrupt their communication signals, leading to behavioural changes or local extinction. We now have a cost-effective, easy-to-apply solution to prevent this from happening. Introducing holes in propeller blades to reduce root cavitation, for example, is not in itself new, but achieving high levels of noise reduction by strategically placing relatively few holes, while maintaining efficiency, is new."*

The technology was developed at **Strathclyde University** using comprehensive computational fluid dynamics (**CFD**) modelling and cavitation tunnel tests.

Further tests on the sub-cavitating propellers on the

**Princess Royal**, a 19m research catamaran operated by **Newcastle University**, verified the 14% cavitation savings and 21dB reduction on **URN**.

The original, unmodified model propeller was tested and used as a reference. Then **CFD** analysis and model tests were carried out on two propellers of the same design, one with 33 strategically-introduced holes in each blade, another with 17 holes.

The outcome showed that **PressurePores** technology substantially reduced tip vortex cavitation and **URN**. *"Remarkably, it was found that the optimum number of holes could be as few as 17 per blade tip so long as they were placed in the most effective positions,"* said **Taylor**.


*"It's not a case of simply drilling holes into the blades, as this will affect the propeller's thrust capability. **CFD** modelling at **Strathclyde University** allows us to know exactly where to place the holes for maximum efficiency and optimum noise reduction."*

Professor **Mehmet Atlar**, research director, Department of **Naval Architecture**, Ocean and Marine Engineering, University of Strathclyde, said: *"For a ship with non-cavitating propellers, the dominant **URN** is associated with the hull and propeller flow, as well as the ship's machinery and electrical sources. As soon as the propeller incepts cavitation, the dominant source becomes propeller cavitation, whilst these other sources still contribute. As a result, a series of periodic tones at discrete blade rate (low) frequencies and its multiples, takes place. This is accompanied by a spectrum of broadband (high) frequency noise due to cavitation and its complex dynamics."*

Propeller cavitation can generate as much as 180dB of underwater radiated noise and can be heard by marine life 100 miles away.

Dr **Stephen Simpson**, Associate Professor in Marine Biology & Global Climate Change, **University of Exeter**, explained: *"Noise levels in the ocean due to maritime activity has been rising for decades, from a growing number of sources, including shipping, motorboats, oil prospecting, offshore energy installations and military activity. Loud sound can cause irreversible damage to marine wildlife through stress, deafness, habitat displacement, reduced reproduction, lost feeding opportunities and even death. Any way to reduce our acoustic footprint in the ocean will benefit marine ecosystems."*

**David Taylor** added: *"PressurePores has a major mitigating effect on propeller cavitation and **URN** and can be incorporated into new propellers or can be retrofitted to existing propellers either in drydock or possibly in-water. While **PressurePores** are suitable for all types of vessel, they are particularly suitable for **naval vessels**, fishing fleets, offshore vessels and cruise ships operating in sensitive environments. The technology can be applied to all types of propellers, including pods and thrusters."*

**Oscar Propulsion** is now looking to partner with shipping companies and propeller designers or manufacturers to commercialize the **PressurePores** concept. 

# COALITION GRANTS PERMIT FOR AUSTRALIA'S FIRST OFFSHORE WIND FARM

by Friends of the Earth

Plans for what would be **Australia's first offshore wind farm**, the massive 2000MW **Star of the South** off the coast of Victoria, have taken a small step forward this week, after the project finally got the green light from federal government for site exploration. The federal Coalition said after months of delay, that it had approved a deed of license to allow the \$8 billion project's developers, Offshore Energy, to undertake resource exploration for the wind farm off Gippsland coast. The license would allow **Offshore Energy** to undertake exploration only –in Commonwealth waters between 8-13 kms offshore from Port Albert.

"Through this license, Offshore Energy will be allowed to undertake activities to assess wind resources and sea bed conditions understand whether an offshore farm is technically feasible," a statement said. The plans for the ambitious project, first formally unveiled in June 2017 but in the works for another 5 years before that, propose the construction of 250 turbines – enough to generate 1.5 times the energy of the now-closed Hazelwood coal-fired power station.

In December 2017, Melbourne-based **Offshore Energy** announced they had entered into partnership with Danish **Copenhagen Infrastructure Partners (CIP)** to further the project's development. But since then, plans have stalled, prompting accusations from the **Maritime Union of Australia (MUA)** that the **Star of the South** –which promised to create thousands of jobs– had fallen victim to ideological opposition within the Morrison government ranks. It's hardly an outrageous claim, considering Energy Minister **Angus Taylor's** well-aired antipathy to wind farms.

It was revealed in a Senate Estimates hearing that a federal government evaluation of the project had been completed, a plan for an exploration license developed, and a briefing and recommendations provided to Energy Minister **Taylor**. The **MUA** Deputy National Secretary **Will Tracey** said "the exploration license did not allow construction to start and was simply about allowing the use of floating buoys and platforms off the

*Gippsland coast to gather wind and wave observations,' Gippsland Times reported. "We have a major wind project that would create thousands of jobs and provide clean, reliable energy for more than a million Australian households, but because of their ideological hatred of renewable energy, the Morrison government appears to be actively stalling its development," Will Tracy said.*

By finally granting the license on the afternoon of the last Friday in March, just before it enters into a caretaker period before the upcoming election, the Coalition looks to be making a last-ditch move to boost its renewables credibility, while also reassuring the right-wing rump of the party that it hasn't completely swallowed the renewable cool-aid. Statements from the energy minister reiterate his previous mantra that the project had required "careful consideration" being an Australian-first.

The government also stressed it has only granted an exploration license for the **offshore wind farm**, and is not providing financial support for development. Still, green groups and renewable energy advocates have welcomed the news, in the hope that this "first tick" from the federal government will pave the way to state approval process and testing of the wind resource.

"The **Star of the South offshore wind**

**farm** will be a game changer for action on climate change and Australia's energy system," said **Pat Simons**, **Friends of the Earth's** renewable energy spokesperson. "This is what transition looks like," he added, noting that the breakthrough follows Thursday's news of the Delburn Wind Farm proposal at a plantation site in the Latrobe Valley – the former Victorian coal hub, which is also where the **Star of the South** would connect to the grid via an underground cable.


**Offshore Energy** was founded 7 years ago, under the leadership of CEO **Andy Evans**, and **Terry Kallis**, former chief of geothermal **Petratherm**. **Star of the South** marks **CIP's** first venture into the Southern Hemisphere. CIP has more than €5 billion under management and invests in renewable energy projects, including 2 other **offshore wind farms**. 



Photo Credit: [reneweconomy.com.au](http://reneweconomy.com.au)

# THE PORT MANAGEMENT OFFICE OF MISAMIS OCCIDENTAL-OZAMIZ (PMO-MOZ)



The **Port Management Office of Misamis Occidental/Ozamiz (PMO-MOZ)** has 5 ports located in its area of jurisdiction: Port of Plaridel, Port of Oroquieta, Port of Jimenez, Port of Ozamiz, and Port of Silanga. There are 2 private ports both located in Jimenez: **Third Millennium Oil Inc. (TMOI)** and **Chevron Philippines Inc. (CPI)**. The Baseport of PMO-MOZ is the **Port of Ozamiz**. The terminal ports are **Plaridel** and **Jimenez**.

**Ozamiz City** is located at the southern tip of **Misamis Occidental** under Region X. It is nestled at the entrance of the marine rich **Panguil Bay** in the North Western Mindanao with an estimated land area of 16,407 hectares. Behind it stands the 7,956 feet Mt. Malindang. It is bounded on the North by Mindanao Sea; on the East by **Iligan Bay** and **Panguil Bay**, which separates it from its twin city, **Cagayan De Oro**; on the South by the City of Tangub; and on the West by the Municipality of Don Victoriano. Ozamiz City straddles along the coast of **Panguil Bay** with its extremely rugged terrain on the interior, yet abounds with commercial activities around the coastal areas. The capital city of **Misamis Occidental** is Oroquieta.

The **Port of Ozamiz** is one of the 10 priority ports to be developed into International Standards by the **Philippine Ports Authority (PPA)**. It is recognized as the "**Gateway of Northern Mindanao**" because of its strategic location, making it the entry and exit port of goods and passengers for **Ozamiz City** as well as for the Provinces of **Misamis Occidental**, Zamboanga Del

Norte, Zamboanga Del Sur and Lanao Del Norte. The **Port of Ozamiz** caters to all sorts of goods including bottled products, meat and dairy products, lumber, as well as agricultural and industrial products. The **Port of Ozamiz** is **IMS Certified** in the facilitation processes of the Vessel Entrance and Clearance, as well as the Withdrawal and Entry of Cargoes, covering 3 standards: ISO 9001:2015 (**Quality Management**), ISO 14001:2015 (**Environmental Management**) and OHSAS 18001:2007 (**Occupational Safety and Health**). It is also compliant with the International Ship and Port Facility Security Code (ISPS).

The **Baseport of Ozamiz** has a total port area of about 51,904 sqm, and it has an **expansion project** in progress. From the Main Gate, one can get to the bay and river operations, and to the operational area as well. The **Administration building** is a 3-storey building with a floor area of 1,360 sqm that includes a function hall, conference room, guest rooms, and a mini-gymnasium. There is a **Port Police Office** with a total floor area of 208.5 sqm with an investigation room, and detention cells for males and females. The **Port Operations Office** has a total floor area of 245.76 sqm, which includes a **Port Integrated Clearing Office (PICO)**, customer-waiting area, and a mini-conference room, in a 2-storey building. There is a new passenger terminal with 500 seating capacity for inter-island passengers, in addition to the old passenger terminal for 461 bay and river passengers. It has a transit shed covering 1,248 sqm, an open storage area of over 6,700 sqm, and a container yard



**FROM TOP TO BOTTOM:**  
Baseport of Ozamiz; Ozamiz Baseport Development Plan; The Port of Plaridel; The Port of Jimenez

**SOURCE OF MATERIALS:**  
Information and images were provided by PMO-MOZ; port statistics were obtained from PPA website: [ppa.com.ph](http://ppa.com.ph)

of over 5,000 sqm. There is a “Well-Wishers” Facilities building that can seat 115 people.

There are also 2 reinforced concrete (R.C.) **RORO Piers** (Daima and Ozamis), **4 wharves**, both with a draft of 7 meters deep, and a **RORO ramp** with a draft of 4.5 meters deep.

As part of its Port Development Plan, infrastructure projects in progress include: (1) extension of R.C. Pier, construction of 3 units of flush-type RORO Ramp, and reclamation work involving 7,254 sqm; (2) dredging and excavation along the berths and maneuvering areas, with a total volume of 250K cubic meters to be dredged; (3) construction of R.C. Pier, construction of back-up area, paving of existing back-up area, and a port lighting system; (4) construction, delivery and offshore installation of aids to marine navigation system in the baseport and terminal ports; supply, construct and delivery of solar powered lighting bouys at staging area; and offshore commissioning, testing and observation of aids to marine navigation.

**TERMINAL PORT OF PLARIDEL.** **Plaridel** is a third income class municipality in **Misamis Occidental**. It became a municipality in 1907. **Plaridel** has a population of 38,900 people, covering a total land area of 8,000 hectares. The **Port of Plaridel** is located at Barangay Looc. It provides passenger and cargo services to and from: Cebu City, Tagbilaran City and Larena, Siquijor. A fish port also exists at Southern Looc adjacent to the **Port of Plaridel** intended for landing of commercial and local fishing boats. Electrical power is supplied through MOELCI 1, and water is supplied by **Plaridel Waterworks**.

**TERMINAL PORT OF JIMENEZ.** **Jimenez** is a third class municipality located at Barangay Taboo, Jimenez, **Misamis Occidental**. It has population of 27,654 people. The **Port of Jimenez** exclusively caters to petroleum products of **Filipinas Shell, Chevron Phils, and Petron** whose depots are situated nearby. It also serves the incoming copra of Third Millenium Oil Mills Inc. (TMOMI) when its private port is occupied. Its sole use is for transport of copra products such as coconut oil, copra pellets and copra cakes. The **Church of Saint John the Baptist**, which is one of the oldest monuments and is located in one of the best-preserved colonial towns in the entire Philippines. **Jimenez** is a vast tract of agricultural land with a rugged interior and an opulent municipality that produces abaca and copra.

**Growth in Operations.** Based on operational data sourced from **PPA** covering 2016 to 2018, statistics show that **PMO-MOZ** has achieved the following compound average growth rates: (a) Shipcalls, 6%; (b) Passenger Traffic, 2.8%; (c) Container Traffic TEU, 7.7%; (d) RORO Traffic, 1.0%; and Cargo Throughput, 3.2%. Container Traffic showed the highest average growth.

**Shipcalls** were predominantly domestic, as with **Container Traffic**. But there was much higher average growth in **Foreign Cargo Throughput** than **Domestic Cargo Throughput**. ⚓

| PMO-MOZ                    | 2016      | 2017      | 2018      | CAGR |
|----------------------------|-----------|-----------|-----------|------|
| Shipcalls                  | 15,871    | 16,239    | 17,845    | 6.0% |
| Passenger Traffic          | 3,383,789 | 3,854,976 | 3,574,027 | 2.8% |
| Container Traffic (TEU)    | 37,920    | 39,172    | 43,994    | 7.7% |
| RoRo Traffic               | 658,715   | 639,225   | 672,434   | 1.0% |
| Cargo Throughput           | 1,413,390 | 1,414,394 | 1,505,533 | 3.2% |
| Domestic Shipcalls         | 15,800    | 16,184    | 17,794    | 6.1% |
| Domestic Container Traffic | 37,920    | 39,172    | 43,994    | 7.7% |
| Domestic Cargo Throughput  | 1,266,582 | 1,201,017 | 1,300,960 | 1.3% |
| Foreign Cargo Throughput   | 146,809   | 213,377   | 204,573   | 18.0 |

Compound Annual Growth Rate\*



# THE CAGAYAN RIVER

by Josephine M Viray

The **Cagayan River** is known throughout the Philippines as the “*Rio Grande de Cagayan*” because it is the longest, largest and widest river in the Philippines. The length of the river is about 350 km and has a drainage basin covering 27,753 sq. km, flowing along the provinces of Apayao, Aurora, Cagayan, Ifugao, Isabela, Kalinga, Mountain Province, Nueva Vizcaya and Quirino. The **Cagayan River** is located in the **Cagayan Valley**, northeast of Luzon. Cagayan Valley has 5 provinces: Batanes, Cagayan, Isabela, Nueva Vizcaya, and Quirino. **Cagayan Valley** has 4 cities, namely, Cauayan, Ilagan, Santiago, and Tuguegarao.

The **Cagayan River**’s yearly discharge is approximately 53,943 million cubic meters with a groundwater reserve of 47,895 million cubic meters. The **Chico River** and **Magat River** are tributaries to the left of Cagayan River, while **Ilagan River** and **Pinacanauan River** are tributaries to the right. During the monsoon season in Southeast Asia from May to October, the overflowing of the **Cagayan River** and its tributaries cause extensive flooding in the nearby provinces, specifically from Tuguegarao to Aparri and from Ilagan to Tumauni, Isabela.

There are virgin forest lands, abundant with lush flora and fauna surrounding the vicinity of the **Cagayan River**, where the Luzon **Bleeding Heart Pigeon** (*Gallicolumba luzonica*) and the **Philippine Eagle** (*Pithecophaga jefferyi*) are both endemic and endangered species. There are also very fertile valleys along the **Cagayan River** where farmers grow rice, corn, bananas, coconut, citrus and tobacco.

**Charlie Lagasca** and **Czeriza Valencia**, reported in the **Philippine Star** on 3-October-2014: “39 fish and shellfish species in **Cagayan Valley** have been identified as endangered due to destructive fishing, the **Bureau of Fisheries and Aquatic Resources (BFAR)** said yesterday. “BFAR is undertaking conservation efforts, including inventory of the species’ remaining habitats, and an information campaign to save them from extinction,” said **Jovita Ayson**, **BFAR** Regional Director. These species include the **Ludong** (Mullet), **Hito** (Catfish), **Dalag** (Mudfish), **Gurami** (Snake-Skinned Gourami), **Igat** (Eel), **Mori** (Gobi), **Agurong** (Trumpet Snail), **Bisukul** (*Native Snail*), **Cabibi** (Clam), and **Ulang** (Giant Freshwater Prawn).”

**Mark Djeron Tumabao** and **Max Prudencio** (BFAR) reported in the **Philippine Information Agency** on



9-February-2018: “**The Bureau of Fisheries and Aquatic Resources (BFAR)** have recently completed its comprehensive plan to conserve **Ludong** following the approval of a related project proposal.”

**Dr. Evelyn Ame**, national focal person on **Ludong**, said the project amounts to Php26 million, and the plan is to build on the initial accomplishments made by **BFAR** under the **Oplan Sagip Ludong Project**, since its launching in 2010, with 3 components: (1) Socio-Cultural, Biological and Environmental Studies; (2) Establishment of Breeding Facility and Breeding in Captivity; and (3) Sanctuary Establishment, Regulatory and Livelihood.

Under the first component, **BFAR** would conduct resource and sociology-economic profiling, and assessment of fishing technologies along **Ludong Fishing Communities**; biophysical assessment of selected **Ludong** Niches; larval survey of **Ludong**; and taxonomic identification of **Ludong** and Ludong-like species. **Dr. Ame**, who is **BFAR** RO2 Training Chief, said that the studies would enable **BFAR** to have more comprehensive information, needed for the conservation of the species; and enable the agency to implement resource mobilization and livelihood opportunities to increase income of the fisherfolk.

Under the second component, **BFAR** would establish a **Ludong** facility in the town of Claveria for the artificial breeding of **Ludong**. This sub-activity shall complement related initiatives being done by the **Isabela State University** in Roxas, Isabela.

Under the third component, **BFAR** would recommend to LGUs concerned the establishment of **Ludong** sanctuaries. **BFAR** shall conduct fishery law enforcement training for river wardens. The wardens will in turn be tasked to safeguard said sanctuaries and assist the agency in the enforcement of fishery regulations.

The **Ludong** (*Cestreaus*), known as the “President’s Fish,” is rare and indigenous to the headwaters of **Cagayan River** and some river systems in Ilocos Region. The fish is *Catadromous* — it spends most of its life in fresh water, then migrates to the sea to breed. The **Ludong** does its annual spawning in time with the **Ludong** closed season during October 1-November 15 every year. Known as the Philippines’ most expensive fish, its price has reached almost Php6,000 per kilo in recent years. “*With this finding, we are inching closer to our goal to close the life cycle of Ludong and thus, ensure its sustainability,*” said **Dr. Milagros Morales**, **BFAR** Regional Director.

The **Cagayan River** is awesomely grand in scale and proportion. The surrounding majestic virgin forest adds allure to its mystical panorama. What the local government of **Cagayan Valley** should do is to impose



restrictions in order to conserve the river’s marine life. Bringing of food should not be allowed near the river in order to prevent trash from finding its way into the river. Illegal fishing should likewise be strictly prohibited.

Most importantly, the Philippine government, involving Congress, should pass a Bill for the conservation of the **Ludong Fish** endemic to the **Cagayan River** and its tributaries. **BFAR** is seeking Php26 Million to fund the conservation program for the **Ludong Fish**. For the sake of protecting the sustainability of our endemic **Ludong**, our Legislators should support this endeavour. ⚓

**FEATURED IMAGE:**  
The Cagayan River  
Photo Credit: DENR;

**TOP:**  
Magat Dam, located at the Magat River,  
a tributary of the Cagayan River  
Photo Credit: DENR;

**ABOVE:**  
Ludong, the Philippines’ Most  
Expensive Fish  
Photo Credit: Philippine Information  
Agency

# DEUTERIUM: TRUTH OR HOAX?

by Timothy Muelder

It's not really white gold metal but rather, an energy source the entire world could use a gas that is clean, environmentally green, and self-replenishing.

The **Philippine Trench** as well as the **Philippine Rise** is breeding grounds of the endangered Pacific Blue Fin Tuna, but speculators also say that lying at the bottom of the **Philippine Trench** is the world's largest deposit of a gas called **Deuterium**.

**Deuterium** gas, also known as heavy hydrogen, is a heavier and stable isotope of ordinary hydrogen. It is widely known worldwide as the "Fuel of the Future."

It is a colorless, odorless, nontoxic, diatomic, flammable gas. **Deuterium** gas is used in nuclear power, fusion power, deuterated optical fibers, deuterated lubricants, lasers, light bulbs, R & D laboratories, and annealing semiconductor rims.

When burned, unlike fossil fuels, the gas only releases water vapor to the atmosphere. Therefore, environmentally, it is one of the best, if not the best, energy source on the planet. This could fuel power plants, steel mills, and many other industries requiring a clean and highly efficient heat source.

The Philippines was identified by some in the scientific community to hold the greatest amount of **deuterium** deposits in the world somewhere in the area called the **Philippine Trench** or **Mindanao Deep**, the part of the Pacific Ocean running mostly the entire length of the country.

**Deuterium** is most prevalent in an area more widely known as the **Philippine Deep**, which is located along the eastern side of the Philippines, of which the deepest **deuterium** deposits, when viewed from a satellite, lies closest to the shores of **Surigao**. The **Philippine Deep** was once the deepest part of the Earth until the **Marianas Trench** was found to be deeper.

**Dr. Anthony B. Halog**, a Filipino scientist with a chemical and industrial engineering background, described the **Philippine deuterium** wealth in this manner:

*"A big deposit of 868 miles long, 52 miles at widest point, and 3 miles at its deepest point, replenished by nature 24 hours a day after deuterium travels more than 12,000 kilometers from Central America to the Philippines through the span of the Pacific Ocean when Planet Earth turns on its axis from West to East in unending perpetual motion."*

**Dr. Halog** said, "its economic potential is about 12 million barrels per day, with a capacity priced at US\$7.00 per barrel, that could reach US\$84 million per day or US\$30.66 billion per year, enough to wipe out all existing foreign debts of the Philippine Government in one year."

Dr. Halog said, "once **Deuterium** exploration and extraction succeed, public works, private construction, economic and financial booms could be expected to happen in the Philippines in the same manner as those that happened in the Middle East and financial centers of the world."

The world is becoming more and more environmentally conscious. As such, exploring all alternatives that could provide energy with little or no detri-

ment to the environment should be considered, including the recovery, processing, and marketing of **Deuterium**.

In reality, the Philippines could actually become the cornerstone of a global shift towards a clean, green, pollution reducing future, in addition to becoming one of the richest countries in the world.

Something to consider for the future...

However, there are other scientists and researchers who hold a different opinion.



Twenty years ago, a certain **Dr. Nona Calo** from Butuan City in Mindanao, hypothesized that a very large deposit of **deuterium** can be found in the **Philippine Deep**, located off the waters of **Surigao**. First discovered and isolated in 1932 by an American chemist **Harold Urey**, **deuterium** or heavy water is composed of two isotopes of hydrogen and an oxygen atom, with a chemical formula of D2O or H3O. With more hydrogen molecules than ordinary water, it is much heavier than water or even saltwater, causing it to naturally sink farther down into deep ocean trenches.

Although **deuterium** mining has never been done before even in highly developed first world countries and the possible costs might be staggering, research on this opportunity is still worth investing in, considering the high stakes involved. This program could propel the **Philippines** to be the biggest hydrogen fuel (Li-Hy) producer in the world, and become the only fuel producer 40 to 50 years from now in an oil-depleted world economy. With the expertise of the **Philippine National Oil Corporation (PNOC)** through one of its departments that focuses on indigenous and non-traditional fuel sources, the government can embark on a deuterium research program and Li-Hy production project with ease, in terms of project organization and administration.

What hasn't been done before does not mean that it cannot be done. **Deuterium** mining is practically just pumping water from the ocean bottom. The present technology in offshore oil production is up to depths of 6.4 kilometers from sea level, and they still have to drill through the ocean bottom to get to the oil, hundreds of meters below the sea floor.

**Deuterium** is located just between 7 to 10 kilometers from the sea surface and needs no further drilling. And since **deuterium** naturally electrolyzes when the 10,000-psi ocean pressure is gradually removed through the pumping process and replaced by lower atmospheric pressure, two upper pipes will then collect segregated by-products of deuterium, which are pure liquid water and gaseous hydrogen. The dispelled hydrogen gas, can then be collected, compressed and stored as liquid hydrogen. The pipeline itself will serve as refinery of **deuterium** to produce hydrogen.

Oil mining may actually be more laborious, costly and dangerous in comparison to **deuterium** mining, and oil refining more expensive than the processes involved in **deuterium** and Li-Hy production. With regards to expertise, Filipino engineers and technicians at **PNOC** have proven and even exported their skills to Japan in constructing geothermal plants, installation which is comparatively more complicated and hazardous.

Reprinted from South China Morning Post,  
2-September-2004:

*"Former US president **Richard Nixon** loved to say, "When the going gets tough, the tough get going." American journalist **Hunter S. Thompson** had his own version: "When the going gets tough, the weird turn pro." In the Philippines, a country buffeted by political and economic crises, the weird are turning professional, as strange people smell the scent of opportunity to make more money during these evil times.*

*One scheme doing the rounds asserts that there are vast "deposits" of **deuterium** in the **Philippine Deep**, created by oceanic pressures and "natural electrolysis." If enough money were raised, pipes could be lowered to suck up the **deuterium**, allowing it to be used as fuel, earning billions for Filipinos, who would live happily ever after. This was first put*

*forward more than 10 years ago by a labor recruiter unable to produce a shred of proof, thus the scheme has been considered a pseudo-science fraud. There are no "**deuterium deposits**" in the **Philippine Deep** -- the only deposits the proponents are after are the ones a dupe will make into their bank accounts. **Deuterium**, a form of hydrogen, does not naturally occur in large quantities anywhere. It is found in extremely minute quantities in water. Industrial quantities are extracted using massive electrolysis plants. **Deuterium** is not a fuel, but a toxic liquid coolant for fission reactors. It is being tested as a power source for fusion reactors, but there is one catch: functional fusion reactors exist only in **Star Trek**.*

*Facts have not stopped the growth of what one scientist has called "**deuterium delirium**." A website has been set up to encourage investment in this project. The latest story mentions mumbo-jumbo calculations involving the Earth's rotational speed to prove the extent and depth of the alleged oceanic deposit.*

*Among those beguiled are: Senator **Aquilino Pimentel**, who has promised to bring the subject up for discussion in a committee; and assorted journalists who have written as if **deuterium** in the **Philippine Deep** is an article of faith. Apparently no reporter has called up any nuclear physicists to check the science. The unlikeliest dupe is the Communist Party. Recently, its spokesman, **Luis Jalandoni**, castigated the government for not exploiting "alternative energy sources" like the **deuterium** in the **Philippine Deep**. Perhaps, as many people have suspected, scientific socialism really has elements of comic fantasy.*

*The whole affair highlights how desperate times breed gullible people. In 1986, Senator **Pimentel** also supported a "water-fuelled car," which turned out to be a fake. If you believe **deuterium** deposits lie at the bottom of the **Philippine Deep**, you are all set to buy green cheese from the moon."*

There are many comments and statements supporting or debunking the **deuterium** issue but getting to the truth is only possible by actually obtaining and then analyzing samples from the trench. It is an expensive task, to say the least, but a necessity in finding the truth behind the so-called **deuterium** deposits.

*"When I was a junior officer, I was stationed in Surigao in the early 70s, and deuterium was already rumored to exist off the coast," says **Commo. Mariano S Sontillanosa** AFP (Ret).*

*"During my younger years, I was fortunate to be an escort onboard a US research vessel owned by Scripps Institute of Oceanography. For 15 days or so, the vessel was within the vicinity of the **Philippine Deep** off **Surigao**. That was 39 years ago. The scientists onboard laid some small buoys at given depths. I did not know until later that the survey was about **deuterium**. As to whether or not there is a lot of it in the **Philippine Deep**, I leave it to your judgment," says **VAdm Emilio C Marayag Jr.** AFP (Ret).*



#### About the author:

Timothy Muelder is a retired Facility Manager of the U.S. Department of State.

#### Editor's note:

The Maritime Review published in its Chairman's Page in September 2008 the possible presence of deuterium in the Philippine Deep, authored by Commo. Carlos L Agustin AFP (Ret).



The cruise industry in the Baltic Sea does more than provide rest and unique excursions for thousands of cruise guests, it also supports over 12,500 jobs in the region, according to a new study. Photo Credit: Cruise Baltic

# CRUISE INDUSTRY CREATES OVER 12,500 JOBS IN THE BALTIC REGION

by Cruise Baltic Press

**M**ore people than ever before are cruising in the Baltic Sea, and that is showing on the positive economic impact in the region. According to a new **Economic Impact Study**, the cruise industry generated a total output of EUR 1.5 billion in 2018, which supported exactly 12,595 total jobs in the Baltic region.

Of the EUR 1.5 billion, EUR 681 million were directly generated by cruise guests, crew and cruise line spending. The study also shows that the cruise guests account for approximately 60% of all spending in the Baltic region (EUR 407.3 of the total of EUR 681).

*"The Baltic Sea is a vibrant hub for cruising and has set records in both calls, turnarounds and cruise numbers in 2018. This all translates into substantial economic benefits for the region. The new study shows terrific numbers for the region and we are very proud to be working in an industry that has such a positive impact on the local economy,"* says **Claus Bødker**, Director of **Cruise Baltic**.

**Bødker** emphasizes that the records in cruise guests and thus the economic benefits are first and foremost caused by **Cruise Baltic's** high cruise guest satisfaction rates.

*"The Baltic region's past and future is tightly woven into the present day, which make the region truly unique and popular among cruise guests. Together with our destination partners, we work every day to keep our high guest satisfaction rates and offer memorable experiences to attract more cruise guests,*

*which contribute to significant economic benefits for the region. Fortunately, everything indicates that the number of cruise guests will continue to increase in 2019,"* says **Claus Bødker**.

The **Economic Impact Study** is based on data collected and estimates for the 29 ports in ten countries, which comprise Cruise Baltic. Three ports in Kiel, Riga and St. Petersburg, which are technically not part of Cruise Baltic, are also included in the study to provide a complete picture of the region. The **Economic Impact Study** was undertaken by **G.P. Wild**.

**Cruise Baltic** is the preferred partner for cruise liners operating in the Baltic Sea Region. Its office is run as a network of partner destinations consisting of all major ports in the region.

This allows **Cruise Baltic** to offer all cruise line operators easy access, great service, high standards and full integration between ports and cities throughout the region.



Further Reading:

- ♦ Yates-Robers, Elly. *Cruising creates over 12,500 jobs in Baltic region.* Cruiseandferry.net, 18-February-2019.
- ♦ Rokou, Tatiana. *Cruise industry creates over 12,500 jobs in the Baltic region.* Traveldailynews.com, 18-February-2019.
- ♦ *Cruise Industry Creates Over 12,500 Jobs in the Baltic Region.* MaritimeExecutive.com, 18-February-2019.

# FRIEND OF THE SEA CERTIFIES MOROCCAN CIBEL SUSTAINABLE FISHMEAL AND FISH OIL

by Vicky Viray Mendoza

One of the leading canned sardines and mackerel producers and exporters in **Morocco**, which has been **Friend of the Sea**-sustainable since 2012, **Cibel** has now obtained **Friend of the Sea** international sustainability certification for its fishmeal and fish oil production.

**Cibel** is the acronym for **Complexe Industriel Bel Hassan**, a high-tech center for seafood, fishmeal, and fish oil production. It has been operating for about 55 years since 1963.

To maintain its position as one of the best Moroccan fish canning producers, **Cibel** is equipped with the most recently invented technological tools, and is highly certified.

**Cibel** is a public limited company that operates mainly in two sectors: packaging and preservation of fish; and the manufacture of fishmeal and fish oil. **Cibel** is one of the largest companies in **Morocco**, with offices and production sites located between Agadir and TAN TAN. With total revenue between U\$10M-50M, Cibel is able to contribute in a meaningful way to the **economic development of the entire region**.

**Friend of the Sea** certification was achieved earlier in 2012 for **Cibel's** sardines and mackerel.

The company works with a fleet of 23 purse seine and mid-water trawl fishing vessels. The fleet is strictly managed under the national fishing plan and it complies with **Friend of the Sea requirements** thanks to its selective fishing method, no by-catch of endangered species and stock kept within maximum sustainable yield.

*"All our employees strongly believe in our duty to protect the oceans,"* said Mohamed El Baissi, General Manager of Cibel. *"Marine resources are essential both for their contribution to biodiversity as well as for the sustainability of our economy. This is why Friend of the Sea principles have become part of our company policy."*

In 2018, **Cibel** felt the need to meet an increasing market demand for sustainable products and thus **Cibel** started the process to certify all of its factories, including the **fishmeal and fish oil plants**.

According to the latest industry data, over 1/3 of fishmeal and fish oil originate from trimmings and by-cuts from processing lines. This way, waste is reduced as well as the pressure on fish stocks.

**Cibel** is the result of a merger of these manufacturing units specializing in the fish industry:

(1) Oued Souss Conserves (1963); (2) SMIC; (3) SAC; (4) TAN



TAN specializing in fishmeal and fish oil.

Cibel, a limited liability firm, operating mainly in fish canning and production of fish meal and fish oil activities, is one of the biggest companies in the South of Morocco and has been a positive contributor to the development of this region.

Over the last years, **Cibel** has been equipped with the most recently invented technological tools, which has enabled it to satisfy its various and more demanding customers. Its markets include USA, South America, Europe, Middle East, Asia, and Africa. The company has about 200 permanent employees, and approximately 700 seasonal workers.



Apart from sardines and mackerel, Cibel also produces and exports anchovy and tuna to different markets worldwide.

**Cibel's quality policy:**

- ◆ Providing high quality products at the lowest cost;
- ◆ Respecting customers' needs;
- ◆ Respecting delivery time;
- ◆ Continuously developing the efficiency of staff; and
- ◆ Continuously improving the quality management system.

**Cibel's certifications:**

- ◆ ISO-9001-2000 Certification: Cibel was awarded ISO-9001-2000 on 6-February-2003 for fish canning;
- ◆ IFS Certification: Cibel was awarded International Food Standards (IFS) Certification (Version 4 for high level) for the manufacturing system and the conditioning of canned sardines, mackerel and tuna;
- ◆ BRC Certification: Cibel was awarded BRC (British Retail Consortium) Global Standards Food Certification (version 4, level A) for the manufacturing system and the conditioning of canned sardines, mackerel and tuna;
- ◆ QMP Certification: Cibel was awarded Quality Management Program Certification in July 2002; and
- ◆ Label Maroc Certification: Cibel was awarded the Label Maroc Certification on 19-July-2001 for sardines canning. ⚓



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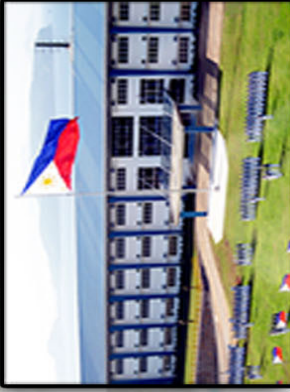
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### MAAP Profile

Geographic destiny has given the Filipino the innate talent to be an excellent seafarer. To enhance this natural skill, the Maritime Academy of Asia and the Pacific (MAAP) was established on January 14, 1998. The Academy stands on a 103-hectare property in Kamaya Point, Mariveles, Bataan.

The Associated Marine Officers' and Seamen's Union of the Philippines (AMOSUP) founded by the late Capt. Gregorio S Oca, capitalized and developed the Academy. The new AMOSUP President, Dr. Conrado F. Oca, heads the Academy's board of governors. The board is comprised of representatives from the private sector, the International Transport Workers Federation, the Filipino Association of Maritime Employers, the International Transport Workers Federation, the All Japan Seamen's Union, the International Mariners Management Association of Japan, the Norwegian Seafarers' Union, the International Maritime Employers' Committee, the Danish Shipowners' Association, the Norwegian Shipowners' Association, and the Japanese Shipowners' Association.

MAAP conducts shipboard training aboard T/S Kapitán Felix Oca, a 5020 DWT dedicated training ship capable of accommodating 180 midshipmen and 9 instructors in 30 air-conditioned cabins and six berths.

MAAP students are all scholars who are entitled to free tuition, board and lodging. They receive a comprehensive, up-to-date and well-rounded education that fully complies with the requirements of STCW 95 and the Commission on Higher Education (CHED). To ensure the highest standards of quality, MAAP adheres to a Quality Standards System that has been certified to comply with ISO 9001 version 2008, the Det Norske Veritas (DNV) Rules for Maritime Academies, and the Productivity and Standard Board (PSB) of Singapore.

The Academy offers three main programs: the Bachelor of Science in Marine Engineering (BSMarE) and the Bachelor of Science in Marine Transportation and Engineering (BSMTE). The curricula for the three courses were designed with the help of the United States Merchant Marine Academy at Kings Point, New York. Courses are four-year courses with sea phases scheduled in the third year. The BSMTE curriculum requires a total of 192 units: 152 at MAAP, 40 practicum/shipboard units on board T/S Kapitán Felix Oca and/or a shipping company sponsorship. The BSMarE curriculum requires a total of 193 units: 153 at MAAP, 40 practicum/shipboard units on board T/S Kapitán Felix Oca and/or a shipping company sponsorship.

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