




MARITIME REVIEW

A PUBLICATION OF THE MARITIME LEAGUE

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A TRIBUTE TO COMMO CARLOS "CHUCK" L AGUSTIN AFP (Ret), RIP

Also Inside:

- ▶ In Focus: The WHO
- ▶ Camacho Makes PH Naval History
- ▶ VFA: Significant Change on the Horizon
- ▶ Col. Mariano G. Robles: Unsung Hero of the 10 BCT
- ▶ The Problematic "West Philippine Sea"

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2F, P and J Bldg.,
Pres Roxas Bayani Rd.
Fort Bonifacio, Taguig City

www.maritimeleague.com

marrev@maritimeleague.com

+63 (2) 844-6918

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About the Cover:

*Photograph of our beloved Maritime League Founder & President and Maritime Forum Chairman
COMMO CARLOS "CHUCK" L AGUSTIN in his younger and more active years, serving then as
Commandant, Philippine Coast Guard.*



MARITIME EVENTS CALENDAR

APRIL '20

- 1-3 NAVEXPO INTERNATIONAL (PORT DE LORIENT LA BASE, LORIENT, FRANCE)
- 15-16 INTERNATIONAL GREEN SHIPPING AND TECHNOLOGY SUMMIT (PALAIO FALIRO, GREECE)
- 16-17 CHEMLOGISTICS INDIA (BOMBAY EXHIBITION CENTRE (BEC), MUMBAI, INDIA)
- 16-18 DOHA INTERNATIONAL MARITIME DEFENCE EXHIBITION & CONFERENCE (AR-RAYYAN, QATAR)
- 17 *POSTPONED* MARITIME FORUM #156 (MARITIME INDUSTRY AUTHORITY, BONIFACIO DRIVE, PORT AREA, MANILA)**
- 20-23 SEATRADE CRUISE GLOBAL (MIAMI BEACH CONVENTION CENTER, MIAMI BEACH, USA)
- 22-24 FERRY SAFETY AND TECHNOLOGY CONFERENCE (NEW YORK, NY, USA)
- 23-24 GLOBAL PORTS FORUM (OCBC CENTRE, SINGAPORE)

MAY '20

- 11 BIMCO LAYTIME & DEMURRAGE MASTERCLASS (SINGAPORE)
- 11-13 GLOBAL LINER SHIPPING CONFERENCE (HAMBURG, GERMANY)
- 13-14 DANISH MARITIME FAIR (BELLA CENTER, COPENHAGEN, DENMARK)
- 15 *TENTATIVE* MARITIME FORUM #157 (HEADQUARTERS PHILIPPINE NAVY, ROXAS BLVD, MANILA)**
- 18 MARITIME TRANSPORT EFFICIENCY (MTE) CONFERENCE (GENEVA, SWITZERLAND)
- 19-21 INTERNATIONAL SHIPBUILDING AND MARITIME INDUSTRY EXHIBITION VIGO (INSTITUTO FEIRAL DE VIGO (IFEVI), VIGO, SPAIN)
- 24-26 BLACK SEA PORTS AND SHIPPING (THE MARMARA TAKSIM, BEYOĞLU BELEDIYESI, TURKEY)

JUNE '20

- 1 ANNUNAL CAPITAL LINK GREEK SHIPPING FORUM (ATHENS, GREECE)
- 2-4 FUTURE SURFACE FLEET (PORTSMOUTH MARRIOTT HOTEL, PORTSMOUTH, UK)
- 14-18 NACE CORROSION CONFERENCE & EXPO (HOUSTON, TX, USA)
- 15-17 MARINE MONEY WEEK (NEW YORK, NY, USA)
- 16-18 *POSTPONED* 7TH PHILMARINE 2020 / SHIPUILD PHILIPPINES 2020 / OFFSHORE PHILIPPINES 2020 (SMX CONVENTION CENTER MANILA, PASAY CITY)**
- 17-19 NAVEXPO (LORIENT, FRANCE)
- 18 MARITIME FORUM #158 (PHILIPPINE COAST GUARD, PORT AREA, MANILA)**
- 23-25 AUTONOMOUS SHIP TECHNOLOGY SYMPOSIUM (RAI AMSTERDAM, AMSTERDAM, NETHERLANDS)
- 25-26 INTERNATIONAL CONFERENCE ON SMART & GREEN TECHNOLOGY FOR SHIPPING AND MARITIME INDUSTRIES (JURYS INN GLASGOW, GLASGOW, UK)
- 29-1 JUL CMA SHIPPING (STAMFORD, CT, USA)

JULY '20

- 14 MARITIME FORUM #159 (NATIONAL COAST WATCH COUNCIL, MALACAÑAN PALACE, MANILA)**
- 14-16 INTERMODAL ASIA (SHANGHAI, CHINA)
- 28-30 MEGARUST (SAN DIEGO, CA, USA)

AUGUST '20

- 3-4 BREAKBULK ASIA (SHANGHAI, CHINA)
- 3-5 CLEAN WATERWAYS (INDIANAPOLIS, IN, USA)
- 10-12 AUVIS Xponential (BOSTON, MA, USA)
- 11-14 OCEANS 2020 SINGAPORE (SINGAPORE)
- 14 MARITIME FORUM #160 (PHILIPPINE PORTS AUTHORITY, BONIFACIO DRIVE, PORT AREA, MANILA)**

AUGUST '20

- 17-19 OTC ASIA (CENTRE KUALA LUMPUR, MALAYSIA)
- 24-28 MARITIME WEEK AMERICAS (PANAMA CITY, PANAMA)
- 25 5TH INDONESIA MARINE & OFFSHORE EXPO (IMOX) 2020 (RIAU ISLANDS, INDONESIA)
- 26 10TH INDONESIA INTERNATIONAL SHIPBUILDING, OFFSHORE, MARINE EQUIPMENT, MACHINERY & SERVICES EXHIBITION & FORUM (INAMARINE) 2020 (JAKARTA, INDONESIA)
- 31-3 SEP OFFSHORE NORTHERN SEAS (STAVANGER, NORWAY)

SEPTEMBER '20

- 2-3 CRUISE SHIP INTERIORS EXPO AMERICA (MIAMI, FL, USA)
- 8 GASTECH EXHIBITION & CONFERENCE 2020 (SINGAPORE)
- 8-11 THE INTERNATIONAL CONFERENCE ON MARITIME SECURITY AND DEFENCE (HAMBURG MESSE UND CONGRESS GMBH, HAMBURG, GERMANY)
- 8-11 MARITIME FUTURE SUMMIT (HAMBURG MESSE UND CONGRESS GMBH, HAMBURG, GERMANY)
- 23-25 CHINA (SHENZHEN) INTERNATIONAL LOGISTICS SUPPLY CHAIN FAIR (SHENZHEN, CHINA)
- 25 MARITIME FORUM #161 (NATIONAL DEFENSE COLLEGE OF THE PHILIPPINES, CAMP GEN. EMILIO AGUINALDO, QUEZON CITY)**
- 28-2 OCT SNAME (HOUSTON, TX, USA)
- 29-30 SHIPPING TECHNIQS LOGISTICS KALKAR (MESSE KALKAR, KALKAR, GERMANY)
- 29-1 OCT BREAKBULK EUROPE (BREMEN, GERMANY)
- 29-1 OCT INLAND MARINE EXPO (ST. LOUIS, MO, USA)
- 30 ASIA PACIFIC MARITIME (APM) 2020 (SINGAPORE)

OCTOBER '20

- 13-14 AFRICAN PORTS AND RAIL EVOLUTION (DURBAN ICC, DURBAN, SOUTH AFRICA)
- 13-15 SHIPPING INSIGHT (STAMFORD, CT, USA)
- 15 3RD BANGLADESH INTERNATIONAL MARINE & OFFSHORE EXPO (BIMOX) 2020 (DHAKA, BANGLADESH)
- 16 MARITIME FORUM #162 (DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DILIMAN, QUEZON CITY)**
- 19-22 OCEANS 2020 (BILOXI, MS, USA)
- 20-21 ENVIROTECH FOR SHIPPING FORUM (ROTTERDAM, NETHERLANDS)
- 23 COMMERCIAL MARINE EXPO (PROVIDENCE, RI, USA)
- 24-28 INTERFERRY (HOBART, AUSTRALIA)
- 26-30 POSIDONIA (ATHENS, GREECE)
- 26-28 SEATRADE MARITIME MIDDLE EAST (DUBAI, UAE)
- 27-29 DANISH MARITIME DAYS (COPPENHAGEN, NETHERLANDS)
- 27-29 TOC AMERICAS (LIMA, PERU)
- 29-30 CLEAN GULF CONFERENCE & EXHIBITION (NEW ORLEANS, LA, USA)

NOVEMBER '20

- 2-4 MARITIME AIR SYSTEMS & TECHNOLOGIES (MAST JAPAN DEFENSE) (TOKYO, JAPAN)
- 9 ABU DHABI INTERNATIONAL PETROLEUM EXHIBITION & CONFERENCE (ADIPEC) (ABU DHABI, UNITED ARAB EMIRATES)

DECEMBER '20

- 1-3 OCEANOLOGY INTERNATIONAL (OI) 2020 (LONDON, UK)
- 8-10 UNDERSEA DEFENSE TECHNOLOGY (UDT) (ROTTERDAM, NETHERLANDS)

MARCH '21

- 30 INTERNATIONAL MARITIME EXPO (INMEX) VIETNAM (HO CHI MINH CITY, VIETNAM)

A TRIBUTE TO COMMO CARLOS L AGUSTIN AFP (RET), RIP

CHAIRMAN, MARITIME FORUM PRESIDENT, MARITIME LEAGUE

Anative of Manila, Commodore Carlos Leong Agustin AFP (Ret) graduated from the **U.S.** Naval Academy, Annapolis, MD, USA in 1960. He took Weapons Systems Engineering at the US Naval Postgraduate School in Monterey, CA; Naval Staff Course at the Royal Naval College, Greenwich, London, UK; NR course in National Security Management at the Industrial College of the Armed Forces, **U.S.** NDU; and Advanced Intelligence Course at the Special Intelligence Training School at AFP. He earned his MBA at the Ateneo de Manila University, graduating in 1978.

Commodore Agustin served with the Philippine Navy in various staff and command positions, including command of 5 naval ships and 3 Task Groups. He later served as Defense Attaché Washington, DC (1985-88), Chief of Personnel (J1) of the Armed Forces of the Philippines (1988-90), and Commandant of the Philippine Coast Guard (1990-93).

Upon retirement from service in 1993, he was appointed General Manager, Philippine Ports Authority (PPA) (1993-98) was a member of the Board of Governors at the World Maritime University (Malmo, Sweden) in concurrent capacity (1992-98). He was the first Administrator of the Cagayan Economic Zone Authority (CEZA) (1995-97). During the time, Agustin was cited by President Fidel V Ramos as the one responsible for originating the successful separation of the Philippine Coast Guard from the Philippine Navy that was formalized in 1996, via the enactment of the revised Coast Guard Law in 2009.

Commodore Agustin was later appointed President of the National Defense College of the Philippines (NDCP) (2001-2010). He was also one of 5 Philippine Experts and Eminent Persons in the ASEAN Regional Forum (ARF EEP) (2002-2012), and continued his Track 2 engagement in Confidence Building with Chinese think tanks through the Philippine Council for



Commo CARLOS L AGUSTIN AFP (Ret), RIP
Dec 13, 1937 - Apr 12, 2020



Foreign Relations (PCFR).

He served as Director of Subic Bay Development and Industrial Estates Corporation (SUDECO) and sister companies (2010-2020). Commodore Agustin was President of the Maritime League; Chairman of the monthly Maritime Forum; and publisher of the bi-monthly magazine, **The Maritime Review**. Concurrently, he was also the Secretary General of Advocates of National Interests (ANI) and Class President of PMA Class 1959.

He was so blessed to be taken swiftly on Easter Sunday, 12-April-2020, at dusk around 6 p.m. due to cardiac arrest. His wife, Medy, and children –Kay, Carla, Jay, Christine and their families, with his 7 grandchildren survive him.

Commodore Agustin was well respected and much loved by friends from the military and other fields. He had a sharp mind coupled with long years of naval experience that made him the perfect chairman at maritime meetings or confer-

ences. He was a soft-spoken and honorable person, a straight arrow who worked diligently to attain his goals without sacrificing his principles. He valued camaraderie most of all, and used the Maritime Forum to foster this among the attendees, all to promote the interest of the maritime industry. Truly, he will be terribly missed by many people in all walks of life.

In Commodore Agustin's Facebook page, several people had posted notes to him when they heard of his untimely passing. Here are some of the very touching messages, after his eldest daughter, Kay, posted the announcement:

🗨️ **Kay Agustin Dela Paz:** *"It is with extreme sorrow that we announce the untimely passing of our beloved papa, Commo. Carlos 'Chuck' L. Agustin. He joined our heavenly Father on Easter Sunday, 12-April-2020 at 6:21 pm after suffering a cardiac arrest. Thank you all for your prayers."*

🗨️ **John Victor A. Casas:** *"So long Tito Chuck, thank you for all the help and warm friendship you have given our family. Please give my*



Farewell Sir Chuck

COMMODORE CARLOS LEONG AGUSTIN AFP (RET)

13 December 1937 - 12 April 2020

tightest hugs to dad. Have a great reunion with dad in Heaven. We will miss you :(

🗨️ **Gen Perfecto:** "Farewell Tito Chuck. We'll miss your emails, texts, and Viber group chat. Thanks for all the happy memories."

🗨️ **Karl Misa Garcia:** "I will miss you, Tito Chuck Agustin RIP ❤️"

🗨️ **Peter John Francisco Agustin:** "Rest in peace Uncle Chuck Agustin, I will never forget you, Uncle. Thank you very much for everything you have done for me. I will pray for our Lord God to guide you. Sad I can't even go to you, Uncle. :(

🗨️ **Dan Jimenez:** "Goodbye, Sir Chuck Agustin. He was never selfish of his time. Always willing to have coffee, listen and have a tete-a-tete with his underclassmen and those seemingly of lesser stature than him. His words of wisdom will be missed. His kindness, the most. Rest in God's eternal peace, Sir Chuck. God has sounded your taps."

🗨️ **Brad Roel Rodriguez:** "A person lost here on earth, but a good soul gained in heaven. Thanks, Sir Chuck for the life you shared."

🗨️ **Charie Joaquin:** "Thank you and farewell, Commo Carlos "Chuck" Leong Agustin AFP (Ret) - an inspiring mentor, a resolute boss and a dear friend. He lived a life of substance, sharing, and sincerity. He lent his time, energy and passion to so many causes.

His firm gentleness guides a ship like the wind. As President of NDCP, he steered into completion many bold ideas from the DMI team, from the Young Leaders Program to the International Conference on Security. He supported my foreign schooling twice, even if it meant the INSS would be devoid of a Director and a Deputy. He contributed substantively to strategic discussions. Before the lockdown, he was breathing down my neck about FVR's book donation to NDCP and my PhD. Don't worry sir, WILCO. Commo Agustin, maraming salamat po! You will be sorely missed. Paalam. Rest In Peace. ❤️"

🗨️ **Stephen P. Cutler:** "I am very saddened to hear about the loss of this good man. But his influence remains with me forever."

🗨️ **Roque Magno:** "Our condolences to the bereaved family of Commodore Agustin. A man of honor and integrity, I've known him as a leader in his own right. As NDCP President, I served under him as Professor and Course Director. He will be missed but the legacy he left NDCP will not be forgotten. Rest in eternal Peace, Commodore Agustin."

🗨️ **Almar Pantaleon:** "Farewell to another esteemed cavalier... Rest in Peace Sir Chuck Agustin! Sail away... The NDCP Family is one with the Philippine defense and security community as we express our condolences to Commodore Agustin's family. It was an honor to have served

the country with you, Sir Chuck. As you sail out on the Heavenly Seas, may the wind be ever at your back. Fair weather, and God speed."

👉 **Jose Buenafior Jimenez III:** "The Board of Directors of the Philippine Council for Foreign Relations is deeply saddened to announce the passing of Commo Carlos L Agustin AFP, a member of PCFR's Board of Trustees and Editorial Board. Commodore Chuck, as he was fondly called, significantly contributed to PCFR's efforts in assisting the National Security Adviser craft the National Security Policy and National Security Strategy, which were recognized by President Duterte. He was a member of the PMA Class of 1959 and graduated at USNA in 1960."

👉 **Philippine Ports Authority:** "The PPA expresses its deepest condolences to the grieving family of former General Manager Commodore Carlos "Chuck" L Agustin who joined our Creator last night, 12-April-2020. Flags in all PPA facilities this week shall be flown at half-mast to honor him as we all pray for the eternal repose of the soul of the good Commodore."

👉 **Dave R. Simon:** "My most sincere condolence to the entire Agustin family. Commodore was a great mentor not only as our PPA GM but also for his greater vision for the maritime industry."

👉 **Emma Susara:** "The employees of PPA and I deeply mourn the untimely demise of our former General Manager Commodore Chuck Agustin. Our Sir GM was the one who invited me to join MF even after my retirement from PPA. He was such a kind, generous, thoughtful gentleman. Prayers for the eternal repose of his soul as well as strength for the Agustin family."

👉 **Samuel Antonio Castano:** "A very honorable, dignified and kind-hearted person. With deepest condolences and sympathy to the Agustin Family from Sam, Myline & Tim."

👉 **Joy Intengan:** "Indeed, he is an honorable man! He will always be remembered and missed. Thank you Kuya Chuck, Rest In Peace."

👉 **Glenn Mark Blasquez:** "May God bless and comfort you, Kay, and your family during this difficult period. Please accept my sincere condolences to the family and friends of Commodore Carlos "Chuck" Agustin, President of Maritime League of the Philippines."

👉 **Janet Clemo:** "Jay, I write on behalf of Captain Andrew 'Andy' Malpass and Mrs Fiona Malca, President and Chief Finance Officer respectively of Pandiman Philippines, Inc. to express their condolences on the passing of your father. Chuck and my husband, the late Capt Frederick 'Freddie' Clemo, were good personal friends and shared a mutual interest in the maritime arena of the Philippines. Chuck was also a good friend of Pandiman on a corporate level. Soon after my husband Captain Malpass had died, the VP of Pandiman was called to a Senate Hearing on a pollution dispute off the Bolinao coast. The vessel suspected of causing the pollution was listed with one of our principals in UK and was not the cause of the pollution. Having newly taken over the position of President following Freddie's death, I was to accompany Andy to the Hearing, and was nervous of the outcome. I called your father and although I only gave him an hour's notice, he was there at my side for the whole Hearing, his very presence giving Andy and me invaluable support. We eventually won that case. We shall miss your father and feel very sad that he is no longer with us. May he rest in peace and may you and the family find solace together in this time of grief."

👉 **Amb. Alberto A. Encomienda:** "To the Agustin family, perhaps we can extend each other mutual sympathies. We are all family of the archipelagic State and maritime Philippines to whom he offered full devotion and competence to its construction. A fitting farewell thought would be the line "home is the sailor, home from sea," and his earthly home is the archipelagic maritime Philippines."

I met Commodore Agustin when he was already in retirement from govt service, in both defense/military and civilian agencies addressing maritime concerns and issues. After having joined and attended

activities of the MBF (later MF) and recognizing the breadth and depth of his knowledge and experience on modern nation-building requirements and aspirations of the Philippines as an archipelagic State, I offered to host MF in behalf of the DFA for the first meeting every year in January so that foreign policy can be given primacy in this regard. I also sought his participation in the PH negotiating panel to the Philippines-Indonesia maritime boundary delimitation process.

My personal admiration for Commodore Agustin is that he COMMANDS attention and respect through his soft-spoken and persuasive nature. I am optimistic that the MF that he founded and steered through all these years can find a worthy successor, cementing a historical legacy."

👉 **Icefire Rudyard:** "A thankful nation bids farewell to a paragon of excellent public service as the country has lost a great man, a stalwart pillar of the maritime industry and security sector. He shall be fondly remembered as a servant-leader, a think-tank, a prime mover, a friend to all, an outstanding officer and a true gentlemen – must be the most revered and best (5★) Commodore there was! So long, Commodore Carlos "Chuck" L Agustin Sir! Yours is a well-spent, unselfish and meaningful life. You now have risen with Jesus Christ on this Easter Sunday. Rest in peace with our Lord God Almighty. ♥"

👉 **Atty Elma Leogarde:** "We are saddened by the passing of our tireless mentor and guide. Our deepest condolences to the family of Sir Chuck Agustin."

👉 **Col Niceto Festin:** "He is a very big loss to many especially to different organizations and civic clubs. We have to accept the call of his Creator. May his soul rest in peace with Him. I deeply condole with his family, and those who love our dear Chuck."

👉 **BGEN Resty Aguilar:** "Condolence to the family. Rest in Peace, my mentor, Sir Chuck."

👉 **MGEN Guillermo Molina:** "I was extremely saddened to learn about the passing of Sir Chuck. So unexpected and sudden. I could still remember his gentle persuasive voice during our PCFR discussions. He was always a firm patriotic anchor, a lighthouse of ideas, and a living compass of strategic thought. My prayers and condolences go to the bereaved Agustin family. Rest in peace in the grace of Our Risen Lord, Sir Chuck."

👉 **Capt Montoya APFI:** "Our deepest condolences. Chuck was a champion, mentor, and friend."

👉 **Capt Carlo Lagasca PN:** "Rest in peace po, Sir Chuck. Thank you for the words of wisdom that you shared. I will surely miss your fatherly advice. My deepest sympathy to the bereaved family."

👉 **Capt Roy Trinidad N3:** " 'And said, Naked came I out of my mother's womb, and naked shall I return thither: the Lord gave, and the Lord hath taken away; blessed be the name of the Lord.' Job 1:21 KJV. Chuck lead a life well lived for God's glory!"

👉 **Sonny Busa:** "Fair Winds and Following Seas! Go Navy!"

👉 **Capt. Warlino J. Sadiarin PN:** "Commo Agustin was a very good husband to his wife Medy, good father and provider to his children and well-loved by his contemporaries, fellow officers, enlisted personnel and civilian employees. A simple and sincere friend, he will surely be missed. Heartfelt condolences and sympathy to the bereaved family Mrs. Medy Agustin, children Kay, Carla, Jay and Christine, the members and wives of PMA Class '59. We join the family in prayer for the repose of his soul. May he rest in peace."

The Sadiarin Family condoles with the Agustin family in their time of grief. Chuck influenced my career life and strongly recommended my assignment in Washington DC as his replacement. We will miss him. Jay is a very good friend of my sons Mike, Jon and Rommel.

Commo Chuck Agustin was my Commanding Officer aboard RPS Catanduanes, PS62 as a young Ensign. I was privileged to relieve him as Naval Attache at the Philippine Embassy in Washington D.C.

When he was Editor-in-Chief of the PMA Cavalier Magazine for over a decade, I was his "Class Call" Editor. He was a very brilliant and professional officer, and we will surely miss him.

Sir Chuck was a family friend. My elder brother, William, was his bosom friend. As plebes, they were bunkmates, both Charlie Company. After 1 year, Chuck left for Annapolis while William left for West Point. Both graduated in 1960. I first met Chuck when he was Tac O and I was a plebe in 1965. We met again in 1978, when I joined J2, GHQ. We were Division Chiefs. I was Foreign Liaison, Warly was Production, and Chuck was Operations. I witnessed at close range his dedication, and love for work. He was Mr. Hawkeye. He started the Decal System for vehicles in AFP. When he left J2, no one could handle his Division as it was, so it had to be split into operations and CI. Doming Salac took operations and I took CI. There was a joke in J2: Do not takeover from Chuck, otherwise no matter how good you are, you will be considered incompetent as compared to Chuck. To Sir Chuck - Fair winds, Blue Skies and Following Seas."

👤 **Commodore Plaridel Garcia:** "A great friend, a great man, one of the best naval officer and gentleman is gone. May Carlos Leong Agustin Rest in Peace."

👤 **VADM Boy Vingson:** "Thank you, Sir Chuck for your faithful and honorable service to the nation. You have been a true leader and inspiration. Rest in peace."

👤 **VADM Alex Pama:** "Our sincerest condolences to the Agustin family! We will definitely miss Commodore Agustin. He was a pillar and a beacon not only in the maritime industry but also to the nation! May he be in eternal rest with the Lord our God!"

👤 **VADM Reuben Lista:** "We request our friends to pray for the repose of the soul of Commodore Carlos Chuck Agustin, a friend, golf mate, advisor, partner, associate, and a wise and trusted guide."

Our condolences to the bereaved family, and prayers for the repose of Sir Chuck's soul."

👤 **VADM Edmund Tan:** "I am so devastated with what happened to Sir Chuck. Praying for the eternal repose of his sole. Our heartfelt condolences. Chuck's legacy in the maritime sector will not go in vain as we who are his underlings will continue his ideals for the good of the industry!"

👤 **VADM Emilio Marayag Jr:** "I am deeply saddened by the untimely demise of Sir Chuck. I first met him in 1984 upon my return from a 6-week training in US. As a protocol, I called on him for a departure call when he was the Coast Guard Chief of Staff because Navy headquarters issued my relief from the Coast Guard to Naval Training Command. He learned about the course I took and asked me if I wanted to be at the Coast Guard Training Center instead. I accepted. The next time I met him was during the crafting of the proposed National Defense Act in 2005, as we were both members of the Defense Department Working Committee. Five years later before my retirement, he recommended me to succeed him at NDCP but I ended up at AFP-RSBS. In 2015, he invited me through other naval officers to the Maritime Forum and subsequently to the Maritime Review Editorial Board. For the past 5 years, I have learned a lot from him from conference leadership to change management, but most important of all, the values of continuing education, teamwork, humility, frugality, and integrity. Rest in eternal peace, Sir Chuck. You have reached your destination with flying honors!"

👤 **VADM Bob Empredad PN FOIC:** "Our deepest sympathies and fervent prayers for the entire Agustin family for the death of Sir

Chuck who was highly esteemed by everyone! We are all so deeply saddened by this news! God bless!"

👤 **VADM Edd Santos MAAP:** "I read the MF thread today. This news is truly a great shock. We included Chuck in our family zoom blessing yesterday and again during the papal mass. He was my mentor since my cadet days 55 years ago. He left a lasting legacy in the AFP, PN, PCG, PPA and the maritime industry. He will surely be missed and we shall continue praying for his eternal repose and for him family in this time of grief. God bless!"

👤 **ADM Damian Carlos:** "I have fought a good fight. I have finished my course. I have kept my faith.' 2 Timothy 4:7. Rest in peace, Sir Chuck, mentor, fatherly Boss, and friend."

👤 **Cong Oging Mercado:** "Sir Chuck –an advocate of Peace and Unity! A great loss to our maritime industry. A great joy to his Buddy. Rest well. We salute you Sir!"

👤 **Romeo Rojas:** "My family and I are deeply saddened by the untimely passing of Commodore Carlos Agustin whom we consider a father and good friend. We will offer masses and prayers for the eternal repose of his soul. Till we meet again Sir."

👤 **Phillip Ong:** "I am overcome with sadness by this news of Commodore Agustin's passing. He was a great friend and mentor. As he passed, I was offering then the mass of Pope Francis for his recovery. I did not realize that he had joined our Lord in perfect time. Now we ask for his prayers from where he sits in Heaven for the Maritime League, the nation, the world, and us."

👤 **Loretta Ann Rosales:** "My deep, deep condolences for the passing of your father. I am so sorry. My heart cries painfully from within. He was a true friend from my high school days when he would visit my father in our home in Maryland through our work in government, and to our present work in the private sector. He always reached out to my family and to Carlito's family. That I am a member of the Maritime Forum is his initiative. I am praying for him now. God bless the Agustin family."

Chuck and I understood each other. He encouraged our relations on security sector reforms when I headed the Commission on Human Rights. He was an honest man and he opened himself to all. Carlitos Cunanan died first, then Roy Golez, now Chuck –all friends of mine who believed in human rights and the rule of law. Perhaps it is because they had faith in a God who is now leveling the playing field.

I was listening to the Holy Father who said to all of us, 'Do not be afraid.' My dear friends in the security sector, at the time Chuck was leaving us to a new journey much closer to his Maker and perhaps God was telling him too, 'Do not be afraid.' What a beautiful time to die in the day of Resurrection – for the living feeling more pain and suffering until we see the ray of light through our own collective strife; but for people like Chuck who died in that ray of hope, a beautiful journey to a new life in the warmth and light of his Creator. It is a journey to eternal bliss that everybody looks forward to. And God tells Chuck – 'Do not be afraid.' What a beautiful message."



The Agustin Family would like to express their most sincere heartfelt appreciation for everyone's support and prayers. The Maritime Review Editorial Board, together with the Maritime League Board of Trustees and the Agustin Family will organize a proper send off with honors for our beloved MF Chairman, schedule of which shall be announced after the on-going Enhanced Community Quarantine (ECQ).





U.S. Marines raise the American flag as their Philippine counterparts raise their ensign during morning colors at the start of the base deactivation ceremony for Naval Station, Subic Bay. U.S. Naval personnel relinquished control of both Subic Bay and Naval Air Station, Cubi Point, to the Philippine government, which were later recognized as Subic Bay Metropolitan Authority Headquarters. Location: NAVAL STATION, SUBIC BAY, LUZON PHILIPPINES (PHL) (Photo credit: US Navy)

KEEPING OUR US ALLIANCE ALIVE

by Commo Carlos L Agustin AFP (Ret), Chairman, Maritime Forum

I cannot forget that final day in 1977 when we in the DND Strategic Studies Group (SSG) headed by then Col Salvador Regalado PAF that was specially created by DND Secretary **Juan Ponce Enrile**, presented our final proposed draft of the revised **PH-US Military Bases Agreement (MBA)** when, after the ensuing discussions, we were surprised by the position paper prepared by the Department of Foreign Affairs that drastically changed much of what we had prepared, I was the J2 representative on special detail with the DND SSG then.

The conference, held at the ISAFP Conference Room at Camp Aguinaldo, was co-chaired by Secretaries **Carlos P Romulo** and **Juan Ponce Enrile**, and ended generally approving the DFA draft to be given to the US side during the annual Mutual Defense Board meeting that week.

With the **PH-US Joint Review Panel** present, it was going to be a drastic departure from the “business as usual” meetings of the MDB, I thought correctly.

Indeed, it was, and after the meeting we were told that the State Department had requested for a recess in the negotiations so that key members of the US Panel could go back to Washington to consult.

That was also when I really got to know the Chief of Staff AFP, Gen **Romeo C Espino**, who asked me to be the Secretary of the Military Panel that he headed, with BG Mamerto M Bocanegra, Col **Feliciano M Gacis** PA and Capt **Brillante C Ochoco** PN (PNLO Subic) as members. We would later start the mil-to-mil discussions weekly, with the US panel headed by COMNAVPHIL, which HQ had moved from Sangley (which had been transferred to the PN) to Subic Naval Base. During the meetings our panel flew by helicopter from Camp Aguinaldo to the Central Bank building on Roxas Boulevard with the US panel. The Chairman of the Philippine Delegation, the highly respected Amb **Eduardo Z Romualdez**, then AMBAPHIL Washington DC (and uncle of FL Imelda Marcos) held his Manila office there for the negotiations.

The rest was history. While the Philippine hard-line position was not carried all the way because of PFM’s intervention, it changed a lot in the US bases regime, mainly:

1. The US military bases became Philippine bases, under Philippine flag and a Philippine base commander, following the Thailand model; The areas had collateral boundaries, just like the City of San Francisco within San Francisco County; the gates being jointly manned, with the US facilities as enclaves;

2. The areas occupied by Philippine personnel were under jurisdiction of the Philippine base commander; the US facilities within were under jurisdiction of the US base commander;

3. The mission of John Hay Air Base and all US recreational facilities now included AFP personnel as authorized patrons and users.

4. The idea of "rental" was introduced in addition to what the **Military Assistance Program (MAP)** covered. This "rental" was actually termed Economic Support Fund (ESF) by the US Government, to cover non-military fund assistance of some USD 200 million annually.

The eventual fate of the bases was sealed, as succeeding events showed, and the US facilities were practically dismantled in haste and troops left after the Pinatubo eruption in 1991. President **Joseph Estrada** realized his error (in voting against the extension of the bases while serving as Senator) when he became President and the Chinese gambled by seizing territory in the Spratlys.

It was during the mil-to-mil negotiations that I learned that the US did not consider Kalayaan as actionable under the **MDT**. That China seized the Paracels towards the end of the Vietnam War without touching Pagasa and Philippine-occupied islets, however showed that the **MDT** was providing a shield of protection nevertheless.

The removal of the bases, of course needed some agreements to cover assistance and training needs, among others, that justify presence of US troops and facilities in order to operationalize the **MDT**, as the 1986 Constitution now came into play. Enter the **EDCA** (Enhanced Defense Cooperation Agreement) and the **VFA** (Visiting Forces Agreement), which needed Supreme Court decision to be Constitutionally compliant, which was eventually granted.

For more insight on the **VFA**, **EDCA** and **MDT** aspects, one may view various media interviews. One, done by Dr **Carlos Tabunda** PhD of New Era University with retired LTG Edilberto P Adan, a co-trustee in the **PCFR** (who was the former Executive Director of the **VFA** Commission until 2014, on Net 25 TV on 7 Mar 2020) I consider excellent. Those interested to learn more may see the video at <https://www.facebook.com/EagleNews/videos/542646059698337/>.

VFA Termination?

President **Rodrigo Duterte** had expressed his scorn of the United States for quite many years, primarily because of his inclusion in the US human rights black list, starting from allegations concerning the supposed "Davao Death Squad" when he was the City Mayor. Upon election, he immediately unleashed his wrath upon US Ambassador **Philip Goldberg**, turning quite personal due to the latter's untoward comments during the elections about his human rights record, an obvious faux pas for a diplomat. The ambassador was of course replaced shortly after.

Thereafter, he continued attacking US policies and historical records, highlighting more the negative and purposely or apparently showing little knowledge of the positive. This he did every occasion he had in public, actually stating that "the (useless) alliance with the US would go".

While the US has immense popularity among the population vis-a-vis the negative impression against China, nevertheless President Duterte enjoys equally immense popularity from the people. He announced early in his term his opinion that our US relationship has no value, and that, while he professes "enemy to no one, friendship to all", his actions and decisions show a clear pivot to China, starting from his first visit to China upon assumption as President. He had stated a few times his thinking that he would terminate our long-standing defense engagement with the United States. I personally thought it was mere hyperbole.

President **Rodrigo Duterte** on 23 January shocked many of us with the announcement at a public meeting in Malacaang that he would finally terminate the Visiting Forces Agreement. That was on the eve of the first meeting of the year of the **Maritime Forum**, traditionally held at the Department of Foreign Affairs.

Of course, many did not believe that it would happen. The



Photo taken during the 153rd Maritime Forum held at the President Elpidio Quirino Hall at the Department of Foreign Affairs, Roxas Boulevard, Manila.

following day, at the start of the **153rd Maritime Forum** held at the President Elpidio Quirino Hall at DFA, I expressed concern about that previous day's statement of the President in my Opening Remarks, and the ensuing discussion led to a motion that the **Forum** should make its feelings publicly known through a Resolution, worded as follows:

*"Resolution No. 20-1. Resolved, as it is hereby resolved that the **Maritime***

***Forum** expresses its concern about the implication of the possible termination of the **Visiting Forces Agreement (VFA)** as announced by the government, on the national security of the Philippines, and strongly recommends that the government consider the pros and cons prior to deciding its termination, and that if feasible, a detailed review be conducted and negotiated as soon as possible."*

There were remarks on the propriety of such a statement of concern since some of the key participants in the **Forum** are active government officials, but the great majority held on to the motion, which was approved with some officials abstaining.

Asked as to whether we should provide copies to the media forthwith, I hedged a little with the intention of consulting the key maritime players in the **Forum** first, something I would later regret due to the public statements of key cabinet officials, including Secretary of Foreign Affairs **Teodoro Locsin Jr** and Defense Secretary **Delfin Lorenzana** (among other officials asked by reporters) expressing the same concern, as reported in media, on the same day. Thus, I knew that my gut feel was correct; that the official family of the President was not ready to accept that drastic path.

Yes, we all surmised incorrectly. but how could those officials now countermand their boss?

The **Forum Resolution** was again confirmed during the **154th Maritime Forum** in Cebu City on February 21, 2020, ten days after the letter of termination was sent to the US Ambassador by Secretary **Teodoro Locsin**. By that time, many columnists, opinion-makers and other notable individuals have expressed concern about the announced termination of the **VFA**, including a very carefully worded one by former DFA Secretary **Roberto Romulo**. Understandably, an announcement was made that the President's cabinet now stood in support of the termination.

Many American officials, military officers and retired diplomats are disappointed in the turn of events. Asked by newsmen, they stated that the security in the region could be affected by the termination or reduction of the value of Philippine inclusion in the alliance network.

The **US Philippines Society (USPHS)** is a US private sector initiative organized in 2012 in Washington, DC by veteran diplomats and others who have interest in Philippine affairs, with a vision "to create a new and timely mechanism for elevating the Philippines' profile in the United States and a mission "to build on the rich and longstanding historical ties between the two nations and help to bring that unique relationship fully into the 21st century at a junction when U.S. policy interests are increasingly focused on East Asia".

In mid-February 2020 the **USPHS** conducted a series of meetings in Manila to discuss the current situation, inviting Philippine officials and other groups, including the **Philippine Council for Foreign Relations**. There we in **PCFR** learned that many Americans share similar concerns of losing our special security relationship.

Even Sec **Teodoro Locsin Jr** somehow telegraphed what I believe is the majority of the officials in government hope will happen when he jokingly stated, "The fat lady has not yet sung!"

Quite often politicians opposed to US presence in the Philippines, including President Duterte, would state that the **VFA** and the **EDCA** are not treated in the same way by our two governments. In fact this opinion has been a good selling point for those who oppose. I often provide justification by saying that for the US, the **MDT** says it all, and for them there is no need for US Senate confirmation of the two Executive Agreements, as they are only deemed to be implementing the **MDT**. In the PH case, since the **Military Bases Agreement (MBA)** had lapsed, any foreign military presence in the Philippines would now have to contend with the 1987 Constitution.

It was only during the **USPHS** meeting that I learned, together with my other colleagues, that the contention of President Duterte and others opposed to US presence under the **VFA** due to unequal processes is not warranted. In essence, the US is indeed committed to the **EDCA** and the **VFA** by force of law.

Here's the answer to the criticism that the **VFA** and the **EDCA** were not considered confirmed by the US Senate. It is actually covered under **ARIA 2018 (US Public Law 115-409)**:

ASIAN REASSURANCE INITIATIVE ACT OF 2018 (PUBLIC LAW 115-409—DEC. 31, 2018)

SEC 202 (d) UNITED STATES-PHILIPPINES ALLIANCE.—The United States Government is committed to the Mutual Defense Treaty between the Republic of the Philippines and the United States of America, done at Washington August 30, 1951, and all related and subsequent bilateral security agreements and arrangements concluded on or before the date of the enactment of this Act, including the Enhanced Defense Cooperation

Agreement, done at Manila April 28, 2014. (underscoring mine)

This was explained by Philippine Ambassador to the US **Jose Manuel "Babes" Romualdez** in response to a question by a participant during the meeting of the **USPH Society** held at the Manila Peninsula Hotel in Makati on 17 Feb 2020.

Way ahead

Will the 180-day lead time for withdrawal still provide an opportunity for a change of heart by 11 August, 2020? The answer, from various impressions we are getting, seems to be in the negative, particularly as US President Donald Trump, in answer to a question, replied that it was alright, and that the US would save a lot. That makes it virtually impossible to reverse course, as President Duterte would lose face.

Some say the ultimate goal of the President is the termination of the **MDT**. Even on the **VFA** alone, Japanese media is already quite concerned. The Australians feel that the security links from Japan to New Zealand would be terribly jeopardized.

The way ahead depends on a very crucial legal issue. Does termination of a treaty such as the **MDT** and the Agreements in question require Congressional confirmation as the latter did in approving them? Senator **Rodolfo G Biazon**, one of the strong proponents of the approval of the **VFA** researched on the Constitutional Commission records, enabling him to turn around one of the strongest oppositors, the late Sen **Miriam Defensor Santiago**.

The Senate has actually asked the Supreme Court 9 March to require the upper chamber's concurrence in the termination of treaties, CNN Phil on that day reported:

In their petition for declaratory relief and mandamus, senators urged the high court to "render a decision declaring that the withdrawal from or termination of a treaty or international agreement ...requires the concurrence of two-thirds of all the members of the Senate."

The lawmakers also want the court to order the Office of the Executive Secretary to refer the notice of withdrawal from the treaty to the Senate for its concurrence.

Resolution 337 was sponsored by Senate President **Vicente Sotto** and Senators **Panfilo Lacson**, **Frank Drilon**, **Juan Miguel Zubiri** and **Richard Gordon** and was adopted on March 2 with a vote of 12-0 and seven abstentions, paving the way for the Senate to file petitions before the high court to clarify the process, which will determine the fate of the **VFA**. Other petitions from other groups are expected to be filed.

The **Forum** has done its part, albeit not so expressed in public media. But we should also join other sectors in their suggestion that perhaps now is the time to review the **MDT** itself, with the intention of introducing amendments that will clarify what situations heretofore not identified should now be covered, due to the fact that many areas of conflict short of shooting war can now be included, such as cyber warfare and "gray zone strategy", including harassment by use of surrogates and armed militia.

The irony in all this is our focus has been diverted to the NCoV19 problem, because a more serious problem has arisen.

So many derogatory remarks have been said concerning the actions by the **Interagency Task Force (IATF COVID-19)**, but can we see that government is caught between the devil and the deep blue sea? We need to "flatten the curve" but we are hurting many, especially the poor. As one of the level headed Viber posts hitting the perceived failings amidst the crisis says. "if you want a better President, PRAY for President Duterte."

May God bless us all. 🙏



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CAMACHO MAKES PH NAVAL HISTORY AS FIRST FEMALE COMMODORE

by Priam Nepomuceno | PNA



PH NAVY'S FIRST. AFP Chief-of-Staff **Gen. Felimon Santos Jr.** (right) leads the donning ceremony for Commodore **Luzviminda Camacho**, one of the AFP's newly promoted senior officials, in Camp Aguinaldo on Tuesday (28-Jan-2020). **Camacho** made history as the first female Commodore (equivalent to Brigadier General or one-star rank in the Army, Air Force, and Marines) of the Philippine Navy. (Photo courtesy of AFP Public Affairs Office)

A Philippine Navy officer made history as the first woman to become a Commodore (equivalent to Brigadier General or one-star rank in the Army, Air Force, and Marines). Promoted to the rank was Captain **Luzviminda Camacho**, Chief of the Armed Forces of the Philippines (AFP) Office of Legislative Affairs. Aside from being the first woman to get the rank, **Camacho** is the first female chief of her office, the first woman to command a Philippine Navy ship, and the first female commander of peacekeepers sent by the Philippines to Haiti. **Camacho** was among the three senior officials of the Armed Forces of the Philippines (AFP) who formally donned their next higher rank in a ceremony in short ceremonies at the General Headquarters in Camp Aguinaldo, Quezon City, on 28-January-2020.

AFP Chief-of-Staff **Gen. Felimon Santos Jr.**, who just became a four-star general Monday, presided over the donning ceremony.

Meanwhile, Maj. Gen. **Roberto Ancan**, Central Command head, was promoted to the rank of Lieutenant General. He previously led the Zamboanga Del Sur-based 1st Infantry Division and is a member of the **Philippine Military Academy (PMA) Class of 1987**.

Promoted to the rank of Major General is Brig. Gen. Ernesto Torres Jr., who is the current commander of AFP Civil Relations Service. He is the former commander of Joint Task Force Haribon and deputy commander of Eastern Mindanao Command and a member of **PMA Class of 1989**.

Present during the donning ceremonies were senior military officers led by AFP Vice Chief-of-Staff **Vice Admiral Gaudencio Collado, Jr.** and families of the newly promoted officials.

Military honors at the General Headquarters Canopy were also rendered for **Ancan** who is the most senior of the newly promoted officers. Promotions of generals and senior officers in the military signify the advancement in their careers as soldiers. It also implies the bigger and more crucial responsibilities that they have to carry towards the attainment of the AFP's mission.



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PHILIPPINES VISITING FORCES AGREEMENT (VFA): SIGNIFICANT CHANGE ON THE HORIZON

by Timothy Muelder

Philippine President Duterte has recently forwarded notice to the United States (U.S.) his decision to terminate the current **Visiting Forces Agreement (VFA)** that has been in effect since 1999. This long-standing agreement is scheduled to renew or expire in August 2020. The concerns expressed by many - for or against this action - address many opinions of which I will try to explain in a simplified, orderly context of how I view the process.

When the US ratified the 2020 government budget, contained within were line items addressing concern over the Philippine government's war on drugs and alleged possible human rights violations. There was also concern expressed by the US government over the detention of a Philippine Senator for violations of Philippine law. It should be noted the Philippine Supreme Court upheld the detention after two official appeals.

Two US Senators were scheduled to travel to the Philippines for diplomatic discussions but were denied entry over the disagreement of what was published regarding the controversy. A Philippine Senator was later scheduled to travel to the US but entry was denied by the U.S.

The saber rattling by the two sovereign nations continued until the Philippine President decided to terminate the

Philippine-US VFA. The effects of that action will certainly ripple across the entire Philippine Military complex, and the civilian enterprises that support and receive support from the programs, as well as funding and training received under the VFA agreement. In response, US President Donald Trump made public his thanks on scrapping the PH-US VFA, and said, "No Problem, it will save us a lot of money."

Below is a partial list of the benefits received under the VFA that could be lost.

2019: Balikatan Exercises

As part of the 2019 Balikatan Exercises, US, Philippine, and Australian forces worked together to hold health engagements and community relations events, and renovate 3 elementary schools in Orani, Bataan; Pangil, Laguna; and San Juan, Batangas (Source: US Embassy).

2019: Embassy response to Sec. Locsin on assisting in the search for the missing pilot

Foreign Affairs Secretary Teodoro Locsin Jr sought assistance from the US via Twitter on August 11 on the search for a plane and student pilot who had gone missing for 2 weeks in Aurora (Source: Rappler).

2018: USS Mustin helps Filipino fishermen in distress

On June 26, USS Mustin (DDG 89) rendered assistance to 2 distressed mariners whose fishing boat had suffered an engine malfunction, rendering the vessel inoperable. Mustin was conducting a routine patrol in the vicinity of the Philippines when watch standers sighted a fishing vessel with 2 Filipino fishermen onboard frantically waving.

After pulling alongside and communicating with the fishermen in Tagalog, it was determined the fishing vessel had engine trouble and was unable to stay with their fellow fishermen or return to shore. The 2 fishermen had water onboard, but no food; and were unable to communicate with the local Coast Guard. The Mustin crew provided immediate assistance. They contacted a nearby fishing vessel to relay the situation, then deployed their Rigid Hull Inflatable Boat (RHIB), and towed the adrift fishing vessel to rejoin their fellow fishermen (Source: US Embassy).

2018: Kamandag 2 humanitarian assistance activities

US, Japanese, and Philippine forces participated in humanitarian and civic assistance projects, which includes the renovation of a high school and 2 daycare centers in Cavite, as part of exercise Kamandag 2. They also taught hundreds of local residence about lifesaving skills, disease prevention, and dental hygiene (Source: US Embassy).

2017: US military assistance during the Marawi siege

The US military provided technical assistance to Philippine forces during the Marawi siege (Source: Inquirer.net).

2017: Balikatan 33 humanitarian assistance activities

As part of the 33rd Balikatan Exercises, US and Philippine service members practiced ship to shore movement of military personnel and equipment, air operations, and aid distribution to bolster disaster response capabilities. They also constructed new classrooms and community buildings and renovated existing structures in Capiz, Leyte, and Eastern Samar, and supplied communities in Luzon and Central Visayas with over \$400,000 of aid and emergency readiness equipment (Source: US Embassy).



A girl from Bogu City finishes her dental treatment in Northern Cebu Province, Philippines. Photo credit: US Air Force.

2017: PACANGEL 17 humanitarian assistance activities

The US and Philippine forces worked together to conduct humanitarian assistance engagements as part of Pacific Angel 2017 (PACANGEL 17). They partnered with local NGOs and

other multilateral international participants to train together by providing medical, dental, optometrical, and engineering assistance, and conducting subject matter exchanges in Bogu City and San Remigio, Northern Cebu. They also partnered with local schools and health clinics to repair and update infrastructure (Source: [US Embassy](#)).

2015: USNS Mercy humanitarian assistance activities

During the visit of the hospital ship USNS Mercy, engineers from the US Navy, US Air Force, the **Armed Forces of the Philippines (AFP)** and the Japan Self Defense Force built a school building from the ground up. In addition, they built a health center and refurbished 3 school buildings damaged during Typhoon Yolanda in 2013 (Source: US Pacific Fleet).

2015: US assistance during the Mamasapano Operations

At the request of the AFP, the US service members serving in the JSOTF-P (Joint Special Operations Task Force-Philippines) responded to assist in evacuation of dead and wounded after a firefight between the Philippine military and high value targets in Mamasapano, Maguindanao (Source: [MindaNews](#)).

2013: Typhoon Haiyan (Yolanda)



More than 670 Tacloban residents are evacuated on board a C-17 Globemaster III following Super Typhoon Haiyan. The C-17 was immediately deployed to Clark Air Base from Hawaii in support of Operation Damayan humanitarian assistance and disaster relief effort. In addition to evacuation efforts, the C-17 also delivered more than 100,000 pounds of cargo. (Photo credit: US Air Force)

US military response efforts comprised more than 13,400 military personnel, 66 aircraft, and 12 naval vessels that delivered over 2,495 tons of relief supplies and evacuated more than 21,000 people. More than 1,300 flights were completed in support of the relief effort, delivering goods and services to approximately 450 sites (Source: NDU).

DOD funding: \$34,500,000 (Source: USAID). The aircraft carrier USS George Washington and support vessels arrived in the Philippines on November 14 to give humanitarian assistance efforts in response to Typhoon Haiyan (Source: US Navy).

When US Sailors and Marines were dispatched to the central region of the Philippines in support of the Humanitarian Assistance-Disaster Relief mission **“Operation Damayan,”** Navy Recruiting District San Antonio recruiters answered the call from Nov. 20-27 with a donation drive to support those affected (Source: US Navy).



An MH-60S Sea Hawk helicopter from the Island Knights of Helicopter Sea Combat Squadron (HSC) 25 delivers supplies onto the flight deck of the aircraft carrier USS George Washington (CVN 73) during a replenishment-at-sea with the Military Sealift Command dry cargo and ammunition ship USNS Charles Drew (T-AKE 10) in support of Operation Damayan. The George Washington Carrier Strike Group supported the 3rd Marine Expeditionary Brigade to assist the Philippine government in response to the aftermath of the Super Typhoon Haiyan in the the Philippines. (Photo credit: US Navy)

2013: US military assistance during the Bohol earthquake

A US Marine Corps water purification unit, currently operated by the AFP engineers in Sagbayan, Bohol, produced 346,000 liters of free water for Filipinos affected by the earthquake. Another purification unit was being operated in Loon, a town only accessible via waterways (Source: US Embassy Facebook page).

2012: US military assistance during the 7.6 magnitude earthquake in Samar

Steaming toward its home port of San Diego after the 4-month Pacific Partnership 2012 mission, the crew aboard USNS Mercy watched the situation in the Philippines as a 7.6-magnitude earthquake struck, and made themselves ready to respond if called upon, the mission commander reported. Meanwhile, Navy Capt. James Morgan expressed confidence that disaster-relief training between the Pacific Partnership crew and the Philippine government and military during Mercy’s visit will pay off in improved response capabilities. (Seen in DoD)

2012: US military assistance during Typhoon Bopha (Pablo)

On December 16, the US Department of Defense (DoD) completed its final airlift of emergency relief commodities from Manila to Davao City. Between December 9-16, DoD in coordination with USAID/OFDA and the AFP, transported approximately 14,700 family food packs, 30 MT of rice, 94 MT of high-energy

biscuits, 3,400 pieces of plastic sheeting, 80 collapsible water containers, and various relief commodities.

In total, DoD delivered 756,800 pounds of humanitarian items, which were primarily provided by the Philippine government. Some relief items reached typhoon-affected coastal areas within one day of being airlifted from Manila to Davao City. Additionally, DoD flew 131 flight hours in support of search-and-rescue operations (Source: USAID).

DOD funding: \$570,803. 2 C-130 airplanes transported 14,700 family food packs, 500 hygiene kits, and 40 generators to Davao City; 3 water purification systems were also sent for access to safe drinking water, while personnel from the US Joint Special Operations Task Force–Philippines assisted the AFP in relief efforts in Mindanao (Source: Marine Corps Installations Pacific).

The US offered its air assets to the Philippine government to help fast track the transport of food and non-food items to help displaced residents in the typhoon-ravaged communities in Mindanao (Source: The Philippine Star).

2010: US military assistance during Typhoon Megi (Juan)

DoD provided 4 aircrafts for aerial assessments and transport of personnel and supplies. Additional assets from the Amphibious Landing Exercise remained on stand-by for use following the damage assessments (Source: USAID).

2009: US military assistance during Typhoons Ketsana (Ondoy), Parma (Pepeng), and Mirinae (Santi)

In the early stage of disaster response, DoD Pacific Command provided equipment, transport, and logistics support, 10 helicopters, and 6 Zodiac boats for search-and-rescue.



US Air Force and Marine helicopters deliver sacks of supplies to Real City, Philippines, during typhoon relief operations. About 600 US servicemembers provided humanitarian assistance and disaster relief to residents of Quezon Province where widespread flooding displaced about 168,000 people and left more than 1,400 dead or missing. (Photo Credit: US Air Force)

Between October 2-13, DoD assistance had a delivery flight of emergency relief supplies to Batanes, and transport of food and relief supplies to affected areas by road and helicopter. DoD medical teams screened 8,850 medical patients and 357 dental patients. DoD flights transported 262 passengers and moved 114,880 lbs of cargo. DoD engineers conducted 12 assessments, removed 1,385 cubic meters of debris, and cleared 2,650 meters of road (Source: USAID).

DOD funding: \$827,581 (Emergency Relief Supplies, Logistics and Transportation). American troops helped the Philippine military’s clean-up efforts by sending heavy equipment, including bulldozers, scoop loaders, trucks, and hummer vehicles (Source: ABS-CBN News).

The US military mobilized disaster relief operations across the Pacific in response to a series of tsunamis, earthquakes and severe storms that had devastated the region, the top US commander in Asia said. US Pacific Command Chief Admiral Timothy Keating told reporters, "some significant disaster relief operations are under way" in American Samoa, the Philippines and Indonesia. Two amphibious ships, USS Harpers Ferry and USS Tortuga, were off the coast of Manila with hundreds of US marines onboard ready to provide medical aid and other help if needed (Source: Philippine Daily Inquirer).

2009: US military assistance during Typhoon Parma (Pepeng)

10 CH-46 helicopters, 18 combat raiding reconnaissance craft, 3 seven-ton trucks, and 2 dump trucks from the US were used to transport rescue equipment from Metro Manila to Northern Luzon. The USS Harpers Ferry sailed to Lingayan Bay in Pangasinan for humanitarian work (Source: The Philippine Star).

US troops holding military exercises nearby sent a C130 transport plane and 3 Chinook helicopters to help bring food and medicines to Baguio City in mountainous Benguet province, 250 kms (155 miles) north of the capital, and nearby areas cut-off by landslides (Source: ABS-CBN News).

The USS Denver Amphibious Ready Group (ARG) sent 2 ships to help the Philippine nation recover from Tropical Storm Ketsana and cope with the approaching Typhoon Parma. USS Tortuga (LSD 49), USS Harpers Ferry (LSD 46), and their embarked Marines conducted humanitarian assistance operations on Oct. 2 in Metro-Manila. The Marine air combat element on the 2 ships includes 10 CH-46E "Sea Knight" helicopters (Source: US Navy).

2008: US military assistance during Typhoon Fengshen (Frank)



RAdm James P. Wisecup, shakes hands with DOE Secretary Angelo T. Reyes, upon arrival in Iloilo of The Ronald Reagan Carrier Strike Group (RRCSG) and the Military Sealift Command rescue and salvage ship USS Safeguard (T-ARS 50) after typhoon Fengshen. The Military Sealift Command container & roll-on/roll-off ship USNS GYSGT Fred W. Stockham (T-AK 3017), a P-3C Orion aircraft and nine explosive ordnance disposal divers were already on station. The RRCSG provided humanitarian assistance and disaster relief to victims of the typhoon Fengshen. (Photo credit: US Navy)

7 US Navy Seahawk helicopters from USS Ronald Reagan, USS Howard and USS Thach have been working around the clock with the AFP, NDCC, and provincial government leaders to transport and deliver potable water and food supplies to the hardest hit areas in the Visayan region. US military engineering teams had been working also with their Philippine counterparts to restore electrical power at major hospitals in the Iloilo region (Source: The Philippine Star).

USS Ronald Reagan and other US Navy ships arrived on

station near the Philippine island of Panay on June 25 to join the humanitarian assistance mission being led by AFP in the wake of damage caused by Typhoon Fengshen (Source: US Navy).

The aircraft carrier USS Ronald Reagan (CVN 76) departed the Sulu Sea and the waters around Panay island on July 3, after assisting the Philippine government's humanitarian relief operation (Source: US Navy).

2006: US military assistance during Typhoon Durian (Reming)

Sailors from Naval Construction Battalion 7, Amphibious Construction Battalion 1, and Helicopter Mine Countermeasures Squadron 14, renovated a large bath and shower facility at a Typhoon Evacuation Center in Guinobatan on June 21 (Source: US Navy).

1998: Typhoon Juan

US Military humanitarian assistance included reconnaissance flight, distribution of relief goods and assessment of the area, plus air hub delivery (Source: US Embassy Archives).



Philippine Marines and villagers from the nearby town of Tiptipon pose with U.S. Marines and Sailors assigned to the 31st Marine Service Support Group (MSSG) before they depart the island. (Photo credit: US Navy)

DFA Sec. Locsin expressed grave concern should this action move forward. His comments should be reviewed, and thought be given to the future. DFA Sec Locsin expressed the following concerns: "The option for the Philippines to terminate the VFA is an exercise of sovereignty. The termination of the VFA may facilitate closer relations with non-traditional partners, such as, ideally, far-Russia – a power like the US, too far to meddle in our internal affairs without any acquisitive interest in our territory, yet strong and with a long enough reach to hit a common enemy in mutual defense."

In the matter of national defense, closer relations cannot ever encompass a military alliance with a near power because that is illogical, impractical, self-defeating, and an invitation to foreign aggression.

However, the VFA termination must be weighed in terms of the country's overall national interest. Here are 4 areas where the direct benefits derived from VFA are most manifest. Clearly, these are in respect of Philippine defense, military, and security arrangements.

1. The VFA ensures operability of other Philippines-US defense arrangements and modalities of cooperation.

Other PH-US agreements and modalities of defense and security operation may be rendered inoperative, despite remaining legally valid.

Some of these agreements and modalities of cooperation include the Mutual Defense Treaty (MDT), which the VFA serves. The Enhanced Cooperation Development Agreement, which gives substance to the commitments in the MDT. The Mutual Logistics Support Agreement and Mutual Defense Board-Security Engagement Board approved joint exercises on combatting traditional and non-traditional security threats, which is to say Islamic terrorists, with which we can never be at peace.

For the MDT, the VFA is the substance that makes it real and makes it work. EDCA, on the other hand, is hinged on VFA. There would essentially be no practical use for an EDCA in the absence of VFA, which is the legal framework for the presence of US military personnel in military exercises and actual military responses under the MDT. Without them, the MDT is just a piece of paper. There are contrary views to this.

2. The VFA allows the US to provide a total-package approach on defense articles that would be compatible with equipment, assets, and systems that are already in place.

There are again different views on this. But current military equipment, assets, and systems are largely patterned from and/or provided by the US. Through the years, the requirements for AFP modernization were addressed by the incremental procurement of defense articles that the Philippines has made after due diligence undertaken by relevant Philippine government agencies, specifically the Department of National Defense.

The dollar amount for security assistance security cooperation programs obtained from the U.S during 2016-2019 totals \$554.55 million. This includes \$267.75 million in foreign military financing for the procurement of defense articles for the same period. Under VFA, the Philippines is able to receive after-sales servicing maintenance packages that increase value and lifespan.

The US plans to spend over \$200 million in 2020-2021 providing aircraft, training, equipment, construction for the AFP, and more than \$45 million in FMF (Foreign Military Financing).

Without the VFA, the US Departments of State and Defense will be hard put to get funds, from the US Congress for FMF and other defense assistance programs, to the Philippines.

3. The VFA promotes interoperability between the Philippine forces and law enforcement agencies and their US counterparts.

Again, we will listen to contrary views but for now, the Mutual Defense Board-Security Engagement Board have approved joint activities between the militaries and law enforcement agencies of both countries through the years.

The termination of the VFA may impact the upcoming fiscal year 2020 activities in which the Philippine military and law enforcement agencies need to enhance their capabilities

in countering threats to national security. There are some 319 activities lined up for the year.

The absence of the VFA would result in a severe curtailment of defense engagements with the Philippines and the cancellation of cooperative defense activities in the Philippines as it provides the legal framework for the presence of US forces in the Philippines. The US will not operate without a VFA.

4. The VFA allows for the continued support for addressing non-traditional security threats.

Through VFA, US forces have been instrumental in assisting the Philippines to combat non-traditional security threats such as human trafficking, cyberattack, terrorism, and illegal narcotics through training, joint exercises, and exchange visits. The US has also provided support for humanitarian assistance and disaster response; and search and rescue operations.

Disaster response is more than humanitarian in purpose. The new military doctrine assumes that developments in warfare partake in destructiveness of natural calamities like typhoons and earthquakes. Thus, disaster response to natural or military inflicted calamities must be in the same scale.

No termination yet: DFA Sec. Locsin instead wants 'vigorous review' of VFA.

Foreign Affairs Secretary Teodoro Locsin Jr admits he and Defense Chief Delfin Lorenzana were not consulted before President Duterte announced his order to terminate the PH-US VFA.

With threats to scrap VFA, Pres. Duterte gambles Philippines' security. Duterte's latest outburst against the US isolates the country from its oldest ally, and sows uncertainty against the threat of any further Chinese aggression.

*"US assistance on counter-terrorism, especially on intelligence and capability-building, have proven to be vital. This support was crucial in enabling the Philippines security forces to prevail in the **Battle of Marawi** in 2017. Recently, the US DoD support has enabled continued **AFP** operations to degrade ISIS-East Asia-aligned militants in Southern Philippines as well as several successful operations to rescue British and Indonesian citizens taken hostage by the Abu-Sayyaf Group. Curtailment of DoD support resulting from a terminated VFA would diminish the **AFP's** immediate capabilities to degrade and deter terrorism and respond to terrorist emergencies."*

In addition to the potential loss of the benefits mentioned, there could be significant loss of support for US Aid programs as well as other NGO programs currently operating in the Philippines. That would have a great negative impact for the disadvantaged victims who desperately need it.

In my opinion, the two world leaders should look past their differences for the benefit of those who could be most significantly impacted by such a drastic decision.



Armed Forces of the Philippines Maj. Gen. Herminigildo Aquino, left, AFP Gen. Eduardo M. Año, the Honorable Ambassador Sung Y. Kim, Secretary Delfin N. Lorenzana, Under Secretary Ariel Y. Abadilla, AFP Lt. Gen. Oscar T. Lactao, and U.S. Marine Brig. Gen. Brian Cavanaugh stand "shoulder-to-shoulder" and shake hands during the Balikatan 2017 closing ceremony at Camp Aguinaldo, Quezon City, May 19, 2017. (Photo credit: US Air Force)



About the author: Timothy Muelder is a retired Facilities Manager of the US Department of State.



Dr. Tedros Adhanom Ghebreyesus, Director General, WHO. Photo Credit: World Health Organization.

IN FOCUS: THE WHO

by VAdm Emilio C Marayag Jr AFP(Ret)

The World Health Organization (WHO) is a specialized agency of the United Nations under the Economic and Social Council. Founded on 7-April-1948 its goal is to “ensure the attainment of all peoples of the highest possible level of health.” Its current mission is to “promote health, keep the world safe and serve the vulnerable.”

The WHO has 194 member states and 2 associate members and its headquarters is in Geneva, Switzerland. Each year its highest governing body, the World Health Assembly (WHA) consisting of the representatives of all the member states, meets to set the annual objectives and priorities and approve the budget and activities. The WHA also elects the head of the organization, the Director-General, every five years. The WHO Executive Board, meeting twice a year, implements the decisions and policies of the Assembly. The current Director-General is Dr. Tedros Adhanom Ghebreyesus, former health and later foreign minister of Ethiopia. He supervises the Secretariat, 6 regional offices (Africa, Western Pacific, Eastern Mediterranean, Southeast Asia, Europe and the Americas), 149 country offices, and some 8,500 personnel. During a health emergency, an extraordinary event that requires immediate international action, the Director-General receives advice and recommendations from the Emergency Committee before taking necessary action.

The organization's budget comes from the assessed contributions of the members and voluntary contributions from generous members, private foundations, and other donors. Interestingly the members' assessed contributions represent only 25% of its annual budget; hence, not all programs identified

by the organization are adequately supported because some donors choose specific health agenda to fund. The WHO's 2020-2021 budget is US\$4,840.4 million, up by US\$418.9 million from the previous year. The top three donors are the US, UK, and the Bill and Melinda Gates Foundation.

With limited resources, WHO entered into and maintains partnership and collaboration with a number of International Organizations and UN Agencies (UNICEF, UNHCR, WFP, etc.), Nongovernmental Organizations (International Medical Corps, International Council of Nurses, World Association for Disaster and Emergency Medicine, etc.), and Academic Institutions (Columbia University, John Hopkins University, Harvard Humanitarian Initiative). It also deals with Specialized Agencies (US Centers for Disease Control and Prevention, Public Health England, Public Health Canada, etc.), Donors (European Commission Humanitarian Aid Office, Department for International Development- UK Government, Office of Disaster Assistance- US), and Observers (Medicins Sans Frontières, International Committee of the Red Cross, The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, etc.).

Since inception, the organization has addressed several notable health programs to fulfill its goal and mission. In 1951 the WHO spearheaded the publication of the International Sanitary Regulations, later renamed in 1971 to International Health Regulations (IHR) and updated in 2005, to “prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risk and which avoid

necessary interference with international traffic and trade.” In June 2007 WHO issued Interim Guidelines entitled “Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases (ARDs) in health care” that provide non-pharmacological recommendations to prevent and control ARDs.

Through relentless campaigns in cooperation with the national health authorities of the members and other partners, WHO succeeded in increasing the human life expectancy from 48 years in 1955 to 69 years in 1985, and in reducing the infant mortality rate from 148 to less than 59 per 1,000 live births during the same period. Apart from focusing on the infant mortality rate the organization pursued the child survival and development revolution consisting of growth monitoring, oral rehydration, breastfeeding and immunization. In 1974, it embarked on massive immunization program against polio, measles, diphtheria, whooping cough, tetanus and tuberculosis. It had completely eradicated the smallpox disease worldwide in 1977, and the yellow fever epidemics in Brazil and Congo in 2017. It nearly wiped out polio (99%) and iodine deficiency disorder and continues to control the spread of tuberculosis, malaria, hepatitis, HIV/AIDS, SARS, MERS, Zika virus disease, Ebola virus disease, the swine flu H1N1 disease, and other diseases. WHO estimates that infectious diseases account for 13-15 million deaths per year.

In spite of these gargantuan efforts to address universal health care and wellbeing, WHO’s ability to monitor public health risks and respond to health emergencies is wanting.

It drew criticisms in the mishandling of 3 health emergencies: the 2003 SARS epidemic (origin: Guangdong, China), 2009 H1N1 swine flu pandemic (origin: Vera Cruz, Mexico), and the 2014 Ebola Virus Disease outbreak in West Africa (origin: Guinea). The West Africa’s Ebola outbreak is the first health emergency incident where the UN Security Council sent a UN Mission for Ebola Emergency Response. As a result of the Ebola outbreaks, several commissions including the WHO Ebola Interim Assessment Panel, Joint Harvard University-London School of Hygiene and Tropical Medicine Independent Panel Global Response to Ebola, US National Academy of Medicine Commission on the Global Health Risk Framework for the Future, and UN High Level Panel on Global Response to Health Crisis, scrutinized the organization’s capability. Four years earlier, 3 other independent panels reviewed the WHO actions on the H1N1 swine flu pandemic.

While these investigations found “no evidence of inappropriate conduct or undue influence,” the panels identified some common issues: (1) lack of an “emergency culture” in responding to crises; (2) bureaucratic inefficiency; (3) inadequate human and financial resources due to disproportional level of “voluntary contributions”; and (4) technical capacity and unhelpful competition between the WHO headquarters and the regional offices. They recommended the following: (1) increasing the members’ yearly payments; (2) refining its work priorities; (3) establishing a new Global Health Emergency Workforce (GHEW); (4) creating Health Emergency Contingency Fund (HECF); and (5) increasing the Secretariat’s transparency and accountability.

The organization took the recommendations seriously. It established the GHEW and HECF in 2016 and launched the World Health Emergency Program (WHEP) highlighting policy and human resource management changes. The WHEP is designed to ensure a 72-hour on-the-ground assessment after receiving official notification of “high threat pathogen” and to bring speed and predictability to emergency work using an “all-hazards approach,” enhancing collective action and integrating preparedness, readiness, response, and early recovery activities. The

GHEW and HECF, however, did not attract sufficient funding sources to make them fully responsive. Similarly, the amount of members’ annual contribution remains unchanged. The incumbent WHO Director-General assumed in 2017.

In just over 4 years after containing the Ebola epidemic in West Africa, a new infectious disease emerged: the corona virus disease of 2019 (COVID-19). Emanating from Wuhan, China the new viral disease of zoonotic origin attracted some local doctors’ attention in early December 2019 when some patients showed symptoms of pneumonia-like illness. Taiwan reportedly informed the WHO about this observation. Wuhan doctor Li Wenliang noted on 25-December-2019 the mysterious disease when a number of health care workers got infected, inferring human-to-human transmission. On 30-December-2019, he messaged some of his fellow doctors to wear a facemask to avoid contracting the disease. The following day, December 31, China informed the WHO about the disease. On 1-January-2020, China shut down Wuhan’s Huanan seafood wholesale market, the alleged source of the virus. China identified on 7-January-2020 the microbe as a new corona virus, SARS-CoV-2, but denied 3 days later the existence of an outbreak even as more patients were being admitted to hospitals. Technical experts from Hong Kong, Macao, and Taiwan visited Wuhan during January 13-14. Around this time, the US Centers for Disease Control and Prevention also requested China to send over an infectious disease team but never received a response.

On January 15, the WHO Director-General kowtowed to China’s line that there was no outbreak. From January 16 to 22, several countries including Thailand, US, Japan and South Korea reported confirmed cases of the viral disease. The WHO sent a team to Wuhan on January 20-21 to observe. The next day, the WHO Emergency Committee convened but deferred making recommendations. On January 23, China locked down Wuhan, with 300,000 persons beating the deadline, and nearby cities in the Hubei province.

Five days later, on January 27, the WHO Director-General, along with Western Pacific Regional Director Dr. Takeshi Kasai and WHO Health Emergency Program (WHEP) executive director Dr. Michael Ryan, traveled to Beijing and met with Chinese President Xi the following day. In this meeting, the former conveyed WHO’s appreciation for the latter’s action to contain the disease and suggested that WHO send a team of experts. President Xi agreed to form a joint mission. On January 29, the Director-General convened the Emergency Committee and declared a public health emergency of international concern (PHEIC) the next day, January 30. On the same day, the Philippines and India reported cases of infection. On January 31, US declared a public health



World Organizati

emergency within its borders that banned travelers from China while Russia, UK, Sweden and Spain reported new cases.

After the WHO's PHEIC declaration reports of new cases, and deaths started piling up. On February 1, China had 14,388 cases and 300 deaths. On February 2, the first COVID-19 death outside China occurred in the Philippines; China finished the 10-day construction project of a 1,000-bed hospital in Wuhan for COVID-19 patients. On February 3, China started clinical trial of an antiviral drug, Remdesivir, used in Ebola virus disease. Cruise ship "Diamond Princess" arrived in Japan and subjected the 3,711 passengers and crew, including 500 Filipino seafarers, to quarantine and conducted tests. On February 7, the WHO noted global disruption in the market for personal protective equipment (PPEs). Three days later, the WHO sent an advance team to China to have a workshop with China Center of Disease Control and

Prevention and visit several affected areas including Wuhan. On February 11, the UN activated its Crisis Management Team led by Dr. Michael Ryan of WHEP, and the WHO gave the official name of the disease as COVID-19.

During February 16-24 the joint WHO-China team, consisting of 25 members co-chaired by Dr Bruce Aylward and Dr Wannian Liang visited and interacted with a number of local government units and response teams, reviewed their official reports, and observed how authorities control and mitigate the spread of COVID-19. The Joint Report came out on February 28. The next day, WHO issued "no travel/trade restriction" guidance as "travel bans to affected areas or denial of entry to passengers coming from affected areas are usually not effective in preventing the importation of cases but may have a significant economic and social impact."

On March 1, the UN released some funds from its Central Contingency Response Fund to the WHO. On March 2, the worldwide total of confirmed COVID-19 cases was 9 times more in China. Given the rising number, the WHO estimated on March 3 that the health providers would need 89

million medical masks, 76 million examination gloves and 1.6 million goggles each month. By March 7, the number of cases reached 100,000 in 100 countries. On March 11, the WHO declared COVID-19 as a pandemic. The declaration prompted many states to close their borders and impose community quarantine. On March 19, the virus had infected another 100,000 and another 100,000 three days later. By March 24, the total cases rose to 400,000.

Noting that many countries have implemented community quarantine, the WHO on March 25 suggested 6 steps to follow during the period: (1) Expand, train and deploy health care workers (HCW); (2) Create a system to find all suspected case at community level; (3) Increase production and availability of testing; (4) Identify and equip facilities needed to treat and isolate patients; (5) Develop

plans on how to quarantine contacts; and (6) Focus the whole government on the suppression and control of the pandemic. It also announced on March 27 that 2 European countries, with 45 others participating, started clinical trials on 4 drugs to treat COVID-19.

On March 28, the COVID-19 infections reached 600,000 with almost 30,000 deaths. By April 2, the cases surpassed the 1 million mark while the number of deaths doubled in a week's time. Shortly thereafter, the Asian Development Bank revealed that the pandemic could impact on poverty eradication effort. On April 6, the WHO estimated that 90% of students globally, or 1.5 billion, are affected by the pandemic. In the next 2 days, it announced the creation of a Supply Chain Task Force to hasten the manufacture and distribution of lifesaving medical supplies, PPEs, and diagnostic test kits. On April 8, China lifted the lockdown in Wuhan and the Hubei province.

A hundred days after China informed the WHO of the virus on April 9, nearly 100,000 individuals had died from COVID-19. The WHO came up with an estimate of monthly PPE requirements: 10 million medical masks and gloves, 25 million N95 masks, gowns and face shields, and 2.5 million diagnostic tests. The number of cases and deaths remains unabated with the US leading all nations affected by the pandemic.

On April 14, US President Donald Trump announced that he is cutting off the country's contribution to the WHO for "mismanaging the response" on the pandemic. At the same time, Bill and Melinda Gates Foundation committed to increase its contributions to fund the development of diagnostics, therapeutics, and vaccines for the COVID-19. The next day, the WHO director general reported that the agency is assessing the effect of US withdrawal of financial support and will soon conduct a performance review. China, as expected, reacted negatively to the US decision.

As the pandemic continues to ravage the world, the WHO's plan to review its actions relative to COVID-19 is highly meritorious. It must begin by reviewing the recommendations advanced by the previous investigating panels on SARS, Ebola and swine flu H1N1. It must also look at its internal policies and procedures governing its Regional and Country Offices, GHEW, HCEF, WHEP, and the Emergency Committee.

But as events unfolded, the WHO's capability to detect, contain, and trace COVID-19 is far from achieving its goal, mission and priorities.

In addition, its decision-making process does not reflect an "emergency culture" crucially needed in safeguarding the world's health. The WHO manifests instead a "risk-averse, reactionary bureaucracy, and highly protective of the organization's reputation," which carries the presumption that "it's best to err on the side of caution."

Rather, an "emergency culture" requires taking steps against a graver risk that may bring in more deadly consequences. Without an "emergency culture," the scenario turns dire within a tighter timeframe, and at that point it becomes too late to prepare when the virus hits.

While the WHO's current mandate gives no power to enforce compliance to world health regulations, resolutions and conventions or to impose sanctions upon recalcitrant states, the WHO can use its persuasive power by virtue of its expert knowledge on health matters to influence the behavior of the world community and generate more contributions from the philanthropic individuals and groups to finance its noble programs, projects and activities. It should avoid consuming a "large proportion of its resource and credibility in political and ideological disputes that have detracted from its technical mission."

The forthcoming developments regarding the pandemic will determine the future of the WHO. 📌



Health ization



COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE), Johns Hopkins University

IMPACTS OF COVID-19 ON GLOBAL TRADE & TRANSPORT

by Vicky Viray Mendoza

The **Novel Coronavirus (CoVID-19)** infection was first reported on 31-Dec-2019. The virus originated from Wuhan, **China** and quickly spread to coastal cities, and internationally. The **South China Agricultural University** reports their discovery of a 99% genetic match between *CoVID-19* and a strain of the virus in **pangolins**. An earlier study published in *Nature* finds the probable origin of the virus with a 96% genetic match in *Rhinolophus bats*. The latest genome analysis on the *CoVID-19* origins suggests the two viruses combined in **civets** as the intermediary host of the merged virus that is able to infect humans. **China** has now finally banned wild animals as food. On 30-Jan-2020, the **WHO** declared the *CoVID-19* virus a "Public Health Emergency of International Concern."

As of 25-April-2020, 2,915,600 cases were reported, a 359-fold increase over 8,096 cases reported on 30-Jan-2020. It has now affected 210 countries; caused 203,042 deaths; despite 834,414 recoveries. As a percentage of total, 29% recovered; 64% are ill (of which 97% are mild; and 3% are serious or critically ill); and 7% died.

Port Safety

Some international shipping ports have imposed quarantine on vessels and crew arriving from countries with virus cases. A risk of quarantine may lead to reluctance by ship-owners to call at agreed ports where an agreed port call may lead to quarantine elsewhere, and where an agreed port has quarantined vessels. Owners should quarantine infected crewmembers until they recover, before repatriating.

Force Majeure and Off-Hire

Affected parties may increasingly invoke the "force majeure" (FM) provision as shield from legal damages to businesses affected by *CoVID-19*. An outbreak that escalates with direct implications on a

business operation like shut downs and delays could fall within the scope of an FM clause. Review FM provisions ensuring all requirements are complied with, with supporting documentary evidence. *CoVID-19* may hobble facilities in the whole supply chain, so prepare contingency mitigation plans. A vessel is considered off-hire for fire, "deficiency of men," breakdowns, damage, dry-docking, or "any other cause preventing the full working of the vessel." Thus, a delayed ship due to quarantine restrictions may be considered off-hire.

Floating Quarantine

Manufacturing shutdowns mean ships have no reason to call at ports. Shut downs may lead to lay-offs and bankruptcies. Some ships are stuck in docks waiting for quarantined workers to return. There are vessels marooned at seas as "floating quarantined zones" as some countries refuse ships from Chinese ports unless quarantined.

Air Transport

Up until the fourth week of February, the **WHO** still neither recommended travel nor trade restrictions despite raising the risk level to "very high at a global level," but some countries had already taken steps to implement 'No Travel' policies in light of the quickly spreading virus. **Singapore** and **U.S.** closed their borders to all who were in **China** during the Lunar New Year holidays, and **Vietnam** suspended new tourist visas to them. **British Airways** and **Air New Zealand** suspended direct flights to/from **China**. **Russia** stepped up travel restrictions. **Australia** activated its **pandemic** emergency plan, and banned flights to/from **Iran**. The **U.S.** banned flights to/from **Italy** and **South Korea**, while **Azerbaijan** and **UAE** closed borders with **Iran**. **Denmark** and **Canada** closed its borders to foreigners. **Libya** closed its air and ship ports. Global tourism is

Top 10 No. of Infections and Deaths by Country.

Source: Worldometer

Rank	Infections	Country	Deaths	Country
1	957,505	USA	54,160	USA
2	223,759	Spain	26,384	Italy
3	195,351	Italy	22,902	Spain
4	161,488	France	22,614	France
5	156,418	Germany	20,319	UK
6	148,377	UK	6,917	Belgium
7	107,773	Turkey	5,873	Germany
8	89,328	Iran	5,650	Iran
9	82,816	China	4,632	China
10	74,588	Russia	4,409	Netherlands

visually absent in cities that were once vibrant, but now ghostly. Six months straight of travel bans may force some airline companies to file for bankruptcy in order to restructure their debts.

Sea Transport

Idle container fleets are on record highs. Big shippers reduced the number of vessels on routes connecting **China** and **HK** with **India**, **Canada**, **U.S.** and West Africa. Carriers face difficulty in balancing container capacity and falling demand, as **China's** export volume plunged. The unprecedented scale of disruption forced carriers to blank 46% of capacity in the Asia-Europe trade, **Alphaliner** reports. The container, dry cargo, and cruise industries are severely hit. The oil tanker industry will float in the near term, but driven by supply of cheaper oil, not demand.

Trade

Markets are ravaged, too volatile to buy in bulk, awash with negatives in many stocks, and falling future commodities. The lack or absence of demand is reflected in oil prices, which crashed into a bear market. **BIMCO** reported almost no demand from **China** for seaborne commodities like coal, crude oil and iron ore despite a high need for these in **China** and Japan. Malaysia's iron ore Vale may close shop. Coal financing may be phased-out. But low oil prices reduce shipping costs.

Conclusion

These disruptions have significantly affected trade and transport resulting in a global supply chain crisis. **OECD** reports the global economy will suffer for years to come, due to no growth or negative growth in many economies, with the biggest economies falling into recession. *CoVID-19* serves as a reminder on the high risk of major single-country dealings for imports or exports. Getting the world back to business-as-usual may take longer. On 11-March, **WHO** finally declared *CoVID-19* a **Pandemic** when infections reached almost 120,000 people, killed over 4,000, and affected 115 countries with the risk of further global spread. On 16-March, all of **Luzon** was put on lock-down. Panic buying ensued. In January-February, the **Philippines** had only 3 cases, and 1 death. By 25-March, the infections had risen to 636 cases, and 38 deaths. By 25-April, the infections had jumped to 7,924 cases, and 494 deaths. The lock-down will likely be extended beyond May. The words "safe harbor" now carry a deeper meaning. A vaccine must be created quickly to eliminate this deadly virus for all of humanity to be safe again. ⚓

iSoftware

iSoftware Systems Technologies, Inc.

🌐 <https://issti.com>

☎ +63(2)8874-2006

✉ info@issti.com

📠 +63(2)8874-1522

CAD/CAE/CAM Systems for the Naval Architecture, Ship Design & Shipbuilding Industry

The image displays a collection of software logos used in the shipbuilding industry. The logos include Rhinoceros (design, model, present, analyze, realize...), Orca3D, Simerics (TECHNOLOGY BY DESIGN), EXPRESSMARINE (Structural Modeling plugin for Rhinoc3D), AUTODESK, MAXSURF (Integrated Naval Architecture & Ship Construction Software), ShipWeight, MOSES, NavCad, PropExpert, PropCad, and SHIPCONSTRUCTOR. The background is a technical drawing of a ship's hull, overlaid with a circular diagram representing the design process. The diagram has a central circle labeled 'FINAL DESIGN' and several concentric rings. Labels around the diagram include: OWNER'S REQUIREMENTS & PURPOSE, COST ESTIMATES, WEIGHT ESTIMATE, COMPLIANCE WITH DESIGN STANDARDS, EQUIPMENT LIST, PLUMBING, MECHANICAL, ELECTRICAL, ENGINE & POWERING, MASTS, SPARS, STANDING & RUNNING RIGGING, DECK LAYOUT, HULL & DECK CONSTRUCTION, HULL & DECK ENGINEERING, HYDROSTATICS & STABILITY, LINES PLAN, SAIL PLAN, GENERAL ARRANGEMENT, BASIC DIMENSIONS & DESIGN RATIOS, and COMPARISON DESIGNS.



COL. MARIANO G. ROBLES: UNSUNG HERO OF THE 10 BCT

by Ronnie B. Robles

Arduous Beginnings

Nicknamed "Tangkad," Col. Mariano G. Robles could easily be picked out in a crowd or even battlefield. But it was his sharp analytical mind and photographic memory that stood out even more than his 6'4" stature. His other nickname, "Long," was both a reference to his towering height and his unheard of ability to hit long-range targets with only one verifying shot.

Born on 16-May-1917 in Roxas, Capiz, Mariano Robles was the eldest of 14 children, and would spend his summers engaged in backbreaking labor to help support his family. His first job was at a Chinese grocery store where he would carry large bottles of wine on his shoulders, at age 10.



Early Military Aptitude

Not long after graduating at the top of his class in a vocational school, Mariano was drafted to undergo six months of military training, which he followed up with another six months in the officer Candidate Course. Robles, again, finished at the top of his class, composed of 71 draftees.

By July 1939, he was a commissioned Reserve Officer and, soon after, became a Battery Commander in the Artillery, responsible for training all officers at Fort Stotsenburg in Dau, Pampanga.

Mariano Robles saw action as a Captain in Bataan where he destroyed eight Japanese artillery batteries from his observation post

now the site of the famous cross-shaped monument for gallantry at Mt. Samat.

Artillery is a class of heavy-hitting long-ranged weapons that require special training and aptitude to wield, manage, and maintain. Used correctly, it can be a powerful tool that turns the tides of battles. Not just any ground infantry or reconnaissance personnel can operate a mortar or Howitzer.

As a Battery Commander and training officer, Robles became known for his exemplary skills in map reading, gunnery, and canons. His quick mental math and analysis of the terrain enabled him to accurately measure distances kilometers away using only his fingers for scale, and he could direct fire within a few seconds.

It was known among his men that he never fired more than twice before giving the order to "fire for effect." This was to avoid giving away his position.

Eluding the Death March

Capt. Robles refused to surrender to Japanese soldiers with the fall of Bataan. Instead, he took a small group of men and traversed the treacherous rolling hills surrounding Mt Natib. They traveled by night over rocky terrain, jumping over large crevasses in the dark.

During a lull in attacks from the Japanese, Mariano and his men traveled to the coast of Orani where they hired a small banca to take them to Bulacan. After a bout with dysentery and malaria, Mariano made it to Manila and avoided tragedy in the **Bataan Death March**. Eventually, Robles was able to board a boat back to his hometown in Panay Island.

Later that year, Capt. Robles joined the 6th Military District guerilla forces under Gen. Macario Peralta to engage the Japanese invading forces in Panay itself. Incidentally, it was Gen. Peralta who would later introduce Robles to his future wife, Rosalina Baldemor.

Robles then went on to head the artillery battery unit of the 10th Battalion Combat Team (10th BCT), which was assigned to patrols defending against the local communist guerilla movement known as the Hukbong Bayan Laban sa Hapón (The Nation's Army Against Japan) or simply "Huks."

Veteran Soldiers

Because of their guerilla warfare experience gained by fighting the Huks, the 10th BCT was the logical choice to be sent to the Korean War in 1950. It became the first Philippine Expeditionary Forces to Korea (PEFTOK) unit sent to Pusan (now Busan) at the southernmost tip of South Korea for training, and eventual combat.

"Poor as we are, this country is making a great sacrifice in sending you to Korea, but every peso invested in you is a sound investment for the perpetuation of our liberty and freedom." said President Elpidio Quirino to members of the 10th BCT during send off rites in Manila on 15-September-1950.

With 1,468 troops, PEFTOK was the 5th largest contingent to the United Nation's forces, and the only one from Asia.

What was meant to be an eight-week guerilla warfare training program in Pusan was fast tracked to 10 days. So impressed was US Eighth Army's assistant operations officer Col. Alex Lancaster that he boasted, *"Give me the Filipino combat team and I will fight anywhere above the 38th parallel!"*

Then 17-year-old war correspondent Benigno "Ninoy" Aquino Jr. became enamored with the 10th BCT and wrote several stories about the soldiers for the Manila Times.



Capt. Robles towers over his well-maintained jeep while posing for a photo with young journalist and future National Hero, Benigno "Ninoy" Aquino Jr.

Holding The Pusan Perimeter

Indeed, the UN constantly relied upon the 10th BCT forces. Apart from making its presence felt in countless skirmishes, the 10th BCT also figured in major battles including the Battle of Imjin River, Operation Tomahawk, and the month-long Battle of Heartbreak Ridge, which was a major battle featured in a major motion picture starring Clint Eastwood.



Capt. Mariano G. Robles receiving instructions from Gen. Douglas MacArthur, the Supreme Commander of the UN Forces, in Korea for Artillery Support in the mainline of resistance.

As for Capt. Robles himself, his presence was greatly felt during the Battle of Miudong-Singye during which the 10th BCT was tasked to clear and secure the town of Singye just above the North Korean border.

On 11-November-1950, the group was caught in an ambush by two battalions of the Peoples' Volunteer Army of China.

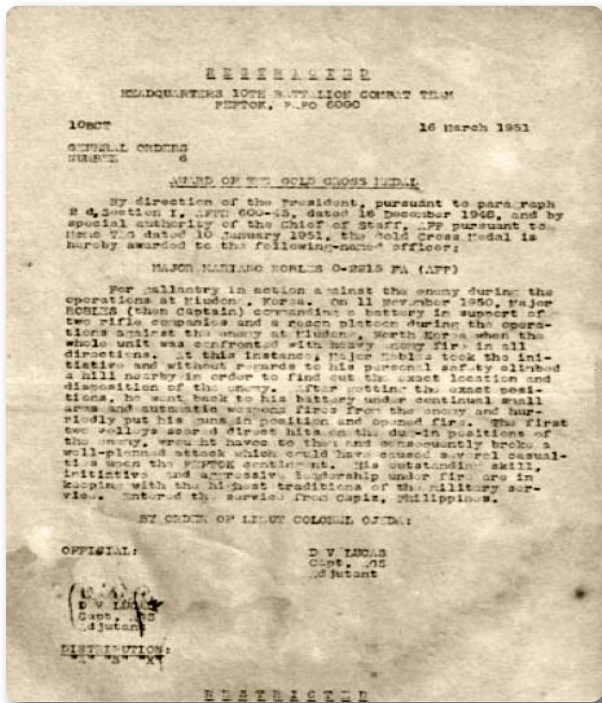
Despite risk of harm or death, Capt. Robles, on his own initiative, climbed a nearby hill under enemy fire in order to find out the exact location of the Chinese.

Still under fire from small arms and automatic weapons, Robles returned to his long-range guns and repositioned his howitzers and gave the command for the Filipino troops to stay in their foxholes as he rained artillery fire that flew over their heads to decimate the enemy forces beyond. Capt. Robles was subsequently awarded a Gold Cross by order of Lt. Col. Dionisio Ojeda.

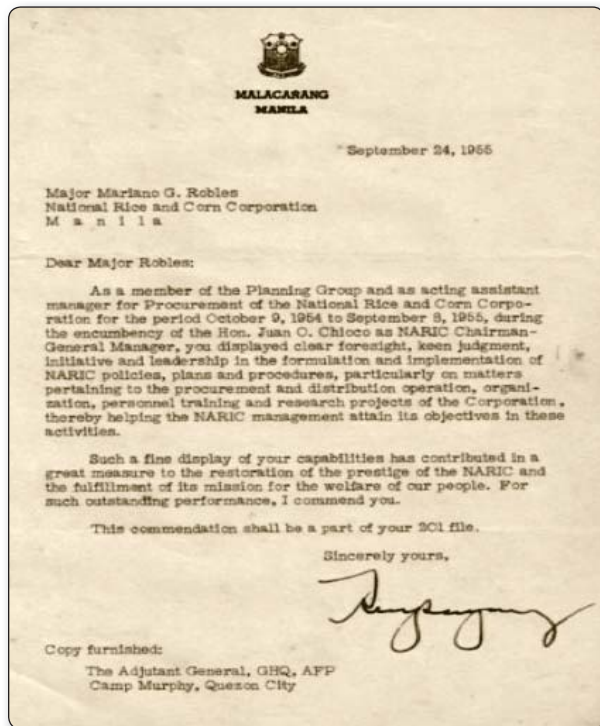
According to the award, "The first two volleys scored direct hits on the dug-in positions of the enemy, wrought havoc on them, and consequently broke a well-planned attack which could have caused several casualties upon the PEFTOK contingent."

"By dusk, the **Battle of Miudong-Singye** was over," wrote Fil V. Elefante for and article in the Philippine Graphic.

a fine display of your capabilities has contributed in a great measure to the restoration of the prestige of NARIC and the fulfillment of its mission for the welfare of our people."



Gold Cross Medal Awarded to Maj. Mariano G. Robles



Commendation for Maj. Mariano G. Robles signed by President Ramon Magsaysay

The 10th BCT was later sent to hold the frontlines beyond the 38th Parallel, deep into North Korean territory. The unit also figured heavily in the Battle of Yultong Ridge, during which it earned the title of "Stonewall of the UN." Victory of this battle is said to have turned the tide of the war.

On 23-October-1951, after a year of fighting, the 10th BCT returned to the Philippines to a Heroes welcome.

"Initiative and Leadership" for NARIC

In 1954, Robles, now a Major, became the Acting Assistant Manager for Procurement of the National Rice and Corn Corporation (NARIC) in its inaugural year. Maj. Robles impressed his superiors with his unconventional theories in stabilizing the supply of rice and corn, and in regulating their prices throughout the country.

During his one-year stint, he earned glowing commendations from his superior officer Col. Jacinto Gavino, and no less than President Ramon Magsaysay, who had incidentally taken command anti-Huk campaigns in 1950.

"...you displayed clear foresight, keen judgment, initiative and leadership in the facilitation and implementation of NARIC policies, plans and procedures, particularly on matters pertaining to the procurement and distribution operation, organization, personnel training and research projects of the Corporation, thereby helping the NARIC management attain its objectives in these activities. Such

Col. Robles was then stationed in Camp Murphy (now Camp Aguinaldo) as Executive Officer of Headquarters' Service Group until he retired with the rank of Colonel in 1961. Although the retired colonel went on to become a successful entrepreneur, he was also a staunch supporter of veterans' causes and rights until his passing on 10-July-1998.



Capt. Mariano G. Robles posing with his 10th BCT Howitzer

Entrepreneurial Success in the Private Sector

Upon retirement, Mariano and his wife, Rosalina, went into their own cottage industry ventures in hopes to provide their growing family with a better standard of living. At one point, they pooled their money and invested most of their earnings in a fishpond business in Samar. Sadly, a tidal wave devastated the area before they could see a return on their investment.

Despite this major setback, the Robleses moved back to Manila and founded Robles Metalcraft in 1964. In its current iteration, Robles Metal has branched out into Bluesteel Industries Inc, which caters to zero-VAT export clients, while Arrem Industries caters to the domestic burgeoning market. Their products include complex machinery enclosures, high-voltage control boxes, precision production line equipment, etc.



Left: Bluesteel Industries in Cubao, Right: Arrem Industries in Cabuyao

Bluesteel Industries Inc. operates from a 5,200 sqm (2,600 sqm plant) facility in Cubao, Quezon City, employing 100 factory workers and 30 office staff. Among its clients are P. IMES Corp, Citizen Machinery, and Kyowa Manufacturing, with end-users like, Intel, Komatsu, and LG Electronics.

The 3,000 sqm production facility of ARREM Industries Inc. is located at the Light Industry and Science Park I in Cabuyao, Laguna. Its clients have included Coca-Cola Bottlers Philippines, American Vending Machines, and Liwayway Marketing Corporation among many others.

Each facility has its own laser cutting, CNC punching, bending, and painting facilities while Bluesteel

Industries has recently acquired a laser welding machine.



Reference: Philippine Graphic (22-April-2013). The Forgotten Tale of the Philippine Expeditionary Forces to Korea.

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(+63) 917 635 1928

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Sugbu Chinese Heritage Museum Exhibit. (Photo credit: Philippine Information Agency)

THE SUGBU CHINESE HERITAGE MUSEUM

by Vicky Viray Mendoza

The Sugbu Chinese Heritage Museum Foundation, Inc. (SCHMFI) is a formal institution based in Cebu City. It was created with the main task of building the first Chinese-Cebuano museum to showcase centuries of collaboration between the Chinese and Filipino people. The Foundation was established on September 2010, inspired by reflections during a Jesuit Chinese-Filipino Lay Apostolate conference that pointed to the relevance and importance of the Chinese presence in Cebu. The idea to establish the Sugbu Chinese Heritage Center was conceived.

Bob D Gothong heads the SCHMFI Board of Trustees as Chairman, with **Elizabeth Gan-Go** as Vice-Chair. The Board includes Ambassador **Francisco L Benedicto**, Senior Advisor; **Ricardo Delfin A King**, Treasurer; **Jose R Soberano III**, Assistant Treasurer; and **Robert J Diño**, Secretary and Auditor; Engr. **Nepoleon G Co**; **Jaime L Sy**; Rev. Fr. **Ben Sim**, SJ; Engr. **Kenny Jay T Lee**; Mrs. **Marlinda Angbetic-Tan**; Rev. Fr. **Manuel A Uy**, SJ; Rev. Fr. **Jason K Dy**, SJ; and National Museum Director **Jeremy Barns**. The Sugbu Chinese Heritage Museum was established by the Foundation to share the history, heritage, and contributions of the Sugbu Chinese to Cebu in various fields.

Maritime trading was the main link between Cebu (Sugbu) and China. Sugbu means strong wave. Prior to the arrival of Spanish explorer **Miguel Lopez de Legazpi** in 1565, Cebu showed evidence of active trade relations with China and other Southeast Asian countries. Archeological excavations yielding Chinese trade pottery as well as early accounts like that from Venetian chronicler Antonio Pigafetta, who sailed with Ferdinand Magellan's crew, all attest to the fact that Cebu had a fairly flourishing trade prior to the Spanish colonization of the Philippines.

Sung Dynasty (960-1279) and Tang Dynasty (618-907) porcelain found in the Magallanes-Lapu-Lapu excavation sites highlight the importance of Cebu as a trading port with the Chinese at least 100 years before the Spaniards arrived. Early Ming vessels and other Chinese wares comprise 97% of total shards uncovered in Cebu City excavations. By 1590, Cebu participated in the Manila-Mexico Galleon Trade. (Source: Bruce L. Fenner, "Cebu Under the Spanish Flag, 1521-1896: An Economic and Social History," 1985. Cambridge University Press, August 2009.)



Photo Credit: ABS-CBN

Through exhibits, the museum would allow visitors to journey with the Sugbu Chinese, beginning with the 10th century pre-colonial Cebu, through the Sung and Ming Dynasties, Spanish and American regimes, up to the contemporary period. The museum aims to stimulate dialogue among peoples of diverse cultural backgrounds, and bring to the fore over 500 years of Chinese presence in Cebuano history, through vivid life narratives in innovative exhibitions, educational, and cultural programs.

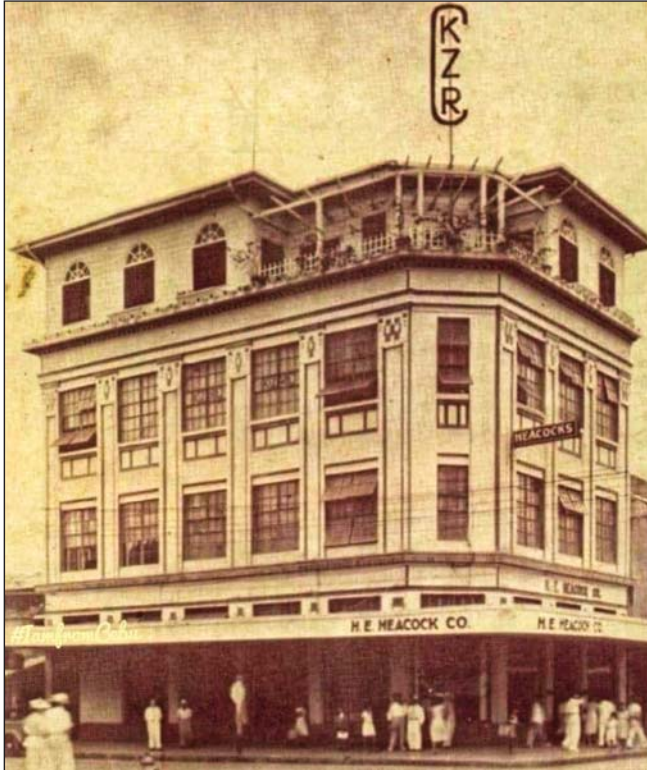


Photo Credit: I Am A Cebuano (Facebook)

The museum is based in the Gotiaoco Building located at the corner of M.C. Briones Street and P. Burgos Street, across the Cebu City Hall. This neoclassical structure was built in 1914 by **Manuel Gotianuy** to provide office spaces for the burgeoning shipping and trade businesses in the port area. He named the building in honor of his father **Don Pedro Gotiaoco** who came to Cebu in the late 1900s, and is also the forefather of the Gokongweis, Gotianuys, Gotianuns, and Gaisanos. The building is an important artifact as a tangible reminder of the rise of Cebu as a shipping and business center outside of Manila. Its tenants were pioneers in trade and commerce. It was declared a Heritage Site by the city Council of Cebu in December 2012.

The Gotiaoco Building was chosen among three other heritage buildings as the site for the museum because of its significance to the rise of Cebu as an entrepreneurial hub. **Manuel Gotianuy** leased the property from the Cebu Chamber of Commerce, which expired in 2013. His son, Atty. **Augusto Go**, turned over the property back to the Philippine National Government through the Department of Environment and Natural Resources (DENR). Through the facilitation of the National Museum of the Philippines, the DENR signed an agreement with the National Museum as Administrator of the property. In turn, a MOA was signed between the Subgu Chinese Heritage Foundation Inc. and the National Museum of the Philippines on 23-September-2013 to allow the use of the Gotiaoco Building as a museum for a period of 25 years.

The Gotiaoco Building was strategically located near the Cebu wharf. In 1904, a 30-foot temporary timber wharf was built in response to the growing economy of Cebu. Between 1904 and 1913, the port was further improved into a concrete masonry dock and bulkhead about 2600 feet long. Land reclamation of 5.26 hectares was undertaken to decongest the business area. Vessels of 23 draft feet could dock on the port. (Source: Bureau of Public Works, Quarterly Bulletin, 1916).



Photo Credit: Philippine Information Agency

The Gotiaoco Building sustained heavy damage during World War II. After the war ended in 1945, the building was reconstructed through the Rehabilitation Finance Corporation that was created under the presidency of **Manuel Roxas**. These businesses were located in the building: RFC; Bryan & Landon Electric Company (predecessor of the Visayan Electric Company); Cebu Telephone Company; Gotiaoco Hermanos Inc; Insular Navigation Company; Visayan Surety and Insurance Corporation; Pastrano, Unchuan & Co; Joaquin Castro & Co; Viuda de Hijos de F Escaño; Diao Contino Mertegui y Aboitiz; and La Naviera Filipina (Escaño & Aboitiz). Shipping companies included Macleod & Company; NT Deen & Co and Arlington Pond (which later became Pond & Deen Navigation Company in 1929); Tañon Navigation Inc. in 1933; and Insular Navigation Company.

After World War II, shipping companies like Royal Lines Inc. and the iconic William Shipping Lines of William Chongbian came and held office in Cebu City. In the 1970s, The First Insular Bank of Cebu occupied the ground floor, and later changed its name to Insular Bank of Asia and America. This later merged with the Philippine Commercial and International Bank, and stayed until 2005. Government agencies also occupied the Gotiaoco Building, such as: regional offices of the Department of Labor and Employment (DOLE); Department of Environment and Natural Resources – Provincial Environment and Natural Resources Office (DENR-PENRO); and Commission on Audit (COA), to name a few.

The SCHM aims to showcase success stories of Sugbu Chinese families as well as promote advocacies carried by influential Chinese entrepreneurs in the country in the fields of education, trade and commerce, medicine, culture and heritage, and values-related fields in religion, cuisine, science, arts, and politics.

The Foundation is duly registered as a not-for-profit organization with the Security and Exchange Commission (SEC). All donations to the museum are tax-deductible through our Philippine Council for Non-Governmental Organization (NGO) Certification Accreditation or PCNC. It is a private, voluntary, non-stock, non-profit corporation that acts as a service organization upon which its main function is

to certify non-profit organizations that meet established minimum criteria for financial management and accountability in the service to under-privileged Filipinos (<https://www.pcnc.com.ph/>)



Photo Credit: Philippine Information Agency

The Gotiaoco Building, which is over a century old, was carefully prepared for adaptive reuse. The restoration phase started in July 2016 and took more than 29 months. The work was guided by conservation principles with high priority given to preserving structural elements that were historically significant.

It took more than a year to raise funds to start the restoration phase to rehabilitate the structure and create the museum. Naming rights for exhibit spaces and halls in the museum will allow sponsors and benefactors to highlight their support to the cause of the Foundation and the Museum. Its trustees are strong advocates of the Sugbu Chinese heritage, and continue to campaign to achieve their mission. ⚓

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.



THE PROBLEMATIC 'WEST PHILIPPINE SEA'

by Julius A. Yano, JD, LL.M.

All views expressed herein are the contributor's and do not represent the opinions of any entity whatsoever with which he has been, is now, or will be affiliated.

Through Administrative Order (AO) No. 29 series of 2012 the Philippine State named the sea areas west of the Philippine archipelago as the 'West Philippine Sea'. It is important to clarify what these areas are.

If one reads the whereas clauses of the AO the idea is that the name 'West Philippine Sea' refers to the Philippines' Exclusive Economic Zone ('EEZ') on the west of the Philippine archipelago –

WHEREAS, Presidential Decree No. 1599 (1978) established the **Exclusive Economic Zone (EEZ)** of the Philippines extending to a distance of two hundred nautical miles from the baselines of the Philippine archipelago;

[...]

WHEREAS, the Philippines exercises **sovereign rights** under the principles of international law, including the 1982 United Nations Convention on the Law of the Sea (UNCLOS), to explore and exploit, conserve and manage the natural resources, whether living or non-living, both renewable and non-renewable, of the sea-bed, including the subsoil and the adjacent waters, and to conduct other activities for the economic exploitation and exploration of its maritime domain, such as the production of energy from the water, currents and winds;

WHEREAS, the Philippines exercises **sovereign jurisdiction in its EEZ** with regard to the establishment and use of artificial islands, installations and structures; marine scientific research; protection and preservation of the marine environment; and other rights and duties provided for in UNCLOS; and (Emphasis and underscoring supplied)

Thus understood, the 'West Philippine Sea' is to be used only to refer to the area 200 nautical miles (nm) from the archipelagic baselines of the Philippines. Read in this wise, features such as Thitu (Pag-Asa) Island, which 'lies 227.4 nautical miles from the archipelagic baseline of the Philippine island of Palawan', cannot be properly deemed part of the 'West Philippine Sea'.

However, if one continues to read the subsequent provision of the AO it would appear that 'West Philippine Sea' is not limited to the EEZ –

Section 1. *The maritime areas on the western side of the Philippine archipelago are hereby named as the West Philippine Sea. These areas include the Luzon Sea as well as the waters around, within and adjacent to the Kalayaan Island Group*

and Bajo De Masinloc, also known as Scarborough Shoal.
(Emphasis and underscoring supplied)

As we know from the South China Sea Arbitration Case between the Republic of the Philippines and the People's Republic of China, the features in the Spratly Island Group or Kalayaan Island Group ('KIG'), as well as Scarborough Shoal or Bajo de Masinloc, are at best rocks, which could generate no more than a 12nm territorial sea. Therefore, per Section 1 of the AO 'West Philippine Sea' also refers to the territorial sea areas of the KIG which includes Thitu (Pag-Asa) Island.

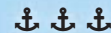
To the mind of the contributor, the AO authorising the use of the name 'West Philippine Sea' is problematic; it is not advisable that the name be used to refer to different maritime zones, i.e. the EEZ and the territorial sea. The reason is simple: the legal statuses of these two zones are different.

Thus, the contributor inquired from government office X as to the meaning of the 'West Philippine Sea'. The clarification given was that it only refers to the Philippines' EEZ on the western part of the Philippine archipelago. However, upon inquiry from government office Y, the contributor was told that 'West Philippine Sea' refers not only to the Philippines' EEZ but also to the maritime areas, i.e. territorial sea, of the features of the KIG.

It is unfortunate that differing views have been put forth by the government. To be sure and fair, both can actually be correct. Government office X is correct in the sense that it is against using a single reference for different maritime zones. Government office Y is likewise correct in that it merely adheres to the text of the AO.

The problem that should be realised is that the use of the name 'West Philippine Sea' effectively merges and conflates the different maritime zones on the western side of the Philippines. Thus, an incident at Reed (Recto) Bank which is within the Philippines' EEZ and an incident in the territorial sea of Thitu (Pag-asa) Island would be reported as both West Philippine Sea incidents, as though the legal status of these maritime areas were the same. More importantly, such practice may result in difficulties in being able to appreciate the fundamental differences between sovereignty on the one hand and sovereign rights and jurisdiction on the other hand in reference to the Philippines' maritime entitlements in the waters off the western part of the archipelago.

The Philippine State has (a claim of) sovereignty over the features of the KIG and over Bajo de Masinloc. Sovereignty is different from sovereign rights, which are the Philippines' maritime entitlement in its EEZ. Properly understanding the name 'West Philippine Sea' is not merely being technical or legalistic but it is being mindful of the different maritime zones of the law of the sea and the nuances of their legal status. For the sake of good order, it is humbly and respectfully submitted that the 'West Philippine Sea' should be reviewed.



About the author: Atty. Julius Yano received his academic and professional training in international maritime law in Europe. He is a member of the Institute for Maritime and Ocean Affairs.



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ZERO-EMISSION SHIPPING: WHAT'S IN IT FOR DEVELOPING COUNTRIES?

by The World Bank Group

Emissions from ships are heavy contributors to global climate change and local air pollution, putting pressure on the environment and humans. A new generation of bunker fuels, called **zero-emission fuels**, can help to address this challenge while also creating a major business opportunity in developing countries. Currently, ships contribute about 2-3% of all global greenhouse (GHG) emissions —more than Germany's entire annual emissions and thus making shipping the **6th** largest emitter worldwide. Over the next 30 years, international maritime transport seeks to reduce its GHG emissions by at least 50%. Full decarbonization, meaning zero-emission vessels across all oceans, is to be reached as quickly as possible within this century. This is what the **International Maritime Organization (IMO)** has committed to in its initial strategy on reduction of **GHG** emissions from ships. Ships are also responsible for a significant share of air pollution. About 15% of premature mortality associated with air pollution from transportation is attributed to shipping. Air pollution from shipping causes roughly 60,000 premature deaths annually —primarily in China, Japan, and India, especially in coastal and urban areas near major ports.

The need for and action towards zero-emission shipping fuels. The reason for this double challenge —**GHG** emissions and air pollution— is the fuel that ships are primarily using: heavy fuel oil (HFO). **HFO** is a high-carbon, high-sulphur residual substance left over from the process of refining crude oil after the lighter fractions such as kerosene, jet fuel, gasoline and highway diesel have been removed. It looks like what most people know as “tar” and is so thick and viscous at room temperature that it needs to be heated before it can flow well enough to be properly combusted in a shipping engine. While increased energy efficiency efforts and recent regulation such as **IMO2020** (a new sulphur cap for **HFO**) have an important role to play, those alone will be insufficient to reach the 50% **GHG** reduction target by 2050. The only way this can be achieved is by a rapid energy transition away from fossil fuels towards a new generation of alternative fuels with zero emissions. **Getting to Zero Coalition**, an alliance of more than 90 companies within the maritime industry, supported by intergovernmental organizations such as the **World Bank**, is pursuing the vision of developing and deploying the first commercially viable deep sea zero-emission vessels by 2030. **Maersk**, the world's largest container shipping company and a leading member of the **Getting to Zero Coalition**, has announced the company's climate plan to make its entire fleet completely carbon-neutral by 2050. Countries are also supporting the vision of zero-emission shipping. The UK requires all its ships ordered from 2025 have zero-emission technologies onboard. A group of 7 Pacific islands: Fiji, Marshall Islands, Kiribati, Samoa, the Solomon Islands, Tuvalu, and Vanuatu, started the **Pacific Blue Shipping Partnership**. These islands have partnered up to fully decarbonize shipping in the Pacific Ocean by the middle of the century. Future zero-emission vessels could run on a variety of new fuels: **hydrogen or ammonia** used in combustion engines (for long-distance shipping), and **electric batteries or hydrogen-fuel cells** (for shorter distances). To maximize environmental benefits, it will be of

utmost importance that the new fuels themselves be produced using renewable energy such as solar, wind or hydropower.

A major business opportunity for developing countries. A recent analysis by the **Getting to Zero Coalition** published at the **World Economic Forum 2020** in Davos estimates that between \$1 trillion-\$1.4 trillion of investments will be needed from 2030 until 2050 to at least halve the shipping sector's emissions until the middle of the century. \$1.4-\$1.9 trillion (or \$400-\$500 million more) may be required to fully decarbonize shipping in the same time frame. While this may sound like a big financial challenge, annual global energy investments in 2018 amounted to more than \$1.8 trillion. About 87% of the total investments required for zero-emission shipping may be linked to land-based infrastructure such as hydrogen production, ammonia synthesis, and storage/distribution. Only 13% will go toward building new vessels or retrofitting existing ones. This presents a major business opportunity for the World Bank's client countries. Developing countries are major players in international shipping. In 2016, developing countries accounted for more than 60% of global outbound/exports loaded, more than 40% of vessel ownership, and about 80% of vessel registration. Among the world's 20 largest ports, 15 are currently located in developing countries, many of which have the potential to take advantage of host countries' abundant renewable energy sources.

The business case for zero-emission fuel production in developing countries. Producing and supplying zero-emission fuels to a global fleet offers a major opportunity for the economic development of these countries. Initial studies by the Environmental Defense Fund have looked into these opportunities using Morocco and Chile as case studies. More country case studies are to follow. Supported by PROBLUE, a multi-donor trust fund supporting the blue economy, the World Bank has started to assess its client countries' potential for becoming zero-emission fuel hubs on a global level. Even when a country may not be large enough to become a global player in the zero-emission fuel supply chain, the economic opportunity still holds. Take the example of Small Island Developing States (SIDS), where shipping ensures vital connectivity between the islands and the rest of the world. SIDS spend a large proportion of GDP on fossil fuel imports, mainly oil. In Fiji, these oil imports account for 14%-17% of GDP annually. As the sector transitions to the next generation of bunker fuels, replacing some of these imports with self-produced, clean transport fuels could free up significant public resources in the long run. The emissions produced by ships that carry global trade have been harmful to our climate and to human health. However, with new initiatives set in motion by the member states of the IMO and the private sector, there is a momentum to finally decarbonize the sector. The new generation of zero-emission fuels for maritime transport will not only benefit the global fight against climate change and the local need for better air quality, but they also offer a \$1+ trillion investment opportunity in developing countries. So, let's bring everyone onboard to seize it!



MOBILE PROTECTED AREAS ARE NEEDED TO PROTECT BIODIVERSITY IN THE HIGH SEAS

by University of Washington Bothell



A humpback whale's tail is seen off the coast of Washington state. Humpback whales migrate from warmer breeding grounds to colder, productive feeding grounds. Photo Credit: Johannah Maxwell/University of Washington Bothell

World leaders are currently updating the laws for international waters that apply to most of the world's ocean environment. This provides a unique opportunity, marine scientists argue this week, to introduce new techniques that allow protected zones to shift as species move under climate change. In an article in the 17-January-2020 issue of *Science*, researchers make the case for the United Nations to include mobile marine protected areas (MPAs) in the **U.N. Convention on the Law of the Sea (UNCLOS)**, now being updated since its last signing in 1982.

"Animals obviously don't stay in one place -- a lot of them use very large areas of the ocean, and those areas can move in time and space," said lead author Sara Maxwell, an assistant professor at the University of Washington Bothell who studies migratory marine animals. *"As climate change happens, if we make boundaries that are static in place and time, chances are that the animals we are trying to protect will be gone from those places."*

Former President Barack Obama, former President George W. Bush, and actor Leonardo DiCaprio are well-known proponents of protecting large regions of the ocean environment in MPAs. But even the huge swaths of protected ocean aren't enough to conserve highly mobile species like sea turtles, whales, sharks and seabirds that can travel across entire oceans in search of food and breeding grounds.

Climate change will further complicate things, the authors argue. As species, habitats and ecological communities shift, established protected areas might no longer work. "In the context of climate change, the way that we have been applying things in the past is not likely to work into the future," Maxwell said. "Species will increasingly need protection, and we will need to apply more dynamic and innovative tools to be effective."

Maxwell's research uses tags that transmit to satellites to track sea turtles, seabirds and other marine species' movements from space -- a new technology that is just beginning to be applied to real-time protection of marine species. Only in the past 10 to 15 years, she said, have countries started to incorporate such tools into management, combining satellite tags on animals, GPS tracking of ships and ocean modeling to create rules that adjust to the situation, a technique

known as dynamic management. "Until we could implement this type of management and show that it's feasible, people didn't quite believe that it was possible," Maxwell said. "But as we know more about where animals are going in space and time, we can use that information to better protect them." Several nations now use dynamic management strategies within the 200 nautical miles from shore that they fish exclusively, Maxwell said. A few countries also use dynamic management strategies farther from shore, for boats registered to their countries.

The **TurtleWatch** Program, for instance, asks **U.S.** fishing boats to voluntarily avoid waters north of Hawaii at the surface temperatures preferred by loggerhead and leatherback sea turtles, to reduce the unintended capture of the endangered animal. In Australia, **longline fishing boats** bypass fishing in international waters when and where models predict the presence of the southern bluefin tuna, a commercially valuable and endangered species that is managed through a quota system. *"New technology is making this dynamic approach to ocean conservation possible, at the same time that climate change is making it necessary,"* Maxwell said.

With the newly published article, the authors encourage the international community to adopt this emerging management strategy and urge its widespread use in international waters that cover some two-thirds of the planet's oceans.

"We hope the language in the United Nations treaty could be changed to explicitly include mobile marine protected areas and dynamic management, so that those become options to protect the largest parts of the ocean going forward," Maxwell said.



Source: University of Washington. (2020, January 16). Mobile protected areas needed to protect biodiversity in the high seas. *ScienceDaily*, <https://www.sciencedaily.com/releases/2020/01/200116141720.htm>

Story Source: University of Washington. Originally written by Hannah Hickey. <https://www.washington.edu/news/2020/01/16/mobile-protected-areas-needed-to-protect-biodiversity-in-the-high-seas/>

Journal Reference: Sara M. Maxwell, Kristina M. Gjerde, Melinda G. Conners, Larry B. Crowder. **Mobile protected areas for biodiversity on the high seas.** *Science*, 2020 DOI: 10.1126/science.aaz9327

THE POSEIDON PRINCIPLES

by Poseidonprinciples.org

The **Poseidon Principles** establish a framework for assessing and disclosing the climate alignment of ship finance portfolios. They set a benchmark for what it means to be a responsible bank in the maritime sector and provide actionable guidance on how to achieve this.

The **Poseidon Principles** are consistent with the policies and ambitions of the International Maritime Organization (IMO), including its ambition for greenhouse gas emissions (GHG) to peak as soon as possible and to reduce shipping's total annual GHG emissions by at least 50% by 2050.

As a result, the **Poseidon Principles** will enable financial institutions to align their ship finance portfolios with responsible environmental behavior and incentivize international shipping's decarbonization – to shape a better future for the shipping industry and society.

The **Poseidon Principles** are applicable to lenders, lessors, and financial guarantors globally. They are intended to evolve over time to address other adverse impacts.

Principle 1 - Assessment of Climate Alignment

Commitment: Signatories will measure the carbon intensity of their shipping portfolios on an annual basis and assess their climate alignment relative to established decarbonization trajectories. This assessment is based on a robust industry-appropriate methodology.

Principle 2 - Accountability

Commitment: Signatories recognize the important role that classification societies and other recognized organizations play in providing unbiased information. They support and rely on the mandatory regulation established by the IMO for collecting data on fuel consumption from ships.

Principle 3 - Enforcement

Commitment: Signatories commit to making compliance with the Poseidon Principles contractual in their new business activities. They will use standardized covenant clauses and work together with clients and partners to meet this requirement.

Principle 4 - Transparency

Commitment: Signatories are required to report their portfolio alignment score on an annual basis. All Signatories' scores will be published annually by the Secretariat of the Poseidon Principles.

To-date, 17 leading banks, jointly representing approximately USD\$140 billion in shipping finance or about 30% of the total global ship finance portfolio have come together to commit to the Poseidon Principles: ABN AMRO; Amsterdam Trade Bank; BNP Paribas; BPIFrance; Citi; Crédit Agricole; Credit Suisse; Danish Ship Finance; Danske Bank; DNB; DVB Bank SE; Eksport Kreditt Norway; ING; Nordea; Société Générale; and Sparebanken Vest.

In January 2020, the world's largest global shipping lender, BNP Paribas, leading wealth manager, Credit Suisse, and French credit insurer, BPIFrance, became the 15th, 16th, and 17th financial institutions as signatories.

The Poseidon Principles are the world's first sector-specific, self-governing climate alignment agreement amongst financial institutions. They establish a common framework to quantitatively assess and disclose whether financial institutions' lending portfolios are in line with climate goals set by the IMO, a specialized agency of the United Nations responsible for regulating shipping. The IMO's target is for GHG emissions from international shipping to peak as soon as possible, and to reduce the industry's total annual GHG emissions by at least 50% by 2050, with a strong emphasis on zero emissions.

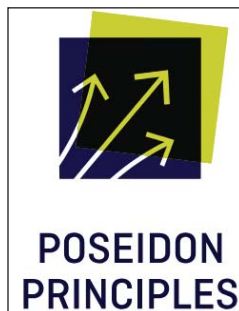
The **Poseidon Principles** are designed to support ship owners in achieving the "at least 50% by 2050" reduction target and to help financial institutions in managing critical investment risks – to the benefit of business and society. *"The decision of **BNP Paribas** and **Credit Suisse** to sign on to the **Poseidon Principles** represents another milestone for responsible ship finance. We welcome their leadership and we encourage other serious financial institutions to join them in serving global seaborne trade in a sustainable manner,"* says Michael Parker, Chairman, **Global Shipping Logistics & Offshore, Citi** and **Poseidon Principles Association**. *"As a leading and longstanding lender to the global maritime industry, we welcome the establishment of the **Poseidon Principles**, an industry-wide and self-volunteered initiative that reflects our own commitment to combat climate change and protect the oceans,"* says Vincent Pascal, Head of Shipping & Offshore Finance EMEA, **BNP Paribas**.

"The Poseidon Principles are key to leading industry-wide change. Along with our co-signatories, we aim to align our ship finance portfolio to be environmentally responsible and to lead by example in the reduction of GHG emissions. Joining the Principles shows our clear and continued commitment to sustainable shipping – being there to support our clients in their business and in their transition to a low-carbon shipping industry," says Mario Béhé, Global Head of Ship Finance, **Credit Suisse**.

On 30-January-2020, BPIFrance signed up. *"BPIFrance is a key player in the French shipping sector and a leading actor strongly committed to the ecological transition. By becoming a signatory of the Poseidon Principles, we aim at aligning our portfolio with the sustainability objectives set out by the IMO and we reaffirm, more broadly, our commitment to the ecological transition of France,"* says François Lefebvre, General Manager, BPIFrance **Assurance Export**.

The **Poseidon Principles** were developed by Citi, DNB and Société Générale in collaboration with A.P. Møller Mærsk, Cargill, Euronav, Lloyd's Register, and Watson Farley & Williams, and technical expertise from Global Maritime Forum, Rocky Mountain Institute, and University College London Energy Institute.

The Poseidon Principles was established in June, 2019. The organization is based in Copenhagen, Denmark.



Source: <https://www.poseidonprinciples.org/principles/>



DRONES: FROM TRIALS TO WORLD'S FIRST DRONE SAFETY STANDARDS

by SAFETY4SEA

The era of digitalization has made room for **Autonomous Unmanned Vehicles (AUV)** to take place and become a powerful tool for ports and the overall shipping industry, playing a major role in a variety of 'shipping duties', such as surveillance, safety, accident and pollution reporting, representing the importance of technology in shipping and making us wonder whether drones will be another brick in the new face of the maritime sector or a tech that will soon be forgotten.

Drones are getting more and more attention, proven to be a fruitful tool in the shipping and offshore industries, transforming the way organizations operate across the world. For the time being, some ports already use drones and have adapted to the new era, but some are still on the trial phase, trying to gasp the pros and cons of using drones in everyday operations.

Uses of drones:

1. Pollution detection amid 2020 sulphur cap
2. In case of accidents
3. Safety inspections
4. Search and rescue operations
5. Oil spill monitoring
6. Port construction work

Drone use / Drone trials

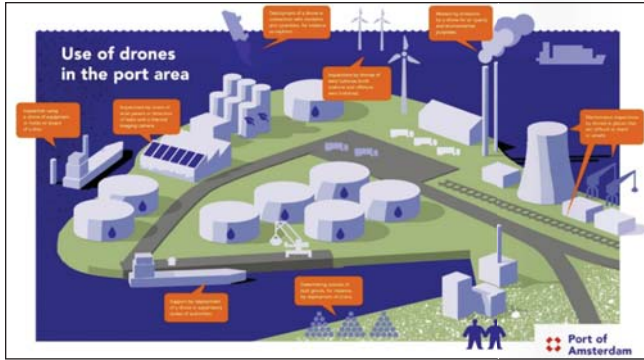
Today, ports are either already using drones or are testing the use of drones in many operations. In essence:

1. The **Spanish Maritime Safety Agency (SASEMAR)** began using **European Maritime Safety Agency's (EMSA) Remotely Piloted Aircraft Systems (RPAS)** in the southern Huelva province for identifying and monitoring oil spills, as well as for additional assistance during search and rescue missions. The drone conducts day and night flights and is equipped with

electro-optical and infrared cameras, radar and a still camera for detailed views of objects of interest.

2. Norway has been using drones that measure sulphur content in exhaust emissions from several ships since 2018.
3. China launched a network of drones to monitor strategic parts of Chinese maritime claims in the South China Sea, which are responsible of monitoring uninhabited, hard-to-reach islands and will boost China's dynamic surveillance of the South China Sea.
4. Port of Amsterdam has put on trial both aerial and marine drones for different operations, yet highlighting the importance technology in the industry, adding that the **M.A.D.S. (Marine Anti Drone Systems)** will support the Port by monitoring legal and illegal flying across its land, by detecting and identifying drones within a 5 km range, providing GPS positioning of both drone and pilot together with the drone's speed and heading.





- 5. The Port of Hamburg is currently testing the use of **Autonomous Surface Vehicles (ASV)**, which can offer a number of advantages for hydrography.
- 6. Essex Police, the **UK Maritime & Coastguard Agency (MCA)** and the **Royal National Lifeboat Institution (RNLI)** partnered on a new one-year-long drone trial to support vital search and rescue action around the coast of Essex.



- 7. During the construction of Israel's new **Gulf Port in Haifa**, the authorities used drones to monitor the construction taking place, as well as measure stockpile.



- 8. Used for a different purpose, 'Aquadrone' gathers garbage from the water. It is called the Waste Shark and it can remove up to 200 liters of trash in one trip, as well as alien/pest flora.



PROS	CONS
<ul style="list-style-type: none"> ✔ Quality Aerial Imaging: Drones can collect a great number of imaging data, which have many beneficial uses as 3D mapping of disaster areas. ✔ Precision: Given that drones are equipped with GPS, they can be programmed to fly in precise locations. ✔ Easily Deployable: The majority of drones can be easily operated after user receive training. For instance AMC Search, the commercial arm of the Australian Maritime College, and The Institute for Drone Technology signed an MoU aiming to bring drone technology training into the maritime. ✔ Security: By acquiring the appropriate training, users can use drones for surveillance and security. For example, Croatia is using EMSA's Remotely Piloted Aircraft System (RPAS) to boost their coast guard functions, as to monitor vessel traffic, conduct search and rescue procedured and detection and monitoring of marine pollution. 	<ul style="list-style-type: none"> ✘ Uncertainty in Legislation: The legislation behind the use of drones is still controversial concerning the enforcement of airspace property rights and protecting landowners form aerial trespassing. ✘ Safety: This remains a challenging issue, as drones have to be programmed with 'sense and avoid' abilities, as the risk of drones colliding may prove to be hazardous, mostly if used near large crowds. ✘ Privacy: It remains a controversial, given drones are capable of taking images or video without drawing attention. But ISO highlighted "The fail-safe of human intervention is required for all drone flights, including autonomous operations, ensuring that drone operators are held accountable"

Regulations for Drones

- ◆ **ISO Standards.**
In December 2019, the International Organization for Standardization (ISO) announced the world's first ISO approved drone standards. The ISO Standards focus on: Air Safety, Privacy and data protection, The exciting future for drones, and Impact on the economy. Yet, the draft version of the first ever set of standards for drone operations was first published by ISO in 2018, in a call to gather experts to discuss on the matter to gain more knowledge and experience for the official launch of the Standards.
- ◆ **Bahamas issue guidelines for use of drones' onboard vessels**
The **Bahamas Maritime Authority** launched an alert informing of the regulations on using Unmanned Aerial Systems (drones) on Bahamian vessels, as the operator has to comply with relevant guidance and instructions on the area when the drone is either registered or flown. Accordingly, the guideline notes that Operators must have approval from the State of the Operator before conducting operations in high seas airspace. They must likewise coordinate their operations with the air traffic service (ATS) provider responsible for the airspace concerned.
- ◆ **IAATO restrictions on drone use in Antarctica.**
The **International Association of Antarctica Tour Operators (IAATO)** has announced new restrictions on commercial drone use in Antarctica, noting that **for the 2019-20 season, commercial drone flights are banned in coastal areas without the IAATO operator's authorization.**

Overall, applauding the use of technology in the maritime sector and the acceptance of drones, **Standard Club's** Ben Burkard, Underwriting Director, and Julian Hines, Loss Prevention Manager, added that the use of **AUVs** allows for a much more comprehensive survey given the ease that drones can access hard-to-reach areas, as well as reduce risks.



Source: View the original article and videos at:
<https://safety4sea.com/cm-drones-from-trials-to-worlds-first-drone-safety-standards/>



MARINE AUTONOMY VS. AUTOPILOT: KNOW THE DIFFERENCE

by Sea Machines Robotics

It's no secret that today's **autopilot** technology is an invaluable tool to both recreational boaters and commercial mariners. **Autopilot** systems enable a vessel to hold a course in light-to-moderate sea conditions. This functionality increases vessel course predictability, while reducing operator fatigue, a major causal factor in marine incidents. Like **autonomous** systems, **autopilots** are indefatigable and have an unlimited attention span for programmed tasks on the water. Both systems also allow a human operator to remain in control of a vessel and mission, and to take over operations at any point. What isn't always understood, however, are the differences between today's commercially available **autonomous** marine technology and best-available **autopilot** systems for vessels.

Avoiding Collisions on the Water. The obstacle detection and collision and allision avoidance feature, now offered with best-available **autonomous** marine systems, is arguably the most valuable advantage over an **autopilot**. Not available with **autopilot** systems, these life- and mission-saving capabilities may use a combination of computer/camera vision, GPS, radar and AIS vessel traffic data to identify objects in an **autonomous** vessel's path and then safely reroute the vessel around hazards before resuming the pre-planned path again – without the need for human involvement. This can be especially useful for mariners navigating during periods of low light or poor visibility. Another point to consider is that universal reliance on **autopilot** systems has become a factor in vessel collisions and groundings. Such incidents are often due to a navigator being lulled into complacency of a system that is controlling their vessel but has no capability of sensing and tracking traffic or obstacles.

Adjusting Vessel Behavior between Waypoints Through All Sea Conditions. When put into "sea-keeping mode," **autonomous** vessels adjust their movements and speeds between waypoints automatically, depending on the mission and environmental conditions that exceed the vessel's pitch, roll and heave thresholds. When a crew is on board, an **autonomous** boat will slow speeds and soften turns to maximize human comfort and safety. During **unmanned** operations, a remote operator can program an **autonomous** boat to make sharper, faster and more aggressive maneuvers that increase productivity. An **autonomous** system will also intelligently increase speeds in wide, open domains and automatically reduce it in speed-restricted areas.


Integration with On-Board Vessel Systems. Today's **autopilots** have evolved from basic course-holding systems to adaptive computer systems that can reduce fuel usage and increase voyage efficiency. Most systems integrate with the vessel's compass, GPS and instrument system to ensure smooth control of the steering. In some cases, they learn the characteristics of a vessel for improved performance over time. **Autonomous** systems do this, too, but also integrate with a vessel's AIS data, radar and on-board cameras, providing real-time situational awareness for operators on and off the vessel. **Autonomous** systems can connect with on-board payloads (like fire monitors, boom arms, ROV launch stations or cranes), enabling an operator to control vessel equipment from anywhere on or off the vessel. Finally, **autonomous** marine technology can be integrated with vessel maintenance systems that keep watercraft operating at the highest level of productivity.

AWEA & DOB LAUNCH APAC OFFSHORE WIND ACADEMY



Human Control of Vessels. An **autonomous** vessel can be operated with or without crew on board, unlike an **autopilot** that requires a human operator to be at the helm. With **autonomous** control, an offshore operator can set the course and speed of the vessel, execute a mission and remotely monitor operations via software that interacts with real-time camera feeds and sensors. **Unmanned** operations are especially valuable when crews would otherwise be subject to dull, dirty or dangerous work, factors that contribute to greater operational risk. Use cases for reduced crew or **unmanned** configurations include marine spill response, firefighting, patrol, hydrographic survey, government or military applications, dredging, aquaculture and others.

Which is Right for Your Operations? The invention of the **autopilot** system has provided undeniable value to commercial mariners and recreational boaters for nearly a century. Far from an obsolete technology, the **autopilot** will in all likelihood continue to serve humans usefully on the water for years to come. However, commercial operators should be aware that more advanced technology is now commercially available and offers additional benefits. These include obstacle detection and collision avoidance capabilities, the ability to maintain course and speed during long missions and/or challenging conditions, the **automatic** adjustment of vessel behavior between waypoints to suit a crew or mission's needs, integration with on-board vessel systems, and the option to remove humans from the vessel and monitor operations remotely with real-time situational awareness.

Sea Machines Robotics, an industry leader in the development of autonomous control and advanced perception marine technologies, made its **SM300** autonomous-command and remote-helm control system commercially available in 2018. Already in use aboard workboats and vessels around the world, **Sea Machines** has demonstrated that the **SM300** increases the performance, productivity and safety of commercial marine operations. To learn more about **Sea Machines** or how its systems can modernize your work on the water, go to: <https://sea-machines.com> 

The **Asia Wind Energy Association** has partnered with Dutch **De Oude Bibliotheek Academy (DOB-Academy)** to launch a regional Academy for the fast-developing offshore wind industry in the Asia-Pacific (APAC) Region.

The **Asia-Pacific Offshore Wind Academy** would be set-up in **Singapore** and would provide educational services for the regional offshore wind industry. The **Academy** would provide offshore education for professionals in the region since the wind industry is rapidly evolving. The **Asia-Pacific Offshore Wind Academy** shall focus on specialized offshore wind courses, offering a variety of courses from entry to advanced level. In addition to the curriculum, the Academy would be offering tailor-made courses.

Edgare Kerkwijk, Board Member, **Asia Wind Energy Association** says the Academy would prove to be fruitful as the main challenge in the region is the lack of locally trained skilled workforce for the offshore wind industry. *"With the tremendous growth expected for the offshore wind industry in Asia-Pacific and the increasing requirements for skilled manpower, the Academy will actively support the development of a local and regional work force for the offshore wind industry,"* says Edgare Kerkwijk.

"The challenge of the energy transition can only be tackled through global sharing of expertise and experience. We are thrilled to expand our mission into the Asia-Pacific region through this co-operation," says Jan van der Tempel, CEO, **DOB-Academy**.

The **Asia Wind Energy Association** is the regional platform for wind power industry stakeholders to promote the wind power sector. They include power project developers, turbine makers, financial institutions, and other offshore wind industry experts.

The **DOB-Academy** is an institute set up by a group of expert professionals with a passion for the offshore energy sector, and a desire to further its development. Its experts use the Academy as a platform to share their knowledge, and learn from their peers.



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- *Partners Join Forces to Launch an Offshore Wind Academy in Asia-Pacific.* SAFETY4SEA, 31-January-2020.
- *DOB-Academy and Asia Wind Energy Association Sign Training MOU.* Maritime Executive, 3-February-2020.
- *Dutch Academy Schools Asia-Pacific offshore.* RENEWS.BIZ, 31-January-2020.



The self-discharging bulk carriers being built for Aasen Shipping will be the first of their kind to operate with hybrid propulsion. Photo Credit: Copyright Aasen Shipping.

WÄRTSILÄ TO SUPPLY WORLD'S FIRST HYBRID POWERED SELF-DISCHARGING BULK CARRIERS

By Wärtsilä News

The technology group **Wärtsilä** has been selected to provide the complete system design and full equipment scope for two new 9300 DWT self-discharging bulk carriers featuring hybrid propulsion. The ships will be the first of their kind to be fitted with a hybrid propulsion solution. They are being built for Norway's **Aasen Shipping** at the **Royal Bodewes Shipyard** in the Netherlands. The yard has also designed the vessels. The order with Wärtsilä was placed in December 2019.

Wärtsilä was contacted to determine whether a hybrid installation would be beneficial for these new ships. The company then carried out a detailed study in close cooperation with **Aasen Shipping**, taking into consideration a broad range of relevant factors. The study determined that the extra initial investment required for the battery installation would be more than offset by the high level of achievable fuel cost savings.

"Wärtsilä's experience and strong track record with hybrid propulsion solutions form the background to this contract. As a complete hybrid system supplier, we have again custom designed a propulsion arrangement that delivers high efficiency, lower fuel consumption, and optimal environmental sustainability," says Harald Tillung, Business Development Manager, **Wärtsilä Marine**.

*"We approached **Wärtsilä** because of their capabilities in delivering hybrid propulsion systems. We appreciate their support throughout the planning and design processes, which has resulted in the best possible solution for these vessels,"* says **Torbørn Torkelsen**, CEO at **Aasen Shipping**.

The full Wärtsilä scope for each ship includes a **Wärtsilä 26** main engine with gearbox and controlled pitch propeller, DC switchboard, battery pack, and power management system. The equipment will be delivered to the yard commencing mid-2021.

The vessels are bulk carriers fitted with excavators for loading and unloading. The excavators will be electrically powered using the battery pack, which will save fuel and be emissions-free since normally they would be diesel operated.



The investment cost for the hybrid installation is partly supported by **Enova SF**, the Norwegian government enterprise responsible for the promotion of environment-friendly production and consumption of energy.



Source: <https://www.wartsila.com/media/news/29-01-2020-wartsila-to-supply-world-s-first-hybrid-powered-self-discharging-bulk-carriers-2627814>

PORT OF VIRGINIA AND ØRSTED PROCEED WITH PLANS FOR OFFSHORE WIND TERMINAL



Photo Credit: Port of Virginia

Virginia Governor **Ralph Northam** announced an agreement for **Ørsted** to lease a portion of the **Portsmouth Marine Terminal** for offshore wind staging materials and equipment. If fully executed, the lease will run through at least 2026, during which time, **Ørsted** plans to install nearly 3,000 megawatts of **wind energy** projects in the US.

The agreement between the Port of Virginia and **Ørsted** is for an initial lease of 1.7 acres at the Portsmouth Marine Terminal through 2026, with options to expand to an additional 40 acres.

If fully executed, the agreement could be worth approximately \$13 million in lease payments and result in site upgrades worth more than \$20 million for cranes and improvements to a section of the terminal's berth to ensure heavy load capacity.

Those investments would prepare the site for activities such as pre-assembly, staging, and loading of wind turbines for other **Ørsted** projects.

"This is a big step towards making Virginia a leader in wind energy and offshore wind manufacturing. With the Port of Virginia at its helm, the Hampton Roads region has the trained workforce and the nautical know-how to become a vital hub for offshore wind development," stated **Governor Northam**.

Portsmouth Marine Terminal is one of the **Port of Virginia's** two multi-use terminals in the **Norfolk Harbor**. Covering 287 acres, the facility is located on deep water, with on-dock rail access, and offers open space for storage and staging.

*"This is a strategic decision by leaders in the offshore wind industry to take advantage of Virginia's world-class port. By welcoming **Ørsted** and allowing it to leverage the **Portsmouth Marine Terminal**, we could jumpstart an almost entirely new industry. The result is job creation, economic investment, diversification of the Virginia economy, and clean, renewable energy,"* said **John F. Reinhart**, CEO and Executive Director, **Virginia Port Authority**.



Source: https://safety4sea.com/port-of-virginia-orsted-proceed-with-plans-for-offshore-wind-terminal/?utm_source=noonreport&utm_medium=email&utm_campaign=others

SIEMENS GAMESA TO BUILD US' LARGEST OFFSHORE WIND PROJECT



US utility Dominion Energy has selected Siemens Gamesa Renewable Energy to provide turbines for the largest offshore wind energy project in the US.

The offshore wind energy project will be located 27 miles off the coast of Virginia Beach and produce enough energy to power 650,000 homes. The 2,600 (megawatt) MW project is expected to be completed in 2026 and will help Virginia state to create jobs, and achieve energy sustainability goals.

"Virginia state agencies have been tasked to develop a plan to produce 30% of its electricity from renewable sources by 2030. Offshore wind is a fast-growing and important contributor to meet this goal," says Steve Dayney, Head of Offshore North America at **Siemens Gamesa Renewable Energy**.

By selecting a turbine supplier for the project, **Dominion Energy** is now able to submit the project's Construction and Operations Plan to the **Bureau of Ocean Energy Management** in late 2020.

Siemens Gamesa and **Dominion** will work together to develop mechanisms that will help reduce the cost of the project.

Mark D. Mitchell, **Dominion Energy's** Vice President of generation construction, said: *"We look forward to continuing our relationship as we bring clean, renewable energy to our customers and support Governor Ralph Northam's commitment to have Virginia lead the way in offshore wind."*

Dominion Energy has set a goal of reducing carbon emissions from its electric fleet by 55% by 2030 and 80% by 2050.

The total worldwide offshore wind power capacity was 18.8 gigawatt (GW) at the end of 2017. All the largest offshore wind farms are currently in northern Europe, especially in the UK and Germany, which together account for over two-thirds of total offshore wind power installed worldwide. In contrast to the US 2,600 MW wind power project to be completed in 2026, the UK's 659 MW Walney Wind Farm is considered the largest offshore wind farm in the world. The UK's Hornsea Wind Farm is set to become the world's largest when completed this year at 1,200 MW (1.2 GW), almost double that of the Walney Wind Farm. ⚓

VISIT BOHOL

by Josephine M. Viray

A visit to the Visayas is never complete unless you take a ferry ride from Cebu to Bohol. Upon arrival in Bohol, one is immediately enchanted by the blue sea and clear skies over the horizon. It's rare to see these colors in a city jungle where the air is full of smog and emissions.

First stop in beautiful Bohol would be a visit to Villa Aurora, Bilar, Bohol to catch a glimpse of the little Tarsier. Perched on a tree branch, a Tarsier is hardly visible because it is so small and its skin color is that of a tree branch. You can only spot them through their extremely large, and light brown eyes. Have fresh buko (coconut) juice right at the patio of the Tarsier Sanctuary.

Second stop would be to visit the majestic Chocolate Hills covered with a forest of mahogany trees. Hike up to the Grotto of Mama Mary and make a wish before hiking up further to the summit to view all the Chocolate Hills far and wide.



Last but definitely not the least would be to embark on a Loboc River Cruise. Cruising down Loboc River on a man-made raft would make you appreciate the lush greenery of the Loboc Forest, still pristine and untouched by urbanization.

Loboc River is also called Loay River. While cruising along the Loboc River, you will get to view a series of mini waterfalls cascading from the side. Sumptuous Filipino food is carefully prepared and spread out on a long rectangular table for a sumptuous self-service Filipino buffet lunch while cruising. It's like a floating restaurant. There is an accompaniment of Filipino songs serenaded to guests by the Bohol children's choir onboard a nearby raft, where there is also a performance of the Tinikling, which is one of the famous national dances of the Filipinos. Boholano hospitality will never cease to delight you.

According to Filipino historian Fr. Horacio de la Costa regarding the Municipality of Loboc, "Bohol was founded by Fr. Juan de Torres in 1602." Fr. Horacio de la Costa further elaborated, "The village of Loboc was established and became a parish in 1602. It became the "Residencia Boholano" or the place

where the local superior of the Jesuits lived. From that time until the middle of the 18th century, Loboc played host to the "Residencia," then they moved back to Baclayon (the first municipality the Spaniards established in the island). The first stone church of Loboc was built then."

According to the Museo de Loboc, the name 'Loboc' came from the local dialect 'Ga Loboc' meaning 'pounding palay.' When the Jesuit missionaries arrived at the village, they passed by a family pounding rice. They asked for the name of the place. Thinking that the natives were being asked what they were doing, the head of the family answered, "ga Loboc." The name stuck, and to this day, the place, and eventually the town, is known as Loboc.

While in Bohol, one should also visit the historical Baclayon Church (La Purisima Concepcion de la Virgin Maria Parish Church also known as The Immaculate Conception of the Virgin Mary Parish Church), and then visit the Blood Compact Monument memorializing the blood compact between sea explorer Miguel Lopez de Legazpi of Spain and Datu Sikatuna, Chief of Bohol.



The Seaworld Recreational Preservation Services protects the marine sanctuary. It offers dolphin and whaleshark watching, and snorkeling. Local rate: Php500/banca, 3 paddlers and 5 passengers. Foreign rate: Php1000. The proponent is considering PPP as a mode of conducting the sanctuary. At present, the LGU is an active participant; with staff from 3 Barangays totaling 102 employed staff including probationary manpower. In photo above (L-R): Abundio Tagad (Safety Officer), Lt Carlos Caga-anan PN, Josephine Viray, Darius Apale (Assistant Manager), Vicky Viray Mendoza, VAdm Emilio Marayag Jr. Location: Taug, Lila, Bohol.

There is dolphin watching as well as whaleshark (Butanding) watching along the coast of Taug in Lila, southern Bohol. It appears that the sea along the coastal town of Taug is the nursery bed of the whalesharks (Rhincodon). The townsfolk believe that the whalesharks choose the Lila coast as their birthing area because Bohol takes care and protects its natural marine resources. The best time for whaleshark watching is between 6 a.m. and noon. If you are a diver, you will also appreciate the live colorful corals, large marine turtles (Pawikan), giant clams (Tridacna), and the large conch shells (Budyong) formerly used as a sound alarm or trumpet before the Spaniards arrived in Bohol.

All these Boholano activities can be accomplished in a day's time if you start the day early. Rest and relaxation, with a breath of fresh, unpolluted sea wind and river air are what tourists visiting Bohol can truly benefit from all day. I'm so glad to have visited Bohol. ⚓



The Olango Wildlife Sanctuary supports the largest concentration of migratory birds found so far in the Philippines. There are 97 species of birds in Olango Wildlife Sanctuary, 48 of which are migratory species, while the rest are resident birds of the island. Photo Credit: Cyberplex, olangowildlifesanctuary.org

OLANGO ISLAND WILDLIFE SANCTUARY

by Josephine M Viray

The Olango Island Wildlife Sanctuary is located 5 kms east of **Mactan Island**. The Sanctuary is composed of the main island, Olango, and six nearby islets namely: Sulpa, Gilutongan, Nalusuan, Caohagan, Pangan-an, and Camungi. The total land area of Olango Island Wildlife Sanctuary is approximately 1,030 ha (2,500 acres).

The Olango Island Wildlife Sanctuary falls under the jurisdiction of **Lapu-Lapu City** and the municipality of Cordova. Former President Corazon Aquino, under Proclamation 903 on 14-May-1992 issued a declaration making the Sanctuary's 1,020 hectares of mudflats, seagrass beds, and mangrove forests, a protected area.

The total seacoast area of the Wildlife Sanctuary falls under 4 barangays namely: San Vicente, Santa Rosa, Sabang, and Pangan-an, and located in the southern portion of Olango Island. This Wildlife Sanctuary is of international importance because of the waterfowl. The Chinese Egret and Asian Dowitcher are 2 very rare and endangered species of waterfowl that can be found in the Wildlife Sanctuary. Wetland sites are a natural habitation for water-birds, fish, frogs and invertebrates. Mangrove forests and seagrass beds also abound in wetland sites, and these prevent flooding by sponging the overflow of water. Thus, the Olango Island Wildlife Sanctuary was declared a Ramsar Wetland Site on 1-July-1994.

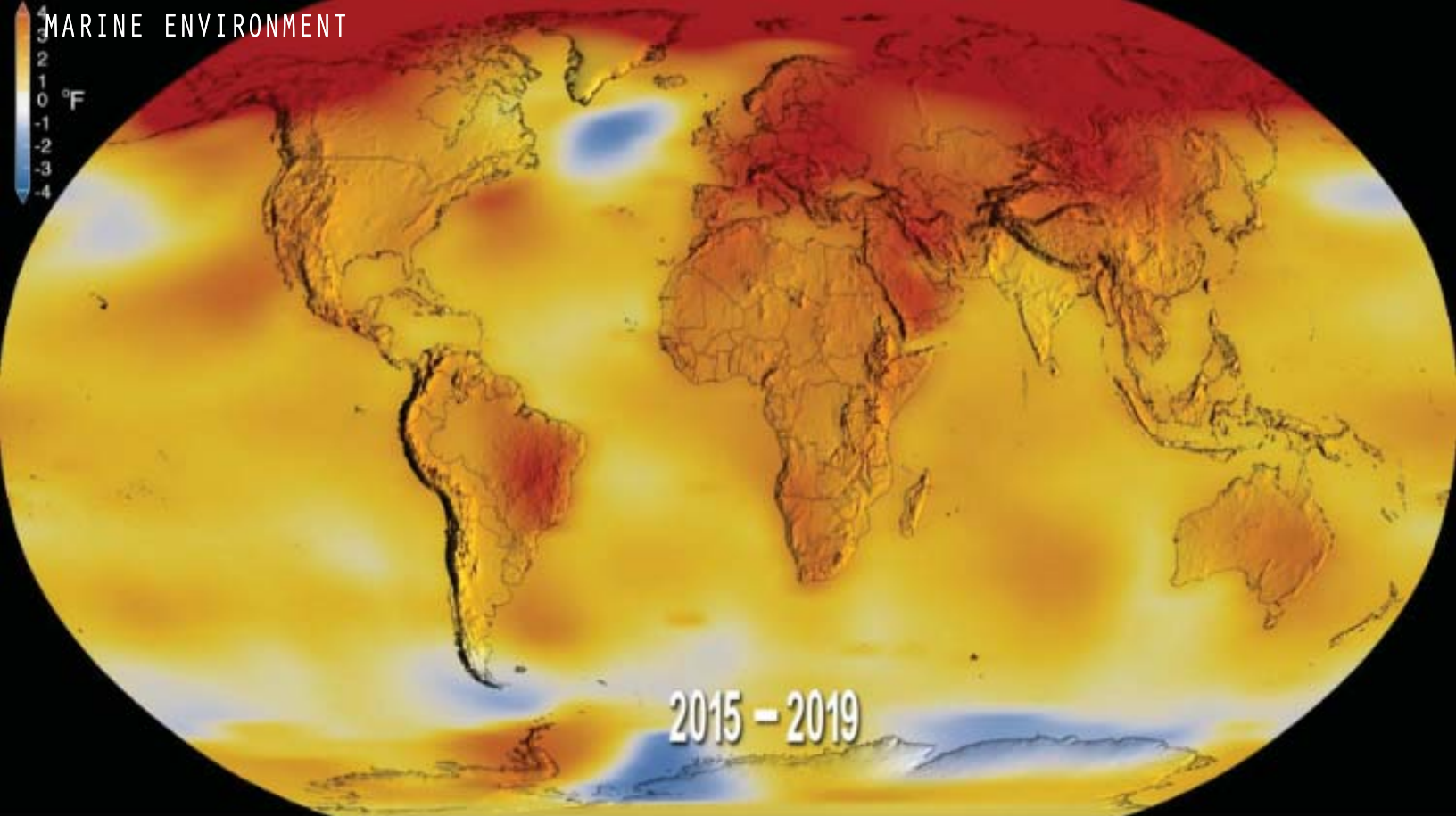
There are 97 species of birds in Olango Island Wildlife Sanctuary, 48 of which are migratory birds. There are different bird species that could be visually spotted. These are: Chinese Egret, Little Egret, Little

Heron, Grey Plover, Kentish Plover, Greater Sand Plover, Far Eastern Curlew, Whimbrel, Bar-tailed Godwit, Common Redshank, Common Greenshank, Common Sandpiper, Terek Sandpiper, Grey-tailed Tattler, Ruddy Turnstone, Asian Dowitcher, Great Knot, Rufous-necked Stint, Curlew Sandpiper, Gull-Billed Tern, Whiskered Tern, Common Kingfisher, White-Collared Kingfisher, Barn Swallow, Pacific Swallow, Yellow-vented Bulbul, Golden Bellied Fly-eater, Pied Fantail, Brown Shrike and Olive-Backed Sunbird.

Approximately 40,000 migratory birds visit the Olango Island Wildlife Sanctuary during the months of November-February, which is considered the peak migration season. The best time to engage in birdwatching is from September-May, at least 2 hours before the high tide.

At the Wildlife Sanctuary, birdwatching, swimming, camping and sightseeing are some of the activities that visitors can engage in. Diving is frequently undertaken, as there are 3 dive sites within the vicinity. These are Mabini Point, Baring, and Santa Rosa.

The environmental conservation, monitoring, and protection of the Olango Island Wildlife Sanctuary are what keep the **Department of Natural Resources (DENR)** Secretary Roy Cimatu occupied. The goal of the Philippine government is to strike a harmonious balance between tourist-oriented and government-related activities. What able citizens could do is to be supportive of this endeavor by visiting and promoting the Olango Island Wildlife Sanctuary as a worthy birdwatching and diving destination. 📍



According to independent analyses by NASA and the National Oceanic and Atmospheric Administration (NOAA), Earth's global surface temperatures in 2019 were the second warmest since modern recordkeeping began in 1880. Photo Credit: NASA.

2019 2ND HOTTEST YEAR ON RECORD ACCORDING TO NASA & NOAA

by NASA

According to independent analyses by **NASA** and the **National Oceanic and Atmospheric Administration (NOAA)**, Earth's global surface temperatures in 2019 were the second warmest since modern recordkeeping began in 1880. Globally, 2019 temperatures were second only to those of 2016, and continued the planet's long-term warming trend: the past five years have been the warmest of the last 140 years. This past year, they were 1.80 Fahrenheit (0.980 Celsius) warmer than the 1951 to 1980 mean, according to scientists at NASA's **Goddard Institute for Space Studies (GISS)** in New York. "The decade that just ended is clearly the warmest decade on record. Every decade since the 1960s clearly has been warmer than the one before," said **GISS** Director **Gavin Schmidt**.

Since the 1880s, the average global surface temperature has risen and the average temperature is now more than 20F (a bit more than 10C) above the late 19th century. For reference, the last Ice Age was 100F colder than pre-industrial temperatures.

Using climate models and statistical analysis of global temperature data, scientists have concluded that this increase mostly has been driven by increased emissions into the atmosphere of CO₂ and other greenhouse gases produced by human activities.

"We crossed over into more than 20F warming territory in 2015 and we are unlikely to go back. This shows that what's happening is persistent, not a fluke due to some weather phenomenon: we know that the long-term trends are being driven by the increasing levels of greenhouse gases in the atmosphere," Schmidt said.

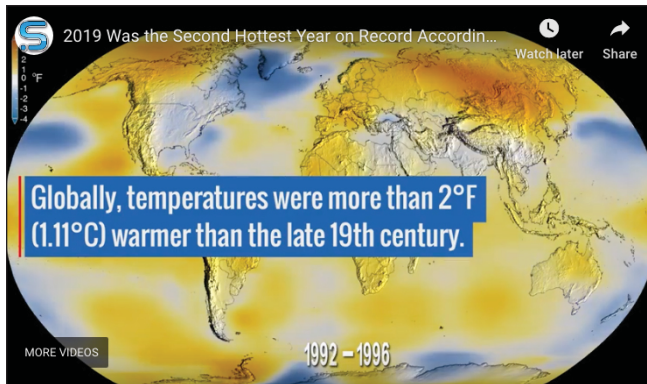
Because weather station locations and measurement practices change over time, the interpretation of specific year-to-year global mean temperature differences has some uncertainties. Taking this into account, **NASA** estimates that 2019's global mean change is accurate to within 0.10F, with a 95% certainty level.

Weather dynamics often affect regional temperatures, so not every region on Earth experienced similar amounts of warming. **NOAA** found the 2019 annual mean temperature for the contiguous 48 United States was the 34th warmest on record, giving it a "warmer than average" classification. The Arctic region has warmed slightly more than three times faster than the rest of the world since 1970.

Rising temperatures in the atmosphere and ocean are contributing to the continued mass loss from Greenland and Antarctica, and to increases in some extreme events, such as heat waves, wildfires, intense precipitation.

NASA's temperature analyses incorporate surface temperature measurements from more than 20,000 weather stations, ship- and buoy-based observations of sea surface temperatures, and temperature measurements from Antarctic research stations.

These in-situ measurements are analyzed using an algorithm that considers the varied spacing of temperature stations around the globe and urban heat island effects that could skew the conclusions. These calculations produce the global average temperature deviations from the baseline period of 1951-1980.

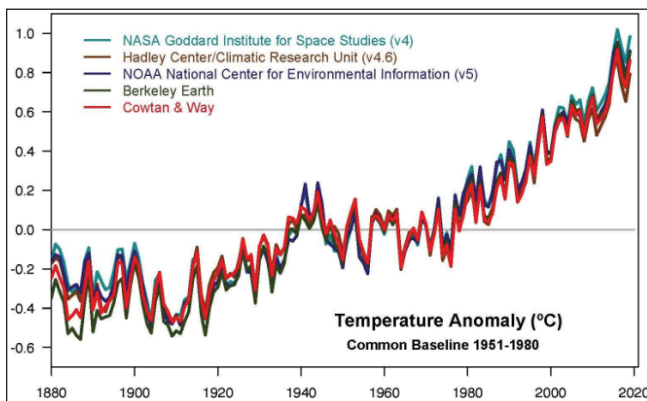


Earth's long-term warming trend can be seen in this visualization of NASA's global temperature record, showing the planet's temperatures changing over time, compared to a baseline average from 1951 to 1980. The record is shown as a running five-year average. Still-Photo Credit: NASA's Scientific Visualization Studio/Kathryn Mersmann.

NOAA scientists used much of the same raw temperature data, but with a different interpolation into the Earth's polar and other data-poor regions. NOAA's analysis found 2019 global temperatures were 1.70oF (0.95oC) above 20th century average.

NASA's full 2019 surface temperature data set and the complete methodology used for the temperature calculation and its uncertainties are available at: <https://data.giss.nasa.gov/gistemp>.

GISS is a laboratory within the Earth Sciences Division of NASA's Goddard Space Flight Center in Greenbelt, Maryland. The laboratory is affiliated with Columbia University's Earth Institute and School of Engineering and Applied Science in New York.



This plot shows yearly temperature anomalies from 1880-2019, with respect to the 1951-1980 mean, as recorded by NASA, NOAA, Berkeley Earth research group, Met Office Hadley Centre (UK), and Cowtan and Way analysis. Although there are minor variations from year to year, all 5 temperature records show peaks and valleys in sync with each other. All show rapid warming in the past few decades, and all show the past decade has been the warmest. Photo Credit: NASA GISS/Gavin Schmidt.

NASA uses the unique vantage point of space to better understand Earth as an interconnected system. The agency also uses airborne and ground-based measurements, and develops new ways to observe and study Earth with long-term data records and computer analysis tools to better see how our planet is changing. NASA shares this knowledge with the global community and works with institutions in the United States and around the world that contribute to understanding and protecting our home planet.



Source: The original article and the NASA video can be viewed at: <https://scitechdaily.com/2019-was-the-second-hottest-year-on-record-according-to-both-nasa-noaa/>

PCG & OSRL SIGN MOU



The Philippine Coast Guard (PCG) and the Oil Spill Response Limited (OSRL) have signed a memorandum of understanding (MOU) to enhance the country's capability to respond to oil spill in the morning of 24-February-2020.

Vice Admiral George Ursabia of the PCG – Marine Environment Protection Command (MEPCOM) expressed his gratitude to the OSRL for their willingness to assist the PCG in improving the knowledge, skills, and expertise of MEPCOM personnel in containing, mitigating, and recovering spilled oil in Philippine waters.

Meanwhile, Darren Waterman, OSRL Regional Director for Asia Pacific shared that protecting the oceans and seas from the negative impacts of oil spill is their priority to uphold marine environment protection.

Captain Rudyard Somera of the PCG – National Operation Center for Oil Pollution (NOCOP) assured maritime stakeholders and the general public that the PCG remains at the forefront of protecting the country's marine environment by actively responding to marine pollution incidents, strengthening its manpower, and improving its equipment and resources for the benefit of the future generation.

By integrating local and international resources for the building of comprehensive communication systems, generating baseline information, and increasing pool of expertise, OSRL and PCG believe that the marine environmental hazards of sea navigation will continue to be reduced significantly, amid modernization of the maritime industry.

The Philippines is a signatory to IMO Conventions on Marine Pollution of 1973 and 1978 (MARPOL 73/78). The PCG under RA 9993 is the sole agency responsible for the Philippine implementation of the Conventions with regard to oil pollution, prevention, mitigation and control through the conduct of marine pollution monitoring and control, enhancement of PCG capability and oil spill response operations and enforcement of all marine environmental laws and regulations. ⚓

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WHAT IS A ROSSBY WAVE?

by NOAA

Rossby waves naturally occur in rotating fluids. Within the Earth's ocean and atmosphere, these waves form as a result of the rotation of the planet. These planetary waves play a significant role in shaping weather and climate. An animation from **NASA's Goddard Space Flight Center** shows both long and short atmospheric waves as indicated by the jet stream. The colors represent the speed of the wind ranging from slowest (light blue colors) to fastest (dark red). There are Oceanic and Atmospheric **Rossby waves**, which are also known as **Planetary waves**.

Oceanic Rossby Waves. Ocean waves come in different shapes and sizes.

Slow-moving **oceanic Rossby waves** are fundamentally

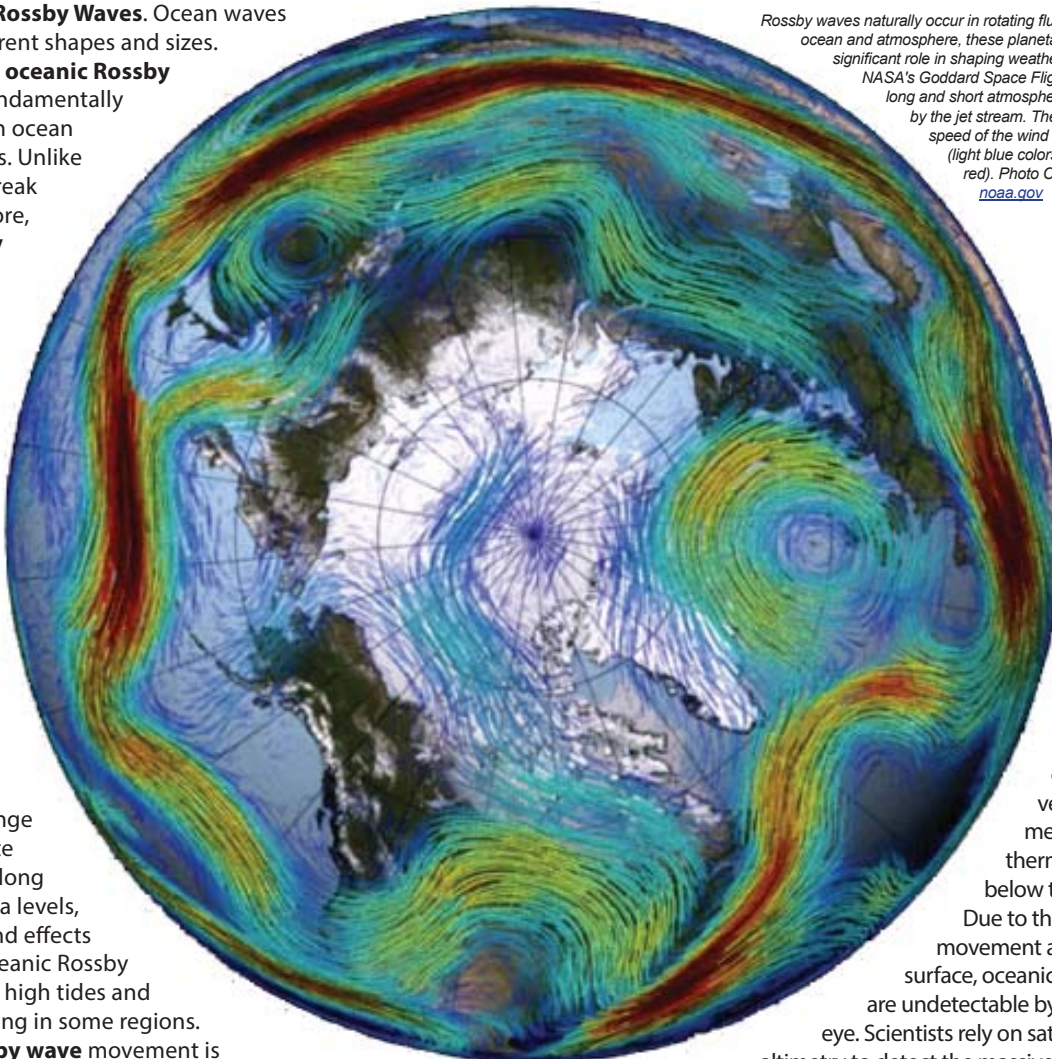
different from ocean surface waves. Unlike waves that break along the shore, these **Rossby waves** are

huge, undulating movements of the ocean that stretch horizontally across the planet for hundreds of kilometers in a westward direction. They are

so large and massive that they can change Earth's climate conditions. Along with rising sea levels, King Tides, and effects of El Niño, oceanic Rossby waves add to high tides and coastal flooding in some regions.

The **Rossby wave** movement is complex. The horizontal wave speed (the amount of time it takes the wave to travel across an ocean basin) of a Rossby wave is dependent upon the latitude of the wave. In the Pacific, for instance, waves at lower latitudes (closer to the equator) may take months to a year to cross the ocean. Waves that form farther away from the equator (at mid-latitudes) of the Pacific may take closer to 10 to 20 years to make the journey.

The vertical motion of **Rossby waves** is small along the ocean's surface and large along the deeper thermocline —the transition area between the ocean's warm upper layer and colder depths. This variation in vertical motion of the water's surface can be quite dramatic: the typical vertical movement of the water's surface is generally four inches or less, while the vertical movement of the thermocline for the same wave is about 1,000 times greater.



Rossby waves naturally occur in rotating fluids. Within the Earth's ocean and atmosphere, these planetary waves play a significant role in shaping weather. This animation from NASA's Goddard Space Flight Center shows both long and short atmospheric waves as indicated by the jet stream. The colors represent the speed of the wind ranging from slowest (light blue colors) to fastest (dark red). Photo Credit: oceanservice.noaa.gov

For a four-inch or less surface displacement along the ocean surface, there may be more than 300 feet of corresponding vertical movement in the thermocline far below the surface!

Due to the small vertical movement along the ocean surface, oceanic **Rossby waves** are undetectable by the human eye. Scientists rely on satellite radar altimetry to detect the massive waves.

Atmospheric Rossby Waves. According to the **National Weather Service**, atmospheric **Rossby waves** form primarily as a result of the Earth's geography. These **Rossby waves** help transfer heat from the tropics toward the poles and cold air toward the tropics in an attempt to return the atmosphere to a balance. They also help locate the jet stream and mark out the track of surface low pressure systems. The slow motion of these waves often results in fairly long and persistent weather patterns. 📍

WHAT IS LNG?

by Vicky Viray Mendoza

Natural gas, which took over millions of years of transformation of organic materials, such as plankton and algae, is made up of about 95% Methane, which is the cleanest fossil fuel. The combustion of natural gas mainly emits water vapor and tiny amounts of Carbon Dioxide (CO₂). Its CO₂ emissions are 30%-50% lower than those produced by other combustible fuels, according to ELENGY.

Cleanest Fossil-based Fuel

Natural gas is the lightest hydrocarbon (CH₄), having one atom of Carbon and 4 atoms of Hydrogen. *The combustion of natural gas neither emits soot, dust, nor fumes.*

Compared with fuel oil, it generates 30% less CO₂. When compared with coal, it generates 45% less CO₂, a two-fold reduction in Nitrogen (NO_x) emissions, and virtually zero Sulphur Dioxide (SO₂) emissions. [ELENGY]

Natural gas is extracted from fields located mainly in Algeria, Norway, Qatar, Russia, Nigeria, and USA. The distance between a country and its markets shows the difficulty and sometimes the improbability of transporting natural gas through pipelines. The simplest and most economical alternative would be to ship natural gas in liquefied form by sea in LNG cargo tankers.

To enable transport via maritime vessels, natural gas is cooled down through a refrigerated cycle involving compression, condensation, expansion, and evaporation. Natural gas is cooled at about -160°C, then after applying low pressure, transforms into liquid. Natural gas in liquid form is called **Liquefied Natural Gas (LNG)**. LNG is largely or almost completely composed of Methane (85%-99%). LNG is odorless, colorless, non-toxic, and non-corrosive. Once natural gas is liquefied, large quantities of LNG can be stored and transported aboard LNG Tankers.

LNG Tankers

A tanker ship with temperature-controlled tanks intended to transport LNG is called an LNG Tanker. LNG Tankers have a propulsion system, which is fueled with natural gas, and thus, emit lower greenhouse gas (GHG) emissions. Since LNG is transported in its liquid form, it must be loaded in vessels having lower inner tank temperature of about -163°C, and a maximum transport pressure set at 25 kPa (4 psi).

There are 3 types of LNG Tankers: (1) fully-pressurized; (2) semi-pressurized and refrigerated; and (3) fully refrigerated.

LNG Tankers are double-hulled. Each ship consists of 4-5 large inner tanks to hold the liquefied gas. These liquid cargo ships are either spherical or geometric membrane in design, where each tank is made in multi-layers. These multi-layered tanks are designed to make them leak-proof, and help in maintaining a

cold temperature inside the cryogenic tanks. LNG tankers are also equipped with fire alarms and proper insulation systems.

LNG Tankers come in 5 categories in terms of cargo containment system: (1) **Moss** (Spherical, Type A) with 4-5 tanks; (2) IHI (Prismatic, Type B) designed to sustain accidental damage due to internal equipment; (3) **TGZ MARK III** with multi-membrane designed for insulation; (4) **GT96** with primary and secondary membranes made of Invar that has no thermal contraction, and filled with Perlite to provide insulation; and (5) **CSI** is the combined systems 1 and 3 with the primary barrier made of Invar, and the secondary barrier made of Triplex.

Energy of the future

ELENGY is a subsidiary of GRTgaz within the ENGIE Group that develops small-scale LNG firms in road and maritime transported LNG. According to **Elengy**, a French corporate LNG expert for more than 50 years, natural gas is the cleanest fossil fuel since it is made up of about 95% Methane. As the European Commission seeks for an energy transition from fossil-based to decarbonized energy, natural gas proves to be an excellent alternative to reduce GHG and help combat global warming because of its low environmental impact, and by developing LNG use particularly for the industry and transport sectors.

The **European Commission** has adopted a framework of

actions with a target of a 40% reduction in GHG emissions by 2030 from the 1990 levels, in tandem with measures designed to reduce pollutant emissions to protect the environment.

Natural gas is an excellent and clean complementary solution in terms of blending with renewable energies (solar, wind, biomass, wave) to produce fuel or electricity. It significantly reduces the amount of CO₂ emissions from ships.

Natural gas as a road vehicle fuel

The development of natural gas fuel, either in compressed form (CNG) for short distance travel, or in liquid form (LNG) for regional and long-distance travel, is seen as a promising alternative to achieve the 2030 environmental targets. Trucks fuelled by LNG are half as noisy as diesel-fuelled trucks. LNG also costs much less than diesel, leading to notable savings.

LNG as a Marine Fuel

The use of **Heavy Fuel Oil (HFO)** as maritime fuel has a significant negative impact on the environment, as its SO₂ emissions is 10,000 times higher than diesel. HFO is accountable for about 14% of global SO₂ emissions in the atmosphere.

Compared with Heavy Fuel Oils (HFO), LNG shows a lower environmental impact: (1) 25% reduction in CO₂ emissions; (2) 90% reduction in NO_x emissions; and (3) 100% reduction in SO₂ and fine particle emissions. [ELENGY]

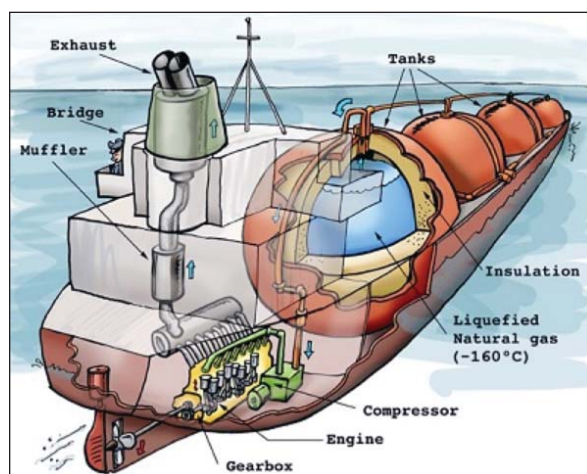


Illustration by Peter Wellman at Dutch Wikipedia

LNG is the primary energy with the best thermodynamic returns, thus, the best efficient energy. The cost of **LNG** is more competitive than other low-sulphur fuels, such as **Marine Gas Oil (MGO)**. Currently, the great majority of ships fuelled by **LPG** (Liquid Petroleum Gas; Propane; Butane) are in Norway. Vessels sailing along coasts or rivers using **LNG** as marine fuel are emerging in other European countries such as Denmark, Sweden, Finland, Netherlands, Belgium, and Germany. To support the increase in demand for **LNG**, it will be necessary to build port facilities to supply maritime fleets.

LNG as an Energy Source for Industry and Communities

LNG is a cheaper alternative to HFO, LPG, and coal, enabling industrial players to save in energy supply costs, and equipment maintenance costs. **LNG** is an excellent solution to help the industrial sector bring their facilities up to par with current environmental regulations, considering these regulations are set to be even stricter in the near future. According to France's **CITEPA**, the industrial sector is accountable for 85% of toxic SO₂ emissions in 2011, and conversion of these industries fueled by HFO/LPG/Coal to **LNG** would lead to lower CO₂ emissions, and virtually zero NO_x, SO₂ and fine particles.

A thermal power plant fuelled by natural gas compared with coal-fired power plants shows a lower environmental impact: (1) 81% reduction in CO₂; 8% reduction in NO_x; and (3) 100% reduction in SO₂ and fine particle emissions. If thermal power plants fuelled by natural gas replaced coal-fired power plants in Europe, the CO₂ emissions of their energy sector would be reduced by 60%, and 20% on a global scale. [ELENGY]

LNG Emerging Markets

The January 2020 **LNG INDUSTRY** magazine reports that emerging markets may be found in **Vietnam**, Philippines, Bangladesh, Australia, Africa, and Central America/Caribbean. Indonesia is going into cheaper coal, abandoning plans to import **LNG**. It states that the Philippines is turning to **LNG**. Moreover:

*“Strong economic growth, a large population, and national policy focused on decarbonization, and energy diversity are supportive demand drivers for **LNG** in the Philippines. Like **Vietnam**, there are domestic supply concerns. According to **Department of Energy (DOE)** estimates, the offshore **Malampaya** gas field has less than 5 years of available resources.*

*To secure the future of existing gas power stations, and create a foundation for additional plants, the Philippines is turning to **LNG**. Philippine utility **First Gen Corp.** is poised to build the first **LNG** import terminal in **Batangas**. There is Japanese interest with **JGC Corp** identified as preferred engineering, procurement and construction (EPC) contractor, and **Tokyo Gas** likely to take a 20% stake in the project.*

*Manila-based fuel retailer **Phoenix Petroleum** is in talks with the **Philippine National Oil Co.** to develop a US\$2 Billion **LNG** hub. Like other emerging projects, this is more than simply building an **LNG** import terminal. It will likely include gas pipelines, processing, and other gas network infrastructure.*

*US project developers are looking at the Philippines closely. **Fortress Energy** is in talks with the **DOE** regarding an integrated onshore **LNG** import terminal and gas power plant. The US **LNG** model is attractive given its ability to provide customized, flexible solutions ranging from gas supply, conversion of plants into gas-fired assets, and development of Greenfield **LNG** power assets.*

*None of this is without challenges and risks. The Philippines has courted **LNG** for several years. In 2015, Australia's Energy*

*World Corp (**EWC**) was close to building an integrated **LNG** import hub and gas power plant in Quezon province. The project has yet to materialize, with reports of financing bottlenecks, regulatory barriers, and issues over transmission arrangements.”*

LNG Safety

Natural gas, being a fuel, is combustible. Safety measures must be taken in the design, construction, and operation of **LNG** facilities. In its liquid state, **LNG** is not explosive, and cannot ignite. For **LNG** to burn, it must first evaporate then mix with air, and only then can it ignite. Thus, in case of a leak, **LNG** will vaporize rapidly, turn back into Methane gas, and mix with air. However, if the mix is within the flammable range of 5%-15%, a risk of ignition ensues, creating fire and thermal radiation.

Gas venting out of vehicles powered by **LNG** may create a flammability hazard if parked indoors for longer than 7 days. Also, due to **LNG**'s low temperature, refueling a **LNG**-powered vehicle requires training to avoid the risk of being frostbitten.

LNG tankers have voyaged over 100 million miles with neither a single shipboard death nor a major accident. However, there have been on-site accidents (Ohio and Maryland, USA; Algeria).

There are some dangers in shipping **LNG** through marine vessels, such as: (1) Spills, (2) Fumigation, and (3) Explosion. Of these, explosion is the most perilous. Thus, **LNG** Ships are thought of as floating bombs because an **LNG** explosion could be more severe than an atomic bomb explosion. But hazards caused by other liquid fuels like gasoline or diesel are found to be much more hazardous compared with **LNG**.

Caveat on LNG

In January 2020, a report by the **International Council on Clean Transportation (ICCT)** commissioned by **Stand.Earth** finds that an **LNG** ship engine emits between 70%-82% more life-cycle GHG emissions over the short-term compared to clean distillate fuels. The report states that Methane emissions are problematic because Methane traps 86 times more heat than the same amount of carbon over a 20-year period. It finds that switching ships to **LNG** is worse than doing nothing. The report states that using **LNG** could actually worsen the shipping industry's climate impacts compared to **Marine Gas Oil (MGO)** when considering the amount of heat these emissions will trap over a 20-year period, and that the **IMO** would have to ensure it includes all GHG emissions in its emissions reduction strategy, not just CO₂.

ELENGY finds that **LNG** is cleaner and more efficient than HFO/diesel/coal with lower CO₂ emissions and virtually emits zero NO_x and SO₂ to the atmosphere. However, the latest **ICCT Report** refutes this finding. Also, an Oxford energy paper by Jonathan Stern shows that the cost of **LNG**'s decarbonization would impact on its affordability and profitability expectations.



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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.

Testing Assessment Center of TESDA



Full Mission Bridge Simulator



Full Mission Engine Simulator



AMOSUP Seamen's Training Center



Full Mission Bridge Simulator on Motion Platform



Japanese Compact Ship Handling Simulator

Our Curricula

ONE STANDARD EVERYWHERE, EVERY TIME:



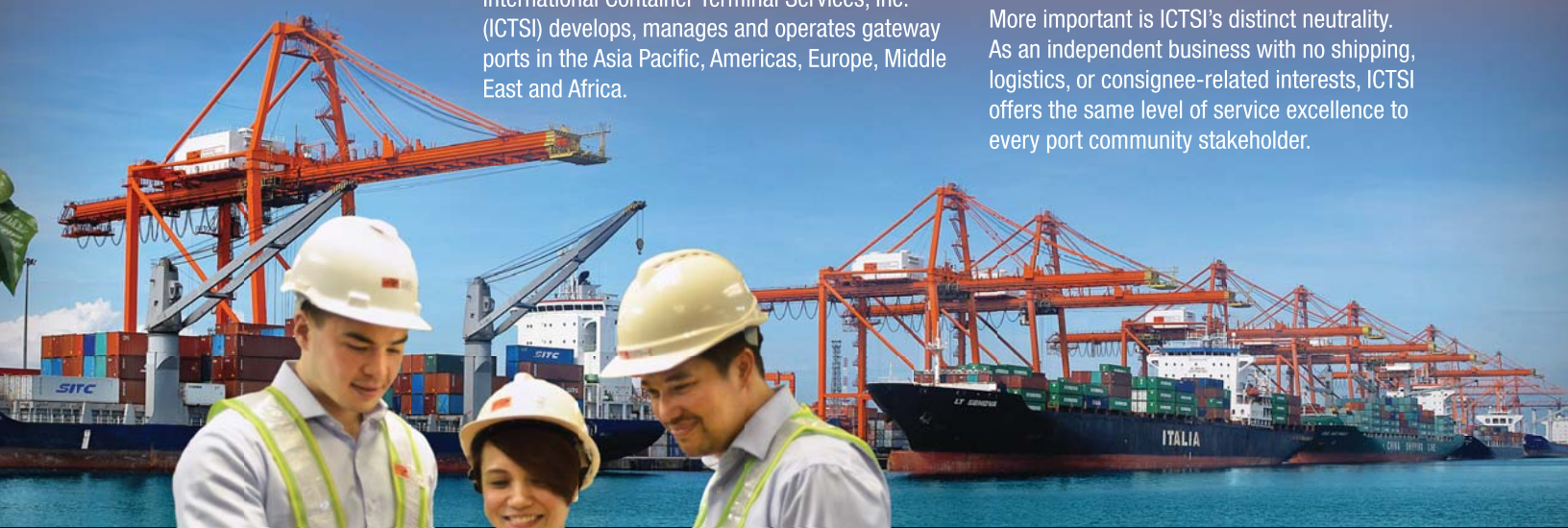
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HEAD OFFICE

ICTSI Administration Bldg., Manila International Container Terminal
MICT South Access Road, Port of Manila, Manila 1012, Philippines
☎ +632 245 4101 📠 +632 245 2245 ✉ info@ictsi.com
www.ictsi.com

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