I write to you during an unprecedented time in our global history, as unfortunately, the novel Coronavirus (COVID-19) has upended many of our daily lives. Everyone here at GE Marine sends their best wishes for those who may be suffering with or have lost friends or family to this virus.

Despite this dire period, GE Marine remains focused on protecting the safety of our employees, continuing to serve our customers in their critical time of need and preserving the strength of our business.

With that in mind, in this edition I’d like to share these items that demonstrate our commitment to our customers:

- GE Marine team member helps with COVID-19 response
- Delivery of a GE gas turbine-powered LHA 7 to the United States Navy
- GE LM500 gas turbines to power Republic of Korea (ROK) patrol boats
- Full electric propulsion study completed for ROK Navy’s next-generation destroyer
- New report from SEA-LNG that highlights the availability of fuels
- GE Marine assists with Australian bush fires
- GE Marine retirements and new members onboard

In closing, I want to remind you that we have endured crises before, though of a very different nature and on a very different scale. But just as we did then, GE will continue to show tremendous grit and resilience. We will come out of this together….and stronger!

Please reach out to me if you have any questions or need additional information. Stay healthy and safe!

Kris Shepherd
Vice President, Marine Operations
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Help with COVID-19 response

GE Marine’s very own Brandon Larson is currently the commanding officer of the Navy Reserve Supervisor of Shipbuilding, Conversion and Repair unit with U.S. Naval Sea Systems Command. He will be temporarily transitioning to active duty for the next several months to support Naval Sea Systems Command headquarters as the Operations Officer for the COVID-19 recovery operations.

In this role, Brandon will manage reserve sailor mobilizations in support of fleet maintenance. When not on reserve duty, Brandon is GE Marine’s director of marine safety and regulatory compliance, headquartered in Cincinnati, Ohio.

Stay safe and thank you for your service Brandon!

GE gas-turbine powered LHA delivered
Two GE LM2500+ marine gas turbines will power the future USS Tripoli (LHA 7) multi-purpose amphibious assault ship. The U.S. Navy recently accepted delivery of this America-class ship (shown right) from Huntington Ingalls Industries Ingalls Shipyard, in Pascagoula, Mississippi. The ship's hybrid electric propulsion system was supplied by GE Power Conversion.

USS Tripoli is expected to be commissioned in the summer of 2020. GE LM2500+ gas turbines also power the first-in-class USS America (LHA 6). These LHA ships use the same GE LM2500+ gas turbine hybrid electric propulsion system as the U.S. Navy's USS Makin Island (LHD 8) amphibious assault ship. Thanks to this unique propulsion system, the U.S. Navy expects to see fuel savings of more than $250 million over the course of the ship's lifecycle.

GE provides onsite support at each of the major U.S. naval shipyards to meet customer commissioning and technical needs. GE marine gas turbine experts go aboard during pre-commissioning testing – from main engine light-off to builder’s and sea trials – to ensure the engines are meeting U.S. Navy performance expectations.

GE LM500 engines for new ROK patrol boats

“Thanks to our longstanding relationships in the Republic of Korea, we worked directly with key component manufacturers on a complete system design analysis and improvement program. The end result was the PKX-B realized a 45% reduction in size and weight from its PKX-A predecessor by optimizing the package and gas turbine auxiliary systems to include an electric start system.”

GE Marine’s Kris Shepherd

GE’s 4.6 MW LM500 marine gas turbines (shown above right) will power ships 13 through 16 of the ROK Navy’s PKX-B patrol boat program. The 220-ton PKX-B Chamsuri II class ships will be built by the Hanjin Heavy Industries and Construction shipyard. The GE LM500 gas turbine modules will be manufactured, assembled and tested in-country by Hanwha Aerospace. The ROK Navy has launched PKX-B ships five through eight with expectations to be delivered to the fleet by the end of 2020. Each ship can attain speeds over 40 knots powered by two GE LM500 gas turbines and two diesel engines in a combined diesel and gas turbine configuration. Click here for more details.

Full electric propulsion study completed for ROK Navy’s KDDX destroyer

In other ROK news, Daewoo Shipbuilding & Marine Engineering (DSME) shipyard recently completed a preliminary study to apply its new full electric propulsion system technology for next-generation high-tech vessels. The Korea Electric Research Institute, Seoul National University and the Korean Register of Shipping also took part in this research project. The research results are expected to dramatically improve the capability of anti-submarine warfare and high-power future weapons systems of the ROK Navy’s next-generation KDDX warship and LPX-II large transport. Read more about the research here.

GE’s KDDX team, consisting of GE Marine, GE Power Conversion and Hanwha Aerospace, are working with the two in-country shipyards (DSME and Hyundai Heavy Industries) to apply a high performance, low-risk full electric propulsion plant to the KDDX program.

New report highlights low carbon fuels

In late March, SEA-LNG, a multi-sector industry coalition, released the latest in its series of independently conducted studies. GE Marine is a member of SEA-LNG. "CE Delft: Availability and
costs of liquefied bio - and synthetic methane - the maritime shipping perspective” concludes that these fuels could become available in sufficient quantities to make a contribution towards future decarbonization for the shipping industry.

As the marine industry looks for alternate solutions to reduce pollutant levels, GE marine gas turbines are dual-fuel capable, and are proven to operate on a variety of fuels. GE engines provide flexible options for shipbuilders and owners to meet current and future regulations.

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**GE in the news**

Here are newsworthy items about GE marine gas turbines:

- "Gas turbines – a viable alternative to piston engines?” on [Rivieramm.com](http://www.rivieramm.com)
- “GE: World Leader in Naval Electric Drive Power and Propulsion” from [Asianmilitaryreview.com](http://www.asianmilitaryreview.com)
- "GE Engines to Power Four New Chamsuri II-Class Patrol Boats for Korean Navy” on [Seapowermagazine.org](http://www.seapowermagazine.org)

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**GE pivotal in Operation Bushfire Assist**

In February, Australia was experiencing one of its worst droughts in decades, with record heat and strong winds; subsequent wildfires burned millions of acres. Thus, the federal government dispatched its military for Operation Bushfire Assist. Forces — including the Royal Australian Navy (RAN) — assisted in firefighting, evacuation, search and rescue and clean-up efforts.

"Reece Hamer and Cameron Lodge from General Electric Marine are on board to provide quality assurance and technical support of recently completed work to replace the ship’s LM2500 gas turbine."

GE Marine was proud to be involved in readying the RAN’s HMAS Adelaide (shown above right); she is powered by a GE LM2500 marine gas turbine. Read the [RAN press release](http://www.ran.gov.au) or view this [RAN video](http://www.youtube.com) for more on this story.

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**You will be missed!**

Congratulations on your retirement! These individuals brought an impressive combined 167 years contributing and supporting the steady growth of GE’s marine and industrial businesses, and their dedication and passion for this unique business segment is beyond words. You will be missed!

- **Tom Batory**, Customer Program Manager, 41 years
- **Joe Higbee**, Customer Program Manager, 35 years
- **Keith Miner**, Field Service Representative, 33 years
- **Dan Rampton**, Director, Services and European Sales, 23 years
- **Mike Reale**, Director, Customer Programs, 35 years. **Mark Lipton** will now handle customer programs; he can be reached at cell: +1-513-235-5276, mark.lipton@ge.com
Welcome aboard

GE Marine announces these new additions to its team:

Christina Kowalski is a Senior Product Manager leading GE’s work for the U.S. Navy LHA and LHD, U.S. Coast Guard National Security Cutter and Japanese naval programs. She can be reached at cell +1-513-375-2397, christina.kowalski@ge.com.

Josh Lusk, Senior Product Manager, leads GE’s programs with the U.S. Navy for the Littoral Combat Ship and the next-generation FFG(X) frigate, as well as other international marine programs. Josh can be reached at cell +1-513-802-7473, joshua.lusk@ge.com.

Scott Welsh is Services Leader for GE Marine, responsible for leading the marine services and spare parts team. Contact him at cell: +1-513-641-6632, scott.welsh@ge.com.

Steve Rogers is the Account Manager, Military Marine Sales. Steve can be reached at cell: +1-513-503-0151, stephen.rogers@ge.com.

Trade shows in 2020?

Due to the COVID-19 virus, the GE Marine team is uncertain what industry trade shows it will be attending this year. In the meantime, should you have any questions regarding GE products and services, please reach out to the proper GE expert by referencing the "Contact our team" section of this newsletter.

Contact our team

If you need answers to questions, please don’t hesitate to contact the following members of GE’s marine gas turbine team.

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Learn more about GE marine gas turbines