



PyroGenesis' Plasma Arc Waste Destruction System (PAWDS) Heads to Sea as US Navy's New \$13 Billion Aircraft Carrier – the Most Technologically Advanced Ship Ever Built – Sets Sail on Maiden Deployment

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Contract Milestones on Dual System Order Triggers \$1 Million Payment

MONTREAL, Oct. 26, 2022 (GLOBE NEWSWIRE) -- PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX: PYR) (NASDAQ: PYR) (FRA: 8PY), a high-tech company (hereinafter referred to as the "Company" or "PyroGenesis"), that designs, develops, manufactures and commercializes advanced plasma processes and sustainable solutions which are geared to reduce greenhouse gases (GHG), is pleased to announce that the Company's Plasma Arc Waste Destruction System ("PAWDS") is in operation on the newly launched USS Gerald R. Ford aircraft carrier that departed Naval Station Norfolk on October 4, 2022 for its initial deployment. The ship – the first of four carriers the US Navy have contracted to have the PAWDS system on board – will spend the next two months in both the Mediterranean Sea and the Atlantic Ocean as part of a multi-national exercise with eight other countries, including Canada and France, to prepare the crew for real-world scenarios.¹

"The initial deployment of the USS Gerald R. Ford with our PAWDS on board is truly a milestone for PyroGenesis," said Mr. P. Peter Pascali, CEO and Chair of PyroGenesis. "To be even a small part of the most technologically-advanced ship ever built is immensely validating – for the Company, for the science behind the project, and for the years of work by our team."

The next aircraft carrier in the Gerald R. Ford Class to utilize the PAWDS system will be the USS John F. Kennedy which has been under design since 2009, and under construction since 2011. The USS John F. Kennedy is scheduled for delivery to the US Navy in June 2024. Of note, PyroGenesis has already delivered the PAWDS system for this ship.

The payment announced today of approximately \$1 million CAD (USD\$729,000) is as a result of various inspection and support milestones having been reached with respect to the dual ship order for the USS Enterprise and USS Doris Miller, which the Company is currently under contract for. PyroGenesis has been contracted for a total of four systems, one for each of four aircraft carriers. Two have been delivered (USS Gerald R. Ford and USS John F. Kennedy), and two are currently under order (the USS Enterprise and USS Doris Miller).

PAWDS is a compact all-electric waste management system for combustible waste, designed for each of the first four Ford-class aircraft carriers scheduled to be built – the first new generation of carriers designed in 40 years. PAWDS eliminates more than 400 pounds of diverse trash material per hour, including the plastic that traditional ship waste systems could not destroy. PAWDS reduces all the ship's trash – plastic, paper, food, and wood – to vapor, a key aspect, as without a waste destruction system of this caliber, the ship would be forced to reduce operations, returning to port to off-load trash.²

In addition to the contracts for the USS Gerald R. Ford and USS John F. Kennedy, a further two-ship build contract with the US Navy was awarded to the Company in 2020, for \$11.5 million, for the ships USS Enterprise and USS Doris Miller.³ The USS Enterprise began construction in 2017 with a future delivery date of 2028; the USS Doris Miller will follow.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG) and are economically attractive alternatives to conventional "dirty" processes. PyroGenesis has created proprietary, patented and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m² and 2,940 m² manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: www.pyrogenesis.com.

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Corporation's current expectation and assumptions and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Corporation with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Corporation's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.sec.gov. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Corporation undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws. Neither the Toronto Stock Exchange, its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) nor the NASDAQ Stock Market, LLC accepts responsibility for the adequacy or accuracy of this press release.

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¹ US Navy's latest and most advanced aircraft carrier deploys for first time, by Ellie Kaufman and Oren Liebermann, CNN. October 4, 2022 <https://www.cnn.com/2022/10/04/politics/uss-gerald-ford-deploys>

² USS Gerald R. Ford's (CVN 78) Lesser-Known, Trash Disposal Technology, Plasma Arc Waste Destruction System, by Lt. Cmdr. Chris Buchanan, March 11, 2021. <https://scnewsltr.dodlive.mil/Latest-Issue/Article-Display/Article/2612544/uss-gerald-r-fords-cvn-78-lesser-known-trash-disposal-technology-plasma-arc-was/>

³ PyroGenesis Signs \$11.5MM Contract for US Navy's Two Ship Build <https://ir.pyrogenesis.com/news-releases/news-release-details/pyrogenesis-signs-115mm-contract-us-navys-two-ship-build>