Press Release

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DSM DYNEEMA PARTNERS WITH AIRBORNE INTERNATIONAL TO PRODUCE TOUGH, LIGHTWEIGHT, HIGHLY TRANSPARENT RADOMES

The Netherlands, 18 November 2015 - DSM Dyneema, the manufacturer of ultra high molecular weight polyethylene (UHMWPE) fiber, branded as Dyneema®, and world leader in life protection materials and high-performance fibers, today announces a partnership with Airborne International to develop and produce radomes featuring Dyneema® Crystal Technology. With near-zero signal loss, Dyneema® Crystal Technology is setting new standards for electromagnetic transparency, as well as light weight, strength and hydrophobic performance. The partners will deliver next-generation radomes to companies including initial customer Pro Patria Electronics for its PGSR-3iFT Beagle tower-mounted ground surveillance radar. DSM Dyneema will feature Dyneema® Crystal Technology and its application in the Beagle radome at Airborne's stand at the NIVD Conference in Rotterdam, the Netherlands, on Nov. 19, 2015.

"Our tower-mounted ground surveillance radar faces tough, unrelenting challenges in the field," said Miki Kohen, technical director of Pro Patria Electronics. *"We needed a breakthrough radome design to support and enhance its capabilities and we found the ideal solution by working with Airborne and DSM Dyneema. Dyneema® Crystal Technology not only exceeded our high expectations for performance, but it also addressed a wide spectrum of challenges, from protection to portability. This unique material has the potential to transform our industry in a big way."*

The Pro Patria PGSR-3iFT Beagle is a tower-mounted radar used to detect, track and classifiy targets moving on or close to the ground. Designed for deserts and other harsh environments, it is a key component of sensor systems for early warning, border incursion prevention and threat recognition. The cylindrical radome developed by DSM Dyneema and Airborne for this application uses high-performance Dyneema® Crystal Technology in tape form and is approximately 1m in diameter and 1.2m in height.

"Dyneema® Crystal Technology takes a radically different approach to radar protection, enabling us to raise the bar in radome design and production," said Giel van der Kevie, commercial manager of Airborne International. *"This technology gives our company a powerful new solution to address higher frequency challenges and requirements for near-zero signal loss. Together with our partner, DSM Dyneema, we are investigating new ways to leverage the distinctive properties of Dyneema® Crystal Technology to benefit our customers."*

Pro Patria Electronics Airborne Dyneema® With you when it matters

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"Our Premium Manufacturing Partnership with Airborne International will enable us to offer radically new designs to the radomes industry," said Danielle Petra, new business development manager at DSM Dyneema. *"Drawing on our complementary strengths and shared focus on innovation, we are leveraging Dyneema® Crystal Technology to re-imagine radome capabilities and maximize radar performance."*

Dyneema® Crystal Technology provides lower signal loss than any other radome material available today, with an extremely low loss tangent and approximately half the dielectric constant compared to aramid, e-glass and quartz. The electrical properties of the material maintain superior performance, even at higher frequencies from X band to millimeter band, allowing military, civil and telecommunications organizations to realize the full potential of their advanced antenna, radar, radio astronomy or communications systems.

Further, because Dyneema® Crystal Technology offers an exceptional strength-to-weight ratio and high impact resistance, it can be used in thinner gauges that enhance transmission quality even more. Its light weight also makes radomes more energy-efficient to ship and easier to maneuver and install.

The material, which can be supplied as tape or fabric, is inherently hydrophobic without the need for time-consuming and demanding resin application. This property also virtually eliminates the need for regular maintenance.

About DSM Dyneema

DSM Dyneema is the inventor and manufacturer of Ultra High Molecular Weight PolyEthylene (UHMWPE) fiber branded as Dyneema®, the world's strongest fiber™. Dyneema® offers maximum strength combined with minimum weight. It is up to 15 times stronger than quality steel and up to 40% stronger than aramid fibers, both on weight for weight basis. Dyneema® fiber floats on water and is extremely durable and resistant to moisture, UV light and chemicals. The applications are therefore more or less unlimited. Dyneema® is an important component in ropes, cables and nets in the fishing, shipping and offshore industries. Dyneema® is also used in safety gloves for the metalworking industry and in fine yarns for applications in sporting goods and the medical sector. In addition, Dyneema® is also used in bullet resistant armor and clothing for police and military personnel.
UHMWPE fiber from DSM Dyneema is produced in Heerlen (The Netherlands) and in Greenville, North Carolina (U.S.A.). DSM Dyneema is also a partner in a high modulus polyethylene (HMPE) manufacturing joint venture in Japan. Further information on DSM Dyneema is available at www.dyneema.com.

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DSM - Bright Science. Brighter Living.™

Royal DSM is a global science-based company active in health, nutrition and materials. By connecting its unique competences in Life Sciences and Materials Sciences DSM is driving economic prosperity, environmental progress and social advances to create sustainable value for all stakeholders simultaneously. DSM delivers innovative solutions that nourish, protect and improve performance in global markets such as food and dietary supplements, personal care, feed, medical devices, automotive, paints, electrical and electronics, life protection, alternative energy and bio-based materials. DSM and its associated companies deliver annual net sales of about €10 billion with approximately 25,000 employees. The company is listed on Euronext Amsterdam. More information can be found at www.dsm.com.

Dyneema® and Dyneema®, the world's strongest fiber™ are trademarks of DSM. Use of these trademarks is prohibited unless strictly authorized.

All other trademarks are the property of their respective owners.

Pro Patria Electronics is acting as developer and manufacturer of surveillance equipment and as system integrator, delivering products and services to the global law-enforcement and homeland security community.

About Pro Patria Electronics

Pro Patria Electronics was founded in year 2000 in Budapest, Hungary.

Our product range spreading from tower-mounted desert radar systems and man-portable surveillance equipment up to coastal radars and vehicle-mounted security solutions is addressing the growing need in highly effective military and special technical equipment.

The rise in power and activity of transnational criminal and paramilitary organisations, organized unlawful combatants, terrorists and contrabandists, as well as the escalation of threats to civil population, borders and infrastructure require powerful technical solutions and upgrading of surveillance and security systems of border protection and law-enforcement services.

Pro Patria Electronics is committed to develop, manufacture and deliver high quality radar products and integrated systems that will serve as a reliable technical basis for providing advanced surveillance services and for safeguarding of security and stability of regions, lands and people. Pro Patria Electronics is member of the Defence Industry Association of Hungary.

More information can be found at www.propatria-inc.com.

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About Airborne International

Airborne International provides advanced composite solutions for industrial market leaders in the Aerospace, Defence, and Marine industry. As a preferred supplier we design, develop, qualify, manufacture and perform maintenance on composite products for the most demanding applications. Our goal is to assist and enable our customers to reach new frontiers.

Airborne has all the engineering capabilities and manufacturing processes available in-house to bring challenging product ideas with a high market potential to a series-manufactured product in a partnership.

In addition to the design and manufacture of composite products, Airborne develops and builds bespoke machines, with the capability to automate manufacturing of composites structures at competitive price levels for a number of industries worldwide.

More information can be found at www.airborne-international.com.

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The Pro Patria PGSR-3iFT Beagle, a tower-mounted ground surveillance radar manufactured by Airborne International featuring DSM Dyneema® Crystal Technology. (Photo Pro Patria Electronics, DYNPR326)