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ROBIN RADAR INTRODUCES NEW DRONE DETECTION SYSTEM FEATURING ADVANCED RADOME MADE WITH DYNEEMA® CRYSTAL TECHNOLOGY

The Netherlands, 7 June 2016 - DSM Dyneema, the manufacturer of ultra high molecular weight polyethylene (UHMWPE) fiber, branded as Dyneema®, today announced that ROBIN Radar Systems has selected industry-leading Dyneema® Crystal Technology for the radome of its new Elvira® drone detection system. With near-zero signal loss, Dyneema® Crystal Technology helps Elvira® detect drones and classify them, distinguishing them from birds or other flying objects, at longer distances than traditional radar systems. In fact, this breakthrough radar technology can detect larger fixed-wing drones at a range of nine kilometers and smaller multi-rotor drones at up to three kilometers. In addition to the material's electromagnetic transparency, ROBIN Radar chose Dyneema® Crystal Technology for its superior protection of sensitive equipment in harsh outdoor environments and its extreme light weight for easy transport.

The Elvira® radomes are produced by Airborne, a partner of DSM Dyneema. The two companies collaborate to deliver next-generation radomes made with Dyneema® Crystal Technology to customers worldwide.

"Because Elvira® is looking for very small targets and must distinguish fine details to prevent false positives, we needed a radome material that could provide high transparency to minimize signal loss," said Gerben Pakkert, head of R&D at ROBIN Radar Systems. *"These rigorous requirements quickly ruled out existing alternatives. Dyneema® Crystal Technology delivers lower signal loss than any other radome material available today, allowing us to realize the full potential of our advanced radar system."*

Elvira® was specifically designed for drone detection. After winning a tender from the Dutch Ministry of Justice, ROBIN Radar applied its expertise in tracking small targets to design the new system, which launched in April 2016. Elvira® provides military-grade radar capabilities, including advanced Doppler processing that enables it to track even the most agile drones. The system is offered at a competitive price that supports broad usage in professional security scenarios, such as protecting high-profile events, airports, harbors, prisons and other critical infrastructures against drones. By combining detection and classification in just one sensor, the technology saves precious time in the decision process.

“With nearly 200,000 new drones taking to the air each month, as reported by CNBC, accurately detecting and classifying them is becoming extremely critical,” said Danielle Petra, new business development manager at DSM Dyneema. “Elvira® is an excellent example of how Dyneema® Crystal Technology is helping customers create radically new detection technologies and underscores DSM Dyneema’s commitment to supporting our customers with the most advanced security materials on the market today.”

Dyneema® Crystal Technology provides 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.

Dyneema® Crystal Technology is inherently hydrophobic without the need for time-consuming and demanding secondary resin application, a property that 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 the medical sector. In addition, Dyneema® is also used in bullet resistant armor and clothing for police and military personnel. Furthermore the new generation Dyneema® Fabrics offer next level innovations in denim, apparel, footwear, sports equipment and lightweight outdoor products and accessories.

UHMWPE products from DSM Dyneema are produced in Heerlen (The Netherlands), Greenville, North Carolina (U.S.A.) and Mesa, Arizona (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.

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.

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About ROBIN Radar Systems

Netherlands-based ROBIN Radar Systems is known for its technology leadership in bird radars, which are currently operational throughout Europe in wind farms to measure and mitigate environmental impacts and at airports to prevent bird strikes. The company was founded in 2010 after spinning out software algorithms from the Dutch Research Institute of Applied Science. In 2012 two investment funds got on board. Inkef Capital is a 100 percent daughter of ABP, one of the largest pension funds in the world. The other fund is the Mainport Innovation Fund comprised of Amsterdam Schiphol Airport, KLM, the Rabobank and Technical University of Delft.

About Airborne

Airborne 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 of 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.

This press release and relevant photography can be downloaded from www.PressReleaseFinder.com.



ROBIN Radar introduces new drone detection system Elvira[®] featuring Dyneema[®] Crystal Technology.
(Photo ROBIN Radar Systems, DYNPR339)