

# ANNOUNCEMENT

JUNE 4, 2019



Canadian manufacturer, Marsh Brother Aviation is proud to announce that it's founder and Chief Innovator, George A. (Sandy) Thomson has been selected as the 2019 recipient of the Elmer A. Sperry Award. It will be presented to him during the SNAME Maritime Convention, in Tacoma, Washington, this October.

The Elmer A. Sperry Award was established in 1955 to commemorate the life of Elmer A. Sperry, whose many inventions including the gyroscope, the first electric automobile, and land and sea navigational aids that contributed to the advancement of many modes of transportation. Other Sperry award winners include Donald W. Douglas for the DC series of air transport planes and the Commercial Airplane Division at the Boeing Company for the design and production of the family of jet transports such as the 707, 720 and 727.

Sandy Thomson, a resident of Burlington, Ontario has been the driving force behind the development of marine and aviation non-metallic bearings and seals that are truly revolutionary – long lasting and operating without oil or grease:

- He produced the world's first polymer alloy bearing, installed into a vertical pump in partnership with a local steel plant replacing traditional rubber bearings that typically wore out in a few weeks.
- With a strong focus on the health of our oceans, seas and rivers, Sandy was ahead of his time developing seawater lubricated propeller shaft polymer bearings that did not need oil. In the last 35 years, these bearings have been installed on thousands of vessels around the globe where they have prevented millions of litres of oil from polluting our oceans.
- Sandy was the catalyst in the development of robust tailshaft seals with Safe Return To Port capability that complement Thordon's line of marine bearings.
- He used the same polymer science at Thordon's sister company, Marsh Brothers Aviation, to develop AeroTough GF to replace traditional greased metal bushings in aircraft landing gear and oiled flap rollers. On his personal aircraft C-GUTY, the landing gear bushings show no sign of wear after 500 hours of flying time.
- Sandy has also used Thordon's seal design expertise to develop a line of V-seals, a first of its kind in general aviation, for aircraft landing gear applications—made from our proprietary elastomeric polymer, the Marsh Brothers Thorseal is a far superior seal over the traditional rubber o-rings.

“Our innovations have always been customer driven but also based on a desire to develop something the customer doesn't know is even possible,” says Sandy. “If we can't better something that's already out there, why do it? Our philosophy has always been to value quality and reliability over anything else. Our overall objective at Marsh Brothers Aviation is to commercialize a totally grease-free landing gear as well as eliminate the need for repetitive lubrication on other aircraft mechanical systems through the innovative use of our polymers.”

Sandy's early passion for the aerospace industry led him to pilot training with the Royal Canadian Air Force (RCAF), followed by a mechanical engineering degree from Northrup University in California. After some hands on experience as a mechanical seals designer and salesman Sandy returned to his roots in the family business at Thomson-Gordon Group in 1967, where he began his pioneering work with elastomeric polymers.

## **Marsh Brothers Aviation**

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Sandy is hard at work on his next innovation: a series of 5kW to 100kW low noise, zero pollution Kaplan-type turbines for the hydro power industry – another sector that has always been a passion of his.



## About Marsh Brothers Aviation

Marsh Brothers Aviation is part of the Thomson-Gordon Group, a manufacturer of bearings, seals and engineered mechanical components for diverse global markets since 1911. This connection provides access to superior engineering, manufacturing and state-of-the-art R&D facilities that encourage innovation and the delivery of high performance products and quality service. Marsh Brothers Aviation brings the expertise of the Thomson-Gordon Group to the aircraft industry with a focus on the innovative development and supply of high performance parts and service, initially to general aviation aircraft, but with the intention to expand into the transport category aircraft market.

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