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AVIATION WEEK & SPACE TECHNOLOGY

NEW ENTRANT EMERGES IN SEEKER-COOLING BUSINESS

ROBERT WALL/PARIS

The need for competition and the availability of newer technology are among the arguments representatives for Montville, N.J.-based Marotta put forward as they explain their uphill battle to establish a foothold in the air-launched infrared-guided missile seeker-cooling business.

At issue is the market for high-pressure pure-air generators, or HiPPAGs. These devices are designed to provide clean air to cool infrared missiles carried on fighter aircraft—the cooling is vital to allow the infrared seeker to detect the heat-signature of the intended target. For years, militaries relied on nitrogen bottles to provide the low temperatures needed. However, the onerous storage and handling requirements prompted the interest in the generator approach. The Pentagon started fielding such systems in the 1990s.

BUT MAROTTA FACES a number of hurdles as it approaches the market. Among them is formidable competition from long-established Ultra Electronics, which has sold more than 1,400 units to the U.S. Navy and Marine Corps, and has several international customers. Moreover, the newcomer is still searching for a sponsor to allow it to complete the development program. But the company's representatives are undeterred.

For Marotta, the seeker-cooling application seems a logical evolution from some of its other activities in defense and aerospace. Moreover, the company is trying to capitalize on its involvement in a major U.S. Air Force program, the Small-Diameter Bomb. Marotta will provide the pneumatic weapons ejection system that is supposed to push the weapon away from the carrying aircraft.

The missile application is called the Mpact 3000 system and has been designed to fit into the same real-estate currently occupied by the competitor, including launchers such as the LAU-7, LAU-127 and Common Rail Launcher. The system is actually somewhat lighter than its rival's, so ballast would have to be added for existing aircraft to maintain the correct center of gravity. The air flow is about 3,000 psi., says Michael J. Leahan, vice president and chief sales officer.

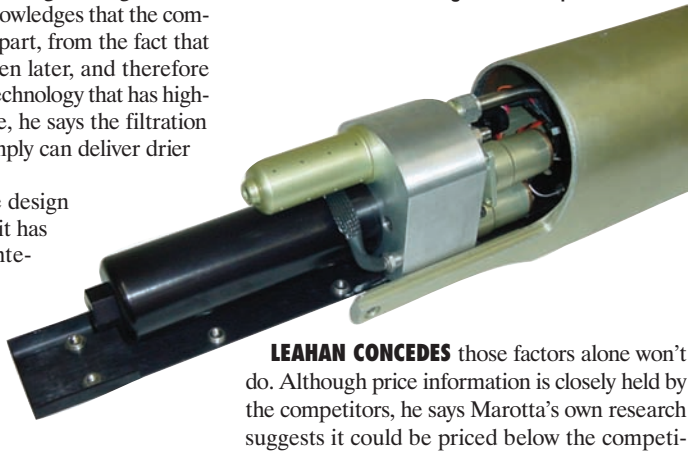
The fundamental principles underlying the two high-pressure systems are basically the same, providing a constant flow of cool, clean and dry air to avoid contaminating the sensitive optics in the missile. Marotta officials contend, however, they have come up with a better engineering solution for the task. Leahan acknowledges that the company's efforts benefit, in part, from the fact that the design was undertaken later, and therefore could use more modern technology that has higher reliability. For instance, he says the filtration systems now available simply can deliver drier air.

Leahan also lauds the design approach taken, arguing it has delivered a more maintenance- and operator-friendly piece of equipment. Subassemblies were laid out to be replaced easily if need be. Moreover, the Mpact device was built with proprietary warning system and state-of-the-art software built in so aircraft technicians can determine when they need to change a filter.

But Ultra's position could be difficult to shake. The company recently won another $10-million U.S. Navy contract for more airborne compressors for missile cooling. The work will run through next year. Moreover, Ultra's management is girding up to hold on to its edge. Alan Jan-Janin, managing director of Ultra's Aircraft & Vehicle Systems division, said earlier this year that the latest Pentagon contract "emphasizes the superiority of Ultra's innovative HiPPAG technology. HiPPAG has an excellent long-term track record of in-service reliability and of proven savings in logistics support costs."

Marotta representatives still believe they have a chance. First, they point out that a government contract for them would break Ultra's monopoly position and lead to better prices. And second, they are hoping to leverage "Buy American" sentiments, noting that its rival is based in the U.K.

MAROTTA'S NEW COOLING device would fit into existing launcher space.



LEAHAN CONCEDES those factors alone won't do. Although price information is closely held by the competitors, he says Marotta's own research suggests it could be priced below the competition's acquisition cost. Moreover, he says, the newer technology would yield long-term operations and support cost savings.

The next step is system qualification. Marotta is in discussion with various Pentagon entities to integrate their device into a launcher and aircraft.

In the meantime, work continues on the pneumatic bomb ejection system that would operate at around 5,100 psi. but could go up to 6,000 psi. Although the device is intended for the 250-lb.-class weapon, it could be used to eject much larger bombs, Leahan notes.