

NIOA eyes next stage in rocket motor strategy



Australian ordnance and munitions house, NIOA, is positioning to be part of the Australian Government's long-term rocket motor manufacturing strategy,

Following last month's announcement of a commitment to establish low-rate production for solid rocket motors (SRM) for the Guided Multiple Launch Rocket System (GMLRS) munitions involving Northrop Grumman, Lockheed Martin Australia and Thales Australia, *DTR* understands that Defence has now arrived at a two-stage strategy for SRM production in Australia.

The strategy has the low-rate SRM production activity at Mulwala as Stage 1 and large-scale SRM production at a new dedicated facility as Stage 2. As is now known, Stage 1 will involve the low-rate production of around 400 GMLRS rocket motors transition to what will become Northrop Grumman's Production Line A at the new Stage 2 facility for a uniquely-Australian GMLRS rocket motor.

"With Stage 1 announced and decided it now means Defence can undertake an actual industry engagement for Stage 2, which is our entire area of focus," NIOA Group chief

ABOVE: Candidate solid rocket motors for production at the planned Stage 2 factory include members of the Standard Missile family. Image: Raytheon

executive officer Robert Nioa told *DTR*.

The Stage 2 SRM production facility must be established by 2030 in order to commence low-rate production, first article testing, qualification and ramp up to full rate production as quickly as possible.

The design of the new factory for Stage 2 is "exactly what we have previously proposed in our RFI response in December 2024," Mr Nioa continued. "That is, it will have two production lines, Production Line A and Production Line B, it will have multiple vendors and it will have multiple products."

For Production Line B, NIOA is proposing L3Harris rocket motor production as a start point. Having acquired Aerojet Rocketdyne in July 2023 and subsequently integrating its solid and liquid fuel rocket motor technologies into the company's defence and aerospace portfolios as a fourth business unit, L3Harris sits alongside Northrop Grumman as one of two large-scale rocket motor producers in America.

Of the 12 highest priority US munitions, it is understood that L3Harris manufactures the rocket motors for 10 of those.

By way of its teaming agreement with L3Harris, NIOA is able to access the IP to enable the manufacture in Australia of SRMs for Tomahawk, Standard Missile 2, 3 and 6, THAAD (Terminal High Altitude Area Defense), Patriot, Javelin, Stinger and the Nulka off-board rocket-propelled active decoy.

The US Department of War has placed rocket motor orders with L3Harris for a number of these munitions which run from 2030 to 2037. When combined with existing orders, this represents 10 years' worth of firm orders from the US customer.

"For the first time in living memory, a US rocket motor manufacturer has a decade's worth of firm and fixed purchase orders in hand," Mr Nioa said.

"What that means is that we can fill the rocket motor factory Production Line B with 100% pre-committed orders into the L3Harris supply chain. We don't actually need an order from the Australian Government; we've already got the orders from the US Government to workload that facility, and all of those rocket motors can go back into the US supply chain.

"The direct benefit for Australia in that," continued Mr Nioa, "is that we can completely workload Production Line B with, for instance, Standard Missile rocket motor production."

One of the prime rocket motor options for Production Line B will likely be the surface-to-air SM-2 missile used by the Royal Australian Navy, with local rocket motor production an aid to overcoming potential bottlenecks in supply from the US.

FACTORY LOCATION OPTIONS

Defence is yet to confirm its preferred location for the Stage 2 facility, which needs to accommodate rocket motor production for missiles at the upper

end of the size spectrum.

Of the three options thought to be under consideration by Defence, the first, Mulwala in Victoria, lacks the facilities and site requirements for outdoor static rocket motor firing, which typically produce large volumes of sulphuric acid plumes and very high noise levels.

Benalla has both Thales Australia (trading as Australian Munitions) and NIOA already operating there using existing licences under a dual tenancy arrangement, proving the site's ability to accommodate multiple vendors operating under multiple licences. NIOA operates in about half of the facility, which is comprised of some 100 acres of production buildings, testing laboratories, 350 production bays and storage areas. Benalla has significant spare capacity and around 2,500 acres of land set aside for expansion.

NIOA also has 320 acres of private land adjoining the Benalla facility, which would align with the 2026 *National Defence Strategy's* call for increased private capital in the defence sector in priority areas such as the Guided Weapons and Explosive Ordnance enterprise.

“FOR THE FIRST TIME IN LIVING MEMORY, A US ROCKET MOTOR MANUFACTURER HAS A DECADE’S WORTH OF FIRM AND FIXED PURCHASE ORDERS IN HAND. THAT MEANS WE CAN FILL THE ROCKET MOTOR FACTORY PRODUCTION LINE B WITH 100% PRE-COMMITTED ORDERS.”

– ROBERT NIOA, NIOA GROUP CEO

“Private capital is easier to do around infrastructure than for military hardware,” Mr Nioa said. “So there’s a fair chance that our private land may be helpful for the Stage 2 plan. Equally, the Government could develop the facility on Commonwealth land.”

The third location option is a greenfield site, the prospect of which may attract state government interest and funding assistance, thereby reducing Defence capital outlay.

A Government owned, designed and managed Stage 2 facility on Commonwealth land commissioned by 2030 would, however, “be ambitious”, Mr Nioa believes, adding that he expects this is where Defence will need industry to “lean in”.

L3Harris is currently building several similar factories in the US, which would make available existing designs of sister facilities and an established industrialisation team.

– Ian Bostock

BELOW: Capacity pressure placed on US manufacturers created by prolific operational use and ongoing orders could make rocket motor production for weapons such as the FGM-148 Javelin viable for the Stage 2 facility involving NIOA. Image: USMC

