

Australian-made BLU-111 bombs enter service



SOVEREIGN MUNITIONS MANUFACTURE

A new-generation air-to-ground munition manufactured by Thales Australia has been introduced into Royal Australian Air Force (RAAF) service, it was announced 17 January.

The BLU-111(AUS)B/B 500lb (227kg) high-explosive iron bomb was delivered to No 3 Squadron at RAAF Base Williamtown in September 2021, where it was configured by armament technicians as a GBU-12 Paveway II laser guided bomb before being loaded onto the F-35A Joint Strike Fighter for a training sortie.

The BLU-111(AUS)B/B, the RAAF said, is designed as a direct replacement for the older-generation Mk 82 500lb iron bombs, delivering comparable performance and lethality while improving safety characteristics.

Air 6000 Weapons Project Engi-

ABOVE: Armament technicians from 3 SQN load a new Australian-manufactured BLU-111(AUS)B/B warhead configured as a GBU-12 onto an F-35A Joint Strike Fighter at RAAF Base Williamtown.

Image: ADF

THE BLU-111(AUS)B/B IS DESIGNED AS A DIRECT REPLACEMENT FOR THE OLDER-GENERATION Mk 82 500LB IRON BOMBS

neering Manager, Squadron Leader Ryan Kell told Defence media, that once fully introduced into service, the

BLU-111(AUS)B/B "would be used as the go-to 500lb high-explosive warhead for Air Force during operations and training exercises".

The BLU-111(AUS)B/B is intended for use in both GBU-12 Paveway II and the Joint Direct Attack Munition family of guided aerial bombs and will, in due course, also equip the Hawk 127 lead-in fighter, F/A-18F Super Hornet multi-role fighter and the MQ-9B SkyGuardian unmanned aerial vehicle when that platform comes online.

The BLU-111(AUS)B/B is a variant of the in-service Mk 82 general purpose bomb but with a plastic bonded explosive filler (PBXN-109). The Australian-made BLU-111 has the same range and performance metrics as the Mk 82 but with improved safety for the storage, transport and use of warstock munitions.

SOVEREIGN MANUFACTURE BENEFITS

"The development and production of the BLU-111(AUS)B/B has been an ongoing collaboration between the United States Government, Defence and Australian industry, specifically the manufacturer, Australian Munitions," SQNLDR Kell said.

Sovereign production of the BLU-111(AUS)B/B commenced after the success of the BLU-126(AUS)/B, 500lb low-collateral bomb which first demonstrated Australian ability to produce reduced sensitivity warheads using locally manufactured ingredients for the explosive fill.

BLU-111(AUS)B/B production is being carried out by Thales under the Government's Sovereign Industrial Capability Priority Industry Plan for Munitions and Small Arms Research, Design, Development and Manufacture, which was established in 2019. Production is underway at the Benalla and Mulwala munitions facilities in Victoria and New South Wales respectively.

SQNLDR Kell said a key benefit of sovereign munitions production was the ability to continue improving safety and performance of weapons to best meet the RAAF's needs.

"Aircraft bomb warheads have been produced in Australia for a number of decades, but the BLU-111(AUS)B/B warhead represents a generational change in explosives manufacture and safety technologies through use of a polymer-bonded explosive fill and design features which reduce the likelihood of the warhead detonating in the event of a safety incident."

Air Force Director Combat Capability, Group Captain Guy Adams said this warhead represents the next step in Australian defence industry supplying sovereign manufactured weapons for use by current and future air combat platforms.

"Having 500lb bombs produced in Australia," GRPCAPT Adams said, "increases our self-reliance and resilience of our air combat platforms and the warfighting capability they provide."

"As a future line of effort, the ability to act as a second line of supply to allied nations could see Australia providing warheads for use by allies during operations or training, which would greatly enhance international relationships and interoperability."

- Ian Bostock



More Hellfires on way for ADF

The US State Department has approved the possible sale of up to 800 AGM-114R2 Hellfire air-to-ground missiles (AGM) for the Australian Defence Force (ADF).

The pending deal would have a value of US\$108 million (AUD\$150.9 million) and also include technical assistance, publications, spare parts, repair and return, storage and other related elements of program and logistics support.

With operation of the Australian Army's legacy Tiger armed reconnaissance helicopter (ARH) to be wound down as delivery of the first of 29 AH-64E Apache Guardian attack helicopters looms mid-decade, the additional Hellfire missiles will likely be reserved mostly for the new aircraft.

The E-model Apache can carry a maximum of 16 Hellfire missiles on all

four stub-wing hardpoints, although a standard weapons fit would comprise eight Hellfire AGMs and two 19-round pods of 70mm guided/un-guided rockets.

Whilst the 20 December State Department notice mentions only the Army, the Royal Australian Navy also uses the Hellfire on its 23 MH-60R Seahawk naval combat helicopters. It is assumed the additional dozen Romeo models ordered in late 2021 will also be able to fire the Hellfire, although the extra aircraft are to be tasked with more utility tasks such as vertical replenishment, search and rescue and communications relay.

It is expected the incoming General Atomics MQ-9B SkyGuardian unmanned aerial vehicles will also carry Hellfire missiles.

Introduced into Australian Army

BELOW: Australia has requested the purchase of up to 800 of the latest-model Hellfire AGM. Image: ADF



service in 2012, the original semi-active laser homing AGM-114R has a range of approximately 8km and a multi-purpose warhead intended for low collateral damage. No date for delivery of the first AGM-114R2 Hellfire AGMs was given.

- Staff Reporters