

**By Dr Carlo Kopp**

By condemning the F-111, Defence has thrown away opportunities to improve RAAF capabilities at low incremental cost.

One blunder was to fail to "weaponise" the 15 F-111Gs acquired during the early 1990s. They did not have *Pave Tack* to support laser-guided bombs.

The F-111C was then getting the new digital AUP upgrade package on a production line at Amberley. An adaptation of the AUP design, using common software, could have been installed in the F-111Gs largely for the cost of the hardware and physical installation, using the then active production line.

Instead, AIR 5404, intended to weaponise the F-111Gs, resulted in a proposal which would have cost almost as much as the AUP program and would have introduced unique hardware. The F-111G remains largely in the configuration it was delivered in and the AUP line shut down.

## How RAAF misses the ideas bus

*Mothballing the Pave Tack USAF F-111F fleet created a surplus of bomb bay cradles and Pave Tack targeting pods, which would have allowed at low cost the retrofit of Pave Tack on the F-111Gs.*

*Pave Tack is largely autonomous and minimal software changes would have grafted Pave Tack on to the F-111G's AMP system. This opportunity remains – ignored.*

*In the early 1990s, General Electric and USAF looked at retrofitting the GE F110 engine into the F-111. This engine had previously been adapted as a retrofit kit for the TF30 variants in the US Navy F-14A and is now being flown in the F-14B and F-14D. Adapting the engine for the F-111 becomes a low-cost engineering exercise.*

*The F110 is more reliable, easier to maintain, more fuel efficient and delivers significantly more dry*

*and wet thrust than the TF30-P108/109 in the F-111s. This opportunity remains – ignored – despite the availability at low cost later this decade of a pool of used US Navy F110 engines from the retiring F-14B/D fleet.*

*Another opportunity now is with the F-111C Block C-4 upgrade involving the addition of a VME based COTS computer system and Mil-Std-1760C weapons interfaces. This hardware and software could be grafted on to the F-111G at very modest cost to support all the latest Mil-Std-1760C weapons – JDAMs, EGBU-10/24, the GBU-39 small diameter bomb and the follow on stand off weapon.*

**Contd: next page**

## BAES snaffles Alvis armour

LONDON – BAE Systems snatched the UK tank maker Alvis for £355 million, in a last-minute bid that trumped a rival bid from US competitor General Dynamics. Alvis withdrew its earlier recommendation for a bid from GD.

BAES wants to play a key role in a new £3 billion UK armoured vehicle contract called Future Rapid Effects System (FRES).

It also comes at a time when European industry executives and politicians have expressed fears of US domination, fuelled by rising US defence spending, which at over \$200 billion a year dwarfs what Europe spends collectively.

Alvis started as a car manufacturer in 1919 and now has operations in the UK, Scandinavia and South Africa. Apart from tanks, Alvis makes armoured infantry fighting vehicles, and APCs.

## Palace-saviour Hurricane found

LONDON – Archaeologists have unearthed parts of a World War II Hurricane that crashed after downing a German Dornier near Buckingham Palace on September 15, 1940, now commemorated as Battle of Britain Day.

Historians believe the German plane may have been on a mission to destroy Buckingham Palace.

Pilot Ray Holmes had run out of ammunition so he flew his Hurricane into the German plane. He managed to slice off the bomber's tail and parachuted out of his plane before it hit Buckingham Palace Road. The Dornier plunged into part of Victoria Station.

Holmes's plane, which hit the ground at around 350 miles an hour, was buried under a water main and never recovered. The road was later paved over.

Archaeologist Christopher Ben-

nett said the plane's engine and control panel were located late Sunday during excavations in Buckingham Palace Road in the centre of the capital.

Holmes, 89, was present as the engine was lifted out.

## Myanmar journo snatched in KL

KUALA LUMPUR – Unknown men abducted a Myanmar journalist and political activist in Malaysia last week as he tried to cover a visit by Myanmar Prime Minister Khin Nyunt.

Minn Khaw, 26, a supporter of the country's main opposition leader Aung San Suu Kyi, was on his way to Kuala Lumpur International Airport when his car was forced to the side of the road.

The kidnapers said they were police but police HQ denies any knowledge of the lift.

**From previous page**

There are 70+ mothballed late model F-111Fs and a dozen F-111Gs in AMARC. These aircraft could be refurbished using the Amberley WSBU and engineering capabilities.

Industry proposed a lateral solution to the impending F/A-18A fleet fatigue life by using the F-111 to rebalance RAAF force structure and reduce the number of Hornet flying hours, minimising the need for fuselage barrel replacements.

This proposed transferring 77 SQN to the F-111, reducing the

Hornet fleet from four to three squadrons and aggregate flying hours by 25 percent – adding 25 percent more to the life of the remaining fleet.

Improved F-111 availability since the ageing aircraft engineering program at Amberley minimised incremental F-111 buy numbers.

For eight to nine F-111s per active squadron and remaining spares to cover deeper maintenance and upgrade downtime, the pool of airframes in Australia is arguably large enough.

If a higher ratio of spare tails is sought, further F-111Gs could be acquired, or alternately a block replacement of F-111Gs with about 20 or so younger F-111Fs would be viable.

The proposal to kill off the F-111 and rebarrel 15 up to 43 further F/A-18A/Bs is more expensive in the short, medium and long term, if you do the sums properly.

It also reduces overall capability and involves pouring resources into the F/A-18A, which is becoming less competitive in the regional environment.

## SLAM-ER's slam-dunk

ST. LOUIS – The Boeing standoff land attack missile expanded response (SLAM-ER) successfully demonstrated its new retargeting capability at Point Mugu, California.

A F/A-18C Hornet, assigned to Strike Fighter Squadron 25 (VFA-25), launched a SLAM-ER to destroy a simulated radar site on San Nicolas Island, used by the US Navy for test and training.

The SLAM-ER changed direction when the Hornet pilot identified a new target on the island and sent a midcourse update.

In addition to retargeting, a series of USN tests used the SLAM-ER to attack land targets moving at high-way speeds. The capability will make SLAM-ER the first operational standoff weapon that can attack moving land targets.

• *Picture: The diverted bomb steers from building to tower (left)*



Boeing Media image

## US fire tankers will fly again

WASHINGTON – Big air tankers, grounded over safety concerns, could be back fighting fires shortly if their private operators can prove they are safe to fly.

The Forest Service, which

grounded the 33-plane fleet last month because it had no way to tell if the aging planes were safe, has now, with the Federal Aviation Administration, developed guidelines to assess airworthiness.

The companies that operate the military surplus planes will supply flight history, maintenance and other information, said Mark Rey, the Agriculture undersecretary.



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