

## F-111 blow to industry – Part 1

**By Dr Carlo Kopp, PEng**  
**MELBOURNE** – The F-111 support base provides Australia's principal systems integration and development facility for modern air borne weapon systems.

The rapid improvement in F-111 reliability seen over the last 18 months came mainly from the tight coupling between the engineering and depot facilities, allowing design engineers to be applied to fixing long unresolved reliability problems. If the F-111 is killed off later this decade, Australia will lose its unique national technological capability.

The impact of the early retirement will be seen much earlier as

fundings are diverted from a "doomed platform" and highly skilled engineering staff start seeking other employment.

The Boeing-operated Weapon System Business Unit (WSBU) designs, develops, prototypes, tests and deploys modifications and upgrades to the F-111 air frame, core avionics and air frame systems and weapon systems software, as well as providing engineering support for depot maintenance.

The WSBU has performed a series of incremental block upgrades to the F-111 following the 1990s Avionics Update Program (AUP),

in which the unreliable and obsolete 1960s core avionics were replaced with new hardware and a software-based weapon system, more accurate than most off-the-shelf combat aircraft.

It also permits the integration of avionics upgrades and new weapons within Australia, keeping the expenses in-country as well as the engineering experience.

Balancing payments issues aside, the WSBU provides Australia with a technological capability which is unique to the US, EU na-

## F-111 skills vital for the nation

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## USN visit to Saigon ends

**HANOI** – The US Navy frigate *USS Vandegrift* and crew of 200 have completed a four-day port call to Ho Chi Minh City, the first by an American warship since the Vietnam War.

The ship visit came a week after Vietnamese Defence Minister Pham Van Tra made a landmark trip to the US and was the first concrete evidence of a new era of military relations between the former foes.

During the *Vandegrift* visit, the crew embarked on a series of public relations events.

On Friday, some American servicemen explored the Cu Chi tunnels about 70 kilometres north west of Ho Chi Minh City.

The tunnel network stretched for 250km in the Vietnam War.

There were other entertainments. In recent years Saigon has regained its war-era "sex, drugs and rock'n'roll" reputation.

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## ***F-111 blow to industry – Part 2 (from previous page)***

tions, Israel, Russia and other leading technological players. Without this national capability Australia would have to take such integration projects overseas – and end up with the technological competency of third world nations.

Once the F-111 is killed, the WSBU will no longer have the volume of core activity to sustain its skills base and will rapidly contract. In practical terms Australia will dumb down in an area where few nations have a capability – and many nations are desperately trying to develop one.

Regional nations such as India and China are investing billions to build up such a capability. Israel Aircraft Industries turns over US\$2.1 billion doing exactly this business and has an order book of \$4.5 billion, mainly for export.

Australia is already suffering problems with deskilling across its technological industries, which in relative terms are a pale shadow of capabilities in the 1940s, 1950s and 1960s.

In the aerospace industry, badly hurt by the post 9/11 downturn, the loss of the core business activity

sustaining the Amberley WSBU would be a body blow. Most badly damaged would be the skills sets the most difficult to acquire and sustain – systems design, systems integration and airborne embedded software development and testing.

There is no other aircraft in Australia which could provide the required platform for developing and sustaining such skills.

A large pool of experienced design engineers, reliability engineers and software developers can solve problems on all ADF aircraft, not just the F-111. At this time the Boeing 707 tankers are receiving extensive repairs at the WSBU facility – impossible with out the accumulated experience gathered in ongoing F-111 work.

The same skills could be used to stretch the life of the AP-3C, C-130H and Caribou fleets. The WSBU is a resource which has much to offer the ADF in the longer term, but only if it can survive at its current size – a prerequisite for maintaining the required diversity of skills sets.

The debate around the F-111 was wholly focussed on issues of

cost and aircraft utility in the short term – the destructive effect of the possible loss of the F-111 on the nation's badly bruised technological base never rated a mention. A few contractors, hypothetically providing individual and minor components to the JSF decade hence, are no substitute for a broad systems integration and design capability and the cross-platform skills this generates.

Australia cannot afford to take another major blow to its aerospace industrial base of the magnitude which results from killing off the F-111. After more than a decade of expensive taxpayers' investment in this technological capability, destroying it before it can realise its full return is a monumental waste of taxpayers' resources. It will dump hundreds of engineering and maintenance staff, often with unique and expensively developed skills, into an undernourished technology jobs market.

Yet again one wonders whether federal cabinet have any idea of what they have actually been sold in the early F-111 retirement proposal.

## **‘Boss Lift’ takes to field**

PERTH – A group of 21 employers from Western Australia will travel to Penang, this week as part of a Defence program designed to encourage employer support for the Reserves.

The group will visit Rifle Company Butterworth, a force of about 120 Australian Army Reservists from Western Australia's 13th Bri-

gade. Many of the employers will see their employees in the field.

WA Police Service Superintendent Mick Emmanuel and Commander Murray Lampard, for example, will meet 11 police Army Reservists.

The Defence Reserves Support Council says the three-day “Boss Lift” program will highlight the importance of the Reserves in defending Australia's interests.

DRSC executive officer Marc McGowan said he hoped Boss Lift

would show the benefits that Reserve service brings back to the civilian workplace.

“Reserves make up a significant proportion of the ADF – in fact, almost 40,000 Australians serve in the Defence Force Reserves,” said McGowan. “As the ADF's commitments grow, there is a greater reliance on the Reserves.”

The 13th Brigade Reserve soldiers, who are in Malaysia for three months, are taking part in bilateral exercises while overseas.



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