

**Candid G-G  
spells  
out the  
facts of life**  
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**Uh-oh!  
Robin lashes  
out on  
UK tankers**  
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Issue 281

October 13, 2003

## **S'pore's short list But F-15T is pea to replace SAF's creaky Skyhawks**

**S**INGAPORE – Singapore has shortlisted Eurofighter's Typhoon, France's Dassault Rafale and Boeing for the replacement fighter or der worth more than US\$1 bil lion. The US can di date is the F-15T Strike Ea gle and an a lysts tip it as the win ner of the con test be cause of its range and ver sa tility as a bomber.

Singapore's wants to replace its old McDonnell Douglas A-4SU Super Skyhawks. The next step is an in vi ta tion to ten der, with a fi nal se lection next year.

It was im por tant for France – and for Singapore's commercial rela tion ships – to shortlist Dassault Aviation. Since Dassault's Rafale has failed to win any export competi tions, a Singapore order would be crucial to the com pany's fu ture..

Eurofighter GmbH is a con sor tium of Brit ain's BAE Sys tems, Eu ro pean Aeronautic Defence & Space of Germany and France and Finmeccanica of It aly.

Boeing offered both its F-15 Strike Eagle and the F/A-18E/F Super Hornet. Sing a pore shortlisted the larger and more pow er ful F-15. The or der is also im por tant for Boe ing, which needs more orders to keep the F-15 in production beyond

**Singapore, to Page 2**



Boeing computer image

*Boeing has painted discreet Singapore Air Force markings on a digital image of its F-15E strike Eagles, which it has proposed to Singapore as F-15Ts.*

## **777-300ER's test; Sydney-Recife**

**S**YDNEY – One of the world's lon gest test flights – and pos si bly a re cord – will launch from Syd ney on No vember 4. Boe ing's 777-300ER test air craft will round off an in tense se ries of long-distance flights by tak ing off from Kingsford Smith and fly ing in a south erly great cir cle route – across the Pa cific and Antarctica – for 19 hours to Recife, a city on the east ern "nose" of Brazil on the At lan tic Ocean, al most on the equa tor.

The surface dis tance is 8020 nau ti cal miles, or 14,852km. The ac tual flight dis tance is even lon ger – 15,432km (about 8180nm). Boe ing says the flight will de lib er ately stay as long as pos si ble un der 60-deg south as a test condition that has to be met.

The flight is also part of the im

por tant ETOPS (ex tended twin-engine oper a tions) cer tifi ca tion for the air craft, which will dem on strate its abil ity to fly the lon gest, over-water dis tances in the world.

Or i ginally twin-engine air craft were per mit ted to fly for only short pe ri ods over oceans or deserts un less a di ver sion ary air field is avail able. With a re cord of re li abil ity and good main te nance prac tices, the times have been pushed out and out.

Boe ing is seek ing to cer tify the -300ER (for ex tended range) for up to 330 min utes ETOPS when the first air craft are de liv ered to Air France.

**777-300ER to Page 2**



**BEIJING** – After months of secrecy followed by a public relations frenzy, China confirmed it will launch its maiden, manned space mission this week with a flight that will orbit the Earth 14 times. Xinhua reports Shenzhou (Divine Vessel) V will blast off from the Jiuquan Satellite Launch Centre in the north west between October 15 and 17.

The 14 orbits suggest a duration of 21 hours. When the Soviet Union and the United States launched maiden manned flights in the 1960s, these lasted 108 minutes and 15 minutes respectively.

October 15 has long been tipped as the date. It's the day after a key communist party meeting

## Chinese 'taikonaut' on launch pad

ends in Beijing. October 16, however, coincides with the 39th anniversary of the detonation of China's first atomic bomb. President Hu Jintao leaves for the APEC summit on October 17.

China has agonised over the balance between the secretive policy of its military with the overwhelming propaganda mileage and national pride that would follow a successful mission.

Only one astronaut is expected to ride Shenzhou V, selected from a team of 14 taikonauts.

Whoever goes, he will be armed with a gun and knives in case the capsule comes down in hostile ter-

ritory, according to the chief designer, Qi Faren. He reportedly said: "The craft may land in the ocean or in the forests in a hostile environment..."

"For the safety of the astronauts, they will take things with them like a pistol, knife and other rescue equipment including a tent and liferaft so they will be able to deal with wild beasts, sharks, other dangerous animals or enemies."

If all goes well, Shenzhou V is expected to land in the vast plains of Inner Mongolia in northwest China. Four unmanned Shenzhou capsules have been launched since 1999.

## India signs for Phalcon AEWACs



Phalcon on B-707

**NEW DELHI** – In their biggest arms deal, Israel will provide India with strategic airborne radar systems. The Israeli Phalcon radars will be installed on three Russian IL-76 aircraft in a deal estimated to be more than \$1 billion.

Russia will buy in an old IL-76 from Uzbekistan and re-engineer it before sending it to Israel where the Phalcon radars would be mounted.

New Delhi plans to buy three Phalcon systems which could will put large parts of Pakistan under surveillance, including the volatile border in disputed Kashmir.

The Phalcon can detect aircraft, including at low altitude, hundreds of kilometres away. It also has a sigint capability.

## Sale of carrier to India nears?

**NEW DELHI** – Russia hopes to complete the negotiations for selling India the 44,500-tonne aircraft carrier Admiral Gorshkov ahead of a visit by Indian Prime Minister Atal Behari Vajpayee in November.

Press Trust of India quoted a Russian embassy military attaché as saying "the whole thing would be wrapped up during Vajpayee's visit", but it is a "complex deal." Negotiations over buying the Russian aircraft carrier have bogged down because of differences over the price and other contractual terms.

Russia offered the Admiral Gorshkov free of charge to India three years ago, with the string attached that New Delhi cough up millions of dollars to re-fit her.

The Indian navy decommissioned *INS Vikrant*, in 1997, while the second, *INS Viraat*, is due to phase out in another couple of years.

Vajpayee will also finalise a joint political and economic declaration with Russia during his three-day visit, meeting the Russian President Vladimir Putin the third time in the last four months.

## 5-in shell goes 54 nautical miles

**MINNEAPOLIS** – Alliant Techsystems (ATK) says a US Navy-industry team achieved impressive results in the multi-ser vice pursuit of long-range precision gunnery. At the White Sands Missile Range, two autonomous naval support rounds flew more than 54 nm in three minutes.

Using in puts from up to nine GPS satellites, the projectiles guided to within 20 metres of their designated targets.

The project used a standard 5-inch naval gun. Target range was limited by safety restrictions.

Guidance for the ballistic trajectory approach, which differs from the boost-glide trajectory used in other precision projectile programs, was provided by the low-cost GPS/INS guidance system developed for the Navy.

ATK Missile Systems Company, is responsible for system integration and the projectile's solid propellant rocket motor.

CANBERRA – The 2002 Minister's Award for Achievement in Defence Science went to Graeme Egglestone of the Defence Science & Technology Organisation for developing a range of innovative combat clothing for Australians.

Defence Minister Robert Hill presented the award at a function at DSTO in Melbourne.

A scientist with DSTO since 1968, Egglestone leads a small team developing clothing that provides protection against ballistic impact, biological and chemical agents and visual and near-infrared camouflage.

The camouflage design was designed at short notice to suit the terrain in Afghanistan better than the standard pattern. The CBC suit is breathable, so personnel can

work harder and longer in extreme conditions without risking exposure to chemicals.

The team also developed a fabric for all new combat clothing allowing our forces to be better camouflaged against night vision surveillance.

The technology developed by Defence has been transferred to industry and the clothing is manufactured in Australian factories.

Hill also presented international awards for excellence in defence science to a group of Australian Defence researchers for work under the Technical Cooperation Program with the US, the UK, Canada, Australia and New Zealand.

## DSTO uniform wins science gong

Awards went to:

- Dr Ralph Gailis For developing a hazard assessment model to predict the dispersion of airborne materials in the event of a chemical, biological and radiological attack.
- Dr Alexander Krstic, Edmond Almond, Brigadier Robert Atkinson, Michael Footner and Dr John Wang for a contribution to the understanding of lower leg injury caused by anti-personnel landmines.
- Dr Geoff Hugo for collaborative research on non-destructive inspection techniques for corrosion in ageing aircraft.
- Dr Bruce Fairlie for noise suppression in open aircraft weapon bays.

## Mini-GPS for USN program

EL SEGUNDO – Raytheon will develop a miniaturised GPS navigator with an adaptive anti-jam capability for the USAF Laboratories' Miniature Navigator Demonstration (MIND) program.

Under the \$6.9 million program research and development contract, Raytheon Space and Airborne Systems will design and demonstrate a smaller, lighter, and more cost effective weapon navigator system that is capable of operating in a dynamic, high-speed flight environment against various GPS jammer threats.

It will combine an integrated 24-channel GPS receiver, an inertial

measurement unit, adaptive processing algorithms, and anti-jamming front end hardware that will be compatible with the future GPS M-code satellite signals.

## SAM 7s lost – in Iraq hands

WASHINGTON – The US military is alarmed because it can't find a large number of shoulder-fired anti-aircraft missiles that were part of Saddam Hussein's arsenal, the *New York Times* reported.

The failure to find the missiles, which could number in the hundreds, is the main reason that the Baghdad International Airport re-

mains closed to commercial traffic.

US military officers do not know how many missiles are missing because they do not know how many there were in Saddam's arsenal.

But shoulder-fired missiles have already been fired unsuccessfully at incoming planes several times in recent weeks. Most of the attacks have not been made public.

US officials are offering US\$500 for each missile – mostly Russian designed SA-7s.

However an SA-7 can sell for some US\$5,000 on the black market.

So far, 317 have been collected, while several hundred more have been found in ammunition dumps.

An SA-7 weighs about 13kg and is less than two metres long.



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CANBERRA – Following is an edited version of the speech the governor-general, Major-General Mike Jeffrey (retd), gave to the Royal United Services Institute of Australia dinner.

“As a grandfather several times over, I've spent many hours thinking about the sort of country and world my grandchildren are going to live in during the coming 60 or 70 years of their lives. For example, I see a world:

- Many of whose countries will come under increasing pressure through inadequate freshwater
- Of nation states formed as a result of the post-World War II carve-up themselves breaking up into tribal boundaries and hatreds
- Of massive movements of refugees across land borders displaced by war, hunger and disease
- Many of these new national groupings – rife with endemic and systemic corruption – operating with out the rule of law, bringing poverty and misery to their peoples
- And many of whose countries do not have the tools to handle globalisation and IT.

## **Strong, active, sensitive and helpful**

Concurrent with all this are the migration of HIV/AIDS and the resurgence of diseases – such as malaria – that we thought had been brought under control.

Of concern to us all is the spread of global terrorism, which – by its very nature – is fatal and, therefore, not amenable to negotiation towards peaceful outcomes.

I don't want to deal with the normal threat assessment, force structure response [but] there are several wider implications we should think about.

The first is to engender in the whole of Australian society a desire to be long to a country that is seen as a “Nation of Excellence”. Whatever we do, we try to do better than the rest of the world.

Of critical importance will be the requirement to remain a nation functioning under the rule of law – and that that example is seen and respected by the rest and the world.

The second matter is to support

reform of the Security Council of the United Nations. If the world does not want a super power of the day to take unilateral or multilateral action against threats, then the UN must be given the authority and the appropriate tools to ensure that human rights and the dignity of the individual are maintained. It may well be that the East Timor and Solomon Islands examples will provide models for UN intervention.

A third consideration is to continue to develop, maintain and strengthen links and dialogue with strategic partner countries – such as the United States.

The last is enhancing our linkage to the India/China arc – a region that represents a huge opportunity for Australia. Australia's interests require us to link in every way we can with those two countries – economically, diplomatically, militarily.

Patently, we need an Australian Defence Force – and I'm attracted

**To next page**

## **Gulf doubts spark database**

WASHINGTON – The US Defense Department is developing electronic databases that may explain illnesses that occur later after deployments.

“The Gulf War illness question was the driver for our whole software development program,” Jeff McClafflin, an industrial hygienist at the National Naval Medical Center

said. The DOEHRS system will provide occupational and environmental exposure histories for all DoD personnel, military and civilian.

The Web-based computer program will support data collection, storage and analysis of exposure data to reduce future health risks.

Part of the challenge in dealing with Gulf War illnesses was trying to answer the health questions with limited exposure data. After DOEHRS is fielded, similar situations would be easier to investigate.

## **Kuwait signs for Apache**

ST LOUIS – Kuwait will buy 16 Boeing AH-64D Apache Longbow combat helicopters.

The total program includes the acquisition of the Longbow fire control radar, ordnance (including Hellfire missiles), spare parts, training services and maintenance support. Kuwait is the seventh international defense force to select the AH-64D.



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## Governor-General's vision, part 2

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to the concept put forward by Dr Michael Evans of the Land Warfare Studies Centre Duntroon, that such a force should be simultaneously globally attuned, regionally focussed and alliance-oriented.

Australian forces need . . . three fundamental security objectives.

The first is continuing participation in coalition operations. These sorts of coalition operations are not the kind we can always predict or plan for specifically. But each has required deployable and sustainable high-technology forces with genuine combat power – available at short notice – to fit in seamlessly with coalition partners. And with offshore-deployment and logistic capabilities.

The second is to respond to problems and crises nearer home – Bougainville and East Timor.

The third main – and ongoing – call on our security forces will be to help deal with the continuing scourge of global terrorism.

I join all Australians in commending Australian and regional partner efforts to bring the Solomon Islands back from the brink. The enlightened aspect of the Regional Assistance Mission to the Solomon Islands is that it's a total plan – one that addresses not just the immediate problems, such as the restoration of law and order, but also the deeper causes of violence and institutional breakdown.

I note that under their existing aid relationship, Australia and Papua New Guinea will be working on a similarly broad basis to address some of PNG's core challenges, especially in the areas of governance, law and order, justice, financial management, and the capacity of the public service.

The assistance we're providing to our Pacific neighbours is time, effort and money well spent.

If Australia is to become involved in these short- to medium-term direct commitments, the key challenge will be to ensure we have people equipped and available to do the work. . . the formation of a core – across professions and trade skills – who have direct knowledge and experience with the region. Junior police officers and soldiers, teachers and nurses, and bureaucrats and bankers, could usefully spend time in countries such as PNG, or wider afield, and then return for further stints as their careers progress.

Their careers could develop in harmony with their overseas counterpart parts – creating a sense of trust, friendship and mutual understanding.”

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**John Stackhouse, Killara  
September 2003**

## Westpac Express dons stars & bars

**PERTH** – After two years supporting the US Marine Corps Third Marine Expeditionary Force (III MEF) in the Western Pacific theatre, the 101-metre Austal catamaran “Westpac Express” has become the first large, high-speed vessel to be registered and flagged as a commercial ship in the US.

The HSV was first chartered in July 2001 for a “proof of concept”. The Military Sealift Command then signed a three-year charter in January 2002. A requirement was that the vessel be re-flagged to the United States, a demanding process that has been achieved within the ship’s normal maintenance periods.

Jim Black, Austal Senior Manager, said every aspect of the ship’s design and construction was rigorously examined by the United States Coast Guard Marine Safety Center in Washington, DC. “The USCG had never previously surveyed a light weight, high-speed



vehicle-carrying vessel before,” Black said. “Every one of the ship’s drawings were scrutinised in detail.”

The new port of registry is Mobile, Alabama where Austal has a shipyard that specialises in the construction of high-performance, aluminium vessels in a joint venture with Bender Shipbuilding and Repair. Austal USA has already completed six commercial vessels, ranging from 25 to 43 metres and is building a 58 metre fast passenger-vehicle catamaran.

The diesel-powered, aluminium Westpac Express can rapidly deploy a battalion of 970 Marines and up to 550 tonnes of vehicles and equipment in a single lift. The enhanced capability and

shorter transit times to and from exercises provide Marines with additional opportunities to train in various climates and terrain. The transit from Okinawa to South Korea aboard ferry or amphibious shipping would take three days.

Moving a Marine infantry battalion by air would take 17 military aircraft. By the second anniversary of arrival in Okinawa – the ship had covered 149,216 nautical miles, losing only four hours to technical delays in two years.

## High hopes for Nato readiness

**COLORADO SPRINGS** – NATO defence ministers tested their readiness for crisis, debating steps the Cold War alliance must take to send a new combat force anywhere in the world at a moment’s notice.

The study seminar at Schriever AFB on the edge of the Rocky Mountains kicked off a two-day meeting of ministers and military chiefs from the 19 NATO nations

and the seven Eastern European states that join their ranks next year.

Details of the four-hour “Dynamic Response ’07” exercise were kept under wraps to preserve the element of surprise for ministers. It involved a terrorism and weapons of mass destruction scenario set in a fictional country somewhere in the Mediterranean or Middle East.

The action takes place in 2007, a year after NATO’s planned rapid reaction force of up to 20,000 troops for intense combat is due to be fully activated.

The \$7 million exercise was an advance test of NATO’s ability to overcome likely political and military differences when a crisis breaks and deploy troops outside its historic European territory within five to 30 days.

The high-tech war-gaming base is so secret that the military refuses to publish pictures of it.

The ministers sat in a circle in a tent with large video screens and military chiefs from the 26 nations involved observed from a building nearby.



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**LONDON** – The chief executive of the Airbus-backed AirTanker consortium has shocked the world of Defence procurement by warning the Royal Air Force could face a repeat of the Nimrod fiasco if a consortium led by Boeing and BAE Systems wins a £13 billion order to supply the Ministry of Defence with air-to-air refuelling aircraft.

The executive is none other than the flamboyant Robin Southwell, a former BAES executive – at one time head of BAE Australia – who left the company suddenly while sales chief for the Eurofighter Typhoon. Now what he says also has bearing on Australia's tanker choice.

The 27-year PFI contract is the biggest UK military procurement deal in his history.

Southwell then went on to rubbish his former colleagues by claiming Britain could lose out on

## Surprise! Robin shoots from hip

export orders worth billions and the opportunity to create a new refuelling industry if the contract went to his rivals.

AirTanker is made up of the European aerospace giant EADS, Thales UK, Cobham and Rolls-Royce. It is offering the RAF a fleet of 15-20 Airbus A330-200 aircraft to replace its ageing Tristar and VC10 refuelling aircraft.

The rival Tanker Team, which comprises Boeing, BAE, Serco and Spectrum Capital, proposes a fleet of 20 second hand Boeing 767-300s bought from British Airways. Southwell claimed that because the Tanker Team's bid would involve extensive re-engineering of the wings of the 767 to accommodate the new fuel tanks and re-fuelling pods, it was a much riskier proposal.

"It is a very complex business mess around with large and ageing aircraft," he said. "Just think of what went wrong when they did that to the Nimrod."

The taxpayer was forced to write-off £700 million in cost overruns on Nimrod, which is being converted by BAE into a surveillance plane. By contrast, Southwell claimed that AirTanker's bid was risk-free because there was no redesign of the wing involved, other than fitting the fuel pods.

Tanker Team claims its bid would save the UK taxpayer £220 million over the life of the contract, because it is using a larger but cheaper and more versatile second hand aircraft capable of undertaking commercial work when not in service with the RAF.

## Hounds chase Boeing's Darleen

**WASHINGTON** – Opponents to the US Air Force tanker lease from Boeing have set out in pursuit of former Air Force official Darleen Druyun. Boeing hired Druyun early this year after she helped the Pentagon negotiate the controversial multibillion dollar deal to lease Boeing 767s as tankers.

The National Legal and Policy Center, a group opposing the lease deal, released public records that show Druyun agreed to sell her Virginia home to a Boeing attorney while she was still working as an Air Force procurement official.

The group said Druyun's daughter and son-in-law work for Boeing, which the company confirmed.

Members of the Senate Armed Services Committee, the last of four committees required to approve the deal, say the deal may be in serious

trouble because the \$22.4 billion plan to lease and then buy 100 Boeing 767 tankers would cost the Air Force billions of dollars more.

The Pentagon inspector general is also investigating whether Druyun and Air Force officials improperly shared proprietary data with Boeing.

Boeing denies this. Druyun attorney William Sheehan said his client obeyed ethics rules.

Boeing said it hired Druyun's daughter as a recruiter in November 2000 – well before the tanker lease deal was conceived. She had moved to St Louis to be with her then-fiance, who was already working for the company, he said.

## Digs to get more Javelins

**TUCSON** – A US Army letter of agreement (LOA) will see Javelin anti-tank weapons sold to Australia for its Land 40-1 requirement – a di-

rect fire guided weapon system for the Australian Army's infantry, cavalry and commando units. Australian special forces have already used Javelins in combat in Afghanistan and Iraq.

The contract award to the Raytheon-Lockheed Martin Javelin Joint Venture is worth about US\$60 million, making Australia the seventh international customer.

"In Afghanistan and Iraq the Javelin not only proved to be a superior tank killer, but was extremely effective against buildings and field fortifications and for surveillance operations," said Colonel Lloyd McDaniels, US Army project manager.

Raytheon Company, which leads the joint venture, provides system engineering management and support and the CLU, missile guidance electronic unit and software.

Lockheed Martin provides missile engineering and production support, produces the missile seeker and assembly.