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DPA Publisher of the Year 2010

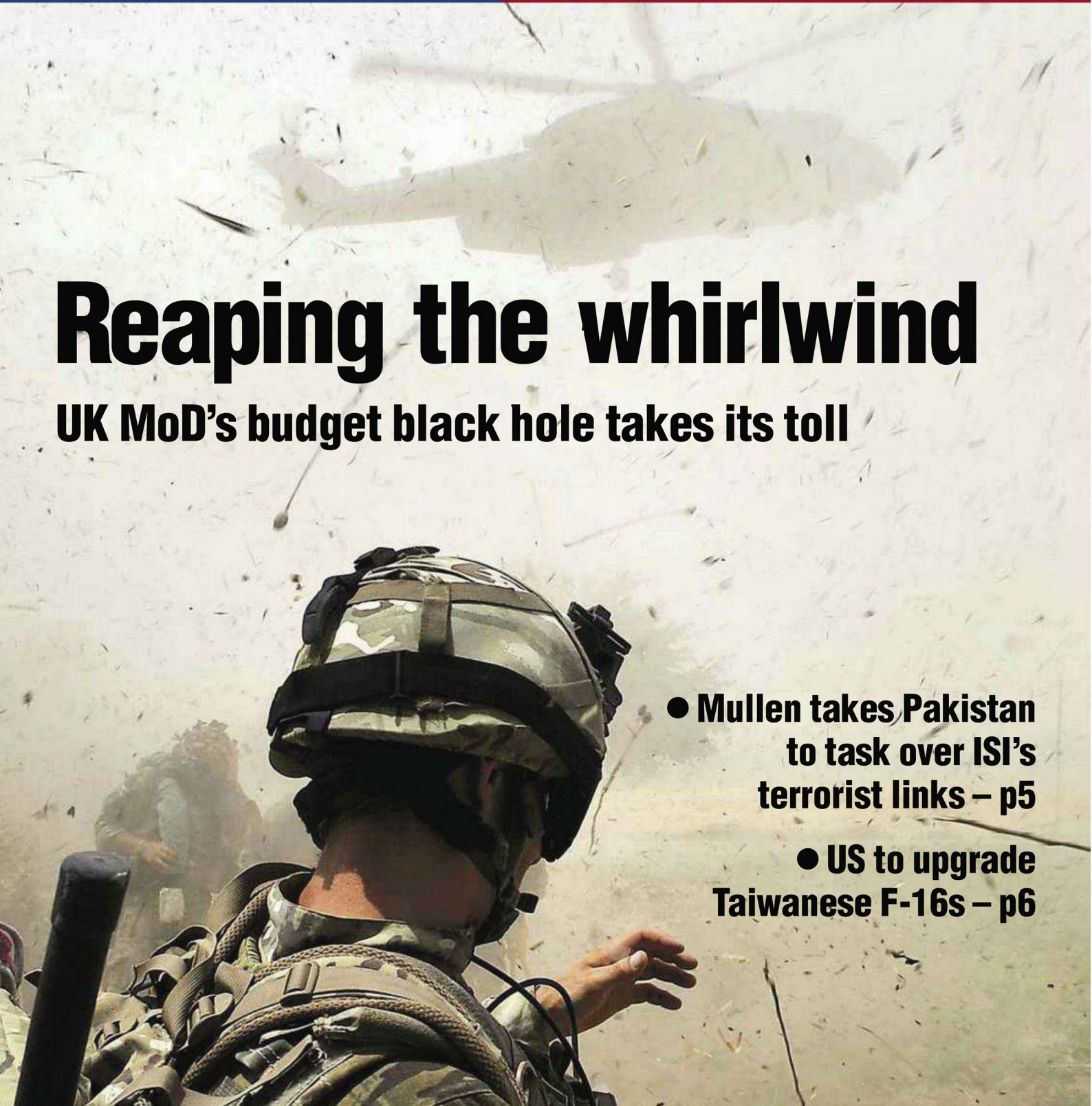
DEFENCE WEEKLY

Reaping the whirlwind

UK MoD's budget black hole takes its toll

- **Mullen takes Pakistan to task over ISI's terrorist links – p5**

- **US to upgrade Taiwanese F-16s – p6**



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On the cover

Following the publication of the SDSR in 2010, the UK armed forces have suffered from severe spending cuts, personnel redundancies and restructuring measures (see page 21).

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Airbus Military: 1398715

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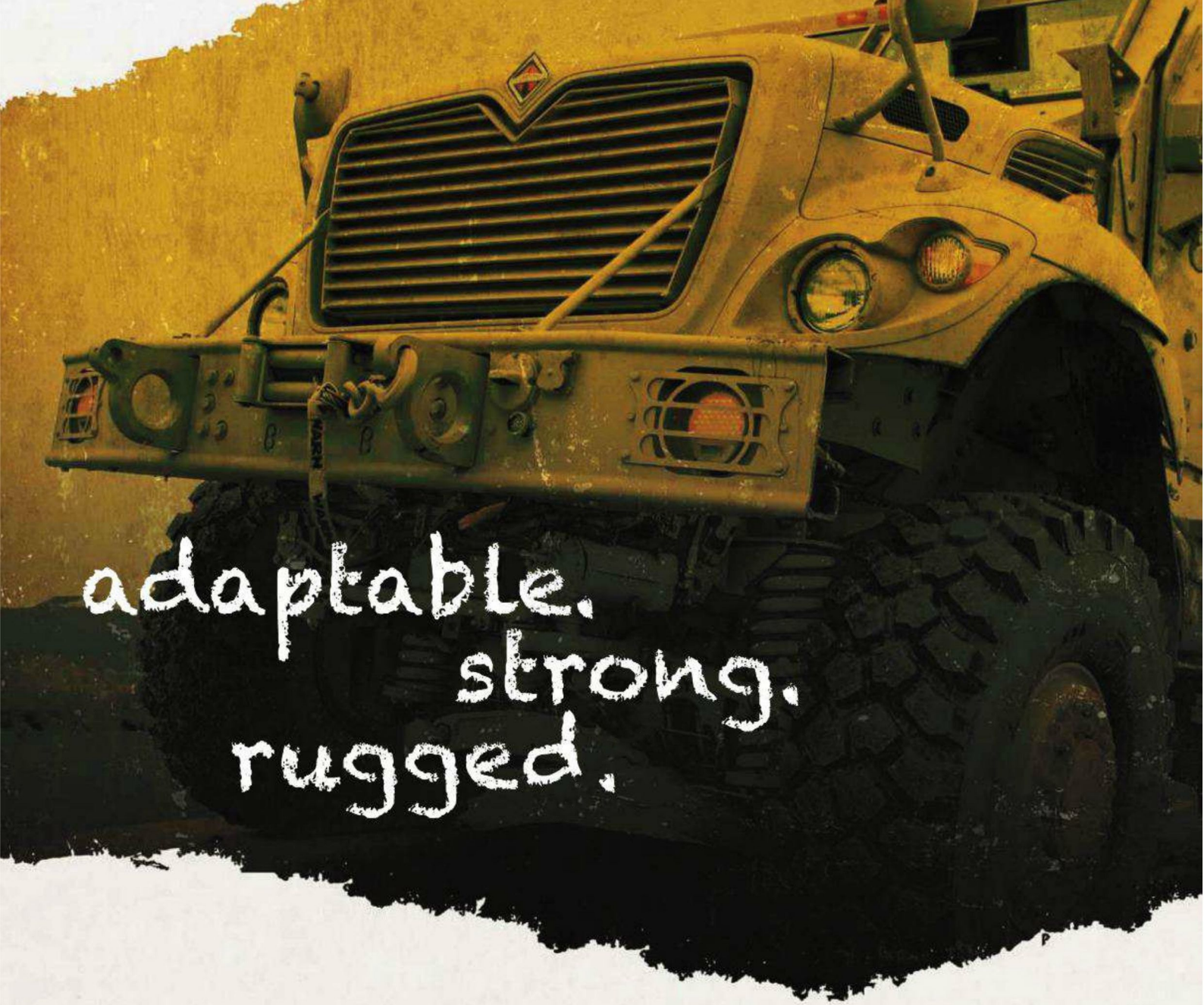
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HEADLINES

Mullen leads US attack on ISI's Haqqani ties

FARHAN BOKHARI *JDW Correspondent Islamabad*
JAMES HARDY *JDW Asia-Pacific Editor London*

Admiral Mike Mullen, outgoing chairman of the US Joint Chiefs of Staff, has explicitly linked Pakistan's Inter Services Intelligence (ISI) agency to the Taliban-linked Haqqani network, which the US says is responsible for asymmetric attacks on its troops in Afghanistan.

In his final appearance in front of the US Senate Armed Services Committee before his retirement next month, Adm Mullen said Pakistan had chosen to "use violent extremism as an instrument of policy" and that "by exporting violence, they have eroded their internal security and their position in the region".

Adm Mullen, who will be replaced by US Army Chief of Staff General Martin Dempsey, added that "the Haqqani network, for one, acts as a veritable arm of Pakistan's intelligence [network]".

The US has blamed the Haqqani network, a Taliban-linked group that was formed by Afghan warlord Jalaluddin Haqqani in the 1980s, for the 13 September attack on the US Embassy in Kabul that left 27 people dead.

Insurgents continued their attempts to destabilise the NATO-backed Afghan government on 20 September by assassinating former Afghan president Burhanuddin Rabbani, who had been working with President Hamid Karzai as head of the Afghan Peace Council that is leading negotiations with the Taliban.

Adm Mullen appeared at the Senate flanked by Defense Secretary Leon Panetta. In his remarks on the situation in Afghanistan, Panetta echoed Adm Mullen's frustration with Pakistan's per-

- Admiral Mike Mullen has led US calls for Pakistan to end its connections with the Haqqani network
- The US believes that the group is responsible for the 13 September attack on the US Embassy in Kabul

ceived role in facilitating attacks inside Afghanistan.

"We cannot allow terrorists to have safe havens from which they launch attacks and kill our forces," Panetta said. "We cannot allow that to happen, and we have to bring pressure on the Pakistanis to do their part to confront that issue."

Adm Mullen's statement to the Senate reinforced comments made at the Carnegie Endowment for International Peace on 20 September. There, he said that he had told General Ashfaq Pervez Kayani, the Pakistan Army's chief of staff, of the "need for the ISI to disconnect from Haqqani and from this proxy war that they're fighting" in Afghanistan.

"The ISI has been supporting proxies for an extended period of time. It is a strategy in the country and ... that strategic approach has to shift in the future. ... The Haqqani piece of this has got to be reversed – period," Adm Mullen added.

COMMENT

Senior Pakistani and Western officials in Islamabad said Adm Mullen's remarks to the Senate will complicate what is already a difficult relationship between the two countries.

"This tension [between the US and Pakistan] seems to have gone too far", a Western diplomat told *Jane's*. "I can't figure out if the Americans want to repair what is already a complex relationship or cause further damage."

The diplomat added that Adm Mullen's "direct hit at the ISI" of "offering patronage to the Haqqani group" now raises the question: "What next; how do the Americans want to proceed?"

A senior Pakistani intelligence official said Adm Mullen's remarks "will cause great damage to the US relationship with Pakistan, which is strategically and militarily very important."

"Across our country, no one will see this as parting remarks of an about-to-be-retired general. Most people will see this as evidence of rapidly mounting and unfair US pressure on Pakistan."

A Western defence official in Islamabad told *Jane's* the Haqqani network gives logistical support and explosives to the Taliban and "there is evidence that the Haqqanis are also involved with helping train some Taliban volunteers".

However, a Pakistani Foreign Ministry official said that the assassination of Rabbani showed that the US and its allies faced a diverse set of insurgent groups in Afghanistan.

"The Americans must recognise there isn't a single group which presents the main threat in Afghanistan," the official told *Jane's*.



Afghan soldiers carry the coffin of former president **Burhanuddin Rabbani** at his funeral at the Presidential Palace in Kabul on 23 September.

PA Photos: 1440868

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HEADLINES

US announces F-16A/B upgrade for Taiwan ...

MARINA MALENIC *Jane's Aviation Reporter*
Washington, DC

The Obama administration formally notified the US Congress on 21 September of plans to upgrade Taiwan's fleet of Lockheed Martin F-16A/B Fighting Falcon combat aircraft instead of agreeing to the sale of new F-16C/Ds as Taipei had requested.

The upgrade plan will give the island's 145 F-16s capabilities akin to the C/D models, US officials said.

Taiwan had sought to buy 66 F-16C/Ds to replace its ageing fleets of Northrop F-5 and Dassault Mirage 2000-5 fighter aircraft. China has vehemently opposed that deal as well as the F-16A/B upgrade.

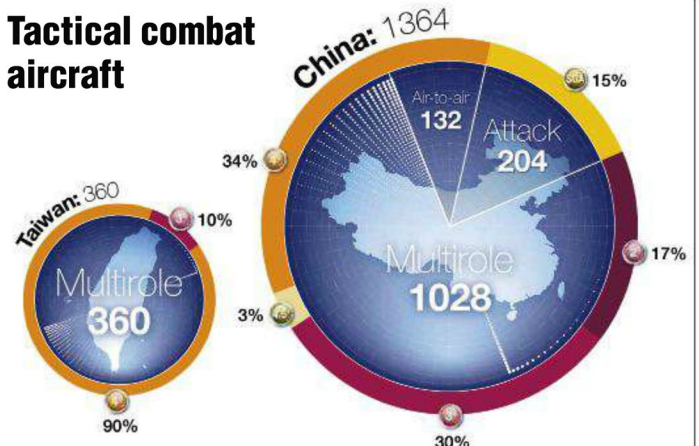
The US Defense Security Cooperation Agency said in its 21 September notice that Taiwan had

also requested 176 active electronically scanned array (AESA) radars, 140 Raytheon AIM-9X 'Sidewinder' missiles, laser-guided Joint Direct Attack Munitions, 128 Joint Helmet-Mounted Cueing systems and other armaments for the aircraft. The entire arms package – which includes spare parts for other US-sourced materiel in Taiwan's inventory – is expected to be worth USD5.8 billion.

The White House is required by law to notify Congress of any proposed major arms sale. The sale may proceed after 30 days unless lawmakers act to block it.

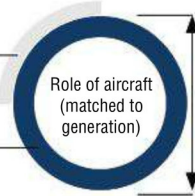
The option to sell the newer-model fighters to Taiwan has significant bipartisan backing on Capitol Hill. Senators John Cornyn of Texas and Robert Menendez of

Tactical combat aircraft



Key

Country name and total number of aircraft
Generational breakdown of aircraft



- 2nd Second-generation
- 3rd Third-generation
- 4th Fourth-generation
- 4.5th 4.5-generation
- SGA Strike/ground attack

JHS Jane's/Matt Ramsdale

New Jersey submitted a bill to pass the Taiwan Airpower Modernization Act (TAMA) for congressional review on 12 September. It would force the Obama administration to sell Taiwan 66 or more F-16C/Ds. Congressional staff said it was unclear whether the amendment would be voted on.

In January 2010 the Obama administration agreed to sell Taiwan Raytheon Patriot missiles, Sikorsky Black Hawk helicopters and communications equipment in a package worth nearly USD6.5 billion. The US has also agreed to sell 30 Boeing AH-64D Apache Longbow attack helicopters to Taipei. ■

... but Taipei will still push for F-16C/D purchase

Taiwanese Minister of National Defence Kao Hua-chu said the island welcomed the Obama administration's release of a USD5.8 billion arms package, but Taipei will continue to push for the sale of F-16C/Ds and diesel-electric submarines.

The Republic of China Air Force (RoCAF) said it could also request the replacement of the F-16A/Bs' original F100-PW-220 engines with more powerful F100-PW-229 engines.

Kao said the F-16A/B upgrade programme "contributes to regional peace" and that "improving [Taiwan's] defence capability is crucial to sustaining stable cross-strait development".

He added that the upgrade programme "will improve the island's defence capability amid continuing threats from China".

ANALYSIS

In terms of capability, the greatest issue facing Taiwan is its failure to replace its F-5 and Dassault Mirage 2000-S fleets; close to 100 aircraft are in Taiwan's inventory in varying degrees of airworthiness.

In itself, the proposed F-16 upgrade significantly improves the A/B fleet and adds 10-15 years to the aircraft's service life, but the Obama administration will be hard-pressed to deny that the RoCAF has been left with a diminished air capability by its decision to turn down the F-16C/D sale.

Ministry of National Defence officials continue to say that the US has made no final decision on the possible eventual sale of the 66 F-16C/Ds. The release of the package came

Beijing's response to the F-16 upgrade was predictably robust, with a Ministry of Defence (MoD) statement saying that "the Chinese military expresses its utmost indignation and strong condemnation of this action that gravely interferes in China's domestic affairs and damages China's sovereignty and national security interests".

Dr Winnie King, a research fellow in Chinese studies at Bristol University, told *Jane's* that the sale of new F-16s would have helped Taiwanese President Ma Ying-jeou, whose efforts to improve cross-strait ties have left him with an image problem. "He is seen as being

too soft on China, so it would be for his benefit and would help his position" in January's presidential election, King said.

King said that the key point of the US decision was that it set a precedent in how far the US was willing to go to meet its obligations under the Taiwan Relations Act. Ironically, King said this may put Taiwan in a better position in negotiations with Washington for more advanced weaponry, such as the F-35.

"If the F-16s aren't in this year's arms deal, then it means that the US has made a concession to China, but that means that next year they might get something else, something better," King said.

two days after Taiwan's Deputy Defence Minister, Andrew Yang, said the island is now considering procuring F-35 Joint Strike Fighters from the US.

Gavin Phipps
JDW Correspondent, Taipei
Additional reporting by
James Hardy
JDW Asia-Pacific Editor, London

Lockheed Martin to warn US Senate on F-35 JSF costs

CAITLIN HARRINGTON LEE *JDW Correspondent*
Fort Worth, Texas

Lockheed Martin, the prime contractor for the F-35 Lightning II Joint Strike Fighter (JSF), is meeting with the Senate Appropriations Committee in the week of 26 September to discourage cuts to the programme that the company says will seriously increase the aircraft's costs.

The Senate Appropriations defence sub-committee recently approved a fiscal year (FY) 2012 spending bill that proposes a USD695 million reduction in the F-35 programme and would effectively eliminate advanced procurement for 13 aircraft in FY13, according to Tom Burbage, Lockheed Martin's F-35 executive vice-president. Burbage said the proposal to hit a plateau in production orders is troubling, but the elimination of long-lead funding for the 13 FY13 aircraft is even worse.

"This cut is much more severe because it sets the stage for a much lower buy in LRIP [low rate initial production] Lot 7," Burbage told *Jane's* at the Fort Worth production facility in Texas on 20 September.

Lockheed Martin plans to ramp up

- Lockheed Martin is to meet with the Senate Appropriations Committee in an attempt to dissuade them from making cuts to the F-35 programme
- The company says such cuts will result in an increase in costs

to a production rate of four aircraft a month in 2012, but that number will drop back down to three if the proposed cuts go through.

"That's not efficient for our suppliers and factory, to bring that rate up and then bring it back down," said Burbage, adding that the volatility will affect the unit price of the aircraft, which will in turn lead to "second order effects" as international partners decide to wait for the price to drop before buying the aircraft themselves.

The Senate Appropriations Committee's report on the FY12 budget said that, while appropriators support the F-35, they have concerns about plans to deliver aircraft before the hardware is fully qualified as it could lead to expensive retrofits. If the JSF's modification costs are



Lockheed Martin | 1398485

If passed, a Senate bill to cut JSF funding would seriously increase its costs, according to Lockheed Martin officials.

similar to those of the Lockheed Martin F-22 Raptor, the Department of Defense could end up paying up to USD2.29 billion to retrofit the aircraft, according to the committee's report. However, Burbage said he would meet with Senate appropriators to argue that continuing to ramp up F-35 production would be fiscally prudent.

"We have a counter-rationale to that, and hopefully I'm going to meet with them next week to go through this with them," he said. ■

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UK to ponder export charges

A consultation has been launched by the UK government on controversial plans to charge for processing arms export licences.

The plans are being proposed by the Business, Innovation and Skills (BIS) ministry, which is facing at least a 25 per cent cut in its budget and has been forced to look at introducing several 'revenue-generating' schemes to keep hundreds of its staff in work.

However, the move has infuriated defence ministers and industry chiefs who have emphasised their increased support for defence exports since the formation of the Conservative/Liberal Democrat coalition government in May 2010. Defence Secretary Liam Fox had hoped to help the UK's defence manufacturers stay in business after a punishing round of defence cuts began last year by promising to throw the weight of the government behind efforts by UK companies to win export orders.

If the BIS plans are approved, every export application for defence and dual-use technology will require the payment of a GBP300 (USD470) fee to be processed by the 77 staff members who work in the BIS Export Control Organisation (ECO).

Derek Marshall, managing director of policy and public affairs at Aerospace, Defence and Security (ADS), the British defence and aerospace trade organisation, said his members were not happy with the proposal.

"We have considered the charging idea and we don't like it," he told *Jane's*. "It is totally inconsistent with being told we should export more. For small and medium-sized enterprises [SMEs] this is a big problem. For an SME, GBP300 a licence would probably take away the profit they would make on a modest order. Our members would have to pay the fee even if [they] don't get the licence; it will make exporters more cautious. The government see charging as an alternative to cuts in ECO manpower," he said.

When asked if the charge could be described as a 'defence export tax', Marshall said: "It would be like that." He said one third of the 300,000 people who work in the UK defence industry are employed by SMEs.

Tim Ripley *JDW Correspondent*,
London

Go to jdw.janes.com for more

DSCA details sales to Saudi, Qatar, UAE

Saudi Arabia may buy USD886 million worth of howitzers, radars, ammunition and associated equipment and support from the United States, which is also considering a package of weapons for the neighbouring United Arab Emirates (UAE) and Qatar.

The US Defense Security Co-operation Agency (DSCA) announced that it had notified the US Congress on 19 September of a potential Foreign Military Sale (FMS) to Saudi Arabia that would meet its request for 36 M777A2 howitzers, 54 M119A2 howitzers, six AN/TPQ-36 FireFinder radars and 24 Advanced Field Artillery Tactical Data Systems.

The sale could also include

17,136 rounds of 155 mm M107 high-explosive ammunition, 2,304 rounds of 155 mm M549 rocket-assisted projectiles, 105 mm ammunition, 432 Humvees, an export model of the Single Channel Ground and Airborne Radio System (SINCGARS) and more.

The DSCA says equipment in the proposed sale would augment the Saudi Arabia's existing light artillery capabilities and be a "deterrent to regional threats".

Moreover, on 21 September the DSCA notified Congress of a potential sale to Qatar of six MH-60R Seahawk helicopters as well as 13 T-700 GE 401C engines, communication equipment, spares and other support for about USD750 million.

According to the agency, the MH-60R helicopters are intended to "supplement and eventually replace" the Qatar's ageing maritime patrol helicopters and give the state an anti-surface warfare capability.

Meanwhile, the UAE is seeking 107 Link 16 Multifunctional Information Distribution System/Low Volume Terminals for its F-16 fighter and ground command sites, in a sale that could cost USD401 million. The US Congress is also considering selling the emirate 500 AGM-114R3 Hellfire missiles and associated and support for about USD65 million.

Daniel Wasserbly *JDW Senior Americas Reporter*, Washington, DC

HEADLINES

HMS Ocean hosted US Pave Hawks

TIM RIPLEY *JDW Correspondent*
London

US Air Force (USAF) Sikorsky HH-60G Pave Hawk combat search-and-rescue (CSAR) helicopters have returned to their home base after a six-month deployment, which included extended periods embarked on the amphibious warfare ships HMS *Ocean* and USS *Ponce* in support of the Libyan campaign.

The detachment of three helicopters from the USAF's 56th Rescue Squadron (RQS) spent the majority of its time on the UK Royal Navy (RN) helicopter carrier HMS *Ocean* providing CSAR coverage for British Army AgustaWestland Apache AH.1 attack helicopters during strike missions in Libya from 4 June until the end of August.

The USAF announced the return of the 56th RQS and its 60 personnel to RAF Lakenheath in the UK on 16 September but the mission on HMS *Ocean* had been previously cloaked in secrecy.

The deployment in support of the US-led Operation 'Odyssey Dawn' and NATO's Operation 'Unified Protector' took place only eight days after the 56th RQS returned from a three-month-long deployment to Afghanistan. The squadron also saw periods of CSAR alert duty from the US Navy-run airbase at Souda Bay in Crete when not embarked on warships off the Libyan coast. The USAF described the embarkation on HMS *Ocean* as an "unprecedented display of

- USAF CSAR helicopters have returned to their base at RAF Lakenheath following a six-month deployment
- The deployment saw the force embarked on HMS *Ocean* in support of NATO efforts in Libya

international co-operation".

Colonel John Quintas, 48th Fighter Wing commander at RAF Lakenheath, said: "The results have been phenomenal – 166 days of uninterrupted alert status. I simply couldn't be prouder.

"The fact that we were able to sustain a continuous two-ship alert posture with just three aircraft is a result of superior maintainers [of the 748th Aircraft Maintenance Squadron]," added Col Quintas. "Not only did they transition from an environment of blowing dust to blowing salt water, they operated for the first time ever aboard naval ships for extended periods of time and the result was a greater than 90 per cent mission-capable rate.

"The effort and planning to embark the [HH-60G] detachment on three different occasions was significant," said RN Captain Andrew Betton, HMS *Ocean*'s commanding officer. "In doing so, it afforded HMS *Ocean*, with its embarked [attack helicopters], the flexibility to manoeuvre around the joint operations area and thus directly contributed to operational success."

When asked by *Jane's* why



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Rotary-wing aviation embarked on HMS *Ocean*. The US Pave Hawks can be seen in both photographs towards the aft of the ship, behind the AAC's Apache AH.1s.

the USAF CSAR force had been embarked on HMS *Ocean*, a UK Ministry of Defence spokesman said: "The UK is involved in Operation 'Ellamy' as part of NATO and

as such aircraft from other countries within NATO have, at various points, used our ships, including HMS *Ocean*." He declined to comment on the role of US assets. ■

UK announces scaling back of Libyan operations

The UK Ministry of Defence (MoD) is to withdraw a number of its Eurofighter Typhoon multirole combat aircraft and AgustaWestland/Boeing WAH-64D Apache AH.1 attack helicopters from combat operations over Libya "in the near future", it announced on 21 September.

The decision to return most of the Typhoons and Apaches to their home bases in the UK will not affect the UK's commitment to NATO's Operation 'Uni-

fied Protector', the MoD said, as 16 Panavia Tornado GR.4 strike aircraft, two Typhoons and two Apaches will remain on station "for as long as required".

Defence Secretary Liam Fox disclosed the reduction on the same day that the NATO Secretary General announced the alliance would be extending its mission for a further 90 days. "The good progress made to date will allow us to bring home four Typhoon fast jets and three [Apache] attack helicopters in the near future

without affecting our ability to continue enforcing UNSCR [UN Security Council Resolution] 1973," Fox said.

He added that since operations began in mid-March, UK forces have damaged or destroyed close to 1,000 Gaddafi-regime targets.

Under Operation 'Ellamy' (the UK contribution to Operation 'Unified Protector'), the UK Royal Air Force has conducted strike missions from RAF Marham in the UK and Gioia del Colle in

Italy, while the Army Air Corps has operated its Apaches from the Royal Navy's helicopter carrier, HMS *Ocean*. Apart from supporting the army's Apache operations, the Royal Navy has been heavily involved in conducting strike mission of its own over Libya, with Trafalgar-class submarines launching Tomahawk cruise missiles and a number of destroyers firing on shore targets.

Gareth Jennings *Jane's Aviation Desk*
Editor, London

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BAE, Northrop Grumman to offer Hawk to USAF

MARINA MALENIC *Jane's Aviation Reporter*
National Harbor, Maryland

BAE Systems has teamed with US company Northrop Grumman to offer its Hawk Mk 128 Advanced Jet Training System (AJTS) for a potential US Air Force (USAF) recapitalisation effort.

The USAF T-X programme would replace the service's 50-year-old Northrop T-38 Talon jet trainer. However, it remains unclear how soon the USAF might initiate such an effort.

Larry Prior, executive vice-president for BAE Systems' services sector, said during a 19 September press briefing at the Air Force Association Conference that Northrop Grumman would assemble the aircraft in the US from primarily UK-sourced components under the terms of the teaming agreement.

"Northrop Grumman's background as the original equipment manufacturer of the T-38 along with its training expertise will make the Hawk AJTS all the more competitive in the US," said Prior.

Bob Wood, who is leading BAE System's T-X effort, said the Hawk, which was originally developed in the 1970s, has been modernised significantly for the UK Royal Air Force since that time.

- BAE Systems has teamed with Northrop Grumman to compete for the US Air Force's T-X recapitalisation effort
- The team is offering the Hawk Mk 128 Advanced Jet Training System

Executives of both companies told reporters that they have the ability to begin production on the new jet trainers in the US immediately.

USAF officials at the conference said a recapitalisation of the service's current trainers is needed, but there remains some question as to how soon funding could be in place.

"We recognise the need for a T-38 replacement," said Michael Donley, the USAF's highest-ranking civilian leader. "We are still studying when that might be done."

Other companies that have declared an interest in competing for the T-X contract include Alenia Aermacchi with its M-346 Master, Boeing with an as-yet-undefined concept and a combined Korean Aerospace Industries (KAI) and Lockheed Martin effort to submit the T-50 Golden Eagle.

A final request for proposals for about 350 new aircraft, simulators and classroom instruction is expected by the end of 2011. ■



A computer-generated impression of Boeing's proposed T-X submission.

Boeing unveils concept for T-X trainer

Boeing has unveiled its concept for the T-X trainer competition at this month's Air Force Association annual meeting in Washington, DC.

The artist's rendering of the single-engine aircraft depicts a V-tail design with a wing-planform similar to the Northrop-McDonnell Douglas YF-23 prototype fighter.

Michael Sirignano, Boeing's manager for the potential project, said that the company is exploring "options for new technology".

"This is a concept," he told *Jane's* on 21 September. "Boeing is always exploring concepts for various solutions."

Sirignano added that Boeing is awaiting its cue from the US Air Force (USAF) to begin actual development work.

Marina Malenic *Jane's Aviation Reporter, National Harbor, Maryland*

US DoD gets good grades for clean energy initiatives

A new study by the PEW Charitable Trusts' Project on National Security, Energy and Climate gives the US Department of Defense (DoD) good grades on steps it is taking so far to ramp up clean energy alternatives to petroleum-based fuels and to adopt efficient technologies.

The 21 September report, titled 'From Barracks to Battlefield: Clean Energy Innovation and America's Armed Forces', examines how the DoD's mission effectiveness is being improved by clean energy technologies and how the DoD is nurturing renewable energy and efficiency development in the commercial sector.

PEW identified the DoD's major energy challenges as the risks associated with transporting liquid fuels to and on the battlefield, growing oil price volatility, the effect of fuel dependence on operational effectiveness, the fragility of energy supplies for forces that must have assured power 24 hours a day and the energy laws and mandates with which the department must comply.

Overall, PEW researchers found that DoD investments in renewable energy and efficiency increased 300 per cent between 2006 and 2009, from USD400 million to USD1.2 billion. The department has 450 ongoing renewable energy projects and produced or procured 9.6 per cent of its energy from clean sources in 2010.

New energy technologies also help shield the DoD from oil price volatility. Unlike oil prices, the cost of renewable energy has been declining rapidly in recent years. Solar panels, for example, have decreased in price by more than 60 per cent since 2009, according to the report.

The bipartisan, non-profit-making group said market experts project steadily increasing expenditures for energy innovation in the coming years, one estimating that DoD investments in advanced energy technologies will reach USD10 billion annually by 2030.

Eric Lindeman *Clean Energy Direct Editor, Washington, DC*
Go to jdw.janes.com for more



The Hawk Mk 128 (known as the Hawk T.2 in UK service) is one of a number of platforms competing to replace the USAF's ageing Northrop T-38 fleet.

US reins in Chinook upgrades

DANIEL WASSERBLY *JDW Senior Americas Reporter*
Ridley Park, Pennsylvania

The US Army has moderate plans for future upgrades to its fleet of CH-47 Chinook cargo helicopters as aviation officials believe the fleet is well positioned for the near future and other elements of the branch require more attention.

Major General Tim Crosby, the army's Program Executive Officer for Aviation, said the Chinook fleet and efforts to modernise it are in good shape and that as far as buying new helicopters is concerned the "best bang for the buck" would be in replacements for the attack and utility fleets.

Continued upgrades could be necessary for the CH-47 fleet and new cargo platforms may be a long-term pursuit, since the service is likely to be investing in platforms for the attack and utility roles, which constitute about 70 per cent of army aviation, Gen Crosby told reporters during a 21 September ceremony celebrating the 50th anniversary of the Chinook's first flight. The ceremony also marked the opening of Boeing's new production facility for the aircraft in Ridley Park, Pennsylvania.

Gen Crosby believes pressure to rein in federal spending may mean that the army cannot afford to develop a heavy cargo helicopter



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A CH-47F cargo helicopter being built at Boeing's Chinook facility in Ridley Park, Pennsylvania, which was officially christened on 21 September 2011.

- **Army aviation leaders believe Chinook helicopters could be filling the heavy cargo role for many years as development funds become more scarce**
- **A new armed scout aircraft and a multirole attack/utility aircraft are the service's highest priorities**

and therefore an upgraded H-model Chinook could be the next step for such missions.

As funding becomes tighter the aviation branch's priorities will be a new armed scout aircraft and then an attack/utility aircraft, possibly under the Joint Multi-Role (JMR) programme, Gen Crosby said.

Still, he noted that a decision will probably be made in 2020 to either continue onto a CH-47H or to move toward a new airframe.

In the near term the army would like to see upgrades to the current-

model CH-47F Chinooks such as a new floor system, underbelly armour and rotor blades. However, these, too, must be prioritised by available funding, he said.

The army recently established a CH-47 modernisation office to look at potential improvements to all Chinook models. This office is studying requirements for upgraded configurations that might be worked into the aircraft's next multi-year procurement deal.

This multi-year contract, slated to be awarded in January 2013, would be for 155 Chinooks, according to Lieutenant Colonel Brad Killen, CH-47F project manager. Army officials expect Boeing to provide them with potential timeframes and costs associated with the multi-year procurement package in November.

Gen Crosby said the army is targeting 10 per cent cost savings for the multi-year deal. ■

In Brief

Ecuador talks equipment with Russia

Ecuadorian Defence Minister Javier Ponce announced on 15 September that the country is in negotiations for the acquisition of Russian equipment for its army. Ponce said the negotiations are limited to light armoured vehicles, trucks, mobile bridges and mobile workshops to support a new transport fleet. The army also hopes to procure four Mi-17 medium-lift helicopters, for which Ecuador is seeking credit of USD200 million.

Marine Corps SuperCobra crashes

A US Marine Corps Bell AW-1W SuperCobra attack helicopter crashed during a training exercise at its home-base in southern California on 20 September, local media have reported. According to the reports, both crew members were killed when the helicopter came down in Camp Pendleton, near San Diego. The cause of the crash is not yet known and military authorities have launched an investigation.

US Navy continues biofuel flights

The US Navy (USN) has flown its sixth aircraft type on biomass-derived jet fuel as part of its alternative energy programme, Naval Air Systems Command (NAVAIR) announced on 16 September. A Grumman EA-6B Prowler electronic warfare aircraft from Air Test and Evaluation Squadron (VX)-23 'Salty Dogs' made the flight from Naval Air Station Patuxent River, Maryland, on a biofuel blend of JP-5 aviation fuel and camelina oil.

US expects rise in Afghan airdrops

The US military is expecting a further increase in the number of airdrop re-supplies it makes in Afghanistan next year, a top US Air Force (USAF) general said on 20 September. "We're dropping about 6,000 bundles a month, basically food, water, ammo and fuel," General Raymond Johns, the chief of USAF's Air Mobility Command (AMC), told reporters in Washington, DC. The AMC's mission is to provide rapid, global airlift and sustainment for deployed troops and humanitarian relief efforts. The airdrops Gen Johns discussed have increased from the delivery of two million lb (0.9 million kg) of supplies in 2005 to an anticipated 99 million lb in 2012, according to USAF statistics.

USAF lifts suspension of F-22 fleet

The US Air Force (USAF) has cleared its fleet of Lockheed Martin F-22 Raptor combat aircraft to resume flight operations, following a suspension that began on 3 May after pilots reportedly suffered hypoxia-like symptoms.

"We now have enough insight from recent studies and investigations that a return to flight is prudent and appropriate," General Norton Schwartz, the USAF's top officer, said on 20 September.

Gen Schwartz told reporters during a briefing at the Air Force Association's annual conference that each Raptor pilot will be equipped with "certain protec-

tive equipment and data-gathering equipment". He said the USAF will gather more data from flights "to build our confidence that we know what is transpiring in the airplane".

Gen Schwartz said the Pentagon has still not discovered the root cause of the problem but is confident that the aircraft is safe given the small number of incidents involved. "We do not have a smoking gun here," he said. "That is the bottom line."

Some aircraft were allowed to begin flying again on 20 September and return-to-flight for the entire fleet will ramp up slowly, Gen Schwartz said.

The Air Force Scientific Advisory Board (SAB) has been studying the onboard oxygen-generation system across the USAF's fighter, bomber and special mission fleets, but has not found a "definitive root cause for the hypoxia-like symptoms", according to USAF documents detailing the results of the study. SAB research led the head of US Air Combat Command and USAF leadership to agree on lifting the F-22 fleet's suspension.

Marina Malenic *Jane's Aviation Reporter, National Harbor, Maryland* and **Daniel Wasserbly** *JDW Senior Americas Reporter, Washington, DC*

EUROPE

UK eyes Sentinel R.1 fleet upgrade

TIM RIPLEY *JDW Correspondent*
London

A range of upgrades to the UK Royal Air Force's (RAF's) Raytheon Sentinel R.1 Airborne Stand-Off Radar (ASTOR) aircraft is being studied to potentially extend its service life.

The upgrades, which are currently being considered by capability managers, would see the system serve beyond its planned 2015 retirement date.

Installation of an electro-optical sensor turret and wideband satellite communications (SATCOM) datalinks are understood to be the main elements of the package, which is included in the PR12 spending round that is currently being discussed within the UK Ministry of Defence (MoD).

Operational experience gained during the Libya crisis has prompted the RAF to look at enhancing the capability of the Sentinel aircraft and its supporting communications architecture.

The wideband satcom upgrade has risen up the RAF's requirements

- The UK RAF is considering a range of upgrades to extend the service life of its five Sentinel R.1 Airborne Stand-Off Radar aircraft
- Upgrades could extend the Sentinel's life beyond 2015

'wish list' due to the experience of Operation 'Ellamy', during which the Sentinel fleet has been operating out of range of its line-of-sight wideband datalink-equipped ground control station and has had to rely on its narrowband SATCOM datalink. This does not have the capacity to download imagery in real time in the quantities required by NATO commanders during

the operation, according to RAF officers familiar with the system's deployment.

The restrictions mean that the onboard mission crew has to assume the burden of processing raw imagery into actionable intelligence or wait until ground-based image analysts can look at recorded imagery after 5 (Army Co-operation) Squadron returns to its forward operating base at RAF Akrotiri on Cyprus.

MoD sources have told *Jane's* that the options would only be acted upon if it was decided to keep the aircraft in service beyond its projected retirement in 2015. The October 2010 Strategic Defence

and Security Review envisaged that the five Sentinel aircraft would be withdrawn from service after the UK ceases combat operations in Afghanistan in 2015. Its ground moving target indicator and synthetic aperture radar roles were intended to be migrated after 2015 to as-yet-unspecified or procured unmanned aerial systems (UASs).

"The funding lines for the next-generation UASs are moving to the right and the Treasury is insisting that the General Atomics MQ-9 Reaper UASs are withdrawn from service when their UOR [urgent operational requirement] funding finishes at the end of the Afghan commitment, so we need to look at how we fill emerging ISTAR [intelligence, surveillance, targeting, acquisition and reconnaissance] gaps," a ministry official told *Jane's*. "Keeping Sentinel and beefing up its capabilities is a serious proposition to do that."

"Sentinel continues to provide valuable support to frontline forces in Afghanistan and Libya," said an MoD spokesman. "Any equipment enhancements required for operations will be evaluated during the MoD's annual Planning Round." ■



The UK RAF is looking to extend the Sentinel R.1's service life beyond 2015.

US offers Hungary up to 30 'Huey' helicopters

The US government has offered Hungary up to 30 Bell UH/HH-1N 'Huey' utility helicopters that are planned to be retired from the US Marine Corps and the US Air Force.

The Hungarian Ministry of Defence (MoD) confirmed on 19 September that Defence Minister Csaba Hende had launched a formal analysis of the offer.

The UH/HH-1Ns offered to the east European country could enter service in 2013. However, *Jane's* has learnt that Budapest has yet to issue a formal letter of request to the US government for an official proposal.

Jane's also understands the helicopters could be transferred as excess defence articles under a programme managed by the US Defense Security Co-operation Agency (DSCA). The Hungarian MoD believes the unit cost of a helicopter would be USD5 million, although the US Congress could offer them free of charge to key 'partner countries' like Hungary.

Grzegorz Holdanowicz *JDW Correspondent, Warsaw*

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Poland, Romania deepen missile defence agreements with US

The Ballistic Missile Defense Agreement between the US and Poland entered force on 15 September.

The deal, which was originally agreed in August 2008 but amended in 2010, confirms that land-based Standard Missile 3 (SM-3) Block IIA systems will be deployed by 2018 at the former Slupsk-Redzikowo airbase.

Poland had previously agreed to allow 10 ground-based interceptors to be deployed at the same location, although this was abandoned by the administration of US President Barack Obama with the launch of the European Phased Adaptive Approach (EPAA).

Meanwhile, Romania and the US have signed a deal covering the construction of a launch site for land-based SM-3 Block IB interceptors at Deveselu Air Base, near Caracal in Romania.

Grzegorz Holdanowicz,
JDW Correspondent, Warsaw

ANALYSIS

Recent developments in the EPAA are unlikely to be well received in Russia. Moscow has consistently complained that the moves are at least partly aimed in its direction, despite insistence from NATO and its allies that the system is to defend against the nuclear ambitions of so-called 'rogue states'.

Russia's permanent representative to NATO, Dmitry Rogozin, said on 16 September that, "with these agreements, the United States and some Eastern European countries can simply present the other European members of NATO with a fait accompli. This [is occurring] under conditions where the diplomatic instruments to influence the countries that are suspected of seeking to break the WMD [weapons of mass destruction] non-proliferation regime [are] virtually unused".

Germany presents initial plans for Bundeswehr restructure

SEBASTIAN SCHULTE *JDW Correspondent*
Bonn

The German Ministry of Defence (MoD) presented the first steps of its plans for restructuring the Bundeswehr on 20 September.

Defence Minister Thomas de Maizière has broadly followed the lead of the Weise Commission on military reform, whose findings were published in October 2010. While the principles of the plans have been reported before, this is the first time detailed information has been made available.

De Maizière said the Bundeswehr will be restructured towards a strength of 170,000 regular military personnel including reservists, as well as between 5,000 and 15,000 short-term volunteers. The idea is to cap the number of personnel at a maximum of 185,000. The Bundeswehr currently has a strength of 220,000 personnel.

The army will consist of 57,570 personnel, while the Luftwaffe will number 22,550 and the navy will comprise 13,050. Germany's central support organisation, the Streitkräftebasis, will be made up of 36,750 personnel while the Joint Medical Service will stand at 14,620.

- The German Ministry of Defence has outlined plans to restructure the Bundeswehr by cutting its strength from 220,000 personnel to 185,000
- The changes will also see platforms and capabilities shift between services

The remaining 30,460 personnel will not be deployable as they will be taking part in training and instruction as well as working in infrastructure, information technology, human resources and other areas.

Given the considerable cutbacks in personnel, the MoD will decide on the fate of military bases and installations by the end of October.

The restructuring will see the shifting of platforms and capabilities among the services. All Sikorsky CH-53 helicopters operated by the army will be transferred to the Luftwaffe, while all NHIndustries NH90 transport helicopters will be concentrated in the army. Counter-improvised explosive device activity and unexploded ordnance removal are also to be integrated with the army.

COMMENT

While all the services will be hit by personnel and platform cuts, the new forces structure is expected to improve the command structure as well as increase deployment output without losing capabilities. The new structure is supposed to be able to sustainably support 10,000 personnel of all services deployed at any one time on operations, as opposed to the

7,500 soldiers that can be deployed within the current structure.

"The real game changer has been the suspension of conscription, which gave the defence planners a hitherto unknown planning flexibility. The two crucial parameters of 175,000-plus active personnel and a de facto defence budget of EUR27 billion (USD36 billion) can be adjusted, for example in the face of the current euro crisis," a German defence analyst told *Jane's*.

Spain calls for new body to tackle debt

The Spanish government has called for the creation of a specialist organisation to centralise defence acquisitions as the country grapples with about EUR26 million (USD35.5 million) of debts on major programmes.

The organisation is needed to "optimise resources" at a time when the current system had become "unsustainable and inadequate", Secretary of State for Defence Constantino Méndez told the congressional defence commission on 21 September.

The new organisation should be similar to those used in other NATO countries, Méndez said. It would serve to improve planning and prioritising, replacing a system that is "dispersed between too many agencies".

Méndez said that 85 per cent of the debts on the equipment modernisation programmes had been generated between 1997 and 2004, coinciding with the administration of the conservative Partido Popular (PP) party. The Socialist party, of which Méndez is a member, is currently in power.

While Méndez recognised that the equipment modernisation process instigated by the PP had been "an authentic engine for change in the armed forces and industry", not enough attention had been paid to their economic impact, he said.

The global economic crisis had "brought forward" the financing problem, but it was one waiting to happen "at any moment", he said. "The next government will have to face up to this situation from the first day."

Méndez also said the MoD would be presenting a new strategy on industrial policy to tie in with his proposed reforms "in the next few weeks".

The defence spokesperson for the PP, Beatriz Rodríguez-Salmones, praised Méndez for the proposals but asked why they had not been put into action earlier.

Rodríguez-Salmones said the PP had offered backing to the government in helping to reprogramme the defence debt since 2008. She also said the debts would not rule out acquisitions under a PP government.

David Ing

JDW Correspondent, Madrid

Germany to standardise on 'Afghan' Boxers

The German Army has decided to procure all future armoured personnel carrier (APC) versions of its ARTEC Boxer Multi-Role Armoured Vehicles (MRVs) in the vehicle's 'Afghan' A1 configuration.

The upgrade involves the fitting of additional belly armour under the vehicle for enhanced protection against improvised explosive devices (IEDs) and large mine threats, the integration of a counter-IED jammer, the fitting of 76 mm directional smoke grenade launchers to the vehicle's FLW 200 remote-controlled weapon station (RCWS) and the raising of the RCWS to give a better arc of fire for close-in protection of the vehicle.



Five Boxer APCs configured to the A1 standard have been operational in Baghlan Province in northeastern Afghanistan since August.

German Army: 1440858

The Boxer is produced by the ARTEC consortium, comprising KMW and Rheinmetall Landsysteme in Germany and Dutch company Rheinmetall Nederland.

Speaking to *Jane's* on 19 September, Jens Lell, executive manager of the Boxer programme for Krauss-

Maffei Wegmann (KMW), said that Germany's Boxer APCs would be built to the A1 configuration from the 41st vehicle onwards.

Peter Felstead

JDW Editor, Munich

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ASIA PACIFIC

In Brief

Vietnam, US reach defence milestone

Vietnam and the United States have concluded their second defence policy dialogue with the signing of a memorandum of understanding (MoU) that aims to promote co-operation between the two countries' defence departments. The agreement can be seen as another milestone towards normalised military and defence relations between the two nations that may result in the lifting of US restrictions on military trade with Hanoi, which have been in place since the end of the Vietnam War in 1975. The defence policy dialogue took place in Washington, DC, on 19 September under the co-chair of US Deputy Assistant Secretary of Defense Robert Scher and Vietnamese Deputy Defence Minister Lieutenant General Nguyen Chi Vinh.

Thai submarine buy stalls again

Thailand's plan to procure submarines has stalled once again with Defence Minister Yuthasak Sasiprapa rejecting the Royal Thai Navy's (RTN's) latest bid to procure ex-German Navy Type 206A diesel-electric platforms. A review committee set up by Sasiprapa earlier this month to review the Type 206A procurement has returned the proposal to the RTN for redrafting, a senior RTN officer involved in the bidding process told *Jane's* on 20 September. The officer added that the redraft is required to provide additional details related to "cost and transparency" and that the process would result in either a renewed bid for the ex-German Navy submarines or a proposal to acquire submarines from China, Russia or South Korea.

Afghan Air Force ramps up training

The Afghan Air Force has begun ramping up its fixed-wing pilot training capability with the arrival in-country of the first three of six Cessna 182 Turbo basic-trainer aircraft on 19 September, the US military has announced. The aircraft, which will be based at Shindand Air Base in Herat Province, western Afghanistan, will be augmented at a later date by the three additional 182 Turbos and the arrival of six Cessna 208B Grand Caravan aircraft to be used for intermediate pilot training.

South Korea may build its own GPS

SEBASTIEN FALLETTI *JDW Correspondent & JAMES HARDY JDW Asia-Pacific Editor*
Seoul & London

South Korea is considering developing its own GPS capability to protect the military against North Korean cyber attacks.

"Taking a long-term view, I think it's right for us to build our own, independent GPS," Defence Minister Kim Kwan-jin said on 19 September. "But to do so, we need about six military satellites. The development for such satellites is in an early stage and it may cost a lot of money. It is difficult to develop independent GPS now but we have done our research on that option."

- South Korea is considering creating its own GPS capability, its defence minister has said
- Seoul is concerned about North Korea's development of a long-distance jammer

Kim's remarks came after North Korea allegedly launched a series of cyber attacks on military and civilian targets. A senior South Korean official told *Jane's* that in August Pyongyang disrupted the GPS of South Korean military vehicles. The Ministry of National Defence (MND) recently said that North

Korea had developed a GPS jammer with a range of more than 100 km.

Yonhap News agency reported in March that North Korea had tried to jam GPS signals in Seoul, affecting mobile phones and Republic of Korea Army equipment. Since November 2010 US Forces Korea have deployed Fairchild-Republic A-10C Thunderbolt II ground-attack aircraft equipped with the GPS-guided Joint Direct Attack Munition (JDAM). The Republic of Korea Air Force confirmed in April that it has equipped its fleet of Lockheed Martin KF-16 fighter aircraft with GBU-31 JDAMs.

In the short term Seoul is working on "a few anti-jamming programmes," said Kim, who did not put a figure on the cost of the GPS project. If realised, it would put South Korea in the same league as the US, Russia, the EU and China, which have all developed or are developing GPS capabilities.

Additional reporting by
Peter Bond, *Editor, Jane's Space Systems and Industry*

COMMENT

South Korea's stated aim to achieve an independent GPS capability seems ambitious for a country that can, so far, claim only modest achievements in space/satellite technology. That said, Seoul is working towards its own family of launch vehicles and more advanced satellites.

It may make more sense for Seoul to work with Japan on its Quasi-Zenith Satellite System (QZSS), combining funding

and research in a shared system.

The QZSS – the first satellite of which, Michibiki, was launched in July 2010 – is based on three satellites that provide better coverage by orbiting at a higher altitude than existing GPS satellites. Japan Aerospace Exploration Agency officials said the system is optimised for Japan but could cover South Korea.

However, political sensitivities between the two countries combined with Japan's ban on the export of materiel and constitutional position on the use of warfare

may prevent this. The South Koreans may also prefer an autonomous project as part of government commitments to supporting local aerospace and defence industrial development.

South Korea's concerns over North Korea's jamming developments could be answered by the next-generation GPS III, which is being developed by Lockheed Martin and Raytheon. According to officials, GPS III will provide advanced anti-jamming capabilities "through flexible power capability".

Mitsubishi admits being hit by hackers

Hackers have successfully attacked Mitsubishi Heavy Industries (MHI), Japan's largest defence company, infecting at least 80 servers and computers at its factories.

According to the *Yomiuri Shimbun* newspaper, the attack hit MHI shipyards at Kobe and Nagasaki, as well as its Nagoya Guidance and Propulsion Systems Works factory at Komaki in Aichi Prefecture.

MHI first identified the problem in mid-August but did not publicly acknowledge the attack until 19 September, when a spokesman confirmed that system information including IP addresses may have been leaked. "So far, crucial data about our products or technologies have been kept safe," he added.

Defence Minister Yasuo Ichikawa said the government was "not aware of any important data being leaked" but instructed MHI to review its cyber secu-

rity measures. No group or organisation has claimed responsibility for the attacks.

The MHI facilities are attractive targets because they manufacture some of Japan's most sensitive defence equipment. The Kobe shipyard is constructing three of Japan's Souryu-class diesel-electric submarines, while the MHI shipyard in Nagasaki is the prime contractor for the Akizuki-class destroyers that are intended to provide a layer of defence around the JMSDF's prized Hyuga-class helicopter carriers.

Additionally, the Komaki-based factory is the principal Japanese contractor and licenced builder of Patriot surface-to-air missile systems, which form a core element of Japan's ballistic missile defence shield.

Alexander von Rosenbach *Jane's Armed Forces Editor, London*

RAN unveils MH-60R programme schedule

JULIAN KERR *JDW Correspondent*
Sydney

The first of 24 Lockheed Martin/Sikorsky MH-60R Seahawk 'Romeo' naval combat helicopters for the Royal Australian Navy (RAN) will be delivered in January 2014 and the first fully mission-capable aircraft will be deployed aboard an Anzac class frigate by March 2015, project director Captain Scott Lockey told an industry briefing on 16 September.

While all 24 helicopters will have been delivered by 2018 under Project AIR 9000 Phase 8, full operational capability (FOC) will not be achieved until 2023, he said. This will see eight single helicopter flights embarked at the same time on the RAN's eight Anzac frigates and three new air warfare destroyers – the first of which is

- Australia will receive its first MH-60R naval combat helicopter in January 2014
- The first fully mission-capable aircraft will be deployed aboard an Anzac class frigate by March 2015

expected to enter service in 2016.

The lengthy gap between final delivery and FOC is understood to be due, in part, to a decision to delay Australian-unique modifications until all 24 aircraft are in service and the modifications have been prototyped and tested under the US Navy's certification framework.

Australia is the first international customer for the MH-60R, which will replace 16 ageing S-70B-2 Seahawks and the capability that

was to have been provided by a cancelled programme for 11 SH-2G(A) Super Seasprites.

Meanwhile, a second diagnostic review of the MRH 90 multirole helicopter programme was announced on 16 September by Minister for Defence Materiel Jason Clare. This follows a review ordered in February to address delays to the AUD2.6 billion (USD2.5 billion) project that was caused by a series of problems including engine failure, transmission oil cooler failures and the poor availability of spares.

A spokesman for prime contractor Australian Aerospace, a wholly owned subsidiary of Eurocopter, told *Jane's* that production delays were due to the rectification of problems referred to in the parliamentary committee hearing.

● Raytheon Australia has signed a deal with the Australian Department of Defence (DoD) over the

supply of three Bell 429 helicopters to the RAN.

Under the terms of the USD26 million deal, the helicopters – provided under lease through a Raytheon-Bell partnership – will be used to boost training undertaken by the RAN's 723 Squadron in Nowra, New South Wales, said the DoD on 19 September.

The helicopters will operate for four years from 2012 and are expected to fly around 1,500 hours per year, said a statement. It added that the Bell 429s will prepare RAN pilots for the MH-60R helicopters, which were ordered from Sikorsky in June 2011 and will be delivered from 2014, and the Eurocopter MRH 90 helicopters, deliveries of which are continuing under a 2005 deal.

Additional reporting by
Jon Grevatt *Jane's Asia-Pacific*
Industry Reporter, Bangkok

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MIDDLE EAST/AFRICA

Israel reviews offer to open office at NATO HQ

YAAKOV KATZ *JDW Correspondent*
Tel Aviv

NATO has invited Israel to establish a permanent mission at the alliance's headquarters in Brussels, Israeli defence officials have said.

The offer, which is under review by the Israeli Ministry of Foreign Affairs (MFA) and Ministry of Defence (MoD), is being viewed favourably as a way for Israel to increase bilateral ties with various European countries and levels of co-operation with NATO.

Israeli-NATO relationships are

- Israel is considering an offer from NATO to open a permanent office at the alliance's HQ
- The offer is viewed as a way for Israel to increase bilateral ties with various European countries

currently overseen by an Israeli military attaché stationed at the Israeli embassy to Belgium. "This is an important offer and could lead to upgraded ties between us and NATO," a government official involved in Israeli-NATO relat-

ions told *Jane's* on 19 September.

As a member of the Mediterranean Dialogue, Israel has sought over the past decade to boost its ties with NATO and regularly attends seminars and workshops on various military issues. In 2008 the Israel Navy (IN) sent an officer to the Naples operations room of Operation 'Active Endeavour' – the alliance's Mediterranean-based effort launched in 2001 to combat terrorism and arms smuggling – to co-ordinate maritime operations.

Israel is also in talks with NATO

about the possible deployment of an IN vessel for 'Active Endeavour' operations on a full-time basis. If approved, this would be the first time Israel has participated in a NATO-led operation.

MFA officials have rejected a claim by Turkish Foreign Minister Ahmet Davutoglu, made in a media interview on 18 September, that Turkey had blocked an Israeli attempt to open an office at NATO headquarters.

Israeli-Turkish ties have significantly deteriorated since the May 2010 IN raid on a Turkish passenger ship bound for the Gaza Strip, in which nine people were killed. As a result, Israel has been working to upgrade its defence ties and create new alliances with Greece, Bulgaria, Romania and Cyprus.

"NATO approached Israel and asked it to open the office in Brussels," one official said. "As far as we know, the offer is still on the table."

Israel delays RfP for advanced fighter trainers

The Israel Ministry of Defence (MoD) has postponed plans to issue a request for proposal (RfP) for new advanced fighter trainers for the Israel Air Force (IAF).

The IAF is seeking 20 to 30 trainers and it is looking to choose between Korea Aerospace Industries' T-50 Golden Eagle or Italy's Alenia Aermacchi M-346 Master to fulfil the requirement. The new trainer will replace the IAF's McDonnell Douglas A-4 Skyhawks, some of which are 40 years old.

The MoD had planned to issue the RfP in August, but defence officials told *Jane's* that plans have been postponed due to uncertainty regarding Israel's defence budget. The government has announced plans to cut about USD850 million from the budget over the next two years.

The aircraft are to be acquired by a joint venture (JV) of Elbit Systems and Israel Aerospace Industries (IAI) called Tor Ltd, which will purchase the aircraft and then lease them to the IAF.

Officials said that the RfP would probably be issued closer to the end of the year, meaning that it could take until mid-2012 for the IAF and MoD announce their decision.

"There is growing uncertainty throughout the entire military over the impact cuts to the defence budget will have on a number of procurement programmes, including the trainer tender," one official explained.

Yaakov Katz
JDW Correspondent, Tel Aviv

Israel Defence Force places order for more CARDOM mortar systems

The Israel Defence Force (IDF) awarded Elbit Systems a USD40 million contract on 18 September to supply additional 120 mm Computerised Autonomous Recoil rapid Deployed Outrange Mortars (CARDOMs) for its infantry units from the company's Soltam Systems subsidiary.

CARDOM systems were first delivered to the IDF in 2007 and were widely used during Israel's offensive against Hamas in the Gaza Strip from December 2008 to January 2009. The new systems will be supplied over the coming four years.

Called 'Keshet' (Bow), the CARDOM is a self-propelled mortar that is installed in the rear of BAE Systems Ground Systems Division M113A3 tracked armoured personnel carriers. The system replaced static 81 mm mortars in the IDF inventory.

The IDF recently issued a request for information to defence companies for a guidance kit that can be installed on mortar rounds and would work together with the CARDOM.

The IDF believes that a more accurate mortar system will help minimise international criticism in the wake of any future Israeli

operations in urban areas like the Gaza Strip.

The Keshet system has a range of 7,200 m and a rate of fire of 12-15 rounds per minute. The round it fires has a computerised inertial navigation and aiming system with a circular error probable (CEP) of about 30 m.

Yaakov Katz *JDW Correspondent, Tel Aviv*



A Soltam Systems CARDOM firing from an IDF M113 armoured personnel carrier.

Soltam Systems/Elbit Systems: 1440865

UK military team on the ground in Somalia

TIM RIPLEY *JDW Correspondent*
London

- A team of UK military advisors is providing what the UK Ministry of Defence termed "strategic advice" to the African Union Mission in Somalia peacekeeping operation
- This the first time the UK has openly acknowledged it has put "boots on the ground" in Somalia

A team of UK military advisors was deployed to famine-ridden Somalia earlier this month to enhance the operational effectiveness of African peacekeeping troops, *Jane's* has learnt.

The team of fewer than 20 military personnel has started work providing what the UK Ministry of Defence (MoD) termed "strategic advice" to the African Union Mission in Somalia (AMISOM) peacekeeping operation, which has been at the forefront of responding to the famine in the country and has helped to drive the pro-Al-Qaeda Shabab militant group from Mogadishu.

The MoD refused to discuss how long the team would be in Somalia, citing "security issues". The team contains officers and technical experts from the UK Permanent Joint Headquarters in Northwood, Middlesex. According to the MoD, its work follows existing support and training the UK provides to AMISOM troop-contributing nations, particularly Uganda. Up to now this activity has taken place in the home countries of the AMISOM troops prior to their deployment. UK military sources have told *Jane's* the advisory team will work with senior AMISOM commanders and Somali government leaders to plan an expansion of the peacekeeping mission beyond the country's beleaguered capital.

This is the first time the UK has openly acknowledged it has put "boots on the ground" in the war-ravaged east African country, although UK special forces tried to mount a rescue operation two years ago to free British citizens captured by Somali pirates. The UK did not send troops to Somalia in the early 1990s as part of the ill-fated UN mission to the country.

UK involvement in Somalia escalated after the visit to Mogadishu last month by International Development Secretary Andrew Mitchell: the first by a UK government minister in more than 20 years. Prime Minister David Cameron is taking a personnel interest in the UK's response to the famine in the Horn of Africa, which has put millions of lives at risk.

The government is not currently envisaging a major expansion of the UK military presence in Somalia, according to sources close to the MoD, citing continuing major commitments in Afghanistan and Libya. "History tells us that

any international intervention in Somalia has to have an 'African face'," a UK government official told *Jane's*.

Retired colonel Bob Stewart, a former UN commander in Bosnia who is now a Conservative MP, backed the current limited deployment

but warned against any wider UK military engagement because of the burden it would place on the UK's overstretched armed forces. "We have taken on a lot of engagements recently – Afghanistan and Libya – and other nations have done little," he told *Jane's*. "It is time we got our armed forces back in shape; we need to draw breath. This is not the time for a major new engagement." ■

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BUSINESS

Greece and Norinco discuss defence deals ...

JON GREVATT *Jane's Asia-Pacific Industry Reporter*
Bangkok

Representatives from China North Industries Corporation (Norinco) and the Hellenic Ministry of National Defence (HMoND) held talks on 16 September over possible defence industry collaboration.

A statement by the HMoND said the talks were led by Deputy Defence Minister Costas Spiliopoulos and Zhao Xiaopeng, Norinco's vice-president.

The HMoND added that the talks were focused on "a variety of options" for defence industry collaboration between Greece and Norinco and that another meeting will be planned soon to progress some "concrete proposals".

It is the second meeting between the HMoND and Norinco this year. In May the Chinese embassy in Athens said the state-owned defence enterprise had held discussions

- Representatives from China's Norinco have met Greek defence ministers to discuss industry collaboration
- The meeting was the second between the two parties held this year

with then Greek defence minister Evangelos Venizelos.

The embassy said these talks – which also featured Zhao – focused on industry collaboration between Norinco and Hellenic Defence Systems (EAS): a manufacturing group of companies established in 2004 through a merger of Hellenic Arms Industry SA (EBO) and the Greek Powder & Cartridge Company SA (PYRKAL). EAS is currently a state-owned enterprise, although *Jane's* has reported that the group could be privatised later this year. ■



Representatives from **China North Industries Corporation** have held talks with Greek ministers over possible defence industry collaborations. PA Photos: 1440855

ANALYSIS

Talks between Norinco and Greece are seen as a result of warming defence ties between the two countries, which in turn stem from the establishment of a formal "comprehensive strategic partnership" signed in 2006.

Such ties have been boosted by the visit of Greek defence officials to Beijing in June 2011 and events in Athens in August 2011 to mark the People's Liberation Army's 84th anniversary. At the latter event, Deputy Defence Minister Costas Spiliopoulos was quoted by Xinhua as saying: "On this occasion we are here to reiterate our strong belief that the excellent Greece-China relations can be further enhanced in

the defence field, as well as all levels."

Given Greece's poor economic standing – which is expected to lead to substantial defence cuts over the next five years – Beijing is also likely to regard Athens as a potential export market. However, the European Union continues its embargo against military trade with China and is unlikely to assent to such a move.

The potential for China to use the Greek defence industry as a bridge head into the European market is also worth considering. Greece has embarked on the path to the privatisation of national companies Hellenic Defence Systems, Hellenic Aerospace Industry and Hellenic Vehicle Industry and Chinese interest should not be discounted.

... while AVIC seeks funding for European acquisitions

AVIC Capital, an investment division of the state-owned Aviation Industry Corporation of China (AVIC), has said it plans to launch a domestic listing to fund, in part, the acquisition of an aerospace firm in Europe.

In comments reported by state-run newspaper *China Daily* on 21 September, AVIC Capital General Manager Meng Xiangtai said the company "is in talks" to purchase a European aviation parts and components manufacturer, which he did not identify.

Meng added that regulatory approval for the initial public offering is expected later this year, although he did not elaborate.

AVIC's first overseas purchase

with military exposure came in 2009 with the buy-out of Austria's Fischer Advanced Composite Components. *Jane's* reported earlier this year that the Chinese group was actively seeking acquisition targets in the UK.

In conforming to other overseas acquisitions undertaken by AVIC, its target company in Europe is likely to be a small- to medium-sized firm with niche technological capabilities in primarily the commercial aerospace sector.

Supported by large sums of investment secured through China's state banks, AVIC bought Fischer Advanced Composite Components in 2009 and has since purchased three US-based aerospace firms:

Continental Motors, Cirrus Industries and Epic Air. AVIC has also been linked with other acquisitions, notably in the UK and France.

AVIC's strategy to expand into Western markets is driven by two main targets: profits and technology acquisition. Two years ago AVIC said it is aiming to achieve a turnover of CNY1 trillion (USD156 billion) by 2017: a five-fold increase over 2009's revenues.

Additionally, the group is also aiming for considerably higher export sales. International sales accounted for seven per cent of AVIC's total revenues in 2008, but the company has said it is aim-

ing for 25 per cent of its revenues to be sourced from export markets by 2014-15.

In terms of technologies, AVIC – as one of China's most important centrally controlled defence enterprises – is tasked with acquiring advanced foreign technologies from commercial as well as military spheres and adapting them for use in China.

This approach stems from China's civil-military integration policy, which aims to source technologies for military programmes from commercial research and development and production activities and vice versa.

Jon Grevatt *Jane's Asia-Pacific Industry Reporter, Bangkok*

Indonesia takes action to revitalise industry

Indonesia is planning a new offset policy in response to the poor condition of the country's major state-owned defence companies. Jon Grevatt reports

Indonesia is preparing to introduce a formal offset policy for the first time under government plans to revitalise its national strategic industries. The policy is on course for introduction from late 2011 or early 2012, although this may yet be subject to delays.

Historically, Jakarta has preferred to fund major defence imports through export credit arranged with local banks or via loans direct from the supplying nation since around 2003.

The long-standing practice of funding purchases through the counter-trade of non-military commodities has largely disappeared over the last eight years, although Indonesia now favours offsetting military deals through the barter of indigenously produced defence materiel.

Indonesia's previous defence procurement strategy was aimed at maximising benefits depending on the economic condition of the country. When finances are particularly constrained the barter trade of non-defence items has proved more popular. However, in recent years as Indonesia's economy has gradually improved, the country has put more emphasis on facilitating deals through bank loans with technology transfer agreements.

This policy is largely informal and is exercised on a case-by-case basis by the Ministry of Defence (MoD), although it does not always provide Indonesia with the required results.

For example, Indonesia has evidently not been satisfied with the levels of technology acquired through its numerous deals with Russia. Defence acquisitions secured through credit from Moscow have given Jakarta little room to negotiate technology transfer to any meaningful extent.

The rationale behind the plan is to enhance industrial capability. As with other developing nations, particularly India, Indonesia sees opportunities to grow its defence industry base as its economy improves. Such industrial development is intended to provide meaningful employment and ultimately reduce dependency on imports as well as provide opportunities for international sales.

The Indonesian government has pledged to support the industry development policy by

providing financial support to defence companies and procuring military equipment from indigenous sources whenever possible. It has also committed to increase defence spending over the next four to five years. Initially, the offset policy is unlikely to be demanding. Indonesia's defence companies are still at a relatively low level of capability and the offset policy will be designed to assist in efforts to gradually rebuild these companies over the next decade.

Frequent updates to the offset policy, similar to the strategy implemented by India, should be expected. Indonesia's decision to introduce an offset policy has been prompted by the poor condition of the country's major state-owned defence companies, most of which continue to suffer to varying degrees from financial constraints, which stem from a lack of contracts and investment. For example, naval shipbuilder PT Pal was forced in 2009 to enter a process of rationalisation through which around half of its 2,000 employees have been made redundant. Meanwhile, aerospace manufacturer PT Dirgantara Indonesia (PTDI) remains under a financial cloud owing to debts incurred more than a decade ago.

The significance of the offset policy to government plans to rebuild these companies was outlined by Defence Minister Purnomo Yusgiantoro in late 2010. The offset policy, he said, will be utilised "in every purchase" of foreign

defence equipment, adding: "The government is determined to revitalise the defence industry: it is one of the priorities of the cabinet."

The offset policy is being drawn up by the MoD's Defence Facilities Agency, a body that has overseen increased moves to secure technology transfer and industry development, in conjunction with the Defence Industrial Policy Committee, which was established in late 2010 to oversee industrial development.

No details of the new offset policy have been confirmed by the MoD, although officials have previously indicated that it will require foreign contractors to transfer technologies to Indonesian companies to facilitate at least 30-40 per cent of a production contract to take place under licensed manufacturing arrangements.

However, the policy is likely to be far more flexible than this indicates given the relatively low level of industry capabilities. Indonesia's existing strategy of setting technology transfer requirements on a case-by-case basis is unlikely to be completely disregarded until a higher level of industrial capability emerges.

Delays to the introduction of the offset policy should be expected. MoD officials indicated to *Jane's* in May 2011 that a policy had not yet been drafted, reflecting Indonesia's burdensome administrative processes.

Similar to India, defence procurement processes in Indonesia are dominated by concerns linked to allegations of irregularities and corruption. Such an environment is conducive to procrastination. The MoD officials have previously stated that they are aiming to complete a draft of the new offset policy by the end of 2011, although its introduction as a formal procedure could take several more months.

Indonesia is evidently aware that the introduction of the offset policy is likely to be behind schedule, and in April 2011 established a forum group within the MoD tasked with pushing it through by the end of the year. Specific hurdles identified by the MoD in implementing offsets include the need to identify suitable partners, in terms of international governments and prime contractors that could provide Indonesia with required military technologies, establishing guidelines related to inter-ministerial priorities and offset monitoring.

Indonesia's private defence sector is not thought to have attracted any foreign direct investment (FDI) of note, although this is permitted under legislation entitled Presidential Regulation Number 36 of 2010.

This legislation limits FDI in a domestic defence company to 49 per cent. Applications must receive a recommendation from the minister of defence. Given the low capabilities of Indonesia's private defence sector and a lack of any previous bid by government to expand foreign investment, the pending offset policy is unlikely to seek to encourage FDI.

Jon Grevatt is *Jane's Asia-Pacific Industry Reporter*, based in Bangkok

'The government is determined to revitalise the defence industry: it is one of the priorities of the cabinet'

ANALYSIS

Instilling combat support in the ANSF

Increasing emphasis is being placed on developing the Afghan National Security Forces' combat service support skills before the UK, and NATO as a whole, pulls back from combat operations. Francis Tusa reports

Afghan National Security Forces (ANSF) development “is the exit strategy”, Wing Commander Simon Ling from the UK Joint Force Support HQ (JFSPhQ) at Camp Bastion in Helmand Province told *Jane's* in mid-August.

“We’ve taken the ANSF from zero over the past six years to a stage where, in three years time [when the UK moves back from major combat operations], we feel that they will be in a better position,” Wg Cdr Ling said.

Commodore Clive Walker, commander of JFSPhQ, added: “The development of the ANSF, with an emphasis on the combat service support area, is regarded as more and more important. It is a task which is getting more attention and the chief of joint operations has given me specific direction to support this area. There is a ‘Helmand Campaign Support Plan’ and all of the Joint Force Support unit and sub-unit commanders have effects that they have to develop and deliver against this as the UK redeploy and transitions.”

Cdr Walker has ordered a 60-day ANSF transformation and transition study to be drawn up to identify key issues in this important process. However, he is concerned that, as the wider transformation and transition operation moves ahead, “the UK needs to continue to invest in supplying mentoring units for the ANSF. But will future reductions in the UK headcount in Helmand see these units being reduced too early? There is a natural tension there”.

Lieutenant Commander Andrew Wagstaff from the JFSPhQ explained further. “The plan is for the Afghan National Army [ANA] to be at 160,000 [troops] and the Afghan National Police to be at 157,000 [troops] by October 2014 – this is to be both delivered and sustainable by that date. What we have had to date is an impetus to field forces, but not an impetus to sustain. People have just woken up to this extra need this year. On top of this, the challenges of Regional Command South West are totally different from those, say, in Regional Command East.”

The overall mood is that, after a substantial effort, many of the fruits of partnering, mentor-

ing and training are beginning to show with the ANSF in Helmand Province who are working with UK forces.

“They are getting more capable and more confident,” said Colonel Rupert Prince, Deputy Commander of JFSPhQ. “If you are expecting a Western-style armed force, well, you’ll be disappointed. They have learnt a lot and they do things in their own way. Sometimes it isn’t pretty, but they get things done.”

Wg Cdr Ling added that in Helmand Province ANA forces had been self-sufficient for some years and that major elements of the province had been handed over to them with few problems.

Colonel Peter Taylor from the Commanding Office of the Close Support Logistic Regiment, which is deployed in support of the UK presence, added: “There has been increasing attention paid by insurgents to the ANSF; if the Taliban thought they were not a threat, then they wouldn’t target them. For the ANSF, the tactical piece operates effectively.”

The UK training effort’s mantra of ‘Afghan good enough’ is being regarded as more and more important and Cdr Walker is emphatically committed to the intent that it conveys. The principle is not to try to dictate from ‘on high’ or to force ANSF forces down unfamiliar paths, but to understand what works best for the local situation.

“At the moment, a lot of the old-fashioned

Soviet ethos affects the Afghan military,” said Cdr Wagstaff. “A lot of their senior people are Soviet trained. So in many areas, whether it is operations or support, there is a ‘push’ system, with a top-down drive, rather than a flexible system.”

There is also a worry that often the equipment provided for ANSF units is unsuitable. An example is the new Navistar mine-resistant ambush protected (MRAP) vehicle fleet at Shorabak: the ANSF camp just to the north of Camp Bastion. According to ANSF personnel, many of the vehicles have remained unused for months, with troops using unarmoured pick-up trucks instead. The ANSF’s MRAPs are also a close relation to the UK military’s Husky MRAP: a vehicle that is causing maintenance problems as the UK personnel are not used to the sophistication of the vehicle. One member of the UK military involved in training the ANSF said coping with complex maintenance procedures was proving difficult.

There is a further worry that the US plan for force generation and equipping might result in a large amount of unsuitable and unsupportable equipment being donated from Kabul to the various military regions. “We are waiting to see what happens when the ‘Iron Mountain’ flows south,” Col Prince said.

Medical care is another area causing concern.

“The medical system is limited,” Cdr Wagstaff explained. “There is a hospital at Lashkar Gar, but for anything that involves the key injuries ... these still come here to Camp Bastion.” The advanced medical facility at Camp Bastion is mostly used for ANSF casualties and not for injuries sustained by NATO’s International Security Assistance Force (ISAF).

However, even if the physical medical infrastructure can be established, then personnel shortages are a problem. Medically trained personnel can often earn more working in other roles for ISAF or if they decide to take civilian or military positions in Kabul or the Gulf.

“We are trying to wean them off their reliance on ISAF medical facilities, but even as the ISAF combat role reduces you’d have to be fairly brutal if, after an incident, you airlifted an ISAF soldier to an advanced medical facility but an Afghan soldier injured in the same event was left to fend for himself. There is a moral issue to consider here,” said Col Prince.

A growing effort has been made towards training the ANSF in battlefield medical care. The UK Brigade Advisory Group has recently changed the medical course to include casualty evacuation techniques, widening the syllabus from simple point-of-injury treatment. At the same time the complex, US-supplied first aid kits have been simplified to concentrate on pressure dressings, tourniquets and similar items that are of direct use on operations. These resemble the kits issued to every UK soldier on deployment.

Francis Tusa is a JDW Correspondent, reporting from Helmand Province, Afghanistan

The principle is not to try to dictate from ‘on high’ or to force ANSF forces down unfamiliar paths

COUNTRY BRIEFING

UNITED KINGDOM

Winds of change

In August the House of Commons Defence Committee (HCDC) delivered a withering critique of the 2010 Strategic Defence and Security Review (SDSR) and suggested that the UK's global influence would be undermined by the nearly GBP20 billion (USD31.5 billion) worth of cutbacks being made to procurement programmes and military manpower. About 17,000 troops and 25,000 civilian Ministry of Defence (MoD) staff will be made redundant, military bases closed and armoured vehicles, aircraft and warships withdrawn from frontline service.

HCDC chairman James Arbuthnot said the "[Coalition] government appears to believe that the UK can maintain its influence while reducing spending in defence and at the Foreign Office. We do not agree. If the UK's influence in the world is to be maintained, the government must demonstrate in a clear and convincing way that these reductions have been offset by identifiable improvements elsewhere rather

When UK Prime Minister David Cameron announced the outcome of the SDSR in 2010, little did he know controversy would still be raging a year later. Tim Ripley reports

than imprecise assertions of an increased reliance on diplomacy and 'soft power'". He continued: "If the government cannot do so, the National Security Strategy is in danger of becoming a 'wish list' that fails to make the hard choices necessary to ensure the nation's security."

This speech came only a few days after Defence Secretary Liam Fox announced a reduction in British Army strength by a further 7,000

personnel, suggesting that the UK's coalition government had yet to fully stabilise its defence policy for the coming decade.

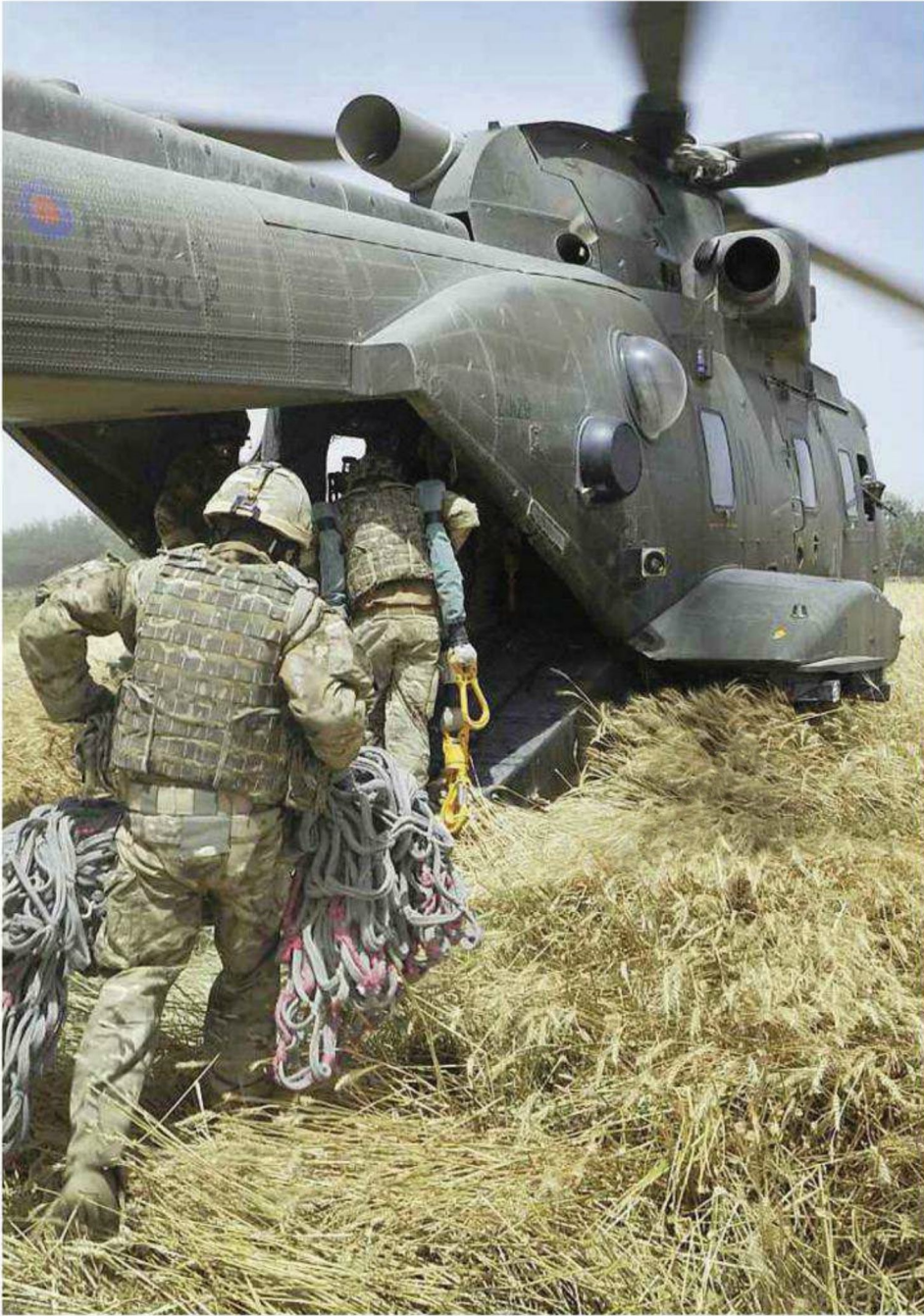
However, UK government ministers are keen to stress that even after the cutbacks

The government has signalled its intention to build a new class of ballistic missile submarine to replace the Vanguard class, including **HMS Vanguard** which is due to be decommissioned by 2028.

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UNITED KINGDOM



The UK has been involved in operations in Afghanistan since 2001, using a variety of assets including **Royal Air Force Merlin HC.3/3A helicopters**.

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craft, the withdrawal of BAE Systems Harrier GR.9 jump jets and the aircraft carrier HMS *Ark Royal* from service, as well as delaying the entry into service of the Lockheed Martin F-35C Lightning II Joint Strike Fighter (JSF).

Meanwhile, the 'Arab Spring' uprising across North Africa and the Middle East highlighted shortcomings in the British armed forces. The UK's involvement in the Libyan crisis since February 2011 meant the government had to delay the retirement of equipment needed to respond to events in North Africa. For example, BAE Systems Nimrod R.1 electronic intelligence (ELINT)-gathering aircraft remained in service for three additional months, as well as the Type 22 frigate HMS *Cumberland*, a number of BAC VC10 air-to-air refuelling aircraft and several Lockheed Martin C-130K Hercules transport aircraft.

On 23 June Fox told UK parliamentarians that the first three months of operations in Libya had cost about GBP120 million in running costs, including fuel and accommodation for deployed forces, and that about GBP140 million would be needed to replace munitions expended since the start of combat operations on 19 March. Fox said these costs would be born by the UK Treasury, but it has since emerged that no additional funding will be made available for spares and repairs to equipment involved in Operation 'Ellamy': the UK's contribution to the NATO Libyan air campaign. This funding now has to be diverted from the routine training and operations budgets of the armed forces, raising concerns about the long-term impact on their readiness levels.

The SDSR also laid out a blueprint for the UK's armed forces over the coming decade, which it dubbed Future Force 2020 (FF 2020). This exercise was necessary, according to Cameron and Fox, to bring the MoD's budget "back into a balance" and to deal with the budgets GBP38 billion 'unfunded liability' or 'black hole'. There is considerable controversy over this terminology, which is widely used by Fox and other coalition government ministers. Outgoing ministers in the former Labour government argue that the forward defence budget is only "unfunded" because the coalition government has decided to spend less money on defence than they would have done.

Navy

As a result of FF 2020, the Royal Navy (RN) has seen elements of its force structure trimmed in a bid to free up resources for future projects.

The centrepiece of the RN's plans is its carrier strike project to acquire two 65,000-ton Queen Elizabeth-class aircraft carriers and embarked

announced in the SDSR and the Comprehensive Spending Review (CSR) – which will see defence spending cut by eight per cent up to 2015 – the UK will still have the fourth largest global defence budget in cash terms. They remain committed to the country being a leading player in NATO, retaining its permanent seat and accompanying veto on the United Nations Security Council and using its position in the European Union to advance UK interests.

The UK also retains strong bilateral defence links with major countries in the Middle East, Africa and the Asia-Pacific region. London is committed to protecting the UK's remaining dependent territories and in particular the Falkland Islands, where 1,000 personnel

are permanently based.

The UK has been a strong supporter of military operations in Afghanistan since 2001, as well as other peacekeeping operations. According to the Chief of the Defence Staff, General Sir David Richards, the Afghan operation is the UK military's "main effort" and in 2011 just over GBP4 billion is being spent on sustaining the 10,000 troops deployed there. This money comes from the government's contingency reserve and is over and above the peacetime or core defence budget of GBP33.8 billion in financial year 2011-12.

Following the SDSR's publication, controversy surrounded decisions to scrap the BAE Systems Nimrod MRA.4 maritime patrol air-

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JSF combat aircraft. The SDSR changed the variant of the JSF from the short take-off and vertical landing (STOVL) F-35B to the F-35C carrier variant. This was justified as a cost-saving measure, but the F-35C also has greater range and payload than the F-35B. However, this has meant the UK has now left the STOVL aircraft business, which the country had pioneered in the 1960s with the development of the Harrier jump jet.

Further unease was generated by measures to make the carrier strike project affordable. This included the retirement of HMS *Ark Royal* and the Harriers earlier this year, as well as pushing back the in-service date for the F-35C to beyond 2020, effectively leaving the UK without an aircraft carrier capability for a decade.

These decisions created considerable concern because it was not immediately clear that the decision to go for the F-35C and 'cats and traps' had been properly considered and was affordable. Fox tried to ease concerns in July 2011 when he confirmed that carrier strike would go forward in the manner described in the SDSR, although he provided no details as to how many F-35Cs are to be purchased, when a contract for the 'cats and traps' equipment is to be placed and how much money is allocated to buy it.

Another controversial aspect of the SDSR was the commitment to purchase a like-for-

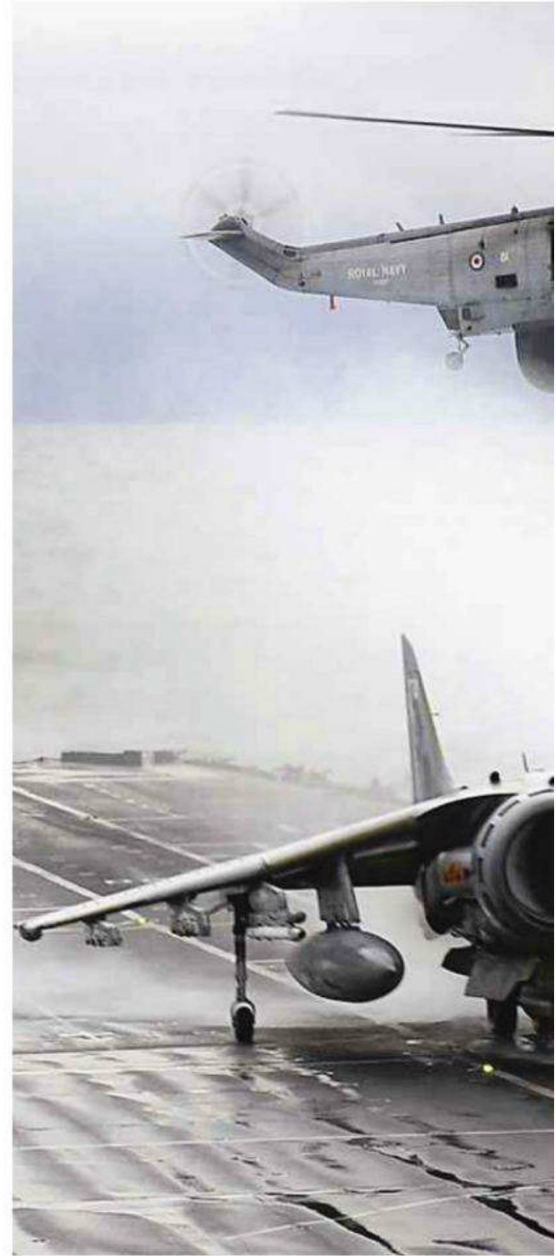
The RN is juggling a number of commitments, including deploying vessels such as **RFA Fort Victoria** to the Somali Coast in a counter-piracy effort, against the backdrop of SDSR cuts.

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like replacement for the current UK strategic nuclear deterrent, which is based on four Vanguard nuclear-powered submarines equipped with Lockheed Martin Trident II D5 Fleet Ballistic Missiles (FBMs). This aspect of the SDSR is the subject of dispute in the coalition government, with the Conservative Party in favour of a like-for-like replacement to maintain a continuous at-sea deterrent and the Liberal Democrat Party in favour of looking at alternatives.

The coalition formalised this position in May with the announcement that the project was moving through its Initial Gate and into its design phase. Fox said it was anticipated that this phase would cost about GBP3 billion. However, the final decision on moving past Main Gate and into production would be made by the next government after 2014. As well as solving a politically contentious issue, this delay also pushed GBP3 billion in spending back to beyond 2020, avoiding cuts to conventional programmes.

The Liberal Democrats received a concession from Cameron over the future of the deter-



rent replacement, securing a commitment for a "study to be undertaken by the Cabinet Office and overseen by the Minister of State for the Armed Forces [Liberal Democrat Nick Harvey MP] to review the costs, feasibility and credibility of alternative [nuclear weapon] systems". For the first time, government and military experts will be allowed to consider alternatives to the US-supplied Trident system, opening the way for air-launched nuclear weapons or co-operation with France in a way that was not possible in the previous examination of the Trident replacement in 2006 by the Labour government.

The decision to move forward with a successor to the Vanguard submarines meant the coalition government had to progress with further production of Astute-class nuclear-powered attack submarines to sustain the industrial base. Although the SDSR formally ended hopes of



HMS Ark Royal facilitated the last launch of the iconic **Harrier GR.9** aircraft from her deck in November 2010. The aircraft carrier was decommissioned in March 2011.

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buying eight Astute submarines from BAE Systems, it did commit to seven boats. The first Astute was formally commissioned into the RN in August 2010 and the second is expected to be commissioned into the fleet next year. Long-lead items have been purchased for boats five and six.

To protect the carriers, the RN is receiving six Type 45 Daring-class destroyers, the first of which is expected to make its first operational deployment in January 2012. This programme will deliver the last of the six ships, which due to budget overruns cost about GBP1 billion each, over the next two years.



An artist's impression of the **Queen Elizabeth-class aircraft carrier** design for the RN as amended post-SDSR 2010 to incorporate catapults and arrestor wires for the F-35C carrier variant of the Joint Strike Fighter.

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Although the RN's capital ships and submarines survived the SDSR, the frigate and amphibious forces took a big hit to free up resources. The last three Type 22 frigates were retired early this year and although Fox gave a commitment to the replacement Type 26 Global Combat Ship in his July 2011 announcement he gave no details of budget, required capabilities or delivery schedules.

Fox also said the MoD would publish its equipment procurement plan "in September", but officials have not provided a date for its publication or confirmation that this would be a 'line item' listing of the budget for all procurement projects.

The amphibious force is losing one of its Bay-class landing ships, which is being sold to Australia, and one of the RN's two dock landing ships is being withdrawn from frontline service and placed in reserve. A long-term replacement for the helicopter carrier HMS *Ocean* has been cancelled for the immediate future, with planning based on using one of the Queen Elizabeth-class carriers as a helicopter platform when it is not being used to embark fixed-wing aircraft. Additionally, 5,000 naval personnel are to be made redundant.

Even as RN planners were working to reconfigure their future force as a result of the SDSR, the service found it had picked up a new commitment during the Libyan crisis. After deploying a frigate to rescue civilians from the rebel-held port of Benghazi, the RN's commitment escalated to include a Trafalgar-class nuclear-powered attack submarine in the land-attack role armed with Raytheon Tomahawk

cruise missiles, a Type 42 air defence destroyer, a Sandown-class minehunter and HMS *Ocean* with Army Air Corps AgustaWestland/Boeing WAH-64D Apache AH.1 attack helicopters. This was balanced to a degree by the ending of the UK's role protecting offshore oil platforms in Iraq, but the RN remains committed to protecting the Falklands and carrying out counter-piracy deployments in the Indian Ocean.

Air force

As with the RN, the Royal Air Force (RAF) was heavily affected by the SDSR and the CSR, losing about 15 per cent of its operating budget and GBP8 billion from its procurement budget.

The immediate consequences were felt in terms of a 5,000 cut in personnel and the closure of several bases, the withdrawal of the joint RAF- and RN-operated Harrier fleet, the cancellation of the Nimrod MRA.4 project, the early retirement of the VC10 and Lockheed L-1011 TriStar tanker and air transport fleets and the retirement of the Lockheed Martin C-130J Hercules force by 2022.

Cutbacks in the numbers of Panavia Tornado GR.4 and Eurofighter Typhoon combat aircraft in service were also proposed. While the Boeing RC-135 Rivet Joint ELINT-gathering project to replace the Nimrod R.1s got the go-ahead, the Raytheon Sentinel R.1 Airborne Stand-Off Radar system (ASTOR) aircraft, Raytheon Shadow R.1 multi-sensor aircraft and General Atomics MQ-9 Reaper unmanned aerial vehicle (UAV) were all slated for retirement with the proposed ending of UK combat operations in Afghanistan in 2015.

Many senior RAF officers believe the cuts threaten the viability of the service as a 'full-up air force' capable of operating across the whole spectrum of warfare.

Events in Libya boosted the RAF's long-term prospects, with about 900 of the 1,300 UK

UNITED KINGDOM

personnel committed to Operation 'Ellamy' drawn from the RAF. The RAF had conducted more than 15 per cent of all of NATO strike sorties, according to RAF Air Vice Marshal Greg Bagwell, who initially commanded the UK contribution to the international air effort. AVM Bagwell said about 90 per cent of RAF missions were against targets of opportunity and often in urban areas, indicating that the service was leading the "heavy lifting" of the NATO campaign.

For the RAF, Operation 'Ellamy' also included a number of firsts, including 3,000-mile bombing missions from UK bases, the employment of MBDA's Dual Mode Brimstone missiles against armoured vehicles and the combat debut of the Typhoon in the air-to-ground role. The fall of Tripoli to rebel forces backed by NATO airpower reinforced the arguments of supporters of air power within the UK defence establishment.

Prior to Fox's announcement in July of "mid-course" adjustments to the SDSR, fears were raised that immediate cuts would be made to the 137-strong fleet of Tornado GR.4s. However, in light of requirements to keep the Libya campaign going, these were delayed.

The Libya campaign and on-going regional instability in the Middle East appears to have stabilised the RAF for the immediate future but the coalition government has yet to finalise and publish a detailed road map for the Typhoon's full multi-role capability or decide on the number of F-35Cs to be purchased. It has been confirmed that these will be operated by the RAF with assistance from a cadre of RN aviators, but an in-service date has yet to be declared.

Army

In the aftermath of the SDSR, senior British Army officers appeared to have avoided the worst of the cuts. The army endured a 10 per cent reduction in its operating budget and lost 7,000 personnel, mainly from administrative posts. Cuts to the army procurement budget were in the hundreds of millions, which army chiefs considered "manageable". The 20,000 British troops based in Germany are also to return to bases in the UK by the end of this decade.

However, the British Army proved to be the main victim of Fox's July announcement to "at last" balance the available defence budget with force structure and equipment aspirations. This saw a three per cent increase in procurement spending between 2015 and 2020, as well as a GBP1.5 billion increase in spending for the Territorial Army. Fox also gave the go-ahead for the army to upgrade its BAE Systems Warrior infantry fighting vehicles and to purchase 14 Boeing Chinook HC.6 transport helicopters for the RAF to serve with the Joint Helicopter Command, which has responsibility for all British battlefield helicopters.

The downside was that Fox also announced the regular or active-duty component of the army would decrease by another 7,000 troops by 2020 to bring the number of regular

soldiers to about 84,000.

Against this background the army is undergoing its most radical restructuring since the Second World War. The existing structure of nine deployable brigade headquarters is to be reduced to six by 2015, all soldiers based in Germany will be brought home by 2020 and one of the two deployable divisional headquarters is to be converted into a force generation organisation. A shake-up of the functional organisation of the army has also been set in motion and will see the eight headquarters that oversee the arms and services merged into four new capability directorates (CDs) by the end of 2012. The infantry and armoured corps will become the Combat CD, the artillery and engineers corps will become the Combat Support CD, the Royal Signals and Intelligence Corps will become the Information CD and the Royal Logistic Corps and Royal Electrical Mechanical Engineers will become the Combat Service Support CD.

While the army leadership has stressed that the service's much-admired regimental ethos will remain intact, it seems inevitable that over the medium to long term new types of units will be created that cross the old functional distinctions between infantry, armour, artillery or intelligence-gathering roles.

Joint forces

Fox's July announcement relating to the continued "rebalancing" of the defence budget over the coming decade was preceded by the publication of a report by Lord Levene's Defence Reform Unit. This recommended a major reorganisation of the higher management of the MoD and the UK armed forces. These recommendations were

accepted by Fox but detailed timelines for their implementation have not yet been agreed.

Levene, who was head of defence procurement during the 1980s, proposed that the heads of the army, navy and air force be stripped of their membership of the Defence Board: the MoD's high level management group. He also recommended that their main officers should be moved from the MoD's Main Building in central London to locations outside the capital to allow them to concentrate on "running their services" rather than becoming involved in "policy debates", which Levene said should be the preserve of ministers, advisors and civil servants. The only uniformed military representative on the new Defence Board is to be the chief of the defence staff.

In a further blow to the role and prestige of the individual services, Levene proposed the creation of a new Joint Forces Command (JFC) under a four-star officer of equivalent rank to the service chiefs and reporting direct to the chief of the defence staff.

The new JFC is to encompass the Permanent Joint Headquarters, which runs ongoing overseas operations, the Directorate of Special Forces, a joint education and training organisation, a joint capability development organisation, as well as 'joint enablers' that include the defence cyber operations group, the intelligence collection group and joint command elements. The JFC would also be the owner of all UK intelligence, surveillance, targeting and reconnaissance (ISTAR) capabilities, the urgent operational requirement (UOR) procurement process for buying equipment for 'live' missions and long-term force development over 10- to 20-year timeframes.

About 70 of the British Army's **Warrior infantry fighting vehicles** have been upgraded to Theatre Entry Standard (Herrick).

IHS Jane's/Patrick Allen: 1466391





UK RAF **Tornado GR.4** aircraft are flying missions as part of the NATO-led Operation 'Unified Protector' to protect Libyan citizens and support the country's new government as it moves to vanquish the remnants of the Gaddafi regime.

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The past year has seen extensive changes for the UK armed forces, including the largest real-term cuts in defence spending in a generation, the loss of 43,000 military and civilian personnel from the organisation and the restructuring of the MoD and the armed services. This is happening at a time when all three armed services are heavily committed to high-intensity combat operations in Libya and Afghanistan and several smaller-scale operations are under-

way elsewhere. The pace of change appears to be unrelenting and few observers think the announcements made by the UK's coalition government last October and this year will be the final word on the subject.

The prospect for organisational stability in the MoD also seems very slim. On top of this the global economic crisis and continuing instability in the Middle East mean further budget cuts or new military commitments cannot be ruled out.

Not surprisingly, Arbuthnot was less than complimentary about the coalition's defence planning and criticised it for lack of clarity. He described the SDSR as "a clear example of the need for savings overriding the strategic security of the UK and the capability requirements of the armed forces. The government needs to outline its plans to manage the gap left by the loss of these capabilities and lay out detailed plans for their regeneration".

Arbuthnot said the committee had serious concerns over the realisation of FF 2020, particularly as the provision of the necessary resources is only an "aspiration". "Future Force 2020 seems to be regarded as a 'wide-spectrum' force able to undertake all sorts of tasks while at the same time being regarded as the 'critical mass' of the armed forces with some spare capacity that may be achieved by the establishment of alliances and bilateral operations. The two views are not compatible," he warned.

The Committee shares the concerns of several key witnesses, including retired senior officers, academics and defence industry lobby groups, that there are serious risks if FF 2020 is not achieved as it would represent a fall below 'critical mass'. Commitments made in the SDSR are meaningless without a concrete commitment that the required funding increases will be delivered, said the committee. "Decisions for post-2015 funding will have to be made in the very near future to ensure progress towards Future Force 2020," said Arbuthnot. "If the ambition of a real-term funding increase is not realised, we will have failed our armed forces."

Tim Ripley is a JDW Correspondent, based in London

To fund its vehicle re-capitalisation programme in the 2015 period, the British Army is aiming to divest itself of many of the UOR vehicles bought for operations in Afghanistan, including 300 **Mastiff heavy-protected patrol vehicles**.

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BRIEFING

NAVIGATING THE EMERGING MARKETS: INDONESIA

Indonesia's armed forces have historically suffered as a result of chronic under-funding from governmental sources. In the past such pressures have necessitated the use of a military counter-purchase policy as well as the procurement of materiel through export credit or foreign loans.

However, positive economic developments have taken root in the country during the past few years and, in 2010, prompted the government to commit to increasing the defence budget from 0.8 per cent of GDP to 1.2 per cent of GDP in 2011 and 1.5 per cent by 2014. However, whether such levels will be achievable is open to debate.

Jane's forecasts that Indonesia's defence procurement funding will rise 71 per cent between 2011 and 2015 to USD2.14 billion (or by USD890 million). This increase is expected to surpass that of Indonesia's neighbours in terms of percentage growth and US dollars. Furthermore, procurement funding is forecast to outstrip overall military funding growth, which *Jane's* expects to rise 46 per cent to USD9.29 billion during that period.

The increases in military procurement funding, coupled with an expected continued use of export credit, at least in the short term, will be directed at fulfilling a long list of military requirements that reflect Indonesia's

Island VISION

Indonesia has the potential to be a thriving defence market, but international politics and external factors could impede progress, write Guy Anderson and Jon Grevatt



continuing strategic concerns – such as insurgency, the protection of offshore interests and natural disasters – as well as its unique and expansive territory, which stretches 2,600 miles and includes about 18,000 islands.

The government has said such purchases will be planned by a military procurement roadmap that aims to match acquisitions with actual and loaned expenditure to achieve what is termed in Indonesia as a ‘minimum essential force’ – a strategy that is intended to establish the number, scale and nature of capabilities that Indonesia should, at a minimum, be able to deploy. Under this approach, major acquisitions likely to get underway in the next few years include additional multirole combat aircraft, large tactical transport aircraft, diesel-electric submarines and a range of surface combatants.

Given the country’s recent procurement history, Indonesia is likely to source these requirements from a variety of nations. Jakarta’s diversification strategy was heavily influenced by military sanctions imposed on the country by the United States in the 1990s and lifted in 2005. It was an approach that saw Indonesia become more reliant on Russia for materiel, yet not overly so; Europe and South Korea have also emerged as important suppliers.

Indonesia faces a number of challenges to fulfil its promise of becoming a thriving defence market. As with other emerging markets, such challenges are mainly related to the stability of

finances, delays, procurement procedures, transparency and industrial capabilities.

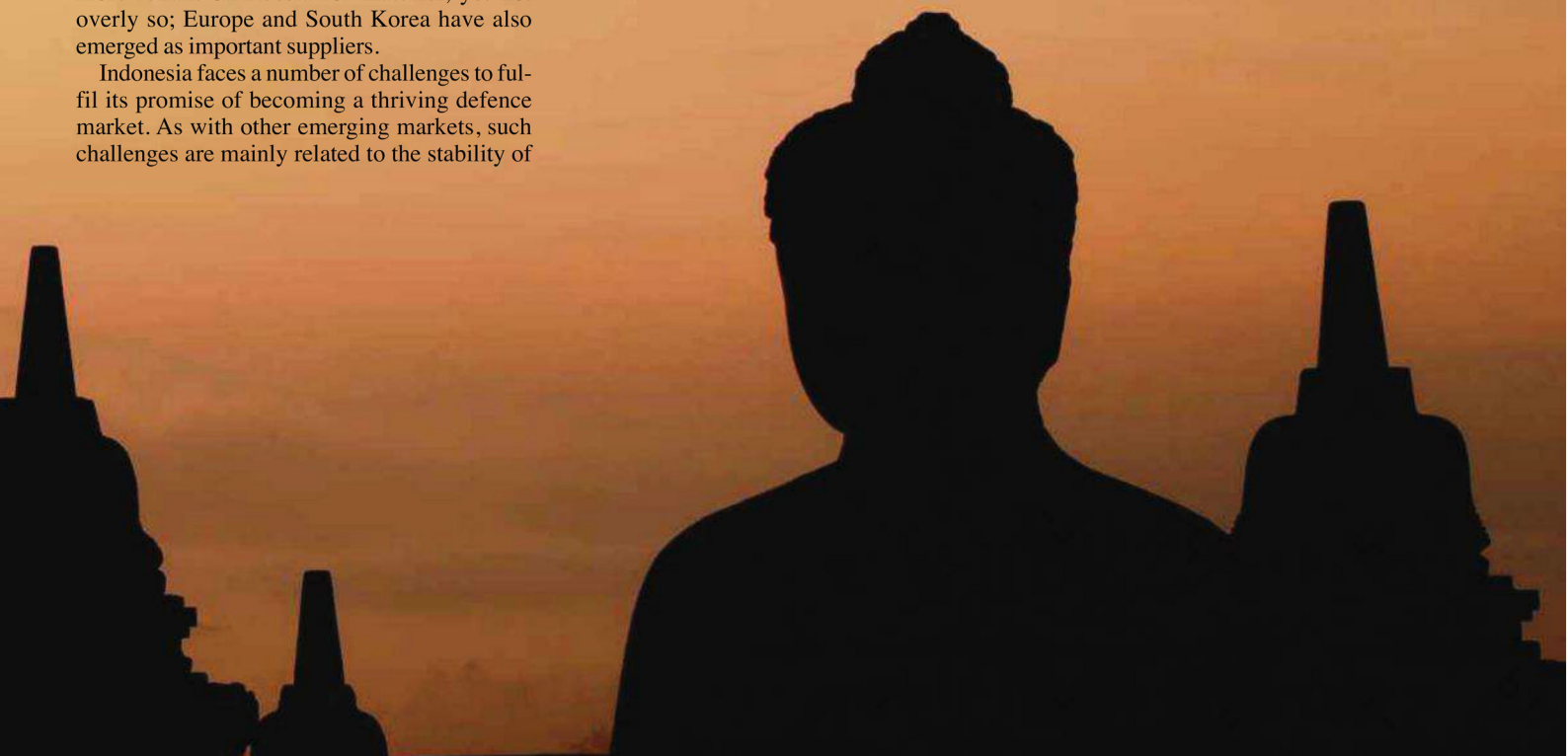
Challenges

Military spending: Despite government pledges to increase defence spending, the military budget remains well below 1 per cent of GDP. This reflects Indonesia’s continuing priorities to boost social welfare – particularly health and education – as well as what could be regarded as a questionable commitment to military modernisation. Defence officials in Jakarta frequently argue that the defence budget is inadequate to fully provide for the country’s military welfare, operational and procurement needs.

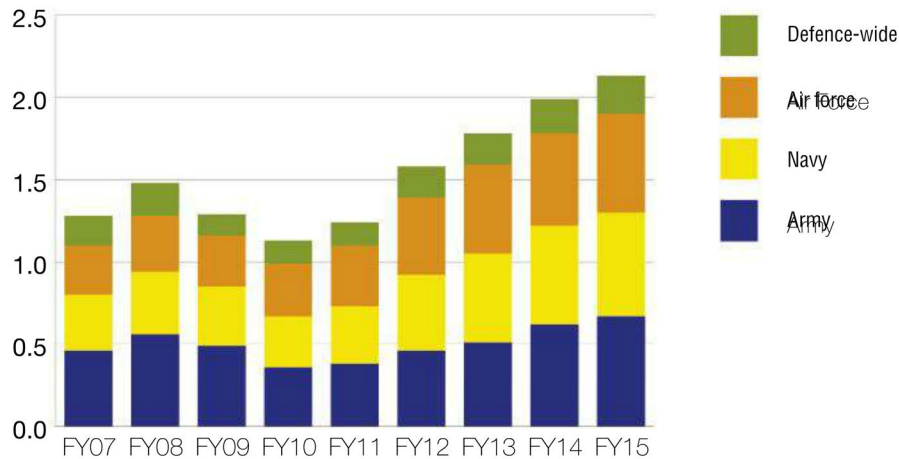
Should economic constraints persist in defence then Indonesia will almost certainly continue its policy of funding purchases through export credit and foreign loans. In these circumstances Indonesia will favour defence business ties with countries willing to offer such credit.

Offset: Indonesia has pledged to introduce its inaugural offset policy by late 2011 in an effort to enhance industrial capability and ultimately reduce dependency on imports. However, delays mean that the policy is likely to be published in 2012. The new offset policy is not likely to be burdensome, at least initially, although it is probable that associated bureaucratic administrative processes will represent a challenge for foreign contractors. Such obstacles could feasibly affect defence trade, as has been the case in India.

Industrial capabilities: It is doubtful that Indonesia’s defence industrial base has sufficient expertise to absorb the technologies it requires to facilitate indigenous production of any major programmes. Jakarta has pledged to invest in its indigenous industry, although the level of investment needed to sufficiently boost capabilities would be substantial. A related challenge for Indonesia and foreign contractors is the relatively low level of worker skills. For example, only 2 per cent of workers have attended university.

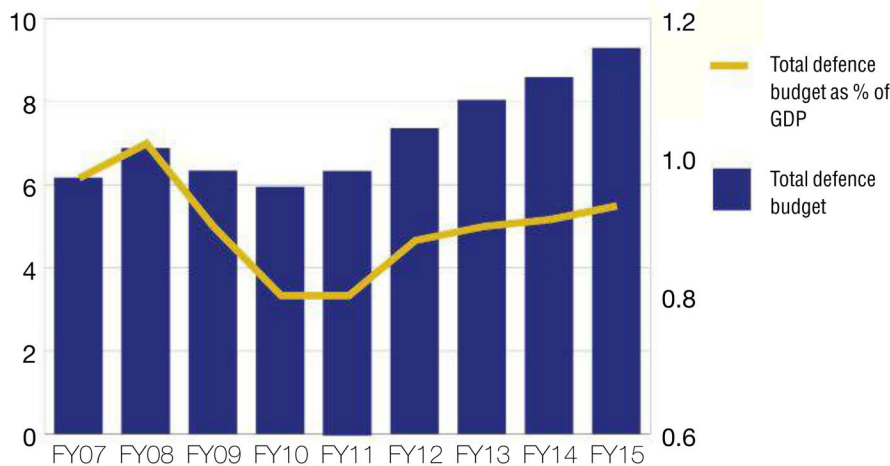


BRIEFING

Procurement spending (USD billion, actual and forecast) Source: Jane's Defence Budgets

Cohesion: There also appears to be a lack of cohesiveness surrounding Indonesia's procurement plans. This leads to various bold declarations about the scope of requirements, regardless of whether funding is available. For instance, Indonesian officials have previously stated that the country is seeking to purchase 180 Sukhoi fighters, although it is clear that such a purchase would be beyond Indonesia's economic means. Such statements are largely politicised, but they point to a lack of rigid procurement planning.

Delays: A lack of cohesion, coupled with a lack of available funding for procurement programmes, sourced from either the defence budget or through bank loans, can also lead to delays. For instance, Indonesia's submarine acquisition has been set back at least two years by a lack of funds and other programmes, such as Indonesia's purchase of Embraer EMB-314 Super Tucanos, have been similarly adversely affected.

Defence spending (USD billion) and defence spending as a percentage of GDP (actual and forecast) Source: Jane's Defence Budgets

Corruption: Corruption has been a problem with Indonesia's governmental systems, particularly in defence, for many decades. It is largely a result of an uncontrolled access to funds and diluted civilian oversight of budgets and other administrative processes. In the past such unregulated practices have led to a number of defence procurements being subjected to illegal price markups. The government has attempted to inject increased transparency into procurement processes, but it is not yet clear whether measures have proved successful.

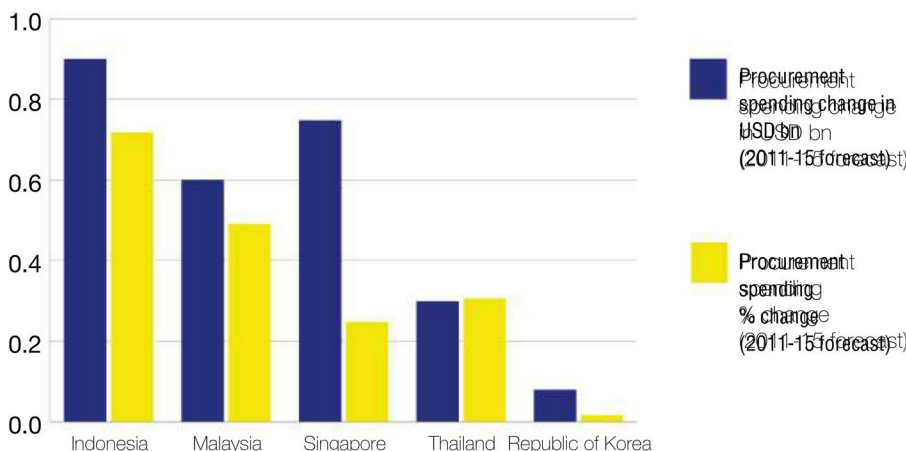
Reform

Reforms were instigated in 2004 to address severe underfunding for the military. Relatively large subsequent budgetary increases followed, although Indonesia's struggle to overcome the financial downturn of the 1990s hampered these efforts. As of 2010 it was arguable that core military resources were inadequate to provide for military welfare, operational and procurement needs.

However, there have been positive developments. Indonesia committed in 2010 to three years of spending growth, although whether the targets will be reached is open to debate. *Jane's* maintains the view that spending as a percentage of GDP will remain at or below 1 per cent, some way behind regional peers.

A further positive step at that time was the commitment to a 'zero growth policy' that was to maintain military personnel and expenditure for non-core military activities at static levels, although making greater funds available for procurement from 2011 onwards.

Overall, it is anticipated that Indonesia's military procurement funding will rise 71 per cent between 2011 and 2015 to USD2.14 billion (or USD890 million) and these spending increases

Forecast procurement spending growth – actual and % (Indonesia v regional peers) Source: Jane's Defence Budgets

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will surpass those of neighbouring peers in terms of percentage growth and US dollars.

Additionally, procurement funding is expected to exceed overall military funding growth.

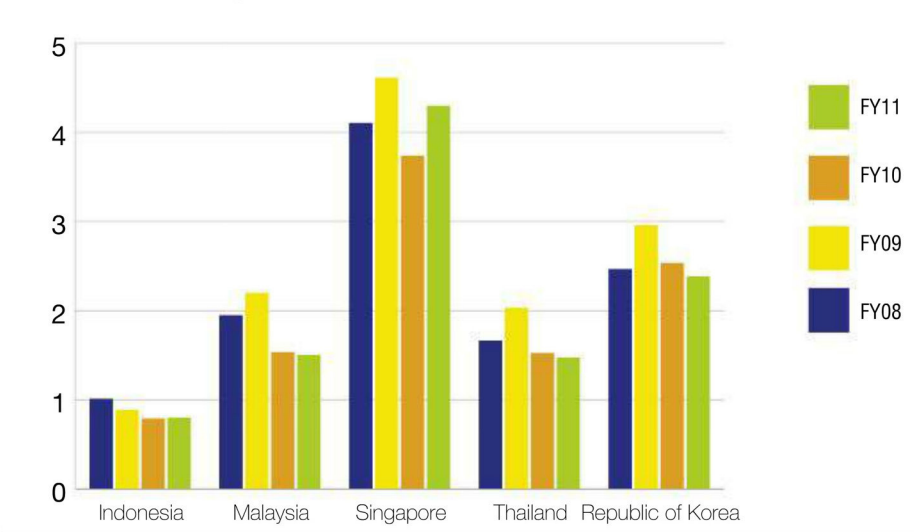
Indonesia faces few external, existential threats to drive military funding, although a number of factors are significant. First, there is a strong disposition to deter threats that may emerge (notably to Indonesia's abundant energy resources) and to react to natural disasters. As a result, Indonesia has committed to achieving a 'minimum essential force' by 2014. This strategy involves the replacement and upgrade of a variety of ageing military platforms. In common with regional peers, Indonesia is also looking towards increasing defence industrial self-reliance, with an emphasis on obtaining greater returns through offset and technology transfer: objectives that necessitate relatively substantial procurement expenditure.

Finally, the threat of terrorism since the Jakarta bombings of 2009 has served to place an emphasis on defence and security investment.

The gap between core military procurement funds and the needs and aspirations of the Indonesian armed forces has necessitated the use of unconventional means to underpin materiel purchases. These have ranged from earnings from the military's extensive business interests to sovereign loans. Banks in France, Switzerland and, notably, Russia have provided Jakarta with credit in previous years to purchase defence items. There have also been efforts by Indonesia from 2010 onwards to wean military procurement off foreign financing through the provision of additional core funds and by encouraging domestic financial institutions to increase exposure to military

Defence spending as percentage of GDP – Indonesia v regional peers

Source: Jane's Defence Budgets



Jane's Defence Budgets: 1400504

programmes. Whether this aim is achievable is entirely dependent on economic growth during the coming five years.

A final worthy point is the largesse of the US. Since the resumption of US military aid to Indonesia in 2006, the country has received year-on-year increases to its US Foreign Military Finance (FMF) allowance. The allocated sum was USD990,000 in 2006; USD7.4 million in 2007; and USD15.7 million in 2009. The allocation of USD28.5 million between 2008 and 2009 made Indonesia the eighth largest recipient of FMF funding in the world for that period and second to the Philippines in Southeast Asia.

For information about Indonesian offsets, please see the business analysis on page 19.

Full report available

This article is an extract from *Jane's Navigating the Emerging Markets: Indonesia* report, published in 2011. Copies of this are free to Jane's Defence Industry and Markets Intelligence Centre subscribers. To obtain your copy in a PDF format, please contact:

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Procurement overview

Indonesia's defence procurement system is largely a work in progress following the dilution of the armed forces involvement in military acquisitions since the fall of the Suharto regime in 1998. The present government, headed by former four-star army general President Susilo Bambang Yudhoyono, has prioritised military procurement reform and has introduced a raft of measures that are aimed at centralising policies in a bid to reduce opportunities for corruption as well as improve efficiencies.

In terms of Indonesia's external procurement strategy, two key factors remain influential: the military embargo imposed by the US from 1999 until 2005, and the traditional shortfall in defence spending. In response, Jakarta has adopted a policy to diversify its suppliers based not only on their ability to provide required capabilities, but also their willingness to offer credit, usually in the form of bank loans.

Legislation: Several laws cover defence procurement, all of which have been introduced within the past decade.

- Presidential Decree 80/2003: Government Procurement of Goods and Services stipulates that procurements valued at more than IDR50 billion (USD5 million) must have ministerial approval. It also regulates selection and evaluation methods as well as contracting systems and regulations related to integrity pacts, transparency, competition, value for money and accountability. The legislation is co-ordinated and implemented by the National Agency for Government Procurement Policy and the Ministry of Defence's (MoD's) Defence Facilities Agency (DFA).

- Kepmenhan RI No PER/07/M/VII/2006: Regulates the supply of goods and services to the MoD and the armed forces through export credit facilities. Export credit

facilities can be used in procurement valued at more than IDR50 billion.

- MoD Decision KEP/01/M/1/2005: Introduces integrity pacts for export credit deals designed to increase transparency and accountability of such transactions.

- Kepmenhan RI No PER/06/M/VII/2006: Regulations related to procurement of goods and services through non-export credit facilities such as the national budget.

Tenders: Tenders are issued by the DFA.

Awarding bodies: Contracts are awarded by the DFA's procurement committee in collaboration with the Ministry of Finance. Major contracts require cabinet approval.

Types of tenders issued: Three tender processes are outlined by the Presidential Decree 80/2003.

- 'Public tenders' are the open invitation to all qualified bidders, which must be either listed as capable contractors or pre-qualified by a tender committee.

- 'Limited tenders' must have at least five qualified bidders solicited through public announcements.

- In contracts between IDR15 million and IDR50 million 'direct selection' can be used. Contracts below IDR15 million are reserved for small and medium enterprises.

Administrative bodies: In January 2011 the MoD set up the DFA, which replaced the Directorate General of Defence Facilities. The agency has a dedicated procurement centre, which undertakes all associated administrative tasks. The DFA is supported by the MoD's Defence Industrial Policy Committee, which was established in late 2010 to introduce reforms related to defence procurement and industrial development. Such reforms include a procurement roadmap, which would chart development and match military requirements against industrial capabilities and defence offset rules.

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INTERVIEW

RICHARD PANIGUIAN

HEAD OF THE UK TRADE AND INVESTMENT DEFENCE & SECURITY ORGANISATION

Building partnerships with indigenous companies in target markets is the future for British defence exporters and will supersede the traditional business model of direct sales, according to Richard Paniguan, the head of the UK Trade and Investment Defence & Security Organisation (UKTI DSO).

Speaking to *Jane's* at the Defence and Security Equipment International (DSEi) exhibition in London in mid-September, Paniguan said that, with global defence spending patterns shifting from Europe and the US to growing markets in Asia, Africa, the Middle East and South America, his organisation was spearheading the efforts of British companies in the world's new powers.

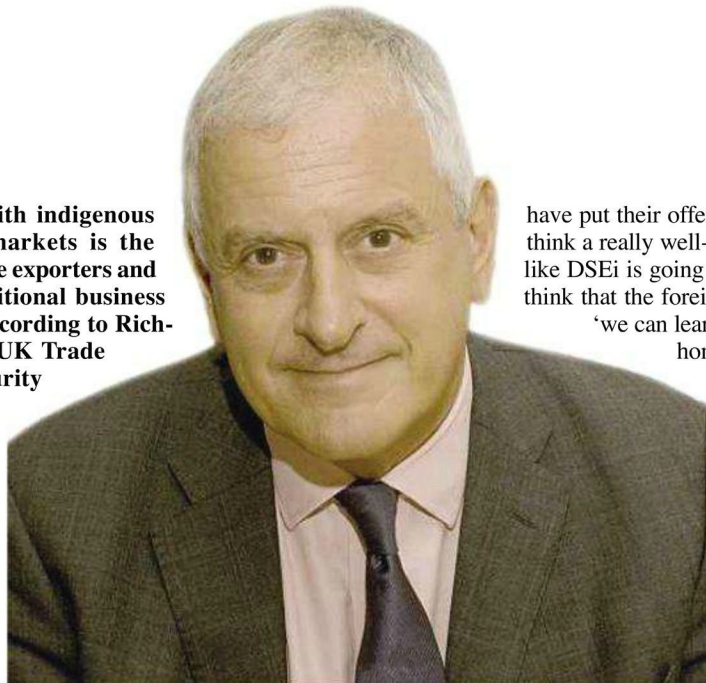
"We've had long relationships in South America, the Far East and Australasia but some of those relationships have over recent years fallen into disrepair," he said. "A lot of effort is being put into reviving those relationships and the defence and security companies are in the vanguard of efforts to bring partnerships closer. And of course, it is not a matter today of delivering completed platforms. The way you build export business is through partnerships with companies which are eager to build their own defence industrial capability, and we are very keen to be part of that."

According to the 'UK Defence Survey 2011', which was published by the Aerospace, Defence and Security (ADS) trade body on 12 September, India is likely to become an increasingly important buyer of British defence equipment in the coming years. Paniguan was also confident the Indian demand for British materiel would grow and reiterated his belief in the importance of building relationships with local companies.

"I'm sure that we will be much more active with India but as I say, it will probably be characterised by partnerships rather than simply sales. Sales are really yesterday's business model: today it's about partnerships. That is not some kind of fine-sounding word that doesn't contain substance: the partnerships that you will see between British companies and Indian companies – BAE Systems [which has a joint venture with India's Mahindra & Mahindra] is a very good example – they are substantial and real and productive and we want to be able to support more of them."

Despite the fall in European budgets, Paniguan said that defence companies and exhibition organisers in emerging markets would continue to attend shows like DSEi to gain experience.

"The evidence points to DSEi being more successful today than it's ever been: more international delegations visited this DSEi and more companies



have put their offerings on display than ever before, so I think a really well-run, really well-thought-through show like DSEi is going to go from strength to strength. I also think that the foreign delegations come to DSEi and say 'we can learn from this, we want a bit of this back home'," he said. "I've no doubt at all that

DSEi's example is going to be taken up by a lot of aspiring countries. Countries with ambition and countries with capability, they will want to learn from DSEi and apply the lessons to their own exhibitions. I'm expecting to see a lot more evidence of the DSEi imprint as I go around my market."

DSEi focuses on the land systems market, a business that has had a difficult time in the UK in recent years with major projects like the Future Rapid Effect System downgraded or cancelled. However, Paniguan insisted there was a bright future for the sector.

"If you look at the requirements in theatre, in Afghanistan, the response is Ocelot, Foxhound, Supacat [Jackal], all really relevant to today and the future and all coming out of the UK industry's response to a pressing need.

On that score, I see an example of

a very rapid response from the UK industry. This is an outcome which demonstrates rude health in the industry: if the industry wasn't capable of responding like that, you would say 'this is an industry which isn't ready to take on the challenge of the day'. It's absolutely ready to do that."

The UK's Conservative/Liberal Democrat coalition government has identified exports as essential for lifting the economy from its current doldrums. The UKTI DSO chief said he had been impressed by the government's support for the defence industry, favourably comparing its presence at DSEi with its Labour predecessor.

"In terms of what we do, we simply could not hope or ask for more from the government. Take DSEi, for example: I think we have had, including the Secretary of State [for Defence Liam Fox], five ministers from the Ministry of Defence, a minister from the Home Office for security, a minister from energy and a minister for trade and investment. This is a really broad sweep of government support for what we do and I think it's immensely important for the industry to see [this support for] what it does in terms of support for the armed forces but also for the revival of the economy.

"There are not many more potent sectors in regards to this than the defence and security sector, and the government recognises this and puts a lot of effort into it. Compare this year's DSEi with 2009's DSEi in the matter of government appearance and everything else and there's a great deal of difference."

Gerrard Cowan JDW Europe Editor, London

'The way you build export business is through partnerships'

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