



GRIPEN
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GRIPEN NEWS

THE MAGAZINE OF SAAB-BAE SYSTEMS GRIPEN AB

JUNE 2001

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SOUTH AFRICAN SUCCESS

Offset delivery on target

Just one year after its first export contract for Gripen became effective, SAAB-BAE SYSTEMS Gripen has successfully delivered nine national industrial participation (NIP) projects as countertrade for the South African government's order for 28 Gripen and 24 Hawk aircraft.

With the South African government assessing a projected economic value of US\$2.9 billion, this represents 40% of the Gripen partnership's total NIP obligation of US\$7.2 billion over 11 years.

Among the first nine projects is a contract for the procurement of automotive parts (Volvo), assistance for the export of South African-manufactured power generation equipment

(ABB), the promotion of mining equipment in export markets (Atlas Copco) and the establishment of an agricultural business training and enterprise center.

It also includes a project for the supply of South African manufactured products to Gripen partners Saab of Sweden and the United Kingdom's BAE SYSTEMS and their worldwide supply base. **Cont. on page 3**



GRIPEN FLYS WITH HELMET MOUNTED DISPLAY

The integration of a helmet mounted display, which further enhances Gripen's combat capability by allowing pilots to aim weapons by simply looking at targets, has passed a significant milestone, with a successful series of test flights in Linköping, Sweden, using a 'Guardian' helmet-mounted display system (HMD).

Flown by test pilot Magnus Olsson, the compatibility of the 'Guardian' display with Gripen's advanced avionics and cockpit was verified, ahead of a program to fully integrate the system for export launch customer South Africa, which has a requirement for 28 Gripen swing-role fighters. **Cont. on page 8**



Photo by Per Kustvik

"A TOTALLY SUPERIOR PRODUCT"

Photo by Peter Liander



Colonel Per-Olof Eldh has flying in his blood and has accumulated more than 3,500 hours in fast-jet combat aircraft such as the Draken, Viggen, BAC Lightning, MiG 29, Mirage III, F-5E and F-15. He was one of the first Swedish Air Force pilots to fly Gripen.

Currently head of the aircraft and armament section of the Swedish Armed Forces, he has been responsible for the Swedish evaluation of the new-generation METEOR beyond visual range air-to-air missile and for the integration of AMRAAM with Gripen.

As you might expect, Gripen is an aircraft Per-Olof knows well. With more than 100 hours experience of flying this new-generation multi-role/swing-role fighter, he continues to be impressed with its capabilities and performance.

"Compared to other fighter aircraft currently in service, Gripen is a totally superior product," he boasts. "It is a perfect blend of simplicity and sophistication, and by far the best handling aircraft I have ever flown."

Colonel Eldh gives much of the credit for Gripen's ease of operation to the class-leading cockpit design. This uses digital technology and data-fusion to provide a high level of systems integration and automation. When combined with datalink and information from on-board sensors, this creates a human-machine interface that is unrivalled in any multi-role fighter currently in service.

The triplex, digital, fly-by-wire, flight control system ensures optimum combat agility and all speeds and altitudes and allows Gripen pilots to enjoy carefree handling as the computer systems ensure control inputs can never exceed their limits.

This is a key requirement for 21st century air defense fighters which have to be highly agile in order to cope with the demands of both supersonic beyond-visual-range (BVR) combat and subsonic close-in combat.

"In the Gripen cockpit, the number of conventional panel-mounted controls has been kept to a minimum and this helps to dramatically reduce pilot workload, particularly in combat situa-

tions" Per-Olof states. "It helps ensure unrivalled operational effectiveness and increases the time available for tactical decision-making – allowing a Gripen pilot to use his aircraft and weapon systems to best effect.

"Gripen is already capable of meeting the operational requirements for Swedish Air Force multi-role fighters in the period 2001-2020."

Gripen fighters sold internationally, and Swedish Air Force 'Batch Three' aircraft, have an even more advanced cockpit, dominated by three large full color multi-function-displays. These replace the smaller single-color units fitted to earlier 'Batch One' Gripens and to further enhance the pilot's situational awareness. Operating at all altitudes, the displays are equipped with light sensors for computer-assisted brightness control.

"In operational service today, the Gripen is outperforming its original specifications by more than 50 per cent. It has lower than expected aerodynamic drag and fuel burn as well as a greater range and rate of climb than anticipated," Colonel Eldh states. "Gripen is setting new standards for reliability, maintainability and availability.

"Such is the level of systems reliability, that Gripen can already operate for up to 7.6 flight-hours between failures," notes Per-Olof. "While its flyaway price is comparable to that of a new F-16 C/D, Gripen's operating cost of less than US\$2,500 / flying hour (including fuel and all levels of maintenance) is unrivalled.

"It currently requires less than 10 maintenance man-hours per flight hour – just about the lowest of any front-line fighter – helping to produce the lowest possible through-life costs, even when compared to the standards expected of other fourth-generation aircraft which are yet to enter service."

Commenting on Gripen's runway performance, Colonel Eldh points out that Gripen can operate in and out of 800 metre long strips with ease, even with a full fuel and heavy armaments load. When lightly loaded, for aerobatic performances at air shows for example, Gripen can become airborne in as little as 300 meters.

To keep the landing run short, Gripen pilots depend only on aerodynamic drag, including that from the large canard foreplanes, and the very powerful anti-skid braking system. Thrust reversers are not fitted to Gripen.

Interestingly, the aircraft brakes can be applied while still airborne, Per-Olof points out. The braking logic causes the braking action to be initiated only after the nose wheels hit the tarmac and, as a result, Gripen can be brought to rest in well under 400 meters. "Such runway performance is amazing for a conventional aircraft," Per-Olof boasts.

"There was one interesting problem," Colonel Eldh concludes with a smile. "Gripen is supersonic at all altitudes and can cruise supersonically with an external load including fuel tank, four AMRAAM and two side-winder missiles without the need to engage the afterburner.

"In the early days of operations, we found some pilots inadvertently flying supersonic over populated areas. The problem was one of habit, as these pilots had their throttle settings as high as on the older-generation fighters that Gripen replaced.

"It is fair to say there were a few startled people on the ground, as their day-to-day work, or perhaps sleep, was disturbed by unexpected sonic booms! It was, of course, a simple task to solve the problem – the throttles were re-set and everyone was happy."

POLISH TENDER UPDATE

As this issue of Gripen News went to press, the campaign team in Warsaw was preparing to submit a response to the first phase of a formal Request for Proposals (RFP) for the short-term procurement of 16 leased and longer-term procurement of 44 new multi-role fighter aircraft for Poland.

Delivery of leased aircraft is required by end 2003 with delivery of all aircraft requested by end 2006. Bidders are required to submit their response, to the initial technical comparison document, by 15 June.

Unusually the Polish government does not plan to consider business aspects,

such as offset and financing, until evaluation of technical aspects is completed.

Poland joins its neighboring new-NATO entrants Czech Republic and Hungary in formalizing plans to modernize its air force in order to meet both NATO and national defense needs. Competition in all cases remains tough with products from Lockheed Martin, Boeing, Dassault and, in some cases, EADS under consideration.

In the case of Czech Republic, which requested proposals for quantities of 24 and 36 new supersonic multi-role fighters, responses, in Czech language, had to be submitted by 31 May.

Negotiations between a joint Swedish government and industry team and the Hungarian government are ongoing. Hungary has an initial requirement for 24 leased multi-role fighters.

Austria is expected to issue an RFP for up to 30 new-generation fighters during the summer months, with a suggestion that selection of a preferred supplier will be made by early 2002.

Elsewhere, interest in Gripen remains high with market opportunities currently being explored in Central/South America, the Middle East, ASEAN, Australia and European regions.



Cont. from page 1

Through a joint NIP project office located in Johannesburg, Saab and BAE SYSTEMS are finalizing new NIP projects in the mining, forestry and tourism sectors. These are expected to be ready for implementation within the next few months.

“The focal points for delivery of our NIP projects are the South African government’s strategic industrial sectors, as identified by the Department of Trade and Industry,” states Simon Carr, sales and marketing director, SAAB-BAE SYSTEMS Gripen.

“It is our objective to maximize the socio-economic benefits created by our

NIP program and to work in partnership with the DTI to promote areas of high value or high technology business that offer a strategic advantage to South Africa.”

In the area of Defense Industrial Participation (DIP) the Gripen team’s achievements have been no less impressive. To date, projects assessed to be worth US\$829 million have been delivered. This equals 55 per cent of the total US\$1.5 billion DIP obligation over seven years.

Recent contract awards include major workshare packages for both Denel Aviation and Grintek Electronics Systems worth US\$3.6 million and US\$4.3 million respectively.

Denel is delivering a variety of aerospace components and sub-assemblies for Gripen, the BAE SYSTEMS Hawk and RJ/RJX aircraft. Through its role in the RJ/RJX jetliner program, Denel has become the first African manufacturer to participate in a commercial airliner program.

On April 2, in a separate but parallel activity, South Africa’s public enterprise minister, Jeff Radebe, Denel chief executive, Flip Botha and BAE SYSTEMS’

chairman, Sir Richard Evans, signed a statement of intent relating to a strategic equity partnership with Denel’s aviation and ordnance businesses.

Detailed negotiations on this partnership should be completed by mid-year.

Gripen partner BAE SYSTEMS is also committed to a wide-ranging social responsibility program. This is driven by recognition that all multi-national companies and big businesses active in South Africa carry a moral obligation to put money back into socio-economic development at a grass-roots community level.

Areas of focus include community upliftment, sport and recreation, cultural activities and academic sponsorship programs.

“SAAB-BAE SYSTEMS’ relations with South Africa are clearly progressing well, as are specific activities associated with the contract for supply of Gripen and Hawk aircraft to the South African Air Force,” concludes Simon Carr. “We are on target for delivery of all contractual obligations and remain committed to long-term strategic industrial and social relationships with South Africa.”



Photo by Vaclav Holicek

SUPERSTAV - DIGGING ITS WAY TO EXPORT SUCCESS

The small town of Dobříš, some 30 km from the Czech capital, Prague, is the unlikely setting for one of Central Europe's youngest and most successful engineering companies: Superstav, makers of the Earthforce brand of earth-moving and digging machines. Now, thanks to a Memorandum of Understanding (MoU) signed between Superstav and SAAB-BAE SYSTEMS, the company is about to enter a new period of investment and growth.

Since the summer of 1998, Christian R. Nielsen, a former US Navy F-14 pilot and Superstav's American-born founder, president and CEO, and his 210-strong team have been designing, producing and exporting their Earthforce diggers to the US and throughout Europe.

The company's product range, comprising seven Earthforce diggers, or backhoe loaders, fills a small but insatiable niche in the market for earthmoving

machinery. "We take over where the big names – Case, John Deere and CAT – stop," said Mr Nielsen.

Under the MoU, which forms part of a pre-contract offset program to support marketing of the Saab-BAE SYSTEMS Gripen in the Czech Republic, the Gripen team has been working with Superstav and international investors to develop and implement investment and export growth.

"This support has been crucial to our continued success," explains Christian Nielsen. "The Gripen team brings global contacts, huge credibility and has the ability to open doors for us which would always have remained closed."

"The team has given us a face with the Czech government, helped us gain access to Czech Invest [the Czech Republic's inward investment agency], the Czech Ministry of Trade and Industry, and provided valuable support to our talks with international bankers."

Steve Jackman, vice president economic strategy at Gripen partner BAE SYSTEMS, has been working closely with the Superstav team to help develop a broader network of international dealerships to further boost market penetration.

"Superstav is a first-class innovative company with superb potential. We are using our vast international network to help Chris and his team open up new export markets especially in Europe,

Africa, the Middle East and Asia" Jackman states.

"We believe that over the coming 10 years we can help Superstav generate additional export revenues of between US\$800 million and US\$1 billion, and in the process double the number of jobs at the Dobříš factory."

The Gripen team has also played a key part in facilitating negotiations between Superstav and potential new inward investors.

These negotiations resulted in an agreement from Argus Capital, an investment company that is part of the US-based Prudential, the world's biggest insurance company, to invest in Superstav's expansion.

"Our current growth rates are exceeding our capacity, so this year we shall increase our factory space by 50 per cent, purchase new machinery and tools, and install a new paint unit," said Mr Nielsen. "This will take us forward to the next level."

"It is good news for the town of Dobříš, and for Superstav's supplier chain. "We use Czech steel, Czech tires and just about Czech everything to produce the Earthforce range, and 99.9 per cent of everything we make is for export, generating additional income through export revenues for the Czech economy" Christian Nielsen proudly states.

The world, thanks to the impending inward investment program and support from the SAAB-BAE SYSTEMS Gripen team to develop new international markets, may soon be hearing a lot more about Superstav and its Earthforce diggers.

DOUBLE MILESTONE FOR GRIPEN TEAM

A double milestone was celebrated during April, with the delivery of the 100th Gripen swing-role fighter to FMV, the Swedish Defense Materiel Administration and the entry into final assembly of the first 'international' variant of Gripen.

Delivery of the 100th Gripen took place at Saab Aerospace headquarters in Linköping, Sweden. The aircraft, a single-seat 'batch two' Gripen, is destined for the Swedish Air Force F10 wing at Ängelholm.

Today, the Swedish Air Force has three fully operational squadrons operating a mixture of single and two-seater Gripen. The pilot conversation program is well underway. By 2004, eight squadrons of 20 aircraft will be operational and Gripen will be the standard fighter of the Swedish Air Force.

The start of final assembly for the first 'international standard Gripen, is no less significant. This first aircraft will be used to prove the integrity of systems and technologies developed to meet the future needs of the Swedish Air Force ('Batch Three' aircraft) and for export customers worldwide.

Although Gripen is already the world's most capable multi-role fighter in operational service, a number of product enhancements are included in this latest variant. This will further improve Gripen's ability to inter-operate with multi-national forces in any part of the world.

The technology insertion program includes a full-color, night vision compatible, English language cockpit; larger full-color multi-function displays; air-to-air refueling capability; on-board



Photo by Katsuhiko Tokunaga

oxygen generation system (OBOGS); world-wide environmental clearance; integration of a helmet-mounted display, GPS and tactical reconnaissance pod plus a new identification friend or foe (IFF) system, among others.

For NATO-members, a NATO standard communications systems and NATO standard weapons pylons are also being integrated.

GRIPEN SUPPORTS MAJOR CZECH INVESTMENTS

As part of its work to develop long-term industrial partnerships in the Czech Republic, to provide offset support for Gripen, SAAB-BAE SYSTEMS has provided important support for a major investment in the Skoda Electrical Machinery division of Skoda Eergo, based in Plzen.

The Anglo-Swedish partnership partnered UK engineering company FKI Rotating Machines, part of FKI Plc during its acquisition of the Czech company. Skoda Electrical Machinery manufactures large generators for gas, steam, hydroelectric and nuclear-based power turbines. Some 850 jobs have been secured by this investment

During the acquisition process, the Gripen team provided consultancy services and assisted FKI, a longstanding supplier of propulsion and power gene-

ration equipment to BAE SYSTEMS' naval businesses, with relationship building in the Czech Republic.

"The fact that one of our key international suppliers has made such an investment underlines the depth and breadth of the global industrial relationships that Gripen can provide for its customers," said Steve Jackman, BAE SYSTEMS vice president economic strategy.

"FKI now has a significant footprint in the Czech Republic. As one of our established suppliers, this could lead to co-operative defense projects between the UK and Czech Republic in a number of programs, including naval projects.

Earlier this year, SAAB-BAE SYSTEMS helped provide early New Year cheer in the Czech Republic by announcing it had helped secure a US\$10 million in-

ward investment into the country's foundry and forging sector.

The investment, to build a new manufacturing plant for European Automotive Components (EURAC), the UK-based manufacturer of auto parts will take place in two stages.

Firstly, an iron foundry will be constructed for the production of 4 million brake discs each year, 70 per cent of which will be exported. Production is due to commence towards the end of this year. Phase two, will see the introduction of a metal machining operation, with employment rising to around 200 people.

EURAC manufactures brake discs for the Volkswagen group, Rolls Royce, TRW, Allied Signal, Delphi Lockheed and other leading automotive groups worldwide.



DATALINK FUNCTIONALITY

By Rob Hewson

Though the concepts of 'information warfare', 'data superiority' and 'battlespace awareness' have become clearly defined in recent years, they are not new ideas for the Gripen team. Saab's combat aircraft have been fighting the information war for nearly 40 years, since the first operational datalink systems were fielded in the Swedish air force's Saab J 35 Drakens. Since then the sophistication and capability of the datalink technology now embodied in the Gripen has increased one hundred-fold. It cannot be over-emphasised that the Gripen datalink system is neither a laboratory toy nor a 'capability demonstration'. It is not part of a 'wish list' for future product improvement – it is a real-world, fully-implemented and 100 per cent proven system that is an integral part of every Gripen built, and every Gripen mission flown.

The Tactical Information Data Link System (TIDLS) is central to Gripen's war-fighting capability. TIDLS is an exten-

sion of the proven 'fighter link' system deployed with the JA 37 Viggen in the 1980s. The system is in-service in Swedish Gripens and fully available for export through the Saab-BAE SYSTEMS Gripen partnership. Though its very existence was once a national military secret, Swedish pilots think of, and use 'the link' (as it is universally known), as a fundamental piece of mission equipment. When discussing fighter operations it is difficult for them to speak of the link as a stand-alone item. It is so thoroughly integrated into their way of flying and fighting that they express genuine mystification at how anyone can survive without it.

In BVR (beyond visual range) combat, where information and situational awareness are the keys to success, a datalink system gives the aircraft using it unrivalled battlespace awareness. In a Gripen formation each aircraft instantly knows what the others are seeing, what the others are doing – and what they are going to do next. Each aircraft has access to the radar and sensor data of the

others, allowing a small number of aircraft to defend a wide area. The system is immune from disruption and jamming and allows pilot's not only to stay ahead in the information war, but to win it.

Gripen's datalink has two elements – an air-to-ground connection and an air-to-air link with other aircraft. Up to four aircraft can be active (transmitting) on the datalink at any one time and an unlimited number can be passive, receiving data from other sources. The datalink net is effective over many hundreds of miles and extensive testing has shown the system to be unjammable. After his first encounter with Gripen and its datalink, one 25-year Saab Viggen veteran remarked, "I have been blind for 25 years."

The uses of the datalink are limited only by one's imagination. As its most basic function the link can transmit radar, sensor and aircraft status data to anywhere on the current command and control chain, or to any other Gripen. Data



Photo by Katsuhiko Tokunaga

can be exchanged with an AWACS aircraft, and by using an AWACS radar a much large air picture can be datalinked to a Gripen or a formation of Gripens, greatly increasing their combat reach. An airborne Gripen can datalink real-time combat information straight into the cockpit of another aircraft being re-armed and refuelled on the ground. The pilot of that aircraft will thus be fully-briefed on the current tactical situation, and the status of the rest of his squadron, before he ever leaves the ground to re-join the fight.

In air-to-air combat, the datalink allows aircraft to take advantage of Gripen's excellent radar and its inherent stealthiness. Nowhere is this more apparent than in the BVR arena. With air battles being fought at longer and longer ranges, the concept of 'first look, first shot, first kill' applies to everyone. Gripen's datalink allows teams of defending aircraft to categorise, prioritise and allocate their targets with speed and efficiency – but beyond this essential capability, the datalink allows Gripen to do much

more. For example, by using the link, teams of aircraft can conduct stealthy long-range engagements, killing targets without ever betraying their own presence. Using target data from its own radar, or another source such as an AWACS, one Gripen can datalink that information to a second aircraft with its own radar and active sensors shut down. With no emitting radar the second Gripen is less likely to be detected by an enemy aircraft, giving it an overwhelming surprise advantage. Even more elaborate tactics call for one Gripen to provide mid-course guidance for another aircraft's missiles, using the datalink to set up the shot. This allows a 'stealthy' shooter to engage targets far beyond its own radar range, and keeps the defenders out of range of a return shot.

The swing-role Gripen's datalink functions are also fully applicable to attack missions. As in the air-to-air role, target data can be uplinked to aircraft from the ground and attack profiles can be set up and then linked to all aircraft at the flick

of a switch. Reconnaissance aircraft returning from a target, or other aircraft which spot a target of opportunity while on another mission, can relay precise targeting information directly to Gripens in the air or on ground. In this way quick, accurate strikes can be launched before the target 'spotters' are ever back at base. The real-time targeting and reconnaissance capability of the link, using just Gripen's own radar and no other specialist equipment should not be underestimated.

Above all the Gripen's datalink provides total situational awareness. With the system in place, every Gripen pilot can be confident that they know where their friends and enemies are, and what they are doing, at all times –this alone makes the datalink invaluable.

GRIPEN GOES THE DISTANCE

Gripen is without question the most deployable combat aircraft in service today. No other type – not those entering service or those now under development – can match it in terms of supportability, maintainability and capability. Even before the first sketches of the Gripen were ever drawn up, its basic operational requirement demanded that it be capable of deployed, dispersed operations in hostile terrain, delivering a high sortie rate with the minimum of ground support.

Gripen was designed to operate from Sweden's network of dispersed wartime 'roadbases' hidden in fields and forests all around the country. Based out in the open for extended periods, each Gripen is supported by a team of just six personnel.

Gripen has deployability and supportability in its very genes. Its designers knew they were building an aircraft that would have to sustain a high mission-capable rate, perhaps in an all-out war, while enduring the harshest climatic conditions. It is a dependable air superiority and defence asset with a proven mean time between failure (MTBF) rate that eclipses that of all its rivals.

In Swedish Air Force hands Gripen has also proven it can shoulder the responsibility of international high-tempo deployed air operations, such as multi-national peace-support operations (PSOs). During Exercise Baltic Link 2000 Gripens undertook intensive mixed fighter force operations (MFFOs) with NATO F-16s, F-18s and MiG-29s – the type of combined operations that are now one of the most important elements of modern air doctrine. The fully air-refu-

ellable Gripen that is on offer to all export customers can self-deploy for regional or worldwide PSOs with the minimum of support.

Unlike many other aircraft, Gripen does not need a huge logistics system to accompany it to and from the theatre of operations. Assuming fuel and weapons have been pre-positioned (which is standard practice for any operator), enough ground equipment to support four Gripens can be carried by one C-130 Hercules. Once in place Gripen's advanced onboard autonomous systems – such as OBOGS (on-board oxygen generation system) and BITE (built-in test equipment) – reduce the amount of ground crew, and simple effort, needed to keep the aircraft flying.

As a result, Gripen can generate some 30% more sorties than its nearest competitor because the aircraft are reliable and easy to keep flying. Once back at base – which might be just a stretch of roadway covered in snow, or sand – each aircraft can be rearmed and refuelled by its six-strong ground crew and be back in the air in 10 minutes. No other aircraft can match Gripen's mix of advanced technology, operational flexibility and ease of maintenance.

A further revolution in autonomous operations is coming, with the development of a new, self-contained navigation and precision landing system for Gripen. This system will be able to guide an aircraft to any air base and effect a safe landing in bad weather, using only the onboard sensors and systems – with obvious implications for rapid deployments or dispersed operations. To achieve this, two new technologies have been developed for Gripen – NINS (New Integrated Navigation System) and NILS (New Integrated Landing System). NINS is a high-precision autonomous navigation system that combines Gripen's existing nav suite with a sophisticated digital terrain database. NILS uses NINS' navigation information to create an approach glidepath for the pilot, without using any conventional ground equipment. Together NINS and NILS provide accurate en-route data, further enhance aircraft safety and boost overall situational awareness.

Gripen carries an INS, a radar altimeter and its air data computer/sensors

which provide basic barometric altitude and air temperature data. To these existing systems, Gripen's NINS adds TERNAV, which incorporates a geographical information system database – a digital map – containing all relevant data on ground elevation, obstacles and airbases in the entire operational area. TERNAV uses this digital map to calculate the aircraft's position in three dimensions.



The profound accuracy of NINS makes the NILS autonomous precision landing system possible. System data allows the aircraft to be flown to a precise point from which to initiate a descent and landing. NINS not only provides fundamental topographical navigational information, but also holds a detailed airfield and runway database. By knowing precisely where the aircraft is, and where it is going, NINS sets up NILS

with the accuracy and integrity needed to make a safe landing with no outside aids.

Gripen's NINS and NILS are new-generation solutions implemented entirely by the aircraft's own computers. NINS has self-diagnostic functions and tracks its own performance. In the event of a failure the system will inform the pilot of faults or inaccuracies. The basic TER-

NAV technology is already well-proven after years of flight trials, but Gripen's NINS will use a far more advanced version in a completely integrated way.

On 6 June, three Swedish Air Force Gripen fighters were once again demonstrating their ability to interoperate with NATO and other forces during a dispersed operations exercise in Poland.

Photo by Grzegorz Holdanowicz



FULLY COMPLIANT CZECH RESPONSE

On 31 May, SAAB-BAE SYSTEMS Gripen submitted a fully compliant response to the Czech Republic's tender for the modernisation of its air force to meet national defense and NATO needs.

The Gripen team's response was based on the supply of 24 or 36 new NATO-interoperable Gripen fighters with first deliveries commencing in 2004.

With the full support of the governments of Sweden and the UK, the Gripen proposal includes a comprehensive, long-term, structured finance package to minimise the import on the existing Czech procurement budget.

Financing repayments are to be spread over a minimum period of 15 budget years from the date of contract signature, with significant repayments deferred until at least 2006.

This important 'period of grace' provides time for the Czech governments to meet its existing obligations which include remaining repayments for the L159 program.

A targeted offset program which meets the strategic objectives of the Czech government, in terms of its regional and business sector priorities, underpins the Gripen proposal.

This is structured to deliver immediate and sustainable benefits to the Czech Republic, amounting to 150% of the contract value over a 10 year period.

Compensatory benefits of the offset program will start before payments for the aircraft begin. Offset, amounting to 50% of the contract value will be committed by the Gripen team within two years, 11 projects with a potential value of CZK 2,400 million are already underway.

"Our proposal provides an affordable and superior security solution for the Czech Republic's national, NATO and European needs with an offset and financial package that make Gripen the most capable and affordable choice for the Czech Republic" Simon Carr, director, sales and marketing, states.

SAAB BOOST FOR MELEX

Gripen partner Saab has placed a new order for 13 electric cars from Melex, a company linked to aerospace manufacturer PZL in Mielec, south east Poland, which manufactures tailcone assemblies for the Gripen swing-role fighter.

The electric cars will replace tractors and petrol-driven vehicles previously used for internal site transport requirements at Saab Aerospace headquarters in Linköping, Sweden. Delivery of the vehicles is already underway.

"The new Polish-built electric cars are considerably better from both an envi-

ronmental point of view and an economic one. They are cheaper to buy and to operate", states Roland Spiegel, head of facilities and services purchasing at Saab. "We are very happy with the quality of production and prompt delivery to Sweden and, as a result, expect to be placing further orders in the near future.

Electric car manufacturer Melex was established more than over 25 years ago. Its early products were sold mainly for use at golf courses. In recent years this market has been developed to include numerous new industrial uses for golf car type vehicles worldwide.

COMMUNICATIONS TEAM STRENGTHENED

As part of the recent restructuring of its sales and marketing operations, SAAB-BAE SYSTEMS has strengthened its media and public relations activity by establishing a dedicated Gripen international communications team.

Based in Linköping, this new team is responsible for all SAAB-BAE SYSTEMS Gripen corporate, product and public affairs activities.

John Neilson, vice president communications and public affairs, heads the group. Neilson joined the Gripen joint venture company mid-way through last year, having spent six years in BAE SYSTEMS' (formerly British Aerospace) corporate communications department.

Much of this time was spent supporting the company's military aircraft business and, in particular, working to establish Gripen in the re-emerging markets of Central and Eastern Europe.

Marie Aktö, communications manager, moves from the Saab Aerospace communications team to join SAAB-BAE SYSTEMS Gripen.

Marie, who will deputize for John Neilson, began her career in public relations with Saab Aerospace, before moving to spend two years in the communications team at Swedish IT company, IFS.

Communications graduate Heidi Wendt joins as communications manager, following a short spell in the media relations department in Saab Aerospace.

The team also includes Warton, UK-based Adrian Stockwell, who is responsible for electronic media, including management of the Gripen web site.

Gemma London and Marie Karlsson provide administrative assistance to the new communications team and are based in the United Kingdom and Sweden respectively.

CARR JOINS GRIPEN



SAAB-BAE SYSTEMS Gripen has appointed Simon Carr to the post of Director Sales and

Marketing. He replaces Julian Scopes who has left the Gripen team to become regional managing director, Europe within the BAE SYSTEMS' corporate marketing organisation.

Currently based in Farnborough, UK, Simon Carr is no stranger to the Gripen new-generation multi-role fighter. As BAE SYSTEMS' managing director Poland four years ago, he was responsible for promoting Gripen to meet the needs of the Polish Air Force modernization program.

Immediately prior to taking up his new role, Simon was Executive Vice President Western Europe within BAE SYSTEMS' corporate marketing. He has extensive international marketing experience and knowledge of international partnerships through his previous work with BAE SYSTEMS' commercial aircraft and Airbus Asia.

In his new role, Mr Carr is responsible for all international sales, sales support and marketing activities for the Gripen joint venture company in which Saab of Sweden and the UK's BAE SYSTEMS have equal shares.

Bengt Adamsson, VP sales support, Evan Evans, VP sales and John Neilson, VP communications and public affairs continue in their present roles and report directly to Simon.

NEWS IN BRIEF

FMV, the Swedish Materiel Administration, has ordered a study of a new enhanced multi-sensor decision support system for Gripen. The study will examine the increasing future level of information from datalink, radar and sensors and aims to ensure that through increasing use of data fusion, Gripen's class-leading human-machine interface and presentation of information continues to be at the forefront of combat aircraft technology. □

Denel of South Africa has signed two new contracts to supply gearboxes for the Rolls Royce Tay engines and for General Electric CF-34 engines over 10 years. The contracts are part of the SAAB-BAE SYSTEMS direct industrial participation program in South Africa. □

Novus Holding Corp a private US investment company has acquired a 96 per cent stake in Czech Aero engine manufacturer, Walter, opening a new era for the previously troubled aerospace company. The Czech-based SAAB-BAE SYSTEMS team facilitated this vital inward investment which will be registered as a credit for its offset program to support the Gripen campaign for the Czech Air Force. □

Saab Aerospace has been testing aerodynamic forces on a model of an unmanned aerial vehicle in the Aeronautical Research Institute of Sweden's wind tunnel near Stockholm. The studies are not aimed at replacing manned aircraft, Saab is looking to develop an unmanned aircraft which complements today's piloted platforms. □

US\$4,3-MILLION CONTRACT FOR GRINTEK

South African high technology company Grintek Electronics Systems has been awarded a US\$4.3 million contract to supply communications units for the advanced Gripen swing-role fighter.

The high-technology South African company will supply units for incorporation into the aircraft's audio management system. The order specifically covers the manufacture, delivery and installation of units for Swedish Air Force Gripen fighters to be delivered from 2002 onwards.

The new contract follows an order placed in October 1998 for the development and delivery of audio management system prototypes. In international markets, Gripen will be equipped with an audio management

system based on Grintek's GUS 1000 system, which was developed in South Africa.

This latest order forms part of the SAAB-BAE SYSTEMS' seven year US\$1.5-billion DIP commitment linked to South Africa's purchase of 28 Gripen new-generation fighters and 24 Hawk lead-in fighter trainer aircraft.

The first Gripen for South Africa is due to arrive in 2005 when it will begin a flight development program for the integration and proving of systems specified for local operations. The first twin-seat Gripen delivery will take place in 2007 and this will be followed by a further eight twin-seater and 19 single-seat variants. Final aircraft delivery to South Africa is scheduled for 2011.

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The system is also being optimized for use in Swedish Air Force service with the IRIS-T advanced short range air-to-air missile. IRIS-T is being adopted as the standard air-to-air combat weapon for Swedish Air Force Gripens.

'Guardian' is produced by Pilkington Optronics (now part of Thales) in partnership with Cumulus (a division of Denel) and Kentron of South Africa. It provides Gripen aircrew with flight reference data, weapons information and a weapons aiming capability through the pilot's visor.

Using the system, there is no need for aircrew to look down at cockpit instrumentation or forward through the head-up display during combat.

Weapons aiming, using the system, is accurate to within one degree, whatever the pilot's viewing angle. This allows target acquisition and engagement at large off-boresight angles, without the need to maneuver into line with the target before weapons release.

This benefit is retained no matter where the pilot is looking and provides a 'look and shoot' capability. It allows optimum use of Gripen's fully integrated digital information system and precision engagement weapons, including advanced short-range air-to-air missiles, during combat missions.

Integration of the 'Guardian' HMD forms part of a fully-funded continuous technology insertion program that will

ensure Gripen continues to be at the forefront of combat aircraft technology for decades to come.

Each aircraft has the built-in ability to absorb future developments with ease. The aircraft's five MIL-STD 1553 databuses are currently used to just 50 per cent of capacity, offering unrivalled growth potential for customers.

SAAB-BAE SYSTEMS and their partners continue to study further technology growth for Gripen. This includes the introduction of multi-mode active electronically scanned array radar, cockpit adaptation for use with night vision goggles, infra-red search and track, and the TARAS next-generation communication system, among others.

MEET THE TEAM

This year promises to be one of the busiest yet for SAAB-BAE SYSTEMS Gripen, with a wide and varied program of evaluation flights, joint military exercises and airshow appearances planned. There will be many opportunities to meet the Gripen team at events in Brazil, the Czech Republic, France, Malaysia, the Netherlands, Poland, Romania, Sweden, the United Arab Emirates and the United Kingdom.

At time of printing, the list of remaining Gripen events planned for 2001 is as follows:

June

2-3: Goraszka Air Picnic, Goraszka, Poland

4-7: Polish Air Force road-base exercise, Szczecin, Poland

17-24: Paris Air Salon, Le Bourget, France

July

6-7: RNL Air Force Open Day, Leeuwarden, Netherlands

28-29: RIAT 2001, RAF Cottesmore, Rutland, UK

August

25-26: Swedish Air Force Open Day, Uppsala, Sweden

25-26: Romanian Air Force International Air Show, Constanta, Romania

September

1-2: Czech International Air Fest, Hradec Kralove, Czech Republic

8-9: Polish International Air Show, Radom, Poland

October

9-14: LIMA '01, Langkawi, Malaysia

November

4-8: Dubai Air Show 2001, Dubai, UAE



Photo by Katsuhiko Tokunaga

Please note that events listed may be subject to change or cancellation, possibly at short notice, due to circumstances beyond the Gripen team's control. Up-to-date information will be available from the Gripen web site - www.gripen.com, or any member of the SAAB-BAE SYSTEMS Gripen communications team.

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