

Gripen News

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confirms Gripen
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GRIPEN

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Following a lengthy and detailed evaluation, Gripen International has beaten stiff competition to meet the Czech Republic's next-generation combat aircraft needs.

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During 2002 the Swedish Air Force participated in an air display at Čáslav Air Base, Czech Republic, which has been designated as the first NATO interoperable air base.

► The Czech Republic has become the second NATO nation, to select Gripen for its future air force. At a cabinet meeting on 17 December the Czech government confirmed the recommendation of its evaluation committee to adopt Gripen as the interim air defense solution to meet the Czech Republic's national and NATO needs. According to the Chairman of the evaluation committee, FMV's (Sweden's Defence Materiel Administration) bid beat all the other offers made to the Czech authorities by Belgium (F-16), Canada (F-18), the Netherlands (F-16) and the United States (F-16). Gripen will replace the Soviet-era MiG-21 aircraft currently in Czech Air Force service.

Sweden has offered to lease the Czech Republic 14 new-build Gripen aircraft (12 single seat and two dual-seat), equivalent to the most modern standard for the Swedish Air Force. These aircraft incorporate the very latest technological advancements to the Gripen family, including an air-to-air refueling capability. They are fully NATO-compatible and certified for worldwide operations. The lease agreement will cover a period of up to 10 years. The offer also comprises the full training of Czech pilots and maintenance personnel, plus a complete logistics package. It is planned that the Czech Air Force's Gripen fighters will be delivered between April and August 2005.

On behalf of the Swedish government, the FMV (Sweden's Defence Materiel Administration) has now embarked on negotiations with its Czech partners.

The FMV stated, "We are pleased by (the) announcement that the Czech government's evaluation team has reaffirmed Gripen as the best economic, operational and military solution for the Czech Republic. This is just the first important milestone in the government's procurement of an interim solution to meet the Czech Republic's national air defense needs for up to 10 years. We stand ready to provide whatever may be necessary to assist with the process." ◀

Gripen Flies With KEPD 350 Heavyweight Stand-Off Weapon

Flight tests have begun with the Taurus KEPD 350 stand-off missile which promises to give Gripen an entirely new level of long-range precision attack capability.



► Gripen has reached another significant milestone in its advanced weapons clearance program following successful carriage trials with the Taurus KEPD 350 long range stand-off missile. On 20 November 2003, Saab's Gripen test aircraft 39.208 undertook a captive-carriage flight test with two Taurus KEPD 350 (Kinetic Energy Penetration Destroyer) missiles. The 350-km (218-mile) range KEPD 350 is a high-precision stand-off weapon system developed by Taurus Systems – a company owned by Germany's LFK and Sweden's Saab Bofors Dynamics. The missile is fitted with a penetrating warhead and a multi-layered guidance system that combines GPS, INS and an imaging infra-red seeker. It is specially designed to attack and destroy high-value hardened targets.

The aim of November's test flight was to evaluate any impact the large missile might have on Gripen's handling

qualities. The mission was flown by FMV (Swedish Defence Material Administration) test pilot Richard Ljungberg, with assistance from FMV test facilities and test personnel from Saab. After the flight, the test team reported with great satisfaction that all had gone as planned – and that the aircraft had displayed very good handling characteristics when carrying the KEPD 350.

At one time the Swedish Air Force had been considering the acquisition of the smaller, lighter KEPD 150 missile system. However, once the more capable KEPD 350 became available for Gripen, the Swedish Air Force (SwAF) put its weapons plans on hold pending the completion of KEPD 350 trials. Integration of the KEPD 350 is part of the ongoing expansion of Gripen's precision weapons capability.

Gripen Plays Central Role in Air-to-Air Missile Development

Gripen will be the lead platform in the development, integration and deployment of the European Meteor advanced air-to-air missile.

▶ In October 2003 the Swedish Defence Materiel Administration (FMV) contracted Saab Aerosystems to undertake the integration of Europe's new Meteor missile with the Gripen platform. Now under development by MBDA Missile Systems, the Meteor beyond visual range air-to-air missile (BVRAAM) is one of the most advanced and sophisticated missile technology programs anywhere in the world. As the first operational new generation aircraft, Gripen is the only fighter aircraft currently available that is capable of testing the high-tech BVR missiles of the future.

Gripen will undertake all the initial Meteor development trials and test launches. The first firing is scheduled to take place over Swedish test range facilities in 2005. Gripen was selected for this crucial role because it is a well-understood, in-service aircraft with a mature level of proven technology. The Meteor is also earmarked to equip the Eurofighter Typhoon and Dassault Rafale but these aircraft will not join the missile development effort until much later in the program.

The high-speed (Mach 4) Meteor is a ramjet-powered air-to-air weapon capable of engaging and destroying any hostile combat aircraft over a range of at least 100 km (62 miles). The missile features an active radar seeker coupled with an advanced aerodynamic design and a throttleable ducted ramjet motor to deliver a large 'no escape' zone that will make it an air combat weapon without peer. When the Meteor enters service towards the end of this decade there will be no other equivalent system available anywhere in the world.

Six European nations are contributing to MBDA's Meteor program (the UK, Sweden, Germany, France, Italy and Spain). The Royal Air Force has already ordered the missile and the other partner nations are all expected to adopt it for their next-generation aircraft. In August 2003 MBDA awarded a major development contract to Saab Bofors Missile Systems for its contribution to the program. Sweden has played a leading role in the Meteor project throughout its long history and, in fact, today's missile sprang from a joint UK/Swedish concept before growing into a broader European collaborative effort. The Meteor is expected to become one of the most important European defense technology programs of the coming decades, with excellent sales and export prospects. ◀

Gripen Brand

▶ The Gripen team has always placed the greatest importance in communicating with its customers, and all interested parties around the globe. From the very beginning, the

Gripen message has been one of clarity and honesty. This is why Gripen market communication has become a byword for integrity and respect in the international marketplace.

We will now make an effort to underline our core values: our commitment and our tailor-made solutions. We make that commitment to our partners in industry, government and the armed forces. Our strategy of tailor-made solutions covers every aspect of the Gripen program from operational requirements to industrial co-operation to financing solutions.

Gripen International now introduces a new graphic profile and a new tagline: "Wings of your nation". This is our message. All of our customers – present and future and anywhere in the world – can rely on Gripen to build the Wings of their Nation.

The new layout of *Gripen News* is just one example you will see of our new brand. You will see it on our websites, in our publications, in our exhibitions ... on everything that says Gripen. We are the Wings of your Nation. ◀



Gripen Trains the Test Pilots of Tomorrow

Gripen is now an important element of the annual test pilot's training course run by United Kingdom's renowned Empire Test Pilots School.

© PER KUSTVIK



Saab test pilot Magnus Ljungdahl gives ETPS Squadron Leader Mal Ridley a Gripen hand shake after his successful flight.

► Gripen's credentials as an agile fly-by-wire aircraft and an advanced technology platform are now underlined by the part it plays in building some of the world's best test pilots. Since 1999 students from the Empire Test Pilots School (ETPS) have been travelling to Sweden to fly Gripen as an important element of their training syllabus. Through Gripen, the students gain insight into a completely new type of aircraft and also the design philosophy behind the Gripen system.

Saab test pilot Magnus Ljungdahl explains, "The students come to experience the aircraft and the flight control system (FCS). Their aim is to apply the test techniques they learn at the ETPS to undertake a technical evaluation of Gripen in the air. The end result is an assessment of the aircraft's handling qualities and an understanding of its system functionality. Gripen's advanced, integrated avionics suite is very different to the cockpits of the Tornados, Jaguars and Alpha Jets that the ETPS operates."

During 2003 two groups of students and their instructors (10 personnel in all) came to Linköping. Their program included three simulator sessions followed by an hour in the real dual-seat aircraft. Simulator work is essential to teach basic cockpit procedures, 'switchology' and operational drills. The familiarization session leads to more complex simulator training where the students – each of whom is already a highly experienced military pilot – learn how to use the Gripen's mission avionics in a number of air-to-air and air-to-ground modes.

Squadron Leader Mal Ridley, Principal Tutor Fixed Wing at the ETPS, noted that "the vital areas for us to experience are the Gripen's multi-mode radar and its advanced flight control system. On top of that there is a different Swedish design approach to some things like head-up display symbology, which is important for the students to encounter. Coming to Sweden we see things we haven't seen before, and broaden our experience as test pilots. The Gripen helps bring a hard edge to that experience." ◀

Gripen Around the World

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Start preparations from Nellis AFB, Nevada during Gripen's first appearance in the USA 2003.



Gripen stands beside a little sister to Air Force One at Andrews AFB just outside Washington DC, 2003.

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SwAF took eight Gripens to Plovdiv in Bulgaria to participate in the three week international exercise, Co-operative Key 2003.

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Pierre Gauffin and Saab Test Pilot Magnus Olsson demonstrates the Gripen Full Scale Replica and weapons at the Dubai 2003 Air Show.



Gripen International launches Gripen at the Dubai 2003 Air Show.

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South African Production Line Opens

The Gripen Export program took a significant stride forward in October 2003 with the commissioning of the production line for South Africa's fleet of Gripen new generation, multi-role/swing-role advanced fighter aircraft.

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Deputy President Jacob Zuma, South African Ambassador Sonto Kudjoe and South African Air Force pilot Musa Mbhokota at the opening of South Africa's Gripen production line in Sweden 2003.

▶ As part of a combined contract valued at US\$2.2bn, South Africa has ordered 28 Gripen multi-role/swing-role fighter aircraft and 24 BAE SYSTEMS Hawk Lead-In Fighter Trainers for the South African Air Force (SAAF). These are currently in production and will be delivered from 2005 through until 2012. Together they will replace the SAAF's ageing fleet of Impala (Aermacchi MB326) and Cheetah fighters. This represents a significant technological transformation in the standard of aircraft system being operated by the SAAF, enabling the SAAF to reduce its existing jet trainer and fighter fleet by 75 percent.

The South African Gripen aircraft (9 dual-seat and 19 single-seat versions) incorporate several features, including an in-flight refueling system which enables the pilots to continue operating on extended missions, an On-Board

Oxygen Generation System (OBOGS) with a powerful cockpit air conditioning unit to keep pilots cool in the hot and humid sub-tropical operating conditions, NATO-interoperable stores pylons, color cockpit displays, a new communications suite, instruments calibrated in Imperial units and a Helmet Mounted Display (HMD).

In a reciprocal contract, SAAB & BAE SYSTEMS are delivering new economic benefits to South Africa through a combination of investments, exports and jobs across a broad array of strategic industrial sectors. These include the Aerospace, Defense, Agri-Business, Pharmaceuticals, Automotive, Heavy Engineering, Lumber & Timber, Healthcare, Gold Beneficiation, Mining Equipment, Marine Engineering & Ship Repair, Tourism, IT and Energy sectors.

Gripen in the International Arena

General Lennart Pettersson, Commander Air Force Command, shares his thoughts on the operational advantages that Gripen's basic design and technology brings.

► “Ever since the Cold War, the Swedish combat operations concept has relied on dispersed assets. Numerous runways supported by highly mobile turnaround/maintenance units, allow us to deploy concentrated airpower with great tactical reach across the whole country. To increase our survivability and flexibility, Sweden's wartime facilities has a main runway surrounded by a network of shorter, concealed runways. This is why our modern aircraft, including Gripen, were designed to operate from strips shorter than 1000 m (3,280 ft).

For future international scenarios, this short take-off and landing performance will give a tactical commander the capability and confidence to sustain Gripen operations when normal runways are damaged; when the weather might force take-offs or landings with very strong tailwinds; when there are none of the arrestor wires that other aircraft types need to recover safely on short runways; or if there is only a handful of available runways spread over a wide area. The Gripen can always use roads as runways.”

“Datalinked information gives pilots superb situational awareness. We first fully introduced this technology on the Viggen interceptor in the mid-1980s. Since then, datalinks have driven the development of entirely new air-to-air combat techniques within the Swedish Air Force. Thanks to the tactical datalink we can disperse a fighter group over wide distance and altitude separations. Individual pilots, with no direct visual contact with each other, still have the complete picture of an evolving air battle. This creates great tactical

flexibility within the group – it is ‘information superiority’. Using the datalink, for example, an entire Gripen force can shift back and forth between offensive and defensive roles in the air, with little or no radio transmissions. Pilots can

focus on the emerging air picture – without the distraction of radio chatter. In a high-tempo warfighting environment, one of great stress and physical strain, Gripen pilots using datalinks have performed themselves very well indeed against their foreign colleagues in air-to-air combat.”

“During past international exercises, Gripen has been very competitive during close-in combat against foreign aircraft such as the F-16 and F-18. I don't want to make any snap judgements, because it was a limited number of contacts and I don't have all exercise parameters. However, during beyond visual range engagements, we can definitely say that the radar, datalink, electronic warfare suite and man-machine interface (cockpit design, display

symbology etc.) of the Gripen, gave its pilots a clear upper-hand. Their ‘information advantage’ and situational awareness meant that they could employ Gripen's weapon systems in a more optimal way than their foreign counterparts.”

“Although some aircraft flown in these exercises may have had a slightly better thrust-to-weight ratio than our aircraft, Gripens still managed to get behind the F-16s to make use of both their IR-missiles and guns. The small visual signature and excellent agility of the Gripen proved to be a considerable advantage in a dogfight.” ◀



General Lennart Pettersson, Commander Air Force Command, assesses Gripen's performance in recent international exercises.