

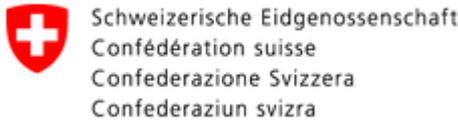
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*Switzerland: Current & Future Defence Budget and Defence Procurements*

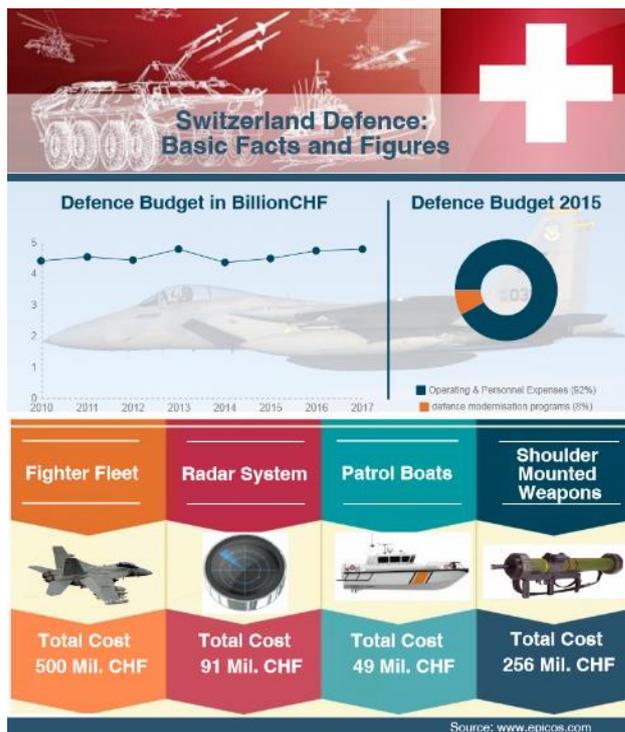


For centuries, Switzerland has been neutral. Since 1815, when neutrality was declared, Switzerland has not been involved in any war, a fact that delineates in great extend its international relations.

Nevertheless, the country still maintains an army for defence purposes and lately it has taken a more active role in international affairs by participating in humanitarian missions. For this reason, it is expected that in 2017, Switzerland will spend in total 4.765 billion Swiss Franc -CHF- (4.6 billion dollars) equivalent to 6.9% of its federal budget.

In 2016 a total amount of 4.73 billion CHF (4.6 billion US dollars) were budgeted for defence, while in 2015, the county recorded a budget underrun of 244 million CHF (238 million US dollars). Nevertheless, defence budget was still higher compared to 2014 (4.348 billion CHF or 4.2 billion US dollars), as Switzerland spend an additional 118 million CHF (115 million US dollars). Growth should be mainly attributed to a catch-up effect after low defence expenditure in 2014 created by the rejected procurement of new fighter jets. Swiss voted against a 3.1 billion-franc (3 billion US dollars) order for Gripen fighter jets. More

specifically in a referendum held in May 2014, 53.4% of voters opposed to the transaction, blocking the procurement of SAAB's fighting aircraft.



In 2015, 92% of total defence expenditure were allocated to the coverage of operating and personnel expenses, while 8% was allocated to the implementation of defence modernisation programs. The same pattern was followed in the 2014 budget, were 91.7% of total expenditure were allocated to operating and personnel expenses and the remaining 8.3% to modernization programs. More analytically in 2015 33.8% of the operating and personnel

costs budget were spend on personnel expenses and 52.9% to other operating expenses.

Regarding the future Swiss defence procurements, a special mention should be made in the renewal of the country's fighter jet fleet. After Swiss voters rejected the procurement of 22 SAAB Gripens, the Federal Council has already bring forward other alternatives to cover the need for replacing the F-5 Swiss fleet. Switzerland, decided that at least some of the 26 F-5s will remain in operation beyond 2018, while approximately half a billion CHF (approximately 490 million US dollars) will be invested in refurbishing the 31 Boeing F/A-18C/D Hornet

fighters currently in operation with the Swiss air force. Additionally, 10 million CHF (9.8 million US dollars) will be allocated to the evaluation and selection process of the new fighting aircraft.

Switzerland is going to replace some components of its current airspace monitoring system (FLORAKO) by 2030. FLORAKO was acquired under the 1998-1999 weapon system procurement programs. The acquisition cost reached 728 million CHF (710 million US dollars), while the construction cost added an extra 95 million CHF (93 million US dollars) to the total cost of the project. FLORAKO comprises of master surveillance radars, a data and communication system, a new air picture generation and airspace management system and a control air command and control center. The total cost of the procurement is projected to reach 91 million CHF (99 million US dollars).

Additionally, the patrol boats currently in operation will be replaced by 2019. According to plans, 14 new patrol boats will be procured ensuring that Switzerland will be able to continue carrying out surveillance as well as search and rescue missions. The total cost of the procurement is projected to reach 49 million CHF (47.8 million US dollars).

Swiss army is also going to procure 32 mortar systems for 404 million CHF (394 million US dollars). The systems will be delivered during the period 2018-2022. Additionally, three types of shoulder mounted multi-purpose weapons will be procured:

1. The RGW 90 HH. The RGW is designed to primarily encounter main battle tanks and armoured vehicles. Secondly the weapon is used against bunkers, fixed shelters or built up infrastructures.
2. The Main Battle Tank and Light Anti-tank Weapon (MBT LAW), also known as the NLAW. The NLAW is a short-range fire-and-forget anti-tank missile developed and manufactured by SAAB.
3. The M72 LAW Mk2.

The delivery of the abovementioned weapon systems is expected to be concluded in 2019 and the total amount of the procurement is projected to reach 256 million CHF (250 million US dollars).

Finally, Switzerland is going to procure new trucks to replace the Steyr and Saurer currently in operation. Deliveries will be carried out during the period 2018-2022 and the total cost is projected to reach 314 million CHF (306 million US dollars).

Kyriazis Vasileios,

Epicos Newsletter Head Editor

## Switzerland: A&D Industrial Capabilities



The Swiss Aerospace and Defence (A&D) industrial base has a broad spectrum of capabilities, as local companies have the ability to develop and manufacture a range of equipment in the land, sea and air segments. Nevertheless, one should mention that their ability to manufacture advanced platforms and systems is rather limited at present. Currently, domestic industry's capabilities includes the development and

manufacturing of small arms, weapons and ammunition, armoured vehicles, C4ISTAR systems, encryption systems, optronic equipment and instruments, radar installations and IT security systems, as well as components and tools for the aerospace industry. Finally, Swiss companies are partners in many major international aerostructure and engine projects. The Swiss defence, aerospace and security industry is represented by SWISS "ASD" (Aeronautics, Security and Defence) division of Swissmem. SWISS "ASD" has approximately 50 member companies, which, according to the latest data, provide jobs to some 10,000 employees.

According to official estimations Swiss aerospace industry comprised of 500 companies. The vast majority of the Swiss aerospace companies are Small and Medium Sized Enterprises (SMEs), employing less than 260 employees. This structure is more or less the same as the one Swiss industry follows in general.

The core competencies of the industry lies on the development and construction of subsystems for space applications, software development and satellite navigation, as well as supplying of aircraft components. Additionally, the Maintenance, Repair and Overhaul (MRO) sector is a key business sector of the Swiss aerospace industry as the country is home of the two biggest independent MRO companies, SR Technics and Jet Aviation. SR Technics is a world leading MRO service provider for aircraft, engines and components along with engineering services and training. On the other hand Jet Aviation's maintenance facilities are approved by all major manufacturers and rated as jet aircraft repair stations by aviation authorities worldwide.

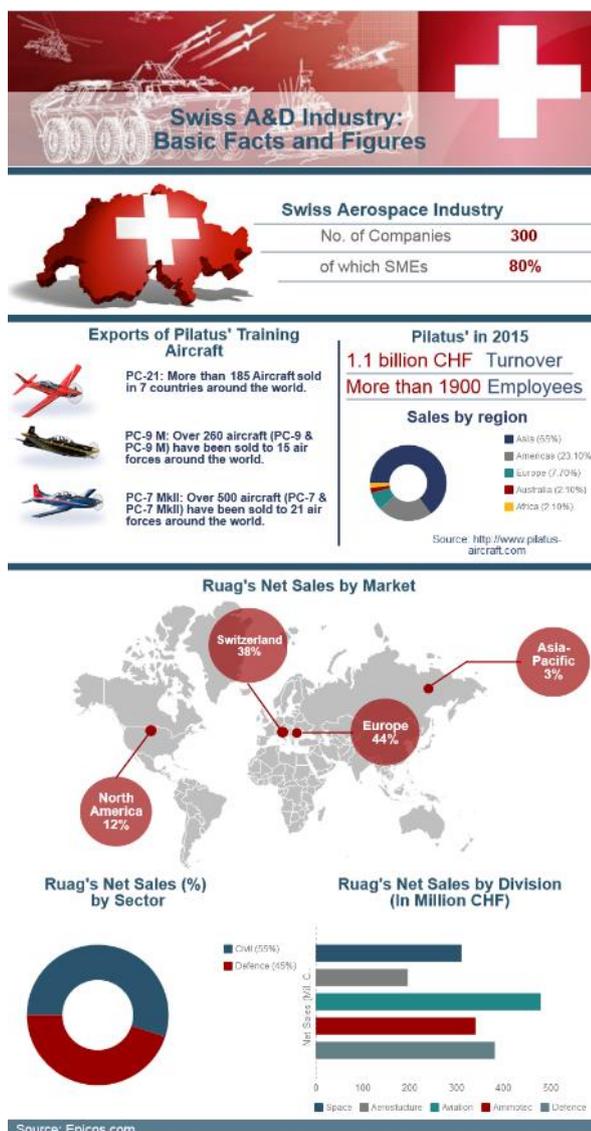
Pilatus is the jewel in the crown of the Swiss Aerospace Industry. With some 1900 employees and total sales reaching 1.122 billion Swiss Franc -CHF- (1.08 billion US dollars) in 2015, Pilatus is the only Swiss company to develop, produce and sell aircraft to customers around the world. Asia is the biggest market for Pilatus, as in 2015, 65% of the Swiss company sales were directed towards this region. Asia is followed by Americas (32.1% of total sales), Europe (7.7%), Oceania (2.1%) and Africa (2.1).

Pilatus is the manufacturer of PC-21 a single-turboprop, low-wing swept monoplane advanced trainer which is currently in operation with 7 air forces around the world. More specifically, Swiss air force currently operates 8 PC-21 aircraft, the Republic of Singapore Air Force 19, UAEs Air Force 25, the Royal Saudi Air Force 55 and the Qatar Emiri Air Force 24. More on that, Australian Defence Forces has signed a contract for the purchase of 49 PC-21 in 2015. Deliveries are expected to commence in June 2017. The PC-21s are expected to form the backbone of future pilot training for the Australian Defence Force for the next 25 years. Finally, in 2016, the Royal Jordanian Air Force ordered 8 PC-21 aircraft.

Another Pilatus aircraft with export successes is the PC-7, which among others have been exported to India. In May 2012, Indian Ministry of Defence has signed a contract with Pilatus for the delivery of 75 PC-7s. In November 2015 the last Pilatus PC-7 Aircraft was delivered to the Indian Air Force (IAF), closing a delivering process which began in February 2013.

Ruag is the leading defence company in Switzerland. With technological capabilities on the land, air and space sectors, Ruag currently employs 8,100 personnel at production locations in Switzerland, Germany, Sweden, Finland, France, Austria, Hungary, Australia and the USA. Among others, Ruag is specialized in maintaining and upgrading heavy weapon and communication systems, as well as virtual and live simulators. Additionally, its Ammotec division is a market leader in small-calibre ammunition, pyrotechnic elements and components for the Hunting & Sports and Defence & Law Enforcement sectors.

In 2015, Ruag’s earnings before interest and taxes reached 137 million CHF (133.6 million US dollars) increased by approximately 21% compared to the previous year. Sales of civil products accounted for 55% of the company’s net sales, while the remaining 45% was generated by the defence division of the company. The Federal Department of Defence, Civil Protection and Sport (DDPS) was the biggest customer of Ruag in 2015 as 32% of the company’s sales were directed to the abovementioned department. Moreover, 62% of net sales were generated through exports. Europe was the biggest foreign market for Ruag, as it absorbed 44% of the company’s net sales. Europe was followed by North America (12%) and the Asia/ Pacific region (3%).



Finally, one should mention that Ruag’s expenditure on Research and Development (R&D) rose by 4.3% in 2015, compared to the previous year, totaling 146 million CHF (142.3 million US dollars) equivalent to 8% of the company’s total sales.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

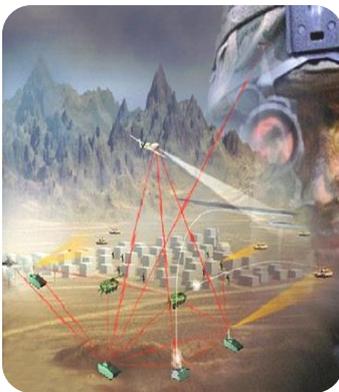
## Epicos "Industrial Cooperation and Offset Projects"



Epicos "Industrial Cooperation and Offset Projects" provides a unique set of online tools enabling the structure, identification and implementation of comprehensive Offsets programs, through a searchable database. By introducing different offset projects and ideas proposed by local A&D industry it ensures the optimum cost for Prime Contractors and reassures that the priorities of local industry are fully met...

[For Further Information Press Here](#)

### Installation, set up and customization of a Network Centric Warfare C4I system



A company providing solutions for corporate and/or governmental organizations critical information systems (IS) is proposing the collaboration with a military or governmental authority for the installation, set up and customization of a Network Centric Warfare (NCW) C4I system.

[For Further Information Contact our ICO Department](#)

Mail at: [a-kintis@epicos.com](mailto:a-kintis@epicos.com)

### Design and development of advanced Medium-Altitude, Long-Endurance (MALE) UAV systems for scientific applications using composite material technology



A company with extensive experience in providing state of the art technological services and products for the aeronautical sector, is proposing, in the frame of an offset program, collaboration with an Aerospace & Defense company, or technological institute, for the design, development and manufacturing of advanced Medium Altitude Long Endurance (MALE) Unmanned Aerial Vehicles (UAV) systems, using composite material technology and which will be used for scientific applications.

[For Further Information Contact our ICO Department](#)

Mail at: [a-kintis@epicos.com](mailto:a-kintis@epicos.com)



## News from our A&D Business Network

### Leonardo Awarded £271 Million AW159 Wildcat Integrated Support & Training (WIST) Contract by UK Ministry Of Defence



Leonardo has been awarded a £271 million (approximately €320 million) contract by the UK Ministry of Defence (MoD) to deliver support and training services for their fleet of 62

AW159 Wildcat helicopters operated by the British Army and Royal Navy. The five year contract was announced by Harriett Baldwin MP, Minister for Defence Procurement, during a visit today to Leonardo's Yeovil facility in South West England. The contract will commence 1st April 2017 and confirms the price the MOD will pay for Wildcat training and support for the next five years of the 30 year WIST contract awarded in 2012.

The WIST contract includes a spares provisioning service, enhanced technical support services including aircraft safety management, as well as delivering synthetic and ground based training for both aircrew and maintainers.

The contract directly sustains over 500 skilled industry jobs, mainly in the South West of England at Royal Naval Air Station Yeovilton, where the Wildcat Training Centre and zonal maintenance facilities are located, and at Leonardo's Yeovil factory. Leonardo's contribution also involves its Airborne & Space Systems division for the radar and defensive aids systems, located in Edinburgh and Luton. Other key subcontractors supporting the WIST programme include Thales UK for communication and aircraft management systems, located in Crawley and Morson who provide aircraft maintenance and support staff, mainly at RNAS Yeovilton.

The WIST contract is output-based, whereby Leonardo is incentivised to improve the levels of operational output whilst seeking continuous improvement to reduce through life costs. The contract is similar to the Integrated Operational Support (IOS) availability based contracts that Leonardo Helicopters is successfully delivering for the UK MoD's AW101 Merlin, Sea King and Apache AH Mk.1 helicopter fleets.

On 14th December 2016 Leonardo handed over the 62nd and final AW159 Wildcat to the UK MoD before it made the short delivery flight to RNAS Yeovilton, the main operating base for British Army and Royal Navy AW159 Wildcats.

Leonardo signed a new 10-year Strategic Partnering Arrangement (SPA) with the UK Ministry of Defence in July 2016, which focusses on delivering ever increasing value to the UK taxpayer on current contracts, including WIST, the continued growth of exports and the identification and subsequent investment in the development of new technologies and capabilities. The joint intent of the SPA is to exploit the identified technologies onto both existing in-service platforms as well as future manned and unmanned platforms.

For Further Information [Click Here](#)

## Harris Corporation to Supply Electronic Warfare Systems to Royal Moroccan Air Force



Harris Corporation has been awarded a \$91 million IDIQ contract by Warner Robins Air Logistics Center to provide AN/ALQ-211 Advanced Integrated Defensive Electronic Warfare Suite (AIDEWS) systems to the Royal Moroccan Air Force (RMAF). The contract was awarded during the second quarter of Harris' fiscal 2017.

Harris will supply AIDEWS systems, spares and support equipment and services to Morocco to help protect the RMAF F-16 aircraft fleet against current and evolving electronic threats. The combat-ready ALQ-211(V)4 EW system is a low-risk, modular solution that provides powerful capabilities and mission-based adaptability that have made it the top choice for 5 other international allies.

"AIDEWS' integrated radar warning and RF countermeasures defend against modern sophisticated electronic threats," said Ed Zoiss, president, Harris Electronic Systems. "Harris is committed to rapidly fielding this proven capability to support the Royal Moroccan Air Force's pilots and enable their mission."

### About Harris Corporation

Harris Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports customers in more than 100 countries and has approximately \$7.5 billion in annual revenue and 21,000 employees worldwide. The company is organized into four business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems and Critical Networks. Learn more at [harris.com](http://harris.com).



## GKN Aerospace and Swedish MOD extend agreement for Gripen RM12 engine

GKN Aerospace has gained a three year contract extension worth over USD\$175M, covering the technical product support, maintenance and parts supply for the Gripen RM12 Engines used in Sweden, Hungary, Czech Republic and Thailand. The Performance Based Logistics (PBL) agreement, with the Swedish Defense Materiel Administration (FMV) extends the company's existing work on this programme until 2020.

GKN Aerospace has been a supplier of fighter engines to the Swedish Armed forces since 1930. Since 2010 GKN Aerospace has committed to guarantee full availability of the RM12 engines and GKN Aerospace is the type certificate holder of the engine in Sweden. The RM12 engine fleet has so far completed approximately 250,000 flight hours without any engine related serious incidents for the Gripen fighter aircraft. Technical product support, maintenance, and parts supply will continue to be performed at GKN Aerospace's facility in Trollhattan, Sweden.

Mike McCann, CEO GKN Aerospace Engine Systems commented "GKN Aerospace is proud of our long-term support for Swedish Fighter aircraft and we appreciate that the FMV has extended the RM12 PBL-contract. GKN is looking forward to continuing to work together with the Swedish Armed Forces and the FMV and to further develop our relationship. We recognize and appreciate the continued confidence that the FMV has demonstrated in our team in placing this contract extension with us."

For Further Information [Click Here](#)

**Source:** Epicos, GKN Aerospace

## Boeing, Jeju Air Finalize Order for Three Next-Generation 737-800s

Boeing and Jeju Air announced an order today for three Next-Generation 737-800s. The order, valued at nearly \$300 million at current list prices, will become the airline's first direct-purchased airplanes from Boeing and fuel the airline's continued expansion within Asia's rapidly growing air travel market. The order was previously attributed to an unidentified customer on Boeing's Orders & Deliveries website.

"This acquisition is a major step in our growth strategy," said Ken Choi, Chief Executive Officer, Jeju Air. "We fully understand the benefits of owning and operating airplanes, which is what drove our decision to purchase these airplanes. We are confident that this order will enable Jeju Air to further strengthen our position as a leading low-cost carrier in Northeast Asia.

"In addition, the 737 forms the backbone of our fleet and it has been a reliable work-horse for our airline over the past decade," said Choi. "We look forward to introducing these brand new airplanes into our fleet in the near future."

The carrier currently operates an all-Boeing fleet of 26 Next-Generation 737-800s.

"We are honored to partner with Jeju Air as they continue to strengthen their presence in the competitive Northeast Asian market," said Ihssane Mounir, senior vice president, Global Sales and Marketing, Boeing Commercial Airplanes. "This order is a testament of the market-leading efficiency, reliability and passenger comfort of the 737. We look forward to introducing additional 737s to Jeju Air's expanding fleet."

Jeju Air, based in South Korea was established as Korea's first low-cost carrier in 2005 and launched operations in 2006. The carrier currently serves 40 domestic and international routes with approximately 150 daily flights.

The 737-800 is the best-selling version of the highly successful Next-Generation 737 family, which is the world's most popular airplane. Jeju Air's new 737 will feature the Boeing Sky Interior, the 787 Dreamliner inspired cabin, providing passengers a greater sense of spaciousness with decorative sculpted sidewalls, larger window reveals, LED mood lighting and larger pivot overhead stowage bins.

For Further Information [Click Here](#)

**Source:** Epicos, Boeing

### **DynCorp International Awarded Task Order to Provide Aircraft Components**

The U.S. Army has again awarded DynCorp International (DI) the Storage, Analysis, Failure Evaluation and Reclamation (SAFR) and SAFR Satellite (SAFR LITE) task order under the U.S. General Services Administration (GSA) Schedule for Logistics Worldwide (LOGWORLD) contract at Corpus Christi Army Depot (CCAD) in Texas.

"DI has performed this essential mission at CCAD since 1989," said Billy "Bubba" White, program director, Aviation Operations & Life Cycle Management (AOLC) Business Unit. "We are very pleased to continue providing much needed components and repair criteria to the military services."

On the CCAD SAFR task order, DI inspects, repairs and verifies components used on aircraft worldwide, to include other programs that DI supports.

“We’re excited to continue serving on this critical aviation program, which provides parts supply relief and saves the U.S. Department of Defense from having to purchase millions of dollars in new parts,” said Scott Rauer, DI’s AOLC Business Unit lead.

“DI has taken on this mission as its own and is proud to help ensure our U.S. fleet is safe and ready to fly,” added Joseph Smith, CCAD SAFR program manager.

The task order has one base year and four option years, with a total contract value of \$5.12M if all options are exercised.

For Further Information [Click Here](#)

**Source:** Epicos, DynCorp International

### **RUAG names new Dornier 228 Authorised Service Centre in Bern-Belp, Switzerland**

Dornier 228 aircraft are now able to take advantage of full Authorised Service Centre (ASC) services and capabilities at the RUAG Aviation location in Bern-Belp, Switzerland. The announcement, by original equipment manufacturer (OEM) RUAG Aviation, confirms the availability of full services in support of Dornier 228 aircraft owners and operators and their requirements for maintenance, repair and overhaul (MRO), refurbishments, and system upgrades.

RUAG Aviation, the OEM of the Dornier 228, is currently taking an active role in determining the quality of reliable MRO support, refurbishments, system upgrades and accurate spare parts sourcing available to its Dornier 228 customers. “Our commitment to supporting owners and operators of Dornier 228 aircraft is strong. The expansion of our ASC network to include the Bern site as the second RUAG-owned service facility confirms this dedication and is one more step in fulfilling the pressing needs of the Dornier 228 community,” explains Volker Wallrodt, Senior Vice President Business Jets, Dornier 228 & Components, RUAG Aviation.

Regarded by the OEM as the first step towards an extended service centre network, the selection of another ASC recognises the necessity for providing state-of-the-art customer service to all Dornier 228 operators independent of geography. “Our decision to establish this new ASC for Dornier 228 in Bern is deliberate,” confirms Volker Wallrodt. “RUAG Aviation in Bern has developed an outstanding international reputation for complete life cycle support, MRO services, system upgrades, and refurbishments for turboprop aircraft. As well, the Central European location provides easy and convenient accessibility for our customers.”

RUAG Aviation has built a solid reputation on full life cycle support for aircraft. “Life cycle support for the Dornier 228 is one of the strategic pillars of our business so we continue to dedicate resources in support of that goal and the goals of the Dornier 228 community,” concludes Volker Wallrodt.

RUAG Aviation is a leading supplier, support provider and integrator of systems and components for civil and military aviation worldwide.

Servicing aircraft and helicopters throughout their entire life cycle, the company’s core competencies include maintenance, repair and overhaul services, upgrades, and the development, manufacturing and integration of subsystems.

RUAG is an authorised service centre for OEMs of renown, such as Airbus Helicopters, Bell, Bombardier, Cirrus, Cessna, Diamond, Dassault Aviation, Embraer, Leonardo-Finmeccanica, Piaggio, Sikorsky, Piper, and Mooney, as well as a service centre for 328 Support Services, Hawker Beechcraft, Viking und MD Helicopters. RUAG Aviation is also a partner to the Swiss Armed Forces and other international air forces.

The company is also the manufacturer (OEM) of the Dornier 228, a versatile aircraft for challenging special missions and passenger and cargo operations.

RUAG Aviation is an approved Part 21/J EASA Design Organisation, Part 21/G EASA Production Organisation, and Part 145 EASA Maintenance Organisation.

For Further Information [Click Here](#)

**Source:** Epicos, RUAG

### **Rheinmetall and Steyr Mannlicher offer new RS556 assault rifle system**

Two of Europe’s most respected defence companies, Rheinmetall and Steyr Mannlicher, have joined forces to manufacture and market the RS556 modular assault rifle. This German-Austrian cooperation project adds a key item to Rheinmetall’s growing array of infantry products.

The RS556 is based on the highly regarded STM556, which Steyr Mannlicher first unveiled in 2012. Outstanding modularity characterizes this easy-to-use, future-proof 5.56mm x 45 cal. weapon.

Rheinmetall and Steyr Mannlicher are offering the RS556 assault rifle as a jointly produced product, made in Germany, with a German valued added share of 60%. Among other things,

the two partners thus have their sights set on the German market. This innovative weapon is a possible candidate for the new "System Sturmgewehr Bundeswehr": the German armed forces intend to replace their standard G36 assault rifle with a more advanced system starting in 2019.

Rheinmetall and Steyr Mannlicher each have well over a century of experience in developing and manufacturing infantry weapons. The RS556 project underscores both companies' commitment to supplying military and security services around the globe with reliable, future-proof, state-of-the-art systems and equipment.

Featuring an adjustable short-stroke gas piston system and rotating bolt, the gas-operated RS556 is based on the tried-and-tested Steyr Mannlicher AUG, or Universal Army Rifle, a design concept that has proven itself in decades of service on every continent.

With a 16" barrel (406 mm) and a fully loaded, 30-round magazine, the RS556 weighs around 4.2 kilograms, just over 9 pounds. The adjustable-length light-weight stock clicks into seven different positions, meaning that operators can adjust the RS556 to match their individual equipment profile in optimum fashion.

In a matter of seconds and without tools, the hammer-forged barrel can be easily exchanged. This means that the RS556 can be readily modified for various missions.

A number of standard barrel lengths are available (14.5", 16", 18" and 20"); however, customer-specific barrel and rifling lengths can be easily created.

The RS556 features several standard and optional NATO accessory rails with receiver systems designed in accordance with MIL-STD-1913, STANAG 2324 and STANAG 4694. This means that the weapon can be fitted with various optics and night observation devices or laser light modules. A 40mm grenade launcher can also be mounted on the new assault rifle. Moreover, the RS556 is compatible with Rheinmetall's modular "Future Soldier – Expanded System" (IdZ-ES), and can also be connected to other soldier systems.

A special breech system with an emergency operation feature ensures that the weapon always functions reliably even in extreme operating conditions, e.g. in severely hot and cold environments.

For Further Information [Click Here](#)

**Source:** Epicos, Rheinmetall