

Click here or visit www.epicos.com

Volume 7 Number 10 - Wednesday, 11 March 2015

Part I: EU Defence Industry

- 1. EU Defence Industry: Current Situation & Future Prospects
- 2. EU Defence Industry: The importance of R&D
- 3. Epicos "Industrial Cooperation and Offset Projects"
- 4. Sourcing and supply of steels, super-alloys, titanium and aluminium products for aeronautical applications
- 5. Synthetic Flight Training Device for helicopter and fixed-wing pilots' entry level and advanced training (non-combat)
- 6. News from our A&D Business Network

Part II: Epicos Newsroom

- 1. France and Japan to discuss joint counter-terror ops in Africa
- 2. Poland and Latvia sceptical over EU army idea
- 3. Juncker EU army plan impractical, unpopular: analysts
- 4. Airbus confirms 55-plane deal with US leasing group
- 5. Solar plane completes first sea leg of epic round-the-world bid

EU Defence Industry: Current Situation & Future Prospects





European defence industry plays an important role on national economies and on the technological base of any given country, as it provides innovative products and significant socioeconomic benefits (skilled jobs etc.). Apart from the socioeconomic benefits, it also performs a "duty" of outmost

importance, this of delivering sophisticated and innovative defence equipment to the European armed forces enabling and securing their efficiency. After all we must take into consideration that despite the fact that each EU government runs its own armed forces, there are many instances where European nations collaborate on deployments - peace keeping, humanitarian and combat missions. In such situation it is of outmost importance that different national armed forces are able to work together as smoothly and effectively as possible and a robust and viable defence industry with common goals and orientations could reassure this.

Nevertheless, EU defence industry suffers from significant problems that deter it from working properly. One of them is overcapacity. Currently, Europe experiences one of the worst economic crises in its current history. As a consequence the

available funds national authorities can allocate on defence are limited, making this situation increasingly unsustainable – for both industrial and financial perspective. In other words EU has "more defence industry" that it can sustain.

Another problem is the low spending on R&D in the EU as compared with the US and other leading technology producers (such as Japan). It is indicative that the European Council has repeatedly identified the lack of investment in research and innovation as a threat for the long term competitiveness of the European defence industry. European Union put emphasis on creating a broad and diverse defence industrial base and thus retaining the "operational sovereignty" to act in future world events as a power of deterrence and peace maintenance providing security for their citizens.

In order to achieve this, European states should try to act together and develop a more open and competitive defence industry. They must explore and maximize the potential synergies between civil and defence sectors, develop dual use products that will broaden the range of future clients and thus potential profits. European defence companies must uphold their position in the global defence industry and remain at the forefront of technological advancement and efficiency, by creating products of proven quality. They must continue generating innovation and creating spin-offs in other industrial sectors in order to be in a position to fulfil their outmost mission, to efficiently equip European armed forces.

Kyriazis Vasileios, Epicos Newsletter Head Editor

EU Defence Industry: The importance of R&D

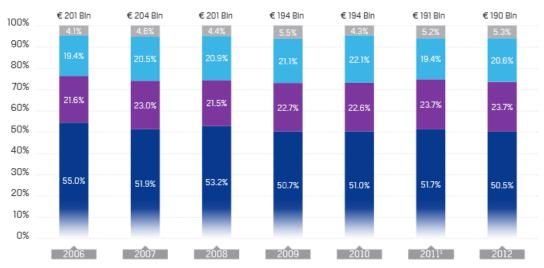




A recent study of the European Defence Agency (EDA) showcased the importance of investing in defence. According to the report for each €100m cut in EU defence expenditure, there is a €150m fall in EU gross domestic product (GDP), and a €40m fall in EU tax revenues. Additionally, such a cut would translate into a

loss of about 3.000 jobs, 800 of which would be high-skilled. Due to the above it is clearly understandable the importance of the defence sector in the socioeconomic growth of a country/economy. One of the defence industry's aspects that can highlight this is definitely R&D and the important role that it plays both to the civil and the defence sector. The reason is that usually defence R&D creates a "spillover" of technologies to the civil sector. This actually means that investing in defence R&D has a knock on benefit in other areas eg. civil aircraft market.

Unfortunately Defence R&D in EU member states is not as high as it should be. It is indicative that according to a report prepared by EDA, in 2012 defence investment (comprising equipment procurement and R&D expenditure) increased by over 5%. But the two components of investment moved in different directions. Equipment procurement increased by 17% to €34.2 billion (18.0% of total expenditure), whereas R&D expenditure experienced the sharpest decrease since 2006 (-38%) and amounted to €4.8 billion (2.5% of total expenditure), half its 2006 value.



- O Personnel
- Operation and Maintenance
- Investment (Equipment Procurement and R&D)
- Other expenditure (including Infrastructure)

Source: European Defence Agency

Another indicator that EU is not allocating sufficient amount of funds in defence R&D is that the EU the proportion of the budget dedicated to investment has always been lower than in the US (respectively 20% and 30%). In 2010 EU governments spent in total €9 billion on defence R&D (4.4% of defence expenditure). For the US these values were, respectively, €58 billion (\$77 billion) and 11.2% of defence expenditure.

EU defence industry should be in the forefront of development. In order to achieve this, they must invest in R&D so as to further boost the European defence industrial base a fact that will generate a competitive advantage by enhancing access to new knowledge.

Kyriazis Vasileios,

Epicos Newsletter Head Editor

© Epicos Informational Services Page 4

Epicos "Industrial Cooperation and Offset Projects"

epicos.com 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

Sourcing and supply of steels, super-alloys, titanium and aluminium products for aeronautical applications



A company with extensive experience in sourcing of steels, super-alloys, titanium and aluminium products for aeronautical applications, is proposing cooperation with a defence/aeronautical Prime contractor in order to provide/ source aerospace materials to be used either in some Prime's developmental work, or by a third party customer.

For Further Information Contact our ICO Department Mail at: g-menexis@epicos.com

Synthetic Flight Training Device for helicopter and fixed-wing pilots' entry level and advanced training (non-combat)



A company constituting the first civil avionics and simulator manufacturer in its country, is proposing collaboration with a Prime Contractor or a third party in a targeted country, for the development and installation of a helicopter or fixed-wing simulator, to serve civilian and military helicopter pilots' entry level (VFR) and advanced (IFR) training needs. The project can be implemented either as a standalone project, or integrated within a major acquisition package.

For Further Information Contact our ICO Department

Mail at: g-menexis@epicos.com

News from our A&D Business Network

Malaysia takes delivery of its first Airbus A400M





Airbus Defence and Space has formally delivered the first of four Airbus A400M military transport ordered by the Royal Malaysian Air Force. The handover also marks the first delivery of an A400M to an export

customer outside the original launch nations. The aircraft was accepted at the A400M Final Assembly Line in Seville, Spain on 9 March by Chief of Malaysian Defence Force General Tan Sri Dr. Zulkifeli, witnessed by Datuk Nozirah, Deputy Secretary General of Ministry of Finance, and Dato Dr. Rothiah, Deputy Secretary General of Ministry of Defence, who signed the Transfer ot Title on behalf of the Ministry of Defence. Chief of RMAF, General Dato' Sri Roslan Bin Saad, said: "The A400M will give the RMAF the most advanced heavy transport capability in the region and enable us to undertake an extraordinary range of military and humanitarian operations."

Bernhard Gerwert, CEO Airbus Defence and Space, said: "We are extremely proud to deliver the first A400M to our first export customer - Malaysia. These aircraft will transform Malaysia's air mobility force thanks to the A400M's unique combination of strategic and tactical capabilities. Today sends a clear message that the A400M is not just a specialised aircraft designed and developed for Europe's air forces, but is truly the new reference in tactical and strategic transport market globally - fulfilling both roles in a single machine." After arrival in Malaysia, the A400M will star in the LIMA airshow at Langkawi, 17-21 March.

About the A400M

The A400M is an all-new military airlifter designed to meet the needs of the world's Armed Forces in the 21st Century. Thanks to its advanced technologies, it is able to fly higher, faster and further, while retaining high manoeuvrability, excellent low speed handling, and the abilty to use short and unpaved runways. It combines both tactical and strategic/logistic missions. With its cargo hold specifically designed to carry the outsize equipment needed today for both military and humanitarian disaster relief missions, it can bring this material quickly and directly to where it is most needed. Conceived to be highly reliable, dependable, and survivable, the multipurpose A400M can do more with less, implying smaller fleets and less investment from the operator. The A400M is the most cost efficient and versatile airlifter ever conceived and absolutely unique in its capabilities.

Contacts for media:

Maggie Bergsma: +49 151 461 88 234 maggie.bergsma@airbus.com Kieran Daly +34 689 66 96 61 kieran.daly.external@military.airbus.com

Mei Kuan meikuan@quattro.com.my

Raytheon awarded \$122 million US Navy contract for Tomahawk Block IV Missiles



Raytheon received a contract modification for \$122,443,911 to a previously awarded firm-fixed-price contract (N00019-14-C-0075) for the procurement of 114 Tomahawk Block IV All Up Round missiles for the U.S.

Navy. This completes the Navy's planned purchase of 214 Tomahawk Block IV missiles for fiscal year 2015 and continues to build the inventory to support warfighting requirements.

"Employed in every recent conflict, submarine and surface-launched Tomahawk missiles continue to be our nation's weapon of choice to defeat high value threats," said Dave Adams, Raytheon Tomahawk senior program director. "Raytheon continues an acute focus on maintaining affordability and enhancing the impressive capabilities of this sophisticated weapon system."

Work will be performed in Tucson and across 29 states within the United States. Work is expected to be completed by August 2017.

About Tomahawk Block IV

With a range of more than 1,000 miles the Tomahawk Block IV missile is a surface and submarine-launched precision strike stand-off weapon. Tomahawk is designed for long-range precision strike missions against high-value and heavily defended targets. Raytheon and the U.S. Navy are working to provide Tomahawk with even greater capability to add a multi-effects warhead system and multi-mode seeker to engage moving targets on land and at sea.

About Raytheon

Raytheon Company (NYSE: RTN), with 2014 sales of \$23 billion and 61,000 employees worldwide, is a technology and innovation leader specializing in defense, security and civil markets throughout the world. With a history of innovation spanning 93 years, Raytheon provides state-of-the-art electronics, mission systems integration and other capabilities in the areas of sensing; effects; and command, control, communications and intelligence systems, as well as cyber security and a broad range of mission support services. Raytheon is headquartered in Waltham, Mass. For more about Raytheon, visit at www.raytheon.com and follow on Twitter @raytheon.

Media Contact
Ashley H. Mehl
+1.520.794.5142
rmspr@raytheon.com

Epicos Newsroom



France and Japan to discuss joint counter-terror ops in Africa

France and Japan will discuss possible cooperation in tackling jihadist groups in Africa during a ministerial visit this week, focusing on securing borders in the troubled Sahel region, a diplomatic source said on Tuesday.

"The idea is that we can perhaps work on a joint initiative around the borders of Niger, Mali and Burkina Faso as part of the fight against cross-border threats, notably the terrorist threat," the French source said on condition of anonymity.

France's foreign and defence ministers, Laurent Fabius and Jean-Yves Le Drian, are travelling to Japan on Thursday for wide-ranging talks to include discussions on a "Plan of Action for Africa" which has been in the pipeline for several months.

The plan also touches on counter-piracy missions, building on their current cooperation in Djibouti with possible expansion into the Gulf of Guinea, the source said.

It also envisages greater cooperation on peacekeeping missions, sustainable development and healthcare, including reconstruction in the wake of the Ebola epidemic in west Africa.

In addition, France and Japan are expected to sign an agreement on defence industry cooperation, which will act as a base for specific tie-ups in the future.

A French delegation will also take part in the Disaster Risk Relief meeting in Sendei on Saturday, as part of the build-up to the global climate conference being hosted by Paris in December.

A strategic dialogue came into force between France and Japan in January 2014, leading to frequent high-level visits on political, security and economic issues.

Source: 2015 AFP, Agence France-Presse (AFP)

Special Focus: EU Defence Industry

Epicos 2015

Poland and Latvia sceptical over EU army idea

Polish and Latvian officials on Tuesday voiced scepticism over calls for a European Union

army to counter a militarily resurgent Russia.

"It's a very risky idea," Polish Foreign Minister Grzegorz Schetyna told Poland's private Radio

Zet in reaction to Sunday's proposal by European Commission head Jean-Claude Juncker.

Juncker, a former Luxembourg prime minister, called for the creation of an EU army

following rising tensions with Russia, saying the force could help counter new threats

beyond the bloc's borders and defend European values.

"First of all we have to ask where to raise money to finance such an army, how the combat

units will work, who will be in charge of training them," Schetyna said.

His sentiments were echoed by Latvian Prime Minister Laimdota Straujuma on Monday.

"There is a possibility it could be discussed in July at the European Council, but it's important

to check whether this might be duplicating NATO," she told Latvian public broadcaster LTV.

Ex-communist Poland joined NATO in 1999 ahead of the three former Soviet-ruled Baltic

states of Estonia, Latvia and Lithuania which joined in 2004.

They have all urged the alliance to boost its presence in the region since Russia annexed

Ukraine's Crimean peninsula last year.

NATO is countering Moscow's moves by boosting defences on Europe's eastern flank with a

spearhead force of 5,000 troops and command centres in six formerly communist members,

including the three Baltic states and Bulgaria, Poland and Romania.

General Stanislaw Koziej, a security adviser to Polish President Bronislaw Komorowski, said

Juncker's idea was an impractical "dream".

"These days, nobody in Europe, no single country is contemplating giving up its sovereignty,"

said Koziej.

"To have an army, you need first of all a political decision-maker who would deploy such an

army," added the general, urging further political integration of Europe first.

Source: 2015 AFP, Agence France-Presse (AFP)

Juncker EU army plan impractical, unpopular: analysts

European Commission chief Jean-Claude Juncker's call for an EU army to counter a more assertive Russia is impractical and will face strong resistance from many member states, analysts said Monday.

The idea is initially attractive because "pooling and sharing" would spread the defence burden at a time when government finances everywhere are under intense pressure, they said.

But in practice, it begs the question of how to reconcile the interests of 28 very different member states on the core sovereign "no-go" area of national defence, not to mention a possible overlap with NATO.

"I see lots of loose ends in this proposal which do not fit together," Markus Kaim of the German Institute for International and Security Affairs in Berlin told AFP. "A European army has nothing to do with Russia. What the additional benefit of a European army would be in this context is known only to Juncker."

Former Luxembourg prime minister Juncker, no stranger to controversy, was clear in what he saw as the benefits. "A common army among the Europeans would convey to Russia that we are serious about defending the values of the European Union," Juncker told Germany's Welt am Sonntag newspaper.

It would also be more cost effective and help drive the EU towards a common foreign and security policy, he said, downplaying concerns it might undercut NATO's role.

Europeans could save up to 120 billion euros (\$135 billion) a year, Juncker's spokesman Margaritis Schinas said on Monday, stressing that Juncker had previously mentioned the plan.

- NATO comes first -

Of the EU's 28 members, 22 also belong to NATO, the US-led military alliance set up in 1949 to protect Western Europe from the Soviet Union.

In response to Russia's intervention in Ukraine and its annexation of Crimea, NATO has marshalled its own 28 member countries to reverse years of spending cuts and commit to a defence budget equal to two percent of annual economic output within 10 years.

It has also sent troops and equipment to its East European allies to reassure them of NATO's commitment to their defence at a time when many fear Russia wants to re-establish its Soviet-era sphere of influence.

Special Focus: EU Defence Industry

Epicos 2015

EU leaders at a December 2013 summit endorsed further steps towards greater defence cooperation, citing the need to make tight budgets go further.

But a suggestion the EU consider obtaining its own military capabilities was shot down by British Prime Minister David Cameron.

"It makes sense for nation states to cooperate over matters of defence to keep us all safer... but it is not right for the EU to have capabilities, armies, air forces and the rest of it," Cameron said at the time.

"We have to get that demarcation correct, between cooperation which is right but EU capabilities which is wrong."

Britain in 2010 signed a wide-ranging defence cooperation deal with France, which included the ability to use French aircraft carriers while it waited for its own new ships to enter service.

- British opposition shared -

Kaim, the German analyst, said Cameron may have appeared outspoken at the time but many other EU states are happy to see Britain take the lead.

"I think a lot of countries are comfortable in hiding behind Britain. Anything which smacks of a real deepening of (EU) integration does not have a majority, not only in Britain but also in Germany or France.

"Smaller states count on NATO as well. They do not want to rely on the imponderable EU," he said. Janis Emmanouilidis at the European Policy Center in Brussels said Juncker -- a fervent federalist who just last week joked about the fact that tiny Luxembourg has no air force -- was grandstanding on the issue.

"Juncker likes to show that he can put issues on the agenda and that the Commission is a political actor but I do not think this will stay in the public arena for a long time."

Both Kaim and Emmanouilidis said military cooperation may make sense at the headline level but in reality, EU member states jealously guard their defence industries.

"We will see some flagship projects in pooling and sharing... but it will stay very small. The fundamental questions will be postponed," Kaim said.

Source: 2015 AFP, Agence France-Presse (AFP)

Airbus confirms 55-plane deal with US leasing group

US plane leasing firm ALC has confirmed an order for 55 of Airbus's newest, fuel-efficient planes worth at least \$10.8 billion (9.9 billion euros), the European aviation giant said

Monday.

Air Lease Corporation (ALC) will buy 25 wide-body A330-900neo aircraft and 30 A321 LR

planes -- longer-range versions of its popular A320 aircraft that will able to make

transatlantic flights.

ALC will be the launch customer for the A330-900neo -- the eagerly-awaited upgrade to

Airbus's long-haul A330 passenger jet which boasts more fuel-efficient engines and is seen

as a direct competitor to Boeing's 787 Dreamliner.

ALC had first agreed to buy the A330-900neo planes at the Farnborough Air Show last year,

and had made a preliminary order of the A321 LR planes in January.

Source: 2015 AFP, Agence France-Presse (AFP)

Solar plane completes first sea leg of epic round-the-world bid

Solar Impulse 2 landed in India late Tuesday, completing the initial sea crossing of its epic bid

to become the first plane to fly around the world powered solely by the sun.

The aircraft touched down in the western state of Gujarat at 11:25 pm local time (1755

GMT) to finish its trip from the Omani capital Muscat in little less than 16 hours. Live footage on its website showed the faint line of the plane's white-and-blue lights in the pitch-black

night as the Solar Impulse 2 approached Gujarat's main city of Ahmedabad.

Members in the control room applauded as Pilot Bertrand Piccard, who was at the controls

on the 1,465 kilometre (910 mile) journey over the Arabian Sea, landed at Sardar

Vallabhbhai Patel International Airport. "Congratulations to @bertrandpiccard from Mission

Control... Landing 11.25pm local time," the Solar Impulse team posted on Twitter.

The Solar Impulse will be in Ahmedabad for four days during which "several events are

planned on the theme of renewable energy and sustainable development", according to the

Swiss embassy. The aircraft will embark on its fourth leg to Myanmar on March 16 after

making a short stop at the Hindu holy city of Varanasi in northern India.

Page 12

The sea legs pose the greatest challenge for the Solar Impulse team as any loss of power over the water would leave the pilot no alternative but to bail out and await rescue by boat.

Much bigger crossings lie ahead as Piccard and fellow Swiss aviator Andre Borschberg, who alternate at the controls of the single-seat aircraft, traverse the great oceans.

The longest single leg will see one of them fly solo non-stop for five days and nights across the Pacific from Nanjing, China to Hawaii, a distance of 8,500 kilometres (5,270 miles).

Muscat was the first of 12 planned stops on the plane's journey around the world from Abu Dhabi, with a total flight time of around 25 days spread over five months. Monday's maiden leg took Borschberg 13 hours and two minutes.

He spoke of an "emotional" trip, telling reporters he cruised at 6,000 metres (almost 20,000 feet) because the trip was "short". Piccard was flying even higher as he entered Pakistani airspace on Tuesday, at 8,230 metres (27,000 feet), his support team said.

- 'Flying into sustainable future' -

The team hope to promote green energy with the circumnavigation attempt, which was ridiculed by the aviation industry when it was first unveiled.

UN chief Ban Ki-moon hailed the venture and congratulated the pilots.

"With their daring and determination, we can all fly into a new sustainable future," his spokesman said.

The pilots' native Switzerland issued a special commemorative coin to mark the launch, which is the culmination of 13 years of research and testing.

The Si2 is the first solar-powered aircraft able to stay aloft for several days and nights.

It is powered by more than 17,000 solar cells built into wings that, at 72 metres, are longer than those of a Boeing 747 and approaching those of an Airbus A380 superjumbo.

Thanks to an innovative design, the lightweight carbon fibre aircraft weighs only 2.3 tonnes, about the same as a family 4X4 and less than one percent of the weight of the A380.

The propeller-driven craft has four 17.5-horsepower electric motors with rechargeable lithium batteries.

It will travel at 50-100 kilometres per hour (30-60 miles per hour), the slower speeds at night to prevent the batteries from draining too quickly.

The plane can fly on autopilot during rest breaks but both pilots have undergone intensive training to prepare them for the long solo flights.

They have learnt techniques, including yoga and self-hypnosis, to allow them to sleep for periods as short as 20 minutes but still wake up feeling refreshed.

While in the air, the pilots are linked to a control centre in Monaco where 65 weathermen, air traffic controllers and engineers are stationed. A team of 65 ground staff is travelling around the world with the two pilots.

After Myanmar the plane will head to China, Hawaii and New York.

From there it will go on towards its starting point in Abu Dhabi via either southern Europe or North Africa, depending on weather conditions.

Source: 2015 AFP, Agence France-Presse (AFP)

© Epicos Informational Services Page 14