Although the bulk of the material used in such multinational operations is traditionally of military nature and therefore well-known to all of the participating troops, serious issues can arise from civilian, commercially available off-the-shelf products and utilities which are increasingly used by the Armed Forces to complement their purely military toolbox. Such a patchwork of military, dual-use and civilian equipment used by troops from different Member States in a joint operation can entail considerable risks – from limiting interoperability, to hampering the mission’s effectiveness, let alone putting at risk soldiers’ lives.

Against this background, one crucial question arises: How to make sure that different troops coming from different Armed Forces using different types of technical equipment can nevertheless work together efficiently and safely? Ensuring proper testing and evaluation of critical equipment - be it military or civilian - is part of the answer. No wonder that Test and Evaluation is identified as a critical enabler - is part of the answer. No wonder that Test and Evaluation is identified as a critical enabler for cooperation in the EU Global Strategy, Implementation Plan on Security and Defence.

The European Defence Agency (EDA) has therefore taken the initiative to promote more systematic technical testing of CSOP equipment by Member States’ Test Centres and to set up an EU-wide Test and Evaluation Community. The rationale behind this is to develop a capacity to respond quickly to CSOP missions’ requirements and capability gaps through an integrated approach linking T&E to standardisation and harmonised certification requirements.

New ideas put forward

Conference participants also expressed the wish to see EDA’s DTEB plenary group focusing on three potential future work strands, namely:

• The establishment of a Flight Test Centres Community. The rationale behind this is that the development of European Military Airworthiness Requirements (EMAR) or related topics such as Air to Air Refuelling Qualification will also span a demand for harmonising test procedures. Initiating a EU Flight Test Centres Community could therefore help to improve interoperability and to promote mutual recognition and acceptance of test results by national airworthiness authorities.

• The establishment of a “Landworthiness” Test Centres Community through which relevant national test centres could take joint initiatives in view of preparing the testing of future technologies such as automotive systems and robotics;

• The launch of a European Defence Experts Exchange Programme which would support EDA member states to increase the knowledge and skills of their respective defence experts. The DTEB Plenary Group was asked to ‘explore possibilities’ to initiate such an EU Exchange Programme.

Conference attendees also visited three Austrian test centres (ammunition & protection testing, automotive testing, science test laboratories) where they exchanged views with experts, witnessed live experiments and discussed potential future cooperation opportunities on topics such as automotive and robotic systems, ED-detection or harmonised EU certification requirements for ammunition.

There was broad agreement among the more than 150 experts and delegates from 17 EDA Member States, the European Commission, the European defence industry and NATO, who attended the conference, that the existing European Network of T&E Centres should develop a capacity to respond quickly to CSOP missions’ requirements and capability gaps through an integrated approach linking T&E to standardisation and harmonised certification requirements.

Ammunition Firing Test

CSOP missions and operations are teamwork by nature, involving troops from different contributing Member States, all of them bringing along and using their own specific equipment and outfit.

Fuelling European Tanker Capability

Joint training exercise enhances effectiveness and interoperability of European forces as Multinational Multi-Role Tanker Transport Fleet (MMF) takes shape

A no-to-Air Refuelling (AAR) is fundamental for effective air power projection and is required to sustain combat operations. AAR is a multidimensional domain, pilots can extend radius and flight time, thus allowing for more complex missions to be performed.

While of paramount importance to European armed forces, AAR is strategic asset where Member States have faced significant capability shortfalls, highlighted by operations in Mali, Libya and Kosovo. Europe’s military tanker fleet is fragmented and currently stands at 42 tanker aircraft of 12 different types, compared to the 550 tankers of 4 types of the United States.

Back in 2013, facing a critical shortfall of a strategic asset, AAR was designated by EU leaders as one of the four key programmes on which the European Defence Agency (EDA) and its Member States should work together to overcome. Since then, EDA has developed a three work strand ‘global approach’ to alleviate AAR shortfall through optimization of existing capabilities, introduction of the A400M fleet AAR capability, and increasing the strategic tanker capability in Europe by 2020 (MMF).

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MMF: The way ahead for European AAR

Optimization of current assets will only take European AAR capacity so far, ultimately current European tanker assets will be replaced by the next generation of tanker aircraft. In this context, the EDA is working on increasing the strategic tanker capability in Europe by 2020 through the Multinational Multi-Role Tanker Transport Fleet (MMF).

Based on a pooled fleet of Airbus A330 Multi Role Tanker Transport (A330 MRTT) aircraft, the MMF aims to increase the overall European tanker capability in 2020. To date, the Netherlands and Luxembourg have signed a Memorandum of Understanding (MoU) and secured the contract for two A330s, while this year Ministers of Belgium, Germany and Norway signed a Declaration of Intent to sign this MoU soon.

The MMF project has the clear potential to enhance European AAR capability as EDA’s new Capability, Armament and Technology (CAT) Director, Martin Konertz, explains: “The MMF project is simple in concept: let’s bring together interested Member States and help them to acquire together, to operate together, and to maintain together a European multinational fleet of Air-to-Air refuelling aircraft. In a nutshell: to do together what is out of reach for most countries individually - notably for budgetary reasons. It is a successful example of innovative and future-oriented cooperation between like-minded European countries - it is ‘Pooling & Sharing’ at its best. I believe the MMF can and should serve as a model and example for future similar cooperation in order to boost European defence capabilities in other domains.”

EART 2017: Putting existing assets to use

From March 26 to 7 April 2017, the 4th European Air-to-Air Refuelling Training (EART 2017) exercise took place at Eindhoven Airbase in the Netherlands. EART 2017 represents an important building block in the first process of optimizing existing capabilities. Four European nations (Germany, the Netherlands, Italy and France) took part in the exercise, organised by the European Air Transport Command (EATC).

In 2014 following EDA’s AAR initiative, the EART concept is dedicated AAR training focused on maintaining proficiency and enhancing knowledge of multinational tanker aircraft. These exercises allow air crews, planners, taskers and engineers to plan and execute missions in a complex COMAO (composite air operation) environment. EART is an effective way for European forces to optimise the use of current tanker assets, while practising together increases standardisation and interoperability. Exercises are organised on a yearly basis and are pooled with the multinational Frisian Flag fighter exercise that operates from Leeuwarden Airbase. The overall results (see box above) demonstrate the benefits of joint training for interoperability, while public interest in this domain grows (see box right).

**MMF: The way ahead for European AAR**

- **Pounds of fuel offloaded**: 1,350,000
- **Missions**: 48
- **Receivers**: 319
- **Flying hours**: 130
- **Training days**: 14
- **Member State Aircraft**
  - The Netherlands - KDC-10
  - Germany - A310 MRTT
  - France - C-135 R
  - Italy - KC-767 A

EART 2017 in Numbers!

#EART 2017 - A social media hit!

EDA works to bring the benefits of joint European training and defence cooperation to the widest possible audience. Our video from EART 2017 of a French fighter (Mirage 2000) refuelling from the Italian tanker (KC-767 A) has been viewed 20,000 times on-line! Check it out via the EDA twitter account or use #EART2017.

IN THE FIELD