



Launch of ETAP project TDP1.4c (High Bandwidth communications – datalink) under EDA ad-hoc category B framework

Introduction to ETAP

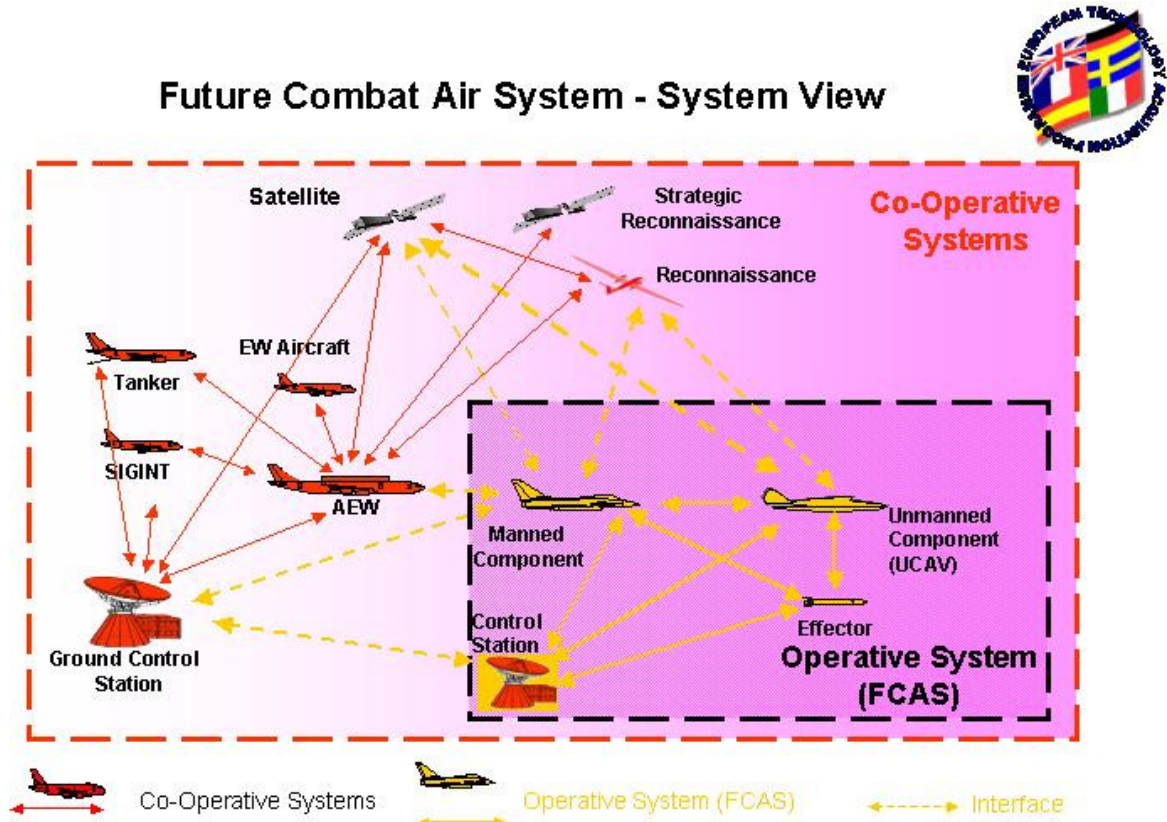
The ETAP cooperative programme is the result of the six LoI nations' desire to unite their efforts in fostering the development of technologies for Future Combat Air Systems.

This Programme, called European Technology Acquisition Programme, was set up in its present form on 26 November 2001 when the related Memorandum of Understanding (MoU), signed by France, Germany, Italy, Spain, Sweden and United Kingdom, entered into effect.

Aiming to develop the technologies needed for Future Combat Air Systems (FCAS) post 2020, the Programme, which is funded project by project on an equitable basis among the interested participants, comprises:

- a set of Technology Demonstration Projects (TDPs)
- several Capability Demonstrators (CDs)
- the Global System Study (GSS), which guides the whole ETAP Programme and aims to indicate the most cost-effective technologies to be developed in order to reach a given capability requirement.

The scope of the Future Combat Air System is summarised by the following picture





Under the umbrella of the GSS, TDPs are sorted into eight technological domains, which are:

- 1: Avionics,
- 2: Airframe,
- 3: Integrated Vehicle Systems,
- 4: Low Observables,
- 5: Mission guidance and control,
- 6: Weapons and Weapons Integration,
- 7: Support, and
- 8: Propulsion

Thus far, nine TDPs have been launched. Programme decisions are taken unanimously by a Steering Committee comprising one representative from each participant, and a Programme Management Group is tasked with performing the day-to-day management of the programme, with also one representative per nation. For each project, a lead nation is appointed and this nation awards the contract on behalf of the other nations.

The Role of the European Defence Agency

It is expected that the "ad-hoc category B" project formula, described within the framework of the European Defence Agency's Joint Action, will further facilitate the organisation of cooperative projects initiated by ETAP. With that objective, the ETAP Steering Committee has decided to entrust awarding ETAP contracts to the European Defence Agency, starting with the selection of two TDPs and their transfer to EDA as test-cases. These are:

- TDP 1.2a, on Multifunction Sensors, and
- TDP 1.4c, on High Bandwidth Communications, Datalink

The Agency has responded positively to the request to award the contracts,¹ both of which involve France, Italy and Spain..

Requests for proposals (RfP) were issued to relevant industries and the corresponding proposals were received three months later. After successful negotiations, the Agency was able to sign, on 21 December 2007, the first ETAP contract, for the TDP 1.4c, which will run for 24 months and has a total budget of 5,876,542 Euros.

The TDP 1.4c contract was awarded to THALES Communications as leading contractor with SELEX Communications and INDRA Sistemas as co-contractors. Other entities involved in the performance of the contract, acting as sub-contractors, are: Dassault Aviation, EADS Defence and Security, Sagem Défense Sécurité and EADS CASA. The technical kick-off meeting for the project took place at EDA on 17-18 January, 2008.

The ETAP community is looking forward to the execution of this first TDP as an EDA ad-hoc category B project and is confident that the services offered by the Agency will contribute to the efficient management and progress of the project. The experience gathered in this respect will hopefully lead to future project transfers and,

¹ Steering Board decisions: n° 2006-16 - R&T ad hoc B project for TDP 1.4c on 05Sep06 and n° 2007-08 - R&T ad hoc B project for TDP 1.2a on 09Apr07



with this in mind, EDA has been asked to finalise a model contract for ETAP projects using as a basis the contract negotiated for TDP 1.4c.

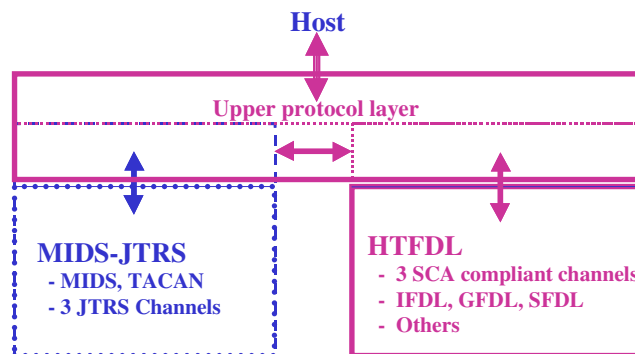
Description of TDP 1.4c

This ad-hoc category B project has been assigned to the IAP 4 Captech. Its main technical objective is to provide European nations with the technology, the technical capability and the steering plan to be able to launch a major aeronautical communication development programme to support operational European forces in the 2020-2040 timeframe.

The works performed under the present project cover the first phase of the TDP wherein the technical objectives are to:

- Capture and endorse sufficient data link system requirements to allow the detailed definition of an innovative, practical and cost effective communication system,
- Establish the technical baseline in the domain of high throughput (up to 300Mbits/s) to cover most requirements in the Air-to-Air, Air-to-Ground (or Surface) and Air-Satellite communications domains.
- Select high throughput data link system designs, based on investigations of suitable options.
- Establish a global plan steering European nations' capability to identify and to develop the technology needed to build the future equipment.
- Define a generic multi-link upper layer including the support for the MIDS-JTRS terminal.

The following picture represents TDP 1.4c objectives:



The work to be done under the first contract is divided into three main work packages: Conceptual studies, Definitions studies & Upper layer studies and host interface architecture

The work to be done for phase two, under a follow-on contract, should also be divided into three work packages: Feasibility studies, Technology demonstrations & Update conceptual and definition studies.

Finally, a third phase would have the objective of creating a prototype.

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