

AIR, SYSTEMS

(DE) Strategic Air Transport for Outsized Cargo (SATOC)

(established in November 2021)

For Public Release

PROJECT DESCRIPTION

The aging of the aircraft in the SALIS service contract, the lack of complementary global services and the lack of an option to acquire the aircraft (in the Antonov 124 class) result in a potential gap in Strategic Fixed Wing Air Transport (most likely 100-ton class) in the 2030s. The A400M fleet can partially mitigate this risk, but the A400M is limited in size and payload. The SALIS contract helps to mitigate this critical shortfall as well but will expire in the early 2030s, while the risk of availability of the chartered Antonovs increases due to the ongoing aging of the aircraft. There is an increasing critical risk of delays in operations, a risk of dependency on external resources and a risk of not being able to deploy and sustain substantial EU forces as outlined in the "Peace Enforcement" illustrative scenario. The C-17 fleet operated by EU MS is expected to reach the end of service date in the 2040s. Therefore, solutions have to be found in order to address the capability gap before the capability shortfall increases to a serious capability gap in the 2030s. The project SATOC foresees a gradual 3-step approach: Block 1 – harmonization of requirements and assessment of identified solutions, Block 2 – Prototyping of the solution found and Block 3 – Capability Development. The successful achievement of milestones and objectives of a block is the prerequisite to start with the following Block. This project SATOC Block 1 aims to collect and consolidate different national requirements, to harmonize them and identify options for a development or commercial of the shelf solution regarding strategic air transport capabilities. The result of the project will be harmonized requirements and possibly an already identified development solution, which paves the ground for a future multinational capability development project. Block 1 also addresses discussions on the possible future operation and service from a common hub similar to NATO's AWACS base, the MMF-Fleet base or Strategic Airlift Capability (SAC) in Hungary, for example under the European Air Transportation Command. The project also considers requirements for next generation strategic air transport for outsized cargo in accordance with requested capabilities by other stakeholders for example with NATO target E 2201 N STRATEGIC DEPLOYMENT AND SUSTAINMENT. The project as such has a high operational impact and the potential to become a flagship project for NATO-EU cooperation.

OBJECTIVES/PRODUCTS

The deployment, sustainment and re-deployment of forces to and from Afghanistan during the ISAF and Resolute Support missions have shown the need for a strategic airlift capability in the last 20 years as well as today. The illustrative scenario "Peace Enforcement", as the most challenging scenario of the EU, with the claim to deploy a significant number of troops within days for a major joint operation would also only be feasible with SATOC resources. In the Progress Catalogue 20 the EU MC has identified a significant quantitative deficit of heavy Fixed Wing Air Transport aircraft, which poses a high operational risk to a successful deployment of forces.

The overall aim of the project Strategic Air Transport for Outsized Cargo is therefore to fill this critical shortfall for strategic deployment by developing in a gradual 3-step approach a European solution for the transport of outsized and heavy cargo.

In the short-term to mid-term perspective (Block 1) the objectives are to identify a sufficient number of project members (incl. Third State Participation), harmonize requirements and to identify and agree on a common solution. This includes also the discussion and analysis of collective demand and available resources for the coming years. A maximum number of participants is crucial for the success of this project.

The objective for Block 1 is therefore a catalogue of common and harmonized requirements (HLCOR), the time-cost-risk dimensions of all potential solutions, options to complement the various solutions by other (existing or possible) solutions (i.e. a solution mix), the description of operational concepts of the potential solutions (acquisition, contracting etc.), infrastructure requirements (e.g. on pMS' airbases), and required strategic partnering (e.g. non-EU technical-stopover bases to increase range of platforms) and industrial issues (e.g. industries involved, technologies for which industrial R&D is required). With regard to possible solutions, the catalogue will show required investments, possible



DE, CZ, FR, NL



BE, FI, HU, IT, PL, PT, SK, SI, SE

IDEATION
INCUBATION
EXECUTION
CLOSING



Contribution to the more binding commitments
Yes



Capability Perspective

EU CDP priority
Air Mobility

CARD references
Enhanced Military Mobility



Operational Viewpoint

HICG
Strategic Air and Sea Transport – Fixed Wing Transport Cargo Heavy



EDA support



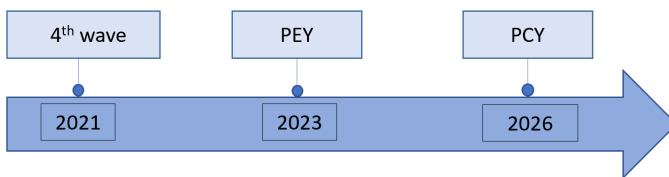
Yes
Ad-hoc Cat.B support

risks and timelines and what other necessities the various solution bring about. Based on that, potential avenues of approach for the SATOC Project will become visible and provide the base for an intended follow-on development program (Block 2).

If the most favourable avenue of approach turns out to be a development solution/adaptation of existing frames, the mid- to long-term objectives (Block 2 and 3) are to develop a prototype, which could reach from a civil-contractor solution, a conversion solution of a civil airliner to a new design and development project and finally develop this solution.

INDICATORS

Project Execution Year (PEY) and Project Completion Year (PCY):



DELIVERABLES ACHIEVED

- Terms of Reference
- Harmonization of Requirements
- High Level Common Requirements (HLCOR)

CRITERIA FOR SUCCESS

- The current situation in terms of worldwide availability of SATOC a/c and in particular the near lack of capability in Europe, only a project success will ensure SATOC capability in Europe. The current situation in UA, and even more the dependence on AN 124 a/c, increases the need for timely project success.