

NATO Defensive Aids System STANAG Ratified

The following article complements JED's April 2022 cover story, "Freedom of Action: NATO Rethinks Air Survivability for a New Threat Landscape," by Richard Scott. To read it, log in to your AOC account at www.crows.org to read it or join the AOC at <https://www.crows.org/page/joinnow>.

By Richard Scott

Delivered under SCI-260 (Platform-Level EW Architectures to Protect Joint/Coalition Air Operations), the NATO Defensive Aids System (NDAS) is a Smart Defence project established to develop a standardized open architecture and common message set to support the "plug and play" integration of threat warning sensors and countermeasure effectors onto operational platforms, and at the same time formalize a NATO Standard (STANAG 4781).

Leveraging work previously undertaken by the UK under its Common Defensive Aids System initiative, NDAS has sought to overcome the two main shortfalls of legacy DAS architectures: first, the time and cost required to upgrade and maintain these systems through their lifecycle; second, the employment of proprietary closed communication links between sub-systems. As a by-product, the implementation of a formalized STANAG should streamline technological exploitation for industry, and so promote wider/faster market opportunities.

SCI-260 developed the NDAS architecture in partnership with SG/2, initiating NATO Industrial Advisory Group (NIAG) Study Groups 185 and 211. These NIAG studies provided additional industry expertise and advice (with 13 nations and more than 20 companies participating overall).

A key output from the NDAS activity is the Smart Stores Communication Interface (SSCI) specification. The SSCI, as part of STANAG 4781, enables in-flight communication and optimal use of smart expendables (such as expendable active decoys and multi-shot cartridges). It also enables automatic expendable type recognition and automatically logs payload logistic information, including air carriage life and use-by-date.

The draft STANAG, underpinned by a detailed Allied Engineering Publication (AEP 104), entered ratification on November 5, 2020. The STANAG has now met the ratification criteria and was promulgated to Nations from January 27, 2022. Even before full ratification, NATO partner nations were starting to specify and use the standard within their procurement and development activities.

Speaking at AOC Europe 2021, John Bowker, Systems Lead for Air Survivability at Dstl, said that following ratification of the first edition of the STANAG, the custodian support team plans to bring out new editions every three years, with updates captured every six months. "So it's not a monolith set in stone," he said, "It's something that will live, change, and develop as we need it."