NATO military forces must be able to effectively respond in a short time over a broad spectrum. A much like conventional force-on-force engagements on one hand, and like cyber-attacks or humanitarian relief operations on the other hand. Thus, the capability of NATO nations to gather, manage and share information becomes more important. As part of this capability, Intelligence, Surveillance and Reconnaissance (ISR) technological and procedural interoperability trials are conducted on a regular basis through events like "Unified Vision 12" held in Ørland, Norway from 18-29 June 2012.

The Main Actors

Under the NATO Air Force Armaments Group (NAFAG), the trial Unified Vision 2012 (UV12) was sponsored by the Joint Capability Group for Intelligence, Surveillance and Reconnaissance (JCGISR), Allied Command Transformation ACOS C4ISR being the Trial Executive. ACT and Allied Command Operations (ACO) worked together with 14 NATO working groups and panels and 17 nations in the framework of NATO's Joint Intelligence, Surveillance and Reconnaissance (JISR) concept. Preceding the trial was a two year planning period, with the majority of the planning tasks compressed in the final six months.

Trial Network Extended from Europe to the United States

This 2012 trial was different from previous trails where it focused on the challenges of fusing multiple intelligence disciplines. To conduct such an endeavor, "Unified Vision 12" was supported by an extensive classified network using the Combined Federated Battle Laboratories Network (CFBL), with the main hub at Ørland, Norway stretching across Europe and over the Atlantic into the United States. With the short term addition and changes of platforms and sensors before the start of the trial, the network design, accreditation of systems and risk reduction trials were challenging.

Trail Execution by Means of Vignettes

To allow for a detailed control and analysis of the multiple sensor feeds, 22 of the 27 planned vignettes were run over eight trial days with increasing complexity. A typical vignette provided a tactical situation that required different intelligence sensors to work together in order to be successful. For example, a HUMINT feed triggered an event by reporting a convoy of vehicles, then an airborne electro/optical sensor was tasked to confirm the described situation and update the geo-localization, and eventually a Synthetic Aperture Radar sensor was set as a following source for continued tracking if clouds would obstruct optical line of sight. The sensor feed information was made available to all participants via the CFBL network making use of several coalition shared data servers (CSD).

Collection Management

Equally important was the management of Information Requirements and Collection Coordination. Years of ISAF operations and the recent Operation Unified Protector adopted somewhat different processes and introduced new terminology. Last year NATO has started a reviewing process of Collection Management (CM), or more commonly known "CCIRM" (Collection Coordination and Intelligence Requirement Management), publications. UV 12 presented itself as an opportunity for ACT and ACO to jointly look into the CM area. It was decided to superimpose two main Collection Management processes, an Information Requirement and a Collection Coordination process on top of the trial. Based on current NATO doctrine, handbooks, and "best practice", ACT and Specialists from JFC HQ Brunssum and Naples as well as HQ Air Ramstein developed a generic CONOPS describing the way and means of CM. NATO's Intelligence Tool Box and the Norwegian CCIRM tool where the selected tool to support the process.

The Technology Offset

The sharing and timely availability of single or multiple sensor data sets increased flexibility, effectiveness and situational awareness for all network participants. In the past ISR sensor data would feed into a national channel for utilization. Now if this data is shared and follows a NATO standard (STANAG), it can be exploited at different locations. For future NATO operations this means that nations are on the "same picture". Further, it would allow for the distribution of tasks like sensor exploitation amongst nations to stake work and make best use of available capabilities resting with nations.

The Operational Offset

A trial by its nature provides a very controlled environment, therefore allowing the CM specialists to change procedures and tools during the course of the trial. The CONOPS was looked at as a "living document" and continuously updated over the days. The final product will provide the foundation for a revision of the CCIRM Handbook and the Intelligence Allied Joint Publication dealing with Collection Management. Last, such CONOPS development combined with the handling of a national CM tool allowed to generate requirements that will be used to further define NATO Intel Functional Service requirements.

Summary

As nations make new JISR technology available to NATO staff and warfighter, changes have to be done in the way we do business. In order to make optimum use of information coming from different platforms and sensors, the control and management processes for those new capabilities must be examined as well. Results of UV 12 will eventually be reflected in STANAGs, joint publications, handbooks, capability packages requirement, helping NATO nations and partner nations to share JISR products and information, thus preparing the Alliance for tomorrow's challenges.

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