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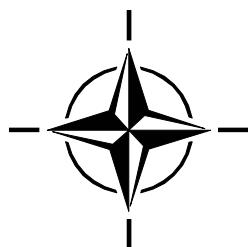
RTO TECHNICAL REPORT

TR-SCI-189

# Validation and Verification of NATO Network Enabled Capabilities

(Validation et vérification des capacités  
réseau de l'OTAN (NNEC))

Final Report of Workshop SCI-189.



Published July 2008





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# **Validation and Verification of NATO Network Enabled Capabilities**

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# The Research and Technology Organisation (RTO) of NATO

RTO is the single focus in NATO for Defence Research and Technology activities. Its mission is to conduct and promote co-operative research and information exchange. The objective is to support the development and effective use of national defence research and technology and to meet the military needs of the Alliance, to maintain a technological lead, and to provide advice to NATO and national decision makers. The RTO performs its mission with the support of an extensive network of national experts. It also ensures effective co-ordination with other NATO bodies involved in R&T activities.

RTO reports both to the Military Committee of NATO and to the Conference of National Armament Directors. It comprises a Research and Technology Board (RTB) as the highest level of national representation and the Research and Technology Agency (RTA), a dedicated staff with its headquarters in Neuilly, near Paris, France. In order to facilitate contacts with the military users and other NATO activities, a small part of the RTA staff is located in NATO Headquarters in Brussels. The Brussels staff also co-ordinates RTO's co-operation with nations in Middle and Eastern Europe, to which RTO attaches particular importance especially as working together in the field of research is one of the more promising areas of co-operation.

The total spectrum of R&T activities is covered by the following 7 bodies:

- AVT Applied Vehicle Technology Panel
- HFM Human Factors and Medicine Panel
- IST Information Systems Technology Panel
- NMSG NATO Modelling and Simulation Group
- SAS System Analysis and Studies Panel
- SCI Systems Concepts and Integration Panel
- SET Sensors and Electronics Technology Panel

These bodies are made up of national representatives as well as generally recognised 'world class' scientists. They also provide a communication link to military users and other NATO bodies. RTO's scientific and technological work is carried out by Technical Teams, created for specific activities and with a specific duration. Such Technical Teams can organise workshops, symposia, field trials, lecture series and training courses. An important function of these Technical Teams is to ensure the continuity of the expert networks.

RTO builds upon earlier co-operation in defence research and technology as set-up under the Advisory Group for Aerospace Research and Development (AGARD) and the Defence Research Group (DRG). AGARD and the DRG share common roots in that they were both established at the initiative of Dr Theodore von Kármán, a leading aerospace scientist, who early on recognised the importance of scientific support for the Allied Armed Forces. RTO is capitalising on these common roots in order to provide the Alliance and the NATO nations with a strong scientific and technological basis that will guarantee a solid base for the future.

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<b>14. Abstract</b>	<p>The purpose of this Workshop (WS) was to bring together members from participating NATO countries to discuss the Verification and Validation (V&amp;V) of a NATO Network Enabled Capability. V&amp;V must be built into the development of network enabled capabilities in an iterative approach starting with the initial concept of operations. Furthermore, as an NNEC collects, processes, integrates and disseminates information, the V&amp;V of an NNEC in essence feeds the research and development of that NNEC. The workshop was convened at Edwards AFB, California, USA on 11-14 Sep 2007. Workshop participating countries included Canada, Estonia, Italy, Netherlands, Spain, Turkey, UK, and USA. The workshop discussed formulated a top level roadmap that included a working definition of NNEC for V&amp;V, definition and prioritization of V&amp;V capabilities, shortfalls, key players, initiatives, and future guidelines. It was agreed to initiate within Working Session C of the SCI panel the activities to address all of the above identified items. This effort should start with an immediate follow-on Task Group to work the details of a V&amp;V of NNEC roadmap. A TAP/TOR for initial task group should be submitted in Oct 2007 for start in April 2008.</p>		





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