# NATO Web Information Services Environment (NATO WISE)

#### PROGRAM DESCRIPTION

North Atlantic Treaty Organization (NATO) Web Information Services Environment (WISE) portal is an open-source, web-based application designed to enable users to easily design, develop, and manage their own web sites, applications, content, and security permissions in real-time. NATO decision makers use WISE as a knowledge management and information flow system. Within a collaborative environment, users can share near real-time information with one another, helping to reduce the time required to search, gather, and understand information and resources.



### **HSI CHALLENGE**

PSE evaluated the NATO WISE system to identify areas in need of improvement. This evaluation focused on observed deficiencies in how NATO WISE supported operators' task requirements, satisfied requests for information, and provided decision support. PSE's specific goals were to improve the NATO WISE humancomputer interface and to enhance situation awareness, knowledge exchange, collaboration, and command decision making.

#### **APPROACH**

PSE conducted a heuristic review of the NATO WISE portal interface. A heuristic review is a usability evaluation conducted by human factors experts who evaluate an interface according to principles and quidelines for interface design. PSE also interviewed and observed NATO WISE users as they interacted with the portal to identify additional usability problems. PSE focused on usability issues that most broadly affect portal use, such as consistency and standards, visibility of portal status, error handling, help documentation, the match between the portal and the real world, and user control and freedom.

## SOLUTION

PSE provided detailed recommendations for improving the effectiveness, efficiency, and ease of use of the NATO WISE portal in terms of both individual user workspaces and the ability to collaborate with other users. PSE made recommendations for a detailed concept of operations (CONOPS), as well as improved training procedures and business rules. PSE also proposed an operational assessment of NATO WISE through knowledge mapping of websites across NATO organizations.

## **BENEFITS**

PSE's recommendations for interface design, training, and business rules made NATO WISE a more powerful, efficient, and effective tool. An improved interface design provided additional functionality and greater ease of use. More comprehensive training and a more complete set of business rules were recommended to enable users to take better advantage of the full capabilities of NATO WISE.

This effort was sponsored by the Space and Naval Warfare Systems Center - San Diego (SSC-SD) for the Office of Naval Research (ONR). Results from this systems engineering effort supported NATO command decision makers and their staffs.

