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# Third Party Test Evaluation for Other Agencies

## Outputs

- Written technical feedback on design and test documents.
- Witnessing of field and factory tests on location.
- Meeting attendance as subject matter experts.

One aspect of ITS's mission is to assist other Government agencies with their communications needs and help them to resolve any telecommunication issues that may arise in achieving their own mission. ITS has acted on many occasions as a third-party evaluator and/or technical communications consultant to other Government agencies. The U.S. Coast Guard project described below is an example of ITS playing such a role.

In FY 2003 ITS provided assistance to the U.S. Coast Guard. The Coast Guard has undertaken a project to modernize and upgrade its current National Distress and Response System (NDRS). This project will enhance the Coast Guard's communication capabilities, provide a common operating environment, and provide Coast Guard personnel with tools to perform their missions. The NDRS is the maritime 911 system for the coastal U.S. and the communications infrastructure for all Coast Guard coastal missions. The new system was originally called the National Distress and Response System Modernization Project (NDRSMP) and is now titled Rescue 21. Rescue 21 will consist of many regions along the U.S. coast and waterways. Each region will have a Group Communications Center (GCC) that is networked to a Search and Rescue Station and several Remote Transceiver Sites. Rescue 21 is a hybrid communications system composed of wireless and wired components. A typical operational scenario of Rescue 21 is shown in the figure on the next page.

Rescue 21 is in the Developmental Testing and Evaluation (DT&E) Phase. DT&E includes two tests, a Formal Qualification Test (FQT) at the contractor's facility and a System Integration Test (SIT) in the field. ITS is providing technical assistance in reviewing the test plans and procedures as well as

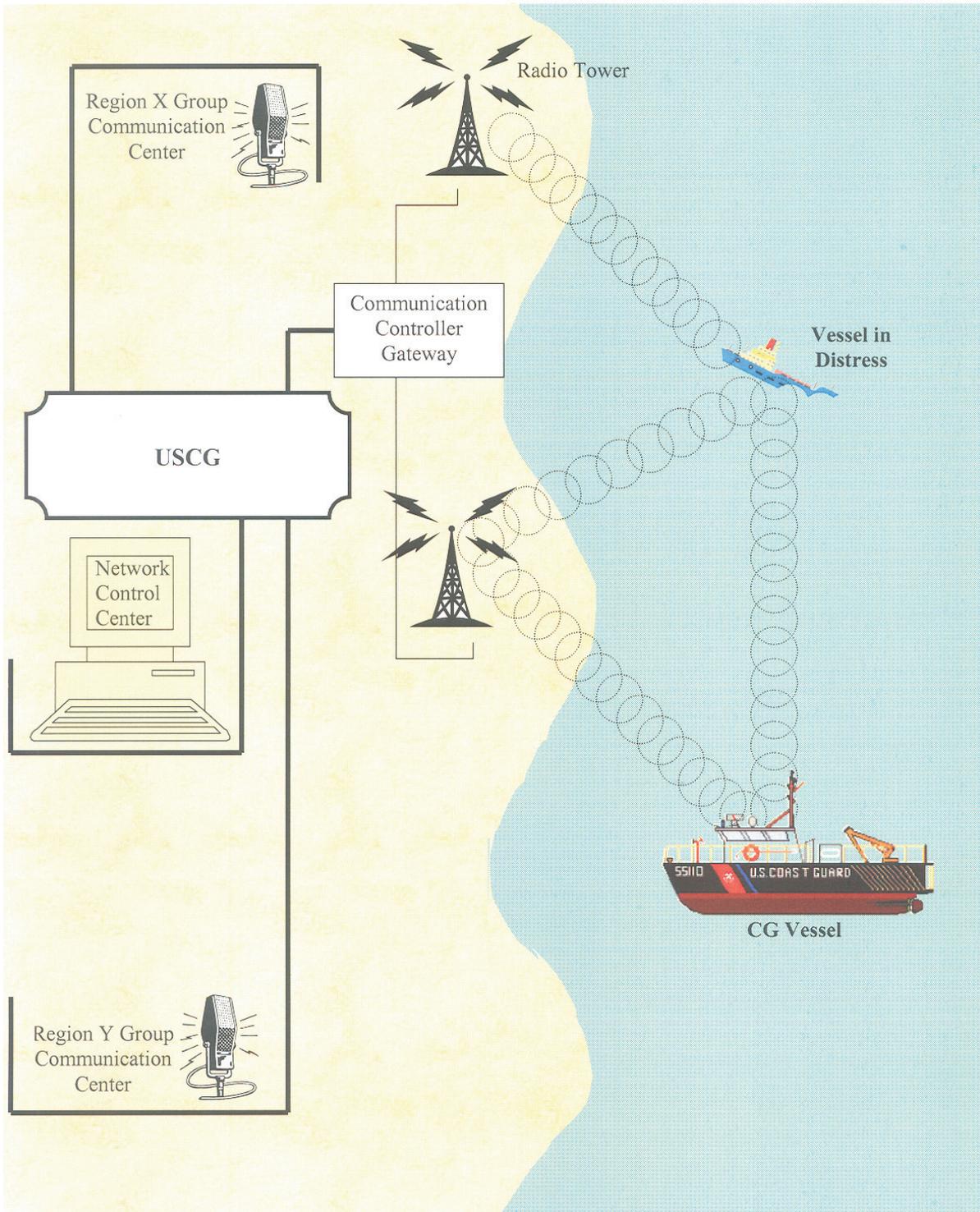
design documents and various analyses provided by the contractor to the Coast Guard. The Coast Guard is planning on installing the first field sites for test under the SIT in FY 2004.

ITS focused its technical feedback to the Coast Guard in the following technical areas: performance, availability, RF coverage and propagation models, P25 specifications and requirements, potential RF interference, and direction finding (DF).

In general, ITS can assist other agencies in the following areas:

- Request for Proposal Writing
- Proposal Evaluation
- Design Specification Writing and Evaluation
- Test Plan and Test Procedure Writing and Evaluation
- RF Coverage Analysis
- Propagation Model Comparison
- Test Parameters and Sampling Requirements Determination
- Independent RF Tests and Monitoring
- Voice and Video Quality Tests
- Network Analysis
- Security and Encryption
- Availability and Performance Analysis

ITS continues to provide technical feedback on design documents, analyses, test plans and test procedures, helping the Coast Guard verify the feasibility of the system and whether or not specifications and technical requirements were met contractually. ITS will also act as a third-party test evaluator for the FQT and SIT portions of the Rescue 21 project, witnessing those tests along with Coast Guard representatives.



*Typical operational scenario for the U.S. Coast Guard Rescue 21 system. The GCC system design main network components are RF, Gateway, Coast Guard Data Network (CGDN), Router, LAN and DB Server.*

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