

## **OBJECTIVE**

DETERMINE THE SIGNIFICANCE OF  
QUANTITATIVE KNOWLEDGE OF  
ENVIRONMENTAL PARAMETERS TO  
NAVAL WEAPONS AND NAVAL WARFARE

### **Terms of Reference Importance of Environmental Data**

This briefing summarizes the findings and recommendations of the Naval Research Advisory Committee (NRAC) 1988 Summer Study Panel on the Importance of Environmental Data. The background statement and specific tasking provided to the panel follow.

1. General Objective. Determine the significance of quantitative knowledge of environmental parameters to naval weapons and warfare.

2. Background. It is widely recognized that ASW techniques and equipment are dependent upon acoustic properties. Therefore, it has been postulated that precise knowledge of the acoustic properties of specific bodies of water could significantly enhance the effectiveness of our Anti-Submarine Warfare (ASW) forces. Similarly, since the atmospheric environment controls the propagation of Radio Frequency (RF) energy, it has been postulated that naval forces can fight more effectively if they can reliably estimate these factors. Lasers and other advanced weapons and sensors are equally influenced by the natural environment.

3. Specific Tasking.