



Site Selection and Range Installation

How were potential sites for the Undersea Warfare Training Range (USWTR) identified?

The first step for the Navy in identifying potential sites for the USWTR was to define the characteristics that make an effective range. Generally, the Navy needs an ocean area that is large enough to conduct the training, has suitable water depth, and is reasonably close to the Atlantic Fleet’s primary homeport and training areas. Several broad areas were identified that would satisfy these requirements.

Next, specific sites within these broad areas were identified and each site was evaluated with respect to a number of factors, including Navy air station proximity (due to aircraft refueling limitations), weather conditions, and availability of shore landing sites and infrastructure. Through this site selection process, the Navy identified four potential locations for the USWTR (see inset map), all outside of US territorial waters:

- Site A: Offshore of northeastern Florida (range center 57 nautical miles [NM] offshore)
- Site B: Offshore of South Carolina (range center 52 nm offshore)
- Site C: Offshore of southeastern North Carolina (range center 48 NM offshore)
- Site D: Offshore of northeastern Virginia (range center 46 NM offshore)

The possibility of locating the USWTR far offshore adjacent to an existing deep-water range was examined and eliminated, as the deep-water range did not meet the depth criterion.

What is the Navy’s operationally preferred location for the USWTR?

The Navy prefers the site offshore of Florida for operational and training reasons. Site A is closest to the machines and personnel that will be the primary users of the range. Therefore, Site A provides the most realistic training opportunities for the Atlantic Fleet.

Why were different locations, or alternatives, for the USWTR considered in the environmental impact statement (EIS)?

The analysis of alternatives is the heart of an EIS, because the purpose of the EIS is to provide decision-makers and the public with clearly-defined issues and the bases for decisions made in designing the project. The Navy identified four potential USWTR sites (shown below) previously discussed as reasonable alternatives that require detailed analysis in the EIS.



What will be involved in building the USWTR?

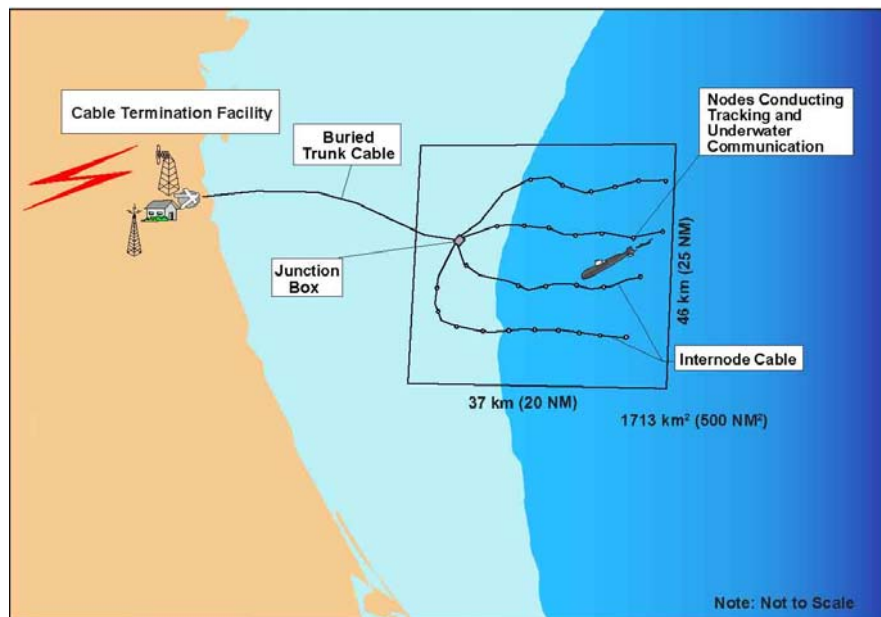
The USWTR is an instrumented ocean range, the concept of which is described in Fact Sheet No.2. The range would consist of approximately 300 underwater transducer nodes, installed on the ocean floor over a 500 NM² area. The nodes are capable of both receiving and transmitting sound (transducers convert one form of energy into another, much like a telephone converts sound into an electrical signal). The distance between nodes would vary from 1 to 3 NM, depending on water depth. The overall configuration, or physical layout, of the nodes would accommodate local geographic conditions and area activities such as fishing.

The underwater nodes would be connected with commercial fiber optic undersea cable roughly 1" in diameter, such as that used by the telecommunications industry. A total of roughly 600 NM of cable would be used between nodes of the USWTR.

Interactions with fishing gear are possible, but the USWTR range design minimizes impacts within bottom-fishing areas by burying the cables three feet under the ocean floor, and designing nodes to be trawl-resistant.

Ocean-bottom burial equipment would be used to cut (in places where the bottom is hard) or plow (where bottom sediment is soft) a furrow approximately 4" wide. The cable would be placed into this trench. The landside portion of the trunk cable would be buried and would terminate in a small building, referred to as the cable termination facility. From there, information gathered on the USWTR would be transmitted via an existing microwave datalink to the Fleet Area Control and Surveillance Facility Virginia Capes (FACSFAC VACAPES), located in Virginia Beach, Virginia and then to Naval Air Station Oceana, Virginia.

Construction of the USWTR will take place in one to three design/build phases. If work is done in three phases, each phase would take approximately three years. During each three-year period, the construction, or installation,



would take about six months. The initial installation, would cover 200 NM² (and construction of the landside facility), followed by a second installation phase of 200 NM², and a third and final installation of 100 NM².

Because of the size and operational requirements, for the first three to six years, the range would likely only be used in a limited manner. The analysis conducted in the EIS addresses full usage of the range once all construction has been completed.

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