

**Florida Division of Historical Resources**  
**Performance Standards for Submerged Remote Sensing Surveys**

Version 2.1, last updated 05/17/01

Remote Sensing Surveys conducted for the purposes of identifying submerged cultural resources shall conform and adhere to the following standards unless otherwise approved by the Division of Historical Resources (Division). *All* surveys conducted on state lands are required to obtain a permit for such surveys from the Florida Bureau of Archaeological Research, pursuant to Section 267.12, *Florida Statutes*, and Chapter 1A-32, *Florida Administrative Code*. The field director of such surveys is required to meet the professional standards set forth in the *Secretary of the Interior's Standards for Professional Qualifications*. All reporting of survey results will comply with those standards set forth in 1A-46, *Florida Administrative Code*. Archaeologists must be aware that additional federal permits or licenses may be necessary prior to the initiation of archaeological surveys.

- (1) **Archival Research.** Prior to conducting fieldwork, the following steps should be taken;
  - (a) Consult existing archaeological site files for previously recorded sites within the permit area. Site files may be obtained from the Florida Master Site File (FMSF), Florida Division of Historical Resources at (850) 245-6440.
  - (b) Consult in writing FMSF to determine if properties listed on, being considered for listing on, or determined eligible for the National Register of Historic Places are located within or near the permit area. Such consultation shall include an accurate project location map of an appropriate scale for reference purposes.
  - (c) Consult other documents, maps, records, or local experts as necessary to determine the known history and prehistory of the area.

## **(2) Field Survey**

- (a) Conduct an underwater remote sensing survey of the entire permit area to locate objects, vessels, or sites of potential prehistoric or historic significance. For purposes of determining legal jurisdiction for cultural resources, Florida exerts jurisdiction over waters extending three (3) statute miles into the Atlantic Ocean and three (3) leagues into the Gulf of Mexico.
- (b) The initial survey shall include a magnetometer, sidescan sonar, and sub-bottom profiler survey of the area, global positioning system (GPS), and a depth finder technologies. This equipment should be integrated into a system that can correlate all remotely sensed data. High-resolution shallow seismic profiler records can be correlated to solid coring data, but are not necessary during the initial survey of an area. If sub-bottom profiler records indicate high potential of buried cultural materials, coring and/or limited test excavations may follow once the initial survey is completed, and the results reviewed in consultation with the SHPO.
- (c) The reconnaissance survey should be conducted by a trained and experienced geophysical technician qualified to operate and interpret the magnetometer, dual-channel sidescan sonar, and sub-bottom profiler data, as well as to keep accurate horizontal locational positioning during the progress of the survey. Final interpretation of the data and a report of the survey results must be prepared by a qualified marine survey archaeologist.
- (d) Initial reconnaissance survey procedures shall consist of line spacing not to exceed fifty (50) meters during offshore (>100 fsw), and thirty (30) meters during inshore (<100 fsw) survey operations. When anomaly patterns are located during the survey, a sufficient number of lines shall be run to insure any anomaly clusters are fully defined. If the permit or survey area includes shore erosion zones or anchorage areas, these shall be fully surveyed.
- (e) 'X' and 'Y' coordinates of all anomalies recorded during the survey shall be listed in a table and plotted on maps of sufficient scale and detail to allow for easy relocation should identification and evaluation studies or anomaly avoidance and preservation be required. The location of shore-based survey and/or horizontal positioning stations shall be noted, should they need to be reestablished for later reference or use.
- (f) Locations of submerged or abandoned river, stream, or creek channels, sinkholes or other natural geomorphic features having sediment traps that are identified through evaluation of sub-bottom data should be plotted to show their extent. Cross section maps showing definable strata should be prepared for each target. Any small targets that produce hard echoes compared to the normal background signal of the area being surveyed should be plotted.

- (g) Sidescan sonar signals should be identified. Wreckage of a ship, rock outcrops, open sinkholes, or other surface features that either represent known or potential archaeological remains, should be plotted on the map and listed in a table that includes height above the bottom and a central 'X' and 'Y' coordinate fix.

### **(3) Report Content and General Format**

- (a) The report shall note the nature of the proposed project, its location (including a project location map), and the reason for conducting the survey including the applicable state and federal laws and regulations being complied with. The report will comply with those standards set forth in 1A-46, *Florida Administrative Code*.
- (b) The methodology used for data collection shall be described in sufficient detail for a reviewer to understand what was done and why. This shall include, but not be limited to, a discussion of survey equipment used, weather conditions, survey procedures, types of data collected, recording techniques, and any special analytical methods and techniques.
- (c) The report will contain a brief discussion of the prehistory and history of the general area of the permit action, with specific reference to any known vessel losses or inundated terrestrial sites in the area. This information should be used to correlate remote sensing data collected during the survey with potential prehistoric and historic archaeological sites.
- (d) The report shall contain an inventory of all anomalies located by the magnetometer, sidescan sonar, and sub-bottom profiler, and a discussion of the results of any ground truthing or other investigation of identified anomalies. Recommendations for additional evaluation of anomalies shall be prepared with supporting documentation, which should include water depth to target, depth of burial, and types of equipment necessary to uncover and/or identify the target.
- (e) The report shall include a statement of conclusions on the location of potentially significant cultural resources, the need for any additional work to assess site significance, and measures to be taken to avoid/preserve or mitigate project impacts to identified or significant and/or potentially significant site locations.
- (f) The report must be signed by the marine survey archaeologist responsible for its contents.

### **(4) Submittal of Report**

- (a) One (1) copy of the survey report shall be submitted to the Division for review and coordination. Submission of revised drafts may be required based on reviewer's comments.

(b) Submission of survey data (i.e., magnetometer and sonar records or logs) may be required.

(c) Unless otherwise specified, reports and supporting data shall be sent to:

*Robert F. Bendus*  
*State Historic Preservation Officer*  
*Division of Historical Resources*  
*R. A. Gray Building, 4th Floor*  
*500 South Bronough St.*  
*Tallahassee, FL 32399-0250*  
*(850) 245-6300*

**(5) Ground Truthing of Potentially Significant Underwater Anomalies**

(a) When potentially significant underwater anomalies are identified during the course of the survey, it will be the recommendation of the Bureau of Historic Preservation's Review and Compliance Section and the Bureau of Archaeological Research, that the anomalies be ground-truthed and assessed as to their archaeological significance. The resultant report(s) must be forwarded to the Bureau of Historic Preservation's Review and Compliance Section in order to complete the process of reviewing the future impact of a project on underwater archaeological resources.