Queen Anne's Revenge Field Operations – May 2010

Chris Southerly, Chief Archaeologist/Field Director

I. Purposes/Goals

a. Locate mooring blocks and attach moorings for upcoming Dive Down programs.
b. Take corrosion readings from anchors and cannon currently under study.
c. Replace current aluminum-alloy anodes used in the passive corrosion study with a more appropriate type of aluminum alloy for *in situ* corrosion treatment.
d. Excavate and expose cannons in the south holding area to begin *in situ* corrosion treatment and monitoring.
e. Excavate and expose main ballast pile cannons and anchors to begin *in situ* corrosion treatment and monitoring.
f. Collect sand elevations from established locations.
g. Allow site access to Grand Angle Productions (French company) for documentary shooting.

II. Participants (approved divers are in **bold**)

a. NC UAB-*QAR*
    i. **Chris Southerly** – *QAR* Chief Archaeologist, Field Operations Director, Dive Supervisor
    ii. **Mark Wilde-Ramsing** – *QAR* Project Director; UAB Archaeologist
    iii. **Richard Lawrence** – UAB Archaeologist Supervisor; NC Deputy State Archaeologist, Underwater
    iv. **Nathan Henry** – UAB Archaeologist, Conservator
    v. **Julep Gillman-Bryan** – UAB Dive Safety Officer, Vessel Captain
    vi. **Wendy Welsh** – *QAR* Conservator
    vii. Karen Browning – *QAR* Digital Technology Specialist
    viii. Madeline Spencer – UAB/*QAR* Office Administrator
b. Friends of *Queen Anne's Revenge*
    i. **Lauren Hermley** - Director
c. North Carolina Maritime Museum
    i. **Dave Moore** – Maritime Archaeologist
    ii. Joe Schwarzer – Museum Director
d. Nautilus Productions
    i. **Rick Allen** – Producer/Videographer
e. Discovery Diving Company (M/V *Captain's Lady*)
    i. Leroy Craytor – Captain, Vessel Operations, Surface Support
    ii. As Assigned – Mate, Vessel Operations, Surface Support
f. Atlantis Charters (M/V *Atlantis IV*)
    i. Bobby Edwards – Captain, Vessel Operations, Surface Support
    ii. Renate Eichinger – Co-captain, Vessel Operations, Surface Support
g. Intersal, Inc.
    i. John Masters – Communications Liaison
h. Grand Angle Productions
    i. Herle Jouon – Producer
    ii. Loic Houeix – Camera
i. US Coast Guard Sector North Carolina - Fort Macon
    i. CAPT Anthony Popiel – Sector Commander
    ii. CDR Brian Thompson – Deputy Sector Commander
    iii. CDR Derek D'Orazio – Logistics Department Head
    iv. MKCS Guy Brunell – *QAR* Project Liaison, *de facto* "dock master"
j. Fort Macon State Park
    i. Randy Newman – Park Superintendent
    ii. Cleta Buck – Park Office Administrator

III. Decision Making/Authority

a. Project Operations – The field director has supervisory oversight and final authority over all project operations.
b. Vessel Operations – The vessel captain(s), in consultation with the field director and diving supervisor(s), have final authority regarding cancellation or termination of field operations because of adverse sea or weather conditions.
c. Diving Operations – All diving operations will adhere to the guidelines set forth in the NC UAB Diving Safety Manual (2004 revision). The UAB diving safety officer will have final authority regarding cancellation or termination of diving activity. The diving safety officer, with advisement from the Diving Control Board, will have final authority to determine individual diver competency (staff or visiting) to participate in diving operations.
d. *In Situ* Corrosion Treatment – The field conservator will direct the setup and monitoring of large artifact corrosion treatment in conjunction with field, vessel, and diving supervisors.
e. Artifact Recovery – The field director in conjunction with the field conservator will be responsible for determining recovery status and procedures for any artifact or object according to conservation/documentation protocols and within the operational parameters of the vessel captain.
f. Internal Communication – The field director, or designate, will coordinate any necessary communication with state archaeologist, Steve Claggett; NCMM director, Joe Schwarzer; and DCR public affairs office, Fay Mitchell.
g. External Communication – The project director, or designate, will be the primary point of contact for media interviews and scheduling.

IV. Methodology

a. Reconnaissance – All areas will be carefully examined for erosive scour and any newly exposed remains will be mapped. No excavation is anticipated in these areas. Only exposed artifacts deemed diagnostic or fragile/endangered will be considered for recovery.
b. Elevations – Sand level data will be collected at established locations.
c. Excavation – Sand overburden will be removed with a 6-inch water-induction dredge and placed off site in designated areas. No excavation will extend into the cultural layer or previously undisturbed areas of the site.
d. Mapping/Documentation – Artifacts considered for recovery will be tagged and labeled by a documentation diver, then mapped and plotted relative to the site grid system. Once fully documented the object may be recovered.
e. Recovery – All artifacts to be recovered will follow the Conservation and Artifacts Documentation Protocol established by the *QAR* Conservation Lab.
f. Photography/Videography – Digital images will be taken of all excavation areas as visibility allows to document orientation of artifacts. Additional "working" images will document any excavation, mapping, and corrosion treatment as visibility allows.
g. Standardized daily work logs will be kept for all operations.

V. Logistics

a. Vessels
    i. R/V *Snap Dragon II* will be the lead vessel and primary research/diving platform.
    ii. M/V *Captain's Lady* will be the primary excavation platform and secondary diving platform.
    iii. M/V *Atlantis IV* will be the primary media/video platform and secondary research/diving platform.
    iv. *Snap Dragon II* will operate from the USCG Station Fort Macon, while *Captain's Lady* and *Atlantis IV* will operate from their home ports of Beaufort and Atlantic Beach respectively.
b. Operations
    i. Site Setup
        1. Moorings will be placed on appropriate attachment points: West, North, East, South, SW-RR, NE-RR, and/or East Screw-eye.
        2. Baseline will be laid and reference lines from the moorings to the baseline will be placed for convenience and low visibility navigation.

3. Transect and offset lines will be trilaterated from the baseline as necessary for diving operations.

ii. Mapping
   1. The site will be subject to visual reconnaissance and all previously unmapped areas (recently uncovered), will be drawn and measured in to the baseline for updates to the site map.
   2. No artifact will be removed until fully recorded by a documentation/recovery diver.

iii. Excavation
   1. Excavation will be done by a diver-controlled water induction dredge system.
   2. A portable centrifugal pump on M/V *Captain's Lady* will be used to power a 6" induction dredge.
   3. Sand overburden will be placed in a designated area off the site, accessible for excavation backfilling.
   4. Excavation within any undisturbed cultural layer will not be conducted.

iv. Digital Photography/Videography
   1. Film/slide photography will not be used during this operation.
   2. Photography will be done using a digital camera in an underwater housing.
   3. Video will be done using a HD digital camera system.
   4. Still camera downloads will take place immediately post dive to the UAB laptop for photo review and the photographer/diver will coordinate with the documentation technician to create a text reference file of the shots at that time.
   5. Digital imagery will be done of any exposures from recent erosive scour.
   6. Backups will be made of all digital imagery to a secondary recording device at the end of each day and prior to deletion from camera storage media.

v. Field Conservation, Stabilization, Documentation
   1. All artifacts recovered will follow the Conservation and Artifacts Documentation Protocol established by the *QAR* Conservation Lab.

vi. Diving
   1. All diving operations will conform to the guidelines set forth by the NC UAB Diving Safety Manual and will be conducted on open-circuit SCUBA.
   2. All working divers will be equipped with full-face mask and wireless communications.

vii. Shore support
   1. Monitoring of site operations will be done via the site security camera from the *QAR* office at IMS.
   2. Air fills for empty SCUBA cylinders will be obtained from Discovery Diving of Beaufort.

c. Personnel Housing and Meals
   i. UAB staff will have accommodations available at the Fort Macon State Park barracks.
   ii. Project personnel will have meals available at the Fort Macon Coast Guard Station galley at standard galley rates.

VI. Public Relations

a. A mutually agreeable public statement about the expedition will be discussed and decided upon prior to the initiation of fieldwork regarding:
   i. Purpose
   ii. Contributors
   iii. Expected Results
   iv. Continued Work
b. Office of State Archaeology and Underwater Archaeology Branch supervisory personnel will determine the content of the above statement.
c. The field director or project director will be the primary points of contact for media interviews and scheduling.
d. All personnel likely to interact with the public or press will be briefed on the above expedition statement.

e. Official press releases will be channeled through Fay Mitchell at the DCR Office of Public Affairs.
f. Active outside media participation during the project is not encouraged.
g. All media contacts will be reported promptly to the DCR Office of Public Affairs and the State Archaeologist.

VII. Planned Operation Time

a. 03 May 2010 – 07 May 2010.
b. Daily operations will commence by 0800 with individual vessels rendezvousing at the entrance to the USCG Station Fort Macon.
c. Vessels may rendezvous on site as appropriate to operations.
d. Field operations will cease in time to allow vessels to leave the site by 1530 to return to dock, unless work and conditions dictate otherwise.
e. Monday, 03 May will be the travel/setup day for personnel and equipment.
f. Tuesday – Thursday, 04-06 May will be full operational days on site.
g. Friday, 07 May will be the breakdown/travel day and weather backup day for operations.