DeepPIV on MiniROV Deployment #14 Checklist
v 3.0.0 26April16
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Dive Objective: Test DeepPIV system on midwater dive.
- camera out of focus
- few animals

Deployment Date: 04-28-16
Recovery Date: 04-28-16
Person performing topside checklist: KAKANI KATIJA

Pre-deployment:

1. Ensure that comm and power systems on MiniROV are functioning normally
2. Verify laser and camera alignment
   - a. ✓ Place protective shroud around DeepPIV instrumentation
   - b. ✓ Remove protective covers on laser and camera housings
   - c. ✓ Check that housing markings on laser and camera housing are aligned
   - d. ✓ Power up the laser
     - i. Rotate the dial to 2 V in Laser dialog tab
     - ii. Record output of ADC: 1950
   - e. ✓ Using digital level, compare laser sheet alignment with glass port on camera housing
     - i. Record digital level reading on laser sheet: 89.8
     - ii. Record digital level reading on camera housing: 89.8°
   - f. ✓ Power down the laser
   - g. ✓ Replace protective covers on laser and camera housings
   - h. ✓ Remove protective shroud from DeepPIV instrumentation
3. Run predive test program and verify correct operation of the following systems:
   - a. MiniROV LED lights
   - b. Science camera (adjust zoom, focus, shutter speed, and IR filter settings)
   - c. DeepPIV camera (ISO, shutter speed, f-stop, record)
   - d. AJA HD recorder (record, stop, playback)
   - e. Dye injector/vortex generator (disconnect tubing if dye injector being used, move piston, reset piston, set different increments)
   - f. ✓ Sizing lasers (measure separation at multiple distances)
4. ✓ Sync all components (including Science and DeepPIV camera) with ship's NTP
5. Start MiniROV dive log
6. ✓ Check that all cable connectors and dummies are installed and tight
7. ✓ Check that all dye/vortex generator tubing is installed and tight
8. ✓ Open all dye valves and connectors
9. ✓ Remove protective covers on laser and camera housings
10. Check that the MiniROV tool sled is secure

11. Check for tools left on and in MiniROV frame.
12. Remove MiniROV hold-down straps.

Deployment:

1. Start AJA recorder
2. Deploy MiniROV, noting exact time and position of launch.
   a. MiniROV launch time: 8:58 PDT
   b. Latitude: 36 46.79 N deg
   c. Longitude: 122° 0.92 W deg
3. Record time it takes for MiniROV to submerge: _____
4. Dive plan: refer to _____

Recovery:

5. Check that the laser is powered down
6. Complete MiniROV dive log
7. Stop recording video with AJA
8. Recover MiniROV
9. Secure MiniROV and DeepPIV on the ship deck
10. Record the time that MiniROV is on deck: 12:58 PDT
11. Close all dye injector/vortex generator valves
12. Replace protective covers for laser and camera housings