# Physical Specifications

<table>
<thead>
<tr>
<th></th>
<th>IMU</th>
<th>PCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>204 x 204 x 168mm</td>
<td>441 x 111 x 346mm, 2.5U 19&quot; rack mount</td>
</tr>
<tr>
<td>Antenna</td>
<td>178 Ø x 77mm (2x)</td>
<td></td>
</tr>
<tr>
<td>Choke Ring</td>
<td>360 Ø x 61mm (2x)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>3.5 Kg</td>
<td>7 Kg</td>
</tr>
<tr>
<td>Power</td>
<td>110/220 VAC, 60/50 Hz, 60W</td>
<td></td>
</tr>
<tr>
<td>Operating Temp.</td>
<td>IMU &amp; Antennas -40°C to +60°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PCS 0°C to +60°C</td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td>IMU &amp; Antennas 0 to 100%</td>
<td></td>
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<tr>
<td></td>
<td>PCS 5 to 95% RH non-condensing</td>
<td></td>
</tr>
<tr>
<td>Cables</td>
<td>IMU 8m standard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Antennas 15m standard (2x)</td>
<td></td>
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</tbody>
</table>

**Placement:**

PCS AND ASSOCIATED ELECTRONICS WILL BE PLACED IN A 22"X36"X24" CABINET TO BE INSTALLED ALONG STBD BULKHEAD OF THE HELO CONTROL SHACK APPROX FRAME: 115 THE IMU WILL BE INSTALLED ON THE DECK IN THE FORWARD STBD CORNER OF THE HELO CONTROL SHACK.
MAST SPECS:
VERTICALS:
SCHEDULE 80 EWR PIPE
DIAMETER: 6"
HEIGHT: 9FT 6 IN
WEIGHT:~400LBS (~20lbs/ft)
STRUTS:
SCHEDULE 80 EWR PIPE
DIAMETER: 4"
LENGTH: 40 FT
WEIGHT: 320lbs (~8lbs/ft)
CROSS PIECE:
8X6X½ STRUCTURAL ANGLE
LENGTH: 15FT
2 PREDRILLED 1" DIAMETER
HOLES 4.5M+/-1MM (14.765 FT)
APART

CABLES:
WELDED CABLE CLAMP
MOUNTS TO DECK
NELSON FIRE STOP TYPE
DECK PASS-THRU

Instrument Laboratory
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of Columbia University
61 Route 9W
Palisades, NY 10964

USCGC HEALY POS/MV INSTALL
ANTENNA MAST

Drawn: DATE
FEB 2004
AUTHOR: VAL SCHMIDT

<table>
<thead>
<tr>
<th>SIZE</th>
<th>FSCM NO</th>
<th>DWG NO</th>
<th>REV</th>
<th>SCALE</th>
<th>SHEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>None</td>
<td></td>
<td></td>
<td>None</td>
<td>4 OF 10</td>
</tr>
</tbody>
</table>
ELECTRONICS
ELECTRONICS CABINET:
SHOCK MOUNTED,
“19 IN COMPUTER RACK” TYPE CABINET
DOOR FACING FWD

IMU MOUNTING PLATFORM:
STEEL MOUNTING PLATE
(SEE TEMPLATE FOR DIMENSIONS)
(SEE ADDITIONAL PAGES FOR EXACT
PLACEMENT)
WEIGHT: 40 LBS (EST)

CAGE:
DIMENSIONS: 18” X 12” X 18”
WEIGHT: 10LBS (EST)
CAGE SHOULD SURROUND IMU ALLOWING FOR
CABLING ACCESS (TO PT/STBD/AFT?). TOP
SHOULD BE HINGED FOR IMU REMOVAL

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Lamont-Doherty Earth Observatory
of Columbia University
61 Route 9W
Palisades, NY 10964

USCGC HEALY POS/MV INSTALL
HELO CONTROL ELECTRONICS INSTALLATION

Drawn: DATE
FEB 2004
AUTHOR: VAL SCHMIDT

SIZE | FSCM NO | DWG NO | REV.
-----|---------|--------|-----
A     |         |        |     

SCALE | SHEET
None   | 5 OF 10
IMU INSTALLATION:

Attach the IMU to the mounting location using four 0.25 in (6.35 mm) pan head bolts inserted through the fixing holes in the base plate, isolating the IMU from the hull by way of an electrically non-conductive material if possible. Use flat and shake proof washers under the IMU mounting screws. Make certain that you place the flat washers (not shake proof washers) in direct contact with the IMU base plate.

Tighten the mounting bolts in a uniform manner, exercising care not to over torque. Avoid warping the IMU base plate.

If it is impractical to electrically isolate the IMU completely from the vessel, attach a ground strap between the IMU ground connection screw and the hull of the vessel to ensure adequate electrical noise protection.
AFT STBD CORNER OF HELO CONTROL SHACK DECK

VIBRATION ISOLATION MOUNTS

CPU RACK PLACEMENT

Cable Way

USCGC HEALY POS/MV INSTALL

IMU BASEPLATE

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Palisades, NY 10964

Drawn: DATE
FEB 2004

AUTHOR: VAL SCHMIDT

SIZE | FSCM NO | DWG NO | REV
--- | --- | --- | ---
A | | | 

SCALE | SHEET
--- | ---
None | 7 OF 10
UPS (2)
WEIGHT: 100LBS
PLACEMENT:
1) ONE HELO CONTROL SHACK ELECTRONICS SUPPORT STRUCTURE
2) ONE IN MAIN LAB
DIMENSIONS: 19" X 2U (~4")
PWR: 120 V 60 Hz 660 WATTS

MEDIA CONVERTERS (6)
(SERIAL-ETHERNET-FIBER)
WEIGHT: 0.5 LBS
PLACEMENT:
1) THREE IN HELO CONTROL SHACK ELECTRONICS SUPPORT STRUCTURE
2) ONE IN MAIN LAB, EXACT LOCATION TBD
3) TWO IN COMPUTER LAB, EXACT LOCATION TBD
PWR: POWERED INLINE FROM SERIAL

SERIAL BROADCAST UNITS (3)
WEIGHT: 1LB
PLACEMENT: COMPUTER LAB, EXACT LOCATION TBD.
PWR: 120V 1W

NAVIGATION SYSTEM PC (1)
WEIGHT: 30LBS
PLACEMENT: COMPUTER LAB, W/IN ALREADY INSTALLED RACK AT FWD END.
PWR: 120V, 300W

VIDEO MONITOR (1)
WEIGHT: 25 LBS
DIMENSIONS: 22"X17"X8"
POWER: 120V 150W
PLACEMENT:
1) COMPUTER LAB, PORT SIDE BULKHEAD BETWEEN SEABEAM AND ADCP RACKS

FIBER OPTIC CABLE
WEIGHT: 35LBS/1000FT
PLACEMENT:
12 PAIRS OF FIBER (SOME FOR LATER EXPANSION) WILL BE ROUTED FROM THE HELO CONTROL SHACK TO THE MAIN LAB. THESE WILL PASS VIA EXISTING CABLE WAYS AND PASS-THROUGHS ACROSS THE HELO HANGER CEILING TO SBTD, DOWN THE STBD SIDE TO THE MAIN LAB BELOW. TWO OF THESE FIBER PAIRS WILL CONTINUE ON TO THE COMPUTER LAB.
R/V Healy - General Installation Notes for POS/MV GPS Antenna.

1. Proposed General Location for this assembly is atop the Helicopter Control Shack as designated on update of sheet 4 of CG Dwg. 420-WAGB 405-001, General Arrangement of Antennas.

2. As noted on sheet 4 of this document the proposed athwart ships location is centered at frame 113.

3. If installation requires that antenna be moved from proposed location the, size and location of Up right Deck pads to be adjusted such that deck plate lies atop a frame or spans across two frames in the fore & aft direction.

4. Movement of Port and Starboard Allied Cranes shall be limited either by alterations to controls or by operator placard to prevent cranes from passing within a 1 M distance of the ends of the cross bars.

5. Fabrication and installation shall be performed on site such that the cross bar is not deformed or stressed during installation.

6. Climbing rungs of an approved type shall be furnished for both mast up rights.

7. Approved cable clamps suitable for TBD cable shall be provided.

8. See Specifications for the Drydock and Repair of USCGC Healy for appropriate list of Applicable documents. Also on page TBD of this document.

9. Nelson Fire stop(s) Part number(s) TBD.

10. Mounting locations for Nelson Fire Stops to be indicated on CG Dwg # TBD.