

*ATTACHMENT J-7*

**NOAA SWATH  
Coastal Mapping Vessel (CMV)**

**Government Furnished Information**



Revision 02

**April 2, 2007**

**United States Department of Commerce  
National Oceanic and Atmospheric Administration**

Revisions

|         |                  |  |
|---------|------------------|--|
| Rev 01a | January 12, 2005 | Added Equipment Make and Model Numbers                             |
| Rev 02  | April 2, 2007    | Incorporated Special Study 8 Equipment and Dec 2006 Clarifications |

**491. Mission Electronics**

*Text in Red are revisions by NOAA -----Additions in Blue Italics by VTHM Electrical Dept (Mic McConnell)*

Government mission equipment includes:

| Description  | Equip Make                                     | Model No. or Equal                    | Installation Location                         | Quantity | Size                                 | Weight (Per Unit) | Power                                     | Power Source          | System Interface       | Foundation Req'd | Aux Sea Water       | Potable Water | Remote Controllers | Working Load | Drains | Total Weight (kg) |
|--|--|---------------------------------------|---|----------|--------------------------------------|-------------------|---|-----------------------|------------------------|------------------|---------------------|---------------|--------------------|--------------|--------|-------------------|
| <b>a. Mission DGPS</b>   |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| GPS Receivers  | Trimble  | DSM132                                | Charting Lab Rack                             | 2        | <i>5.7 W x 2.0 H x 7.7 D inches</i>  | <i>0.76 kg</i>    | <i>10-32VDC 7W (max)</i>                  | <i>Scientific UPS</i> | Mission Fiberoptic LAN | Rack Mounted     | None                | None          | None               | None         | None   | 1.52              |
| Antenna  | Trimble  | DSM132                                | Contractor Located                            | 2        | <i>6.1 D x 5.5 H inches</i>          | <i>0.55 kg</i>    | -   | -                     | NA                     | Yes              | None                | None          | None               | None         | None   | 1.10              |
| <b>b. GPS Aided Inertial Navigation System</b>   |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| PCS  | Applanix Marine                                | POS / MV320 Version 4                 | Charting Lab Rack                             | 2        | <i>17 x 3.5 x 14.05 inches</i>       | <i>5 kg</i>       | <i>110-230 VAC 80W 50/60Hz</i>            | <i>Scientific UPS</i> | Mission Fiberoptic LAN | Rack Mounted     | None                | None          | None               | None         | None   | 10.00             |
| Inertial Measurement Unit (IMU)  | Applanix Marine                                | IMU                                   | In lower hull above each Multibeam Transducer | 2        | <i>7.95 x 7.95 x 6.55 inches</i>     | <i>3.5 kg</i>     | -   | -                     | NA                     | Yes              | None                | None          | None               | None         | None   | 7.00              |
| Antenna  | Applanix Marine                                |                                       | Contractor Located                            | 4        | <i>7.4 x 2.1 inches</i>              | <i>0.5 kg</i>     | -   | -                     | NA                     | Yes              | None                | None          | None               | None         | None   | 2.00              |
| <b>c. Master Clock</b>   |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| Tymserv Receiver   | Symmetricom                                    | Tymserve 2100-GPS Network Time Server | Charting Lab Rack                             | 1        | <i>17 W x 1.75 H x 12.0 D inches</i> | <i>4.5 kg</i>     | <i>100-240 VAC 22W</i>                    | <i>Scientific UPS</i> | Mission Fiberoptic LAN | Rack Mounted     | None                | None          | None               | None         | None   | 4.50              |
| Antenna  | Symmetricom                                    |                                       | Mast  | 1        | <i>3.04 D x 2.94 H inches</i>        | <i>~0.5 kg</i>    | -   | -                     | NA                     | Yes              | None                | None          | None               | None         | None   | 0.50              |
| <b>d. Velocity depth probe or Sound Velocity System</b>  |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| Sensor (TSG-45 and Seabird Temperature Probe located in space 5-4-1. Temperature Probe model #SBE38 located in seachest) | Sea-bird Electronics, Inc. or OdomHydrographic | TSG-45 ( and SBE38)                   | Contractor Located                            | 2        | <i>6 x 3 x 13.3 inches</i>           | <i>4.6 kg</i>     | -   | -                     | Mission Fiberoptic LAN | Yes              | Yes (PORT and STBD) | None          | None               | None         | None   | 9.20              |
|  |  | <i>SBE38</i>                          |   | 2        | <i>10.1 X 1.54 dia, inches</i>       | <i>0.9 kg</i>     | -   | -                     | Mission Fiberoptic LAN | Yes              | Yes (PORT and STBD) | None          | None               | None         | None   | 1.80              |
|  |  | <i>Interface Box P/N: 90402</i>       |   | 2        | <i>7.9 x 4.75 x 3.0 inches</i>       | <i>1.1 kg</i>     | <i>85-265VAC, ??W or 10-28VDC (0.08A)</i> | <i>Scientific UPS</i> |                        |                  |                     |               |                    |              |        | 2.20              |
| <b>e. Acoustic Navigation System Bridge Sounder</b>  |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| REMOVED - SHIPYARD TO PROVIDE  |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| <b>f. CTD system</b>   |  |                                       |   |          |                                      |                   |   |                       |                        |                  |                     |               |                    |              |        |                   |
| CTD Deck Unit  | Sea Bird Electronics                           | SBE Model 11 Plus                     | Charting Lab Rack                             | 1        | <i>5.2 x 17 x 17 inches</i>          | <i>10 kg</i>      | <i>115-230VAC 130W</i>                    | <i>Scientific UPS</i> | Mission Fiberoptic LAN | Rack Mounted     | None                | None          | None               | None         | None   | 10.00             |
| Carousel Sampler (with extension)  | Sea Bird Electronics                           | 911plus CTD                           | Stowed in Service Area                        | 1        | <i>48.5 x 39 dia inches</i>          | <i>68 kg</i>      | -   | -                     | NA                     | NA               | None                | None          | None               | None         | None   | 68.00             |
| Underwater CTD Unit (free drop or mounts inside Carousel Extension)  | Sea Bird Electronics                           | SBE 9plus                             | on Carousel Sampler                           | 1        | <i>37.4 x 13 x 12 inches</i>         | <i>25 kg</i>      | -   | -                     | NA                     | NA               | None                | None          | None               | None         | None   | 25.00             |

| Description  | Equip Make        | Model No. or Equal  | Installation Location                | Quantity | Size                            | Weight (Per Unit) | Power                            | Power Source   | System Interface       | Foundation Req'd        | Aux Sea Water | Potable Water | Remote Controllers | Working Load | Drains | Total Weight (kg) |
|--|-------------------|---|--------------------------------------|----------|---------------------------------|-------------------|----------------------------------|----------------|------------------------|-------------------------|---------------|---------------|--------------------|--------------|--------|-------------------|
| <b>g. ADCP</b>   |                   |   |                                      |          |                                 |                   |                                  |                |                        |                         |               |               |                    |              |        |                   |
| ADCP Processor Unit  | RD Instruments    | Ocean Surveyor  | Charting Lab Rack                    | 1        | 483 x 177 x 374.4 mm            | 13.38 kg          | 90-250VAC<br>47/63 Hz,<br>1400W  | Scientific UPS | Mission Fiberoptic LAN | Rack Mounted            | None          | None          | None               | None         | None   | 13.38             |
| Transducer Assembly  | RD Instruments    | 150Khz  | Hull Mounted (STBD SIDE)             | 1        | 7.16 x 8.75 dia inches          | 28 kg             | -                                | -              | NA                     | Yes                     | None          | None          | None               | None         | None   | 28.00             |
| <b>h. HRHS towed side scan sonar</b>   |                   |   |                                      |          |                                 |                   |                                  |                |                        |                         |               |               |                    |              |        |                   |
| Transceiver Processor Unit (TPU)   | Klein Associates  | K5500   | Charting Lab Rack                    | 1        | 17.5 W x 5.2 H x 21.5 D inches  | 12.7 kg           | 115-240VAC<br>120W               | Scientific UPS | Mission Fiberoptic LAN | Rack Mounted            | None          | None          | None               | None         | None   | 12.70             |
| Tow Fish with K-wing II depressor  | Klein Associates  | K5500<br>Tow Fish   | Stowed in Service Area               | 1        | 76.4 x 6 dia inches             | 70 kg             | -                                | -              | NA                     | Two Stowage Racks Req'd | None          | None          | None               | NA           | None   | 70.00             |
|  | Klein Associates  | K-Wing II   |                                      | 1        | 42.5 x 36.5 x 412.5 inches      | 74.8 kg           | -                                | -              |                        |                         |               |               |                    |              |        | 74.80             |
| Transponder (on fish)  | RJE International | UAT-376   | On K5500 tow fish                    | 1        | -                               | -                 | -                                | -              | NA                     | NA                      | None          | None          | None               | None         | None   |                   |
| <b>i. Mission depth sounder</b>  |                   |   |                                      |          |                                 |                   |                                  |                |                        |                         |               |               |                    |              |        |                   |
| Echo Sounder Unit  | Odom              | DF3200 MKIII  | Charting Lab                         | 1        | 17.7 H x 17.7 W x 11.8 D inches | 15.9 kg           | 110-220 VAC<br>or 24 VDC<br>-50W | Scientific UPS | Mission Fiberoptic LAN | Table Mount             | None          | None          | None               | None         | None   | 15.90             |
| 24KHz and 200KHz dual frequency transducer   | Airmar Technology | M192 M42 (per NOAA e-mail)<br>P/N:41-206-1-01                           | Hull Mounted (One on each hull)      | 2        | 8.05 W x 16.7 L x 4.5 H inches  | 13.6 kg           | -                                | -              | NA                     | Yes                     | None          | None          | None               | None         | None   | 27.20             |
| <b>j. Multibeam echo sounding systems</b>  |                   |   |                                      |          |                                 |                   |                                  |                |                        |                         |               |               |                    |              |        |                   |
| Multibeam #1 Transducer Assembly with Link Control Unit (LCU) (Special Study, option to be considered) |                   | Reson 7125 comprised of:<br>Receive array<br>Xmtr Array<br>Reson LCU #1 | Contractor Located on STBD SIDE Hull | 1        | -                               | -                 | -                                | -              | NA                     | Yes                     | None          | None          | None               | None         | None   |                   |
|  |                   |   |                                      |          | 102 x 496 x 131 mm              | 9.6 kg            | -                                | -              |                        |                         |               |               |                    | 9.60         |        |                   |
|  |                   |   |                                      |          | 62 x 285 x 62 mm                | 2.75 kg           | -                                | -              |                        |                         |               |               |                    | 2.75         |        |                   |
|  |                   |   |                                      |          | 530 x 174 dia. mm               | 15.7 kg           | -                                | -              |                        |                         |               |               |                    | 15.70        |        |                   |
| Multibeam #1. Processor Unit   |                   |   | Charting Lab Rack                    | 1        | 431.4 x 220.8 x 559.5 mm        | 30.0 kg           | 110-220VAC<br>300W               | Scientific UPS | Mission Fiberoptic LAN | Rack Mounted            | None          | None          | None               | None         | None   | 30.00             |
| Multibeam #1 Display   |                   | 19 in. flat panel display   | Charting Lab Workstations            | 1        | 18.2 x 18.1 x 9.4 inches        | 7.6 kg            | 100-240VAC<br>50/60 Hz<br>60W    | Scientific UPS | Mission Fiberoptic LAN | Yes                     | None          | None          | None               | None         | None   | 7.60              |
| Multibeam #2 Transducer Assembly with Link Control Unit (LCU)  |                   | Reson 7125 comprised of:<br>Receive array<br>Xmtr Array<br>Reson LCU #2 | Contractor Located on PORT SIDE hull | 1        | -                               | -                 | -                                | -              | NA                     | Yes                     | None          | None          | None               | None         | None   |                   |
|  |                   |   |                                      |          | 102 x 496 x 131 mm              | 9.6 kg            | -                                | -              |                        |                         |               |               |                    | 9.60         |        |                   |
|  |                   |   |                                      |          | 62 x 285 x 62 mm                | 2.75 kg           | -                                | -              |                        |                         |               |               |                    | 2.75         |        |                   |
|  |                   |   |                                      |          | 530 x 174 dia. mm               | 15.7 kg           | -                                | -              |                        |                         |               |               |                    | 15.70        |        |                   |
| Multibeam #2. Processor Unit   |                   |   | Charting Lab Rack                    | 1        | 431.4 x 220.8 x 559.5 mm        | 30.0 kg           | 110-220VAC<br>300W               | Scientific UPS | Mission Fiberoptic LAN | Rack Mounted            | None          | None          | None               | None         | None   | 30.00             |
| Multibeam #2 Display   |                   | 19 in. flat panel display   | Charting Lab Workstations            | 1        | 18.2 x 18.1 x 9.4 inches        | 7.6 kg            | 100-240VAC<br>50/60 Hz<br>60W    | Scientific UPS | Mission Fiberoptic LAN | Yes                     | None          | None          | None               | None         | None   | 7.60              |

| Description                                    | Equip Make                | Model No. or Equal  | Installation Location   | Quantity | Size                                | Weight (Per Unit)      | Power                                     | Power Source   | System Interface           | Foundation Req'd          | Aux Sea Water | Potable Water | Remote Controllers | Working Load        | Drains | Total Weight (kg) |
|--|---------------------------|---|---|----------|-------------------------------------|------------------------|---|----------------|----------------------------|---------------------------|---------------|---------------|--------------------|---------------------|--------|-------------------|
| Multibeam #3 Transducer Assembly               |                           | Reson 7111<br><i>comprised of:</i><br>Hydrophone<br>Projector | Contractor Located on<br>STBD SIDE Hull   | 1        | -                                   | 72.0 kg                | -   |                | NA                         | Yes                       | None          | None          | None               | None                | None   | 72.00             |
|  |                           |   |   |          | 636 dia x 118 mm                    |                        | -   |                |                            |                           |               |               |                    |                     |        |                   |
|  |                           |   |   |          | 113 dia x 650 mm                    |                        | -   |                |                            |                           |               |               |                    |                     |        |                   |
| Multibeam #3. Processor Unit                   |                           |   | Charting Lab Rack   | 1        | 431.4 x 559.5 x 220.8 mm            | 30.0 kg                | 90-260VAC<br>50/60 Hz<br>200W             | Scientific UPS | Mission Fiberoptic LAN     | Rack Mounted              | None          | None          | None               | None                | None   | 30.00             |
| Multibeam #3. Transceiver Unit (P-7 Processor) |                           |   | Charting Lab Rack   | 1        | 267 x 483 x 489 mm                  | 13.6 kg                | -   | -              | Mission Fiberoptic LAN     | Rack Mounted              | None          | None          | None               | None                | None   | 13.60             |
| Multibeam #3 Display                           |                           | 19 in. flat panel display                                     | Charting Lab Workstations   | 1        | 18.2 x 18.1 x 9.4 inches            | 7.6 kg                 | 100-240VAC<br>50/60 Hz<br>60W             | Scientific UPS | Mission Fiberoptic LAN     | Yes                       | None          | None          | None               | None                | None   | 7.60              |
| <b>k. SEAS</b>                                 |                           |   |   |          |                                     |                        |   |                |                            |                           |               |               |                    |                     |        |                   |
| SEAS LAPTOP or System                          |                           | 17" LCD laptop or system                                      | Pilothouse  | 1        | -                                   | 7.6 kg (per orig. J-7) | 100-240VAC (1.5A) (per orig. J-7)         | Scientific UPS | Mission Fiberoptic LAN     | Table Mount               | None          | None          | None               | None                | None   | 7.60              |
| <b>l. Sea surface temperature system</b>       |                           |   |   |          |                                     |                        |   |                |                            |                           |               |               |                    |                     |        |                   |
| Digital Temperature Indicators                 | Furuno Inc.               | RD30  | Charting Lab Rack   | 3        | 8.2 W x 4.9 H x 3.4 D inches        | 0.6 kg                 | 12-24 VDC (0.2A)                          | Scientific UPS | Mission Fiberoptic network | Rack mounted              | None          | None          | None               | None                | None   | 1.80              |
| Sea Surface Water Temperature Sensors          | Airmar Technology         | 44-026-2-91 Furuno # HT-MSE                                   | Hull mounted (Mount the 1st probe 20in below DWL. 2nd probe 40in below DWL; 3rd probe 60in below DWL) | 3        | 5.1 x 2.94 dia inches               | 1.4 kg                 | -   | -              | Interface with RD30        | Yes                       | None          | None          | None               | None                | None   | 4.20              |
| <b>m. Local Area Network (LAN) Hardware</b>    |                           |   |   |          |                                     |                        |   |                |                            |                           |               |               |                    |                     |        |                   |
| Network Fiber Core                             | 3COM                      | 4900SX  | Charting Lab Rack   | 1        | 2.6 H x 17.3 W x 14.3 D inches      | 6.5 kg                 | 90-240 VAC 50/60Hz (162W max.) (4.5A max) | Scientific UPS | Mission Fiberoptic LAN     | Rack mounted              | None          | None          | None               | None                | None   | 6.50              |
| Network Switches                               | 3COM                      | 3824  | Main deck, Charting Lab Rack  | 3        | 1.72 H x 17.3 W x 12.8 D inches     | 4.0 kg                 | 90-240 VAC 50/60Hz (68W max.) (2.3 max)   | Scientific UPS | Mission Fiberoptic LAN     | Rack and Bulkhead mounted | None          | None          | None               | None                | None   | 12.00             |
| <b>n. Electronic equipment racks</b>           |                           |   |   |          |                                     |                        |   |                |                            |                           |               |               |                    |                     |        |                   |
| 19" equipment racks                            | Equipto Electronics Corp. | 40-7072-03  | Charting Lab  | 4        | 19.06 W x 70.125 H x 30.75 D inches | 115 lbs (52.2 kg)      | -   | -              | NA                         | Yes                       | None          | None          | None               | None                | None   | 208.80            |
| <b>o. CTD metered sheave system</b>            |                           |   |   |          |                                     |                        |   |                |                            |                           |               |               |                    |                     |        |                   |
| CTD winch block                                | General Oceanics          | F4041-1W  | On CTD A-frame  | 1        | 33 L x 7.25 W x 21.5 dia inches     | 92 lbs (41.7 kg)       | -   | -              | Mission Fiberoptic LAN     | Yes                       | None          | None          | None               | See Factory's Specs | None   | 41.70             |
| Local Cable Counter Display                    | 3PS                       | SD41  | On CTD winch  | 1        | 15.2 W x 16.41 H x 6.29 D inches    | 15 lbs (6.8 kg)        | 24VDC 2.5W (100mA)                        | Scientific UPS | Mission Fiberoptic LAN     | Yes                       | None          | None          | None               | None                | None   | 6.80              |

| Description   | Equip Make                 | Model No. or Equal                              | Installation Location                                    | Quantity          | Size   | Weight (Per Unit)                            | Power                             | Power Source            | System Interface       | Foundation Req'd | Aux Sea Water | Potable Water | Remote Controllers | Working Load                     | Drains | Total Weight (kg) |
|---|----------------------------|---|--|-------------------|--|--|-----------------------------------|-------------------------|------------------------|------------------|---------------|---------------|--------------------|----------------------------------|--------|-------------------|
| <b>p. Sidescan metered sheave system</b>  |                            |   |  |                   |  |  |                                   |                         |                        |                  |               |               |                    |                                  |        |                   |
| Hydro winch block   | General Oceanics           | F4042-1W  | On Side Scan A frame                                     | 1                 | 37.375 L x 11.5 W x 22.6 dia inches          | 125 lbs (56.7 kg)                            | -                                 | -                       | Mission Fiberoptic LAN | Yes              | None          | None          | None               | See Factory's Specs              | None   | 56.70             |
| Local <del>and Remote</del> Cable Counter Displays                                    | 3PS                        | SD41  | Aft Control Station <del>and Charting Lab</del>          | <del>2</del><br>1 | 15.2 W x 16.41 H x 6.29 D inches             | 15 lbs (6.8 kg)                              | 24VDC 2.5W (100mA)                | Scientific UPS          | Mission Fiberoptic LAN | Bulkhead mounted | None          | None          | None               | None                             | None   | 6.80              |
| <del>Local and</del> Remote Cable Counter Displays                                    |                            | SD41  | Charting Lab   | 1                 | 15.2 W x 16.41 H x 6.29 D inches             | 5 lbs (2.3 kg)                               | 24VDC 2.5W (100mA)                | Scientific UPS          |                        |                  |               |               |                    |                                  |        | 2.30              |
| <b>q. CTD Winch</b>   |                            |   |  |                   |  |  |                                   |                         |                        |                  |               |               |                    |                                  |        |                   |
| Mission CTD winch <del>Drive Panel Interface with local controller</del>              | Markey Machinery           | Com7X   | Aft Control Station <del>Below Deck</del>                | 1                 | 36 H x 24 W x 12 D inches                    | 225 lbs (102 kg)                             | 120VAC, 1Ph, 60 Hz, 3FLA, Control | Scientific Power Supply | Mission Fiberoptic LAN | Yes              | None          | None          | Yes                | See 591 Mission Handling Systems | None   | 102.00            |
| Mission CTD winch <del>Interface Pendant Control J-Box with local controller</del>    |                            | Com7X   | Aft Control Station                                      | 1                 | 8 H x 5 W x 4 D inches                       | 5 lbs (2.3 kg)                               | -                                 | -                       |                        |                  |               |               |                    |                                  |        | 2.30              |
| Mission CTD winch <del>Interface with local Pendant controller with 40ft cable.</del> |                            | Com7X   | Aft Control Station                                      | 1                 | 8.72 H x 2.81 W x 3.1 D inches               | 40 lbs (18.1 kg)                             | -                                 | -                       |                        |                  |               |               |                    |                                  |        | 18.10             |
| Mission CTD winch Line Control Display  | Measurement Technology     | LCI-90  |  | 1                 | 5.7 H x 7.6 W x 4.73 D inches                | 3.4 lbs (1.54 kg)                            | 18-36 VDC, 0.5 A                  |                         | Mission Fiberoptic LAN | NA               | None          | None          | None               |                                  | None   | 1.54              |
| <b>r. Sidescan Winch (See Section 591, Mission Handling Systems)</b>                  |                            |   |  |                   |  |  |                                   |                         |                        |                  |               |               |                    |                                  |        |                   |
| Mission Side Scan winch <del>Motor Starter</del>                                      | DT Marine                  | 3020EHLWR                                       | Aft Control Station                                      | 1                 |  |  | 460VAC, 3 Ph, 60Hz, 20HP 27FLA    | Scientific Power Supply | Mission Fiberoptic LAN | Yes              | None          | None          | Yes                | See 591 Mission Handling Systems | None   |                   |
| Local <del>and remote</del> controllers   |                            |   | Aft Control Station; A Frame <del>and Charting Lab</del> | <del>3</del><br>1 | included in Part a. of 591. Mission Handling | included in Part a. of 591. Mission Handling | -                                 | -                       | Mission Fiberoptic LAN | Yes              | None          | None          | Yes                | See 591 Mission Handling Systems | None   |                   |
| <del>Local and</del> remote controllers   |                            |   | Aft Control Station                                      | 1                 |  |  | -                                 | -                       | Mission F.O. LAN       |                  |               |               |                    |                                  |        |                   |
| <del>Local and</del> remote controllers   |                            |   | Charting Lab   | 1                 |  |  | -                                 | -                       | Mission F.O. LAN       |                  |               |               |                    |                                  |        |                   |
| <b>s. Mission Computer Data Acquisition Processors</b>                                |                            |   |  |                   |  |  |                                   |                         |                        |                  |               |               |                    |                                  |        |                   |
| Data Acquisition PCs with dual video  | Triton Elics International | P4  | Charting Lab Rack  | 2                 | 17 W x 7.0 H x 19.0 D inches                 | 53 lbs (24 kg)                               | 120VAC 50/60 Hz 300W              | Scientific UPS          | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None                             | None   | 48.00             |
| Data Acquisition Displays   |                            | 19 inch flat panel displays (ex. NEC LCD1970NX) | Charting Lab Workstations                                | 4                 | 16.2 W x 19.5 H x 8.7 D inches               | 16.5 lbs (7.5 kg)                            | 120VAC 50/60 Hz 52W               | Scientific UPS          | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None                             | None   | 30.00             |
| Remote Acquisition Displays   |                            | 17 inch flat panel display (ex. NEC LCD1770NX)  | Pilothouse   | 2                 | 14.4 W x 18.6 H x 7.8 D inches               | 13.2 lbs (6.0 kg)                            | 120VAC 50/60 Hz 58W               | Scientific UPS          | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None                             | None   | 12.00             |
| Helm Displays   |                            | 15 inch flat panel display (ex. NEC LCD1570NX)  | Pilothouse   | 2                 | 13.2 W x 15.0 H x 7.0 D inches               | 8.4 lbs (3.8 kg)                             | 120VAC 50/60 Hz 20W               | Scientific UPS          | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None                             | None   | 7.60              |
| Video Splitter/KVM Extender (per NOAA e-mail response)                                | Black Box                  | AC600A  |  | 8                 | 2.6 W x 1.2 H x 4.8 L inches                 | 0.9 lbs (0.4 kg)                             | 120VAC 50/60 Hz 180W              | Scientific UPS          |                        |                  |               |               |                    |                                  |        | 3.20              |

| Description   | Equip Make     | Model No. or Equal                  | Installation Location     | Quantity               | Size                               | Weight (Per Unit)   | Power                         | Power Source   | System Interface       | Foundation Req'd | Aux Sea Water | Potable Water | Remote Controllers | Working Load | Drains | Total Weight (kg) |
|---|----------------|-------------------------------------|---------------------------|------------------------|------------------------------------|---------------------|-------------------------------|----------------|------------------------|------------------|---------------|---------------|--------------------|--------------|--------|-------------------|
| <b>t. Mission Data Storage Hardware System</b>        |                |                                     |                           |                        |                                    |                     |                               |                |                        |                  |               |               |                    |              |        |                   |
| Netapps Filers  | Netapps        | FAS940C                             | Charting Lab Rack         | 2                      | 19 W x 20.8 H x 22 D inches        | 97 kg               | 100-120VAC 880W               | Scientific UPS | Mission Fiberoptic LAN | Rack mounted     | None          | None          | None               | None         | None   | 194.00            |
| Netapps Disk Shelves                                  | Netapps        | DS14                                | Charting Lab Rack         | 4                      | 19 W x 5.25 H x 20 D inches        | 35 kg               | 100-120VAC 480W               | Scientific UPS | Mission Fiberoptic LAN | Rack mounted     | None          | None          | None               | None         | None   | 140.00            |
| <b>u. Mission Computer Data Processing Processors</b> |                |                                     |                           |                        |                                    |                     |                               |                |                        |                  |               |               |                    |              |        |                   |
| Data Processing PCs with dual video                   | Dell           | Mini tower units Precision 670      | Charting Lab Workstations | 5                      | 8.7 W x 19.3 H x 19.2 D inches     | 19 kg               | 120VAC 650W                   | Scientific UPS | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None         | None   | 95.00             |
| Data Processing Displays                              | Dell           | 19 inch Flat Panel Display (1905FP) | Charting Lab Workstations | 10                     | 16.35 W x 22.97 H x 8.425 D inches | 15.25 lbs (6.9 kg)  | 90-264 VAC 50/60 Hz 1.5A(max) | Scientific UPS | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None         | None   | 69.00             |
| <b>v. Network Printers</b>                            |                |                                     |                           |                        |                                    |                     |                               |                |                        |                  |               |               |                    |              |        |                   |
| Color Printer   | HP             | 3700N                               | Charting Lab              | 2                      | 19.7 W x 18.4 H x 17.6 D inches    | 73.3 lbs (33.25 kg) | 107-127VAC 5.3A               | Scientific UPS | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None         | None   | 120.00            |
| <b>w. Large Plotters</b>                              |                |                                     |                           |                        |                                    |                     |                               |                |                        |                  |               |               |                    |              |        |                   |
| Color Plotter   | HP             | 1055 cm                             | Charting Lab              | 1                      | 1549 W X 685 D X 1295 H mm         | 69.85 kg            | 110-240VAC 200W               | Scientific UPS | Mission Fiberoptic LAN | Yes              | None          | None          | None               | None         | None   | 69.85             |
| <b>x. Email System</b>                                |                |                                     |                           |                        |                                    |                     |                               |                |                        |                  |               |               |                    |              |        |                   |
| E-mail Server & Mail Transfer Agent server (MTA)      | Dell           | 2U PE2850 rack mountable system     | Charting Lab Rack         | 2 -NOAA to confrim qty | 17.6 D x 3.38 H x 29.79 D inches   | 26.76 kg            | 110/220VAC 700W               | Scientific UPS | Mission Fiberoptic LAN | Rack mounted     | None          | None          | None               | None         | None   | 53.52             |
| E-mail Server & Mail Transfer Agent server (MTA)      | Dell           | Mini tower units Dimension 4700     | Charting Lab              | 2 -NOAA to confrim qty | 7.25 D x 14.5 H x 16.75 D inches   | 10.4 kg             | 100-120VAC 305W               | Scientific UPS |                        |                  |               |               |                    |              |        | 20.80             |
| E-mail display  | Dell           | 19 inch Flat Panel Display (1905FP) | Charting Lab              | 1                      | 16.35 W x 22.97 H x 8.425 D inches | 15.25 lbs (6.9 kg)  | 90-264 VAC 50/60 Hz 1.5A(max) | Scientific UPS | Mission Fiberoptic LAN | Table Mount      | None          | None          | None               | None         | None   | 6.90              |
| <b>y. Network Servers</b>                             |                |                                     |                           |                        |                                    |                     |                               |                |                        |                  |               |               |                    |              |        |                   |
| Local Area Network Active Directory Servers           | Dell           | 2U PE2850 rack mountable system     | Charting Lab Rack         | 2                      | 17.6 D x 3.38 H x 29.79 D inches   | 26.76 kg            | 110/220VAC 700W               | Scientific UPS | Mission Fiberoptic LAN | Rack mounted     | None          | None          | None               | None         | None   | 53.52             |
| Ship's Inventory Server                               | Dell           | 2U PE2850 rack mountable system     | Charting Lab Rack         | 1                      | 17.6 D x 3.38 H x 29.79 D inches   | 26.76 kg            | 110/220VAC 700W               | Scientific UPS | Mission Fiberoptic LAN | Rack mounted     | None          | None          | None               | None         | None   | 26.76             |
| Backup and Recovery Server                            | Snap Appliance | Snap4500                            | Charting Lab              | 1                      | 16.8W x 1.75H x 23.75D inches      | 12.7 kg             | 100/240VAC 250W               | Scientific UPS | Mission Fiberoptic LAN | Rack mounted     | None          | None          | None               | None         | None   | 12.70             |
| Servers' Flat Panel Display                           | Dell           | 19 inch Flat Panel Display (1905FP) | Charting Lab              | 1                      | 16.35 W x 22.97 H x 8.425 D inches | 15.25 lbs (6.9 kg)  | 90-264 VAC 50/60 Hz 1.5A(max) | Scientific UPS | Mission Fiberoptic LAN | Table Mount      | None          | None          | None               | None         | None   | 6.90              |

| Description  | Equip Make              | Model No. or Equal             | Installation Location                 | Quantity | Size  | Weight (Per Unit)                                       | Power                          | Power Source | System Interface                       | Foundation Req'd | Aux Sea Water | Potable Water | Remote Controllers                             | Working Load   | Drains |
|--|-------------------------|--------------------------------|---------------------------------------|----------|---|---|--------------------------------|--------------|--|------------------|---------------|---------------|--|--|--------|
| <b>591 Mission Handling Systems</b>  |                         |                                |                                       |          |   |   |                                |              |  |                  |               |               |  |  |        |
| Government winch equipment includes:   |                         |                                |                                       |          |   |   |                                |              |  |                  |               |               |  |  |        |
| a. Side Scan Sonar winch with slip rings (includes 400M of EM 0.4in cable, starter, and control J-Stick) | DT Marine               | 3020EHLWR                      | per contractor developed arrangements | 1        | 44 W x 44 L x 42 H inches                               | 2,700 lbs (1225 kg)                                     | 460VAC, 3 Ph, 60Hz, 20HP 27FLA | Ships Power? | Klein Side Scan Sonar Equipment        | Yes              | None          | None          | Aft Control Station, A Frame, and Charting Lab | Capacity 400m of 0.40 cable, 4000lbs bare drum rating @ 0-120FPM | None   |
| b. CTD winch with slip rings   | Markey Machinery        | COM 7X                         | per contractor developed arrangements | 1        | 51.6 W (32.5 base) x 44.4 L (39.0 base) x 29.7 H inches | 2350 lbs (1066 kg) (includes 2000M of EM 0.332kn cable) | 460VAC, 7.5Ph, 60 Hz, 9.3FLA   | Ships Power? | CTD System Equipment                   | Yes              | None          | None          | Aft Control Station and Charting Lab           | Capacity 2000m of EM 0.322 cable                                 | None   |
| c. CTD cable   |                         | EM 0.322 in.                   | CTD Winch                             | 1        | -   | -   | -                              | -            | CTD System Equipment                   | None             | None          | None          | None   | BS = 10,000 Lbs  | None   |
| d. Side Scan Tow Cable with Haired Faring  | Klein                   | Klein EM 0.40 in. -EM 0.68in.  | Side Scan Sonar Winch                 | 1        | -   | 250lbs/Kft @400M= 328 lbs (148.8)                       | -                              | -            | Klein Side Scan Sonar Equipment        | None             | None          | None          | None   | BS = 9,000 Lbs   | None   |
|  |                         | Klein EM 0.40 in. - EM 0.68in. |                                       |          |   | 693lbs/Kft @400M= 910 lbs (412.8 kg)                    |                                |              |  |                  |               |               |  |  |        |
| e. Spare reels with cable (Space and weight consideration)   |                         |                                | per contractor developed arrangements | 2        | -   | 84 kg per spare (per orig j-7)                          | -                              | -            | Weather Protected and Crane Accessible | Yes              | None          | None          | None   | as above   | None   |
| f. Moving Vessel Profiler with PC  | Brooke Ocean Technology | MVP-200                        | PORT SIDE AFT Main Deck               | 1        | 1.2M x 0.7M x 3.18M (w/o Boom)                          | 680 kg  | 460VAC, 3 Ph, 60Hz, 15HP 17FLA | Ships Power? | Serial Interface                       | Yes              | None          | None          | None   | See Factory's Specs  | None   |

Total Weight (kg)

1225.00

1066.00

148.80

412.80

168.00

680.00

Note: See comments and changes in red

New J-7 Weight: 5788.79

Orig J-7 Weight: 2445.72

Weight Difference: 3343.07