

APPENDIX I

- Software Versions
- Hardware Serial Numbers

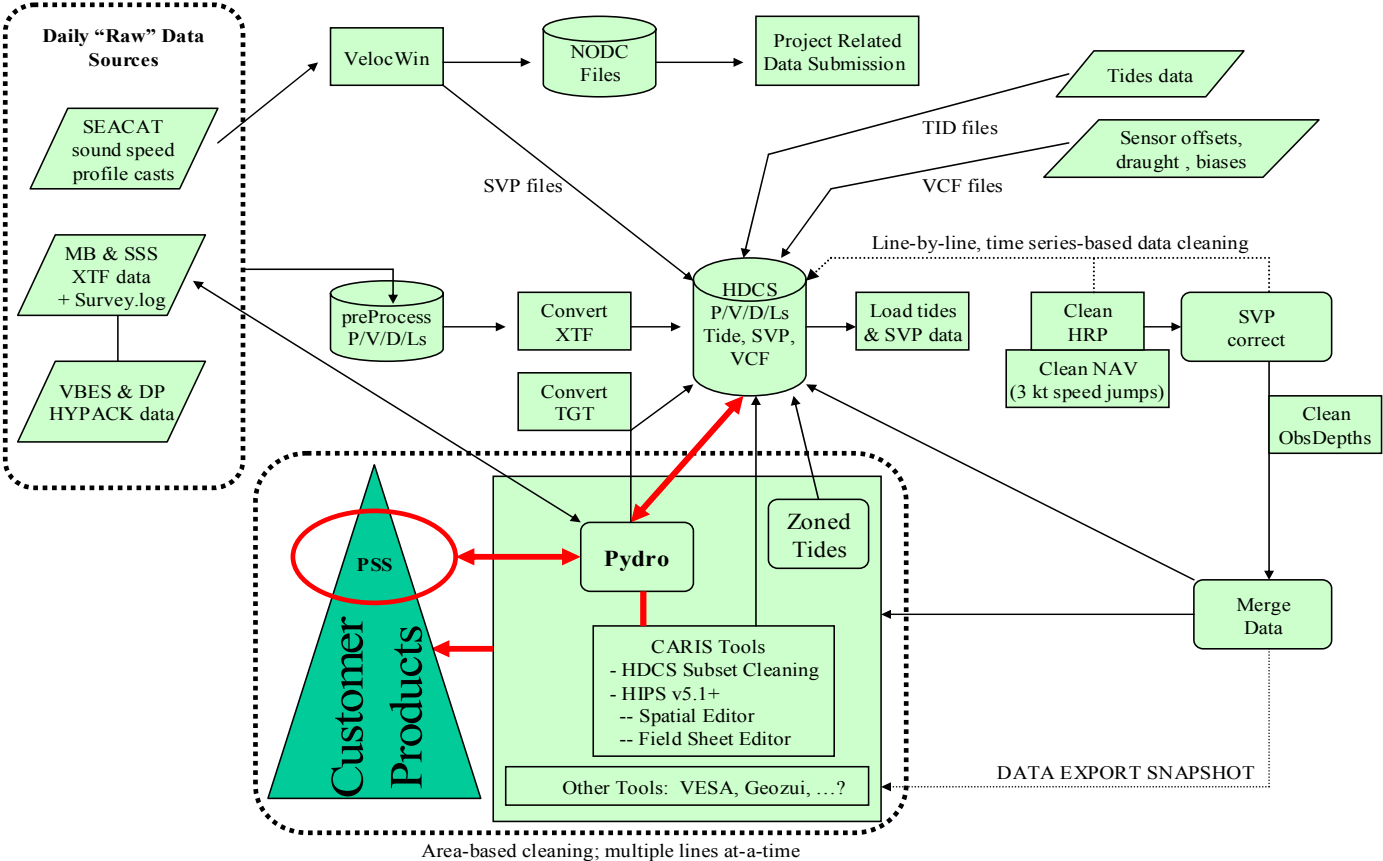
Software	Version
Acquisition	
HYPACK MAX	4.3
Sonar Pro	8.0
Trimble TerraSync	2.40
Processing	
KapConv	3.9.1
PYDRO	5.3.3
MapInfo	7.8
Pathfinder Office	3.00
Vertical Mapper	2.5
CARIS HIPS and SIPS	5.4 SP1 HF22
Utilities	
Tides and Currents for Windows	2.1
Irfanview	3.85
Fugawi	3.1.2.553
Horizontal Control	
TSIP Talker	2.0
Sound Velocity	
Velocwin	8.75
Digibar Pro Firmware	1.10

Equipment	Serial Numbers
Installed on Vessel	
Innerspace 455 Echosounder	193
Klein 3110 TPU	353
Klein 3210 Towfish	452
Trimble Data Receiver DSM212L	022024483
Trimble Antenna	0220258426
Portable	
Diver Least Depth gauges	N/A
Odom Digibar Pro DB1200 Sound Velocity Profiler	98294
Trimble Data Receiver Backpack Unit v1.52	0224049380
Trimble Antenna for Backpack Unit	0220284585
Trimble Handheld Unit TSCe	00030917
Trimble Antenna for Backpack Unit	0220284585

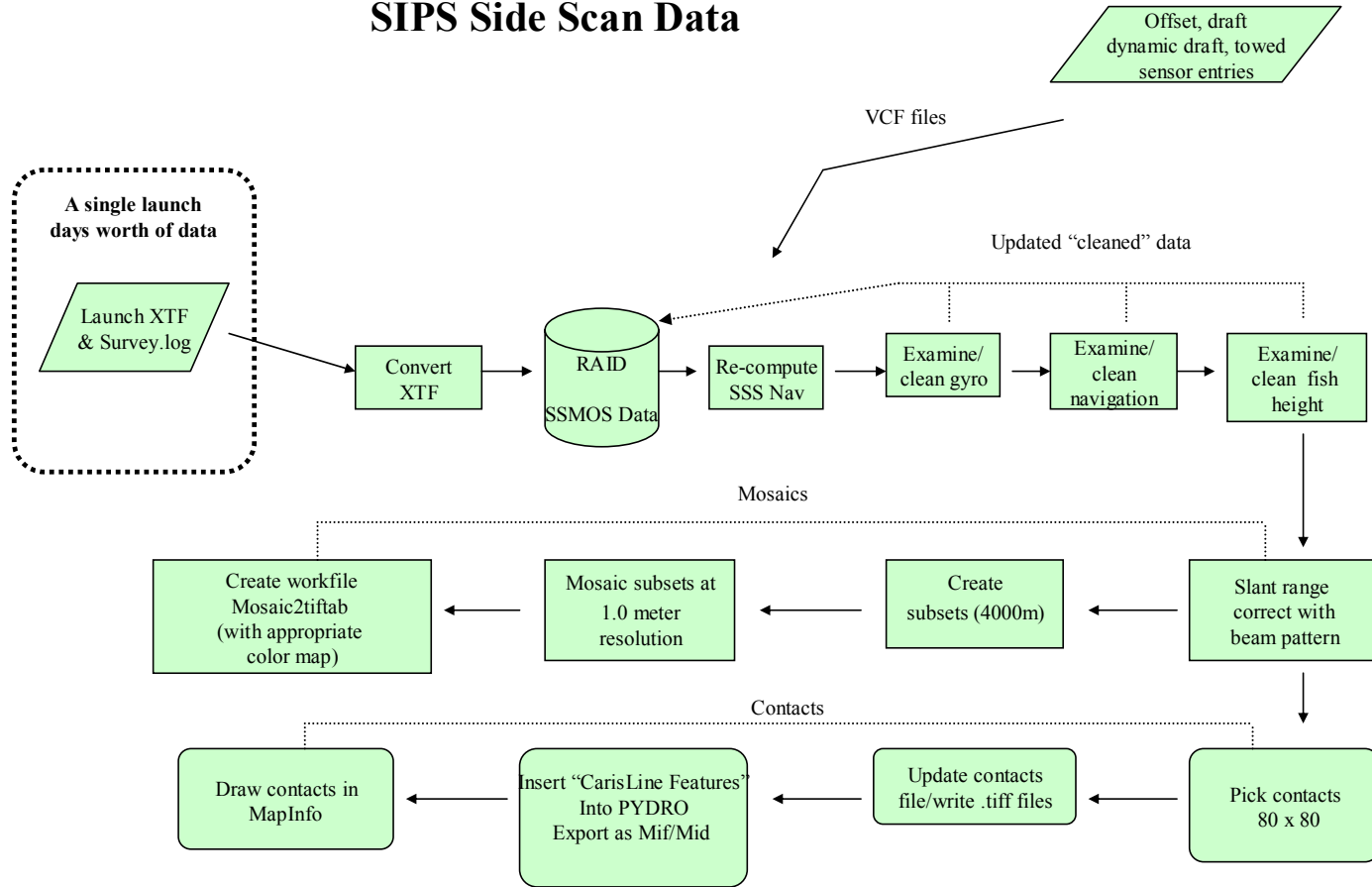
APPENDIX II

- Bathymetry Cleaning Flow Chart
- Pydro Data Integration Flow Chart

Bathymetry Data Cleaning to PSS



SIPS Side Scan Data



APPENDIX III

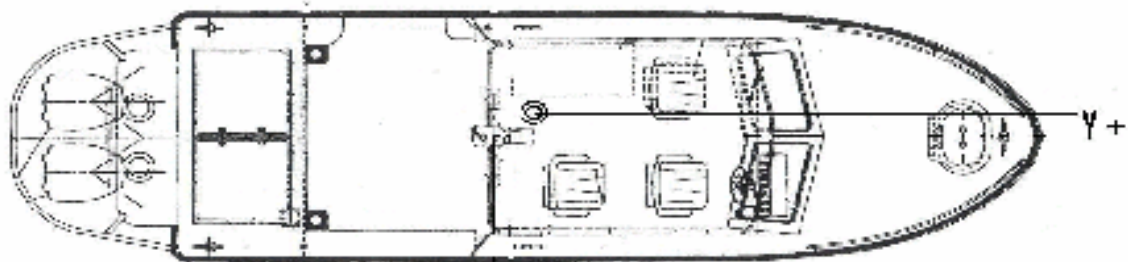
- Launch 1211 Offset Drawing
- Launch 1211 Vessel Configuration File Values

LAUNCH 1211 Vessel Offset Measurements

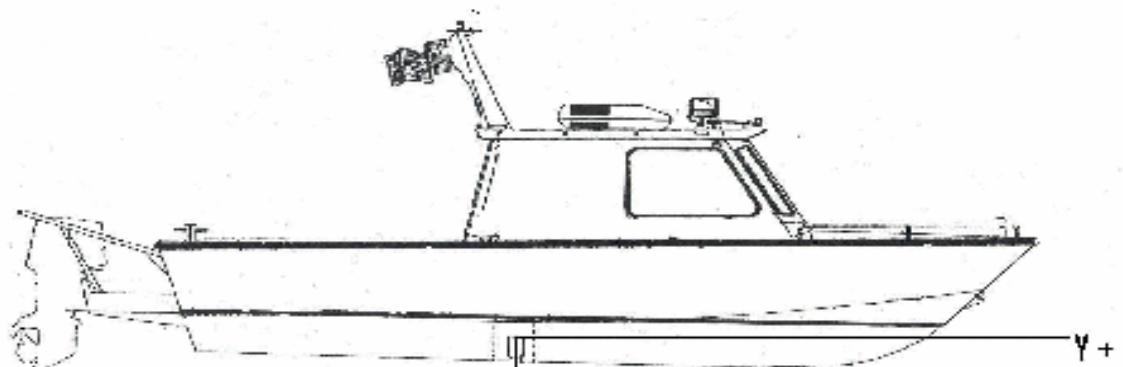
Description: Aluminum SeaArk survey launch

LOA: 32.25 ft (9.8298 m)
LOW: 27 ft (8.2296 m)
Beam: 8.5 ft (2.5908 m)
Draft: 1.640 ft (0.5 m)

Weight: 8,500 lbs
Propulsion: 2@130hp = 260hp
Power: 6.5kw min
Fuel: 100 gal +/-



X+



Z+

		Value (Meters)	Date Measured
Antennae offset from VBES transducer	<i>(x-dir)</i>	0.20	Mar-02
Antennae layback from VBES transducer	<i>(y-dir)</i>	-0.76	Mar-02
Antennae height from VBES transducer	<i>(z-dir)</i>	-3.67	Mar-02
J-Arm block offset from VBES transducer	<i>(x-dir)</i>	2.18	Mar-02
J-Arm block layback from VBES transducer	<i>(y-dir)</i>	-2.82	Mar-02
J-Arm block height from waterline	<i>(z-dir)</i>	-2.14	Mar-02

CARIS Vessel Configuration File Parameters: Launch 1211

Depth Sensor

	Time Error (s)	Delta X (m)	Delta Y (m)	Delta Z (m)	Roll (deg)	Pitch (deg)	Azimuth (deg)	Draft (m)
Transducer	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50

Ancillary Sensor Offsets

	Time Error (s)	Delta X (m)	Delta Y (m)	Delta Z (m)	Error
Navigation	0.00	0.20	-0.76	-3.670	
Gyro	0.00	0.00	0.00	0.00	
Heave	0.00	0.00	0.00	0.00	
Pitch	0.00	0.00	0.00	0.00	
Roll	0.00	0.00	0.00	0.00	

Towed SSS Entries

Time Error (s)	0.00
Delta X (m)	2.18
Delta Y (m)	-2.82
Delta Z (m)	-2.64
Layback Error (m)	0.00

Dynamic Draft

Speed (knots)	0.00	4.10	6.00	8.40	11.4	15.4	24.5
Draft Correction (m)	0.00	0.01	0.03	0.05	0.00	-0.08	-0.010

Digibar Sound Velocity Probe Calibration

Date:
Feb 02, 2005

Serial #:
SN:98150-020205

DIGIBAR CALIBRATION REPORT

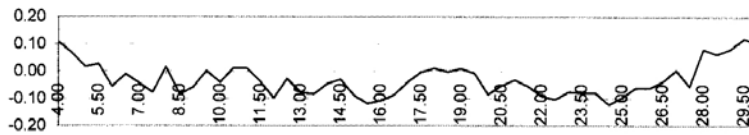
version 1.0 (c) 2004

ODOM HYDROGRAPHIC SYSTEMS, Inc.



STANDARD DEL GROSSO H²O

TEMP	VELOCITY	MEASURED	RES_VEL	OBS-CAL	TEMP	VELOCITY	MEASURED	RES_VEL	OBS-CAL
FREQUENCY					FREQUENCY				
4.00	1421.62	5551.52	1421.73	0.11	17.50	1474.38	5752.74	1474.38	0.00
4.50	1423.90	5560.08	1423.97	0.07	18.00	1476.01	5759.02	1476.02	0.01
5.00	1426.15	5568.49	1426.17	0.02	18.50	1477.62	5765.12	1477.62	0.00
5.50	1428.38	5577.04	1428.41	0.03	19.00	1479.21	5771.23	1479.22	0.01
6.00	1430.58	5585.13	1430.52	-0.06	19.50	1480.77	5777.15	1480.76	-0.01
6.50	1432.75	5593.61	1432.74	-0.01	20.00	1482.32	5782.78	1482.23	-0.08
7.00	1434.90	5601.69	1434.86	-0.04	20.50	1483.84	5788.71	1483.79	-0.05
7.50	1437.02	5609.67	1436.94	-0.08	21.00	1485.35	5794.54	1485.31	-0.03
8.00	1439.12	5618.04	1439.13	0.02	21.50	1486.83	5800.12	1486.77	-0.05
8.50	1441.19	5625.57	1441.10	-0.08	22.00	1488.29	5805.58	1488.20	-0.09
9.00	1443.23	5633.49	1443.18	-0.06	22.50	1489.74	5811.05	1489.63	-0.10
9.50	1445.25	5641.44	1445.26	0.00	23.00	1491.16	5816.60	1491.09	-0.07
10.00	1447.25	5648.91	1447.21	-0.04	23.50	1492.56	5821.95	1492.49	-0.08
10.50	1449.22	5656.65	1449.24	0.01	24.00	1493.95	5827.25	1493.87	-0.08
11.00	1451.17	5664.09	1451.18	0.01	24.50	1495.32	5832.30	1495.19	-0.12
11.50	1453.09	5671.25	1453.06	-0.04	25.00	1496.66	5837.55	1496.57	-0.09
12.00	1454.99	5678.29	1454.90	-0.10	25.50	1497.99	5842.75	1497.93	-0.06
12.50	1456.87	5685.73	1456.84	-0.03	26.00	1499.30	5847.75	1499.24	-0.06
13.00	1458.72	5692.62	1458.65	-0.08	26.50	1500.59	5852.77	1500.55	-0.04
13.50	1460.55	5699.59	1460.47	-0.08	27.00	1501.86	5857.79	1501.86	0.01
14.00	1462.36	5706.64	1462.32	-0.05	27.50	1503.11	5862.35	1503.06	-0.05
14.50	1464.14	5713.52	1464.12	-0.03	28.00	1504.35	5867.59	1504.43	0.08
15.00	1465.91	5720.03	1465.82	-0.09	28.50	1505.56	5872.17	1505.63	0.06
15.50	1467.65	5726.56	1467.53	-0.12	29.00	1506.76	5876.82	1506.84	0.08
16.00	1469.36	5733.16	1469.25	-0.11	29.50	1507.94	5881.48	1508.06	0.12
16.50	1471.06	5739.72	1470.97	-0.09	30.00	1509.10	5885.87	1509.21	0.11
17.00	1472.73	5746.29	1472.69	-0.04					



Odom Hydrographic Systems, Inc.
 1450 SeaBoard Avenue, Baton Rouge, Louisiana 70810-6261, USA
 Telephone: (225)-769-3051, Facsimile: (225)-766-5122
 E-mail: email@odomhydrographic.com, HTTP: www.odomhydrographic.com

Date:
Feb 02, 2005

Serial #:
SN:98150-020205

DIGIBAR CALIBRATION REPORT

version 1.0 (c) 2004

ODOM HYDROGRAPHIC SYSTEMS, Inc.

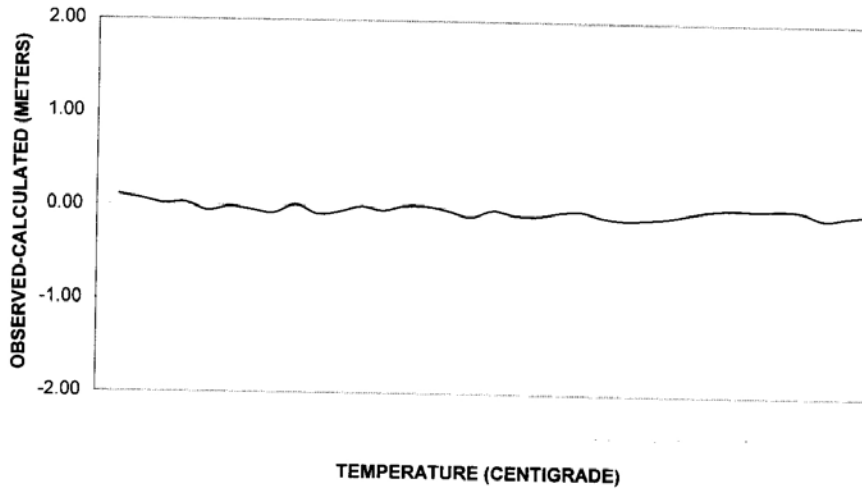


Burn these numbers to EPROM:

Gradient
Intercept

3350
309

Calibration Graph



Odom Hydrographic Systems, Inc.
1450 SeaBoard Avenue, Baton Rouge, Louisiana 70810-6261, USA
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Line/Bar Line Calibration

Lead-line Calibration ✓

Bar Line Calibration

Lead / Bar Line Identifier 1211

DN 322

Date November 18, 2004

Leadline		
Lead Line Mark (M)	Steel Tape Measurement (M)	Correction (M)
A	B	C = A - B
1	1	0
2	2	0
3	3	0
4	4	0
5	5	0
6	6	0
7	7	0
8	8	0
9	9	0
10	10	0
11	11	0
12	12	0
13	13	0
14	14	0
15	15	0
16	16	0
17	17	0
18	18	0
19	19	0
20	20	0

Read and record the steel tape readings to the nearest centimeter. If correction exceeds 0.1m, the line must be remarked.

Measured by: MJM

Checked by: LAM