

MosaicHydro/CARIS **DRAFT** Multibeam Operator Training Course Syllabus: 7 - 11 May 2012

Day 1 – Classroom	Day 2 – Classroom	Day 3 – Classroom & At Sea	Day 4 – Classroom & At Sea	Day 5 – Classroom
101 – Introduction <ul style="list-style-type: none"> Instructor Introduction Housekeeping Outline 	201 – Survey Launch <ul style="list-style-type: none"> Sensor Installation Lever Arm Draft & Squat Test 	301 CARIS HIPS/SIPS I <ul style="list-style-type: none"> Introduction Vessel Set-up Project Set-up 	401 – CARIS HIPS/SIPS IV <ul style="list-style-type: none"> Intro to HIPS CUBE Basemaps <ul style="list-style-type: none"> Swath Surfaces CUBE Surfaces 	501 – PDB Sonars <ul style="list-style-type: none"> Basic Theory Advantages / Disadvantages Systems Overview
102 – Multibeam System Overview <ul style="list-style-type: none"> Launch Sensors Environment Equipment Communication 	202 – Course Survey Launch <ul style="list-style-type: none"> M/V ORION Onboard Equipment 	302 – CARIS HIPS/SIPS II <ul style="list-style-type: none"> Importing Data Attitude and Navigation Editor 	402 – CARIS HIPS/SIPS V <ul style="list-style-type: none"> Subset Editor 	502 – Processing I <ul style="list-style-type: none"> Review Patch Test Procedure Use HIPS to Verify Day 3 Patch Test
103 – Positioning <ul style="list-style-type: none"> Operation Overview Modes Integration Installation Considerations 	203 – Equipment Communications <ul style="list-style-type: none"> NMEA 0183 RTCM SC104 Serial Connections TCP/IP 	303 – CARIS HIPS/SIPS III <ul style="list-style-type: none"> Background Data Save Session Swath Editor Apply tides Apply SVP Merge Data 	403 – CARIS HIPS/SIPS VI <ul style="list-style-type: none"> Filters Output Products 	503 – Processing II <ul style="list-style-type: none"> Process Day 4's Survey Using HIPS
104 – MBES I <ul style="list-style-type: none"> Principles of Operation Example Systems 	204 – TPU and CUBE <ul style="list-style-type: none"> Theory, Set-up and Functionality 			
Lunch Break				
105 – Water Column <ul style="list-style-type: none"> Effects of the Water Column Propagation & Refraction SVP 	205 – Data Collection Systems <ul style="list-style-type: none"> Overview of Data collection Software Common traits Set up 	System Setup <ul style="list-style-type: none"> Sensors Sounder Hardware Software Setup Hardware communication 	Surveying - Mike <ul style="list-style-type: none"> A Complete Minor Survey 	504 – Processing III <ul style="list-style-type: none"> Complete HIPS editing
106 – Vertical Control <ul style="list-style-type: none"> Data Tides 	206 – Backscatter <ul style="list-style-type: none"> Backscatter Theory Sediment Classification 	Water Column <ul style="list-style-type: none"> Measurement Communications Interpretation 		505 – Processing IV <ul style="list-style-type: none"> Use GeoCoder to process backscatter
107 – MBES II <ul style="list-style-type: none"> Installation Types Installation Considerations 	207 – Software I <ul style="list-style-type: none"> Introduction to HYPACK/HYSWEEP Hardware Setup Survey Setup 	Patch Test <ul style="list-style-type: none"> Site Selection Surveying Interpretation Application 		
108 – Attitude and Heading <ul style="list-style-type: none"> Operation Overview Long Period Heave Integration Installation 	208 – System Calibration <ul style="list-style-type: none"> Patch Test <ul style="list-style-type: none"> Time Delay (Latency) Roll/Pitch /Yaw MBMax Patch Test 			Wrap-up <ul style="list-style-type: none"> Open Forum Critiques