

MosaicHydro Multibeam Operator Training Course **DRAFT** Syllabus: 25 – 29 Oct 2010

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 – Fledermaus I <ul style="list-style-type: none"> Introduction Basic Fledermaus Functions 	401 – PFM <ul style="list-style-type: none"> Intro to CUBE Creating a PFM Object 	501 –TPU <ul style="list-style-type: none"> Overview
102 – Multibeam System Overview <ul style="list-style-type: none"> Launch Sensors Environment Equipment Communication 	202 – Talking to Your Equipment <ul style="list-style-type: none"> NMEA 0183 RTCM SC104 Serial Connections TCP/IP 	302 – Fledermaus II <ul style="list-style-type: none"> Advanced Fledermaus Functions 	402 – Fledermaus 3D Editor I <ul style="list-style-type: none"> Importing a PFM Object Intro to 3D Editing 	502 – Processing I <ul style="list-style-type: none"> Review Patch Test Procedure Use MBMAX to Verify Day 3 Patch Test
103 – GPS <ul style="list-style-type: none"> Operation Overview Modes Integration Installation Considerations 	203 – Data Collection Systems <ul style="list-style-type: none"> Purpose Example Systems Installation Considerations 	303 –DMAGIC I <ul style="list-style-type: none"> Creating a Project Importing Data Gridding Data Creating SD Objects 	402 – Fledermaus 3D Editor II <ul style="list-style-type: none"> Targets / Features Filters Output Products Unloading a PFM Object 	503 – Processing II <ul style="list-style-type: none"> Process Day 4's Survey Use MBMAX to Merge Data
104 – Attitude and Heading <ul style="list-style-type: none"> Operation Overview Long Period Heave Integration Installation 	204 – MBES III <ul style="list-style-type: none"> Overview of functionality, specifications and operation of Survey Vessel Sonar and Systems 			
Lunch Break				
105 – MBES I <ul style="list-style-type: none"> Principles of Operation Example Systems 	205 – Backscatter <ul style="list-style-type: none"> Backscatter Theory Sediment Classification 	System Setup <ul style="list-style-type: none"> Sensors Sounder Hardware Software Setup Hardware communication 	Surveying <ul style="list-style-type: none"> A Complete Minor Survey 	504 – DMAGIC II <ul style="list-style-type: none"> Create Project for Day 4 Survey Import Day 4 Survey HS2 Data Create PFM Object
106 – Water Column <ul style="list-style-type: none"> Effects of the Water Column Propagation & Refraction SVP 	206 – PDB Sonars <ul style="list-style-type: none"> Basic Theory Advantages / Disadvantages Systems Overview 	Water Column <ul style="list-style-type: none"> Measurement Communications Interpretation 		505 – Fledermaus 3D Editor III <ul style="list-style-type: none"> Importing Day 4 Survey PFM Object Edit Data Create Final Surface Unload Data
107 – Vertical Control <ul style="list-style-type: none"> Data Tides 	207 – Software I <ul style="list-style-type: none"> Introduction to HYPACK Hardware Setup Survey Setup HYSWEEP setup 	Patch Test <ul style="list-style-type: none"> Site Selection Surveying Interpretation Application 		506 – FM Geocoder <ul style="list-style-type: none"> Import Day 4 Survey Backscatter Create Geocoder Surface Sediment Classification
108 – MBES II <ul style="list-style-type: none"> Installation Types Installation Considerations 	208 – System Calibration <ul style="list-style-type: none"> Patch Test <ul style="list-style-type: none"> Time Delay (Latency) Roll/Pitch /Yaw HYSWEEP Patch Test 			Wrap-up <ul style="list-style-type: none"> Open Forum Critiques