



**Tiger / Lynx / Cougar / Panther ROV Training
Syllabus**

This syllabus to be used in conjunction with
Subsea Vision training manual and Saab Seaeeye
Technical manuals

Technical training supplied by

Subsea Vision Ltd



Seaeye Tiger/ Lynx/ Cougar / Panther ROV Technical Training Syllabus

Section	Description
	The course is structured to understanding the following items:
1	9 PSU – <ul style="list-style-type: none"> • Schematic drawing • Power requirements • Tappings • Importance of DC compensation and set up • Importance of AC compensation and set up • Power outputs to the 10PDU • Start up procedure
2	10PDU – <ul style="list-style-type: none"> • Schematic drawing of the PDU • Incoming power from the 9PSU, 240 Volts SU, 240 or 440Vac to the vehicle and TMS and DC power • Power distribution within the PDU and contactors • Understanding all the PCB's, the relationship between the hand controller and PCB's, front panel switches to PCB's, TMS and ROV Telemetry, video overlay and where the overlay board gets it's information from • Front face Switches and keypad • Aux 3 phase control • Hand controller, configuration of the hand controller and system, understand the potentiometers • Video inputs – Standard Twisted Pair (STP) and from a Fibre Mux • Power supplies within the 10PDU for the PCB's • How the functions on the hand controller control the ROV • Fuses • Output/Input Aux ports on the rear of the 10PDU • Start up procedure
3	Cabin Junction Box – <ul style="list-style-type: none"> • The schematic drawing • Fibre optic module • Fibre optic multiplexers - Focal 907 MUX & setting up 232 & 485 channels setting the DIN switches on PCB (if fitted) • 3 phase Aux power and remote 240Vac to Aux power supply
4	Auxiliary 3 phase power supplies – <ul style="list-style-type: none"> • The schematic drawing • Input power supply • Tappings and selection of output voltages • Remote 240Vac switch and what does it control
5	LARS – <ul style="list-style-type: none"> • Schematic drawing of the entire system from 10PDU to TMS and ROV connectors • Static Junction Box • Slipping unit • Dynamic Junction Box
6	TMS Electrical – <ul style="list-style-type: none"> • Schematic drawing • AC Power in the Epod – Torroidal transformer, secondary supply from transformer and what it supplies • DC Power within the Epod – What it supplies and how it supplies • Epod AC to DC Power supply and what it supplies

Seaeye Tiger/ Lynx/ Cougar / Panther ROV Technical Training Syllabus

Section	Description
6	TMS Electrical Cont. <ul style="list-style-type: none"> • Understand how all the PCB's work and their role within the Epod • Telemetry • Fuses • TMS drive thruster and light – understanding the DC supply and control • TMS and ROV DC power share and relays within the Epod
7	TMS mechanical – <ul style="list-style-type: none"> • Drive system, clutches, drive chains and belt and how to set the system up • Bailing arm and how to set up • Junction Box(s) and schematic drawings • Compensators • General maintenance
8	Tether – <ul style="list-style-type: none"> • Schematic drawing • Oil filled ROV junction Box
9	ROV – <ul style="list-style-type: none"> • Schematic drawing • Understanding the AC and DC incoming power supplies and what they supply • AC Power in the Epod – Torroidal transformer, secondary supply from transformer and what it supplies • ROV Power supplies and what it supplies • PCB's within the ROV Epod Electronics including the Focal Fibre Optic 907 PCB • Understand the Tilt and feedback back pot– telemetry, voltages, drive chains and setting the tilt platform • Telemetry lines for the ROV, Sonar and Auxiliary lines • Sonar – Telemetry, Power, Solid State Relay and Hand control switch • Cameras – Power supplies and video distribution • DC Power within the Epod – What it supplies and how it supplies • EPOD Vacuum and water sensor
10	Fault finding – <ul style="list-style-type: none"> • DC faults • AC faults • Power supplies in the Epod • Telemetry • Thrusters – 24Vdc direction lines, speed line and DC power – explain the procedure for testing • Lights • Tilt platform and feedback pot • Video
11	Maintenance – Practical given <ul style="list-style-type: none"> • Thruster, feedback pot and tilt motor oil replenishment • Fibre optic Hot melt fibre connections • General maintenance on Container, LARS, TMS and ROV

Seaeye Tiger/ Lynx/ Cougar / Panther ROV Technical Training Syllabus

Overview of Technical Training Course

We have completed the above technical training course for several ROV companies here in the UK and overseas. All attendees found the course very beneficial, even personnel who have been using Saab Seaeye systems for numerous years. In addition, we complete technical training courses on behalf of Saab Seaeye, who have endorsed our training program for use globally with our clients and theirs.

The course is not one big power point presentation. Our course goes through the entire system, step by step, ensuring the attendees understand each element before moving on. Furthermore, if we have one of our own Tiger systems available, we will use it in conjunction with the training course.

On arrival at our premises a safety induction will be completed, afterwards course manuals will be handed out. The manuals will be set out as the syllabus above; however, each section will have an expanded explanation and photographs.

We can offer two options:

Option 1 - Theory Technical Training course – Maximum 10 persons per course

This option would be completed over a 3.5 day period Monday to Wednesday 09:00 to 17:00hrs and Thursday 09:00 to 13:00hrs. As the title suggests, it's purely theory, covering the items set out in the syllabus above. We would however, complete a thruster replenishment task and complete fibre terminations with 3M hot melts.

Option 2 - Technical Training course and ROV simulator training with ROVsim – Theory and practical – Minimum 6 persons per course, maximum 8 (Available in 2010)

This option would be completed over a 5 day period, Monday to Wednesday as option 1, Thursday and Friday will be utilized for the ROV simulator training. The simulation training will be conducted within an ROV control room.

The idea of this course is for the attendees to go away feeling confident in fixing and maintaining a Saab Seaeye ROV system. The training we provide can be entered in your ROV professional log as specific ROV training, where applicable, we will sign off elements within your IMCA competency schedule.

The above courses will be held at our offices in Poole, Dorset.

Please do not hesitate in contacting us for price schedules and availability

Landline +44 (0) 1202 656861

Email Technical_Training@subseavision.co.uk