

Introduction to Positioning and Survey

16th & 17th September 2015

Parmelia Hilton Hotel, Perth



Wednesday Programme:

- 8.30 am Registration
- 9.00 am SUT Introduction
- 9.10 am **Introduction & Overview**
Peter Wademan, Woodside Energy Ltd.
- 9.30 am **Mapping the Indian Ocean - Phase 1 of the search for MH370**
Scott Miller, Fugro Survey Pty Ltd.
- 10.00 am Morning tea
- 10.15 am **Geodesy & Positioning Principles**
Don Abbey, Woodside Energy Ltd.
* Coordinate Reference Systems
* Coordinate Uncertainty
* Coordinate Systems
* Horizontal Datums
* Vertical Datums
* Coordinate Conversions
* Coordinate Transformations
* Geoids and Mean Sea Surface Models
- 11.15 am **Surface Positioning**
Ken Eddy, Fugro Survey Pty. Ltd.
* History of Surface Positioning
* Radio Waves
* GPS principles
* GPS Error Sources
* DGPS Positioning (Code Phase/Carrier Phase)
* Transmitting Corrections
* WAS SA RTK
* Correction & Subscription
- 12.15 pm Lunch
- 1.15 pm **Vessel Dynamics**
Capt. Phil Griffin, London Offshore Consultants
* Centre of Gravity
* Stability
* Pressure Point
* Turning of Vessels
* Squat
* Magnetic Compass
* Gyro Compass
* Attitude Sensors
* Attitude Sensor Calibration
* Inertial Navigation Sensor
- 2.15 pm **Tides and Currents**
Scott Noreika, RPS Metocean
* Tide Measurement
* Current Profiling
* Sound Velocity Profiling
* Prediction
* Temp Salinity
* Solitons
- 3.15 pm Afternoon tea
- 3.30 pm **Positioning Technology**
Noel Cowley, Neptune Geomatics
* Ultra Short Base Line
* Long Base Line
* Metrology
* ROV
* INS
* NASNet
- 4.45 pm Course day end
- 5.30 pm Course dinner

Thursday Programme:

- 9.00 am **Case Studies**
Phil Wells, Neptune Geomatics
* Pluto Development
* Equus Deepwater Pipeline Route
- 10.00 am **Bathymetry**
Anthony Kerr, DOF Subsea
* Single Beam Echo Sounder
* Multi Beam Echo Sounder
* ROV
* Side Scan Sonar
* AUV
* Validation
* Tide Correction
- 10.45 am Morning tea
- 11.00 am **Survey Data Processing**
Martin Watson, Fugro Survey Pty Ltd.
* Interpolation
* Data Modeling - Gridding and Thinning and Countouring
* Data Presentation/ Visualization
* Subsea Data Modelling
- 11.45 am **Geophysics**
Fiona Fitzpatrick, RPS Australia Asia Pacific
* Reflection
* Refraction
* Resistivity & Magnetometer
* Geotechnical Correlation
- 12.45 pm Lunch
- 1.45 pm **Remote Sensing Technologies**
Glenn Morrison, AAM Group
* Earth Observation: Satellites & Airborne
* RADAR, LIDAR & Hyperspectral
* New systems and Application examples
* Laser scanners & Photogrammetry
- 2.30 pm **The Search for MH370**
Mark Sweeney, Fugro Survey Pty Ltd.
* Search area
* Logistics
* The Deep Tow system
* Challenges
* Monitoring the Deep Tow fish
* Sea floor contacts
- 3.00 pm **Certification and Course Conclusion**

Course programme is subject to change.



Photos courtesy of Fugro Survey Pty Ltd.

SUT would like to thank the following companies for their support of this course:



Registration Information

Introduction to Positioning & Survey Sept 2015

For further information on this event please contact Jennifer Maninin on j.maninin@sut.org Tel + 61 (0) 8 9446 9903
To register, either e-mail the information required on the registration form to perthevents@sut.org
or fax the completed form to + 61 (0) 8 9446 9905

Registration Fees

SUT Members Early Bird (register and pay before 12th August)	\$858.18 + GST = \$944.00 (20% discount)
SUT Members (registration after 12th August)	\$1,072.73 + GST = \$1,180.00
Non Members Early Bird (register and pay before 12th August)	\$1,018.18 + GST = \$1,120.00 (20% discount)
Non Members (registration after 12th August)	\$1,272.73 + GST = \$1,400.00

Fee includes - All refreshments including dinner on the first night, handout notes of the presentations & USB containing PDF versions of the presentations and animations available.

Handbook of Offshore Surveying

If you wish for the SUT to order a the three-volume series of the handbook (additional \$460) please tick here

Preferred Payment Methods:

Credit Card: Visa, Mastercard or AMEX* ONLY. We cannot accept payment by any other card.

***Please note payments made by AMEX will attract a 2.75% surcharge.**

Cheque: Australian Dollar only, made payable to The Society for Underwater Technology
Send to, SUT, 5/5 Hasler Road, Osborne Park, Perth WA 6017
Please make sure you reserve a place by e-mail or fax before sending payment.

Invoice: Please tick here to be invoiced

Joining Instructions Joining instructions will be e-mailed to each registered delegate prior to the course.

Transport During the Course:

Delegates are responsible for their own travel arrangements to and from the Parmelia Hilton Hotel each day.

Cancellations: Refunds will be made on written cancellation received up to ten working days prior to the event, but will be subject to a 15% administration charge. Cancellations received 9—4 working days prior to the event will be charged a 50% cancellation fee. Cancellations received 3—0 working days prior to the event will not be refunded. Delegates may wish to nominate a substitute in their place at no charge.

Please tick box if you do not wish to receive further SUT information

Registration Form

Please e-mail completed form to Perthevents@sut.org or fax the completed form to +61 (0) 8 9446 9905

Please tick to indicate your preferred payment method: _____ SUT Member No. _____

Credit Card _____ (Visa, MasterCard or AMEX*) Cheque _____ Invoice (PO No.) _____

Handbooks Requested (see above) Yes _____ / No _____

Name _____ Please tick here if personally funding course

Company _____

Address _____

Email address _____ Tel No. _____

Credit Card No: VISA, MASTER CARD or AMEX* _____/_____/_____/_____

Exp. _____ / _____ Security no _____ (last 3 digits on the back of your card)

Name on the card _____

Billing Address if not as above _____

E-mail address where receipt should be sent for credit card payment _____

Amount to be charged \$ _____ Signature _____