



Positioning & Survey

An Introductory Course

20 - 21 March 2024

Positioning and Survey underpin all aspects of the subsea environment.

From understanding the nature of the environment we are working in, the topography of the seabed, the geology of the seabed, the location of the assets on the seabed and how they may change over time. Upon completion of the course our expert presenters will have covered the following topics:

- ▶ Geodesy & Positioning Principles
- ▶ Surface Positioning
- ▶ Vessel Dynamics
- ▶ Tides & Currents
- ▶ Positioning Technology
- ▶ Case Studies
- ▶ Bathymetry
- ▶ Survey Data Processing
- ▶ Geophysics
- ▶ Remote Sensing Technologies

WHY WILL THIS COURSE BENEFIT YOU?

The Introduction to Positioning and Survey Course provides an introduction to these aspects of subsea to allow the participants to understand and appreciate the requirements for survey and positioning in their subsea undertakings.

WHO SHOULD ATTEND?

Anyone who works for an operator, contractor or part of the supply chain and is involved with exploration, construction and maintenance of subsea assets would benefit from learning how subsea assets are positioned, why in that location and how the information is acquired and maintained. Those returning to the subsea industry or joining for the first time would also benefit and gain exposure to the latest technology and operating practices.



Thank you to the presenting companies:

COURSE SCHEDULE

WEDNESDAY 20TH MARCH

- 08.30 **Registration**
- 09.00 **SUT Introduction**
- 09.10 **Introduction & Overview**
Peter Wademan, Woodside Energy
- 09.30 **Autonomy & Remote Operations**
Phil Wells, MMA Offshore
- 10.00 **Morning Tea**
- 10.15 **Geodesy & Positioning Principles**
Peter Wademan, Woodside Energy
Datums & Coordinate Systems
Coordinate Reference Systems
Coordinate Transformations
MSL, Geoids & Mean Sea Surface Models
- 11.15 **Surface Positioning**
Phil Wells, MMA Offshore
History of Surface Positioning
US, Russian, European & Chinese satellite systems
Accuracies and misconceptions
Impacts of phones, watches & automated technology
The future
- 12.15 **Lunch Break**
- 13.15 **Vessel Dynamics**
Bill Russell-Cargill, INPEX
Centre of gravity
Stability
Magnetic & Gyro Compass
Pressure point
Attitude sensors and calibration
Turning of vessels
Squat
Inertial Navigation Sensor
- 14.15 **Tides & Currents**
Scott Norieka, RPS
Tide Measurement
Prediction
Current Profiling
Temp Salinity
Sound Velocity Profiling Solitons
- 15.15 **Afternoon Tea**
- 15.30 **Positioning Technology**
James McCawley, Fugro
Ultra Short Base Line
Long Base Line
ROV
INS
Metrology
- 16.45 **Course Finish**
- 17.00 **Networking drinks (TBC)**

THURSDAY 21ST MARCH

- 08.45 **Registration Tea/Coffee**
- 09.00 **Case Studies**
Phil Wells, MMA Offshore
Pluto Development
Equus Deepwater Pipeline Route
- 10.00 **Geophysics**
Giovanni De Vita, DOF Subsea
Introduction to geophysics
Methodologies and applications
Data and new technologies
- 10.45 **Morning Tea**
- 11.00 **The value of a Data Portal to manage a Hydrographic project**
Paul Kennedy, Guardian Geomatics
Does a portal add value or is it just a gimmick?
Is it worth the cost?
What layers are important?
Does it need to do everything?
- 11.45 **Bathymetry**
Barnaby Pountney, DOF Subsea
Single & Multi Beam Echo Sounders
Validation
AUV's, ROV's
Tide Correction
Side Scan Sonar
- 12.45 **Lunch Break**
- 13.45 **Remote Sensing Technologies**
Glenn Morrison, AAM Group
Earth Observation: Satellites & Airborne
Laser Scanners & Photogrammetry
RADAR, LIDAR & Hyperspectral
New systems & application examples
- 14.30 **Hydrographic Surveys for Nautical Charting is all about quality control** Paul Kennedy, Guardian Geomatics
Why is this important?
What is a quality control measure?
What are the inputs?
What are the outputs?
Managing crunch times
- 15.30 **Course Finish**
- ** SUT reserve the right to amend the course programme as required.
- ** Please note that all SUT courses are subject to minimum numbers. If minimum numbers are not met for the course to go

REGISTRATION FORM

Please submit your registration to:

Jade Melville
Tel: + 61 (0) 8 9481 0999
Email: perthevents@sut.org

SUT Membership Number _____

Full name _____

Job title _____

Company _____

Address _____

Postcode _____

Telephone _____

Email _____

Signature _____

Course fees: (please tick)

- Early Bird* Member \$1200 AUD
- Early Bird* Non-member \$1430 AUD
- Member \$1495 AUD
- Non-Member \$1780 AUD
- Student Member \$ 480AUD

The prices above are **inclusive** of GST

Early Bird registrations must be received by 6th March 2024

Cancellations: Refunds will be made on written cancellation received up to 10 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 send a substitute in their place at no charge. Should there be any COVID related shutdowns that impact this course it will be run online instead of in person.

PAYMENT INFORMATION:

Please invoice (PO NO.)
or
Credit Card

Credit card Mastercard, Visa or AMEX* ONLY.

*Payment by AMEX will carry a 2.75% surcharge, Visa a 1.5% surcharge.

Amex Mastercard Visa

Card number

Card holder's name _____

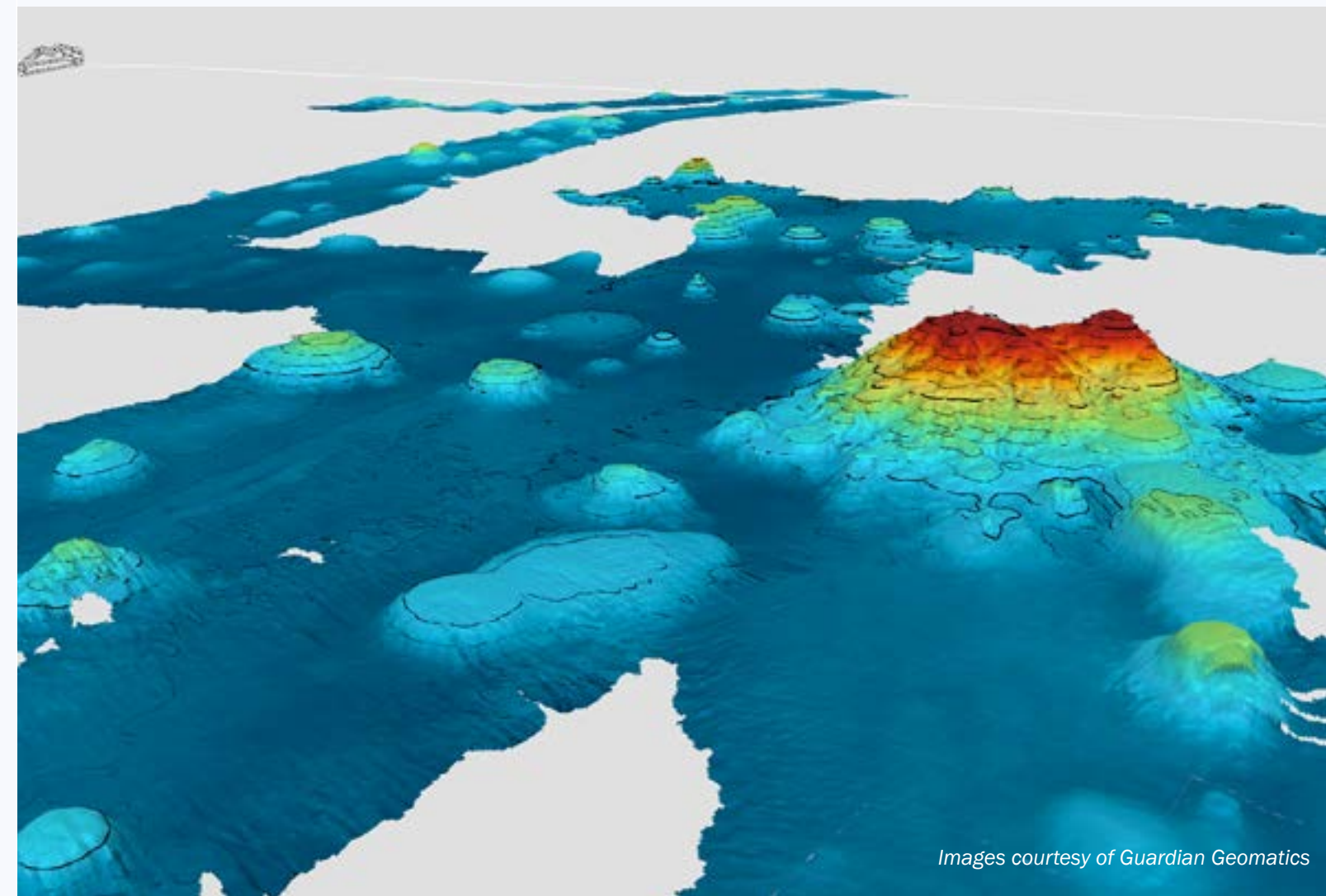
Signature _____ Expiry date _____

Start date _____ Issue number _____

Security Code (last 3 digits on the back of your card)

Email address to send receipt _____

Please tick here if you do not want to receive our weekly newsletter.



Images courtesy of Guardian Geomatics