

Introduction to Positioning and Survey

5th March 2009

Fremantle Room, Parmelia Hilton Hotel,
Mill Street, Perth., Australia



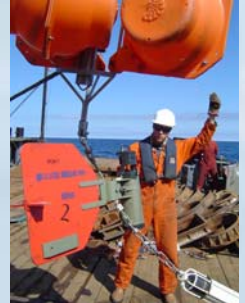
Programme

08.15 Registration

08.25 Introduction - Greg Paten, Woodside Energy Ltd.

08.45 SESSION 1 - GEODESY and POSITIONING PRINCIPLES
Geodesy - Mal Jones, Geodesy Jones

- * Coordinates - Geographical - Grid - Cartesian
- * Ellipsoids
- * Horizontal Datums
- * Datum Transformations
- * Vertical Datums
- * Geoid
- * Projections and Grids



09.45 Positioning Principles - Lee Woolhouse, EGS Survey

- * Range-Range
- * Angular
- * Range-Bearing
- * Pseudo Range
- * GPS principles
- * Precision
- * Reliability
- * Least Squares Adjustment

10.35 Tea/Coffee

10.50 SESSION 2 - POSITIONING TECHNOLOGY

Surface Positioning - Gareth Almond, OmniSTAR Pty Ltd.

- * History of Surface Positioning Radio Waves
- * Principles
- * Frequency and Range
- * Triangulation
- * GPS
- * GPS Error Sources
- * DGPS positioning (Code Phase/Carrier Phase)
- * Transmitting Corrections
- * WAS, SA, RTK
- * Correction & Subscription Service

11.45 Vessel Dynamics - Phil Griffin, Marine Management Consulting

- * Centre of Gravity
- * Stability
- * Pressure Point
- * Turning of Vessels
- * Squat
- * Magnetic Compass
- * Gyro Compass
- * Attitude Sensors
- * Attitude Sensor Calibration
- * Inertial Navigation Sensor

12.45 Lunch

13.30 Underwater Positioning Technology - Bruce Baker, Neptune Geomatics

- * USBL
- * LBL
- * Metrology
- * ROV
- * INS

14.30 SESSION 3 - OVERVIEW OF OTHER SURVEY TECHNIQUES

Tides and Currents - Phil Griffin, Marine Management Consulting

- * Tide Measurement
- * Current Profiling
- * Sound Velocity Profiling
- * Prediction
- * Temp Salinity

15.00 Tea/Coffee

15.15 Bathymetry and Engineering Geophysics Systems - Andy Lane, Woodside Energy Ltd.

- * SBES
- * MBES
- * SSS
- * SBP
- * Magnetometer
- * ROV mounted vs AUV

15.45 Accuracy, Resolution and Error Sources - Alan Buchanan, RPS Australia

- * Coverage and Resolution
- * Positioning Accuracy of survey data
- * Error Budgets, Total Propagated Error

16.15 Survey Data Processing - Erin Pyke, Fugro Survey Pty Ltd.

- * Validation
- * Tide Correction
- * Interpolation
- * Data Modeling - Gridding and Thinning and Countouring
- * Data Presentation/Visualization

16.45 SESSION 4 - CASE STUDIES

Bayu Undan Installation - Ken Eddy, Fugro Survey Pty Ltd.

17.15 Day End



Registration Information

For further information on this event please contact Joyce Bremner on j.bremner@sut.org
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 - \$495.00 Inc. GST

Non Members - \$550.00 Inc. GST

Fee includes - A copy of the Handbook of Offshore Surveying - Book One - value \$200

All refreshments, CD containing PDF's of the main presentations.

Preferred Payment Methods:

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

Cheque: Australian Dollar only, made payable to The Society for Underwater Technology
Send to, SUT, PO Box 7284 Cloisters Square, Perth WA 6850

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

Please make sure you reserve a place by e-mail or fax before sending payment.

Cancellations:

Refunds will be made on written cancellation received up to ten working days in advance of the event, but will be subject to a 15% handling charge. 50% will be deducted up to three working days in advance and 100% thereafter up to the start of the event. No refund will be given for non-attendance. Delegates may wish to nominate a substitute in their place.

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

Registration Form

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