

# Symposium Program

**Monday 17 July 2006**

*Spatial Sciences Institute - Qld Region*  
6 CPD Points (full day)

**Civil GPS Service Interface Committee (CGSIC) Meeting**  
**Holiday Inn Surfers Paradise, Level 2, Tallangatta Room**

**Program**

<b>0900 - 1030</b>	<b>Session 1</b>
0900 - 0915	Welcome <b>Keith McPherson</b> <i>Vice Chair Asia Pacific</i>
0915 - 0930	Welcome <b>John Wilde</b> <i>CGSIC International Sub Committee Deputy Chair</i>
0930 - 0945	Role of CGSIC International Sub Committee <b>John Wilde</b> <i>CGSIC International Sub Committee Deputy Chair</i>
0945 - 1000	GPS Policy Overview <b>Capt Matthew Blizard</b> <i>USCG Deputy Chair CGSIC</i>
1000 - 1030	Overview of Activities at the Australian Research Centre for Aerospace Automation (ARCAA) <b>Troy Bruggeman</b> <i>PhD Candidate, Queensland University of Technology</i>
<b>1030 - 1100</b>	<b>Morning Tea - Tallangatta Pre-function Area, Level 2</b>
<b>1100 - 1230</b>	<b>Session 2</b>
1100 - 1120	GPS Constellation Status <b>Rebecca Casswell</b> <i>Executive Secretary CGSIC</i>
1120 - 1150	Carrier Phase-Based GNSS <b>Matt Higgins</b> <i>Principal Survey Advisor, Department of Natural Resources, Mines &amp; Water, Queensland</i>
1160 - 1230	GPS Potential Vulnerabilities <b>Keith McPherson</b> <i>Airservices Australia</i>
<b>1230 - 1330</b>	<b>Lunch (at own expense)</b>
<b>1330 - 1500</b>	<b>Session 3</b>
1330 - 1400	Australian Strategic Planning <b>Keith McPherson</b> <i>Airservices Australia</i>
1400 - 1420	Victorian Differential GPS Network <b>Peter Ramm</b> <i>Director of Geodesy, Department of Sustainability &amp; Environment, Victoria</i>
1420 - 1500	APEC GNSS Activities <b>Keith McPherson</b> <i>Airservices Australia</i>
<b>1500 - 1530</b>	<b>Afternoon Tea - Tallangatta Pre-function Area, Level 2</b>
<b>1530 - 1700</b>	<b>Session 4</b>
1530 - 1600	Interference <b>Prof Chris Rizos</b> <i>The University of New South Wales</i>
1600 - 1700	Discussion Group - Issues with the use of GPS in Australia and Region
1700	Close of CGSIC Sessions <b>John Wilde</b> <i>CGSIC International Sub Committee Deputy Chair</i>

**Tuesday 18 July 2006**

**Pre-Symposium Workshops**

**Program**

<b>0900 - 1200</b>	<b>Workshop 1 - Tallawah Room, Level 2</b> <span style="float: right;"><i>Spatial Sciences Institute - Qld Region - 3 CPD points</i></span>	
	<b>Design and Development of the European Satellite Navigation System Galileo</b> Dr Guenter Hein <i>Director, Institute of Geodesy &amp; Navigation, University FAF Munich, Germany</i>	
<b>1200 - 1230</b>	<b>Lunch (at own expense)</b>	
<b>1230 - 1430</b>	<b>Workshop 2 - Tallawah Room</b> <i>Spatial Sciences Institute - Qld Region - 2 CPD Points</i>	<b>Workshop 3 - Tilba Rooms 1 &amp; 2</b> <i>Spatial Sciences Institute - Qld Region - 2 CPD Points</i>
	<b>Modelling and Real Time Simulation of GNSS Environmental Vulnerability Issues</b> Graeme Hooper <i>Managing Director</i> and Joe Fleming <i>Software Manager, GPSat Systems Australia, Vic Australia</i>	<b>OR</b> <b>Alternatives to GNSS for outdoor and indoor positioning</b> Dr Joel Barnes & Professor Chris Rizos <i>School of Surveying &amp; Spatial Information Systems, UNSW, NSW Australia</i>

## Tuesday 18 July 2006

### Pre-Symposium Workshops

#### Program (continued)

1445 - 1645	<b>Workshop 5 - Tallawallah Room, Level 2</b>	<i>Spatial Sciences Institute - Qld Region - 2 CPD points</i>
	<b>Integration of GPS &amp; INS - Principle, Implementation &amp; Applications</b> Dr Jinling Wang & Yong Li <i>School of Surveying &amp; Spatial Information Systems, UNSW, NSW Australia</i>	

## Wednesday 19 July 2006

*Spatial Sciences Institute - Qld Region*

**8 CPD Points (full day)**

#### Program

0800 - 1700	Registration - Pre-function Area, Level 2	
0930 - 1030	<b>Session 1: The GNSS Global Perspective</b> <b>Chair: Rob Henshaw</b> <b>Room: Tatiara</b>	
0930 - 0945	Official Welcome <b>Anna Bligh</b> <i>Deputy Premier, Treasurer and Minister for State Development, Trade and Innovation</i>	
0945 - 1030	Current Operations and Future Developments in GPS <b>Keith McPherson</b> <i>Manager GNSS, Airservices Australia, Canberra ACT, Australia</i>	
1030 - 1100	Morning Tea and Official Opening of Trade Exhibition - Tarcoola Ballroom, Level 4	
1100 - 1300	<b>Session 2: The GNSS Global Perspective (continued)</b> <b>Chair: Chris Rizos</b> <b>Room: Tatiara</b>	
1100 - 1145	European Commission Galileo Update <b>Bruno Julien</b> <i>Ambassador and Head of Delegation of the European Commission to Australia and New Zealand</i>	
1145 - 1230	Galileo at the Horizon: Compliment or Competition to GPS? <b>Dr Guenter Hein</b> <i>Director, Institute of Geodesy and Navigation, University of FAF, Munich</i>	
1230 - 1300	Galileo A Global Civil Navigation Satellite System Developed Under a PPP <b>Hans Peter Marchlewski</b> <i>General Councillor, Galileo Joint Undertaking, Brussels, Belgium</i>	
1300 - 1400	Lunch and Trade Exhibition - Tarcoola Ballroom, Level 4	
1400 - 1530	<b>Session 3: The GNSS Global Perspective (continued)</b> <b>Chair: Neil Other</b> <b>Room: Tatiara</b>	
1400 - 1445	Current Operations and Future Developments in GLONASS <b>Sergy Revniviikh</b> <i>Deputy Head for Mission Control GLONASS, Russia (invited)</i>	
1445 - 1530	GNSS Augmentation Using Quasi-Zenith Satellite System (QZSS) and its benefits for Satellite Navigation Applications (56) <b>Susumu Yoshitomi</b> <i>Director, Japan Aerospace Exploration Agency, Tsukuba Ibaraki, Japan</i>	
1530 - 1600	Afternoon Tea and Trade Exhibition - Tarcoola Ballroom, Level 4	
1600 - 1700	<b>Session 4: The GNSS Australia Perspective</b> <b>Chair: Keith McPherson</b> <b>Room: Tatiara</b>	
1600 - 1630	GNSS Business Opportunities in Australia <b>Robert Lorimer</b> <i>Managing Partner, Position One Consulting, Brisbane Qld, Australia</i>	
1630 - 1700	GNSS Business Networking Panel Session	
1700	Close of Sessions	
1715 - 1815	<b>IGNSS 2006 Welcome Reception - Tarcoola Ballroom, Level 4</b> <b>Proudly Sponsored by CR Kennedy Total Surveying Solutions</b>	

### Program

0800 - 1700	Registration - Pre-function Area, Level 2	
0900 - 1030	<b>Session 5: Linking International GNSS to Australian GNSS</b> Chair: <b>Chris Rizos</b> Room: <b>Tatiara</b>	
0900 - 0930	An Overview of GNSS Related Organisations in Australia <b>Robert Lorimer</b> <i>Managing Partner, Position One Consulting, Brisbane Qld, Australia</i>	
0930 - 1000	The Proposed Australian Galileo Test Bed [69] <b>Werner Enderle</b> <i>Professor, Australian GNSS Joint Undertaking (AGJU), Queensland University of Technology (QUT), Brisbane, Queensland, Australia</i>	
1000 - 1030	Linking International GNSS to Australian GNSS <b>Matt Higgins</b> <i>Principal Survey Advisor, Department of Natural Resources, Mines and Water, Brisbane Qld, Australia</i>	
1030 - 1100	Morning Tea and Trade Exhibition - Tarcoola Ballroom, Level 4	
	<b>CONCURRENT SESSIONS</b>	
1100 - 1230	<b>Session 6A: Space &amp; Ground Based Augmentation</b> Chair: <b>Kefei Zhang</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 6B: Integrated Systems</b> Chair: <b>Jinling Wang</b> Room: <b>Tatiara</b>
1100 - 1130	Implementation of Prototype Satellite Based Augmentation System (SBAS) [60] <b>T Sakai</b> <i>Electric Navigation Research Institute, Tokyo, Japan</i>	Time Synchronization Analysis of an FPGA based GPS/INS Integrated System [28] <b>Y Li</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1130 - 1200	Remonte Control System for the Quasi-Zenith Satellite Crystal Oscillator Based on the Two-Way Time Transfer Method [39] <b>F Tappero</b> <i>AIST, Japan</i>	Stochastic Modelling Strategies in GPS/INS Data Fusion Process [35] <b>W Ding</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1200 - 1230	Sparse or Dense: Challenges of Australian Network RT [80] <b>K Zhang</b> <i>Professor, Mathematical &amp; Geospatial Sciences, RMIT University, Melbourne Vic, Australia</i>	Performance Analysis of the Ultra-Tight GPS/INS Integration Based on an Improved Kalman Filter Design for Tracking Loops [38] <b>J Wang</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1230 - 1330	Lunch and Trade Exhibition - Tarcoola Ballroom, Level 4	
1330 - 1500	<b>Session 7A: Space &amp; Ground Based Augmentation</b> Chair: <b>Kefei Zhang</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 7B: Integrated Systems</b> <i>Proudly sponsored by Queensland Government</i> Chair: <b>Matt Higgins</b> Room: <b>Tatiara</b>
1330 - 1400	A Regional Galileo Integrity Concept for Australasia [72] <b>W Enderle</b> <i>Professor, Co-Operative Research Centre for Satellite Systems, Queensland University of Technology, Brisbane Qld, Australia</i>	GPS to Improve the Safe Operation of Vehicles [17] <b>R Lorimer</b> <i>Managing Partner, Position One Consulting, Brisbane Qld, Australia</i>
1400 - 1430	Wide Area Carrier Phase Positioning - Comparison of the Two Alternate Methods [29] <b>M Bannister</b> <i>OmniSTAR Pty Ltd., West Perth WA, Australia</i>	Error analysis of an Integrated Inertial Navigation System & pSLAM (pseudoSLAM) During GPS Outages [21] <b>L Connolly</b> <i>Advanced Information Processing, British Aerospace (BAE) Systems, Bristol, United Kingdom</i>
1430 - 1500	An Investigation of CORS Networks for Western Australia [48] <b>M Dolling</b> <i>Manager Survey Inspection, Department Of Land Administration, Midland WA, Australia</i>	A Time-Synchronization Device for Tightly Coupled GPS/INS Integration [5] <b>P Mumford</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1500 - 1530	Afternoon Tea and Trade Exhibition - Tarcoola Ballroom, Level 4	
1530 - 1600	<b>Session 8A: Space &amp; Ground Based Augmentation</b> Chair: <b>Yanming Feng</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 8B: Integrated Systems</b> Chair: <b>Jinling Wang</b> Room: <b>Tatiara</b>
1530 - 1600	Exploring GNSS Performance Benefits from Multiple Satellite Systems & Multiple Carrier Signals using existing GPS Constellation & Measurements [76] <b>Y Feng</b> <i>CRC for Satellite Systems, Queensland University of Technology, Brisbane Qld, Australia</i>	E-Trakka a fully integrated GPS System to assist with Horse Training [82] <b>P Oppenlander</b> <i>GPSat Systems Australia Pty Ltd., Macleod Vic, Australia</i>
1600 - 1630	Temporal Variation of the Victorian GPSnet Base Stations [13] <b>S Yousufi</b> <i>Mathematical &amp; Geospatial Science, RMIT University, Melbourne Vic, Australia</i>	Designing a Neural Network for GPS/INS/PL Integration [54] <b>J Wang</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1630 - 1700	An Adaptive Kalman Filter algorithm for Real Time Estimation of Receiver Clock in SBAS [44] <b>R Gupta</b> <i>Flight Dynamics Division, ISRO, Karnataka, India</i>	An Architecture for Satellite Navigation Signal Simulation [90] <b>G Li</b> <i>Institute for Automation, National University of Defense Technology, Changsha, Hunan, China</i>
1700	Close of Sessions	
1715 - 1815	IGNSS Trade Cocktail Function - Tarcoola Ballroom, Level 4 Proudly Sponsored by CR Kennedy Total Surveying Solutions	

# Thursday 20 July 2006

## Program

Registration – Pre-function Area, Level 2		0800 – 1700
Morning Tea and Trade Exhibition – Tarcoola Ballroom, Level 4		
<b>CONCURRENT SESSIONS</b>		
<b>Session 6C: Aviation Applications</b> <i>Proudly sponsored by Airservices Australia</i>		<b>Session 6D: Positioning</b>
<b>Chair: Keith McPherson</b>	<b>Room: Tallawalah</b>	<b>Room: Tallangatta</b>
Beta GBAS Category 1 Installation and Certification in Australia? Lessons Learned [19] <b>K McPherson</b> <i>Manager GNSS, Airservices Australia, Canberra ACT, Australia</i>		GNSS Data Protocols: Choice and Implementation [26] <b>TS Yan</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
The Use of GNSS for Aviation in Australia [66] <b>J Woods</b> <i>Civil Aviation Safety Authority, Canberra ACT, Australia</i>		Estimation of Ionospheric Delays in Dual Frequency Positioning [18] <b>H Isshiki</b> <i>Institute of Mathematical Analysis (IMA), Osaka, Japan</i>
A New Receiver Autonomous Integrity Monitoring Strategy for Multi-Fault Exclusion using GPS and Galileo Constellations [75] <b>Y Feng</b> <i>Doctor, CRC for Satellite Systems, Queensland University of Technology, Brisbane Qld, Australia</i>		Integration of GPS and GIS in Bicycle Trail Planning [25] <b>J Blachowski</b> <i>Doctor, Institute of Mining Engineering, Wroclaw University of Technology, Wroclaw, Poland</i>
Lunch and Trade Exhibition – Tarcoola Ballroom, Level 4		1230 – 1330
<b>Session 7C: Aviation Applications &amp; Navigation Systems</b> <i>Proudly sponsored by Australian Research Centre for Aerospace Automation</i>		<b>Session 7D: Mapping &amp; Surveying</b> <i>Proudly sponsored by Topcon Positioning Systems</i>
<b>Chair: Duncan Greer</b>	<b>Room: Tallawalah</b>	<b>Room: Tallangatta</b>
Ground-based Regional Augmentation System (GRAS) [20] <b>K McPherson</b> <i>Manager GNSS, Airservices Australia, Canberra ACT, Australia</i>		Geographic Information Mapping for Email Services [97] <b>J Zhang</b> <i>Computer Science &amp; Mathematics, Victoria University, Melbourne Vic, Australia</i>
Chipscale Atomic Clocks: Benefits to Airbourne GNSS Navigation Performance [46] <b>T Bruggemann</b> <i>Engineering Systems, Queensland University of Technology, Brisbane Qld, Australia</i>		An Investigation of Precise Point RTK Positioning Application for Airborne Geophysical Survey [36] <b>F Wu</b> <i>Doctor, Department of Geospatial Science, RMIT University, Melbourne Vic, Australia</i>
Simulation Results for High-Performance Navigation System Utilising the Ground Based Regional Augmentation System for General Aviation Aircraft [52] <b>D Greer</b> <i>Faculty of Built Environment &amp; Engineering, Queensland University of Technology, Brisbane Qld, Australia</i>		
Afternoon Tea and Trade Exhibition – Tarcoola Ballroom, Level 4		1500 – 1530
Close of Sessions		1700
IGNSS Trade Cocktail Function – Tarcoola Ballroom, Level 4 Proudly Sponsored by CR Kennedy Total Surveying Solutions		1715 – 1815

### Program

0830 - 1700	Registration – Pre-function Area, Level 2	
	<b>CONCURRENT SESSIONS</b>	
<b>0900 - 1030</b>	<b>Session 9A: Space &amp; Ground Based Augmentation</b> <i>Proudly sponsored by Queensland Government</i> Chair: <b>Jemma Picco</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 9B: Integrated System &amp; Receiver Technology</b> Chair: <b>Peter Mumford</b> Room: <b>Tatiara</b>
0900 - 0930	Validating a CORS Network Management Model Using A Case Study [7] <b>M Hale</b> <i>Geomatics, The University of Melbourne, Melbourne Vic, Australia</i>	Assisted Multi-Antenna GPS Altitude Determination [23] <b>J Lorga</b> <i>Faculty of Aerospace Engineering, Delft University of Technology, Delft, Netherlands</i>
0930 - 1000	SunPOZ: Enabling Centimetre Accuracy GNSS Applications in Queensland [100] <b>G Cislawski</b> <i>Senior Surveyor, Department of Natural Resources, Mines and Water, Brisbane Qld, Australia</i>	An Open GNSS Receiver Research Platform [6] <b>P Mumford</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1000 - 1030	Economical DGPS for Spade width Accuracy [27] <b>P Terrett</b> <i>Rapid Map Australia, Bundoora Vic, Australia</i>	
1030 - 1100	Morning Tea and Trade Exhibition – Tarcoola Ballroom, Level 4	
<b>1100 - 1230</b>	<b>Session 10A: Space &amp; Ground Based Augmentation</b> Chair: <b>Yi Zheng</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 10B: Receiver Technology</b> <i>Proudly sponsored by Topcon Positioning Systems</i> Chair: <b>Jason Killpack</b> Room: <b>Tatiara</b>
1100 - 1130	Pseudolite Options for Improved Mining Navigation [70] <b>G Einicke</b> <i>Principle Research Scientist, Mining Automation Group, CSIRO Queensland, Brisbane Qld, Australia</i>	Improving Signal Quality in FPGA Based GPS Receiver Designs [59] <b>P Mumford</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1130 - 1200	Regional GNSS Satellite Orbit Monitoring for Improved Real Time Zenith Tropospheric Delay Estimations [77] <b>Y Zheng</b> <i>Engineering Systems, Queensland University of Technology, Brisbane Qld, Australia</i>	Sampling and Jitter Considerations for GNSS Software Receivers [64] <b>B Amin</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
1200 - 1230		Mapping of Multioperable GNSS Receiver Algorithms to a Heterogeneous ASIP Based Platform [62] <b>G Kappen</b> <i>Chair of Electrical Engineering and Computer Systems, RWTH, Aachen NRW, Germany</i>
1230 - 1330	Lunch & Trade Exhibition – Tarcoola Ballroom, Level 4	
<b>1330 - 1500</b>	<b>Session 11A: Space &amp; Ground Based Augmentation &amp; Locata</b> Chair: <b>Joel Barnes</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 11B: Receiver Technology</b> <i>Proudly sponsored by Topcon Positioning Systems</i> Chair: <b>Jason Killpack</b> Room: <b>Tatiara</b>
1330 - 1400	GEMS - GNSS Environment Monitoring System [81] <b>A Mallia</b> <i>GPSat Systems Australia Pty Ltd, Macleod Vic, Australia</i>	FFT Based Acquisition Algorithm in a Multi-Frequency Software Receiver [58] <b>B Eissfeller</b> <i>Professor, Geodesy and Navigation, University of FAF-Munich, Munich, Germany</i>
1400 - 1430	Locata: A New Positioning Technology for Classically Difficult GNSS Environments [12] <b>J Barnes</b> <i>Doctor, School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>	Phase Adaptive Integration for GNSS Signals [73] <b>Z Qin</b> <i>Nokia Corporation, Tampere, Finland</i>
1430 - 1500	Locata: Interoperability with RTK-GPS & DGPS Radios in the ISM Band [14] <b>A Pahwa</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>	
1500 - 1530	Afternoon Tea & Trade Exhibition – Tarcoola Ballroom, Level 4	
<b>1530 - 1700</b>	<b>Session 12A: Telematics &amp; Timing</b> Chair: <b>Joel Barnes</b> Room: <b>Tilba 1 &amp; 2</b>	<b>Session 12B: Geodesy</b> Chair: <b>Chris Rizos</b> Room: <b>Tatiara</b>
1530 - 1600	Relativistic GPS and Quantum Approaches to Clock Synchronization. How these could be combined? [95] <b>A Da Silva</b> <i>Louisiana State University, Baton Rouge LA, United States</i>	Plate Motions Determined by CGPS in South Pacific Region [45] <b>M Jia</b> <i>Geoscience Australia, Canberra, ACT, Australia</i>
1600 - 1630	A Privacy Preserving GPS-based Pay-as-You-Drive Insurance Scheme [31] <b>M Iqbal</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>	The Australian Regional GPS Network Real time and Beyond [65] <b>M Deo</b> <i>Geoscience Australia, Canberra ACT, Australia</i>
1630 - 1700	Design of Tools and Plan for Remote Synchronization System for Quasi-Zenith Satellites [8] <b>T Iwata</b> <i>National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan</i>	Atmospheric Bias Interpolation for Network RTK GPS [32] <b>P Grgich</b> <i>The University of Melbourne, Melbourne Vic, Australia</i>
1700	Close of Sessions	

# Friday 21 July 2006

## Program

Registration – Pre-function Area, Level 2		0800 – 1700
<b>CONCURRENT SESSIONS</b>		
<b>Session 9C: Navigation Systems &amp; Applications / Other</b>		<b>Session 9D: Inertial Systems &amp; Special Applications</b>
<b>Chair: Keith McPherson</b>	<b>Room: Tallawalah</b>	<b>Chair: Jinling Wang</b>
<b>Room: Tallawalah</b>		<b>Room: Tallangatta</b>
High Fidelity 3-D Urban Model-Based Signal Performance Simulation of the Current and Future GNSSs in Australia [84] <b>L Densley</b> <i>Mathematical and Geospatial Sciences, RMIT University, Melbourne Vic, Australia</i>		Carrier Phase and Pseudorange Based GPS/INS Integrated Navigation System for Land Vehicles [91] <b>Y Kubo</b> <i>Electrical &amp; Electronic Engineering, Ritsumeikan University, Kusatsu Shiga, Japan</i>
Testing and Evaluation of a GPS CORS Network for Real Time Centimetric Positioning – The Victoria GPSnet™ Case Study [9] <b>C Gordini</b> <i>Doctor, Department of Geomatics-The University of Melbourne, Melbourne, Victoria, Australia</i>		Contemporary Position and Navigation Needs of Precision Agriculture & Victorias GPSnet™ CORS Network [41] <b>J Denham</b> <i>Geospatial Information, RMIT University, Melbourne Vic, Australia</i>
Processing GPS Data for Travel Surveys [11] <b>C FitzGerald</b> <i>Institute of Transport &amp; Logistics Studies, University of Sydney, Sydney NSW, Australia</i>		
Morning Tea and Trade Exhibition – Tarcoola Ballroom, Level 4		1030 – 1100
<b>Session 10C: Navigation Systems &amp; Special Applications</b>		<b>Session 10D: Signal Interference &amp; Multipath</b>
<i>Proudly sponsored by Airservices Australia</i>		
<b>Chair: Keith McPherson</b>	<b>Room: Tallawalah</b>	<b>Chair: Andrew Dempster</b>
<b>Room: Tallawalah</b>		<b>Room: Tallangatta</b>
Estimation of Non-Dispersive Effect in SydNET for GPS RTK Positioning [15] <b>C Rizos</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>		An application of Post-Correlation GPS Receiver Interference Detection and Characterization [49] <b>A Tabatabaei Balaei</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
Agricultural Opportunities of Precision [2cm] Navigation [102] <b>J Tullberg</b> <i>Control Traffic Farming Solutions, Brisbane Qkl, Australia</i>		Experimental Evaluation of a Dual Polarized Patch Antenna Array [42] <b>M Trinkle</b> <i>Electrical/ Electronic Department, Adelaide University, Adelaide SA, Australia</i>
		The Application of GPS Multipath Mitigation Techniques in BOC Signals [43] <b>A Dempster</b> <i>Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>
Lunch and Trade Exhibition – Tarcoola Ballroom, Level 4		1230 – 1330
<b>Session 11C: Location Based Services</b>		<b>Session 11D: Signal Interference &amp; Multipath</b>
<b>Chair: Andrew Dempster</b>	<b>Room: Tallawalah</b>	<b>Chair: Garry Cisowski</b>
<b>Room: Tallawalah</b>		<b>Room: Tallangatta</b>
Positioning Case Studies Using RFID and GNSS: Indoor and Outdoor [85] <b>K Zhang</b> <i>Professor, Mathematical &amp; Geospatial Sciences, RMIT University, Melbourne Vic, Australia</i>		Code-Carrier Phase Smoothing via the Least Squares Observation Equations Model [47] <b>R Fraser</b> <i>Department of Natural Resources and Mines, Brisbane, Qld, Australia</i>
Wireless Signal Map Matching for NLOS Error Mitigation in Mobile Phone Positioning [51] <b>A Dempster</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>		Improved Multipath Model Validation in Semi-urban Aircraft & Shipboard Environments [98] <b>J Weiss</b> <i>University of Colorado, Boulder CO, USA</i>
Pseudolite-augmented Precise Positioning System for Vessel Berthing [55] <b>S Hyun Park</b> <i>Maritime &amp; Ocean Engineering Research Institute, Daejeon, Korea, South</i>		
Afternoon Tea and close of Trade Exhibition – Tarcoola Ballroom, Level 4		1500 – 1530
<b>Session 12C: Special Applications</b>		<b>Session 12D: GNSS Regulation / Education &amp; Other</b>
<b>Chair: Andrew Dempster</b>	<b>Room: Tallawalah</b>	<b>Chair: Rob Henshaw</b>
<b>Room: Tallawalah</b>		<b>Room: Tallangatta</b>
A-GPS for Firefighting [40] <b>A Dempster</b> <i>School of Surveying &amp; Spatial Information Systems, University of New South Wales, Sydney NSW, Australia</i>		The Australian GNSS Joint Undertaking (AGJU) – Concept & Objectives [71] <b>W Enderle</b> <i>Professor, Australian GNSS Joint Undertaking (AGJU), Queensland University of Technology (QUT), Brisbane, Qld, Australia</i>
An analysis of the position calculation accuracy for GPS status aiding of an A-GPS server [88] <b>N Harper</b> <i>Andrew Network Solutions Asia-Pacific, Wollongong NSW, Australia</i>		Regulating GNSS - Present Strategy, Future Challenges [33] <b>M Elsegood</b> <i>Australian Communications Authority, Canberra ACT, Australia</i>
Close of Sessions		1700