

Small Satellites Systems and Services – The 4S Symposium

PROGRAMME

Sunday, 25 May 2008

18.00-19.30	Pre-registration
-------------	------------------

Monday, 26 May 2008

08.00	Registration
09.00	Opening Ceremony <i>L. Maresi</i> ESA
09.10	Welcome Address <i>Mr Stathis Kousournas</i> Vice perfecturer of Dodecanese
09.15	Introductory Remark <i>C. Stavriniadis</i> Head of Mechanical Engineering Department ESA
09.20	Welcome Address <i>Prof. S. Krimigis</i> Head of the Greek Delegation to the ESA Council on behalf of the Greek Secretary General for Research and Technology
09.30	<u>Invited Speaker</u> Small Planetary Missions, with an update on MESSENGER results <i>Prof. S. Krimigis</i> Head Emeritus, Space Department, Applied Physics Laboratory, Johns Hopkins University
10.00	<u>Invited Speaker</u> Legal Aspects of Space Utilization <i>Prof. Dr. Kai-Uwe Schrogl</i> , Director of European Space Policy Institute (ESPI)
10.30	Coffee break
11.00	<u>Invited Speaker</u> Challenges & Opportunities of Cooperation in Space Defence Systems in the 21st Century <i>Colonel Tom "Dingo" Doyne</i> Deputy of Space Programs and Policy Directorate - USAF
Session 1	International Cooperation Chairs: E. Gill & C. Stavriniadis
11.30	Abstract Venus Micro Satellite Mission Programming, in the Frame Work of International Cooperation: Concept and Implementation <i>Vadon, H.; Poncet, M.</i> CNES (France)
11.45	Abstract JC2Sat-FF: An International Collaboration Nano-Sat Project Overview of the Project, System Analyses and Design <i>Yoshihara, K. 1; Mierlo, M.2; Ng, A.2; Shankar Kumar, B.2; De Ruiter, A.2; Komatsu, Y.2; Horiguchi, H.1; Hashimoto, H.1</i> 1JAXA (Japan); 2CSA (Canada)
12.00	Abstract Preliminary Design of the Dutch-Chinese FAST Micro-Satellite Mission <i>Maessen, D.C.1; Gill, E.1; Verhoeven, C.J.M.1; Zheng, G.T.2</i> 1Delft University of Technology (Netherlands); 2Tsinghua University (China)
12.15	Abstract Satellite-Based Networks for U-Health & U-Learning <i>Graschew, G. 1; Roelofs, T.2; Rakowsky, S.2; Schlag, P.2</i> 1Max-Delbrueck-Centrum for Molecular Medicine (Germany); 2Germany
12.30	The Phoenix Mission- a US-Canada Mars Lander

	<i>Nikanpour, D.</i> <i>Canadian Space Agency (Canada)</i>
12.45	Lunch break
Session 2	System Analysis I Chairs: F. Teston & V. Lappas
15.00	Abstract A Communication Hub in Lagrange L1 for Opening the Area to Small Satellites <i>Prado, J.Y.; Hinglais, E.</i> <i>CNES (France)</i>
15.15	Abstract Precision Formation Flight: The CanX-4 and CanX-5 Dual Nanosatellite Mission <i>Orr, N.G.; Eyer, J.K.; Larouche, B.P.; Zee, R.E.</i> <i>University of Toronto Institute for Aerospace Studies Space Flight Laboratory (Canada)</i>
15.30	Abstract SDS Program: Advanced Technology Demonstration Satellites Developed by JAXA's Young Engineers <i>Nakamura, Y.; Kawara, H.; Hirako, K.; Hashimoto, H.</i> <i>JAXA (Japan)</i>
15.45	Abstract Overview on CNES Micro and Mini Satellites Missions: In Flight, Under Development and Next <i>Landiech, Ph.</i> <i>CNES (France)</i>
16.00	Abstract PRISMA Formation Flying Project in System Test Phase <i>Persson, S.; Veldman, S.</i> <i>Swedish Space Corporation (Sweden)</i>
16.15	Coffee break
Session 3	Earth Observation I Chairs: F. Svelto & M. Hurley
16.45	Abstract Very High Resolution Optical Imaging from Small Satellite Survey and Overview of Future Mission <i>Walati, T.; Tausendfreund, M.</i> <i>Carl Zeiss Optronics GmbH (Germany)</i>
17.00	Abstract Breaking Technological Barriers with E-Corice Small Satellites Constellation: One Day, One Meter, One Earth <i>Antikidis, J.P.; Favier, J.J.</i> <i>CNES (France)</i>
17.15	Abstract Design, Development and First Assessment of the SWIR Instrument for Remote Sensing on Board of Egyptosat-1 <i>Vermeiren, J.1; Lapshinov, O.2; Tkachenko, V.3; Varichenko, L.2</i> <i>1XenICs nv (Belgium); 2SSRE Conecs (Ukraine); 3SRDI ELVIT (Ukraine)</i>
17.30	Abstract High Precision Interactive Earth Observation with LAPAN-TUBSAT <i>Renner, U.; Buhl, M.</i> <i>TU-Berlin (Germany)</i>
17.45	Abstract First Microsatellite of ISRO with Remote Sensing Payloads <i>Raghavamurthy, D.V.A.; Krishnaswamy, M.; Shankara, K.N.</i> <i>ISRO Satellite Centre (India)</i>
18.00	Welcome Cocktail

Tuesday, 27 May 2008

Session 4	New Technologies I Chairs: S. Kennedy & D. Nikanpour
09.00	Abstract The Small Satellites Orbit Injection and Orbit Transfer Capabilities Using the Vega "Electric Propulsion Service Module"

	<i>Balduccini, M.1; Cardinali, M.2; Katzkowski, M.3; Saccoccia, G.4</i> <i>1ELV (Italy); 2Thales Alenia Space (Italy); 3OHB (Germany); 4ESA (Italy)</i>
09.15	Abstract Security Concepts for Satellite Links <i>Tobehn, C.1; Penné, B.1; Rathje, R.1; Weigl, A.1; Gorecki, Ch.1; Michalik, H.2</i> <i>1OHB-System AG (Germany); 2IDA - TU Braunschweig (Germany)</i>
09.30	Abstract TET-1 - A German Microsatellite for Technology On-Orbit Verification <i>Foockersperger, S.1; Lattner, K.1; Kaiser, C.1; Eckert, S.2; Bärwald, W.2; Ritzmann, S.2;</i> <i>Mühlbauer, P.3; Turk, M.4; Willemsen, P.4</i> <i>1Kayser-Threde GmbH (Germany); 2Astro- & Feinwerktechnik GmbH (Germany); 3DLR-GSOC (Germany); 4DLR Space Agency (Germany)</i>
09.45	Abstract A Miniaturized Laser Altimeter and Stereo Camera for a Microsatellite Formation Mission <i>Moon, S.G.1; Bentley, M.S.1; Hannemann, S.1; Kraft, S.1; Wielinga, K.2; Kroesbergen, E.2;</i> <i>Rotteveel, J.3; Gill, E.4</i> <i>1Cosine Research B.V. (Netherlands); 2Mecon Engineering B.V. (Netherlands); 3ISIS B.V. (Netherlands); 4Delft University of Technology (Netherlands)</i>
10.00	Abstract Onboard System Monitoring using SVM for Autonomy of Small Satellite Systems <i>Fukushima, Y.</i> <i>Japan Aerospace Exploration Agency (Japan)</i>
10.15	Abstract A Novel, Rugged and Robust Longitudinal Range Finding Method for Formation Flying Missions <i>McDonald, G.; Orchard, D.; Lewin, A.</i> <i>QinetiQ (United Kingdom)</i>
10.30	Abstract The NOX Payload - Flight Validation of a Low-Cost Dual-Frequency GPS Receiver for Micro- and Nano-Satellite Applications <i>Markgraf, M.; Renaudie, C.; Montenbruck, O.</i> <i>DLR/GSOC (Germany)</i>
10.45	Coffee break
Session 5	System Analysis II Chairs: A. Da Silva & P. Landiech
11.15	Abstract Universal Small-Satellite Platform (USSP) Conceptual Design <i>Mirshams, M.; Vafa, A.R.</i> <i>K.N. Toosi University of Technology (Iran, Islamic Republic of)</i>
11.30	Abstract The Core Avionics System for the DLR Compact-Satellite Series <i>Montenegro, S.; Dittrich, L.</i> <i>DLR (Germany)</i>
11.45	Abstract Standards for Responsive Small Satellites <i>Sandhu, G.1; Johnson, M.1; Raynor, W.1; Hurley, M.1; Stadter, P.2; Rogers, A.2; Schwartz, P.2;</i> <i>Griswold, J.3</i> <i>1U.S. Naval Research Laboratory (United States); 2The Johns Hopkins University/Applied Physics Laboratory (United States); 3Rapid Reaction Technology Office, Department of Defense R&E (United States)</i>
12.00	Abstract Standard Busses, Modular Busses, and Plug-and-Play Busses; What is the Difference and Why Does it Matter? <i>Wegner, P.1; Blower, P.2; Wilkenfeld, J.M.3; Wilkenfeld, J.4</i> <i>1Air Force Research Laboratory (United States); 2Aerospace Corp (United States); 3AFRL/RV (United States); 4SAIC (United States)</i>
12.15	Abstract MELCO Standard @Small Satellite System <i>Shimoji, H.; Yoshikawa, S.; Kodeki, K.; Nakamura, M.; Sasaki, T.; Ozaki, T.; Sekine, K.; Kume, M.; Yamaguchi, T.; Koyama, H.; Miyazaki, K.; Yasumitsu, R.</i> <i>Mitsubishi Electric Corporation (Japan)</i>
12.30	Abstract

	The Design of a Power System for the PETSAT Modular Small Spacecraft Bus <i>Clark, C.</i> <i>Clyde Space Ltd (United Kingdom)</i>
12.45	Lunch break
Session 6	Academic Projects I Chairs: E. Beck & P. Jolley
15.00	Abstract Orbit/Attitude Determination and Control for the UMR SAT Mission <i>Dancer, M.; Searcy, J.; Pernicka, H.J.</i> <i>University of Missouri (United States)</i>
15.15	Abstract Mission Results and Project Evaluation of the Delfi-C3 Nano-satellite <i>Bouwmeester, J.1; Aalbers, G.T.1; Ubbels, W.J.2</i> <i>1Delft University of Technology (Netherlands); 2Innovative Solutions In Space (ISIS) (Netherlands)</i>
15.30	Abstract UWE-2 - Attitude Determination Methods for Pico-Satellites <i>Schilling, K.; Schmidt, M.; Busch, S.; Kurz, O.; Ziegler, D.</i> <i>University Wuerzburg (Germany)</i>
15.45	Abstract Development and Flight Results of a PC104/QNX-Based On-Board Computer and Software for the YES2 Tether Experiment <i>Kruijf, M.1; Spiliotopoulos, I.2; Mirmont, M.1</i> <i>1Delta-Utec SRC (Netherlands); 2Patras University of Technology (Greece)</i>
16.00	Abstract Double Ring Network with Link and Broadcast Architecture for Small Satellite <i>Kim, S.; Nakasuka, S.</i> <i>The University of Tokyo (Japan)</i>
16.15	Coffee break
Session 7	Launchers Chairs: F. Maroquenne
16.45	Abstract ASAP: the Access to Space for Small Satellites <i>Thiery, J.</i> <i>Arianespace (France)</i>
17.00	Abstract EUROCKOT Launch Services for ESA Earth Observation, Science and Technology Missions <i>Freeborn, P.; Viertel, Y.</i> <i>EUROCKOT Launch Services GmbH (Germany)</i>
17.15	Abstract Dnepr Launch Missions: Experience of International Cooperation <i>Solovey, V.; Andreev, V.; Mikhailov, V.; Smagin, Yu.; Kainov, V.</i> <i>International Space Company Kosmotras (Russian Federation)</i>
17.30	Abstract New Opportunities for Small Satellite Programs Provided by the Falcon Family of Launch Vehicles <i>Dinardi, A.; Bjelde, B.; Shotwell, G.</i> <i>Space Exploration Technologies (United States)</i>
17.45	Abstract VEGA Launch Service, VEGA Maiden Flight <i>Geffroy, B.1; Gallego San Miguel, P.2</i> <i>1ESA (France); 2ESA (Italy)</i>
18.00	End of day 2

Wednesday, 28 May 2008

Session 8	Mission Analysis Chairs: E. Gill & K. Hirako
09.00	Abstract VIMANA: Feasibility of a GTO Nanosatellite Radiation Belt Mapper <i>Ecoffet, R.1; Codou, G.2; Hernandez, D.1</i>

	1CNES (France); 2IPSA/CNES (France)
09.15	Abstract Nanosatellites: What can they really do? <i>Nann, I.; Abbondanza, S.</i> <i>Thales Alenia Space (France)</i>
09.30	Abstract Tactical Satellite 3 <i>Davis, T.1; Straight, S.D.2</i> <i>1Air Force Research Laboratory (United States); 2USAF (United States)</i>
09.45	Abstract TacSat-2: Pathfinder for a Close Space Support Asset <i>Finley, C.J.</i> <i>Air Force Research Laboratory (United States)</i>
10.00	Abstract Potential of Micro- and Mini-Satellites for Worldwide Monitoring or Surveillance Systems Requiring Frequent Revisit Time <i>Abadie, J.P.; Albouys, V.; Cherchali, S.; Conessa, H.; Le Maitre, J.; Raizonville, P.</i> <i>CNES (France)</i>
Session 9	Telecommunication Chairs: B. Meurer & M. Hurley
10.15	Abstract New Concept of TTC and Payload Telemetry Subsystem for Small Satellites <i>Peragin, E.</i> <i>CNES (France)</i>
10.30	Abstract Development of the European Small Geostationary Satellite SGEO <i>Luebberstedt, H.1; Schneider, A.1; Schuff, H.2; Miesner, Th.1; Winkler, A.1</i> <i>1OHB-System AG (Germany); 2AUDENS Telecommunications Consulting GmbH (Germany)</i>
10.45	Abstract Simobiz - Simulation Tool to Study the Impact of Small Satellites in Mobile Market <i>Prathaban, M.; Mihaela Burlacu, M.; Kohlenberg, J.</i> <i>Institut National des Télécommunications (France)</i>
11.00	Coffee break
Session 10	Exhibit Session Chair: E. Tremolizzo Poster Session Chairs: M. Dancer & J. Searcy
11.00-13.00	Abstract A Service-Oriented Onboard Software Framework for Small Satellites <i>Dannemann, F.; Montenegro, S.</i> <i>DLR (Germany)</i> Abstract Fundamentals of RSSP Mission -Quality Assurance- <i>Huang, A.</i> <i>National Space Organization of Taiwan (Taiwan)</i> Abstract The New DLR Standard Satellite Bus Series (SSB) <i>Montenegro, S.1; Grundmann, J.2; Kazeminejad, B.2; Spietz, P.2</i> <i>1DLR (Germany); 2DLR-RY (Germany)</i> Abstract Hyperspectral Imaging of Forest Resources: The Malaysian Experience <i>Mohd Hasmadi, I.; Kamaruzaman, J.</i> <i>University Putra Malaysia (Malaysia)</i> Abstract High Precision Interactive Earth Observation with LAPAN-TUBSAT <i>Renner, U.; Buhl, M.</i> <i>TU-Berlin (Germany)</i>

Abstract

Onboard System Monitoring using SVM for Autonomy of Small Satellite Systems
Fukushima, Y.
Japan Aerospace Exploration Agency (Japan)

Abstract

Verification of KAUSAT-2 Satellite Attitude Control Algorithm using KAUSatSIM Simulator
Chang, Y.K.; Lee, B.H.
Korea Aerospace University (Korea, Republic of)

Abstract

Application of the Small Satellites Systems for the Environmental Control
Yurikova, E.; Sukhinin, A.
SibSAU (Russian Federation)

Abstract

Generic Approach for the Development and Support of Future Small Missions Based on PROBA Experience
Tilmans, E. 1; Bajot, C.2; Gantois, K.3; Teston, F.4
1ESA (Belgium); 2Redu Space Services (Belgium); 3Verhaert Space (Belgium); 4ESA (Netherlands)

Abstract

KAP@FREGAT - A Carrier for New Technology In-Orbit Demonstration using FREGAT Upper Stage
Kaiser, C.1; Pfeuffer, H.1; Pont, G.1; Smirnow, A.2; Ishin, S.2
1Kayser-Threde GmbH (Germany); 2Lavoshkin Association (Russian Federation)

Abstract

NAOSAT: A Multi-user PicoSat Mission
García-de-Quirós, F.1; Carrasco, J.A.1; Gutiérrez, F.2; Salado, A.1
1Emxys (Spain); 2Alter Technology Group (Spain)

Abstract

Mission Operation, Ground Segment and Services for the German TET-1 Microsatellite (Technology Experiments Carrier)
Muehlbauer, P.1; Wüsten, H.1; Schwarz, J.2; Turk, M.3; Willemsen, P.3; Föckersperger, S.4; Müncheberg, S.4
1DLR - German Space Operations Center (Germany); 2DLR Neustrelitz (Germany); 3DLR Bonn (Germany); 4Kayser-Threde GmbH (Germany)

Abstract

Optimal Three-Axis Attitude Control Design, Simulation and Experimental Verification for Small Satellites Using Magnetic Actuators
Yoon, Z.1; Terzibaschian, Th.2, Raschke, C.3
1Berlin Institute of Technology, Dep. of Aeronautics and Astronautics (Germany); 2German Aerospace Center, Institute of Robotics and Mechatronics, Optical Information Systems (Germany); 3Astro- und Feinwerktechnik Adlershof GmbH (Germany)

Abstract

An Autonomous Variable Emittance Thermal Radiator for Small & Microsat Temperature Control
Nikanpour, D.1; Jiang, X.2; Soltani, M.3
1Canadian Space Agency (Canada); 2CSA (Canada); 3INRS (Canada)

Abstract

Security Concepts for Satellite Links
Tobehn, C.1; Penné, B.1; Rathje, R.1; Weigl, A.1; Gorecki, Ch.1; Michalik, H.2
1OHB-System AG (Germany); 2IDA - TU Braunschweig (Germany)

Abstract

Data Handling for EO-Missions with High Data Rates Requiring Low Resources
Penné, B.1; Tobehn, C.1; Rathje, R.1; Wieser, M.1; Michalik, H.2
1OHB-System AG (Germany); 2IDA TU Braunschweig (Germany)

Abstract

From the Lab to Space - Making the Journey Easier
da Silva Curiel, A.; Davies, P.; Eves, S.; de Groot, Z.
Surrey Satellite Technology Ltd. (United Kingdom)

Abstract

	<p>Development of Small Demonstration Satellites Family in JAXA <i>Kawara, H.; Nakamura, Y.; Hirako, K.; Hashimoto, H.</i> <i>JAXA (Japan)</i></p> <p>Abstract Video System for Prisma Formation Flying Mission <i>Capuano, G.; Severi, M.; Cacace, F.; De Nino, M.; Longobardi, P.</i> <i>Techno System Dev. (Italy)</i></p> <p>Abstract 3-Axis Magnetic Control Within the Prisma Mission <i>Chasset, C.1; Noteborn, R.2; Bodin, P.2; Jakobsson, B.2</i> <i>1Swedish Space Corporation (Sweden); 2Swedish Space Corporation (Sweden)</i></p> <p>Abstract Small Satellite Based Reconstitution Capability Abstract <i>Doggrell, L.J.</i> <i>The Aerospace Corp. (United States)</i></p> <p>Abstract Development and Flight Results of a PC104/QNX-Based On-Board Computer and Software for the YES2 Tether Experiment <i>Kruijff, M.1; Spiliotopoulos, I.2; Mirmont, M.1</i> <i>1Delta-Utec SRC (Netherlands); 2Patras University of Technology (Greece)</i></p> <p>Abstract Launch Perspectives for CNES Small Satellites <i>Zouiten, S.; Bousquet, P.; Dutertre, C.</i> <i>CNES (France)</i></p> <p>Abstract Approach to Solve Remote Sensing Tasks with Small Satellites <i>Sandau, R.1; Brieß, K.2</i> <i>1DLR German Aerospace Center (Germany); 2TU Berlin (Germany)</i></p> <p>Abstract New Technologies in TWSAT - Miniaturisation with a Meaning <i>Raghavamurthy, D.V.A.1; Samudraiah, D.R.M.2; Subrahmanyam, D.3</i> <i>1ISRO Satellite Centre (India); 2Space Applications Centre, INDIA; 3Space Applications Centre (India)</i></p> <p>Abstract New Technologies in TWSAT - Miniaturisation with a Meaning <i>Raghavamurthy, D.V.A.1; Samudraiah, D.R.M.2; Subrahmanyam, D.2</i> <i>1ISRO Satellite Centre (India); 2Space Applications Centre (India)</i></p> <p>Abstract A Back-up Orbit Determination System for Small Satellite Missions <i>Vighnesam, N.V.; Anatta, S.</i> <i>ISRO Satellite Centre (India)</i></p> <p>Abstract MIOSAT Mission Scenario and Design <i>Agostara, C.; Dionisio, C.; Di Salvio, A.; Sgroi, G.</i> <i>Rheinmetall Italia S.p.A. (Italy)</i></p>
13.00	Lunch break
Session 11	In-flight Experiences Chairs: L. Maresi & F. Teston
15.00	<p>Abstract Utilisation of the BIRD Satellite after its End of Operational Life <i>Grundmann, J.1; Halle, W.2; Montenegro, S.3</i> <i>1DLR (Germany); 2DLR-OS (Germany); 3DLR-RY (Germany)</i></p>
15.15	<p>Abstract Nanosat-01 Three Years in Orbit Experience <i>Angulo, M.1; Seoane, L.1; Blanco, R.2; Iglesias, J.1; De Mingo, J.R.1</i> <i>1INTA (Spain); 2TTI Norte - Santander (Spain)</i></p>

15.30	Abstract GIOVE-A: Two Years of Galileo Signals <i>Davies, P. 1; Rooney, E. 1; da Silva Curiel, A. 1; Sweeting, M. 1; Gatti, G. 2</i> 1Surrey Satellite Technology Ltd. (United Kingdom); 2ESA (Netherlands)
15.45	Abstract On-Orbit Results From the TacSat-2 Target Indicator Experiment AIS Payload <i>Duffey, T. 1; Huffine, C. 1; Nicholson, S. 2</i> 1Naval Research Laboratory (United States); 2S Nicholson Consulting (United States)
16.00	Abstract Qualification and In-Flight Demonstration of a European Tether Deployment System and SpaceMail Technology on YES2 <i>Kruijff, M. 1; van der Heide, E.J. 2</i> 1Delft University of Technology, Delta-Utec (Netherlands); 2Delta-Utec SRC (Netherlands)
16.15	Coffee break
Session 12	Academic Projects II Chairs: P. Patterson & J. Kohler
16.30	Abstract Design of an Undergraduate 3-Axis Space Science Satellite <i>Saylor, W.</i> United States Air Force Academy (United States)
16.45	Abstract Design and Qualification of a SmallSat Stepper Motor Driver, Flight Results On-Board the Yes2 Satellite <i>Kruijff, M. 1; Graczyk, R. 2; Spiliotopoulos, I. 3</i> 1Delta-Utec SRC (Netherlands); 2Warsaw University of Technology (Poland); 3Patras University of Technology (Greece)
17.00	Abstract Canadian Advanced Nanospace Experiment 2: On-Orbit Experience With an Innovative Three-Kilogram Satellite <i>Sarda, K.; Eagleson, S.; Kekez, D.D.; Mauthe, S.; Grant, C.; Zee, R.E.</i> University of Toronto (Canada)
17.15	Abstract Trade-off Procedure for Payload Selection in University Small Satellite Projects <i>De Jong, S.; Hamann, R.J.</i> Delft University of Technology (Netherlands)
17.30	Abstract Test and On-Orbit Experiences of FalconSAT-3 <i>Saylor, W.</i> United States Air Force Academy (United States)
17.45	Abstract The CNES Student Projects: EXPRESSO, Addressing Innovation, Education and Research <i>de Botton, L.</i> CNES (France)
19.15	Departure from the main reception - Transportation by bus to kallithea for the Conference Dinner
19.45	Conference Dinner - Kallithea

Thursday, 29 May 2008

Session 13	Earth Observation II Chairs: R. Sandau & S. Mosert
09.00	Abstract A PASO Study for a VEGETATION Follow on Mission onto PROBA2 Bus <i>Michaud, J. 1; Tinto, F. 1; Biffi, J.M. 1; Etcheto, P. 1; Perraud, L. 1; Thiebaut, C. 1; Albouys, V. 1; Guerin, A. 1; Passot, X. 1; Henry, P. 1; Maisongrande, P. 2; Foliard, J. 1; Legal, J.L. 1; Santiago, M.A. 1</i> 1CNES (France); 2CESBIO (France)
09.15	Abstract Vegetation Multispectral Imaging from Small Satellite with Daily Revisit <i>Claessens, M.K.R.D.J. 1; van den Braembussche, P. 2; Maresi, L. 2; Meuleman, K. 3; De Vos, L. 4; Moelans, W. 4</i>

	<i>1Verhaert Space (Belgium); 2ESA (Netherlands); 3VITO (Belgium); 4OIP (Belgium)</i>
09.30	Abstract Formation Flying for EO Small Satellite Missions <i>Sephton, A.J.1; Rott, H.2; Wishart, A.1; Grafmueller, B.3; Hall, D.1; Pasternak, F.4; Strauch, K.5</i> <i>1Astrium Ltd (United Kingdom); 2ENVEO (Austria); 3Astrium GmbH (Germany); 4Astrium SAS (France); 5ESTEC (Netherlands)</i>
09.45	Abstract Venüs (Vegetation and Environment Monitoring on a New Micro Satellite) <i>Ferrier, P.1; Meygret, A.1; Hagolle, O.1; Crebassol, P.1; Dediu, G.2</i> <i>1CNES (France); 2CESBIO (France)</i>
10.00	Abstract Remote Sounding of the Earth's Atmospheric Limb From a Micro-Satellite Platform: a Feasibility Study of the ALTIUS Mission <i>Vrancken, D.1, Pajjmans, B.1, Fussen, D.2, Neefs, E.2, Loodts, N.2, Dekemper, E.2, Vanhellemont, F.2, De Vos, L.3, Moelans, W.3, Nevejans, D.4, Schroeven-Deceuninck, H.5, Bernaerts, D.5, Zender, J.5</i> <i>1Verhaert Space (Belgium); 2BIRA/IASB (Belgium); 3OIP (Belgium); 4Conserd (Belgium); 5ESA/ESTEC (Netherlands)</i>
10.15	Abstract Thailand Earth Observation System: Mission and Control <i>Kiadtikornthaweeyot, W.</i> <i>GISTDA (Thailand)</i>
10.30	Coffee break
11.00	Keynote Speaker Human Responses to Geological Catastrophies <i>Dr. I. Stewart</i> <i>School of Earth, Ocean and Environmental Sciences, University of Plymouth</i>
Session 14	Science Chairs: P. Patterson & A. de Leffe
12.00	Abstract A Multi-Functional Particle Spectrometer to be Demonstrated on Delfi-C3 Successor Nano Satellite <i>Lampridis, D.1; Maddox, E.1; Moon, S.1; Kraft, S.1; Elstak, J.2; Rotteveel, J.2</i> <i>1Cosine Research B.V. (Netherlands); 2ISIS B.V. (Netherlands)</i>
12.15	Abstract The Canadian Cassiope Mission: Multidimensional Challenges and Benefits <i>Yau, A.1; James, G.2; Enno, G.1; Hum, R.1; Duggan, P.3; Senez, M.3; Ali, Z.4; Brassard, G.4; Desjardins, B.4; Dube, L.4; Beattie, D.5; Walkty, I.5</i> <i>1University of Calgary (Canada); 2Communications Research Centre (Canada); 3MDA (Canada); 4Canadian Space Agency (Canada); 5Magellan Bristol (Canada)</i>
12.30	Lunch break
15.00	Abstract The MOMENT Magnetic-Mapping Mission: Martian Science on a Nanosatellite Platform <i>Eagleson, S.1; Spencer, H.1; Zee, R.1; Arkani-Hamed, J.2</i> <i>1UTIAS Space Flight Laboratory (Canada); 2University of Toronto (Canada)</i>
15.15	Abstract Active Plasma Experiments in Space: a Small Satellite Mission <i>Marcuccio, S.; Pegoraro, F.</i> <i>Università di Pisa, (Italy)</i>
15.30	Abstract DTUsat-2 - The Next Generation Animal Migration Research Platform <i>Bjarnoe, J.B.; Fléron, R.W.</i> <i>National Space Institute - Danish Technical University (Denmark)</i>
15.45	Coffee break
Session 15	New Technologies II Chairs: S. Kennedy & K. Steinberg
16.15	Abstract The Innovative DEorbiting Aerobrake System for Small Satellites: The Use of Gossamer Technology for a Cleaner Space <i>Santerre, B.; Bonnefond, T.</i> <i>Astrium Space Transportation (France)</i>

16.30	Abstract New MP (Medium Prismatic) Li-Ion Cell Design for Mini and Micro LEO Satellites Using Nickel Based Oxides for Extended Life Time Missions <i>Borthomieu, Y.; Cousseau, J.F.</i> <i>SAFT (France)</i>
16.45	Abstract Combined Energy Storage and Attitude Control for Small Satellites <i>Lappas, V.1; Richie, D.2; Prassinos, G.2</i> <i>1University of Surrey (United Kingdom); 2Surrey Space Centre (United Kingdom)</i>
17.00	Abstract Miniaturization of Components and Systems for Space Using Mems-Technology <i>Rangsten, P.1; Grönland, T.-A.1; Sarmiento Staubo, P.L.2; Seeberg, B.E.2</i> <i>1NanoSpace (Sweden); 2Presens (Norway)</i>
17.15	Abstract Space Capsule Recovery Orbit Determination System and Performance <i>Vighnesam, N.V.; Anatta, S.; Pramod Kumar, S.</i> <i>ISRO Satellite Centre (India)</i>
17.30	Abstract Pivotal Transitions - Historical and Today <i>Hurley, M.</i> <i>Naval Research Lab (United States)</i>
18.00	End of day 4

Friday, 30 May 2008

Session 16	System Analysis III Chairs: T. Davis & P. Wegner
08.30	Abstract Virtual Mission Operations Center Explicit Access to Small Satellites by a Collaboratively Enabled User Base <i>Miller, E.1; Medina, O.2; Holloman, K.3</i> <i>1General Dynamics (United States); 2US Naval Research Laboratory (United States); 3Science Applications International Corporation (United States)</i>
08.45	Abstract Setting up a Cold Gas Propulsion System on the Microscope Satellite <i>André, Y.; Dubois, J.B.</i> <i>CNES (France)</i>
09.00	Abstract Global Coverage for Fast Response Communication Between Constellation of LEO Small Satellites and Earth Stations <i>Pinski, E.; Linn Barnett, D.; Oren, A.</i> <i>Rafael (Israel)</i>
09.15	Abstract An Attitude Control System for SumbandilaSAT an Earth Observation Satellite <i>Steyn, W.</i> <i>University of Stellenbosch (South Africa)</i>
09.30	Abstract Optimization of Platform / Payload Mass and Power Ratio for a Small Satellite <i>Borrien, A.</i> <i>CNES (France)</i>
09.45	Abstract In Orbit Demonstration Strategy based on Small Satellite Missions <i>Strauch, K.; Teston, F.; Tobias, A.; Engelhardt, R.</i> <i>ESA/ESTEC (Netherlands)</i>
10.00	Abstract Reading the Fine Print From Orbit... <i>Davies, P.; Eves, S.; da Silva Curiel, A.; Baker, A.; Sweeting, M.</i> <i>Surrey Satellite Technology Ltd., (United Kingdom)</i>
10.15	Abstract Technology Reference and Proof-of-Concept for a Space-Based Automatic Identification System for Maritime Security

	<i>Helleren, Ø.1; Olsen, Ø.1; Berntsen, P.C.2; Strauch, K.3; Alagha, N.3</i> <i>1Norwegian Defence Research Establishment (Norway); 2Kongsberg Seatex AS (Norway); 3ESA/ESTEC (Netherlands)</i>
10.30	Coffee break
Session 17	Earth Observation II Chairs: F. Svelto & B. Hoersch
11.00	Abstract The Application of the DMC Strategy and Experience to Provide Additional Support to a European Global Monitoring System Programme <i>Cutter, M.1; Giwa, S.C.1; Graham, K.L.1; Hodgson, D.J.2; Mackin, S.1; Sweeting, M.N.1; Vanotti, M.1; Regan, A.3</i> <i>1SSTL (United Kingdom); 2DMCii (United Kingdom); 3ESA (Netherlands)</i>
11.15	Abstract The Hyperspectral Satellite and Program EnMAP (Environmental Monitoring and Analysis Program) <i>Stuffer, T.1; Hofer, S.1; Förster, K.-P.1; Penné, B.2; Schreier, G.3; Kaufmann, H.4</i> <i>1Kayser-Threde GmbH (Germany); 2OHB System (Germany); 3DLR-DFD (Germany); 4GFZ Potsdam (Germany)</i>
11.30	Abstract The Potential of Small Satellites for Crop Monitoring in Emerging Economies <i>Meuleman, K.; Bydekerke, L.</i> <i>VITO (Belgium)</i>
11.45	Abstract Deimos-1 - The Next Generation of Commercial DMC Spacecraft <i>Fernandez Garcia, A.1; da Silva Curiel, A.2; Davies, P.2; Penson, J.2; de Groot, Z.2; Hodgson, D.3; Stephens, P.3</i> <i>1Deimos Imaging (Spain); 2Surrey Satellite Technology Ltd. (United Kingdom); 3DMCii (United Kingdom)</i>
12.00	Abstract From Spot 5 to AstroTerra - Ensuring Continuity of Large Swath Image Data <i>Maliet, E.1; Pawlak, D.1; Koeck, C.1; Beaufumé, E.1; Campenon, P.2</i> <i>1Astrium (France); 2Spot Image (France)</i>
12.15	Abstract A Dataset for the Validation of Reflectance Models <i>Kuusk, A.; Kuusk, J.; Lang, M.; Lükk, T.</i> <i>Tartu Observatory (Estonia)</i>
12.30	Closing Address <i>L. Maresi & D. Hernandez</i>
13.00	Lunch break
13.00	End of day 5