Objectives of Commission 1

Technical Commission I of ISPRS adresses the larger as possible scope of aspects of geo-image acquisition systems.

This comprises all classical sub-systems of imaging systems: platforms, imaging sensors (passive & active), geometric and radiometric calibration, direct georeferencing acquisition, elaboration of photogrammetric and radiometric models, and on-board and on-ground image pre-processing.

It also englobes new trends in sensing i.e. networks of systems (not necessary all imaging systems) and intelligent systems communicating quickly and taking autonomous decisions to be capable of managing disaster crises for example (volcanoes, tsunamies, ...).

Commission I has historically adressed in the past satellite imagery and more recently has enlarged its scope to digital aerial imagery and Commission I is currently extending its activities (in Cooperation with Commission V) to again higher scale and very flexible acquisition devices such as Terrestrial Mobile Mapping Systems and autonomous vehicle navigation comprising UAVs.

Terms of Reference of Commission 1

- Design and realization of digital aerial and spaceborne missions for Earth observation
- Design, construction, characterization, and installation of imaging and non-imaging sensors (including Optical, IR, SAR, IFSAR, LIDAR, etc.)
- Standardization of definitions and measurements of sensor parameters
- Integration of imaging and non-imaging sensors with other relevant systems
- Geometric and radiometric properties, quality standards, and factors affecting data quality
- Test, calibration and evaluation of sensors (including laboratory, in-flight, inter-calibration and test fields)
- Integrated platform guidance, navigation, positioning and orientation
- Data reception and pre-processing
- On-board preprocessing of data and autonomous systems
- Systems and media for recording sensor data, auxiliary data (time, position, attitude, etc.) and film scanners
- Image and non-image data transfer standards

WELCOME REMARKS

Welcome note by the President of ISPRS

It is my great pleasure to welcome you to the Symposium of ISPRS Commission I. Commission I is important in ISPRS as a cross cutting commission dealing with data acquisition.

I thank SFPT and Alain Baudoin, the Working Group chairs and all the other people who have helped put this symposium together for their hard work and for planning a meeting which I am sure will be successful.

ISPRS is known to most people in the community for the high quality of its workshops and conferences. But we also work with international bodies to promote photogrammetry and remote sensing and this Symposium give an opportunity to do this. I am particularly pleased that the plenary session on the first day includes speakers from The Group on Earth Observation (GEO), EuroSDR and ION, who represent key organisations with whom ISPRS collaborates.

ISPRS is in a position to feed your work into the framework of GEO and to ensure that Earth observation makes a difference to the lives of millions of people throughout the world. Make your work matter and make sure that people know that it matters.

Ian DOWMAN

Mot de bienvenue du président de l'ISPRS

C'est avec un grand plaisir que je vous souhaite la bienvenue au Symposium de la Commission I de l'ISPRS. La Commission I est importante au sein de l'ISPRS en tant que commission transversale traitant de l'acquisition des données.

Je remercie la SFPT et Alain Baudoin, les présidents des Groupes de travail et toutes les personnes qui ont aidé ensemble à ce symposium, pour le dur travail accompli et pour avoir organisé une manifestation qui sera j'en suis sûr un succès.

L'ISPRS est connue de la plupart des personnes de notre communauté pour la haute qualité de ses colloques et conférences. Mais nous travaillons également avec d'autres instances internationales pour promouvoir la photogrammétrie et la télédétection et ce Symposium en fournit l'opportunité. Je suis particulièrement heureux que la session plénière du premier jour inclut des orateurs du Groupe sur l'Observation de la Terre (GEO), EuroSDR et ION, qui représentent des organisations avec lesquelles l'ISPRS collabore.

L'ISPRS est en mesure d'aider le GEO en l'alimentant de votre travail et de permettre ainsi que l'observation de la Terre améliore la vie de millions de personnes dans le monde. Faites en sorte que votre travail y contribue et assurez vous que tous se rendent compte que cela est important.

Ian DOWMAN

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I/3: Multi-Platform Sensing and Sensor Networks

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Secretary Tom Kralidis, Canada

I/4: Airborne Digital Photogrammetric Sensors Systems

Chair: Jon Mills. UK
Co-Chair: Jean-Philippe Souchon, France
Co-Chair: Michael Cramer, Germany
Secretary: David Barber, UK

I/5: Geometric Modelling of optical spaceborne sensors and DEM generation

Chair: Karsten Jacobsen, Germany
Co-Chair: Peter Reinartz, Germany
Co-Chair: Daniela Poli, Switzerland
Secretary: Gürcen Büjüksalih, Turkey:

I/6: Small Satellites

Chair: Ugur Murat Leloglu, Turkey
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I/7: Intelligent Earth Sensing

Chair: Guoqing Zhou, USA
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IC WG I/V : Autonomous Vehicle Navigation

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TUESDAY 4 MAY

11:00 - 12:30

Plenary sessions

PL-1 **THE ROLE OF EUROSDR IN THE EMERGING WORLD OF INTEGRATED SPATIAL INFORMATION**
Murray K.* (Southampton, UK)

PL-2 **THE INSTITUTE OF NAVIGATION: ADVANCING MODERN NAVIGATION TECHNOLOGIES**
Grejner-Brzezinska D.* (Columbus, USA)

PL-3 **THE GEOSS CHALLENGE: WHAT ROLE FOR THE SCIENTIFIC COMMUNITY?**
Achache J.* (Geneva, Switzerland)

T1 - Airborne Photogrammetric Sensors (Radiometry) - WG I/4

Chair: **Michael Cramer (Germany)**
Co-Chair: **David Barber (UK)**

T01-01 **AIRBORNE DIGITAL IMAGERS: AN OVERVIEW & ANALYSIS**
Petrie G.*, Walker AS (Glasgow, UK)

T01-02 **RADIOMETRIC TESTING AND CALIBRATION OF DMC**
Markelin L.*, Honkavaara E, Peltoniemi J, Ahokas E (Masala, Finland)

T01-03 **IMAGE RESTORATION FOR RESOLUTION IMPROVEMENT OF DIGITAL AERIAL IMAGES**
Becker S.*, Haala N, Honkavaara E, Markelin L, Reulke R (Stuttgart, Masala, Berlin, Germany, Finland)

T01-04 **"ATMOSPHERIC" CORRECTION OF DIGITAL COLOUR IMAGES BASED ON LUMINANCE RATIO CONSIDERATION**
Ziemann H.*, Grohmann D (Dessau, Germany)

16:00 - 17:30

T2 - Modelling of spaceborne sensors - WG I/5

Chair: **Karsten Jacobsen (Germany)**
Co-Chair: **Daniela Poli (Switzerland)**

T02-05 **IN-FLIGHT CALIBRATION OF SPOT-5 HRS AND FORMOSAT-2**
Toutin T.*, Blondel E, Rother K, Mietke S (Ottawa, Chelsea, Dresden, Canada, Germany)

T02-06 **PROS AND CONS OF THE ORIENTATION OF VERY HIGH RESOLUTION OPTICAL SPACE IMAGES**
Jacobsen K.* (Hannover, Germany)

T02-07 **ANALYSIS OF DIFFERENT ORIENTATION APPROACHES FOR SPACEBORNE PUSHBROOM SENSORS. APPLICATIONS WITH QUICKBIRD**
Giannone F, Crespi M.*, Poli D (Rome, Zurich, Italy, Switzerland)

T02-08 **ANALYSIS OF ARTEFACTS IN SUB-PIXEL REMOTE SENSING IMAGE REGISTRATION**
Inglada J, Muron V.*, Pichard D, Feuvrier T (Toulouse, France)

T02-09 **THE PLEIADES-HR MOSAIC SYSTEM PRODUCT**
De Lussy F.*, Gigird P, Airault S (Toulouse, Saint Mande, France)

WEDNESDAY 5 MAY

08:30 - 10:00

T3 - Developments in Airborne LIDAR Systems - WG I/2

Chair: **Bryan Mercer (Canada)**
Co-Chair: **Boris Jutzi (Germany)**

T03-10 **VALIDATION OF DTMS BENEATH FOREST CANOPY DERIVED FROM P-BAND POLARIMETRIC INSAR**
Mercer B.*, Maduck J, Kahr E (Calgary, Canada)

T03-11 **CALIBRATION OF THE OPTECH ALTM 3100 LASER SCANNER INTENSITY DATA USING BRIGHTNESS TARGETS**
Ahokas E.*, Kaasalainen S, Hyyppä J, Suomalainen J (Kirkkonummi, Finland)

T03-13 **CAPABILITY OF LASER SCANNING SYSTEMS CAPTURING THE WAVEFORM**
Jutzi B.*, Stilla U (Ettlingen, Muenchen, Germany)

T03-14 **A REVIEW OF THE ASPRS GUIDELINES FOR THE REPORTING OF HORIZONTAL AND VERTICAL ACCURACY IN LIDAR DATA**
Rodarmel C, Theiss H.*, Johanesen T, Samberg A (Chantilly, VA, Reston, VA, Bethesda, MD, USA)

08:30 - 10:00

T4 - Small Satellites - WG I/6

Chair: **Arthur Cracknell (UK)**
Co-Chair: **Mazlan Hashim (Malaysia)**

T04-15 **INTERNATIONAL STUDY ON COST-EFFECTIVE EARTH OBSERVATION MISSIONS - OUTCOMES AND VISIONS**
Sandau R.* (Berlin, Germany)

T04-16 **THAILAND EARTH OBSERVATION SYSTEM : MISSION AND PRODUCTS**
Kaewmanee M.*, Choomnoommanee T, Fraisse R (Bangkok, Toulouse, Thailand, France)

T04-17 **A NEW ERA OF HIGHLY MINIATURIZED SPACE TECHNOLOGIES, ALLOWING TO DEVELOP HIGH PERFORMING, LIGHT AND AFFORDABLE EARTH OBSERVATION MISSIONS**
Savaria E.* (Cannes-La-Bocca, France)

T04-18 **ON-ORBIT MODULATION TRANSFER FUNCTION ESTIMATION FOR BILSAT IMAGERS**
Leloglu UM.*, Tunali E (Ankara, Turkey)

10:30 - 12:00

T5 - Airborne Photogrammetric Sensors (Geometry) - WG I/4

Chair: **Jon Mills (UK)**
Co-Chair: **Jean-Philippe Souchon (France)**

T05-19 **THEORETICAL AND EMPIRICAL EVALUATION OF GEOMETRIC PERFORMANCE OF MULTI-HEAD LARGE FORMAT PHOTOGRAMMETRIC SENSORS**
Honkavaara E.*, Jaakkola J, Nurminen K, Ahokas E, Markelin L (Masala, Finland)

T05-20 **A SIMULATION STUDY FOR THE GEOMETRIC ACCURACY TESTING OF AIRBORNE LINEAR ARRAY CCD CAMERAS**
Kocaman S.*, Gruen A (Zurich, Switzerland)

T05-21 **CALIBRATION AND VALIDATION OF DIGITAL AIRBORNE CAMERAS**
Cramer M.* (Stuttgart, Germany)

T05-22 **TESTS AND PERFORMANCE EVALUATION OF DMC IMAGES AND NEW METHODS FOR THEIR PROCESSING**
Zhang L, Kocaman S, Kornus W, Baltsavias E.* (Zurich, Barcelona, Switzerland, Spain)

T05-23 **THE HRSC-AX MT. ETNA PROJECT: HIGH-RESOLUTION ORTHOIMAGES AND 1 M DEM AT REGIONAL SCALE**
Gwinner K.*, Coltelli M, Flohrer J, Matz Kd, Marsella M, Roatsch T, Scholten F, Trauthan F (Berlin, Sezione Di Catania, Rome, Germany, Italy)

10:30 - 12:00

T6 - Multi-Platform and Intelligent Sensing, Sensor Networks - WGs I/3, I/7

Chair: **Vincent Tao (Canada)**
Co-Chair: **Guoqing Zhou (USA)**

T06-24 **ON THE USE OF SAR AND OPTICAL IMAGES COMBINATION**
Petit D.*, Oller G, Inglada J (Toulouse, France)

T06-25 **SPATIAL SENSOR WEB REFERENCE MODEL – A MODEL OF ARCHITECTURE FOR SPATIAL SENSOR WEB INTERCONNECTION**
Liang SL.*, Tao V (Ontario, Canada)

T06-26 **ADVANCE OF EARTH OBSERVING SATELLITE SYSTEM: FROM GEOSS TO FIEOSS**
Zhou G.* (Norfolk, USA)

T06-27 **TAILORING SPACE SOLUTIONS FOR OPERATIONAL EARTH OBSERVATION USAGE**
Maliet E.*, Cantié R (Toulouse, France)

12:00 - 13:15

Poster Session 1 - WGs I/3, I/5, I/7

PS1-01 **USE OF MULTI-PLATFORM-SENSING FOR CHARACTERISATION OF LAND USE IN RIVER CORRIDORS**
Tormos T.*, Kosuth P, Durrieu S, Wasson J, Pella H, Villeneuve B, Perez M (Montpellier, Lyon, France)

PS1-02 **SPACE ANALYSIS AND THE DETECTION OF THE CHANGES FOR THE FOLLOW-UP OF THE COMPONENTS SAND-VEGETATION IN THE AREA OF MECHERIA, ALGERIE**
Haddouche I.*, Mederbal K, Saidi S (Tlemcen, Mascara, Montpellier, Algeria, France)

PS1-03 **AUTOMATED SENSOR BLOCK ADJUSTMENTAND LOCAL ORBIT/FLIGHTPATH POSITIONNING BENEFITS, AND PERSPECTIVES FOR MAPPING APPLICATIONS**
Le Guellec A.* (Deuil La Barre, France)

PS1-04 **A NEW PROCEDURE TO COMPARE NDVI IMAGES DERIVED FROM MODIS AND LANDSAT 7 ETM+ DATA**
Boccardo P, Borgogno Mondino E.*, Perez F, Claps P (Torino, Italy)

PS1-05 **AN OPEN STANDARD-BASED SENSOR WEB APPROACH FOR ONLINE 3D EXTRACTION: USING SENSOR OBSERVATION SERVICE, SENSORML AND RATIONAL FUNCTION MODEL**
Liang SHL.*, Wang R, Tao V (Toronto, Canada)

PS1-06 **3D PHYSICAL VS EMPIRICAL MODELS FOR STEREO-PROCESSING HR IMAGES: EXAMPLES WITH IKONOS AND QUICKBIRD**
Toutin T.*, Schauer P (Ottawa, Dresden, Canada, Germany)

PS1-07 **GEOMETRIC ACCURACY OF IKONOS GEO PANCHROMATIC ORTHOIMAGE PRODUCTS**
Aguilar MA.*, Aguilar FJ, Carvajal F, Agüera F (Almeria, Spain)

PS1-08 **GENERATION OF DEM FROM NON-METRIC CAMERA IMAGES OVER MOUNTAINOUS AREAS**
Abdullah K.*, Muhammad D, Sarip A (Johor, Malaysia)

PS1-09 **AN INTEGRATED MODEL TO ESTIMATE THE ACCURACY OF DIGITAL ORTHOIMAGES FROM HIGH RESOLUTION SATELLITE IMAGERY**
Aguilar FJ.*, Aguilar Ma, Agüera F, Carvajal F (Almería, Spain)

PS1-10 **GEOMETRIC MODELLING AND ORTHORECTIFICATION OF SPOT5 SUPER MODE IMAGES**
Boukerch I.*, Bounour H (Oran Arzew, Algeria)

PS1-11 **AN IMPROVED MODEL FOR ALONG TRACK STEREO SENSORS USING RIGOROUS ORBIT MECHANICS AND NAVIGATION DATA**
Michalis P.*, Dowman I (London, UK)

PS1-12 **ANALYSIS OF DTM PRODUCTION FROM SPOT-5 HRS-STEREO DATA AND THE INFLUENCE OF ATMOSPHERIC EFFECTS**
Tsakiri-Strati M.*, Pateraki M, Georgoula O (Thessaloniki, Greece)

PS1-13 **IN-DEPTH INVESTIGATIONS OF PARAMETERS INFLUENCING ACCURACY OF ORTHOIMAGES FROM HIGH RESOLUTION SATELLITES**
Eisenbeiss H.*, Zhang L, Baltsavias E (Zurich, Switzerland)

PS1-14 **ACCURACY COMPARISON TESTS ON ORTHO-RECTIFIED HIGH RESOLUTION SATELLITE IMAGES**
Ioannidis C.*, Katsigiannis A (Athens, Greece)

PS1-15 **FIRST ASSESSMENTS OF PLEIADES SYSTEM POTENTIAL FOR IGN-FRANCE IMAGE ACQUISITION REQUIREMENTS**
Cantou JPC.*, Buissart HB (Ramonville, Creil, France)

PS1-16 **ACCURACY ANALYSIS ON LARGE BLOCKS OF HIGH RESOLUTION IMAGES**
Passini R.*, Jacobsen K (Mt Laurel, Hannover, USA, Germany)

14:15 - 15:30

Poster Session 2 - WGs I/1, I/2, I/6

PS2-17 **ACTIVITIES OF CALIBRATION AND VALIDATION FOR THE KOMPSAT-2 MSC DATA**
Lee DH.*, Seo DC, Song JH, Park SY, Lim HS (Daejeon, Republic of Korea)

16:00 - 17:30

T7 - DEM Generation - WG I/5

Chair: **Peter Reinartz (Germany)**
Co-Chair: **Gûrcan Buyuksalih(Turkey)**

T07-28 **COMPARISON OF DSM GENERATION METHODS OF URBAN AREAS FROM IKONOS IMAGES**
Krauss T.*, Lehner M, Reinartz P (Wessling, Germany)

T07-29 **COMPARISON OF DEM GENERATION AND COMBINATION METHODS USING HIGH RESOLUTION OPTICAL STEREO IMAGERY AND INTERFEROMETRIC SAR DATA**
Hoja D.*, Reinartz P, Schroeder M (Weßling, Germany)

T07-30 **GENERATION AND VALIDATION OF DIGITAL ELEVATION MODELS BASED ON SATELLITE IMAGES**
Buyuksalih G.*, Jacobsen K (Zonguldak, Hannover, Turkey, Germany)

T07-31 **EVALUATION OF THE POTENTIAL OF PLEAIDES SYSTEM FOR 3D CITY MODELS PRODUCTION : BUILDING, VEGETATION AND DTM EXTRACTION**
Flamanc D.*, Durupt M (Saint-Mandé, France)

T07-32 **AUTOMATIC BUILDING 3D-RECONSTRUCTION FROM PLEIADES SIMULATIONS**
Lafarge F.*, Descombes X, Zerubia J, Pierrot-Deseilligny M (Sophia Antipolis, Saint Mande, France)

16:00 - 17:30

T8 - Advancement in Navigation and Mobile Mapping - ICWG I-V

Chair: **Ron Li (USA)**
Co-Chair: **Jurgen Everaerts (Belgium)**

T08-33 **AUTOMATION OF GROUND IMAGE BASED MARS ROVER LOCALIZATION**
Li R.*, Di K, Agarwal S, Wang J, Matthies L, Howard A (Columbus, Oh, Pasadena, Ca, USA)

T08-34 **AUTONOMOUS IMAGE BASED LOCALISATION FOR A MARTIAN AEROBOT**
Barnes D.*, Shaw A, Summers P, Woods M, Ward R, Evans M, Sims M, Paar G (Aberystwyth, Bristol, Leicester, Graz, UK, Austria)

T08-35 **APPLICATIONS OF PHOTOGRAMMETRIC PROCESSING USING AN AUTONOMOUS MODEL HELICOPTER**
Eisenbeiss H.* (Zurich, Switzerland)

T08-36 **MOBILE MAPPING AND AUTONOMOUS VEHICLE NAVIGATION**
Toth C.*, Paska E (Columbus, USA)

T08-37 **PROJECT FOR AN AUTONOMOUS MODEL HELICOPTER NAVIGATION SYSTEM**
Guarnieri A, Pirotti F, Pontin M, Vettore A.* (Padova, Italy)

THURSDAY 6 MAY

08:30 - 10:00

T9 - New Spaceborne and Airborne SAR Techniques - WG I/2

Chair: **Charles Toth (USA)**
Co-Chair: **Frederic Bretar (France)**

T09-38 **EXTREME PRECISION LIDAR MAPPING**
Toth C.*, Grejner-Brzezinska D, Bevis M (Columbus, USA)

T09-39 **INTEREST OF FULLY POLARIMETRIC SAR DATA FOR CLASSIFICATION AND LAND USE CARTOGRAPHY**
Lardeux C.*, Frison Pl, Rudant Jp, Souyris Jc, Tison C, Stoll B (Champ Sur Marne, Toulouse, , France)

T09-40 **A THREE DIMENSIONAL DOMINANT SCATTERER MAP EXTENDS THE DEM INFORMATION IN URBAN AREAS**
Adam N.*, Eineder M (Oberpfaffenhofen, Germany)

T09-41 **FIRST DATA ACQUISITION AND PROCESSING CONCEPTS FOR THE TANDEM-X MISSION**
Eineder M.*, Krieger G, Roth A (Oberpfaffenhofen, Germany)

10:30 - 12:00

T10 - Integrated Systems for Mobile Mapping - ICWG V-I

Chair: **Naser El-Sheimy (Canada)**
Co-Chair: **Joe Hutton (Canada)**

T10-42 **OPEN-SOURCE SOFTWARE-OPERATED CMOS CAMERA FOR REAL-TIME MAPPING**
Gontran H.*, Skaloud J, Janvier N (Lausanne, Le Mans, Switzerland, France)

T10-43 **AN INTEGRATED ON-BOARD LASER RANGE SENSING SYSTEM FOR ON-THE-WAY CITY AND ROAD MODELLING**
Goulette F.*, Nashashibi F, Abuhadrous I, Ammoun S, Laurgeau C (Paris, France)

T10-44 **BRIDGING LAND-BASED MOBILE MAPPING USING PHOTOGRAMMETRIC ADJUSTMENTS**
Hassan T.*, Ellum C, El-Sheimy N (Alberta, Canada)

T10-45 **HIGH QUALITY GEOREFERENCING OF GROUND-BASED MOBILE MAPPING SYSTEMS IN URBAN AREAS: USING 3D AERIAL-EXTRACTED ROADMARKS AS GROUND CONTROL OBJECTS**
Paparoditis N.*, Tournaire O, Soheilian B (Saint-Mandé, France)

T10-46 **THE DSS 322 AIRBORNE MAPPING SYSTEM: A VERSATILE FUSION OF DIGITAL PHOTOGRAMMETRIC SENSING WITH DIRECT GEOREFERENCING**
Mostafa M.*, Ip A, Hutton J (Richmond Hill, Ontario, Canada)

12:00 - 13:15

Poster Session 3 - WG I/4, ICWGs I-V, V-I

PS3-34 **GEOMETRIC VALIDATION OF IMAGERY AND PRODUCTS FROM A HIGH PERFORMANCE AIRBORNE DIGITAL SENSOR**
Mills J.*, Al-Hamlan S, Abuoliat A, Horgan J (Newcastle Upon Tyne, Riyadh, Southampton, UK, Saudi Arabia)

PS3-35 **INVESTIGATION OF DIGITAL COLOUR IMAGES**
Ziemann H, Grohmann D.* (Dessau, Germany)

PS3-36 **EVALUATION OF DIGITAL PHOTOGRAMMETRY IN AN OPERATIONAL MAPPING ENVIRONMENT**
Olsen B.*, Knudsen T, Nielsen M, Keller K, Jørgensen L, Frederiksen P (Copenhagen, Lyngby, Denmark)

PS3-37 **A COMPARATIVE STUDY OF THREE METHODS FOR IDENTIFYING INDIVIDUAL TREE CROWNS IN AERIAL IMAGES COVERING DIFFERENT TYPES OF FORESTS.**
Eriksson M.*, Perrin G, Descombes X, Zerubia J (Sophia Antipolis, France)

PS3-38 **SEAMLESS AUTOMATIC MOSAICKING TAKING INTO ACCOUNT INFRASTRUCTURES AND BUILDINGS**
Xandri R.*, Pérez F, Palà V, Arbiol R (Barcelona, Spain)

PS3-39 **IN-FLIGHT TESTING OF RESOLVING POWER AND MTF OF DMC**
Honkavaara E, Jaakkola J.*, Markelin L, Becker S (Masala, Stuttgart, Finland, Germany)

PS3-40 **THE POTENTIALITIES OF AIRBORNE DIGITAL SENSOR ADS40 FOR THE DOCUMENTATION AND REPRESENTATION OF ARCHAEOLOGICAL SITES**
D'amelio S, Emmolo D.*, Orlando P (Palermo, Italy)

PS3-41 **ON THE EMPIRICAL PERFORMANCE OF THE DMC**
Alamus R.*, Kornus W, Talaya J (Barcelona, Spain)

PS3-42 **CALIBRATION AND FIELD EXPERIENCE WITH THE DIGITAL LARGE FORMAT AERIAL CAMERA ULTRACAMD**
Gruber M.*, Ladstadter R (Graz, Austria)

PS3-44 **BUNDLE BLOCK ADJUSTMENT WITH ULTRACAMD IMAGES**
Buyuksalih G.*, Jacobsen K (Zonguldak, Hannover, Turkey, Germany)

PS3-45 **IS THERE AN IDEAL DIGITAL AERIAL CAMERA?**
Souchon JP.* (Saint Mande, France)

PS3-46 **A NEW RADAR SENSOR FOR MOBILE ROBOT LOCALIZATION AND MAPPING IN EXTENSIVE OUTDOOR ENVIRONMENT. FIRST RESULTS**
Rouveure R.*, Faure P, Monod Mo (Aubière, France)

PS3-50 **APPLICATION OF MOBILE GIS AND SDI FOR EMERGENCY MANAGEMENT**
Mobaraki A.*, Mansourian A, Malek M, Mohammadi H (Tehran, Melborne, Iran, Australia)

PS3-51 **THE POTENTIAL OF LOW-END IMUS FOR MOBILE MAPPING SYSTEMS**
Barsi BA.*, Lovas LT (Budapest, Hungary)

PS3-52 **AUTOMATING ROAD FEATURE EXTRACTION PROCEDURE**
Xin Y.* (Richmond Hill, Canada)

14:30 - 16:00

T11 - Standards, Calibration and Validation - WG I/1

Chair: **Roland Gachet (France)**
Co-Chair: **Veljko Jovanovic (USA)**

T11-47 **REQUIREMENTS FOR AN ORIENTATION AND CALIBRATION STANDARD FOR DIGITAL AERIAL CAMERAS AND RELATED SENSORS**
Kresse W.* (Neubrandenburg, Germany)

T11-48 **PERMANENT VALIDATION OF THE GEOMETRIC CALIBRATION AS COMPLEMENT TO MISR DATA PRODUCTION SYSTEM**
Jovanovic V.*, Mathews J, Nelson D (Pasadena, USA)

T11-49 **ABSOLUTE SPECTRORADIOMETRIC CALIBRATION OF THE ADS40 SENSOR**
Beisl U..* (Heerbrugg, Switzerland)

T11-50 **THE GEOMETRIC SUPERSITE OF SALON DE PROVENCE**
Delvit JM.*, Fave P, Gachet R (Toulouse, France)

Introduction

The symposium: "From Sensors to Imagery" has been organised by the Technical Commission I of the International Society for Photogrammetry and Remote Sensing (ISPRS) and the Societe Fran9aise de Photogrammetrie et de Teledetection (French Society for Photogrammetry and Remote Sensing - SFPT) from July 4 to July 6, 2006 at Mame-la-Vallee, near Paris, France, in the premises of the Ecole Nationale des Sciences Geographiques (the French National School of Geographical Sciences - ENSG)

More than 200 participants from 30 countries have presented their works, discussed new ideas and exchanged experiences on Image Data Acquisition, Sensors and Platforms during the eleven oral sessions and the three poster sessions organized by the seven Working Groups of the Commission and its two Inter commission Working Groups shared with Technical Commission **V**

Beyond the scientific and technical results the necessity of mastering data acquisition, acquired from space, from aircraft or from ground has been confirmed and emphasized. This challenge is still - and maybe more and more present - to obtain the images of our planet enabling a better knowledge, management and protection of its resources and environment.

The Proceedings of the Symposium have been electronically published and distributed to all participants. This version is a printed copy of the CR ROM split in two parts.
Part A contains all füll papers accepted by the Scientific Committee after a peer review.
Part B contains all other füll papers, whose authors have not asked tobe peer reviewed or not accepted tobe put in Part A after the peer review.

We would like to thank the members of the Organising Committee, from SFPT, CNES and IGN for having set up the conditions to promote the exchanges between the symposium participants not only from a professional point of view but also from a social and human one. Thanks should also be delivered to the members of the Scientific Committee for the review of the abstracts and füll papers, and for the work done in their Working Groups until the last Istanbul Congress in July 2004. This work should continue until the next Beijing Congress in July 2008 where new results of Commission I activities will be presented and published in the ISPRS Archives.

Alain Baudoin

Nicolas Paparoditis