GENERAL INFORMATION

Location of the venue

The meeting will take place in the Royal Military Academy, Hobbemastraat 8 rue Hobbema, in Brussels. The academy is located in the center of the city of Brussels close to the European Quarter.

How to get there

By train and metro:
Take a train to the station of Brussels Central.
Take the metro line 1 (direction "Stockel" or "Hermann-Debroux").
Get off at Schumann.
Continue on foot and follow the Cortenberg avenue on your left.
After 300m turn right into the Renaissance avenue.
The Hobbema street is the second street on the left.

www.rma.ac.be/index.php/nl/home/praktische-info
www.rma.ac.be/index.php/fr/home/info-pratique

REGISTRATION

Participants must register **before February 25th and the number of participants is limited to 50.**
No late registrations will be accepted.

Participation is free of charge.

You can register through our online registration form: eo.belspo.be/ExpertZone

For more information, please contact:

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Wetenschapsstraat 8 rue de la Science
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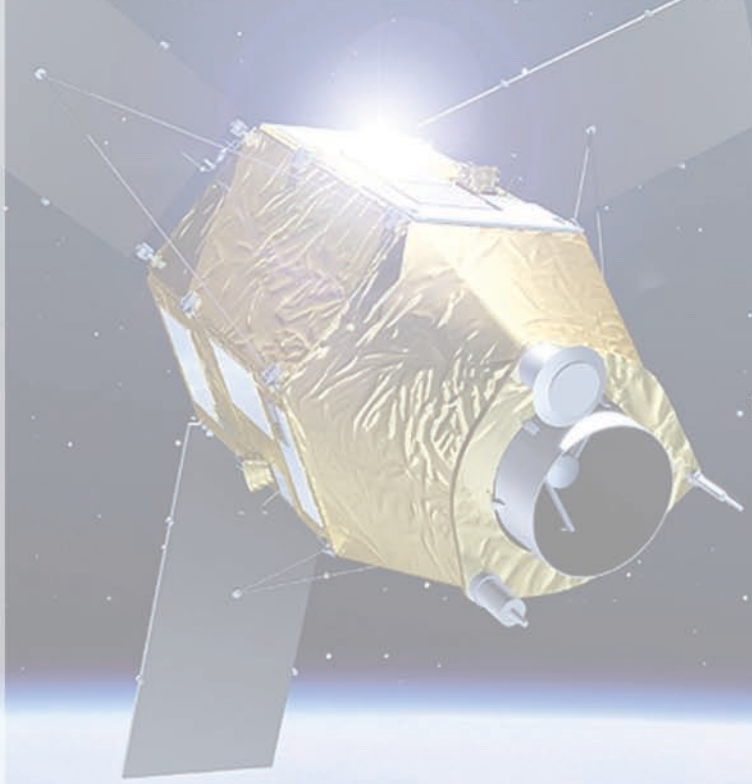
The ORFEO Preparatory Programme



Invitation

March 4, 2010
Brussels, Belgium

cnes

BELGIAN SCIENCE POLICY

INTRODUCTION

On 26 May 2005, the Belgian government approved the Belgian participation in the French "PLEIADES" programme for Earth observation. The "PLEIADES" system consists of two very high resolution optical instruments and is complementary to the Italian "COSMO-SKYMED" radarsystem. Together they constitute the ORFEO system: "Optical and Radar Federated Earth Observation". The ORFEO preparatory programme is aimed at preparing, accompanying and stimulating the use of data acquired by the system.

The main goal of the seminar is to present to the Belgian and French remote sensing communities the results of the six projects realized in Belgium in the framework of the ORFEO preparatory programme in relation to the overall ORFEO and PLEIADES programmes. Invited speakers from France will give presentations about the French part of the programme.

THE "PLEIADES" AND "ORFEO" PROGRAMMES

In 2001, France signed an intergovernmental agreement with Italy to develop a dual system for Earth observation with metric resolution known as ORFEO in order to guarantee that data gained from Earth observation should be made permanently available at European level. France is in charge of the optical component "PLEIADES", and Italy of the radar component operating in the X band, "COSMO-SKYMED".

The aim of the system is to cover European needs for very high resolution optical data for both civil and military activities, as well as for research and applications of a commercial or public service nature. The targeted acquisition capacities with high repetitivity make the system particularly suited to military or civil defence projects as well as to monitoring critical geophysical phenomena.

1. The ORFEO preparatory programme

The ORFEO Preparatory Programme has been set up to prepare for, support and promote the exploitation of the images from these sensor systems. This program was initiated by the French Space Agency, CNES, in mid-2003 and ended in 2009.
The Programme has two sections, between which there are strong interactions:

The methodology section
The methodology section's objective is to define and develop the tools needed for the operational exploitation of the future sub-metric optical and radar images. The subjects dealt with mainly concentrate on three-dimensional aspects, detection of changes, texture analysis, shape recognition, and the complementary nature of optical and radar images.

In the frame of this methodology section, CNES has developed the Orfeo Toolbox (OTB): a set of algorithmic components capitalising on the the results of the methodological research and distributed as an open source library.

More information on the ORFEO Toolbox can be found at: www.orfeo-toolbox.org/otb

The thematic section
The thematic section covers a wide range of applications (civil and military) and aims to specify and validate value-added products and services needed by users. It also wants to reflect on how to integrate these products into current operational systems.

An additional focus was raising awareness amongst future users (mainly institutions), through feasibility studies that demonstrate and validate various concrete cases.

More information about the ORFEO and PLEAIDES programmes can be found at:
smsc.cnes.fr/PLEIADES/A_prog_accomp.htm

2. Belgian involvement in the ORFEO preparatory programme

In the frame of the Methodology section 6 projects were selected after a call launched in 2005. These 6 doctoral or post-doctoral research projects are now finished and this ORFEO workshop is an opportunity to present the results.

PRELIMINARY PROGRAMME

9:00 Registration

9:30 The PLEIADES programme: an overview
(Benoit Boissin - CNES)

10:15 Belgian participation in ORFEO
(Belspo Representative)

10:30 The ORFEO Accompaniment Programme: Preparation of the thematic use of the PLEIADES data
(Sébastien Garrigues and Manuel Grizonnet - CNES)

11:00 Coffee break

11:30 SYNOPRA: Synergy of very high resolution optical and radar data for tree/forest mapping and inventory
(Frieke Van Coillie, Jan Peters and Robert De Wulf - UGent)

12:00 EMSOR/GEMITOR: A proof of concept of iterative DSM improvement trough SAR scene simulation
(Dominique Derauw - RMA/ULg)

12:30 Lunch

14:00 PLEIADES and hazard mapping
(Hervé Yésou - SERTIT)

14:30 ASSIMIV: Updating land cover maps by GIS-driven classification of VHR images
(Julien Radoux and Pierre Defourny - UCL)

15:00 CHADE: Change detection for updates of vector databases through multi-level regionbased classification of VHR data
(Alexandre Carleer, Emilie Hanson and Eléonore Wolff - ULB)

15:30 Coffee break

16:00 Overview of research on PLEIADES at MATIS laboratory: Potential of PLEIADES images for mapping applications
(Mélanie Durupt - IGN-France)

16:30 URMO3D: A hybrid approach for 3D city modeling from very high resolution satellite images
(Dennis Devriendt and Rudi Goossens - UGent)

17:00 Closure of the workshop