Proba-V Symposium program

Tuesday 26/01/2016

09:00 – 10:00 Registration

Opening and Mission Overview

Chairs: Jacques Nijskens (BELSPO), Bianca Hoersch (ESA/ESRIN)

10:00 – 10:30	Welcome	BELSPO
10:30 – 11:00	Opening	H. Laur ESA/ESRIN, Italy
11:00 – 11:30	Proba-V as part of ESA's Earth Observation Programme	B. Hoersch ESA/ESRIN, Italy
11:30 – 12:00	Sentinel-3 Mission Overview and Status	S. Mecklenburg ESA/ESRIN, Italy
12:00 – 12:30	Copernicus Global Land Service – from Space back to Earth	Michael Cherlet JRC, Italy

12:30 – 14:00 Lunch

14:00 – 14:30	Mission Exploitation Platform (MEP) for Proba-V	E. Goor VITO, Belgium

Calibration and Data Quality

Chairs: Else Swinnen (VITO), Yves Govaerts (Rayference)

14:30 – 15:00	Proba-V in-flight radiometric performance: status after 2.5 years in orbit	S. Sterckx VITO, Belgium
15:00 – 15:20	Radiometric monitoring of Proba-V over the Libya-4 site	M. Bouvet ESA/ESTEC, Netherland
15:20 – 15:40	Cross-comparison of Proba-V and MODIS surface reflectance products	M. Claverie NASA/UMD, USA
15:40 – 16:00	Influence of lossy image compression on Proba-V images and products	A. Marsetic SASA, Slovenia

16:00 – 16:20 Coffee Break

Algorithm and Methods

Chairs: Fabrizio Niro (ESA/ESRIN), Kevin Ruddick (RBINS)

16:20 – 16:40	PISA, a novel algorithm for the joint retrieval of surface reflectance and aerosol properties	Y. Govaerts Rayference, Belgium
16:40 – 17:10	Improved Proba-V cloud detection using GlobAlbedo surface albedo data	E. Wolters VITO, Belgium
17:10 – 17:20	Preprocessing of Proba-V for ESA CCI Land ECVs	C. Brockmann Brockmann Consult, Germany
17:20 – 17:40	Proba-V MEP Tools demonstrator	J. Dries VITO, Belgium
17:40 – 18:00	Cloud Toolbox demonstration projects for Proba-V	G. Sabatino ESA/ESRIN, Italy

19:00 – 23:00 Evening Activities + Social Dinner

Wednesday 27/01/2016

08:00 – 09:00 Registration

Land Cover / Land Use

Chairs: Bart Deronde (VITO), Clement Atzberger (BOKU)

09:00 – 09:20	Extending the series of global land cover maps to 2015 with Proba-V: current achievements of the Land Cover component of the ESA Climate Change Initiative	C. Lamarche UCL, Belgium
09:20 – 09:40	Evaluating the potential of Proba-V satellite image time series for improving LC classification in semi-arid African landscapes	J. Eberenz U. Wageningen, Netherland
09:40 – 10:00	Winter wheat mapping using time series Proba-V data at Yucheng JECAM site, China	X. Zhang RADI-CAS, China
10:00 – 10:20	The landscaped diversity in tropical rainforest, indicator of human pressure and evaluation from the remote sensing	D. Dallery U. Rennes, France

10:20 – 10:40 Coffee Break

Natural Hazards

Chairs: Roberto Biasutti (ESA/ESRIN), Michael Hill (U. North Dakota)

10:40 – 11:00	Mapping vegetation fire scars at the global scale with Proba-V data	K. Tansey U. Leicester, UK
11:00 – 11:20	Mapping deforestation and forest degradation caused by fires in Mato Grosso State, Brazilian Amazonia from Proba-V fraction images	Y. E. Shimabukuro INPE, Brasil
11:20 – 11:40	Developing a Pastoral Early Warning System using Proba-V Data	A. Merkovic-Orenstein Action Contre la Faim, Senegal
11:40 – 12:00	The role of SPOT VGT & PROBA-V in the development of the agriculture and drought monitoring services in Southern Africa in the context of MESA SADC Thema project	F. Maxwell Marumbwa MESA SADC, Botswana

12:00 – 14:00 Lunch + Poster Session + MEP Demo

Agriculture

Chairs: Sven Gilliams (VITO), Pierre Defourny (UCL)

14:00 – 14:20	Mapping cropland at 100 m over Sahelian and Sudanian agrosystems: a knowledge-based approach using 100 m Proba-V time series	M-J. Lambert UCL, Belgium
14:20 – 14:40	Crop identification using Proba-V 100 and 300 m products – results for a test site in Bulgaria	C. Atzberger BOKU, Austria
14:40 – 15:00	Crop identification, intensification and monitoring in India using Proba-V NDVI product	S. Shashikant ISRO, India
15:00 – 15:20	The use of Proba-V satellite imagery for agricultural insurances	I. Piccard VITO, Belgium
15:20 – 15:40	Index-Based drought insurance for small farmers in Morocco	M. lahlou Institut Hassan II, Morocco

15:40 – 16:00 Coffee Break

Biophysical Variables

Chairs: Joost Vandenabeele *(BELSPO), Michele Meroni (JRC)*

16:00 – 16:30	Near real time global LAI, FAPAR and Cover fraction products derived from Proba-V at 333m resolution	M. Weiss INRA, France
16:30 – 17:00	Validating GEOV3 LAI, FAPAR and vegetation cover estimates derived from Proba-V observations at 333m over Europe	F. Camacho EOLAB, Spain
17:00 – 17:20	Deriving 30m decadal FAPAR products from the fusion of Landsat-8 and Proba-V FAPAR products	W. Li INRA, France
17:20 – 17:40	Aerodynamic roughness inversion based on Proba-V and wind gradient data over farmland	Q. Xing RADI-CAS, China
17:40 – 18:00	Proba-V capabilities in support to evapotranspiration monitoring in wetlands	M. Barrios KMI, Belgium

19:00 – 23:00 Evening Activities + Social Dinner

Thursday 28/01/2016

Time Series and Consistency

Chairs: Philippe Goryl (ESA/ESRIN), Philippe Maisongrande (CNES)

09:00 – 09:20	Testing NDVI data continuity between SPOT-VEGETATION and Proba-V missions for operational yield forecasting in North African countries	M. Meroni JRC, Italy
09:20 – 09:40	Reprocessing of the SPOT-VEGETATION archive: effects on surface reflectances and NDVI	E. Swinnen VITO, Belgium
09:40 – 10:00	Global land cover change detection using 1-km long times series (full archive of SPOT-VGT and Proba-V) thanks to a trajectory-based approach	I. Moreau UCL, Belgium
10:00 – 10:20	Consistency of Proba-V with SPOT-VEGETATION: quality assessment of surface reflectance and NDVI	C. Toté VITO, Belgium

10:20 – 10:40 Coffee Break

Vegetation Dynamic

Chairs: Marc Paganini (ESA/ESRIN), Else Swinnen (VITO)

10:40 – 11:00	Proba-V 100 m products: case studies from tropical savannas	M. Hill U. North Dakota, USA
11:00 – 11:20	Impact of data pre-processing on Proba-V vegetation products development: capability for the observation of disturbance processes in forest	T. Veljanovski SASA, Slovenia
11:20 – 11:40	Study of above ground biomass estimation based on airborne LiDAR and Proba-V data in north China	D. Zhao RADI-CAS, China
11:40 – 12:00	Monitoring of vegetation changes for hydrological modeling in urban and wetlands areas based on Proba-V derived LAI	C. Wirion VUB, Belgium

12:00 – 14:00 Lunch + Poster Session + MEP Demo

Other Applications (cryosphere, water bodies, coastal zones)

Chairs: Marc Bouvet (ESA/ESTEC), Carsten Brockmann (Brockmann Consult)

14:00 – 14:20	The small satellite future for sediment transport applications	K. Ruddick RBINS, Belgium
14:20 – 14:40	Proba-V for Total Suspended Matter mapping in coastal areas	S. Sterckx VITO, Belgium
14:40 – 15:00	Proba-V for coastal water applications	Q. Vanhellemont RBINS, Belgium
15:00 – 15:20	SPOT/VGT and Proba-V applied to the monitoring of seasonal glacier mass balance in the Alps from 1998 to 2015	P. Maisongrande CNES/LEGOS, France
15:20 – 15:40	Proba-V time series for monitoring the vegetation and snow cover seasonality at continental and global scale	J. Radoux UCL, Belgium

Closing Session

15:40 – 16:00	Workshop Summary and Concluding Remarks	ESA-BELSPO

16:00 End of Symposium

Posters session

	Title	Author	Session
1.	Proba-V aerosol and surface reflectance retrieval: methods and validation	J. Blommaert VITO, Belgium	Algorithms and Methods
2.	Pan-sharpening for Proba Image Using Guided Filter	D. Ochoa Escuela Superior Politecnica del Litoral, Ecuador	Algorithms and Methods
3.	Multitemporal image compositing evaluation algorithms for Proba-V burned area analysis	A. Pereira IFSULDEMINAS, Brazil	Algorithms and Methods
4.	Landscape metrics sensitivity to input satellite data resolution	T. Kuchma U. Kyiv-Mohyla Academy, Ukraine	Land Cover/ Land Use
5.	Crop classification maps for regional scale based on Proba-V, Sentinel-1A and Landsat-8	M. Lavreniuk, NASU-SSAU, Ukraine	Land Cover/ Land Use
6.	Change detection techniques for evaluating land cover classes modification in Curvature Carpathians, Romania	I. Carlan U. Bucharest, Romania	Land Cover/ Land Use
7.	Bush fires in Guinea region using MODIS Burned Area data	M. Bailo Barry ISSEG, Guinea	Natural Hazards
8.	Drought monitoring using spatial technology. A case study of North West Province South Africa	A. Nyamugama Aagricultural Research Council, South Africa	Natural Hazards
9.	Agro-meteorological Bulletin for Belgium	I. Piccard VITO, Belgium	Agriculture
10.	Proba-V follow-up for operational crop monitoring	A. Quesney GEOSYS, France	Agriculture
11.	Estimating sugarcane quality using of Proba-V/NDVI time-series	D. Della Justina U. Campinas, Brazil	Agriculture
12.	Detection of agricultural areas of corn and soybeans with Proba-V images in Rio Grande do Sul (Brazil)	A. R. Formaggio INPE, Brazil	Agriculture
13.	Crop Moisture Content Monitoring Using Satellite Data	T. Ilienko I. Agroecology Environmental Management, Ukraine	Agriculture
14.	Using Multi-temporal NDVI to estimate area of winter crops in Salheya Egypt	A. Massoud Ali NARSS, Egypt	Agriculture
15.	Effect of rainfall variability on the crop growing season characteristics: case of smallholder farming in Hwedza district of Zimbabwe	H. Mugiyo AGRITEX, Zimbawe	Agriculture
16.	Validation of remote sensed data (WRSI and cNDVI) using FAO Aqua crop model a need for crop monitoring in Zimbabwe	H. Mugiyo AGRITEX, Zimbawe	Agriculture
17.	Agricultural Drought Monitoring in the Oltenia Plain, Romania	I. Ontel U. Bucharest, Romania	Agriculture
18.	New OPAL-Life Agricultural Land Use Optimisation Tool utilizing Sentinel and other satellite optical and SAR data	P. Peltonen-Sainio Natural Resources Institute, Finland	Agriculture
19.	Proba-V and meteorological data to estimate crop evapotranspiration on arid land in Mexico	J. Rodriguez U Sonora, Mexico	Agriculture
20.	Vegetation indexes to monitoring pasture in sub-arid conditions	A. M. Tarquis CEIGRAM, Spain	Agriculture
21.	Cereal damage versus vegetation indexes in Andalusia	A. M. Tarquis CEIGRAM, Spain	Agriculture

	Title	Author	Session
22.	Statistical Characterization of NDVI series	A. M. Tarquis CEIGRAM, Spain	Agriculture
23.	Proba-V in the Copernicus Global Land Service: monitoring the global continental ecosystems at various spatial resolutions	R. Lacaze HYGEOS, France	Biophysical Variables
24.	A Generic Retrieval Package for Land Parameters applied to Surface Albedo Products	T. Kaminski The Inversion Lab, Germany	Biophysical Variables
25.	Relationship between in-situ hemispherical and Proba-V vegetation products in forests	K. Cotar SPACE-SI, Slovenia	Biophysical Variables
26.	Proba-V time series for monitoring the vegetation and snow cover seasonality at continental and global scale	J. Radoux UCL, Belgium	Time series Consistency
27.	Estimation of above ground carbon stock in Fagus orientalis stands in Hyrcanian forests using OLI sensor data	Ali Darvishsefat U. of Tehran, Iran	Vegetation Dynamics
28.	Combined analysis of Proba-V 100m and MODIS NDVI products for near-real-time detection of “disturbances” in natural vegetation and forests across Europe	C. Atzberger BOKU, Austria	Vegetation Dynamics
29.	Application of Remote sensing and GIS for multi-temporal assessment of forest coverage change detection and carbon sequestration: Case of Nyungwe National Park, Rwanda	A. Rutebuka Beijing Normal University, China	Vegetation Dynamics
30.	Monitoring Vegetation dynamics across Nigeria from SPOT-VEGETATION and Proba-V Data	S. Yelwa Usmanu Danfodiyo University, Nigeria	Vegetation Dynamics