Program of the COSPAR Capacity Building Workshop (CBW) and WMO Training Course on satellite remote sensing and climate change

Sunday, 20 July 2014

Arrival to Tver University

Monday, 21 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-9:30		LOC	TSU	Registration
9:30-10:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Openning Ceremony Introduction to the COSPAR CBW and WMO training course
10:00-11:00	Dr. Prof.	Jean-Louis Fellous Andrey Kostianoy	COSPAR, Paris, France P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture The incredible saga of satellite oceanography
11:00-11:30	Coffee break			
11:30-12:30	Dr.	Sergey Lebedev	Geophysical Center, Moscow, Russia	Lecture Satellite altimetry: History and Method
12:30-13:30	Dr.	Sergey Lebedev	Geophysical Center, Moscow, Russia	Lecture Satellite altimetry in Earth sciences
13:30-15:00	Lunch			
15:00-16:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture What do we know about dead and dying lakes and seas?
16:00-17:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Satellite monitoring of the Aral Sea
17:00-17:30	Coffee break			
17:30-18:30	Dr.	Sergey Lebedev	Geophysical Center, Moscow, Russia	Lecture Satellite altimetry of the inland seas, lakes and rivers
19:00-21:00	Welcome Reception			

Tuesday, 22 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Dr.	Sergey Stanichny	Marine Hydrophysical Institute, Sevastopol, Ukraine	Lecture Multichannel, multiplatform approach for marine environment study
10:00-11:00	Dr.	Sergey Stanichny	Marine Hydrophysical Institute, Sevastopol, Ukraine	Lecture Recent satellite sensors for investigation of the processes and phenomena in the marine ecosystem.
11:00-11:30	Coffee break			
11:30-12:30	Dr.	Sergey Stanichny	Marine Hydrophysical Institute, Sevastopol, Ukraine	Lecture Internet archives for satellite data
12:30-13:30	Dr.	Sergey Stanichny	Marine Hydrophysical Institute, Sevastopol, Ukraine	Training Satellite data archives and tools for data analysis
13:30-15:00	Lunch			
15:00-16:00	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Lecture Applications of satellite data to coastal and water resource management
16:00-17:00	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Training UNESCO BILKO software: Practical applications for coastal zone monitoring
17:00-17:30	Coffee break			
17:30-18:30	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Training Studying of a variety of satellite data formats
19:00-20:00	Dinner			

Wednesday, 23 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Lecture Dynamics of a continental and sea ice cover on the base of multispectral satellite data in a context of climatic changes
10:00-11:00	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Lecture Some results of remote sensing data processing of sea ice and small icebergs in Arctic
11:00-11:30	Coffee break			
11:30-12:30	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Lecture Changes of freshwater ecosystem in Western Africa.
12:30-13:30	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Lecture Changes of freshwater ecosystems, vegetation and forests on the base of remote sensing Landsat-7, -8 and /Modis-Aqua and -Terra data
13:30-15:00	Lunch			
15:00-16:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Regional climate change in the Russian Arctic seas
16:00-17:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Regional climate change in the Black, Azov and Caspian seas
17:00-17:30	Coffee break			
17:30-18:30	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Regional climate change in Central Asia
19:00-20:00	Dinner			

Thursday, 24 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Satellite monitoring of water resources in Turkmenistan
10:00-11:00	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Satellite monitoring of Altyn Asyr Lake construction in Turkmenistan
11:00-11:30	Coffee break			
11:30-12:30	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Satellite monitoring of the Caspian Sea
12:30-13:30	Prof.	Andrey Kostianoy	P.P. Shirshov Institute of Oceanology, Moscow, Russia	Lecture Satellite monitoring of transboundary waters
13:30-15:00	Lunch			
15:00-16:00	Dr.	Sergey Lebedev	Geophysical Center, Moscow, Russia	Lecture Satellite altimetry: Type of data and data bases
16:00-17:00	Dr.	Sergey Lebedev	Geophysical Center, Moscow, Russia	Training Global reservoir and lake monitor: USDA data base
17:00-17:30	Coffee break			
17:30-18:30	Dr.	Sergey Lebedev	Geophysical Center, Moscow, Russia	Training River and Lake: ESA data base
19:00-20:00	Dinner			

Friday, 25 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Dr.	Alexei Kouraev	OMP-LEGOS, Toulouse, France	Lecture Satellite monitoring of shared water basins: Tigris and Euphrates basins
10:00-11:00	Dr.	Alexei Kouraev	OMP-LEGOS, Toulouse, France	Lecture Satellite altimetry and in situ observations of Siberian wetlands
11:00-11:30	Coffee break			
11:30-12:30	Dr.	Alexei Kouraev	OMP-LEGOS, Toulouse, France	Lecture Ice and snow cover of Eurasian inner seas, lakes and rivers
12:30-13:30	Dr.	Alexei Kouraev	OMP-LEGOS, Toulouse, France	Training Hydroweb database
13:30-15:00	Lunch			
15:00-16:00	Dr.	Alexei Kouraev	OMP-LEGOS, Toulouse, France	Training BRAT software
16:00-17:00			LOC	Excursion in the city for Russian participants Collection of travel documents from foreign participants
17:00-17:30	Coffee break			
17:30-18:30			LOC	Excursion in the city for foreign participants (in English) Collection of travel documents from Russian participants
19:00-20:00	Dinner			

Saturday, 26 July 2014
Excursion organized by Tver University
Bus trip for historical villages: Tver – Raek – Torzhok – Bernovo – Staritsa – Tver

Sunday, 27 July 2014
Excursions organized by Tver University
Bus trip for nature landscapes: Tver – Source of Volga River – Nilova Pustyn – Seliger Lake – Tver

Monday, 28 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Training Use of stretches and palettes to enhance data Part 1
10:00-11:00	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Training Use of stretches and palettes to enhance data Part 2
11:00-11:30	Coffee break			
11:30-12:30	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Training Examples of the tools for the remote sensed data visualization Part 1
12:30-13:30	Prof.	Vitaly Sychev	Russian State Hydrometeorological Institute, St.-Petersburg, Russia	Training Examples of the tools for remote sensed data visualization Part 2
13:30-15:00	Lunch			
15:00-16:00	Dr.	Vesa Nietosvaara	EUM/VLab	EUMETSAT Presentation Systems, Data, Products, Delivery Mechanisms incl. EUMETCast
16:00-17:00	Dr.	Suleiman Mostamandy	EUM/VLab	Practical aspects of EUMETCast
17:00-17:30	Coffee break			
17:30-18:30	Dr.	Eduard Podgaiskiy	EUM/VLab	WMO/CGMS Virtual Laboratory + RSHU – VLab Component
19:00-20:00	Dinner			

Tuesday, 29 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00		Zanita Avotniece Kristina Petraityte Vesa Nietosvaara	Latvian Environmental Geology and Meteorology Agency, Riga, Latvia EUM EUM	EUMETSAT/CM-SAF Use of satellite imagery for climate monitoring. Part 1. **Or** Andrey Belotserkovsky on Climate Change
10:00-11:00		Zanita Avotniece Kristina Petraityte Vesa Nietosvaara	Latvian Environmental Geology and Meteorology Agency, Riga, Latvia EUM EUM	EUMETSAT/CM-SAF Use of satellite imagery for climate monitoring. Part 2.
11:00-11:30	Coffee break			
11:30-12:30		Zanita Avotniece Kristina Petraityte Vesa Nietosvaara	Latvian Environmental Geology and Meteorology Agency, Riga, Latvia EUMETSAT EUMETSAT	EUMETSAT(CM-SAF) Lab on Use of satellite data for climate monitoring. Part 1.
12:30-13:30		Zanita Avotniece Kristina Petraityte Vesa Nietosvaara	Latvian Environmental Geology and Meteorology Agency, Riga, Latvia EUM EUM	EUMETSAT(CM-SAF) Lab on Use of satellite data for climate monitoring. Part 2.
13:30-15:00	Lunch			
15:00-16:00	Prof, Dr	Oleg M. Pokrovsky	Voeikov Main Geophysical Observatory/Roshydromet, St.-Petersburg, Russia	Lecture: Climate Change - Spatial Statistics in Analysis and Prediction: Methods, Algorithms and Applications for the Atmosphere-Ocean system. Part 1.
16:00-17:00	Prof, Dr	Oleg M. Pokrovsky	Voeikov Main Geophysical Observatory/Roshydromet, St.-Petersburg, Russia	Lecture: Climate Change - Spatial Statistics in Analysis and Prediction: Methods, Algorithms and Applications for the Atmosphere-Ocean system. Part 2.
17:00-17:30	Coffee break			
17:30-18:30	Dr.	Jochen Kerkmann (EUMETSAT)	EUMETSAT/VLab (will do a remote presentation into the course from Darmstadt)	Multi Spectral Imagery Applications RGB images for monitoring the atmosphere
19:00-20:00	Dinner			

Wednesday, 30 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Dr	Ernesto Lopez-Baeza	University of Valencia, Spain	Lecture Remote Sensing Applications for Land/Atmosphere Interactions: Surface Net Radiation
10:00-11:00	Dr	Ernesto Lopez-Baeza	University of Valencia, Spain	Lecture Physical Principles of Passive Microwave Radiometry. Soil Moisture
11:00-11:30	Coffee break			
11:30-12:30	Dr	Ernesto Lopez-Baeza	University of Valencia, Spain	Lecture Soil Moisture Estimation from Space and its Validation
12:30-13:30	Dr	Ernesto Lopez-Baeza	University of Valencia, Spain	Training Exploring the Sensitivity of Passive Microwave Signatures to Different Surface and Observation Conditions
13:30-15:00	Lunch			
15:00-16:00	Prof, Dr	Oleg M. Pokrovsky	Voeikov Main Geophysical Observatory/Roshydromet, St.-Petersburg, Russia	Lecture Climate Change - Time Series Analysis Techniques for the Atmosphere-Ocean system. Part 1.
16:00-17:00	Prof, Dr	Oleg M. Pokrovsky	Voeikov Main Geophysical Observatory/Roshydromet, St.-Petersburg, Russia	Lecture Climate Change - Time Series Analysis Techniques for the Atmosphere-Ocean system. Part 2.
17:00-17:30	Coffee break			
17:30-18:30	Dr	Ernesto Lopez-Baeza	University of Valencia, Spain	Lecture Climate Change and Earth Observation Business Opportunities
19:00-20:00	Dinner			

Thursday, 31 July 2014

Time	Title	Name	Organization	Lecture/Training
9:00-10:00	Prof. Dr	Yuliya I. Troitskaya	Institute of Applied Physics, Nizhny Novgorod, Russia	Lecture Satellite altimetry of inland water bodies. I. Physical principals and algorithms
10:00-11:00	Prof. Dr	Yuliya I. Troitskaya	Institute of Applied Physics, Nizhny Novgorod, Russia	Lecture Satellite altimetry of inland water bodies. II. Experimental Coastal and Hydrology products and results of analysis
11:00-11:30	Coffee break			
11:30-12:30	Prof. Dr	Yuliya I. Troitskaya	Institute of Applied Physics, Nizhny Novgorod, Russia	Lecture Remote sensing of severe weather conditions over the sea.
12:30-13:30	Prof. Dr	DanLing Tang	PORSEC President, PACON President, South China Sea Institute of Oceanology, Guangzhou, China	Lecture Remote sensing of marine primary production responds to climate change and typhoon
13:30-15:00	Lunch			
15:00-16:00	Dr.	Stefano Vignudelli	Institute of Biophysics, CNR, Pisa, Italy	Lecture Coastal altimetry: Past, present and future.
16:00-17:00	Dr.	Jerome Benveniste	ESA, Frascati, Italy	Lecture ESA EO Programmes
17:00-17:30	Coffee break			
17:30-18:00	Dr.	Jean-Louis Fellous	COSPAR, Paris, France	Lecture COSPAR - A platform for international cooperation in space research
18:00-19:00	Dr. Prof.	Jean-Louis Fellous Andrey Kostianoy	COSPAR P.P. Shirshov Institute of Oceanology, Moscow, Russia	Final meeting, delivery of diplomas, closure ceremony
20:00-23:00	Farewell Dinner in TSU Botanic Garden			

Friday, 1 August 2014
Departure from Tver University

It is expected that a lecture will be 40-45 min long followed by 10-15 min of questions, and a 5 min break between lectures.