



# 5<sup>th</sup> SALGEE Workshop 2017



## MSG LAND SURFACE APPLICATIONS: HEAT WAVES, DROUGHT HAZARD AND FIRE MONITORING

Yerevan (Armenia), Ani Plaza Hotel, 18 - 20 September 2017

### 18 September 2017

08:30 09:00 **Registration**

#### Topic 1

#### EUMETSAT activities in Land Surface Analyses

*Chair: Jose Prieto*

- 09:00 09:15 Workshop opening  
*Ministry of Emergency Situations of the Republic of Armenia*
- 09:15 09:30 Land Surface Monitoring in Armenia using Satellite Data  
*Levon Vardanyan, Armenian Hydromet Service*
- 09:30 09:45 EUMETSAT SALGEE Project in CDOP-3 Phase of LSA SAF  
*Julia Stoyanova, NIMH Bulgaria*
- 09:45 10:00 LSA SAF overview, scope and evolution  
*Luis Pessanha, IPMA Portugal*

#### Topic 2

#### Observation of land surface from space

- 10:00 10:40 LSA SAF CDOP-3, Future and challenges  
*Luis Pessanha, IPMA Portugal*
- 10:40 11:10 **Break / Internet connection arrangement**
- Chair: Carlos DaCamara*
- 11:10 11:40 Land Surface Temperature estimates from infrared and microwave sensors  
*Ana Pires, IPMA, Portugal (Internet talk)*
- 11:40 12:10 Toward an all-weather, long record, and real-time land surface temperature product from microwave satellite observations  
*Carlos Jimenez, Estellus, S.A.S., France*
- 12:10 12:30 Evaluation of geostationary (EUMETSAT) versus polar orbiting (NASA-NOAA) missions for detection/monitoring of thermal anomalies over southeastern Europe  
*Christo Georgiev, NIMH Bulgaria*

12:30 14:00 **Lunch break**

#### Topic 3

#### Fire detection and monitoring – multimission

*Chair: Luis Pessanha*

- 14:00 14:20 Kalman filter for surface emissivity and temperature. Update of the application to the SEVIRI full disk  
*Sara Venafrà, Univ Basilicata, Italy (Internet talk)*
- 14:20 14:50 How do satellites sense fire?  
*Jose Prieto, EUMETSAT*
- 14:50 15:30 LSA SAF Fire Radiative Power Product (capabilities, validation, applications)  
*Martin Wooster/ Weidong Xu, King's College, UK*
- 15:30 16:00 **Break**

*Chair: Carlos Jimenez*

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|-------|-------|---|
| 16:00 | 16:40 | VIIRS and Landsat-class active fire algorithm update<br><i>Wilfrid Schroeder, Univ. Maryland, USA (Internet talk)</i> |
| 16:40 | 17:10 | Decoding Software Development for NOAA VIIRS Active Fire EDRs<br><i>Erdem Erdi, TSMS Turkey</i>                       |

#### Topic 4

##### Land surface state and Atmosphere Dynamics

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|-------|-------|--|
| 17:10 | 17:40 | Dry intrusions in the environment of wild fires over Mediterranean as fire weather indicators<br><i>Christo Georgiev, NIMH, Bulgaria</i>   |
| 17:40 | 18:00 | MSG and MODIS IR observations of land surface temperature and its interaction with atmospheric circulation in different scales<br><i>Itamar Lensky, Bar-Illan University, Israel</i> |

### 19 September 2017

#### Topic 5

##### Using satellite information for diagnoses and forecast of fire risk

*Chair: Christo Georgiev*

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|-------|-------|---|
| 09:00 | 09:40 | An operational system of fire danger rating over Mediterranean Europe based on fire radiative power derived from Meteosat<br><i>Carlos DaCamara, Univ. Lisbon, Portugal</i> |
| 09:40 | 10:10 | Using satellite information (vegetation indices) for forecasting fire risk in Mediterranean forests<br><i>Itamar Lensky, Bar-Illan University, Israel</i>                   |
| 10:10 | 10:30 | Combined assessment of terrestrial drought and atmospheric conditions through a composite index for fire risk forecast<br><i>Julia Stoyanova, NIMH, Bulgaria</i>            |

10:30 11:00 **Break**

#### Topic 6

##### Terrestrial drought: Heat waves, Risk effects on Ecosystems and Environment

*Chair: Erdem Erdi*

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| 11:00 | 11:20 | Using land surface analyses to assess weather extremes: Heat waves and drought effects<br><i>Julia Stoyanova, NIMH Bulgaria</i>                                  |
| 11:20 | 11:50 | Drought monitoring with old and new satellites<br><i>Jose Prieto, EUMETSAT</i>   |
| 11:50 | 12:30 | Albedo and Incoming solar radiation flux from LSA-SAF: Algorithms, validation and applications<br><i>Dominique Carrer / Florian Pinault, MeteoFrance, France</i> |

12:30 14:00 **Lunch break**

*Chair: Jose Prieto*

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| 14:00 | 14:20 | Annual and seasonal estimation of evapotranspiration from satellite and meteorological data<br><i>Itamar Lensky, Bar-Illan University, Israel</i> |
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14:20	14:30	Google Earth Engine <i>Itamar Lensky, Bar-Illan University, Israel</i>
14:30	14:50	Satellite data for drought assessment <i>Zara Petrosyan, Armenian Hydromet Service</i>
15:50	15:20	<b>Break / Internet connection arrangement</b>

*Chair: Julia Stoyanova*

15:20	15:50	Vegetation stress from IASI spectral radiances and Carbonyl Sulfide (OCS) retrievals <i>Carmine Serio, Univ. Basilicata, Italy (Internet talk)</i>
15:50	16:30	ECMWF soil moisture products for NWP, hydrology and drought applications <i>Patricia De-Rosnay, ECMWF, UK (Internet talk)</i>
16:30	17:00	The tragic fire event of June 17, 2017 in Portugal: the meteorological perspective <i>Carlos DaCamara, Univ. Lisbon, Portugal</i>

**Social event: Workshop dinner**

20 September 2017

Topic 7  
Regional Applications

*Chair: Zara Petrosyan*

09:00	09:30	Use of Vegetation Indexes from EUMETSAT satellites for Drought Management: Validation and Applications <i>Bostjan Muri, ARSO, Slovenia</i>
<b>Reports of NMSs participants</b>		
09:30	11:00	<ul style="list-style-type: none"> <li>- Sona Hayrapetyan, Armenia (<i>Satellite data for weather forecasting</i>)</li> <li>- Krystallia Dimitriadou, Greece</li> <li>- Matheos Papadakis, Cyprus (<i>Satellite data use in weather forecasting</i>)</li> <li>- Taron Alexanyan, Armenia (<i>Satellite data for drought assessment</i>)</li> <li>- Marina Kordzakhia, Gorgia (<i>Drought Intensity in Georgia</i>)</li> <li>- Hasmik Kocharyan, Armenia (<i>Use of Satellite Data in Crop Yield Forecasting and Environment Analysis</i>)</li> <li>- Yelena Khalatyan, Armenia (<i>Use of Gridded Satellite Data for Climate Monitoring</i>)</li> </ul>
11:00	11:30	<b>Break</b>

11:30	13:30	General Discussion
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*Chair: Carlos DaCamara, Julia Stoyanova, Jose Prieto, Luis Pessanha*