DUE GlobTemperature User Consultation Meeting #3 Programme

Day 1: Thursday 11th June

09:00 – 09:30   Welcome [J. Remedios]

- **Overview of project progress**
- **Review of outcomes from UCM #2**
- **Note on the Cloud Clearing Round Robin**
- **Update from ESA [S. Pinnock]**

09:30 – 11:15   Project Progress [Chair – J. Remedios]:

- **New LST datasets [D. Ghent]**
- **Merged Product developments [I. Trigo / A. Pires]**
- **Validation and Intercomparison [F. Goettsche / M. Martin]**
- **Website, Data Portal, and Tools [J. Bruniquel]**
- **Panel discussion**

11:15 – 11:45   Coffee break

11:45 – 13:15   Breakout Sessions [Chairs – C. Bulgin, C. Merchant, D. Ghent]

- **Presentation on User Requirements in Plenary [C. Bulgin]**
- **Discussion on User Requirements**
- **Feedback on available datasets**

13:15 – 14:15   Lunch

14:15 – 15:30   Presentations by User Case Study Partners on current activities (15 minutes each) [Chair – C. Merchant / C. Bulgin]

- **Surface temperature reconstruction for climate [E. Good, Hadley Centre]**
- **Estimation of evapotranspiration [C. Jimenez, Estellus]**
- **Driving of sea-ice state in a coupled ocean model [T. Rasmussen, DMI]**
- **Soil moisture assessment [S. Horion, U. Copenhagen]**
- **Assimilation of LST in NWP [B. Candy, Met Office]**

15:30 – 16:00   Coffee break

16:00 – 17:30   Interactive session on LST uncertainties [Chair – D. Ghent]

- **Presentation on agreed uncertainties compatible with international standards [C. Bulgin / C. Merchant]**

- **Presentation on uncertainties in the GlobTemperature LST products [D. Ghent]**

- **Small group exercise on uncertainties**

- **Plenary discussion**

17:30 – 19:30   Poster session

Day 2: Friday 12th June

09:00 – 10:00   Presentations by LST users (15 minutes each) [Chair – F. Goettsche]

- **Surface Temperature as Grasslands Growth Conditions Indicator in the face of Climate Change [K. Dabrowska-Zielinska – IGiK, Poland]**

- **Evaluation of Soil Moisture Control on Land Surface Fluxes in Global Climate Models (GCMs) with satellite observations of land surface temperature (LST) [B. Gallego-Elvira - Centre for Ecology and Hydrology, UK]**

- **Integrated monitoring of the urban temperature in Bucharest (Romania) by satellite remote sensing and ground sensors [S. Cheval - National Meteorological Administration, Romania]**

- **Does Increasing Temperature Increase Carbonaceous Aerosol Direct Radiative Effect over Boreal Forests? [T. Mielonen – Finnish Meteorological Institute, Finland]**

10:00 – 11:00   Presentations on LST data provision and validation (15 minutes each) [Chair – I. Trigo]

- **A VIIRS Land Surface Temperature and Emissivity Product for Earth Science Research and MODIS Continuity [G. Hulley – NASA JPL, USA]**

- **A comparison for different land surface temperature retrieval algorithms for SSM/I using SURFRAD ground observations [Y. Rao - U. Maryland, USA]**

- **Lake Surface Water Temperature: Quality assessment for European time series [G. Lieberherr – U. Bern, Switzerland]**

- **Impact of atmospheric turbulence on the accuracy of surface temperature measurements [J-P. Lagouarde – INRA, France]**

11:00 – 11:30   Coffee break

11:30 – 12:30   Improving LST applications: LST and other datasets [Chair – J. Remedios]

- **Presentation on the harmonised format [D. Ghent]**

- **Panel discussion [J. Remedios, D. Ghent, J. Bruniquel, C. Bulgin]**

  o **What is available and what is not?**

  o **Is the lack of auxiliary data limiting exploitation of the LST?**

  o **Would links to external datasets improve this?**

○   **Requirements for data access and visualisation**

12:30 – 12:50   Final remarks [J. Remedios]

12:50 – 13:50   Departure / Lunch for those attending the ILSTE-WG meeting

13:50 – 16:00   3rd General ILSTE-WG meeting [Chairs – Steering Committee]

Posters

MIR-TIR imager systems concepts comparison to measure surface temperatures and to observe natural and anthropic phenomena	**M-F. Buongiorno – INGV, Italy**
The Evaluation of Urban Heat Island Effect and Impervious Surface Area in the Pearl River Delta Region Using Multi-Sensor Remote Sensing Data	**S-Y-N. Choi – Hong Kong Polytechnic University, China**
A novel approach for anthropogenic heat flux estimation from space	**N. Chrysoulakis - Foundation for Research and Technology Hellas (FORTH), Greece**
Angular variations of brightness surface temperatures observed from Advanced Along-Track Scanning Radiometer data	**C. Coll – U. Valencia, Spain**
Towards a Harmonized LST Product Using Multiple GEO and LEO Observations	**S. Ermida – U. Lisbon, Portugal**
Comparison of AATSR and MODIS LST positive degree days for the Karakoram	**N. Forsythe – U. Newcastle, UK**
Use of satellite LST in the EUSTACE global surface air temperature analysis	**E. Good – Met Office, UK**
Assessment of surface urban heat island in Krakow (Poland) using land surface temperature maps derived from ENVISAT/AATSR and NOAA/AVHRR data	**M. Hajto - IMGW-PIB, Poland**
Development of an innovative land surface temperature retrieval method in areas of highly dynamic emissivity using thermal-infrared satellite data	**S. Heinemann - U. Bonn, Germany**
Performance of the MODIS LST product over the Amazon basin	**J-C. Jimenez-Munoz – U. Valencia, Spain**
Quality Assessment of S-NPP VIIRS Land Surface Temperature EDR	**Y. Liu – U. Maryland, USA**

Land Surface Temperature Validation within the GlobTemperature Project	**M. Martin – KIT, Germany**
Reconstruction of gap-free satellite observations of Land Surface Temperature (LST)	**M. Menenti – Delft University of Technology, Netherlands**
Uncertainty assessment in land surface temperature using Landsat-7 data and derived uncertainties on net radiation	**M. Mira - Autonomous University of Barcelona, Spain**
Urban surface temperature time series estimation at local scale by spatial-spectral unmixing of satellite observations	**Z. Mitraka - Foundation for Research and Technology Hellas (FORTH), Greece**
Monitoring variation in onset, cessation and length of season using rainfall and normalised difference vegetation index in Zimbabwe	**R. Mugandani - Midlands State University, Zimbabwe**
Ground Emissivity and Land Surface Temperature Measurements for Thermal Infrared CAL/VAL Activities	**R. Niclos – U. Valencia, Spain**
Summer Land Surface Temperature Mapping Over Arctic From Passive Microwave Sensors	**C. Ottle - CNRS-LSCE, France**
Intercomparison of LST datasets on the GlobTemperature portal	**A. Pires - IPMA, Portugal**
EU Surface Temperature for All Corners of Earth (EUSTACE)	**N. Rayner – Met Office, UK**
Landsat Land Surface Temperature Atmospheric and Surface Correction Tool	**V. Rivalland – CESBIO, France**
Geostationary and Polar-Orbiting Satellite-Based Global Clear-Sky Surface Skin Temperature Using a Single-Channel Algorithm With Viewing Zenith Angle Correction	**B. Scarino - NASA / SSAI, USA**
Towards soil moisture estimates using MSG satellite retrieval of land surface temperature. Some drought related regional applications	**J. Stoyanova - National Institute of Meteorology and Hydrology, Bulgaria**
Suitability of Meteosat satellite data for climatological LST retrieval	**A. Tetzlaff – Meteoswiss, Switzerland**
10 years of Surface Temperature and NDVI Changes in Warsaw, Poland	**M. Tomaszewska - IGiK, Poland**
Satellite based Land Surface Temperature for the assessment of surface - atmosphere coupling	**I. Trigo - IPMA, Portugal**
Land response time scales to antecedent rainfall	**K. Veal - U. Leicester, UK**

Comparative study of land surface temperature patterns over Krakow (Poland) derived from different satellite data

J. Walawender - IMGW-PIB, Poland

Modeling the effective spectral emissivity of a complex 3D urban landscape for improved retrieval of the radiometric surface temperature: a case study of Hong Kong

J. Yang – Hong Kong Polytechnic University, China

Status of Land Surface Temperature production from the JPSS Mission

Y. Yu - NOAA/NESDIS/STAR, USA