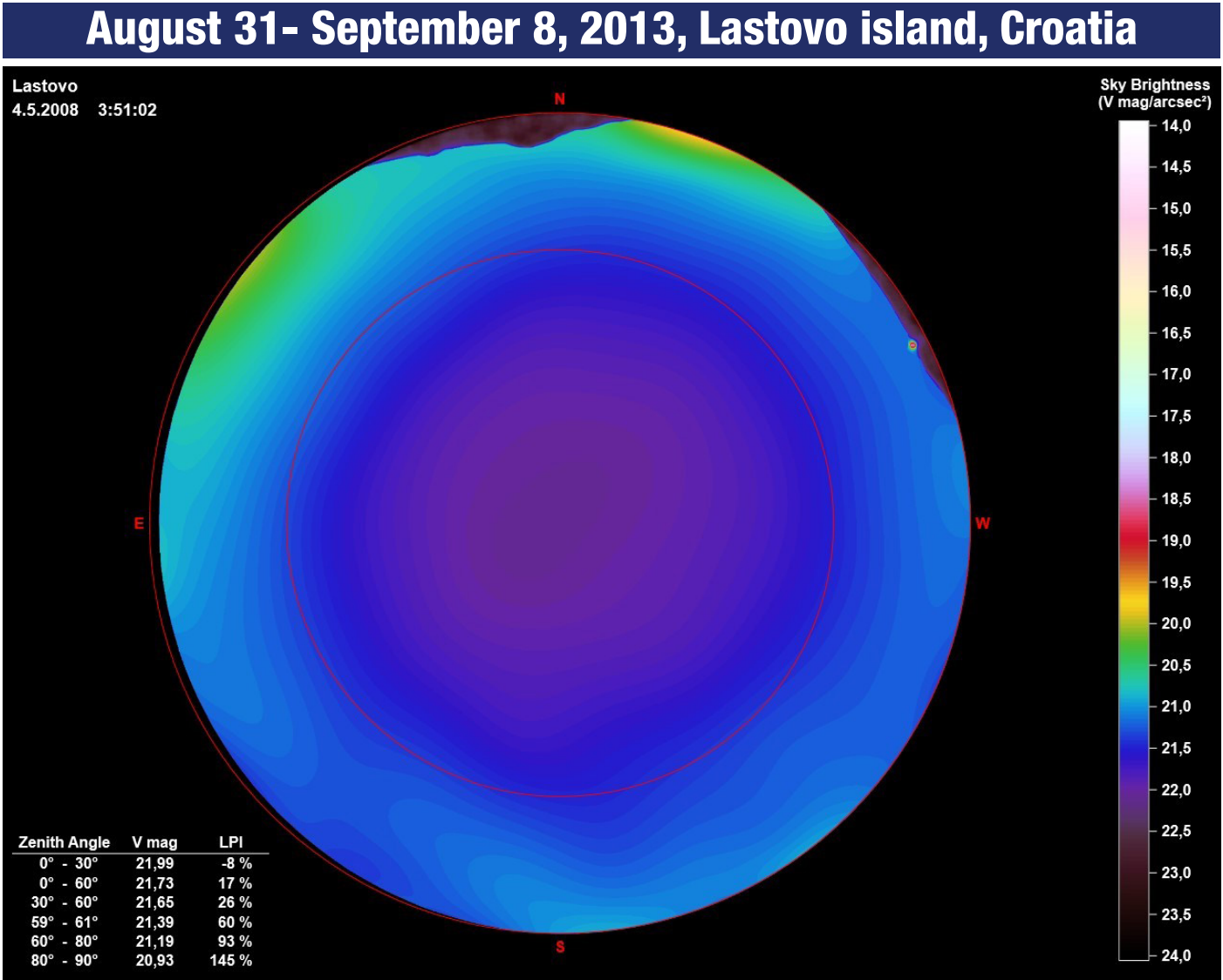


Scientific workshop and Training School

Inter-comparison of Light Pollution Measuring Techniques

COST Action ES1204: Loss of the Night Network (LoNNe)



The darkest sky was measured at Lastovo in 2008, at first visit by Andrej Mohar and Herman Mikuž.

Accurate measurements are essential for understanding light pollution. According to estimations light pollution increases from 3 % to 8 % per year depending on location. The only way of having control over light pollution is regular monitoring based on calibrated (if possible) automatic measuring equipment. Short term variations of sky brightness can have peak to peak variations of more than 40 % within a few weeks due to varying humidity, aerosols, solar activity, temperature, thin low and high altitude clouds invisible by naked eyes. Inter-comparison will be done in the year of Solar maximum, thus we expect about 0.2 – 0.5 magnitude brighter sky than it could be at Solar minimum. For reference, two photometric telescopes will be used with CCD cameras and Johnson’s BVR filters.

Topics

Sky measurements:

- Calibration of light pollution instruments
- Evaluation of light pollution measuring instruments
- Inter-comparison of light pollution instruments
- Inter-comparison between RGB and astronomical filter cameras
- Definition of LPI (light Pollution Index)
- Definition of parameters on all-sky 2-D measurements
- Influence of nearby public lighting on sky brightness

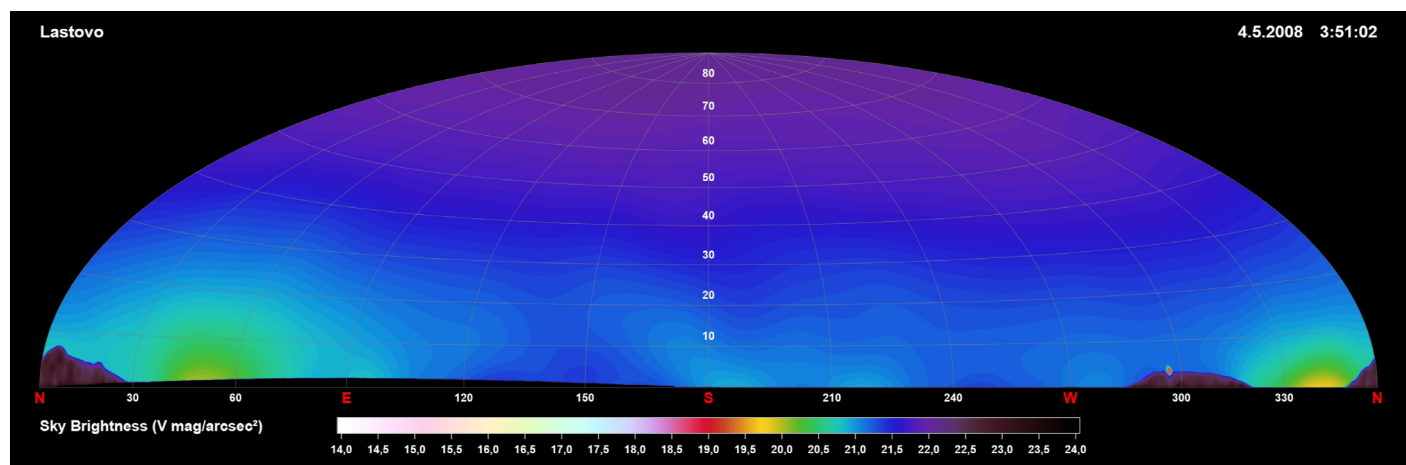
(We are going to black out the island for scientific purpose and measure its effect on sky brightness)

Ground measurements:

- measuring of ground brightness (over the entire island, critical evaluation)
- measuring of town/village brightness from hills (ground photometry)

Theoretical work:

- definition of ground illumination standard for rural and natural areas



Workshop location

Location: Lastovo island, Croatia www.lastovo.hr

Date: Saturday, August 31 – Sunday, September 8, 2013 (preparation group)
Sunday, September 1 – Saturday, September 7, 2013 (participants group)

Lastovo has been chosen due to almost pristine sky and high probability of clear weather for field work. Lastovo is one of very few islands with a new, fully shielded HPS lighting

Local organizer: Andrej Mohar, Dark-Sky Slovenia

Co-organizer: Nature Park Lastovo

Leaders of scientific projects: each project will have a project leader

Principal scientist from Croatia: TBD

Event location: Hotel Solitudo, Pasadur, Lastovo (hotel is reserved for the whole group)
field work at the heliodrom on Hum (400 m a.s.l.)

Participants

Number of participants: from 15 to 20 from at least 6 countries. Official language is English.

Equipment

We will use several all sky cameras, lightmeters, two small photometric telescopes and a 56 cm f/3.6 Dobsonian telescope for visual observations. Participants could bring their own SQMs.

Info

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Participants will be selected and invited by COST LoNNe Management Committee
Travel and hotel costs for workshop and training school are covered by COST project.