

## Agenda and Schedule for the METRIC workshop in Boise August 16-20 2010

Instructors: R. Allen, R. Trezza and J. Kjaersgaard, University of Idaho (note that R. Allen may not be able to join until Aug 17 or 18).

Sunday, August 15.

Arrival in Boise of instructors and course participants

Monday, August 16.

- 08:30 – 09:30 Welcome, Introductions of participants, Introduction to course, Practicalities (use of computers, network drives (by Nancy Glenn and Bill Kramber))
- 09:30 – 10:30 Overview of Energy Balance, Satellites and METRIC
- 10:30 – 10:45 Break
- 10:45 – 11:15 Introduction to ERDAS Imagine and Modelmaker Mechanics
- 11:15 – 12:00 Acquisition of Landsat Imagery, Land Use maps and Digital Elevation Maps
- 12:00 – 13:00 Lunch
- 13:00 – 14:00 Theory of net radiation and the energy balance
- 14:00 – 15:30 METRIC Model 1 – Radiance and Reflectance at the Satellite
- 15:30 – 15:45 Break
- 15:45 – 17:00 METRIC Model 2 – Reflectance at the surface and Surface Albedo

Tuesday, August 17.

- 08:30 – 09:30 (optional) Discussion / trouble-shooting time with the instructors
- 09:00 – 10:30 METRIC Model 3 – Vegetation Indices
- 10:30 – 10:45 Break
- 10:45 – 12:00 METRIC Model 4 – Surface Temperature
- 12:00 – 13:00 Lunch
- 13:00 – 14:00 Use of ET information in Water Resource Management (Tony Morse/Bill Kramber)
- 14:00 – 15:00 METRIC Model 5 – Net Radiation and Soil Heat Flux
- 15:00 – 15:30 Quality assessment of Weather Data and Calculation of Reference ET
- 15:30 – 15:45 Break
- 15:45 – 16:15 Quality assessment of Weather Data and Calculation of Reference ET, continued
- 16:15 – 17:30 Introduction to Sensible Heat Flux, including Surface Roughness, Near-Surface to Air Temperature Difference, Hot and Cold Pixel selection; Atmospheric Stability Correction

Wednesday, August 18

- 08:30 – 09:30 (optional) Discussion / trouble-shooting time with the instructors
- 09:00 – 10:30 Introduction to Sensible Heat Flux, including Surface Roughness, Near-Surface to Air Temperature Difference, Hot and Cold Pixel selection; Atmospheric Stability Correction, cont.
- 10:30 – 10:45 Break
- 10:45 – 11:30 METRIC Model 6 – Surface Roughness
- 11:30 – 12:00 METRIC Model 7 – Sensible Heat Flux
- 12:00 – 13:00 Lunch
- 13:00 – 15:30 METRIC Model 7 – Sensible Heat Flux, continued
- 15:30 – 15:45 Break
- 15:30 – 16:30 METRIC Model 8 – Instantaneous ET, ETrF and 24-h ET

16:30 – 17:30 Calibration comparisons, image colorization

Thursday, August 19

08:30 – 09:30 (optional) Discussion / trouble-shooting time with the instructors

09:00 – 10:30 Monthly and Seasonal ET, including applying a Cubic Spline; Recommended number of images per season; comparisons of METRIC with measured ET

10:30 – 10:45 Break

10:45 – 12:00 Monthly and Seasonal ET, including applying a Cubic Spline; Recommended number of images per season; comparisons of METRIC with measured ET, continued

12:00 – 13:00 Lunch

13:00 – 15:30 Cloud masking and Adjustment for Background Evaporation

15:30 – 15:45 Break

15:45 – 17:30 METRIC 'mountain model' and Level 2 processing

18:30 Group dinner

Friday, August 20

08:30 – 09:30 (optional) Discussion / trouble-shooting time with the instructors

09:00 – 10:30 Examples of METRIC applications; strengths and weaknesses of METRIC and SEBAL: Applications to irrigated agriculture, desert, riparian systems and wetlands

10:30 – 10:45 Break

10:45 – 11:30 METRIC with MODIS

11:30 – 12:00 Course wrap-up and evaluation