



Tribal Earth Science Technology and Education (TRESTE)

Training Workshop and Missouri River Drought Case Study

DAY 1 –

Wednesday, 31 May 2006

7:00 – 9:00 pm Social (Doublewood Hotel)

DAY 2 – UTTC, Computer Classroom

Thursday, 1 June 2006

8:00 – 8:30 am Continental Breakfast

**8:30 – 8:45 am Blessing (Mike Collins)
Welcome (Don Perkey, Mike Collins, and Jen Hartman)**

8:45 - 9:00 am Introductions and Agenda Plan (Maury Estes)

9:00 – 10:00 am Introduction to GIS with ArcGIS ArcView (Ann Johnson)

10:00 –10:15 am Break

10:15 – 12:00 noon Introduction to GIS with ArcGIS ArcView (Ann Johnson)

Blessing

12:00 – 12:45 pm Lunch (Campus Cafeteria)

12:45 – 1:30 pm Campus Tour (Jen Hartman)

1:30 – 2:30 pm Remote Sensing Fundamentals (Maury Estes)

2:30 – 3:00 PM MODIS Reprojection Tool and Data Retrieval (Maury Estes)

3:15 – 3:30 pm Break

3:30 – 5:00 pm MODIS Data and GIS Exercise (Maury Estes)

Adjourn

Dinner Group or on your own



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DAY 2 – UTTC Conference Room
Friday, 2 June 2006

8:00 – 8:30 am Continental Breakfast

Energy Budget and Landscape Changes Resulting from Drought
(Peg Tilgner/Don Perkey)

8:30 – 9:00 am Pedagogy - Describe the approach and discuss why it is a good way to teach Native American science students

9:00 – 10:15 am Case Study Exercise - *Western drought shrinking Big Muddy*

10:15 – 10:30 am Break

10:15 – 12:00 noon Computer Exercise 1 - Is the cause of the low water is located upstream, local or a combination? Is the drought driven by lack of winter, summer or all year around precipitation? (15 minutes at the end to discuss how this fits with case study)

Experiment 1 - Effect moisture content on surface temperature (15 minutes at the end to discuss how this fits with case study)

Blessing

12:00 – 12:45 pm Lunch (Campus Cafeteria)

12:45 – 1:30 pm Campus Tour (Jen Hartman)

1:30 – 3:00 pm Computer Exercise 2 - Determine if the temperature at Mandan, North Dakota increased during periods when the soil moisture content was decreasing. (15 minutes at the end to discuss how this fits with case study)

Computer Exercise 3 – Use MODIS data to observe relationship between land classification and temperature.

3:00 - 3:15 pm Break



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3:15 - 4:30 pm	Interviews and Computer Exercise 4 – Droughts Throughout Time
	Debrief - Pedagogy and content lessons
	Adjourn
5:30 pm	Group Dinner (Dockside Restaurant)
7:30 pm	Sunset Cruise on the Missouri River

DAY 3 – UTTC Computer Room
Saturday, 3 June 2006

8:00 – 8:30 am	Continental Breakfast
8:30 – 9:15 am	Administrative Issues (Mona Miller)
9:15 – 10:00 am	ArcGIS ArcView and Spatial Analyst extension – Building a model using Model Builder (Ann Johnson)
10:00 – 10:15 am	Break
10:15 – 12:00 noon	Continue ArcGIS and Model Builder (Ann Johnson)
	Blessing
12:00 – 12:30	Lunch (Campus Cafeteria)
12:30 – 2:00 pm	Arc Model Builder (Ann Johnson)
	Closing Blessing (Leland Bordeaux)