



Satellites, Weather and Climate Program

SUMMER INSTITUTE

July 26-28, 2011



GEO-0807787
GEO-1034945

Contributing to geospatial climate
education and literacy

www.uvm.edu/~swac

TUESDAY
JULY 26

WEDNESDAY
JULY 27

THURSDAY
JULY 28

INTRODUCTION TO PROJECT
BASED LEARNING AND
UNDERSTANDING BY DESIGN

SWAC MODULE 2:
CLOUD FORMATION & PHYSICS

SWAC MODULE 4:
LAND SURFACE INTERPRETATION

SWAC MODULE 1:
INTRODUCTION TO
ELECTROMAGNETIC RADIATION

OUTDOOR CLOUD IDENTIFICATION
& CLASSIFICATION

GEOSPATIAL LAB

The Satellites, Weather and Climate (SWAC) program at the University of Vermont began in 2008 and concluded its pilot phase in 2010. It is an innovative professional development opportunity for in-service K-12 science and mathematics teachers to deepen their content knowledge in the atmospheric and climate sciences, while acquiring geospatial skills that could be used in the classroom. Teachers participate in both a Summer Institute and monthly meetings during the academic year. Core content in climatology, meteorology and engineering is presented in "learning modules", accompanied by "hands-on" practical exercises. SWAC teachers then use a process of Backward Design and Project-based learning to create inquiry-based learning experiences for students. Their progress through the program is tracked by formative and summative assessments.