



FLORIDA
INTERNATIONAL
UNIVERSITY



NASA/FIU Hurricane and Remote Sensing Summer Education and Research Internship Program (HRSSERP)

August 8-19, 2011 (Location: PC Rm 324)

PI: Haiyan Jiang, FIU Department of Earth & Environment

Co-I: Robert Rogers, NOAA Hurricane Research Division (HRD)

Evaluator: Stephanie Doscher, FIU Office of Global Learning Initiatives

Graduate Student Leaders:

Cheng Tao

Joseph Zagrodnik

Selected Undergraduate Student Interns:

Heather Vasquez

Vanessa Vinent

Astryd Rodriguez

Alannah Irwin

Charelle Trim

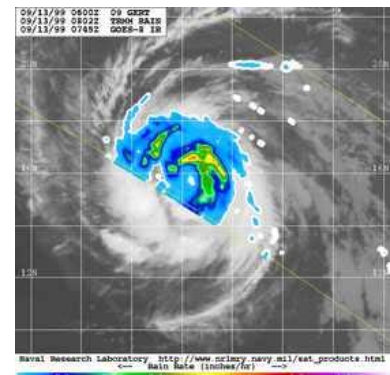
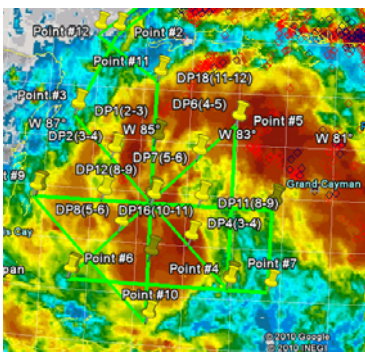
Anthony Cosio

Gaston Heredia

Denecia Anderson

Objectives:

- 1) Increase the participation of minorities and women in the field of meteorology and remote sensing
- 2) Offer direct research experience for undergraduate students
- 3) Enhance presentation skills of students who are minorities and women
- 4) To inform participants about NASA's mission activities and graduate fellowship/internship opportunities, and meteorology career opportunities requiring skills in acquisition, processing, and interpretation of NASA remote sensing data



Schedule: All activities in Room PC-324 unless otherwise stated

Monday August 8:

10:00-12:00: -Program introduction

-Program evaluation rubrics and portfolios, Icebreaking activity

-Pre-survey

12:00-1:00: Lunch (all lunches provided by FIU catering in room PC 344B)

1:00-2:00: **Featured Talk:**

Dr. Haiyan Jiang: NASA's mission activities and graduate/internship opportunities

2:00-3:00: Lecture: Scientific research skills, presentation skills

**** Every Day 3:00-4:00:** Optional "Office Hours" to review the material, answer questions, and help out anyone that missed some of the lectures due to class commitments.

Tuesday August 9:

10:00-11:30: Lecture: Satellite Remote Sensing Part 1: Introduction, Visible, IR, Water Vapor images

11:30-12:00: Introduce first lab: satellite images using IDV

12:00-1:00: Lunch

1:00-2:30: Lab: intro to IDV, how to view visible, IR, WV images, use of color tables, loops (in groups of 2)

2:30-3:00: Groups will present images from lab to group (3-5 minutes per group)

Wednesday August 10:

10:00-11:30: Lecture: Tropical Cyclones

11:30-12:00: Introduce/begin lab: Online TC resources

12:00-1:00: Lunch

1:00-3:00: Work on online TC resources lab—focus on Visible/IR/Water vapor images.

Thursday August 11

10:00-11:00: **Featured Talk:**

Guest Speaker: Dr. Xuejin Zhang from HRD (in Room PC 442)

11:00-12:00: Lecture: Advanced Satellite Remote Sensing + Radar

11:30-12:00: Continue working on online TC resources lab

12:00-1:00: Lunch

1:00-2:15: Finish online TC resources lab

2:15-3:00: Groups will present images from lab to group (about 5 minutes per group)

Friday August 12:

10:00-3:00: Group visit to HRD, meet in PC 324 by 10:00 AM, return to FIU by 3:00.

Week 2:

Monday August 15:

10:00-11:00: Lecture: Inner Core Dynamics: Eyewall Replacement Cycles and Hot towers/Relation to RI

11:00-12:00: Further instructions on the final research project: Evaluate hurricane models using both satellite and aircraft data for hurricane rapid intensification cases

12:00-1:00: Lunch

1:00-3:00: Lab: Begin working on research project. Form groups of 2, pick storms from list, and begin looking at their lifecycles. Presentations will be ~20 minutes with each student presenting for 10 minutes

Tuesday August 16:

10:00-11:00: Forecasting/Modeling, Intro to HWRF, SHIPS RI, and NHC forecasts

11:00-12:00: Explain how to access model data online for supplementing research project

12:00-1:00: Lunch

1:00-3:00: Continue working on research project

Wednesday August 17:

10:00-12:00: Continue working on research project

12:00-1:00: Lunch

1:00-2:30: Continue working on research project.

2:30-3:00: Groups will present a ~5 minute update on their progress

Thursday August 18:

10:00-12:00: Continue working on research project and final presentation

12:00-1:00: Lunch

1:00-3:00: Continue working on research project and final presentations. (Students may have to stay later to finish presentations)

[The presentations should be mostly completed by this point with only finishing touches left]

Friday August 19:

10:00-11:00: Final preparations for presentations. Space will be available to practice if desired

11:00-12:00: Evaluator Stephanie Doscher will come to do post survey

12:00-1:00: Lunch

1:00-3:00: Student presentations (15 minutes each), will invite all faculty in the department

3:00-4:00: Post-internship discussion/celebration in conference room