

AQRP Monthly Technical Report

PROJECT TITLE	Use of Satellite Data to Improve Specifications of Land Surface Parameters	PROJECT #	17-039
PROJECT PARTICIPANTS	Richard McNider, Arastoo Pour –Biazar, Kevin Doty, Yuling Wu	DATE SUBMITTED	1/24/2017
REPORTING PERIOD	From: December 1, 2016 To: December 31, 2016	REPORT #	2

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task

(1) *Task 6 - Satellite Derived Insolation and Albedo*

Evaluation of Satellite Albedo versus WRF Albedo: The surface albedo can have a major impact on the surface energy budget. Satellite albedo from both MODIS and GOES are different from the albedo used in WRF. Preliminary to starting new runs an analysis and comparison of the impact of albedo on net radiation is being carried out.

(2) *Task 2 - Use of Skin Temperature Tendencies*

Sources of Skin Temperature Data: New processing code for skin temperature data is being installed and satellite data is being collected for the 2012 period. Chris Hains of NOAA has provided their processing code. This code has been installed at UAH and preliminary tests run. This system will be used to process data for the 2012 period and provide 24 hour skin temperature data. Additional cloud mask/detection algorithms developed by UAH will be added to the processing step. It is anticipated that the 2012 data can be processed by January 30, 2017.

Preliminary Analysis

Data Collected

GOES images (IR and Vis) have started to be collected for the 2012 period

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

There has been some delay in processing the skin temperature data in part because Chris Hains of NOAA was transitioning jobs. The good news is that he is moving to NASA and will be in our building. Preliminary discussions have started with Chris Hains here.

Goals and Anticipated Issues for the Succeeding Reporting Period

Process skin temperatures for 2012

Detailed Analysis of the Progress of the Task Order to Date

Project is on track

Submitted to AQRP by: Richard McNider

Principal Investigator: Richard McNider