

AQRP Monthly Technical Report

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| PROJECT TITLE | Use of satellite data to improve specifications of land surface parameters | PROJECT # | 14-022 |
| PROJECT PARTICIPANTS | R. McNider, Y. Wu, K.Doty | DATE SUBMITTED | 2/9/2015 |
| REPORTING PERIOD | From: January 31, 2015 To: January 31, 2015 | REPORT # | 1 |

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

Insolation Impacts: As preparation for the first task examining the impact of insolation on model temperatures we have begun auditing of insolation data.

Evaluation of Satellite Skin Temperature Products: We have begun collecting and auditing skin temperature data.

Preliminary Analysis

Satellite skin temperature products and insolation products have been preliminarily compared.

Data Collected

Insolation products and skin temperature products from MSFC and NOAA Class have been downloaded for the Discovery AQ period.

Identify Problems or Issues Encountered and Proposed Solutions or Adjustments

We have noticed a quality control issue for the NOAA GOES East skin temperature product on the High Plains near the edge of the GOES East product in that temperatures seem too high. We are examining the GOES West Product. We have noticed a stripping issue with the MSFC product but a filtering technique appears to remove the stripping but retains the physical signals.

Goals and Anticipated Issues for the Succeeding Reporting Period

We will start a formal intercomparison of the skin temps in the next report and provide the first look at impacts on temperature due to satellite insolation.

Detailed Analysis of the Progress of the Task Order to Date

We believe we are on schedule for the project but the NOAA skin temperature error in the High Plains is troublesome.

Submitted to AQRP by:

Principal Investigator: Richard T. McNider

A handwritten signature in blue ink that reads "Richard T. McNider". The signature is written in a cursive style with a large initial 'R' and 'M'.