AQRP Monthly Technical Report

PROJECT TITLE	Improve Cloud Modeled by WRF using COSP and Generative Adversarial Network	PROJECT #	20-026
PROJECT PARTICIPANTS	PI: Zheng Lu	DATE SUBMITTED	Oct. 9, 2020
REPORTING PERIOD	From: Sept. 11, 2020 To: Oct. 9, 2020	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 for reporting period

We download and examining the re-analysis data on NCAR Cheyenne HPC. The re-analysis data include North America Mesoscale, NCEP FNL, and ECWMF datasets.

Preliminary Analysis

N/A

Data Collected

1. Generating geogrid output

2. Generating met files from three reanalysis data

3. Generating wrfinput and wrfbdy from GFS reanalysis

4. Performing WRF simulating with the configuration combination of the Morrison scheme, ACM2 PBL scheme.

Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

N/A

Goals and Anticipated Issues for the Succeeding Reporting Period

Performing WRF simulations for year 2018 with other configuration combination

Detailed Analysis of the Progress of the Task Order to Date

In the beginning step of Task Order 1.

Do you have any publications related to this project currently under development? If so, please provide a working title, and the journals you plan to submit to.

□Yes ⊠ No

Do you have any publications related to this project currently under review by a journal? If so, what is the working title and the journal name? Have you sent a copy of the article to your AQRP Project Manager and your TCEQ Liaison?

Do you have any bibliographic publications (ie: publications that cite the project) related to this project that have been published? If so, please list the reference information. List all items for the lifetime of the project.

Do you have any presentations related to this project currently under development? If so, please provide working title, and the conference you plan to present it (this does not include presentations for the AQRP Workshop).

Do you have any presentations related to this project that have been published? If so, please list reference information. List all items for the lifetime of the project.

Have any personnel changes occurred that were not listed in the original proposal? If so, please include a detailed description of the personnel change(s) below.

Are any delays expected in the progress of the research? If so, please include a detailed description of the potential delay below.

Describe any possible concerns/issues (technical or non-technical) that AQRP should be made aware of.

Are you anticipating using all the available funds allocated to this project by the end date? If not, why and approximately what is the amount to be returned?

 \boxtimes Yes \Box No

Submitted to AQRP by

[Zheng Lu]