Forecast Ecosystem Conditions in Gulf of Mexico OCS Habitats
Using Coupled Modeling and Climate Scenarios

Quarterly Report (Y1Q1 – Oct 1-Dec 31, 2016)
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This quarterly report is filed per requirements of BOEM-NRL IAA # M16PG00027 with respect to our research project focused on climate-scale ocean model simulations for the Gulf of Mexico. The focus of this study is to forecast, through year 2050, marine ecosystem conditions in the Gulf of Mexico using RCP climate scenarios prescribed by the NCAR CESM Large Ensemble (LE) atmospheric forcing.

1. WORK ACCOMPLISHED
The effort this quarter was concentrated on paperwork relating to the NCAR/CU subcontract which is expected to be finalized and executed during the first quarter of 2017. Collaborations with NCAR/CU are underway identifying the pertinent CESM LE fields required for this project and preparing the best methodologies to prepare, QC, and transfer the CESM LE and ME data that will be used for forcing the Gulf of Mexico Ocean Model.

2. PROBLEMS
Due to the amount of CESM data (over 20TB) that need to be transferred from NCAR to NRL and NRL IT security policies, attempts to transfer them via cloud services or automated sync technologies have been unsuccessful. Thus, for convenience and expedience, the data will be copied to portable disks that will be shipped to NRL.

3. PLANNED ACTIONS FOR NEXT QUARTER
Our goal for next quarter is to execute the NRL-NCAR/UC subcontract and transfer all the data required for this projects. Initial inspection and QC of the transferred data will be conducted as they are processed for the Gulf of Mexico numerical model grids. A project "kick off" teleconference will be scheduled and take place during this quarter as well.

4. BUDGET
First-year funds ($80,000) were received in October 2016. No hours have been charged to this project this quarter. $21,000 (NCAR/CU subcontract) is expected to be allocated next quarter.