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

Quarterly Report (Y4Q3 – Apr 1-Jun 30, 2020)
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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 (GoM) using RCP climate scenarios prescribed by the NCAR CESM Large Ensemble (LE) atmospheric forcing.

1. WORK ACCOMPLISHED
The ERA5 run completed through 2019, but the output has not yet been processed due to problems associated with COVID and lack of access to HPC resources.

2. PROBLEMS
Due to COVID-19, NRL staff was sent home in March to continue work at a telework capacity. This unprecedented situation has reduced the productivity of all projects, including this one. However, as of today, July 1, 2020, IT capacity for teleworking has improved and situational visits to NRL are now possible. A visit to NRL is scheduled on July 12 to improve home-equipment and re-enable access to HPC resources.

3. PLANNED ACTIONS FOR NEXT QUARTER
Perform comparisons and analysis of results from NAVEM and ERA5 with the goal of writing and submitting a paper publication by the end of the year.

4. BUDGET
$280K has been received (Y1:$80K, Y2:$80K, Y3:$120K).
Expenditures to date: ~$160K.
Y4 funds expected this year.