**MS 398 Final Paper**

**PROPOSED OUTLINE**

**Philippine Sea Level Responses to Climate Variability in the Western Pacific Region**

1. **Introduction**

* Philippine sea level rise (especially in the east) > global sea level rise
* Cause of differences among local sea level heights
* Impact and consequences
* Objective:
  + Compare satellite data (aviso) with tide gauge data (UHSLC)
  + Lag correlation of SSH with SST, ENSO, PDO variability
  + EOF Analysis

1. **Methods**
   1. Study Sites with SSH data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Hourly** | **Daily** | **Monthly** | **Annual** |
| **Manila** | ✔ | ✔ | ✔ | ✔ |
| **Subic, Zambales** | ✔ | ✔ | ✔ | ✔5yrs, so-so |
| **Currimao** | ✔FastDev | ✔ | ✔ | ✔ |
| **Legazpi, Albay** | ✔ | ✔ | ✔ | ✔ |
| **Puerto Princesa, Palawan** | ✔ | ✔ | ✔ | ✔so-so |
| **Lubang** | ✔FastDev | ✔ | ✔ | ✔ |
| Real, Quezon |  |  | ✔so-so |  |
| **Port Irene** |  |  | ✔ | ✔ |
| **Balanacan, Marinduque** |  |  | ✔ |  |
| **Tacloban, Leyte** |  |  | ✔1951-76 | ✔1954-76 |
| **Cebu** | ✔ | ✔ | ✔ | ✔ |
| **Davao Gulf** | ✔ | ✔ | ✔ | ✔ |
| **Pagadian City** |  |  | ✔ |  |
| **Makar, General Santos** |  |  | ✔ |  |
| **Zamboanga City** |  |  | ✔ | ✔4yrs |
| **Jolo, Sulu** | ✔ | ✔ | ✔ | ✔ |
| **Macabalan Port, CDO** |  |  | ✔ | ✔4yrs |
| **Mambajao, Camiguin** |  |  | ✔ |  |
| **Surigao** |  |  | ✔ | ✔ |
|  |  |  |  |  |

Note: Green – downloaded; Red – to be calculated; Blue – complete or can be complete data;

* *Power Spectra (t-tide, detiding, etc) (significant?)*
* Lag correlation of monthly and annual data with SST, SOI, PDO Index
* Regression of SSH with ENSO, PDO signatures in TAO Array Data
  1. Remote Sensing
* EOF of AVISO SSH (1993 – 2012) and SST data (1982-2011)
* Regression: AVISO and TIDE GAUGE DATA

1. **Results and Discussion**

*follow flow in methods*