02 Feb, 2015

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**Progress Report – 1 Jan 2015 – 31 Jan 2015**

Contract Number: HSHQDC-06-D-00022

Contract Number 7500097279

Order Number: HSCG23-07-J-TED150

Task Order – Performance Work Statement (PWS) 1.12

Attachments: (1) SAROPS subcontractor financial reports

1. **SAROPS Systems Component Services Tasks**
   1. **Looked into building a global ETOPO but found one snag. I know how to work around it and it would take about 30 hours more.**
   2. **Wrote 3 slide shows for IPR of Feb 4th. Etopo, SimLand, and Pos.**
   3. **Have put a lot of effort into improving the way the code searches for intersections of great circle arcs. This is a follow-up to last month’s report. I have not started back on with DNC, but much of the code is now using the concept of “longitudinal strips.” Most of the SimLand “sausage-maker” uses this concept now(there are still some spots that are not, but I’m trying to get at them), and the result is a significant speed-up. Moreover, by focusing on SimLand production, I found many subtle bugs in the longitudinal strip process. Last month I said that I reduced this process from 36 to 12 hours, but I did find a bug. After I fixed it, I see no bugs now, and the time is now 6 hours. No bugs seen in any planner cases either; “crossings” need detections to compute**
   4. **Looked into a POS values question. Got Jack here and went over my Verbose\_Plan\_Results. Explained how to use that file to check on my results. This raises questions about which sets of particles to examine, especially for voyages; for a (e.g.) PIW, do we consider the particles that start as PIWs or those that end as PIWs?**
   5. **Looked into dateline problem with ESRI. Got feedback from them which I passes along. GeoTools, the 3rd party java library that I use to read and write Shape Files, was not as helpful.**
   6. **Updated all 3rd party libraries using Maven, plus downloading a new java jvm. The Maven part did not go smoothly. Had problems with geotools and netcdf. NetCdf no longer supports version 11, and it took me a while to figure that out. I’m trying to do that on a weekly basis, but sometimes I don’t get around to it.**
   7. **Looked into radar. Still have code for that (as opposed to simply the 3 logit parameters). Obfuscation will be necessary or simply the removal of that class.**
   8. **Double-checked on reporting when particles drift outside of the AOI. It still orks smoothly, and is logged in an output file.**
   9. **Caught up on all of the STR documentation (as per Jim’s request).**

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| --- | --- | --- | --- | --- |
| **Name** | **Activity Worked** | **Hours Worked** | **Hourly Cost** | **Total Cost** |
| Kratzke (New Contract) | Coding/Doc/Travel | 104 | 261.27 | 18811 |
| Stone | Doc | 0 | 223 | 0 |
| L White (Tech Writer) |  | 0 |  | 0 |
|  |  |  |  |  |
| **Totals** |  | 88 |  | 18811 |
|  |  |  |  |  |