4 Dec, 2018

Robert Trzeciak

Program Manager

Northrop Grumman IS

468 Viking Drive

Virginia Beach, VA 23452

757-498-5544 work

757-635-2628 mobile

**Progress Report – 1 Nov 2018 – 30 Nov 2018**

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. **Worked mostly on SBV and Planner.**
2. **SBV: Cleaned up tacking; there were errors. Also, finished implementing the new specs for how motoring should work. That introduced an error. Latest tests from Rob Wilson indicate much better behavior. Added “NONFINAL\_ARRIVE” and probability of “never motoring.” Also, if “never motoring,” then we do motor close to the beginning and end. Rob had the 1st multi-leg case and there was an error in that as well. So this was a lot of cleanup/**
3. **I thought VS would go more smoothly, but there was significant restructuring of the code to introduce PatternKind. Did not quite complete that, but in the process cleaned up Planner quite a bit, in particular the low-risk area of reading in a PlannerModel. A PlannerModel consists of the PatternVariables, their LrcSets, and, if there, their initial configurations. Also, got rid of frozen\_boxes, and other obsolete ideas. This was not without pain. I currently have many places in my code that are commented by “VS not done,” and I must fill them in. I do have the code that creates the separation buffer polygon, the track-spacing polygon, and the actual route.**
4. **At this point, each PatternVariable has its “patternKind” equal to null, LP, VS, or SS. If a PatternVariable has a null patternKind, then it has a TrackLine, and is frozen. The perturbation routines will be different for VS than for LP, as will the initial placement. We are not dealing with transits. If we were, then each PatternVariable would additionally be considered a StandAlone PatternVariable or a PvSeq PatternVariable, but this classification is orthogonal to patternKind. I believe that I hammered out the xml specifications to rigorously specify all of this.**

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| **Name** | **Activity Worked** | **Hours Worked** | **Hourly Cost** | **Total Cost** |
| Kratzke | Coding/Doc/Travel | 183.52 | -- | -- |
|  |  |  |  |  |
| **Totals** |  | 183.52 |  |  |
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