



August 23, 2014

Dear Tom and Michael,

Thanks for your continued work on the AIS shipping project. As we discussed in the recent emails, we are now providing the additional vessel MMSI numbers for a more complete analysis of the AIS data. We've agreed that this will wrap up the original statement of work and further analysis (e.g., number of vessel tracks by degree across a meridian) will be addressed in a subsequent work order/contract. We can write that up separately as and when you have the time at SNAP. As I mentioned, we are in the process of receiving the additional funds for trajectory work and will continue to work in that direction. There's certainly a lot of interest in this topic so I'll look forward to future collaborative work when time allows.

In order to wrap up the final analysis that we agreed to in a manner that I can report on, I'm hoping the following is acceptable. The only additional work I'm asking for are a few details of metadata that I can use to publish the results.

1. Incorporate the additional MMSI numbers (provided with this letter) into the analysis of vessel routes by type¹, month and for all months combined (by vessel type). This is exactly what was done for the Aleutian Island Risk Assessment meetings – but includes the additional MMSI data as agreed.
2. Provide an overall list of all the MMSI numbers that were actually used in the final analysis. Michael just provided me with what were not used to get the additional data, so that should basically be at hand.
3. Provide the number of lines of data that didn't include the 9-digit MMSI number. Michael parsed out all the 9 digit values for this analysis. Knowing how many other lines were in the readable data allows us to report how much of the data we used. It would just be the number of lines of data with MMSI numbers not equal to 9 digits.
4. Provide each of the density outputs (vessel type by month and for all months combined) as an ArcGIS shapefile (Geo-TIFF) and not a Ping. Michael did this for one of the outputs last time (provided to Hig at Nuka) and it worked very well. This will allow us to do the cartography with our own overlays, and some analysis of the GIS files. Michael had indicated not wishing to get wrapped up in cartography and this will give us all the flexibility we need for not coming back to you with graphical or ArcGIS needs (e.g., in relation to publication or for overlays etc). In other words, the data analysis and outputs are done by SNAP and we'll take care of the graphical representation for different purposes/needs.

I really appreciate all the help. It was a huge amount of data and complicated to bring together. This final bit of effort will support a product we can all be proud of.

Martin

¹ 1) Bulk Carriers, 2) Tankers, 3) Dry Cargo/Passenger, 4) Fishing, 5) Offshore, 6) Miscellaneous, 7) Non-Merchant.