Spring charter Scenarios:

**What I did:** I ran through various scenarios based on several assumptions: cruising speed of 10 knots (based on likely vessel options), a start date of May 15th, and with 22 DAS, an estimated end date of June 5th. I also assume sampling can be completed all day of the June 5th and that the vessel will return to port on June 6th. CTDs will likely be cut but I wanted to account for them just in case since we have a timeseries of conducting them at line 8 and there may be a push to retain these samples.

* All stations, 24-hour ops
* Day-ops 1 (0600-1800): no activities cut
* Day-ops 2 (0600-1800): cut 1st 24 stations and stations 184-196, sample neuston at every other station in neuston box
* Day-ops 3 (0600-1800): sample every other station (~20nm apart) but keep all FOX stations and stations 167-177
* Day-ops 4 (0600-1800): sample every other station (~20nm apart) but keep all FOX stations and stations 167-177 and cut 1st 24 stations
* Day-ops 5 (0600-1800): sample every other station (~20nm apart) but keep all FOX stations and stations 167-177 and cut 1st 24 stations and stations 184-196

**My assessment:** Cuts must be made in order to successfully sample core stations and obtain decent spatial coverage of wGOA. Of the considered scenarios, Day-ops 4 gives us the best spatial coverage and allows us to complete the grid within the time window. With this option, stations are situated approximately 20 nm apart and the 60/20 bongo is sampled at every station (in contrast to fishing the 20bon along every other line). To provide more flexibility for weather, transit times, and/or drills, Day-ops 5 is my second choice.

**Additional considerations:** If possible, I would prefer night sampling to improve the effectiveness of the neuston but this possibility is purely contingent on vessel so I focused the schedule on day-ops for now.

**Station maps:** Compare spatial extent of each option. Tomorrow, construct an r dataframe with scenario