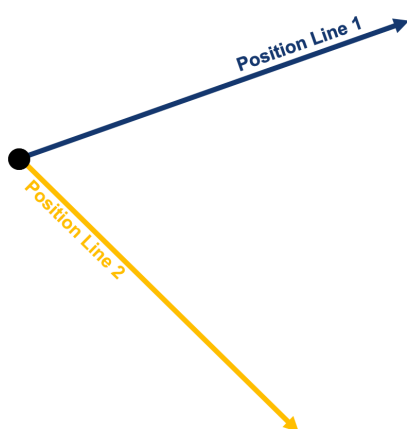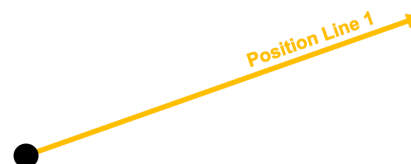# Running Fix Construction

A running fix is a position fixing plot we can complete while underway, when having only one known reference object. It uses a combination of 2 position lines taken at different times, and an EP plot.
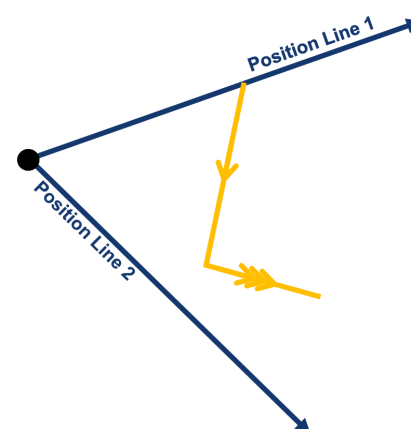
1. Plot our first position line

This is our first bearing to our known reference object. We are somewhere on this line, but do not know where.
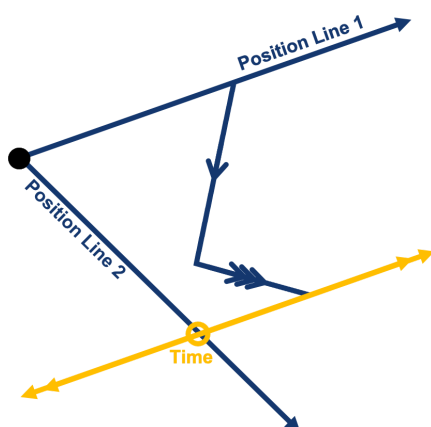
2. Plot our second position line

After a period of run time, during which we have ideally passed the abeam of the known object, we take and plot a second position line to the same object. We are now somewhere on this line.

3. Draw our ground track and tidal vector

This is the distance run and the equivalent tidal vector between the 2 bearings taken to our known reference object over a period of time. This can start from any position on position line 1; it should not line up with position line 2.

4. Transferred position line

We can then transfer our first position line parallel to itself, but passing through the end of our ground track and tidal plot. Where this crosses our 2nd position line is our current position fix.