

A large sea turtle, likely a hawksbill, is swimming towards the right in clear, blue water. The turtle's shell is dark with a mottled pattern of lighter spots. Its flippers are also dark with a lighter, webbed pattern. Below the turtle, a vibrant coral reef is visible, featuring various types of coral in shades of yellow, orange, and green. The overall scene is bright and clear, suggesting a healthy marine environment.

The Villages Scuba Club

Underwater Navigation

06 NOVEMBER 2024

Underwater Navigation

- Compass Navigation
- Estimating Distance
- Natural Navigation
 - Reef Lines and Ledges, Sand Channels, Walls, and Slopes;
 - Unique Formations such as swim throughs or cul-de-sacs;
 - Wrecks and debris fields;
 - Current and depth;
 - More subtle features such as grasses, fan coral, sand ripples, surge, and sunlight.
- Surface Navigation

Underwater Navigation specialty courses are available from most agencies.

Compass Navigation

- Align Lubber Line with centerline of body
- Rotate Bezel to North
- Direction of travel indicated by Lubber Line
- Return (reciprocal) course can be achieved by:
 - Rotating bezel 180° and turning to line up North on compass card to North on bezel, or
 - Turning to line up South on compass card to North on bezel.
- Potential issues -
 - Not aligning Lubber Line with direction of travel.
 - Current moving you in another direction (set and drift).
 - Deviation due to magnetic interference.



Best case is an approximate direction of travel.

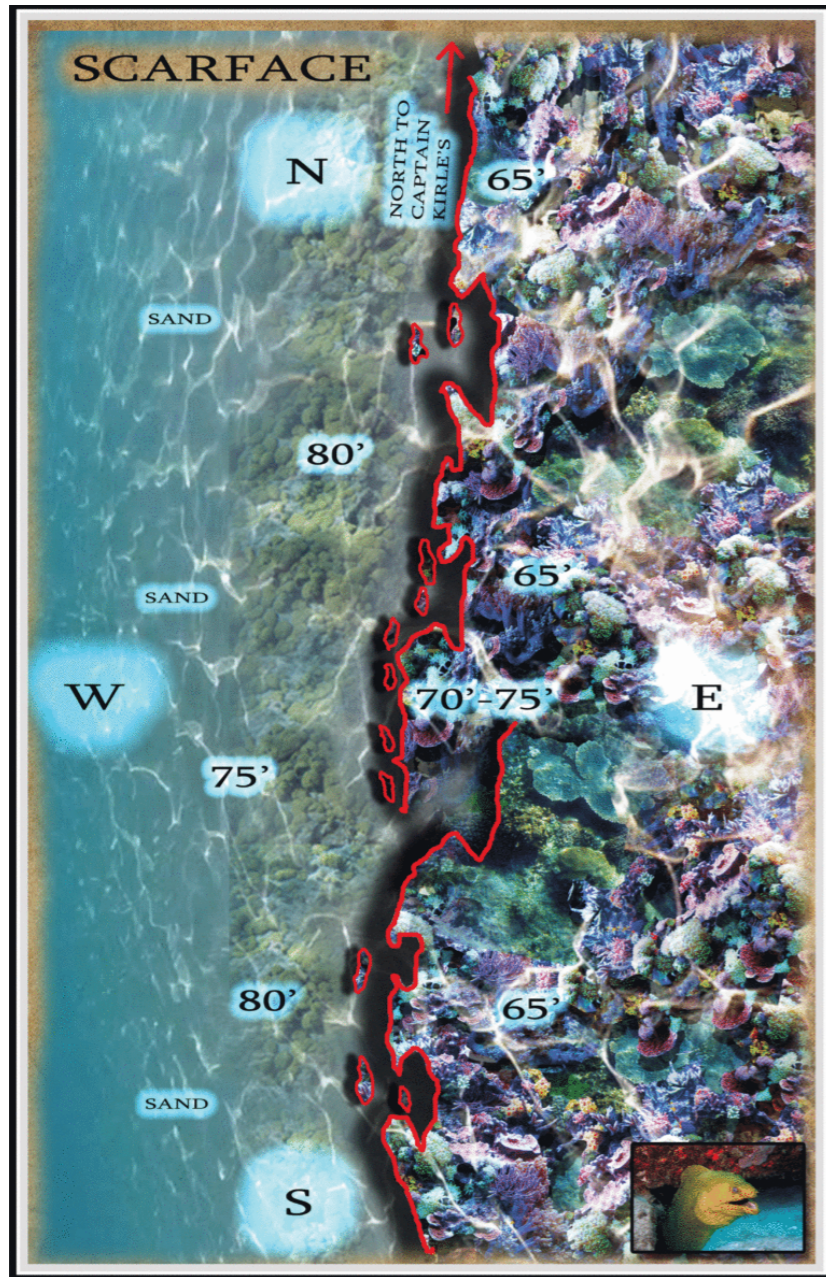
Measuring Distance Underwater

- Counting kicks
 - Not useful for a lengthy dive
 - May be inaccurate for even short distances due to current
- Estimating by Dive Time
 - May be inaccurate due to current and amount of kicking.
- Best way to estimate distance - don't!
 - Be familiar with the dive site or at least pay attention to the briefing.
 - Look for unique features of reef. Look behind you.
 - Consider using a slate, before and during the dive.

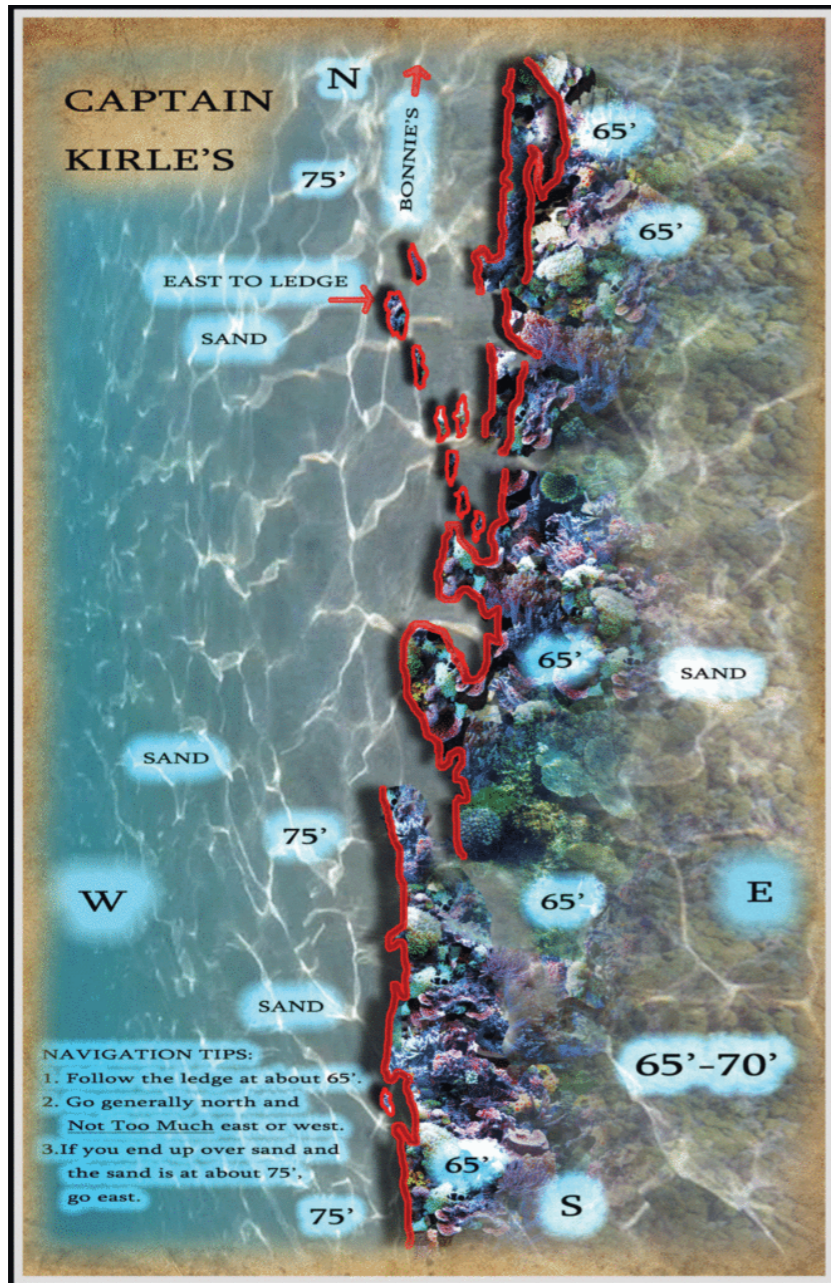
Dive Slates



Using a Slate to Navigate



Using a Slate to Navigate

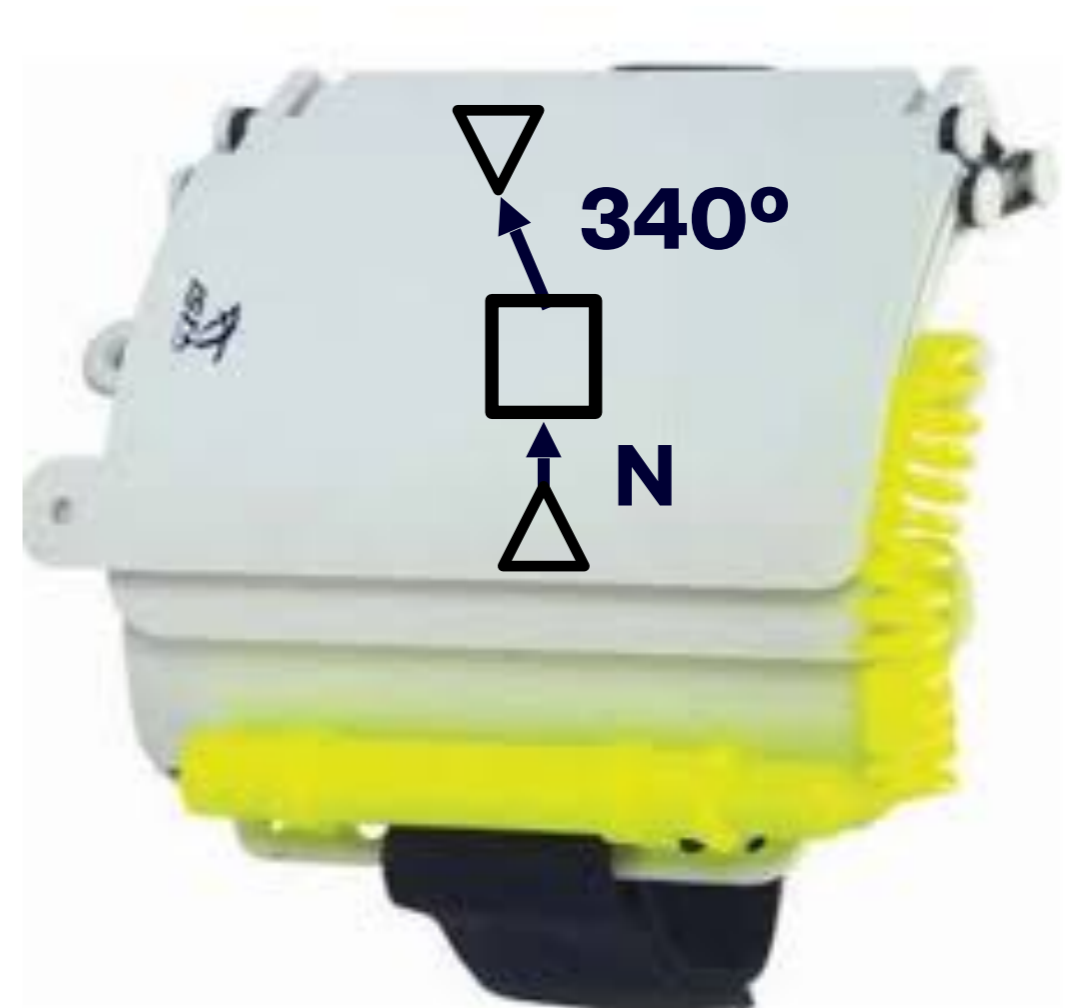
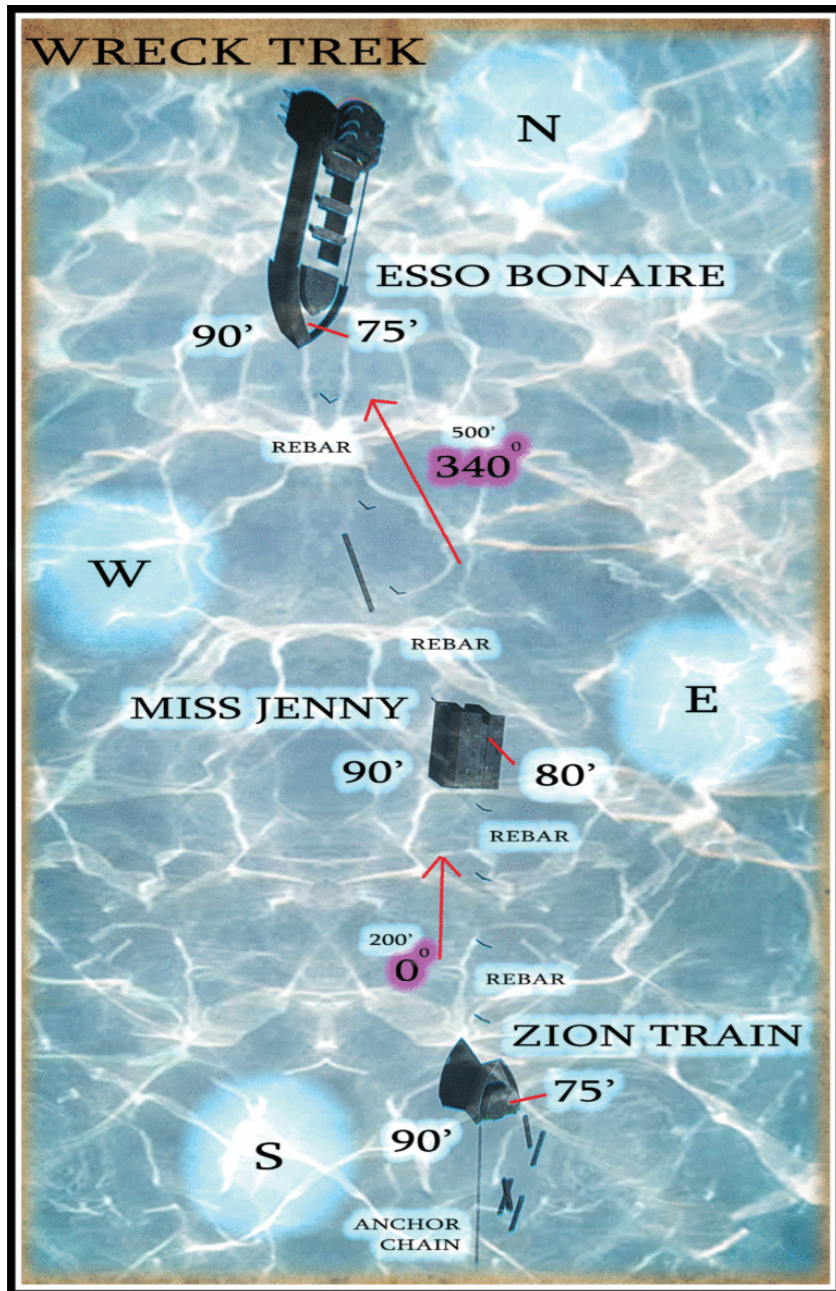


Using a Slate to Navigate

- Out and back on a wall dive



Using a Slate to Navigate



Underwater Navigation

- Learning and maintaining basic underwater navigation skills;
 - May help eliminate dive guide separation anxiety, and
 - May add to enjoyment of dive as you become more connected with the dive site.
- Recommendations -
 - Dive Slates can be an effective aid for underwater navigation
 - Keep markings simple and readable.
 - Best when readily available - on wrist or lanyard?
 - Practice your navigation skills on every dive.
 - Consider an underwater navigation specialty course.

Questions, Comments?