

# WIND MAPS AND SUGGESTED RACECOURSES

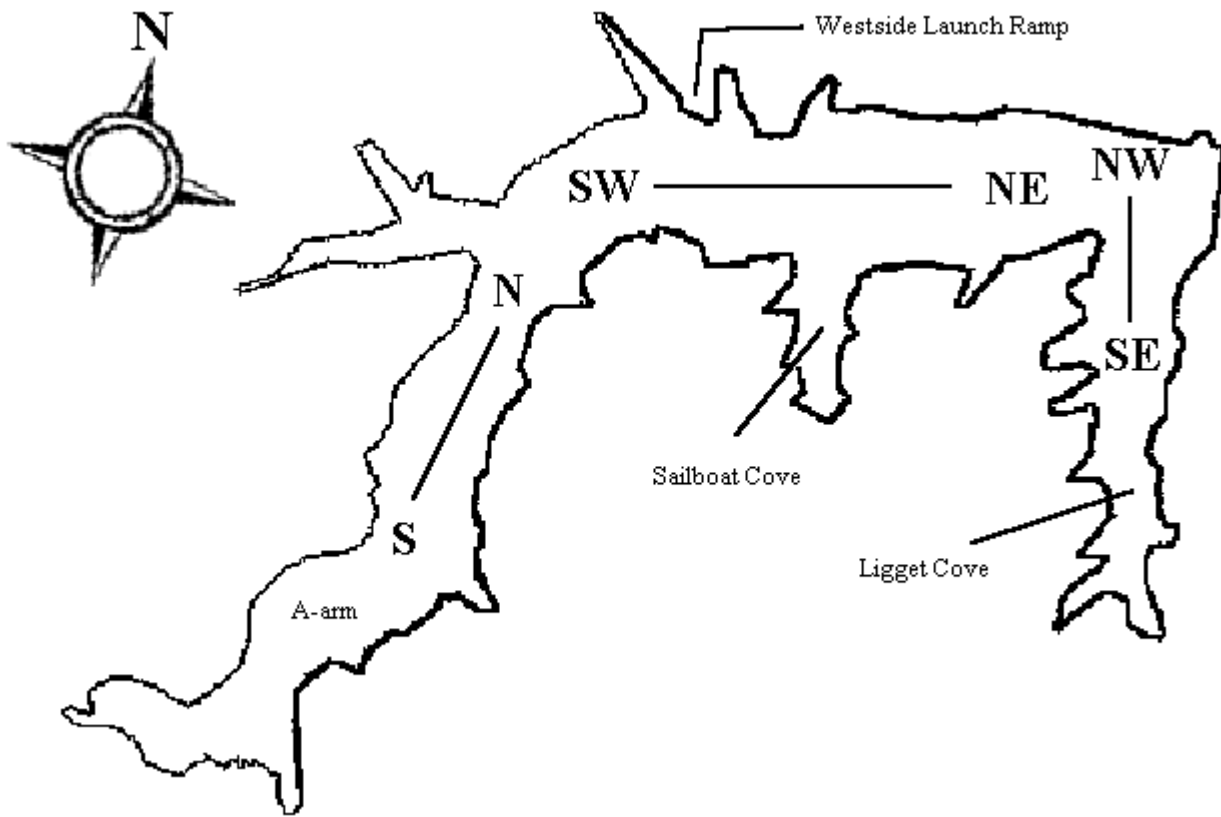


# *Beaufort Scale*

One of the first scales to estimate wind speeds and the effects was created by Britain's Admiral Sir Francis Beaufort (1774-1857). He developed the scale in 1805 to help sailors estimate the winds via visual observations. The scale starts with 0 and goes to a force of 12. The Beaufort scale is still used today to estimate wind strengths.

The Beaufort scale: Specifications and equivalent speeds for use on land. All speeds at 10Mts above the ground.

<b>The Beaufort Wind Scale</b>				
FORCE	MPH	KNOTS	Desc.	Detail
0	0-1	0-1	Calm	Smoke rises vertically.
1	1-3	1-3	Light Air	Direction of wind shown by smoke drift
2	4-7	4-6	Light Breeze	Wind felt on face; leaves rustle
3	8-12	7-10	Gentle Breeze	Leaves and small twigs in constant motion; wind extends light flag.
4	13-18	11-16	Moderate Breeze	Raises dust and loose paper; small branches are moved.
5	19-24	17-21	Fresh Breeze	Small trees in leaf begin to sway; crested wavelets form on inland waters.
6	25-31	22-27	Strong Breeze	Large branches in motion; umbrellas used with difficulty.
7	32-38	28-33	Near Gale	Whole trees in motion; inconvenience felt when walking against the wind.
8	39-46	34-40	Gale	Breaks twigs off trees; generally impedes progress.
9	47-54	41-47	Severe Gale	Slight structural damage occurs (chimney-pots and slates removed).
10	55-63	48-55	Storm	Seldom experienced inland; trees uprooted; considerable structural damage occurs.
11	64-72	56-63	Violent Storm	Very rarely experienced; accompanied by wide-spread damage.
12	73-83	64-71	Hurricane	



**The following charts show the wind direction and velocity for the main body of Lake Jacomo. The wind shadow areas change for each change in direction and speed, but they are always present and must be considered when setting a racecourse.**

## WIND MAPS AND SUGGESTED RACECOURSES

The Suggested Guidelines and Racecourses maps are intended to serve as an aid to the Race committee in their determination of the racecourse. It is hoped that this will improve the quality and consistency of the courses set on Lake Jacomo.

Since these maps can only illustrate the general conditions, the Race Committee will be required to consider and adjust for specific circumstances. The race Committee should also note daily conditions and recommendations at the completion of each race, and in doing so, perpetuate the spirit of this manual for the benefit of future committees.

### Suggested Guidelines

- I. The wind readings from the center of the lake (sailboat cove & west launch ramp area) to determine a predominant wind direction. If the wind is predominantly from the North, go to the dam area and take additional readings. If it is predominately south, go well into the A-arm of the lake and take additional readings.
- II. After wind direction and strength have been determined, refer to recommended racecourses matching those readings.

Wind Readings Definition – readings should be taken from a stationary position facing the wind. Wind direction and strength should be noted for use in selecting racecourses.

The following are general references used to determine the three wind speeds (3, 10, 17 M.P.H.) at which dramatic changes in boat responses take place:

3 M.P.H. – Steerage way is constant and wind changes can be felt.

10 M.P.H. – All classes reach hull speed, small wind changes are noticeable, easy sailing, no capsizes.

17 M.P.H. – Some classes reach planing speeds, wind shifts, and velocity changes become more important to lightweight crews.

These are the wind speeds used when determining the following courses.

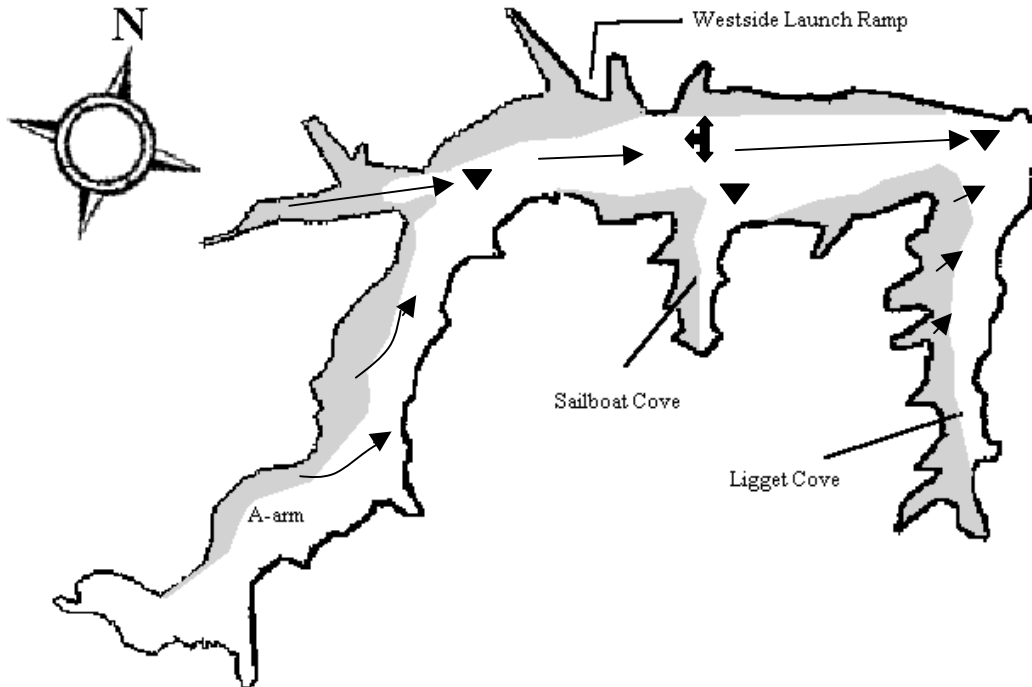
### HELPFUL NOTES

- A common first weather mark is preferable, because it eliminates congestion at the jying mark. This means using divisional leeward marks.
- The finish line should be as far past midway of the leg as possible to the weather of the last rounded mark. This should allow an easy setup and start of any additional races and a fair chance to compete for a good finish for all racers.

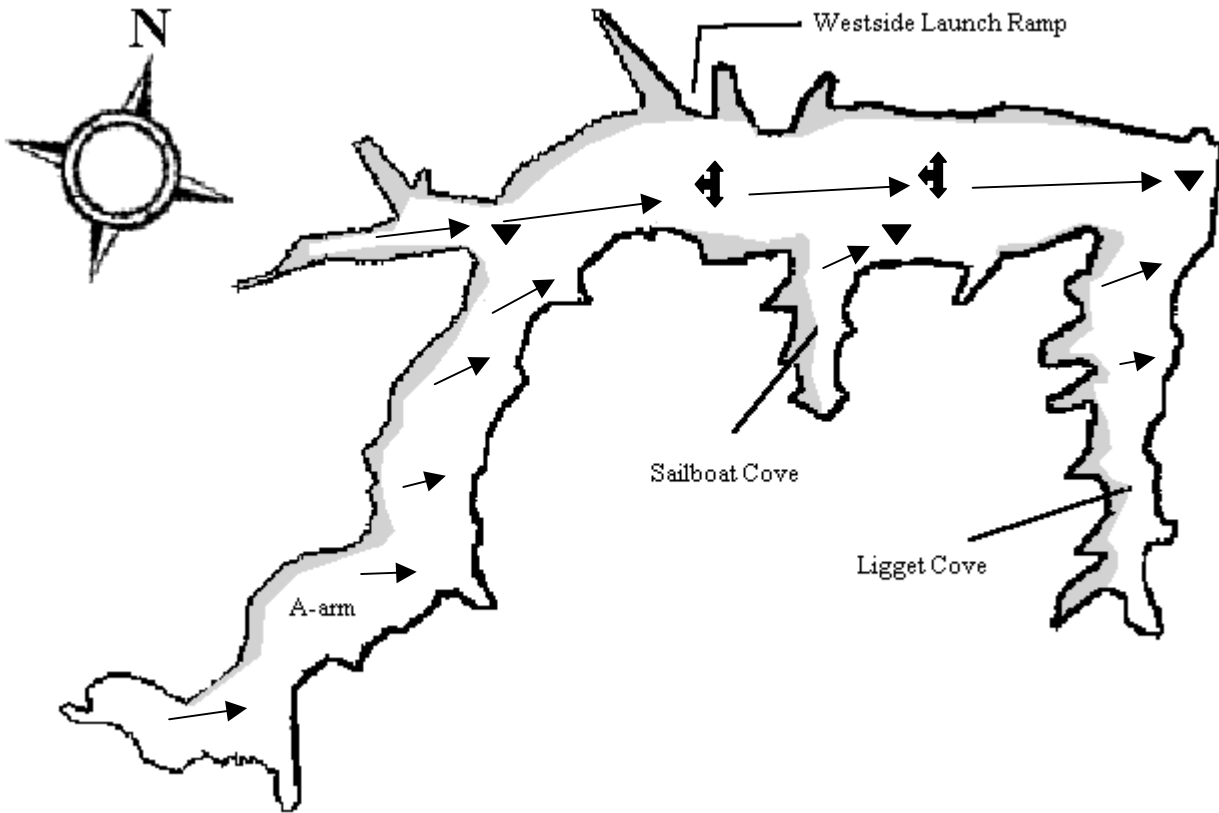
### KEY

Mark = ▼ Starting line area = ⬆️ Wind direction = ➡️ Wind Shadow = ■

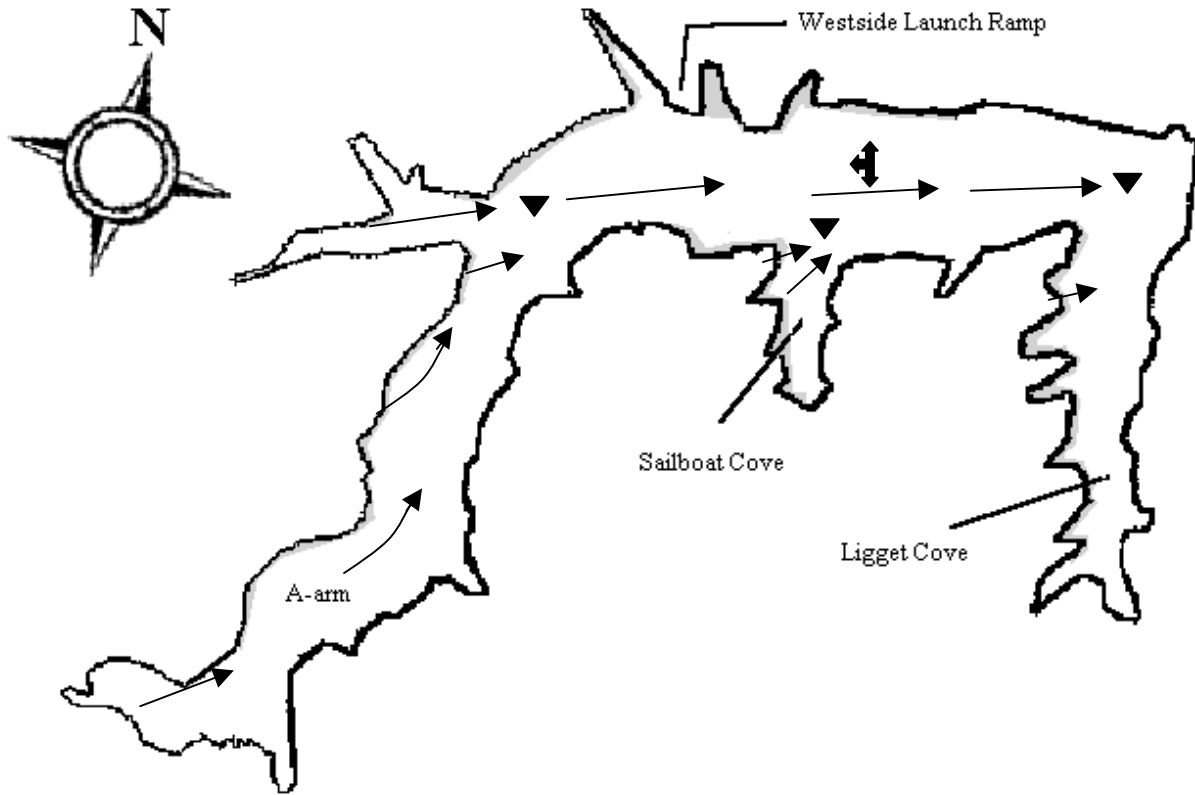
**SOUTHWEST WIND**  
3 MPH heavy wind shadows .



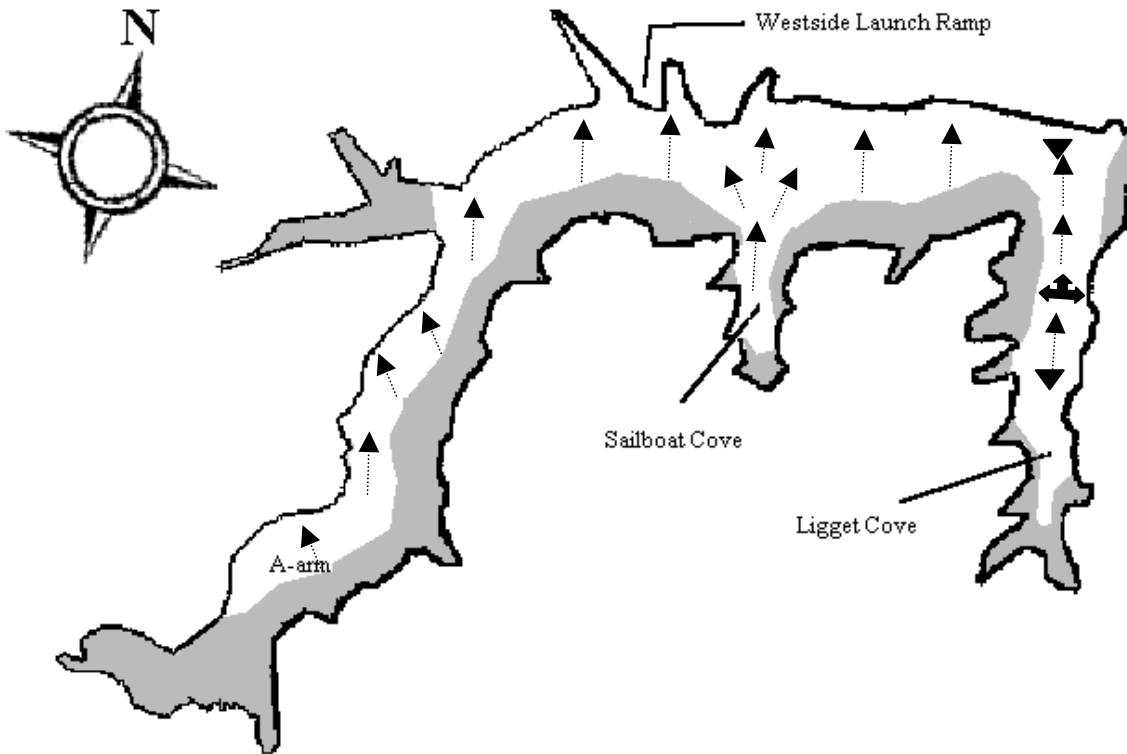
10 MPH some wind shadows.



**SOUTHWEST WIND**  
17 MPH Few wind shadows

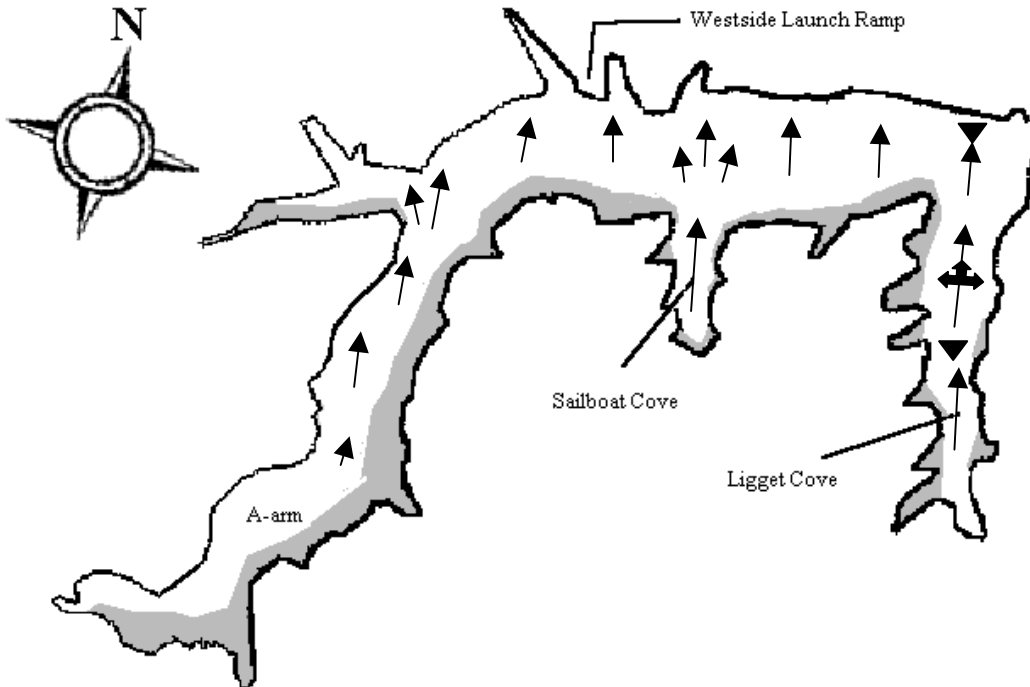


**SOUTHEAST WIND**  
3 MPH Heavy wind shadows. Very difficult course to run PRO should check Liggett cove.



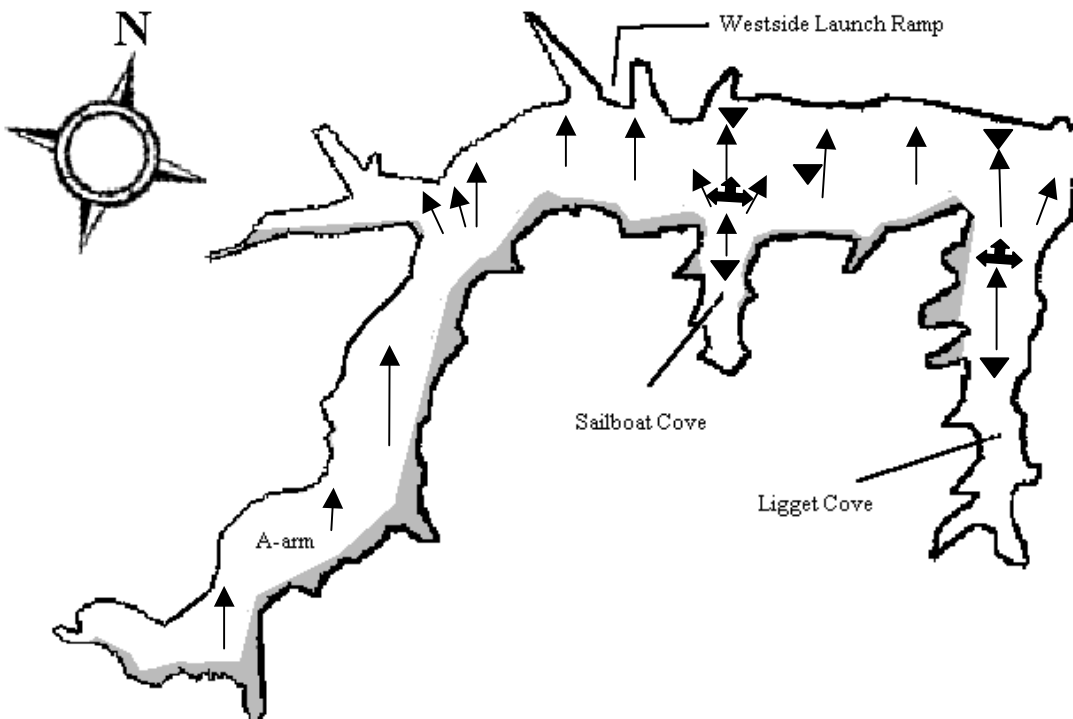
SOUTHEAST WIND

10 MPH Moderate wind shadows. Very difficult course to run PRO should check Liggett cove.

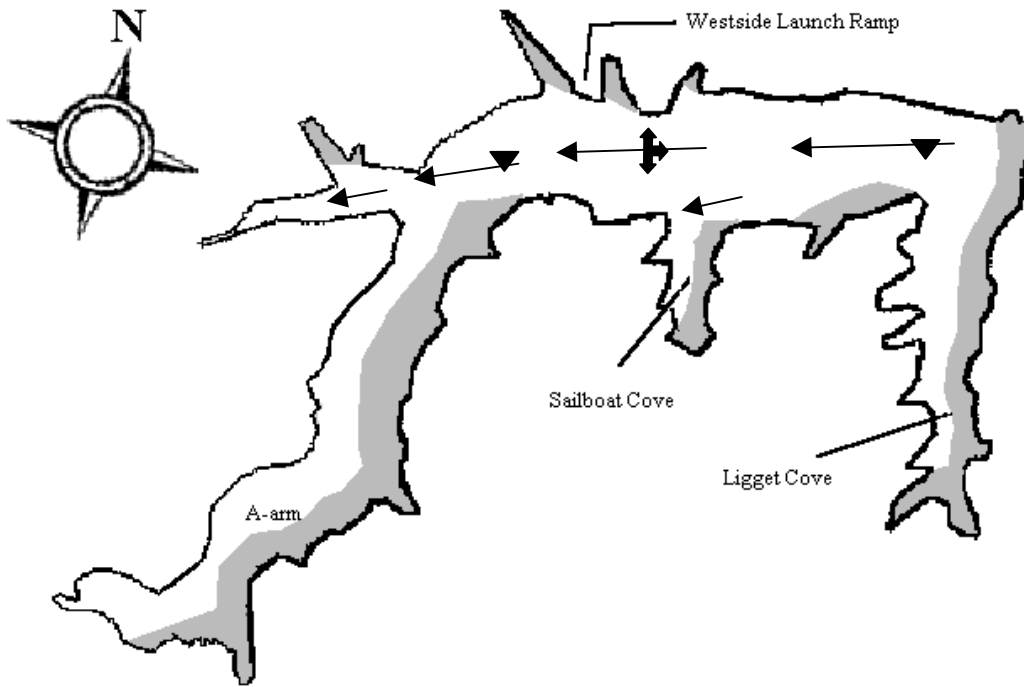


SOUTHEAST WIND

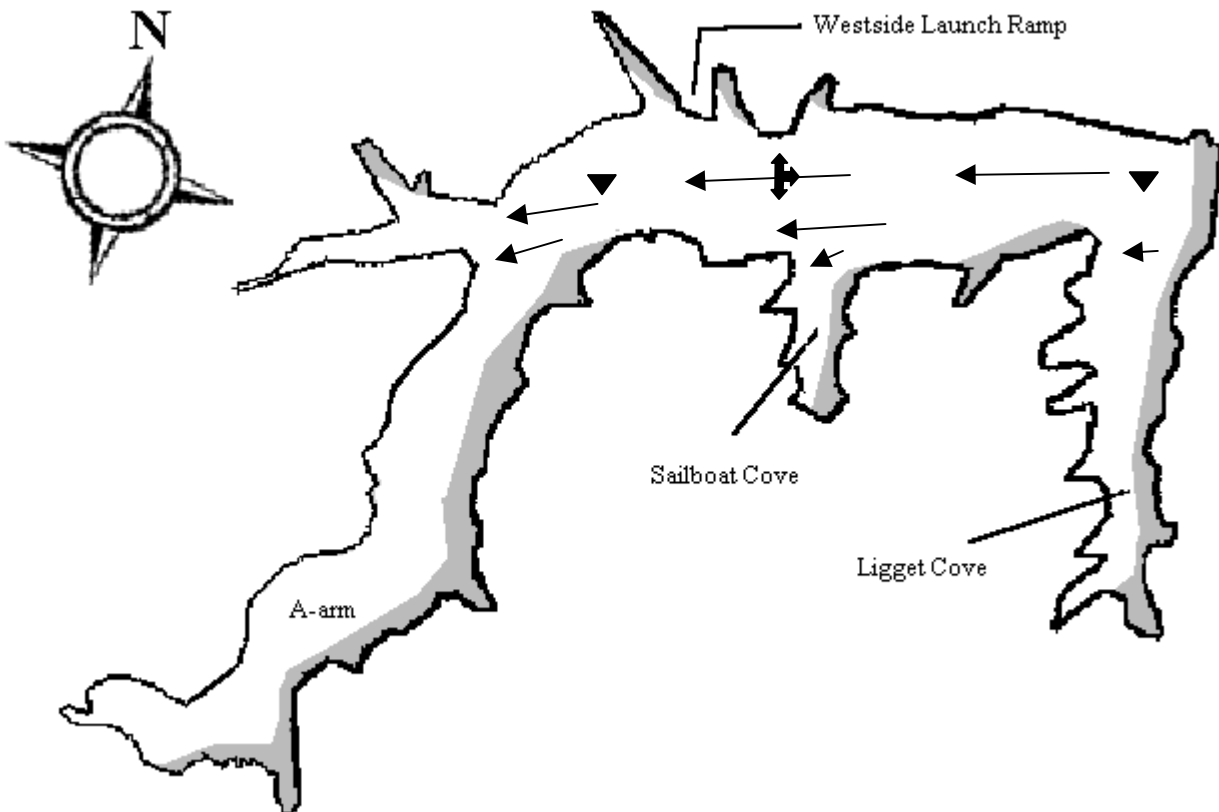
17 MPH Some wind shadows.



NORTHEAST WIND  
3 MPH Moderate wind shadows.

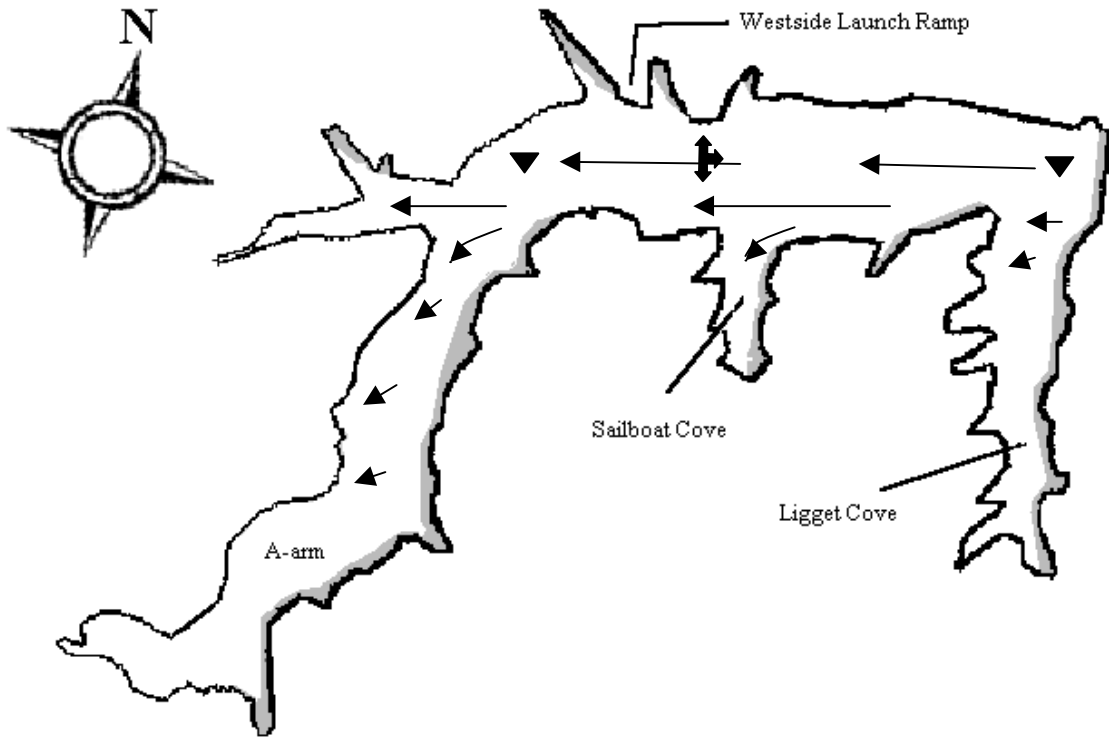


NORTHEAST WIND  
10 MPH Light wind shadows.

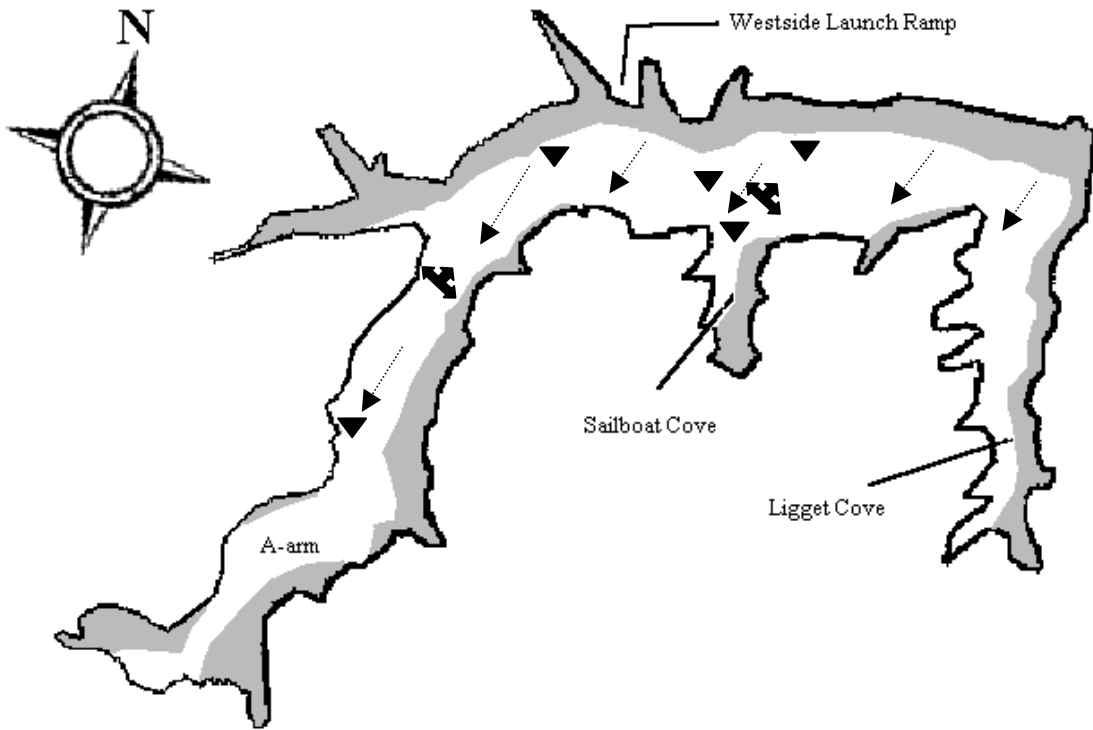




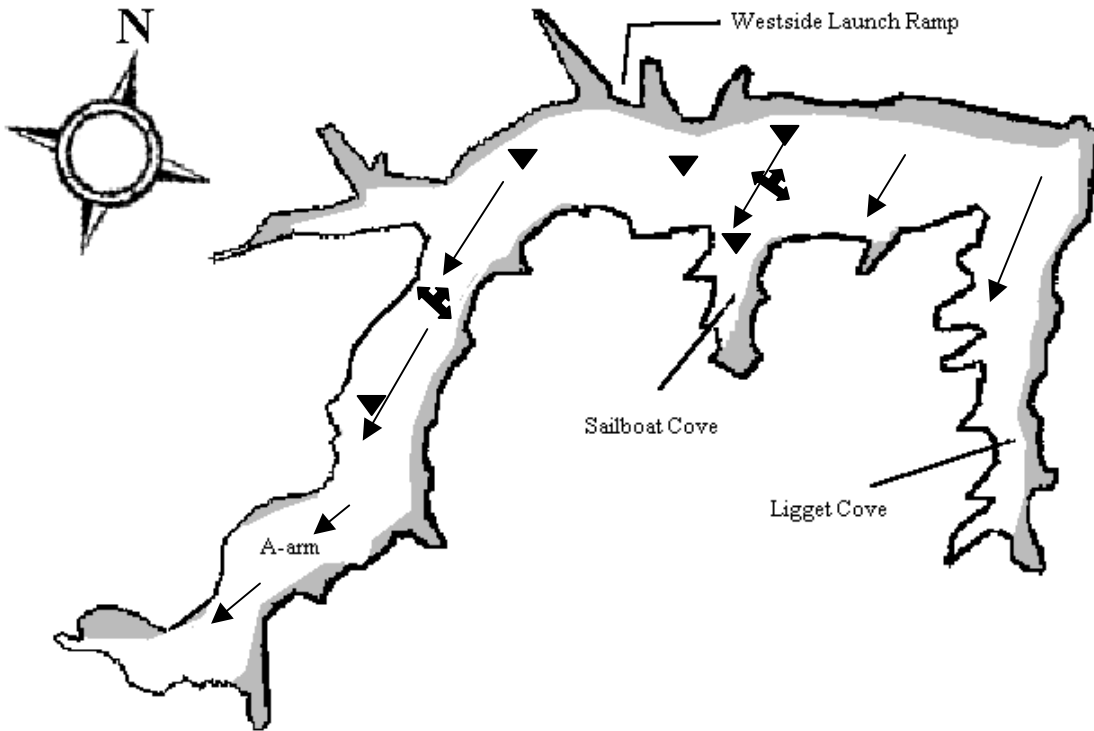
NORTHEAST WIND  
17 MPH Few wind shadows.



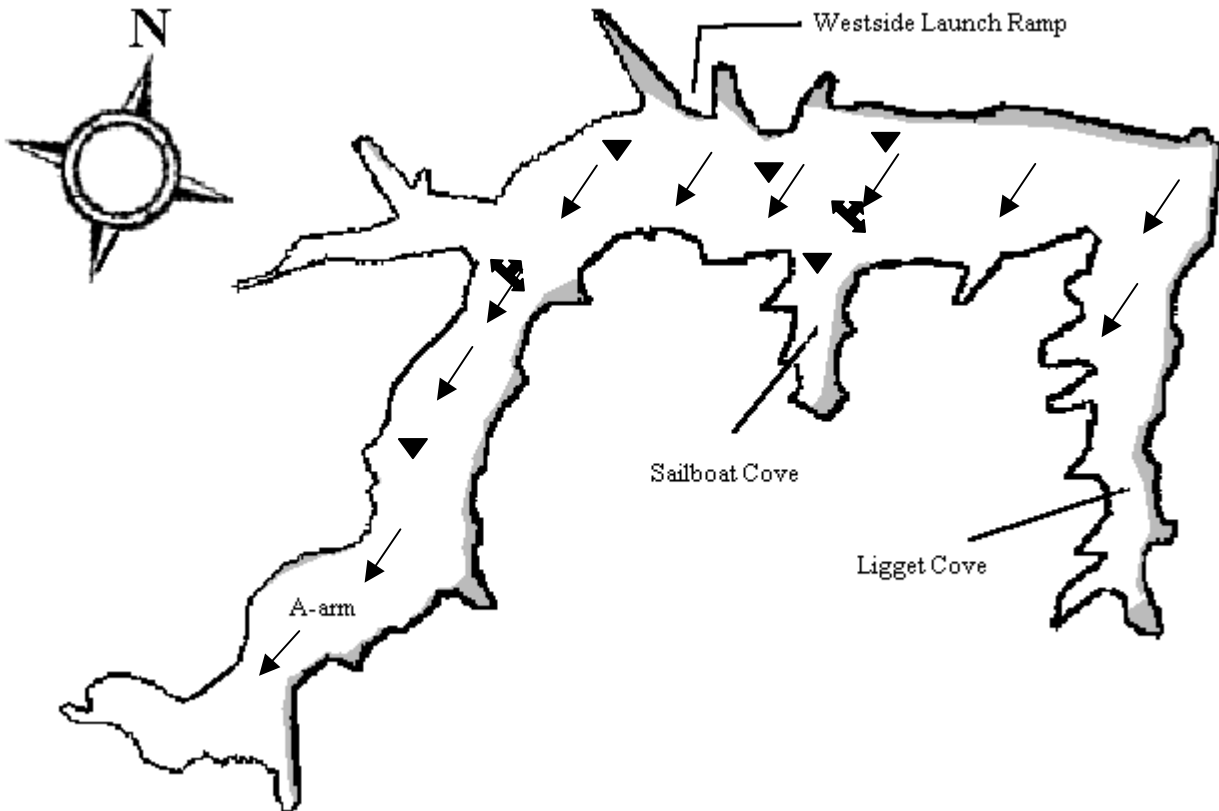
NORTH WIND  
3 MPH Heavy wind shadows.



NORTH WIND  
10 MPH Moderate wind shadows.

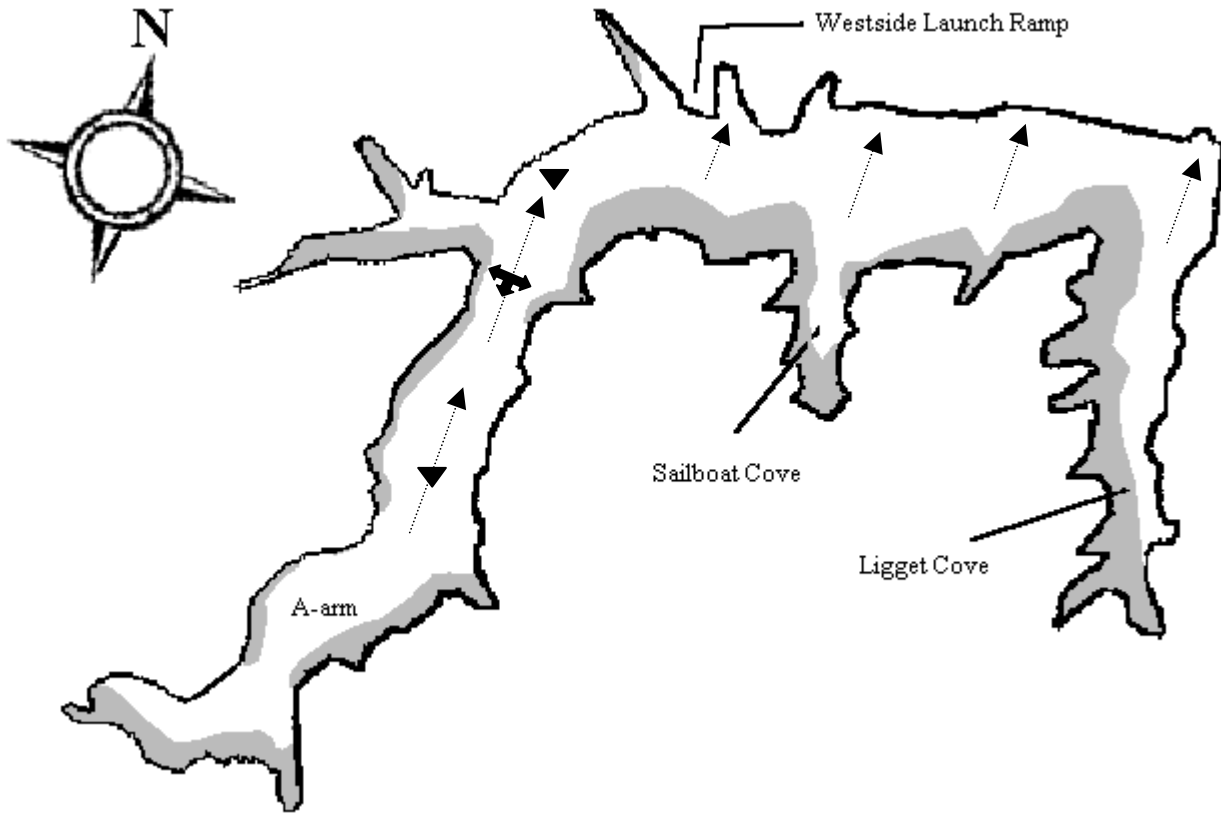


NORTH WIND  
17 MPH Light wind shadows.



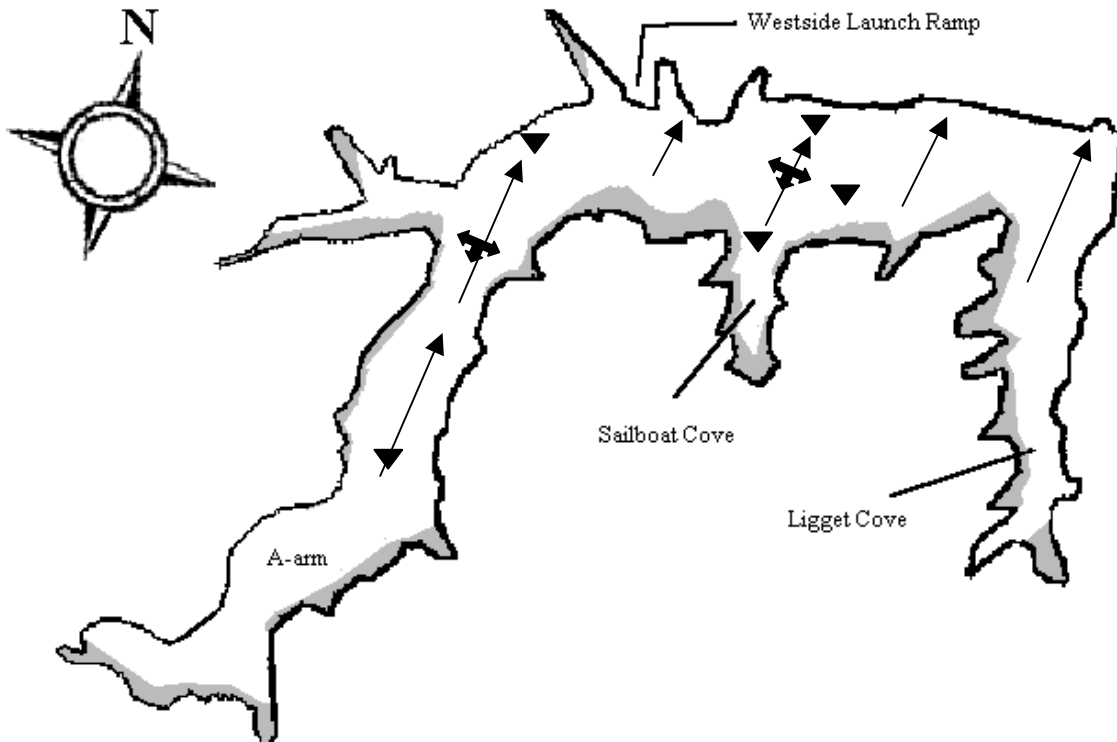
SOUTH WIND

3 MPH Heavy wind shadows.



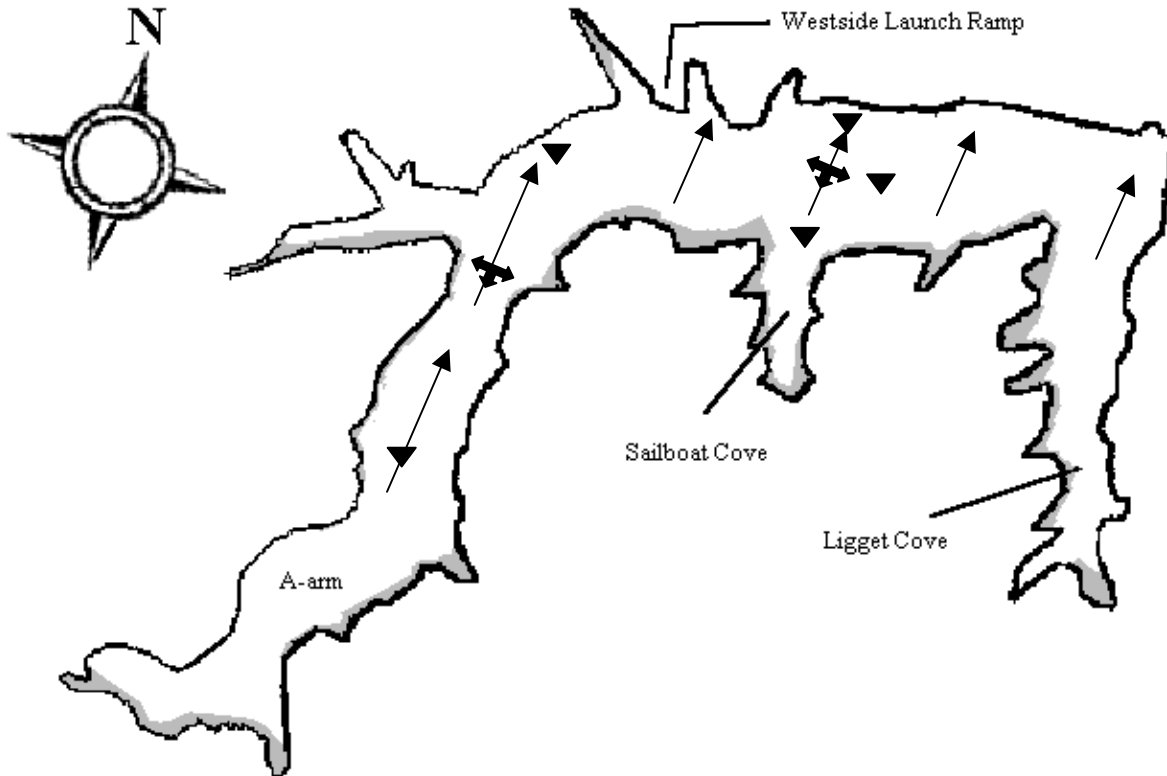
SOUTH WIND

10 MPH Moderate wind shadows.



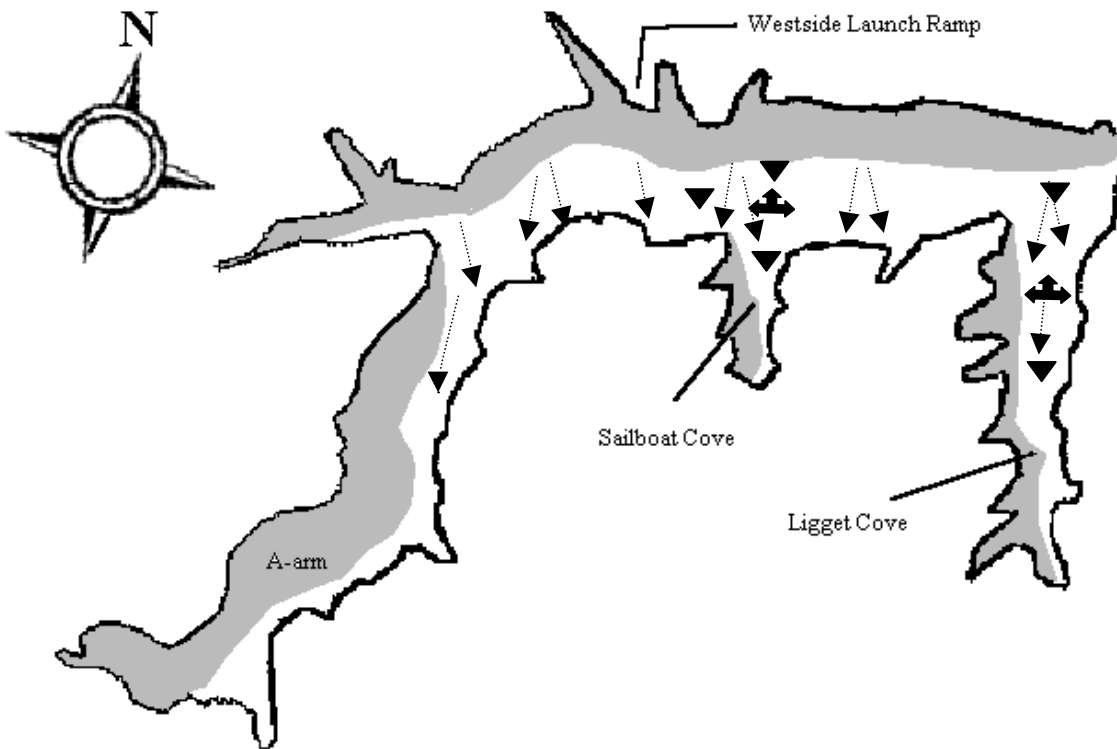
SOUTH WIND

17 MPH Light wind shadows.



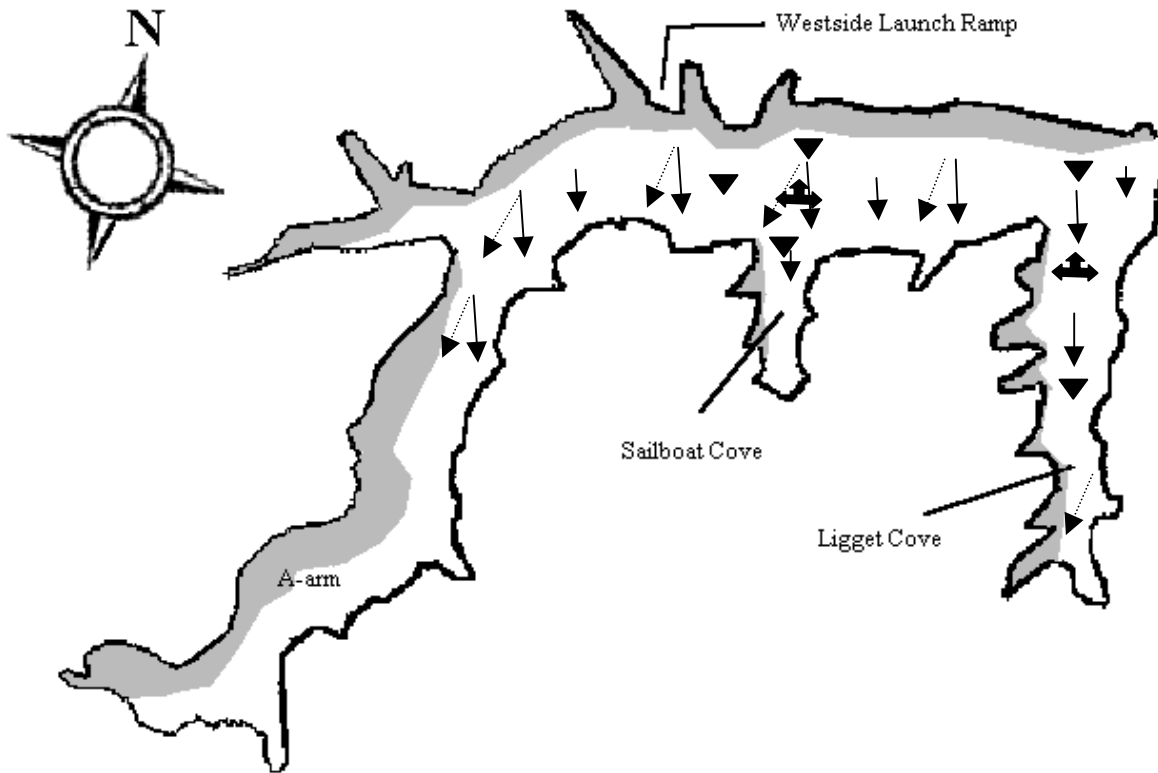
NORTHWEST WIND

3 MPH Heavy wind shadows. Very difficult course, wind may be dead 1/2 way across lake.



NORTHWEST WIND

10 MPH Moderate-Heavy shadows. Very difficult course, wind may be spotty across most of the lake.



NORTHWEST WIND

17 MPH Moderate wind shadows. The wind may still be spotty across most of the lake.

