SKABC Currents Weekend

A. Finding Current Information
   1) From chart
      a) Arrows indicate current direction. An arrow with feathers indicates the flood direction. An arrow with no feathers indicates the ebb direction.
      b) Arrows may be accompanied by a number. This indicates the speed in knots of the maximum current at times of maximum flow.
   2) From current tables
      a) Look up reference current station
         (i) Reference stations are shown on inside front cover of the tide and current tables. On a chart they are indicated by a purple diamond around a capital letter (usually A).
         (ii) The table of contents (p3) tells where to find information for a particular reference station
         (iii) Table 4 (p136) lists reference and secondary current stations and is the best place to start if you want to calculate information for a secondary current station
         (iv) Times are listed in Pacific Standard Time.
         (v) A plus sign (+) means flood current and a negative sign (–) means ebb current
         (vi) The directions of flood and ebb currents are listed at the bottom of each page
      b) Add an hour to adjust for Daylight Saving Time if necessary.
      c) If you are more comfortable with 12-hour time subtract 1200 from times after 1200 hours.
      d) To calculate information for a secondary current station, refer to Table 4 (p136) and then apply the appropriate adjustments for time and rate.
   3) Use the rule of thirds to find current speed at times between slack and maximum current
      a) Divide the time interval into three equal parts (usually about an hour each)
      b) After one-third of the time between slack and maximum current has passed, the current speed will have reached about 50% of maximum.
      c) After two-thirds of the time between slack and maximum current has passed, the speed will have reached about 90% of maximum.
      d) After one-third of the time between maximum current and slack has passed, the current speed will have decreased to about 90% percent of maximum.
      e) After two-thirds of the time between maximum current and slack has passed, the current speed will have decreased to about 50% of maximum.

B. Paddling in current
   1) Features in current
      a) Eddies
      b) Eddy lines
      c) “Green V” or “green tongue”
      d) Standing waves
      e) Boils and whirlpools
   2) Tips for ferrying
      a) Lean away from the oncoming water
      b) Angle bow well upstream
      c) Carry some speed out of the eddy
   3) Tips for eddy turns

a) As you approach the eddy line, sweep to initiate the turn. Then do a low brace behind you on the inside of the turn. This will help you lean away from the oncoming water and provide some additional turning force.
b) Enter or exit at about a 45-degree angle
c) Have enough speed to cross the eddy line cleanly and smoothly

C. Considerations for navigation

1) Wind against current
   a) When the wind is blowing in the opposite direction to the current waves become steeper and shorter. Extremely hazardous conditions may result.
   b) Remember that both wind and current are subject to change.
2) Riptides
   a) When moving water is obstructed or slowed down, standing waves and/or confused seas may result.
   b) Riptides occur:
      (i) Over shoals
      (ii) At points of land
      (iii) Where opposing currents meet or pass beside each other
      (iv) In channels with very irregular bottom topography
3) Watch for subtle signs of current
   a) Look for "bumpy water": small, steep wavelets or mini tiderips.
   b) Check to see which way kelp is streaming.
   c) Check for small eddies behind buoys or anchored floats.
   d) Monitor your progress by looking at landmarks on shore.
      (i) At the beginning of a crossing looking behind to the near shore will alert you to current effects much more quickly than looking ahead at the far shore.
4) When there are no safety concerns, choose the most efficient route
   a) Current is usually strongest in mid-channel
      (i) Hug the shore when paddling against the current. Back eddies will form behind obstructions along the shore and will work to your advantage. Don't cut across bays, etc.
      (ii) Move away from shore when paddling with the current
   b) Current is fastest on the outside of corners
      (i) Stay as far inside as possible when paddling against the current
      (ii) Stay on the outside when paddling with the current. You will get there faster even though the distance is greater.
5) Crossing channels when there is current
   a) Be aware that ferrying is not the only alternative. You can paddle up current and then cross straight over on a steady bearing, allowing the current to sweep you back down toward your destination as you cross. Alternately, you can paddle straight across, again allowing the current to sweep you down, and then paddle back up to your destination when you reach the opposite shore.
   b) Although ferrying is usually the quickest way to get to your destination, it increases the time that you spend in the middle of the crossing, away from shore. Either of the "straight across" methods will get you across to the opposite shore faster, even though they may somewhat increase the time it takes you to reach your destination. If factors such as boat traffic or possible deteriorating weather make the crossing hazardous, "straight across" may a better choice than ferrying.