



The goal of these hands-on exercises is to reinforce the concepts taught in the online tutorial, using simple examples, and to familiarize users with our website so they will know where to find each of the products. For each exercise, please follow along, starting from the main page of the NOAA Coral Reef Watch website: <http://coralreefwatch.noaa.gov/satellite/>.

### **Bleaching Threshold exercise**

**5.** For the Oahu Virtual Station, which month is the warmest? What is the maximum monthly mean, and what is the bleaching threshold temperature?

- a. We will answer this question by looking at the time series graphs for NOAA CRW's Virtual Stations product. Return to the NOAA CRW homepage and click Virtual Stations in the blue navigation bar. Then click on "All stations and products".
- b. On this page, you will see each of the operational Virtual Stations listed. Find the cell in the table that says **Oahu**; click on it.
- c. These graphs show the time series data at this station, with the mean for each month plotted as a light-blue cross. Use the graphs to answer these questions:

Which month is the warmest on average? What is the maximum monthly mean? What is the bleaching threshold temperature? Hint: try using the 2000-01 graph, so you can clearly see the monthly means. Note that these values are fixed and do not change from year to year. (*#5 on the answer sheet.*)

## BLEACHING THRESHOLD ANSWER SHEET

5. The warmest month for the Oahu Virtual Station pixel, on average, is September. The mean for September is 27°C, so that is the maximum monthly mean (MMM). Note that the MMM is depicted as a dashed light-blue line. The bleaching threshold temperature is 1°C above the MMM; so for the Oahu Virtual Station, the bleaching threshold is 28°C (shown as the solid light-blue line).

