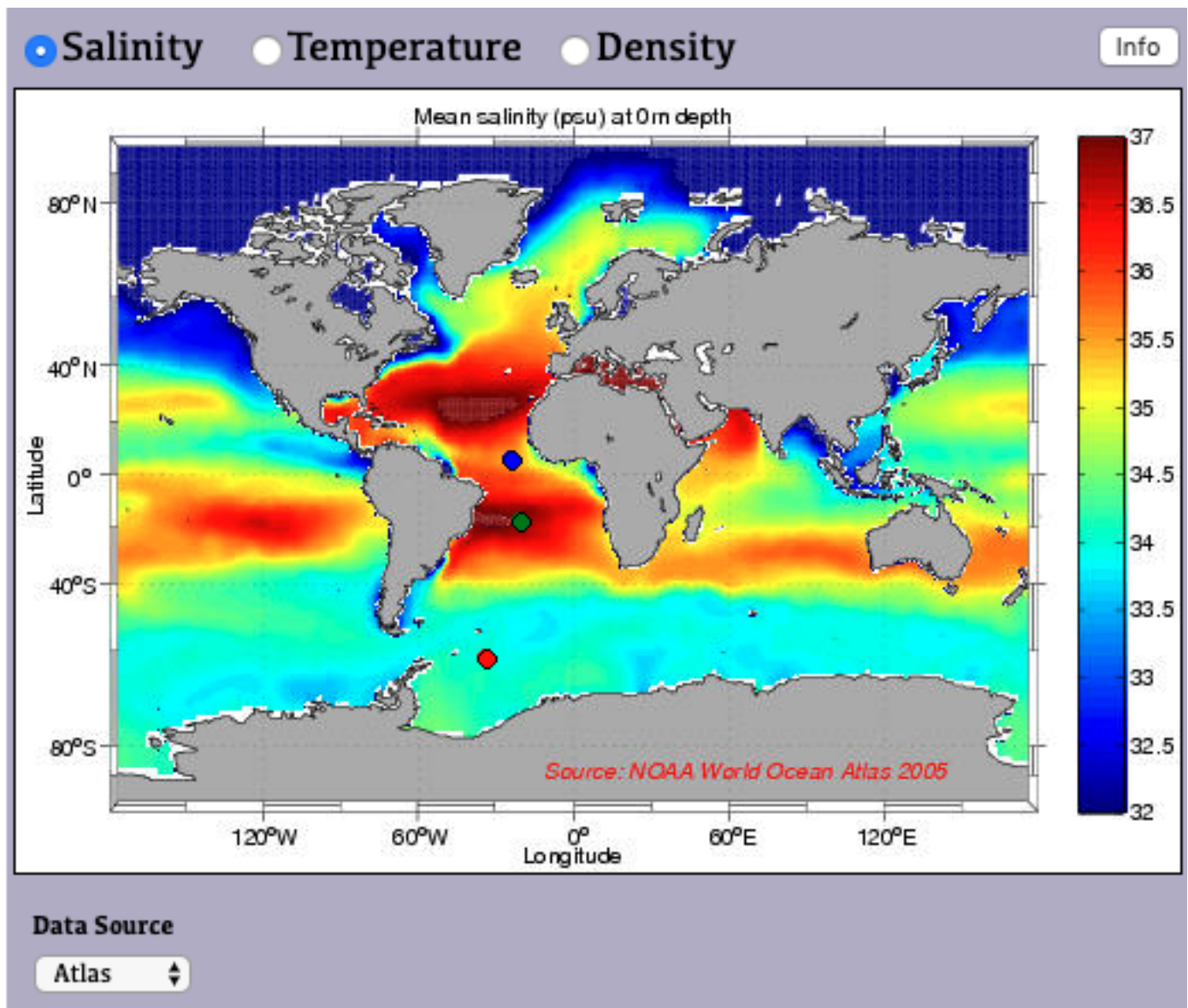


My NASA Data - Mini Lesson/Activity

Ocean Salinity Data Analysis: Student Activity

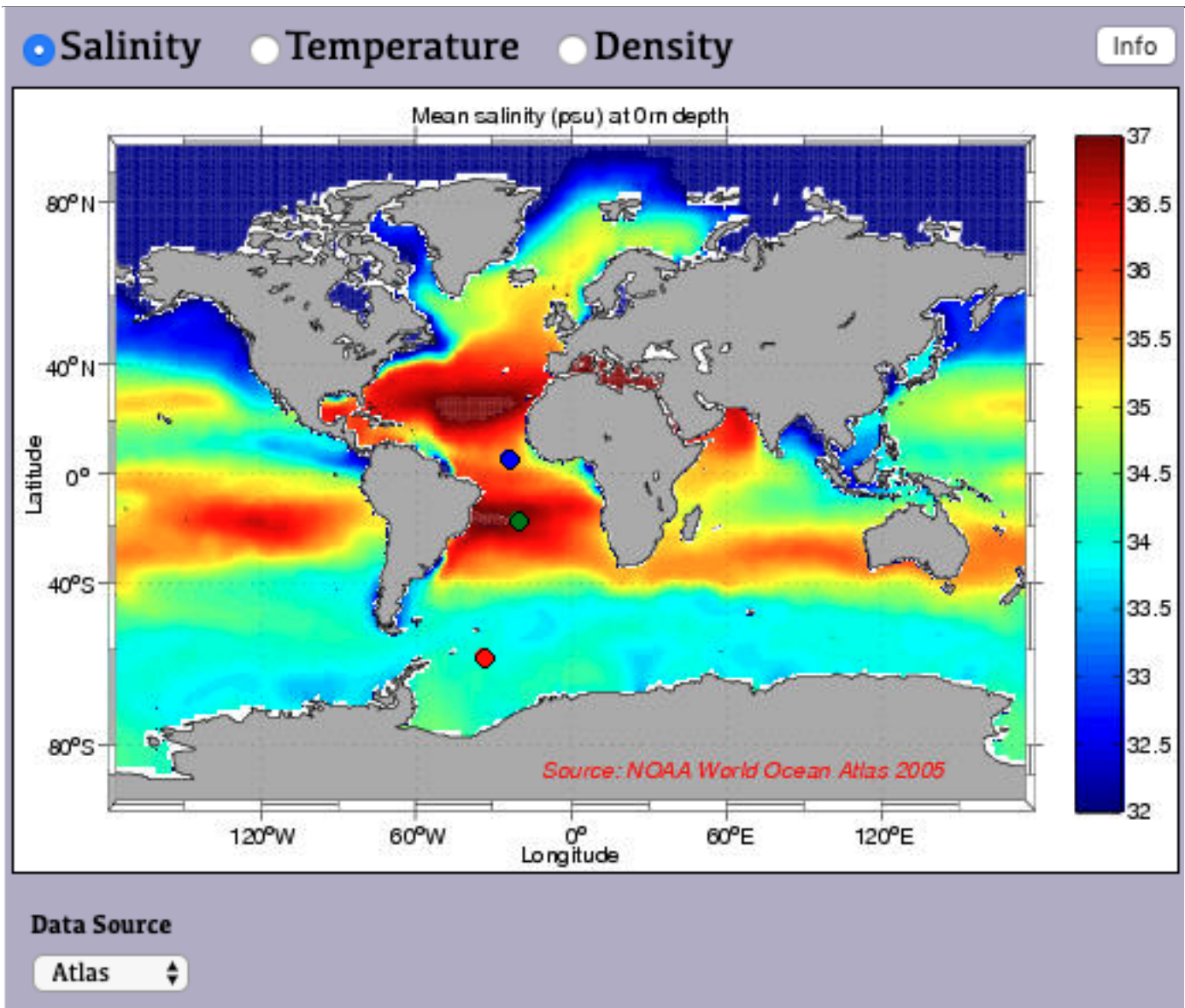


Mini Lesson

Ocean Salinity:

1. Open this [link](#) to show the interactive map of surface salinity used to create in-water profiles of how the salinity changes with depth (NOTE: Profiles of temperature and density may also be created using this tool).

- How do we know that map shows only surface conditions?



Credit: NASA Aquarius Annual Mean Salinity Map

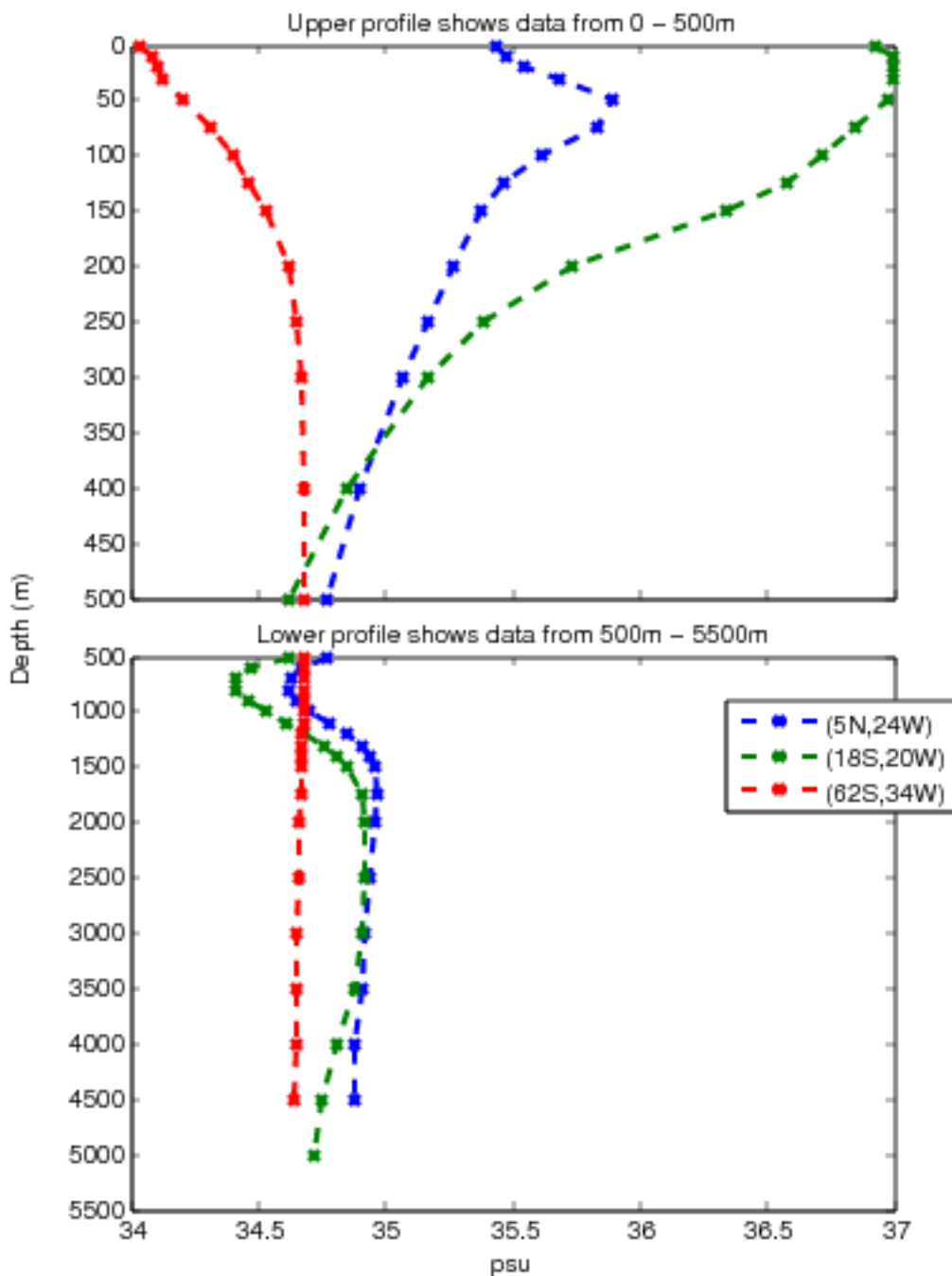
2. Observe the color bar. What colors represent the high salinity values?

3. Locate the blue, green, and red dots in the image above showing key locations for maps and in-water salinity profiles. What colors are represented by the coordinates below?

- 5N, 24W
- 18S, 20W
- 62S, 34W

4. Click the "Plot" button, located below the "Selected Location List" box. In-water profiles from these locations will appear at right.

Annual Objectively analyzed mean salinity Profile from WOA05



Credit: Aquarius; In-

Water Profiles for Salinity

5. Review the features of the graph above or their graphs.

6. How does salinity vary with depth? Describe by using evidence for the three sites.

Teachers, these mini lessons/student activities are perfect "warm up" tasks that can be used as a hook, bellringer, exit slip, etc.

Teachers who are interested in receiving the answer key, please contact MND from your school email address at larc-mynasadata@mail.nasa.gov. We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access. To receive the keys please provide the following:

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1. The link to the school/institution's teacher directory where you are employed so we can verify that you are a teacher
 2. Ensure that the school email address is provided in your response as we are unable to send to personal email accounts