



Module 1, Investigation 2: Log

What is happening to the Aral Sea?

1. What is the latitude and longitude at the center of the Aral Sea? _____
2. What countries surround the Aral Sea? _____

3. What was the surface area in square kilometers of the Aral Sea in 1964?

4. What was the surface area in square kilometers of the Aral Sea in 1997?

5. What was the percentage change in the surface area of the Aral Sea from 1964 to 1997? _____
6. How did the satellite imagery help you to draw conclusions about changes in the Aral Sea?

7. Name the two major rivers that flow into the Aral Sea.

8. List your hypotheses about physical processes that have caused the Aral Sea to shrink.

9. List your hypotheses about human processes that have caused the Aral Sea to shrink.

10. Fill in the blanks below (with the words *increasing* or *decreasing*) to indicate what has been happening to the Aral Sea.

The data in Table 1 show that the Aral Sea has been _____ in surface elevation, precipitation has been _____, evaporation has been _____, annual river flow has been _____, and the volume of the sea has been _____.
11. What physical processes might explain the changes in precipitation and evaporation shown in Table 1? _____



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12. In the space below, graph the data in Table 2 to illustrate the relationship between irrigation in the Aral Sea region and population growth. Include in your graph your projections for the years 2000 and 2010. Write a brief description of the relationship(s) below your graph.

13. How has the shrinking of the Aral Sea affected the human populations in the region?

14. What types of human activity can you detect from the Space Shuttle image in Figure 7?

15. Final Team Report. Briefly describe what has happened to the Aral Sea. Indicate how human consequences have been related to the decline in the size of the sea. You should also make predictions about what will happen in the future. Finally, make recommendations for government planners on how to reduce the environmental problems of the region and how to manage the region's water resource and stabilize the Aral Sea.