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To meet their demands for its use, humans produce more than 300 million tons of plastic each year, approximately 10% of which ends up in the ocean. Due to ocean currents, this plastic waste collects in particular areas of our global ocean. Solely a result of human activities, plastic pollution has environmental consequences for both marine and non-marine ecosystems, but few people are aware of it.One such region of accumulated plastic debris is the North Pacific Subtropical Gyre, where the prevailing ocean currents have created a large mass of very small particles of plastics, which have resulted in a “plastic soup” commonly referred to as the “Great Pacific Garbage Patch”. French yachtsman Patrick Deixonne has organized the first French, “7th Continent’ Expedition”, sailing with his crew from San Diego, California to this “garbage patch”. The goal of the expedition is to obtain precise scientific data about the marine environment in this area, and to increase international public awareness of the problem to decrease its impact, or even to stop it if we can. Middle and high school students at schools in France and the United States are participating in this expedition through the CNES-developed Argonautica educational project. Using data collected by drifting buoys via the Argos satellite system, Argonautica students and others interested, can access buoy data, and also sea surface height and current data from altimeter satellites like Jason, and surface wind data from other sensors. Students will use telecommunications to interact with the crew during the voyage, and will use tools on the Argonautica website, to examine the buoy and satellite data to better understand the currents at the heart of the North Pacific Subtropical Gyre where the plastics accumulate. At the same time, the students will learn more about the problem of microplastic and other marine debris, and about the usefulness of satellites for global oceanography.

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