

ST. CROIX SOURCE

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St. Croix, US Virgin Islands

STUDENTS IN WIRELESS WORLDWIDE WEB CHAT

by Karen D. Williams

April 24, 2004 - During an Earth Day forum, members of two St. Croix Central High School science clubs logged on to a nationwide program using wireless laptops.

During the two-hour Web chat session that started at about 12:30 p.m. Thursday, CHS students in their campus technology-learning center communicated with scientists and other students across the world.

While the students sent text and responded in both English and Spanish, three local advisers guided the experiential learning process linking them to chat teams in Mexico, Trinidad, Florida, Liberia and Costa Rica.

CHS participants fielded questions from the Universidad Vasco de Quiroga and the International School of Port of Spain. Evan Williams at the Miami Springs Middle School asked if they had seen condensation trails in the Virgin Islands -- a term that was new to CHS students.

Contrail Count-a-thon was a worldwide experiment sponsored by the National Aeronautics and Space Administration and led by scientists to help students gain a better understanding of the earth. Earth Day 2004 is the 10th year anniversary of GLOBE, a science education program created to offer hands-on experience for primary and secondary students around the world.

GLOBE is a cooperative effort of schools partnering with universities and government organizations. Formally, it's Global Learning and Observations to Benefit the Environment, but the program is mainly known now just by its acronym. It is designed to contribute data for scientists to use in their research, help students increase their science and math skills and nurture future scientists and researchers.

Students perform learning activities which involve investigations of the atmosphere, hydrology, soil, land cover, biology, global positioning systems and seasons.

Advisers offered one-on-one advice and the group also received instruction via an overhead projection system. At CHS, students of GLOBE and of another group, Nature's Environmental Role Models, used 15 Apple laptops to receive signals from a round wireless hub approximately 8 inches in diameter. The hub was connected to an Ethernet, T1 or DSL line.

CHS students joined NERM after they completed beach, community and campus cleanups around the island. The GLOBE program began at CHS in 1998 and NERM began in 2002.

Susan Allick, technology specialist and GLOBE coordinator, said she came across the program while conducting research at the University of British Columbia. She said scientists came to the University of the Virgin Islands and trained a group of science-based facilitators for the program.

"Students wanted to do more," said Jesus Espinosa, Science Department chair. He



CHS students send data to scientists during Contrail Count-a-thon

joined the program in 2000 after receiving training as a facilitator. "This is something the students enjoy doing." He said research and experiments really grab the students' interest.

Espinosa said the GLOBE club also monitors the climatic conditions daily through a weather-monitoring station mounted on the northeast end of the CHS campus. Every school day between 11:05 a.m. and 12:05 p.m., temperature, rainfall and ozone readings are logged.

Espinosa said the next phase of the project for NERM students will be a Power Point presentation on their findings.

Sharon Prudoff, head librarian and grant writer for the program, said the wireless equipment -- an approximately \$30,000 cost -- was purchased through a federal grant. "It makes classroom learning very interactive. It can make learning more fun and engaging."

Tenth-grade student Zydmarie Sanes, a NERM member, said the Count-a-thon was very interesting because she was able to chat with learners around the world. "We can compare and contrast other procedures to get information."

Pedro Reyes, a GLOBE member, said Espinosa encouraged him to get involved with the weather-monitoring aspect of the program. The station measures air pollution, level of rainfall and acid rain. The readings are input into a database and sent to NASA weekly.

Allick said the next step for GLOBE is to use the data collected for predictions or discovering trends in the environment.

She said 12,000 schools and more than 100 countries participate worldwide. GLOBE is not limited to public schools. She said GLOBE clubs meet at six schools on St. Croix and one on St. Thomas. All schools were invited to the Web chat.

For more information on GLOBE visit the GLOBE Web site at www.globe.gov



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"When I once described the utopia of what science education should look like, I ended up describing what GLOBE is today."
--State Middle School Science Consultant

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