

ARISS Activity Report

Contact Date: November 13, 2013

Host Organization: Rancho Romero Elementary School

Country: US

City: Alamo

State: CA

Zip Code: 94507

Direct Participant Count:

K-4 Educators: 20

5-8 Educators: 3

K-4 Students: 365

5-8 Students: 96

Administrators: 5

Parents: ~ 30

Others: ~10

(Note: Rancho Elementary serves grades K through 5.)

Indirect Participant Count:

K-4 Students: 25+

Parents: 100+

(Note: The above includes Rancho kindergarten students and parents of students in all grades who participated in our Family Science Night, but were not involved in other preparations for or present during the actual ARISS contact.)

Other educators, students, administrators: unknown

(Note: Our contact was shared via livestream broadcast throughout the district, but the number of indirect viewers is not available.)

Participating Astronaut: Michael Hopkins

Type of Contact: Direct

Notes and Highlights:

At Rancho Romero Elementary, our first through fifth grade students were prepped for our International Space Station contact for several weeks prior to the actual event. During their weekly science lab visits, students learned about the ISS, including its mission and construction, orbital mechanics, astronaut training, and life in microgravity. Students were introduced to the NASA and ESA websites, and experienced NASA's kid-friendly space-themed games and activities during their weekly computer classes. Through our ARISS webpage on Rancho Romero's website, several links allowed students and parents to easily access these games and other ISS information for further exploration on their own. Students became excited about being able to track the ISS in real time, and many reported successfully searching for it at night with their families.

Our school's ARISS contact was officially announced to the Rancho Romero community during our annual fall Family Science Night. For this space-themed evening event, we engaged Chabot Space and Science Center's mobile *Space and Astronaut Training* activity program to allow participants to discover first-hand about some of the challenges that astronauts face traveling and living in space. The highlight of this evening was the appearance and presentation of former NASA astronaut James van Hoften, who answered students' questions and posed for photos.

An after-school enrichment class on amateur radio communication provided older students with the opportunity to learn about the history of radio communication and how radio waves work, and gave them the chance to actually talk to "hams" across the country. In preparation for our ISS contact, two large antennas were installed on top of cargo containers on the playground, generating more excitement and lots of questions among the student body. (Thanks to the generous donation of one of these antennas and a radio, we will be able to continue offering enrichment classes to Rancho students in the future.)

As the window of our International Space Station communication came closer, every first through fifth grade student at Rancho Romero was asked to submit at least one question that they would like to ask an astronaut living aboard the ISS. It was an extremely difficult task to go through these thousands of questions, selecting only a few for the actual event. Eventually, 20 students representing all five grade levels were chosen to ask their questions, based on their thoughtfulness, originality, and specificity. These questions were posted on the main hall bulletin board, so everyone had time to think about and anticipate them.

When we learned who "our" astronaut would be, students were introduced to Michael Hopkins via his biographical information and video interviews online. This allowed them to get to know him as a "real" person, and would enable us to later associate a face to the voice we would be hearing over the radio.

The day of our contact was bright and sunny, and Rancho students and staff, as well as many parents, other members of the community, and the press, all gathered out on the playground. After a few words of welcome and introductions, all was quiet while high-school student Becca Rubsamen prepared to make contact at the appointed moment. After several attempts while we all held our collective breath, Mike's voice came across over the loudspeaker and we all started breathing again! The selected students were well-rehearsed, and read their questions clearly and

without hesitation. Mike's answers were thoughtfully prepared, and he added a personal touch calling students by name and complimenting them on their questions. We were able to get through 15 of the 20 questions before losing contact.

In the days following our ARISS experience, students had the chance to "debrief", and share their thoughts on the amazing opportunity that they had been a part of. When we first began talking about the International Space Station early last fall, it was clear that most students had never even heard of it. In the aftermath, they expressed a new-found respect for and interest in space exploration. And to hear them talk, we have quite a few future astronauts in our midst!

We are indebted to former Rancho Romero student and current high school student Becca Rubsamen for her initiation and facilitation of the ARISS program. She conceived of the idea and brought it to our attention, then shared her time and considerable talents with us as she took the lead to launch and carry it out. Some of her noteworthy skills included building the antennas, and assembling and operating the radio used for the contact. Becca's enthusiasm, diligence, and expertise were very impressive, and she proved to be a true inspiration to our school community.