

# Amateur Radio on the International Space Station

## *A report on ARISS & the Savannah River Academy*

[The details for this report came from ARISS team member Martha Muir, W4MSA who is the ARISS Education Ambassador for this school, Savannah River Academy.]

The Savannah River Academy (SRA) in Grovetown, GA will sponsor an ARISS contact in late 2021. In the Spring 2021 semester, students engaged in STEAM projects related to Amateur Radio led by Rachel Samples Jones, KO4HLC, an area research scientist, with help from members of the Amateur Radio Club of Columbia County (ARCCC). Activities included students helping with satellite contacts, trying Morse code and practicing with CPOs, designing QSL cards, and balloon launches. The balloon launches were during “SRA Outdoor Day” with parents invited. Payloads included cameras and an APRS unit and students did tracking and recovery. At “SRA Family Day,” with parents involved, students used HTs to have QSOs with ARCCC members at home and tapped out words on Morse code keys—a big hit was youth experimenting with a two-foot long Morse code key! Satellite contacts were demo’d; students logged call signs and grid square coordinates.

Fall semester opened with SRA Parents Night where Rachel presented an ARISS program on previous and upcoming student education activities. Amateur Radio Club of Columbia County members had set up an ARISS exhibit table for parents to view. Two SRA teachers who will help lead SRA’s ARISS project were introduced to parents—in July they took part in ARRL’s Teachers Institute. [Rosalie believes their names are: Dr. Nasiba White and Ashley Carver.]

The next day’s school Facebook post said: “It was a fantastic Parent Night 2021! In addition to informational sessions on curriculum, enrichment, and growth at SRA, we said THANK YOU to our incredible partners, the Amateur Radio Club of Columbia County. They joined us to share details about the great program our students are part of this year as we lead up to our live radio conversation with astronauts on the ISS! They so selflessly give of their time to pour into our students and make our yearlong focus on space education OUT OF THIS WORLD!”



Photo: ARISS exhibit table set up at SRA Parents Night by ARC of Columbia County

The day following SRA Parents Night, the students' ARISS lessons began. The program is titled "Ham 101." Last semester only some of the students were involved in the program. The parents asked for this year for all students get to get involved!

Rachel, KO4HLC; Dan Marshall, N4MI; and Tony Rizi NR1Z (Martha believes this name/call is correct) led the first lesson: more intro to Morse code. Students learned about di-dahs and tried their hand at CW using Altoids tin devices.



Photo: Girls trying an Altoids Morse device, boys looking at di-dah lists

The next big lesson was "Get on the Air Day" with aid from Rachel, KO4HLC; Steve, KJ4FSX; Randy, KN4CAX; Tony, NR1Z; Sean, KO4BVW; Dan, N4MI; TJ, KO4FFA; Thomas, KO4HKC; and Stacy. All 115 of SRA students enjoyed this along with 30 teachers, informal educators, and administrators. Students rotated between getting on the air at a 2-meter radio station using an EchoLink node and two HF

radio stations—one for Morse code radio contacts and one for voice contacts. North Fulton Amateur Radio League (NFARL) members at home in metro Atlanta listened for and talked to the youth on Echolink. Other ham operators around the US spoke with students as did hams in the Philippines, Belgium, and Italy (an ARISS volunteer). Kids really liked the Morse code contacts and it took special nudging to get them to move on from that. While students weren't on the air, American Chemical Society scientists demo'd experiments tied to space chemistry and students designed special QSL cards to send to hams they'd contacted. . The school principal got on the air and when asked what she thought of the "Ham 101" program, she said she loves it and the students love it! Near the end of the event, staff brought in Pre-K and K students and the Amateur Radio Club of Columbia County president, who was on site, helped these youngsters say all together, a hi and goodbye to listening hams. NFARL hams asked the principal for another day to talk with students again.

Participants	ARISS Learning Activity
# of educators 1-4	4
# of educators 5-8	10
# of principal	1
# of informal educators	10
# of K-4 students	50
# of 5-8 students	65
# of professionals/presenters	5

TOTAL 145



**Please do not grab this photo: Rosalie does not know if there are parental permission slips for this.**

The best part about this report is that this school has many more Ham 101 lessons to come.