

# GO BIG or GO HOME



JORDAN  
EAGLE is tuned in.

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Jordan Eagle

By Don Bowman   Photos by Lora Gordon and Jaslyn Gilbert

**A**t Radford University, the junior physics major from Virginia Beach is amping up her scientific quest to be a radio astronomer.

In her brief academic and scientific careers, Eagle has studied polar ice degradation in Barrow, Alaska, served as a Summer Bridge teaching assistant and interned at the National Radio Astronomy Observatory (NRAO), Green Bank, West Virginia.

“It’s been one opportunity after another,” said Eagle, who declared her major despite never having taken a college-level physics course.

The decision was not based on her previous success or confidence in her math and science abilities, she added.

“I decided to go big or go home,” she said.

The leap of faith into physics started with a thud. She failed her first physics test, but rallied to see her grade rise to an A. Once the dream career path opened, Eagle has not looked back.

“I studied hard and then harder. I surprised myself,” she said. “Now I want to test myself more and more to see what I can do.”

Her current independent study project is to listen for the radio sounds of Jupiter, confirm them, and, hopefully, contribute her own data to the sparse, but growing,

international database of deep space radio signatures.

Toward that end, Eagle built and coordinated the installation of a 10-foot antenna on the roof of Curie Hall and wired to it a receiver – which she built – in the Advanced Physics Lab. She now combs the interstellar soundscape for a “popcorn popping sound caused by accelerated, excited electrons” generated light years away.

As a result of a reference from Physics Professor Jack Brockway, she interned at the NRAO. Experiencing high-level radio astronomy validated her aspirations.

“We did real radio astronomy on real projects,” she said. “I felt comfortable with such smart, enthusiastic scientists. It was just the kind of place I want to be.”

As a member of the 18-person team that developed a protocol for measuring polar ice on Alaska’s Chukshi Sea, she also found the company of scientists and the challenge of science alluring.

“We were out on the ice all day and looking at data all night. When problems occurred, we had to come together to solve them,” she said.

She joined the expedition’s presentation team at the Fall 2014 Meeting of the American Geophysical Union in San Francisco.

“It was a chance to meet scientists who are learning so many new things,” she said. “It’s nice to know I can learn, and now it is about learning and learning more.” ■