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OC students blazing trails across country with studies of astronomy

By **GRETCHEN M. GALLAGHER**
Staff writer

More than 150 hours of preparation culminated in sunny California for a group of six Oil City High School students.

The group returned late last week from the American Astronomical Society meeting in Long Beach.

Some applied and some volunteered to go, but all added to the "tremendous compliments that Oil City gets at this conference," said their teacher Tim Spuck.

"Here is a school within a district that's rated as one of the poorest, yet they have become very renowned there," he said. "At this point there are all these expectations on them."

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Oil City High School students **Matt Walentosky, Alix Holcomb, Samantha Wheeler, Jennifer Butchart, Shana Kennedy** and **Rachele Siegel** stand with astrophysicist **Neil deGrasse Tyson** at the American Astronomical Society meeting.

Stars

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Teachers went over star-form regions and narrowed down topics from which to choose, but then it was up to the students to put their best foot forward.

Their research began last spring, at times requiring them to stay afterschool until six o'clock, reading and researching topics not otherwise delved into inside the high school classroom.

Utilizing the *Astrophysical Journal*, "we'd read articles that were way over my head before," said senior Jennifer Butchart.

She explained that the team also used Spitzer software for data reduction toward their focus — looking for possible new star formations, or Young Stellar Objects.

In addition, other literature searches were conducted to look for previous studies of the clouds, said senior Alix Holcomb.

Time spent behind research apparently paid off, because the group was part of a radio interview with renowned astrophysicist Neil deGrasse Tyson while in Long Beach, whom they described as "the new Carl Sagan" and "the astronomer superstar."

Having hosted educational PBS shows and made appearances on others, Spuck was impressed at Tyson having taken the time to speak to these kids about their research.

"It was incredible because he (Tyson) has a crowd of people around him at any given time of the conference," Walentosky said.

The group of girls primarily researched two nebulae in space, Lynds Cloud 425 and Lynds Cloud 981. The team was comprised of seniors Butchart, Holcomb, Rachele Siegel and Samantha Wheeler, as well as a lone sophomore, Shana Kennedy.

They tried to identify young stars in their earliest formations within the clouds, from which about 14 possible candidates have risen.

Amid approximately 3,000 people in attendance, "there were only about 25 other high school students at the conference," Holcomb said. "So I think that really speaks well for Oil City," Walentosky added.

His project differed from that of the girls', creating a poster on binary solar systems, explaining the cool outer dust ring around the cataclysmic variable star, WZ Sge.

The research he presented won him second place at the INTEL Science and Engineering Fair in Atlanta, Ga. last spring.

On top of the award, the project racked up scholarships for college and his fare to the California conference.

The students have taken so keenly to astronomy that two of them, Butchart and Siegel, are using the cloud study for their senior projects.

They are utilizing an online robotic telescope in New Mexico and the Kitt Peak National Observatory in Arizona to develop a method of identifying T-Tauri stars.

Moreover, from the spark of these projects, four out of the five seniors are pursuing fields in the sciences for their courses of study in college, with Butchart and Walentosky even hoping to major in physics and astronomy.

Considering budgetary cutbacks, the fate of the students' projects for future years is up in the air, Spuck said.

However, "these kids impressed some very important people in NASA," so there is a possibility of funding from those interactions, he said.