

Astronomical Society Upgrades Observatory through an Air Force Academy Partnership



10-foot observatory dome donated to CSASTRO by USAFA Physics Department's Space Physics and Atmospheric Research Center. (Photo courtesy of Dr. Devin Della-Rose, USAFA Observatory Director)

The skies over Colorado have become clearer and the stars more visibly accessible, thanks to a partnership between the United States Air Force Academy (USAFA) and the Colorado Springs Astronomical Society. Through what is called an Education Partnership Agreement (EPA), USAFA has donated an observatory dome to enhance the scientific education and research activities conducted by the Society.

The Colorado Springs Astronomical Society, or CSASTRO, is a 501(c)(3) nonprofit educational organization with a mission to advance astronomy and science literacy for its members and the public. Since 1993, CSASTRO has stimulated amateur astronomers

by providing observation events, seminars, and free public demonstrations. Scott Donnell, who has served as CSASTRO's vice president, president, trustee, and treasurer, recognizes the impact the agreement will have on both organizations.

"It will support community science education through public programs of astronomical observing and instruction," Donnell says. "Some of these students may be inspired to attend USAFA. Those that do will have the benefit of early hands-on training and education in astronomy and the use of astronomical instrumentation that will increase their chances of success as USAFA cadets."

The donated 10-foot observatory dome was owned by the USAFA Physics Department's Space Physics and Atmospheric Research Center (SPARC), under the direction of Geoff McHarg. Under its new owners, the dome will house a small telescope and become part of an observatory being constructed two hours south of Colorado Springs at CSASTRO's Starry Meadows dark sky site. The 35-acre site is home to the Rocky Mountain Star Stare Annual Event, which hosts over 300 amateur and professional astronomers.

"The donated dome will allow CSASTRO to enhance its capability to provide dark sky observing conditions in a facility that supports

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general observing as well as scientific programs of photometry and spectrometry. This allows CSASTRO to further our goals of expanding our capabilities to provide opportunities for advancing science and public access to science programs," says Donnell.

"The observatory will be a primary benefit to the students and adults who will attend our public astronomy programs and events," Donnell continues. "This facility will allow CSASTRO to conduct public outreach and education programs serving Colorado Front Range communities, provide a facility for CSASTRO members to conduct astronomical observing and research, and provide the capability for collaborations with the USAFA Physics Department's space science student research programs that can benefit from the significantly darker skies at our southern Colorado location."

The EPA signed in August 2020 allows only the transfer of the dome from USAFA to CSASTRO, not for educational support or future collaboration; however, any previous relationship or community partnership remains active and is not affected by the agreement. Donnell has worked with USAFA in the past and continues to value the assistance provided by its faculty and staff.

"CSASTRO has had a long-term relationship and common educational and outreach programs with Dr. Devin Della-Rose of the USAFA Observatory," Donnell states. "Through this relationship, Dr. Della-Rose recognized the utility of providing an observatory to CSASTRO to enhance our continuing efforts to develop facilities that support science and science education."

Della-Rose is the Observatory Director and Associate Professor of Physics at USAFA and a huge supporter of CSASTRO's astronomy and Science, Technology, Engineering, and Mathematics (STEM) initiatives. Along with USAFA's Office of Research, he arranged and staffed the donation through the agreement. "I've been associated with CSASTRO since the late 1980s when I first came to Colorado Springs as a young Air Force officer," Della-Rose says. "Here we are, 30 years later, and their society and public outreach missions are stronger than ever. Their gracious and knowledgeable volunteers have partnered in many of my public outreach events at the USAFA Observatory over the past 13 years, so it seemed only fitting to donate our surplus dome to help CSASTRO continue to promote astronomy and space science to local residents."

With 230 active members, CSASTRO provides over 100 hours of astronomy programs to 15,000 participants each year. As a community-engaged organization, partnering agreements with organizations such as USAFA are highly beneficial and important, but may sometimes be overlooked. Having seen first-hand the benefits available through an agreement with the military, Donnell offers encouraging insight for smaller organizations. "The DoD, and the USAF in particular, has a long history of facilitating donations of surplus astronomical equipment to colleges and universities, but less so I believe with small community-based public astronomy organizations such as CSASTRO. To the extent that the DoD can make information widely available to astronomy organizations such as CSASTRO regarding possible donations of surplus equipment, these organizations can better benefit from these opportunities," concludes Donnell.

Education Partnership Agreements are offered through the Air Force Research Laboratory's Technology Transfer and Transition (T3) program office, enabling a broad spectrum of productive interactions with educational institutions. A comprehensive suite of T3 mechanisms for partnering with industry and academia are offered through the office. To find out how you can partner with the T3 Program, please visit https://www.aft3.af.mil.



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