

2021 YEAR IN REVIEW

SOUTH TEXAS ASTRONOMICAL SOCIETY



Released January 2022

Letter from the Executive Director

This past year presented us with a plethora of unforeseen challenges and opportunities. In the midst of a worldwide pandemic, we have sent a fifth rover to explore Mars, made huge leaps forward towards public accessibility of spaceflight, and launched the most powerful space telescope ever built.

We at the South Texas Astronomical Society (STARS) also had an unforgettable year. We kicked off 2021 with online programs and our new podcast, *Receding Horizons*. In May, we hosted the NASA Downlink event in partnership with the Brownsville Independent School District (BISD) and Children's Museum of Brownsville, where high school students had their questions answered by astronauts Shane Kimbrough and Thomas Pesquet live from the International Space Station and then talked to former NASA astronaut Colonel Michael Fossum!

During the summer, we were graciously asked by the Brownsville Parks and Recreation Department to participate in their Lunada Artisan Market. After a year of being mostly closed off to the outside world, it felt great to once again bring joy to the community by sharing our telescopes and launching model rockets with kids and families. What started off as a few hundred visitors quickly turned into thousands by the end of the summer. We had an absolute blast meeting and talking with so many of you, and cannot wait to do so again in the next year.

Towards the end of fall, we were able to return to regularly scheduled events at the Brownsville Public Libraries, begin providing weekly stargazing opportunities through a new partnership with Tú Salud Sí Cuenta on the CaraCara Trails, and help the Girl Scouts of Greater South Texas Troop #215 earn their Space Science badges.

As we begin to close the books on 2021, we at STARS have strategically laid out our goals and intentions for next year (please refer to our 2022 Strategic Plan). I am hopeful about the astro-enthusiast community that we have started to build, thankful for all our community partners and volunteers, and ready to continue our efforts to make space and science accessible to all.

On a more personal note: When I first accepted the invitation from founder Carol Lutsinger to join STARS in early 2019, I had no idea what I was getting myself into. I was practically new to the world of astronomy, but was inspired by the ways it changed my perception of our universe and I knew that I wanted nothing more than to share that experience with others. Never did I imagine that this small group of space enthusiasts would turn into what it has become today.

Since its origins, STARS was founded for and fueled by the Brownsville/greater Rio Grande Valley community. Who could have predicted that within a couple of decades, our region would turn into one of the fastest growing hubs for space exploration? From rocket launches and astronomical observatories to cutting-edge astrophysics research at our local university — it is truly an extremely exciting time to be living in South Texas, and we are here to share that excitement with our community.

 - Victor De Los Santos

Recap of 2021

Vision: The South Texas Astronomical Society (STARS) aims to foster the innate human desire to learn about ourselves, our limits, and our future by ensuring that the Rio Grande Valley community is prioritized at every level of space exploration.

Mission: We will ignite curiosity in the Rio Grande Valley community about space science through educational programs, outreach, and by serving as a liaison between community members and space organizations and resources.

Successes, Adjustments, & Priorities:

As we review both our accomplishments and shortcomings over the past year, we seek to be fully transparent. We define wins as areas in which we fully achieved our goals across all metrics. By contrast, our *adjustments* exist on a spectrum from “did not implement” to “implemented with some success but did not meet every metric set out in our original goals.” In both cases, as an organization that seeks continuous growth, we will parse out the lessons learned and take them with us as we develop and define our priorities for 2022.

Wins:

- We hosted a Downlink event which brought NASA engineers and astronauts in contact with Rio Grande Valley students and the community and increased engagement.
- We participated in the Lunada Artisan Market throughout the summer which helped us connect with many RGV families and space enthusiasts.
- We received the NASA Community Anchor award which continued our relationship with NASA and will provide us with the opportunity to further our educational impact in the RGV.

Adjustments:

- We continued to provide educational opportunities through outreach programs and hosted our first teacher training program. We will adjust in the next year by ensuring any work with educators also includes tangible materials and lessons which can be implemented expeditiously in their classrooms.
- We focused on science and its multidisciplinary nature through hands-on approaches for children. In the upcoming year we will expand to provide a forum for science communication and discussion throughout the community.

Priorities:

- Though we have strengthened our relationship with key partners, future plans include developing a pipeline for local residents to join fields within the space industry. We have already begun working on an education connection series and growing our network.
- Though we began to offer our content and sessions in Spanish, we plan to formalize our offerings so that every event and all educational materials are available bilingually. We also plan to consider physical accessibility for all of our future events. We will address these access points in our future event plan documentation so that we not only consider this internally, but also make accessibility notes public.
- We emphasized our commitment to the Rio Grande Valley by remaining community-based, but intend on becoming community-led. In the upcoming year we will address this by conducting a needs assessment and framing our goals around community feedback.

Breakdown of Persons Reached:

In 2021, STARS hosted and/or participated in **29 in-person events and online programs** with a total of **26,356 persons reached**.

In-person events:

| Date | Event | Reach |
|-------------|---|--------------|
| 3/16/21 | Sun Safety at the Children's Museum | 8 |
| 3/17/21 | Elephant Toothpaste at the Children's Museum | 24 |
| 3/18/21 | Reasons for the Seasons at the Children's Museum | 18 |
| 3/20/21 | Vernal Equinox 2021 with CTMO | 220 |
| 4/24/21 | Brownsville Farmers' Market | 112 |
| 5/8/21 | Brownsville Farmers' Market | 115 |
| 5/11/21 | NASA Downlink with the International Space Station (at CAB) | 102 |
| 5/15/21 | Lunada Artisan Market #1 | 209 |
| 6/14/21 | Summer Astronomy Program - Educator Training at CCEI | 8 |
| 6/19/21 | Lunada Artisan Market #2 | 217 |
| 7/15/21 | STARDUST at the Brownsville Public Library - Southmost | 80 |
| 7/17/21 | Lunada Artisan Market #3 | 520 |
| 8/21/21 | Lunada Artisan Market #4 | 1,100 |
| 9/18/21 | Lunada Artisan Market #5 | 1,550 |
| 10/16/21 | Observe the Moon at the Brownsville Public Library - Southmost | 77 |
| 11/19/21 | Partial Lunar Eclipse at the Brownsville Public Library - Southmost | 55 |
| 12/11/21 | Girl Scouts Troop #215 Space Science STEAM Night | 80 |
| 12/13/21 | Trail of Lights at the Brownsville Public Library - Southmost | 382 |
| 12/20/21 | Trail of Lights at the Brownsville Public Library - Main Branch | 457 |

Total attendees at in-person events: 5,276

Online programs:

| Date | Event | Reach |
|-------------|--|--------------|
| 1/17/21 | Receding Horizons episode 0: Pilot | 118 |
| 2/2/21 | Receding Horizons episode 1: Carbon and Memes | 119 |
| 2/14/21 | Perseverance - Project Announcement | 222 |
| 2/27/21 | Perseverance - Your Questions Answered! | 266 |
| 2/28/21 | Receding Horizons episode 2: GWs & the Giant Shazam | 64 |
| 3/3/21 | Receding Horizons episode 3: Roughing it as an Astronomer | 106 |
| 4/2/21 | Receding Horizons episode 4: Pushing the Boundaries... | 58 |
| 4/21/21 | Bebeleche Online Festival (with the Mexican Consulate) | 24 |
| 5/11/21 | NASA Downlink with the International Space Station (YouTube) | 19,726 |
| 5/15/21 | TTU ASTRONight: How to Find an Exoplanet | 123 |
| 9/24/21 | Astronomía en Vivo con UTRGV | 196 |

Total reach for online programs: 21,080

Financials

Statement of Financial Position As of December 31, 2021

| | TOTAL |
|-------------------------------------|-------------------|
| ASSETS | |
| Current Assets | |
| Bank Accounts | |
| NON-PROFIT COMMUNITY (5996) | 3,598.25 |
| Total Bank Accounts | \$3,598.25 |
| Total Current Assets | \$3,598.25 |
| TOTAL ASSETS | \$3,598.25 |
| LIABILITIES AND EQUITY | |
| Total Liabilities | |
| Equity | |
| Opening Balance Equity | 1,335.56 |
| Retained Earnings | -372.31 |
| Net Revenue | 2,635.00 |
| Total Equity | \$3,598.25 |
| TOTAL LIABILITIES AND EQUITY | \$3,598.25 |

Statement of Activities January - December 2021

| | TOTAL |
|------------------------------|-------------------|
| Revenue | |
| Donations | 4,157.31 |
| Sales | 1,580.04 |
| Total Revenue | \$5,737.35 |
| GROSS PROFIT | \$5,737.35 |
| Expenditures | |
| Advertising & Marketing | 112.45 |
| Bank Charges & Fees | 0.00 |
| Job Supplies | 406.65 |
| Office Supplies & Software | 797.75 |
| Purchases | 1,407.50 |
| Reimbursable Expenses | 378.00 |
| Total Expenditures | \$3,102.35 |
| NET OPERATING REVENUE | \$2,635.00 |
| NET REVENUE | \$2,635.00 |