These are challenging times for Kitt Peak and NOAO. However, NOAO is committed to working with (and on behalf of) the entire community to plan for a productive present and a scientifically rich future. Kitt Peak National Observatory (KPNO) continues to provide the astronomical community with open access to over 700 nights per year at an excellent site, on the Mayall 4-m telescope, KPNO 2.1-m telescope, and 40% of the time assigned on the WIYN 3.5-m telescope. These telescopes, along with the numerous others hosted by the tenant observatories on Kitt Peak, produce a wide variety of high-impact science year in and year out. The future of astronomy at KPNO is now being re-evaluated, as the National Science Foundation (NSF) decides how to implement the recommendations of its Portfolio Review Committee (https://www.nsf.gov/mps/ast/portfolioreview/reports/ast_portfolio_review_report.pdf), which called for divestment of NSF funding for the Mayall 4-m, KPNO 2.1-m, and the NOAO portion of WIYN. NOAO does not believe that divestment means an end to high-impact science at Kitt Peak.

This uncertain funding environment is the landscape in which we now find ourselves, yet new and compelling opportunities still exist. The most exciting of these is the execution of the Big Baryon Oscillation Spectroscopic Survey (BigBOSS) project, led by the Lawrence Berkeley National Laboratory, which aims to create a powerful new spectroscopic capability for the KPNO 4-m Mayall telescope (see “BigBOSS Status Update” in the System Science Capabilities section) to be used for a dedicated dark energy experiment. This survey, scheduled to begin as early as 2018, provides the basis for the current planning at Kitt Peak. NOAO is committed to finding ways to enable the survey on the Mayall and to execute other high-impact and community science using the Big BOSS capability, consistent with the NSF implementation of the Portfolio Review. We are considering how best to make use of the Mayall 4-m time between now and the execution of this survey and to understand the level to which the community will be involved in the BigBOSS survey. We also are considering other science projects that could be done during the BigBOSS survey and the modes of operation in the years after the BigBOSS survey has completed.

NOAO management is in the process of developing a set of concrete plans to enable the execution of scientifically compelling public/private operational modes of the NSF-funded telescopes on Kitt Peak and expects to hold discussions with possible partners to refine and extend these ideas in the near future. Now is the time for creative and constructive thinking on the part of our large user community as we endeavor to achieve the best possible future for astronomy on Kitt Peak. Please do not hesitate to contact me; I look forward to speaking with many of you in the coming months as these plans are refined.

Dedication of the Dark Energy Camera

The Start of the 50th Anniversary Celebration of CTIO

Ceremonies on 9 November 2012 on the summit of Cerro Tololo, Chile, marked the dedication of the Dark Energy Camera (DECam) and the beginning of the 50th anniversary celebration of Cerro Tololo Inter-American Observatory (CTIO). Bringing DECam online and making it available for the astronomical community through NOAO’s open-access telescope allocation is a milestone in the history of Cerro Tololo. We are very proud that we could start the celebration of 50 years of service by CTIO to US astronomers with the dedication of this new capability.

DECam, installed on the 4-m Victor M. Blanco Telescope at CTIO will conduct a powerful survey collecting light in each snapshot from 100,000 galaxies located up to 8 billion light years away. The camera has 62 charge-coupled devices (570 megapixels) with an unprecedented sensitivity to very red light, creating the most powerful sky-mapping machine ever available. The Dark Energy Survey (DES) will attempt to answer one of cosmology’s greatest mysteries: why the expansion of the universe is speeding up rather than slowing down due to gravity.

Figure 1: Blanco, DECam, and the DECam dedication attendees.

continued
More than 100 people participated in the celebration, including representatives of the DES collaboration: Young-Kee Kim, deputy director of Fermilab; Kathy Turner, program manager in the Office of Science of the Department of Energy; all of the members of the DES council; and many others. There were also several representatives from neighboring observatories and astronomy departments throughout Chile, as well as several Chilean dignitaries.

Upon arrival on the summit, the participants were received in the beautifully decorated dining room, where they were served a tasty lunch. The group toured the facilities after lunch. Much time was spent of course at the Blanco 4-m admiring DECam, its shiny hexapod and sleek cable wraps, all kept in balance by a new sparkling Cass cage. The official part of the celebration consisted of a series of presentations on CTIO, DECam, and DES. Speakers included David Silva (NOAO director), R. Christopher Smith (director of AURA Observatories in Chile), Nicole van der Bliek (interim CTIO director), Joshua Frieman (director of the Dark Energy Survey), Timothy Abbott and Alistair Walker (CTIO), and Brenna Flaugher (Fermilab). These presentations told the story of Cerro Tololo and DECam and covered the history of CTIO, the start of the DES collaboration, the concept of DECam, the challenges and successes during the construction and installation of DECam, and some of the first results with DECam. Young-Kee Kim presented CTIO with a beautiful picture composite of Fermilab and a blow-up of the night sky. This picture is now featured prominently in the hallway of the CTIO office in La Serena. After the ceremony, the crowd had leisure time to wander around and admire the view of the summit, and by the time the sun set, several small telescopes were set up to watch the night sky. It was well past 10 pm when people boarded the buses for the trip back to La Serena.

CTIO's 50th Anniversary Celebrations
Andrea Kunder

Cerro Tololo was chosen on 23 November 1962 as the site for a US observatory in the Southern Hemisphere. The official name for the new observatory also was adopted that day. And so, following a few years of talks, tests, and agreements, Cerro Tololo Inter-American Observatory was founded 50 years ago.

A historic milestone was the construction of what was then the largest telescope in that hemisphere, the 4-m Blanco telescope. The Blanco mirror arrived on Cerro Tololo in September 1974, and on November 8 of that year, an informal prime focus "first-light" ceremony was held. Visiting astronomers first started observing with this telescope in January 1976. The principal telescopes now at the AURA sites on Cerro Tololo and nearby Cerro Pachón are the 4-m Victor M. Blanco Telescope, the 4.1-m SOAR (Southern Astrophysical Research) telescope, and one of the 8-m telescopes of the Gemini Observatory. More than 10 other telescopes and astronomical projects share the Cerro Tololo site.

A fun and friendly schedule of events has been released to celebrate the 50-year milestone. The kick-off event, the Dark Energy Camera (DECam) dedication (see the "Dedication of the Dark Energy Camera" article in this Newsletter), set off the excitement. Since then, the festivities continue to impress, with the opening of the CTIO Historical Public Exhibition and additional tours to Cerro Tololo. I feel almost like a celebrity when grocery shopping at the local supermarket in La Serena (the JUMBO, for those who have visited here) and I see CTIO's history and scientific impact on display. Staff and family visits, as well as a scientific symposium, are scheduled to take place in the following months. An especially festive atmosphere is present in the CTIO building over these celebrations!
Cerro Tololo Inter-American Observatory is celebrating its 50th anniversary. The decision was made on 23 November 1962 to locate a new observatory on Cerro Tololo in Chile and to call it the “Cerro Tololo Inter-American Observatory.” On 25 November 1962, the Association of Universities for Research in Astronomy (AURA) bought the property “El Totoral,” which includes close to 30,000 hectares with Cerro Tololo near its center.

As part of CTIO’s anniversary celebrations, we created an exposition on the history of the Observatory, including photographs, instruments, and telescopes used at CTIO. The exposition was on display in January in the La Serena library area for the staff, family, and friends (Figure 1). In February and March, the exposition will go downtown, to allow access to the general public. The exposition will be on display in the foyer of the city’s largest supermarket (Jumbo) starting February 6. From there the exhibition will be moved to various cultural centers of the Region of Coquimbo, such as the Centro Cultural Palace in Coquimbo, the Centro de Extensión de la Universidad de La Serena in La Serena, and the Museo del Limari in Ovalle. Eventually, we will set up a permanent display on AURA premises, most likely on Cerro Tololo itself.

The exposition contains on one panel photographs about the beginning of the Cerro Tololo Inter-American Observatory, introducing the public to the history of CTIO. This panel has pictures of the construction, which began in 1963 (Figure 2), and of the inauguration on 6 November 1967 following first light with the 1.5-m telescope.
A second panel shows how the observatory grew into a lively mountaintop with several smaller telescopes and, eventually, the construction of the Blanco 4-m telescope. The third panel (Figure 3) includes a series of astronomical images taken with instruments and telescopes at CTIO, showing the improvement of the capabilities and ending with the first-light image of the Dark Energy Camera (DECam) taken on 12 September 2012.

In addition to the panels, a selection of more than thirty different instruments, telescopes, and gadgets are on display in the exposition, sampling the technology used on Cerro Tololo from the 1960s onward. There are astronomical instruments, such as a Bifilar Micrometer (Figure 4), the Big Throughput Camera (BTC) (Figure 5), and the two-channel infrared photometer (Figure 6). Other instruments on display are a spectograph and a "plaque blinker" whose mechanical system still works. Plexiglas covers were installed in various instruments to let the public admire their interiors and learn about the delicate optical and mechanical systems.

While putting together the exposition, Arturo Gomez and Oscar Saa, who selected the instruments and brought them from the mountaintop to La Serena, spent many hours fondly remembering the past and exchanging memories of how it used to be and of the “astrónomos visi-tantes” during all these years.

The exposition is a nice sample of instruments used at CTIO, which, in their time, were state-of-the-art. It gives an excellent overview of how fast technology has changed, from photographic plates, to small digital detectors, to the very large focal plane array that is possessed by the current state-of-the-art instrument, DECam. The exposition shows the impact of technological advances on the science and clearly illustrates how Tololo was founded and still remains at the cutting edge of astronomy.
Fifty Years of Wide Field Studies in the Southern Hemisphere
La Serena, Chile | 06-09 May 2013
www.ctio.noao.edu/noao/conference/CTIO-50-years

Sean Points & Andrea Kunder

The advent of wide-field CCD cameras on 4-m-class telescopes has provided the opportunity to survey vast parts of the sky to significant depths, leading to new perspectives on the formation of our Galaxy. In particular, the selection of the Cerro Tololo site in November 1962, enabled a mapping of the then relatively inaccessible Southern Hemisphere skies. As we celebrate the 50th anniversary of our National Optical Astronomy Observatory in the South, there is cause to come together for stimulating scientific discussions and a little reverie. The topics of this conference include the resolved stellar populations of the bulge of the Milky Way, the Galactic Halo, and the Magellanic Clouds. We will discuss existing observations from large-scale surveys, new surveys in the works, and different strategies that allow for innovative approaches to constrain Galaxy formation models. This meeting will be a starting point to highlight the capabilities provided by wide-field cameras such as the Dark Energy Camera and how to use them efficiently in a new era of “big data” science.

CTIO was founded and remains at the cutting edge of astronomy. Indeed, CTIO’s impact on astronomy has far surpassed its original mission to provide world-class facilities to observe the southern sky. On the occasion of CTIO’s 50th birthday, it is therefore appropriate to share stories and memories of the many events (some unconventional) and exceptional characters that have helped shape CTIO. Thus, the conference will include a program of invited talks on the scientific and cultural history of CTIO.

Invited speakers will cover the following topics:
- The Stellar Population of the Galactic Bulge
- Chemical Abundances in the Galactic Bulge
- Galactic Clusters in the Galactic Bulge
- Modeling the Formation of the Galactic Bulge
- The Old Stellar Populations of the Magellanic Clouds
- Young Stellar Objects in the Large Magellanic Cloud
- Variable Stars in the Magellanic Clouds and Galactic Center
- Star Formation and the IMF in the Magellanic Clouds
- CTIO Science Highlights

For more information on the conference, check the website: www.ctio.noao.edu/noao/conference/CTIO-50-years.

Please feel free to email Andrea Kunder and Sean Points, Chair, at ctio50soc@ctio.noao.edu.
NOAO Operations & Staff

Got Data?
Frossie Economou

NOAO’s Science Data Management (SDM) group operates the NOAO Archive, serving raw and pipeline data from a variety of NOAO North and South instruments. While each instrument’s data set presents its own challenges, at the Archive back end, we are trying to solve the same problems as other astronomical data centers. How do we reliably store increasing volumes of data? How do we process massive data sets in parallel? How do we enforce proprietary restrictions, while also facilitating scientific collaboration? How do we scale up our databases? And, can we efficiently manage hundreds of machines?

NOAO SDM is hosting a workshop aimed at infrastructure staff from astronomical data centers that are grappling with these issues every day. The workshop, titled “Astronomical Data Center Technologies,” will be in Tucson, 18–19 April 2013. The aim is for attendees to share their experiences, positive or negative, with various technologies that they employ and to foster closer links with their colleagues at other institutions. If you think that describes your interest, visit the workshop website at www.astdatcentech.org/. Registration is now open; for the workshop format to function well, space is limited, so register soon.

NOAO at the 2013 Winter AAS Meeting
Ken Hinkle & Stephen Pompea

A merican Astronomical Society (AAS) meetings are an opportunity for NOAO staff to meet with you, our users and potential users. NOAO had a booth at the 221st AAS meeting in Long Beach, California, in January 2013 that was well attended, with many discussions going on each day. The booth backdrop emphasized NOAO’s future and its new projects: the Dark Energy Camera (DECam), the Large Synoptic Survey Telescope (LSST), and the Big Baryon Oscillation Spectroscopic Survey (BigBOSS). The 50th anniversary of CTIO also was highlighted at the booth.

NOAO scientific staff members were present at the booth throughout the meeting. The staff had varied goals for the meeting, included providing information on LSST simulations, assisting with Gemini Phase II preparation, discussing the NOAO Research Experiences for Undergraduates (REU) program with students, talking to prospective candidates for open positions, interacting with students and teachers, discussing new NOAO projects, and answering questions about the ongoing NOAO mission (Figure 1). NOAO Director Dave Silva was available to talk with users as were a number of NOAO’s associate directors and managers (Figure 2).

During the AAS meeting, NOAO hosted a town hall meeting, which was well attended by the community. Dave Silva presented the long-range plan for NOAO and the US Ground-Based Optical/Infrared System in this time of fiscal austerity. The plan was well received. Look for NOAO at the January 2014 AAS meeting in Washington, D.C.

Figure 1: The NOAO booth at the January 2013 Long Beach AAS meeting. At the far right, Dave Silva talks with Eric Smith (NASA). (Image credit: John Glaspey/NOAO.)

Figure 2: Some of the NOAO management and staff who attended the 221st AAS meeting and spent time at the NOAO booth. Left to right: Stephen Pompea (Education and Public Outreach program head), Stephen Ridgway, Ken Hinkle, Tom Matheson, Dave Silva (NOAO director), David Sprayberry (NOAO System Technology Center program head), and Bob Blum (NOAO deputy director). (Image credit: Michael Bolte, University of California Observatories.)
CTIO Summer Student Program for 2013
Catherine Kaleida

It is summer in the Southern Hemisphere, and the CTIO Summer Students (above) have arrived eager to learn! During the 10-week CTIO summer student programs, US and Chilean students work and live at the CTIO compound in La Serena. All students carry out research projects with CTIO, SOAR, or Gemini staff, as well as observing at Cerro Tololo and attending seminars geared toward the undergraduate level. The students will participate in field trips to various observatories while sampling the social and cultural life in Chile during their time here.

EPO Participation in the Sells Elementary Extended-Day Program
Robert Sparks

The Baboquivari Unified School District’s (BUSD) Indian Oasis Elementary School contacted NOAO’s Education and Public Outreach (EPO) group in the fall of 2011 to ask for assistance in running after-school sessions as part of their School Improvement Program. The school is located in Sells, the capital and main town on the Tohono O’odham Nation in southern Arizona. The School Improvement Program is a three-year program funded by a grant from the Arizona Department of Education and is designed to improve test scores and the academic performance of BUSD students. The after-school program targets the bottom 25% of the students in the Indian Oasis Elementary School, which has high turnover rates among its teachers and school administrators.

NOAO staff began visiting the elementary school on Monday afternoons in January of 2012 to lead a variety of hands-on science-based activities for third- to fifth-grade students over the last year. The activities cover a wide array of topics in science including light and color, dark skies awareness, the solar system, electricity, magnetism, and the states of matter.

A typical day in the program begins at 3:00 pm. The students receive snacks (provided by NOAO) and have time to get help with their homework. At 3:30 pm, the students begin the activities provided by NOAO and other community organizations. Other organizations providing activities include Tohono O’odham Community Action, the local fire department, the Desert Rain Café, and Tohono O’odham Community College. The activities last for approximately an hour. Each student has a journal, and at the end of each session, they write about what they did. The students end their day with physical activity on the playground.

The science activities led by NOAO have been well received by the students. They always look forward to Mondays, when we visit. One of the most popular activities last semester was building fruit batteries. Students experi-

Six US students participate in the CTIO Summer Student Program through the NSF-funded CTIO Research Experiences for Undergraduates (REU). The REU students for 2013 are Brian Chinn (University of Florida), Alexander Deich (Humboldt State University), Emily Finney (Scripps College), Briana Indahl (University of Wisconsin-Madison), Lois Smith (University of Colorado at Boulder), and Molly Williams (Eastern Kentucky University). Two Chilean students, Gonzalo Briones Zerené (Universidad de Valparaíso) and Diego Calderón Espinoza (Universidad de Concepción/Pontificial Catholic University of Chile), participate through the Práctica en Investigación en Astronomía (PIA) program funded by CTIO.

We wish them an enjoyable stay in La Serena “y buena suerte en todo.”

Mentors for the students are an integral part of the program. As such, we would like to thank CTIO staff Andrea Kunder, Sean Points, Chris Smith, and Catherine Kaleida; SOAR staff Steve Heathcote, Karianne Holhjem, and Tiago Ribeiro; Gemini staff Percy Gomez and Peter Pessev; and Alexandre Roman and Mario Soto from the University of La Serena.

continued
EPO & Sells Elementary Extended-Day Program continued

mented using different types of nails and different fruits and attempted to light up a light-emitting diode (LED). After a couple of failed attempts, the students let out a cheer when they successfully created a circuit to light the LED. Another popular activity was making a flashlight. Students used a battery pack, plastic cup, light bulb, and switch to make a flashlight. The students took home their completed flashlights at the end of the day.

NOAO hosted a star party at Indian Oasis Elementary School on 29 November 2012, and many students from the after-school program attended and participated in several hands-on astronomy activities. NOAO’s EPO students set up telescopes to show the school’s students and their parents a variety of objects in the night sky.

The NOAO staff involved in the project include Katy Garmany, Robert Sparks, Connie Walker, and Steve Pompea. The EPO’s student outreach cadre of Will Roddy, Calvin Ortega, Johnathan Siquieros, and Cameron Capara also have been involved in the project. Calvin and Johnathan are both graduates of BUSD’s Baboquivari High School. Several aides at the Indian Oasis Elementary School are involved with the School Improvement Program and help with EPO’s efforts as well.

The program is already underway for the spring semester of 2013. Our first set of activities for the spring has focused on the GLOBE at Night program and air pressure. We will continue by exploring the states of matter with the students for the next several weeks.

Kitt Peak at the 2013 Tohono O’odham Rodeo and Fair
Katy Garmany

The Tohono O’odham Nation held their rodeo and fair on the first weekend of February. NOAO has had a booth there for the past three years. The rodeo celebrated its 75th anniversary this year, making it the longest-running all-Native American rodeo in the United States. The three day fair brings together enormous crowds; they come for the rodeo, the Pow Wow featuring dancing by many different tribes, the midway and carnival, and, of course, the food!

NOAO Education and Public Outreach (EPO) staff set up telescopes for fair attendees to observe solar prominences and sunspots. This year they distributed a balsa-wood airplane with the logo of the Mayall 4-m telescope to the kids. The booth provided an important opportunity for members of the Tohono O’odham Nation to chat with staff and scientists from NOAO and to view images taken with the telescopes at Kitt Peak. It also gave NOAO the chance to share information about Kitt Peak events and to remind visitors to the booth about the public programs and that they are free to members of the Nation.

The EPO group was in charge of setting up the tent every day and relied heavily on the NOAO EPO student outreach workers. As a result of interactions at past fairs, there are two student workers in the EPO group who grew up and attended school on the Nation, Calvin Ortega and Johnathan Siquieros.

Figure 1: Colette Salyk (right, background) oversees the construction of balsa-wood airplanes as Katy Garmany (left) and Calvin Ortega (right, foreground) help budding aerospace engineers. (Image credit: John Glaspey.)

Figure 2: Hundreds of people stopped by the NOAO/KPNO tent over the three day fair. Despite some clouds, many were able to see solar prominences and sunspots. Rob Sparks (left, facing camera) and Colette Salyk (right in striped shirt) answered questions about the Sun and Kitt Peak. (Image credit: John Glaspey.)
Welcome Mariela Silva Olivares,
Safety and Environmental Engineer
Nicole van der Bliek & Chuck Gessner

Mariela Silva has joined NOAO South as our Safety and Environmental Engineer. Mariela has a professional degree in health and safety, and a masters in environmental engineering. She is a seasoned safety and environmental professional who has worked in refinery construction, academia, and government. We would like to welcome Mariela Silva, the new NOAO South Safety and Environmental Engineer.

Tenure Track Position at CTIO

The National Optical Astronomy Observatory (NOAO) invites applications for a tenure track staff position based at NOAO South, the site of the Cerro Tololo Inter-American Observatory (CTIO), in La Serena, Chile. The ideal candidate will be an observational astronomer who brings scientific presence and a science-driven interest in pushing the performance of the Blanco and SOAR telescopes and their instruments, all of which are expected to be relevant in the era of the Large Synoptic Survey Telescope. The preferred candidate will have significant hands-on experience with modern instruments and telescopes.

The main focus of CTIO in the coming years will be the Blanco 4-m telescope and the recently installed wide-field optical imager, Dark Energy Camera (DECam). DECam was built at Fermilab under the auspices of the Dark Energy Survey and installed and commissioned by CTIO. Other instruments expected to come online in 2013–2014 are the SOAR Adaptive Module (SAM), a ground layer adaptive optics module built at CTIO for the SOAR 4.1-m telescope; the Cerro Tololo Ohio State Multi-Object Spectrograph (COSMOS), an optical spectrograph; and TripleSpec4, an infrared spectrograph. These two spectrographs were built in collaboration with university partners, following the recommendations from the ReSTAR (Renewing Small Telescopes for Astronomical Research) committee.

Applications received prior to 15 February 2013 are assured of full consideration; however, the position will remain open until filled. See www.ctio.noao.edu/noao/content/Employment-Opportunities.

Staff Changes at NOAO North and South
(16 August 2012–15 February 2013)

New Hires

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<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tr>
<td>Briones, Gonzalo</td>
<td>CTIO PIA Summer Student</td>
<td>South</td>
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<td>Calderon, Diego</td>
<td>CTIO PIA Summer Student</td>
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<td>Chinn, Brian</td>
<td>Summer Research Assistant (REU)</td>
<td>South</td>
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<td>Conrad, Jason</td>
<td>Logistics Specialist</td>
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<td>Deich, Alexander</td>
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<td>Finney, Emily</td>
<td>Summer Research Assistant (REU)</td>
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</tr>
<tr>
<td>Godoy, Luis</td>
<td>Mechanic Technician</td>
<td>South</td>
</tr>
</tbody>
</table>

continued
**Staff Changes continued**

Gomez, Luis Arturo  
Administrative Specialist  
South

Hatfield, George  
AOP Imager Guide  
North

Ibacache Velasquez, Gilmar  
AC, Plumbing, Water Pump System Technician  
South

Indahl, Brianna  
Summer Research Assistant (REU)  
South

Lauft, Carlos  
Buyer II  
North

Loftin, Sheri  
Public Program Specialist  
North

Moreno, Victor  
Craftsperson II  
North

Pinochet, Carlos J.A.  
Driver Heavy Equipment  
South

Rojas Vega, Jose  
Electrician  
South

Semple, Travis  
Student Intern  
North

Silva Olivares, Mariela  
Safety & Environmental Engineer  
South

Smith, Denise  
Cashier, KPNO  
North

Smith, Lois  
Summer Research Assistant (REU)  
South

Watson, David  
Public Program Specialist  
North

Williams, Molly  
Summer Research Assistant (REU)  
South

Winskly, James “Jim”  
AOP Imager Guide  
North

**Promotions**

Abbott, Timothy  
To Scientist  
South

Chandrasekharan, Srinivasan  
To Senior Software Engineer  
North

Dunlop, Christopher  
To Special Projects Assistant III  
North

Harris, Ronald  
To Technical Associate II  
North

Loftin, Sheri  
To Education Specialist  
North

Mathis, Hillary  
To KPNO Manager of Telescope Operations  
North

Norman, Dara  
To Associate Scientist  
North

Pizarro, Sergio  
To Assistant Observer 1  
South

Points, Sean  
To Associate Scientist  
South

Power, Jennifer  
To Observing Associate  
North

Reetz, Kristin  
To Observing Associate  
North

Riabokin, Melania  
To Observing Associate  
North

St. Paul-Butler, Karen  
To Observing Associate  
North

Stanghellini, Letizia  
To Head of Program, SUS  
North

Summers, David  
To Observing Associate  
North

Taghon, Stacy  
To General Maintenance Person I  
North

van der Bliek, Nicole  
To Interim Associate Director for NOAO South  
South

Williams, Douglas  
To Senior Observing Associate  
North

Zelaya, Kathie  
To Technical Associate II  
North

**New Positions**

Bird, Nanette  
From Administrative Assistant III to Administrative Coordinator III  
North

Ortega, Calvin  
From KPNO REU Summer Student to EPO Education Outreach Assistant  
North

Seaman, Robert  
From Software Systems Engineer to Data Engineer  
North

continued
### Staff Changes continued

#### Transfers
- **Acosta, Emily**: From NOAO to LSSTC as Graphic/Web Design Assistant, North
- **Angeli, George**: From TMT to LSSTC as Systems Engineering Manager, North
- **Blaine, Keith**: From Helper to Craftsperson I, North
- **CAS and HR Teams**: From NOAO to AURA Corporate, North & South
- **Claver, Charles**: From NOAO to LSSTC as System Scientist, North
- **Haase, Flynn**: From NOAO to WIYN as WIYN 0.9-M Site Manager, North
- **Montijo, Guillermo**: From NOAO to NSO-ATST as Engineering Associate, North

#### Retirements/Departures
- **Aldrich, Cliff**: Logistics Supervisor, North
- **Andree, Vitold (Skip)**: Mtn. Telescope Operations Manager, North
- **Austin, Carmen**: Special Projects Assistant, North
- **Brehmer, Gale**: Telescope Operation Manager, South
- **Brown, Jonathan**: KPNO REU Summer Student, North
- **Buchholz, Nick**: Sr. Software Engineer, North
- **Collao, Fabián**: Head Instrument Maker, South
- **Conrad, Jason**: Logistics Specialist, North
- **Cunha, Katia**: Associate Astronomer, North
- **Figueroa, Enrique**: Strategic Development Manager, South
- **Foster, Kathryn**: Facilities Engineer, North
- **Gomez, Luis Arturo**: Observer Support Specialist, South
- **Hunten, Mark**: Sr. Systems Engineer, North
- **Johnson, Linsey**: KPNO REU Summer Student, North
- **O’Leary, Erin**: KPNO REU Summer Student, North
- **Orrego, Juan**: Instrument Maker, South
- **Ortega, Calvin**: KPNO REU Summer Student, North
- **Phillips, James (Jim)**: Crafts Leader, North
- **Romero, Paige**: KPNO REU Summer Student, North
- **Schmidt, Ricardo**: Electronic Engineer, Manager, South
- **Shirtz, Amelia**: KPNO REU Summer Student, North
- **Smart, Brianna**: KPNO REU Summer Student, North
- **Whitehouse, Matthew**: Education Specialist, KPNO, North

#### Deaths
- **Clemons, Dawn**: Lead Custodian and Water Treatment Plant Operator (Kitt Peak), North
- **Scott, John**: Former Facility Supervisor (Kitt Peak), North
- **Simmons, Jorge**: Former Senior Engineering Physicist, North