



**NATIONAL
OPTICAL
ASTRONOMY
OBSERVATORY**

Quarterly Report (2) FY 2005

January 1 – March 31, 2005



A public visitor to Kitt Peak during a special World Year of Physics "Einstein Day" at the Kitt Peak Visitor Center on March 12, 2005, enjoys a view of sunspots through a 10-inch telescope outfitted with a solar filter.

*Submitted to the National Science Foundation
Pursuant to Scientific Program Order No. 1, Article 5-C
Cooperative Agreement No. AST-0132798, Article VI*

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* Quarterly updates on scientific, operational, and programmatic activities, including telescope subscription rates, are published separately in the quarterly NOAO Newsletter (See: http://www.noao.edu/news_rep.html)

1 PUBLIC AFFAIRS AND EDUCATIONAL OUTREACH (PAEO)

MEDIA AND PUBLIC INFORMATION

- The January 2005 AAS meeting in San Diego featured a variety of news with NOAO connections, including a press release from Lowell Observatory with results from Phil Massey of Lowell Observatory, an MIT undergraduate student, and Knut Olsen of CTIO, about the three largest stars in the Milky Way using data from KPNO and CTIO. News stories on this finding appeared across the country on the second day of the meeting, including Reuters wire service, the New York Times and USA TODAY.
- The AAS meeting also included a midday press briefing on the Large Synoptic Survey Telescope project, based on an NOAO-drafted news release issued by LSST Corp. announcing that the University of Arizona had been awarded a contract for the primary mirror via private funding. This news was reported by the Associated Press and the Arizona Daily Star. NOAO PAEO prepared the majority of the materials for the press briefing, including a large cardboard prop of the camera focal plane; PAEO graphic artists also designed a cohesive set of 27 science and technical posters for a special session at the meeting.
- The La Serena daily newspaper El Día published a special eight-page insert section on February 4 with a series of articles and colorful photos describing the value of astronomical research to the region, including PAEO-written stories on CTIO and SOAR. Special thanks go to Maria Antonieta Garcia of the Gemini South public outreach office for helping arrange the opportunity.
- PAEO worked closely with the news office at the Spitzer Science Center and Cornell University to produce complementary press releases on the long-sought discovery of a significant population of dusty galaxies at a high redshift, aided by data from the NOAO Deep Wide-Field Survey. An Associated Press story on this result was published in dozens of newspapers around the globe, along with CNN.com, Sky&Telescope, and Astronomy.
- NOAO Director Jeremy Mould and NSO Deputy Director Mark Giampapa were two of four local Tucson leaders in astronomy and space science featured in a “Question & Answer” roundtable article in the Sunday, January 23, edition of the Arizona Daily Star.
- Articles on the successes of TLRBSE teachers appeared in the Mount Diablo (CA) Astronomical Society newsletter and the Bristol (VA) Herald Courier. In addition, one of the dozen TLRBSE teachers selected to observe with the Spitzer Space Telescope (Babs Sepulveda) was profiled in a story in the February 11 Stockton Record.
- PAEO staff (D. Isbell and M. Newhouse) began serving as the primary editor and Web designer, respectively, of the new public Web site for the Thirty Meter Telescope (TMT) project, www.tmt.org, after submitting a successful proposal to the TMT Board of Directors.

Public Affairs & Educational Outreach Information Requests & Inquiries January - March 2005	
Type of Request	<i>N</i>
Information requests and inquiries re: astronomy (phone calls; e-mails, walk-ins; requests for posters, bookmarks, brochures, etc.)	1,210
Requests & inquiries for use of NOAO images	799
Total	2,009

- NOAO images were featured eight times as the “Astronomy Picture of the Day” and three times as the Space.com featured image. The image on the NOAO home page was replaced seven times, and six new images were added to the online Image Gallery.

Press Releases

- *Exposing Dusty Galactic Hideouts (SSC/JPL)*
- *Kitt Peak National Observatory to Host “Einstein Day” on March 12*
- *Flickering Red Giants a Surprising Find*
- *Steward Observatory Mirror Lab Awarded Contract for Large Synoptic Survey Telescope Mirror (LSST-C)*
- *NOAO-Trained Teachers to Observe with Spitzer*

PUBLIC OUTREACH

- The Kitt Peak Visitor Center hosted a successful and festive “Einstein Day” on Saturday, March 12, in honor of the 2005 World Year of Physics and the pending birthday of Albert Einstein. More than 75 people participated in special tours of the WIYN 3.5-meter and McMath-Pierce telescopes, observed sunspots on the sunny day with two solar telescopes on the Visitor Center patio, listened to engaging lectures from Kitt Peak director Richard Green and University of Arizona cosmologist Daniel Eisenstein, and (quickly!) consumed an honorary birthday cake.

- On March 26-27, 23 guests from as far away as Georgia attended the 2005 amateur CCD imaging workshop at NOAO headquarters. Participants received hands-on instruction in everything from basic data acquisition and trouble-shooting to advanced processing techniques. Feedback from the guests was so encouraging that another workshop has been scheduled for July.

- On January 30, 18 high school students and three chaperones from Virginia spent a night on Kitt Peak under star-filled skies. After attending the Nightly Observing Program, they used the 16-inch visitor center telescope and a digital camera to image numerous deep-sky objects until 6:00 AM, when they retired to their sleeping bags in the visitor center.

- In February, staff conducted a general astronomy presentation for inmates at the Federal Corrections Institution in Tucson. Approximately a dozen inmates attended the slide show and discussion.

- On March 26, a group of twenty professors, graduate and undergraduate students arrived from Wales to participate in the Advanced Observing Program at Kitt Peak. Undeterred by a full moon, the group made a night of it and got a few images of planets and other objects.

Kitt Peak Visitor Center Summary of Visitors 2nd quarter 2005	
Group/Program	Visitors*
General Public Tours	5,106
School Groups K-12	410
Special Tours	0
Nightly Obs. Program [#]	1,505
Advance Obs. Program	61
Other visitors - est.	20,000
Total Visitors	27,082
*Numbers reflect special visitors and paid public programs, not total mountain visitation.	
[#] NOP attendance lagging by more than 400 participants compared to last year due to poor weather.	

EDUCATIONAL OUTREACH

Teacher Leaders in Research Based Science Education (TLRBSE)

The 15-week distance learning class for the 2005 cadre of TLRBSE began on January 19 and will run through early May. The course is team-taught by a group including Kathy Stiles (WestEd), Jeff Lockwood, Travis Rector, Connie Walker, and Steve Howell. The course begins with a teacher leadership unit and ends with specialized instruction to project teams that prepare the teachers for their summer research institute at Kitt Peak. Progress so far in the class has been excellent, though three of the original 22 participants had to drop out for personal reasons.

The Spitzer Space Telescope Teacher and Student Observing Program was the focus of intense meetings and planning during the AAS meeting in San Diego. The 12 TLRBSE teacher participants met with their astronomy research leads from the Spitzer Science Center and NOAO to plan the details of their projects and related observations. Six proposals were written after the AAS meeting by the teachers, and all were accepted by the SSC Director. Each proposal has both a science research and an educational outreach component, and data acquisition with Spitzer is underway. S. Croft and C. Walker also gave general presentations at the AAS meeting on TLRBSE.

Four TLRBSE-related workshops were held at the National Science Teachers Association meeting in Dallas in late March/early April. Successful alumni of the program made presentations at each of our workshops, which were uniformly well-received. A meeting of the 2004 TLRBSE cohort was also held, as well as a breakfast for past participants in the project.

Project ASTRO/Family ASTRO

Mix in fun with (finding) the Sun and a bit of Moon madness, and you have a fun-filled Project ASTRO Follow-up Workshop, albeit on a cloudy day. Highlights of the evening on February 12 included a talk on a “Time for Comets” by internationally known comet hunter, David Levy, and a talk on “Lifting Titan’s Veil – New results from Huygens” by Ralph Lorenz of the University of Arizona Lunar and Planetary Lab research staff. The participants built Sun clocks, demonstrated a reflective solar cooker, plotted apparent daily motions of the Sun, discussed sunspots relative to solar rotation, and tried to observe where the location of the setting Sun and the phase of the Moon as part of the evening’s training activities. Thirty Project ASTRO and Family ASTRO teachers and astronomer-partners were in attendance. For the third time in as many years, David and Wendee Levy hosted the workshop with NOAO at their home-based observatory in Vail, AZ.

ASTRO-Chile

Building on the successful student-to-student videoconference on joint Tucson-La Serena observations of the October 2004 lunar eclipse, plans are underway for a second student-to-student workshop, this time on results of a simultaneous light pollution study toward Orion by students from both continents. During the last videoconference, 28 students presented results from a lunar eclipse study, in which 400 students participated. Planning meetings between teachers and NOAO staff from La Serena and Tucson, the latest on March 17, indicated a similar amount of participants involved in an upcoming videoconference on Astronomy Day, April 16.

FunFest, March 16-18

With the help of 18 volunteers, the NOAO educational outreach and public outreach groups co-hosted a booth with seven hands-on activities in astronomy, a portable planetarium, and solar observing at the 3rd Annual Math Science and Technology Funfest, March 16 – 18, at the Tucson Convention Center.

Held in conjunction with the yearly Southern Arizona Regional Science and Engineering Fair (SARSEF), FunFest brought together scientists and elementary through high school students to share in the wonders and excitement of science. The event was held at the Tucson Convention Center and attracted over 5,800 students and 1,200 adults over the three days.

OTHER EDUCATIONAL OUTREACH

The NSF-funded ISE Hands-On Optics (HOO) program is creating six optics teaching kits and training science center educators and after-school program leaders nationwide. Development and testing work continued on HOO Modules 4-6, which cover color, polarization, ultraviolet fluorescence, near infrared light, and optical communication. Workshops for educators on Modules 1-3 were given at New York Hall of Science in January, and at the University of Southern California in March. Progress was also made surveying potential publishers and kit distributors for the final modules; seven companies were identified, and discussions were held with each of them at the National Science Teachers Association meeting in Dallas. S. Pompea has been active in the planning of education sessions at the International Conference on Education and Training in Optics and Photonics in Marseilles (France), and C. Walker is an organizer for the meeting of the Optical Society of America in Tucson (both in October 2005).

A new project funded by NSF informal science education, "Astronomy from the Ground Up", had its kickoff meeting in March, where plans were formulated for a retreat in May to bring project participants together from NOAO, the Astronomical Society of the Pacific (ASP), and the Association of Science-Technology Centers. The project will provide professional development in astronomy for small nature and science centers nationwide.

The NSF-funded Collaborative to Advance Teaching, Technology, and Science (CATTS) GK-12 project started a new year of work with new CATTS Fellows Erin Doktor and Janelle Bailey, with continuing involvement by UA undergraduate Joseph Fu. The two UA graduate students are taking a course on science teaching to prepare them for their work in Tucson-area schools. All of the GK-12 CATTS Fellows working with NOAO are using GEMS kits and materials developed by the ASP.

Local Tucson science teacher Glenn Furnier completed his review of additional books for the NOAO Spanish Language Astronomy Education Materials Center, which now has reviewed over 500 Spanish language science education resources. These reviews are in the process of being added to the Web-based catalog.

The NSF "Investigating Astronomy" instructional materials development project with TERC and the ASP has created alpha test versions of three modules of a new national high school, standards-based astronomy curriculum. NOAO is playing a key role in introducing astronomical imagery, image processing tools, and planetarium software such as "Starry Night" into this curriculum.

Major NOAO Educational Outreach Presentations

- S. H. Jacoby, L. M. Khandro, A. M. Larson, D. W. McCarthy, S. M. Pompea, and M. M. Shara, "Science Education with the LSST", American Astronomical Society, San Diego, January 12, 2005. (Poster)
- D. Daou, S. M. Pompea, M. Thaller, "Creating a Teacher-Student Research Program Using the Spitzer Space Telescope," American Astronomical Society, San Diego, January 12, 2005. (Poster)
- C. E. Walker, S. M. Pompea, S. K. Croft, and the NOAO Education Outreach Team, "Distance Learning as a Successful Means to Enable Research in the Classroom", American Astronomical Society, San Diego, January 12, 2005.

- S. K. Croft, S. M. Pompea, C. E. Walker, and the NOAO Education Outreach Team, “Building an Astronomy Community to Sustain Research in the Classroom,” American Astronomical Society, San Diego, January 12, 2005.
- S. Croft, S. M. Pompea, T. Rector, “Nature’s Most Powerful “Monsters”—Teaching Quasar Astronomy in Middle and High School”, Workshop at National Science Teachers Association Annual Meeting, Dallas, March 31, 2005

TUCSON AND KITT PEAK SITE SAFETY REPORT

OSHA RECORDABLE OCCUPATIONAL INJURIES AND ILLNESSES

- There were no OSHA recordable injuries reported this quarter.
- On January 31, a PAEO employee claimed a back injury due to a faulty chair backrest. The employee did not seek medical attention and chose to close the claim with the Industrial Commission of Arizona. This case is not OSHA recordable.
- A Kitt Peak employee hit a cow on Highway 86 while driving vehicle #65 to Sells on the evening of January 16. The employee was unhurt; the vehicle sustained approximately \$1900.00 damage.
- Investigated complaints of an unusual smell at the Kitt Peak Visitor Center on January 10. A probable explanation is dust deposited on the heating elements. No further complaints were noted.
- Investigated a complaint of a burnt smell early mornings at the La Quinta building during January. We changed the time when the heat is switched on and no further complaints were received.
- Received a complaint about excessive computer noise from a GONG employee in January. Discussed the situations and made recommendations to the employee. GONG staff corrected the problem.
- Investigated complaints of fumes in the main building on February 9 and 10. It was determined that the cargo truck was idling by the service yard door and fumes entered the building during a cool day. As a result of the complaint, we now warm up the cargo truck at the Carpenter Shop and turn the engine off while loading at Shipping and Receiving.
- Vandals threw a rock at the GONG/DMAC west door window and shattered it on the morning of February 21. The security guard on duty filed a police report. The window was promptly replaced.
- On March 6, an NOAO employee was driving shuttle vehicle # 46 to Kitt Peak in the early morning and encountered a patch of ice on the road. The vehicle went out of control and landed in a gully damaging the rear driver side quarter panel. The employee was not injured.
- On March 16, the Kitt Peak shuttle bus was involved in a hit and run accident on 22nd Street. The bus was hit by a small panel truck on the right front fender causing minor damage. No injuries occurred and a police report was filed.
- Investigated complaints of sewer smell in the basement of the main building. After the investigation, it was found that several abandoned floor drains were fouled. CFO repaired the drains and there were no further complaints.

Safety and Health

- As an annual requirement, the OSHA 300A log was completed, signed by the Director, and posted throughout Tucson and Kitt Peak facilities before February 1.
- “Risk Management Considerations for Projects” is now on the Risk Management Documents NOAO intranet website.
- A risk management inspection was conducted in preparation for the telescopes that will be installed in the Razdow dome that will be used for public viewing of the sun.

- A respirator medical questionnaire, respirator fit testing and Asbestos Operations and Maintenance training was completed for a CFO employee.
- Information was provided to GONG staff relating to risk management during projects and travel safety.
- An ergonomic checklist was provided to PAEO to help improve a workstation at the Visitor Center.
- A risk management inspection was conducted during the re-aluminizing of the McMath-Pierce Solar telescope mirrors.
- Two new Automated External Defibrillators (AED's) are now located at the Kitt Peak Visitor Center and at the MDM Observatory.
- The AOSS safety and health policy was reviewed for HR and found the policy to be generally good.
- Safety and risk management information was provided to Tony Smith, a member of the technical staff at MIT/Lincoln Laboratory. MIT is building a 3.5-meter telescope on the White Sands Missile Range.
- Risk management suggestions were provided to the NEWFIRM technical staff as related to lifting requirements for the instrument.
- Chuck Gessner attended the "Trainer Course in Occupational Safety and Health Standards for General Industry" seminar from February 14-17. As a member of ASSE, he volunteered to coordinate the seminar and the University of California waved the seminar costs.
- Emergency response suggestions were provided to the members of the Employees Association during the Kitt Peak Family Night planning session.
- A physical risk management inspection that encompassed safety, health, fire protection, environmental compliance, and security was conducted from March 28 to April 1, 2005 at AURA's La Serena, Cerro Tololo, and Cerro Pachón facilities in Chile. The focus of this inspection was to review the conditions of the facilities, and did not cover management aspects or the review of specific operating procedures. During the inspection, no "at risk behaviors" of the people working were observed. Most of the areas that NOAO employees work in were inspected. The report has been submitted to management.
- Eighteen Kitt Peak Employees and two Tucson Employees successfully completed forklift training on March 21 and March 30.
- Two Kitt Peak Employees completed the DOT Hazardous Material Transportation refresher training on March 21.
- Two NOAO employees completed their CDL medical certifications.
- Because of an employee concern, truck #78 was modified to safely secure compressed air cylinders during transport.
- First aid kits of Kitt Peak and Tucson were inspected and enhancements were made.

Fire Protection and Prevention

- Tucson fire alarm and sprinkler systems were inspected with no recommendations.
- Updated Kitt Peak emergency contact information was provided to the Tohono O'odham Department of Public Safety.

- Fire extinguishers of Kitt Peak and Tucson were inspected and maintained.

Environmental

- The Arizona Department of Environmental Quality 2003 Facility Annual Report (FAR) was submitted and NOAO is a Conditionally Exempt Small Quantity Generator of Hazardous Waste.
- The EPA inspected Kitt Peak's water system on January 31. The EPA contracted the inspection to Jim Melstad from The Cadmus Group, Inc.
- Approximately 490 used fluorescent light bulbs were sent for recycling.
- Unwanted chemicals from the Optics shop were prepared for proper disposal.
- Information was provided to the WIYN staff relating to organic solvent applications.

Insurance

- Acquired insurance certificate for the new Sac Peak van.
- The insurance section of the TMT (Thirty- Meter Telescope) agreement was reviewed and recommendations were made to the Contracts office.
- Received the \$812.66 check from Hartford insurance company to cover the cost of the AVIS rental car insurance deductible because of the Cerro Pachon auto accident.
- Received the policy information related to off-site employees working for TMT and LSST. For worker compensation insurance, off-site locations must be named in the policy.

Security

- Updated the "Friends of NOAO" list for authorization and issuance of key cards.
- Tucson facilities are participating with the U of A Campus Watch Alert. The U of A Police Department is sending periodic notices to the risk management office that are forwarded to staff and the security guards. As part of a community theft deterrent, the U of A Police Department invited us to participate in the purchase of steering wheel locks at a reduced rate.
- A brief evaluation of the Tucson Security Contract with Central Alarm was provided and submitted to the Contracts office.
- We have experienced intermittent problems with the front automatic gate. After investigation, it appears that the gate malfunctions during high humidity and when it has rained. Since the vendor has replaced the circuit board, batteries, and chargers, no further failures have been experienced.
- The overnight parking automatic gate is fully functional.
- The TCP/IP (ms-100 units) Key Scan controller at La Quinta was replaced.
- Preparations are being made to install a Keyscan system at the Kitt Peak Visitor Center.

OBSERVING PROGRAMS SEMESTER 2005-A

NOAO Gemini Science Center

For the six months ending July 31, 2005, a total of 58 scientific programs were awarded time thru NGSC telescopes, including 8 (14%) graduate thesis programs. Telescope(s) scheduled and number of nights awarded are specified in the following tables. (GEM-NQ = Gemini North Queue. GEM-SQ = Gemini S. Queue. GEM-N = Gemini North classical. GEM-S = Gemini South classical)

NGSC Observing Programs
Semester 2005-A

Program Type	N	% Total
U.S. Programs (non-Thesis)	50	86%
U.S. Programs (Theses)	8	14%
Total	58	100%

NGSC Observing Programs: Gemini Telescopes - Non-Thesis (50)

Telescope Nights

1. G. Aldering, P. Nugent (Lawrence Berkeley National Laboratory), S. Perlmutter (UC Berkeley), L. Wang, R. Thomas, B. Lee, R. Scalzo (Lawrence Berkeley National Laboratory): "IR Observations of Hubble Flow Type Ia Supernovae"	GEM-SQ	2.1
2. E. Barton (UC Irvine), J. Smith (Steward Observatory), J. Jensen (Gemini Observatory), C. Papovich, R. Dave (Steward Observatory): "Searching for Star Formation at z=8.2"	GEM-NQ	6.4
3. T. Beck (Gemini Observatory), J. Bary (U. of Virginia), I. Song (Gemini Observatory): "Investigating the Nature of Infrared Luminous Companions to Young Stars - Part 1 (GNIRS)"	GEM-SQ	0.68
4. P. Bouchet (CTIO), J. Danziger (Osservatorio Astronomico di Trieste), N. Suntzeff (CTIO), O. Hernandez (O) (Talca University): "A Direct Measurement of the Ultimate Iron Masses Produced in Core-Collapse Supernovae"	GEM-NQ	2
5. S. Brittain (NOAO), J. Najita (): "Measurement of Warm Gas in Transitional Disks around Young Stars"	GEM-S	1
6. C. Chen (Jet Propulsion Laboratory), M. Jura (UCLA), J. Najita (NOAO): "Spatially Resolved Dusty Circumstellar Disks in the 5-20 Myr-old Scorpius-Centaurus OB Association?"	GEM-SQ	0.5
7. J. Elliot, M. Person, A. Gulbis (MIT), J. Pasachoff (Williams College): "Stellar Occultation by Charon: Measuring Charon's Radius and Probing for an Atmosphere"	GEM-SQ	0.3
8. X. Fan (Steward Observatory), D. Hines (), L. Jiang (G) (Steward Observatory), G. Richards (Princeton U.), G. Rieke (Steward Observatory), H. Rix (Max Planck Institut fur Astronomie), D. Schneider (Pennsylvania State U.), M. Strauss (Princeton U.), M. Vestergaard (Steward Observatory), F. Walter (Max Planck Institut fur Astronomie): "A Near-Infrared Spectroscopic Survey of the Highest Redshift Quasars"	GEM-SQ	3.5
9. G. Ferland (U. of Kentucky), K. Volk (Gemini Observatory), R. Rubin (NASA Ames Research Center): "Optical Recombination Lines in the Orion Nebula"	GEM-SQ	1.12

NGSC Observing Programs: Gemini Telescopes - Non-Thesis (50)
Telescope Nights

10.	A. Fruchter (STScI), N. Tanvir (University of Hertfordshire), C. Kouveliotou (O) (NASA Marshall Space Flight Center), R. Wijers (University of Amsterdam), E. Pian (O) (Istituto de Fisica Cosmica CNR), S. Thorsett (UC Santa Cruz), D. Bersier, J. Gorosabel, J. Castro Ceron (STScI), A. Levan (University of Leicester), M. Ward (University of Durham), J. Rhoads (STScI), D. Kasen (Johns Hopkins U.), P. O'Brien (University of Leicester), K. Sahu (STScI), S. Wachter (Spitzer Science Center), P. Nugent (Lawrence Berkeley National Laboratory): "The Supernovae of Gamma-Ray Bursts"	GEM-NQ GEM-SQ	1.4 1.4
11.	A. Fruchter, U.S. Lead Scientist for N. Tanvir (University of Hertfordshire), A. Fruchter (STScI), C. Kouveliotou (O) (NASA Marshall Space Flight Center), D. Bersier (STScI), R. Priddey (University of Hertfordshire), P. O'Brien (University of Leicester), J. Gorosabel (STScI), M. Bremer (University of Bristol), A. Levan, M. Ward (University of Leicester), J. Rhoads (STScI), C. Mundell (Liverpool John Moores University): "Probing the high redshift universe with GRBs"	GEM-SQ	0.4
12.	A. Fruchter, U.S. Lead Scientist for N. Tanvir (University of Hertfordshire), A. Fruchter (STScI), C. Kouveliotou (O) (NASA Marshall Space Flight Center), D. Bersier (STScI), R. Priddey (University of Hertfordshire), P. O'Brien (University of Leicester), J. Gorosabel (STScI), M. Bremer (University of Bristol), A. Levan, M. Ward (University of Leicester), J. Rhoads (STScI), C. Mundell (Liverpool John Moores University): "Probing the high redshift universe with GRBs"	GEM-NQ	0.6
13.	K. Gebhardt (U. of Texas, Austin), H. Richer (University of British Columbia), G. Fahlman, T. Davidge (Herzberg Institute of Astrophysics): "Adaptive Optics Observations of Globular Clusters"	GEM-NQ	1.25
14.	M. Geha (Carnegie Observatories), P. Guhathakurta (UC Santa Cruz), R. Van Der Marel (STScI): "A New Spin on Dwarf Elliptical Galaxies"	GEM-NQ	1
15.	A. Gonzalez (U. of Florida), P. Eisenhardt (CalTech-JPL), B. Jannuzi, A. Dey (NOAO), M. Brodwin (CalTech-JPL), Y. Lin (G) (), E. McKenzie (G) (Florida Institute of Technology), S. Stanford (), M. Dickinson (NOAO), M. Brown (Princeton U.), J. Mohr (), D. Stern (), K. Brand (NOAO): "Galaxy clusters at z=1-2 in the NDWFS: Spectroscopic Confirmation"	GEM-NQ	1.5
16.	D. Harker (UC San Diego), D. Wooden (NASA Ames Research Center), C. Woodward, M. Kelley (G) (U. of Minnesota): "Pre-Impact Michelle Observations of 9P/Tempel 1"	GEM-NQ	0.12
17.	G. Harper (U. of Colorado), D. Lambert (U. of Texas, Austin), K. Hinkle (), N. Ryde (Uppsala University), L. Decin (Katholieke Universiteit Leuven), B. Gustafsson (Uppsala University), C. Waelkens (Katholieke Universiteit Leuven): "CO Resonance Scattering Maps of 3 Red Giants: Alpha Ori, L ² Pup and R Hya"	GEM-S	2
18.	J. Hennawi (UC Berkeley), S. Bures (MIT), X. Fan (), P. McDonald (CITA), U. Seljak, M. Strauss, G. Richards (Princeton U.), M. White (UC Berkeley): "Cosmological Constraints from Ly(alpha) Forest Absorption Spectra of Close Quasar Pairs"	GEM-N	3
19.	B. Hrivnak (Valparaiso U.), K. Volk (Gemini Observatory), S. Kwok (University of Calgary): "Mid-IR Imaging of Circumstellar Rings in the C-Rich PPN HD 56126"	GEM-NQ	0.27
20.	I. Jorgensen (Gemini Observatory), R. Davies (University of Oxford), M. Bergmann (CTIO), D. Crampton (Herzberg Institute of Astrophysics), J. Barr (University of Oxford), M. Takamiya (U. of Hawaii), K. Chiboucas (Gemini Observatory), M. Collobert (University of Oxford): "Galaxy Evolution During Half the Age of the Universe"	GEM-SQ	0.9
21.	A. Koekemoer (STScI), F. Bauer (Pennsylvania State U.), J. Bergeron (IAP), N. Brandt (Pennsylvania State U.), C. Conselice (California Institute of Technology), N. Grogan (Johns Hopkins U.), E. Treister (G), C. Urry (Yale U.): "A Pilot Study to Constrain the Number Density of Low-Luminosity Black Holes Above Redshift 6"	GEM-NQ	1
22.	K. Luhman, G. Fazio (Harvard-Smithsonian Center for Astrophysics): "Searching for the Bottom of the IMF: GNIRS Spectroscopy of Candidate Brown Dwarfs"	GEM-S	3
23.	R. Mason (NOAO), A. Adamson (UKIRT), Y. Pendleton, J. Keane (NASA Ames Research Center), G. Wright (United Kingdom Astronomy Technology Centre): "The Formation and Evolution of Hydrocarbon Dust in Seyfert Galaxies and ULIRGS"	GEM-NQ	0.8

NGSC Observing Programs: Gemini Telescopes - Non-Thesis (50)		Telescope	Nights
24.	J. Melendez (U.S. Lead Scientist for B. Barbuy (IAGUSP), J. Melendez (California Institute of Technology), M. Asplund (Australian National U.), E. Bica (UFRGS), S. Ortolani (Universita degli Studi di Padova), A. Alves-Brito (IAGUSP), M. Zoccali, D. Minniti (Pontificia Universidad Catolica de Chile): "Chemical abundances in metal-poor globular clusters of the Galactic bulge"	GEM-S	0.5
25.	J. Mulchaey, T. Jeltema (Carnegie Observatories), L. Lubin, R. Gal (UC Davis): "Galaxy Evolution in Moderate-Redshift, X-ray Selected Groups"	GEM-NQ GEM-N	0.16 3
26.	T. Oka (U. of Chicago), T. Geballe (Gemini Observatory), K. Hinkle (NOAO), B. McCall (U. of Illinois Urbana-Champaign), M. Goto (Max Planck Institut fur Astronomie): "Observation of H ₃ ⁺ and C ₂ toward the Galactic Center"	GEM-S	3
27.	B. Oppenheimer, U.S. Lead Scientist for R. Doyon (University of Montreal), B. Oppenheimer (American Museum of Natural History), F. Rigaut (Gemini Observatory), P. Roche (University of Oxford), D. Lafreniere (University of Montreal), A. Digby (American Museum of Natural History), J. Graham (UC-Berkeley), R. Jayawardhana (University of Toronto), D. Johnstone (Herzberg Institute of Astrophysics), P. Kalas UC-Berkeley), B. Macintosh (Lawrence Livermore National Laboratory), C. Marois, D. Nadeau, R. Racine (University of Montreal): "The Gemini Deep Planet Survey (GDPS)"	GEM-NQ	2
28.	J. Orosz (San Diego State U.), J. McClintock (Harvard-Smithsonian Center for Astrophysics), R. Remillard (MIT), S. Corbel (University of Paris): "The mass of the Black Hole in XTE J1650-500"	GEM-SQ	1.54
29.	M. Ouchi (STScI), M. Dickinson (), H. Ferguson, M. Giavalisco, B. Mobasher (STScI), H. Yan (California Institute of Technology), R. Somerville (STScI): "Spectroscopic Identification for the IRAC-Bright LBGs in the GOODS-N Field"	GEM-NQ GEM-N	0.2 3
30.	E. Perlman (U. of Maryland), C. Packham, J. Radomski (U. of Florida), W. Sparks (STScI): "Searching for the Torus of M87"	GEM-NQ	1.25
31.	S. Perlmutter, U.S. Lead Scientist for I. Hook (University of Oxford), R. Carlberg, D. Howell (University of Toronto), D. Neill (University of Victoria), K. Perrett (University of Toronto), C. Pritchett (University of Victoria), M. Sullivan (University of Toronto), R. McMahon (University of Cambridge), J. Bronder (University of Oxford), R. Knop (Vanderbilt University), S. Perlmutter (UC-Berkeley), R. Pain (CNRS-IN2P3, Paris): "The Nature of Dark Energy from Type 1a Supernovae"	GEM-SQ	0.25
32.	S. Perlmutter, U.S. Lead Scientist for I. Hook (University of Oxford), R. Carlberg, D. Howell (University of Toronto), D. Neill (University of Victoria), K. Perrett (University of Toronto), C. Pritchett (University of Victoria), M. Sullivan (University of Toronto), R. McMahon (University of Cambridge), J. Bronder (University of Oxford), R. Knop (Vanderbilt University), S. Perlmutter (UC-Berkeley), R. Pain (CNRS-IN2P3, Paris): "The Nature of Dark Energy from Type 1a Supernovae"	GEM-NQ	0.75
33.	J. Radomski, C. Packham, C. Telesco (U. of Florida), E. Perlman (U. of Maryland): "High-Resolution Mid-IR Observations of Nearby Seyfert Nuclei"	GEM-SQ	0.9
34.	I. Reid (STScI), L. Close, N. Siegler (G) (Steward Observatory), K. Cruz (American Museum of Natural History): "Searching for planetary-mass companions to the nearest, youngest M dwarfs"	GEM-NQ	2
35.	H. Roe (California Institute of Technology), C. Trujillo (Gemini Observatory), M. Brown (California Institute of Technology), A. Bouchez (Keck), E. Schaller (G) (California Institute of Technology): "Titan's methane clouds: Time-scales and correlation with surface features"	GEM-NQ	4.5
36.	A. Saha (NOAO): "DDO 187: Confirming the distance to a dwarf galaxy with enigmatic variable stars"	GEM-NQ	0.7
37.	R. Schulte-Ladbeck (U. of Pittsburgh), L. Christensen (G) (Astrophysikalisches Institut Potsdam), B. Konig (U. of Pittsburgh): "Chemical abundances of the z=0.09 Damped Lyman Alpha Galaxy toward OI 363"	GEM-NQ	0.3
38.	R. Simcoe (MIT): "The Cosmic Distribution of Heavy Elements at z 6"	GEM-SQ	2
39.	N. Smith (U. of Colorado): "IR Variability During a Shell Ejection of Eta Carinae"	GEM-SQ GEM-S	0.6 1
40.	I. Song (Gemini Observatory), B. Macintosh (Lawrence Livermore National Laboratory), B. Zuckerman, E. Becklin (UCLA): "Confirmation of Planets around Young Nearby Stars"	GEM-NQ	0.8

NGSC Observing Programs: Gemini Telescopes - Non-Thesis (50)			Telescope	Nights
41.	L. Stanghellini, U.S. Lead Scientist for Q. Parker, W. Reid (Macquarie U.), R. Shaw, L. Stanghellini (NOAO): "Investigation of newly discovered AGB halos surrounding Planetary Nebulae in the Large Magellanic Cloud"	GEM-SQ	3	
42.	K. Stassun (Vanderbilt U.), R. Mathieu (U. of Wisconsin Madison), L. Vaz (UFMG), J. Valenti (STScI): "A Spectroscopic and Photometric Study of the First Substellar Pre-Main- Sequence Eclipsing Binary System"	GEM-S	3	
43.	D. Stephens (STScI), S. Leggett (UKIRT), M. Marley (NASA Ames Research Center), D. Saumon (LANL), T. Geballe (Gemini Observatory), K. Noll (STScI), D. Golimowski (Johns Hopkins U.), X. Fan (Steward Observatory): "3-4 (micron) Spectra at the L-T Transition"	GEM-NQ	1.6	
44.	C. Telesco, M. Moerchen (G) (U. of Florida), R. Fisher (Gemini Observatory), C. Packham (U. of Florida): "T-ReCS Imaging Study of Stochastic Processes in Debris Disks"	GEM-SQ	2.8	
45.	D. Trilling (Steward Observatory), A. Rivkin (MIT), J. Stansberry (Steward Observatory), J. Davies (Royal Observatory, Edinburgh and ATC): "Multiwavelength physical studies of Mars Trojans: The building blocks of rocky planets"	GEM-NQ	0.75	
46.	C. Trujillo (Gemini Observatory), M. Brown (California Institute of Technology), D. Rabinowitz (Yale U.): "Surface Characterization of Sedna with NIRI"	GEM-NQ	2.15	
47.	C. Trujillo (Gemini Observatory), M. Brown (California Institute of Technology), D. Rabinowitz (Yale U.): "Planetoid Surface Characterization with Gemini NIRI and GNIRS"	GEM-NQ	1.2	
48.	A. Weinberger (Carnegie Institution of Washington), B. Zuckerman (UCLA), I. Song (Gemini Observatory), E. Becklin (UCLA): "Asteroidal Material Around Young Stars?"	GEM-SQ	1	
49.	R. White (California Institute of Technology), D. Charbonneau (Harvard U.), G. Doppmann (Gemini Observatory): "Searching for Young Planets in a New Light"	GEM-S	5	
50.	C. Woodward (U. of Minnesota), S. Team (): "GNIRS + SPITZER ToO Novae in the Magellanic Clouds"	GEM-SQ	0.6	
NGSC Thesis Programs (8)			Telescope	Nights
51.	J. Debes (T), S. Sigurdsson (Pennsylvania State U.): "Searching for Planets in the Stellar Graveyard with Altair/NIRI"	GEM-NQ	1.2	
52.	A. Fruchter (STScI), P. Callanan, M. Reynolds (T) (University College Cork): "Optical Spectroscopy of the Secondary Star in PSR 1957+20"	GEM-NQ	0.2	
53.	K. Gebhardt, J. Silge (T), S. Kannappan (U. of Texas, Austin), D. Richstone (U. of Michigan), J. Kormendy (U. of Texas, Austin), M. Bergmann (Gemini Observatory), T. Lauer (NOAO), D. Fisher (T) (U. of Texas, Austin): "A Near-Infrared Kinematic Survey of Nearby Galaxies: Black Holes and Bulges"	GEM-SQ	1.5	
54.	E. Noyola (T), K. Gebhardt (U. of Texas, Austin), M. Bergmann (): "Looking for Central Black Holes in M54 and M80"	GEM-SQ	0.95	
55.	S. Savaglio, U.S. Lead Scientist for S. Juneau (T) (Herzberg Institute of Astrophysics), S. Savaglio, K. Glazebrook (Johns Hopkins U.), D. Crampton (Herzberg Institute of Astrophysics), R. Abraham (University of Toronto), P. McCarthy (Carnegie Observatories), H. Chen (MIT), D. Le Borgne (University of Toronto): "Star Formation, Dust & Metals in the Redshift Desert (z~1.5)"	GEM-SQ	0.135	
56.	S. Thomas (T) (CTIO), M. Sterzik (ESO), A. Tokovinin, N. Van Der Bliek (CTIO): "Do wide brown dwarfs and low-mass stars companions and their primaries form hierarchical configurations?"	GEM-NQ	0.5	
57.	P. Van Dokkum (Yale U.), M. Kriek (T) (Leiden University), R. Quadri (T) (Yale U.), M. Franx (Leiden Observatory), I. Labbe (), E. Gawiser, D. Marchesini (Yale U.), G. Rudnick (NOAO), P. Lira (Universidad de Chile), G. Illingworth (UC Santa Cruz): "A GNIRS survey of massive galaxies at z~ 2.5: stellar populations, kinematics, and scaling relations in the young Universe"	GEM-SQ	5	
58.	P. Yoachim (T), J. Dalcanton (U. of Washington): "The Dynamics of Thick Disks: Constraining the Early Evolution of Galaxies"	GEM-NQ GEM-SQ	1.5 3	

Kitt Peak National Observatory

For the six months ending July 31, 2005, a total of 72 U.S. scientific programs were awarded time on the KPNO telescopes, including 16 (22%) graduate thesis programs. Telescope(s) scheduled and number of nights awarded are specified in the following tables. (WIYN-SYN = Synoptic/Queue)

Program Type	N	% Total
U.S. Programs (non-Thesis)	56	78%
U.S. Programs (Theses)	16	22%
Total	72	100%

U.S. Programs: Kitt Peak National Observatory – Non-Thesis (56)

	Telescope	Nights
1. M. A'Hearn, T. Farnham, E. Warner (O), C. Lisse (U. of Maryland), B. Mueller, N. Samarasingha (NOAO): "Narrowband Observations of Comet 9P/Tempel 1 in Support of the Deep Impact Mission"	KP-2.1m KP-4m	22 7.5
2. M. A'Hearn, M. Knight (G), R. Swaters (U. of Maryland): "2.1-m SQIID Observations of the Deep Impact Event"	KP-2.1m	7.5
3. G. Aldering, P. Nugent (Lawrence Berkeley National Laboratory), S. Perlmutter (UC Berkeley), L. Wang, R. Thomas, B. Lee, R. Scalzo (Lawrence Berkeley National Laboratory): "IR Observations of Hubble Flow Type Ia Supernovae"	KP-4m	4
4. D. Bersier, J. Rhoads (STScI), A. Rest, R. Smith (CTIO), M. Merrill (NOAO), A. Levan (G) (), A. Fruchter (STScI), J. Urkia (AEFF), J. Hjorth (Copenhagen U.), C. Kouveliotou (NASA Marshall Space Flight Center), J. Castro Ceron (G) (STScI), S. Patel (NASA Marshall Space Flight Center), L. Strolger (STScI), N. Tanvir (University of Hertfordshire): "Gamma-Ray Bursts, their Hosts, and their Supernovae"	KP-4m-TOO KP-2.1m-TOO WIYN-TOO	
5. H. Bond (STScI), O. De Marco (American Museum of Natural History), D. Harmer (O) (NOAO): "Are All Planetary Nebulae Ejected from Binary Stars?"	KP-4m	5
6. M. Brotherton (U. of Wyoming), D. Vanden Berk (Pennsylvania State U.), S. Croom (Anglo-Australian Observatory), A. Diamond-Stanic (G) (Steward Observatory), C. Paul (G) (U. of Wyoming), G. Canalizo (UC Riverside): "Characterizing the Post-Starburst Quasar Population and their Companion Galaxies"	KP-4m	2
7. R. Ciardullo, M. Decesar (U) (Pennsylvania State U.), P. Durrell (Youngstown State University), J. Feldmeier (NOAO): "Candidate Tidal Dwarfs of the M81 Group"	WIYN	3
8. M. Dickinson, C. Papovich (G) (STScI), P. Eisenhardt (U), D. Stern (California Institute of Technology), M. Giavalisco, B. Mobasher, K. Lee (G), C. Kretchmer (G), H. Ferguson (STScI), R. Idzi (G) (Johns Hopkins U.), T. Dahlen, N. Grogan (STScI), H. Yan (California Institute of Technology), G. Morrison (NOAO): "Great Observatories Origins Deep Survey (GOODS)"	KP-4m	10
9. M. Donahue (Michigan State U.), M. Dickinson (NOAO), P. Rosati (ESO), M. Postman (STScI), G. Voit (Michigan State U.): "Harvesting the High Redshift Cluster Candidates from the ROX Survey"	KP-4m	6
10. D. Fadda, F. Marleau, L. Storrie-Lombardi (Spitzer Science Center): "24 (micron) Local Luminosity Function in the Spitzer FLS"	WIYN	2

U.S. Programs: Kitt Peak National Observatory – Non-Thesis (56)	Telescope	Nights
11. X. Fan (Steward Observatory), M. Strauss (Princeton U.), J. Hennawi (UC Berkeley), L. Jiang (G) (Steward Observatory): "A Survey of z~ 6 Quasars from the SDSS"	KP-4m	4
12. J. Feldmeier (NOAO), C. Mihos, H. Morrison, P. Harding (Case Western Reserve U.): "Testing dwarf galaxy formation models using compact groups"	KP-2.1m	6.5
13. J. Feldmeier (NOAO), R. Ciardullo (Pennsylvania State U.), G. Jacoby (WIYN), P. Durrell (Youngstown State University): "Searching for Planetary Nebulae in Ursa Major"	KP-4m	4
14. P. Goudfrooij, R. Chandar, T. Puzia, T. Brown (STScI): "How accurately can we determine Ages and Metallicities of Stellar Systems using Integrated-Light Spectroscopy ?"	KP-2.1m	4
15. R. Green (NOAO), S. Croom (Anglo-Australian Observatory), A. Dey (), D. Norman (), K. Brand (), S. Warren (Imperial College of Science, Technology and Medicine), P. Hall (York University), M. Brown (), B. Jannuzi (), P. Smith (), M. Smith (), G. Tiede (Bowling Green State U.): "A Deep Wide-Field Infrared Survey for QSOs"	KP-4m	4
16. M. Gregg (UC Davis), M. Drinkwater (University of Queensland), A. Karick (UC Davis), S. Phillipps (University of Bristol), B. Jones (Queen Mary College), M. West (), P. Cote (Herzberg Institute of Astrophysics), E. Evstigneeva (G) (University of Queensland), M. Takamiya (), M. Hasegan (G) (Rutgers U.), J. Blakeslee (Johns Hopkins U.), A. Jordan (ESO), E. Peng (Herzberg Institute of Astrophysics): "Ultra Compact Dwarfs and the Evolution of the Virgo Cluster"	WIYN	5
17. F. Hamann, C. Warner (U. of Florida), M. Dietrich (Ohio State U.), L. Watson (U) (U. of Florida): "Quasars and Their Host Galaxies at High Redshifts"	KP-4m	4
18. T. Harrison (New Mexico State U.), G. Benedict (U. of Texas, Austin), H. Harris (US Naval Observatory), B. McArthur (U. of Texas, Austin), R. Ciardullo (Pennsylvania State U.), E. Nelan, H. Bond (STScI), R. Patterson (U. of Virginia): "Precise Distances to Nearby Planetary Nebula from HST/FGS Parallaxes"	KP-4m	6.5
19. J. Hennawi (UC Berkeley), N. Dalal (Institute for Advanced Study), M. Gladders (Carnegie Observatories), X. Fan (Steward Observatory), M. Oguri (Princeton U.), J. Annis, H. Lin, H. Lampeitl (FNAL), M. Strauss (Princeton U.), P. Natarajan (Yale U.): "A Systematic Search for Giant Arcs Behind the Richest Clusters in the Universe"	WIYN	4
20. L. Hillenbrand (California Institute of Technology), M. Robberto (STScI), C. Slesnick (G) (California Institute of Technology): "Completing the Optical Spectroscopic Survey of the Orion Nebula Cluster"	WIYN-2hr	1
21. B. Holden (UC Santa Cruz), D. Kelson (Carnegie Observatories), G. Illingworth (UC Santa Cruz), M. Franx (Leiden Observatory): "Galaxy Populations from Cluster Infall Regions to the Core at z~1"	KP-4m	4
22. A. Hopkins, A. Connolly (U. of Pittsburgh): "A Statistical Measure of Galaxy Evolution"	KP-4m	2
23. J. Huang, M. Ashby, P. Barmby, S. Willner, G. Fazio (Harvard-Smithsonian Center for Astrophysics), D. Rigapoulou (University of Oxford), M. Pahre (Harvard-Smithsonian Center for Astrophysics): "An Unbiased Study of Galaxies at z=3: IR Photometry of Lyman-Break Galaxies with Spitzer"	KP-4m	4
24. C. Johns-Krull (Rice U.), C. Hamilton (Mt. Holyoke College): "Disk-Locking in the Young Cluster NGC 2264"	KP-4m	4
25. S. Kannappan (U. of Texas, Austin), M. Bershady (U. of Wisconsin Madison), E. Barton (Steward Observatory): "Kinematic Tully-Fisher Offsets at z=0 and Beyond"	WIYN	2
26. W. Keel (U. of Alabama), F. Owen (NRAO), N. Miller (Johns Hopkins U.), D. Wang (U. Mass): "Signatures of stellar and gas stripping in the core of Abell 2125"	WIYN	3

U.S. Programs: Kitt Peak National Observatory – Non-Thesis (56)		Telescope	Nights
27.	J. Kennefick (U. of Arkansas): "Study of the Evolution of the Quasar Luminosity Function using IR Imaging"	KP-2.1m	2
28.	S. Lepine, M. Shara (American Museum of Natural History), R. Rich (UCLA): "A search for nearby, very low-mass, ultra-cool halo subdwarfs"	KP-4m	4.5
29.	M. Lopez-Morales (Carnegie Institution of Washington), J. Shaw (U. of Georgia), I. Ribas (IEEC): "First RV-curve of the new low-mass, double-lined, detached eclipsing binary ASAS164755-0844.5"	KP-4m	4
30.	S. Majewski, R. Patterson (U. of Virginia), W. Kunkel (LCO), J. Rhee (Yonsei University), T. Beers (Michigan State U.), V. Smith (U. of Texas El Paso), D. Geisler (Universidad de Concepcion), K. Johnston (Wesleyan U.), J. Crane (G), A. Polak (G), P. Frinchaboy (G) (U. of Virginia), A. Kundu (Michigan State U.), W. Gieren (Universidad de Concepcion), I. Reid (STScI), R. Munoz (G) (U. of Virginia): "Mapping the Structure, Dynamics and Chemistry of the Galactic Halo"	WIYN	4.5
31.	M. Meyer, N. Woolf (Steward Observatory), M. Giampapa (NOAO), L. Ziurys (Steward Observatory), W. Sullivan (U. of Washington), A. Apponi, A. Spitz (Steward Observatory): "Creating a Community of Scholars: Interdisciplinary Graduate Training in Astrobiology"	KP-2.1m	3
32.	D. Meyer, J. Lauroesch (Northwestern U.), K. Roth (Gemini Observatory): "Compact High-Velocity Na I Clouds around M81"	KP-4m	4
33.	R. Millis, M. Buie (Lowell Observatory), E. Chiang (Institute for Advanced Study), J. Elliot, S. Kern (G) (MIT), D. Trilling (U. of Pennsylvania), R. Wagner (G), L. Wasserman, A. Jordan (G) (Lowell Observatory), J. Lovering (U) (UC Berkeley), R. Crudo (U) (Steward Observatory), J. Kane (G) (MIT): "Deep Ecliptic Survey"	KP-4m	8
34.	B. Mobasher (STScI), N. Scoville (California Institute of Technology), D. Thompson (Max Planck Institut fur Astronomie), J. Mould (NOAO), P. Capak (California Institute of Technology), L. Yan (Spitzer Science Center): "Near-IR Survey of the HST-ACS COSMOS 2-Degree Field"	KP-4m	4
35.	B. Mueller (NOAO), F. Vilas (NASA Johnson Space Flight Center), K. Meech (U. of Hawaii), A. Cochran (U. of Texas, Austin), N. Samarasinha (NOAO), Y. Fernandez, A. Delsanti, B. Yang (G) (U. of Hawaii): "Spectroscopic Observations of the Deep Impact Target Comet 9P/Tempel 1"	WIYN	2.5
36.	K. Nandra (NASA Goddard Space Flight Center): "The Special Energy Distributions of AGN: A Shallow Survey of the Elais-N1 Field"	WIYN	4.5
37.	K. Nandra (NASA Goddard Space Flight Center), M. Brotherton (U. of Wyoming): "Bringing in the Last Sheep"	KP-4m	2
38.	D. Nestor (U. of Florida), S. Rao, D. Turnshek (U. of Pittsburgh), F. Hamann (U. of Florida): "Imaging Ultra-Strong Low Redshift Mg2 Absorbers"	WIYN	2
39.	E. O'Sullivan (Harvard-Smithsonian Center for Astrophysics), H. Khosroshahi, L. Jones, T. Ponman, S. Raychaudhury (University of Birmingham): "Multi-wavelength study of local fossil groups"	KP-0.9m	5
40.	F. Owen (NRAO), G. Morrison (NOAO), M. Poletta (UC Davis), G. Smith (UC San Diego), C. Lonsdale (California Institute of Technology), B. Siana (G) (UC San Diego): "Optical/NIR SED's for the Deepest Radio Survey: Determining the Nature of the Ultra-Faint Radio Population"	KP-2.1m KP-4m	7, 4
41.	J. Prochaska (UC Santa Cruz), T. Tripp (U. Mass), R. Dave (Steward Observatory), J. Mulchaey (Carnegie Observatories), H. Chen (MIT): "Surveying the Origin of O VI Gas at Low Redshift"	KP-0.9m	4

U.S. Programs: Kitt Peak National Observatory – Non-Thesis (56)		Telescope	Nights
42.	M. Reed (SW Missouri State U.), S. O'Toole (Dr. Reemis-Sternwarte Bamberg), A. Ulla (Universidad de Vigo), U. Heber (Dr. Reemis-Sternwarte Bamberg), S. Harms (U) (SW Missouri State U.): "Time series spectroscopy of the pulsating subdwarf B star PG1219+534"	KP-4m	4
43.	J. Rhee, I. Ivans (California Institute of Technology), A. McWilliam (Carnegie Observatories): "Chemical Compositions of Newly Discovered Very Metal-Poor Red Giants"	KP-4m	4.5
44.	J. Rhee (California Institute of Technology), T. Beers (Michigan State U.): "A New Search for Very Metal-Poor Giant Stars with [Fe/H] -2.0 in the HK- II Survey"	KP-2.1m	7
45.	J. Rhoads, S. Malhotra (STScI): "The Nature of High Equivalent Width Lyman Alpha Galaxies"	KP-4m	5
46.	S. Robinson (G) (UC Santa Cruz), D. Fischer (San Francisco State U.), M. Ammons (G), G. Laughlin, J. Strader (G) (UC Santa Cruz), K. Kretke (G) (), R. Sareen (G) (San Francisco State U.): "N2K: The Next Two Thousand Metal-Rich Stars"	KP-2.1m	20.5
47.	J. Salzer, A. Jangren, K. Caperton (G) (Wesleyan U.), C. Gronwall (Pennsylvania State U.): "Spectroscopy of KISS Emission-Line Galaxies in and around the Bootes Void"	KP-2.1m	3.5
48.	M. Shara, D. Zurek (O) (American Museum of Natural History): "Ejecta of Z Cam - Linking Novae and Dwarf Novae"	KP-4m	2
49.	P. Tamblyn, W. Merline, C. Chapman, D. Nesvorny (Southwest Research Institute): "Visible Light Curves of Exceptionally Young Asteroids"	KP-2.1m KP-0.9m	8.5, 6
50.	D. Trilling (Steward Observatory), A. Rivkin (MIT), T. Spahr (Harvard-Smithsonian Center for Astrophysics), C. Hergenrother (O) (Steward Observatory), S. Kortenkamp (PSI): "A search for L5 Trojan asteroids of Mars"	KP-0.9m	6
51.	S. Veilleux (U. of Maryland): "Maryland Summer School 2005"	KP-2.1m	3
52.	S. Veilleux, R. Swaters (U. of Maryland), D. Andersen (Herzberg Institute of Astrophysics), M. Bershady (U. of Wisconsin Madison), M. Verheijen (University of Groningen), K. Westfall (G) (U. of Wisconsin Madison): "Near-Infrared Imaging of Disk Galaxies with Stellar Velocity Fields"	KP-2.1m	3.5
53.	S. Veilleux, D. Rupke (U. of Maryland): "AGN-driven Superwinds in a Sample of Seyferts that is NOT Infrared- Biased"	KP-4m	3
54.	G. Williger (Johns Hopkins U.), R. Dave (Steward Observatory), R. Clowes (University of Central Lancashire), M. Graham (Imperial College of Science, Technology and Medicine), C. Haines (University of Central Lancashire), J. Liske (University of Edinburgh), L. Campusano (Universidad de Chile), O. Kuhn (UKIRT): "A test of the foreground proximity effect at z=1.2"	KP-4m	2
55.	B. Willman, M. Blanton (NYU), D. Martinez-Delgado (Max Planck Institut fur Astronomie), D. Hogg (NYU), C. Rockosi (): "Two New Ultra-Faint Milky Way Companions: Not Your Average "Building Blocks""	KP-4m	3.5
56.	S. Wolff (NOAO), S. Strom (): "Probing High Mass Star Formation via Observations of Stellar Rotation"	WIYN	4
KPNO U.S. Thesis Programs (16)		Telescope	Nights
57.	L. Allen, J. Hora, L. Chavarria (T), S. Megeath (Harvard-Smithsonian Center for Astrophysics): "Deep Near-IR Imaging of massive star forming regions imaged with Spitzer"	KP-2.1m	9

KPNO U.S. Thesis Programs (16)		Telescope	Nights
58.	J. Baldwin (Michigan State U.), R. Williams (STScI), E. Jenkins (Princeton U.), E. Pellegrini (T) (Michigan State U.), M. Phillips (LCO): "Chemical Abundance Discrepancies in Nebulae: A high dispersion UV/optical spectroscopic study."	KP-4m	4
59.	D. Clark (T), S. Eikenberry (U. of Florida), B. Brandl (Sterrewacht Leiden): "Search for Infrared Counterparts to X-Ray Point Sources in M 51, NGC 4559 and NGC 5253"	KP-4m	4
60.	R. De Naray (T), S. McGaugh (U. of Maryland), E. De Blok (University of Wales, Cardiff), A. Bosma (Laboratoire d'Astrophysique de Marseille): "A Comprehensive Study of the Dark Matter Halos of Low Surface Brightness and Dwarf Galaxies"	KP-2.1m WIYN	4, 5
61.	P. Green, W. Barkhouse, D. Kim (Harvard-Smithsonian Center for Astrophysics), J. Silverman (), M. Kim (T) (Harvard-Smithsonian Center for Astrophysics), P. Smith (Steward Observatory), Z. Ivezić (U. of Washington), B. Jannuzi (), B. Wilkes (Harvard-Smithsonian Center for Astrophysics), E. Romero-Colmenero (South African Astronomical Observatory), A. Vikhlinin (Harvard-Smithsonian Center for Astrophysics): "The Fraction of Galaxies with AGN from ChaMP"	WIYN	3
62.	S. Langan (T), E. Schmidt (U. of Nebraska): "Emission Line Profiles in Short Period Type II Cepheids"	KP-4m	4
63.	Y. Lin (T), J. Mohr (U. of Illinois Urbana-Champaign): "Evolution of the Halo Occupation Distribution"	KP-2.1m	3.5
64.	L. Mundy, N. Chapman (T), S. Lai (U. of Maryland), N. Evans, II (U. of Texas, Austin): "Extending the wavelength coverage of Spitzer in the Serpens and Ophiuchus Clouds"	KP-4m	4
65.	T. Oswalt, M. Rudkin (T) (Florida Institute of Technology), N. Hambly (University of Edinburgh), N. Silvestri, S. Hawley (U. of Washington): "Calibrating the Chromospheric Activity - Age Relation for Low-Mass Main Sequence Stars"	KP-4m	5
66.	D. Rafferty (T), B. McNamara (Ohio U.), P. Nulsen (), M. Wise (): "Supergiant X-ray Cavities and AGN Feedback in a Distant Galaxy Cluster"	WIYN	2
67.	S. Rao, M. Belfort-Mihalyi (T), D. Turnshek (U. of Pittsburgh), E. Monier (SUNY, Stony Brook), D. Nestor (U. of Florida): "Deep Imaging of Galaxies in SDSS QSO Fields with High N(HI) Intervening Absorbers"	KP-2.1m WIYN	7, 3
68.	J. Robinson (T), B. Wilking (U. of Missouri St. Louis), M. Meyer (Steward Observatory): "Unveiling the Low Mass IMF in the Rho Ophiuchi Cloud"	WIYN	2
69.	C. Schwartz (T), C. Martin (UC Santa Barbara): "Quantifying Stellar Feedback on the Interstellar Medium in Nearby Galaxies: H(alpha) Kinematics in Normal Galaxies"	KP-4m	5.5
70.	S. Vogel, R. Shetty (T), M. Lavigne (G), E. Ostriker (U. of Maryland): "Spiral Arm Streaming in Spiral Galaxies"	KP-4m	3.5
71.	K. Walsh (T), D. Richardson (U. of Maryland): "Lightcurve study of Small Main Belt Asteroids"	KP-2.1m	8
72.	S. Wang (T), L. Looney (U. of Illinois Urbana-Champaign), R. Klein (Max-Planck Institute fur extraterrestrische Physik): "Understanding the Cluster Environment Around Forming Massive Stars"	KP-2.1m	5.5

Cerro Tololo Inter-American Observatory

CTIO Observing Programs Semester 2005-A

Program Type	<i>N</i>	% Total
U.S. Programs (non-Thesis)	50	75%
U.S. Programs (Theses)	17	25%
Total	67	100%

For the six months ending July 31, 2005, 67 U.S. scientific programs have been awarded time on CTIO telescopes; of these 17 (25%) are thesis programs. Telescope(s) scheduled and number of nights awarded are specified in the following tables. (CT = Curtis-Schmidt; ToO = Target of Opportunity program)

U.S. Programs: Cerro Tololo Inter-American Observatory – Non-Thesis (50)	Telescope	Nights
1. G. Aldering, P. Nugent (Lawrence Berkeley National Laboratory), S. Perlmutter (UC Berkeley), L. Wang, R. Thomas, B. Lee, R. Scalzo (Lawrence Berkeley National Laboratory): "IR Observations of Hubble Flow Type Ia Supernovae"	CT-4m	2
2. S. Barnes (Lowell Observatory): "Rotation rates of low-mass stars in the open cluster NGC 3532"	CT-1.0m-SVC	5.2
3. D. Bersier, J. Rhoads (STScI), A. Rest, R. Smith (CTIO), M. Merrill (NOAO), A. Levan (G) (), A. Fruchter (STScI), J. Urkia (AEFF), J. Hjorth (Copenhagen U.), C. Kouveliotou (NASA Marshall Space Flight Center), J. Castro Ceron (G) (STScI), S. Patel (NASA Marshall Space Flight Center), L. Strolger (STScI), N. Tanvir (University of Hertfordshire): "Gamma-Ray Bursts, their Hosts, and their Supernovae"	CT-4m-TOO	
4. P. Bouchet (CTIO), J. Danziger (Osservatorio Astronomico di Trieste), N. Suntzeff (CTIO), E. Dwek (NASA Goddard Space Flight Center), O. Hernandez (O) (Talca University): "Dust in a large sample of Types I & II Supernovae"	SOAR-SVC	1.6
5. M. Briley (NSF), G. Smith (UC Santa Cruz): "The Homogeneity of Light Elements in the Sagittarius Dwarf Globular Clusters Terzan 7 and Arp 2"	CT-4m	4
6. T. Brooke (California Institute of Technology), N. Evans, II, K. Young (G) (U. of Texas, Austin): "K Band Spectra of Young Stars in Cham II - A Spitzer C2D Legacy Target Region"	SOAR-SVC	2
7. J. Cenarro, M. Beasley, J. Brodie (University of California Observatories), N. Cardiel (), J. Strader (G) (University of California Observatories): "K Band Integrated Spectroscopy of Galactic Globular Clusters"	SOAR-SVC	4
8. J. Colbert, H. Teplitz (Spitzer Science Center), G. Williger (Johns Hopkins U.), P. Palunas (U. of Texas, Austin): "Measuring the Mass, SFR, and Ages of Galaxies Within the z=2.38 Filament"	CT-4m	3
9. A. Crotts (Columbia U.), S. Heathcote (SOAR), S. Lawrence (Hofstra University), B. Sugerman (STScI), N. Suntzeff (), P. Bouchet (CTIO): "Evolution of SN 1987A into a Supernova Remnant"	CT-4m	1
10. C. Deliyannis (Indiana U.), B. Anthony-Twarog, B. Twarog (U. of Kansas): "Spectroscopic Analysis of NGC 6253: The Most Metal-Rich Open Cluster?"	CT-4m	5

U.S. Programs: Cerro Tololo Inter-American Observatory – Non-Thesis (50)		Telescope	Nights
11.	Y. Fernandez, D. Jewitt (U. of Hawaii): "Monitoring the Anomalous Photometric Behavior of Comet 2P/Encke"	CT-1.0m-SVC	5.1
12.	L. French, I. Pokharel (U) (Illinois Wesleyan U.): "Physical Studies of Primitive Asteroids"	CT-1.0m	8
13.	M. Gladders, A. Dressler, A. Oemler (Carnegie Observatories): "Cluster Building and Galaxy Evolution"	CT-4m	4
14.	P. Goudfrooij, R. Chandar, T. Puzia, T. Brown (STScI): "How accurately can we determine Ages and Metallicities of Stellar Systems using Integrated-Light Spectroscopy ?"	CT-1.5m-SVC	2
15.	C. Grillmair, O. Dionatos (G) (Spitzer Science Center), J. Bahcall (Institute for Advanced Study), D. Geisler, W. Gieren (Universidad de Concepcion), E. Grebel (Universitat Basel), K. Johnston (Wesleyan U.), S. Majewski, R. Patterson (U. of Virginia), D. Spergel, S. Tremaine (Princeton U.): "Tracing the Tidal Tails of NGC 5897"	CT-4m	4
16.	J. Grindlay, P. Edmonds, J. McClintock, P. Zhao, M. Garcia (Harvard-Smithsonian Center for Astrophysics), A. Cool (San Francisco State U.), S. Wachter, D. Hoard (Spitzer Science Center), P. Green, B. Wilkes, J. Drake, V. Kashyap (Harvard-Smithsonian Center for Astrophysics), C. Bailyn (Yale U.), H. Cohn (Indiana U.), M. Van Den Berg (Harvard-Smithsonian Center for Astrophysics), J. Homan (MIT), S. Laycock (Harvard-Smithsonian Center for Astrophysics): "ChaMPlane: Measuring the Faint X-ray Binary and Stellar X-ray Content of the Galaxy"	CT-4m	5
17.	L. Hebb (G), H. Ford, D. Ardila (Johns Hopkins U.), D. Minniti (Pontificia Universidad Catolica de Chile), D. Golimowski (Johns Hopkins U.), M. Clampin (NASA Goddard Space Flight Center), J. Krist (Jet Propulsion Laboratory), K. Sahu, W. Sparks, L. Petro (STScI): "Photometric Monitoring of AU Mic: Searching for Planetary Transits"	CT-1.0m	7.5
18.	L. Hebb (G) (Johns Hopkins U.), S. Hodgkin (University of Cambridge), S. Aigrain (), E. Moraux, G. Gilmore (University of Cambridge), J. Bouvier (LAOG): "Empirical Mass Determination for Transiting Brown Dwarfs and Very Low Mass Stars"	CT-4m	6
19.	T. Hillwig (Valparaiso U.): "The Binarity of Central Stars of Planetary Nebulae in the Southern Hemisphere"	CT-1.0m-SVC	5.4
20.	T. Huard, P. Myers (Harvard-Smithsonian Center for Astrophysics), L. Crews (University of Tennessee, Martin), D. Murphy (Carnegie Institution of Washington): "Infrared Reddening Law: Characterizing the dust grain populations of southern cores"	CT-4m	6
21.	D. Hunter (Lowell Observatory), V. Rubin (Carnegie Institution of Washington), S. D'Odorico (), R. Swaters, S. McGaugh (U. of Maryland): "Star Formation in the Giant Low Surface Brightness Galaxy ESO 323-G064"	SOAR-SVC	1
22.	A. Landolt (Louisiana State U.), G. Preston (Carnegie Observatories): "A Study of Variability Among the Blue Metal Poor Stars"	CT-0.9m	13
23.	S. Laycock, J. Grindlay, P. Zhao, M. Van Den Berg, J. Hong (Harvard-Smithsonian Center for Astrophysics), H. Cohn (Indiana U.), E. Persson (Carnegie Observatories): "Uncovering 90% of the X-ray Binaries in the Galactic Bulge Cusp."	CT-4m	4
24.	M. Lopez-Morales (Carnegie Institution of Washington), J. Shaw (), I. Ribas (IEEC): "R and I band Light Curves for 20 New Double-Lined, Detached, Eclipsing Binaries with Stars < 1M_"	CT-1.0m	16
25.	S. Majewski, R. Patterson (U. of Virginia), W. Kunkel (LCO), J. Rhee (Yonsei University), T. Beers (Michigan State U.), V. Smith (U. of Texas El Paso), D. Geisler (Universidad de Concepcion), K. Johnston (Wesleyan U.), J. Crane (G), A. Polak (G), P. Frinchaboy (G) (U. of Virginia), A. Kundu (Michigan State U.), W. Gieren (Universidad de Concepcion), I. Reid (STScI), R. Munoz (G) (U. of Virginia): "Mapping the Structure, Dynamics and Chemistry of the Galactic Halo"	CT-4m	5

U.S. Programs: Cerro Tololo Inter-American Observatory – Non-Thesis (50)		Telescope	Nights
26.	R. Marzke, A. Danielson (G) (San Francisco State U.), M. Hudson (University of Waterloo): "The Faint End of the Galaxy Luminosity Function in Nearby Groups"	CT-4m	3
27.	R. Mason (NOAO), Y. Pendleton, J. Keane, J. Chiar, K. Ennico (NASA Ames Research Center): "Dust and Ice Chemistry in Quiescent Molecular Clouds"	SOAR-SVC	0.25
28.	M. McSwain (Yale U.), D. Gies (Georgia State U.): "The Evolutionary Status of Be Stars"	CT-4m	2
29.	K. Meech (U. of Hawaii), D. Hamilton (U. of Maryland), Y. Fernandez, J. Pittichova, L. Dundon (G), N. Moskovitz (G), B. Yang (G) (U. of Hawaii): "Multi-band Imaging of Deep Impact Target Comet 9P/Tempel1"	CT-4m CT-0.9m	2.5, 2
30.	R. Millis, M. Buie (Lowell Observatory), E. Chiang (Institute for Advanced Study), J. Elliot, S. Kern (G) (MIT), D. Trilling (U. of Pennsylvania), R. Wagner (), L. Wasserman, A. Jordan (G) (Lowell Observatory), J. Lovering (U) (UC Berkeley), R. Crudo (U) (Steward Observatory), J. Kane (G) (MIT): "Deep Ecliptic Survey"	CT-4m	4
31.	B. Mobasher (STScI), N. Scoville (California Institute of Technology), D. Thompson (Max Planck Institut fur Astronomie), J. Mould (NOAO), P. Capak (California Institute of Technology), L. Yan (Spitzer Science Center): "Near-IR Survey of the HST-ACS COSMOS 2-Degree Field"	CT-4m	4
32.	H. Morrison, P. Harding (Case Western Reserve U.), M. Mateo (U. of Michigan), E. Olszewski (Steward Observatory), A. Helmi (Kapteyn Astronomical Inst.), K. Freeman, J. Norris (Australian National U.): "Building up the Milky Way halo via accretion of small satellites"	CT-4m	5
33.	K. Nandra (NASA Goddard Space Flight Center), M. Brotherton (U. of Wyoming): "Bringing in the Last Sheep"	CT-4m	1
34.	B. Nelson (California Institute of Technology), M. Malkan (UCLA): "Refining the Details of Thermal Dust Reverberation in AGN"	CT-1.3m	0.3
35.	S. Rey, J. Rhee (California Institute of Technology), Y. Lee (Yonsei University), A. Walker (CTIO): "Star Formation History of Centauri"	CT-4m	3
36.	R. Rich, D. Reitzel (UCLA): "Mapping the dynamics of the Galactic bulge using M giants from the 2MASS survey"	CT-4m	3
37.	N. Ridge (Harvard-Smithsonian Center for Astrophysics), J. Alves (ESO), J. Foster (G), A. Goodman (Harvard-Smithsonian Center for Astrophysics): "The COMPLETE Density Structure of Star Forming Cores: IR-extinction mapping in Ophiuchus"	CT-4m	4
38.	W. Ryan, E. Ryan (New Mexico Institute of Mining & Technology): "Confirmation of the Asteroid Binary System 3703 Volkonskaya and Search for Additional Binaries in the Vesta Family"	CT-1.0m	11
39.	H. Schwarz (NOAO), W. Nowotny (Universitat Wien (University of Vienna)), F. Kerschbaum (Universitat Wien (University of Vienna)), H. Olofsson (Stockholm Observatory): "A census of AGB stars in nearby galaxies."	SOAR-SVC	4
40.	J. Sokoloski, S. Kenyon (Harvard-Smithsonian Center for Astrophysics), C. Hedrick (U) (U. of Nebraska): "The Outbursts of Symbiotic Binary Stars"	CT-1.3m	1.2
41.	K. Stassun (Vanderbilt U.), R. Mathieu (U. of Wisconsin Madison), L. Vaz (UFMG), J. Valenti (STScI): "A Spectroscopic and Photometric Study of the First Substellar Pre-Main- Sequence Eclipsing Binary System"	CT-1.3m	8.6

U.S. Programs: Cerro Tololo Inter-American Observatory – Non-Thesis (50)		Telescope	Nights
42.	G. Stringfellow (U. of Colorado), P. McGehee (G) (New Mexico State U.), F. Walter (SUNY, Stony Brook): "Understanding the Role of Accretion Processes in Driving Outbursts in Young Stellar Objects"	SOAR-SVC	6
43.	N. Suntzeff (CTIO), K. Krisciunas (U. of Notre Dame), M. Hamuy (LCO), M. Phillips (Carnegie Observatories), J. Maza (Universidad de Chile), E. Persson (Carnegie Observatories), M. Roth, N. Morel (LCO), W. Freedman (Carnegie Observatories), G. Folatelli, W. Krzeminski (LCO): "The K-band Behavior of Nearby Supernovae"	CT-1.3m	6
44.	T. Tyson, D. Wittman (UC Davis), I. Dell'Antonio (Brown U.): "Deep Lens Survey"	CT-4m	5
45.	M. West (U. of Hawaii), P. Cote, E. Peng (Herzberg Institute of Astrophysics), J. Blakeslee (Johns Hopkins U.), A. Jordan (ESO), M. Gregg (UC Davis), M. Takamiya (U. of Hawaii): "The Galactic Globular Cluster System"	CT-0.9m	14
46.	A. Whiting (CTIO), K. Davidson (U. of Minnesota), D. DePoy (Ohio State U.), R. Humphreys (U. of Minnesota), N. Smith (U. of Colorado), N. Suntzeff (CTIO): "Photometric Monitoring of Eta Carinae"	CT-1.3m	0.75
47.	A. Whiting, N. Suntzeff (CTIO), L. Schmidtobreick (ESO), A. Layden (Bowling Green State U.), N. Van Der Bliet, R. Smith (CTIO), R. Students (U) (): "Undergraduates and Exploding Stars"	CT-0.9m-PRE	7
48.	K. Williams (Steward Observatory), M. Bolte (UC Santa Cruz): "Formation and dynamical evolution of open cluster white dwarfs"	CT-4m	4
49.	L. Young, E. Young (Southwest Research Institute), C. Olkin (Southwest Research Corporation), R. French (Wellesley College), B. Gregory (NOAO): "Measuring Charon's radius by stellar occultation"	CT-4m CT-0.9m	1, 1
50.	S. Zepf (Michigan State U.), K. Rhode (Wesleyan U.), D. Geisler (Universidad de Concepcion), A. Kundu (Michigan State U.), T. Maccarone (University of Amsterdam): "Probing the Global Formation History of NGC 4594 (The Sombrero)"	CT-4m	2
CTIO U.S. Thesis Programs (17)		Telescope	Nights
51.	T. Beers (Michigan State U.), N. Christlieb (Hamberger Sternwarte), H. Smith (Michigan State U.), S. Rossi (IAGUSP), N. De Lee (T) (Michigan State U.): "BVRI and UBV Photometry of Metal-Poor and Horizontal-Branch Stars in the Galactic Halo"	CT-0.9m-SVC	14
52.	R. Blum (CTIO), E. Figueredo (T) (), A. Damineli (IAGUSP), P. Conti (U. of Colorado): "A Near Infrared Investigation of Galactic Giant H II Regions"	CT-4m	2
53.	R. Ciardullo, K. Herrmann (T) (Pennsylvania State U.): "The Planetary Nebula System of M83"	CT-4m	4
54.	D. Clark (T), S. Eikenberry (U. of Florida), B. Brandl (Sterrewacht Leiden): "Search for Infrared Counterparts to X-Ray Point Sources in M 51, NGC 4559 and NGC 5253"	CT-4m	1
55.	M. Edwards (T), S. Eikenberry (U. of Florida): "Emission Line Search to Probe for Massive Stars Associated with SGRs"	CT-4m	3
56.	R. Grouchy (T), R. Buta (U. of Alabama): "Spectroscopic Properties of Nonbarred Ringed Galaxies"	SOAR-SVC	6
57.	H. Hsieh (T), D. Jewitt (U. of Hawaii): "Search for Comet-Like Activity in Selected Main-Belt Asteroids"	CT-1.0m	11
58.	J. Kenefick, S. Bursick (T) (U. of Arkansas), E. Monier (SUNY, Stony Brook), M. Smith (CTIO), P. Osmer (Ohio State U.): "Refining the BTC40 Search for $z > 4.8$ Quasars Using IR Imaging."	CT-4m	2
59.	D. Kocevski (T), H. Ebeling, R. Tully (U. of Hawaii), C. Mullis (U. of Michigan): "Mapping the Galaxy Cluster Distribution Behind the Galactic Plane"	SOAR-SVC	0.3

CTIO U.S. Thesis Programs (17)		Telescope	Nights
60.	T. Oswalt, M. Rudkin (T) (Florida Institute of Technology), N. Hambly (University of Edinburgh), N. Silvestri, S. Hawley (U. of Washington): "Calibrating the Chromospheric Activity - Age Relation for Low-Mass Main Sequence Stars"	CT-0.9m-SVC	5
61.	B. Reipurth (U. of Hawaii), R. Chini (Ruhr Universitat, Bochum), K. Brede (T) (U. of Hawaii): "A first unbiased NIR survey toward the R Cr A molecular cloud"	CT-4m	1
62.	R. Romani (Stanford U.), S. Healey (T), P. Michelson (Stanford University), J. Ulvestad (NRAO): "A Southern Gamma-ray Blazar Survey"	SOAR-SVC	2
63.	S. Sheppard (Carnegie Institution of Washington), J. Elliot, S. Kern (G), M. Person (T), A. Gulbis (MIT): "Precise Astrometry for Predicting Kuiper Belt Object Occultations"	CT-1.0m-SVC	4.6
64.	C. Slesnick (T), L. Hillenbrand, J. Carpenter (California Institute of Technology): "A Search for Pre-Main Sequence Objects in the Upper Scorpius OB Association"	CT-4m	5
65.	B. Uzpen (T), C. Kobulnicky (U. of Wyoming): "Discovery of Proto-Planetary Debris Disks in a Distance Limited Sample"	CT-4m	2
66.	P. Van Dokkum (Yale U.), P. Lira (Universidad de Chile), R. Quadri (T), E. Gawiser (Yale U.), E. Treister (G) (Universidad de Chile), D. Christlein (I), M. Franx (Leiden University), C. Urry (Yale U.): "The population of K-selected galaxies at $2 < z < 3$ "	CT-4m	4
67.	P. Zhao, J. Grindlay, J. Hong, X. Koenig (T), S. Laycock, M. Van Den Berg (Harvard-Smithsonian Center for Astrophysics), H. Cohn, P. Lugger, A. Rogel (G) (Indiana U.): "ChAMPlane Survey: Spectroscopy and Calibration Follow-up"	CT-0.9m-SVC	2

Time Awarded at the Hobby-Eberly Telescope at McDonald Observatory

U.S. Observing Programs: HET - Non-Thesis (4)		Telescope	Nights
1.	W. Herbst (Wesleyan U.), C. Hamilton (Five Colleges), C. Johns-Krull (Rice U.), R. Mundt, C. Bailer-Jones (Max Planck Institut fur Astronomie): "High Resolution Spectroscopy of KH 15D During Its Bright Phase"	HET	1.1
2.	T. Hillwig (Valparaiso U.), D. Gies (Georgia State U.), H. Marshall (MIT), M. Rupen, A. Mioduszewski (NRAO), L. Lopez (G) (MIT): "Spectroscopic Monitoring of the Relativistic Jets, Accretion Disk, and Mass Donor Star in the Microquasar SS 433"	HET	2.8
3.	B. Pritzl, K. Venn (Macalester College): "Elemental Abundances In Three Candidate Extragalactic Globular Clusters"	HET	3
4.	G. Wegner (Dartmouth College), R. Saglia, J. Thomas (G) (Max Planck Institut fur Astronomie): "The dynamical structure of flattened ellipticals in the Coma cluster"	HET	3.2

U.S. Theses: HET (1)		Telescope	Nights
5.	J. Orosz, A. Bayless (T) (San Diego State U.): "Dynamical masses and radii for the component stars in the K7V+brown dwarf binary 2MASS 0516288+260738"	HET	1

Time awarded at the Multiple Mirror Telescope

U.S. Programs: MMT – Non-Thesis (4)		Telescope	Nights
1.	D. Gies (Georgia State U.), T. Hillwig (Valparaiso U.), P. Wiita (Georgia State U.): "The Donor Star Spectrum in SS 433"	MMT-TBD	1
2.	C. Kochanek (Ohio State U.), P. Eisenhardt (CalTech-JPL), T. Heckman (Johns Hopkins U.), C. Martin, B. Soifer (California Institute of Technology), D. Weedman (Cornell U.), B. Jannuzi, A. Dey (NOAO), J. Shields (Ohio U.): "AGES: The AGN and Galaxy Evolution Survey"	MMT	2
3.	V. Kulkarni (U. of South Carolina), P. Khare (Utkal University), J. Lauroesch (Northwestern U.), J. Bechtold (Steward Observatory), D. York (U. of Chicago), A. Crotts (Columbia U.), O. Nakamura (University of Nottingham): "The Evolution of Metals and Dust in Damped Lyman-alpha Quasar Absorbers"	MMT	2
4.	R. Mathieu (U. of Wisconsin Madison), I. Platais (Johns Hopkins U.), D. Latham, G. Torres, A. Szentgyorgyi (Harvard-Smithsonian Center for Astrophysics): "The WIYN Open Cluster Study: New Astrophysics from Old Open Clusters"	MMT	2

Time Awarded at the W.M. Keck Observatory Telescopes under the Telescope System Instrumentation Program (TSIP)

U.S. Programs: Keck Telescopes (5)		Telescope	Nights
1.	J. Bechtold (Steward Observatory), B. Jannuzi (NOAO): "The IGM and the Distribution of Galaxies at $z \sim 1$ "	Keck-II	1
2.	A. Daane (G), J. King (Clemson U.): "Neutron Capture Abundances and the Origin of Blue Stragglers in M71"	Keck-I	1
3.	M. Dickinson (NOAO), R. Ram-Chary (Spitzer Science Center), D. Elbaz (Commissariat a l'Energie Atomique), D. Stern (CalTech-JPL), H. Ferguson, M. Giavalisco, B. Mobasher, L. Moustakas (STScI), N. Grogin (Johns Hopkins U.): "A survey of galaxy mass assembly at $1 < z < 3$ via faint GOODS 24(micron) sources"	Keck-I Keck-II	1, 1
4.	P. Kalas, J. Graham (UC Berkeley), M. Clampin (NASA Goddard Space Flight Center): "Keck AO imaging of a newly discovered debris disk surrounding a nearby F5V star"	Keck-II	1
5.	J. Monnier (U. of Michigan), P. Tuthill (U. of Sydney): "Mid-IR sizes of YSO disks: Precision calibration using interferometry"	Keck-I	2
U.S. Theses (1)		Telescope	Nights
6.	L. Prato (Lowell Observatory), C. Bender (T), G. Schaefer (G), M. Simon (SUNY, Stony Brook): "Dynamical Masses of Pre-Main-Sequence and Brown Dwarf Binaries"	Keck-II	1