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Introduction

With this edition of the Kitt Peak Tenant Newsletter we will update you on a range of items of interest to all of the observatories that share the top of Kitt Peak, also known as Iolkam Duag (or Ioligam Doag) to the people of the Tohono O'odham Nation. Please feel free to ask us questions about any of the items covered. We are also interested in hearing about any concerns you would like us to address and/or whether we should be working to schedule another tenants meeting like the one we held in the fall of 2006.

Buell T. Jannuzi, Director KPNO, and John Dunlop, Facilities Manager.

NOAO Update

NOAO will have a new Director, Dr. David Silva, starting July 7, 2008. Read more in the recent NOAO news release, <http://www.noao.edu/news/>. After assisting Dr. Silva with the transition into his new duties, Interim Director Dr. Todd Boroson is looking forward to a long awaited sabbatical.

KPNO Update

Kitt Peak National Observatory is celebrating its 50th anniversary!

On March 1, 1958, the NSF announced that Kitt Peak would be the site of the national observatory. In June 1959, Mr. Arlo Landolt from Indiana (now Dr. Landolt at Louisiana State Univ.) became the first graduate student to use Kitt Peak for his thesis research. Observing with a 16-inch telescope, he enjoyed a small trailer for sleeping accommodations. On March 15, 1960, Kitt Peak National Observatory was dedicated. Over fifty years the observatory has enabled important discoveries, advances in the design of telescopes and instruments, and the training of many astronomers. We are looking forward to including you in the various celebrations that will start this year and continue into 2010, the 50th anniversary of the dedication of the Observatory. The extended timeline allows us to hold a series of events to include all the diverse groups that have been critical to the success of all the observatories hosted by the Tohono O'odham Nation.

One of the events we are discussing with representatives of both the Schuk Toak District and Tohono O'odham National Legislative Councils is the next Kitt Peak Open house for members of the Tohono O'odham Nation. This next open house, like the seven that we have had in the previous decades, is a chance for all of us involved in astronomical research and education to share what we do with the Tohono O'odham people and for them to share their culture and beliefs with us. We will be sending updates regarding this event in the next few months and we hope to involve all of the observatories in some manner in the celebration.

We are discussing plans for other celebrations with the Tohono O'odham Nation and our own staff in order to benefit from their ideas about how we should celebrate the anniversary of the landmark concept that there be a National Observatory open to all astronomers based on the merit of their scientific proposals. We will benefit from the guidance of a steering committee set up specifically to consider the range of events that should be organized. While additional members might be added to this committee, it already includes the following

volunteers: Rich Fedele (NOAO/PAEO), Buell Jannuzi (NOAO/KPNO), Bill Livingston (NSO), Jennifer Lotz (NOAO), Vera Rubin (Carnegie Inst. of Washington), Bill Schoening (NSO), Steve Strom (NOAO), and Karen Wilson (NOAO). Please send your suggestions regarding how we should be celebrating our 50th to the chair of the steering committee, Elizabeth Alvarez (ealvarez@noao.edu) or to any of the members of the steering committee, and watch the NOAO web site for updates in the months ahead.

NSF Senior Review and the ReSTAR Report

The NSF Senior Review recommendations regarding Kitt Peak and Kitt Peak National Observatory were quite favorable, including recognition of the importance of all our facilities (KPNO and the tenant observatories) to scientific research and science education. We appreciate the submissions that were made to the SR by many of the tenant observatories. Among many recommendations, the SR advocated investment of funds to address issues of deferred maintenance and modernization for 1-m to 4-m class observatories and for continued instrumentation partnerships between Universities and NOAO.

In response to the recommendation for renewal of our infrastructure, we have begun several modernization projects for the observatory and mountain infrastructure. You can read about some of these projects, including a new all-sky camera, in the most recent edition of the NOAO Newsletter, <http://www.noao.edu/noao/noaonews/mar08/pdf/>.

Additional information about the Senior Review and NOAO can be found at the following:

<http://www.noao.edu/dir/seniorreview/>

<http://www.noao.edu/noao/noaonews/dec06/pdf/> (the Directors office article)

You are also likely to be interested in the report of the *Committee for Renewing Small Telescopes for Astronomical Research* (available off of the main NOAO home page) and Dr. Todd Boroson's Director's Office article in the March newsletter, "ReSTAR – An Exercise in Defining Community Needs", in which you can learn how the ReSTAR report will serve as a blue-print for the portion of the "System" of capabilities we want available to the entire U.S. community. The anticipated investment in new instruments and capabilities provides opportunities for all of our facilities in the years ahead.

Mountain and Facility Operations

The KPNO Facility staff continues their efforts to improve mountain operations and enhance the mountain wide infrastructure to benefit all tenant facilities on Kitt Peak. Efforts have been oriented toward repairing roadways and the cargo transportation system. Other infrastructure repairs included the inspection and cleaning of the main water storage and pressure tanks. With the completion of the Senior Review, the KPNO facilities group has been able to replace critical staff and devote appropriate resources to the infrastructure work.

Updates on various Tenant Fees

A review of the Consumer Price Index shows that by December, 2007, there had been a total increase of 15.5% over the last 5 years. While this would equate to an average increase of 3.1% per year, ongoing cost saving efforts by the facilities staff have helped to reduce the cost of providing various services and reduced the demand for annual fee increases. Please note that the annual Joint Usage and Shuttle Participation Fees will be assessed on an upcoming invoice and any remaining increases will be effective April 1, 2008. Each of the various Kitt Peak Fees is identified below with their FY08 increases, if any, noted.

Mirror Re-coatings

There will be no change in the current charge for re-coating mirrors in the chambers on Kitt Peak. Over the last few years we have been able to do significant upgrades to the re-coating facilities on Kitt Peak to improve performance and reduce operating costs. The ongoing improvements to the system have increased the coating uniformity and performance of the chamber. We continue to identify and plan for upgrades at both chambers to enhance their operation and we are exploring the feasibility to incorporate other coating methods.

Joint Usage Fees (JUF)

In FY03, the fee was \$3.56 and in FY06 & 07 they were held at \$3.40. In mid 2007, NOAO submitted a proposed rate of \$3.80 to the NSF for approval as the upper limit for fiscal year 2008. Final costs for the prior year have now been reviewed and it has been determined that the **FY08 rate will increase by 5.8% to \$3.60**. This should provide sufficient funds to maintain and operate the infrastructure support system and planned infrastructure projects.

Shuttle Participation Fee

Based upon the current participating organizations, **the FY08 fee has been set at \$4.10** (per square foot of building space). This rate is an increase of ~17% over the FY06 & 07 levels and returns it to the level charged in FY05. The unanticipated sharp increases in fuel costs and bus repairs have caused the shuttle operating expenses to go up significantly over the past few years and a maximum of \$4.50 had been approved by the NSF for the year. Based upon the current US Government mileage reimbursement rate of ~\$0.55 per mile, this system is very cost effective for tenant organizations to participate in. The system provides transportation for participating organizational staff and their visitors to/from Kitt Peak and Tucson with the operational costs shared on an actual building square footage basis with no minimum charge. Additional tenant participation would help to reduce the fee.

Meal Charges

There will be no increase in the daily meal charges for FY08. The costs will remain the same as in FY06 and FY07. A review of the usage and costs over the past year indicates that the current charges are recovering the operational costs associated with dining services. Should the current meal options be increased or expanded then costs would be adjusted as appropriate with the rates reviewed on a regular basis.

Lodging Rates

The base FY08 Lodging Rate will increase from \$75 to \$80. This equates to an increase of ~ 6% over the rate set in FY06. Reviews of the usage and costs over the past year indicate that the new rate will continue to recover the dormitory operational costs. These rates will continue to be reviewed on a regular basis and revised as necessary.

Water Rates

The water rates were to have increased in FY07, however the change in fees was not implemented. **In FY08, the rate will be increased from \$0.038 to \$0.04 per gallon.** The on-going drought, water hauling needs and the costs associated with operation of the water processing and distribution system in accordance with increasing EPA regulations continue to increase potable water production costs.

Facility Plans for 2008

Efforts for the coming fiscal year will be oriented toward repairs and upgrades to the water processing system. Efforts will continue in coordination with the Tohono O'odham Nation on grounds clearing and reduction to the flammable brush and vegetation to help reduce the wild fire potential and remediation in other areas as appropriate to ensure compliance with Tribal and Federal guidelines. We continue to plan and schedule infrastructure work and maintain the systems to help stabilize the joint use fee rate while ensuring that sufficient funds are available. Some efforts are also being focused on upgrading the fire alarm detection systems.

Emergency Response updates

KPNO continues to work with the Tohono O'odham Emergency Services group to maintain open lines of communication and ensure response to the emergency needs of Kitt Peak. This effort was very evident during the response to the Alambre wildfire that threatened Kitt Peak in July of 2007. As part of the response, the nation allowed the wildfire responders to reduce the flammable vegetation using the guidelines detailed in the nation's recently approved Fire Management Plan. KPNO will continue to work with TO personnel over the coming year on these issues and the reduction of flammable vegetation to reduce wildfire potential.

KP Telecommunications

The KPNO telecommunication system continues to perform at an acceptable level and there are no PBX upgrades or improvements planned at this time. The system can now accommodate IP based phone connections

and the implementation of IP based trunk lines has eliminated the costs associated with maintaining the previous T1 voice circuit on the DS3 link. This has helped to reduce the voice portion of the telecommunication charges; however the DS3 circuit connections continue to increase as noted in the next section.

Data Connection to Kitt Peak

When the new TOUA fiber optic line was put in service back in 2002, the connection to Tucson went from two T1 circuits (3.08MB/s) to a DS3 circuit (28 T1 circuits or 43MB/s). At that time NOAO had obtained a grant to assist in purchasing the necessary equipment and a payment was made to TOUA to buy down the monthly rate to approximately \$1.5K per month through 2006. As was reported in the last newsletter, the rate buy down expired at the end of August 2006 and the annualized rate increased over \$40K. This increase in costs was partially included in the last annual Mar 07 billing and the full impact will be within the coming Mar 08 billing. In discussions with TOUA they have also indicated that they are considering another significant increase in their rates. As part of this discussion KPNO has also been looking into options that may be possible to increase bandwidth between KP and Tucson to meet future instrumentation needs. KPNO is currently working with the tribe to try and negotiate reasonable multi-year rates for various bandwidth options. In addition, options are being explored with Qwest and others to identify possible cost saving alternatives. As a reminder, the annual telecommunication costs incurred with the PBX and data circuits are assessed to tenants in April of each year with calculations based upon the percentage of actual bandwidth used by each organization over the year.

House availability

KPNO has one house available for lease on the mountain located away from the main area in a quieter section of the mountain. This two bedroom home is ideal for usage by mountain-based staff or as a small staff dormitory facility. The house is available with a rental rate in the range of \$675 +/- with basic utilities included (gas, water, electricity and a phone line). Each house has a kitchen and a garage and is equipped with some basic furnishings. Contact J. Dunlop (dunlop@noao.edu) if you have any interest or would like further information.

TERO Contact Reminder

We continue to meet with the Tribal Employment Rights Office to update them on both our internal employment opportunities and sub-contractor efforts. To ensure that our sub-contractors comply with the TERO ordinances, we have developed a one page form for them to have signed by the TERO office prior to allowing them to start work on the mountain. We want to remind you that compliance with the tribal employment ordinance is required under the master lease with the Tohono O'odham Nation and all tenant organizations must ensure that their mountain operations and subcontracted efforts are in compliance. The form is attached and we suggest that something similar be used by each tenant organization to help ensure compliance with the regulations. KPNO staff can provide some guidance if needed and/or provide contracted labor to help support your efforts.

KPNO Capable of and Interested in Helping You with Your Observatory Operations

Kitt Peak has developed a very skilled labor force responsive to infrastructure, building, or telescope support needs. Over the past few years, Kitt Peak has been revising its operational structure and is able to offer support to tenant observatories on an as available basis (i.e. man power available). This support could range from general custodial support efforts to skilled crafts, electronic and technical support. This support could benefit your organizations in the following ways; the availability of labor within a reasonable time frame; the ability to obtain labor in small increments (minimum 0.5 hours) throughout the year; reasonable response to unforeseen or emergency demands (may be dependent upon aperture priority, emergency situation and labor availability); the availability of support without the time demands of initiating sub-contracting efforts. KPNO would benefit from increased work with our tenant observatories through the development of a closer relationship with the institutions operating on Kitt Peak and perhaps by the ability to increase the diversity of our staffing (distribution of skills). The Kitt Peak supervisory staff would work with tenant site managers to insure timely response and schedule labor to respond to both planned projects and emergency requests. In compliance with NSF guidelines, Kitt Peak would bill for the individuals' hourly burdened rate with indirect costs as appropriate.

We are in discussion with one organization regarding support levels and with additional tenant participation we would be able to expand the labor force and ensure the availability of skilled personnel to support your needs.

Proposals for both daytime and nighttime support will be considered and a negotiated commitment level will help us to maintain a qualified staff that can provide a variety of support. Please contact Mike Merrill (merrill@noao.edu) or John Dunlop (dunlop@noao.edu) to discuss possibilities and identify areas that Kitt Peak could provide assistance.

Remember that Kitt Peak also has a range of heavy equipment (with trained operators) based on the mountain that is available for tenant support. With advance notice, we can provide support to your organizations with equipment for lifting, loading or unloading needs, or excavation projects. Upon request, a listing of our available equipment and various rental rates can be provided. There is no transportation or delivery fee and rental costs are on a time used basis. Operator labor is per NSF approved recovery rates for their total support time on an hourly basis.

Updated Kitt Peak Staff Contact Listing

Name	Title	Phone	Email
Tony Abraham	KPNO Engineering Manager	520-318-8347	tabraham@noao.edu
Kiki Atkinson	KPNO Support Office Admin Coordinator	520-318-8135	katkinson@noao.edu
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Nanette Bird	KPNO Directors Office Admin Assistant	520-318-8279	nbird@noao.edu
John Dunlop	NOAO Facilities Manager	520-318-8284	dunlop@noao.edu
Dan Eklund	Project Manager	520-318-8588	deklund@noao.edu
Mike Hawes	KPNO Facilities Supervisor	520-318-8734	mhawes@noao.edu
Joanne Hudson	KPNO Admin Assistant (Mountain)	520-318-8600	jhudson@noao.edu
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Mike Merrill	Supervisor, Scientific Support	520-318-8701	merrill@noao.edu



**TOHONO O'ODHAM NATION
TRIBAL EMPLOYMENT RIGHTS OFFICE**

P.O. Box 40
Sells, Arizona 85634
Office: 1-888-882-5510 (Toll Free) • Direct Line: (520) 383-3304
Fax: (520) 383-2781 • E-mail: tero@toua.net



Sample Form

TRIBAL EMPLOYMENTS RIGHTS OFFICE CERTIFICATION					
(Return this Certification to AURA Contracts Office)					
<p>This sub-award, in accordance with Article 14 e, is subject to Ordinance No. 01-85, "Papago Employment Rights Ordinance", ORDINANCE OF THE PAPAGO COUNCIL, March 20, 1985 and the implementing regulations issued by the Tohono O'Odham Employments Rights Commission. These regulations apply to the Contractor and any of its sub-contractors during performance of this Sub-Award.</p> <p>The Contractor is required to contact the TERO Office immediately upon receipt of notification of an award. The Contractor shall present this Certification to the TERO Compliance Office for signature. A copy of the signed Certification shall be returned to the AURA Sub-award Officer prior to performance of the work. AURA may terminate this sub-award in the event the Contractor fails to return a signed copy of this Certification.</p>					
Assigned TERO Compliance Officer	_____				
Date Reviewed by Administrator/Director	_____				
Approved	_____				
TERO Fee Received	_____				
Date Received by Secretary	_____				
RECAP					
SECTION 3 (Employment/Trng) applies:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">YES</td> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">NO</td> </tr> </table>	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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SECTION 4 (Contracting) applies:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">YES</td> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">NO</td> </tr> </table>	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
<input type="checkbox"/>	YES	<input type="checkbox"/>	NO		
SECTION 11 (TERO Fee) applies:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">YES</td> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">NO</td> </tr> </table>	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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WAGE SCALE applies:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">YES</td> <td style="width: 50%; text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">NO</td> </tr> </table>	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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