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Introduction

Buell T. Jannuzi

Director, Kitt Peak National Observatory

This edition of the Kitt Peak Tenant Newsletter includes updates on a range of items of interest to all of the observatories that share the top of Kitt Peak, also known as Iolkam (or Ioligam) 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 for sometime early in 2010. Please respond to Nanette Bird (nbird@noao.edu) by February 1, if you would like to see a Tenant meeting held here in Tucson in the March-April time period or if a video based option would be of use. Our apologies for not having sent out one of these updates more recently than our last update, which can be found at this address:

For news about NOAO or KPNO news since our last [tenant newsletter](#) please see our recent [general NOAO/NSO newsletters](#) or [NOAO Currents](#) announcements.

For updates on the celebration of the 50th anniversary of the National Observatories (NOAO and NSO), please look to this link, <http://www.noao.edu/kp50/>.

Mountain and Facility Operations

John Dunlop

Facilities Manager, Kitt Peak National Observatory

The KPNO Facility staff continues in their ongoing efforts to improve mountain operations, reduce costs and enhance the mountain wide infrastructure to benefit all tenant facilities on Kitt Peak. Over the past few years, staff has worked on activities involving roadway repairs, roof replacement for the Emergency Center, fire protection, brush reduction and exploring opportunities to improve the data link bandwidth. As you are also aware, Kitt Peak was shutdown in the summer of 2009 with another fire that threatened the observatory grounds and came to within one mile of the telescope facilities on the West Ridge. Fortunately the fire response crews were able to use the existing mountain highway as a firebreak to stop the advancing fire. The potential for fire continues to pose a threat to the observatory and efforts continue to reduce the mountain fuel loading. For the coming year we have been provided the opportunity, through the American Recovery and Reinvestment Act (ARRA), to upgrade the mountain's potable water system and improve ADA access at the Visitor Center. The water system improvements will provide a direct benefit to all facilities on Kitt Peak.

Updates on various Tenant Fees

The past few years have been challenging for the economy and all of our operations. We have made efforts to contain costs while continuing to support the mountain infrastructure. In the last newsletter (March 2008), we noted that the CPI had increased by 15.5% over the previous five years, through December of 2007. As of the

end of October 2009, the Consumer Price Index had increased approximately 2.9% since December 2007. In spite of the continuing increase in costs, Kitt Peak has been able to hold most costs and limit the need for fee increases. For the near term, we are pleased to announce that we will decrease both the JUF and Shuttle Participation fee while holding the costs steady in other areas. The availability of ARRA funding is helping to fund improvements to the water plant infrastructure and vehicle shuttle system without raising fees. The annual Joint Usage and Shuttle Participation Fees will be assessed on an upcoming invoice in early 2010 and any other unidentified fees will be effective February 1, 2010. We have identified each of the various Kitt Peak Fees and noted their FY10 costs in the remainder of the newsletter.

Mirror (Re-) coatings

Improvements made to the coating facilities over the past few years have enabled the process to become more efficient. As a result, **the current rates of \$10K for the 4-Meter chamber and \$5K for the vertical coating 2-Meter chamber will be retained for another year.** Future coating facility upgrades will focus on improving the current high level of coating quality while allowing the exploration of the feasibility of enabling the use of additional coating methods and materials. Please direct your coating requests to Will Goble (wgoble@noao.edu) as early as possible to ensure that your requested date is available. Depending upon the time of year, use of the coating facility needs to be reserved up to a year in advance. It is necessary that your payment methods be in place prior to a scheduled coating date.

Joint Usage Fees (JUF)

Past Joint Usage Fees, charged annually, have ranged from a high of \$4.43 per science usage square foot in FY00 to a low of \$2.60 in FY04. The occasionally large changes from year to year were due to the practice of setting the upcoming JUF based upon the actual costs from two years in the past. This led to changes, sometimes quite large, in the fees from year to year. Starting in FY06 we have revised how we set the fees, including the estimated cost of new projects in the setting of rates. This has helped to stabilize the rates from year to year and we have held the JUF in the range of \$3.40 to \$3.70 for the last three years. Our rates, based on our best estimates of the costs for the coming year, and how these rates were calculated, must be submitted to the NSF for approval every year. The NSF actually approves a "maximum" rate based on the information we have available about the middle of the year. As the end of the year approaches, and we have an improved understanding of the anticipated costs for the coming year, we finalize the rate at a level below the approved maximum. In mid 2009, the NSF approved the NOAO/KPNO submitted proposed maximum rate of \$4.10 for FY10. Since that submittal, the awarding of ARRA funds to help renovate the mountain water plant has reduced projected costs that would have caused an increase to the JUF. **The FY10 rate will decrease from the FY09 rate by (\$0.10) ~2.7 % to \$3.60.**

Shuttle Participation Fee

NOAO and KPNO have worked to reduce transportation costs in spite of large fluctuations in the cost of fuel. We have also worked to extend the usable life of shuttle vehicles and the staff bus to help reduce operating costs. In late FY09, ARRA funds provided to GSA enabled us to replace several shuttle vehicles at minimal cost. We are able to pass this cost savings on to those participating in our shuttle program. **For FY10 the fee has been set at \$3.75** (per actual square foot of building space, no minimum). This is below the rate of \$4.10 billed in FY08. This rate is a decrease of ~8%. Based upon the current US Government mileage reimbursement rate of ~\$0.55 per mile, this system can be very cost effective for tenant organizations. 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 continue to reduce the cost per partner, as more organizations would share the costs.

Meal Charges

At this time we do not project any increase in the daily meal charges for FY10. The various unit costs for each of the meals have remained the same since FY06. A recent review of the usage and costs over the past year indicates that the current charges are recovering the operational costs associated with dining services. We will continue to monitor the costs of providing the meal service and will make changes in the future if necessary.

Lodging Rates

The base FY10 Lodging Rate will remain at \$90. As noted for meals, reviews of the usage and costs over the past year indicate that the current rate will continue to recover the dormitory operational costs. These rates continue to be reviewed on a regular basis and are revised or adjusted as necessary. We are also evaluating the dormitories to investigate options for improving them and providing a better environment for the users. Notifications will be provided to users as appropriate should any rate changes or activities occur.

Water Rates

In FY08, the rates were increased to \$0.04 per gallon and for **FY10 the rate will remain at \$0.04 per gallon.** The on-going drought, water hauling needs, operator certifications, and the costs associated with operation of the water plant in accordance with increasing EPA regulations continue to increase our potable water production costs. Over the coming year, the ARRA funds will be used to cover costs associated with needed upgrades and renovation of the water system and help to reduce operation costs. We have also been advised that the Tohono O'odham Nation will be implementing a new water code for the reservation that may have a yet to be determined impact on the mountain. We will continue to monitor and respond to all tribal and EPA requirements as they involve the mountain 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 San Juan wildfire that threatened Kitt Peak in July of 2009. Staff worked closely with the response personnel, as they also did during the Alambre fire in 2007. Effort will continue, in coordination with the Tohono O'odham Nation, to reduce fire risk through the clearing of flammable brush and vegetation. We are also working to upgrade the fire alarm detection systems and the control system for the backup generator systems. Mountain staffing changes over the past year have led to a reduction in the level of medical services we currently are able to provide on the mountain. We are evaluating options to restore these capabilities. We do provide basic medical training opportunities for all mountain-based KPNO staff and these opportunities are also open to staff of the tenant observatories.

KP Telecommunications

The KPNO telecommunication system continues to perform well and there are no specific PBX upgrades or improvements projected to be done at this time. We are exploring various options that could be considered to replace the 1986 system and/or do a significant upgrade to a new IP based PBX system. Over the years we have repeatedly upgraded the original system. The most recent upgrade allowed implementation of IP based trunk lines. Future system upgrades will require major component replacements. The basic system is able to accommodate IP based phone connections and allows the implementation of an IP based trunk line over the DS3 circuit to help us control the voice portion of the telecommunication charges.

Data Connection to Kitt Peak

The new TOUA fiber optic line was put in service in 2002 and the connection to Tucson went from approximately 3.08MB/s to about 43MB/s. The rate that we have enjoyed for this service was kept low by a "buy down option" made in 2002. Our rate buy down expired at the end of August 2006 and the annualized rate has increased to almost \$76K. During discussions with TOUA, they have indicated that they are considering another increase in their rates; they have yet to implement any changes. KPNO is investigating options that may be available to increase bandwidth between KP and Tucson to meet future instrumentation data transport needs at affordable costs. As a reminder, the annual telecommunication costs incurred with the PBX and data circuits are assessed to all tenants in April of each year with cost calculations based upon the percentage of actual bandwidth used by each organization over the year.

TERO Contact Reminder

Phone: 520-383-3304 Email: tero@toua.net

We continue to meet with the Tribal Employment Rights Office to update them on both our internal employment opportunities and subcontractor efforts. To ensure that our subcontractors comply with the TERO ordinances, we have developed a form for the contractor, which should be signed by a TERO office official prior to them starting any 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 NSF subleases. 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 Support For Your Observatory Operations

Kitt Peak has a very skilled labor force that could respond to your various support needs. In the current economic environment, you could contact KPNO management to determine if this might be something that you would like to investigate. Support might be available for reasonable responses to both unforeseen or emergency needs and minor planned projects. With sufficient demand we might be able to provide enhanced support that benefits all mountain organizations. Please contact Mike Merrill (Merrill@noao.edu) or John Dunlop (Dunlop@noao.edu) to discuss possibilities.

We also want to remind you that Kitt Peak 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
Nanette Bird	KPNO Support Office, Admin Asst	520-318-8135	nbird@noao.edu
Elizabeth Alvarez	KPNO, Assistant to the Director	520-318-8414	ealvarez@noao.edu
Nanette Bird	KPNO Director's Office, Admin Asst	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
Bellina Cancio	KPNO Office Assistant (Mountain)	520-318-8603	bcancio@noao.edu
Chuck Gessner	NOAO Risk Manager	520-318-8211	cguessner@noao.edu
Buell T. Jannuzi	Director, KPNO	520-318-8353	bjannuzi@noao.edu
Mike Merrill	Supervisor, Mtn Scientific Support	520-318-8701	mmerrill@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 EMPLOMENTS RIGHTS OFFICE CERTIFICATION

(Return this Certification to AURA Contracts Office)

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.

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.

Assigned TERO Compliance Officer

**Date Reviewed by
Administrator/Director**

Approved

TERO Fee Received

Date Received by Secretary

RECAP

**SECTION 3 (Employment/Trng)
applies:**

<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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SECTION 4 (Contracting) applies:

<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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SECTION 11 (TERO Fee) applies:

<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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WAGE SCALE applies:

<input type="checkbox"/>	YES	<input type="checkbox"/>	NO
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