

## OVERNIGHT OBSERVING PROGRAM

The Advanced Observing Program (AOP) is designed to give participants a sample of the atmosphere of professional astronomy. You and one of our staff will explore the night sky using one of Kitt Peak's three public telescopes and associated equipment, exploring the wonders of the night sky. No prior experience with a telescope is necessary. We use the best amateur equipment available, under the clearest skies in the continental United States, with expert staff.

Guests arrive in the early afternoon and meet with their guide over dinner. Observing begins at the conclusion of the NOP and continues until dawn, or until the guests are too exhausted to continue, whichever comes first. Three meals are included and guests rest in their assigned rooms at the end of the night. Checkout time is 2pm on the following day. This is a weather dependent program.

Guests can choose from various modes of observing:

1. Visual observing: you will look through an eyepiece all night long, and see everything from planets to other galaxies.
2. CCD image taking: you will learn how to take astronomical data, calibrate it; and process it until a high-resolution color picture of your target image materializes.
3. Webcam and DSLR imagery: guests can typically go home with 10-12 quick images of objects.

### RATES:

Visual or Webcam DSLR AOP

\$550 per night for up to two people

\$100 for each additional person

\$90 per person per night for room and board *(includes three meals)*

\$75 double occupancy, including meals

### CCD AOP

\$650 per night for up to two people

\$100 for each additional person

\$90 per person per night for room and board *(includes three meals)*

\$75 double occupancy, including meals



## NIGHTLY STARGAZING PROGRAM (FOR BEGINNERS & BEYOND)

Stargaze with our Nightly Observing Program (NOP) at the site of the world's largest astronomical observatory. Explore planets, star clusters, nebulae, and galaxies during your evening on Kitt Peak.

Your guided evening starts before sunset, lasts until approximately 3.5 hours after sunset, and includes:

- A light meal (deli sandwich)
- Exploring the constellations with star charts & binoculars
- Observing several deep-sky wonders with one of the three visitor center telescopes.

In the event of cloudy nights, we will conduct an entertaining hands-on education program that will stimulate your imagination and introduce you to some of the wonders of the universe.

### RATES:

Adults: \$49.00 per person

Seniors (62 & over): \$45 per person

Students (elementary to college): \$45 per person

Active military: \$45.00 per person

Groups of 10 or more: \$42 per person

*Refunds or discounts due to inclement weather are NOT available. You have 24 hours to cancel your RSVP and not be charged the deposit fee. This program is not recommended for children under 8. A \$25 deposit is required to hold your reservation.*

The Summit of Kitt Peak is at 6,875 feet. Mountaintop environments may be windy and/or extremely cold, so please dress warmly even in the spring and summer. We recommend that you dress in layers (hats, gloves, blankets, etc.). Winter temperatures can get as low as the teens. Kitt Peak temperatures are 15 to 20 degrees cooler than Tucson at all times. The domes are not heated.

Due to the popularity of our world renowned programs, we recommend that you make your reservation one month in advance.

For reservations or information on any of our programs

call **520-318-8726**

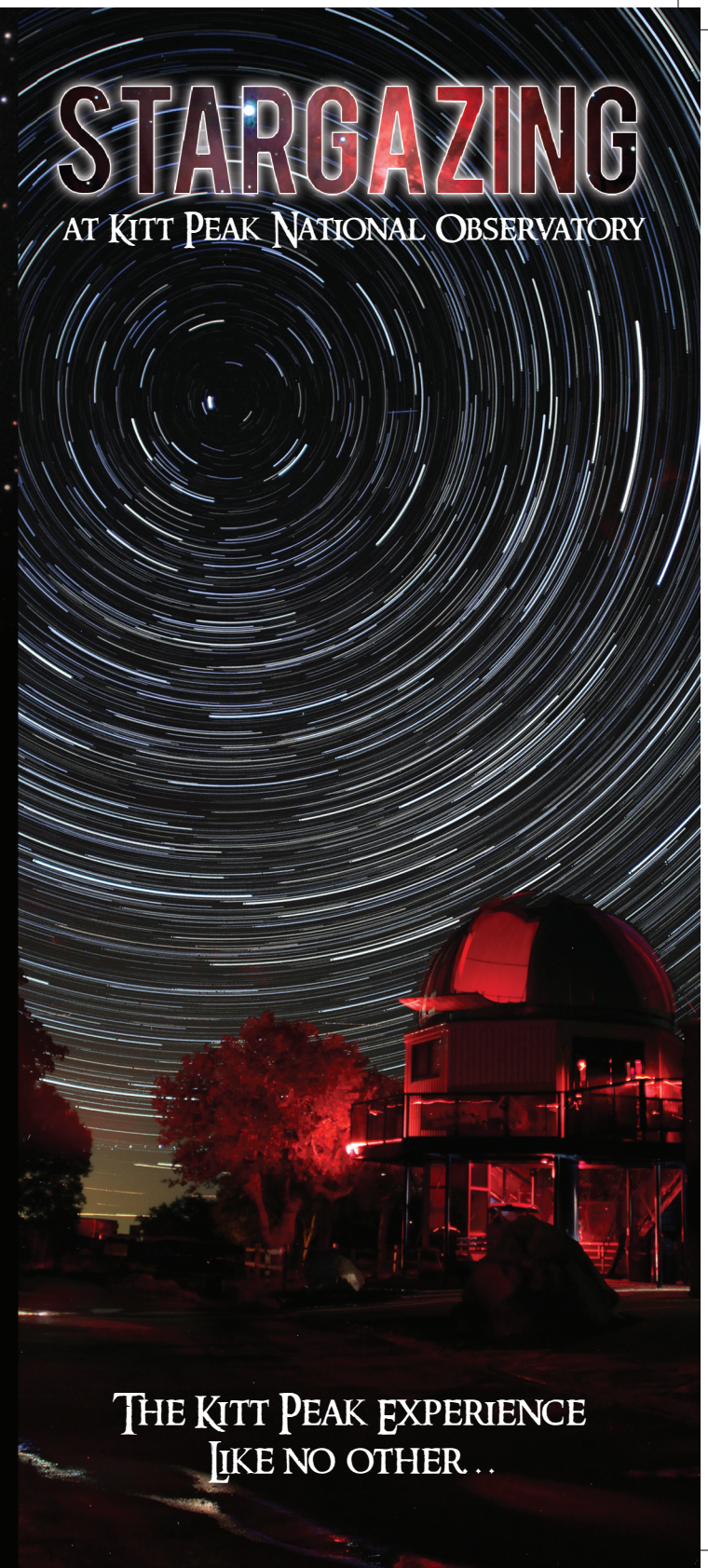
or visit **[www.nao.edu/Outreach/](http://www.nao.edu/Outreach/)**

Reservations are taken daily from 8:30-3:30pm

*(Rates are subject to change without notice)*

# STARGAZING

AT KITT PEAK NATIONAL OBSERVATORY



THE KITT PEAK EXPERIENCE  
LIKE NO OTHER...



K. Pagonis/F. Haase



M. Schock/F. Haase

## NEW - ADVANCED NOP

This program is held monthly around the new moon. **It is not recommended for beginners.** The Advanced NOP covers topics in more depth than does the regular NOP and concentrates more on telescope viewing.

For dates and availability please check our website

### RATES:

\$60.00 per person

*The Advanced NOP comes with a box dinner.*

For this program, cancellations must be made at least 48 hours in advance of the start time. No-shows will be charged the entire fee. Program fees will not be charged if we cancel the program due to weather or equipment problems.

The NOP programs are shut down from July 15 - August 31 due to summer rains.

## NEW - BINOCULAR STAR-GAZING

Join us for our newest program: a night of stargazing with binoculars. A good pair of binoculars (provided) and your eyes are all that you need. Our staff will teach you how to use binoculars and give you a tour of the evening sky. View planets, galaxies, star clusters, nebulae, and more. Learn how to navigate the night sky by using star charts.

We provide the binoculars and star charts; all you have to do is show up.

This program is NOT held on Kitt Peak. It is held at Saguaro National Park West. Restrooms and drinking water are available. This program is held outdoors, and the desert can be very cold at night, so please dress accordingly. This is a three-hour program and contains some hands-on activities.

Arrival times and dates can be found on the reservation link.

### RATES:

\$39.00 per person (Ages 8 & up)

## NEW - IMAGING QUEUE DATA COLLECTION

The Imaging Queue is a way for either amateur or professional astronomers to obtain CCD data on an object or objects of their choice. You get to determine the type of data you want to take, how much data is taken, and potentially which telescope is used. This data can either be for a picture or of scientific nature. Our staff schedules the night based on work load and telescope scheduling.

Five types of image data are possible: Grayscale, Short vLRGB, Medium LRGB, Long LRGB, and Scientific. The first four are varying degrees of picture data, whereas the last is for scientific work—exo-planets, variable stars, asteroid searches, etc.

### RATES:

|  |                 |
|--|-----------------|
| Grayscale (up to 30min exposure time):       | \$100           |
| Short LRGB (up to 60min exposure time):      | \$100           |
| Medium LRGB*** (up to 3hrs exposure time):   | \$300           |
| Long LRGB (up to all-night data collection): | \$675           |
| Scientific data:                             | \$150 per hour. |

\*\*\* denotes the typical AOP image

## 0.9-METER NIGHTS

The Kitt Peak Visitor Center offers nights on the 38-inch WIYN Consortium Research Telescope. This is a rare opportunity to look through the largest public viewing telescope in Southern Arizona.

There are a limited number of seats per night (20), and reservations will be taken on a first-come first-served basis. This unique program sells out FAST, and is not offered regularly.

The per person cost is \$139.00 per person, \$129.00 for members, and includes:

- A sit-down dinner at the Kitt Peak dining hall
- A night of stargazing you will not soon forget.

The program will be separate from the Nightly Observing Program (NOP), and will start with dinner at 5:30, followed by a tour of the 0.9-meter facility, a short lecture, and in-depth history of the telescope and of Kitt Peak. Public Program Specialists will also give an overview of what's visible in the night sky, and then the group will go off to observatory to look at various objects through the 0.9-meter eyepiece.

The WIYN 0.9m telescope is not handicapped accessible. Guests should be able to walk up two flights of stairs without any assistance.

## NEW - GROUP RENT AN OBSERVATORY

Looking for a unique program? We have three observatories that can be rented for a three-hour program that starts one hour before sunset. You get a guide who will operate the telescope and help you plan your program. Design your own program of observing or let us design a program that fits your needs.

**KITT PEAK**  
NATIONAL OBSERVATORY