

# CFAS Telescopes

The observing committee maintains several excellent telescopes for the use of CFAS members through the Loaner telescope program. Members are responsible for the proper use and storage of these telescopes while they are in their care. Members must reserve telescopes in advance through the CFAS web site Loaner telescope forum or by contacting the Loaner Telescope Manager: ([http://www.cfas.org/staticpages/index.php?page=CFAS\\_Contact\\_List](http://www.cfas.org/staticpages/index.php?page=CFAS_Contact_List)). Regular membership check outs are for 30 days, and Patron members are for 90 days. Telescopes are normally checked out at regular CFAS meetings, but special arrangements can be made through the Telescope Loaner Manager

CFAS also maintains additional high end telescopes that are primarily used for CFAS outreach events. These telescopes are also usually brought to CFAS observing sessions and are available there for viewing by CFAS members.

## LOANER TELESCOPES

### **1. 10 Inch Newtonian Dobsonian ALT/AZ Mount**

10" f/5.7 mirror

Special Designer Aluminum Optical tube

2" JMI focuser

Telrad finder

Eyepieces:

- 26mm Super Meade Plossl (1.25")

- 16mm Meade Plossl (1.25")

- 9.7mm Meade Plossl (1.25")

A beautiful great deep sky viewing telescope for either beginner or more advanced observers. This telescope's optical tube was outfitted with high quality parts donated from members. Its excellent mirror was hand ground by member Walt Hamler. The mount was manufactured by CFAS members. Dobsonians are easily transportable, and are a great way to learn the night sky.



## **2. 10 Inch Newtonian Dobsonian ALT/AZ Mount**

f/4.5 mirror (Coulter)

2" Rack and Pinion focuser

Telrad finder

Mylar White Sun filter

Eyepieces: - 32mm Plossl (1.25")

- 26mm super Plossl (1.25")

- 12.5mm super Plossl (1.25")

A fast deep sky viewing telescope for beginner and more advanced observers. The telescope also comes with a Planetarium.

CFAS members constructed a

new mount, rebuilt the optical tube, and added a new focuser. This bright image Dobsonian telescope is easily transportable, and is a great instrument to learn the night sky



## **3. 10 Inch Newtonian Dobsonian Rotating tube -ALT/AZ Mount**

10" f/5 mirror

2" Rack and Pinion Focuser

Telrad finder

Eyepieces:

- 40mm wide field Plossl (2")

- 32mm Plossl (2")

- 26mm super Plossl (1.25")

- 12.4mm super Plossl (1.25")

Mylar "White" sun filter

This is an excellent telescope for intermediate observers. The telescope provides good views of all Messier objects as well as great views of the stars, moon and planets. The telescopes also comes with a Sun filter that can provide "white" views of the sun and sunspot activity. This telescope was rebuilt by CFAS members in 2001, and its unique mount allows the optical tube to rotate for easier viewing. Dobsonians are a great way to learn the night sky.



#### **4. 8 Inch Celestron Schmitt-Cassegrain AS-GT German Equatorial Mount**

8" f/10 mirror

1.25" eyepiece holder

Laser dot finder

Eyepieces: (1.25")

This is an excellent telescope for intermediate observers. The telescope provides good views of all Messier objects as well as great views of the stars, moon and planets. The telescope was donated by a member. In 2009 its mount failed, and a new AS-GT mount and drive system was purchased by CFAS. This telescope can be checked out at regular CFAS meetings. Because of its advanced features it requires a special operational training before members can check it out.



#### **5. 12 Inch Orion Newtonian with Dobsonian Alt/Az Mount**



12" f/5 mirror  
2" Rack and Pinion Focuser  
30mm Finder  
Eyepieces: None

Check out this telescope for superb views of deep sky objects. OTA is 60 inches long so will fit in most cars back seat. Members must supply their own eyepieces to use this telescope. This telescope is for advanced users with good star hopping capabilities. This telescope was donated by the Seminole State College planetarium.

The 12 inch f/5 primary mirror captures significantly more light than our 8 and 10 inch telescopes. Once you use this telescope and notice the increased beauty of the deep sky objects you will not be satisfied with any smaller aperture scope.

## 6. Orion 10 Inch f/4 Dobsonian with finder scope

This telescope was donated by a CFAS member. This 10" astrograph was converted into a dobsonian by the CFAS equipment team. It is a great scope for capturing stunning deep-sky objects. Fast f/4.0 focal ratio provides bright wide-field images. Enhanced reflectivity aluminum coatings on primary and secondary mirror provide 94% reflectivity. Sturdy 2" dual-speed low-profile Crayford focuser permits ultra-fine focus with 11:1 ratio. Extended tube length of 7.5" in front of the focuser blocks peripheral light, optimizing image contrast.

## 7. Orion SkyQuest XT8i IntelliScope Dobsonian Telescope

Large Dobsonian reflector telescope with 8" aperture allows you to see faint deep-sky objects such as nebulas and galaxies, in addition to fantastic views of the Moon and planets

Locating those faint deep-sky objects is simple with the IntelliScope Computerized Object Locator - it includes more than 14,000 objects in its database, and points you right to each one

Select the object you wish to view from the IntelliScope database, then simply follow the directional arrows displayed on the hand controller by moving the telescope until the object is right in the eyepiece field of view - it's easy!

The ultra-stable Dobsonian telescope base keeps the reflector optical tube perfectly balanced for easy point-and-view use

A precise Crayford focuser allows use of larger format 2" telescope eyepieces - the bright, wide-field view of deep space objects in a low power 2" eyepiece is amazing!

The telescope is quickly separated into two parts which allows it to be easily transported. The telescope comes with a full set of eyepieces and filters in a special carrying case.

- This telescope requires special training before members can check it out. It is maintained by the CFAS equipment manager. Training is conducted in both individual and group classes. Sign up for training by contacting the equipment manager.



## 8. SKY-WATCHER 8" GOTO COLLAPSIBLE DOBSONIAN TELESCOPE

The **Sky-Watcher 8" GoTo Collapsible Dobsonian** is an ideal telescope for wide-field, deep-space observation of faint galaxies, nebulae, and star clusters.

Easily find over 42,000 celestial objects with the SynScan AZ Controller!

The innovative truss-support system lets you collapse the optical tube of the Sky-Watcher 8" Dobsonian down for storage and travel. No need to keep removing and re-installing individual truss supports every time you set up or break down...this unique design keeps the trusses right where they belong.

Accessories include the SynScan hand controller, an 8 X 50 Right Angle Finder, a full set of eyepieces and filters, a 2" Crayford Focuser with 1.25" Adapter, and a Dust Cover.

This telescope requires special training before members can check it out. It is maintained by the CFAS equipment manager. Training is conducted in both individual and group classes. Sign up for training by contacting the equipment manager.



# OUTREACH TELESCOPES

## 1. Takahashi Mewlon 210 with IOPTRON MINI TOWER PRO MOUNT W/ SMARTSTAR

Two speed focuser

Solid mounting rings with Los Mandy base.

2" Meade Diagonal

Eyepieces: 32 mm Meade Ultra Wide

22 mm Televue Panoptic

4.8 mm Televue Nagler Type I



A superb all-around telescope for both spectacular visual and astrophotography astronomy. Utilized at CFAS outreach events. The Mewlon Series of Dall-Kirkham Telescopes by Takahashi© combines refractor-like performance in a larger folded optic reflector design. Mewlon are Cassegrain reflectors using the Dall-Kirkham optical design. The elliptic primary mirror is associated with a spherical secondary mirror. The image is returned to the back of the instrument via an opening in the center of the primary mirror.

With its Cassegrain range reflectors, based on Dall-Kirkham optical design, Takahashi acted as a pioneer, and made Schmidt-Cassegrain other manufacturers outdated. This reflector with its excellent optical qualities can be used in a wide range of applications, and brings it on the top of the market.

The **iOptron MiniTower Pro** is a light-weight, portable atl-azimuth mount capable of supporting up to 33 pounds!

Equipped with two dovetail adapters, metal worm gears with typical 1 arc minute accuracy, a heavier tripod with 2" stainless steel alloy legs, and internal GPS.

With the **iOptron MiniTower Pro**, you can go to 130,000 objects with the SmartStar hand controller and USB port allows you to easily connect to a wide variety of planetarium programs.

Advanced encoder system offers 600% greater resolution and improved tracking performance.

## 2. LX 200 GPS Schmidt Cassegrain

A modern Go-To telescope system.

Alt- Az Fork Mount

2 Speed Williams focuser

High Precision Pointing

Auto-Align with Sony GPS

Auto-Star Controller with 145,000 object data base.

Celestron f/6.3 Reducer with 2" adapter & eyepiece holder A large versatile telescope utilized at CFAS outreach events. The telescope was purchased utilizing a special Motorola Grant to CFAS. The telescope is also available for viewing objects at CFAS **outreach** events. The Outreach Committee Chairman maintains this telescope.



## Meade Coronado SolarMax II with iOptron Mount



Aperture: 60mm • Focal Length: 400mm F/Ratio: F/6.6 • Bandwidth:  $<.50\text{\AA}$  • Thermal Stability:  $0.005\text{ \AA}/^{\circ}\text{C}$  • Safety Blocking:  $>10^{-5}$  from EUV/IR

This portable sun telescope can be used on its own iOptron mount or piggybacked onto a larger telescope. The SolarMax will show you the sun's prominences, active regions, filaments, as well as other surface details. This telescope was purchased by CFAS for outreach programs. It can be checked out by members when not in use for outreach programs. Contact the observing chairman for information. Used around the world by serious solar enthusiasts and professional research facilities alike for observation of surface detail and prominences on the Sun in hydrogen-alpha (Ha) light. Powerful but very portable, this high resolution Solar Telescope offers dedicated visual observation of the Sun as well as high quality imaging.

The new Meade Coronado SolarMax II represents a breakthrough in solar observing with the new

and revolutionary new RichView tuning assembly. This patented system allows direct tuning of the primary filter etalon. Now you can tune for the highest contrast views of active regions, flares, filaments, and other surface detail, or quickly and easily re-tune for prominences on the solar limb. The stunning bright red views through a Coronado Ha telescope display astounding surface and limb detail especially when the Sun is in an active phase.

### **3. Orion Giant View 25 x 100 mm Astronomy Binoculars**

The Giant View 25x100 is a wonderfully well made binocular. The top-quality BAK-4 prisms and precise internal baffling ensure sharp images and pleasing contrast. The binocular barrels are cross reinforced with an aluminum rod and objective cell cuffs for maximum structural rigidity and unflinching optical alignment. A sliding 1/4"-20 threaded mounting post is held captive on the rod, for convenient coupling of the binocular to the Orion Monster Parallelogram Binocular Mount & Tripod. Since the mounting post can be slid forward and backward, it's easy to achieve optimum balance of the binocular once mounted.

This big Giant View 25x100 binocular provides a generous 4mm exit pupil and the serious magnifying power you need to resolve subtle details in your target object. The eyepieces focus individually, which affords a higher degree of focusing precision than center-focus mechanisms. The long 18mm eye relief even lets eyeglass wearers see an unrestricted field of view.

This binocular and tripod assembly is used for outreach events and CFAS star parties. It provides wonderful wide view images of both the moon and deep sky objects.

