# **Observing List**

## **Lunar Program Observing List**

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### The List

The 100 features to be observed for the Lunar Program are listed below. At the top of each section is a space to list the instruments used in the program. After that are five columns: CHK, Object, Feature, Date and Time. The "CHK" column should be used to check off the feature as you observe it. The "Object" column lists the features in Naked Eye, Binocular, and Telescopic order, and tells you what you are observing and when the best time is to observe it. The "Feature" column lists the 100 features to be observed. Finally, the "Date" and "Time" columns allow you to log when you observed the objects. In the last section, we have listed the 10 optional activities, and broken them down as to naked eye, binocular, and telescopic. Also on page 4, we have included four illustrations to help with observing four of the naked eye features.

We certainly hope that you find the Lunar Program useful in helping you become more familiar with earth's nearest neighbor. If after completing this program you would like to do more work in this area, you may contact The Association of Lunar and Planetary Observers.

Julius L. Benton Jr.

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Until then, good luck, clear skies, and good observing.

For a printable version of the Checklist, click here

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## Lunar Program Checklist

## Naked Eye Objects

Instruments Used \_\_\_\_\_

	OBJECT	FEATURE	DATE	TIME
[]	(Within 72 Hrs of new)	Old Moon in New Moon's Arms		
[]	(Within 72 Hrs of new)	New Moon in Old Moon's Arms		
[]	(Within 40 Hrs of new)	Crescent Moon, Waxing		
[]	(Within 48 Hrs of New)	Crescent Moon, Waning		
[]		Man in the Moon		
[]		Woman in the Moon		
[]		Rabbit in the Moon		
[]		Cow Jumping Over the Moon		
	Maria			
[]		Crisium		
[]		Fecunditatis		
[]		Serenitatis		
[]		Tranquillitatis		
[]		Nectaris		
[]		Imbrium		
[]		Frigoris		

[]		Nubium		
[]		Humorum		<del></del>
[]		Oceanus Procellarum	<del></del>	
Bir	nocular Objects			
Inst	ruments Used			
	OBJECT	FEATURE	DATE	TIME
[]		Lunar Rays		
[]		Sinus Iridum		
[]		Sinus Medii		
[]		Sinus Roris		
[]		Palus Somnii		
[]		Palus Epidemiarum		
[]		Mare Vaporum		
	Craters			
[]	~4 Days old	Langrenus		
[]		Vendelinus		
[]		Petavius		
[]		Cleomedes		
[]		Atlas		
[]		Hercules		
[]		Endymion		
[]		Macrobius		
[]	~7 Days old	Piccolomini		
[]		Theophilus		
[]		Cyrillus		
[]		Catharina		
[]		Posidonius		
[]		Fracastorius		
[]		Aristoteles		
[]		Eudoxus		
[]		Cassini		
[]		Hipparchus		

[]		Albategnius	 
[]		Aristillus	 
[]		Autolycus	 
[]		Maurolycus	 <del></del>
[]	~10 Days old	Plato	 <del></del>
[]		Archimedes	 <del></del>
[]		Ptolemaeus	 <del></del>
[]		Alphonsus	 <del></del>
[]		Arzachel	 
[]		Walter	 <del></del>
[]		Maginus	 
[]		Tycho	 
[]		Clavius	 
[]		Eratosthenes	 
[]		Longomontanus	 
[]		Copernicus	 
[]		Bullialdus	 
[]		Aristarchus	 
[]		Gassendi	 
[]	~14 Days old	Kepler	 
[]		Grimaldi	 
Tele	escopic Obiects		

Instruments Used \_\_\_\_\_

OBJECT	FEATURE	DATE	TIME
[]	Sinus Aestuum		
[]	Lacus Mortis		
[]	Palus Putredinis		
[]	Promontorium Laplace		
[]	Promontorium Heraclides		
[]	Promontorium Agarum		
[]	Montes Alpes		
[]	Montes Apenninus		

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[]		Mons Hadley	 
[]		Mons Piton	 
[]		Mons Pico	 ·
[]		Rupes Altai	 
[]		Rima Hyginus	 ·
[]		Vallis Schroteri	 
[]		Vallis Alpes	 
[]		Rupes Recta (straight wall)	 
	Craters		
[]	~4 Days old	Picard	 
[]		Furnerius	 
[]		Petavius Wall	 
[]		Messier/Messier A	 
[]		Proclus	 
[]		Fabricius	 
[]	~7 Days old	Plinius	 
[]		Mitchell	 
[]		Cassini A	 
[]		Manilius	 
[]		Gemma Frisius	 
[]	~10 Days old	Davy	 
[]		Pitatus	 
[]		Billy	 
[]		Fra Mauro	 
[]		Clavius craterlets	 
[]		Hippalus	 ·
[]		Herschel, J.	 
[]	~14 Days old	Schickard	 
[]		Reiner Gamma	 

## Optional Activities:

Naked Eye:

- 1. Estimate first quarter phase within eight hours.
- 2. Estimate third quarter phase within eight hours.
- 3. Estimate full moon within thirty-six hours.
- 4. Plot moon's position against the stars for three consecutive days.
- 5. Compare the size of the full moon on the horizon with the full moon on the meridian using a dime held at arm's length.
- 6. Find the thinnest phase by which you can read newsprint.

### Binocular:

- 1. Sketch libration use Mare Crisium or Grimaldi for examples.
- 2. Sketch a lunar map use any scale for binoculars only.

### Telescopic:

- 1. Plot the moon's hourly motion against the stars for two hours or more.
- 2. Measure the height of a lunar mountain need to calculate the sun's elevation at the mountain and estimate the shadow length try Mt. Piton.

### **Related Links**

<u>Lunar Program Introduction</u>

The Man, Woman, and Rabbit in the Moon, and the Cow Jumping Over the Moon

Find Your Lunar Program Award