



Planet Club

Raleigh Astronomy Club

Version 1.2 05-AUG-2005

Introduction

Welcome to the RAC Planet Club! This is one of the entry-level observing clubs, but still has some challenges for more advanced observers. It is designed to familiarize members with the various planets in our Solar System and how they can be observed. The award has two different levels. The first level, the Silver Planet award requires viewing and/or imaging six planets. The Gold Planet Award requires all eight planets to be observed and/or imaged, a much larger challenge that will require more diligence. Some of the observations require sketching, but don't worry, you don't have to be an artist or even good!. Start with one of templates provided and just do your best. It's not an art competition!

Alternatively, instead of sketching an image (either film or CCD) can be used in place of any sketch requirements. Enjoy your planet hunting!

Rules

In order to earn the Silver certificate for the program, the applicant must meet the following qualifications:

1. Be a member in good standing of the Raleigh Astronomy Club.
2. Observe Six of the Planets: Mercury, Venus, Mars, Jupiter, Saturn, and Uranus. Some observations require sketching (see details below).
3. Record the time and date of each observation.
4. Any record sheet/format can be used. There is an attached form that can also be used.
5. Use of Go-To and Digital Setting Circles are permitted.
6. Send a copy of the observing record to the Raleigh Astronomy Club at:

Raleigh Astronomy Club
c/o P.O. Box 10643
Raleigh, NC 27605
Email: rac@rtpnet.org

In order to earn the Gold certificate for the program, the applicant must meet the following qualifications:

1. Be a member in good standing of the Raleigh Astronomy Club.
2. Observe Eight of the Planets: Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto. Some observations require sketching (see details below).
3. Record the time and date of each observation.
4. Any record sheet/format can be used. There is an attached form that includes the minimum information required and can be used.
5. Use of Go-To and Digital Setting Circles are permitted.
6. Send a copy of the observing record to the Raleigh Astronomy Club at:

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Raleigh, NC 27605
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Requirements and Tips

Mercury – Only a simple observation of Mercury is needed. This can be done with the naked eye (for those with sharp eyes), but is much easier with binoculars. *Tip:* Look for Mercury just before sunrise, or just after sunset, low on the horizon.

Venus – Is one of the easiest to spot, as it is very bright. However, because Venus' orbit is inside of Earth's, Venus goes through phases. This observation requires a sketch of Venus showing it's phase. *Tip:* Viewing before dark and using an orange filter when observing Venus against a blue sky helps bring out the phase, but it's not necessary to use either of these techniques.

Mars – Observe/Image Mars and make a sketch of the planet. Note any detail that can be seen.

Jupiter – Another easy planet to spot! Observe Jupiter and make a sketch and/or image. Note any detail on the surface and any moons that are visible. *Tip:* A light blue filter can help bring out the bands on the planet.

Saturn – Observe Saturn and make a sketch and/or an image. Note any detail on the surface and any moons that are visible. *Tip:* A yellow filter can help bring out the bands on the planet.

Uranus – Make a simple observation and/or image of Uranus. It should appear greenish in modest telescopes and look non-stellar.

Gold Level Requirements

Neptune – Only a simple observation and/or image of Neptune is needed.

Pluto – Pluto will look very star-like in amateur instruments. Locate Pluto and plot it's position on two separate nights and/or image the planet on two separate nights. *Tip:* For observations it's easiest to make a copy from a star chart or print a chart from a program and then mark Pluto's position on that.

Good Luck and Good Observing!!

RAC Planet Club

Observation List

Observer Name: _____

Instruments Used: _____

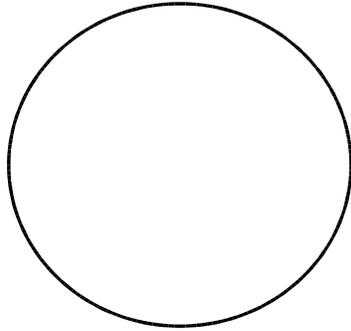
Silver Level:

	<i>Date</i>	<i>Time</i>	<i>Location</i>
[] 1. Mercury	_____	_____	_____
[] 2. Venus	_____	_____	_____
[] 3. Mars	_____	_____	_____
[] 4. Jupiter	_____	_____	_____
[] 5. Saturn	_____	_____	_____
[] 6. Uranus	_____	_____	_____

Gold Level:

[] 7. Neptune	_____	_____	_____
[] 8. Pluto 1	_____	_____	_____
[] 9. Pluto 2	_____	_____	_____

VENUS SKETCH SHEET



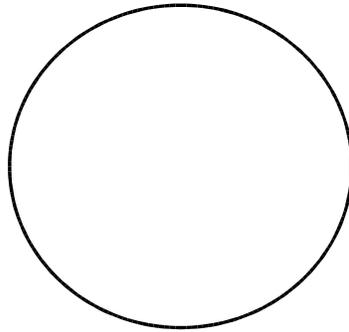
Date : _____

Time : _____

Location : _____

Instruments : _____

JUPITER SKETCH SHEET



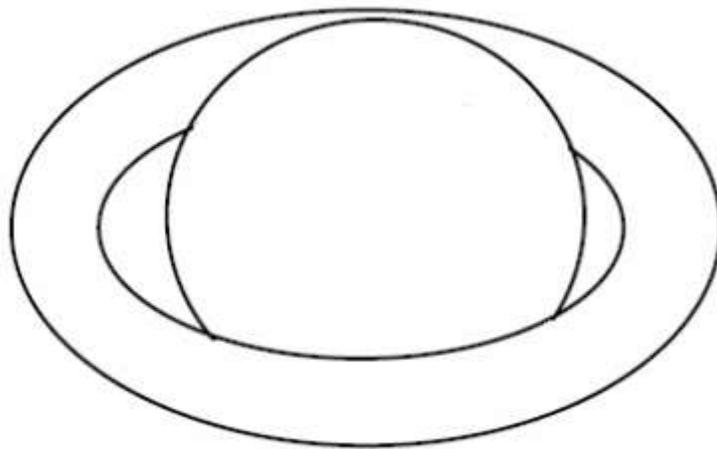
Date : _____

Time : _____

Location : _____

Instruments : _____

SATURN SKETCH SHEET



Date : _____

Time : _____

Location : _____

Instruments : _____