

STARFLEET SCIENCE LOG

USS SOLSTICE

Report for

Sky Observation

Due Date: _____, 20__

TERM: Fall Spring Summer

Name: _____

Location:

Sky Observation Report from USS SOLSTICE

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NOTES:		

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 1

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. Your sketch should SHOW DETAIL

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope 10' refractor

Private scopes: Refractor Reflector

Dobsonian Cassegrain Other

Eye Piece size if known: mm

In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 2

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. Your sketch should SHOW DETAIL

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope 10' refractor

Private scopes: Refractor Reflector

Dobsonian Cassegrain Other

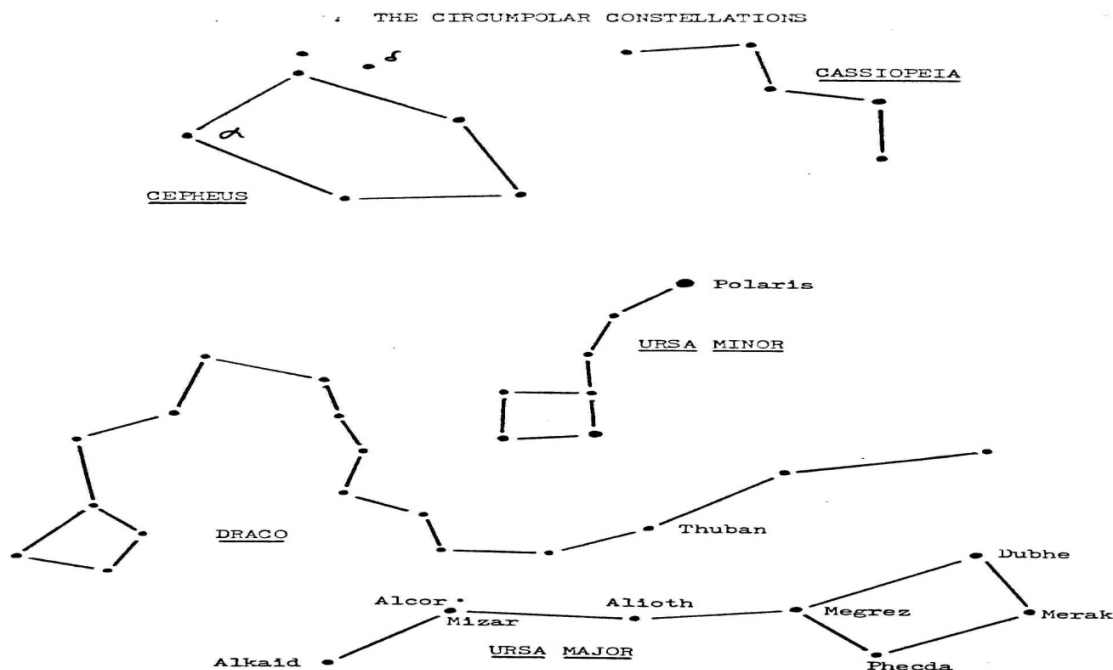
Eye Piece size if known: mm

In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 3

Directions:



1. A group of stars that make up an imaginary pattern of mythical creatures or great hero's is called?
2. The Big Dipper is not a constellation. It is an asterism! Big Dipper is a part of which constellation?
 - a. Draco
 - b. Ursa Major
 - c. Ursa Minor
 - d. Cassiopeia
 - e. Cephus
 - f. Leo
 - g. Virgo
 - h. Boötes
 - i. Orion
3. Define an **ASTERISM** and include an example other than the Big Dipper and **URSA MAJOR**?

Go outside and locate the BIG DIPPER:

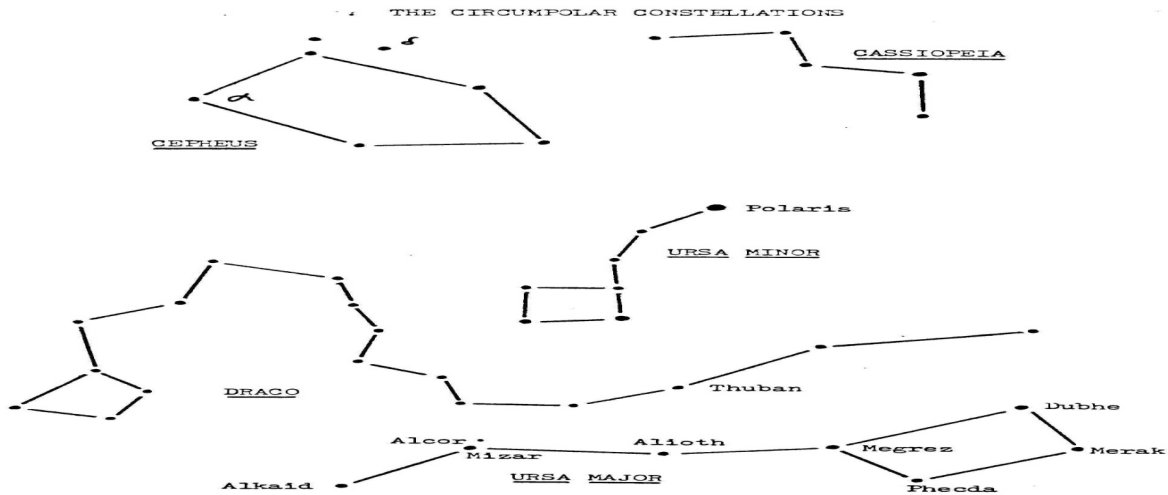
4. Did you locate the **BIG DIPPER** without help? **YES** **NO**

Whoever witnesses this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 4

Directions:



CIRCLE your answer for the next 3 questions

1. What is the name of the North Star?

- | | | |
|---------------|------------|-----------|
| a. Arcturus | d. Merak | g. Spica |
| b. Betelgeuse | e. Polaris | h. Thuban |
| c. Dubhe | f. Regulus | i. Vega |

2. What is the name of the NEW North Star in about 13,000 years from now?

- | | | |
|---------------|------------|-----------|
| a. Arcturus | d. Merak | g. Spica |
| b. Betelgeuse | e. Polaris | h. Thuban |
| c. Dubhe | f. Regulus | i. Vega |

3. What was the name of the former (OLD) North Star?

- | | | |
|---------------|------------|-----------|
| a. Arcturus | d. Merak | g. Spica |
| b. Betelgeuse | e. Polaris | h. Thuban |
| c. Dubhe | f. Regulus | i. Vega |

4. Write a brief detailed description of how do you find the North Star using the big dipper?

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 5

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. Your sketch should SHOW DETAIL

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope 10' refractor

Private scopes: **Refractor** **Reflector**

Dobsonian **Cassegrain** **Other**

Eye Piece size if known: _____ mm

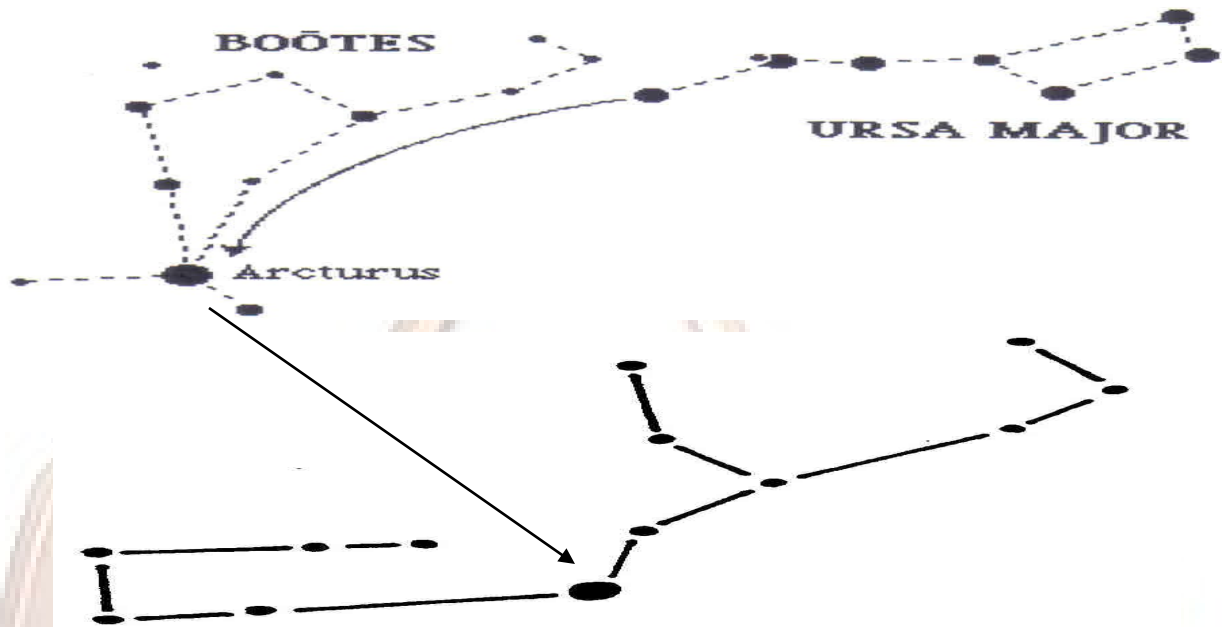
In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 6

Directions:

THIS SHEET must HAVE a signature to indicate that you have completed this.



1. What is the name of the Star you found in Boötes using the Big Dipper?
 - a. Arcturus
 - b. Betelgeuse
 - c. Dubhe
 - d. Merak
 - e. Polaris
 - f. Regulus
 - g. Spica
 - h. Thuban
 - i. Vega
2. What is the name of the star you found in Virgo using the Big Dipper?
 - a. Arcturus
 - b. Betelgeuse
 - c. Dubhe
 - d. Merak
 - e. Polaris
 - f. Regulus
 - g. Spica
 - h. Thuban
 - i. Vega
3. What is Boötes known as? For example, Ares is a Ram, Orion is the Hunter.
 - a. Maiden
 - b. Hunter
 - c. Herdsman
 - d. Lion
 - e. Ram
 - f. Dog
 - g. Bear
 - h. Dragon
 - i. Other
4. Virgo is one part of the 12 special constellations that we call _____.
 - a. Maidens
 - b. Birds
 - c. Bees
 - d. Zodiacs
 - e. Circumpolar
 - f. Asterism

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number PAGE 7

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. Your sketch should SHOW DETAIL

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope

10' refractor

Private Scopes: Refractor Reflector

Dobsonian Cassegrain Other

Eye Piece size if known mm

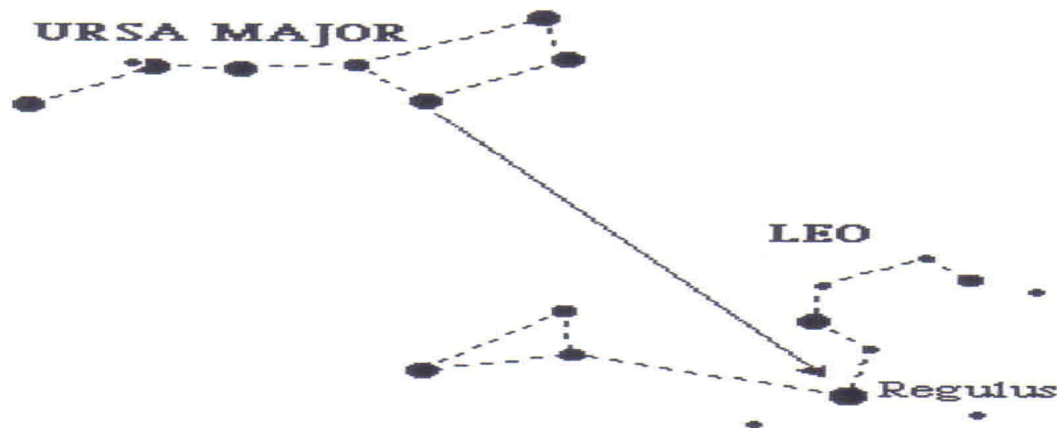
In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...



Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# **PAGE 8** _____

THIS SHEET must HAVE a signature to indicate that you have completed this.



1. What is the name of the Star you found in LEO using the Big Dipper?

a. Arcturus	d. Merak	g. Spica
b. Betelgeuse	e. Polaris	h. Thuban
c. Dubhe	f. Regulus	i. Vega
2. What is Leo known as? For example, Ares is a Ram, Orion is the Hunter.

a. Maiden	d. Lion	g. Bear
b. Hunter	e. Ram	h. Dragon
c. Herdsman	f. Dog	i. Other

3. Write a brief detailed description of how do you find Leo, using the big dipper?

Go outside and locate other objects using the BIG DIPPER:

4. Did you locate the constellation without help? YES NO

Whoever witnesses this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 9

Directions:

1. HERE you are NOT allowed to you the big telescope. YOU must find another telescope. See anyone who has a telescope set up on the lawn. Ask them, "what are you looking at? Can I take a look?"
2. HAVE them sign this sheet to prove that you completed this task
3. **Owner of the telescope MUST sign this sheet somewhere.**
4. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
5. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

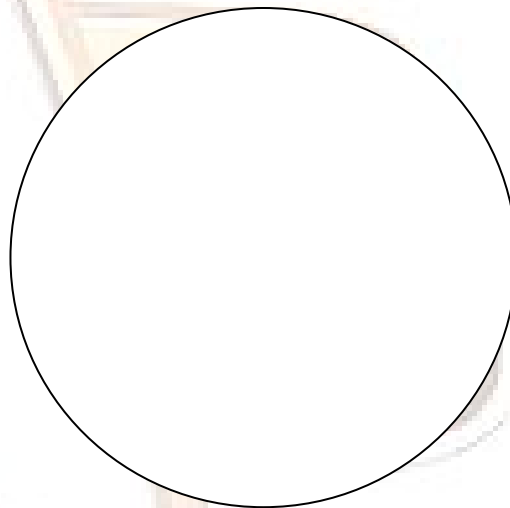
BIG 24' scope 10' refractor

Private Scopes: Refractor Reflector

Dobsonian Cassegrain Other

Eye Piece size if known mm

In the space below, write any additional information about *THAT* object that you viewed. This can include time rise, set, distance in light-years, luminosity (magnitude), etc...



Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 10

Directions:

1. HERE you are NOT allowed to you the big telescope. YOU must find another telescope. See anyone who has a telescope set up on the lawn. Ask them, "what are you looking at? Can I take a look?"
2. HAVE them sign this sheet to prove that you completed this task
3. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
4. **Your sketch should SHOW DETAIL**

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date:

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

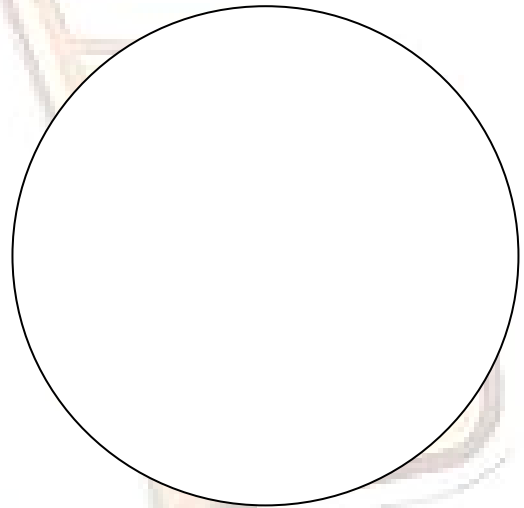
BIG 24' scope 10' refractor

Private Scopes: **Refractor** **Reflector**

Dobsonian **Cassegrain** **Other**

Eye Piece size if known mm

In the space below, write any additional information about THAT object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...

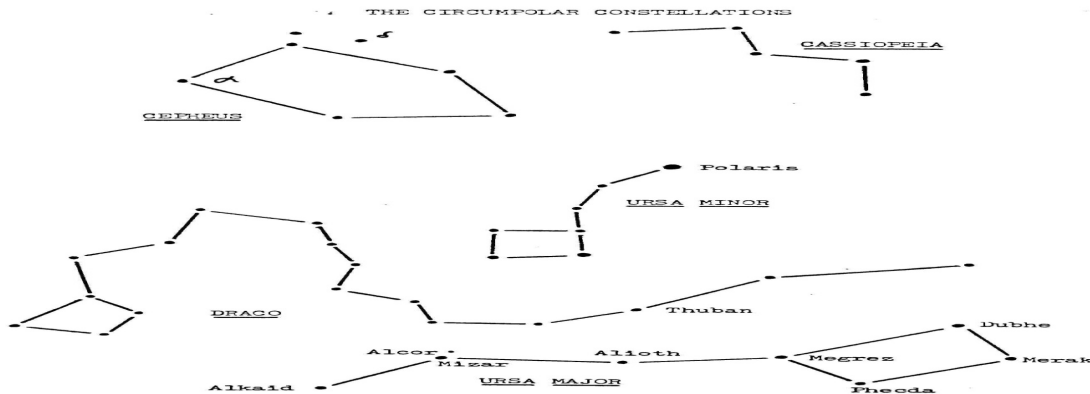


Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 11

Directions:

Show your instructor or a staff member how to locate other objects using the CIRCUMPOLAR CONSTELLATION:



- Depending on the time of year, which circumpolar constellation can be seen as a “W”, “3”, “M”, or an “E”?
 - Ursa Major
 - Ursa Minor
 - Draco
 - Cassiopeia
 - Cephus
 - Leo
 - Virgo
 - Boötes
 - Orion
- Name the circumpolar constellation be seen as a house, but really is a king sitting on a throne?
 - Ursa Major
 - Ursa Minor
 - Draco
 - Cassiopeia
 - Cephus
 - Leo
 - Virgo
 - Boötes
 - Orion
- What is Draco known as? For example, Ares is a Ram, Orion is the Hunter.
 - Maiden
 - Hunter
 - Herdsman
 - Lion
 - Ram
 - Dog
 - Bear
 - Dragon
 - Other
- Write a brief detailed description of why the circumpolar constellations are so important to anyone who is north of the equator.

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 12

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. Your sketch should SHOW DETAIL

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope

10' refractor

Private scopes: Refractor Reflector

Dobsonian Cassegrain Other

Eye Piece size if known: mm

In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 13

Directions:

1. COMPLETE this entire page for credit. It is your responsibility to turn it into the teacher
2. Your sketch should SHOW DETAIL

OBJECT that you are viewing is:

In the Circle below, sketch the object viewed in that eyepiece. The Circle represents the eyepiece.

Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope 10' refractor

Private scopes: Refractor Reflector

Dobsonian Cassegrain Other

Eye Piece size if known: mm

In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 14

Directions:

1. Zodiac actually means?
 - a. Circle of animals
 - b. Circle of hero's
 - c. Circle of clowns

2. Which of the OLD ZODIAC signs are you?
 - a. Aries
 - b. Taurus
 - c. Gemini
 - d. Cancer
 - e. Lion
 - f. Virgo
 - g. Libra
 - h. Scorpio
 - i. Sagittarius
 - j. Capricorn
 - k. Aquarius
 - l. Pisces

3. On January of 2012, the zodiac signs were changed from 12 to 13. Who did they add?
 - a. Hercules
 - b. Cassiopeia
 - c. Cephus
 - d. Bootes
 - e. Orion
 - f. Cygnus
 - g. Ophiuchus
 - h. Lyra
 - i. Aquila

4. Write a brief description as to why they added another zodiac constellation?

Go outside and locate at least 3 ZODIAC constellations:

5. DID you locate at least 3 zodiac constellations by themselves without any help?
YES NO

LIST THEM:

Whomever witness this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 15

Directions:

1. Which triangle SUMMER or WINTER, can you locate in the night sky tonight?

SUMMER

WINTER

2. What are the names of these constellations in the triangle that you had to use to located?

Column A

Column B

Column C

- | | | |
|---------------------|------------------------|---------------------|
| a. Orion the hunter | d. Boötes the herdsman | g. Cygnus the swan |
| b. Canis Major | e. Virgo the maiden | h. Aquila the eagle |
| c. Canis Minor | f. Hercules | i. Lyra the harp |

3. Can you tell any MAJOR star(s) in this group?

A. Betelgeuse

D. Arcturus

G. Deneb

B. Sirius

E. Spica

H. Altair

C. Procyon

F. "keystones"

I. Vega

4. Each season usually has one or two constellation that is associated with it. List that seasons MAIN constellation in the space provided?

SPRING:

SUMMER:

FALL:

WINTER:

Got outside and locate the "triangle" in the night sky

5. Indicate which "triangle" you located?

a. WINTER

b. SUMMER

Whomever witness this please sign off on this sheet:

Sky Observation Report from USS SOLSTICE

Name _____ Observation Number# PAGE 16

Directions:

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OBJECT that you are viewing is:

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Location: Mingo Creek Observatory

Date :

Time: _____ am/pm

Viewing condition:

Telescope Used to view object with:

BIG 24' scope 10' refractor

Private scopes: Refractor Reflector

Dobsonian Cassegrain Other

Eye Piece size if known: mm

In the space below, write any additional information about *THAT* object that you viewed. This may include time rise, set, distance in light-years, luminosity (magnitude), etc...