

# **The Atlanta Astronomy Club**

## **Charlie Elliot Chapter**

### **Observing 101**

# Observing 101 – June 2011

- Astro Events
- Target List
- Featured object

# Astro Events

## Tonight:

- Sunset at 8:42 PM
- Pluto rises at 10:00 PM
- Moon sets at 11:13 PM
- Saturn visible all evening

# Astro Events

Tomorrow morning:

- Neptune rises at 1:23 AM
- Uranus rises at 2:52 AM
- Saturn sets at 3:22 AM
- Jupiter rises at 4:04 AM
- Mars rises at 4:57 AM
- Venus rises at 5:20 AM
- Sunrise at 6:25 AM

# Our Solar System this week

- Mercury - Lost in the glow of sunrise
- Venus - Low in the E/NE before sunrise
- Mars - Low in the East before sunrise
- Jupiter - In the East before sunrise
- Saturn - Visible in the South after sunset
- Uranus - Low in the East before sunrise
- Neptune - Low in the SE before sunrise
- Pluto - High in the South in early morning

# Astro Events

## This month's events ...

- June 4/5 - See 6 moons of Saturn
- June 6/12 - Saturn near Gamma Virginis
- June 9/11 - Saturn near Spica & Moon
- June 15 - Full Moon
- June 19/22 – Mars within 5° of the Pleiades
- June 28 - Pluto at opposition
- June 28 - Crescent moon below Mars & the Pleiades

# Astro Events

## Next month's events ...

- July 1 - New moon
- July 2 - Next CE Chapter meeting

# Dusk, June 3-5

*1 hour after sunset*

 Moon  
June 5

 Moon  
June 4

 Procyon



**Looking West**

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# Saturn on June 5, 12:15 A.M. EDT

Titan ●

S

W

• Rhea

Tethys ●

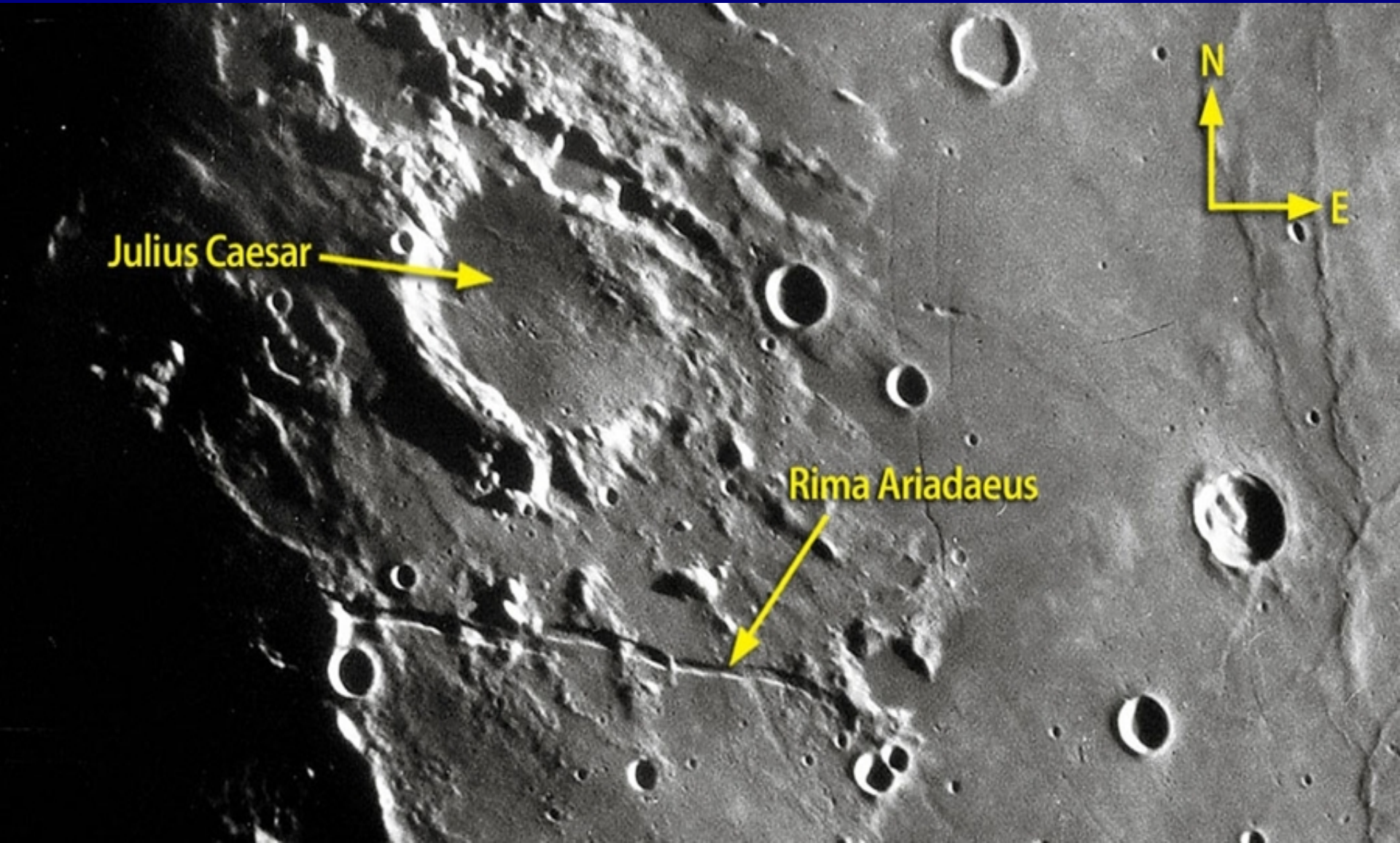
Enceladus ●

Mimas ●

Dione ●

Saturn





Julius Caesar

Rima Ariadaeus

SAGITTARIUS

N

SAO 161442

June 18

21

24

27

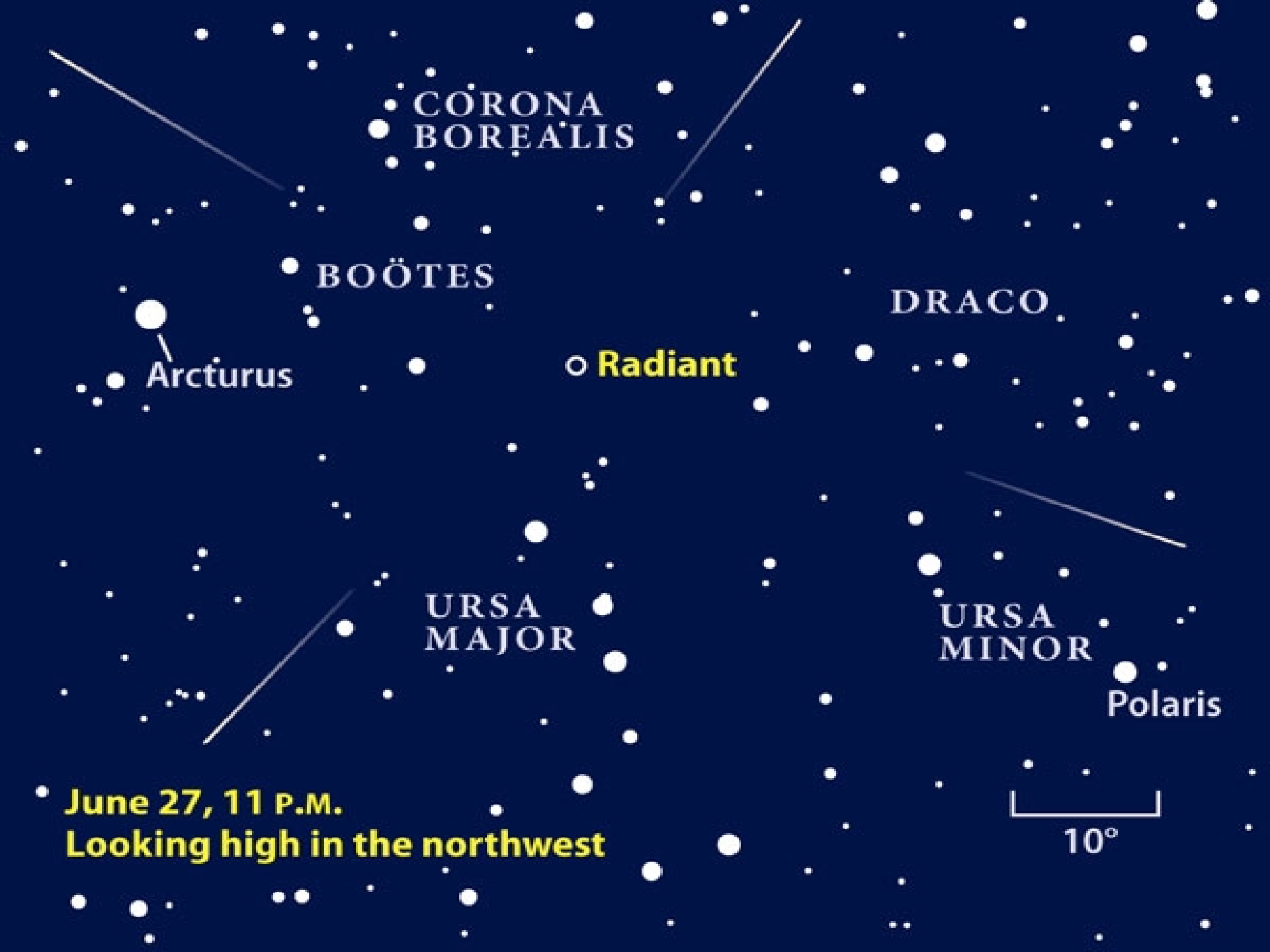
30

Path of Pluto

E

0.05°





CORONA  
BOREALIS

BOÖTES

DRACO

Arcturus

○ Radiant

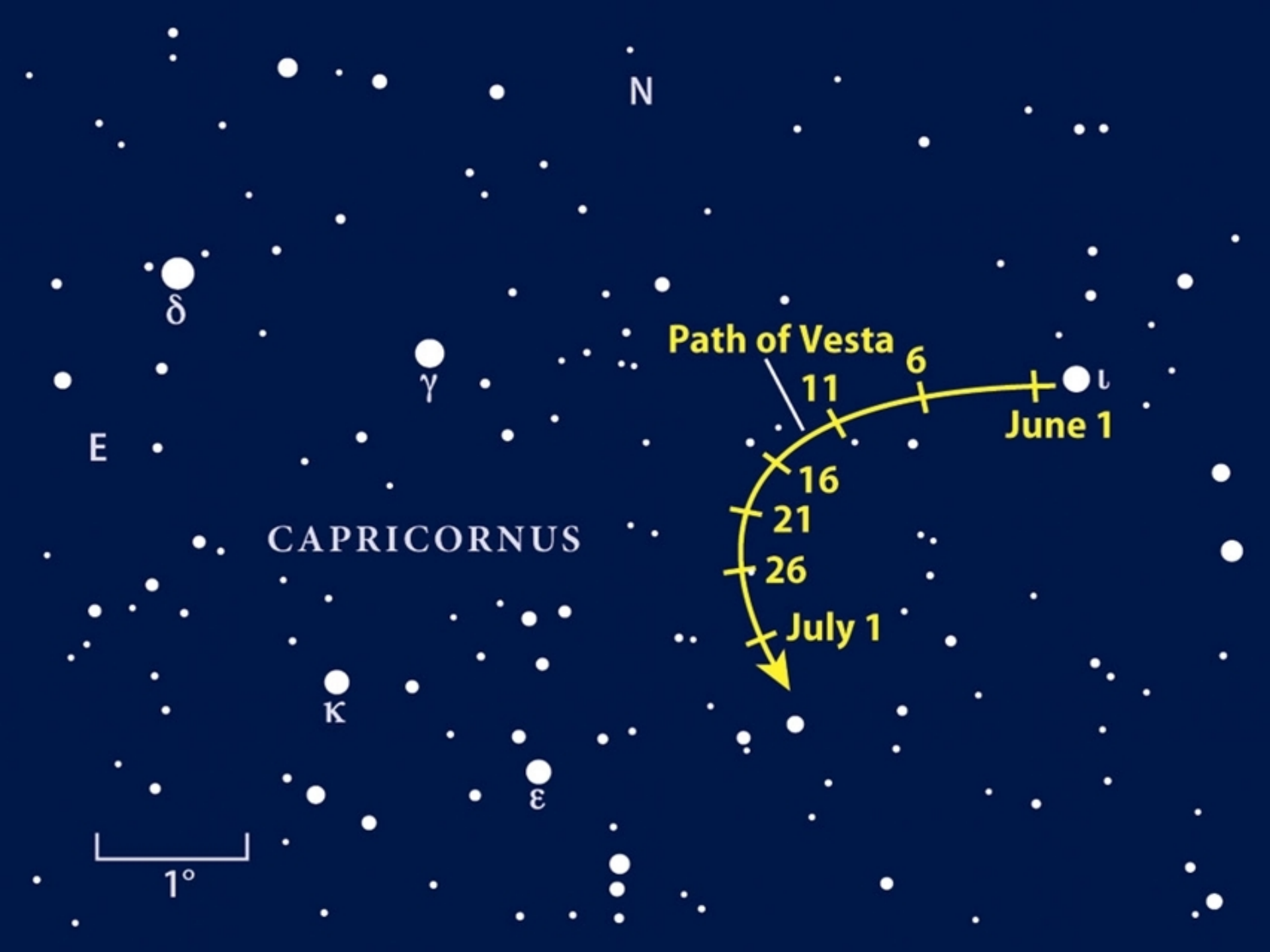
URSA  
MAJOR

URSA  
MINOR

Polaris

June 27, 11 P.M.  
Looking high in the northwest

10°



N

δ

γ

E

CAPRICORNUS

Path of Vesta

11

6

June 1

16

21

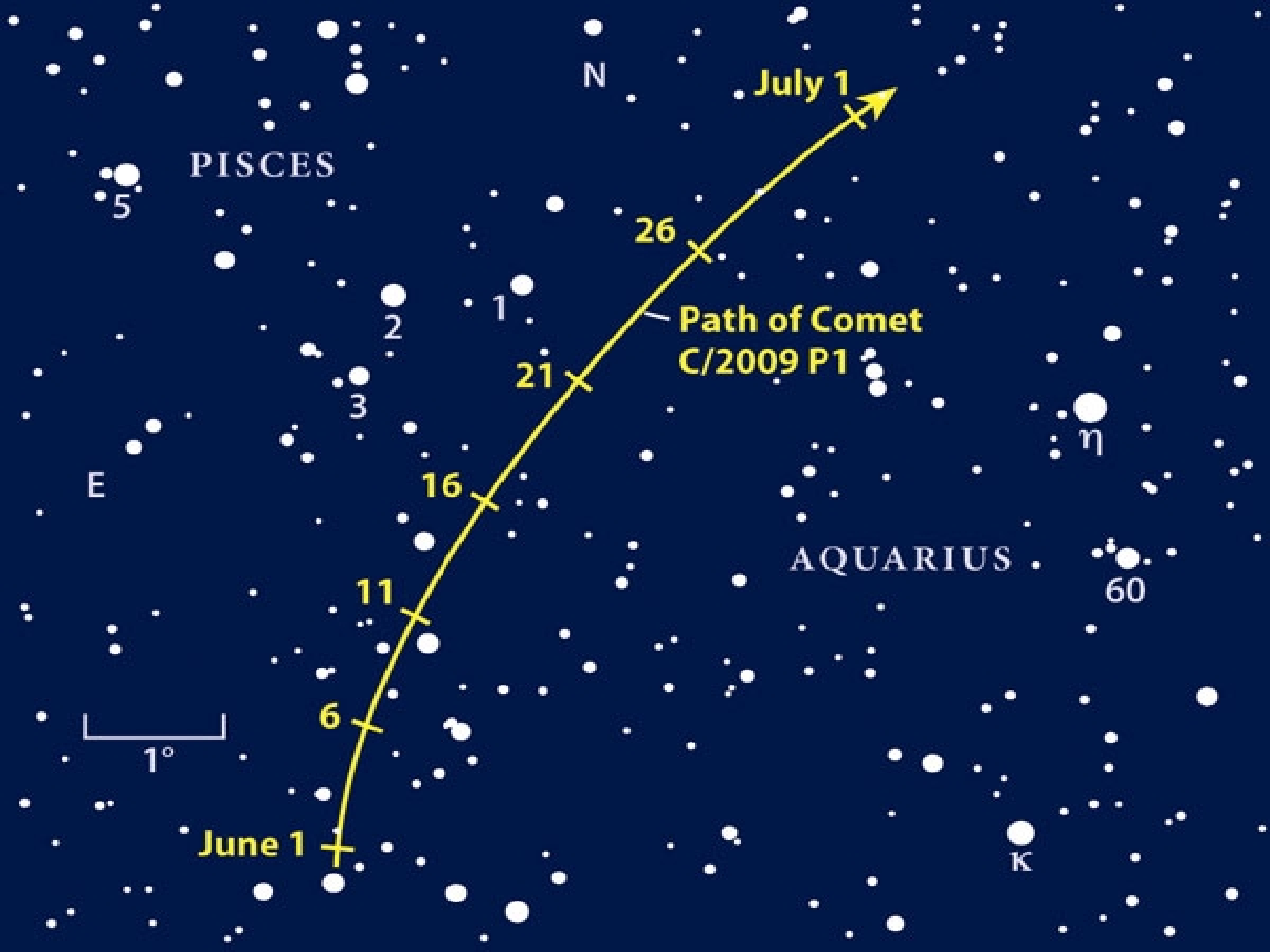
26

July 1

κ

ε

1°



# Target List – Small Telescopes & Binoculars

<b>Object</b>	<b>Type</b>	<b>Mag</b>	<b>Size/Sep</b>	<b>Constellation</b>
M51	Galaxy	8.9	10.8 x 6.6'	Canes Venatici
M63	Galaxy	9.3	12.6 x 7.5'	Canes Venatici
M64	Galaxy	9.3	10.3 x 5'	Coma Bernices
M101	Galaxy	8.2	28.5 x 28.3'	Ursa Major
M104	Galaxy	9.2	8.6 x 4.2'	Virgo
Porrina	Double Star	4.5	3.6"	Virgo
Cor Caroli	Double Star	2.9	19.4"	Canes Venatici
M3	Globular	7.0	16.2'	Canes Venatici
M5	Globular	7.0	17.4	Serpens
M13	Globular	7.0	16.6'	Hercules
NGC6543	Cat's Eye Neb	8.3	.38'	Draco
SS Virginis	Carbon Star	6.0	n/a	Virgo

SS Virginis – RA 12h 25.2min DEC +00 46'





# NGC 6543 – Cat's Eye Nebula

- Planetary nebula in Draco. In the center of the nebula is a bright hot star that lost its outer envelope about 1000 years ago.
- Discovered by William Herschel on February 16, 1786
- Approximate distance 3,300 light years
- The 1<sup>st</sup> planetary nebula to be observed with a spectroscope (William Huggins on August 29, 1864)
- This is a structurally complex nebula and the process that led to its formation is still not fully understood.



# Cat's Eye Nebula – What is it ?

- The central part of the nebula consists of an elongated bubble filled with hot gas. This inner bubble is nested within 2 larger spherical bubbles.
- The stellar wind inside the nebula appears to have burst the inner bubble at both ends.
- Outside the inner portion of the nebula is a series of concentric rings or gas shells thought to have been ejected by the central star before the formation of the planetary nebula
- It is also suspected that the inner star may be binary in nature although a companion star has not ever been observed.



# Web Links

- **Astronomy Magazine**  
[www.astronomy.com](http://www.astronomy.com)
- **Sky & Telescope Magazine**  
[www.skyandtelescope.com](http://www.skyandtelescope.com)
- **The Old Farmer's Almanac**  
[www.almanac.com](http://www.almanac.com)
- **Hubblesite**
  - [www.hubblesite.org](http://www.hubblesite.org)
- **The Daily Galaxy**
  - [www.dailygalaxy.com](http://www.dailygalaxy.com)
- **Wikipedia – The free online encyclopedia**  
[www.wikipedia.org](http://www.wikipedia.org)

# Jon Wood Field

- Amt collected through 6/4: \$ 361.00
- Driveway gravel 5/14: -\$ 350.00
- APC Sign Co. 6/2: -\$ 54.00
- =====
- Acct Balance (deficit): -\$ 43.00

**Clear Skies!**