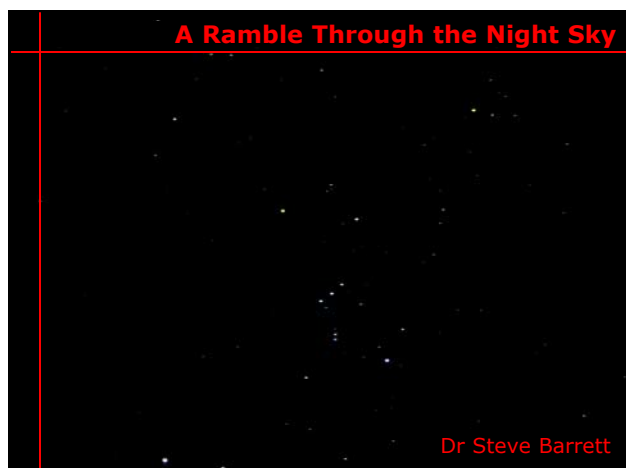
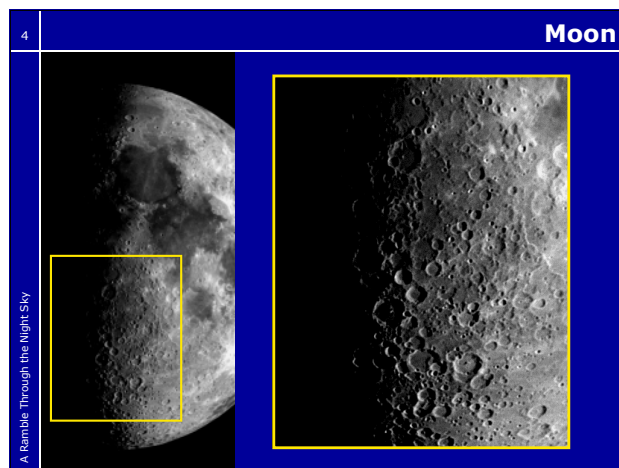
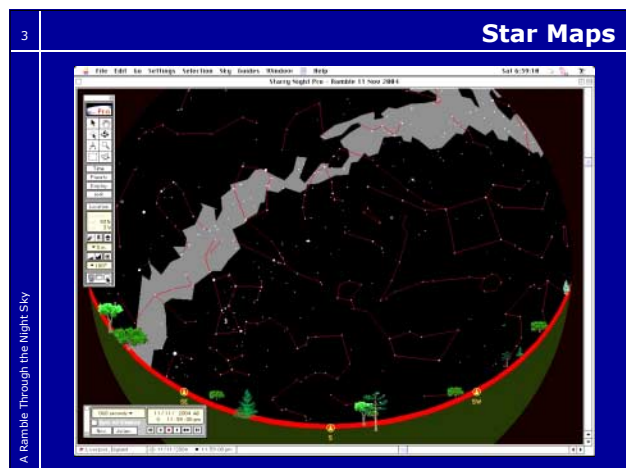


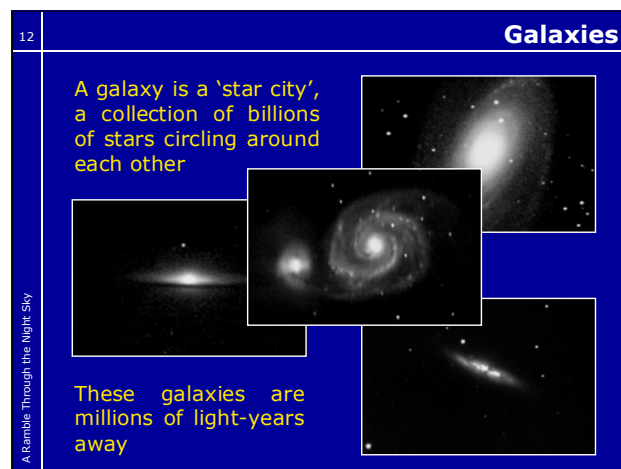
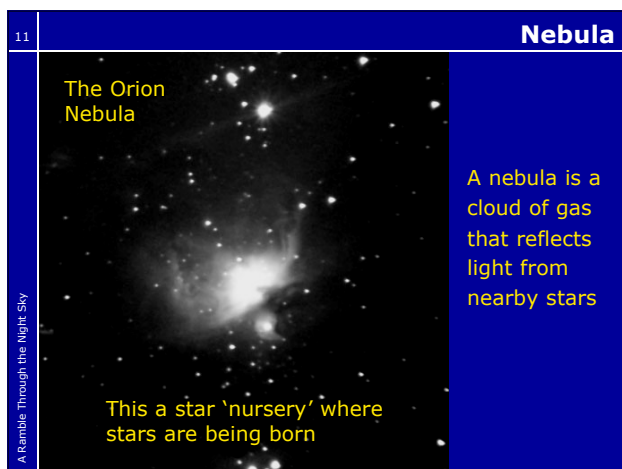
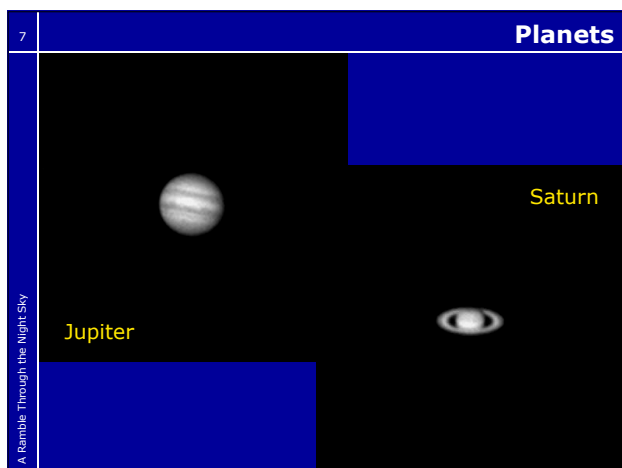
# A Ramble Through the Night Sky



2	Contents of Talk
A Ramble Through the Night Sky	What is up there? Moon, stars, planets, comets, aurora, nebulae, galaxies
	How can I find my way around? Magazines, books, planisphere, software
	What if I want to see more? Binoculars, small telescopes, 'smart' telescopes
	How can I take photos? 35mm cameras, electronic cameras
	How can I learn more? Magazines, books, software, courses



# A Ramble Through the Night Sky



# A Ramble Through the Night Sky

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## Want To See More?

Binoculars, small telescopes or big telescopes?

Is the image...

- Bright? Bigger is better
- Clear? Bigger is better
- Steady? Must have a stable mounting
- Big? Not that important

10x50 binoculars are a great way to start


What type of telescopes are there?

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## Telescopes


There are many types of telescopes available, making a choice somewhat confusing



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## Telescopes



**Refractors**  
Use lenses to focus the light

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## Telescopes




**Refractors**  
Use lenses to focus the light

**Reflectors**  
Use mirrors to focus the light

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## Telescopes



**Refractors**  
Use lenses to focus the light

**Reflectors**  
Use mirrors to focus the light

**Schmidt-Cassegrains**  
Use both lenses and mirrors

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## Telescopes



**Refractors**  
Use lenses to focus the light

**Reflectors**  
Use mirrors to focus the light


**Schmidt-Cassegrains**  
Use both lenses and mirrors

**Compact S-C**  
Have user-friendly controllers to point the telescope

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# A Ramble Through the Night Sky

19	<b>Astronomical Observatories</b>
A Ramble Through the Night Sky	<p>A domed observatory provides a stable platform for the telescope and shelter from the wind</p> 

20	<b>Astronomical Observatories</b>
A Ramble Through the Night Sky	 <p>The Hale telescope was built in the 1940s and has a mirror 5m (200") in diameter.</p> <p>For half a century, it remained the world's largest telescope.</p>

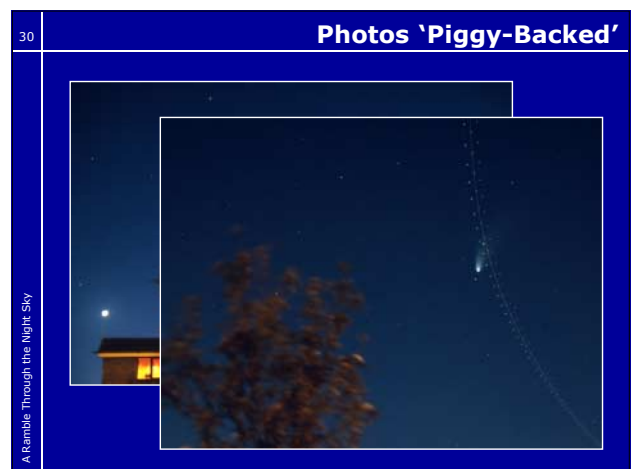
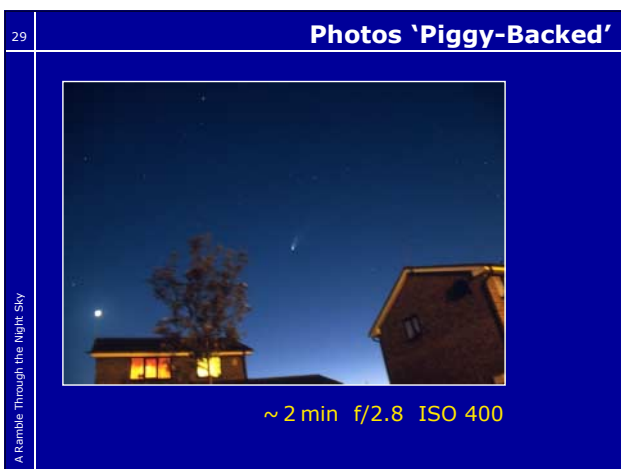
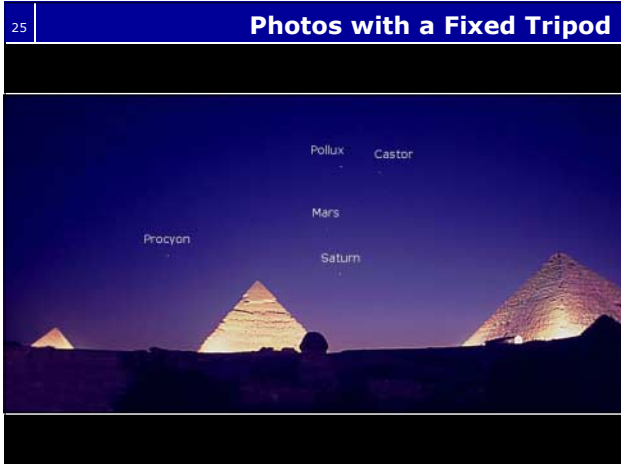
21	<b>Astronomical Observatories</b>
A Ramble Through the Night Sky	

22	<b>Taking Photographs</b>
A Ramble Through the Night Sky	<p>35 mm cameras with 'B' setting</p> <p>Mount the camera...</p> <ul style="list-style-type: none"><li>on a fixed tripod</li><li>'piggy-backed' on a telescope</li><li>onto a telescope, using it as a lens</li></ul> <p>Manual better than automatic (old cameras!)</p> <p>Modern digital cameras are very sensitive, but exposure time is limited to ~ 30 sec</p>

23	<b>Photos with a Fixed Tripod</b>
	 <p>~ 5 mins f/2.8 ISO 200</p>

24	<b>Photos with a Fixed Tripod</b>
	 <p>1 hour f/5.6 ISO 400</p>

# A Ramble Through the Night Sky



# A Ramble Through the Night Sky

