

Astrophotography for Beginners



Interactive Workshop

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With contributions from OASI members

Whats Covered...



- ⌘ Equipment
- ⌘ Processing and developing hints
- ⌘ Unguided and guided camera shots
- ⌘ Afocal shots using a telescope
- ⌘ Other hints and tips
- ⌘ Mistakes!

Part 1 - Unguided photography



- ⌘ Not an expensive black art
- ⌘ Simple equipment
- ⌘ Many suitable subjects
- ⌘ Get to know your equipment!
- ⌘ Keep notes
- ⌘ Discussion

Project Ideas...



- ⌘ Twilight and night time shots
- ⌘ Star trails
- ⌘ Constellations
- ⌘ Comets when they appear!
- ⌘ Meteor showers (difficult)

Twilight shots...

A thick, horizontal yellow brushstroke underline that spans the width of the text above it, with a slightly textured, hand-painted appearance.

Shotley Peninsula

58 mm, F2, 2 sec, ASA 200



Moonrise, Home

58mm, F2, 3 sec, ASA 200



Moonrise, Stutton, nr Alton

58mm, F2, 4 sec, ASA 200



Moonrise, Orwell

58mm, F2, 5 sec, ASA 200



Orwell Bridge

58mm, F2, 20 sec, ASA 200



Nice piccy Ted?

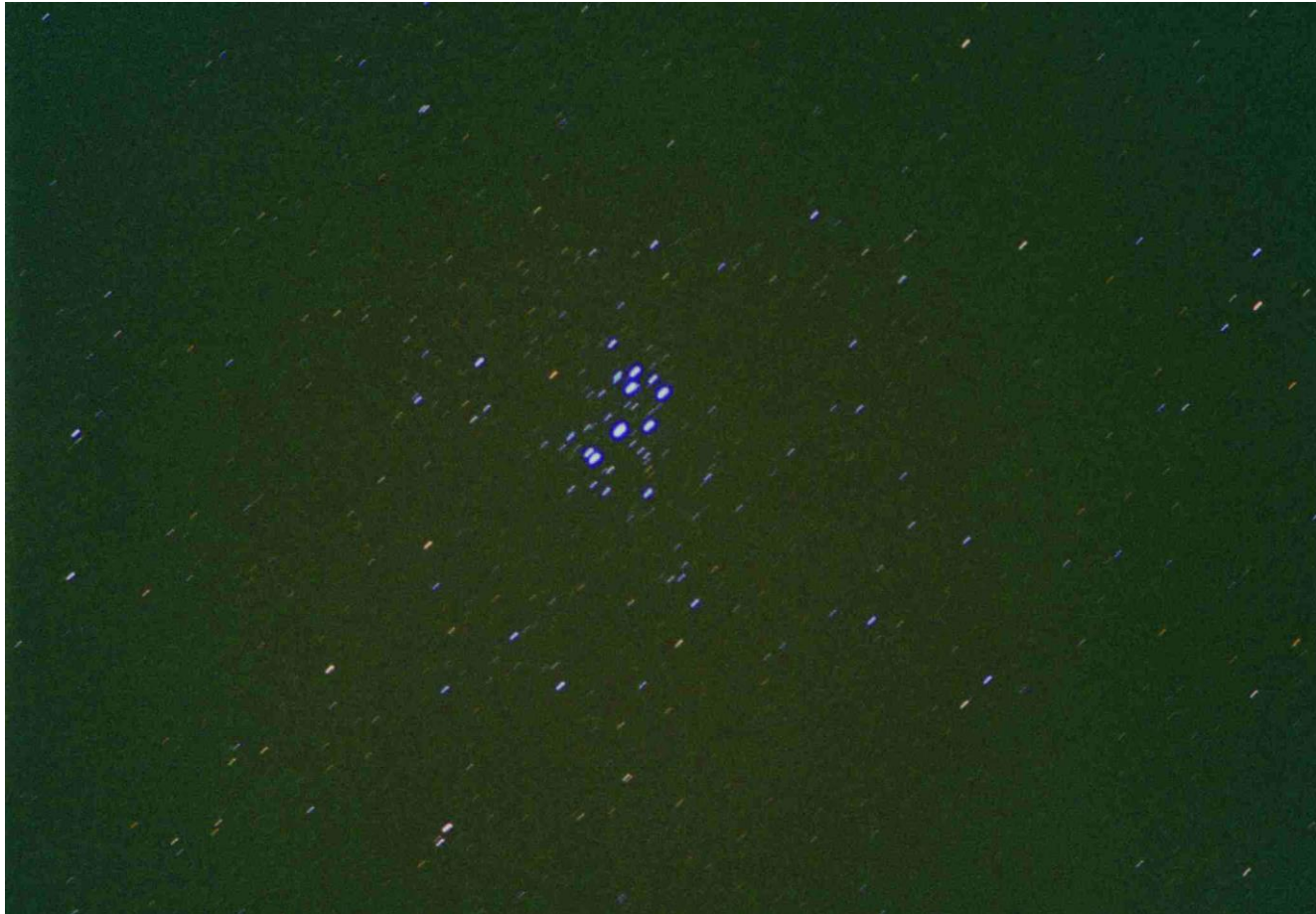


Star Trails...



Pleiades 1

SLR 135mm, F2.8, 22 sec, ASA 1000 KRG



Pleiades 2

SLR 135mm, F2.8, 22 sec, ASA 1000 KRG



Pleiades 3

SLR 135mm, F2.8, 22 sec, ASA 1000 KRG



Comets...



Hale Bopp, Dryden Rd

58mm, F2, 2 min, ASA 200



Hale Bopp, Alton Water

58mm, F2, 1 min, ASA 200



Hale Bopp, Henley

58mm, F2, 2 min, ASA 200



Hyukatake, N. Ipswich



Developing and Processing

A thick, horizontal yellow brushstroke underline that spans the width of the slide, positioned directly beneath the title text.

Nice piccy Ken?

Dorset Steam Fair, Tarrant Hinton



Part 2 - Guided Photography



⌘ Manual or automatic?

- Barn Door / Scotch Mount
- Telescope slow motion controls with reticule eyepiece
- Piggyback camera on telescope or other sidereal drive

⌘ Home made or commercial?

- As simple or as complex as you like!

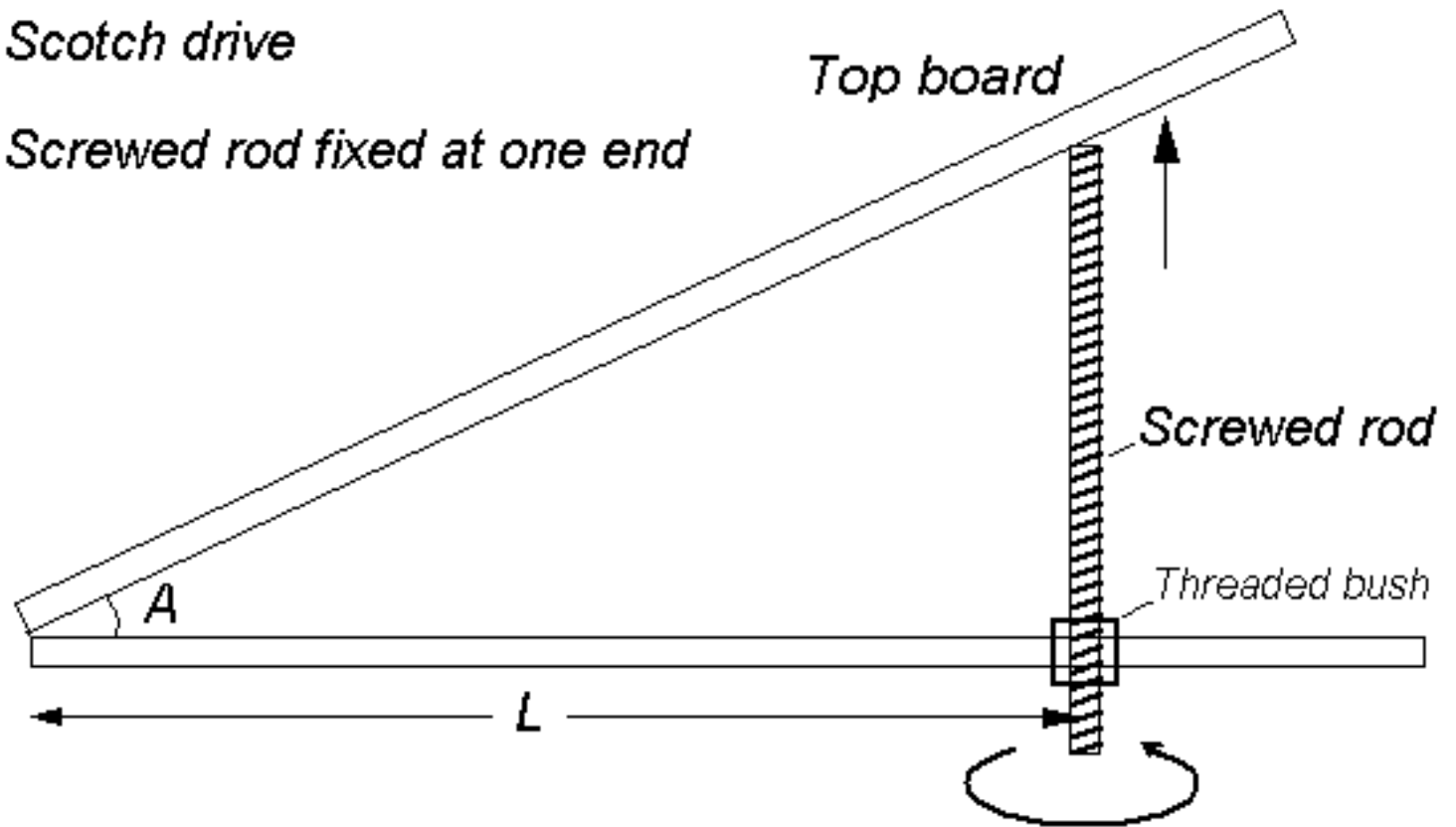
⌘ Accurate polar alignment and tracking

⌘ Discussion

Scotch or Barn Door Mount

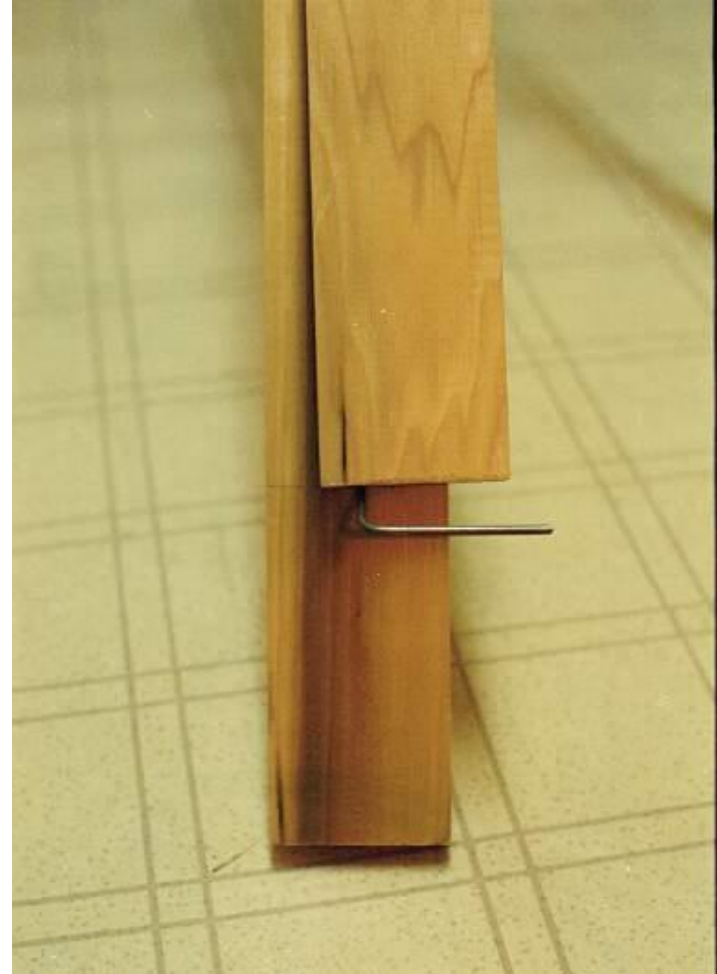
Scotch drive

Screwed rod fixed at one end



Rod turned at constant rate

Alternative Scotch Mount

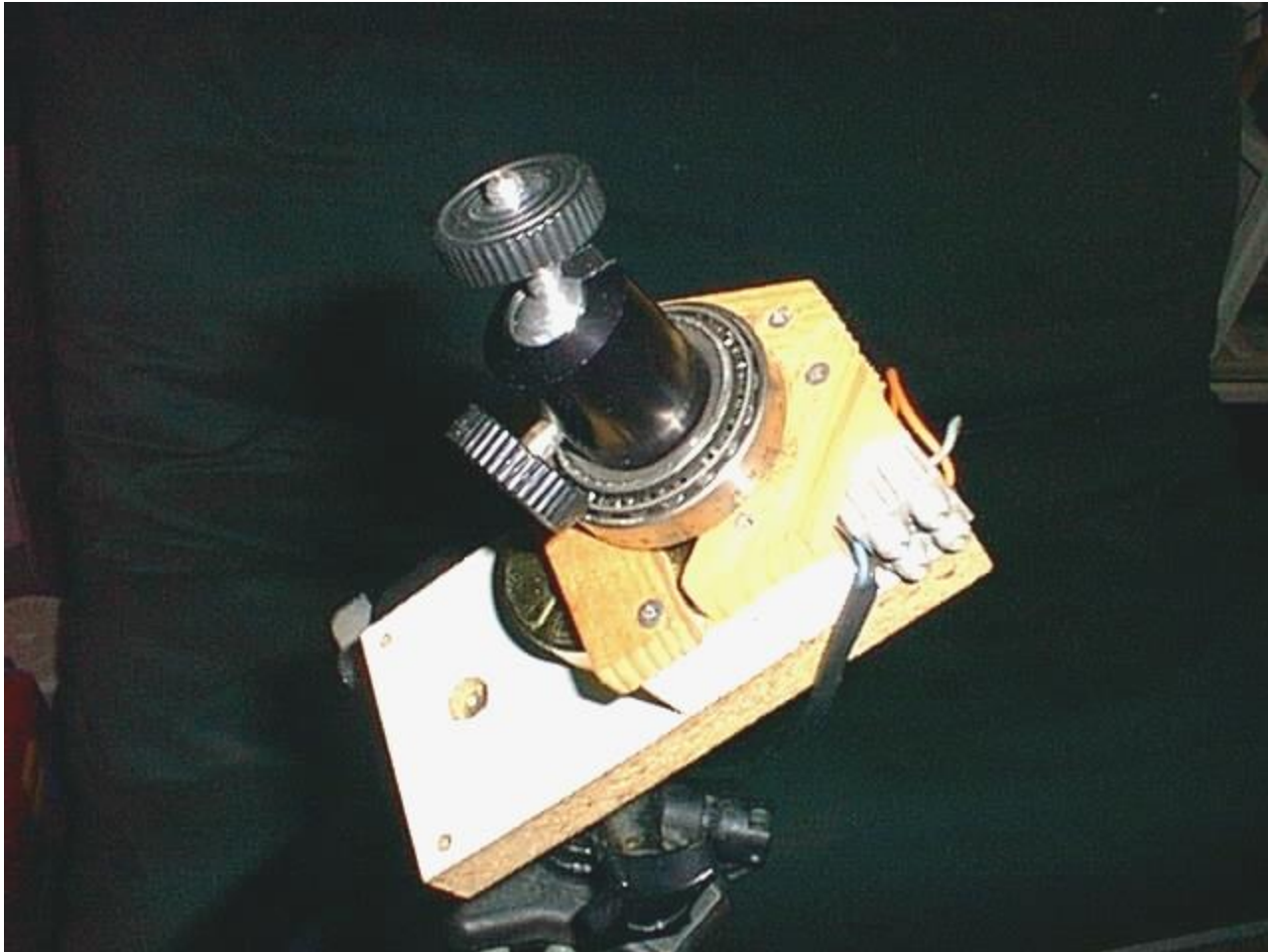


Orion Constellation

Human powered, 45 min, Kodak Gold 400 film



STELAS made from old Central Heating Clock



STELAS Deep Sky Shot

50mm, F1.7, 40 min



Orion

50mm, F1.7, 20 min



Part 3 - Afocal Photography



- ⌘ Simplest telescope coupling (unguided)

 - Skylight filter recommended (protect camera lens)

- ⌘ Difficult alignment and focussing

- ⌘ Variable results - lots of patience!

- ⌘ Good telescope method to start with

- ⌘ Requires good quality eyepiece

- ⌘ Discussion

Here's how it works...

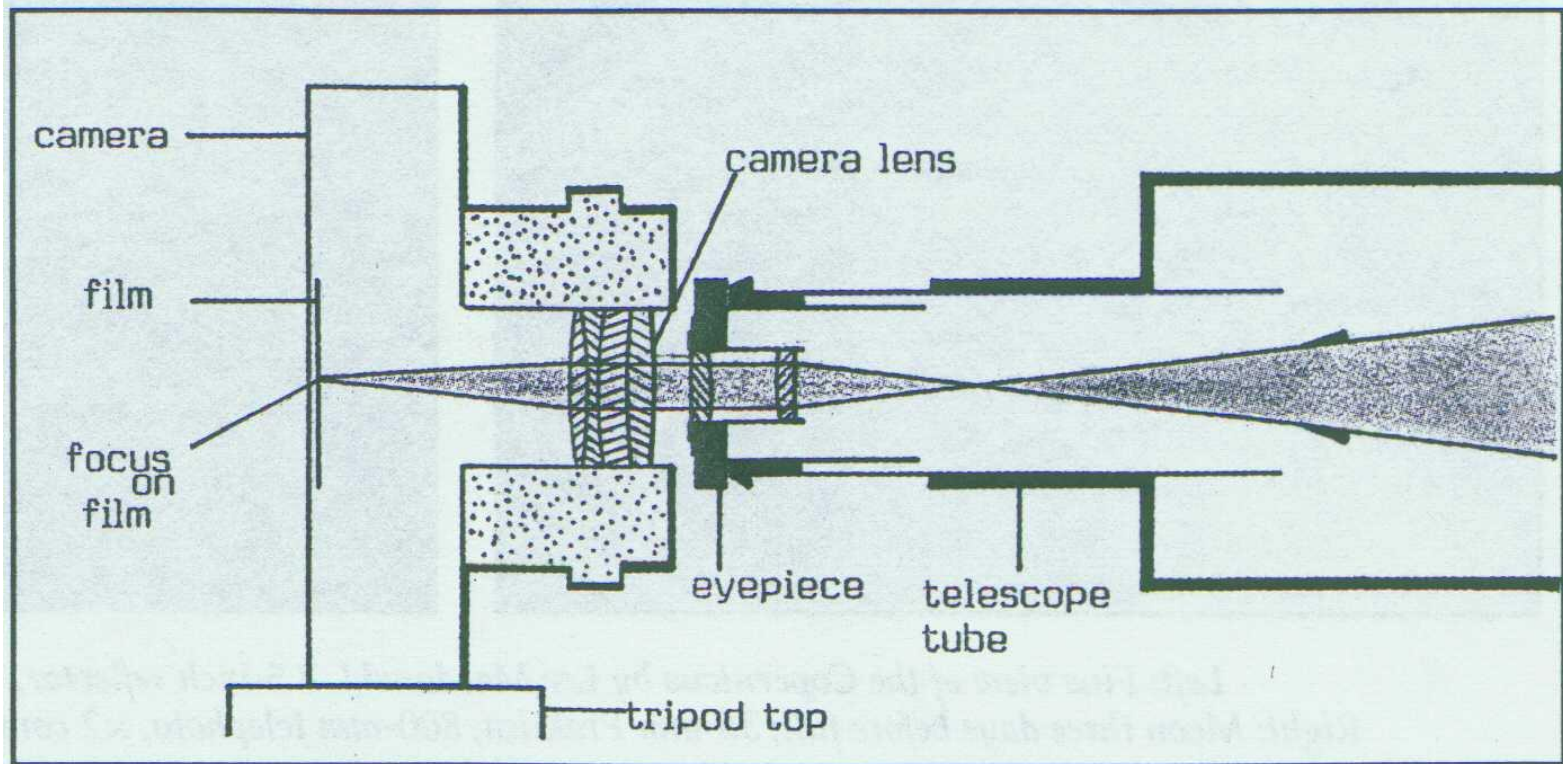


Diagram 1: The arrangement of camera and eyepiece in the afocal method.

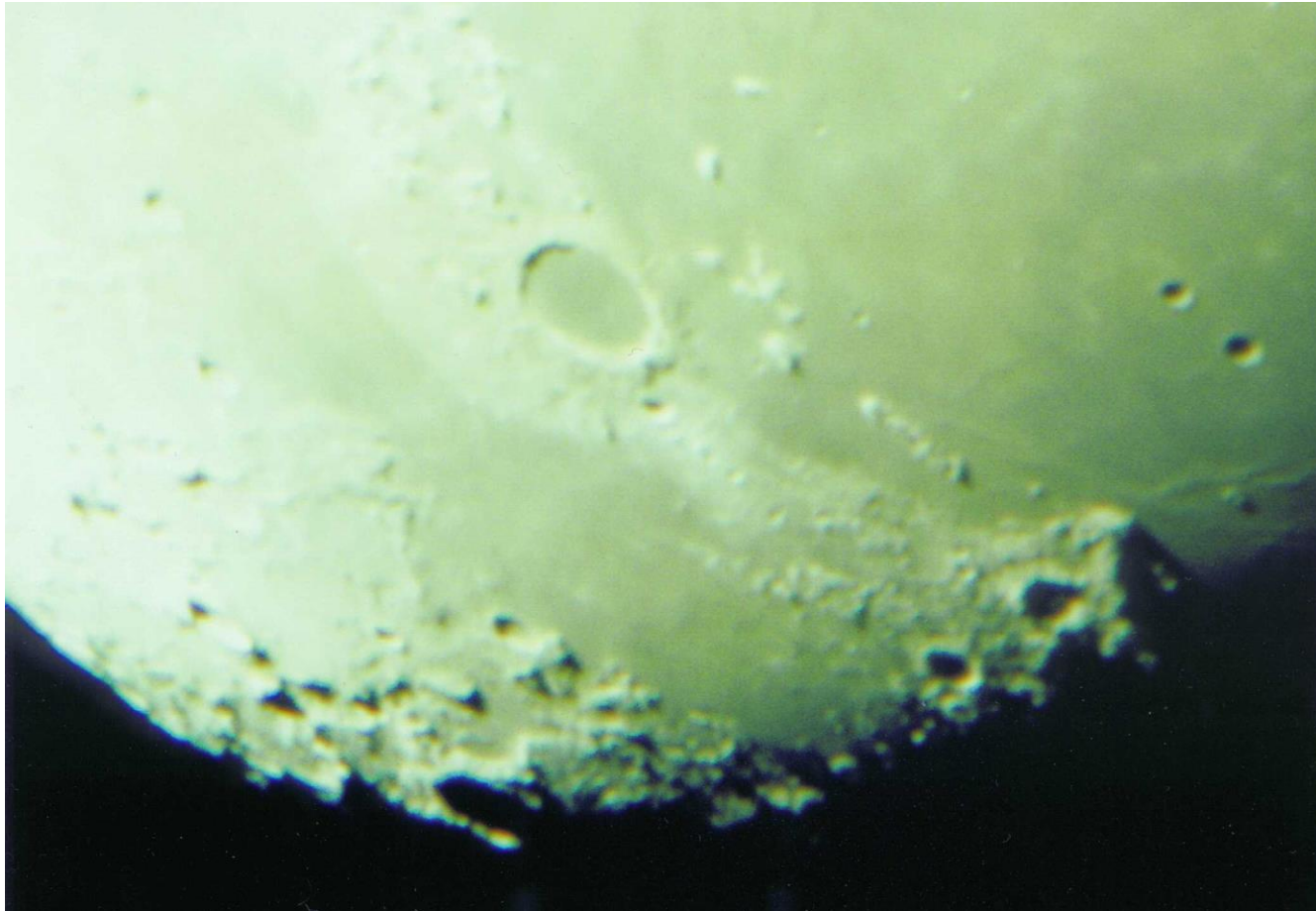
Telescope Photography

LX200 - Afocal and Piggyback methods



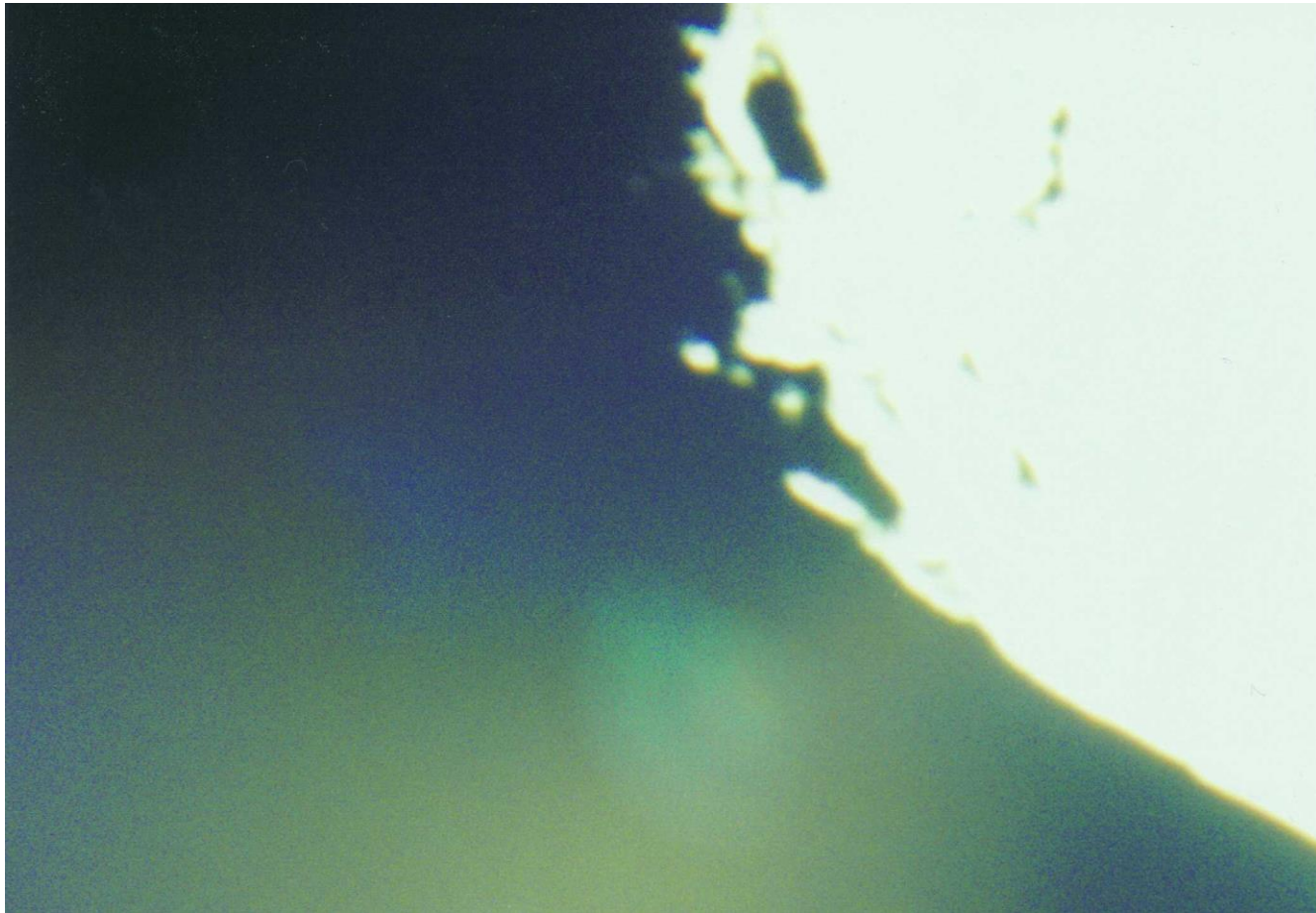
Afocal Moon Shot

SLR 135mm, F2.8, 1 sec, LX200, 18mm EP



Afocal focussing issues

SLR 135mm, F2.8, 3 sec, LX200, 26mm EP



Afocal Shot of Saturn

SLR 135mm, F2.8, 10 sec, LX200, 18mm EP



Discussion



⌘ Questions...?

⌘ Feedback...?

⌘ Ideas...?

⌘ Another session...?

North American Nebula

Ric Pecce

