

Comet C-2023-A3 Observing Using Seestar S50 and SharpCap

Stratford Astronomy Group - KR

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- Comet C-2023-A3 First Image vs Adjusted Image
- SharpCap-Pro Processing of Comet Frame Data
- How to Gather Info Online About a Comet
- How to Set up S50 for Observing a Comet

Comet C-2023-A3 - First Image



- Comet C-2023-A3 Observed 2024-10-21 Evening from Grounds of Centennial School, Rannoch.
- Image has 350 secs of data (35 x 10-sec frames) captured during scope observing period of 800 sec. On-the-fly stacking as S50 scope built up image.
- Frames are aligned to match up star positions. Comet image is blurred by 800 sec movement. Hides structure of comet head and also tail.

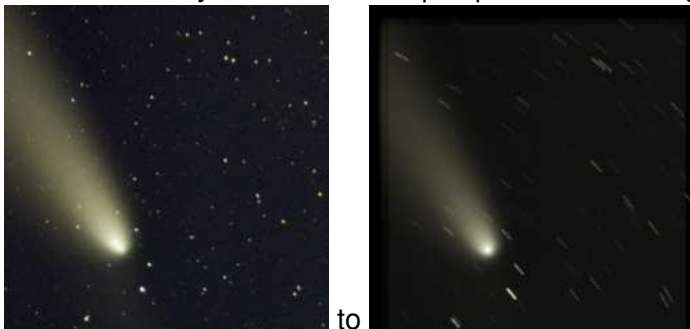
Comet C-2023-A3 - Adjusted Image



- Comet C-2023-A3 Observed 2024-10-21 Evening from Grounds of Centennial School, Rannoch.
- Image has 320 secs of data (32 x 10-sec frames). Frames data transferred to Windows 8.1 laptop. Software used was SharpCap Pro version 4.1.13800
- Frames aligned on comet head (brightest object). Comet head and tail are shown in better detail. Star trails show 800 sec move of sky background.

Comet C-2023-A3 - Processing Notes

- S50 On-The-Fly to SharpCap Pro ReStacking



- Frames from S50 go into SCP as “Folder Camera”. Then SCP stacks the frames with “comet align”.
- Adjust colours using histogram sliders in SCP. Black level slider gets rid of background fuzz. Stretching can favour detail in comet head or tail.

Gathering Info About a Comet

- Most comets of interest have a Wiki page.
Comet C/2023 A3 (from Oort cloud, may go hyperbolic if it gets a boost from planet flyby.
Comet C/2025 N1 = 3I/ATLAS (fast hyperbolic visitor).
- Good background on the wiki pages, lots of info.
External links to the ephemeris at JPL, other info.
- Scientific papers at arxiv.org, search for common name.
eg: “comet 2023 A3” or “comet 3I/ATLAS”
Abstracts alone tend to be quite informative.
Papers (pdf files) give lots of detail and methods.

Set Up Seestar for Observing a Comet

- Use COBS.SI website to see what comets are “up”.
For example, C/2025-T1 mag 10 at RA and DEC.
- Set up custom item C-2025-T1 in Seestar RA and DEC.
Orient S50 by quick seek to three fixed stars in sky.
Then go to custom object for comet and gather info.
Adjust position slightly if needed to get tail in frame.
- Will it work? Depends. Comet may be below horizon!
Mag may be too faint. but one can get started fast.
COBS.SI is easier to use than JPL Horizon ephemeris.