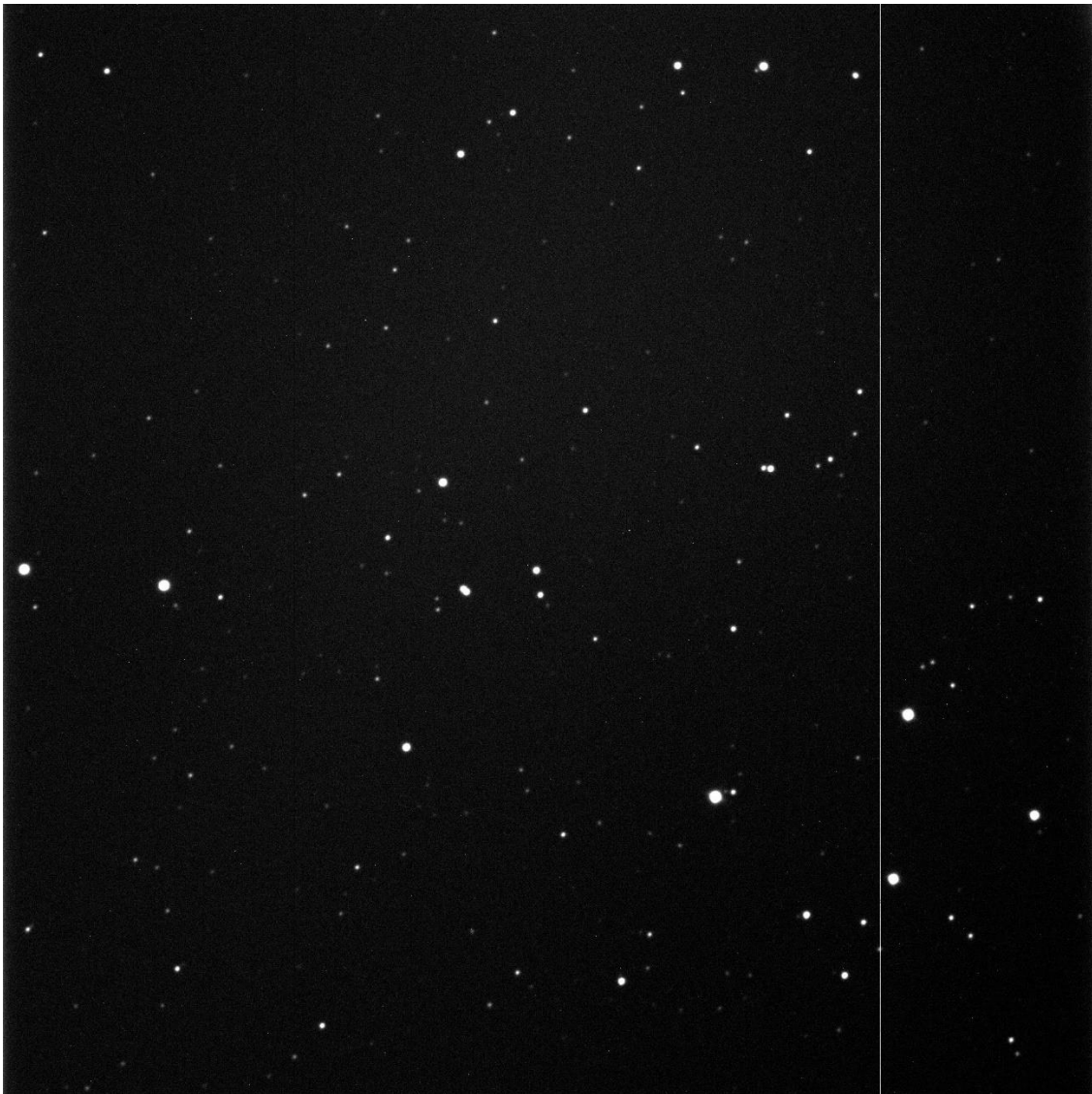# 1 m telescope tracking and pointing accuracy test

The tracking and pointing accuracy of 1 m telescope has been test by taking 5 images with 30, 90, 180, 300 sec exposure time. The following images are the test result.
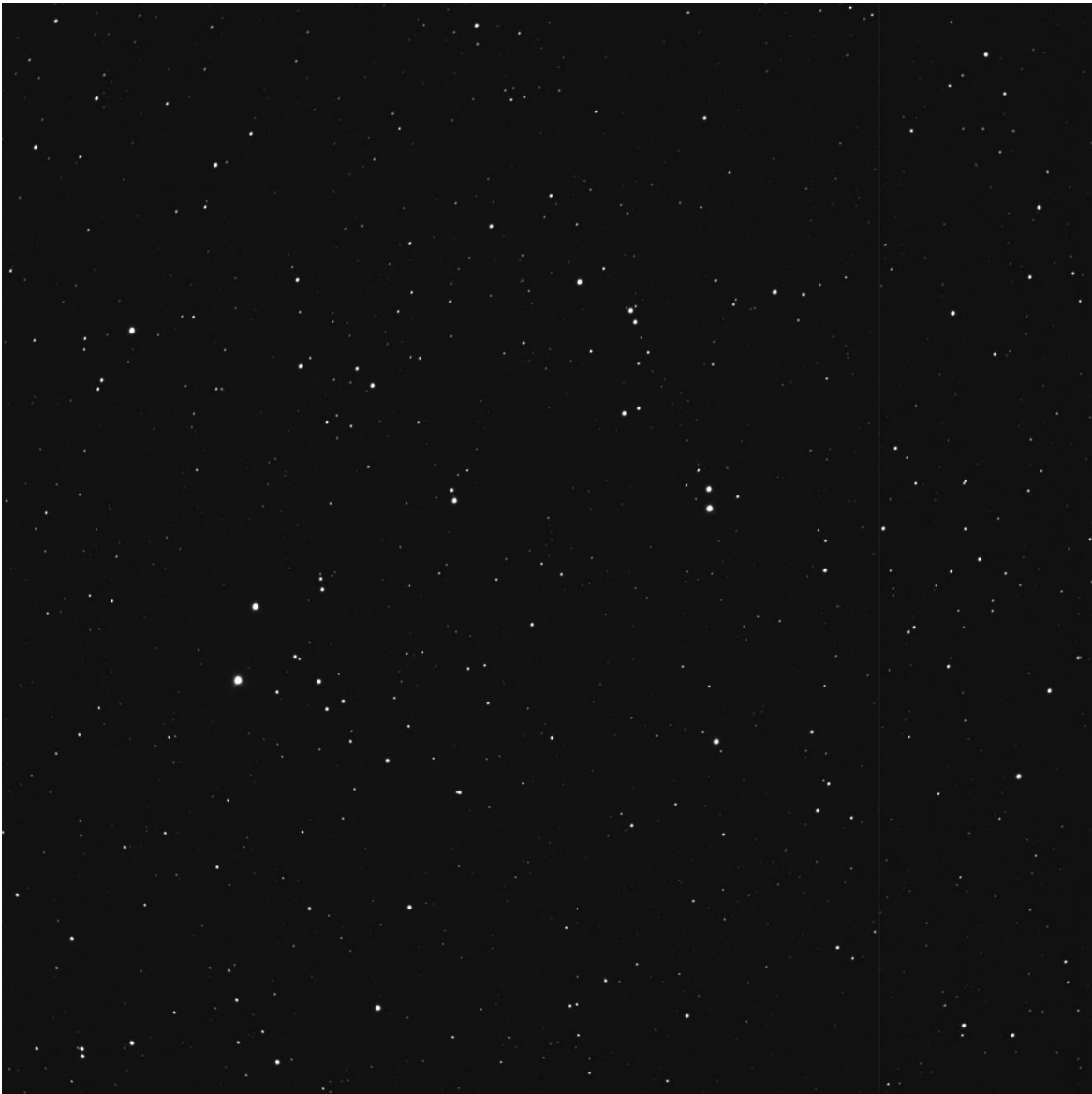
*** The test has been run with Finger Lake 4K by 4K CCD, Nasmyth port 1 and no wind turbulence ***

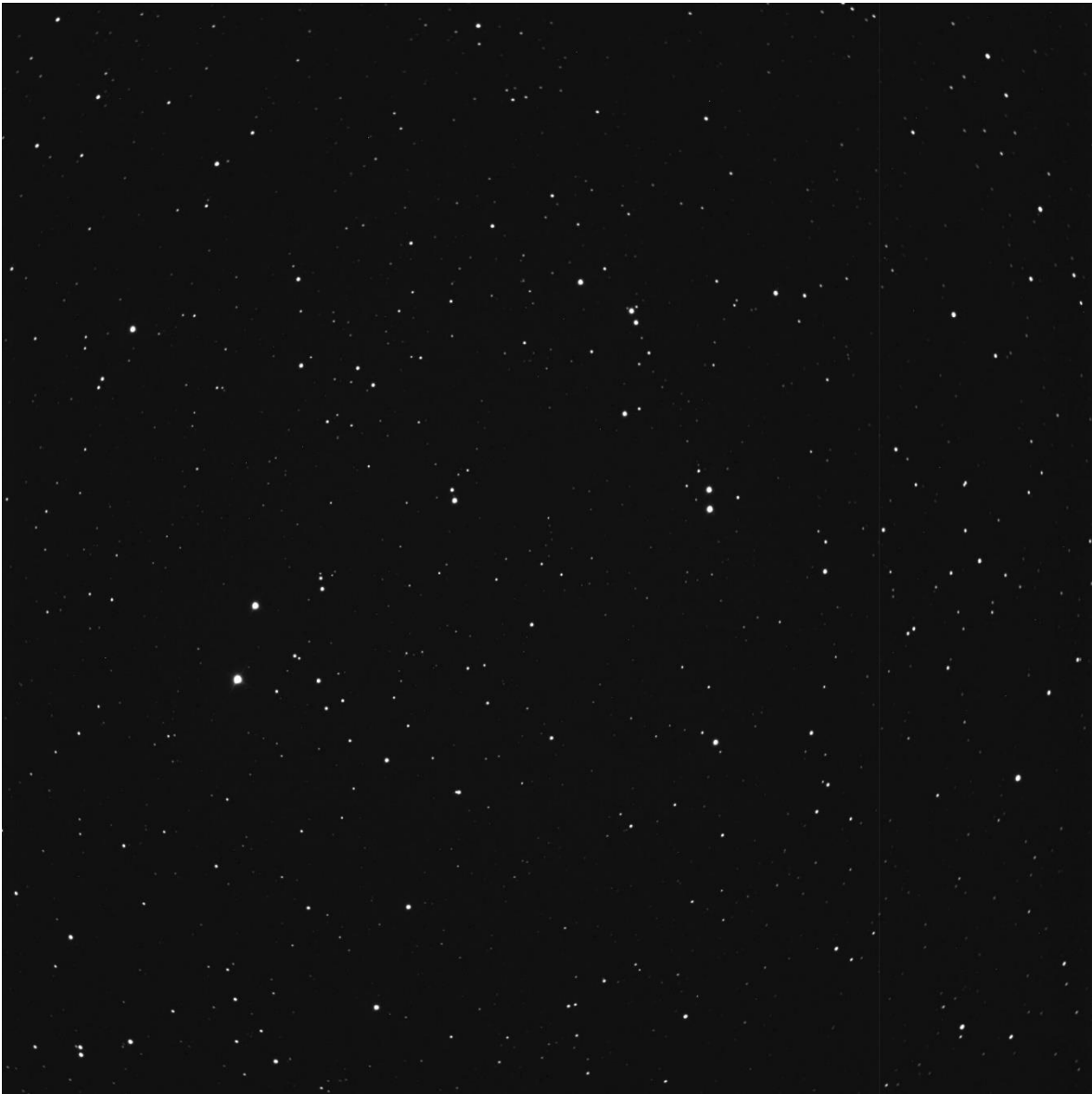1) 5 images and 30 sec exposure time

-   The pointing accuracy is about 2.32 arcsecond RMS with pointXP.
-   The tracking accuracy is about 0.05 arcsecond RMS.

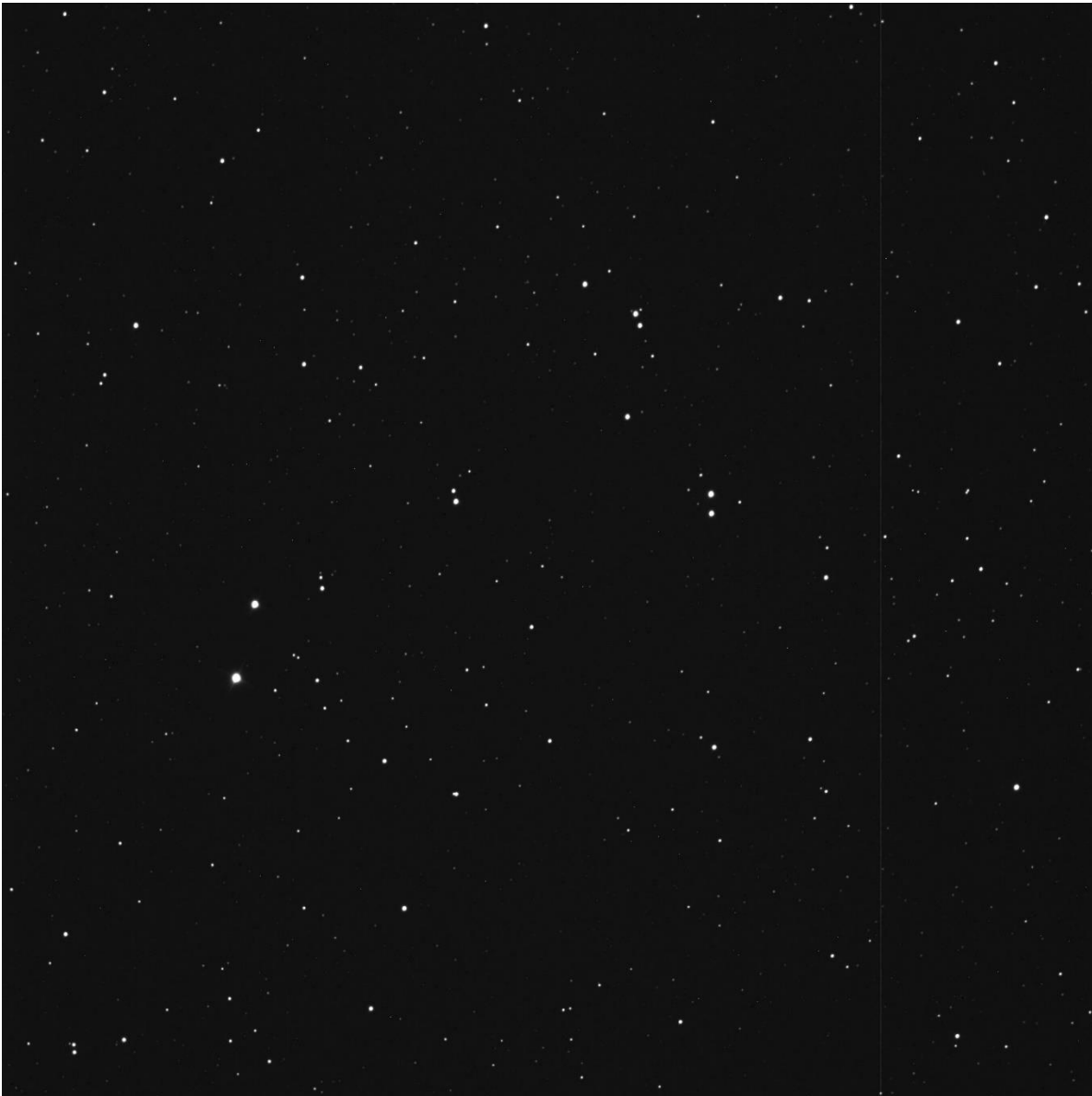2) 5 images and 90 sec exposure time

- The pointing accuracy is about 3.05 arcsecond RMS with pointXP.

- The tracking accuracy is about 0.09 arcsecond RMS.

3) 5 images and 180 sec exposure time

- The pointing accuracy is about 2.87 arcsecond RMS with pointXP.

- The tracking accuracy is about 0.15 arcsecond RMS.

4) 5 images and 300 sec exposure time

- The pointing accuracy is about 3.56 arcsecond RMS with pointXP.
- The tracking accuracy is about 0.26 arcsecond RMS.

*** The major problem that will take an effect to a telescope axis (elevation axis) is the wind turbulence. Recommended to use clamshell dome shutter to increase tracking quality while taking long exposure. ***