

VT instrument and data

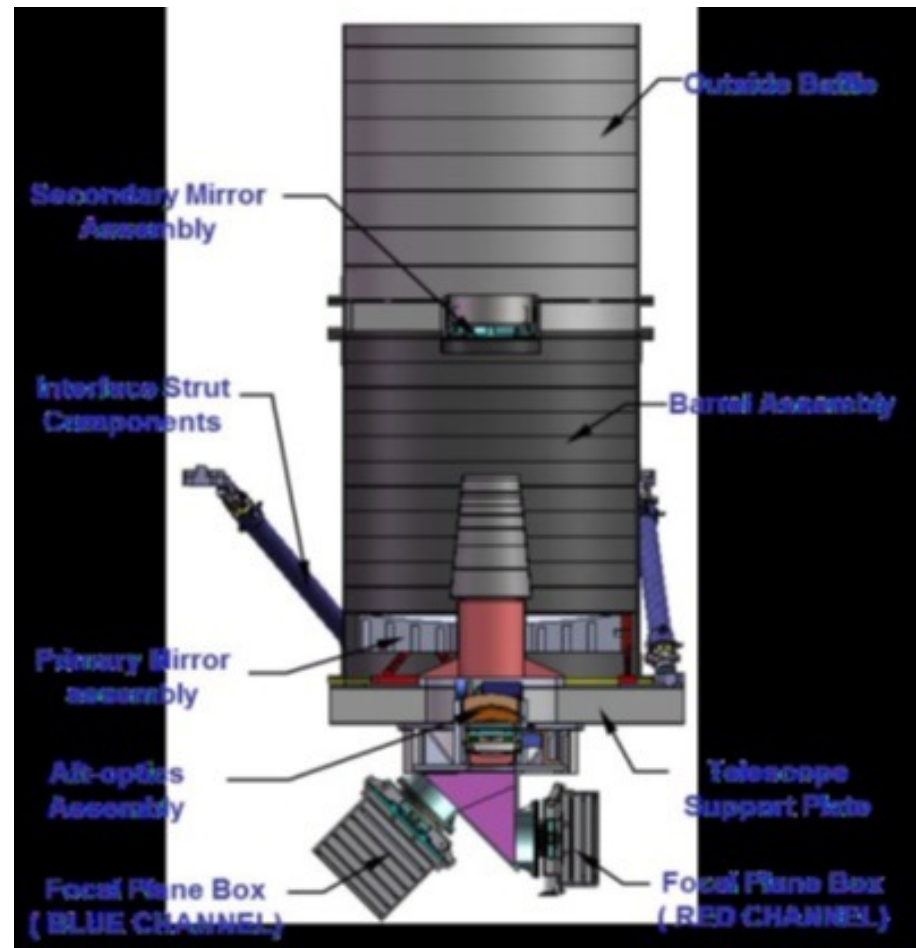
--on Non-GRB Sciences

Yulei QIU

SVOM Team@NAOC

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SVOM VT



VT main specifications review

- Diameter : **40cm** ; Focal Length: **360cm**
- FOV: **26'x26'**
- Encircled energy : **80%** and **70%** within the radius of 0.77aresec in blue and red channels, respectively.
- Two channels: **400 – 650 nm**(blue); **650 – 1000 nm**(red)
- CCDs for two channels :
 - ✓ **2kx2k, 13.5 μ m** for both CCDs
 - ✓ Cooling temperatures: **-65C** (blue) and **-75C** (red)
 - ✓ blue : thinned CCD, QE **~90%** at 600nm cooling
 - ✓ Red : deep depletion CCD, QE **> 50%** at 900nm)
 - ✓ Readout noise for both CCDs:
 - < **8e-/pix** (for 15s exp.) ; < **6e-/pix** (for \geq 100s exp.)

VT's performance for General Program

- Limiting magnitude $M_v=22.0$ for a 100s exposure.
- Unsaturated magnitude: $M_v=12$ for 15s
- Relatively photometric accuracy: $\sim 0.5\%$
- Absolute photometric accuracy: $\sim 1\%$

Those will be improved if intra-pixel non-uniformity effect can be corrected.

- The angle to the Moon/Earth limb: >30 deg.

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Observing sequence

- Exposure time: 1s-100s
- Readout time: ~12s

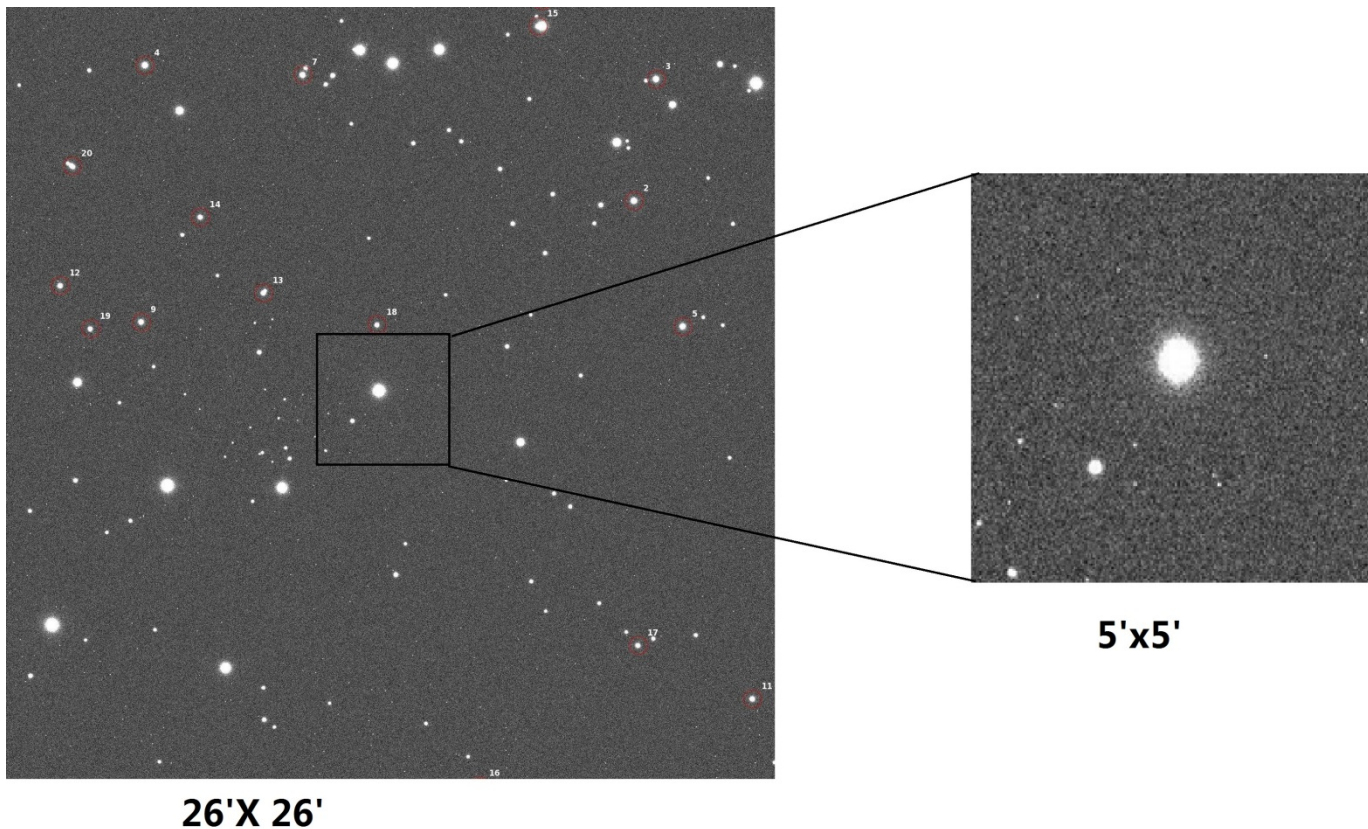
➤ Exposure:

- ✓ 12-100sec: no dead time.
- ✓ 1-12sec: with dead time.

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Downloading strategy

For observations of known sources, only central sub-images are downloaded to the ground. The sizes are 5'x5' (100pix x 100pix) or smaller.



Data Processing strategy for Non-GRB sciences

- Raw data : ok.
- Calibrated data: ok.
- High level data products ?

At SCs, there are probably some pipelines or tools which can be used to produce high level products: photometry of all stars in images, light curves...

Thanks !

Questions ?