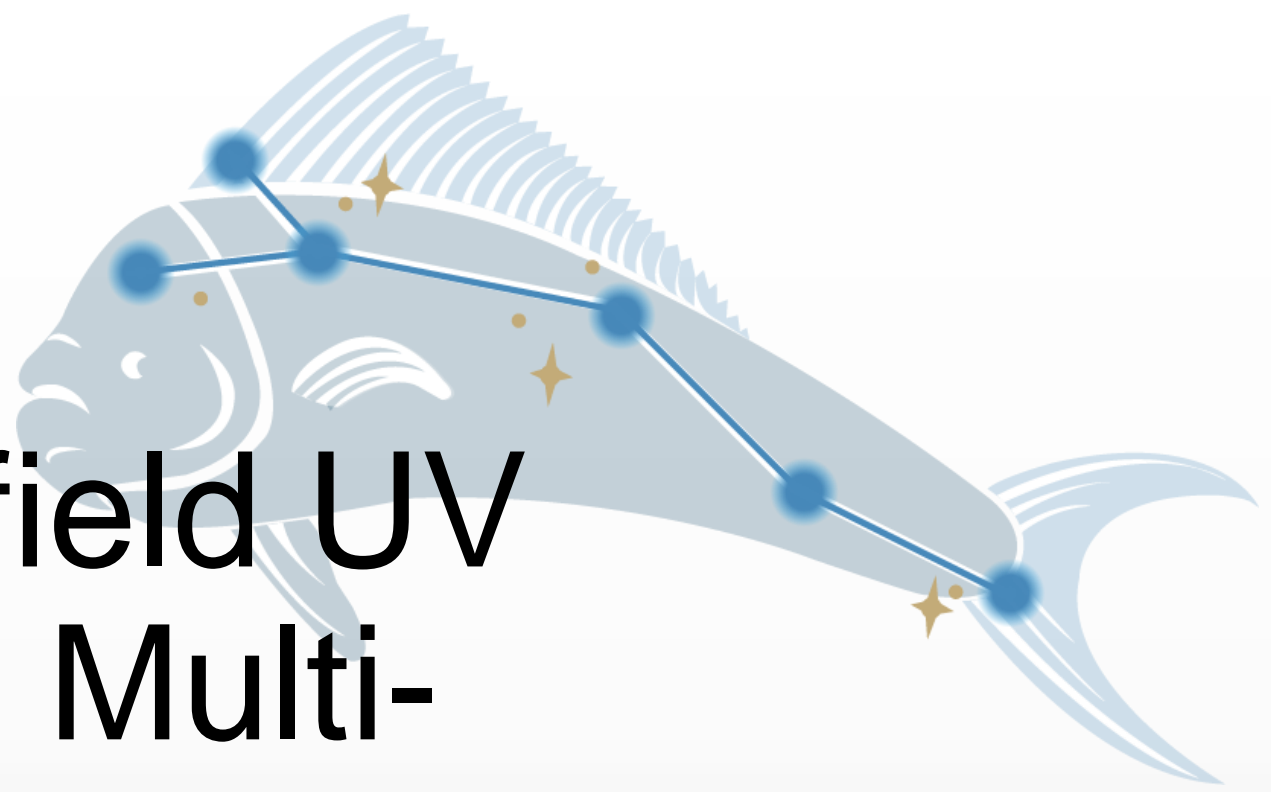
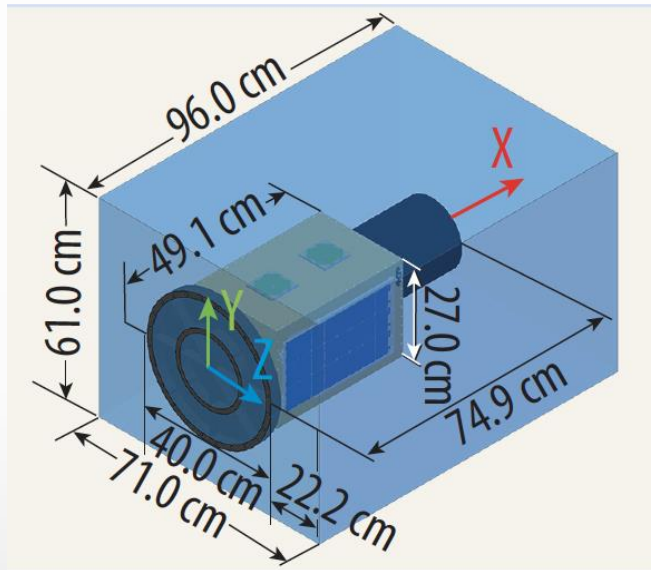


Dorado: Wide-field UV Imaging for the Multi- Messenger Era

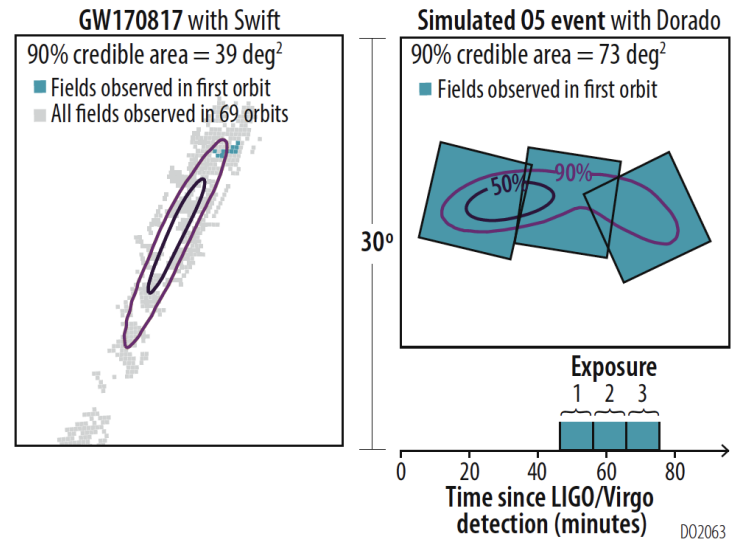
S. Bradley Cenko, NASA GSFC



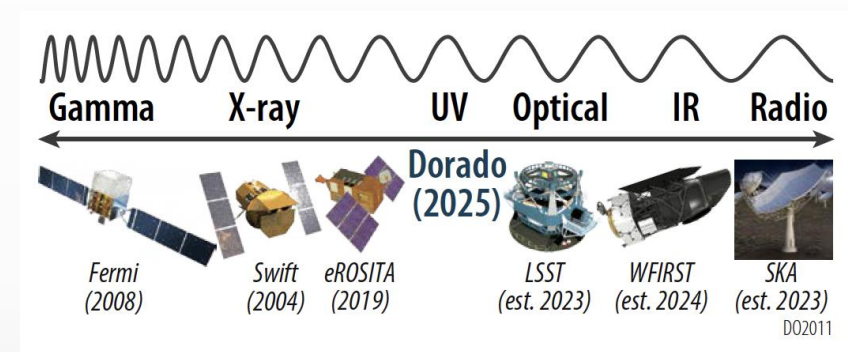
Dorado Mission of Opportunity



Wide-field (50 deg²)
NUV (185-215 nm)
imager on SmallSat,
deployed from ESPA port

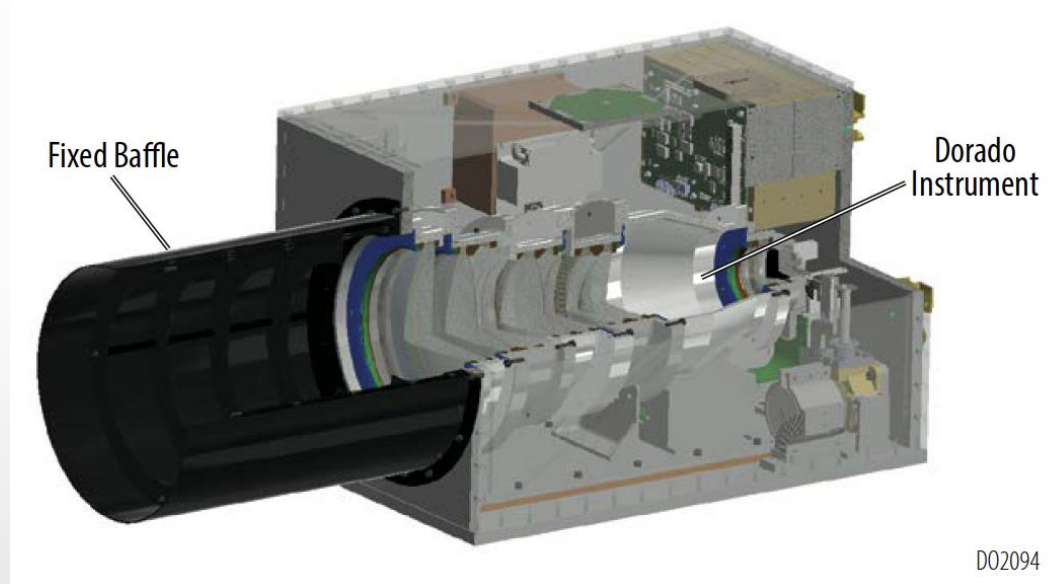


Science Goal 1: Prompt (< 2 hour), high-cadence (95 minute) follow-up of binary neutron stars discovered via gravitational waves

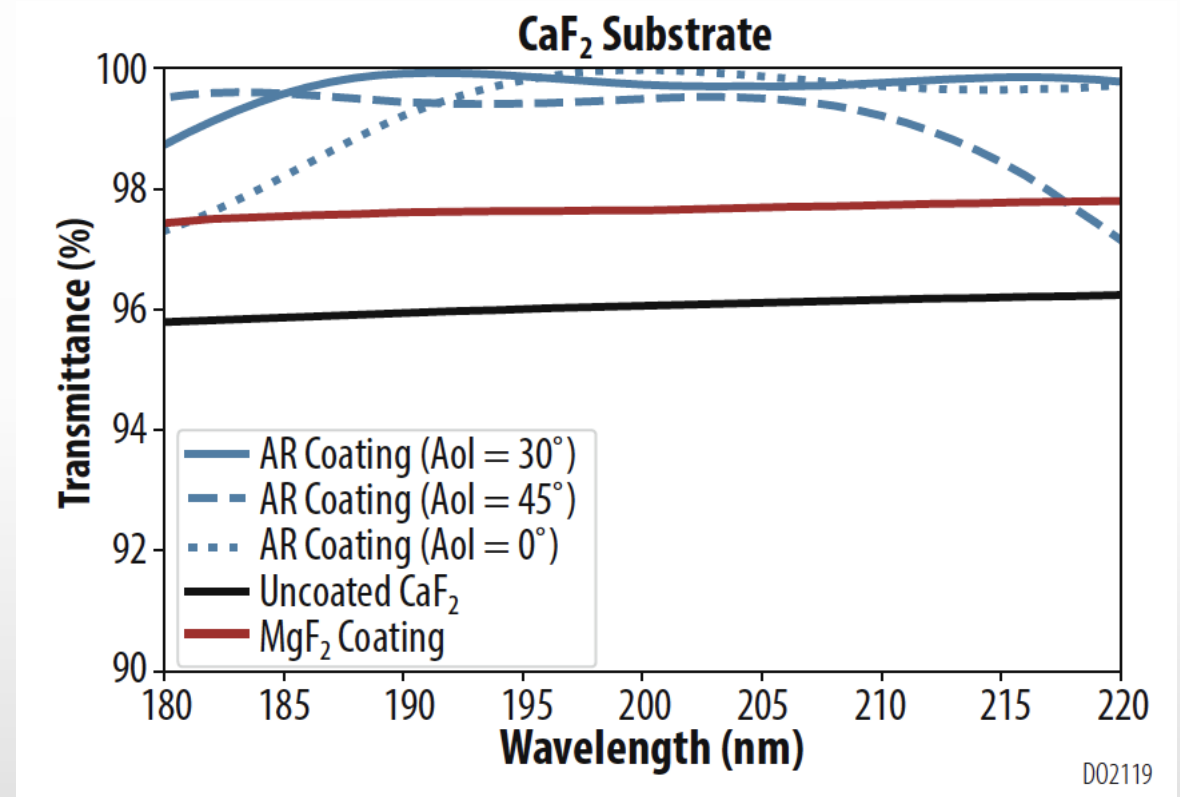


Science Goal 2: Conduct a transformative UV time-domain survey, covering 1000 deg² every 3 hours, to complement Rubin, Roman, SKA, etc.

Technology 1: High-efficiency Anti-reflection Coatings

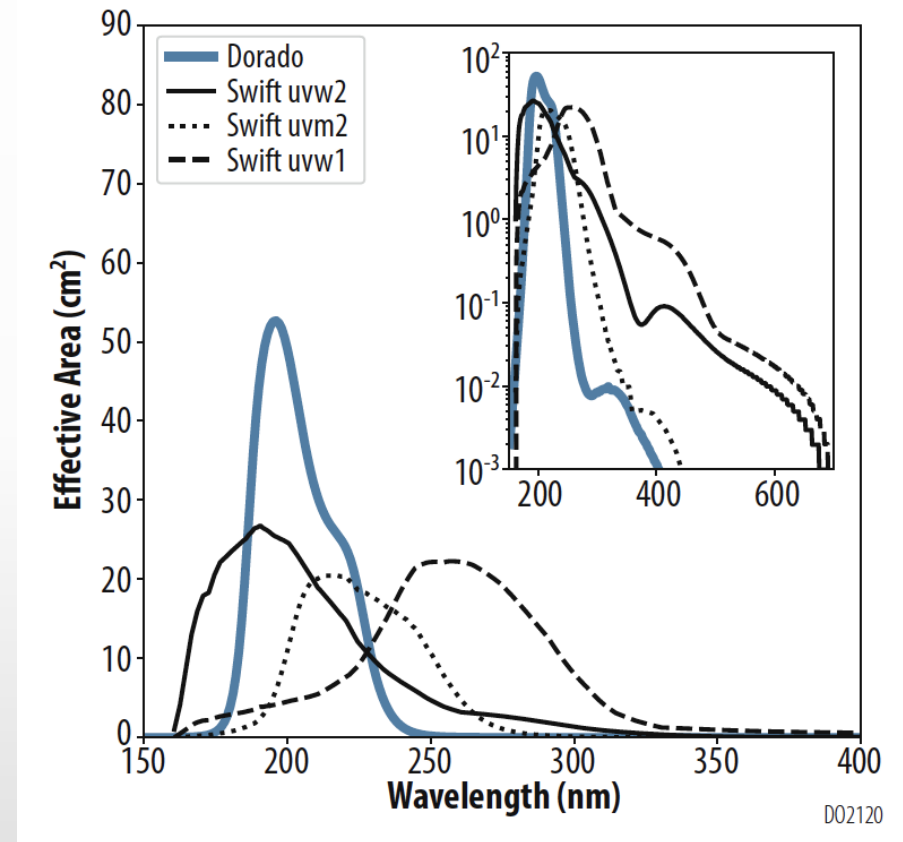
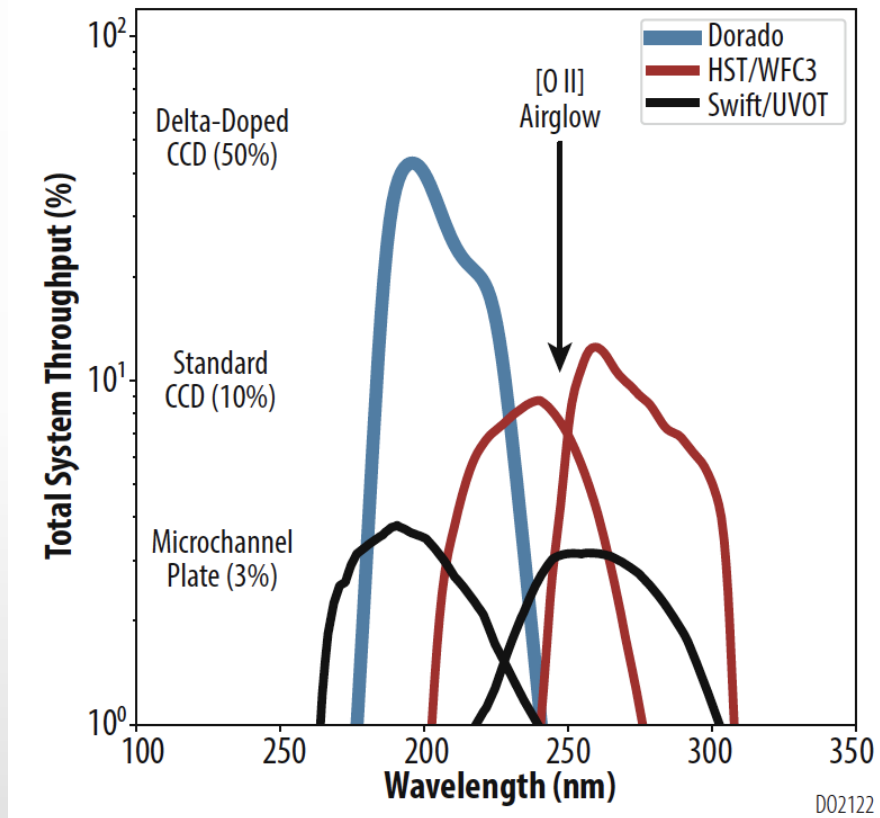


8 element refractive telescope
(e.g., *TESS*)



LaF₃/MgF₂ multi-layer coating provides extremely high transmission in Dorado bandpass (GSFC)

Technology 2: Delta-Doped CCDs with Integrated Filter



Delta-doped CCD detector with integrated metal dielectric filter (JPL) provides very high throughput and excellent out-of-band rejection. With 13 cm aperture, Dorado provides comparable effective area to 50 cm *GALEX*!!!