

FIRE Update

March 2008

Personnel Update

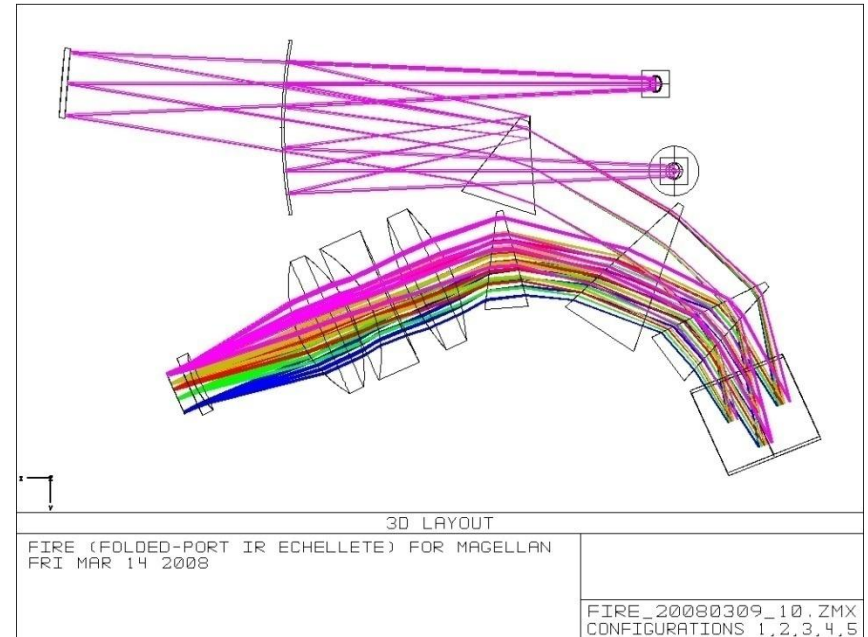
- Hired 2 FT Mechanical Engineers (Matt Smith, Jason Fishner), started Dec 2007.
- Bernstein, Bigelow -> UCSC
- 2 MIT postdocs arrive in Fall 2008, tasked SW
- Other personnel same
 - MIT: Simcoe, Burgasser, Schechter, Smith, Fishner
 - UCSC: Bernstein, Bigelow
 - Rochester: Pipher, Forrest, McMurtry

Lab Update

- Clean environment
 - Class 10k tent delivered, assembled
 - Class 1k horizontal flow bench delivered, installed
 - Dry box
- Throughput / coating test bench complete
- Pumps, vacuum bake, ESD workstations in place from space heritage
- 18x18x18” cryo mechanism test chamber (~4 wks)
- Lab is basically ready

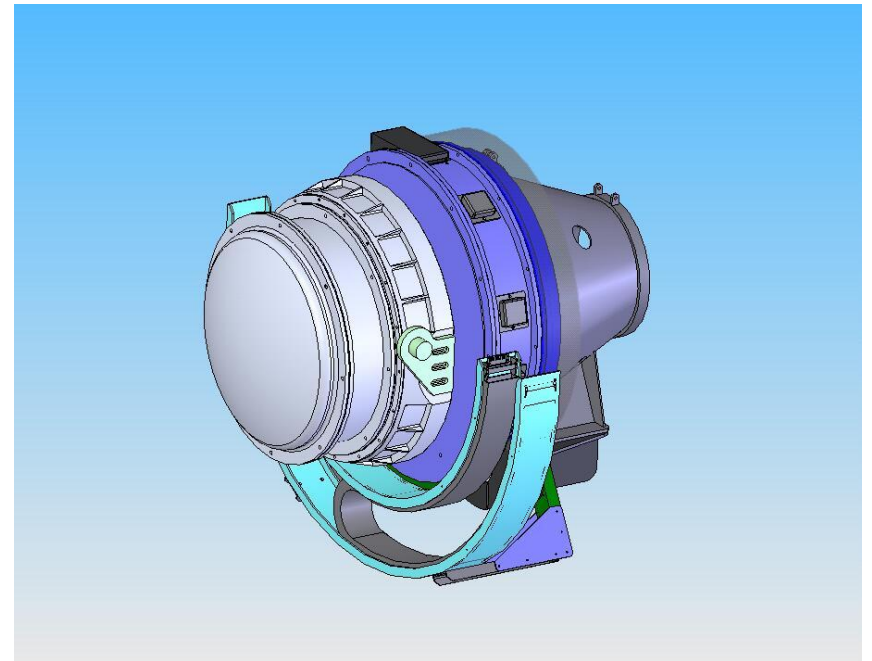
Design Updates: Optical

- New layout re-balances prisms to ease ZnSe requirements
 - Essentially identical performance
 - Slit 6.5"
 - Coverage down to 0.8 μ m
- Offner folds behind spectrograph



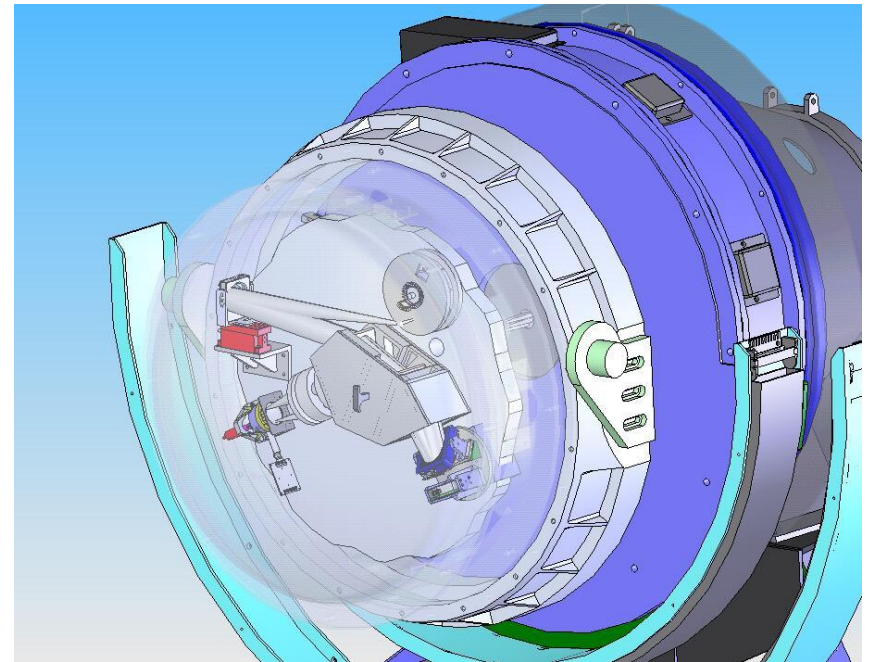
Design Updates: Mechanical

- All major assemblies have baseline design, interference resolution
 - Optical bench
 - Grating/mirror turret
 - Collimator
 - Slit wheel
 - Prism mounts
 - Detector mounts
- Detailed design, fabrication ahead
- Analysis meets baseline flexure specs (<0.1 pix)



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Status

- Detectors:
 - SIDECARS delivered, in testing
 - Eng grade (for acquisition camera) likely delivered July
 - SG on schedule so far (Sept); HgCdTe grown, in implanting
- Optics:
 - Redesign complete except camera re-opt
 - Quotes coming in on prisms
 - 8 months?
- Opto-mechanics
 - Designs nearing completion, somewhat below CDR level
 - May schedule external mini-review for opto-mech assemblies
- Mechanical
 - Bench support, analysis complete
 - Dewar near completion, contract let ~2 months (12 wk ARO)

Still looking at assembly, integration
Late 2008/Early 2009, testing 2009,
Delivery for 2009B