

WFIRST-AFTA SDT Interim Report Vugraph Package

Outline

v4 31-Mar-2014

Executive Summary: (Spergel, Gehrels)

1 page summary of mission and status

What the WFIRST-AFTA mission is (start with NWNH)

Science questions

Why 2.4m telescope is well-matched to requirements

AFTA instruments

Science capabilities of WFIRST-AFTA

GO program

Current status of the project

[1 slide each]

1. WFIRST-AFTA Science

Dark Energy & Cosmology (Weinberg, Hirata, Perlmutter, Baltay, Wang, Rhodes)

General Astrophysics with the High-Latitude Surveys (Kalirai, Meegan)

Exoplanet Science with Microlensing (Gaudi, Bennett)

Exoplanet Science with the Coronagraph (Kasdin, Macintosh, Guyon, Greene)

Opportunities for the Guest Observer Program (Dressler, Kalirai, Breckenridge)

Responsiveness of WFIRST-AFTA to NWNH (Moos, Postman)

Comparison to IDRM (Hirata, Spergel)

Complementarity to JWST, LSST & Euclid (Kruk, Rhodes, Hirata)

[3 slides each, with pedagogical first slide explaining why the measurement is important]

2. The Observatory and Instruments

Overview (Grady, Melton)

Telescope (Parvin, Content)

Wide-Field Instrument (Content, Melton)

Coronagraph Instrument (Feng, Macintosh, Traub)

Operations concept (Hirata, Kruk)

3. Recent Developments

IR detector development (Rauscher, Kruk)

Coronagraph selection (Blackwood, Grady)

Instrument design (Content, Ruffa)

Characterization of telescope (Parvin, Goullioud, Content)

Investigations of opportunities:

1-year survey

Target of Opportunity response (Gehrels, Hirata)

GO programs (Dressler, Kalirai)

2.4-micron extension (Content)

[typically 1 slide each]

4. Science Requirements

Status of SR development (Melton, Kruk)

Current requirements (Melton, Kruk)

5. Science Policies

Science team selection considerations (Spergel, Gehrels)
Data rights considerations (Gehrels, Spergel)

6. Project schedule and budget (Peddie, Grady)

7. Near-term activities and opportunities (Gehrels, Spergel)