



Hubble Science Legacy Workshop

Closing Remarks

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Workshop Objective

Continue community dialogue started in Boulder, Co in 1998 to get a consensus on scientific priorities in UV/Optical astronomy after de-orbiting of HST in 2010

Workshop Outcome

A whole slew of ideas of exciting science remaining to be done were presented as were the technological challenges facing the community as summarized by Jeremy Mould, Steve Beckwith and Jim Crocker

Where do we go from here?

I have requested Garth Illingworth and Rob Kennicutt to set up a small Working Group, the charter of which will be to distil the ideas from this Workshop and other community documents into a coherent White Paper

A preliminary Executive Summary should be submitted to the roadmapping teams of NASA's Origins Subcommittee (OS) and Structure and Evolution of the Universe Subcommittee (SEUS) which are currently preparing inputs to the Office of Space Science (OSS) strategic plan



Working Group Charter

Identify major science questions in UV/Optical astronomy

- What is the *compelling* science that would re-write textbooks the way HST science has done?
- Does this science open new research windows not achieved by an approved mission in the OSS strategic plan? How do we go beyond TPF science?
- Will the science excite the public?

Identify the technology development required to achieve above scientific goals

- What is the current state-of-the-art technology and what technological breakthroughs are required (e.g. detector development, mirror technology, propulsion systems etc.)?
- Define a roadmap for technology development

Identify near term Research and Analysis (R&A) needs

- What basic research needs to be done today to prepare for the mission(s) of tomorrow?
- What kind of mission concept studies are required?



Working Group Charter (contd.)

Define strategy for achieving science goals

- Is a large UV/Optical telescope (Linsky’s “behemoth”) required ?
- Would a series of competed Explorer class missions or Explorer + missions suffice?
- Nature of facility/facilities
 - Spectroscopic ?
 - Imaging?
 - Other?
 - Define wavelength range, resolution, sensitivity etc. required



Supplementary Input

Related Workshop/Working Group Reports

- UV/Optical Workshop, Boulder Co, 1998 proceedings
- *Tracing the Cosmic Web, 1999, White Paper by Shull et al.*
- *UV/Visible Detectors for Future Space Astrophysics Missions, 2002, White Paper by Blades et al.*
- Laboratory Astrophysics Workshop, May 1-3, 2002
<http://www.astrochemistry.org/nasalaw.html>

Complementary Workshops/ Working Groups

- Second Workshop on New Concepts for Far-IR/Submillimeter Space Astronomy , College Park, MD, March 5 - 7, 2002
- Far-IR, Sub-mm, MM Detector technology Workshop, April 1-3, 2002
(http://sofia-usra.arc.nasa.gov/det_workshop)
- Origins 2002, May 26 - 22, 2002 (<http://www.westoverconferences.com/origins/>)



Context for HSL White Paper

OSS Science Themes/Science Directors

- Astronomical Search for Origins (ASO)/ Anne Kinney
- Structure & Evolution of the Universe (SEU)/ Anne Kinney
- Sun Earth Connection (SEC) / Richard Fisher
- Solar System Exploration (SSE) / Colleen Hartman

OSS Advisory Structure (governed by Federal Advisory Committee Act)

● Space Science Advisory Committee (SScAC)

- Advises OSS Associate Administrator, Edward Weiler

● SScAC Subcommittees/ Chair

- Origins Subcommittee (OS)/Alan Dressler
- SEU Subcommittee (SEUS)/Rocky Kolb
- SEC Subcommittee (SECAS)/David McComas
- SSE Subcommittee (SSES)/Michael Drake



Context for HSL White Paper (cont'd.)

OSS Strategic Planning Process

- National Academy defines fundamental science questions every **ten** years
- OSS prepares strategic plan every **three** years as input to congressionally mandated NASA strategic plan
 - SScAC responsible for OSS strategic plan
 - Each subcommittee receives community input (e.g. workshops, working group reports, professional society meetings etc.) to prepare roadmap for its science theme within context of National Academy recommendations
 - Roadmaps submitted to SScAC for incorporation into OSS Strategic Plan
- OSS Performance Plan and metrics prepared **annually** based on President's budget
- OSS Performance Report prepared based on evaluation by SScAC and NASA Advisory Council