



SACRAMENTO PEAK OBSERVATORY

PUBLIC MEETING ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

New Mexico Museum of Space History

Alamogordo, NM

February 28, 2018

6:30—8:30 pm





Public Meeting Overview

- Introduction of team members and description of materials and transcript
- Science background
- Purpose of the meeting
- Draft Environmental Impact Statement (DEIS) summary
- Public comments





Introductions

Representative	Role
National Science Foundation: Lead Federal Agency	
<i>Dave Boboltz</i>	Program Director for National Solar Observatory
<i>Elizabeth Pentecost</i>	Project Management Administrator
<i>Caroline Blanco</i>	Assistant General Counsel
<i>Kristen Hamilton</i>	Environmental Compliance Officer
<i>Karen Pearce</i>	Senior Legislative Affairs Specialist
CH2M HILL: Environmental Contractor	
<i>Andrea Naccarato</i>	Project Manager
<i>Lori Price</i>	Senior Advisor on Cultural Resources
U.S. Forest Service: Federal Cooperating Agency	



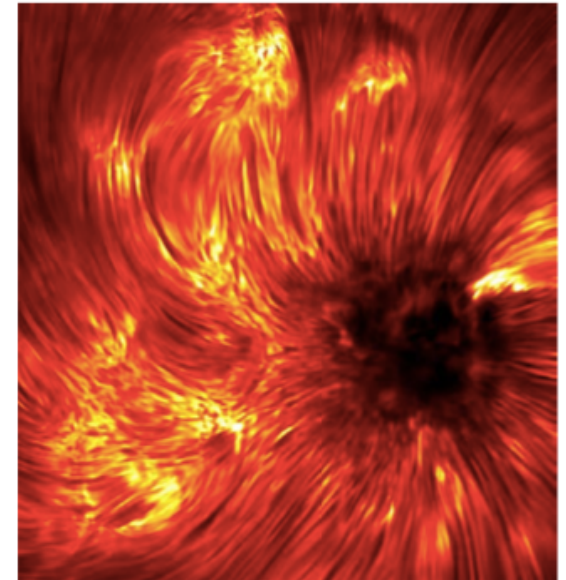
Materials

- Sign-in sheet
- Comment forms
- Fact sheet and information boards
- This presentation, electronic versions of the fact sheet and information boards will be posted on the web following the public meetings at: www.nsf.gov/ast (click on Environmental Studies)





Solar Science at SPO

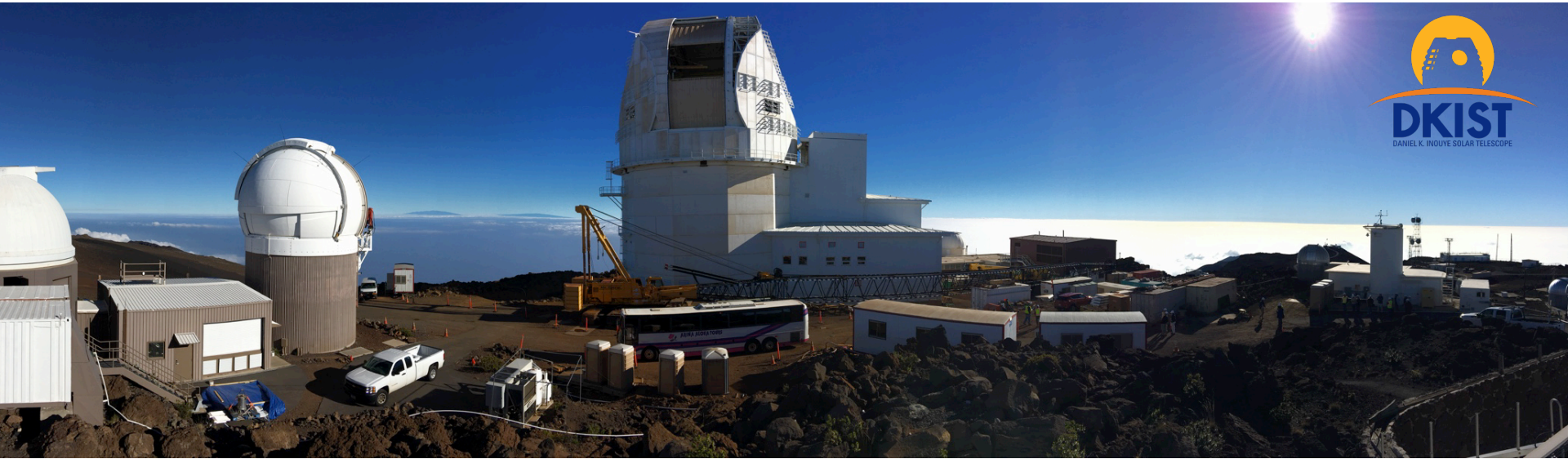


The chromospheric emission above a sunspot as traced by the Ca II line at 854.2 nm. Image taken with the IBIS instrument on the Dunn Solar Telescope. *Credit: K. Reardon, NSO.*

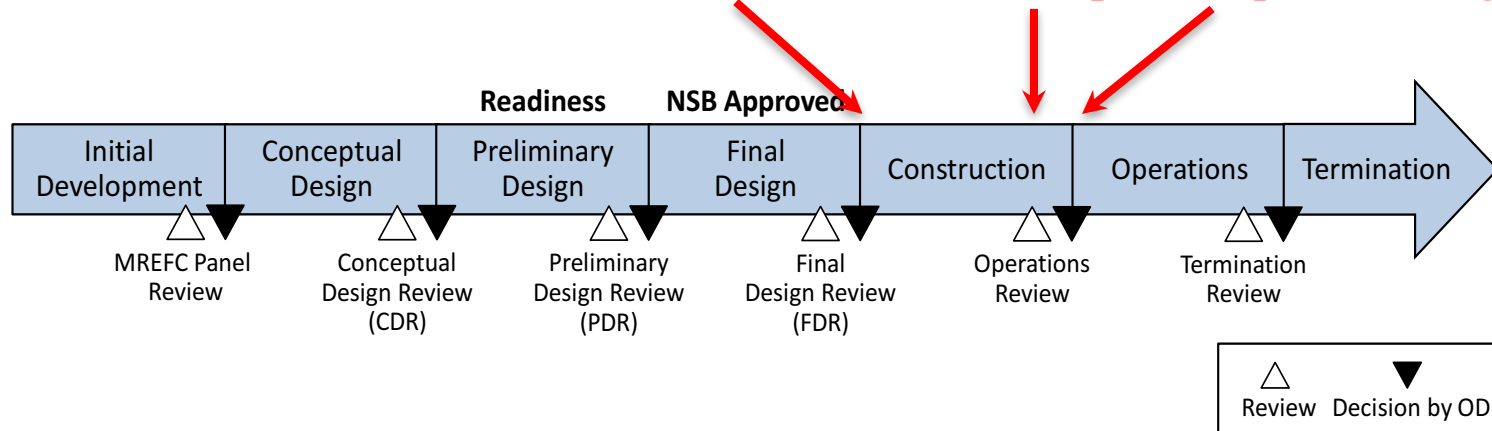
- SPO has a long tradition (since 1969) as the premier national ground-based solar facility
- Used for high-resolution imaging and spectro-polarimetry of the Sun's photosphere and chromosphere
- Recent meeting “High-resolution Solar Physics: Past, Present, Future” [August 2017](#)



Construction of NSF's Daniel K. Inouye Solar Telescope (DKIST)



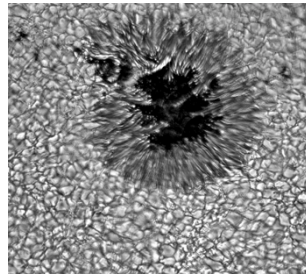
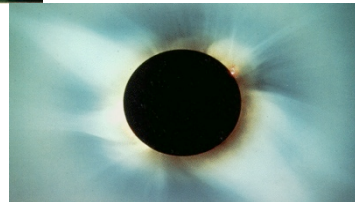
Construction start 2010 **Now 80% complete** **Operations begin 2020**



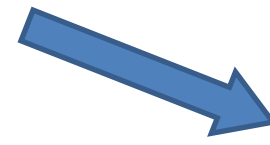
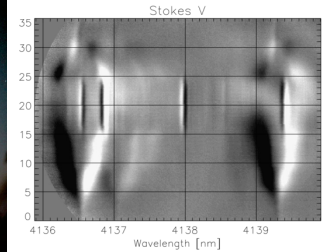
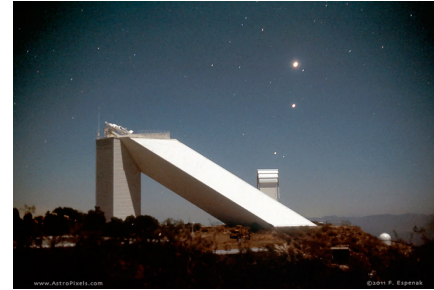


DKIST Will Become NSF's Premier National Solar Facility

Dunn Solar Telescope
Evans Solar Facility
Sacramento Peak, NM



McMath-Pierce, Kitt Peak, AZ





Purpose of This Meeting

- In compliance with the National Environmental Policy Act (NEPA), a Draft Environmental Impact Statement (DEIS) has been prepared to evaluate potential environmental impacts of proposed operational changes due to funding constraints for the Sacramento Peak Observatory
- The purpose of this meeting is to allow for public comments on the DEIS, which will help inform the Final EIS
- Allow public input on historic properties related to the observatory pursuant to Section 106 of the National Historic Preservation Act



Purpose of the Proposed Action

- The purpose of the Proposed Action is to substantially reduce NSF's contribution to the funding of Sacramento Peak Observatory



Need for the Proposed Action

- NSF is responsible for maintaining a balanced research portfolio, and the scientific community, through reviews and surveys, has indicated that the scientific capabilities of Sacramento Peak Observatory are lower in priority than other scientific capabilities that NSF funds



Panel/Committee Reports

- A review of the NSF Astronomical Sciences portfolio was completed in [2012](#): *Advancing Astronomy in the Coming Decade: Opportunities and Challenges*
- Regarding Sacramento Peak Observatory's Dunn Solar Telescope, the 2012 review stated the following:
"AST and NSO should plan for the continued use of the Dunn Solar Telescope (DST) as a world-class scientific observatory, supporting the solar physics community, [to within 2 years of ATST \[now the Daniel K. Inouye Solar Telescope, DKIST\] first light](#), as well as utilize it as a test bed for development of critical ATST instrumentation."



Panel/Committee Reports

- The **March 15, 2016** report of the *Astronomy and Astrophysics Advisory Committee* stated the following:
*“Strong efforts by NSF for facility divestment should continue as fast as is practical. **Efforts to explore partnerships, interagency cooperation and private resources** to maintain some access to facilities for the US community that may mitigate the loss of open access **should continue**. Transferring the cost of operating a facility outside of the NSF/AST budget is preferable to complete loss of a capability from the suite of capabilities used by US researchers.”*



Panel/Committee Reports

- In **August 2016**, the *National Academies of Sciences, Engineering, and Medicine* published their *Midterm Assessment* of the 2010 decadal survey and reaffirmed the 2012 Portfolio Review's recommendations for divestment of these AST facilities:

*“The **NSF** should proceed with divestment from ground-based facilities that have a lower scientific impact, implementing the recommendations of the NSF Portfolio Review, which is essential to sustaining the scientific vitality of the U.S. ground-based astronomy program **as new facilities come into operation.**”*



Current Status of SPO

- NSF met with NSO and representatives of universities seeking to create a consortium to operate SPO at a reduced cost to NSF, [May 2015](#)
- NSF awarded a 2-year proposal from New Mexico State University (NMSU) for funding to bridge the gap between NSO and consortium, [Sept. 2016](#)
- NMSU funding requests to help enable consortium operations have been under consideration by the New Mexico state legislature
- NSF continues to work with NSO and NMSU

The screenshot shows the website for Tom Udall, Senator for New Mexico. The main headline is "Udall, Heinrich, Pearce Announce \$1.2 Million to Upgrade Dunn Solar Telescope in Sunspot, NM, Transition Operation to NMSU Consortium" dated September 22, 2016. The article text states: "WASHINGTON - U.S. Senators Tom Udall and Martin Heinrich and U.S. Representative Steve Pearce announced that New Mexico State University (NMSU) will receive \$1.2 million from the National Science Foundation (NSF) to upgrade the Richard B. Dunn Solar Telescope in Sunspot, N.M. The NSF award - appropriately announced on the fall equinox - will support efforts to transition the operation of the research facility from the National Solar Observatory (NSO) to a university-based consortium led by NMSU." Below the article is a "SIGN UP FOR THE UDALL UPDATE" form with fields for First Name, Last Name, Email, and ZIP, and a "SIGN UP" button. There are also social media sharing options and a "STAY CONNECTED" section with icons for Twitter, Facebook, YouTube, and RSS. At the bottom, there is a "PROBLEMS AT THE VA?" section with a logo and a "SUBMIT" button.



Alternatives Evaluated in the DEIS

1. Continued science- and education-focused operations by interested parties with reduced NSF funding
2. Transition to partial operations by interested parties with reduced NSF funding
3. Mothballing of facilities
4. Demolition and site restoration

No-Action: Continued NSF investment for science-focused operations



Alternatives Evaluated in the DEIS

- Note that for each proposed Action Alternative NSF has identified which buildings and infrastructure **could be** retained, demolished, mothballed, or safe-abandoned (see Table 2.3-1 in the DEIS)
- Importantly, these Alternatives do not mandate the demolition of any buildings; this level of detail in the DEIS is helpful in ensuring that the environmental impact analysis adequately addresses each proposed Action Alternative



Public Scoping

- Public scoping conducted July 5 to August 5, 2016
 - Scoping meeting and 30-day comment period
- Comments incorporated in the DEIS



DEIS Contents

- Executive Summary
- Purpose and Need
- Description of Proposed Action and Alternatives
- Affected Environment
- Environmental Consequences
- Notifications, Public Involvement, and Parties Consulted



DEIS Resource Areas Considered

- Biological Resources
- Cultural Resources
- Visual Resources
- Geology and Soils
- Water Resources
- Hazardous Materials
- Solid Waste
- Health and Safety
- Noise
- Traffic and Transportation
- Socioeconomics
- Environmental Justice



Section 106 of the National Historic Preservation Act

- The Section 106 consultation process requires federal agencies to consult with interested parties and the State Historic Preservation Officer regarding potential effects of their proposed actions on historically significant properties
- There are four basic steps:
 - Initiate Section 106 consultation
 - Identify Area of Potential Effects (APE) and historically significant properties within the APE
 - Assess whether there are adverse effects
 - Resolve any adverse effects



DEIS Availability

- www.nsf.gov/AST (“AST Facilities-Environmental Reviews”, “Sacramento Peak Observatory”)
- Local libraries:
 - Michael Nivison Public Library, 90 Swallow Place, Cloudcroft, NM 88317
 - Alamogordo Public Library, 920 Oregon Avenue, Alamogordo, NM 88310



Comments on the DEIS

- Provide verbal comments today
- Submit written comments today
- Mail or email comments to NSF by **March 26, 2018**

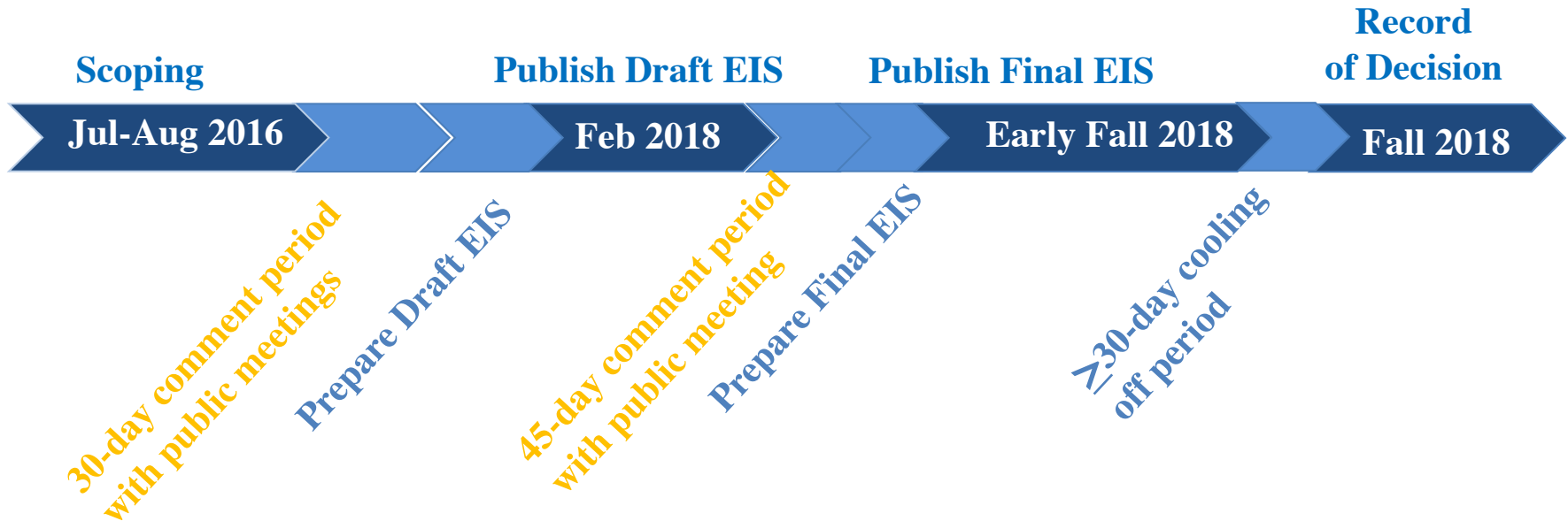
envcomp-AST-sacpeak@nsf.gov

Ms. Elizabeth Pentecost
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- Comments will be reviewed by NSF and USFS and incorporated into a Final EIS



Target Dates & Opportunities to Comment



National Historic Preservation Act compliance



Endangered Species Act compliance was completed July 2017



Record of Decision (ROD)

ROD will incorporate a discussion of factors supporting decision, including:

- Science priorities
- Feasibility of implementation
- Environmental considerations and mitigation
- Budget



What's Next?

- 45-day public comment period (through **March 26, 2018**)
- NSF to address comments in the Final EIS
- NSF to issue Record of Decision selecting which Alternative to implement



Your
verbal
comments
are now
welcome

- One speaker at a time
- Please state & spell your name for the court reporter, and speak slowly and clearly
- Direct your comments/questions to the contents of the DEIS; NSF will address comments in the Final EIS, but at this time
- Will take a planned break



Information and materials are posted at www.nsf.gov/AST

NSF Point of Contact:
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epenteco@nsf.gov

Thank you for your participation!