NSF Advanced Technology Solar Telescope Project

The National Science Foundation (NSF) is considering whether to fund the proposal to construct the 142.8-foot high Advanced Technology Solar Telescope (ATST) within the University of Hawaii, Institute of Astronomy (UH IfA) Haleakalā High Altitude Observatory site at the summit of Haleakalā. The ATST project was proposed by the National Solar Observatory (NSO), which is operated by the Association of Universities for Research in Astronomy (AURA). The proposed ATST will help to further the understanding of solar magnetic activities and variability. Activity on the sun drives space weather. Space weather creates hazards for communications to and from satellites, as well as for astronauts and air travelers. Variability in solar activity also affects the Earth's climate.

The only access road to the UH IfA site is through Haleakalā National Park. Therefore, the National Park Service (NPS) will need to issue a Special Use Permit (SUP) to NSO/AURA to operate commercial vehicles on the park road during the construction and operation of the proposed ATST project, if approved. The SUP would ensure that impacts to park natural, cultural, historic and archeological resources and visitor experience from the varying types and additional quantities of vehicles needing to travel on the park road for the proposed project would be reduced through proper mitigation measures.

Haleakalä National Park Summit Area Parking Lot (Haleakalä High Altitude Observatory Site in background)

Dear Friends,

The National Park Service and National Science Foundation invite you to read this newsletter about the Advanced Technology Solar Telescope project that is proposed for construction at the summit of Haleakalā adjacent to the park, on State of Hawaii land. We are at a stage in the planning process where we need input from the community. While we know that all of you are busy, we encourage you to please take a few minutes to learn more about this project and provide comments by attending any of the upcoming meetings, writing, calling and/or emailing. Your feedback on this project is appreciated.

Mahalo nui loa,
Sarah Creachbaum
Haleakalā National Park Superintendent

Draft Environmental Impact Statement

A Draft Environmental Impact Statement (DEIS) for the proposed ATST project was prepared by the NSF in compliance with the National Environmental Policy Act and State of Hawaii Chapter 343, Hawaii Revised Statutes and made available for public review and comment in 2006. However, revisions to the document needed to be made based on comments received on the DEIS, information from additional surveys and studies, and evaluation of the environmental impacts associated with the NPS issuing an SUP for the proposed ATST project, if approved. The Supplemental DEIS for the proposed ATST project is now available for public comment in public libraries and online at http://atst.nso.edu/. **Comments on the SDEIS must be received or postmarked by June 22, 2009**.

Comments on the SDEIS should be sent to:

Craig Foltz, ATST Program Manager
National Science Foundation,
Division of Astronomical Sciences
4201 Wilson Boulevard, Rm 1045,
Arlington, VA 22230
Email: cfoltz@nsf.gov

with a copy sent to:

1) Charlie Fein,
KC Environmental Inc.
P.O. Box 1208,
Makawao, HI 96768
Email: charlie@kcenv.com

2) Mike Maberry, Associate Director
University of Hawaii, Institute for Astronomy
34 Ohia Ku Street,
Pukalani, HI 96768

3) Dept. of Health, Office of Environmental Quality Control,
REF: ATST
235 S. Beretania Street, Rm 702,
Honolulu, HI 96813

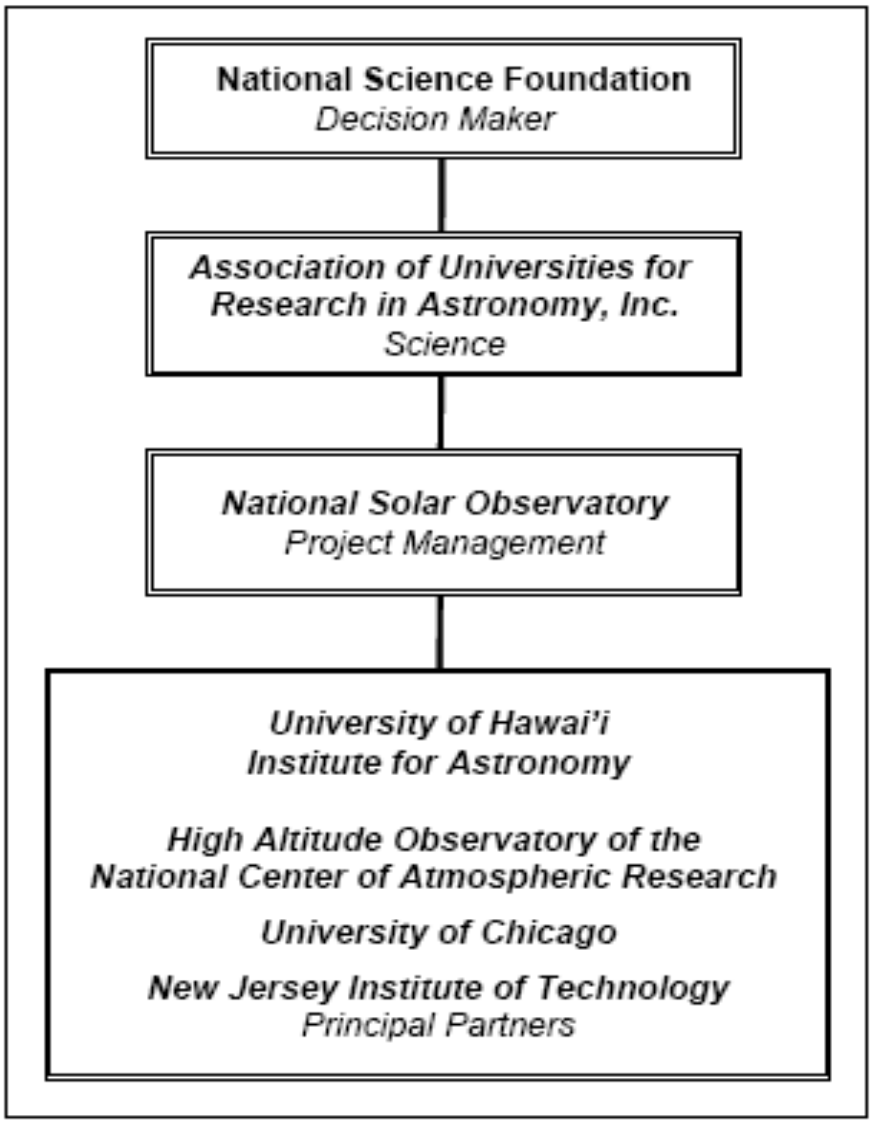
Public Meetings

Hearings on the SDEIS will take place:

1) June 3, 2009, Wednesday
5:00pm to 8:00pm
Cameron Center Auditorium
95 Mahalani Street,
Wailuku, Maui

2) June 4, 2009, Thursday
7:00pm to 10:00pm
Hannibal Tavares (Pukalani) Community Center,
Downstairs room,
91 Pukalani Street,
Pukalani, Maui

The **National Environmental Policy Act** requires Federal agencies to analyze the impacts of a proposed action and alternatives, both negative and positive, on the environment and involve interested or affected public before a decision is made. **Chapter 343 of the Hawaii Revised Statutes** similarly requires a State process of environmental review and public involvement.



Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to consult with the State Historic Preservation Officer, Indian tribes or Native Hawaiian Organizations, interested members of the public and, in some cases, the Advisory Council on Historic Preservation, to ensure potential affects on significant cultural, historic and archeological resources, listed or eligible for listing in the National Register of Historic Places, are considered when an project is proposed and before a decision is made. Federal agencies must ensure that the Section 106 consultation process provides people a reasonable opportunity to: (1) identify concerns about cultural, historic and archeological resources; (2) give advice on the identification and evaluation of these resources; (3) express their views on the proposed project's effects on such resources; and (4) participate in the resolution of adverse effects to these resources.

Section 106 Consultation Meetings

Section 106 of the NHPA consultations for the proposed ATST project has been on-going since 2006. Additional Section 106 consultation meetings about the proposed ATST project and issuance of an NPS SUP are being held:

1) June 8, 2009, Monday
   1:00pm to 4:00pm
   Kula Community Center
   E. Lower Kula Road
   Kula, Maui

2) June 9, 2009, Tuesday
   10:00am to 1:00pm
   Haikū Community Center
   Hāna Highway at Pilialoha Street,
   Haikū, Maui

3) June 10, 2009, Wednesday
   3:00pm to 6:00pm
   Maui Community College,
   Pilina Building,
   Multi-purpose room
   310 W. Kaahumanu Avenue,
   Kahului, Maui

Join us at these meetings to give us input on the area of potential effect, identification and evaluation of cultural, historic and archeological resources, and measures to avoid, minimize, and/or mitigate potential adverse impacts to these resources.

Proposed Mitigation and Community Benefits

Proposed mitigation to avoid and/or minimize the direct adverse effects of the ATST project to the historic park road and associated features include: no vehicle loads above legal limit and load rated capacity for the bridge; no vehicles driving on the edges of the road; pre and post project documentation of all historic features and other areas susceptible to damage; traffic planning and controls; and a monitor to ensure mitigation measures are being followed. Proposed mitigation to minimize the direct adverse effects of the ATST project on cultural resources include: placement of excess soil and rock to remain within the UH IfA Haleakalā High Altitude Observatory site; cultural sensitivity training for all construction crew members prior to starting work on the project; hiring a cultural monitor for the project; and deconstructing the telescope at the end of its lifetime.

Proposed community benefits to mitigate the direct adverse effects of the ATST project on the Haleakalā summit as a traditional cultural property include: partnering with educational institutions in the community to develop programs and courses that integrate traditional Hawaiian astronomy principles with modern astronomy practices; and developing programs that link educational and research institutions with high-tech industry in the community to promote equity in science and technology for students from underrepresented segments of the population (e.g., Native Hawaiians).

What is mitigation? **What is a community benefits package?** Mitigation can modify aspects of the project or impose conditions that avoid and/or minimize direct adverse effects to cultural, historic and archeological resources. A community benefits package is an indirect form of mitigation when the direct adverse effects to cultural, historic and archeological resources cannot be avoided and/or minimized. Examples of community benefits are: donating money, supplies and equipment to local elementary and secondary schools; establishment of a non-profit organization to work with the community on the type and implementation of benefits; establishing grants to assist small and disadvantaged businesses in the community; and establishing grants and scholarships for local students to further their education in various fields.

What is a cultural landscape? A cultural landscape is a geographic area that includes cultural and natural resources associated with an historic event, activity, person, or group of people. Identifying their form, features, and the ways they were used, cultural landscapes reveal much about our evolving relationships with the natural world. Cultural landscapes are a legacy for everyone. Benefits from the preservation of cultural landscapes are enormous since they provide scenic, economic, recreational, and educational opportunities for individuals and communities to understand themselves.

Haleakalā Highway

The Haleakalā National Park road which begins at the 6,800-foot elevation level is a historic resource which is eligible for listing in the National Register of Historic Places. The period of significance for this resource begins in 1933 with the initial construction of the road, and ends in 1966 with improvements/expansions of developed areas along the road that enhanced visitor access to Haleakalā Crater. This resource has local significance for its association with NPS master planning during the 1930s and Mission 66 eras (National Register criterion A). It is also locally significant for its assemblage of buildings exemplifying the rustic and NPS modern styles of architecture and landscape architecture (National Register criterion C).

Alignment and construction techniques, buildings, and structures were carefully employed to decrease the visual and physical impact of the road on the landscape and to showcase the spectacular views of the island and ocean below as visitors drive to the top of Haleakalā which culminates with views into Haleakalā Crater. The landscape characteristics and their surviving features that convey the historic character of the park road as a scenic highway are: natural systems and features; spatial organization; land use; buildings and structures; circulation; topography; views and vistas; and archeological sites.

A Cultural Landscape Inventory report entitled "Haleakalā Highway, Haleakalā National Park" was prepared by the NPS in 2008 to identify, evaluate and document the contributing features of this historic cultural landscape. This report is available online at http://www.nps.gov/hale or http://atst.nso.edu/library/36CFR800.

Haleakalä Park Road Construction, 1934

The **Federal Highways Administration** has performed a condition assessment of the park road and prepared a report in 2009 entitled "Haleakalä Highway, Haleakalä National Park: Pavement/Drainage Condition Investigation, Distress Identification and Recommendation."

The report provides information on the condition of the road pavement and its remaining estimated service life, and the amount of cover over the road drainage structures (many of which are historic), underground utilities, and the historic bridge. The report also compares impacts of the types and amounts of vehicles associated with the proposed ATST project to the types and amounts of vehicles that enter Haleakalä National Park per year, and provides mitigation recommendations.
This report is available online at http://www.nps.gov/hale or http://atst.nso.edu/library/36CFR800.

ATST Project Status

June 2005 – NSF Notice of Intent to prepare an EIS published in the Federal Register and State of Hawaii Office of Environmental Quality Control Bulletin

July 2005 – Public scoping meetings for the EIS held on Maui

March 2006 – Formal Section 106 of the NHPA consultation meetings held on Maui

May 2006 – Formal Section 106 of the NHPA consultation meeting held on Maui

September 2006 – NSF notice of availability of DEIS for public comment published in the Federal Register and State of Hawaii Office of Environmental Quality Control Bulletin. Public comment meetings for DEIS held on Maui. Formal Section 106 of the NHPA consultation meetings also held with State and local agencies on Maui and Oahu.

August 2007 - Formal Section 106 of the NHPA consultation meeting held with State agency on Maui

June 2008 – Formal Section 106 of the NHPA consultation meetings held on Maui

August 2008 – Formal Section 106 of the NHPA consultation meetings held on Maui

May 2009 [***WE ARE HERE***] – NSF notice of availability of SEIS for public comment published in the Federal Register and State of Hawaii Office of Environmental Quality Control Bulletin

June 2009 – Public comment meetings for SEIS to be held on Maui. Formal Section 106 of the NHPA consultation meetings to also be held on Maui.

Next Steps – Final EIS and Record of Decision and development and execution of an agreement document under Section 106 of the NHPA

Project Contacts

National Science Foundation

Craig Foltz – is the Program Manager for the ATST project and has worked for the NSF since 2003. He is actively involved in the planning for the next generation of ground-based astronomical observatories. Craig can be reached at (703) 292-4909 or email: cfoltz@nsf.gov

Caroline Blanco – has been the Federal Preservation Officer and Assistant General Counsel for the Environment for the NSF since 2007. Prior to working for NSF, she worked for the U.S. Department of Justice specializing in heritage resources law. Caroline can be reached at (703) 292-4592 or email: cblanco@nsf.gov

National Solar Observatory

Jeremy Wagner – is the Project Manager for the ATST project and has been working for NSO since 1980. He is based in Tucson. Jeremy can be reached at (520) 318-8249 or email: jwagner@nso.edu

Jeff Barr – is the Architect for the ATST project and has been working for the National Optical Astronomy Observatory since 1989. He is actively involved in designing the telescope facilities. Jeff can be reached at (520) 318-8113 or email: jbarr@noao.edu

National Park Service

Sarah Creachbaum – replaced Marilyn Parris as Superintendent of Haleakalā NP in early 2009. Previously, she was Superintendent of War in the Pacific National Historical Park in Guam and American Memorial Park on Saipan. Sarah can be reached at (808) 572-4401 or email: sarah_creachbaum@nps.gov

Elizabeth (Liz) Gordon – has been the Cultural Resources Program Manager and Archeologist at Haleakalā NP since 1999. As part of her duties, she facilitates on-going consultations and partnerships with kūpuna, cultural practitioners, representatives of Native Hawaiian Organizations and others to preserve and protect the cultural, historic and archeological resources within the park. Liz can be reached at (808) 572-4424 or email: elizabeth_gordon@nps.gov

Cari Kreshak – is the park point of contact for the ATST project and has been the Environmental Compliance Specialist at Haleakalā NP since 2008. She is based in Honolulu. Previously, she was the Cultural Resources Program Manager and Archeologist at Lassen Volcanic National Park in California. Cari can be reached at (808) 541-2693 ext.734 or email: cari_kreshak@nps.gov