Daniel K. Inouye Solar Telescope: Collaborations and synergies between DKIST

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The 4m Daniel K. Inouye Solar Telescope (DKIST) will be the largest solar facility ever built. Designed to meet the needs of critical high resolution and high sensitivity spectral and polarimetric observations of the sun, this facility will support key experiments for the study of solar magnetism and its influence on the solar wind, flares, coronal mass ejections and variability in solar output. Its coronagraphic capabilities will allow direct measurements of the coronal magnetic field with unprecedented sensitivity. The design allows the facility to operate over a broad wavelength range (0.35 to 28 microns). The state-of-the-art adaptive optics system provides diffraction limited imaging and the ability to resolve features approximately 20 km on the Sun. Five first light instruments will be available at the start of operations: Visible Broadband Imager (VBI; National Solar Observatory), Visible SpectroPolarimeter (ViSP; High Altitude Observatory), Visible Tunable Filter (VTF; Kiepenheuer Institute, Germany), Diffraction Limited NIR Spectropolarimeter (DL-NIRSP; University of Hawaii) and the Cryogenic NIRSpectropolarimeter (Cryo-NIRSP; University of Hawaii). Site construction on Haleakala, HI began in December 2012 and is progressing on schedule. Operations are scheduled to begin in 2019. We provide a brief update on the development and construction of the facility and discuss plans for operations, including the DKIST Data Center development.