

PRESTIGE - A User-Oriented Interactive Portal for Purdue Terrestrial Observatory Remote Sensing Data Access

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Introduction: *PRESTIGE* is a web-based system for near-real-time access to the Purdue Terrestrial Observatory (PTO) satellite image data. The focus of the *PRESTIGE* system is to enable interactive PTO data and information access, including subscription, and dissemination. Different from a traditional remote sensing data system, *PRESTIGE* uses Web 2.0 and service-oriented distributed workflow technologies to create an efficient, user-oriented web based environment for processing, management, and delivery of customized remote sensing data in near real time. It gives users the ability to specify the data products they want and have the back-end data production system dynamically generate and deliver the products. This system serves users from research and education communities, ranging from K-12, college, to technical training.

PTO currently provides remote sensing data from the NOAA GOES-12, NASA MODIS Terra/Aqua, NOAA AVHRR, and Fengyun-1D MVISR satellite sensor systems.

Current Capabilities: *PRESTIGE* allows users to subscribe to the following products for the respective sensors:

- Aqua & Terra MODIS
 - MOD02 - Level 1B Calibrated/Geolocated
 - MOD09 - Reflectance
 - MOD09 - True Color
 - MOD09 - NDVI+EVI
 - MOD09 - NDVI Weekly Composite
 - MOD09 - NDIV Bimonthly Composite
 - MOD14 - Fire Detection
 - MOD28 - Sea Surface Temperature

- GOES GVAR
 - Level 1 Calibrated Geolocated
 - Cloud Products
 - Clouds on MODIS Blue Marble

The geographical coverage areas for Aqua & Terra MODIS are: 1) State of Indiana; 2) Region around Indiana including Indiana, Michigan, Ohio, Kentucky, Illinois and Wisconsin; and 3) the Entire Pass. The coverage areas for GOES GVAR are: 1) Region around Indiana including 22 other states; 2) the Continental U.S. and 3) the earth disk centered on 75 degrees West longitude.

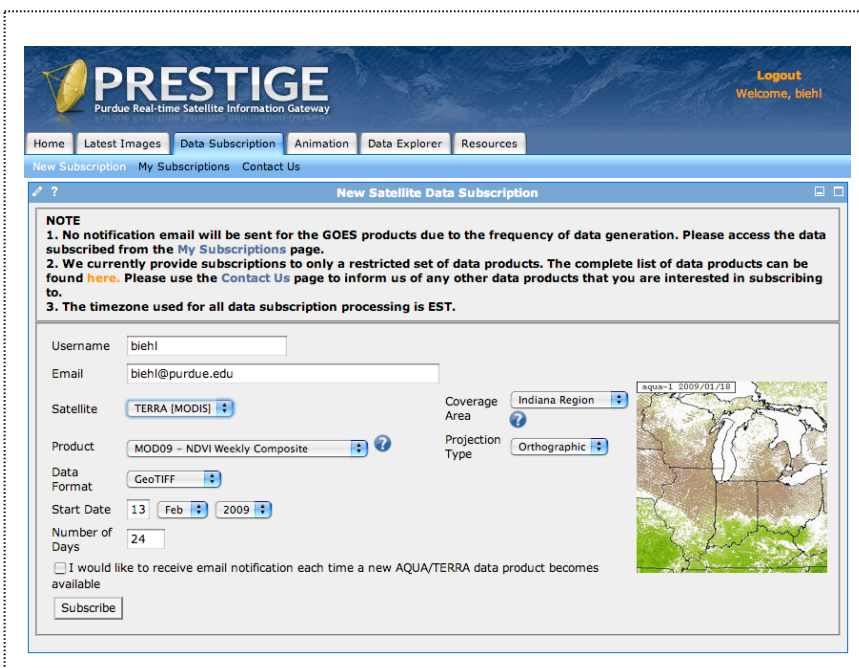


Figure 1. The “New Subscription” page above allows users to subscribe to a defined set of near real-time image products for local, region and entire pass geographical coverage area.

The current projections for the image data are Transverse Mercator for Indiana and Orthographic for the Indiana Region and for the entire pass coverage areas.

Data formats (depending on the respective product): can be hdf, jpeg, geotiff or png.

Users can request that a notification email be sent to them when a product is ready.

Future: Products will be added for the NOAA AVHRR and Fengyun 1-D MVISR sensors. Also the capability to allow users to download files from an archive of composite NDVI images for the most recent year will be added under the Data Explorer tab. Users can also request that other products made available as long as they are available in the processing suite of software being used.

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FOR FURTHER READING:

<http://www.purdue.teragrid.org/prestige>