



Presented at the FIG Working Week 2023,
28 May - 1 June 2023 in Orlando, Florida, USA

FIG WORKING WEEK 2023

28 May - 1 June 2023 Orlando Florida USA

Protecting
Our World,
Conquering
New Frontiers

OPUS-Projects Training Transitioning from Mandatory Instructor- Led to Online, Self-Paced

Daniel Martin, Erika Little, and Jeff Jalbrzikowski, U.S.A



Organized By



Diamond Sponsors



Background

- The National Geodetic Survey (NGS) has operated the Online Positioning User Service (OPUS) since March 2001, to provide end-users easy access to the National Spatial Reference System (NSRS) using GPS data
- In 2011, NGS added OPUS-Projects as a new product available to the public
 - OPUS-Projects became a highly integrated tool for managing GPS campaigns, including initial observational metadata and positions, session solution statistics and network adjustments, and a pathway for project submission to NGS

Background

- A Mandatory training course of approximately 12 hours was instituted
 - This was due to the complexity of OPUS-Projects and the ability of users to select options that would likely produce unintended outcomes.
- Since 2014 when training began to be tracked, NGS has conducted training for over 4,000 participants.
 - This training has been conducted by a staff of less than 20 instructors, with an average class size of approximately 20 students. It should also be noted that none of the instructors are on staff for the sole purpose of providing this training.

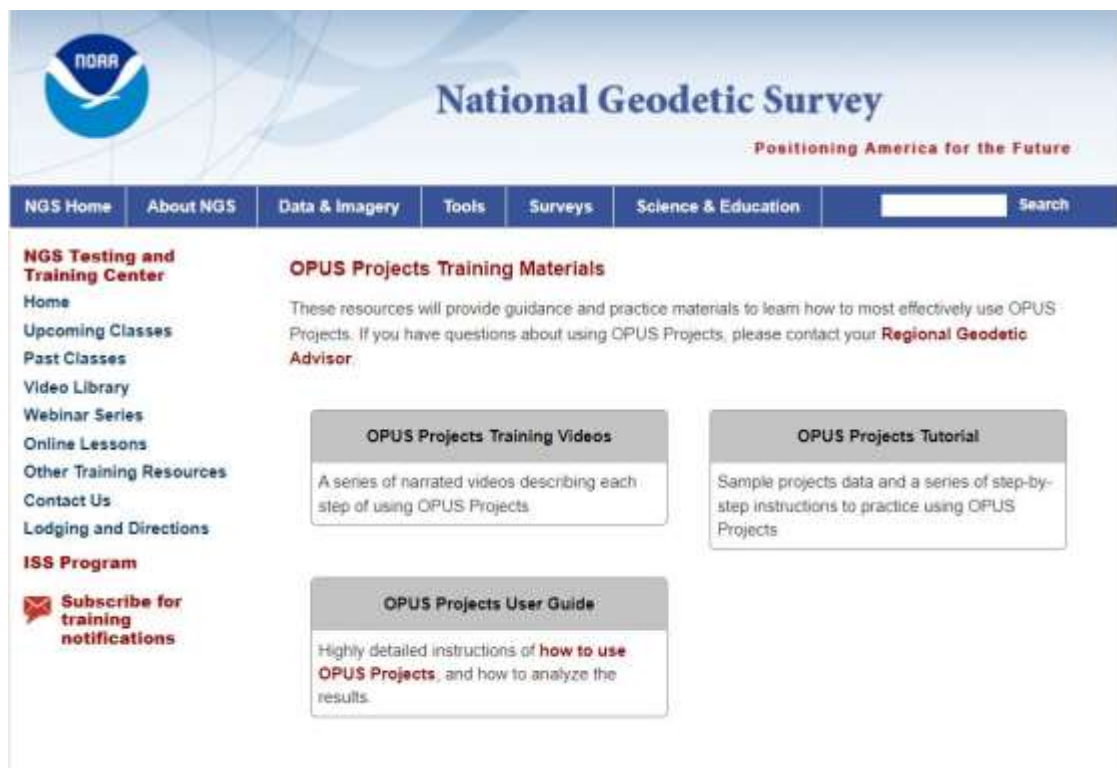
Is Mandatory Training Still Necessary/Desired?

- OPUS-Projects has become much more intuitive and the process has been significantly streamlined.
- NGS has developed a new User Guide
- Required training makes NGS a "gatekeeper" and a barrier to the use of its own software
- Some organizations cannot afford the time/money for their staff to attend a two-day course
- The popularity of the instructor-led training has grown

Lift Requirement for Mandatory Training When...

- On-demand training videos are available on NGS Website
- Tutorial lessons and example dataset are posted to NGS Website
- Update to the User Guide to include content on how to work with vector data created outside of OPUS
- Users have an easy-to-understand way to self-register and access training materials

Draft OPUS-Projects Training Page



National Geodetic Survey
Positioning America for the Future

NGS Home | About NGS | Data & Imagery | Tools | Surveys | Science & Education | Search

NGS Testing and Training Center
Home
Upcoming Classes
Past Classes
Video Library
Webinar Series
Online Lessons
Other Training Resources
Contact Us
Lodging and Directions
ISS Program
Subscribe for training notifications

OPUS Projects Training Materials
These resources will provide guidance and practice materials to learn how to most effectively use OPUS Projects. If you have questions about using OPUS Projects, please contact your **Regional Geodetic Advisor**.

- OPUS Projects Training Videos**
A series of narrated videos describing each step of using OPUS Projects.
- OPUS Projects Tutorial**
Sample projects data and a series of step-by-step instructions to practice using OPUS Projects.
- OPUS Projects User Guide**
Highly detailed instructions of **how to use OPUS Projects**, and how to analyze the results.

Overview of OPUS Projects Process

Project Planning

- Using the NGS Map (Basic Tutorial, Advanced Tutorial)
- Creating Description Files with WinDesc
- Field Reconnaissance and Planning
- Developing a Survey Schedule

Project Proposal and Execution

- The Survey Proposal (5-33)
- Field Logs

Project Creation/Upload

- Manager's Page Overview
- Creating a Project and Modifying Project Preferences
- Uploading RINEX files
- Uploading GNSS Vectors
- Uploading Descriptions, Field Logs, and Photos

Project Analysis

- Preparing for Session Processing
- Session Processing
- Session Solutions
- Analyzing Network Adjustments and Determining Constraints

Submitting Project to NGS

- Project Report - Writing and Uploading
- Review and Submit to NGS

Challenges

- Find, or create a comprehensive data set
- Distill lecture content into small, bite-size lessons
- Develop content that will answer Frequently Asked Questions
- **Update to the User Guide** to include content on how to work with vector data created outside of OPUS
- Users have an easy-to-understand way to **self-register and access training materials**

Summary

- Current model for training is not sustainable
- Online, self-paced training removes barriers associated with instructor-led training
- Removing training requirement opens use to unlimited number of users
- Instructor-led training will still be made available but will not be a requirement

