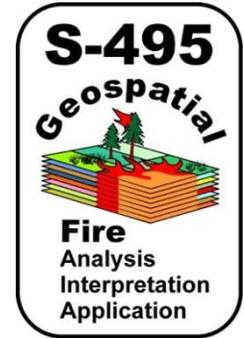


S-495 Geospatial Fire Analysis, Interpretation, and Application: Outline for Self-Study Online Materials



***NOTE:** This material is taken from an online course that begins in November of “odd” years and culminates in a “Unit 9” classroom session in April of “even” years. Unit 1-8 materials are provided here (without quizzes) for reference and self-study for people interested in geospatial analysis. Completing these self-study units does not allow a student to earn completion credit applied toward earning a certificate for the S-495 course. To take the class for credit and earn a completion certificate, watch for announcements for future courses, or look for S-495 at www.nationalfiretraining.net*

Course Pre-work

Lesson 1 - History of S-495, Course Outline, Evaluations, and Working in the Blended Learning Environment

Lesson 2 – File Structure

Lesson 3 – Computer Requirements, Obtaining Software, and Establishing Internet Log-ins

Lesson 4 – Using Help Functions

Course

Unit 1 - Introduction to Geospatial Fire Analysis, Interpretation, and Application

Lesson 1 – Introduction to the Use of Geospatial Fire Decision Support Systems

Lesson 2 - Geospatial Fire Decision Support Systems

Unit 2 –Descriptive Statistics and Probability & Risk Assessment in Wildland Fire Management

Lesson 1 – Descriptive Statistics in Wildland Fire Management

Lesson 2 - Probability and Risk Assessment in Wildland Fire Management

Unit 3 - Weather and Climatology

Unit 3 Introduction

Lesson 1 – Evaluating Large-Scale Trends in Weather, Fuels, and Fire Occurrence

Lesson 2 – Indicators of Fire Growth Potential

Lesson 3 – Completing a Wind Analysis

Lesson 4 – Evaluating Local Climatology and Current Season Severity Exercise

Lesson 5 - Fire-Stopping and Season-Ending Events

Lesson 6 - Weather Forecasts and Outlooks

Lesson 7 - Developing FARSITE Weather and Wind Files

Because S-491 is a prerequisite for S-495, these lessons are considered “review”:

- Optional Review Lesson 8-- Accessing and Retrieving Weather and Fire Data
- Optional Review Lesson 9 – Critiquing and Correcting Weather Data
- Optional Review Lesson 10 – Developing and Interpreting Climatology Graphs

Unit 4 - Concepts for Working with Geospatial Data in Fire Analysis

Unit 4 Introduction

Lesson 1 - Geospatial Data Formats and Sources

Lesson 2 - Understanding Coordinate Systems and Projections

Lesson 3 - Geospatial Data Exploration and Modification

Unit 5 - Geospatial Fire Analysis

Lesson 1 – Considerations in the Use of Geospatial Fire Decision Support Systems

Lesson 2 – Simulating Crown Fire and Spotting in Geospatial Fire Modeling Systems

Lesson 3 - Fuel Moisture Modeling within Geospatial Fire Modeling Systems

Unit 5 Reference Materials

Unit 6 - Short-term Geospatial Fire Analysis using FlamMap

Unit 6 Introduction

Lesson 1 – Introduction to FlamMap

Lesson 2 - The Mechanics of Running FlamMap Basic

Lesson 3 - Using Optional Settings in FlamMap

Lesson 4 – Critiquing the Landscape File and Calibrating FlamMap Inputs

Lesson 5 – Modeling Short-Term Fire Spread using FlamMap’s Minimum Travel Time

Lesson 6 - Advanced FlamMap – East Creek Scenario and Exercise

Unit 6 Reference Materials

Unit 7 - Near-term Geospatial Fire Analysis using FARSITE

Lesson 1 – Introduction to FARSITE

Lesson 2 - Understanding FARSITE Fuels and Landscape Data

Lesson 3 - Overview of FARSITE inputs

Lesson 4 – FARSITE Model Parameters

Lesson 5 - FARSITE Simulations and Bookmarks

Lesson 6 - Fire Behavior Models in FARSITE

Lesson 7 - FARSITE Outputs and Interpretation

Lesson 8 - Mallory Swamp Exercise

Unit 8 - Long-term Geospatial Fire Analysis using FSPro

Lesson 1 - Introduction FSPro

Lesson 2 – Overview of FSPro Outputs

Lesson 3 - FSPro Interpretation and Application