FOREST INVENTORY AND ANALYSIS
SOUTHERN RESEARCH STATION FIELD GUIDE

VOLUME 1: FIELD DATA COLLECTION PROCEDURES FOR PHASE 2 PLOTS

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B. PREVIOUS PRISM PLOT DESIGNS AND REMEASUREMENT PROCEDURES

C. SPECIAL DATA COLLECTION PROCEDURES IN THE CARIBBEAN (PR AND VI)

D. DATA RECORDER MANUAL

G. GPS INSTRUCTIONS

Q. QA MANUAL

W. SPECIAL DATA COLLECTION PROCEDURES IN WEST OKLAHOMA AND WEST TEXAS

FOREST INVENTORY AND ANALYSIS
SOUTHERN RESEARCH STATION FIELD GUIDE

VOLUME I: FIELD DATA COLLECTION PROCEDURES FOR PHASE 2 PLOTS

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Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

INTRODUCTION

This document describes the standards, codes, methods, and definitions for Forest Inventory and Analysis (FIA) field data items. The objective is to describe CORE FIA field procedures that will be consistent and uniform across all FIA units. **This CORE serves as the framework for regional FIA programs; individual programs may add variables, but may not change the CORE requirements.**

This document also describes additional regional standards, methods, and definitions for the southern FIA unit. This serves to enhance the National CORE, not change it. All regional items and clarifying text are shaded in the same manner as this paragraph.

A vertical bar in the left margin, just like the one next to this paragraph, identifies text that has changed since the previous update. A bar may also be next to empty lines between paragraphs, at the top or bottom of a page, and even next to some lines of text that have not actually changed. In this case, it merely indicates a line spacing change. Updated pages that do not have a vertical bar in the left margin are included as a result of a shift in the page order.

It is expected that all items in Volume I can be measured by a two-person field crew in less than a single day, on average, including time spent travelling to and from the plot.

The FIA program is in transition, changing in response to legislation and new customer demands. One of these demands is for increased consistency, which this manual begins to address. Another change is the merger of the FIA program with the field plot component of the Forest Health Monitoring (FHM) program. This will be accomplished by a joint sampling approach where FHM plots become a subset of the larger sample of FIA plots. In this model, plots formerly known as FIA plots will now be called Phase 2 plots; plots formerly known as FHM plots will be called Phase 3 plots.

The focus of Volume I is on data that are collected in the field on all Phase 2 plots in the FIA sample and on mensuration add-ons collected on Phase 3 plots. Volume II of the series will describe an additional expanded suite of data collected on the Phase 3 subsample. Volume II will consist of the FHM field manual, minus data elements already collected on the FIA sample. Volume III of the series (in preparation) will document the office procedures including data elements measured in the office, data from other sources that are merged into the FIA database, and CORE compilation and analysis algorithms. When complete, the three-volume set will describe all field data measured consistently across the country, comprising the CORE FIA program.

FIELD GUIDE LAYOUT

Each section of the field guide corresponds to one of the following sections:

0 General Description
1 Plot
2 Condition
3 Boundary
4 Subplot
5 Tree Measurements
6 Seedling
7 Site Tree
8 Nonforest/Denied Access/Hazardous Plots

Each section begins with some general overview of the data elements collected at that level, along with whatever technical background is necessary to prepare the field crews for data collection. Descriptions of data elements follow, in the following format:

ITEM # DATA ELEMENT NAME -- <brief variable description>

When collected: <when data element is recorded>
Field width: <X digits>
Values: <legal values for coded variables>

Item numbers are four digits and attempt to adhere to the section number of the National Core Field Guide that describes the variable. The first digit of the item number indicates the section it can be found in the manual. For example, AZIMUTH is ITEM 5040, because it is found in section 5.04 of the national manual. Items that begin with the letter ‘R’, indicates the items of regional interest that are not in the national manual. In this case, the

second digit indicates the section that the item can be located. For example, NEW PAST FOREST TYPE is a regional item. It is item number R207. The 'R' indicates it is a regional item, the '2' indicates it can be found in Section 2, Condition.

Data elements and descriptions of when to collect, field width, and values, apply to both Phase 2 plots (formerly called FIA plots) and Phase 3 plots (formerly called FHM plots) unless specifically noted.

UNITS OF MEASURE

The field guide will use ENGLISH units as the measurement system. Puerto Rico and the Virgin Islands will use METRIC. See Supplement C for ENGLISH/METRIC conversion of plot and tree limiting dimensions.

Plot Dimensions:

Annular plot - for sample intensification or sampling relatively rare events and for coding some condition level data.

Radius = 58.9 ft
Area = 10,890 sq. ft or 0.25 ac or 1/4 ac

Subplot - for selecting trees with diameter $\geq$ 5.0 in

Radius = 24.0 ft
Area = 1,809.56 sq. ft or approximately 0.04 ac or approximately 1/24 ac

Microplot - for counting seedlings and selecting saplings

Radius = 6.8 ft
Area = 145.27 sq. ft or approximately 0.003 ac or approximately 1/300 ac

The distance between subplot centers is 120.0 ft horizontal.
The minimum area needed to qualify as accessible forest land is 1.0 ac.
The minimum width to qualify as accessible forest land is 120.0 ft

Tree Limiting Dimensions:

breast height	4.5 ft
stump height	1.0 ft
merchantable top	4.0 in
merchantable top for woodland	1.5 in
minimum conifer seedling length	0.5 ft
minimum hardwood seedling length	1.0 ft
seedling/sapling DBH/DRC break	1.0 in
sapling/tree DBH/DRC break	5.0 in