

The Inventory

An Update Concerning the SRS FIA Program

Issue 12,
December 2008

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SRS FIA Informational Update (December 2008)

Sometime shortly after New Years Day 2009, the last variable-radius plot in the Southern United States will be remeasured and the new fixed-radius plot will be installed in eastern Oklahoma. It will have taken slightly more than 11 years for this transition to be complete. At times the path to this complete transition to fixed-radius plots has not been easy. There have been obstacles, detours, roadblocks, and at times it seemed that for every two steps forward we took three steps back. But we made it!

Throughout this time we have moved from a regional field guide to a national field guide, a regional data processing system and a regional database to a national data processing system (NIMS – National Information Management System) and a national Forest Inventory and Analysis database (FIADB), and recently we have initiated the use of a national FIA data recorder data collection program, Mobile Integrated Data Acquisition System (MIDAS). There are still some components that are still being refined, updated, and improved but the level of change remaining is small in comparison to how far we have come.

All of these accomplishments will position FIA to move forward during the next 11 year time period. It also positions FIA to provide needed data for emerging issues such as biomass for bioenergy, carbon budgets and carbon accounting, and other issues that have yet to be identified. I believe that the numbers and types of users of FIA data will increase during this time period and FIA will be the *go to data-source* for forest information.

If you have any questions regarding FIA, please submit those questions to Charlene Walker (cwalker@fs.fed.us) and we will answer your questions in a future issue of *The Inventory*. Thank you for your interest in FIA and please let us know how we may serve you in the future.

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Ray Sheffield Retires

After nearly 37 years with the U.S. Forest Service, all of it with FIA in the Southern U.S., Ray Sheffield has decided to retire. Ray's last day with FIA will be January 2, 2009. Ray has both a Bachelors and Master degree in forestry from North Carolina State University.

Ray started in the field as a cruiser in 1972 during the 4th survey of Georgia and spent 4+ years in the field prior to moving to the office in Asheville, NC. The remainder of his career was spent in

the office analyzing and working with FIA data. Ray worked as an analyst for 12 years and has been the Analysis Section supervisor for about 20 years.

“Ray’s knowledge and expertise understanding the subtle aspects of FIA data will be missed. When he retires, he leaves with a huge amount of inventory knowledge that will be difficult to replace,” quoted Bill Burkman. Ray and his wife Annette reside in Hendersonville, NC.

Older Inventory Data in FIADB—Coming in 2009

Have you ever needed forest inventory data for a southern State back in the 1970s but the only option was to extract the information from published reports? You may have discovered that the exact information you were seeking was not published. If so, help is on the way! Ray Sheffield and Jeff Turner are currently working on a project to convert all the Southern inventory datasets that are available in electronic form to the current FIADB format. These data should be available in FIADB in the first half of 2009.

The earliest datasets that will be available vary by State, most are available back to the 1970s decade. FIADB currently contains data for most southern States generally back to the 1980s. These older FIADB data were originally developed for the Eastwide Forest Inventory Database (EWDB). The EWDB contained fewer variables

and omitted many variables that were actually available in the South. Examples include growth, removals, and mortality estimates for all live (only growing stock and sawtimber were included), total tree height, stand disturbances and treatments such as timber harvests, and many others. When FIADB was created, the EWDB files were simply converted to the new format leaving many variables with missing information even though they were collected and stored in the original compiled datasets. Those FIADB datasets that were converted from EWDB will be updated and reposted along with the earlier data that has never been made available to the public in a common format.

We will send out a message via the distribution list for this newsletter when the data are available.

For more information, please contact Jeff Turner at jturner02@fs.fed.us or 865-862-2053.

New Tools to Help Maintain Accurate Coordinates in NIMS

FIA data is often displayed on a map to show the spatial distribution of forest characteristics. To enable consistent and accurate spatial display, specific procedures have been developed for obtaining, evaluating, and archiving plot locations.

In October 2008, the SRS FIA began using the National Information Management System (NIMS) to store coordinate information. Embedded within NIMS are plot coordinates which have been reviewed for accuracy. Prior to field data collection, the *best coordinate available* is transferred from NIMS to the Mobile Integrated Data Acquisition System (MIDAS).

To help obtain accurate coordinates for the current survey, the MIDAS program with Landmark software accepts electronically transferred coordinates from a Global Positioning System (GPS) receiver. The MIDAS hardware package includes a Personal

Data Recorder (PDR) and a Bluetooth-enabled GPS device (see picture). Plot location variables such as latitude, longitude, elevation, and datum are transferred electronically to the PDR via the Bluetooth connection from the GPS device, which minimizes the number of keystrokes needed to acquire plot location data. During automated post-evaluation, the newly acquired digital plot location is compared to the previous *best coordinate available*. It is the combination of electronically transferred coordinates and post-processing techniques that will provide a consistent and accurate plot location database from survey to survey.

In addition to minimizing lost time when revisiting plots and reducing post-processing costs, maintaining an accurate database of plot locations will serve to increase the efficiency of NIMS data processing and enable accurate spatial data studies by Station researchers and external cooperators.



The Allegro data recorder and Bluetooth-enabled GPS device for electronic transmission of plot coordinates.

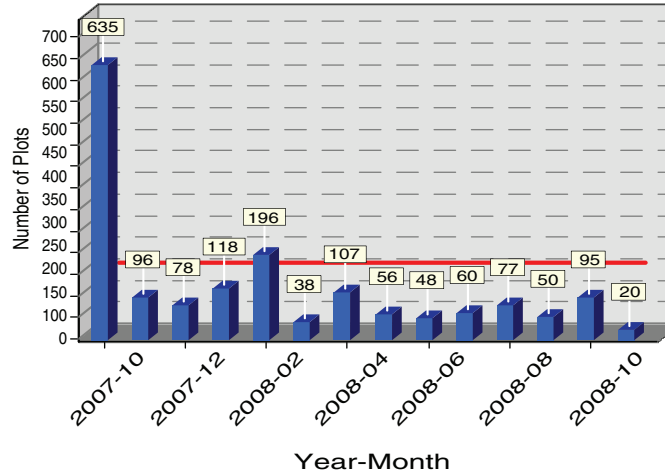
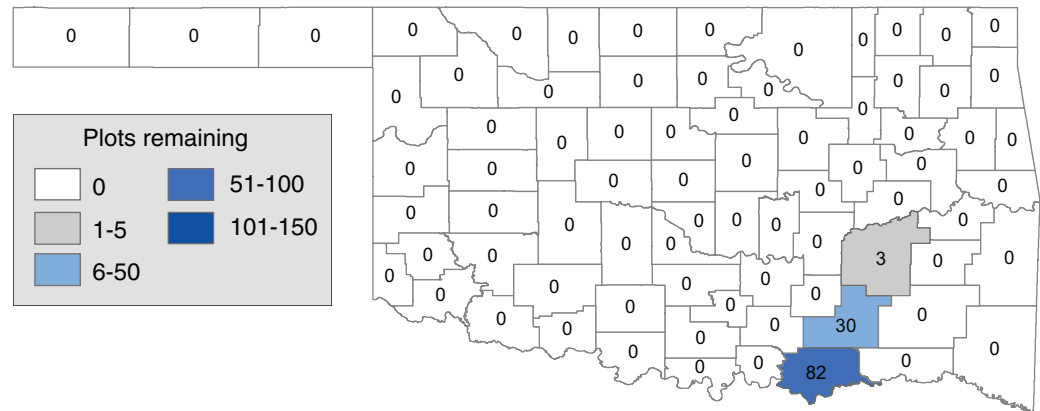
For more information, please contact Doug Shipley at dshipley@fs.fed.us or 865-862-2049.

**Oklahoma Inventory
Over 94% Complete!**

At the end of November, the seventh inventory of eastern Oklahoma is 94% complete. In plot numbers, this percentage equates to 115 plots that remain incomplete. Several plots still remain in Pittsburg County due to access or past data issues. The remaining plots to be completed are in

Bryan County and Atoka County where the crews are now actively working. With the holidays approaching and many of the field crews taking a well-deserved break from data acquisition, the State will not be complete until the new calendar year.

East Oklahoma Cycle 7 Panel 6- Phase 2 Completion



As of December '08
Remaining Plots = 115
 Total Plots: 1789
 % Complete: 93.6

Created by:
 Amy L. Morgan

Number of Plots Transmitted—Panel 6

continued

**Oklahoma Inventory
Over 94 Percent
Complete! (continued)**



For more information, please contact Kathy Tillman at kmtillman@fs.fed.us or 936-569-7981, ext. 4002.

Kevin Norrgard (USFS FIA Forester) in the process of relocating a plot from the last inventory cycle in Pittsburg County.

**Status of Current
Field Inventories**

State	Cycle start date	Subcycle start date	Cycle and subcycle of current inventory	Percent of current subcycle collection completed
Alabama	2005	Oct-08	9-7	4
Arkansas	2005	Oct-08	9-1	6
Florida	2008	Oct-08	9-3	9
Georgia	2004	Jul-08	9-1	29
Kentucky	2005	Jun-07	6-4	100
Louisiana	2000	Nov-04	3-3	100
Mississippi	2008	Oct-08	9-1	16
North Carolina	2003	May-07	8-4	99
Oklahoma	2007	Oct-07	7-6	93
Puerto Rico	2006	Apr-07	4-3	100
South Carolina	2006	Jan-08	10-5	98
Tennessee	2005	Feb-08	8-5	85
Texas (east)	2008	Aug-08	9-1	19
Texas (west)	2004	Feb-08	51-5	45
U.S. Virgin Islands	2004	Jul-04	1	100
Virginia	2007	Jul-08	9-1	53

Information compiled November 20, 2008.

For more information, contact Dale Trenda at dtrenda@fs.fed.us or 865-862-2039

***FY 2009 Research
Publications
Published Since
September 2008***

- Blackard, J.A.; Finco, M.V.; Helmer, E.H. [and others].** 2008. Mapping U.S. forest biomass using nationwide forest inventory data and moderate resolution information. *Remote Sensing of Environment*. 112: 1658–1677.
- Ambrose, M.J.; Conkling, B.L.; Ritters, K.H.; Coulston, J.W.** 2008. The forest health monitoring national technical reports: examples of analyses and results from 2001–2004. *Science Update SRS-018*. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. [Not paged].
- Helmer, E.H.; Brandeis, T.J.; Lugo, A.E.; Kennaway, T.** 2008. Factors influencing spatial pattern in tropical forest clearance and stand age: Implications for carbon storage and species diversity. *Journal of Geophysical Research*. Vol. 113, G02S04, doi:10.1029/2007JG000568.
- Johnson, T.G.; Bentley, J.W.; Howell, M.** 2008. Historical trends of timber product output in the South. *Resour. Bull. SRS-138*. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 70 p.
- Johnson, T.G.; Stepleton, C.D.; Howell, M.** 2008. Trends in southern pulpwood production, 1953-2006. *Resour. Bull. SRS-139*. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 53 p.
- Oswalt, C.M.; Larsen, D.R.** 2008. Integrating a wood quality component with the Sylvan Stand Structure Model for comparing cherrybark oak plantation management scenarios. In: Lockhart, B.R.; Gardiner, E.S.; Dey, D.C., eds. *Tenth workshop on seedling physiology and growth problems in oak plantings*; Gen. Tech. Rep. NRS-P-32. Newtown Square, PA: U.S. Department of Agriculture Forest Service, Northern Research Station: 7.
- Oswalt, S.N.; Brandeis, T.J.** 2008. Contribution of dead wood to biomass and carbon stocks in the Caribbean: St. John, U.S. Virgin Islands. *Biotropica*. 40(1): 20–27.
- Oswalt, S.N.; Oswalt, C.M.; Turner, J.** 2008. Hurricane Katrina impacts on Mississippi forests. *Southern Journal of Applied Forestry*. 32(3): 139–141.
- Ruefenacht, B.; Finco, M.V.; Nelson, M.D. [and others].** 2008. Conterminous U.S. and Alaska forest type mapping using Forest Inventory and Analysis data. *Photogrammetric Engineering and Remote Sensing*. 74(11): 1379–1388.
- Smith, G.C.; Coulston, J.W.; O’Connell, B.M.** 2008. Ozone bioindicators and forest health: a guide to the evaluation, analysis, and interpretation of the ozone injury data in the Forest Inventory and Analysis Program. Gen. Tech. Rep. NRS-34. Newtown Square, PA: U.S. Department of Agriculture Forest Service, Northern Research Station. 100 p.
- Woodall, C.W.; Westfall, J.A.; Lutes, D.C.; Oswalt, S.N.** 2008. End-point diameter and total length coarse woody debris models for the United States. *Forest Ecology and Management*. 25: 3700–3706.

***Current Status of
FIA Data Posted to
Mapmaker***

State ^a	FIADB cycle	Survey	Periodic/ annual	Date year
Alabama	9	9	A	2007
Arkansas	9	9	A	2007
Florida	8	8	A	2006
Georgia	9	9	A	2007
Kentucky	6	6	A	2006
Louisiana	7	7	A	2005
Mississippi	8	8	A/P	2006
North Carolina	8	8	A	2006
Oklahoma (east)	1	6	P	1993
South Carolina	10	10	A	2007
Tennessee	8	8	A	2006
Texas (east)	8	8	A	2008
Virginia	8	8	A	2007

^a West Texas data was removed from FIADB on 7/18/2008. It is currently being reprocessed using a 10% forest land definition. The data will be available fall 2008.

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FIA is a USDA Forest Service research work unit which collects, analyzes, and reports on data pertaining to our forest land in the Southern region. This region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, the U.S. Virgin Islands, and Virginia.

FIA conducts this program of research to improve the understanding of the Southern forest ecosystem.

Government and private agencies utilize this data to monitor forest resources, forest use, and forest health. The collection of data is done on private and public land.

Our system development success is a direct result of our partners, our talented scientists, analysts, computer specialists, and other staff members who have continually contributed to the mission of this complex project.

National and Southern FIA Websites of Interest

National FIA website: <http://www.fia.fs.fed.us>

National FIA database available at: <http://fia.fs.fed.us/tools-data/other/default.asp>

National Timber Product Output (TPO) database available at: <http://srsfia2.fs.fed.us/php/tpo2/tpo.php>

National Woodland Owner Survey website: <http://www.fia.fs.fed.us/nwos/>

Information specific to Southern States: <http://srsfia2.fs.fed.us/>

Electronic copies of SRS FIA publications at: <http://www.srs.fs.usda.gov/pubs/>