



Forest Inventory and Analysis Band System



FIA Fact Sheet Series

[The Forest Inventory and Analysis \(FIA\)](#) program of the USDA Forest Service is committed to increasing and improving the level of consistency in all stages of its [national core inventory system](#) - planning, data collection, photo and image interpretation, information management, compilation, and analysis. This can only be accomplished by close communication and cooperation among all regional FIA personnel and other FIA partners.

FIA Band System

The Band system is comprised of a set of technical committees. The term “Band” is synonymous with “Team” or “Group,” and is used to uniquely identify these special FIA committees. The Band system was formed by the FIA leadership to provide a forum whereby technical experts in FIA, the National Forest System, State and Private Forestry, and State agencies across the US work together to produce one nationally consistent, efficient, and complete FIA program. As a secondary benefit, the Band system allows colleagues with similar interests and abilities to share information about their experiences in conducting regional FIA surveys.

Each Band is tasked to apply its technical skills to identify weaknesses and inconsistencies in the FIA program, and to develop strategies to resolve problems. Bands review each other’s work and ideas for FIA system improvements, and provide feedback with respect to their area of expertise.

Band-to-Band and within-Band interaction is essential to the process. Band members communicate regularly via e-mail, conference calls, and periodic meetings. Liaisons from other

Bands participate in those communications and provide a link between Bands. An All-Bands meeting is held annually to provide an opportunity for the Bands to discuss and resolve inter-band issues. Bands also maintain their own website, which contains documentation on meetings, current issues, and work completed. A Band Conductor oversees and orchestrates the system, facilitating Band harmony and ensuring that their work progresses.

Chartered Bands

At present, there are six Bands chartered by the [FIA Management Team](#). In the future, Bands may be added or retired as the development of the core program matures and the needs of the National FIA system evolve. Each Band has a charter, which structures the functions and direction of the Band.

Analysis and Reporting Band – is charged with converting FIA data into information for issue- and client-based analyses that address the extent, condition, health, and sustainability of the Nation’s forested ecosystems. This includes developing and designing reporting templates for the early years of annual inventories and the completion of periodic inventories. This Band is also responsible for developing comprehensive 5-year analytical reports that address the longer-term needs of state, regional, national, and international users.

Data Acquisition Band – is charged with developing, testing, and documenting the most efficient and consistent standard approaches to collecting core field data for [Phases 2 and 3](#). This includes developing and maintaining the National Core Field Guide, training programs, and quality

assurance approaches.

Information Management and Compilation Band – is charged with developing and maintaining a [National Information Management System \(NIMS\)](#) for core FIA and regional data. The system includes standard procedures for data editing, validation, and compilation of internal and external databases. They also develop web applications for data distribution to outside users.

Remote Sensing Band – is charged with developing national remote sensing procedures and applications, with special emphasis on formulating techniques that efficiently and effectively stratify the FIA ground plots. This Band is also charged with exploring ways in which remote sensing, along with other spatial data sources, can enhance FIA program delivery, such as developing new information products including spatially continuous maps of forest attributes.

Statistics Band – is charged with developing, documenting, publishing, and maintaining national standards for the statistical aspects of all phases of the core FIA program. This Band provides support to other Bands through statistical evaluation and modeling techniques to further refine the efficiency and completeness of FIA protocols.

Indicator Advisor Band – is comprised of the leading experts in the individual FIA indicators (crown condition, damage, ozone, lichens, soils, understory vegetation, down woody debris, quality assurance, and ownership). They serve as consultants in the development, implementation, analysis, and reporting of the indicators.

Band Membership

In general, each Band consists of representatives appointed from each of the FIA work units (Anchorage, AK; Knoxville, TN; Ft. Collins, CO; Ogden, UT; Newtown Square, PA; St. Paul, MN; and Portland, OR). A state representative is appointed by each of the three National Association of State Foresters (NASF) regions - North, South, and West. State and Private Forestry, and National Forest System each appoint one or more members. Each Band also has a representative from the FIA Management Team to provide leadership and communication between the Band and the FIA Management Team. Each Band may also add extra members, as needed.

Each Band selects a Band Leader, who provides direction and guidance on Band business and serves as the Band's liaison to the FIA Management Team. In addition, Bands appoint Liaisons, who participate in other Bands' discussions, and provide communication links between the Bands.

Bands also appoint a representative to serve on the Change Team. The Change Team oversees the process by which proposed changes to the FIA system are assessed by all Bands. The Change Team compiles the Bands reviews and submits recommendations to the change proposals to the Management Team for their final decision. The duration of the Band Leader, Liaison, and Change Team terms are flexible, and at the discretion of the Band.

Current Band Priorities

Data Acquisition:

- Complete preparation of the FIA National Field Procedures Manual Version 2.0
- Develop a comprehensive training program and QC field methodology
- Evaluate the current field protocol to ensure methods and

codes capture remeasurement situations for the National core plot

- Review current field techniques and actual measurement errors to develop cost-effective alternatives for efficient data collection

Analysis Band:

- Complete the development of the 5-year report templates
- Ensure consistency between core table requirements and core manual variables
- Develop options for integration of Phase 1 into core products
- Develop additional geo-spatial products
- Integrate Phase 3 indicators into national and region analyses and reporting
- Serve as FIA focal point for addition of new attributes and development of new indicators

Statistics Band:

- Complete and publish Phase 1 and 2 documentation
- With indicator advisors, document Phase 3 sampling and estimation methods
- Conduct time/motion studies of Phase 2 and 3 fieldwork
- With remote sensign band, develop small area estimation methods

Indicator Advisors:

- Finalize implemented Phase 3 indicators
- Integrate Phase 3 indicators with Phase 1 and 2 analyses
- Document Phase 3 indicators sampling methods and estimation and modeling methods

Remote Sensing:

- Use satellite imagery to stratify the sample (Phase 1) to produce Phase 2 estimates
- Evaluate and develop cost effective remote sensing and GIS methods; automate recurring geospatial analyses functions
- Develop a strategic plan for operational remote sensing, geospatial modeling, GPS, and land navigation
- Develop small area estimation

method using Phase 1 data with other geospatial attributes

- Link satellite imagery and/or derived products to all spatial data in FIA database

Information Management:

- Procure national PDR hardware and software
- Develop, modify or acquire PDR software that is compatible with national PDR hardware choices
- Plan for continued evolution of the National Information Management System (NIMS) to accommodate Phase 1 data, remote sensing, geospatial capabilities, and FIA's other data
- Modify existing data distribution format to accommodate all variables in Field Procedures Manual Version 2.0 including derived or core-optional variables
- Develop the next generation of FIA data distribution tools
- Ensure that NIMS can store, process, and deliver (in enhanced FIA DataBase format) all information collected and derived from Field Procedures Manual Version 2.0

Fact Sheet Author: Barb O'Connell

For more information about the FIA Program:

- See our "FIA Contacts" Fact Sheet
- Visit our national FIA website:
<http://www.fia.fs.fed.us>