

FIA Techniques Research Band (TRB) – A science community focused on advanced integration of Remote Sensing and Statistics

FY2017-2018 TRB CORE LEADERSHIP GROUP

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BACKGROUND

The U.S. Forest Service, Forest Inventory and Analysis (FIA) program is committed to improving all aspects of its national core inventory system. To maximize efficiency and to promote coordination among the numerous technical experts in and outside the agency, FIA relies on a Band system to provide a forum for organizing and advancing the collective mission of the program. These Bands not only serve as a mechanism for implementing national program improvements, they also provide a way for colleagues with similar interests to collaborate and share ideas across FIA regions. In 2007, the Band system was restructured to improve oversight and accountability. During this restructuring two of the original Bands (Statistics and Remote Sensing) were merged to form the Techniques Research Band (TRB). The new TRB Band was tasked with testing new technologies and techniques which could potentially improve or expand FIA's existing product lines. At the time, marrying the disparate interests and expertise of the Stats and Remote Sensing experts within FIA seemed like a good way to bring out the best of both groups. However, as these individual Bands began to move away from addressing specific operational needs (i.e. production of Green Book and CONUS biomass map) the TRB devolved into nothing more than a collection of smaller, often disconnected projects afforded by small amounts of funding directed to the U.S. Forest Service, Geospatial Technology and Applications Center (GTAC, formerly known as RSAC). Since TRB funding was mostly routed through GTAC, and given that many of the supported projects focused on geospatial applications, feelings of exclusion, especially among the former Stats group began to surface. Frustration with the less than transparent funding process, coupled with a lack of scientific engagement has left TRB members feeling disconnected and a result, interest in the Band is at an all-time low. In an effort to revive interest, the core TRB leadership group has, after careful consideration of member feedback, devised a new, science-focused vision for the TRB.

TRB: A NEW SCIENCE FOCUSED COMMUNITY

Moving forward, the core leadership group will seek to transform the TRB into an energized, science-focused community, which brings together the diverse, yet often overlapping interests of statisticians and remote sensing experts within FIA. As FIA begins to structure work assignments and research projects within the framework of the new portfolio management system (Figure 1), the TRB will become an important mechanism for testing new techniques, methods and technologies which can help fulfill the broader objectives of these nationally focused project areas. To that end, the TRB community will provide a forum for sharing knowledge, skills and tools which will help scientists advance both individually and collectively. This advancement will help FIA achieve a higher standing within the scientific community, and in return, scientists within the program will gain a competitive edge when applying for grants and other awards. As scientists develop, apply and ultimately reap the benefits of these newly acquired skills, we believe interest (and participation) in the TRB will grow to new heights.

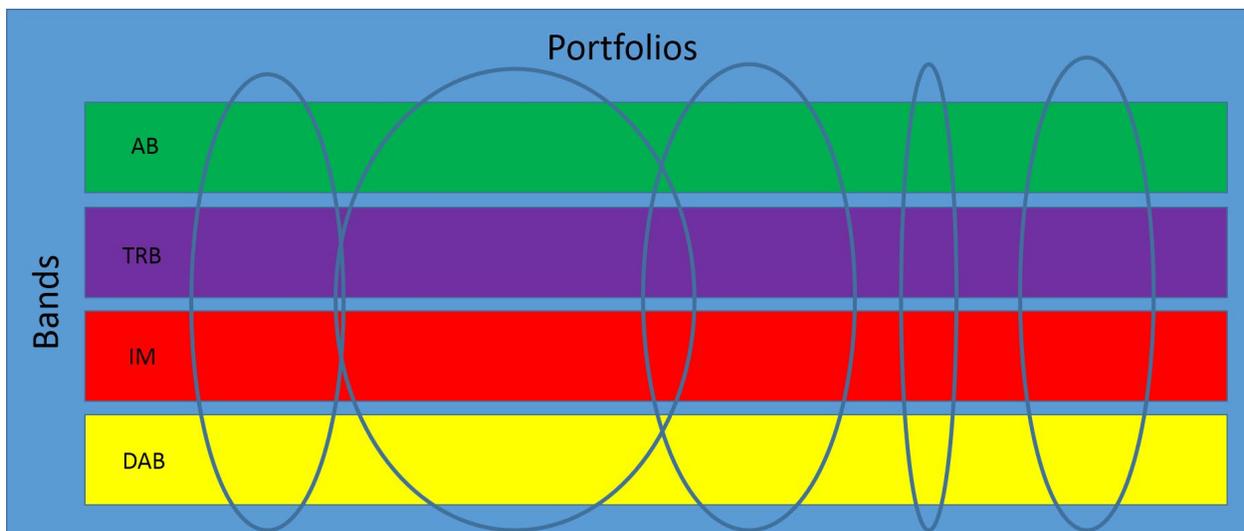


Figure 1. Conceptual overview of FIA portfolio and band management system.

HOW WILL THE NEW TRB WORK?

Given the wide array of remote sensing and statistical techniques being investigated by TRB members it is often difficult to keep track of who is working on what, and how individual projects are impacting the national portfolios. With so many moving parts there is a dire need to improve coordination within TRB, so that scientists and researchers can be better informed about ongoing efforts both within and outside the program. Improving coordination will also spur enhanced communication, which in turn will open up new avenues for individual learning and enhanced collaboration. Moving forward the TRB will make use of four primary avenues for sharing knowledge and information within and across the agency. These include:

I. WEBINAR SERIES

To foster a heightened state of communication the core leadership group will organize a series of four to six monthly webinars that will feature invited speakers who are using (or developing) new tools, technologies, products or methods that may be of interest to the broader TRB research community. Since the idea is to engage statisticians and remote sensing experts the talks will be arranged so that topics covered will be informative to both groups. In an attempt to bring new information, ideas and technology to FIA (and to better disseminate the work being done by TRB members in various portfolios), speakers will be brought in from within and outside the agency (suggestions are welcome and encouraged). To ensure a broad range of topics are covered and to promote equal representation among FIA units, members of the TRB core leadership team will help identify and select the webinar speakers.

Given the number of participants involved it will be difficult (if not impossible) to find a day and time where everyone can participate. To include as many people as possible, we will avoid scheduling talks on Monday's, Friday's and around federal holidays, and to accommodate all time zones the 1 hour talks will commence at 3pm ET (2pm CT, 1pm MT, 12 PT). Our hope is that by rotating the schedule we will only exclude a small number of people some of the time. The leadership team is currently contacting speakers with the intent of starting the seminar talks in March 2017.

II. TRAINING SESSIONS

The TRB will also attempt to hold one or two training session a year. These trainings will be conducted via webinar and will focus on developing new technical skills that can be used to advance research in one or more of the national portfolio areas. The idea is to provide TRB members the opportunity to build new skills, which can help advance their individual and collective research investigations. Potential topics include R programming, statistical modeling, remote sensing data collection (e.g. ICE, TimeSync), geospatial analysis, data visualization and digital reporting. The TRB leadership team is currently soliciting ideas for these trainings.

III. UPDATE CALLS

In addition to the webinar talks and training sessions we will also hold periodic conference calls to catch up on the status of TRB projects and to discuss other band-related business. Initially, the TRB core leadership team will hold monthly calls to discuss ongoing work and to determine whether resources are needed from other bands to help meet TRB objectives. To ensure that everyone has a voice, members of the core leadership team will be expected to meet with individual TRB members in their respective units to get feedback and to solicit ideas or concerns which need to be conveyed to the core leadership team. Should the need arise, a TRB all-band call will be scheduled, however our hope is that regional interactions will be an effective way to funnel individual thoughts and ideas to the core leadership team. From there, the TRB band leader will engage other band leaders (through the periodic band leader calls), program managers (via the program manager calls) and/or national team leaders to address problems and to facilitate solutions (Figure 2).

IV. IN PERSON MEETING

Lastly, when soliciting feedback from TRB members about what has and hasn't worked well in the past, nearly everyone mentioned the benefits of holding in person meetings. In fact, most members credit prior face-to-face gatherings as the catalyst behind many of the long-term relationships that have benefited coordination and collaboration across FIA regions for many years. One element that helped these meetings be so successful was the need to develop an operational product (e.g. the Green book or Biomass map). In structuring the new TRB science community we have communicated to the Program



Figure 2. Conceptual overview of TRB communications structure.

Managers our desire to meet in person, and based on initial discussions they have given their tentative support for resurrecting this idea. Whether this meeting would be open invite or restricted to only a few members from each region has yet to be determined, however it is clear that to be truly effective there needs to be an explicit purpose behind the meeting. This includes development of a detailed agenda with clearly stated objectives and a list of tangible benefits to be gained by TRB and FIA. With several meetings planned to support the portfolios, it's imperative that the TRB focus areas be unique enough to avoid duplication of effort. One idea could be to use this in person meeting to help maximize the success of the ongoing projects at GTAC. Another option could be to discuss plans to improve operational implementation of TRB research into FIA product lines. Regardless of the topics covered, a plan must be devised quickly if in person meeting is to be held this fiscal year. In lieu of standalone meeting, a secondary option might be to set aside a time for TRB members to gather before, after or during an already scheduled event. Logical opportunities include the FIA stakeholder science meeting scheduled for October 24-26, 2017 in Park City, UT and the all-band meeting (time and location TBD). If you have ideas, suggestions or would otherwise like to help organize a face to face gathering for TRB, please contact your local unit's core band representative.

CONCLUSION

Based on initial feedback, the Program Managers are excited and fully supportive of this new direction for TRB. As we begin to implement this plan, TRB leadership will work closely with members from the Washington Office (e.g. Jim Ellenwood, Gregg Reams) to ensure that our activities and progress are fully utilized by the national program. To maximize coordination (and to facilitate potential operational implementation), a brief, year-end report summarizing the seminars, trainings and research accomplishments of the TRB will be produced. Although projects involving TRB members will be officially tracked through the various portfolios, members are encouraged to submit a list of their TRB-related projects to the current band leader so that ongoing activities can be accurately tracked and taken credit for at the band level. A semi-current project list (organized by Farm Bill topic) is being circulated for those wishing to provide updates.

In the end, the TRB will only become what we make of it. If we relish our commonalities and embrace our differences, we can use this forum as way to advance ourselves and the collective group. With the right attitude we can make this a fun, engaging experience that everyone can benefit from. We hope you'll join us on this new adventure!