



Forest Biometrics Research Institute

4033 SW Canyon Road
Portland, Oregon 97221

A Non-Profit Research Corporation since 2002
For the advancement of research, education, and service in forest biometrics

May 9, 2014

To FBRI Supporting Organizations:

I'm going to start this letter by encouraging you to attend the FBRI's Annual Meeting on Tuesday, November 11, at the World Forestry Center in Portland, Oregon. The Annual Meeting is a great venue for you to network with resource professionals that rely on FPS for forest inventory, growth and yield, and forest planning. It also provides you with an opportunity to discuss issues that are important to your organization with one or more of the Institute's Directors. But, most importantly, this is the place to learn first-hand from Dr. Jim Arney what the Institute has accomplished during the year, and what the work plan looks like going forward. Additionally, there are not many opportunities to interact with Jim now that FBRI is only conducting one comprehensive FPS workshop per year, and so you should put the Annual Meeting in your calendar today. If you want more information about the meeting, here's the link:

<http://www.forestbiometrics.com/board-of-directors/november-11-2014/>

If you want to register for the Annual Meeting, contact Richard Zabel at richard@westernforestry.org. A notice will also be distributed to FBRI Supporting Organizations as we get closer to the meeting.

Earlier this year, on March 5 & 6, Dr. Arney conducted a two-day FPS Workshop. Sixty participants showed up for the event which was structured to cover the three basic components of FPS: forest inventory, forest growth, and forest planning. At the beginning of the workshop, each participant received a copy of Jim's new 329-page FPS user's guide and a CD-ROM containing FPS Version 7.2.0. The user's guide has been under development for years, and many of you have told me repeatedly that its completion was vitally important to your organization. Personally, I am extremely pleased with the user's guide. Earlier drafts were reviewed by many of you, and the feedback that Jim received was instrumental in improving the quality of the final product. The completion of a comprehensive up-to-date user's guide is a significant accomplishment for Jim and I simply can't thank him enough for the hard work that he put into its publication. If you need additional copies for your organization contact Richard Zabel. The cost for a coil-bound copy is \$50. The user's guide will not be distributed as a PDF file (or any other digital format) via email or over the Internet. Jim plans to update the user's guide from time to time so if you have any suggested edits, comments, feedback, criticisms, etc., don't hesitate to send him an email.

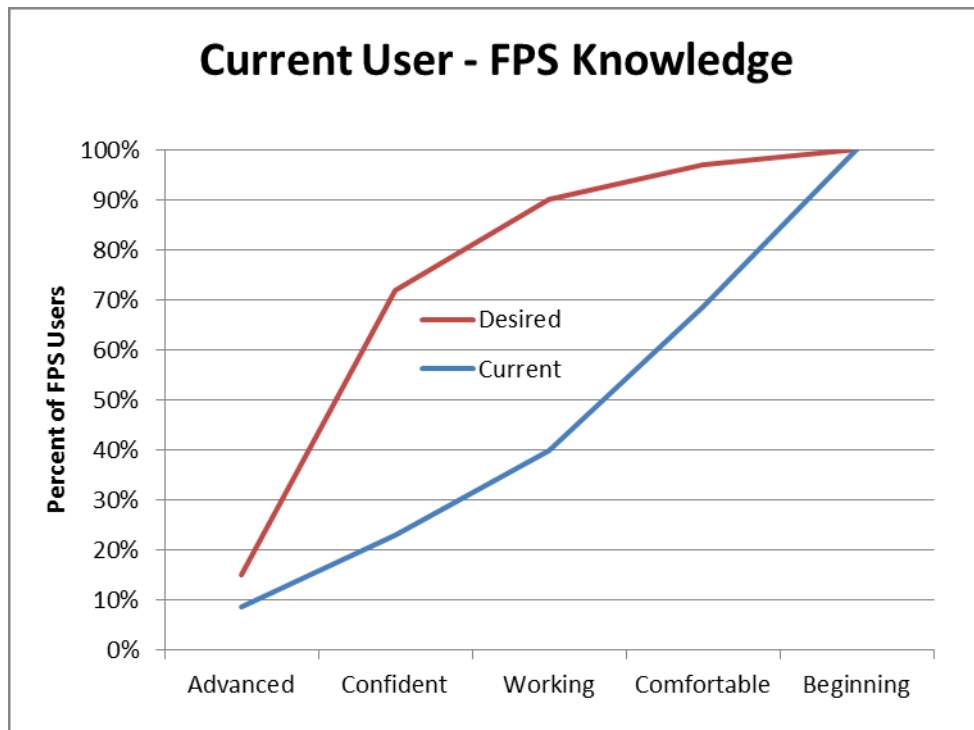
On March 7, the day following the FPS Workshop, FBRI's Directors gathered for a Board meeting. I have attached a copy of the agenda to this letter (see Attachment A). As you can see by

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glancing at the agenda we covered many topics during the day. In this letter I'm going to focus on what I believe to be the **highlights**. If you have any questions about an agenda item that I don't cover, feel free to contact me, any other Director, or Dr. Jim Arney (see Attachment B for contact information). While I'm at it, I might as well draw your attention to one more attachment. It's the spreadsheet we use to keep track of the various ongoing projects (see Attachment C). It's a great tool for quickly reviewing the status of FBRI projects and tasks.

Results of Participant Survey on FBRI Services—To better understand how well FBRI is meeting the needs of Supporting Organizations, we asked the FPS Workshop participants to complete a brief survey that contained nine questions. What a goldmine of feedback! There are some things that we are doing really well (e.g., Chuck Vopicka gets high marks for his Technical Support) and other things we could be doing better. The survey also sheds some light on opportunities. For example, here's a chart that illustrates the gap between current FPS knowledge and desired FPS knowledge:



It's clear that many FPS users want to become much more proficient in operating the model. Our challenge is to figure out how to deliver the right mix of workshops, training materials, technical support, site visits, and documentation to move users to higher proficiency levels.

What I found to be really eye-opening, however, were the comments that participants jotted down on the survey forms. For example, many of you expressed concerns about the new workshop format—one workshop per year focused on all three FPS modules (inventory, growth and yield, and planning) taught from the user's guide. Based on this feedback, we need to put more thought into our workshops. Anyway, stay tuned. This is an important topic that the Board intends to review in June at its next meeting in Corvallis.

Completion and Distribution of TRS – FPS Library Calibration Methods and Tools—It's noteworthy to report that Dr. Arney has completed a draft of the tutorial for 3rd party library calibration. This is an important document because it describes the key steps and analyses that a forest biometrician must execute to calibrate a FPS library. The draft tutorial has been distributed to a limited number of biometricians who are working on FPS calibration projects this year.¹ Jim will get feedback from these individuals as they use the tutorial and associated software (the Tree Record System or TRS Tools) over the course of the year. He plans to prepare a “final” version of the tutorial that will be distributed to Supporting Organizations at the Annual Meeting in November. Yet another good reason to attend the Annual Meeting!

FPS Regional Library Updates to Distribute at Annual Meeting, November 11—Dr. Arney is planning to distribute updated FPS libraries at the Annual Meeting in November. These updated libraries are based on his new continuous approach to library development which he formally proposed to the Board back in December 2012, and presented to Supporting Organizations at a workshop in January 2013. In the past, FPS relied upon regional species libraries for inputs to the model. This resulted in a large number of libraries that were often separated by political boundaries. There are several benefits to his new approach:

- ✓ Past discrete FPS regions will be merged
- ✓ Logical and biological trends will be strengthened
- ✓ Limited datasets will be combined

I must admit that I am very enthusiastic about the continuous approach to library development. Jim has come up with some astonishing results when he looks at data that cover broad geographical regions. I am really looking forward to his presentation at the Annual Meeting.

SAF/CIF/IUFRO World Congress, Salt Lake City, October 5–11, 2014—I am pleased to inform you that Dr. Arney will be a presenter at the SAF National Convention/IUFRO World Congress that will be held in Salt Lake City in October 2014. The theme of the congress is “Sustaining Forests, Sustaining People: The Role of Research.” In his presentation, Dr. Arney will provide attendees with an overview of FPS's inventory, growth and yield, and planning capabilities. FBRI will also have an exhibit booth at the convention, which will be staffed by Directors Ken Borchert, Jim McWhorter, me, and Jim. I am looking forward to the convention and helping Jim promote the Institute and our software. My hope is that such exposure will lead to new members, university involvement, more interest, and ultimately, a stronger institute that will stand the test of time and continue to provide the forestry community with the tools it needs to make difficult resource decisions long into the future.

Succession Planning—We are making progress. Our highest priorities over the past few years are getting accomplished. Most importantly, great strides have been made with respect to documentation. As mentioned above, Jim distributed a FPS Version 7 user's guide at the FPS Workshop

¹ One such library calibration project is being funded entirely by Green Diamond Resource Company. They hired a consulting biometrician to analyze their FPS permanent plot data and develop a proprietary library for their redwood and Douglas-fir coastal timberlands in California.

in March, and a draft version of the calibration tutorial and TRS Tools was sent out in mid-March. It's also noteworthy that other biometricians are gaining experience calibrating FPS libraries using Jim's documentation and software tools. This is huge. It's critical that other biometricians, besides Dr. Arney, learn how to perform this task. I also want to mention that Chuck Vopicka and Richard Zabel are doing stellar jobs handling technical support and administrative duties, respectively, for the Institute which provides us with credibility, continuity, and stability.

Thank you for your continued support of FBRI. I was pleased to see so many of you at the FPS Workshop in March. We have a very enthusiastic and professional user community, and I appreciated having conversations with some of you during breaks and learning about your concerns and needs. I am hoping that you'll take my advice and put the November 11 Annual Meeting on your calendars today. Your active participation in the Institute is critical to our direction and success. Show up and let us know what's on your mind.

Best regards,

Dan Opalach

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Attachment A

Forest Biometrics Research Institute (FBRI) – Board of Directors

Board of Directors Meeting Agenda – March 07, 2014

DoubleTree Hotel near Lloyd Center

Portland, Oregon

Agenda – March 07, 2014 Scheduled 8:00am – 5:00pm

Call to Order 8:00am Dan Opalach

Minutes from previous meeting – Review and Approval

Financial Status – Profit & Loss Statements through February 28, 2014 – Richard Zabel
New organizations joining the FBRI community

Technical Support Update and Review – Chuck Vopicka
Kinds of Technical Services requested and provided (On site & email / phone)

Conclusion of March 5 – 6, 2014 FPS Workshop with 60 participants
Results of Participant Survey on FBRI services – Richard Zabel
Distributed at Workshop – FPS Tutorial Textbook
Distributed at Workshop – FPS Version 7.2.0 via CD-ROM

Action Plan for March 7 – November 11, 2014

Completion and Distribution of TRS – FPS Library Calibration Methods and Tools
Intertribal Timber Conference – Coeur d’Alene, Idaho, June 23 – 25, 2014
Close of Missoula FBRI Technical Support Office – June 30, 2014
FBRI / WFCA shared Corporate Office – budget proposal – Richard Zabel
SAF – CIF – IUFRO World Congress – Salt Lake City, October 5 – 11, 2014
FPS Regional Library updates to distribute at Annual Meeting, November 11
Documentation of FPS “Response Surface Mosaic” Research Trials?
Documentation of FPS software architecture and maintenance utilities

Five-year FBRI Plan – Succession Planning, Goals and Budget (re-visit past agendas)

Proposal – RFP for one faculty member to take up FPS in under-graduate program
Commitment to use FPS tutorial in classes and laboratory exercises
Support from FBRI in assistance, databases and matching funds
Ongoing assistance in field research trials – installation, maintenance & analysis
Nelder plot installations
Response Surface Mosaic installations
Felled-tree datasets for site and taper

Next FBRI Board meeting – November 10, 2014

Close of Meeting 5:00pm (target)

Attachment B

FBRI Contact Information

<u>Name</u>	<u>Position</u>	<u>Phone</u>	<u>Email</u>
Dr. Jim Arney	President/Biometrician	(406) 649-0040	jdarney@forestbiometrics.com
Mr. Ken Borchert	Director	(503) 231-6296	kenneth.borchert@bia.gov
Mr. Jim McWhorter	Director	(360) 263-0677	jmcwhorter@terraverdeinc.com
Dr. Dan Opalach	Director/Chairman	(707) 668-4418	dopalach@greendiamond.com
Mr. Rob Taylor	Director	(936) 829-6375	rmtaylor@campbellgroup.com
Mr. Marc Vomocil	Director	(541) 929-2477	marc@starkerforests.com
Mr. Chuck Vopicka	Technical Support	(406) 541-0054	support@forestbiometrics.com
Mr. Richard Zabel	Secretary/Treasurer	(503) 226-4562	richard@westernforestry.org

Attachment C FBRI Projects

Plan Year	Category	Project Desc	Priority	Responsible	Status	% complete	Planned Start	Planned End
2012	ADMIN	Secure formal data sharing agreements or copyrights for legacy data to FBRI by region	Normal	Jim	In-Progress	20%	1/1/2012	12/31/2014
2012	DOCS - TUTORIAL	Tutorial for 3rd party calibration steps, methods, and data requirements incl. response surface mosaic plot methods, Nelder methods, and analysis (document); now dependent on continuous library process development	High	Jim	In-Progress	95%	1/1/2012	3/14/2014
2012	PROJECTS	SE Alaska deer model	Normal	Jim	Waiting on Someone	75%	1/1/2012	10/1/2014
2012	R&D - LIBRARY	SE Alaska library update, calibration	Normal	Jim	In-Progress	85%	1/1/2012	4/1/2014
2012	R&D - SITE	10-m site project (12 projects N Cal, W/E OR, SE AK, N/S ID); applying consistent methodology; multiple projects per region; integrate site grid	Normal	Jim	In-Progress	90%	1/1/2012	4/30/2014
2013	ADMIN	FBRI Chart of Accounts/Category clean-up	Normal	Jim/Richard/BOD	Complete	100%	9/9/2013	11/11/2013
2013	ADMIN	Plum Creek contributing org discussion	Normal	Jim	In-Progress	50%	9/9/2013	4/1/2014
2013	ADMIN	Hancock contributing org discussion	Normal	Jim	Complete	100%	9/9/2013	1/31/2014
2013	ADMIN	Columbia Resources contributing org discussion	Normal	Jim	Complete	100%	11/12/2013	1/31/2014
2013	DOCS - TECH	FPS source code documented within code (comments); also a separate data dictionary (external to code)	High	Jim	Not Started	0%	1/1/2013	12/31/2014
2013	DOCS - TUTORIAL	FPS COMBINED TEXTBOOK: inventory, silviculture, growth & yield, planning (FINAL	Normal	Jim	Complete	100%	1/1/2013	3/5/2014
2013	R&D - LIBRARY	Continuous library development and implementation (taper, site	Normal	Jim	In-Progress	40%	1/1/2013	11/11/2014
2013	R&D - SITE	Regional site grid development	Normal	Chuck/Jim/Contractor	In-Progress	75%	5/15/2013	11/11/2014
2013	SUCCESSION	Candidate search - Biometrician/Programmer for source code modification	High	BOD/Jim	In-Progress	5%	1/1/2013	12/31/2014
2014	DOCS - TECH	FPS Application Developers' Guide: 3rd party FPS	Low	Jim/Chuck	In-Progress	5%	1/1/2014	12/31/2015
2014	MARKETING	ITC Timber Symposium Conf	Normal	Jim/Ken	In-Progress	50%	6/23/2014	6/26/2014
2014	MARKETING	SAF-CIF-IUFRO World Congress	Normal	Jim A / Dan / Ken / Jim M	In-Progress	25%	10/5/2014	10/11/2014
2014	MARKETING	Endowment Committee Presentation	Normal	Jim/Dan	Not Started	0%		
2014	PROJECTS	Yakama Nation AAC	Normal	Jim/Ken	In-Progress	50%	10/28/2013	12/31/2014
2014	PROJECTS	Landowner Assistance	Normal	Jim	Not Started	0%	1/1/2014	12/31/2014
2014	R&D - PLOTS	Plot designs, remeasurements, response surface mosaic	Normal	Jim	In-Progress	50%	1/1/2014	6/30/2014
2014	R&D - PLOTS	Ranking of existing	Normal	Jim	In-Progress	1%	1/1/2014	12/31/2014
2014	SUCCESSION	Contract library calibration using tutorial	Normal	Green Diamond	In-Progress	5%	1/1/2014	6/30/2014
2014	WORKSHOP	FPS workshop - 2 day	Normal	Jim	Complete	100%	3/5/2014	3/6/2014
2015	SUCCESSION	Contract programmer to modify FPS upgrade to 64-bit	Normal	Contractor	Not Started	0%	1/1/2015	12/31/2015