



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

December 5, 2016

To FBRI Supporting Organizations:

The FBRI Board of Directors met on Monday, November 14, in the Western Forestry & Conservation Association office at the World Forestry Center in Portland, Oregon. The agenda for the Board meeting is located in Attachment A. It was a rather lengthy meeting, but for the sake of brevity, I am just going to report on what I believe to be the more important items in this letter. If you have questions on anything shown in the agenda, feel free to call or email me, or any one of the other four Directors. Our contact information is provided in Attachment B as well as on our website at <http://fbrinstitute.org/board-and-staff>. Please note that Director Brian Sharer has a new position with Finite Carbon and so he has a new phone number and email address.

One of the objectives for the Board meeting on the 14th is to prepare for the Annual Meeting the following day at the Lloyd Center DoubleTree Hotel. In this letter, I do not intend to cover the Annual Meeting because the key items the Board discussed on the 14th were featured during presentations at the Annual Meeting. For those of you who want additional details regarding the Annual Meeting presentations, I invite you to visit FBRI's website where you can find and download the PowerPoint presentation files. I also want to draw your attention to the fact that we now hold a Board meeting during the first hour of the Annual Meeting. (We started this practice last year at the 2015 Annual Meeting.) At the beginning of my Annual Meeting presentation, I called the Board meeting to order and Mr. Richard Zabel took notes to capture action items and Board decisions that may have resulted from audience questions and/or comments. At the end of my Annual Meeting presentation, I adjourned the Board meeting and Richard concluded his note taking. Richard will prepare minutes based on his notes, which the Board will review and approve. Once approved, those minutes will be uploaded to the web and made available to Supporting Organizations.

Perhaps the most important piece of news that I can tell you is that Dr. Jim Arney has finished updating the FPS libraries! This update took much longer than expected for lots of reasons, which frustrated many of us including Dr. Arney. However, more often than not, good

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science takes time that is needed to ensure high quality results. Personally, I am excited about the new FPS libraries that Dr. Arney has developed. Jim has taken a new approach, which he has memorialized by using the phrase “universal” library to describe his innovation. Briefly, the old FPS libraries were based on geographic/political boundaries—for example, western Washington, eastern Washington, eastern Oregon, western Oregon, etc. The universal libraries, on the other hand, are based on the biological range of key conifer species. This new approach would not have been possible were it not for Dr. Arney’s tenacity in assembling huge data sets over the past 35 years that span the western United States.

The new universal libraries will be made available to Supporting Organizations in January. Between now and then, Dr. Arney will be working on the installation documentation and installation computer scripts for Supporting Organizations. He will also be making final edits to his textbook, *The Mathematics of Trees*, which will be distributed with the universal libraries. Attendees of the Annual Meeting on November 15 in Portland received a draft copy of the textbook, and they were encouraged to read the document and submit suggested edits to Dr. Arney by December 15. During the Board meeting on the 14th, each Director committed to reading the entire document one more time, front to back, and providing their feedback to Jim by December 15. Once Jim makes the final edits, he will generate a table of contents, add a glossary, and then obtain an International Standard Book Number (“ISBN”) for the textbook. The textbook will be made available to anyone who wishes to download the document from the web. Since the textbook will have its own unique ISBN, it will be searchable and citable by forest researchers and others interested in the technology built into FPS. Before I leave this topic, I want to acknowledge the assistance of Dr. Richard Miller in reviewing an earlier draft of *The Mathematics of Trees*. Dr. Miller provided Dr. Arney with comments and suggested edits that improved the textbook, and all of us at FBRI appreciate his contribution.

Following the library update, perhaps the second topic of most interest to FBRI Supporting Organizations is succession planning. I assure you that the Board takes this topic very seriously. In fact, in August 2015 the Board approved a five-year plan where we targeted 2018 as the year in which we would enter into a contract with a biometrician to replace Dr. Arney.¹ You may recall that the Board voted to increase annual fees from 3¢/acre to 5¢/acre in 2016 largely because of our need to raise the funds so that we could hire a second biometrician while Dr. Arney was also still under contract. There needs to be a substantial period of overlap (several years) so that Dr. Arney can work with the new biometrician to transfer necessary knowledge, and to assure that quality service and support to FBRI clients remains a priority after Jim’s retirement.

¹ See Dan Opalach’s letter to Supporting Organizations dated September 14, 2015. That letter contained two tables that summarized the FBRI’s five-year plan and associated budget.

During the Board meeting on November 14, the Directors voted to expedite the signing of a contract with a second biometrician and move it forward to 2017. Simultaneously with this decision, the Board decided not to hire an executive director in 2017 or at any time within the next five years. The Board reasoned that executive director functions should be vested in the biometrician position. The Board directed Dr. Arney to begin drafting the Independent Contractor Agreement (“ICA”) for the second biometrician position. This will not be an easy ICA to create given all the things that Dr. Arney does for the Institute. Our goal is to finalize this ICA by the time the Board meets in March 2017 so we can take a vote and quickly move forward with an announcement to FBRI Supporting Organizations and to the public. We want to get this biometrician on board in the 3rd or 4th quarter of 2017.

Dr. Arney has made substantial progress working with Dr. Alistair Smith and other faculty members at the University of Idaho on two fronts: (1) integrating FPS into undergraduate forestry courses, and (2) launching an FBRI graduate student program. With respect to undergraduate education, Dr. Mark Kimsey already uses FPS in his forest inventory course. Dr. Arney reported to the Board that other professors are making plans to use FPS in courses focused on silviculture and forest planning. As for graduate students, the Board voted to pursue the development and funding of an FBRI Doctoral Fellowship at the University of Idaho (see Attachment C). This is a substantial commitment of FBRI funds (approximately \$40,000 per year for three years) but the anticipated benefits are many and significant. For the Board, we are excited about the prospect of this graduate student program leading to the publication of the innovations that Dr. Arney has integrated into FPS including his nonparametric modeling approach and the 10-meter site index concept for quantifying site productivity.

The Board is also extremely interested in funding the University of Idaho FBRI Doctoral Fellowship because it is an avenue for developing biometricians with the skill set necessary to become a FBRI biometrician. It is now clear to the Board that we must make efforts to support the education and development of biometricians who could eventually be hired by FBRI to work on FPS, support our forest industry clients, and further the mission of FBRI. We see this as succession planning because it will not be long before FBRI needs to consider hiring a third biometrician to replace the second biometrician that we plan to bring on board in 2017.

To facilitate the development and implementation of the FBRI Doctoral Fellowship program at the University of Idaho, the Board is planning to hold its next meeting in Moscow (most likely in March 2017) so we can have in-depth discussions with Dr. Smith and other faculty members. Although FBRI will only fund one graduate student initially, the program also welcomes interested individuals seeking to attain a graduate degree while remaining employed

in the forest industry or other land management organizations. Applicants to the FBRI doctoral program with independent funding are only required to pay Idaho resident tuition and fees.

I am pleased to report that our contract with Northwest Management Inc. (“NMI”) is working out extremely well. NMI is under contract to provide technical support and to assist FBRI Supporting Organizations with FPS forest inventory, silviculture, and planning utilities. To stay abreast of this important contract, monthly conference calls are held between FBRI’s Directors, Dr. Jim Arney, and Mr. Brock Purvis. Already, Mr. Purvis is handling 85% of the technical support questions without any assistance from Dr. Arney. I have inspected the monthly logs² and I am amazed at the variety of technical support questions that Brock receives. Nonetheless, several organizations have similar questions and so we have tasked Jim and Brock to begin creating webinars that FPS users can view to find answers to common questions. Jim has already created a webinar that explains how to install and set up FPS software in Windows 10, including setting the ODBC environment. The webinar is on FBRI’s website, but here is the link if you want to go to it:

<http://fbrinstitute.org/category/support/fps-software-help/installing-fps>

We expect that such webinars will be able to address a significant number of the technical support questions from our Supporting Organizations. I would like to hear from those of you who watch the video and get your feedback.

In June of this year I sent a letter to our endowment Supporting Organizations asking them to voluntarily terminate their endowment agreements with the Institute and begin paying annual fees. My letter tried to make the case that FBRI needs to find additional sources of income to support all the initiatives that we have planned and implemented to strengthen the Institute and to successfully fund the transition to a future when Dr. Arney retires. I am pleased to report that two organizations responded to my letter and terminated their endowment agreements: Bloedel Timberlands and Terra Verde Inc. I am hopeful that other organizations will follow their lead in the weeks and months ahead.

In my June letter to endowment organizations, I included a sentence that “did not sit too well” with a few of our Supporting Organizations and, as a result, I got a few phone calls. Here is the sentence:

“FBRI is the only entity in the Pacific Northwest that regularly makes improvements to its inventory, growth and yield, and planning software in order

² Our contract with NMI requires them to maintain a monthly log which documents dates, clients, and general nature of services provided.

to serve our Supporting Organizations and their commitment to informed, responsible management of forest resources.”

It was communicated to me by the callers that other software tools used by the forest products industry are updated from time to time to meet the needs of users. Therefore, I misspoke—FPS is not the only tool that is updated. Bottom line—I need to do a better job staying abreast of those other decision support tools.

The last item of business I want to cover is our elections. During the Board of Directors meeting on the 14th, Dr. Arney was elected to serve another year as the Institute’s President and Mr. Richard Zabel was elected to serve another year as Secretary/Treasurer. Mr. Marc Vomocil and I were elected to serve as Directors for the three-year period 2017 thru 2019. Finally, the Board elected me to serve another year as Chairman in 2017. I must admit that I am honored that my peers asked me to take on this important responsibility once again. It will be my seventh year as Chairman! Time goes by way too fast!

Thank you for your continued support of FBRI throughout 2016. Your participation in the Institute is critical to ensure our success in the years to come. As I have outlined in this letter, FBRI is about to take major steps forward in 2017 by distributing the FPS universal libraries, hiring a second biometrician to ultimately replace Dr. Arney, and partnering with the University of Idaho by financially supporting a FBRI doctoral fellow. These are truly exciting times at the Institute and I enthusiastically look forward to 2017. As always, please do not hesitate to give me or any other Director a call. We value your input, as it will help us make better decisions about the Institute’s direction and priorities.

Best regards,

Dan...

Daniel Opalach, PhD, RPF
Chairman, Forest Biometrics Research Institute
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Attachment A

Forest Biometrics Research Institute (FBRI) Board of Directors Meeting Western Forestry & Conservation Association Office Portland, Oregon

November 14, 2016 Scheduled 8:00 am – 5:00 pm

Call to Order at 8:00 am Monday — Dan Opalach

- Take attendance
- Request for modifications and/or additions to the agenda

Minutes from Previous Meeting

- Review/approval of meeting minutes in Corvallis on June 6, 2016—Richard Zabel
- Review background provided in:
 - FBRI Board Agenda Items – June 5, 2016
 - FBRI Arney FPS Update Letter – January 6, 2016
 - FBRI Board Chairman Report – June 21, 2016
 - FBRI Board Chairman Letter to Endowment Organizations – June 27, 2016

Financial Status—Richard Zabel

- Profit & Loss Statement through October 31, 2016
- Annual 2016 – 2020 Budget will be reviewed later in the Agenda

Review Technical Support Log and Activities in 2016 – Brock Purvis

- Review of once-monthly phone conference template
- Directions and expectations for 2017 – Webinars, Travel & Workshops

Board Action Items for Year-end 2016

- Resolution to Merge Montana Entity into Oregon – Attorney McMullan
- Launch PhD Graduate Program with University of Idaho – Dr. Smith letters
- Distribute “FPS Math of Trees” 150-page document at 2016 Annual Meeting
- Distribute “FPS Universal Library” and FPS software on December 30, 2016
- Distribute “FPS SiteGrid GIS layers” to FBRI Organizations by request in 2017
- Initiate field installation program – paired Nelder Plots per location in 2017

Agenda Planning for 2016 FBRI Annual Meeting – Tuesday 10:00am to 3:00pm

- General Introductions by FBRI Board Chairman and from the floor at large
- Chairman’s review and status of FBRI
 - Board outlook for 2017 – 2022 activities and emphasis
 - Budget & Staffing Plans for 2017 - 2022
- Opening & Closing of extended FBRI Board meeting for public input
- President’s review of 2016 FPS Updates, Libraries and Document Releases

FBRI Annual Meeting – All Organizations, November 15, 2016 at DoubleTree Hotel

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. Brock Purvis	Technical Support	(406) 541-0054	brock@forestbiometrics.org
Mr. Brian Sharer	Director	(360) 904-3504	bsharer@finitecarbon.com
Mr. Marc Vomocil	Director	(541) 929-2477	marc@starkerforests.com
Mr. Richard Zabel	Secretary/Treasurer	(503) 226-4562	richard@westernforestry.org

DRAFT PROPOSAL

Attachment C

Forest Biometrics Research Institute (FBRI) Doctoral Fellowship at the University of Idaho

The purpose of the Forest Biometrics Research Institute (FBRI) Doctoral Fellowship is to facilitate the education of forestry professionals toward an advanced understanding and application of forest biometric principals and methods. Fellows are expected to become proficient in nonparametric statistical methods as related to forestry and forest management technologies. FBRI supports and provides the Forest Projection & Planning System (FPS), which is the industry standard for managing forest ownerships. In addition to providing financial assistance, FBRI is offering access to a large database of field research installations and felled-tree measurements encompassing six western States and over two dozen tree species.

The FBRI Fellowship objective is to provide financial support to graduate students to pursue graduate studies without associated teaching or research responsibilities (as in an assistantship). This Fellowship is an external award from FBRI to support a PhD student in a full-time course of study. The FBRI Fellowship is a three-year commitment to the selected student. The student is expected to complete all coursework and a dissertation leading to a PhD in the three-year time frame. The candidate must hold a Bachelor of Science degree in Forest Management from an SAF-accredited forestry program and be operationally familiar with the silviculture and tree species of the western United States.

The selected FBRI Fellow will join a larger cohort of Masters and Doctoral graduate students pursuing advanced knowledge in the fields of Forest Biometrics and Silviculture. FBRI Students will be located in graduate student space within the College of Natural Resources. The FBRI Fellow's doctoral committee will include one Ph.D. Biometrician from the Forest Biometrics Research Institute. The student's doctoral committee has the responsibility to approve the courses and credits it considers essential for the education and development of the candidate. The committee's objective is to ensure that the student is properly trained and prepared to conduct doctoral-quality research in forest biometrics upon completion of this PhD degree.

Prior to each semester the student is responsible to consult with the committee advisor to ensure that a graduate academic plan has been developed and is being followed. The graduate academic plan must be initially approved by the student's doctoral committee. The FBRI Fellowship doctoral student must provide a progress report each year in November at the FBRI Annual Meeting (travel expenses provided by FBRI). All FBRI Fellowship doctoral students are required to participate in at least a one-month internship with FBRI or with an FBRI-affiliated forestry organization prior to completion of coursework. The internship will be tailored to match the student-selected doctoral dissertation topic.

This FBRI PhD graduate program is also open to participants not receiving a FBRI Fellowship. The program accepts interested individuals seeking Masters or Doctoral degrees with independent funding. The program also welcomes interested individuals seeking to attain a graduate degree while remaining employed in the forest industry or other land management organizations. Applicants to the FBRI program with independent funding are only required to pay Idaho resident tuition and fees.