



Joint Center for Aerospace Technology Innovation Board Meeting Agenda

Monday, August 19, 2013, 2:00 to 4:00 PM

University of Washington, Seattle Campus

Guggenheim Hall, Room 211D

Board members present in person: Margaret McCormick (Acting Chair), Tom McCarty

Board members present by teleconference: Mike Bragg, Candis Claiborn, Tad McGeer, Roger Myers

Board members absent: Tim Stevens (Board Chair), Brad Lawrence, Ken Yoshioka

Others present in person: Mehran Mesbahi (JCATI Executive Director), Patrick Gibbs (JCATI Program Manager), Ellen Barker (AMTAS), Christian Carpenter (Aerojet Rocketdyne), Todd Cleland (Industry Relations Officer, UW Office of Strategic Initiatives), Santosh Devasia (Associate Dean, UW College of Engineering), Alex Pietsch (Governor's Office of Aerospace), Professor Mark Tuttle (AMTAS, UW Department of Mechanical Engineering)

Public Session:

- **Welcome:** Mehran Mesbahi and Margaret McCormick welcomed the Board and guests to the meeting. The meeting's agenda was presented.
- **Introduction of Michael Bragg:** Dr. Bragg, the UW Dean of College of Engineering, was formally introduced to the Board by Dr. McCormick. Dr. Bragg will serve as one of the two members of the Board of Directors representing Higher Education. His term is set to expire on 6/30/2014.
- **Approval of June 13 Board Meeting Minutes:** Dr. McCormick introduced the minutes of the June 13, 2013 meeting of the JCATI Board of Directors. The Board unanimously approved the minutes and they were accepted into the record.
- **The Center of Excellence for Advanced Materials in Transport Aircraft Structures (AMTAS)**
Professor Mark Tuttle, Director of AMTAS and UW Department of Mechanical Engineering, and Ellen Barker, Assistant to the Director of AMTAS, were introduced and gave a presentation summarizing AMTAS. AMTAS is a consortium of academic institutions, aerospace companies, and government agencies founded in 2003. It is part of the FAA Joint Advanced Materials and Structures Center of Excellence (JAMS), along with the Wichita State University-led Center of Excellence for Composites and Advanced Materials (CECAM). Its activities include research, education, and technology transfer.

Like JCATI, AMTAS is intended to foster collaborative research/education projects to advance technologies related to the aerospace (specifically aviation) industry. It is funded through cooperative agreements among academic institutions, their affiliate industrial partners, and the FAA. FAA funds must be matched 1:1 by non-federal sources.

Academic partners include: Washington State University, Oregon State University, Edmonds Community College, Florida International University, and University of Utah.

AMTAS hosts one annual meeting. The next meeting is scheduled for November 14, 2013 in Edmonds, WA. AMTAS also holds a 2.5 day advanced composites short course annually. This course has been held at UW and NASA Kennedy Space Center.

Potential for collaborations with JCATI proposed by AMTAS:

- Joint annual meetings
- Provide in-kind support and industry partners for JCATI supported research
- Develop and administer existing or new short courses
- Develop a joint newsletter
- Share networking efforts

A discussion followed regarding the fiscal calendars of various funding mechanisms. JCATI's fiscal calendar begins on July 1. Boeing's begins on January 1. The almost half year difference could make it difficult for researchers to obtain letters of support committing funding. This will be reviewed further.

JCATI will review its available resources and determine how it can effectively collaborate with AMTAS while furthering JCATI's mission.

- **Review of JCATI Research Symposium 2013**

Mr. Gibbs provided a summary of the 2013 research seminar held on the UW Seattle Campus on June 24. Approximately 200 people attended with 197 general admission pre-event registrations (includes speakers and special guests) and 42 students. Eight general admission tickets were purchased the day of the event. Final expenses, including videography and PR firm, came to \$57,606. Admissions recouped \$4,450. Innovate Washington contributed \$14,500 and paid for the videography and PR contracts. Tad McGeer questioned whether the return on investment for videography and PR justified these large expenses. JCATI will monitor web hits when videos are posted and evaluate the benefit of these expenses for future events. JCATI has equipment to possibly produce in-house videos.

Mr. Gibbs informed the Board of the media coverage of the symposium which included FOX-13, KING-5, KOMO New Radio, the Puget Sound Business Journal, and The Economist (online). Roger Myers added that he had been contacted by Xconomy for an interview at the symposium for an article that was published on August 13. Dr. Myers will forward the article for circulation.

- **Initial thoughts for JCATI Research Symposium 2014**

Mr. Gibbs introduced the topic of planning for the 2014 JCATI research symposium. He asked, where should the event be held? In eastern Washington or western Washington? Will an eastern Washington symposium generate similar attendance? Candis Claiborn suggested that if we did not host the symposium in eastern Washington, then we would be speculating that location would be a factor in the number of guests attending. Mr. Gibbs offered to review the registration list for the 2013 symposium to determine from where attendees came to participate in the event. After he has distributed this data, the Board will be asked to consider where the event should be held in 2014 so that planning can get underway.

- *Items that need to be decided are: the location of the symposium, the date (WSU commencement date is 5/10/14, UW commencement date is 6/15/14), and potential speakers.*

- **Summary of 2012-2013 JCATI Closeout**

Mr. Gibbs announced that JCATI had finished the fiscal year of 2012-2013 with a balance of \$6 in its administrative budget. Funds were transferred to the UW College of Engineering to cover administrative support offered by Mary Heusner from November 2012 to March 2013 prior to the hiring of Mr. Gibbs as the JCATI program manager.

JCATI supported researchers spent \$1,338,044 of the \$1,369,354 allocated to them (97.7%) prior to the close of the fiscal year on 6/30/13. Mr. Gibbs is working with the UW College of Engineering and WSU's Sponsored Programs Services to formally close out the JCATI related budgets.

Mr. Gibbs acknowledged that there were some challenges resulting from the symposium being held so near the close of the biennium, particularly in processing some invoices and reimbursements associated with the symposium. Those payments not able to be charged to the JCATI proviso budget due to the late receipt of documentation have been processed using a JCATI revenue budget. Mr. Gibbs recommends not holding the JCATI symposium late in June in 2015 when the current biennium closes to avoid similar issues.

- **Summary of 7/2/13 meeting with the Attorney General's Office**

Mr. Gibbs provided a brief summary of a meeting held with the Office of the Attorney General on July 2, 2013. Present at the meeting were Dr. Mesbahi, Dr. Devasia, Mr. Gibbs, Assistant Attorney General Gary Ikeda (UW), and Assistant Attorney Mary Ellen Combo. The purpose of the meeting was to further discuss who will provide counsel to JCATI and the JCATI officers and to begin the development of a formal joint agreement between JCATI and UW. At the meeting, it was determined that the JCATI Board and Mr. Gibbs would receive counsel from Mary Ellen Combo, while Dr. Mesbahi would be represented by the UW branch of the Attorney General's Office.

Mr. Gibbs indicated that he had an opportunity to seek counsel from Ms. Combo and that the process functioned quickly and effectively.

A draft of the administrative agreement is expected before the end of August for review.

- **Intellectual property (IP) and JCATI**

Dr. Mesbahi introduced Todd Cleland, Industry Relations Officer, UW Office of Strategic Initiatives. Dr. Cleland summarized the flow of grant application approvals at the UW and different mechanisms used in handling the assignment and licensing of IP.

Dr. Cleland stated that research involving gifts, material donations, and staffing paid for by an industry partner *does not necessarily* flow through the Office of Research, but research in which an industry partner offers matching funds or runs a parallel research project would be routed through the Office of Research to establish an IP agreement, preferably before work is initiated. Grant proposals processed by the UW Office of Research are routed via an online system through the UW hierarchy (division, department, college, Office of Research) for review. This assures that necessary attention is given to matters such as the handling of IP.

He stressed that it is important to address the assignment of IP when developing a research collaboration. The assignment of IP determines who owns and controls the IP. Once assigned, IP can be licensed to a third party for commercialization. While acknowledging that input from an industrial partner is often a key component of innovation in research, the assignment of IP for research conducted on campus typically falls to the UW. An example of when there may be a shared assignment of IP is when an industry partner is running its own distinct research project in parallel to one being conducted at the UW. An industry partner would likely receive full assignment of IP in cases where the UW is contracted to perform work for hire (not research) or when the company involved has exclusive ownership of IP in the field being explored and licensing to a third party would be unlikely.

If IP can be commercialized, a discussion should be held between parties to develop a licensing agreement. The UW typically does not consider payment for research to cover payment for licensing agreements. Negotiations are handled by the UW Technology Transfer Office. The standard UW policy is to offer first rights to negotiate a licensing agreement to the industry partner involved in research that can be commercialized.

Licensing agreement types include non-exclusive royalty free and limited time exclusive rights to access the IP. It is rare for the academic community to offer unlimited exclusive rights to IP as this may lead to a failure to develop the IP, a limiting of public benefit and competition in the market, and a lack of future innovation. If the UW were to offer exclusive rights to IP, terms may be attached to the agreement to put benchmarks in place that if not met would allow the licensing of the IP to transfer to a non-exclusive agreement.

Typically, it is easy for an industry partner to receive a first rights, non-exclusive IP licensing agreement with the UW. There is also little negotiation when a company comes into a collaboration already with an assignment of the IP to be utilized in the research and requests exclusive licensing rights from any IP resulting from the work. More negotiation is required for collaborations falling between these extremes.

- *Dr. Cleland requested that the Board generate a list of questions and topic areas that he could respond to in continuing the discussion regarding how JCATI is to handle IP in the future.*

- **An update on currently supported JCATI projects**

Mr. Gibbs stated that award notices and regrets were sent to applicants for JCATI funding on July 9, 2013. The processing of a transfer of funds to the PIs was put on hold while JCATI waited for funds to be deposited into its parent budget. On July 30, the necessary paperwork was submitted to process these transfers. At the time of the Board Meeting, funds had yet to be assigned to the JCATI PIs.

In order to better monitor the research budgets of the JCATI-funded projects, Mr. Gibbs has requested quarterly progress reports with budgets updates from the JCATI PIs. The first report will be due October 31, 2013.

- **Future Directions**

In the upcoming months, Dr. Mesbahi and Mr. Gibbs will work to identify additional sources of funding. Strategies include recognizing researchers with whom to collaborate in securing theme-based research funding, applying for sponsored awards (NSF's I/UCRC), and developing affiliate programs.

- Mr. Gibbs informed the Board that he recently presented an overview at the invitation of Dr. Richard Shi (UW Professor of Electrical Engineering) to a group from the Department of Defense responsible for the awarding of funds relating to satellite electronics.
- On August 20, 2013 Dr. Mesbahi and Mr. Gibbs will meet with Drs. Devasia and Cleland to begin a conversation regarding the pursuit of an NSF Industry & University Cooperative Research Program (I/UCRC) and establishing gift based programs.

Dr. Mesbahi and Mr. Gibbs will begin to identify JCATI sponsored researchers, industry partners, and other key stakeholders to visit for the purpose of strengthening the JCATI networking pool and to determine the needs of the WA State aerospace community. The goal is for travel to begin in the fall.

Mr. Gibbs mentioned that there is a consideration to address the JCATI educational outreach requirements by producing videos of JCATI supported researchers discussing their projects, then posting these videos the JCATI website.

Mr. Gibbs was recently asked by the UW Department of Aeronautics and Astronautics if JCATI would be willing to identify speakers and possibly provide an honorarium for an aerospace symposium to be held at the UW. The Board asked what the level of honorarium would be and stressed that any efforts offered to the UW would need to be offered at the other public universities in Washington State. Mr. Gibbs acknowledged that this had been addressed with the Department of A&A, and stated that he would return with a cost estimate.

Mr. Gibbs provided an update on the JCATI website and networking database. There is a possibility that the redesigned website will be ready to go live before the end of August. The database, which will help to develop a networking pool of speakers and reviewers, will be ready to go live shortly after this.

Mr. Gibbs said that he planned to begin seeking a space for the 2014 symposium after hearing back from the Board of Directors regarding their thoughts about the location of the event and when to hold it.

Mr. Gibbs will contact Innovate WA and Impact WA to determine what collaborations can exist between these groups. Innovate WA may not be able to provide as much support for the next symposium due to its not being funded in the current biennium's budget. Alex Pietsch did note that they are working off of a reserve pool of money, but he was not aware of their current status beyond that. Mr. Gibbs informed the Board that Jim Sampson, who had been his contact at Innovate WA had left the organization, and that he had been communicating now with Bart Phillips, VP of Economic Development.

- **Evergreen Satellite Program**

Mr. Gibbs introduced Christian Carpenter, Program Manager at Aerojet Rocketdyne. Mr. Carpenter then introduced to the Board of Directors his proposal for the launching of an Evergreen Satellite Program. The satellite program

would be a joint academic-industry operation with intra-university collaborations between the UW and WSU with the following goals:

1. Create a lasting STEM program in the State of Washington that provides a unique experience in spacecraft development, production, and flight
2. Create new business opportunities in the State of Washington through development of new satellite missions and technologies
3. Perform relevant and valuable space science missions, especially those relevant to the economy of the State of Washington

Masters level students will design and navigate a CubeSat module which would carry a scientific payload launched as part of NASA's CubeSat Launch Initiative. Mr. Carpenter has begun preliminary discussions with Robert Winglee, Professor and Chair, Earth and Space Sciences (UW), and Amit Bandyopadhyay, Professor of Mechanical and Materials Engineering (WSU). JCATI's role would be to provide administrative support in monitoring the finances of the program, provide a bridge for communications between teams at the two universities, and assist in corporate outreach.

In order to get the program going, a goal of \$1 million is anticipated. Half of this amount is proposed to be generated via a Kickstarter campaign (kickstarter.com), with the other half coming from industry matching funds. There have been similar campaigns funded via Kickstarter. A competition between the two universities has been proposed which would utilize the equipment installed on the satellite.

The Board of Directors was interested in pursuing the program further, but would like to know 1) what the cost estimate would be for JCATI's efforts dedicated to the project, and 2) how would this translate into jobs created in the state? The board also requested a list of space companies in the state and that a brief on the Evergreen Satellite Program proposal be submitted to them.

- **Adjournment of Meeting:**

Dr. McCormick called the meeting adjourned.