Utah State University
Research Council Minutes
September 25, 2008
3:00 p.m.
Champ Hall Conference Room

RESEARCH COUNCIL MEMBERS PRESENT:

Jeff Broadbent        Yolanda Flores-Niemann        James MacMahon
for Brent Miller, Chair
Clifford Skousen      Nat Frazer                   Mac McKee
for Doug Anderson
Byron Burnham         Jagath Kaluarachchi            Jim Dorward
Richard Clement       for Scott Hinton             for Carol Strong

INVITED GUESTS:

Bryce Fifield         Irene Jorgensen              Teresa Seeholzer
Adam Fowles           Anna McEntire                Lorraine Walker
Steve Hansen          David Paul                  Byard Wood
Jeremy Jennings       Tessa Perry

ACTION ITEMS

1. Approval of Minutes – April 24, 2008 - Jeff Broadbent
   Mac McKee motioned to approve the minutes of April 24, 2008. Jim Dorward
   seconded the motion; motion carried unanimously.

DISCUSSIONS

1. Welcome & Introductions - Jeff Broadbent

2. Graduate Student Insurance - Update - Byron Burnham

   Dean Burnham thanked members of Research Council for participation in implementing
   graduate student health insurance at USU. As of September 24, 2008, participation is
   broken down as follows:

   • 1,065 graduate students enrolled
     o 809 are graduate research assistants
     o 256 are covered with scholarships
     o 277 opted out due to partner coverage
3. **Presentation:** “Development of UAVs for Remote Sensing in Water Resources Management Applications”  
   By: Mac McKee, Professor – Director of UWRL

Mac McKee gave an overview of a collaboration he has been working on with YangQuan Chen, Wei Ren, Tamal Bose and Huifang Dou. This project uses UAVs (Unmanned Autonomous Vehicles) which are proving to be an important research tool in the management of large irrigation supply systems.

A significant portion of the state’s water use (~ 85%) is consumed by agriculture. Mac noted that typically irrigation practices in the past have been very inefficient, expensive, and have not provided timely results relative to soil moisture and evapotranspiration rates. Additionally, there have not been adequate tools available to determine short term (less than 1 week) water demand.

This project focuses on developing small UAV aircraft capable of carrying and controlling a variety of remote sensing equipment. The UAVs have on-board GPS systems, programmable technology for calculating pre-determined flight paths, and the ability to temporarily store images which can be downloaded for analysis. Mac noted that the software used to program each payload was developed by USU.

Data retrieved from the UAVs enables users to determine what irrigation is necessary and adequate in a given time frame. Specifically in reservoir situations, this information is beneficial and provides sufficient lead time (5-7 days) for a reservoir operator to react to fluctuating water demand. In addition to cost, timeliness, and efficiency benefits, these UAVs provide excellent information to farmers that will improve the management in areas where water irrigation is scarce or complex.

Mac relayed that he is currently working with the TCO on patents and the development of marketing ideas to advance the technology. Other “spin-off” ideas are also evolving from this project such as habitat management along rivers and streams.

4. **Recap of USU New Faculty Research Orientation** - Joyce Kinkead

Forty-nine new faculty participated in this year’s orientation on August 18th. Participants received a general overview of research at USU along with the *USU Research Handbook* which is a resource for proposing, conducting, and reporting research. Joyce noted that the agenda included workshop presentations in Grant Administration & Funding Opportunities, Research Integrity, Intellectual Property & Technology Commercialization, Environmental Health & Safety, IRB and Human Research, Animal Welfare, and Faculty Mentoring.

As Research Council was meeting for the first time in the new academic year, Joyce gave an update on undergraduate research at USU and noted that the Research Fellows program is now in its 5th year. This program has proven to be a positive pipeline of creative innovation and there are currently 12 students who are pursuing the Goldwater Scholarship; however, USU will only be permitted to submit 4 applications in the spring of 2009.
5. **Credit for Joint Research Awards & Expenditures**
   Byard Wood, David Paul, Irene Jorgensen

This topic has been an on-going discussion in an effort to implement steps where USU can accurately track awards and expenditures when multiple investigators are involved on any given project. Byard Wood shared a handout that listed three examples within the MAE department where a procedure was implemented to capture this data. He relayed that the optimal time for PIs and Co-PIs to agree on how credit will be allocated is when the proposal is submitted; however, adjustments may be necessary should the indirect costs and expenditures change after the grant is awarded.

Byard referenced information from the University of Nevada, Reno. When multiple colleges and/or departments are involved, they set up separate accounts accordingly and include this information on the form equivalent to USU’s SPO-1 form. They have been tracking their awards in this manner for past 6 years and feedback has been positive.

On September 22, 2008, Byard Wood and Brent Miller presented this same information to the deans who responded favorably to implementing a similar template here at USU. Additional details to work through include: 1) Intellectual recognition as part of the percentage breakdown, 2) how F&A will be dispersed, and 3) setting up distinctive accounts to capture research expenditures.

David Paul stated that with a few revisions to USU’s SPO1 form, the same criteria for identifying joint credit could be implemented at USU. The University of Nevada Reno SPO form referenced sharing F&A equally amongst PIs, colleges, and departments, but David indicated he understands that USU provides flexibility for each college and department to determine their own split. Therefore, he recommended adding a statement to the SPO1 that “F&A distribution will be shared amongst the colleges and distributed according to internal policy and the agreements within the colleges/departments.” This additional statement would allow colleges to determine how the funds are ultimately distributed. David relayed that separate budgets would be necessary to accurately capture account expenditures, but this step would not be necessary until USU receives the award. Likewise, the distribution amounts would also be amended if the award amounts are adjusted.

Another benefit of this joint credit reporting format would be accuracy verification and ability to match the awards with the expenditure reports. Implementing this additional detail will require some database changes as well as time to identify the required reporting fields. David commented that he has spoken with USU’s System Administrators and they believe this detail can be broken down, however, it will take time to complete.

Jeff Broadbent thanked everyone for their feedback and noted that SPO will pursue options of integrating this enhancement and keep Research Council informed of the progress. Until the data base upgrades are complete, it was agreed that the SPO-1 form amendments be updated immediately.

6. **Time & Effort Reporting Update** – Irene Jorgensen

Irene distributed three handouts covering this topic which included: 1) USU’s Operating Policy and Procedures (Number 582) for Time and Effort Reporting, 2) SPA’s quarterly newsletter for April 2008 featuring an article on this topic, and 3) a summary outline of what
this reporting entails, why this reporting is necessary, who is required to certify, and the associated federal requirements as noted in OMB Circular A-21, Section J10. Irene noted that USU’s Internal Audit Services will begin visiting departments in October to take random samples of reporting and verify that USU is in compliance with the requirements.

Mac McKee and James McMahon noted on-going concerns relative to funding and allocation of time on grants. Bryce Fifield relayed suggestions about grant opportunities which exist solely for the purpose of proposal development. When the CPD writes proposals, one of the explicit goals written in the grant is to seek new funding which includes additional grant writing. By including this request within the grant, grant writing then falls within the approved “work scope” and appropriate line item.

**Action Item:**

Time and Effort Reporting will be addressed at the next Center Director’s meeting. Jeff Broadbent and Brent Miller will schedule meeting and report back to Research Council.


This report was generated by the American Academy of Arts and Sciences (AAAS) and focuses on how to invest in early career scientists and high risk/high reward research. The AAAS report outlined recommendations for federal agencies, universities, and private foundations. One downside Jeff noted is the report does not address budget and funding restraints that ultimately result in tradeoffs where one focus area impacts the other.

Another topic addressed in the report is the need to reevaluate the process of merit reviews and the promotion and tenure process at universities.

The ARISE Report can be purchased via the AAAS website at: [http://www.amacad.org/publications/books.aspx#articles](http://www.amacad.org/publications/books.aspx#articles)

8. **Research Publicity Schedule** – Anna McEntire

The VPR Marketing Team has merged the process of collecting research stories for both the Research Calendar and Research Matters. This adjustment is more efficient for everyone and will help the Research Office stay on schedule with production timelines. Anna noted that the 2009 Research Calendar will be ready for distribution by the end of November, 2008, and Research Matters 2009 is also progressing on schedule.

Anna distributed copies of the 2008/2009 Research Publicity Schedule. This tool will be part of the Research Office newsletter in an effort to improve communication across campus of upcoming publications, grant deadlines, and training/compliance workshops. She relayed that colleges and centers are welcome to submit their information on this same schedule if they would like to feature news or one-time events.

9. **NFS EPSCoR Funding Eligibility** – Jeff Broadbent

Utah has been identified as an EPSCoR state with the National Science Foundation (NSF). With this designation, it opens unique opportunities to Utah State relative to research
competitiveness for NSF funding. Jeff shared a chart showing a comparison of all states and the ranking and funding amounts in FY2005-2007.

Before Utah can apply for Research Infrastructure Improvement (RII) grants, the state must proceed with a “Planning Grant” that will include state liaisons from Utah State University, University of Utah, and the Governor’s Office for Science and Technology. This committee will formulate a vision outlining how the state will build capacity to be more competitive for NSF work in the future. The state representatives will then contact NSF with a letter of intent and present the state’s vision to EPSCoR officials. If EPSCoR approves the state’s concept, Utah can proceed to the next phase which requires the submission, award, and completion of the Planning Grant. Jeff relayed that discussions are currently underway amongst the Utah representatives and additional updates will be provided as they become available.

Jeff distributed a handout that detailed the EPSCoR requirements and the three funding mechanisms offered. It was noted that the following Federal programs accept ranking for EPSCoR: NSF, NASA, DoE, DoD, USDA, NIH, and EPA.

10. Wrap Up Discussion & Calendar Events - Jeff Broadbent

Hiring Status of VPR Grant Writer for the USU’s Grant Writer Institute: Three applicants were interviewed for the position by the search committee. Jerilyn Hansen, who is currently a Sponsored Programs Administrator within the SPO, has been selected for the position and will begin her new assignment within the next 30 days.

Calendar Reminders:
- Oct. 10, 2008 --- Sunrise Session
  Time:  7:30 am
  Little America Hotel, Salt Lake City
  Presenter:  Ron Sims
- Oct. 15, 2008 --- Fall URCO proposals due
- Oct. 15, 2008 --- Due date for colleges to submit ranked GEM, SPARC, and RC proposals to VPR Office
- AAHRPP Site Visit, October 22-23, 2008
- October 23, 2008 --- Research Council
- November:  Most undergraduate (e.g., NCUR, CUR, UCUR, State Capitol) proposals due
  January 29, 2008 --- Research on Capitol Hill

Meeting adjourned at 4:30 p.m.
Minutes Submitted By:  Teresa Seeholzer, Research Council Secretary