PSICE: Penn State Ice and Climate Exploration Center Lead: S Anandakrishnan & RB Alley

We propose the continuation of the Penn State Ice and Climate Exploration Center as a component of EESI. In the past three years, we have successfully engaged in the primary vision we had for PSICE: the creation of an ice-centric clearing house. Because of PSICE, we have engaged faculty from other disciplines, other departments, and even schools (M. Gooseff from Civil). We have submitted grant proposals under the banner of PSICE (two by D. Lampkin in particular explicitly made the links to PSICE a selling point). We have hosted nine undergraduate students at PSU (2 in 2006, 4 in 2007 and 3 this summer) with a variety of "official" homes (SROP, CReSIS, NSF grants), but all the students have always thought of themselves as PSICE students.

We have conducted outreach that also highlighted ice at PSU, that we hope had greater impact because the audience could see that this work was within a larger group, and not just an individual's contribution (Dept newsletter for alumni; visits to our webpage; local-school outreach).

Within the department, we have had the greatest impact: our graduate student recruiting is fully PSICE-centered. We tout that as often as possible, and it seems to help that the prospective students see that they will be joining a group. In the department's five-year strategic plan, the highest priority item is effectively PSICE writ larger, which points out the value that our colleagues perceive from our existing center. I am firmly convinced that without PSICE some of things wouldn't have happened, or have been less effective.

In our original PSICE application, we proposed to create a community of "ice" researchers. We have been successful at doing this and hope to build on that. The most important part of this was not anticipated by me: a home for young faculty who might be somewhat isolated otherwise (Derrick Lampkin, Ryan Walker, and Mike Gooseff; Byron might fall into that category, but as PSU grad he could find his own way easily). Any new hires who have strong ice interests will find a welcoming community. We are working to include recent hire Pete LaFemina into ice-related research.

We proposed to have an ice posdoc. Though that was not funded by EESI, we did attract Ryan Walker from NYU.

Looking forward, we want to build on our successes. The umbrella of PSICE has enormous psychological value and we ask that the name continue. We will use it to recruit, to encourage your faculty and researchers, and to present a unified front. The website appears to have traffic, though we don't track it. We propose to upgrade it to a more easily updated format using software package others in the college are using (Peter will research this).

The NSF-funded Science and Technology Center (CReSIS) is three years old, and rapidly approaching the renewal proposal phase. Penn State (mainly PSICE folks) have been central to the success of CReSIS and a renewal of both CReSIS and PSICE would allow us to continue our focused interactions.

Participants: Faculty & Researchers: D Lampkin (Geography), B Parizek (PSU Dubois), D Pollard, T Sowers, M Gooseff (Civil Engg), P LaFemina, DB Reusch, R Walker, A Huerta; Graduate Students: P Applegate, K Christianson, H Horgan, J Mischler, V Nandakumar, LE Peters, D Vacco, JP Winberry, L Zoet; Staff: P Burkett, Bruce Long

Requested Budget: \$3K for website upgrade. \$3.7K for three "PSICE laptops". We have had trouble getting seats for the summer undergrads. Last summer I put them in the Dept computer lab (330) but that wasn't ideal for either them or others who wanted to use that room. If we had laptops to loan them for the summer, they could sit in my lab or the student center. In addition, these laptops will be available for Dubois undergraduates participating in PSICE-related summer research directed by Parizek.



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April 24, 2008

Dear Sridhar and Richard:

I look forward to a successful proposal for ESSI funding and maintenance of the internationally recognized PSICE: Penn State Ice and Climate Exploration Center. The umbrella cast by the Center is wide, as it provides a "home" for interdisciplinary ice-centric research at University Park and beyond. On a personal level, the Center's support of research, outreach, and education has helped me obtain NSF funding as a lead PI and has led to several job offers from PUI and R1 institutions over the past two years. Additionally, our weekly PSICE meetings provide invaluable ties between UP and the fledgling Earth Science Program at Penn State DuBois as we further our mission to educate the next generation of Earth scientists. At all levels of the University, I have heard the aphorism: "Penn State is one University geographically dispersed". The research home that has been provided for me at PSICE helps bridge the geographical gap and affords me the opportunity to keep abreast of and contribute to cutting-edge research pertaining to the earth system. The exciting and thought-provoking discussions that we share often find their way into my classrooms at DuBois. I look forward to expanding the umbrella of PSICE with the addition of undergraduate and graduate students that I will be advising and or co-advising in the near future on grant money that I have brought to the University.

In support of this research effort and to minimize commuting costs, I hope that our efforts to find additional funding for laptop computers for undergraduate research are realized.

Sincerely,

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Byron Richard Parizek