US ITER Forum Activity Proposal Form

Your name: T. Fredian, M. Greenwald, D. McCune, D. Schissel, J. Stillerman Your institution: MIT, GA, PPPL Your E-mail address: <u>g@psfc.mit.edu</u>, <u>schissel@fusion.gat.com</u> Your phone number: 617-253-6053, 858-455-3387

What is the scope of your proposed activity?

Software for data acquisition, data management and remote participation

In which phase(s) would the activity be conducted?		
X Pre-construction (2003-5)	X Construction (2006-13)	X Research (2014-34)
In which phase(s) would the US	benefit be realized?	

□ Pre-construction (2003-5) X Construction (2006-13) X Research (2014-34)

What do you see as the US interest in the programmatic area of your proposed activity?

The importance and cost of ITER requires that it operate at the highest possible level of scientific productivity. In this sense, it is useful to think of ITER as the largest and most expensive scientific instrument ever built for fusion research. It is our assertion, that for experiments as complex as those carried out in this field, scientific productivity is inextricably linked to the capability and usability of their data and computing systems. Such an effective infrastructure is required both for the success of the entire ITER project and will maximize the value of ITER to the U.S. program as well.

For design and fabrication activities, what do you see as the US interest in performing the design and fabrication scope in your proposed activity?

For the data systems, design and implementation are the crucial activities and lead directly to research activities on the experiment. Further, we expect that software created for ITER will expand the boundaries of such technology and will likely be applicable to other fusion experiments and to a broad range of scientific disciplines.

Indicate the nature(s) of the proposed activity:

- X R&D and design work
- X Fabrication of US components/systems
- X Preparation of tools for the Research Operations Phase
- X Other: Continued refinement during ITER physics phase