Sept 13, 2002 subfinal AGENDA
E&O Working Group Parallel Sessions

Thursday, September 19, 2002

2:00 – 3:00 p.m. - Opening Session

Goals and Overview for the E&O Working Group sessions

2:00 - Setting Our Goals: Getting beyond the 'Collection Of Neat Stuff' Syndrome – Susan Millar, Ken Heller, and Paul Nienaber

2:45 – Open discussion

3:00 – 3:30 p.m. - Break

3:30 – 4:50 p.m. - Presentations

Goal: **Professional Development**

For: **K-12 Teachers**

Strategies already in use:

3:30 - Research Experiences for High School Teachers – Len Bugel

3:40 - MIT's Teacher Professional Development Program - Cynthia Crockett

3:50 - AMANDA/IceCube "Astronomy in the Ice" Course – Jim Madsen

4:00 - AMANDA and the TEA Program - Jim Madsen

4:10 - Black Hills Science Teaching Project - Bill Rogenthen

***For*: Graduate Students**

4:20 – NSF's GK-12 program – Jodi Cooley

***For*: Faculty at Four-year Institutions**

4:30 - Professional Development Issues for Four-Year College Teachers: Not Just Tenure – Darrel Smith, Sally Kousoliotas & Paul Nienaber

4:40 – 6:30 p.m. - Open Discussion

Planning for our NRC summary: NeSS, professional development, and getting beyond a "collection of neat stuff"

Friday, September 20, 2002 - 8:30 a.m - 12:30 p.m.

8:30 – 10:00 a.m. - Presentations

8:30 – Orientation to the Friday morning session – Susan Millar

Goal: **Improving Undergraduate Education**

For: **undergraduate students**

Strategies already in use:

8:40 – Part of a larger whole: Undergraduate research participation at Fermilab - Andrew Finn, Kiril Datchev, and Melanie Novak

8:50 - U.S./South African Undergraduate Education and Research Workshops - Susan M. Pfiffner and Kimberly L. Davis:

9:00 –Involving students in a high-energy astrophysics experiment – Ali Fazely

Goal: **Developing Curriculum Materials for K-12**
***For*: K-12 teachers and students**
Strategies already in use:
9:10 - WALTA - A school-based cosmic ray detector network - Eric Muhs
9:20 - The Hands-On Universe Model - Willi Chinowsky
9:30 - Connecting teachers and students with scientists: "Live from the Pole" - Steve Stevenoski

Goal: **Helping the public appreciate and understand NeSS**
***For*: the public**
Strategies already in use:
9:40 - Soudan Underground Laboratory public outreach programs - Marvin Marshak
9:50 - Using NUSL to Educate the Public about Radioactivity and Underground Science - Tom Bowles

10:00 - 10:30 a.m. - Break

10:30 – 12:30 - Report backs from E&O Liaisons to E&O Working Group
10:30 – Bowles (for Solar Neutrino and Stellar Processes Group)
11:45 – Rogenthen and Pfiffner report back (Geology, etc.)
11:00 – Casper & Patti (Proton Decay)
11:15 – Heller & Smith (Neutrino Oscillations)
11:30 – Sherry Farwell (Double beta decay)
10:45 – Arnowitt for Bob Clark (Dark Matter)
12:00 – Madsen (Astrophysical and Cosmological Neutrinos)
12:15 – Open discussion

7:30 – 9:30 p.m. – Evening Session
Working session devoted to drafting NRC summary, especially important for people who could not attend the E&O parallel sessions… (e.g., Kem Robinson cannot attend until Friday evening)

Saturday, September 21, 2002, 8:00 - 9:00 a.m.

Working session devoted to finalizing presentation on NeSS E&O for "Executive Session Summaries" session

Key questions for E&O Working Group

Posed by Janet Conrad:

How can our experiments build in ideas for education and outreach from day 1 of the proposal?

Related to this main question:

- Is it reasonable for a facility to require some aspect of education/outreach to appear in all proposals -- no matter what the size of the experiment?
- What constitutes a reasonable effort toward education and outreach?
- What support (infrastructure, local experts, funds, etc.) does the facility need to provide experiments so that they can meet their E&O goals?
- How do we make common resources available across experiments/facilities so that money is well used and productive?
- What specific examples/plans for each of the different experiments can be identified?

Posed by Willi Chinowsky:

What measures should be adopted to evaluate the success of an education program?

Posed by Ken Heller:

How can we define set of realistic and limited goals so that we can avoid the amorphous "collection of neat stuff" syndrome, and actually accomplish something?

Posed by George Japaridze:

For any given strategy, what are effective ways for professional educators and professional scientists to interact as they work together in E&O efforts?