

**FPS Executive meeting Conference Call
Wednesday, December 5, 2012**

Attendance:

Pushpa Bhat (Chair), Valerie Thomas, Micah Lowenthal, Benn Tannenbaum, Pierce Corden, Richard Wiener, Cameron Reed, Jonathan Wurtele, Phil Taylor, Lowell Brown

Meeting Minutes by: Pushpa

Agenda:

1. Introduction Pushpa
2. 2012/13 Awards Pete
3. APS Fellowships Micah
4. Sec.-Treas. report Benn
5. APS mtg. Program Valerie
6. P&S Newsletter Cameron
7. POPA report Phil
8. APS Council report Lowell
9. New activities Pushpa
10. AOB

Pushpa called the meeting to order at 2 pm US EST.

1. Introduction/News (Pushpa):
 - Polled people to find out who would be attending the APS 2013 spring meetings.
 - →March 18-22, Baltimore: Phil, Micah, Richard, Valerie, Pushpa, Pierce(?), Pete(?), Benn(?)
 - April 13-16, Denver: Micah, Valerie, Cameron, Richard, Lowell, Pushpa, Jonathan (maybe)
 - Committees were appointed shortly after the April meeting in Atlanta – Awards (Pete), Fellowships (Micah), Program (Valerie), Nominations (Tony Fainberg). They have all either completed or carrying on their work.
 - Nominations committee still needs a few more candidates to arrive at final slate. Positions to go on the ballot: Vice-Chair, Sec.-Treasurer, Two members-at-large.
Pushpa urged the committee members to send candidate suggestions to Tony.
 - Members whose terms are up: Richard, Lea. Thanks! Richard appointed to the P&S Newsletter Editorial Board.

2. Awards Committee (Pete)
 - Peter reported that the committee was pleased with the two candidates who were nominated.
 - [Jeremy Bernstein, Burton Forum award](#)
 - [Geoffrey West, Leo Szilard Lectureship award](#)
 - Pete gave brief bio of the two awardees

3. Fellowships Committee (Micah)
 - Total of 8 nominations received
 - 3 selected and sent to APS; all three approved
 - [Bob Bari, Mitra Dutta, Arian Pregenzer](#)
 - Remaining five → two strong candidates but incomplete package
 - It was said that communication from APS regarding both awards and fellowships was lacking.

4. Program Committee (Valerie)
 - Valerie's report sent by email is in Appendix A
 - There were discussions on the planned program
 - Discussion on Geoffrey West symposium on Saturday evening
→ Strong feeling that if we do this, then both awardees should speak at the evening session

5. Sec. Treasurer Report (Benn)
 - The finances are in good shape. Will email summary of the latest budget report.
 - FPS sponsored and awarded 3 prizes and 2 certificates for selected student posters at the SPS conference.

6. P&S Newsletter (Cameron)
 - Will have January issue in a couple of weeks
 - Pushpa to send some report
 - Forum news +POPA report
 - Pushpa thanked Cameron and Jonathan on behalf of FPS.
Andrew Zwicker and Laura Hopkins to assume responsibilities as Editor and Asst. Editor, respectively, starting April 2013.
Invited them both to the April meeting. Hope that Andrew or Laura can make it to the March meeting.

7. POPA(Phil)
 - Written report from Phil included in Appendix B

8. Councilor (Lowell)

Had to miss the Council meeting due to inclement weather. Nothing to report.

9. New Activities/Initiatives (discussion):

- Discussed organizing “events” or “cocktail party” on the Hill for group of scientists to meet with Congressional members and staff. Might co-organize one in March/April in relation to the Higgs Discovery celebration along with DPF/APS.
- Pushpa in discussion with Mike Lubell, Jodi Lieberman and DPF.
 - Members hard to get, staff too busy, mostly end up getting interns
 - might try more limited circles, invite e.g., R&D Caucus.
- Get membership more engaged
 - Could do a survey to get input
 - Micah to list some survey questions and circulate to ExCom for comments/additions
 - Fellowships and awards should be more widely publicized
 - More effectively use the newsletter?
- Grassroots efforts?
- Lowell suggested we work closely with other Fora and topical groups.

Action Items:

- All: Think of good candidates for ExCom election and email Tony (Tony Fainberg fainberg666@comcast.net)
- Pushpa, Valerie to communicate with Rocky Kolb about the proposed Saturday evening symposium.
- Micah to make a list of questions/items for FPS survey

Pushpa closed the meeting at 3:20 pm EST.

**Appendix A: Program Committee Report (Valerie Thomas)
Proposed Program, Topics/Speakers:**

FPS March Sessions

The Impact of Hydraulic Fracturing

Tuesday March 19, 8:00 am

Co-Sponsored by FPS and the APS Group on Energy Research and Applications
(GERA)

Hydraulic fracturing uses pressurized fluid to propagate fractures. Its use for hydrocarbon recovery has economic benefits but potential environmental impacts.

The session will focus on the underlying physics to better understand this issue.

Session Organizer and Chair: Richard Wiener, Research Corporation for Science Advancement.

Susan Burden, US EPA

Murray Hitzman, Colorado School of Mines.

Francis O'Sullivan, MIT

Robert Jackson, Duke University (invited).

American Science and America's Future

Wednesday March 20, 11:15

How can the US maintain its competitive edge in science and innovation? This session will address issues in scientific research, science education, science & technology policies, S&T workforce development, and impacts on industry and economy.

Session organizer and chair: Pushpa Bhat

Rep. Rush Holt, U.S. House of Representatives

Shirley Jackson, President, Rensselaer Polytechnic Institute (invited).

Subrah Suresh, Director, National Science Foundation (invited).

Shelly Glashow

Science in the New Administration

Thursday March 21, 11:15 am

The new administration, coming in to office in January 2013, will mark a fresh start in science policy. The session will explore the plans and directions for science policy over the coming four years.

Session Chair: Micah Lowenthal

William Brinkman. DOE Science and the National Agenda

Robert Jaffe. Science Informing Policy in the New Administration

William Colglazier. U.S. Department of State.

Patricia Falcone, US Office of Science and Technology Policy. (Arun Serafin?)

David Goldston, Natural Resources Defense Council (confirmed)

FPS April Sessions

FPS Awards Session

Saturday April 13, 10:45

Session organizer and chair: Pushpa Bhat

Jeremy Bernstein, Stevens Institute of Technology. Burton Forum Award

Geoffrey West, Santa Fe Institute. Szilard Lectureship Award

Physicists as Science Advisors

Saturday April 13, 3:30 pm

Physicists play important roles in providing science advice. In this session, physicists who have served in advisory capacities will discuss topics, challenges, and careers in advising the US government on science aspects of policy questions.

Session organizer and chair: Micah Lowenthal

Tony Fainberg. [Physicists as Science Advisors](#)

[Steve Fetter](#)

Valerie Thomas. Science Advice at the EPA

John Morgan. Science Advice at the Department of Defense

Low Carbon Electricity

Sunday April 14, 10:45am

Co-Sponsored by FPS and the APS Group on Energy Research and Applications (GERA)

This session will address technologies and system approaches for low carbon electricity generation in the U.S.

Session organizer and chair: Valerie Thomas

Arun Majumdar, University of California, Berkeley. [Sustainable Energy](#)

Trieu Mai, National Renewable Energy Laboratory. Renewable electricity futures.

Christiana Honberg, Arizona State University. Advances in Solar Energy.

Low Carbon Transportation

Sunday April 14, 1:30

Co-Sponsored by FPS and the APS Group on Energy Research and Applications (GERA)

The focus of this Invited Session is to present the main scientific and policy challenges to achieving low-carbon transportation.

Session Chair and Organizer: Ellen Stechel.

Michael Tamor, Ford Motor Company. Electricity as a Transportation Fuel.

Jane Davidson, University of Minnesota. Solar Thermo Chemical Approaches for the Production of Transportation Fuels.

Todd West, Sandia National Laboratories. Biofuels and Technology/Policy Trade-offs for Light Duty Vehicles.

American Science and America's Future

Monday April 15, 3:30.

How can the US maintain its competitive edge in science and innovation? This session will address issues in scientific research, science education, science & technology policies, S&T workforce development, and impacts on industry and economy.

Session organizer and chair: Pushpa Bhat

Lisa Randall, Harvard University
Saul Perlmutter, University of California Berkeley
David Gross? Bill Foster?

Technical Aspects of the Comprehensive Test Ban Treaty

Tuesday April 16, 1:30

In this session, scientists will describe recent developments in science and technology for monitoring nuclear explosions using radionuclide detection, seismology, and satellite technology.

Session organizer and chair: Micah Lowenthal

Ted Bowyer. Pacific Northwest National Laboratory. Status and Challenges of Radionuclide Detection for Detecting Nuclear Explosions

Raymond Willeman. IRIS (Incorporated Research Institutions for Seismology). Seismic Detection of Nuclear Explosions.

Randy Bell. National Nuclear Security Administration. Research for Detecting Nuclear Explosions Using Other Phenomena

Appendix B:

**Report from the FPS representative on the Panel on Public Affairs of the APS
Phil Taylor**

November 28, 2012

The Panel on Public Affairs convenes three times a year at APS headquarters in Washington DC, with meetings in February, June, and October. Your representative was not able to attend the first two meetings, as the 2011 FPS elections were not held until March 2012, and the results were not known until too late for him to arrange his schedule to attend the June meeting. This problem should not recur for a while, as the term of office is three years, but the issue is worth bearing in mind when future elections are scheduled.

Had I been at the February meeting, I would have learned that "There are two activities that dominate POPA's time: developing APS policy statements and carrying out studies. APS statements fall under five topical areas: Education, Ethics & Values, Human Rights, Internal Policy, and National Policy. POPA's responsibilities re: policy statements include (1) drafting statements on the aforementioned topical areas and (2) reviewing Council-approved statements every five years to determine whether any should be archived. The other major responsibilities of POPA include conducting studies and producing reports. Ideas for studies can originate within POPA or come directly from the APS membership. The studies build on previously adopted APS statements; they don't create new policy positions, but build on existing positions and advance statements that have already been passed. POPA will often team with another organization to conduct a study, if doing so results in a more expert assessment of the topic. As a rule, a POPA member will volunteer to assemble and lead a study committee through exploration of the chosen topic. The timetable for a POPA Short Report Study is eight months, For topics that require additional time, funding, and/or comprehensive research, larger studies can be conducted as an APS Report Study. Such an effort results in a longer report (ex. APS Energy Efficiency Report). POPA is also responsible for drafting letters under the POPA Chair's name, and

responding to concerns voiced by the Society's membership."

The topics already under consideration at the October POPA meeting included many of those that have graced the pages of the FPS newsletter. There were reports on existing studies of the issues involved in extending the lifetimes of commercial nuclear reactors; the surprise for me was that lifetimes of as much as 80 years were discussed. The disruptions that could be caused by shortages of certain rare but critical elements were the basis of another report, which included shortages of an element dear to the hearts of many physicists, namely helium. The report provided several recommendations that have been included in legislation in the House and Senate. Unsurprisingly, nuclear weapons were not neglected, and here the emphasis was on the status of tactical weapons.

I felt I was making a nuisance of myself by asking for an unpacking of the prodigious number of acronyms that flew through the air, but was reassured to find I was not alone in wondering what DNDO was, and why ASP and CAARS were a problem. I learned that it is the Domestic Nuclear Detection Office, which was established to help prevent anyone from smuggling radiological materials into the country. The Advanced Spectroscopic Portal Monitor (ASP) and Cargo Advanced Automated Radiography System (CAARS) programs have apparently not been a huge success. This is a topic of a current POPA study. Not every aspect could be discussed, as some of these were definitely FOUO. What's that? I'm sorry - it must be catching - it's a Federal government designation that means "for official use only", and applies to information that the government keeps just a tiny bit secret.

In summary, my first POPA meeting introduced me to an environment in which a huge wealth of experience in physics, policy, administration, and government was assembled in the form of about twenty POPA members. They hailed from national labs and think tanks, universities and government departments. I look forward to the next meeting.

Philip Taylor
Case Western Reserve University