President's Column – Debra Meloy Elmegreen –May-June 2011

Late winter and early spring have brought a flurry of astronomy activity (in addition to snowflakes!) to Washington. The Presidential budget request is out, the outlook is grim, and advocacy is needed. The Decadal report of necessity continues to dominate much of our thoughts and efforts in astronomy this season. Roger Blandford, chair of Astro2010, and others have continued to promote the "New Worlds, New Horizons" recommendations. In late February, Roger, Michael Turner (vice-president of the American Physical Society), Don Shapero (director of the National Research Council's Board of Physics and Astronomy, on which I serve) and I had a meeting at the Office of Science and Technology Policy with Associate Director for Science Carl Wieman (the 2001 Physics Nobel laureate). We stressed that JWST, the last decadal report's top space priority, is the cornerstone of the next decade, that it will be a gamechanger when it launches, and that it underlies a lot of science planned in NWNH. We also emphasized that NWNH's highest priority space recommendation, WFIRST, is at risk because it cannot be considered for launch until JWST is launched; NASA cannot accommodate two flagship missions at once (even though they are very different in scale and scope). While we were pleased to receive a 45-minute audience, we left disheartened by the realities of the budget situation. Dr. Wieman underscored the fact that astronomy goals do not align well with national priorities. He acknowledged that the Decadal survey is always a worthwhile endeavor, well regarded in Congress and a model for other science communities, but that these are just tough economic times. He also pointed out that some disciplines fared even worse, but because the budget process is an annual event, astronomers should not lose hope for the Decadal recommendations. But I note that a good dose of patience and a continued astronomical presence in Washington will no doubt be required!

Thanks to Kevin Marvel's efforts, Roger, Michael and I also met with NSF Director Subra Suresh and his senior advisor Dedric Carter in another 45-minute audience. We reiterated that the number one ground-based priority, LSST, is on track in its development and construction, is low risk, and will be unique in the world. We discussed the many positive aspects of the project, including the good partnership between NSF and DOE, and the broader cyber connections and public involvement through Citizen science that will be fostered through the development and operation of LSST. Regarding the second-ranked ground-based Decadal recommendation, the mid-scale innovations program (to enable competed projects that fall between the $4M Major Research Instrumentation line and the $135M Major Research Equipment and Facilities Construction line), Dr. Subresh noted that the National Science Board is studying a possible NSF-wide mid-scale initiative since many disciplines besides astronomy have a need for this level of funding. He also spoke about the importance of international efforts and an NSF presence in other countries. We're all aware that the face of astronomy is changing, as huge projects ultimately will demand more cooperation internationally, and we lauded the success of ALMA as it comes online. Dr. Subresh expressed concern about the large fraction of the AST budget going to facilities, which is a subject in NWNH, and we discussed the success ratio of grants, both issues that he has to consider across the divisions in NSF. He too praised the Decadal process, so I think we can all at least take

heart in the fact that the federal leaders appreciate the efforts that the astronomical community put into NWNH and recognize its usefulness in setting priorities.

Coincident with these meetings, the Astronomy and Astrophysics Advisory Committee (on which I serve), which gives advice to NASA, NSF, and DOE on interagency and Decadal issues, had a meeting in which Jon Morse from NASA, Jim Ulvestad from NSF, and Glen Crawford from DOE presented reports on their efforts to implement the Decadal recommendations. These presentations are available online (http://www.nsf.gov/mps/ast/aaac.jsp), along with the AAAC annual report soon to be made public. The bottom line is that all agencies are trying very hard to include as many of the recommendations as their diminished budgets will allow. The prospects look encouraging for an augmented Explorer program and several small NASA initiatives. Although the future of WFIRST is uncertain, a Science Definition Team has been named, and NASA is considering options for WFIRST as outlined in the "Implementing Recommendations for the NWNH Decadal Survey" (requested by OSTP, written by a panel formed from BPA and SSB members, and released by the National Research Council in December, http://www.nap.edu/catalog.php?record_id=13045). While NSF and DOE are proceeding with plans for involvement with LSST, other initiatives in NSF will need to await a portfolio review. The future of federal investment in a Giant Segmented Mirror Telescope is uncertain. Discussions are coming along between NRC and the agencies to form an NWNH-recommended Decadal survey implementation advisory committee, which will be important for providing input on the way forward given the proposed low budgets.

As many of you have already seen through an AAS email alert, the Committee on Astronomy and Public Policy decided it would be prudent to submit written testimony to the House Appropriations subcommittee on Commerce, Justice, Science, and Related Agencies at the Member and Outside Witness Hearing in March. We also thought it would be useful to have a voice at the oral presentation, although we viewed our selection as a longshot. We were surprised to be selected, but that meant Bethany Johns, our AAS Bahcall Policy Fellow, and several of us put in long hours to get the written testimony submitted on short order. I came to appreciate the comparative luxury of the 5-minute oral talks at AAS meetings, when I found I'd have exactly 4 minutes to speak to the House committee. I'll confess that this was my first Congressional appearance, and that I was rather terrified in advance of the meeting. But Bethany and Kevin, who spend a lot of time on Capitol Hill meeting with policy makers to emphasize astronomy issues, were a calming influence. There were 43 other nervous-looking scientists testifying too, including representatives from societies such as the APS and Mathematical Association of America and Sea Grant Association and Geological Society of America. As it turned out, the committee and staffers were friendly, and it was actually enjoyable by the time it happened. Nearly everyone spent their 4 minutes supporting the budgets in general for NSF and NASA and other federal agencies, where appropriate, and then mentioning some specifics for their field. My message carried the same elements as our talking points at NSF and OSTP, in addition to noting the importance of restarting production of Plutonium-238 as a power source for deep space missions (particularly timely since the Planetary Decadal Survey report, "Visions and Voyages for Planetary Science in the

Decade 2013-2022" had just come out that week; http://sites.nationalacademies.org/SSB/CurrentProjects/ssb_052412), the role of astronomy in attracting and retaining young people in science, and the need to support research and technology to bolster our economy. If you missed the report, it's available through the AAS policy blog and also posted with the other witness reports on http://appropriations.house.gov/index.cfm?FuseAction=Hearings.Detail&HearingId=48&Month=3&Year=2011.

Ranking member Fattah afterwards said he supported the Pu-238 restart and also thanked us for the written testimony urging Congress to tackle the larger budget issue. Chairman Frank Wolf said that he, like most of the committee, supported science, and wished he could support not only the proposed level of science funding, but even more. Yet the reality, as he noted, is that 100% of the budget cuts are coming from 15% of the budget, which includes discretionary spending on science. They urged us – and urged us to urge our scientific communities – to write our Congressmen about these issues. So consider yourself urged. As a naïve youngster, I thought astronomy was above politics, but that's because I was clueless about the realities of funding to get science done. Now it's clear how important it is that we keep delivering our message.

That brings me to the final point for now: as this column goes to press, we've just finished this year's Congressional Visits Day on April 6-7. This was the 16th Annual Science-Engineering-Technology CVD, which raises visibility and support in Washington for our fields. Astronomers from CAPP and the general astronomy community, including postdocs and younger astronomers, took part in a grand gathering of several hundred scientists on Capitol Hill for meetings with representatives and staffers, in addition to briefings with NASA, NSF, and OMB. Bethany did a great job preparing a brochure for us to distribute that highlighted some of the Astro2010 and Planetary Decadal recommendations. We reiterated the need for support of science in general and astronomy in particular, and policy makers appreciated our message.

Meanwhile the Boston meeting is almost upon us! Preparations are in full swing by our tireless AAS staff, and I can't wait. It'll be one of our biggest summer meetings in awhile, and I look forward to seeing lots of you there. Don't forget to get your prize nominations in by June 30.