The Committee on the Status of Women in Astronomy – American Astronomical Society JANUARY 1994

# A Note from the CSWA Chair's Corner

Debra Elmegreen

This year, our committee includes Geoff Clayton, Kathy Eastwood, Debra Elmegreen (Chair), Jay Gallagher, Laura Kay, Geoff Marcy, and Jill Price.

Laura Kay and Geoff Marcy organized the Berkeley AAS CSWA meeting. Featured speakers were Carmen McKines, UC Berkeley Director of Sexual Complaints, and Malcolm Kushner, attorney, who discussed harassment issues.

Geoff Marcy and Debra Elmegreen completed a departmental survey of women astronomers and some suggestions on ways to improve their situation, which was published in the Baltimore Proceedings. The Baltimore Charter is also in the Proceedings (Ed. Note: The Charter is included in this STATUS also. See page 4); it is hoped that the Charter will serve as a guideline for equitable treatment of astronomers. Anyone who would like a copy of the Proceedings can send a request via e-mail to Dorothy Whitman (schlogel@stsci.edu).

Peter Boyce's AAS executive office has established a list of women who would like to be considered for Scientific Organizing Committees and speaking engagements. The which is available for distribution upon request from the AAS office (contact lsholz@blackhole.aas.org).

The e-mail network, now numbering over 500 men and women, continues to generate enthusiasm and lots of discussion weekly. If you have not yet joined, send your e-mail address to aaswomen@vaxsar.vassar.edu, which is also the address for sending out notices for distribution.

A key issue this year on the network is the problem of two-career couples. Other issues which might be considered include astronomers with children; early educational training and encouragement of women (maybe community outreach by established women role models); how sexual harassment is handled by different institutions guidelines for job interviewers (i.e., questions that are illegal); backlash - discrimination against men. Network discussions should generate some insight into these matters. Please share your concerns and ideas with us.

#### **AASWOMEN E-mail NETWORK**

Keep up to date by joining the AASWOMEN e-mail network. AASWOMEN is a weekly e-mail bulletin containing many different items of interest related to women's issues. Both men and women are welcome. You can join by writing to: AASWOMEN@vaxsar.vassar.edu

#### Also Inside:

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# The Origin of the Baltimore Charter

Meg Urry

In September 1992, a meeting on the topic of Women in Astronomy was held at the Space Telescope Science Institute in Baltimore, Maryland. The Proceedings of the meeting were published in June and distributed to all participants, as well as to a large number of institutional libraries under the title of *Women in Astronomy*. Copies are available from Shireen Gonzaga (gonzaga@stsci.edu).

The final version of the Baltimore Charter was released officially at the AAS meeting in Berkeley, via a poster paper and a press conference. The latter generated a lot of positive press, including articles in the San Francisco Examiner and the Boston Globe. A full-size poster of the Charter is available for the asking.

The idea of having a meeting to discuss the situation of women in astronomy was suggested to me by Goetz Oertel, President of AURA (the Association of Universities for Research in Astronomy), over breakfast at the AAS meeting in Philadelphia in January 1991. It was immediately appealing. Other women at STScI had a similar reaction when the conference was mentioned, so we forged ahead with the organization, feeling our way as we went, developing ideas about what we wanted to accomplish and how it could be done.

Our first decision was to avoid having only a complaint session, and instead to create a meeting which would be a positive, action-oriented experience. While there is great value in telling personal stories, we wanted a much wider impact. The then-Director of STScI, Riccardo Giacconi (now Director- General of the European Southern Observatory) suggested the meeting could produce a code of conduct governing gender issues - we dubbed it the Baltimore Charter. It was decided that the Charter should state, argue and resolve the problem, powerfully and concisely. The ideas for the Charter were to come from the meeting participants themselves, who were divided into working groups and assigned a topic from our tentative Charter outline. During the conference, they spent several hours in deep discussion, producing reports that can be seen in the Appendix of the Proceedings. The 18 working group reports were distilled into a draft Charter with the help of Sheila Tobias, who gave a powerful talk at the meeting (also reproduced in these Proceedings). Sheila Tobias, Laura Danly, Ethan Schreier, and myself then iterated through some 40 drafts, consulting along the way with meeting participants and other interested parties. The final draft, which appears in the Proceedings, is the product and work of many people.

It is important to describe the scope of the Charter, and what it is and is not meant to be. We decided early on to focus the meeting specifically on women, in astronomy, in the United States, at the graduate level and beyond. This leaves out a lot of people and a lot of arenas, but it made a deep discussion of the issues tractable. We focussed on those who had already chosen the profession graduate students, post docs, and beyond - because they had survived the early barriers and it was vital that they not be lost to the profession at such an advanced stage. They also represent our sphere of influence. To the extent that we affect undergraduate majors through teaching, they too were discussed during the conference.

We felt that there were enough differences between the U.S. and other countries that including an international focus would muddy the issues relevant to our own situation. As a practical matter, we also couldn't budget for international travel. In the end, we were extremely fortunate to have some

conference participants from other countries, including Canada, England, Italy, Germany, Australia, and the Soviet Union, and their perspectives were frequently enlightening.

The most problematic exclusion was of racial minorities, who have historically been excluded from science far more extensively even than women. When we started organizing the conference, we felt that the problem of minorities in astronomy was fundamentally a different one than that of women. For example, roughly one quarter of all graduate students in astronomy are women, while the number of Native American, Hispanic, and black graduate students is painfully small. Thus, the pool of women is there while the pool of minorities is not. Enlarging this pool is of critical importance, but because our emphasis was on graduate education and beyond, we felt professional astronomers could not hope to affect the stages at which the number of minorities in science drops precipitously, usually in high school or even earlier.

As we read more and more background material and became more aware of the actual exclusionary mechanisms, it became clear that the problems of women and the problems of minorities are in fact very similar. They both originate in cultural differences between the excluded and the society that defines the status quo. It should not be controversial to acknowledge that we understand better and are more comfortable with those people who are most like us. This is human nature. What we need to learn now is how to recognize and overcome such instincts, so that women AND minorities can come in through the door. That women are ahead in this process is fortunate for them; it is now crucial to apply our learned wisdom about increasing the participation of women in astronomy immediately and extensively to other minorities even more disenfranchised. Far from excluding minorities, we must work to include them faster and with more diligence.

Having said that, our meeting was not designed to discuss the situation of minorities in astronomy. We did not invite speakers to address that topic, we did not invite minorities specifically to attend, and we did not do the background reading that we did for women's issues. We felt it would be presumptuous and wrong to try to address this issue post facto. For this reason the Baltimore Charter is explicitly addressed to the issue of women in astronomy and does not pretend to address the issue of minorities. It is our deep hope that this choice is understood as it was meant - as a reluctance to speak for those not represented or discussed - and that similar attention to those issues, and perhaps an analog of the Baltimore Charter, follows very soon.

Similarly, we have not presumed to speak for other scientific disciplines, which have their own histories and demographics, but there is nothing in the Charter that is exclusive to astronomy. For the many other fields in which women and minorities remain underrepresented, we hope the Charter stimulates similar efforts and we look forward to collective progress toward equal participation of all in science.

# THE BALTIMORE CHARTER FOR WOMEN IN ASTRONOMY

"Women Hold up Half the Sky" - Ancient Chinese saying

PREAMBLE

We hold as fundamental that:

- Women and men are equally capable of doing excellent science.
- Diversity contributes to, rather than conflicts with, excellence in science.
- Current recruitment, training, evaluation and award systems often prevent the equal participation of women.
- Formal and informal mechanisms that are effectively discriminatory are unlikely to change by themselves. Both thought and action are necessary to ensure equal participation for all.
- Increasing the number of women in astronomy will improve the professional environment and
- improving the environment will increase the number of women.

This Charter addresses the need to develop a scientific culture within which both women and men can work effectively and within which all can have satisfying and rewarding careers. Our focus is on women but actions taken to improve the situation of women in astronomy should be applied aggressively to those minorities even more disenfranchised.

#### RATIONALE

Astronomy has a long and honorable tradition of participation by women, who have made many significant and highly creative contributions to the field. Approximately 15% of astronomers worldwide are women but there is wide geographical diversity, with some countries having none and others having more than 50%. This shows that scientific careers are strongly affected by social and cultural factors, and are not determined solely by ability.

The search for excellence which unites all scientists can be maintained and enhanced by increasing the diversity of its practitioners. Great discoveries have always occurred in times of cross-cultural enrichment: along trade routes, in periods of geographical exploration, among immigrants and multinationals. The introduction of new approaches frequently results in new breakthroughs. Achieving such diversity requires revised, not lesser, criteria for judging excellence, free of culturally-based perceptions of talent and promise.

A review of available information on the relative numbers and career histories of women and men in science reveals extensive discrimination. Access to the profession - graduate education, hiring, promotion, funding - is not always independent of gender. Unequal treatment of women in the laboratory, the lecture hall and the observatory, more subtle but at least as important as overt discrimination, creates a chilly climate which discourages and distresses women, alienates them from the field, and ultimately damages the profession.

Existing inequities can be eliminated only partially by legal stricture or they would not continue today. Improving the situation requires awareness of the very real barriers women currently face, including sexual stereotyping, opportunity and pay differentials, inappropriate time limits on advancement, overcritical scrutiny and sexual harassment. Sexual harassment, ranging from an uncomfortable work environment to unwanted sexual attention to overt extortion of sexual favors, can force confrontation between junior astronomers and older, better established colleagues who can strongly influence career advancement; it diverts attention from science to sex, places an undue burden on the harassed, and damages their self-esteem.

The entire profession must assume the immediate and ongoing responsibility for implementing strategies that will enable women to succeed within the existing structures of astronomy and allow

the desired acceptance of diversity to develop fully.

#### RECOMMENDATIONS

1. Significant advances for women have been made possible by affirmative action. Affirmative action involves the establishment of serious goals, not rigid quotas, for achieving diversity in all aspects of the

profession, including hiring, invited talks, committees, and awards.

(a) Standards for candidates should be established and publicized in advance. Criteria that are culturally based or otherwise extraneous to performance or the pursuit of scientific excellence should not be applied.

(b) Women should participate in the selection process. If insufficient numbers of women are available at particular institutions, outside scientists can be invited to assist. Men must share fully the responsibility for implementing affirmative action, as they hold the majority of leadership positions.

(c) The selection of women should reflect on average their numbers in the appropriate pool of candidates and normally at least one woman should be on the short list for any position, paid or honorific. When women are underrepresented in the pool, their numbers should be increased by active and energetic recruitment.

(d) Demographic information for each astronomical organization should be widely publicized. If the goals for affirmative action are not achieved, the reasons must be determined.

2. The criteria used in hiring, assignment, promotion and awards should be broadened in recognition of different pacing of careers, care of older and younger family members, and demands of dual-career households. Provision for day care facilities, family leave, time off and re-entry will instantly improve women's access to an astronomical career and is of equal benefit to men.

3. Strong action must be taken to end sexual harassment. Education and awareness programs are standard in U.S. government and industry and should be adopted by the astronomical community. Each institution should appoint one or more women to receive complaints about sexual harassment and to participate in the formal review process. Action against those who perpetrate sexual harassment should be swift and substantial.

4. Gender-neutral language and illustrations are important in the formation of expectations, both by those in power and those seeking entrance to the profession. Documents and discussions should be sensitive to bias that favors anyone gender, race, sexual orientation, life style, or work style. Those who represent astronomy to the public should be particularly aware of the power of language and images which, intentionally or unintentionally, reflect on astronomy as a profession.

5. Physical safety is of concern to all astronomers and of particular significance to women, who often feel more vulnerable when working alone on campus or in observatories. This issue must be addressed by those in a position to affect security, making it possible for everyone to work at any hour, in any place, as necessary.

CALL TO ACTION

Improving the situation of women in astronomy is the responsibility of, and will benefit, astronomers at all levels. Department heads, observatory directors, policy committee chairs, and funding agency officials have a particular responsibility to facilitate the full participation of women: to nurture new talent, to ensure the effectiveness of teaching, and to examine and correct patterns of inequity. The profession should be responsible for regular review and assessment of the status of women in astronomy" in pursuit of equality and fairness for all.

A rational and collegial environment which allows full expression of intellectual style is necessary for achieving excellence in scientific research. Women should not have to be clones of male astronomers in order to participate in the mainstream of astronomical research. Women want and deserve the same opportunity as their male colleagues to achieve excellence in astronomy.

# **Editor's Note**

The creation of the Baltimore Charter has produced a variety of reactions within the astronomical community. The following are two letters which represent two diverse opinions about to the Charter. Dr. Felton's letter was submitted to the AAS Bulletin. Dr. Carizares' letter was addressed to the AAS Council.

# Sexist "Baltimore Charter" Should not Become AAS Policy Dear Editor,

The "Baltimore Charter for Women in Astronomy" appeared in the October Newsletter without any explanatory material or the names of the authors or any indication of where, when and why it was written. This might leave the impression that it is AAS policy, or that it was written by the editors, or by the Executive Officer on behalf of the AAS.

In fact, the Charter is essentially a press release by a feminist special-interest group. But I am told privately that it has been placed onto Council's agenda, and may be debated and even endorsed by Council as soon as January! While failing to tell us this, the Newsletter has also failed to print the text of the new Bylaw already adopted in June in response to complaints of sexism. The Bylaw actually DOES represent AAS policy. In passing the Bylaw, Council removed the "Guidelines", originally attached, which contained quota proposals. Now we are confronted by the Charter, which contains even more blatant quota proposals!

The Charter is a long document which contains many sensible assertions. Unfortunately it also contains a few platitudes, some windy and controversial philosophizing, and some questionable assertions of fact. It proclaims opposition to "rigid quotas", but contains, under the rubric of "serious goals", highly objectionable quota proposals. It proclaims the importance of "gender-neutral language" but contains a lot of sexist language.

As a thought experiment, and tactfully scanning the nineteenth century rather than the twentieth for historical precedents, let's replace "women" by "Protestants" and "men" by "Catholics" in the Charter's text. Then we find, *inter alia,* the following statements: "Current...systems often prevent the equal participation of Protestants." "Protestants should participate in the selection process. If insufficient numbers of Protestants are available at particular institutions, outside scientists can be invited to assist." [This provision reminds me of the great Czech film "Shop on Main Street", with its

depiction of Nazi-appointed "alien-property custodians" (Christians), to whom the Jews (aliens) had to turn over their property.] "Normally at least one Protestant should be on the short list for any position." [Note that no similar guarantee is given to the men (Catholics).] "Protestants should not have to be clones of Catholic astronomers." Everyone today would recognize such a document as bigoted and divisive! Even today's feminists have the obligation to control their anger and avoid scapegoating and stereotyping.

How would the male members of a faculty search committee regard a woman from outside the department brought in to join their deliberations simply because she is a woman? Would they see her as an unbiased judge or an "alien-property custodian"? Implementation of such proposals would retard, not advance, the acceptance of women as equals in astronomy.

The committee which wrote this Charter was not representative of the AAS membership, and many AAS members will object strongly to various aspects of the Charter. If it is endorsed by Council in its present form, I shall resign from the AAS. Other members may wish to lodge their own protests immediately.

James E. Felten Greenbelt, MD

# Endorsement of the Baltimore Charter

Dear Sidney:

I am writing to urge you and the members of the AAS Council to endorse the Baltimore Charter for Women in Astronomy.

It is a sad fact that women are underrepresented at all levels of our profession and that the fraction of women declines precipitously with increasing academic rank. Statistics show that women leave the professional ladder at each level in larger proportions than men. My experience as a scientist and as an administrator convinces me that this inequitable condition will not change until the leaders of profession act affirmatively to change it. Some "affirmative action", of course, is required in most institutions to prevent discrimination in hiring, but this is generally minimal in nature and effectiveness.

The Baltimore Charter is nothing less, and nothing more, that a clarion call to astronomers everywhere to embrace the spirit as well as the letter of affirmative action. The Charter's recommendations emerged from the Baltimore Workshop and are based on the experiences of the approximately 200 senior and junior astronomers who participated, both men and women, including academic and research directors and administrators. The specificity of the recommendations is what prevents the Charter from being just another statement of platitudes and good wishes. But the language is carefully chosen to acknowledge that each institution will have to design its own implementation. Thus, endorsement implies acceptance of the principles and the need for effective affirmative actions rather than strict acceptance of every point.

The Charter has been circulated widely since last spring. It was presented as a poster at the Berkeley AAS meeting in June, and was also publicized at a press conference there. Text and discussion of the Charter have appeared in the AAS Newsletter and the AASWOMEN electronic newsletter, as well as elsewhere in the scientific and popular press. Several institutions, including the AURA Board of

Directors, have already endorsed it. The workshop proceedings, which contain the text of the Charter and considerable supporting material, have been sent to 1000 astronomical libraries and individuals worldwide.

I believe it is entirely appropriate for the Council of a professional society to endorse a call to action for redressing the unequal representation of one segment of society in that profession. The councilors of the AAS are elected to represent the membership, and the president and officers are elected to lead. I cannot imagine a better exercise of that trust than voting to endorse the Charter.

Indeed, the Council is now at a crucial time. Endorsement would send a significant, positive signal through the membership, to our academic and research institutions, and to the larger scientific community. Inaction will also send a message but one with the opposite sign.

As you and the council consider this issue, I hope you avoid the trap of thinking by imperfect analogy, as has been suggested in a recently circulated letter. The issue is not how the charter would read if it referred to religious groups. The issue is how it reads as written, referring to gender - a quality which is undisguisable and around which severe underrepresentation in our profession is a demonstrable fact.

Best regards, Claude R. Canizares Professor of Physics Director

# Advice for Job Applicants

#### Tod Lauer and Caty Pilachowski

With so many applications to review, hiring committees try to converge quickly on the dozen or so applications that they will examine more thoroughly as part of their short list. The parts of the application reviewed most closely are the cover letter, the applicant's description of ongoing and future research, the record of research accomplished to date, and the letters of recommendation.

In most cases, those on the hiring committee are not likely to have direct knowledge of you, so a good word from your senior colleagues is crucial to understanding your current progress and prospects for benefitting from the advertised position. Surprisingly, however, a substantial fraction of applicants do not ensure that the nominal three letters are received. Committees try to make do with what's on hand, but if a key letter (such as from the applicant's adviser, say) is missing, the application is not as strong as it could be. Reviews normally begin immediately after the deadline, so hiring committees usually have neither the time nor the resources to track down missing letters.

Prospective employers look closely at what you have to say about yourself. Your cover letter is usually the first introduction they have to your application. The cover letter should include a brief statement of your scientific accomplishments, your research goals during your appointment, your reasons for wanting the position, and the reasons why you should be the top candidate for the position. The research essay should be brief and to the point; most reviewers are not in your field, and have a stack of other applications to read. They don't have time to digest preprints, reprints, or any other documents beyond your essay. What they do want to see is a clear description of what you are doing, and very crucially, what you hope to do at their facility. Most committees are also looking

for those who understand the context of their research within the larger arena of astronomical research. As for your future plans, committees look for programs that both are interesting and have a realistic chance of success over the duration of the appointment.

### 1994 DPS CWSA Meeting

Ann Sprague

The Division for Planetary Sciences subcommittee on the Status of Women in Astronomy held a panel discussion on research and teaching opportunities at a wide spectrum of institutions during the annual DPS meeting in Boulder, Colorado, in October, 1993. Ann Sprague (U. Arizona) chaired the session, attended by approximately 25 people. Speakers representing different institutions included Fran Bagenal, LASP, U. Colorado; Melissa McGrath, STScI; Karen Meech, IFA, U. Hawaii; Beatrice Mueller, KPNO; and Faith Vilas, NASA JSC.

Job availabilities at universities were discussed by both Bagenal and Meech. Two introductory job possibilities at U. Hawaii were presented. McGrath discussed the lack of permanent job possibilities at STScI, but encouraged planetary astronomers to apply for the available Hubble post-doctoral fellowships. Mueller presented the guidelines for job applicants written by Tod Lauer and Caty Pilachowski from KPNO as helpful advice to job applicants.

The meeting and discussion were well received, however, the overall conclusions were that job openings existed primarily at the introductory and senior levels. The diminishing funding available to government-funded institutions has limited the availability of career-track positions. The effect of career-choice limitations on family stability was also discussed among both participants and attendees. A request was made from those in attendance for relevant topics for future DPS CSWA sessions so that the CSWA can meet the needs of DPS members.

The STATUS Newsletter is published in January and June by the American Astronomical Society, 1630 Connecticut Avenue, N. W., Suite 200, Washington, DC 20009. See page 6 for subscription information.

Editors:

Dr. Deborah Domingue Lunar & Planetary Institute. 3600 Bay Area Blvd. Houston, TX 77058 (e-mail: domingue@lpLjsc.nasa.gov)

Dr. Faith Vilas Code SN3 NASA Johnson Space Center Houston, TX 77058 (e-mail: vilas@sn.jsc.nasa.gov)

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