MAA
PACIFIC NORTHWEST SECTION NEWSLETTER

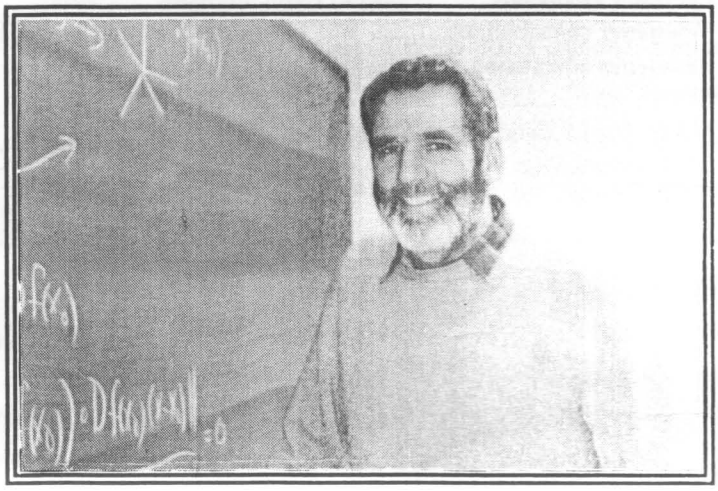
Spring 1993

Robertson Named Distinguished Teacher of the Year

Jack M. Robertson of Washington State University received the section's 1993 Distinguished Teaching Award at the sectional meeting in Tacoma on March 6. Section Chair Kit Hanes presented Robertson a certificate detailing the award and two MAA books; in addition, he is automatically a candidate for the MAA's national Distinguished Teaching Award. The award recognizes Robertson for sustained excellence in mathematics instruction over twenty-eight years at the college and high school levels.

Robertson's numerous contributions include the direction of NSF-funded summer institutes for secondary teachers and development of major curriculum materials for high school and college. The institutes have helped secondary teachers expand their knowledge base and earn advanced degrees. Curriculum materials developed by Robertson include: *Fair Division: Getting Your Share*, a treatise on fairly dividing resources; *The Apportionment Problem: The Search for a Perfect Democracy; Group Ranking*, a study of voting mechanisms; and *The CALC Handbook*, a supplementary calculus resource (co-authored with Duane DeTemple).

Robertson came to WSU in 1964 after completing his doctorate at the University of Utah. He has served as president of the Washington State Mathematics Council, member of the MAA Placement Exam Committee, and member of the Research Advisory Committee of the National Council of Teachers of Mathematics. In addition, he has been a consultant on instructional content to school districts as far away as Hawaii and Texas.



Jack Robertson, Professor of Pure and Applied Mathematics at Washington State University.

Robertson's contributions to teaching excellence are broad and deep. He has developed and used pioneering teaching techniques worldwide, including Australia and New Zealand. Robertson has presented concepts such as "fair division" in settings ranging from first grade classrooms through sponsorship of Ph.D. dissertations. On the "Jim French Radio Talk Show" in Seattle Robertson talked for an hour explaining the problems underlying fair representation and apportionment.

Robertson in 1982 and 1983 was chosen to present the mathematics component of an institute funded by the Council of Energy Resource Tribes for students from a number of Native American high schools across the country. His presentations of solid material to a unique audience were highly successful and stand out, in the opinion of the directors of the institute, as one of the institute's major successes.

Treasurer's Report: March 5, 1993

Note: All funds are currently deposited in two accounts with Portland Teachers Credit Union in Portland, OR, under the name of the PNW Section, MAA, and require the signature of the secretary/treasurer (or surrogate John Krussel) for transfer.

Balance on hand at last report: (June 18, 1992) **$3788.07**
(1992 Annual Meeting, Missoula)
- Savings (5/20/92) $3562.67
- Share account (5/20/92) 225.40
- Cash on hand 5.00

Receipts **$3580.88**
- Interest + Dividends 111.46
- *Newsletter* contributions 5.00
- *Newsletter* advertising 150.00
- Exxon Grant 500.00
- MAA Grant...(Fund to Aid Sections) 500.00
- 1992 Annual Mtg. Receipts (**Missoula**) 150.00

Disbursement **$2430.72**
- *Newsletter* (F 92 printing) 400.72
- Banquet at Missoula 1035.00
- Charter Bus at Missoula 315.00
- Distinguished Teachers Award 50.00
- 1992 Annual Mtg. Receipts (**Missoula**) 150.00

Balance on hand (March 5, 1993) **$4938.23**
- Savings (2/20/93) $4938.23
- Share account (5/20/92) 225.40
- Cash on hand 5.00

Outstanding Disbursement **$ 168.10**
- *Newsletter* (F 92 mailing) 168.10

Newsletter Editors:
Clare Wiser
&
Michael Kallaher
WSU
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Notes from the Section Chair

The meeting we have just concluded in Tacoma at UPS was one of the most successful in recent years. There were over 120 participants, about one-third of whom were students. Great credit goes to Pat Davis, Barbara Price, and Rob Beezer for their expenditure of the time and effort that made this such a success.

In view of the success of this meeting there was much discussion, both during the business session and informally, concerning the time and the length of future meetings. The following are some of the points raised.

⇒ A meeting in June allows people to travel from distant parts of the section. There is lodging space in school dormitories. Students are less likely to participate.

⇒ A meeting during the academic year, e.g., in March, is likely to draw more students, but dormitory space probably won't be available. A two-day meeting may not be feasible.

⇒ A traditional two-day meeting allows for a short course as well as a greater number of hour talks. It also allows for informal contact between people.

⇒ A one-day meeting is a lot of work to construct, and a two-day meeting is a lot more work to construct.

⇒ Options include continuing to have two-day meetings in June; switching to either one- or two-day meetings in, say, March; alternate between these two; or to have a two-day meeting in June and a one-day meeting in March

The Executive Council solicits your opinions.

These two years as chair have been very interesting, and it has been a real pleasure working with Harvey Schmidt and Larry Curnutt as well as many of the rest of you. The new chair is Bob Brandon, and I wish him well.

--- Kit Hanes

Governor's Report

National Meetings This year's meeting in San Antonio was memorable for several reasons.

- For the first time the MAA Board of Governors and the AMS Council met together. In response to the discriminatory Colorado state constitutional amendment passed last November, these two bodies voted overwhelmingly to move the 1995 Joint Meetings out of Denver. (See the February *Focus*, pages 4-5, for more details.)

- The *Monthly* centennial talks and banquet were a trove of anecdotal history -- great fun for a groupie like me. For example, who do you think is the all-time most prolific contributor to the *Monthly*? Can a square be divided into an odd number of non-overlapping triangles of equal area? This question is expectedly visual for 3 and 5 triangles, but surprisingly painful for more than 5.

- The recently published, 5-volume *Resources for Calculus* will be mailed to every university math department, four-year college math department, and two-year college math department in the country -- the result of some quiet, but effective MAA lobbying of NSF on behalf of its two-year college constituency.

- Four of the seven 1992 national Distinguished Teaching Award winners were honored at the meetings' closing session. The winners gave stimulating, energetic, 25-minute presentations that resoundingly validated their awards. In one case we were even sung to. In another I was treated to a preview of Frank Morgan, the soap-bubble-man who informed and entertained us at the recent PNW Section meeting at the University of Puget Sound. The remaining three winners will be similarly spotlighted at the Summer Meetings in Vancouver.

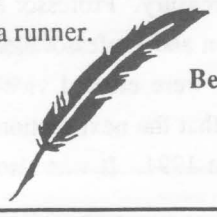
PNW Section Distinguished Teaching Award I think that our recipient this year, **Jack Robertson (Washington State University)** is in the same league with those I heard in San Antonio. Over the last twenty-eight years, Jack's interests and activities have spanned a remarkable range of pure and applied mathematics at all levels of the educational spectrum. Jack is a well-known speaker at PNW mathematics functions. I overheard somebody at the UPS meeting say, "Whenever I go to a math conference, I always look to see when Robertson is presenting, and plan my schedule around him." On behalf of all your colleagues in the PNW Section and a career full of students, congratulations, Jack!

PNW Section Meetings I guess that a one-day, mid-year meeting is no longer just an experiment. The March 6th meeting at UPS was a success. **Rob Beezer (UPS)**, **Barbara Price (UPS)**, and **Pat Davis (Pierce CC)** put together a terrific program. Nationally known speakers **Ben Fusaro** (modeling contest and environmental mathematics advocate) and **Frank Morgan** (undergraduate research on soap bubbles and Distinguished Teaching Award winner) and the student modeling teams from the University of Alaska and the University of Puget Sound were big hits with more than 120 attendees. Lots of students! Let's keep it up.

Remember there is no section meeting in June this year. The national summer meetings will be held in Vancouver, August 15-19. The next PNW Section meeting will be held in Eugene in June, 1994. (Joint with AMS).

PNW Section Chair My personal thanks to **Kit Hanes** (Eastern Washington University), whose two-year term expires this spring. Thanks for walking my legs off in search of fine cuisine and railroad memorabilia. Thanks for keeping me mathematically stimulated (frustrated?) during endless plane flights and airport waits. And especially, thanks for all the work you've done to promote mathematics and undergraduate mathematics education in the PNW.

Welcome to in-coming Chair, **Bob Brandon** (Eastern Oregon University), who served as vice chair for the section meeting in Portland in 1990. I'm a little bit worried, though. Bob's a runner.



-- Larry Curnutt
Bellevue Community College

Restructure the Northwest Section? -- Reprise

In the fall 1992 issue of the newsletter, Cal Long made a strong case for dividing the Pacific Northwest Section into smaller sections to coincide with state and provincial boundaries. His main arguments for such a re-organization emphasized ease in attending meetings, greater participation, and increased effectiveness in addressing state and provincial issues and in generating local support for mathematics and mathematics education.

There are, of course, other attractive options including that perennial favorite: leaving well enough alone. Some arguments against major change or, at least, against Long's suggested splitting are:

1) It is doubtful that there are enough interested and active MAA members in the region to generate nine sets of section officers, produce nine separate newsletters, and organize and support nine separate annual meetings.
2) There is considerable benefit from current opportunities for exchange of ideas and experience among mathematicians from different areas, but with common regional and professional interests. National meetings have become too large and impersonal to serve such a purpose and perhaps state/provincial sections and meetings would be too small and isolated.
3) Annual summer meetings at various attractive locations in the Pacific Northwest present affordable short vacation opportunities which are more attractive to many families and individuals than the prospect of short mainly business meetings at nearby and overly familiar places. (The recent short meeting in Tacoma may be a counter-example to this point and at least gives us a partial basis for comparison of various meeting options.)

Although some of us have mixed emotions about the section size issue, it is certain that most would welcome steps, large or small, that would lead to greater effectiveness and vitality of the section(s).

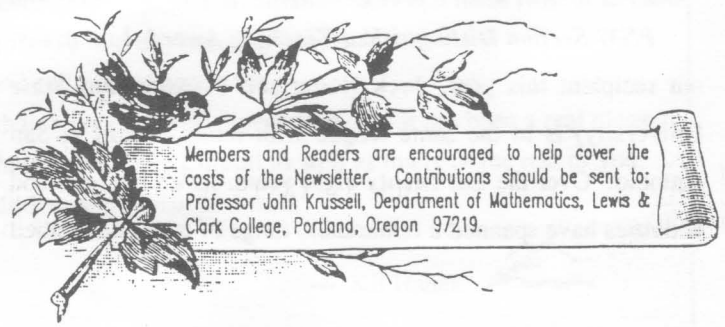
A temporary compromise which might be worth a try would be to retain the current section but introduce separate state/provincial "political action" committees reporting to the section chair or governor.

The 1993 Section Meeting
6 March 1993

The spring 1993 section meeting was held on Saturday, 6 March 1993, at the University of Puget Sound. Highlights included presentations on the annual Mathematical Contest in Modeling. Professor Bernard A. Fusaro of Salisbury State University, Founder and Director, discussed the history and development of the contest; also, student teams and their advisors from the University of Alaska, Fairbanks, and University of Puget Sound discussed their own personal experiences while preparing for and participating in the contest. Another highlight was the luncheon at which the section's annual teaching award was presented. The luncheon speaker was Professor Frank Morgan of Williams College; Professor Morgan discussed the Summer Undergraduate Research Institutes in Geometry that he has directed at Williams College for several summers under NSF auspices.

At the section's business meeting Harvey Schmidt reported a positive balance in the treasury. Professor Richard M. Koch of the University of Oregon and Professor Keiichiro Yasuda of Lane Community College were elected vice-chairs for 1993-94. This reflects the fact that the next section meeting will be in Eugene, Oregon in June 1994. It was also decided to hold the June 1995 section meeting at Whitman College in Walla, Walla, Washington.

Most of the business meeting was devoted to a discussion concerning the appropriate time of year to have the section meeting. Two suggestions were: 1) Alternate between summer and academic year (with some sentiment for a meeting in October or November; 2) Have two each year in different parts of the section with one meeting a two-day affair and the second a one-day affair. No decision was reached with the audience fairly evenly divided. The officers expressed strongly the hope that members would let the officers know what they think.



1993 Summer Workshops

THE GEOMETRY OF MULTIVARIABLE CALCULUS

Spokane Falls Community College, Spokane
14-18 June 1993
North Seattle CC, Seattle
tentatively 6-10 September 1993

The workshops announced here aim at strengthening the multidimensional geometric intuition that students need, but usually lack, to understand multivariable calculus. To this end, participating community college and university instructors will design geometric worksheets ready for use in existing courses in elementary to advanced multivariable calculus, and in supporting linear algebra.

The workshops will focus on splines at the level of calculus, with application to the computation of elementary functions and to geometric modeling. In Spokane, Mr. Edward Moylan, from the Ford Motor Company, will demonstrate the use of splines in the design of automobiles. In Seattle, tentative presentations by Boeing Computer Services and Applied Geometry will show the use of splines in the design of aircraft and geometric software.

For detail and registration material please write to Yves Nievergelt, Department of Mathematics, MS-32, Eastern Washington University, Cheney, WA 99004-2415.

NSF will pay for room (double occupancy) and board for up to twenty participants in each workshop. Successful participants may earn graduate credits from EWU: two credits for either workshop but not both, and one credit for one follow-up day.

9TH ANNUAL ALLEGHENY MT. SECTION SUMMER SHORT COURSE

Allegheny College, Meadville, PA

21-25 June 1993

The course will be given by Ralph Grimaldi of the Rose-Hulman Institute of Technology. The title is "Unifying Themes in Discrete Mathematics", and the minicourse will show how certain unifying themes can be used to interrelate and strengthen that which may appear to be unrelated.

The course will cover the function concept and its role in discrete mathematics, enumeration problems in discrete mathematics, the Fibonacci numbers, the Catalan numbers, and two partial orders that arise in set theory and number theory.

Course registration will be $115 and room and board will be $105 for a total of $220. For further information and an application, contact: George Bradley, Department of Mathematics and Computer Science, Duquesne University, Pittsburgh, PA 15282 (412)434-5115, BRADLEY@DUQ3.DUQ.EDU.

Calendar of Events

May 6-8, 1993	Washington State Community College Mathematics Conference Wenatchee, WA
August 15-19, 1993	MAA Summer Meeting Vancouver, B.C.
October 7-9, 1993	Northwest Mathematics Conference Portland, OR
November 18-21, 1993	AMATYC Annual Meeting Boston, MA
January 12-15, 1994	MAA Annual Meeting Cincinnati, OH
April 13-16, 1994	NCTM Annual Meeting Indianapolis, IN
June 16-18, 1994	Pacific Northwest Section University of Oregon Eugene, OR

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1.5 years (July 1990–Dec. 1991)	$47.00	$39.50	$42.50	$54.50	$57.50	$49.00	$65.00
Regular Membership							
1 year (Jan.–Dec. 1991)	$63.00	$47.00	$51.00	$79.00	$83.00	$67.00	$99.00
1.5 years (July 1990–Dec. 1991)	$93.00	$71.50	$77.00	$115.50	$121.00	$99.50	$143.50

These are **specially discounted rates for new members** provided to help the **MAA** reach a wider audience. They are not available to those who have been members for two years. **Student membership** is available to high school and undergraduate students and to students regularly enrolled in graduate study at least half time. Student rates apply to unemployed persons who are seeking employment. **Annual dues include subscription prices as follows:** Regular Member $32 **M**, $20 **J**, $16 **G**, $6 **Focus**. Student member $15 **M**, $10 **J**, $8 **G**, $3 **Focus**. These rates are guaranteed for the indicated periods only.

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