

NAGT Annual Report 2007



Table of Contents

Presidents' Reports

| | |
|--|---|
| President <i>Karen Havholm</i> | 4 |
| First Vice-President <i>Eric Riggs</i> | 4 |
| Second Vice-President <i>David Steer</i> | 6 |
| Past President <i>Scott Linneman</i> | 7 |

NAGT Officers' Reports

| | |
|---|----|
| Executive Director <i>Ian MacGregor</i> | 7 |
| Executive Director <i>Cathy Manduca</i> | 22 |
| Treasurer <i>Gene Pearson</i> | 24 |

Councilors' Reports

| | |
|-----------------------|----|
| Richard Yuretich..... | 29 |
| Linda Selvig..... | 30 |

Section Reports

| | |
|---|----|
| Central <i>Kathleen Bower</i> | 30 |
| Eastern <i>Daniel Vice</i> | 34 |
| Far West <i>Brigitte Dillet</i> | 35 |
| North Central <i>Shelia Roberts</i> | 39 |
| Northwest <i>Ralph Dawes</i> | 40 |
| Southeast <i>Nancy Huebner</i> | 42 |

Communications/Publications

| | |
|--|----|
| JGE Editor's Report <i>Carl Drummond</i> | 50 |
| NAGTNews Editor's Report <i>Keith McKain</i> | 51 |
| NAGT Website Report <i>John McDaris</i> | 51 |

Awards

| | |
|--|----|
| Neil Miner Award..... | 53 |
| Dottie Stout Award..... | 53 |
| OEST Awards <i>John R Wagner</i> | 53 |

Programs

| | |
|---|----|
| NAGT/USGS Cooperative Geoscience Internship Program <i>Robert W Ridky</i> | 55 |
| NAGT Field Scholarship Committee <i>Richard Yuretich</i> | 58 |
| AGI Environmental Geoscience Textbook Committee <i>Jill Whitman</i> | 59 |
| AGI Environmental Geosciences Awareness Committee <i>Jill Whitman</i> | 62 |
| National Park Service Geologist in the Park Program <i>Cheryl Messenger & Lisa Norby</i> | 63 |
| On the Cutting Edge <i>Heather MacDonald, Cathy Manduca, David Mogk & Barbara Tewksbury</i> | 67 |
| Starting Point <i>Cathy Manduca</i> | 68 |
| Teacher Prep Workshop/Working Group <i>Scott Linneman</i> | 69 |
| Teaching in the Field <i>Cathy Manduca</i> | 75 |

| | |
|--------------------------------------|----|
| Earthlearningidea | 76 |
| DWEL | 78 |
| Distinguished Speakers Program | 83 |

~~**Also included**~~

| | |
|--|---------------|
| Outstanding TA Awards..... | 86 |
| Back Issues of JGE..... | 86 |
| Archives Program..... | 86 |
| North Central Section Meeting | |
| Northeast Newsletter | |
| AIP Printing Proposal | |

President's Report
Annual Meeting, Oct. 2007
Karen Havholm

Participated in *ad hoc* Executive Director Transition committee. Thanks to the efforts and competence of everyone involved, this transition has gone quite smoothly. A few issues are still being attended to (see Executive Director report).

Chaired Neil Miner committee. Don Byerly was the nominator and will be the citationist for awardee Michael Gibson. Three candidates were nominated.

Continued as chair of the Distinguished Speakers Program Committee.

Attended AGI Leadership Forum. It will be an improvement to have one individual remain in the "designated representative" role for several years, rather than rotating every year.

Nominated the winner of the Central Section Regional OEST award: Paul Varsho, Middle School Earth Science Teacher, Menomonie Middle School, Menomonie, Wisconsin.

Wrote various letters/e-mails for the organization including advocacy, sponsorship, response to member questions, thanks to a very long list of donors, etc.

Attended to/facilitated various miscellaneous business/programming issues following up on the mid-year meeting and preparing for the annual meeting.

First Vice-President's Report
Eric Riggs

This report repeats material reported at the Mid-Year meeting for completeness with updates as needed to make all this current with recent activities in the intervening months.

NAGT Distinguished Speaker

Gave talks and consulted on geoscience education activities at Western Michigan University and Michigan State University, 12/2006. I have had a wonderful time with my three years on the DS docket, and honestly am happy to be cycling off this year as I prepare to assume duties as President in October.

JGE Special Edition on Broadening Participation in the Earth Sciences

I served this year as NAGT Co-Editor for the Special Issue on Broadening Participation in the Earth Sciences (Diversity special issue) – special joint publication of the NAGT and the American Geophysical Union, funded by both associations and the National Science Foundation. My Co-Editor from AGU (Claudia Alexander) and I have solicited, reviewed, and made decisions on over 20 manuscripts. We also contributed an editorial for this volume.

The issue was copyedited by my staff at Purdue and is now being formatted at JGE. We anticipate page proofs by early November and hopefully the issue will be out in time for the AGU meeting.

I have also reviewed two additional manuscripts for the regular issues of JGE during this time.

Recommendations on using AIP for publishing JGE. etc.

Carl Drummond and I met with Richard Kobel on via teleconference and then in person at Indiana University/Purdue University Fort Wayne (IPFW) on December 11, 2006. Results of our discussions produced two proposals from AIP, one for publishing and archiving of JGE and the other for related marketing services for JGE and NAGT.

We discussed the publishing needs and goals of JGE and the possibilities for expansion of Journal marketing expansion and online submission, review, and archiving that could be offered by AIP in conjunction with our current membership management service package. In general – Carl and I were both impressed with what AIP has to offer the Association, and we both feel the benefit to JGE and NAGT could be substantial, and could help the Association assume the international role of preeminence in geoscience education and research we all believe to be at the center of our mission as an organized group of academics.

We have a firm proposal for Online Manuscript Submission and Peer Review now, issued June 8, 2007, which joins the preliminary marketing proposals, and these need to be discussed formally. Carl and I have put these off for the time being given the intensive work that was required to bring the Special Edition to fruition, but this needs to be put back on the front burner, especially pending the selection of a new editor for the Journal.

Marketing Services: AIP has issued a preliminary proposal to us outlining the types of services and benefits they could deliver to JGE and the Association. Carl and I believe these are very attractive options, and deserve further exploration with AIP to see how we could increase the national and international visibility of NAGT and Journal. The preliminary proposal from Lori Carlin and Douglas LaFrenier from AIP is included with this report.

JGE Publishing services: AIP has written some a formal proposal from Richard Kobel for online submission and peer review. In short, AIP could professionalize many of our current submission and review procedures for the Journal, including true online submission and review, as well as copyediting, graphics, and issue management, and online hosting of the electronic version of the Journal and archiving of back issues. We need to discuss the AIP rough estimate in terms of overlap with the existing contract for some of these services with SERC, and examine how much of the current JGE support budget could be redirected from local operations in the Editor's office, (now IPFW) to AIP for support of basic publishing operations. In general, Carl and I feel that this estimate from AIP is worth serious discussion and consideration, as it could generally free future editors of JGE from very basic publishing operations in favor of more intellectual contributions to the content and future directions of the Journal. This evolution could also make the Journal Editorship more attractive to a wider range of active researchers in the field, which can only help the future success of the Journal of Geoscience Education. Kobel's proposal is

included with this report, along with supplemental production questions from June 20, 2007 that will influence the details of this bid.

Recommend that this be an issue of extended discussion at the Annual Meeting, as we will need group input.

Appointment of new Executive Director -

I served as the Chair of the search committee for the new NAGT Executive Director, which was completed successfully. We received four well-qualified applicants, and selected Cathy Manduca to become the next NAGT Executive Director. Transfer of responsibilities is largely complete to my knowledge.

Second Vice-President's Report
David Steer

My activities this year on behalf of NAGT included attendance at the 2006 Annual Meeting in Philadelphia and 2007 mid-year planning meeting in Eau Claire, WI. I also participated via email in various discussions related to NAGT business throughout the year. Other activities in which I participated are described below.

- Investment Committee: Over the past several years the NAGT developed a number of endowments and investments. These investments are housed in various financial instruments, the returns from which help fund NAGT activities. By direction of the Executive Committee, I was tasked to chair a newly created Investment Committee whose purpose is to review the return on investments and make recommendations to the Executive Committee. This newly formed committee that includes 2 members at large will begin its work during the 2007-2008 year.
- Revising of NAGT Constitution and Bylaws: The NAGT Constitution and Bylaws were last reviewed by the Association and ratified in 1998. Since that time, the Association and its programs have grown. I reviewed the Constitutions of several similar organizations and reorganized and revised the Constitution so that it is more streamlined. Several new provisions were added that better codify the purpose, organization and business of the Association. Provisions in the Constitution that were likely to change over time were moved to the Bylaws and some aspects of the Bylaws were moved to the Constitution. A major change to the proposed Constitution allows the Executive Committee to make changes to the Bylaws with Association members having the right to have the changes held in abeyance if there is disagreement with such changes. This procedure will greatly streamline changes to the Bylaws because they will not longer require a full Association vote unless there is a disagreement. Provisions for amending the Constitution are essentially unchanged, requiring a full vote. A revised version of this document is expected to be presented to the Association for ratification in 2008.
- NAGT representative to the Joint Technical Planning Committee for the 2007 Annual Meeting: As NAGT representative to the GSA planning committee I reviewed all

education-related session proposals and contacted session chairs regarding NAGT sponsorship. This included the review and organization of 72 poster abstracts and 38 oral presentations in 3 sessions. NAGT agreed to sponsor one Pardee Keynote Symposium “Creating Citizen Scientists: Needs and Opportunities to Engage Students and the Public in the Process of Science.” Additionally, NAGT sponsored eight technical sessions.

- Preparing for an Academic Career Workshop: During this period I represented NAGT as a presenter at the “Preparing for an Academic Career in the Geosciences: Workshop for Graduate Students and Post-Doctoral Fellows” workshop. Those presentations included presentations or participation in the following sessions: Where Do You Want to Go? - A Spectrum of Academic Careers: Panel and Discussion; Moving Forward Your Own Scholarship of Teaching and Learning; Developing Interactive Lectures; Moving Your Research Forward to New Settings: Breakout Sessions; Improving Student Success by Scaffolding Learning; and Balancing Your Life.

Past President’s Report

Scott Linneman

As Past President I chaired the nominating committee of past presidents to identify our fine slate of candidates. I served on the committee to select a new Executive Director and on the Neil Miner Award selection committee. I was the liaison to the Pacific Northwest Section, but was unable to attend their conference in Portland in June. I co-convened a SERC workshop about Geoscience Courses that Prepare Future Teachers and proposed a NAGT working group for Teacher Preparation.

Executive Director’s Report

Annual Report: Fiscal Year

(1 September, 2007 to 31 August, 2007)

Ian MacGregor

1. American Institute of Physics (AIP) Report

- a. AIP Summary: Billing & Revenues, and Dues & Subscriptions (See attached spreadsheet)
- b. AIP Membership/Subscribers (8/31/07)
 - i. Total members: 1,610
 1. Domestic: 1,534
 2. International: 75
 - ii. Total subscribers: 554
 1. Domestic 420
 2. International 134
 - iii. Membership breakdown by category: (see attached spreadsheet)
- c. Membership summary (See Attached spreadsheets)
 - i. AIP records for 2006-2007 Fiscal Year
 - ii. Membership summary 2000-2007

- d. Impressions and comments
 - i. Sections successfully getting membership lists and mailing labels (Eastern, Far West, North Central, Northwest); need to use initial experience to develop most cost effective way of getting data to sections while providing local autonomy; am working with section liaisons; section liaisons work independently with AIP.
 - ii. News Letter (Keith McKain) successfully getting and distributing mailing lists; Keith works independently with AIP
 - iii. Bob Christman getting labels for mailing back and lost issues of JGE
 - iv. AIP very responsive to requests and have honored them in timely fashion
 - v. Budget
 - 1. Management proceeding as expected;
 - 2. Costs \$9,400 less than estimated;
 - 3. Weekly income transfers to NAGT account routine, and
 - 4. Expenses transparently billed
 - vi. Continuing small number of inquiries from members with problems; all have been resolved; often case that members do not read instructions!
- e. NAGT management of back issues
 - i. Back issues of JGE archived at Western Washington University
 - 1. Extra JGE issues mailed by Angel to Bob Christman (WWU) for archiving
 - 2. Bob Christman gets requests from Executive Director for
 - a. Mailing variously misplaced issues of JGE; misplaced issues, lost in mail, dog ate the Journal, etc.
 - b. Mailing of back issues for members who pay dues late (from January to September; note that NAGT does not mail current year issues for membership dues paid after September – dues applied to subsequent year
 - c. Purchase and mailing of selected issues (members and non members)
 - 3. AIP provides labels for misplaced JGE issues and mailing of back issues
 - 4. Costs
 - a. Mailing of back issues
 - i. Annual 2006-2007 costs (Bellingham + Angel mailing) = $(\$1,725 + \$336.08 = \$2,061.08)$
 - 5. Need to ensure long term sustainability

2. Budget Report

- a. Annual Budget 9/1/06 to 8/31/07
 - i. See attached spreadsheets
 - 1. Income and Expenses
 - 2. Balance sheet
- b. Comments on budget
 - i. Income
 - 1. Total income: \$302,175.67

- 2. \$8,275.67 more than “Authorized” amount
- ii. Expenses
 - 1. Total Expenses: \$189,485.34
 - 2. \$90,414.66 less than “Authorized” amount
- iii. Balance
 - 1. Net Income: \$112,690.33
 - 2. \$98,690.33 more than “Authorized”
- iv. Bellingham Account
- c. Oakmark Mutual Funds (includes Restricted and Unrestricted Funds in single account)
 - i. See attached spreadsheet for annual transactions
- d. Long Term Projections (See Cathy Manduca’s Report)

3. Distinguished Speaker Program in partnership with Joint Oceanographic Institutions (JOI Inc.)

- a. 15 Speakers of whom 3 were sponsored by JOI
- b. 22 Requests; 19 visits completed
- c. Total costs: \$12,417.02
 - i. \$1,409.16 provided by JOI
- d. Program being reviewed by Michele Hall
- e. Management passed on to Cathy Manduca and Bill Bruihler (SERC/Carleton College)
- f. Program Announcements
 - i. 2006-2007: <http://www.nagt.org/nagt/programs/dsp0607.html>
 - ii. 2007-2008: <http://www.nagt.org/nagt/programs/dsp0708.html>

4. National Park Service; Geologist in the Park Program

- a. See NPS Report

5. AGU Booth

- a. Managed NAGT booth at 2006 AGU
- b. Good exposure; data show small number of new members

6. NSTA

- a. Managed NAGT booth at NSTA
- b. Booth part of Consortium of Earth Science Educators (CESE) group of collocated booths; very effective way to market Geoscience Education perspectives. Other Earth Science Exhibitors included, AGI, GSA, NESTA, SCEC, UNAVCO, IRIS, JOI Inc., EarthScope and AGU
- c. Handed out about 150 OEST and Dottie Stout Award announcements, and about 200 JGEs
- d. To give a sense of perspective
 - i. NAGT has about 120 members who are Earth Science school teachers (about 7.5%), and
 - ii. NESTA has about 800 members of whom most are Earth Science school teachers

| AIPRP012 06 SEP 2007 | | Monthly Society Dues Statistical Report for | | | | | Page No 1 | | |
|----------------------|------------------------|---|------------|--------------------------------|-------------|-------------|-------------------|------------|------------|
| Period 31-AUG-07 | | NAGT | | Natl Assoc Geoscience Teachers | | | | | |
| Society | Membership Type | 2yr Unpaid | 1yr Unpaid | -----Active----- | | Total | -----Advance----- | | Total |
| | | | | New | Renew | | New | Renew | |
| NAGT | Foreign Student | 0 | 1 | 1 | 3 | 4 | 0 | 0 | 0 |
| | K - 12 Teacher | 0 | 1 | 84 | 32 | 116 | 1 | 13 | 14 |
| | K - 12 Teacher Foreign | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 |
| | Life Member | 0 | 1 | 1 | 16 | 17 | 0 | 0 | 0 |
| | Regular Foreign | 0 | 11 | 12 | 51 | 63 | 2 | 7 | 9 |
| | Regular Member | 0 | 199 | 115 | 1058 | 1173 | 20 | 151 | 171 |
| | Retired Foreign | 0 | 0 | 0 | 4 | 4 | 0 | 1 | 1 |
| | Retired Member | 0 | 21 | 3 | 116 | 119 | 0 | 12 | 12 |
| | Student Member | 0 | 25 | 51 | 55 | 106 | 0 | 2 | 2 |
| Total | | 0 | 259 | 271 | 1335 | 1606 | 23 | 186 | 209 |

Aug 31, 2007

ASSETS

Current Assets

Checking/Savings

Napa Accounts

Checking

10,230.19

Oakmark Account

UnRestricted Funds

559,839.21

Minority / Restricted

963.69

Endowment / Restricted

91,357.22

Stout / Restricted

20,461.61

Honors / Restricted

3,122.27

Rosalsky / Restricted

16,030.01

Horberg / Restricted

56,421.77

Oakmark Account

748,195.78

Total Napa Accounts

758,425.97

Bellingham Accounts

Checking

21.38

Savings

195.92

Total Bellingham Accounts

217.30

Total Checking/Savings

758,643.27

Accounts Receivable

AIP Account Receivable

470.00

Total Accounts Receivable

470.00

Total Current Assets

759,113.27

TOTAL ASSETS

759,113.27

LIABILITIES & EQUITY

Equity

Opening Bal Equity

589,218.67

Retained Earnings

57,204.27

Net

Income

112,690.33

Total Equity

759,113.27

TOTAL LIABILITIES & EQUITY

759,113.27

| WECU Checking Acct. # 56438 | | | | | | |
|----------------------------------|----------------------------|---------|--|-----------------|-----------------|--------------|
| | QuickBooks Napa Acct. # | WECU | | | | Checking |
| Date | Category | Check # | Item | Debit | Credit | Balance |
| 11/27/06 | 5018 | 3588 | WWU mailroom | 70.09 | | 138.00 |
| 12/02/06 | | | | | | 138.00 |
| 12/04/06 | 5018 | 3591 | WWU mailroom | 34.81 | | 103.19 |
| 12/7/06 | | | Transfer | | 200.00 | 303.19 |
| 12/22/06 | | | | | | 303.19 |
| 12/08/06 | 5018 | 3593 | WWU mailroom | 123.92 | | 179.27 |
| 12/12/06 | 5018 | 3592 | WWU mailroom | 46.57 | | 132.70 |
| 12/22/06 | | | Transfer | | 250.00 | 382.70 |
| 12/29/06 | | | | | | 382.70 |
| 1/10/07 | 5030 | 3595 | S.A.M. | 92.88 | | 289.82 |
| 1/25/07 | 5018 | 3596 | WWU mailroom | 15.42 | | 274.40 |
| 2/1/07 | | | Previous balance | | | 274.40 |
| 2/23/07 | 5018 | 3594 | WWU mailroom | 59.60 | | 214.80 |
| 3/01/07 | | | Previous balance | | | 214.80 |
| 3/23/07 | | | Transfer | | 100.00 | 314.80 |
| 3/27/07 | 5018 | 3597 | Post office | 8.00 | | 306.80 |
| 3/30/07 | 5016 | 3598 | NSTA 5 boxes mailed | 153.18 | | 153.62 |
| 3/30/07 | 5018 | 3599 | Back issues | 89.17 | | 64.45 |
| 3/31/07 | | | | | | 64.45 |
| 4/27/07 | | | | | | 64.45 |
| 4/31/07 | 5014 | | Account "Inactivity Charge" | 1.00 | | 63.45 |
| 5/25/07 | 5015 | | Office depot Office supplies | 14.07 | | 49.38 |
| 5/31/07 | 5014 | | Account "Inactivity Charge" | 1.00 | | 48.38 |
| 6/29/07 | 5018 | 3626 | Petty Cash: Stamps & XEROX | 25.00 | | 23.38 |
| 6/30/07 | | | | | | 23.38 |
| 7/31/07 | 5014 | | Account "Inactivity Charge" | 1.00 | | 22.38 |
| | 5014 | | Account "Inactivity Charge" | 1.00 | | 21.38 |
| TOTALS | | | | 1,729.65 | 1,350.00 | 21.38 |
| Bob Christman Information | | | | | | |
| 8/31/07 | | | WECU Checking Acct. Balance | | | 21.38 |
| 8/31/07 | | | Petty cash - \$11.00 Balance left from 6/29/06 check for \$25.00 | | | |
| 8/31/07 | | | Difference (Spreadsheet vs Xman) | | | 0.00 |

| WECU Savings Acct. #56438S1 | | | | |
|-----------------------------|----------------------------------|----------|--------|---------|
| QuickBooks | | | | |
| Napa Acct. # | | | | Savings |
| Category | Item | Debit | Credit | Balance |
| | | | | 566.46 |
| 4001 | 3 yr Membership (TR #4310) | | 95.00 | 661.46 |
| | | | | 661.46 |
| | Transfer | 200.00 | | 461.46 |
| 4070 | Posters (TR #3050) | | 35.00 | 496.46 |
| | | | | 496.46 |
| | | | | 496.46 |
| | Transfer | 250.00 | | 246.46 |
| 4013 | Interest | | 2.38 | 248.84 |
| | | | | 248.84 |
| | | | | 248.84 |
| | Previous balance | | | 248.84 |
| | | | | 248.84 |
| | Previous balance | | | 248.84 |
| | Transfer | 100.00 | | 148.84 |
| | | | | 148.84 |
| | | | | 148.84 |
| | | | | 148.84 |
| 4013 | Interest | | 1.17 | 150.01 |
| 4001 | Membership dues | | 45.00 | 195.01 |
| | | | | 195.01 |
| | | | | 195.01 |
| 4013 | Dividend | | 0.91 | 195.92 |
| | | | | |
| | | 1,445.00 | 794.54 | 195.92 |
| | | | | |
| | WECU Savings Acct. Balance | | | 195.92 |
| | | | | |
| | Difference (Spreadsheet vs Xman) | | | 0.00 |

| Date: | Starting Balance | Previous % Distribution | Previous \$ Distribution | 8/19/07 Oakmark Balance | Debit | Credits | New Total (\$) | New Distribution (%) | % Change |
|------------------------|------------------|-------------------------|--------------------------|-------------------------|----------|----------|----------------|----------------------|----------|
| Total | | | 763,640.79 | 775,575.78 | | 2,000.00 | 775,575.78 | | 1.56 |
| Endowment Unrestricted | 74.94 | 572,298.55 | 581,243.04 | | | 2,000.00 | 583,243.04 | 75.20 | |
| Endowment Restricted | 0.00 | 191,342.24 | 194,332.74 | | | | 192,332.74 | | |
| Borberg | 7.44 | 56,816.74 | 57,704.73 | | | | 57,704.73 | 7.44 | |
| Rosality | 2.11 | 16,142.23 | 16,394.51 | | | | 16,394.51 | 2.11 | |
| Bowens | 0.41 | 3,144.13 | 3,193.27 | | | | 3,193.27 | 0.41 | |
| Stout | 2.94 | 22,448.19 | 22,799.04 | | 2,000.00 | | 20,799.04 | 2.68 | |
| Endowment | 12.04 | 91,911.15 | 93,347.64 | | | | 93,347.64 | 12.04 | |
| Authority | 0.12 | 879.81 | 893.56 | | | | 893.56 | 0.12 | |
| Total | 100.00 | 763,640.79 | 775,575.78 | 748,195.78 | 2,000.00 | 2,000.00 | 775,575.78 | 100.00 | |

| Date: | Starting Balance | Previous % Distribution | Previous \$ Distribution | 8/20/07 Oakmark Balance | Debit | Credits | New Total (\$) | New Distribution (%) | % Change |
|------------------------|------------------|-------------------------|--------------------------|-------------------------|-----------|---------|----------------|----------------------|----------|
| Total | | | 775,575.78 | 748,121.77 | 10,000.00 | | 738,121.77 | | -4.83 |
| Endowment Unrestricted | 75.20 | 583,243.04 | 562,597.27 | | 10,000.00 | | 552,597.27 | 74.87 | |
| Endowment Restricted | 0.00 | 192,332.74 | 185,524.50 | | | | 185,524.50 | | |
| Borberg | 7.44 | 57,704.73 | 55,662.08 | | | | 55,662.08 | 7.54 | |
| Rosality | 2.11 | 16,394.51 | 15,814.18 | | | | 15,814.18 | 2.14 | |
| Bowens | 0.41 | 3,193.27 | 3,080.23 | | | | 3,080.23 | 0.42 | |
| Stout | 2.68 | 20,799.04 | 20,062.79 | | | | 20,062.79 | 2.72 | |
| Endowment | 12.04 | 93,347.64 | 90,043.30 | | | | 90,043.30 | 12.20 | |
| Authority | 0.12 | 893.56 | 861.93 | | | | 861.93 | 0.12 | |
| Total | 100.00 | 775,575.78 | 748,121.77 | 748,121.77 | 10,000.00 | 0.00 | 738,121.77 | 100.00 | |

| Date: | Starting Balance | Previous % Distribution | Previous \$ Distribution | 8/31/07 Oakmark Balance | Debit | Credits | New Total (\$) | New Distribution (%) | % Change |
|------------------------|------------------|-------------------------|--------------------------|-------------------------|--------|---------|----------------|----------------------|----------|
| Total | | | 738,121.77 | 748,195.78 | 415.00 | 115.00 | 559,839.21 | 74.83 | 1.36 |
| Endowment Unrestricted | 74.87 | 552,597.27 | 560,139.21 | | 415.00 | 115.00 | 559,839.21 | 74.83 | |
| Endowment Restricted | 0.00 | 185,524.50 | 188,056.57 | | | | 188,356.57 | | |
| Borberg | 7.54 | 55,662.08 | 56,421.77 | | | | 56,421.77 | 7.54 | |
| Rosality | 2.14 | 15,814.18 | 16,030.01 | | | | 16,030.01 | 2.14 | |
| Bowens | 0.42 | 3,080.23 | 3,122.27 | | | | 3,122.27 | 0.42 | |
| Stout | 2.72 | 20,062.79 | 20,336.61 | | | 125.00 | 20,461.61 | 2.73 | |
| Endowment | 12.20 | 90,043.30 | 91,272.22 | | | 85.00 | 91,357.22 | 12.21 | |
| Authority | 0.12 | 861.93 | 873.69 | | | 90.00 | 863.69 | 0.13 | |
| Total | 100.00 | 738,121.77 | 748,195.78 | 748,195.78 | 415.00 | 415.00 | 748,195.78 | 100.00 | |

| Category | 2/28/07 | 8/31/07 | Balance |
|--|------------|------------|------------|
| 31 Aug 2007: AIP Revenue statement: | | | |
| (Fiscal 2006-2007 total Contributions) | | | |
| Endowment | 655.00 | 740.00 | 85.00 |
| Camp Scholarships | 1,515.00 | 1,630.00 | 115.00 |
| Stout | 1,095.00 | 1,220.00 | 125.00 |
| Horberg | 100.00 | 100.00 | 0.00 |
| Minority | 435.00 | 525.00 | 90.00 |
| General | 0.00 | 0.00 | 0.00 |
| TOTAL | | 4,215.00 | 415.00 |
| Note: \$500.00 from DS Honorarium to Stout | | | |
| Fiscal Year (9/1/06 to 8/31/07) | | | |
| Starting (\$) | 9/1/06 | 8/31/07 | Total (\$) |
| Restricted | 168,921.38 | 188,356.57 | 19,435.19 |
| % Change | | 11.51 | |
| Unrestricted | 453,415.95 | 559,839.21 | 106,423.26 |
| % Change | | 23.47 | |
| Total | 622,337.33 | 748,195.78 | 125,858.45 |
| % Change | | 20.22 | |

NAGT Membership

| Section | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007* |
|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Eastern: | 401 | 399 | 372 | 364 | 352 | 316 | 314 | 327 |
| Central: | 339 | 355 | 316 | 325 | 314 | 307 | 304 | 307 |
| Far West: | 327 | 330 | 309 | 309 | 302 | 285 | 282 | 289 |
| Southeast: | 177 | 182 | 164 | 151 | 136 | 128 | 129 | 146 |
| Pacific NW: | 115 | 142 | 133 | 129 | 127 | 129 | 128 | 126 |
| Southwest: | 129 | 129 | 115 | 118 | 108 | 119 | 120 | 118 |
| New England | 139 | 145 | 126 | 121 | 107 | 109 | 104 | 114 |
| Texas: | 92 | 89 | 81 | 85 | 71 | 68 | 85 | 81 |
| Midcontinent | 73 | 74 | 69 | ? | 52 | 55 | 53 | 53 |
| North Central | 41 | 42 | 40 | 44 | 45 | 37 | 33 | 49 |
| TOTAL | 1,589 | 1,887 | 1,725 | 1,646 | 1,491 | 1,553 | 1,552 | 1,610 |

* Section Estimates

Subscribers

| | | |
|--|-----|-----|
| Domestic | 440 | 420 |
| Foreign | 115 | 134 |
| # 2006 Members registered with SAM not renewed | | 327 |
| # no emails (2007 registrants) | | 142 |
| # no emails (2006 registrants) | | 143 |

| | Actual (Inc./Exp.) Sep '05 - Aug 06 | Actual (Inc./Exp.) Sep '06 - Aug 07 | Authorized Annual Budget Sep '06 - Aug 07 | Authorized Authorized- Actual Sep '06 - Aug 07 |
|-----------------------------------|---|---|--|---|
| Ordinary Income/Expense | | | | |
| Income | | | | |
| Membership Dues | 53,365.20 | 50,112.10 | 75,000.00 | 24,887.90 |
| Donations | | | | |
| Endowment | 1,373.00 | 771.00 | 0.00 | -771.00 |
| Honor Fund | 145.00 | 0.00 | 0.00 | 0.00 |
| Horberg Fund | 150.00 | 100.00 | 0.00 | -100.00 |
| Minority Fund | 335.00 | 525.00 | 0.00 | -525.00 |
| Rosalsky Fund | 40.00 | 0.00 | 0.00 | 0.00 |
| Stout Fund | 1,460.00 | 1,220.00 | 0.00 | -1,220.00 |
| Summer Camp | 1,070.00 | 1,630.00 | 0.00 | -1,630.00 |
| Total Donations | 4,573.00 | 4,246.00 | 0.00 | -4,246.00 |
| Interst - Bellingham Accts | 589.50 | 56.08 | 500.00 | 443.92 |
| Interest - CD 00857 | 1,363.72 | 99.59 | 0.00 | -99.59 |
| Interest - CD 01023 | 2,326.02 | 0.00 | 0.00 | 0.00 |
| Interest - Oakmark | 38,614.68 | 70,858.45 | 60,000.00 | -10,858.45 |
| JGE Income | | | | |
| Back Issues | 158.00 | 0.00 | 200.00 | 200.00 |
| Advertising | 0.00 | 150.00 | 0.00 | -150.00 |
| Page Charges | 0.00 | 14,820.69 | 0.00 | -14,820.69 |
| Royalties | 160.19 | 0.00 | 200.00 | 200.00 |
| Subscriptions | 42,371.04 | 78,273.00 | 90,000.00 | 11,727.00 |
| JGE Income - Other | 1,136.32 | 0.00 | 0.00 | 0.00 |

| | | | | |
|--|------------|------------|------------|------------|
| Total JGE Income | 43,825.55 | 93,243.69 | 90,400.00 | -2,843.69 |
| Contributions Income | | | | |
| Restricted | 0.00 | 0.00 | 0.00 | 0.00 |
| Unrestricted | 3,293.00 | 35.00 | 4,000.00 | 3,965.00 |
| Total Contributions Income | 3,293.00 | 35.00 | 4,000.00 | 3,965.00 |
| NAGT Program Income | | | | |
| Field Camp Scholarships | 2,000.00 | 3,000.00 | 2,000.00 | -1,000.00 |
| USGS/NAGT Internship | 2,000.00 | 2,000.00 | 2,000.00 | 0.00 |
| Total NAGT Program Income | 4,000.00 | 5,000.00 | 4,000.00 | -1,000.00 |
| AGI/NAGT Lab Manual Royalties | 69,724.36 | 72,871.49 | 60,000.00 | -12,871.49 |
| Reimbursed Expenses | 0.00 | 5,653.27 | 0.00 | -5,653.27 |
| Total Income | 221,675.03 | 302,175.67 | 293,900.00 | -8,275.67 |
| Expense | | | | |
| Awards | 2456.77 | 4,211.07 | 3,000.00 | -1,211.07 |
| Director's Office | | | | |
| Acctountant/Bookkeeper | 1,237.50 | 848.75 | 2,500.00 | 1,651.25 |
| Clerical | 6,600.00 | 5,280.00 | 20,000.00 | 14,720.00 |
| Liability Insurance | 1,500.00 | 0.00 | 1,000.00 | 1,000.00 |
| Discretionary Fund | 0.00 | 1,000.00 | 0.00 | -1,000.00 |
| Management Costs | 0.00 | 945.45 | 1,500.00 | 554.55 |
| Office Expense | 2,336.80 | 1,572.92 | 6,500.00 | 4,927.08 |
| Postage and Delivery | 3,121.22 | 1,366.17 | 3,000.00 | 1,633.83 |
| Promotion and Advertising | 6,321.36 | 5,594.96 | 9,000.00 | 3,405.04 |
| Travel | 4,215.09 | 6,362.19 | 8,000.00 | 1,637.81 |
| Total Director's Office | 25,331.97 | 22,970.44 | 51,500.00 | 28,529.56 |
| ExComm and Council | | | | |
| Entertainment & Meals | -113.52 | 203.60 | 3,000.00 | 2,796.40 |
| President's Fund | 0.00 | 0.00 | 3,000.00 | 3,000.00 |
| NAGT Business Meetings | 0.00 | 784.52 | 14,000.00 | 13,215.48 |
| Section Liaison | 712.69 | 0.00 | 0.00 | 0.00 |
| Travel | 19,950.51 | 19,255.39 | 25,400.00 | 6,144.61 |
| Total ExComm and Council | 20,549.68 | 20,243.51 | 45,400.00 | 25,156.49 |
| Member Services | | | | |
| Membership Management (AIP) | 2,675.88 | 28,599.80 | 38,000.00 | 9,400.20 |
| Web Management | 0.00 | 17,287.50 | 10,000.00 | -7,287.50 |
| Total Member Services | 2,675.88 | 45,887.30 | 48,000.00 | 2,112.70 |
| NAGT Memberships/Section Rebate | | | | |
| Dues to Alliliated Societies | 5,780.00 | 3,000.00 | 6,000.00 | 3,000.00 |
| Payments to NAGT Sections | 2,347.50 | 2,890.00 | 3,000.00 | 110.00 |
| Total NAGT Memberships/Section Rebate | 8,127.50 | 5,890.00 | 9,000.00 | 3,110.00 |
| NAGT Programs Expenses | | | | |

| | | | | |
|--|-------------------------|--------------------------|-------------------------|--------------------------|
| Distinguished Speakers Series | 18,626.94 | 12,417.02 | 25,000.00 | 12,582.98 |
| Field Camp Scholarships | 9,000.00 | 9,000.00 | 8,000.00 | -1,000.00 |
| NAGT - Sponsored Workshops | 0.00 | 0.00 | 2,000.00 | 2,000.00 |
| USGS/NAGT Internship | 1,280.92 | 0.00 | 2,000.00 | 2,000.00 |
| NPS - Geologist-in-the-Park | 3,000.00 | 6,000.00 | 6,000.00 | 0.00 |
| Total NAGT Programs Expenses | <u>31,907.86</u> | <u>27,417.02</u> | <u>43,000.00</u> | <u>15,582.98</u> |
| JGE | | | | |
| Clerical Other (Special Edition & Move) | 19,500.00 | 18,492.00 | 20,000.00 | 1,508.00 |
| Publication Costs | 0.00 | 85.00 | 0.00 | -85.00 |
| | <u>52,668.96</u> | <u>44,289.00</u> | <u>60,000.00</u> | <u>15,711.00</u> |
| Total JGE | <u>72,168.96</u> | <u>62,866.00</u> | <u>80,000.00</u> | <u>17,134.00</u> |
| Credit Card Fees | 400.00 | 0.00 | 0.00 | 0.00 |
| Miscellaneous | 1,105.00 | 0.00 | 0.00 | 0.00 |
| Total Expense | <u>164,723.62</u> | <u>189,485.34</u> | <u>279,900.00</u> | <u>90,414.66</u> |
| Net Ordinary Income | <u>56,951.41</u> | <u>112,690.33</u> | <u>14,000.00</u> | <u>-98,690.33</u> |
| Net Income | <u><u>56,951.41</u></u> | <u><u>112,690.33</u></u> | <u><u>14,000.00</u></u> | <u><u>-98,690.33</u></u> |

| | Oct-05 | Oct-05 | Nov-05 | Dec-05 | Jan-06 | Feb-06 | Mar-06 | Apr-06 | May-06 | Jun-06 | Jul-06 | Aug-06 | Sep-06 | Oct-06 | Nov-06 | Dec-06 | YTD(05-06) | % | 9.0.13(05-06) | % | Change Year | |
|------------------------------|------------|---------------|----------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|---------------|------------|---------------|---------------|---------------|-------------|-----|
| ALP Revenue Statement | | | | | | | | | | | | | | | | | | | | | | |
| Electric | 432 | 129000 | -129000 | 68602 | 6002 | 18405 | 16230 | 76230 | 70551 | 75702 | 76334 | 77252 | 77661 | 000 | 000 | 705702 | 267 | 727701 | 265 | 702015 | 000 | |
| Gas | 541 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Water | 152 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Other | 148 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Total | 873 | 129000 | -129000 | 68602 | 6002 | 18405 | 16230 | 76230 | 70551 | 75702 | 76334 | 77252 | 77661 | 000 | 000 | 705702 | 267 | 727701 | 265 | 702015 | 000 | |
| Electric | 432 | 129000 | -129000 | 68602 | 6002 | 18405 | 16230 | 76230 | 70551 | 75702 | 76334 | 77252 | 77661 | 000 | 000 | 705702 | 267 | 727701 | 265 | 702015 | 000 | |
| Gas | 541 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Water | 152 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Other | 148 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Total | 873 | 129000 | -129000 | 68602 | 6002 | 18405 | 16230 | 76230 | 70551 | 75702 | 76334 | 77252 | 77661 | 000 | 000 | 705702 | 267 | 727701 | 265 | 702015 | 000 | |

| | Oct-05 | Oct-05 | Nov-05 | Dec-05 | Jan-06 | Feb-06 | Mar-06 | Apr-06 | May-06 | Jun-06 | Jul-06 | Aug-06 | Sep-06 | Oct-06 | Nov-06 | Dec-06 | YTD(05-06) | % | 9.0.13(05-06) | % | Change Year | |
|--------------|------------|---------------|----------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|---------------|------------|---------------|---------------|---------------|-------------|-----|
| Electric | 432 | 129000 | -129000 | 68602 | 6002 | 18405 | 16230 | 76230 | 70551 | 75702 | 76334 | 77252 | 77661 | 000 | 000 | 705702 | 267 | 727701 | 265 | 702015 | 000 | |
| Gas | 541 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Water | 152 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Other | 148 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |
| Total | 873 | 129000 | -129000 | 68602 | 6002 | 18405 | 16230 | 76230 | 70551 | 75702 | 76334 | 77252 | 77661 | 000 | 000 | 705702 | 267 | 727701 | 265 | 702015 | 000 | |

Dues & Subscription (weekly)

15 September 2006 to 31 August 2007

| DATE | SUBSCRIPTIONS | | | | | | CONTRIBUTIONS | | | | | | | | | | | |
|--------|---------------|--------|-------|--------|-----|---|---------------|----|----------|-----|---------|------|----------|-----|---------|-----|----------|-----|
| | ANM # | £ | DMM # | £ | K # | £ | MB # | £ | ESTOFT # | £ | PCAMP # | £ | HORBER # | £ | MINOR # | £ | MAGTEM # | £ |
| 100 | | | | | | | 1 | 30 | | | | | | | | | | |
| 1013 | 2 | 270 | | | | | | | | | | | | | | | | |
| 1020 | 1 | 174 | 3 | 405 | | | | | 5 | 95 | 7 | 235 | | | 4 | 45 | 4 | 60 |
| 1027 | | | 2 | 270 | | | | | 1 | 15 | 3 | 135 | | | 1 | 10 | 3 | 120 |
| 103 | | | 4 | 540 | | | | | | | 2 | 30 | | | 1 | 20 | 3 | 60 |
| 1030 | | | 1 | 135 | | | | | 3 | 75 | 8 | 135 | | | 4 | 25 | 4 | 115 |
| 1037 | | | 1 | 135 | | | | | | | 3 | 30 | | | 2 | 45 | 1 | 20 |
| 1034 | 3 | 522 | 4 | 540 | | | | | | | 1 | 95 | | | | | | |
| 105 | | | 1 | 135 | | | | | 2 | 115 | 4 | 110 | | | | | 1 | 10 |
| 105 | | | 3 | 405 | | | | | | | | | | | | | | |
| 108 | 4 | 605 | 31 | 4,185 | | 3 | 0 | | | | 3 | 180 | | | 2 | 90 | | |
| 1074 | 8 | 1,776 | 45 | 5,050 | | | | | | | | | | | | | | |
| 1075 | | | 3 | 405 | | | | | | | | | | | | | | |
| 1084 | 15 | 2,895 | 133 | 17,934 | | | | | 1 | 30 | 3 | 135 | 1 | 100 | 3 | 95 | 2 | 65 |
| 1084 | 1 | 174 | 2 | 270 | | | | | | | 3 | 95 | | | 1 | 15 | 1 | 10 |
| 1088 | 1 | 174 | 10 | 1,350 | | | | | | | | | | | 2 | 25 | | |
| | | 344 | | | | | | | | | | | | | | | | |
| 1090 | | | 1 | 135 | | 1 | 0 | | | | | | | | | | | |
| 1091 | | | 2 | 270 | | | | | 2 | 60 | 2 | 75 | | | | | | |
| 109 | 1 | 174 | 4 | 540 | | | | | 1 | 15 | 2 | 90 | | | | | 1 | 20 |
| | | 1545 | | | | | | | | | | | | | | | | |
| 110 | 12 | 3,300 | 27 | 3,644 | | | | | | | | | | | | | | |
| | | 5,105 | | | | | | | | | | | | | | | | |
| 110 | 10 | 1,800 | 28 | 13,230 | | | | | | | | | | | | | | |
| 110 | 1 | 172 | | | | | | | 1 | 90 | | | | | | | 2 | 60 |
| 105 | 3 | 522 | 13 | 1,795 | | | | | 1 | 30 | | | | | | | 1 | 10 |
| 21 | 4 | 605 | 33 | 4,465 | | | | | | | | | | | | | | |
| 23 | 3 | 522 | 23 | 270 | | | | | | | 1 | 90 | | | | | | |
| 27 | 1 | 174 | 10 | 1,350 | | | | | | | | | | | | | | |
| 28 | 2 | 302 | 6 | 480 | | | | | | | 3 | 15 | | | 2 | 30 | 1 | 10 |
| 275 | 2 | 345 | 6 | 310 | | | | | | | 1 | 90 | | | | | 3 | 35 |
| 276 | | | 2 | 205 | | | | | | | | | | | | | 1 | 10 |
| 223 | 2 | 345 | | | | | | | 1 | 20 | 1 | 95 | | | | | 1 | 10 |
| 32 | 3 | 522 | 2 | 205 | | | | | | | 2 | 20 | | | | | | |
| | | | 3 | 330 | | | | | | | 1 | 20 | | | | | | |
| 21907 | | | 1 | 135 | | | | | 1 | 60 | | | | | 1 | 30 | | |
| 22007 | 3 | 522 | 1 | 135 | | | | | 1 | 75 | 2 | 35 | | | | | | |
| 22007 | | | | | | | | | | | | | | | | | | |
| 22007 | 1 | 2 | | | | | | | | | | | | | | | | |
| 211307 | 1 | 30 | 1 | 50 | | | | | | | | | | | | | | |
| 202007 | 1 | 87 | | | | | | | | | | | | | | | | 10 |
| 202006 | | | | | | | | | | | | | | | | | | 15 |
| 21007 | | | | | | | | | | | | | | | | | | |
| 21107 | 4 | 8 | 27 | 54 | | | | | | | | | | | | | | |
| 21907 | 15 | 204 | 52 | 154 | | | | | | | | | | | | | | 15 |
| 22507 | 2 | 250 | 32 | 35 | | | | | | | | | | | | | | 22 |
| 27107 | 2 | 60 | | | | | | | | | | | | | | | | |
| 28107 | 3 | 6 | | | | | | | | | | | | | | | | |
| 21907 | 2 | 4 | 23 | 45 | | | | | 1 | 90 | | | | | | | | |
| 22207 | | | | | | | | | | | | | | | | | | |
| 22507 | 1 | 67 | 1 | 75 | | | | | | | 1 | 10 | | | | | | |
| 27607 | | | | | | | | | | | | | | | | | | |
| 211307 | | | 1 | 75 | | | | | | | | | | | | | | |
| 212007 | 4 | 214 | 1 | 135 | | | | | | | 1 | 10 | | | 1 | 50 | | |
| 21307 | 3 | 263 | | | | | | | | | | | | | | | | |
| 211007 | | | | | | | | | | | | | | | | | | 10 |
| 217007 | | | 1 | 135 | | | | | | | | | | | | | | |
| 204007 | | | | | | | | | | | 1 | 20 | | | | | | 20 |
| 213007 | | | 1 | 135 | | | | | | | | | | | 1 | 10 | | |
| | 133 | 24,354 | 633 | 61,255 | 4 | 0 | 1 | 30 | 21 | 620 | 96 | 1515 | 1 | 100 | 25 | 475 | 34 | 600 |

| MEMBERS (HOURS) | | | | | | | | MEMBERS (US) | | | | | | | | TOTALS |
|-----------------|----------|-----|------|-----|-----|-----|-----|--------------|-------|-----|-------|-----|------|-----|-------|------------|
| FREG | FRET | FST | FTCH | REG | RET | STD | TCH | FREG | FRET | FST | FTCH | REG | RET | STD | TCH | |
| | | | | | | | | | | | | | | | | 3000 |
| | | | | | | | | | | | | | | | | 40000 |
| | | | | | | | | | | | | | | | | 58000 |
| | | | | | | | | | | | | | | | | 2,14000 |
| | | | | | | | | | | | | | | | | 184000 |
| | | | | | | | | | | | | | | | | 368100 |
| | | | | | | | | | | | | | | | | 261200 |
| | | | | | | | | | | | | | | | | 2,21400 |
| | | | | | | | | | | | | | | | | 188000 |
| | | | | | | | | | | | | | | | | 40500 |
| | | | | | | | | | | | | | | | | 6,14600 |
| | | | | | | | | | | | | | | | | 7,36300 |
| | | | | | | | | | | | | | | | | 275000 |
| | | | | | | | | | | | | | | | | 20,28000 |
| | | | | | | | | | | | | | | | | 282000 |
| | | | | | | | | | | | | | | | | 2,14400 |
| | | | | | | | | | | | | | | | | 34400 |
| | | | | | | | | | | | | | | | | 13600 |
| | | | | | | | | | | | | | | | | 1,19600 |
| | | | | | | | | | | | | | | | | 163400 |
| | | | | | | | | | | | | | | | | 154600 |
| | | | | | | | | | | | | | | | | 7,35700 |
| | | | | | | | | | | | | | | | | 6,10500 |
| | | | | | | | | | | | | | | | | 14,75600 |
| | | | | | | | | | | | | | | | | 267400 |
| | | | | | | | | | | | | | | | | 4,10200 |
| | | | | | | | | | | | | | | | | 5,76100 |
| | | | | | | | | | | | | | | | | 267700 |
| | | | | | | | | | | | | | | | | 158400 |
| | | | | | | | | | | | | | | | | 2,35400 |
| | | | | | | | | | | | | | | | | 1,19900 |
| | | | | | | | | | | | | | | | | 1,89000 |
| | | | | | | | | | | | | | | | | 15,14000 |
| | | | | | | | | | | | | | | | | 66200 |
| | | | | | | | | | | | | | | | | 24000 |
| | | | | | | | | | | | | | | | | 14,67000 |
| | | | | | | | | | | | | | | | | 85000 |
| | | | | | | | | | | | | | | | | 54000 |
| | | | | | | | | | | | | | | | | 53400 |
| | | | | | | | | | | | | | | | | 95700 |
| | | | | | | | | | | | | | | | | 31000 |
| | | | | | | | | | | | | | | | | 32600 |
| | | | | | | | | | | | | | | | | 12700 |
| | | | | | | | | | | | | | | | | 52100 |
| | | | | | | | | | | | | | | | | 52100 |
| | | | | | | | | | | | | | | | | 46400 |
| | | | | | | | | | | | | | | | | 40300 |
| | | | | | | | | | | | | | | | | 33700 |
| | | | | | | | | | | | | | | | | 38000 |
| | | | | | | | | | | | | | | | | 10000 |
| | | | | | | | | | | | | | | | | 75700 |
| | | | | | | | | | | | | | | | | 40110 |
| | | | | | | | | | | | | | | | | 48200 |
| | | | | | | | | | | | | | | | | 33400 |
| | | | | | | | | | | | | | | | | 47500 |
| | | | | | | | | | | | | | | | | 28000 |
| | | | | | | | | | | | | | | | | 17000 |
| | | | | | | | | | | | | | | | | 38000 |
| | | | | | | | | | | | | | | | | 47000 |
| | | | | | | | | | | | | | | | | 000 |
| | | | | | | | | | | | | | | | | 000 |
| 40 | 2,267.12 | 2 | 03 | 4 | 143 | 9 | 246 | 753 | 3,290 | 71 | 2,109 | 93 | 1836 | 97 | 3,328 | 131,805.10 |

| Subscription Code | Membership Type | Contributions |
|-------------------|--------------------------------|--|
| ANM | All Non Members (Non US sub) | DSTOUT Dovsky Laidde Stout |
| DNM | Domestic Non Members (US sub) | FCAMP Field Course Scholarship Program |
| K | Kuokuaiaja Oides | HOBBER Hobberg |
| MB | Member Grade/Membership Record | MINOR Minority Support |
| | | NWGTBY NWGT Bidowebart |

Executive Director's Report Cathy Manduca

Our primary objective for summer/fall 2007 was to move the director's office to SERC. Prior to Sept 1, the primary office was at Ian's and we focused on setting up the needed accounting, insurance, and auditing procedures, developing the 2007 budget, learning as much as possible about operations (including a 2 day visit to Ian's office), and putting in place plans for fall programs. Ian continued all routine operations as well as set up for the distinguished speaker series and GSA meetings. On Sept 1, the office transferred. We are now paying all bills, answering all email and other queries, and running programs. Items precluding completion of the transfer are the outstanding audit, closing of the 2006-2007 books, closing of the Napa

checking account, and transfer of signature authority on the Oakmark account. In addition, we are still full of questions for Ian.

Since September 1, our primary goals have been to support 2007-2008 programs and activities in place in particular the election, Distinguished Speaker Program and the GSA activities. In addition, we have established a good working relationship with AIP, initiated communication with the section officers, and worked to update the website so that it has complete information on programs and the answers to all common queries. This effort is still underway. We are also in the midst of establishing working relationships with the president, editor, and treasurer.

Primary activities to date have included.

Finances:

- A 2007-2008 budget was drafted, discussed by the ex-comm and approved.
- A new NAGT checking account was established at Wells Fargo Bank in Northfield, MN. Both Cathy and Bill have signature authority. We have put in place a system documenting check requests. At this time Cathy's signature is required on either the request for payment or the check. Both Bill and Cathy have debit cards against this account. This account has received weekly electronic funds transfers from AIP since 9/1/07. All post 9/1/07 NAGT expenses have been paid from this account. We anticipate closing accounts in Napa and Bellingham.
- Oakmark accounts. Ian still holds authority over NAGT's Oakmark account; our initial attempt to transfer this authority to Cathy was unsuccessful. Ian has agreed to resolve this issue.
- Bookkeeping: We have established a working relationship with Sarah Dickerson, CPA, of the Boyum & Barends accounting firm in Minneapolis. Sarah will review bank reconciliations, prepare the annual IRS 990 tax return, issue annual 1099 forms, and provide assistance with Quickbooks software and financial reports. The bookkeeper met with Bill and gave advice about set up of the QuickBooks accounting system in August. We will set up our accounting system in alignment with the reporting format presented at this meeting, which is based on the Feiss budget report. This transition will take place as soon as the audit is complete and the Napa account closed.
- Audit: SERC staff clarified a suitable type and scope of audit to meet NAGT's current needs. SERC solicited competitive audit quotes from three accounting firms and selected Larsen Allen for this work. NAGT will proceed with a balance sheet, cash basis audit of its 2007 fiscal year. Auditors will investigate issues related to Oakmark investment funds and bank accounts at: Napa, Bellingham, and Northfield. We are working with Ian and the auditors to schedule the fieldwork. We expect that the audit report will be complete by the end of December.

Insurance: During the transition period SERC reviewed NAGT's existing insurance coverage, identified coverage gaps, solicited competitive quotes from four brokers, and worked with Carleton's risk manager to clarify mutually acceptable coverage options. We have purchased Director's and Officers insurance coverage from a broker with Wells Fargo Insurance Services. This new coverage has a \$2,000,000 aggregate coverage limit and includes an endorsement for Employment Practices Liability. It excludes publisher's and media liability coverage.

We have renewed NAGT's general liability policy. The policy provides \$2,000,000 aggregate coverage limit. However, this coverage excludes NAGT activities that are sponsored at the section level. We have requested a quote from for expanded sectional general liability coverage. We will move ahead and bind liability coverage for section activities as soon as possible.

Election: Ian had arranged for the election to take place using AIP services this year. We worked with AIP to set the schedule, provide text for email and print messages to members, create a website with information on the candidates, and help refine the workings of the AIP election/membership website. . As of 10/19/07 170 NAGT members had participated in the election with the new electronic ballot system. A full report on the election will be made at the Executive Committee Meeting.

Distinguished Speaker Series: SERC staff have confirmed the 2007-8 slate of speakers, developed a new online speaker request submission form, developed a new format for the program flyer, and mailed the flyer to approximately 900 departments. As of 10/22/07 we received nine speaker requests. These were approved and visits are being set up. We are developing standard correspondence and materials for the program.

Membership Management: The principle activity to date has been learning who does what at AIP. We have switched to monthly reporting on membership and have asked AIP to prepare a report for our fall meeting. Our next goal is to streamline services for the sections.

NAGT Materials: We now have the digital file from which our brochure was created. This was edited to reflect changes in the dues and 2000 copies of the brochure were printed. The brochure is expensive to print because it is a non-standard size. We may want to revisit the design to reduce this cost. We developed a new brochure for the distinguished speakers Karen has led efforts to create flyers for other major programs and awards. These will all be available in the booth. Nancy Ashmore, a graphic designer in Northfield, has assisted in the creation of these materials and is available on an hourly basis for additional work.

GSA Activities: Ian set up all meeting/booth spaces at GSA and provided information to GSA for the Hall of Fame. We have been involved in ordering food, working with GSA on the reception, creating the program for the luncheon, assisting with development of the meeting agenda, setting up the USGS/Field Camp meeting, producing the annual report, and advertising the reception, luncheon and GSA sessions.

Treasurer's Report

Gene Pearson

I attended the Annual meeting in Philadelphia and began my term as Secretary/Treasurer by recording the minutes for the Executive Committee Business meetings on October 21 and 22, the Executive Committee/Council meeting on October 21 and writing a meeting summary for the

Past President's Breakfast on October 23. I attended the mid-year Executive Committee meeting on May 5th and 6th in Eau Claire, Wisconsin and recorded the minutes. Minutes and the breakfast summary were uploaded to the NAGT archives website.

I was asked by Cathy Manduca, Executive Director, to make a recommendation to the Executive Committee regarding Endowment Policies. I reviewed the Endowment Policies of AIP and several other non-profit organizations and also spoke with the two Pacific staff members that manage its \$200M endowment. My recommendations and a suggested Endowment Policy follow this report.

In my role as liaison to the Far Western Section, I attended their very successful field conference at Lava Beds National Monument on August 17-19. The FWS is financially secure thanks to their Field Guidebook sales and successful conferences. They offer three scholarships [Field Camp, Community College student entering a four-year program, HS student entering a 4-yr program] and they may soon increase the scholarship amount to \$750.00.

NAGT Endowment Recommendations

Background:

As of May 3, 2007, Executive Director Ian MacGregor reported that the National Association of Geosciences Teachers had the following monies invested in the Oakmark Equity Income Fund. Accounting for the "sub-accounts" is maintained by the Executive Director and adjustments are made when donations and expenditures occur and when the Oakmark Equity Income Fund annually distributes capital gains and dividend income.

| Sub-Account | 5/3/07 Value |
|--------------------------|--------------|
| Horberg Fund | \$56,670.93 |
| Rosalsky Fund | \$16,100.80 |
| Dottie Stout Fund | \$22,390.58 |
| Minority Fund | \$877.55 |
| Honors Fund | \$3,136.06 |
| NAGT Endowment Fund | \$91,675.29 |
| Unrestricted Funds | \$545,945.37 |
| Value of Oakmark Account | \$736,796.58 |

There is not currently a separate "sub-account" in which to place donations specified for the NAGT Field Scholarships.

Recommendations:

1. The Executive Committee should decide what percentage of the "Unrestricted Funds" should be added to the "NAGT Endowment Fund". The remaining "Unrestricted Funds" should not be housed in the same Oakmark Equity Income Fund with the Endowed Funds.
2. The Executive Committee should decide the purpose [emergency budget support, transition funds] of any "Unrestricted Funds" not included in the NAGT Endowment.

The Executive Committee should also determine how these funds, if any, should be invested.

3. The Executive Committee should establish both an Investment Policy and a spending Policy for the NAGT Endowment Fund. [See following document.]
4. NAGT should maintain the Horberg, Rosalsky and Dottie Stout Endowed Funds as “separate” sub-accounts. Funds should be dispersed in accordance with policies developed when the funds were established
5. The Executive Committee should decide how many “sub-accounts” should be established and maintained in addition to the named endowed funds and the NAGT Endowment. [Should a Field Scholarship Account be established? Should the Minority and Honors accounts, both with relatively small endowments, be maintained? Should additional sub-accounts be established?]
6. The NAGT Executive Director should maintain an accounting of whole and partial shares for each of the “sub-accounts” in the Oakmark Equity Income Fund. Annual Reporting should include all transactions in each sub-account including date of purchases and withdrawals and the number of whole and partial shares purchased or withdrawn. Annual reports should also include both the number of shares [whole and partial] in each “sub-account” as well as the value based on the current NAV of the fund.
7. If the Executive Committee authorizes monies from the NAGT Endowment to be included as income in the annual budget, it is recommended that the Executive Director withdraw monies from the Oakmark Equity Income Fund at a set interval, annually, semi-annually or quarterly, rather than for individual expenditures. Monies withdrawn should be deposited in a Money Market Fund or other liquid account for use during the fiscal year.
8. If an operating budget surplus exists at the end of the fiscal year, the Executive Committee should decide if it should be added to the NAGT Endowment or rolled over to the following year’s budget.
9. A Money Market fund or other liquid account should be used to manage income and expenditures during the fiscal year.

National Association of Geosciences Teachers
 Endowment Policies
 DRAFT 1.04
 16 September 2007

I. Purpose of the Endowment

The Endowment of the National Association of Geoscience Teachers supports the mission of the organization by:

- contributing to the annual NAGT operating budget as deemed appropriate by

Executive Committee;

- serving as a financial reserve against a serious financial shortfall; and
- providing monies for special projects approved by the Executive Committee.

The Endowment is funded through contributions from donors and any annual budget surpluses. The Executive Committee will attempt to determine whether contributions from donors are intended as contributions to the Endowment or to the annual operating budget. In any event, the Executive Committee will act on the requests of individual donors that may dictate the specific purpose for which specific funds are received to the extent that such instructions are given.

II. Investment Policy

The investment objective for the management of the Endowment is to achieve growth of both principal value and income over time that is sufficient to preserve or increase the purchasing power of the assets against inflation [CPI + 5.5% (spending rate and appreciation)]. These objectives shall be implemented and monitored by the Investment Committee.

The general policy shall be to diversify investments within both equity and fixed income securities to provide a balance that will enhance total return while avoiding undue risk from concentration in any single asset class or investment style. Given the long term time horizon of the Endowment, equity investments will normally comprise 55-75% of the total Endowment and fixed income investments will normally comprise 25-45% of the total Endowment. The Investment Policy permits investments in diversified, open-ended equity and fixed income mutual funds. Cash and cash equivalents may be invested in money market funds.

The Investment Committee shall be responsible for identifying and evaluating appropriate mutual fund and money market investments and will provide its recommendations to the Executive Committee for approval. The Investment Committee shall be responsible for the ongoing monitoring of investment performance of the mutual funds and will present a written report including any recommended investment changes at the Annual Meeting of the Executive Committee. The benchmark for performance comparison will be the Lipper Balanced Fund Index.

III. Spending Policy

The Endowment Spending Policy sets forth guidelines for determining the amount or percentage of the total return (interest, dividends and capital appreciation) of the Endowment that may be used to fund annual operating expenses or special projects. The policy is meant to ensure that Endowment's purchasing power (real market value) is maintained or enhanced over time by keeping the long-term rate of annual spending from the Endowment equal to or less than the long-term real (inflation-adjusted) investment return of the Endowment while at the same time providing a reasonable stable and predictable revenue stream to support the NAGT operating budget and special projects.

The target spending rate will be between 3 to 6 percent of the average market value of the Endowment for the preceding three years. The average market value will be based on the August 31 market values for each of the preceding three year. Unless otherwise determined by the Executive Committee, the annual distribution rate shall be 4.5 percent of the average three-year

market value of the Endowment. In setting the distribution rate the Executive Committee will take into consideration both the current inflation rate as well as the historical total return rate of a diversified portfolio of equity and fixed income investments as specified in the Investment Policy.

Distributions from the Horberg, Rosalsky and Dottie Stout Endowed Funds are governed by policies agreed to when these funds were established.

IV. Amendment

The Executive Committee reserves the right to amend these Endowment Policies at any time.

END NOTES

Note # 1 – American Institute of Physics Rules ~ Fiscal Policies II.5. Annual expenditures from earnings of endowment funds (or equivalent restricted funds), with an invested principal of \$100,000 or more, are to be limited to five (5) percent of the amount of the principal, averaged over any three-year period. Exceptions to this policy may be approved by the Management Committee and must be reported to the Executive Committee, with stated reasons for the exceptions. For proposed expenditures of six (6) percent or more from earnings on endowments of \$500,000 or more, advance approval of the Executive Committee is required. (XC 6/90)
<http://www.aip.org/aip/constitution.pdf>

Note # 2 – The following statement was taken from a 2005 article titled “Financial Changes and Optimal Spending Rates among Top Liberal Arts Colleges” for the *Review of Higher Education* by Roger T. Kaufman, Department of Economics, Smith College and Geoffrey Woglom, Department of Economics, Amherst College.
<http://www.amherst.edu/~grwoglom/Modifying%20ESR%20Mar%209%202005.doc>

“Until the late 1960s the endowment-spending rule was relatively straightforward at most educational institutions. Typically, all of the interest income from bonds and dividend income from stocks were spent and all capital gains were allowed to accumulate. Indeed, until the passage by most states of the Uniform Management of Institutional Funds Act in the mid 1960s, many endowment managers were legally prohibited from reducing ‘principal’ for income needs. Following the publication of an influential report by the Ford Foundation (1969) many colleges and universities adopted their current systems in which a constant fraction of the market value of the endowment, called the takeout, payout, or spending rate, is typically allocated to the operating budget each year. This typically leads to spending more than interest and dividends and is set with the intention to spend some of the long-term capital gains on the endowment portfolio. In 2003, the NACUBO Endowment Study reported that over 95 percent of reporting institutions had some form of spending rule, with over 82 percent using a ‘moving-average rule,’ where spending from endowment is based on a pre-specified percentage of a moving average of past endowment values. The popularity of ‘moving-average rules’ has been growing over recent years. In 1999, 72.9 percent of survey respondents used this rule, and in 1995 only 59.2 percent used the “moving average rule.” During the 1993-98 period, spending rates averaged 5 percent of the endowment; they then fall to 4.7 percent during 1999 and rise fairly continuously to 5.4 percent during 2003.”

Note # 3 – Current Spending Rate at George Mason University “The foundation endowment policy seeks to ensure that the present value of existing funds grows at a rate that exceeds inflation net of fees while generating a predictable stream of spendable income. Since July 1, 2002, the spending (or “payout”) rate has been 4 percent of the three-year rolling average market value. Any earnings in excess of this are reinvested in the endowment. In conjunction with professional advisors, the foundation determines its endowment spending rate after considering several factors. It considers historical investment returns and inflation, and reviews the national average of higher education endowment spending rates. Its current spending rate of 4 percent falls within the national average range of 3.9 to 4.3 percent for endowments of comparable size.” http://www.gmu.edu/development/waystogive/endowment_overview.html#spending_policy

Note # 4 The University of the Pacific recently lowered its endowment spending rate to 4.5% from 5.5%.

Councilors’ Reports

Richard Yuretich

GSA Annual Meeting 2006 (Philadelphia)

- Attended the NAGT Executive Committee and Council Meetings on 10/21/2006
- Helped set up and staff NAGT information booth in the exhibits
- Partook of the NAGT/GSA Education Division Luncheon on 10/22/2006

Other Activities

- Chaired the NAGT committee on field course scholarships and developed new application procedures for the program (report attached)
- Attended the annual meeting of the Association for Science Teacher Education (ASTE) in Clearwater Beach, FL, and distributed information about the NAGT (1/3/2007-1/6/2007).
- Co-convener (along with Heather Macdonald and Richelle Allen-King) for NSF/NAGT “Early Career Faculty Workshop” in Williamsburg, VA 6/12/2007-6/18/2007
- Taught an on-line course “Planet Earth” (Summer, 2007) for the professional development of science teachers.
- Conducted a two-day workshop on Earth Science for the professional development of teachers in the Springfield (Mass.) school district (8/27/2007-8/28/2007).
- Continued with NASA-funded professional development project for science teachers called “STEM Earth Central”, undertaken with NAGT sponsorship. This included on-line follow-up of the 42 teachers who participated in last year’s summer institute, and a new session for 30 teachers this summer 7/30/2007-8/10/2007.
- Attended the NAGT Mid-year meeting in Eau Claire, WI (5/5/2007-5/6/2007)

Section Liason

- Continued my discussions with New England Section who are having their first-ever stand-alone annual meeting on 10/13/2007 in Manchester, CT. I am giving a workshop at this meeting entitled “Planet Earth: Hands-on Earth Science Online.”

Linda Selvig

Meetings:

- Annual Meeting: Philadelphia, PA 10/2006
- Mid-Year committee meeting: Eu Clair, WI 5/2007
- Annual Meeting: Denver, CO 10/2007

Activities

- During the 2006-07 year I worked with Shelia Roberts in helping get the word out about the North Central Sections Field Conference which took place in Dillon, Montana from July 31-Aug. 2, 2007 at the University of Montana Western's Burch Creek Center. (attachment: conference flyer). Shelia did a fantastic job of putting this conference together and should be commended in facilitating and recruiting members from the NC section.
- Next years North Central Field conference is tentatively set for the Black Hills, SD area.
- Promoted membership at the Idaho Science Teachers Association Annual State conference Oct. 2006, Eagle, ID.
- Will promote membership at the 2007 ISTA state conference in Boise, ID, Oct. 2007.

Section Reports

Central Section Kathleen Bower

A. 2007-2008 Section Officers

a. Executive Officers

President

Kathleen Bower
Eastern Illinois University
Geology/Geography Department
600 Lincoln Ave.
Charleston, IL 61920
kmbower@eiu.edu

1st Vice President

Mark Francek
Professor of Geography
Dow 285
Central Michigan University
Mt. Pleasant, MI 48859
989-774-7617
mark.francek@cmich.edu

2nd Vice President

Carrie Wright
Department of Geology and Physics
University of Southern Indiana
8600 University Blvd.
Evansville, IN 47712
812-465-1145
clwright@usi.edu

Secretary/Editor 2007-2010

Janis Treworgy
Geology Department
Principia College
1 Maybeck Place
Elsah, IL 62028
janisdt@principia.edu

Treasurer 2006-2009

Edward Hansen
 Dept. of Geology & Environmental Science
 Hope College
 33 E. 12th Street
 Holland, MI 49423
 616-395-7538

*b. State Representatives***Illinois**

David Voorhees
 4318 N. Queen Anne Rd.
 Woodstock, IL 60098-8426
dvoorhees@waubonsee.edu

Indiana

Paul K. Doss, Chair
 Department of Geology and Physics
 University of Southern Indiana
 Room SC2213
 8600 University Blvd.
 Evansville, IN 47712
 812-465-7132
PDoss@usi.edu

Dr. Solomon Isiorho
 Chair & Professor of Geosciences
 Department of Geosciences
 Indiana University - Purdue University Ft.
 Wayne (IPFW)
 Fort Wayne, IN 46805-1499
isiorho@ipfw.edu

Iowa

Cinzia Cervato
 Iowa State University
 Geology and Atmospheric Science
 253 Science Hall I
 Ames, IA 50011
cinzia@iastate.edu

Sherman Lundy
 1103 Ellen
 Cedar Falls, IA 50613
lundy@basicmaterialscorp.com

Kentucky

Frederick Siewers
 Department of Geography and Geology

hansen@hope.edu

Past President

Annabelle Foos
 Geology Department
 University of Akron
 Akron, OH 44325-4101
AFOOS@uakron.edu

Western Kentucky University
 1906 College Heights Blvd. #31066
 Bowling Green, KY 42101-1066
fred.siewers@wku.edu

Michigan

Cris L. DeWolf
 Chippewa Hills High School
 3226 Arthur Rd.
 Remus, MI 49340
 989-967-2167
cdewolf@edcen.ehhs.cmich.edu

Minnesota

James Meyers
 Winona State University
 114 Pasteur Hall
 Winona, MN 55987
 507-457-5266
jmeyers@winona.edu

Kate Pound
 St. Cloud State University
 720 4th Avenue South
 St. Cloud, MN 56301
kspound@stcloudstate.edu

Ohio

Ron Fabick
 Pres. Ohio Earth Science Teachers Assoc.
 6800 Wolff Rd.
 Medina, OH 44256
 330-723-3590
rfabick@zoominternet.net

William Slattery
Wright State University
Geological Sciences
260 Brehm Lab
Dayton, OH 45435
william.slattery@wright.edu

Wisconsin

Robert Baker
UW River Falls
Department of Plant/Earth
410 S. 3rd St.
River Falls, WI 54022-5001
robert.w.baker@uwrf.edu

Kerry Keen
UW River Falls
Department of Plant/Earth
410 S. 3rd St.
River Falls, WI 54022-5001
kerry.l.keen@uwrf.edu

*c. Communications***Website Coordinator**

John McDaris
Geoscience Assistant/Project Manager
Science Education Resource Center
(<http://serc.carleton.edu>)
Carleton College, Northfield, MN
jmcdaris@carleton.edu

*d. Awards***OEST Chair**

Sallie Greenberg
Illinois State Geological Survey
615 East Peabody Drive
Champaign, IL 61820
greenberg@isgs.uiuc.edu

B. Reports

a. Annual Business Meeting

The annual business meeting of the Central Section NAGT was held April 13th in conjunction with the North Central Section Geological Society of America meeting in Lawrence, Kansas. The new slate of officers was elected. [Carrie Wright was from IN for this year; we still need a nominee for next year]. The officers decided to pick 2nd VP's from the area in which the NC-GSA will be held in the year they take office so that the 2nd VP can easily coordinate with the sectional GSA Planning Committee. The Duties of Officers has been rewritten to reflect this change. Record numbers of OEST – Outstanding Earth Science Teacher Awards were submitted this spring to Sallie Greenberg, OEST Chair. Nominations for next year were due June 1st .

For the secretary's report Janis Treworgy reminded those present that they are welcome to send her content for the newsletter and reported on the e-mail distribution of the newsletter. 15% of our members did not receive a newsletter due to lack of a current email address, however the newsletter is posted on our web page The events sponsored by the central section NAGT 2006-07 were presented and we discussed future events for 2007-08. We voted to co-sponsor field conferences (see below) with \$250 contingent on them offering a student and K-12 teacher registration rate.

b. 2007 OEST Awards

- Section Winner:
 - Paul Varsho of Menomonie Wisconsin
- State Winners:
 - Amanda Rae Schiller of Donnellson, Iowa
 - Chantelle M. Rose of St. Paris, Ohio
 - Paul Varsho of Menomonie, Wisconsin
- Honorable Mention
 - Sue Merrill of Howell, Michigan
 - Cheryl Sill of Zimmerman, Minnesota

C. Annual Activities/functions

a. Events Sponsored by Central Section NAGT 2006-2007

- Combined Great Lakes Section of SEPM and Tri-State Field Conference, Rock Island, IL – September 30, 2006
 - New Perspectives on Paleozoic Epeiric Seas and Carbonate Platforms of the Iowa and Illinois Basins
 - Led by Jed Day, IL State University, Normal
 - > 100 participants, 12 university campuses
- NC-GSA meeting, Lawrence, KS, April 2007
 - One theme session – Issues in Geoscience Education (poster & oral)
 - Luncheon business meeting
 - Staffed NAGT booth

b. Planned 2007-2008 Activities

- Tri-State Field Conference, River Falls, Wisconsin, October 5-7, 2007 (Kerry Keen and Mike Middleton)
- GLS-SEPM Field Conference, SE Ohio, October 5-6, 2007 (Greg Nadon and Dan Hembree)
- Proposed NAGT program, April 24-25, 2008 NC-GSA, Evansville, IN
<http://ncgsa.unl.edu/misc/meetings.htm>
 - **K-12 Workshop**

- “Easy-setup, Easy-to-use, and Cheap Earth Science Demos” (Carrie Wright and Debbie Vannatter, Evansville-Vanderburgh School Corporation)
- **Theme sessions**
 - Program Development and Assessment – Step 1: Identifying Learning Objectives (Annabelle Foos, convener)
 - Initiating a Dialogue on Dealing with Resistance to Teaching the Geologic Time Scale and Fossil Record (Helen Greer, C. Moosavi, and Kurt Shoemaker, co-conveners)
 - Inquiry-based, hands-on, class and lab demonstrations (Mark Francek, convener)
- **Field Trip**
 - Building Stone and Cultural Geology of Evanston (Joe Hannibal, organizer)

D. Central Section Treasurer's Report (Edward C. Hansen)

Fiscal Year 2006-2007

| | Income | Disbursements | Balance |
|---------------------------------------|--------|---------------|----------|
| Balance on hand 4/20/06 | | | 6,207.89 |
| U A Geology GSA Mtg, NC Regional | | 200.00 | |
| 2006 GLS – SEPM/Tri-State Geol. Field | | 250.00 | |
| Sallie Greenberg – frame | | 5.99 | |
| Booth – Regional GSA | | 125.00 | |
| 2007- SEPM/Tri-State Geol. Field Trip | | 250.00 | |
| Total Disbursements | | 830.99 | |
| | | | |
| Deposit from National | 760.00 | | |
| | | | |
| | | | |
| Balance on hand 6/29/07 | | | 6,136.90 |
| | | | |

Eastern Daniel Vice

The current officers of the Eastern Section are: Daniel Vice, President, Penn State University, Hazleton campus; Eric Cohen, Vice-President, Westhampton, NY; Frank Revetta, Treasurer, Dept. of Geology, SUNY; Martin F. Schmidt, Jr., Editor, Finksburg, MD; Jim Hensel, Archivist, Tonawanda, NY; Tom Repine, Past President, West Virginia Geological and Economic Survey; Deb Hemler, Second Vice-President, Fairmont State University; Anne Nall, Secretary, Spring Grove, VA; and Rich Gottfried, Publicity Chairman, Dept. of Science, Frederick Community College, Frederick, MD.

The Eastern Section of the NAGT met at Penn State Hazleton on May 17-20. We had 44 people attending the meeting from the states that make up the Eastern Section. Dr. Jon Inners gave the opening talk that summarized the geology of NE Pennsylvania on the evening of the 17th. Six presentations on a variety of topics were given in two separate sessions on Friday morning (May 18th). Two separate field trips were conducted Friday afternoon. One was to the Eckley Miners Village by

Dr. Harold Aurand, Jr., of Penn State Schuylkill campus, which illustrated the life of an anthracite coal miner. The other was a collecting trip to a classic plant fossil site near St. Clair, Pennsylvania, led by the conference host. Three separate field trips were conducted on Saturday, May 19th. A tour of the geology of the Hazleton area was conducted by Dr. Jon Inners and some others from the Pennsylvania Geological Survey. Dr. Duane Braun of Bloomsburg University conducted a tour of the many glacial features of Northeastern Pennsylvania he has been mapping for the past 30 years. The conference host conducted a tour of Centralia where an underground fire has destroyed a town and of the Whaleback where a small anticline has been almost completely exposed in a strip mine. Based on some informal feedback, people seemed to enjoy the meeting.

The 2007 Awards given by the Eastern Section are:

- 1) John H. Moss Award went to Dr. Robert E. Behling of West Virginia University,
- 2) Digman Award went to Mr. Robert E. Strong, West Liberty State College SMART Center,
- 3) Virginia and Eastern Section OEST Award went to Debra Faulkner, Halifax County High School in South Boston, VA,
- 4) Pennsylvania OEST Award went to Tiffany Hays, Baldwin School in Bryn Mawr, PA,
- 5) Maryland OEST Award went to Linda Murphy, Sykesville Middle School, Sykesville, MD,
- 6) New York OEST Award went to David Robinson, Wilson High School, Wilson, NY,
- 7) Delaware OEST Award went to Michael Smith, Wilmington Friends School, Wilmington, DE,
- 8) West Virginia OEST Award went to Stefan Smolski, Oak Glenn High School, New Cumberland, WV,
- 9) Eastern Section Distinguished Service Award went to Martin F. Schmidt, Jr., and
- 10) James O'Connor Memorial Field Camp Scholarship Award went to Miss Alina Walcek.

The business meeting was held Sunday morning (the 20th) and discussed future conferences.

The 2008 conference will be held on Long Island and will be hosted by Eric Cohen. The tentative dates are May 1-4. The 2009 conference will be held in Northern Virginia and will be hosted by Rich Gottfried. The 2010 conference will be held in Delaware and will be hosted by Michael Smith.

The section is financially viable with \$8683.96 in the bank at the present time. The 2007 meeting made a small profit (\$464.40). There seems to be some confusion on the number of members in the Eastern Section. Until we get things sorted out we will have to use the numbers provided by the national.

Far West Brigitte Dillet

OFFICERS

President

Brigitte Dillet
Western Nevada College
160 Campus Way
Fallon, NV 89406
bdillet@wnc.edu

1st Vice President

Mark Boryta
Mt San Antonio College
1100 N. Grand Ave
Walnut, CA 91789
mboryta@mtsac.edu

2nd Vice President

Lynn Fielding
El Camino College
16007 Crenshaw Blvd
Torrance, CA 90506
lynn@wb6hqk.ampr.org

Secretary/Treasurer

Leona Fisher
4511 Wildhorse Hollow
Chica, CA 95973
drvfisher@yahoo.com

Publications Coordinator

Paul Troop
318 Romano Way
Oakdale, CA 95361
Paul.troop@sbcglobal.net

Past President

Garry Hayes
Modesto Junior College
435 College Avenue
Modesto, CA 95350
hayesg@yosemite.cc.ca.us

Webmaster

<http://nagt-fws.org>
 Richard A. Smith
 Rasmith7@pacbell.net

Archivist

Mike Martin
 7450 Northrup Dr. # 318
 Riverside, CA 92508
 m.w.martin@sbcglobal.net

MEMBERSHIP

310

2007 CONFERENCES

Spring 2007 conference: Palm Desert, California, March 16-18. Report by Marc Willis and Richard Lozinsky.

Now that the weather has cooled it is time to review the Spring 2007 Far Western Section Field Conference held on March 16, 17 and 18 in Palm Desert. A total of eighty-five participants and seventeen volunteers (trip leaders, students, vendors, and organizers) participated in the field conference. Several of the attendees were from primary and secondary schools. There were also good student attendance, but our section needs to encourage more student participation. Three institutions, Fullerton College (FC), College of the Desert (COD) and California State University San Bernardino satellite campus in Palm Desert (CSUSB) shared the hosting duties. This was a first for our section.

The field conference consisted of two evening talks, three full-day field trips, three half-day trips, and vendor displays. The festivities began at the COD campus with the Friday night registration that included displays from SCEC, McGraw-Hill Publishing, San Diego Association of Geologist/Sunrise Publishing, Society of Vertebrate Paleontology, Sam Karapa, and the USGS. The evening speaker was Andy Barth of Indiana University ~ Purdue University, Indianapolis (IUPUI) who spoke on the anatomy of a magmatic arc in Joshua Tree National Park.

Three full-day field trips took place on Saturday. The first was a hike led by Dee Trent and Andy Barth to Joshua Tree National Park that included fault-controlled palm oases, a historic mine with a prominent gold-quartz vein intruding granite, and a textbook example of a Jurassic pluton intruding Proterozoic gneiss with a colorful intrusion breccia along the contact. The second was a hike led by Mike Rymers (USGS) that focused on the San Andrea fault system exposed in the Mecca Hills. The third trip led by Nancy Moll (COD) traveled along the edge of the Salton Sea and included stops that demonstrated the active spreading such as mud pots and obsidian domes.

After experiencing one of the hottest Saturdays on record in March for the Coachella Valley, the diehard conference participants attended the evening banquet at California State University, San Bernardino satellite campus in Palm Desert. The evening talk was on the Reclamation of Salton Sea by Doug Barnum (USGS).

The third and final day of the field conference had three half-day trips. The first was the Palms to Pines Highway led by Rick Lozinsky and Allan Schoenherr (FC). This tour focused on the geology and natural history of the Santa Rosa Mountains as seen along Hwy 74. The second half-day trip was to Thousand Palm Canyon and the upper Coachella Valley led by Marc Willis (FC). This trip visited the Mission Creek and Banning Faults that comprise the main trace of the San Andreas Fault Zone in the region. The third and last trip visited a Wind Farm and Colmac: Bio-Energy Plant Tour. Led by Gary Frank (retired engineer and rock enthusiast), this tour included an in-depth look at wind energy with a look at several wind farms located on BLM land. In addition, the participants toured the Colmac Energy Plant that generates 47 megawatts using biomass-fuel driven steam turbines.

“Fall” 2007 conference: Lava Beds National Monument, California, August 17-19, hosted by Modesto Junior College. Report by Garry Hayes.

The “Fall” 2007 meeting of the Far West Section took place on August 17-19 at Lava Beds National Monument in the remote northeast corner of California. 43 members and friends of the section joined 12 volunteers from Modesto Junior College, the sponsor of the gathering.

The meeting departed from the hotel and banquet tradition a bit, as most of the registrants camped out in park campground, or made use of the newly constructed Research Center at the monument. We offered just three field trips, which stayed mostly within the boundaries of the park, except for Sunday, when we ventured a short distance south onto the summit area of Medicine Lake Highland, a huge basaltic shield, which is, by volume, the largest volcano in California and the Cascades.

We gathered Friday night for light refreshments at the Research Center, and walked a short distance to Mushpot Cave, a lighted and paved lava tube. We then enjoyed a beautiful sunset from the porch of the Research Center and watched a DVD about the origin of lava flows and tubes. Popcorn was provided! The conditions were perfect later on for watching the last vestiges of the Perseids meteor shower.

Our Saturday events included two field trips. Conference organizers Garry Hayes (Modesto Junior College), and Crystal Hootman (CSU Sacramento) led a group of 35 participants on a tour of Lava Beds National Monument. Stops included Petroglyph Point, one of the largest petroglyph panels in the United States, and Captain Jack’s Stronghold, the site of one of the more unusual battles in the tragic wars between the U.S. military and the aboriginal peoples of America. A band of just 60 Modoc warriors held off 700 soldiers for six months, making ingenious use of the volcanic landscape in their defense. The remainder of the tour included close-up observations of Holocene and late Pleistocene spatter cones, a’a and pahoehoe flows and cinder cones. Some of the group climbed Schonchin Butte for an expansive view of the entire park, while most of the rest hiked to Big Painted Cave and Symbol Bridge for a look at ancient Modoc pictographs. The group then explored Skull Cave, one of the largest lava tube openings in the park, descending deep enough into the lava flow to encounter ice deposits. The final stop of the day was Mammoth Crater, the origin of lava flows that cover 70% of the park.

The second field trip was led by Ryan Hollister (Turlock High School) and Laura Hollister (Pitman High School in Turlock). They led an intrepid group of explorers through some of the lava tubes that wind through the monument (around 700 caves are known, with some 35 miles of passageways). They explored (and crawled, crept, and squeezed through) Big Painted Cave, Valentine Cave, and Tickner and Bertha’s Cupboard Cave just outside the south boundary of Lava Beds. The group made a final stop at Heppe Cave, whose shallow pool is the only open water within the park boundaries.

Saturday evening included a barbecue with Bronto-Burgers and mini-T-Rex legs and thighs served up by chef Garry Hayes. A potluck competition for the most original geology-themed recipe was won by a dish called Pyroclastic Potatoes. Our speaker, Park Service Botanist Sean Smith, discussed the unique flora of Lava Beds, which lies at the junction of several very different floral (and geological) provinces: the Cascades, the Modoc Plateau and the Basin and Range. His excellent presentation answered a great many questions our members had regarding the plants we had seen during the day.

The skies had become overcast during the course of the evening, and rain fell during the night. A rainbow greeted our travelers as we gathered for the Sunday field trip, an exploration of Medicine Lake Highland led by Crystal Hootman and Garry Hayes. Our first stop was at an unusual lava flow, which was thin enough to contain tree molds, formed as lava froze around the trunks of large conifer trees. Some of the molds were fifteen feet deep, and were large enough to climb into. One of the molds

even contained branches. Our second stop was an overview of the caldera of Medicine Lake, which is covered over with glaciated andesite flows and rhyolite plug domes. Our third stop was at Glass Mountain, an obsidian and pumice flow that erupted only 900 years ago. Only two cut fingers were reported. Clouds obscured the summit of Little Mt. Hoffman, so our fourth stop was cancelled, and everyone started their long homeward journeys.

The event was a great learning experience for the past and present students of Modesto Junior College. The twelve volunteers wrote many parts of the guidebook, planned and prepared the food, and did a great job of keeping the conference running smoothly. The Research Center at Lava Beds is a marvelous resource that should be utilized by any educational groups that want to teach about volcanoes in the Cascades and Modoc Plateau regions. Above all, Lava Beds National Monument is a spectacular and very scenic locality, and the staff and volunteers at the monument are friendly and helpful. It is our hope that everyone who journeyed so far to reach our conference enjoyed themselves!

Many thanks to Marc Willis, Richard Lozinsky, Garry Hayes and all of their help for our two wonderful conferences this year.

FUTURE CONFERENCES

Spring 2008-Palomar College, Mira Costa College, Cal State University San Marcos

Fall 2008-CSU Chico

Spring 2009-Mt San Antonio College

Spring 2010-Mt San Antonio College, Venue -Southwestern Utah

Spring 2011-El Camino College, Venue – Mojave Desert, California

SCHOLARSHIPS

The Far Western Section provides three \$750 scholarships, which are funded by interest generated from our CD, sales of publications (both online and during conferences) as well as the profit generated by our conferences. At our last section meeting, it was decided to increase the scholarship amount to \$1000 for 2008. The 3 awardees for this year were:

Niki Wintzer

Graduate Scholarship-San Jose State University

Niki Wintzer started her geology education at Cuesta College, where she did research for an NSF grant at Dinosaur National Monument. She later graduated from Cal Poly SLO, being one of their first Earth Science graduates. She is currently enrolled in the M. S. program at San Jose State University, and has already started working on her thesis on the structure and tectonics of metamorphic and plutonic rocks in the North Cascades.

Sean Bothman

Community College Scholarship to 4-year-Santa Barbara CC

Sean Bothman got started in geology when he was a junior in high school and took a college geology course at Santa Barbara City College. He was hooked. While at SBCC, Sean was awarded an Internship in Vertebrate Paleontology through the Foundation for Santa Barbara City College, which allowed him to prepare and curate Pleistocene vertebrate fossils that were found in the Channel Islands.

Luisa Ivanovici

Field Camp Scholarship – Univ of Montana Western-Cal State Fullerton

Luissa Ivanovici is working at Cal State Fullerton on her undergraduate research thesis, investigating lake level changes at Lake Elsinore using a combination of grain size and geochemical analysis. She received funding from the Faculty Development Center at CSUF to help with this research. Luissa will attend the field camp at the University of Montana.

OEST AWARD

The Far Western Section selected Diane Kelsey as the Outstanding Earth Science Teacher for the year 2007. Ms. Kelsey was recognized for her innovative pedagogical approach using models and visuals involving color and motion, her Scaffolding approach in developing concepts and her extensive field program.

GUIDEBOOKS

Our publications are available for purchase and a list can be found on the section website at <http://nagt-fws.org> Most of our sales occur at conferences

FINANCES

| | | |
|-------------------------------|---------|-------------|
| Cash on Hand (February 9/07) | | \$11,232.86 |
| INCOME: | | |
| Interest | 12.31 | |
| Interest (CD 12/25-4/19) | 152.72 | |
| Publications – spr conference | 644.00 | |
| Orders | 183.00 | |
| Spring Conference (Fullerton) | 5963.32 | 6,955.35 |
| EXPENSES: | | |
| Joshua Tree (publications) | 201.56 | |
| Harlan Checks | 16.05 | |
| Paul Troop – postage | 39.23 | |
| Paul Troop – postage | 34.00 | |
| Scholarships – S. Botham | 750.00 | |
| L. Ivanovici | 750.00 | |
| N. Wintzer | 750.00 | 2,540.84 |
| Cash on Hand (August 17/07) | | \$15,647.37 |
| CERTIFICATE OF DEPOSIT | | \$25,000.00 |

North Central Shelia Roberts

Officers – Elected at the business meeting August 2, 2007, by attendees:

| | |
|---------------------|--|
| President | Sheila Roberts, Environmental Sciences Department, University of Montana Western, Dillon, MT 59725, s_roberts@umwestern.edu |
| Vice President | Suzanne M. (Suki) Smaglik, Central Wyoming College, Riverton, WY, 82501, ssmaglik@cw.edu |
| Secretary-Treasurer | Katherine McCarville, Division of Science and Mathematics, Upper Iowa University, Fayette, Iowa, 52142, mccarvillek@uiu.edu |

Report on Activities in the Past Year (including names of award recipients)

We had our first sectional conference in anybody's memory, July 31 to August 2, 2007, at Birch Creek Center in southwest Montana. (See attached program.) The meeting attracted a small but very enthusiastic group.

Activities Planned for the Upcoming Year (conferences, field trips, meetings, other)

We determined that annual meetings in different geographic locations might be an effective way to reinvigorate the membership. We will attempt to concentrate more on advertising and recruiting for these meetings.

- 2008 Conference will be in the Black Hills. Kata McCarville will be the host and primary organizer.
- 2009 Conference will be in central Wyoming. Suki Smaglik will be the host and primary organizer.
- 2010 Conference might be in Alberta or Saskatchewan, if we can recruit a member in one of these provinces to host it.

Financial Report

Starting Balance (1/1/2007) 92.50

Deposits:

| | |
|--|----------|
| Membership dues and Annual Meeting registration fees | 1,175.00 |
|--|----------|

Payments:

| | |
|--------------------|--------------|
| Annual Meeting | |
| Speaker | 50.00 |
| Transportation | 38.50 |
| Food and lodging | |
| Birch Creek Center | 764.00 |
| <u>Printing</u> | <u>24.45</u> |
| Total expenses | 876.95 |

Ending Balance \$390.55

Donation from University of Montana Western (all spent):

| | |
|------------------------------------|--------------------------|
| Meeting Assistant (student worker) | 1,080.00 (actual) |
| Advertising | 100.00 (actual) |
| Local travel | 100.00 (actual) |
| <u>Phone and postage</u> | <u>80.00 (estimated)</u> |
| Total donation | \$1360.00 |

Northwest**Ralph Dawes****A. 2006-07 Section Officers****a. Executive Office****President**

Ralph Dawes - Geology Department, Wenatchee Valley College, 1300 Fifth Street, Wenatchee, WA 98801, rdawes@wvc.edu

Vice-President

Ron Metzger - Southwestern Oregon Community College, 1988 Newmark Avenue, Coos Bay, OR 97420-2912, rmetzger@socc.edu

Secretary-Treasurer

Robert Christman - Department of Geology, Western Washington University, Bellingham, WA 98225

Past President

Andy Buddington, Spokane Community College

b. State-Province Representatives

Alaska

Cathy Connor, University of Alaska Southeast, Juneau, cathy.connor@uas.alaska.edu

Michael Collins, Geologist, Epoch Well Services, Anchorage, collins_micha20@hotmail.com

Idaho

Shawn Willsey, College of Southern Idaho, swillsey@csi.edu

Oregon

Joe Graf, Southern Oregon University, graf@sou.edu

Tom Lindsay, Portland State University, tcl@pdx.edu

Washington

Joseph Hull, Seattle Central Community College, jhull@sccd.ctc.edu

Jeff Tepper, University of Puget Sound, jtepper@ups.edu

British Columbia

Mary Lou Bevier, University of British Columbia, mbevier@eos.ubc.ca

Brett Gilley, University of British Columbia, bgilley@eos.ubc.ca

c. Communications

Newsletter Editor

Cassandra Strickland - Yakima Valley Community College, 500 W. Main St, Grandview, WA 98930, cstrickland@yvcc.edu

Website Coordinator

[Jenny Thomson](#), Department of Geology, SCI 130, Eastern Washington University, Cheney, WA 99004, Jennifer.Thomson@mail.ewu.edu

d. Awards

OEST Awards Coordinator

Deron Carter, Linn-Benton Community College, 6500 Pacific Blvd. SW, Albany, Oregon 97321, (541) 917-4745423, carterd@linnbenton.edu

B. Reports

a. Annual Business Meeting

The annual business meeting of the Pacific Northwest Section NAGT was held June 21 in conjunction with the Pacific Northwest Section annual meeting at Portland State University in Portland, Oregon.

OEST winners were announced. Nominations for next year are due by January to Deron Carter, our new OEST awards coordinator, (541) 917-4745423, carterd@linnbenton.edu. Davene Meehan, who had filled in at late notice as our previous OEST awards coordinator, was thanked for her good work (she has now moved to Florida and is a teacher there).

b. 2006-2007 OEST Awards

- Section Winner:
 - Clay Good, Juneau-Douglas High School, Alaska (retired in 2007)
- State Winners:

- British Columbia: Chris Loewen, W. J. Mouat Secondary School, Abbotsford
- Oregon: Mike Emory, Woodland Middle School, Couer d'Alene
- Washington: Sheila Guard, Canyon Park Junior High, Bothell

C. Annual Activities/functions

a. Events Sponsored by Pacific Northwest Section NAGT 2006-07

- NAGT Pacific Northwest Section Annual Meeting at Portland State University, Portland, Oregon, June 19-22, 2007, 39 people attended

- Field Trips:

- June 19, Columbia River Gorge geology investigated by inquiry (no showing-and-telling by trip leaders at outcrops), led by Mike Cummins
- June 20, Geology of Portland (and environs), led by Martin Streck and Scott Burns
- June 22, Geology of the northern Willamette Valley wine country, led by Scott Burns

- Conference:

- June 21, Portland State University, Presentation talks included geoscience education in schools, in consortia, involving the public in geoscience research, and geology of Oregon

- Business meeting during extended afternoon coffee break

b. Planned 2008 activities

- Annual meeting, June 25-28, Yakima, Washington

D. Pacific Northwest Section Treasurer's Report (Robert Christman)

| Fiscal Year 2006-07 | Income | Disbursements | Balance |
|-----------------------------|----------|---------------|------------|
| Balance on hand 7/25/06 | | | \$4,954.02 |
| Income from membership dues | \$312.50 | | |
| Income from guidebook sales | \$13.00 | | |
| Balance on hand 7/25/07 | | | \$5,279.52 |

Southeastern

Nancy Huebner

A. Section Officers for the Current Year:

President: Nancy Huebner
 Fernbank Science Center
 156 Heaton Park Drive
 Atlanta, GA 30307
 Phone: 404-929-6312
 E-mail: n.huebner@fernbank.edu

Vice President: Gregory Bailey
 Whitfield County Schools
 Thorton Avenue
 Dalton, Georgia 30720
 (706) 876-7000
 Geogagreg@alltel.net

Past President: Douglas W. Haywick
University of South Alabama
LSCB 136, Earth Sciences
Mobile, AL 36688
Phone: 251-460-6381
E-mail: dhaywick@jaguar1.usouthal.edu;

Treasurer: Pamela Gore
Department of Geology
Georgia Perimeter College
555 North Indian Creek Drive
Clarkston, GA 30021
Phone: 678-891-3754
E-mail: pgore@gpc.edu

Editor: Stan Dunagan
Dept. of Geology, Geography, & Physics
University of Tennessee at Martin
Martin, TN 37238
Phone: 731-587-7589
E-mail: sdunagan@utm.edu

Secretary: Pamela Gore
Department of Geology
Georgia Perimeter College
555 North Indian Creek Drive
Clarkston, GA 30021
Phone: 404- 299-4099
E-mail: pgore@gpc.edu

Councilors at Large:

Alabama

1) Douglas Wymer
 Biological and Environmental Sciences
 The University of West Alabama
 Livingston, AL
 dwymer@uwa.edu

2) David Kopaska-Merkel
 Geological Survey of Alabama
 P.O. Box 869999
 Tuscaloosa, AL 35486-6999
 davidkm@gsa.state.al.us

Florida

1) Jonathan Bryan
 Dept. of Earth Sciences
 Okaloosa-Walton Jr. College
 100 College Blvd.
 Niceville, FL 32578
 850-729-5246
 bryanj@owcc.net

2) Paul Cutlip
 Dept. of Natural Sciences
 SC 233c
 St. Petersburg College
 St. Petersburg, FL
 Cutlip.Paul@spcollege.edu
 727-341-4699

Georgia

1) Pamela Gore
 Dept. of Geology
 Georgia Perimeter College
 555 N. Indian Creek Dr.
 Clarkston, GA 30021
 pgore@gpc.edu

2) William Witherspoon
 Fernbank Science Center
 156 Heaton Park Dr.
 Atlanta, GA 30307
 bill.witherspoon@fernbank.edu

Louisiana

Andrea Walker
 801 Pontalba St.
 New Orleans, LA 70124
 andrealwalker@hotmail.com

Mississippi

1) Gail Russell
 Dept. of Geology
 Box 5045
 University of Southern Mississippi
 Hattisburg, MS 39406
 gail.russell@usm.edu

2) David Dockery
 Mississippi Office of Geology
 Jackson, MS
 David_Dockery@deq.state.ms.us

North Carolina

Randy Bechtel
 NC Geological Survey
 Division of Land Resources
 1612 MSC
 Raleigh, NC 27699-1612
 Randy.Bechtelt@ncmail.net

South Carolina

John Wagner
 Dept. of Geological Sciences
 P.O. Box 340976
 Clemson University
 Clemson, SC 29634-0976
 jrwnr@clemson.edu

Tennessee

Michael A. Gibson
 Dept. of Geology, Geography & Physics
 University of Tennessee at Martin
 Martin, TN 38238
 mgibson@utm.edu

B. Report of Annual Business

Meeting: SENAGT Business Meeting at annual 2007 SEGSA meeting in Savannah, GA
March 29, 2007

Key points of discussion at the business meeting:

New Officers: Nan Huebner open the discussion with the pressing issue of upcoming officer vacancies. Greg Bailey expressed a desire to step down as vice-president, due to conflicts with a new job. We came up with a short list of people who could quickly step into the office, and Nan Huebner agreed to contact the top candidate, Rebecca Dodge of West Georgia University. Stan Dunagan, our sections long term newsletter editor also announced that he will be leaving his post, and Bill Witherspoon agreed to start up in that role with the fall newsletter. It was agreed that Nan Huebner would continue as president until the fall, when the new VP would hopefully be ready to step up to the presidency.

New Position: Nan Huebner suggested the creation of a new officer position, OEST Liaison. John Wagner serves as the national NAGT OEST coordinator, and all of us realized that he has too much on his plate to also worry about getting in OEST winners from each state in our section. Nan Huebner agreed to serve as the OEST Liaison when her term as president is up in the fall. Hopefully the addition of the post will help our section reach its goal of 100% state representation in the OEST award.

In addition, we are looking at the past-president taking on a more active role in SENAGT affairs, especially given that the new vice president will be moving on to president rather quickly next year.

New time for elections: Nan Huebner suggested moving the election of officers to the fall, to coincide with the deadline for the annual report. The annual report would then be the last responsibility of the out-going president, instead of the first of the new president. It was thought that this would allow us to use the annual spring SEGSA meeting as an opportunity to recruit new officers to the section, hopefully counteracting the current trend of having the officers come from only a few states in the section.

State Representatives: We discussed the need to locate new state representatives in several states in the section. It was again suggested that OEST winners automatically become state reps. We have a new "state" in our section – an OEST application came in from Puerto Rico, and that territory was placed under the southeast section banner. The winner of the OEST award from Puerto Rico will be recruited to serve as it's first "state" representative.

OEST: It was announced that it was time to begin locating OEST winners for 2007. Nan Huebner agreed to help find winners in states that need help with the process. We again expressed the desire to have a winner from each state in 2007.

Teacher outreach: We had a rather long discussion on what might be the best way to reach out to K-12 classroom teachers. The scheduled teacher's workshop SENAGT was sponsoring at the meeting was canceled due to low registration numbers. Mike Gibson suggested focusing our efforts toward state science teacher meetings.

Elections: Nan Huebner agreed stay on as President until fall of 2007, when the new Vice President could move into that post. Pam Gore will continue on as Treasurer/Secretary and Bill Witherspoon agreed to become the Newsletter Editor when Stan Dunagan steps down after the spring newsletter goes to press. We will immediately begin to look for someone to succeed Greg Bailey as Vice President.

C. Annual Budget

As of Oct 1, 2007, the SENAGT had \$3700.15 in our bank account. We had some extra expenses this year that were related to our decision to try to reach out to K-12 science teachers. Specifically we paid to have a booth at the Georgia Science Teachers meeting, and to buy a classroom set of state geologic maps as a prize to teachers who registered at the booth. We were able to defray some of the expense by splitting the cost of the booth with the Georgia Mineral Society. Both of our organization were able to gather a wide variety of rocks, minerals and fossils to give-away to teachers. Our booth was well visited throughout the 3 day meeting, and in our opinion was a wonderful success. We plan to continue to budget for this sort of teacher outreach in future years.

It should be noted that up until this last year our only source of income is dues from membership fees, but this year we were able to partner with other organization to help pay for some of the expenses incurred at meetings. In the future we will attempt to get additional income to supplement the money we receive from our membership dues. Membership numbers had been dropping over the years, but have been on the increase over the last two years. We are hoping that our efforts to reach out to K-12 teachers will help to boost membership levels.

A major budget item is printing and mailing out our newsletter twice a year. We, like many other NAGT sections, are exploring the idea of only having an electronic version of the newsletter. This would greatly reduce our yearly expenses and allow us to spend more of our budget on K-12 teacher outreach.

SENAGT Section Income for 2006-2007

| Category | Item | Proposed (2006-2007) | | Actual (2006-2007) | | Proposed (2007-2008) | |
|---|----------|----------------------|---------------|--------------------|---------------|----------------------|---------------|
| | | Income | SubTotals | Income | SubTotals | Income | SubTotals |
| Membership Funds from NAGT (national) | Mbrship | 320.00 | 320.00 | 365.00 | 365.00 | 365.00 | 365.00 |
| Donations | | | 0.00 | | 0.00 | | 135.00 |
| Sales | | | 0.00 | | 0.00 | | 0.00 |
| Other Contributions GA Mineral Society (for booth at GSTA) | | | 0.00 | | 100.00 | | 200.00 |
| Savings & transfers (Bank Accounts, CDs, etc) | interest | | 0.00 | | 2.23 | | 0.00 |
| | | | | | | | |
| TOTAL INCOME | | | 320.00 | | 461.23 | | 700.00 |

SENAGT Section Expenses (2004-2005)

| Category | Item | Proposed (2006-2007) | | Actual (2006-2007) | | Proposed (2007-08) | |
|----------------------------|------------------------------------|----------------------|----------|--------------------|----------|--------------------|----------|
| | | Costs | SubTotal | Costs | SubTotal | Costs | SubTotal |
| Travel & Meetings Officers | N/A | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | Table and booth rental at meetings | 150.00 | 150.00 | 0.00 | 300.00 | 150.00 | 300.00 |
| | | | 150.00 | | 300.00 | | 300.00 |
| Section Management | | | 0.00 | | 0.00 | | 0.00 |
| Other | Newsletter mailing expenses | 150.00 | 150.00 | 150.00 | 210.58 | 100.00 | 220.00 |
| | Newsletter printing expenses | 150.00 | 150.00 | 150.00 | 128.00 | 100.00 | 130.00 |
| | Prizes and give-aways at GSTA | | 0.00 | | 48.00 | | 50.00 |
| | | | 300.00 | | 386.58 | | 400.00 |
| TOTAL EXPENSES | | | 450.00 | | 686.58 | | 700.00 |

D. Report of Annual Sectional Meetings/Conferences

SENAGT sponsorship activities at the 2007 SEGSA Meeting in Savannah, GA.

SENAGT was well represented at SEGSA. We sponsored or co-sponsored a theme session, two poster sessions and a very successful field trip. We decided at the meeting that SEGSA might not be the best method of reaching out to classroom teachers; we were forced to cancel a scheduled teacher workshop due to low registration numbers.

Theme Session

Teaching Organic Evolution for K-16 Students and Pre-Service Teachers: Viewpoints, Techniques, and Approaches. *Co-sponsored by National Association for Geoscience Teachers; Southeastern Section, Paleontological Society.*

Michael A. Gibson, University of Tennessee-Martin

Colin Sumrall, University of Tennessee

Poster Sessions

Using Geographic Information Technology for Geoscience Education (Posters). *Co-sponsored by Southeastern Section, National Association for Geoscience Teachers.*

Wei Tu, Georgia Southern University

Place-Based Case Studies in Geoscience Education (Posters). *Co-sponsored by Southeastern Section, National Association for Geoscience Teachers.*

John R. Wagner, Clemson University

Thomas Hanley, Columbus State University

Field trip

Tybee and Wassaw Islands—Comparing Developed and Undeveloped Barrier Islands. *Co-sponsored by The National Association of Geoscience Teachers.*

Saturday, 31 March.

Clark Alexander, Skidaway Institute of Oceanography

Jim Henry, Applied Coastal Research Laboratory,

The purpose of this trip was to compare and contrast Tybee Island, a significantly developed and engineered Georgia barrier island, with Wassaw Island, an adjacent barrier island that, as a Federal Wildlife Refuge, is largely unaltered by human activity. These islands, both Holocene in age, differ significantly in their morphology and dominant coastal processes. The trip was geared toward science teachers and students, and included discussions of coastal geologic development, natural history and the intersection of coastal science and management given the close proximity of the Port of Savannah and the rapid development of the Tybee coastline.

The field trip was a one day trip, originating in Savannah, Georgia. It included visits to Wassaw Island by boat and Tybee Island by car. Maximum participants: 30. Cost: \$100 (lunch, snacks, and water is provided).

E. Schedule of Future Events

Business Meeting: April 2008 in Charlotte, NC (in conjunction with the 2008 SEGSA meeting)

Profession Meeting: April 2008, Charlotte, NC (in conjunction with the 2008 SEGSA meeting)

Proposed Workshop: Mike Gibson is proposing a workshop on teaching evolution, geared toward science teachers

Proposed Fieldtrip: We may co-sponsor a trip with the Paleontological Society

Proposed Theme Session: Using Technology in Geoscience Education

We will also have a SENAGT booth at the meeting.

F. Annual Awards

OEST Awardees: for the first time in many years, we have an OEST winner from every state in our section. We will work hard to make sure this becomes a common occurrence.

Alabama – Natalie Lane

Florida – Tonya Camaratta

Georgia – William Witherspoon

Louisiana – Michelle Brand-Buchanan

Mississippi – Patti Brooks

North Carolina – Sam Fuerst

Puerto Rico – Julio De Jesus

South Carolina – Ina Eaton

Tennessee – Patricia Royle

Regional Award Winner: Patricia Royle, Tennessee OEST

G. Memberships

As of Oct 1, 2007, the SEGSA had 147 paid members. This is up from the low of 128 two years ago. We are attempting to increase the exposure of the SENAGT in the state public school systems. Stressing the OEST awards is one way of doing this, and our efforts seem to be paying off. Continuing to increase membership is likely to be a major point of discussion at the next business meeting.

H. Communications

Newsletter: Available in print and on line at the SENAGT Website

Website: <http://www.utm.edu/staff/sdunagan/senagt/>

I. Policy Issues

None to report

JGE Editor's Report Carl Drummond

Summary of Volume 55

| | Total Pages | No of Articles | Pages of Articles | No of Columns | Pages of Columns | Pages of Business | No of Ads | Pages of Ads |
|-------|----------------|-------------------|----------------------|------------------|---------------------|----------------------|--------------|-----------------|
| No 1 | 112 | 12 | 88 | 0 | 0 | 24 | 0 | 0 |
| No 2 | 80 | 9 | 74 | 0 | 0 | 6 | 0 | 0 |
| No 3 | 60 | 8 | 54 | 0 | 0 | 6 | 0 | 0 |
| No 4 | 92 | 9 | 76 | 1 | 7 | 7 | 2 | 2 |
| No 5 | 96 | 12 | 86 | 1 | 5 | 4 | 1 | 1 |
| Total | 440 | 50 | 378 | 2 | 12 | 47 | 3 | 3 |

Summary of Submissions

| Year | Total Submitted | Rejected | Published | Accepted In Progress | Acc Rt | |
|-------|--------------------|----------|-----------|-------------------------|--------|-----|
| 2007 | 59 | 11 | 5 | 15 | 28 | N/A |
| 2006 | 94 | 48 | 40 | 4 | (2*) | 46% |
| 2005 | 143 | 58 | 77 | 8 | | 59% |
| 2004 | 104 | 50 | 54 | | | 51% |
| 2003 | 91 | 27 | 64 | | | 70% |
| 2002 | 101 | 38 | 63 | | | 62% |
| 2001 | 66 | 26 | 40 | | | 61% |
| 2000 | 89 | 25 | 64 | | | 72% |
| Total | 747 | 283 | 407 | 27 | 30 | |
| Rate | | 38% | 54% | 4% | 4% | |

* 2 are diversity special issue manuscripts, totals do not include other diversity submissions

Year-to-date Submissions (Oct 1st)

| Year | Papers |
|------|--------|
| 2007 | 59 |
| 2006 | 80 |
| 2005 | 106 |

NAGTNews Editor's Report Keith McKain

The ability of NAGTNews to keep members informed has been greatly improved thanks to the actions of the Executive Committee last May. With the new system through AIP - it is now possible to develop an issue in a matter of days (for editing and set-up) and a matter of minutes to send the issue to all members with Email. I have sent five issues since the 2006 GSA Meeting (see below). I ask that all members of the Executive Committee keep sending any news to me via Email and I will arrange it for the next issue.

The continuing questions about how often and when issues should be sent have yet to be resolved. Perhaps they will never be resolved. My current thinking is to collect news and

announcements and send a broadcast to the Executive Committee about a week before it will be sent. This allows anyone to send and last minute items. This works unless items with extremely close closing dates are sent – then I just can send an issue immediately (as the March 2007 issue). The new system is “always ready” for an issue to be sent!

Is this process satisfactory with the members of the Executive Committee? If not - what should be done differently?

I am willing to continue as the E-news Editor and am available for this service to the organization at the whim of the Executive Committee. Any direction or suggestions will be welcomed. It is my hope that I will be able to attend the Denver GSA meeting and hope to retire in June of 2008. After that – my attendance at meetings should improve. I still question whether I need to be at every meeting – but will attempt to attend as long as that is the consensus of opinion.

The only problem mentioned was that the Cutting Edge Program has had difficulty getting information included in the Newsletter. It was suggested that there might be more coordination of content issues between the e-News editor, JGE editor and website developer. I continue to await instructions in this matter.

| Date_Sent | Subject | Total Recipients |
|------------------|---|-------------------------|
| 11/13/2006 14:57 | NAGTNews - Vol. 6 - Number 1 - November 2006 | 1260 |
| 11/27/2006 15:51 | NAGTNews - Vol. 6 - SPECIAL EDITION - November 2006 | 1318 |
| 2/3/2007 23:24 | NAGTNews - Vol. 6 - Number 2 - February 2007 | 1434 |
| 2/5/2007 17:01 | NAGTNews - Vol. 6 - Number 2 - February 2007 - Supplement | 1435 |
| 3/3/2007 9:46 | NAGTNews - Vol. 6 - Number 3 - March 2007 | 1435 |
| 6/25/2007 15:46 | NAGTNews – Vol. 6 – SPECIAL EDITION – June 2006 | 1397 |
| 9/6/2007 19:44 | NAGTNews – Vol. 6 – Number 4 – September 2007 | 1440 |

NAGT Website Report

John McDaris

Over the past year, we have continued to maintain the current materials on the NAGT website including posting issues of JGE as they become available. The full text of these articles are made live one year after publication unless they are referred to on one of our sponsored project websites. At present we are working with Bill Bruihler and Karen Havholm to complete materials on the website, as well as to expand the amount of information that members can obtain from the website with new areas. Sean Fox has created a Search Page inside the JGE website in order to help people find their way to specific articles more easily. We are piloting an effort to work with Section newsletter editors to strengthen the communication of section news to the whole organization.

Current Status:

- There are still a few missing pieces
 - There was much discussion of sponsorship by the officers but the current text about sponsorship on the website is from 2005.
 - We are missing text on field trips, section meetings, and sponsored sessions
 - There is no info about the Environmental Text project
- We currently have 12 contributions to the Teaching in the Field collection. The target was to have 35 examples in the collection for the development of review criteria and

subsequent review. Review criteria for the collection have been completed and posted on the website.

- The election of NAGT officers has been integrated with the membership system being run through AIP. In conjunction with this, a webpage of information about the candidates was developed and added to the website.
- There is still no stated policy on the reuse and republishing of JGE articles by other websites. Carl is aware of the issue. Sean Fox has drafted a page to alleviate this deficiency and it is awaiting approval.
- Two sections (New England and North Central) started new websites on SERC servers this year and both used our servers to organize a conference meeting in their section.
- Paid advertisements have been implemented on the website. There is a form for members and institutions to use to place the ad, which is then displayed on the Community Advertisements page (<http://www.nagt.org/nagt/ads.html>). Advertisers are being charged \$100 per ad for as long as they want to have the ad available.

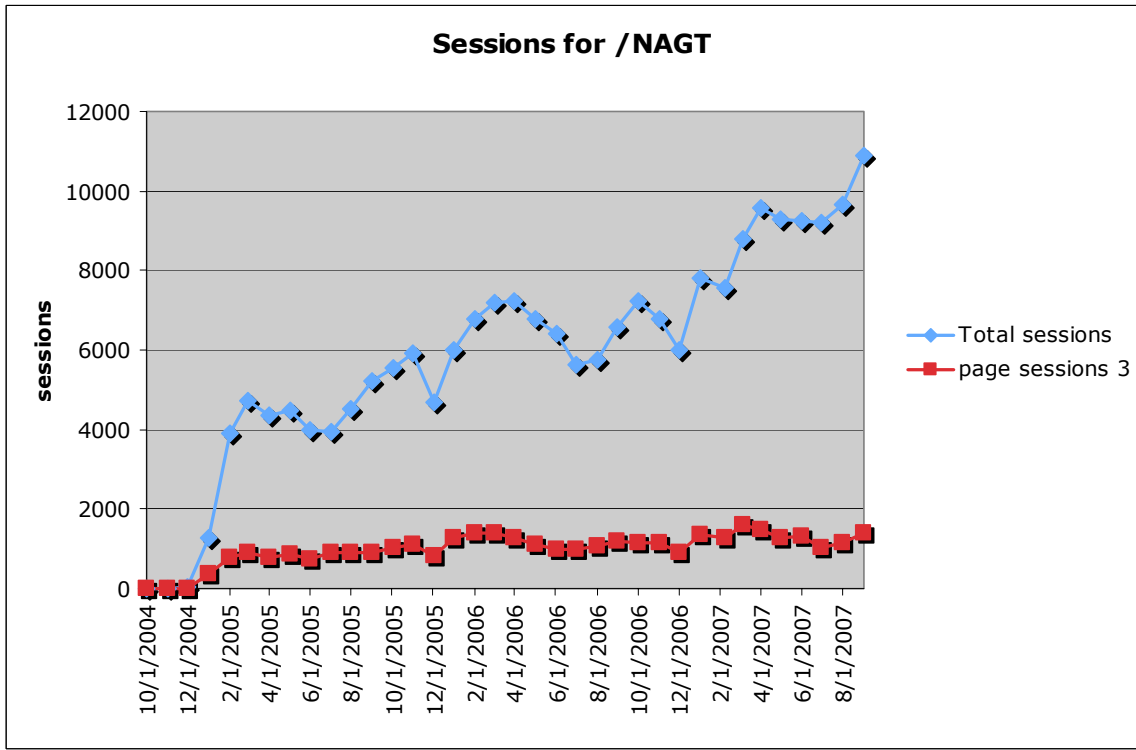
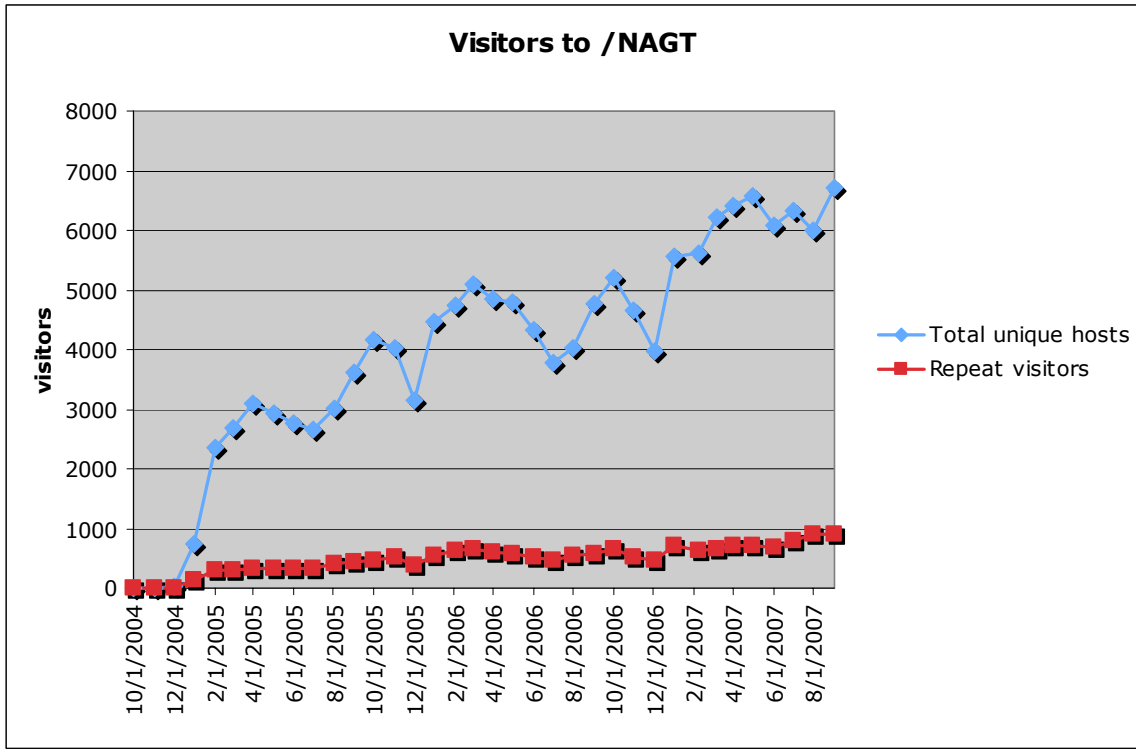
Website maintenance costs for the July 1, 2006 to June 30, 2007 period totaled \$7,287.50; this was \$1,212.50 less than the \$8,500 website maintenance budget.

Website use:

In September 2007, the site received 10,881 visits from 6,714 unique visitors. Of these visits, 1,405 visitors saw 3 or more pages on the site, and approximately 906 visitors returned to the site within the month. (For comparison, in September 2006, the site received 6,600 visits from 3,600 unique visitors, with 1,200 visiting 3 or more pages and 600 returning to the site within the month.)

The most popular part of the site is JGE which received approximately 5,159 visitors (versus 2,900 in September 2006), followed by the Organization area with 2,053 visitors (versus 516 in September 2006), with the Programs area coming in third with 1,708 visitors (versus 1,200 in September 2006).

The large growth in visitors to the Organization area reflects an increased number of sections housing their websites alongside the National website and increased use of section websites. The New England and North Central sections both established websites this year which reside in the Organization area of the National site. And both held conferences using their websites as registration and information sites. In September 2007, the New England site received 1767 visitors having been up since April 2007. The North Central site received 48 visitors having been up since June 2007. The Central and Pacific Northwest sections websites have both been live for more than a year and they garnered 124 and 253 visitors respectively.



Neil Miner Award

There were several outstanding nominations for the Neil Miner Award. The 2007 Neil Miner Award will be presented to Dr. Michael Gibson of the University of Tennessee, Martin.

Dottie Stout Award

Ten applications were received. These were evaluated and ranked by the committee members, Joan Baldwin, Deborah Stout and Bob Christman. In addition, three WWU NAGT members were asked to evaluate the applications. These were Scott Linneman, Bob Mitchell, and Sue DeBari.

The four awards of \$500 each were made to:

Jennifer Anderson, Tacoma, WA who teaches at Orting High School

Debbie Dogancay, Camarillo, CA who teaches at Newbury Park High School

Jason Petula, Tunkhannock, PA who teaches at Tunkhannock High School

Lorraine Tsutsui, Jackson, MI, 7-8th grade science teacher.

We received no applications from an earth science student and only one application from a community college teacher.

In 2006, after receiving only one nomination by the deadline the committee voted to increase the award to \$1000 for 2007. The NAGT Executive Committee approved the increase for 2008. However, with the increase in the number of nominations received in 2007, Bob Christman recommends that the awards be increased to \$750 for 2008.

Several years ago, the committee made that decision that awards should be made until the fund was exhausted and not to make this a perpetual program.

OEST Awards

John R Wagner

The OEST Committee continues to move slowly towards the goal of having every section present at least one OEST award. Seven of our ten sections generated awards in 2007, up one from the 2006 total. However, the big news for 2007 is the huge increase in the number of state winners. Hard work and perseverance by OEST Coordinators in the Central, Eastern, Pacific Northwest, and Southeastern Sections produced a total of 22 state awards (including British Columbia and Puerto Rico), the most ever recorded for NAGT. Central Section also named two "Honorable Mention" winners. Most of these state awards are being presented at state science teacher conferences, a venue which provides maximum exposure and publicity for NAGT. Unfortunately, the total number of nominations has not increased dramatically; as many of the award winners did not have competition at the state level.

The committee is considering suggestions that we go to an online nomination form accessible through the NAGT website, but believes it is important to retain the use of hardcopy nomination forms for use at state conferences and national meetings. Details will be worked out during the coming year.

The huge increase in state awards will certainly put us over budget for the year. Two years ago we reduced costs by specifying that state winners who are also section winners receive only one plaque, and honorable mention winners receive only a certificate; but that still means that NAGT will pay for 22 plaques this year. Only the Executive Committee can decide whether the benefits of the OEST program are worth this expense. And obviously, our budget line must

be increased significantly for 2008 if we are to continue providing the same quality of plaque for our winners.

Regarding sections that are inactive in terms of the OEST Program, this is clearly a section responsibility and Section officers must appoint people who are willing to do some legwork if the OEST program is to be successful in their section. We still have designated section coordinators that are not fulfilling their responsibilities. I have mentioned this before, but if every member of the NAGT Executive Committee would nominate just one teacher from their state (surely if you don't know a good science teacher, your neighbor or colleague or niece or secretary certainly will) we would have winners from every section. Please take the time to make sure someone from your section gets nominated.

The following organizations continue to support the OEST award program by providing cash, journal subscriptions, or free instructional materials to our state and sectional winners: GSA, AGI, USGS, AIPG. We are still waiting confirmation from NESTA and AGU, organizations that have provided items to our winners in previous years. The American Institute of Physics no longer participates in this program. A list of this year's OEST winners appears below. A current list of 2008 OEST Sectional Coordinators is printed on a separate page.

SECTION WINNERS

Central = Paul Varsho
 Eastern = Debra Faulkner
 Far Western = Diane Kelsey
 Midcontinent =
 New England = David Eatough
 North Central =
 Texas =
 Pacific Northwest = Clay Good
 Southeastern = Patricia Royle
 Southwest = Carol Ticho

STATE WINNERS

| | |
|-------------------------------|--------------------------------|
| Alabama = Natalie Lane | New York = David Robison |
| Alaska = Clay Good | North Carolina = Sam Fuerst |
| Brit. Columbia = Chris Loewen | Ohio = Chantelle M. Rose |
| Delaware = Michael Smith | Pennsylvania = Tiffany Hays |
| Florida = Tonya Camaratta | Puerto Rico = Julio DeJesus |
| Georgia = William Witherspoon | South Carolina = Ina Eaton |
| Idaho = Mike Emory | Tennessee = Patricia Royle |
| Iowa = Amanda Rae Schiller | Virginia = Debra Faulkner |
| LA = Michelle Brand-Buchanan | Washington = Sheila Guard |
| Maryland = Linda Murphy | West Virginia = Stefan Smolski |
| Mississippi = Patti Brooks | Wisconsin = Paul Varsho |

Central Section **HONORABLE MENTION** Winners: Sue Merrill (Michigan) & Cheryl Sill (Minnesota)

NAGT/USGS Cooperative Geosciences Internship Program **Robert W. Ridky**

The 2007 Field Season for the NAGT-USGS Cooperative Summer Field Training Program marked the 41st year of what is the longest running geoscience internship program in the nation. Approximately 1600 students have participated in this program since it was first conceived in 1965 by William "Bill" Pecora, then the newly appointed Director of the US Geological Survey. Many of these students have gone on to become well-known leaders, influential professors and outstanding contributors to the knowledge base of geoscience. (More information about the history, and operation of this program at:

http://education.usgs.gov/common/resources/NAGT_USGS_coop_program.pdf

Greg Baker did yeoman's work in taking over for Penny Morton while she was on sabbatical this year. 2007 saw an especially high number of proposal submissions (36) from USGS scientists and their respective program offices. 42 students, nominated by their field camp directors, constituted the total applicant pool of available students. As a substantial number of students (typically more than half) either do not complete the application process or, for one reason or another withdraw, less than 20 students constituted this year's viable applicant pool. It became clear, this year, that with renewed interest in the program, more student nominees should be sought, but only if the high standards of selection can be maintained. This higher placement to student ratio made the process especially challenging this year. From the field of nominated students and proposed projects, the 17 projects and students chosen to receive this year's Director's cost-shared support are shown below. The number of awards has more than tripled over the past four years. As in all previous years, students this year continued to receive outstanding reviews from their USGS scientist mentors and managers.

Unanticipated complication:

On May 2nd, the USGS Chief, of Acquisitions and Grants received word from the Executive Director of the Environmental Careers Organization (ECO) that their Board of Trustees voted to stop all programs and close operations as soon as possible. [ECO is the company that has had the USGS contract to manage this and other internship programs.] At the same time, approx. 35 USGS summer interns (NAGTers and other students) received similar word that their pending internship had been cancelled. This letter, sent to hundreds of other interns within NPS, F&W, NOAA and NASA, simply stated that this was a result of an "on going investigation with the US Attorney's Office in Boston regarding ECO's management of its Federal agreements. The e-mails stated that while ECO believed strongly that it has managed these agreements appropriately, it did not have the time or resources to have "their day in court," and, that as "a settlement could not be reached their Board, they had no other alternative but to close the organization after 35 years." Contract personnel at

USGS worked diligently to get all the students squared away through other contract and employment measures. Every student had to be handled on a case by case basis as each required a specific contract that would work for the student and for the budget requirements and constraints of the scientists and their operational programs. All student contracts were completed expeditiously, and a near calamity, for both scientists and students, was avoided. Although "outsourcing" of many similar activities has been heavily favored by the government in recent years, after seeing what happened in this instance, Bob Ridky, the National Education Coordinator for USGS, is presently in discussions to find a different employment route for '08 and for future years. USGS has several program authorities by which they can bring students on-board, but they must be students and the particular difficulty existing with the NAGTers is that many are not students; that is, they have already graduated and have not yet started in a graduate program. It is a technicality but one that affects how the employment process can be handled. USGS can arrange a contract with another organization similar to ECO, but the preference is not to do this. Bob is in discussions with the USGS personnel office to establish the mechanism by which USGS can manage the placement and do a direct hire of these student interns. In spite of this related hiring issue, both USGS and NAGT can proceed, as in past years, with contacting field camp directors to again let them know of the NAGT/USGS program and to solicit nominations of a few of their outstanding students. New hiring mechanism(s) that hopefully will prevent the difficulties that surfaced this year are moving forward and will be discussed at GSA's Annual Meeting at the NAGT-USGS Cooperative Summer Field Training Program Meeting. The important message is that although the particular hiring mechanism is still being determined, the USGS will continue this program.

2007 NAGT-USGS Internship Placements

| Project Advisor | Office Location | Intern | College/University | Position |
|------------------------|------------------------|--------------------|------------------------------------|---|
| Baum, Rex | Golden, CO | Jacquelyn Negri | University of Michigan - Ann Arbor | Characterizing landslide hazards in western Oregon and Washington through field instrumentation, sampling, and analysis |
| Boydston, Erin | Irvine, CA | Christine Laudadio | University of New Mexico | Investigating how habitat fragmentation affects mammalian carnivores |
| Connolly, Patrick | Cook, WA | Stephanie Strouse | Franklin & Marshall College | Investigating the physical habitat and population of steelhead and salmon in southern Washington State |
| Crocker, | Menlo Park, | Mitchell | University of | Maintaining and |

| | | | | |
|-------------------|------------------|--------------------------|-----------------------------------|--|
| David | CA | Prante | California - Santa Barbara | upgrading the Northern CA Seismic Network |
| Detweiler, Shane | Menlo Park, CA | Jesse Kass | Brown University | Developing training programs for a tsunami warning system in the Indian Ocean; analyzing waveform data in Iran |
| Driedger, Carolyn | Vancouver, WA | Meghan Dickoff | Amherst College | Supporting the Cascades Volcano Observatory outreach program by strengthening ties between CVO and communities at risk from volcanoes |
| Fuis, Gary | Menlo Park, CA | Poonam Reddy Ramesh Babu | Michigan Technological University | Researching the composition and structure of the crust in southern CA in order to better understand earthquakes and their effects |
| Heimann, David | Lee's Summit, MO | Lauren Allen | Miami University | Determining the effects on an altered streamflow regime on the Marmaton River ecosystem |
| Journey, Celeste | Columbia, SC | Bret Waldron | University of Wyoming - Laramie | Monitoring water quality in the Santee River watershed; investigating the major factors that affect water quality and ecosystem health |
| Kelley, Karen | Lakewood, CO | Stephanie Yurchyk | University of Rochester | Testing assessment techniques for identifying concealed mineral resources |
| Coplen, Tyler | Reston, VA | Omar Davis | Wesleyan University | Creating a national map of hydrogen and oxygen isotopic composition of tap waters |

| | | | | |
|------------------|------------------|-------------------|---|--|
| Leblanc, Denis | Northborough, MA | Gillian Fairchild | Washington University in St. Louis | Researching the transport and fate of ground-water contaminants at the Cape Cod Toxic Substances Hydrology Research Site |
| Leeds, Alena | Golden, CO | Drew Downs | Southern Illinois University - Carbondale | Maintaining and installing Advanced National Seismic System monitoring stations |
| Major, Jon | Vancouver, WA | Abigail Rhode | The Pennsylvania State University | Investigating the landscape impacts of the 1980 Mt. St. Helens eruption |
| Fischer, Jeff | West Trenton, NJ | Samuel Tuttle | Williams College | Collecting field data to survey water quality; investigating radionuclide occurrence in NJ groundwater |
| Weeks, Edwin | Denver, CO | Dan Gold | University of Michigan - Ann Arbor | Monitoring greenhouse gas concentrations in urban and mountain subalpine settings |
| Williams, Robert | Golden, CO | Martin Messmer | Northern Illinois University | Discovering earthquake hazards through subsurface seismic imaging |

NAGT Field Scholarship Committee Richard Yuretich

The Scholarship Committee consisted of Richard Yuretich (UMass-Amherst, Chair) Pranoti Asher (Georgia Southern University) and Laurel Goodell (Princeton University). We received a total of 93 applications for the scholarship, of which 82 were complete by the deadline. We were a little flexible on the deadline this year owing to the last-minute change in the committee chair. Of the completed applications, 53 were from women students and two indicated that they were minorities. Reviews of applications and selection of awardees was completed by March 16. Eighteen students were selected for the scholarships; twelve are women and one of these is a minority. Two of the women were subsequently designated by the AWG as recipients of their scholarship awards. Awardees are posted on the NAGT website.

We will be making some changes in the application process and administration of the awards, pending Council approval. We hope to move the application process on-line, and John McDaris has developed a web page that begins this process:

http://serc.carleton.edu/dev/nagt/programs/field-schol_app.html. Transcripts may have to be handled via mail, although we may be able to circumvent this by accepting unofficial grade reports, which we have been doing in some cases. Faculty members will also be able to upload recommendations to the website. These changes will speed the processing of applications as all committee members will be able to view the applications as soon as they are received. Clearly, the access to these applications will have to be password protected.

We will continue to have paper applications, which will be modified slightly to allow greater flexibility for the committee to evaluate them and process the awards. Instead of specifying a specific data, the application will indicate a time window of six weeks for notification of the awards.

It will also be helpful to streamline the process of notifying awardees and issuing the awards. It has been unclear as to how is to be handled among the Committee Chair, President, and Executive Director. I recommend that the Chair notify students as soon as the decision is made. Perhaps this process could also be streamlined via a web interface that will e-mail form letters to the students. If the number of applicants continues at current levels, this will greatly simplify the task.

**AGI Environmental Geoscience Awareness Committee and NAGT/AGI
Environmental Geoscience Textbook Committee
Jill Whitman**

The NAGT-AGI collaborative Environmental Geology textbook *Living With Earth* is moving forward with Prentice Hall Publishers. Travis Hudson (ageology@olympen.com) is the primary author for the book and the point person from AGI. Ann Heath (ann_heath@prenhall.com) is the project manager for *Living With Earth* for Prentice Hall. Dan Kaveney (Daniel_Kaveney@Prenhall.com) is the Publisher for Geosciences and Environment for Prentice Hall. In addition to the Advisory Committee (listed below), Travis has also consulted with a panel of experts on the various topics in the book.

During this past year, the project management has been realigned and progress on the book has been significant. In the spring I submitted a formal Sponsorship Request to the NAGT Executive Committee on behalf of the project and they have indicated their support. The current Prentice Hall timeline calls for publication at the end of 2008. I received recently a report from Ann Heath that gives a detailed synopsis of the changes and progress to date as well as a timeline for the future activities; I have appended it in its entirety here.

Needed from NAGT:

- (1) The major input needed from NAGT will be in the review process. Specifically, are there other folks, besides those on the Advisory Committee or the Prentice

- Hall advisors and review panel that should be involved so that NAGT feels completely comfortable in giving its full endorsement for the book?
- (2) Finally, formal endorsement of the book will be needed, so that the NAGT name and logo can appear in/on the book (as with the Physical Geology lab manual).

The Advisory Board plans to meet at the 2007 GSA meeting, on Tuesday afternoon (place as yet to be determined) if other NAGT members would like to attend.

The Advisory Board members: (* indicates NAGT member)

*Jill Whitman
Pacific Lutheran University
*Scott Burns
Portland State University
*Tom Bush
Pierce College, Puyallup (2 yr)
*Carl N. Drummond
Indiana University Purdue University
*P. Geoffrey Feiss
College of William and Mary
Judith Hepburn
Boston College
Michael T. May
Western Kentucky University
*Jeffrey W. Niemitz
Dickinson College
Michael C. Roberts
Simon Fraser University

Report from Ann Heath:

Living with Earth
Status 9-15-07

Background:

Early in 2006, two major changes were made to the project.

- It was agreed that Dan Pendick, the science writer, was not making sufficient contributions to warrant his continued involvement. Travis Hudson became the sole author of the text.
- The market endorsed our plan to use Earth Systems as a major theme that will be integrated throughout the text.

First Draft:

- Once Travis finishes chapter 15, he will have completed the entire first draft. The reviews have been outstanding.

As part of the development of first draft chapters, PH hired a panel of Content Advisors* to critique the raw drafts submitted by Travis. The advisors were asked to evaluate the content and examples and to verify that the level and scope were consistent with the needs of the college environmental geology course. Travis then revised each chapter

based on their feedback and handed it off to a developmental editor (DE) who edited the chapters for language and consistency.

In early 2007, chapters 1-9 were sent to a distinguished panel of professors from bell-weather schools across the country. ** An excerpt of the review analysis: “The reviews suggest that the first draft of *Living with Earth* is in excellent shape and is on target to make a significant contribution to the market for non-majors environmental geology texts. Fourteen of the 18 reviewers suggest that they would either adopt or would consider adopting this text based on the first 9 chapters of the text. Overall, these reviews are extremely positive. The quality of the manuscript – notably the writing style, compelling examples and features, promising illustrations, and thematic appeal of the book – will allow us to focus on fine-tuning and polishing in second draft. There is no indication that significant revision of content or approach is needed. Further integration of the text themes, the development of an outstanding art program, and building a comprehensive ancillary package will be critical in securing these adoptions.

I like the approach used in this book – focus on major points, get students thinking and understanding, and applying. Are details skimmed over? Yes – thankfully. This book is NOT designed as a book for Earth Science majors. Professors have to realize that teaching Earth Science MAJORS and science adverse students is not one and same thing. I really like this book for teaching science adverse students.

Carol Wicks, Univ. of Missouri – Columbia)

Hudson has an energetic and engaging writing style...I think that this is about as good a writer as I have encountered in elementary geology texts.

(Michael Roden, Univ. of Georgia)

Chapters 10-14 were sent out for review in summer 2007. Only a few reviews have been returned but they are equally as strong as those for chapter 1-9. Additional reviews will be commissioned now.

Second Draft – Next Steps

- Beginning in summer 2007, the DE started editing the first draft chapters with reviews in hand. In addition to doing a thorough developmental edit of the text and art, she will identify and suggest opportunities to integrate the themes of sustainability and earth systems (and the new Earth Systems box) more thoroughly.
- Summer/Fall 2007 – PH is soliciting art samples from 4-5 studios and is beginning preliminary design.
- Travis will revise the chapters in Fall 2007/Winter 2008 and PH will review them in batches as they are submitted. Assuming that the second draft reviews are of the same high quality, our hope is to put the manuscript into production beginning in February 2008 with the goal of publishing the book in Dec. 2008 (2009 copyright date).
- Fall 2007 – PH will establish the supplements plan and begin to commission ancillary authors.

- Our goal is to commission a panel of NAGT reviewers to evaluate the second draft manuscript and potentially to help author and/or critique many of the supplements that will accompany the text.

*** Content Advisors**

1. Tom Bush, Pierce College (reviewed entire first draft)
2. Mike May, Western Kentucky Univ. (reviewed entire first draft)
3. Judith Hepburn, Boston College (reviewed chapters 1 – 11)
4. Robyn Hannigan, Arkansas State University (reviewed chapters 1-4)

****Chapter 1-9 review Panel**

1. Laura Smart- Grand Valley State University
2. Larry Fegel- Grand Valley State University
3. Steven K. Lower- Ohio State University
4. Anna Cruse- Oklahoma State University
5. Christine Aide- SE Missouri State University
6. Michael Aide- SE Missouri State University
7. Patrick Burkhart- Slippery Rock University of Pennsylvania
8. Michael Grossman- Southern Illinois University
9. Carol Wicks- University of Missouri- Columbia
10. Peter Nabelek- University of Missouri- Columbia
11. Michael McKinney- University of Tennessee- Knoxville
12. Gary Kocurek- University of Texas- Austin
13. Gina Seegers Szablewski- University of Wisconsin- Milwaukee
14. Natasha Vidic- University of Wisconsin- Oshkosh
15. Michael Roden- University of Georgia
16. Evan Paleologos- University of South Carolina
17. Clark R. Wilson- University of Texas- Austin
18. Michael Kelley- Georgia Southern University

**AGI Environmental Geosciences Awareness Committee
Jill Whitman**

I have represented NAGT on the AGI Environmental Geosciences Awareness Committee since 2000. To quote from AGI (<http://www.agiweb.org/direct/advenv.html>):

The Environmental Geoscience Advisory Committee (EGAC) was established to help identify and focus on the highest priority environmental informational needs and issues best addressed by the geoscience community. In fulfilling its responsibilities, the committee should emphasize the need to draw on AGI's historical and existing strengths, and to endorse activities that are fiscally viable.” Detailed responsibilities are given on the website and is the membership list.

The committee typically meets twice a year (at GSA and at AAPG). I have usually only been able to attend the meeting at GSA.

I see my role on this committee to be a link between AGI and NAGT to help keep the energy alive behind the Environmental Geology textbook and to keep open the possibility

for other opportunities for collaboration. I am happy to continue in this role, if that is the wish of NAGT.

National Park Service. Geologist in the Park Program
Cheryl Messenger and Lisa Norby

• **What activities occurred this summer?**

During the summer of 2007, the Geoscience-Teachers-in-the-Park worked on a variety of projects. These projects included:

- Photographed and obtained GPS coordinates for the springs located within Mammoth Cave National Park
- Participated in a water monitoring project looking for *E. coli* within Mammoth Cave and at the cave's Historic Entrance
- Documented with photographs and GPS coordinates the location of old wells and cisterns located throughout Mammoth Cave National Park.
- Assisted with producing several GIS layers in ArchView
- Began work on documenting a surface version of the Mammoth Cave Historic Tour Route. (This project proposes to identify the surface locations of known cave features such as Fat Man's Misery, the Rotunda, Bottomless Pit, Methodist Church, etc.) The project is ongoing, and when completed will help visitors relate the geological features they see on the surface with the cave features they find underground.
- Participated in a long-term cave cricket monitoring program (comparison of cave population numbers to temperatures and humidity levels, as well as man-made vs. environmental influences on populations).
- Participated in a long-term Allegheny woodrat monitoring program (compares woodrat use of managed cave entrances versus natural cave entrances)
- Collected data on the survivorship and health of re-introduced American Chestnut trees. (Comparative location data included aspects, soils, moisture levels, etc.)
- Assisted in a national bird banding project
- Developed a classroom lesson plan focused on the various types of scientists that work within the park

• **What activities are planned for the academic year?**

Some of the ways that the teachers are sharing their experiences with their students include

- The use of personal experiences and locally based, on-going scientific studies as real-world examples for their students.
- Working with Mammoth Cave (MACA) and Mammoth Cave International Center for Science and Learning (MCICSL) staff to provide hands-on learning and volunteer opportunities for their students.

- Coordinate with school administration, MACA, and MCICSL staff to arrange volunteering / job shadowing opportunities for several high school freshmen girls who have expressed strong interests in pursuing scientific careers
- Use of the newly developed “What is a scientist?” lesson plan to show students that scientists are not necessarily the stereotypical “old guy in a lab coat with a chemistry set.” It is hoped the lesson plan will ignite an interest in science among their students and encourage them to pursue scientific careers.
- Presentation at the Kentucky Association for Environmental Education (KAEE) state conference to let other formal and non-formal Kentucky state educators know about the GeoScience-Teachers-in-the-Park program, the types of research being conducted at Mammoth Cave National Park, and ways to obtain updated scientific information and assistance in teaching the geosciences to students.
- Additional community presentations planned

- **Current financial and logistical arrangements**

On May 31st, 2007, a check in the amount of \$6,000 was received at Mammoth Cave National Park from the National Association of Geoscience Teachers (NAGT) to support funding for three GeoScience Teacher Internships during the summer of 2007. To accept the funds under current NPS regulations, the money was deposited into the park’s Environmental Education donation account. NPS contracts for services were initiated between the park and each teacher’s school district, with Internship payment to be made to the appropriate county Board of Education. Each appropriate Board of Education will then pay the GeoScience Teacher within their established payroll process.

Each GeoScience Teacher Intern will receive \$1,500 upon completion of 200 hours of work. All work is to be completed no later than 30 September 2007. An extension of the contract is available if required. Under the terms of their contract, each teacher will deliver a final report and evaluation of the program. The final report will include five to ten digital photographs. Each teacher will schedule and present two public programs / presentations that will help community members understand the park, park resources, and types of geoscience jobs/careers available.

In addition, the 2007 intern teachers will work with future geoscience intern teachers as well as those teachers who completed the program in 2006 to establish a teacher network that will educate local and regional peers, students, and parents on park resources and types of geoscience jobs/careers available, among other topics.

An additional \$500 will be paid to each teacher for continuing education in the geoscience field. This education component will be paid upon presentation of a receipt showing enrollment in a college course, conference, or other approved continuing education program. The money will be paid thru an NPS DI-1 initiated by the Mammoth Cave education coordinator.

- **Assessment/program evaluation plans**

We are utilizing informal tools to assess the current program and to improve the program for future teachers.

- We have noted the level of engagement of the teacher interns throughout their summer of work (i.e., did they come to the park at their assigned times; did they complete their assignments; was their level of participation enthusiastic or negative; did the teacher interns look forward to the next challenge or appear to dread their up-coming assignment/project, etc.)
- We have used summer exit interviews of each teacher to discover what excited them about the program and to ask what they feel should be changed, added, deleted
- We have asked each teacher to list ways they plan to use material and knowledge obtained during their internship with their classes
- After a year's lapse we plan to conduct follow-up interviews with each participating teacher to discover what material, skills and knowledge from the internship contributed to their classroom, what was nice to know but could not be used with their students (and why), which skills and what knowledge from their internship was incorporated in their teaching, what aspects of the program helped them teach and meet state educational requirements, what aspects of the program were beneficial to their students, what can the park and the program do to enhance their classroom effectiveness
- We will compare the *planned* usage of materials, skills, activities, and knowledge as listed in the end-of-summer exit interview with the list of materials, skills, activities, and knowledge *actually presented* during the school year following their internship
- By staying in contact with each of our teacher interns, we hope to determine if the investment of National Park time and resources made a difference in teaching techniques and in the expansion of geoscience opportunities by these teachers (and their colleagues) over multiple years.
- We will determine if each teachers took advantage of the continuing education portion of their internship, how this funding was used (i.e., a preference of conference attendance, formal college coursework, or other continuing education opportunities), and if not used, what might have been more beneficial for them (i.e., a supply list or other assistance).
- We will maintain a list of teachers who begin using Mammoth Cave National Park as a resource and/or who express interest in the Geoscience-Teacher-in-the-Park program as a result of coming in contact with current or former teacher interns
- We will continue to solicit suggestions and lists of projects which will both engage teacher interns and will benefit Mammoth Cave National Park

Teacher's perspective

Both the 2006 and 2007 teacher interns appear very pleased with the program.

- One of the 2006 teacher interns thought the program was so valuable, she re-applied for a second year.
- When discussing the required community presentations, one of the 2007 teachers said, “I know we’re only required to do two presentations, but this is such an awesome program that I’d live to share it with as many people as possible.”
- All of the teachers reported that one of the most interesting things they learned this summer was the diversity of Mammoth Cave National Park’s management and research activities. One teacher intern had worked as a Mammoth Cave seasonal Interpreter while in college (2001). She said she was amazed by the diversity and commented on how much she had learned.

MACA / MCICSL perspective

For Mammoth Cave National Park this has been a positive experience that we look forward to repeating next year. From this program we are pleased to see a network of local teachers that continues to grow.

- We have already had several teachers express interest in applying for the 2008 internships, largely due to the enthusiastic endorsement of the project by the teachers from both 2006 and 2007.
- After two months of school, two of the 2007 teachers continue to work closely together and collaborate on projects.
- Both 2006 teacher interns remain interested in and supportive of the Geoscience-Teacher-in-the-Park project and both continue to use Mammoth Cave National Park as a resource for and with their students
- All the teachers have continued to promote the GTIP program after their internships are completed.

In addition to building a network of teachers who have participated directly in the program, we have been able to develop an even broader network.

- Participating teachers have brought their experiences back to their schools and brought their colleagues into the network.
- One of the 2006 participating teachers talked to the principal of her high school about the program. That conversation led to a program where an advanced biology class at the high school is coming to the park weekly to supplement their classroom instruction. This teacher’s participation in GTIP led to new avenues of cooperation between the park and at least one area school.
- The second 2006 participating teacher helped develop a formal partnership between her area Middle School and Mammoth Cave National Park. Through this partnership, all 6th, 7th, and 8th grade students in her county will now be afforded the opportunity to both visit Mammoth Cave National Park at least once a year and to have monthly classroom visits by park personnel. These school visits will include NPS ranger-led activities in the natural sciences (weather, landforms, fossils, water quality, karst, constructive/destructive forces, etc.) and biological sciences (ecosystems, habitats, adaptations to habitat changes, etc.)
- Two of the 2007 teacher interns have approached the park about bringing students to the park to experience on-the-ground and “real life” science through volunteer projects, job shadowing, and other interactions with park resource managers and scientists.

We feel these developments indicate the program is successfully creating a network of educators in the area who work with the park and who will be available to assist new educators as they begin to work with the park. As always, we continue to learn and develop new ideas for future years.

On the Cutting Edge

Heather MacDonald, Cathryn Manduca, David Mogk, and Barbara Tewksbury

The overall goal of the *Cutting Edge* project is to improve the quality of geoscience education for undergraduate students through the dissemination of exemplary practices and materials to current and future faculty through an integrated, synergistic set of workshops and a variety of web resources. We aim to bring advances in pedagogy and geoscience research to the broader community of those who teach geoscience to undergraduates. With the support of the second national dissemination grant from the NSF Division of Undergraduate Education, we are initiating a more structured program of leadership development that will enable us to expand the dissemination of our program (e.g., the pre-GSA workshop for early career faculty at this GSA meeting, focused expansion of some of the websites, and workshops at regional GSA or NAGT meetings or other venues). We welcome suggestions for potential participation in our leadership development program.

We have changed the funding model of some of the workshops so that some of the food and lodging costs are covered by participants. This past year, we charged participants \$150 towards food and lodging costs for the Early Career and face-to-face Course Design workshops. We did not observe a decline in the number of applicants for the Early Career Workshop, so think this demonstrates that the benefits apparently justify the costs to at least this group of faculty.

We are grateful to NAGT for the advertising and publicity that NAGT provides and for its co-sponsorship of sessions at professional meetings. In addition, the opportunity to include *JGE* articles on the *Cutting Edge* website provides high-quality material to the website and increases the visibility of *JGE*. Both NAGT and Cutting Edge are contributors to the Geoscience Education Social at GSA. We encourage NAGT members to suggest workshop topics for the 2008/2009 workshop series.

2007 - 2008 Workshops (more details are given on brochure)

- Teaching with New Geoscience Tools: Visualizations, Models, and Online Data
- Urban Students, Urban Issues: Opportunities and Challenges for Teaching Geoscience Courses
- Early Career Geoscience Faculty: Teaching, Research, and Managing Your Career
- Teaching Introductory Geoscience Courses in the 21st Century
- Preparing for an Academic Career in the Geosciences
- Teaching Geomorphology in the 21st Century

- Teaching Climate Change (workshop in association with annual meeting of AMQUA)

2007-2008 Related Activities include sessions at both the 2007 GSA and AGU meetings.

WEB RESOURCES

The thematic collections typically link fundamental scientific research, pedagogical approaches, examples and activities, data and tools, images, and supporting services. We continue to use a range of approaches to providing resources derived from workshops to a broader audience via the web-site. We have added new collections associated with workshops in the 2006-2007 workshop series, and have added considerable material to the web resources for career management. The website front page shows the range of topical resources:

Managing Your Career

- Preparing for an Academic Career
- Early Career Faculty

Enhancing Your Teaching

- Affective Domain
- Assessment of Learning
- Course Design
- Teaching in the Field
- Using Data
- Visualizations
- Web Design

Geoscience Topics and Themes

- Biocomplexity
- Climate Change
- Discoveries from Mars
- Early Earth
- Geology and Human Health
- Geochemistry
- Geophysics
- Hydrogeology
- Mineralogy
- Ocean Systems
- Petrology
- Public Policy
- Rates and Time
- Sedimentary Geology
- Structural Geology

Starting Point

Cathy Manduca

This website, sponsored by NAGT, brings together information about teaching methods with examples of their use in introductory geoscience courses. The site now contains information on 24 different teaching methods or approaches, as well as a section on assessment of learning in introductory classes and a section on Earth system science. Each method includes information on what it is, when/why it is useful (with full referencing from the literature), how to implement it, and examples of its use in introductory geoscience.

Most geoscience faculty enter the site looking for examples of the ways in which other faculty have taught a particular geoscience topic. There are currently XX examples in the site. Each is linked to a particular teaching method so that faculty can find not only the example but the information they need to adapt it effectively for their own teaching.

In 2006, the Starting Point site was visited by 8,000 users who returned three or more times during the year. Total visitors to the site were 225,000. Evaluation studies show that users move between examples and information on their use suggesting that they are both learning about methods and finding examples that facilitate their adoption in their teaching (Manduca et al, 2005).

The grant that funded development of the site expired in 2005. A subsequent project builds on its intellectual model to engage disciplinary digital libraries, centers for teaching and learning, and educational projects to contribute to a library of teaching method modules and examples. The library is then used to create customized portals for different constituencies (<http://serc.carleton.edu/sp>). Examples from introductory geoscience courses contributed to the library are added to the Starting Point collections. The site also continues to grow through contributions from other NSF funded projects including the On the Cutting Edge project. This year a Cutting Edge workshop on Introductory Geoscience Courses will grow the collections substantially. In addition to collecting examples at the workshop, Cutting Edge will support authoring of eight new teaching method modules in the next year. SERC continues to seek funding for expansion of the Starting Point collection.

Manduca, C.A., Iverson, E.R., Fox, S.P., McMartin, F. (2005). Influencing User Behavior through Digital Library Design: An Example from the Geosciences, D-Lib, vol 11(5).

Teacher Prep Workshop/Working Group Scott Linneman

The following workshop summary will appear in EOS.

Geoscience Courses That Prepare Future Teachers

As the focus on developing our nation's scientific workforce intensifies [1], more geoscience departments are recognizing teacher preparation as an integral part of their work. Skilled geoscience teachers can excite and engage K-12 students in the geosciences, present geoscience as a rewarding career path, and ultimately contribute to a better understanding of key geoscience problems among the public. Our ability to achieve these

goals starts with the quality of our teacher education programs.

To address the growing demand for better prepared teachers of Earth science, twenty-three faculty met at Carleton College (MN) May 10-12, 2007 to compare geoscience courses designed for pre-service K-12 teachers. This meeting was sponsored by the National Association of Geoscience Teachers, and funded by the National Science Foundation (grant EAR-0304762).

The workshop had three main goals: (1) build a community of educators involved in K-12 geoscience teacher preparation, (2) examine the spectrum of ways in which geoscience teacher preparation courses are designed, and (3) compile and publish course descriptions and peer-reviewed course activities in a format accessible to other educators. The workshop program, course and activity collections, and summary documents are available at the workshop website

(<http://serc.carleton.edu/teacherprep/workshops/workshop07/index.html>).

While there was wide variety in the format and content of the courses discussed at the workshop, several common themes emerged that participants identified as particularly important in preparing future teachers:

- A central focus on understanding what science is and how it is done, either through course activities or authentic investigations.
- An emphasis on the relevance of geoscience learning. The importance of relevance as a motivator for learning is widely recognized [2]. Teachers in particular need a deep understanding of relevance to motivate their own students.
- Focused course content that is purposefully chosen to align with state and/or national science standards so that future teachers become aware of what they are expected to teach.
- Opportunities for students to reflect upon the process of their own learning (metacognition). Developing metacognition is a critical step in enabling independent learning [2], a fundamental skill for teachers who need to stay current in both science and pedagogy.
- A learning environment that increases students' confidence in their abilities to both learn and teach science. A lack of confidence is known to hinder science teaching particularly at the elementary level [3].
- Instruction that allows students to make a connection between the content they are learning and the ways in which they will teach it in the future.

Participants took steps to continue building a community of K-12 geoscience teacher educators. Priorities established by participants included: updating and maintaining the Teacher Preparation website and list-serve, authoring a white paper and report on the importance of preparing future geoscience teachers, proposing a special issue of the Journal of Geoscience Education related to teacher preparation, and pooling resources to clearly ascertain best practices in geoscience teacher preparation. If you teach or plan to

teach geoscience to future teachers and would like to join our list-serve, please visit the website.

References:

1. National Academy of Sciences, 2007, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*, National Academies Press, Washington, D.C.

Workshop Report: Geoscience Courses That Prepare Future Teachers

Prepared by:

Heather Petcovic, Department of Geosciences and the Mallinson Institute for Science Education, Western Michigan University, Kalamazoo, MI

Steve Mattox, Geology Department, Grand Valley State University, Allendale, MI

Scott Linneman, Geology Department, Western Washington University, Bellingham, WA

Cathryn A. Manduca, Science Education Resource Center, Carleton College, Northfield, MN

This report details activities at an NSF funded workshop sponsored by NAGT. Following the workshop, Scott Linneman requested that NAGT sponsor an ongoing working group. This request was approved in October 2007 and the group is currently forming.

Overview

As the focus on developing our nation's scientific workforce intensifies [1], more geoscience departments are recognizing teacher preparation as an integral part of their work. Skilled geoscience teachers can excite and engage K-12 students in the geosciences, present geoscience as a rewarding career path, and ultimately contribute to a better understanding of key geoscience problems among the public. Our ability to achieve these goals starts with the quality of our teacher education programs.

To address the growing demand for better prepared teachers of Earth science, twenty-three faculty met at Carleton College (MN) May 10-12, 2007 to compare geoscience courses designed for pre-service K-12 teachers. This meeting was sponsored by the National Association of Geoscience Teachers, and funded by the National Science Foundation (grant EAR-0304762).

The workshop had three main goals: (1) build a community of educators involved in K-12 geoscience teacher preparation, (2) examine the spectrum of ways in which geoscience teacher preparation courses are designed, and (3) compile and publish course descriptions and peer-reviewed course activities in a format accessible to other educators. The workshop program, course and activity collections, and summary documents are available at the workshop website (<http://serc.carleton.edu/teacherprep/workshops/workshop07/index.html>).

While there was wide variety in the format and content of the courses discussed at the workshop, several common themes emerged that participants identified as particularly important in preparing future teachers:

- A central focus on understanding what science is and how it is done, either through course activities or authentic investigations.
- An emphasis on the relevance of geoscience learning. The importance of relevance as a motivator for learning is widely recognized [2]. Teachers in particular need a deep understanding of relevance to motivate their own students.
- Focused course content that is purposefully chosen to align with state and/or national science standards so that future teachers become aware of what they are expected to teach.
- Opportunities for students to reflect upon the process of their own learning (metacognition). Developing metacognition is a critical step in enabling independent learning [2], a fundamental skill for teachers who need to stay current in both science and pedagogy.
- A learning environment that increases students' confidence in their abilities to both learn and teach science. A lack of confidence is known to hinder science teaching particularly at the elementary level [3].
- Instruction that allows students to make a connection between the content they are learning and the ways in which they will teach it in the future.

Participants took steps to continue building a community of K-12 geoscience teacher educators. Priorities established by participants included: updating and maintaining the Teacher Preparation website and list-serve, authoring a white paper and report on the importance of preparing future geoscience teachers, proposing a special issue of the Journal of Geoscience Education related to teacher preparation, and pooling resources to clearly ascertain best practices in geoscience teacher preparation. If you teach or plan to teach geoscience to future teachers and would like to join our list-serve, please visit the website.

Workshop Events and Key Findings

In order to meet the workshop goals, participants provided a detailed course description and sample activity from a geoscience course for future teachers (either a course specifically designed for future K-12 teachers, or one in which future teachers are a significant population). One day of the workshop focused on identifying and discussing commonalities between courses, and creating summary documents with resources for the wider earth science community to use in developing similar courses. Participants worked in four thematic groups; two groups focused on courses that prepare future middle and high school teachers, and two groups focused on courses that prepare future elementary teachers. Participants spent part of the second day examining specific activities used in these courses, with peer feedback used to refine the activities. Additional time was used to evaluate the SERC Teacher Preparation website, and plan how to further build the community of teacher educators in the earth sciences.

Key findings and conclusions from the workshop as a whole include:

- Course format. The specific format and content of courses for future teachers varied widely among the workshop participants. Much of the design of courses for future teachers was dictated by local context such as staffing and course format dictated by the institution (i.e., lecture-lab versus integrated “studio” style courses).

- Relationship of course content to state/national standards. Courses for future teachers need to focus content in order to help students gain a meaningful understanding of earth science. All of the workshop courses were closely aligned with state and/or national K-12 earth and space science standards. However, participants agreed that even the content deemed “important” by the standards was too broad to be covered in a meaningful way. This was a significant issue among the instructors of geoscience courses for future elementary teachers, as often these students only take a single earth science or interdisciplinary science course. Several points related to state and national standards were open for debate among participants; for instance, should courses for future teachers only cover what is in the standards? What about states for which the standards are not strong? Is it the role of these courses to go beyond the standards? And is it important that students understand the relationship between the things they are learning and the standards they are being asked to teach?
- The importance of addressing the nature of science. Although the majority of workshop courses were focused on teaching earth science content, nearly all courses also explicitly considered the nature of science. Courses for future teachers need to promote an understanding what science is and how science is “done,” as well as commonalities and differences between the geosciences and other sciences. This can be accomplished through inquiry teaching or authentic investigations.
- Place-based emphasis of the geosciences. Many courses recognized the importance of learning in the field. Since the geosciences remain largely a field-based science, field labs and entire field-based courses can provide opportunities for students to understand and integrate globally relevant interdisciplinary earth and environmental science topics through the lens of local or regional environments.
- The importance of teaching students to become metacognitive. Explicit self-reflection can be a powerful learning tool. Many of the courses created opportunities for students to reflect upon their own learning; several courses used reflective writing assignments to help students become more metacognitive (aware of their own learning process). Because it is not possible to cover all standards-based earth science in a single course (or even in an entire program), future teachers will need to learn additional content on their own. Courses for future teachers should help these students actively seek the knowledge they will need to be effective teachers.
- Building confidence. During discussions, many participants noted that science and math phobia was common among future teachers, especially future elementary teachers. Courses should be designed to empower students to be confident in their abilities to both learn and teach science.
- The relationship between learning and teaching. Many participants recognized the importance of faculty modeling good teaching practices, and recognize that most future teachers will teach as they have been taught. However, participants debated whether merely modeling good teaching practices was sufficient to enable future teachers to adopt reformed teaching in their classrooms. Even though pre-service teachers have classroom teaching experiences as part of their preparation program, many workshop presenters emphasized the importance of giving future teachers additional, preferably early, experience with teaching K-12 students.

- Many courses presented help future teachers learn to take earth science content and make decisions as to how to teach it in an age appropriate and inquiry based fashion.
- Assessing students' prior knowledge. Dr. Francis Eberle of the Maine Mathematics and Science Alliance presented a keynote address that described the design of “instructional probes” that uncover students’ foundational ideas about topics shown by research to be difficult for students. Eberle’s work shows that students’ understanding of key topics does advance in sophistication with instruction at different grades levels but problematic ideas and gaps in their knowledge exist across all grades. Effective instruction takes into account student prior knowledge.

Future Priorities

Future priorities established by participants included:

- Continue building the earth science teacher preparation community. Maintain communication via the teacher preparation list-serve (Teacherprep07@serc.carleton.edu). Invite member of the 2003 teacher preparation workshop to merge their list-serve with this one. Extend invitations to others to join this community.
- Leverage the expertise and experiences of the workshop participants to write a NAGT white paper and report “Geo2110- the role of geologists in preparing future teacher.” This report would establish why it is important to prepare future geoscience teachers and give guidelines, suggestions and resources to institutions, departments and faculty.
- Pool resources and do longitudinal studies of courses and programs described in the workshop. As a community we need to make the case that course such as these, which may be more expensive to maintain than traditional lecture courses, are more effective in preparing future geoscience teachers.
- Reaching out beyond the geosciences community to other science teacher preparation groups, including ASTE (Association of Science Teacher Educators) and teacher preparation communities in other sciences.
- Create additional pages on the SERC Teacher Preparation website that address: teaching the Nature of Science (NOS), use of reflective writing to promote metacognition, and better arguments for promoting teacher preparation to other faculty, department leaders, and university administrators. Create additional, easy-to-use links between activities and assessment instruments.
- Put together a special issue of the Journal of Geoscience Education that examines issues, challenges, and opportunities related to geoscience teacher preparation. The issue could examine courses and activities discussed in the workshop and include assessment. Coalition of departments to improve respect for importance of developing Content/pedagogy/PCK/attitude of future teachers/phystec model
- Gather data to establish how many teachers are needed, and show a need for improved earth science teacher preparation. Look at the state level to know which states and institutions are producing large numbers of earth science teachers. Gather data from workshop participants on their institutions.
- Investigate the importance of 2YC faculty in teacher prep—they do much of the teaching of science to future teacher – document how we work with community college colleagues

References:

1. National Academy of Sciences, 2007, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*, National Academies Press, Washington, D.C.
2. National Research Council, 2000, *How People Learn*, National Academy Press, Washington, D.C.
3. Tilgner, P.J., 1990, Avoiding science in the elementary school, *Science Education*, v. 74, p. 421-431

Teaching in the Field

Cathy Manduca

This project is funded by a grant to SERC for NAGT activities. The grant is currently operating on a one year extension and will expire in July 2008.

The goals of this project are to

- 1) develop the technical infrastructure needed for individual NAGT members to contribute single pages to the NAGT website that share the look and feel of the NAGT site, are fully integrated into the site architecture and are hosted and maintained at SERC
- 2) use this tool to develop collections of resources that share NAGT expertise in geoscience education both within the society and beyond. This work is to be initiated with a collection of field trips that will
 - enable NAGT sections to learn from one another in order to elevate the quality of their field offerings around the country,
 - promote models for effective educational fieldtrips to geoscientists around the world,
 - and provide an archive of field guides furthering the ability of K-12 teachers, faculty, community groups, and others to lead scientifically accurate, pedagogically effective field trips.

Technical Infrastructure

To support the community contribution and authoring of field trip descriptions the web authoring system underpinning the nagt.org site, the SERC content management system (CMS), was reengineered to more explicitly support direct contribution and maintenance of the web materials by community members.

The existing form-based submission system in the CMS was modified to track all submissions from a particular individual based on provided email address. The existing security and access system was modified to allow page-level access control. A new set of interfaces were developed to allow contributors to self-register and gain editing access directly to their individual submissions. The existing web-based editing interface was significantly enhanced so that one-time users (e.g. the contributor of an individual field trip description) can independently update their contributions, including revisions of any files they have provided. This system, and in particular the development of a simplified 'novice' editing interface now allows individual contributors to manage and update their contributions without need for continued direct support from SERC staff. At the same time key check points were integrated into the system, both at submission and publication

time, which provide opportunities for central staff to track and assure quality of materials entering the site with minimal overhead.

Development of Field Trip Collection

A template for sharing information about the goals, pedagogic design, logistics and geology of a field trip was designed in conjunction with two NAGT section leaders who have been active in leading field trips for NAGT and in their own teaching. This template was then vetted with and modified to meet the approval of the six member NAGT website committee which includes section officers, national officers and faculty from a wide range of institution types across the country.

As described in the proposal, we then solicited contributions from section leaders, contributors to the JGE special issue on teaching in the field, contributors to the NAGT/Cutting Edge Community Illustrated Discussion on Teaching in the Field, and nine individuals identified as having recently offered field trips for different audiences. From these groups we received seven contributions. These examples are available on the NAGT website through a portal describing the project, and can be located via Google.

To bolster the number of contributions, we then solicited contributions via the Central Section newsletter and requested that section leaders and officers recruit additional contributions.

A presentation describing the project was given as an oral presentation for at the Annual Meeting of the Geological Society of America.

A plan for soliciting additional examples for the pilot collection was developed with the NAGT Executive Committee and they were provided with draft correspondence for their use. Through this effort and our own additional recruiting the pilot collection was increased to 12 submissions. A new section on Safety in the Field was also added to the website.

This collection was then used as the basis for developing review criteria. The review criteria and a review process were discussed by the NAGT Executive Committee at their spring meeting and finalized. They are available on the website.

We are now ready to initiate open solicitation and recruiting of examples. A presentation on the site will be given at GSA.

Earthlearningidea

Earthlearningidea is a voluntary initiative to bring a new Earth learning idea to Earth science educators across the world every week during 2008, the International Year of Planet Earth. The ideas are aimed primarily at classrooms with few or no resources and at pre-service teacher educators (to reach wide audiences). Global discussion around each idea is encouraged through a blog. Four ideas are being posted monthly from September

to December 2007 and one activity per week during 2008 and beyond. The Earth learning idea refrain is:

- an Earth science teaching idea every week;
- at minimal cost, with minimal resources;
- for teacher educators and teachers of Earth science through school-level science or geography;
- an online discussion around every idea;
- to develop a global network.

Interested educators from around the world subscribe free of charge and receive email updates when new items appear on the website. A list of supporters offering geoscience or educational expertise, is posted on the website. A separate list of those who have offered moral support is also maintained.

- The initiative, being run by Chris King, Peter Kennett and Elizabeth Devon from the UK, was suggested in March 2007
- The wiki (free website) and blog became live in May 2007
- The first activity, a sample of what is to come, was posted in June 2007. It is '*Quake shake – will my home collapse? When an earthquake strikes – investigate why some buildings survive and others do not*'
- The Spanish translation of '*Quake shake*' (kindly translated free of charge by José Sellés Martínez (Pepe) of Aulagea, a service for teachers and learners of the Department of Geology of the University of Buenos Aires) was added to the website soon afterwards.
- Additional '*Quake shake*' ideas and comments generated through the blog have also been posted on the website.
- The first monthly activity, '*When will it blow? – predicting eruptions. How a simple tiltmeter can demonstrate the bulging of a volcano before eruption*' was posted in English and Spanish with an accompanying video on 1st September 2007 - generating some valuable blog comments.
- The Earthlearningidea statistics to late -September 2007 are:
 - 64 subscribers
 - 64 supporters
 - 9 expert supporters

Blog

- 391 visitors to the site
- 758 page views
- 49% of the traffic is from 'referring sites', mostly the website?
- 37% of traffic is direct
- 14% is from search engines

Website - wiki

- 309 visitors
- 590 page views
- 74% from referring sites, mostly the blog?
- 18% from search engines
- 9% from direct traffic

Interest has been shown by people from many countries across the globe from Nepal to the USA. Becoming an NAGT-sponsored project has clearly boosted Earthlearningidea interest in the USA and, we hope, elsewhere as well.

To the NAGT Executive Committee for the October 2007 Annual Report

Copy of Final NSF Report on the Digital Water Education Library (DWEL) project sponsored by NAGT

Submitted by Ed Geary, DWEL Project PI on October 19, 2007

The Collection:

DWEL is now a “reviewed collection” of exemplary K-12 and informal digital water resources that has been accessed into the Digital Library for Earth System Education (DLESE). The DWEL collection was created by small working groups of active K-4, 5-8, 9-12 and informal educators. Approximately 20-25 participants (teachers) worked to find, review, and build this collection over the life of this project.

DWEL currently contains over 400 individual resources and includes the following features:

- Clear, well-written text documents on basic water concepts and issues that are of use to both teachers and students. Some of the major concepts and issues found in DWEL are: Groundwater, Surface Water, Oceans, Water Use, Physical Properties of Water, Water in the Atmosphere, Water and Life, Water Quality, Water in Space, Water in the Cryosphere, and Water Policy and Economics.
- High quality digital images and computer graphics of basic water concepts that can be used as wall art to support a teaching unit, and in student and teacher computer presentations.
- Animations of more complicated processes, like the water cycle or movements of glaciers, which may take on an entirely new character when show as an animation, rather than as a static image or a written description.
- High quality lesson plans, classroom labs, and links to field activities that can help teachers change the way they interact with their students.
- Ideas on how to combine science with math, art, or literature, along with a place to find guidance quickly and easily.
- Ability to search by topic, resource typed, grade level, and national science education standards.

Usage Statistics:

One measure of the success of a project like DWEL is whether or not these resources are being used. As the collection developed and more resources became available, the number of unique DWEL resources accessed by users steadily increased over time. The number of times each resource was accessed was also recorded, providing a view of the overall number of hits each month. The cumulative DWEL hits for November 2003 through January 2006 grew fairly steadily over time and totaled 41,727 by the end of January 2006. DWEL is currently used by educators at all grade levels across the county and internationally.

Classroom Use Studies

These studies focused on the utility of digital libraries to K-12 science teachers. The first study was entitled “Phase 1 of DWEL Teacher Study: Report on Williamsburg, VA Teacher Observations, Interviews”. The second was “Phase 2 of DWEL Teacher Study: Science Resource Search Behaviors of Denver Public School Teachers”. This work was conducted under Drs. Lecia Barker and Julie Naughton.

Phase 1 Introduction

There is good reason to suggest that digital libraries, such as DWEL/DLESE, have the power to affect positive change in the science education of K-12 students. However, not enough was known about how K12 teachers actually use DWEL/DLESE during their preparation and instruction in the classroom. This study was designed as a preliminary probe into the everyday use of DWEL/DLESE and computers by a small group of K-12 teachers. The study’s purpose was to contribute to the discussion of how DWEL/DLESE can contribute to improved science education for K-12 students. To that end, this study was inductive, beginning with the assumption that teachers are ideally suited to showing us how DWEL/DLESE can best be applied to the K-12 classroom. The research team attempted to proceed without preconceived notions about the usefulness of digital resources in general and DWEL/DLESE in particular.

Research Questions for Phase 1

- How do teachers use DWEL/DLESE in the classroom?
- What are DWEL/DLESE’s weaknesses and strengths for K-12 teachers?
- How does DWEL/DLESE compare with the competition: Google, textbook, other resources?
- What is required for uptake of DWEL/DLESE use? Workshops, journals, reminders?

Williamsburg Study Design

Qualitative exploration of issues, concerns, and resources of teachers in a relatively wealthy district (Williamsburg). Twelve teachers from the Williamsburg, VA, Williamsburg-James City School district participated in the first phase. They completed a survey, allowed observation of their classrooms, and agreed to interviews. Although teachers wrote journal entries, these were less valuable as data than were the interviews and observations. After 9 months of use, teachers were awarded a stipend.

Summary of results:

- Collections, per se, had little meaning to teachers who were accustomed to searching for materials on commercial search engines, like Google. DWEL was simply a subset of DLESE and the teachers did not seem to differentiate between them.
- After a year of building a “DLESE Habit” (i.e., using DLESE repeatedly for a year), teachers were enthusiastic overall about the usefulness of science digital libraries, *even when encouraged to be critical and blunt...*
- Nonetheless, there was evidence that the teachers were self-limited in their use of the resources available. This led to the hypothesis that aspects of teachers’ search process hindered their access to educational resources available on both DLESE and on the web.

Phase 2 Introduction

While it is clear that K-12 teachers have access to a virtual smorgasbord of resources on the internet, it is less clear why teachers don't take greater advantage of what is available. There is a breakdown somewhere between the educational resources and the teachers. For example we observed teachers in Phase One unable to locate materials which we knew to be readily available on DLESE.org. We hypothesize that the explanation can be found by studying teachers' information seeking process. This leads us to ask the following questions about how *teachers do and do not get connected* to educational resources found on the internet.

Research questions for Phase 2

- What search strategies do K-12 teachers use to locate educational resources online?
- How do teachers evaluate online resources?
- On what search engine or web site do teachers begin searching?
- In what other ways do teachers vary in their search, access, and desire for online science resources? That is, what other factors, such as, domain knowledge and access to technology interact with use?

Phase 2: Summary of Results and Hypotheses

- Teachers will use digital resources differently depending on where and whether they have high-speed internet access; likewise, teachers with different types of hardware in their classrooms will choose different resources that fit different teaching methods. We represent these variables in the survey by asking what hardware teachers have, beliefs about the value of digital resources and importance of internet for their teaching, and the type of resources they most often seek.
- Three types of knowledge interact in teaching searching for internet resources: knowledge of the subject domain, knowledge of search and selection tactics, and knowledge of how certain types of resources will be used or understood by particular types of learners. We represent these in the survey by asking teachers for their highest degrees and field, their experience teaching, beliefs about the value of digital resources and importance of internet for their teaching, and their use of certain search and selection techniques. We will explore the interactions of these variables.
- Access to labs is more complicated than simple availability. Some teachers are “lab hogs,” signing up for them for the entire academic year at certain times, for example. This will interact with the kinds of resources teachers will seek. We represent these in the survey by asking about availability of labs, beliefs about the value of digital resources and importance of internet for their teaching, and types of resources teachers seek.
- We hypothesize that amount of teaching experience and/or the highest degree completed in relevant field will correlate positively with desire to customize materials. We observed teachers who wanted to use resources intact and teacher who wanted to be able to customize or who just wanted to mine others' resources for gems. We also observed teachers who wanted to download other teachers' entire lesson plans for wholesale use. We represent this hypothesis in the survey with questions about desire to customize,

teacher experience teaching in specific subject areas, and information on degree attained and major/minor.

- Teachers' beliefs about attributes of good web pages will be predicted by hardware in classroom, lab availability.
- Resource type sought may interact with teachers' beliefs about their students' reading level.
- Teachers' ascribed importance to certain resource or web site features may predict DLESE use (e.g., affiliation with science site / government agency, labeled with standards).

Training and Development:

DWEL provided approximately 25 educators with training on how to find, evaluate, and catalogue high quality digital resources on the World Wide Web.

DWEL also provide Mick Khoo the opportunity to conduct ethnographic research in support of his Ph.D. from the University of Colorado at Boulder.

DWEL Classroom Use Studies provided educators in Williamsburg, Virginia and Denver, Colorado with opportunities to learn about digital resources and more effective web-based search strategies.

DLESE/DWEL workshops conducted these past three years as a part of the DLESE K-12 Ambassadors program have allowed thousands of K-12 educators across the country and around the world to learn about, integrate, and use DLESE in their classrooms.

Outreach Activities:

During the past three years, numerous presentations and workshops on the Digital Water Education library held at state and national science teacher meetings and at international conferences (e.g. GLOBE annual meetings in Prague and Thailand) to expose 'mainstream' educators to the power and quality of free web-based resources.

Journal Publications

Michael Khoo, "The Use of Visual Artifacts in the User-Informed Development of an Educational Digital Library Collection", *Journal of Digital Information*, p. 1, vol. 5, (2004).
Published

Michael Khoo, Holly Devaul, Tamara Sumner, "Functional Requirements for Online Tools to Support Community-Led Collections Building", *Lecture Notes in Computer Science*, p. 190, vol. 2458, (2002).

Bryan Aivazian, Edward Geary, Michael Khoo, Tamara Sumner, Shirley Ireton, "Serving K-12 Education with DWEL", *Knowledge Quest*, p.1, vol. 31, (2003). Published

Distinguished Speaker Program October 2007

The NAGT Distinguished Speaker Series is one of the most visible and direct services of the Association. Members at colleges, universities and other academic institutions can apply to have one of our featured speakers visit their institution to deliver seminars, workshops, and in-person consultation with researchers and geoscience departments. Speakers and their topics are as diverse as our membership, and we update offerings every year to reflect the latest developments in the field and the concerns of our membership.

The Distinguished Speaker Committee of the Executive Council handles speaker selection and policy decisions. Michelle Hall has been working on program evaluation. Host institutions' requests for funding are granted on a first come first served basis.

Susan Garbini managed logistics of the program during the 06-07 year. During this period NAGT received 20 requests for funded speaker visits. All of these requests were approved. 16 of the 20 requests were completed. Total costs of the 2006-07 program (speaker travel and stipends) were \$12,417.02. JOI Inc. reimbursed NAGT for \$1,409.16 of these expenses. NAGT's portion of the 06-07 program costs was \$11,007.86. NAGT had budgeted \$25,000 for 06-07 costs so we were under spent by \$12,582.98.

Bill Bruihler and Cathy Manduca are managing logistics in the 07-08 year. A newly designed program flyer was mailed in early October to 894 geoscience departments to promote the program. The program is also featured on the NAGT website at: <http://www.nagt.org/nagt/programs/dsp.html>

Beginning in the Fall of 2007 logistics are handled as follows for each speaker visit:

1. The host institution submits a request via an online form at: <http://www.nagt.org/nagt/programs/dsp-request.html>
2. E-mail sent to requested speaker. This e-mail states the host institutions goals for hosting a speaker and asks for the speaker's approval to proceed.
3. E-mail sent to host institution approving request and asking them to contact the speaker to schedule the visit. This correspondence is cc'ed to the speaker. It includes a template to advertise the speaker's visit.
4. E-mail sent to speaker focusing on speaker issues, with attachments:
 - PowerPoint template with a title slide (acknowledging NAGT & JOI) and a closing slide (inviting audience to join NAGT).
 - Excel template for expense report
5. Package(s) sent to host institution including:
 - Evaluation materials with return envelope
 - NAGT membership brochures
 - Sample JGE's (if requested)

\$20,000 has been budgeted for 07-08 program expenses.

DS Committee Member History since Resurrection

| | 03-04 | 04-05 | 05-06 |
|--------------------|------------------------|--|------------------------|
| President | Cathy Manduca | Geoff Feiss | Scott Linneman |
| 1 st VP | Geoff Feiss | Scott Linneman | Karen Havholm |
| 2 nd VP | Scott Linneman | Karen Havholm | Eric Riggs |
| Editor | Carl Drummond | Carl Drummond | Carl Drummond |
| At-large | Steve Semken (02-04) | Steve Semken (04-07) | Steve Semken (04-07) |
| At-large | Steve Reynolds (02-05) | Steve Reynolds (02-05) | Dexter Perkins (05-08) |
| At-large | Karen Havholm (02-03) | Need someone to replace Havholm for the 03-06 term | Michelle Hall (03-06) |

| | 06-07 | 07-08 | 08-09 |
|--------------------|------------------------|------------------------|-------|
| President | Karen Havholm | Eric Riggs | |
| 1 st VP | Eric Riggs | David Steer | |
| 2 nd VP | David Steer | Mike Tabor | |
| Editor | Carl Drummond | Carl Drummond | |
| At-large | Steve Semken (04-07) | Karen Havholm (07-10) | |
| At-large | Dexter Perkins (05-08) | Dexter Perkins (05-08) | |
| At-large | Michelle Hall (06-09) | Michelle Hall (06-09) | |

There is a roster of 15 speakers, including three from JOI. Four speakers will be rotating off this year.

NAGT Speakers History since Resurrection

(Bold are new speakers, * is last year for that speaker)

| | 02-03 (spring) | 03-04 | 04-05 | 05-06 | 06-07 |
|----|-----------------------|-----------------------|------------------------|--|---------------------------------|
| 1 | Ed Geary | Ed Geary | Ed Geary | Ed Geary* | Patricia Kelly |
| 2 | Michelle Hall | Michelle Hall | Michelle Hall | Michelle Hall* | Tracy Gregg |
| 3 | Karen Havholm | Karen Havholm | Karen Havholm | | Eric Grosfils |
| 4 | Jill Singer | Jill Singer | Jill Singer | Jill Singer* | Bruce Hebert |
| 5 | Marilyn Suiter | Marilyn Suiter | Marilyn Suiter | Marilyn Suiter* | |
| 6 | Sharon Locke | Sharon Locke | Sharon Locke | Sharon Locke* | |
| 7 | | | Paul Morin | Paul Morin | Paul Morin* |
| 8 | | | Eric Riggs | Eric Riggs | Eric Riggs* |
| 9 | | | Mike Tabor | Mike Tabor | |
| 10 | | | Carol O'Donnell | Carol O'Donnell | Carol O'Donnell* |
| 11 | | | | Frank Hall | Frank Hall |
| 12 | | | | Jackie Huntoon | Jackie Huntoon |
| 13 | | | | Julie Libarkin | Julie Libarkin |
| 14 | | | | Ellen Metzger | Ellen Metzger |
| 15 | | | | David McConnell and David Steer | David McConnell and David Steer |

JOI Speakers

| | | | | | |
|---|--|--|--|--------------------------|-------------------|
| 1 | | | | Christine Ravello | Christine Ravello |
| 2 | | | | Marta Torres | Marta Torres |
| 3 | | | | Tanya Atwater | Tanya Atwater |

| | | | | | |
|--|---|---|----|--------|--------|
| | 6 | 6 | 10 | 14 + 3 | 12 + 3 |
|--|---|---|----|--------|--------|

| | 07-08 | 08-09 tent. | | | |
|----|----------------------------------|--------------------|--|--|--|
| 1 | Patricia Kelly | Patricia Kelly | | | |
| 2 | Tracy Gregg | Tracy Gregg | | | |
| 3 | Eric Grosfils | Eric Grosfils | | | |
| 4 | Jackie Huntoon* | | | | |
| 5 | Julie Libarkin* | | | | |
| 6 | Ellen Metzger* | | | | |
| 7 | David McConnell and David Steer* | | | | |
| 8 | Robert Butler | Robert Butler | | | |
| 9 | LuAnn Dahlman | LuAnn Dahlman | | | |
| 10 | Bruce Herbert | Bruce Herbert | | | |
| 11 | Stephen Pompea | Stephen Pompea | | | |
| 12 | | | | | |
| 13 | | | | | |
| 14 | | | | | |
| 15 | | | | | |

JOI Speakers

| | | | | | |
|---|--------------------|--|--|--|--|
| 1 | Christine Ravello* | | | | |
| 2 | Marta Torres* | | | | |
| 3 | Tanya Atwater* | | | | |

| | | | | | |
|--|------|--|--|--|--|
| | 11+3 | | | | |
|--|------|--|--|--|--|

Outstanding TA Awards

Four nominations were received and awards were made to:

Doug Edmonds, Penn State

Anna Weber, Williams College

Casey Hanell, Western Washington University

Jennifer Oblinger, Clemson University

Note: since the award was established, each year awards have been made to TA's at Clemson (John Wager) and at Western Washington University (Bob Christman)

Typically, one or two additional nominations have been received each year.

Back Issues of JGE

408 back issues for the year 2007 were been mailed to members/subscriptions who have renewed/joined late. AIP furnishes Bob Christman with the mailing labels.

Currently the following issues are stored at WWU: Nov 06 = 135, Jan 07 = 121. March 07 = 465, May 07 = 210, Sept. 07 = 325 and numerous 2006, 2005, 2004 and 2003 issues.

Six boxes of older back issue were sent to 2006 annual meetings of GSA and NSTA for free distribution. Boxes also have been sent to NAGT Sections for their meetings, as requested. In addition, boxes containing 20 journals and flyers have been sent to the schools for the Distinguished Speakers program

Archives Program

Bob Christman is in the process of preparing materials to be sent to our archives at Augustana College, IL. However, he is missing copies of recent annual reports.