SLATE OF CANDIDATES FOR THE DIVISION BALLOT FOR 1984

A Nominating Committee composed of R. M. Bud Burke, Chairman, Thomas D. Hamilton, and Dale F. Ritter has compiled a slate of candidates for 1984. Nominees are:

Chairman........................Donald F. Eschman
First Vice-Chairman............Saul M. Ashley
Second Vice-Chairman...........Victor R. Baker
Secretary..........................Richard F. Madole
Panel Members (1984-85)........John J. Clague
                              Steven M. Colman
                              John E. Costa
                              Margaret J. Guccione
                              George R. Hallberg
                              W. Hilton Johnson

Nominees for the Division Panel are decided by the membership. The six persons receiving the most nominations from the membership are asked to have their names placed on the ballot. The three candidates receiving the most votes are selected for 2-year terms. The list of persons nominated for the Panel in 1984 includes:

Rachel M. Barker
W. S. Benninghoff
Peter W. Birkeland
John J. Clague
Lee Clayton
Steven M. Colman
John E. Costa
Robert R. Curry
John C. Dixon
Mark M. Fenton
Leon R. Follmer
Robert J. Fulton
William L. Graf
Margaret J. Guccione
George R. Hallberg
John W. Hawley
Stephen R. Hicock
W. Hilton Johnson
James C. Knox
Stephen P. Leatherman
Michael N. Machette
M. N. Melhorn
Ernest H. Muller
Floyd R. Nave
Robert N. Oldale
Richard R. Parizek
Charles C. Rich
William E. Scott
George I. Smith
Stanley M. Totten
William J. Wayne

1984 KIRK BRYAN AWARD


The award will be presented at the Quaternary Geology and Geomorphology Division luncheon on November 7, 1984, during the Annual Meeting of the Geological Society of America in Reno, Nevada.

1984 MACKIN GRANT WINNERS

Fifteen applications were received for Mackin Grants for 1984. Of these, five were from M.S.-degree candidates and ten were from Ph.D.-degree candidates.

The Mackin Grant for a M.S.-degree candidate was awarded to Jim E. O'Connor, University of Arizona, for the study of paleohydrology and hydraulics as interpreted from geologic evidence, Boulder Creek, Utah, under the supervision of Victor R. Baker.

The Mackin Grant for a Ph. D. candidate went to Leonard Harvey Thorleifson, University of Colorado, for a study of the Quaternary stratigraphy of the Hudson Bay Lowlands under the supervision of John T. Andrews.

1983 CONTRIBUTIONS TO THE J. HOOVER MACKIN FUND

Contributions to the J. Hoover Mackin Fund in 1983:
Dwight L. Schmidt $100

Contributions to the J. Hoover Mackin Fund may be made in any amount and sent to the Executive Director, The Geological Society of America, P.O. Box 9140, Boulder, CO 80301.

GLADYS W. COLE MEMORIAL RESEARCH AWARD

William L. Graf, Arizona State University, is the recipient of the Gladys W. Cole Memorial Research Award for 1984. The amount of the award this year is $1200. It will be used for a study of the transport of heavy metal in sediments of arid-region rivers.

NOMINATIONS NEEDED FOR THE KIRK BRYAN AWARD FOR 1985

The Kirk Bryan Award will be made to the author or authors of a published paper of distinction advancing the science of geomorphology or some related field, such as Pleistocene geology. The paper constituting the basis of the award must fulfill the following requirements:

a. The paper will deal with geomorphology or with a bordering field, but related to geomorphology.

b. The paper will have been published not more than 5 years prior to its selection for the award.


A member may nominate a paper for the Kirk Bryan Award at any time by identifying the paper and supplying a statement about its significance. Send the nomination to the Division Secretary, Richard F. Madole, U.S. Geological Survey, Box 25046, MS 966, Denver, CO 80225. Ideally, nominations for the Kirk Bryan Award for 1984 should be received by December 1, 1984.
The Rocky Mountain Cell of the Friends of the Pleistocene will hold its annual field trip August 10-11, 1984. The trip will be a combined FOP-AMQUA trip to the northern Bighorn Basin. It will feature the fluvial and tectonic history of the last 2 million years. The classic terrace sequences of Mackin will be visited, dating from volcanic ashes and incision rates, and chronologic and climatic controls on soil development will be emphasized. Marith C. Rehefs, Dale F. Ritter, and Robert C. Palmquist are the trip leaders. Participates are responsible for their own travel, accommodations, and meals. Unless you are confident that you are on the FOP mailing list, contact Marith C. Rehefs, U.S.G.S. MS-913, Federal Center, Box 25046 Denver, Colorado, for more information.

The Pacific Cell of the Friends of the Pleistocene will hold its annual field trip October 12-14, 1984. The trip is composed of three parts, as described below. For registration information, write Scott ine—FOP, Department of Geography, 501 Earth Science Bldg., University of California, Berkeley, California 94720.

Friday, October 12—Holocene stratigraphy and chronology of East Meadow, Yosemite. Spencer Wood, trip leader.

Holocene meadow-fill deposits on the western slope of the Sierra in a stratigraphic record strongly influenced by secular variations in climate and watershed hydrology. Perhaps the most representative and best exposed stratigraphic sequence beneath a Sierran meadow is found in East Meadow, near Aspen Valley in Yosemite National Park. Spencer Wood will lead the group to East Meadow, where we will examine a complete Holocene sequence of meadow-fill deposits, discuss meadow formation/hydrology/dynamics, consider the paleoclimatic implications of the meadow chronology, and view a tephra layer from the A.D. 700 eruption of the Mono Craters. This volcanic unit will be seen and discussed on a hike to the Gaylor Lakes later in the afternoon. Along the trail, Clyde Wahrhaftig will discuss his recent work on the Yosemite Ice Cap.

Saturday, October 13—The past 4,000 years at Mono Lake. Scott Stine, trip leader.

During the past 4,000 years, the surface of Mono Lake has fluctuated over a vertical range of more than 130 feet in response to variations in climate. Sedimentary sequences exposed in recently dissected deltas, together with biotic, geomorphic, tephra-stratigraphic, radiometric, and historic evidence, permit a detailed reconstruction of these fluctuations. The Lake level curve, in combination with tephra-stratigraphic evidence, can in turn be used to illuminate the history of volcanism associated with the islands of Mono Lake. This history includes no fewer than seven separate eruptive events, two of which (the eruption of a rhyodacite flow on Negit Island and the emergence of Paoha Island) occurred during the past 220 radiocarbon years. Scott Stine will lead the group to several sites around the shores of Mono Lake to examine evidence of lake level fluctuations and island volcanism.

Sunday, October 14—Chronology and stratigraphy of recent eruptions, Mono-Inyo Craters. Kerry Sieh and C. Dan Miller, trip leaders.

The final day of the FOP trip will be spent examining domes and near-vent tephra deposits associated with the most recent eruptions of the Mono-Inyo Craters. In the morning, Kerry Sieh will lead the group to road and stream cuts and quarry sites at the north end of the Mono Craters to view fallout deposits of air-fall, block-avalanche, and pyroclastic-flow deposits from the A.D. 700 and A.D. 1400 eruptions. Similar features, resulting from the three latest eruptive episodes of the Inyo Craters, will be seen in the afternoon when Dan Miller leads the group to the north end of Long Valley. We will end the trip at an observation point along Highway 395 where Dan will discuss volcanic hazards in the Long Valley-Mono basin area, and the geotectonic framework of the Mono-Inyo Craters and the volcanic islands of Mono Lake. We will adjourn by 5 p.m.

The Alaska Quaternary Center (AQC) was established by the University of Alaska, Fairbanks, in 1983 to help coordinate the wide range of Quaternary research and instruction present and to develop new programs and research activities. The AQC is a campus-wide organization, based within the University of Alaska Museum and governed by a five-member, elected, interdisciplinary board. The present AQC Board consists of Carl S. Benson, R. Dale Guthrie, David F. Murray, Wm. Roger Powers, and Robert M. Thorson (Executive Director).

The AQC provides a focus for a consortium of scientists, students, private individuals, and agencies interested in Quaternary studies. Our overall objective is to enhance interdisciplinary research and instruction in the natural sciences by (1) providing a visiting professor and visiting scientist program, (2) promoting opportunities for Quaternary research within the exiting academic departments and research institutes, and (3) serving as a clearinghouse for events and findings of interest to scientists throughout the world.

Alaska is an ideal natural laboratory for Quaternary research because of the great diversity of present climates, terrains, and surficial processes. Evidence of former environmental conditions is particularly well preserved and available for study because of permafrost and reduced rates of organic decomposition. The University of Alaska, Fairbanks, is an exciting place for Quaternary studies because of its central location and its strong programs in the natural sciences and northern studies. Most research focuses on physical and biotic processes occurring in the arctic and subarctic climates and on the changes in such processes over time.

For more information about academic degree programs, research activities, or visiting scientist programs, please contact the Alaska Quaternary Center, University of Alaska Museum, Fairbanks, AK 99701 (907) 474-7816.

REMINDER

If you plan to attend the annual meeting in Reno, Nevada, November 5-8, remember to vote absentee in the national and local elections before leaving home. Election day is Tuesday, November 6, but deadlines for request for absentee ballots may be as early as June. Check with your County Election Board.
RENO MEETING

DIVISION COCKTAIL PARTY AT RENO

The first annual G and G Division cocktail party is scheduled for the evening of Tuesday, November 6, 1984, during the annual meeting in Reno. A cash bar will be provided. Consult the Program of Events section of the Abstracts with Program Book for the specific time and place. Our thanks to Gail M. Ashley and Thomas D. Hamilton who suggested this event.

DIVISION SYMPOSIUM AT THE RENO MEETING

The Engineering Geology Division and the Quaternary Geology and Geomorphology Division will co-sponsor a full-day symposium at the 1984 Reno meeting. The title of the symposium is "Debris flows/debris avalanches: process, sedimentology, and hazard mitigation."

In the past decade, debris flows have been the most persistent and significant mass movement in the United States. It is truly a problem of national scale as demonstrated by the wide geographic coverage of study areas. A great deal of new and original work has been accomplished on the processes, sedimentology, and mitigation of debris flows, and it seems appropriate that the Engineering Geology Division and the Quaternary Geology and Geomorphology Division should sponsor a day-long symposium summarizing this work.

The co-conveners are:

Engineering Geology Division
Gerald F. Wiczorek
U.S. Geological Survey, MS 98
Menlo Park, CA 94025
415/325-7113

Quaternary Geology and Geomorphology Division
John E. Costa
U.S. Geological Survey, MS 413
Denver, CO 80225
303/234-2320

Speakers and topics for GSA Debris-Flow Symposium include:

Daniel E. Lawson (U.S. Army Cold Regions Research and Engineering Laboratory, Hanover, New Hampshire) Sediment flows at active glaciers, Alaska

John E. Costa and Thomas C. Pierson (U.S. Geological Survey, Denver, Colorado) Classification of sediment flows


Jay Melosh (Department of Planetary Science, University of Arizona, Tucson) Accoustical generation of debris flow

R. Craig Kochel (Department of Environmental Science, University of Virginia, Charlottesville) Debris avalanche frequency and stratigraphy in southern Appalachians

Walter R. Osterkamp and Clifford R. Hupp (U.S. Geological Survey, Reston, Virginia) Dating debris flows at Mount St. Helens with vegetation

G. M. Clark (Department of Geological Sciences, University of Tennessee, Knoxville) Debris flows/slides in southern Appalachians

Cheng-Lung Chen (U.S. Geological Survey, Gulf Coast Hydroscience Center Mississippi) Debris-flow sediment modeling

Kevin M. Scott (Irving, California) Sedimentology of debris flows

Arvid M. Johnson (Department of Geology, University of Cincinnati) A model for debris flow

Wade G. Wells (U.S. Forest Service, Pacific Southwest Forest and Range Experiment Station, Glendora, California) Effects of brush fires on generation of debris flows in southern California

Lionel E. Jackson (Geological Survey of Canada, Vancouver, British Columbia) Debris flow hazard identification in the Canadian Rockies

Ted C. Smith (California Division of Mines and Geology, San Francisco, California) Delineating areas susceptible to debris flows near Pacifica, California

William Dietrich (Department of Geology, University of California Berkeley) Importance of colluvium-filled bedrock depressions to debris-flow studies

Dan Neary (Soil Science Department, University of Florida Gainesville) Debris avalanching in the southern Appalachians

Gerald W. Wiczorek (U.S. Geological Survey, Menlo Park, California) Rainfall thresholds for triggering debris flows in the San Francisco Bay region


Roy J. Shlemon and Robert H. Wright (Newport Beach, California) Using soil stratigraphy to date debris flows

Robert A. Hollingsworth (Kovacs-Byer and Associates, Studio City, California) Design of debris-flow mitigation measures

GROUND-WATER GEOMORPHOLOGY; THE ROLE OF UNDERGROUND WATER IN EARTH-SURFACE PROCESSES AND LANDFORMS

Charles G. Higgins and Donald R. Coates have organized a symposium on the role of subsurface water in geomorphic processes and landform development for the annual meeting in Reno, November 5-8. In the words of the organizers, the purpose of the symposium is to outline a previously neglected subsurface role of geomorphology, and to the geomorphologists' perception of the relative roles of surface and subsurface water. The "fluvial doctrine" has dominated geomorphic thought ever since geomorphology emerged as a field of study in the late 19th century. Only recently has it become clear that the importance of subsurface water in earth surface processes may rival that of surface water in the development of certain landforms, at least in some regions. The list of speakers and topics includes:

INTRODUCTION: C. G. Higgins and D. R. Coates

Milan J. Pavich and Helane W. Markewich, "The role of soil water in weathering, soil development, and landscape lowering; an example from the southeastern Piedmont."

Thomas Dunne, "Hydrology of subsurface erosion processes."

J. David Rogers and William E. Dietrich, "The role of water in mass wasting and slope failure."

Garald G. Parker, Sr., "Fiping and pseudokarst."

William B. White, "Infiltration, internal runoff, and differential sculpturing of surface and near-surface karst landforms."

Arthur N. Palmer, "Effects of ground-water dynamics and chemistry on karst geomorphology."

Charles E. Sloan, "Influence of ground ice on the geomorphology of permafrost regions."

Troy L. Péwé, "Land subsidence and earth fissure formation, with examples from Arizona."

(continued on p. 4)
Victor R. Baker and R. Craig Kochel, "Valley network development by spring sapping."
James M. Robb, "Ground-water discharge and spring sapping on the eastern United States continental slope."
Robert M. Norris, "Sea cliff erosion by ground-water outflow."
Charles G. Higgins, "Seepage erosion and regional scarp retreat."
Edward A. Keller, D. W. Best, and C. G. Moses, "Geomorphic effects of ground water on channel form and process: Selected observations."
Donald R. Coates, "Geomorphic controls of ground-water hydrology."

SUMMARY AND DISCUSSION: D. R. Coates and C. G. Higgins

FIELD TRIPS OF INTEREST, ANNUAL MEETING, RENO, NOVEMBER 1984


Trip 13--Archaeological Geology of Hidden and Lovelock Caves, with an Overview of Quaternary Geology in the Lahontan Basin. Jonathan O. Davis, Desert Research Institute, Reno; Roger B. Morrison, Golden. Two days, November 3, 4.

Trip 14--Quaternary Stratigraphy of the Eastern Mojave Desert. John C. Dohrenwend, USGS, Menlo Park; Stephen G. Wells and Leslie D. McFadden, University of New Mexico, Albuquerque; Roger S. U. Smith, Austin. Three days. November 9, 10, 11.

Trip 18--Neotectonics of Western Nevada. David B. Siemens, Mackay School of Mines, Reno; John W. Bell, Nevada Bureau of Mines and Geology, Reno; Robert Wallace, USGS, Menlo Park. Two days, November 9, 10.

THE 15TH ANNUAL GEOMORPHOLOGY SYMPOSIUM

"Tectonic Geomorphology" is the theme of the 15th Annual Geomorphology Symposium to be held Friday and Saturday, September 28-29, 1984, at the State University of New York at Binghamton. The symposium is being organized by Marie E. Morisawa and John T. Hack. The preliminary list of speakers and topics includes:

William Bull (University of Arizona, Tucson) Uplifted marine terraces, South Island, New Zealand.
Ron Gerson (Hebrew University, Jerusalem) Stages in the creation of a large rift valley-geomorphic evolution of the southern Dead Sea rift.
Thomas Gardner (Pennsylvania State University, University Park) Geomorphic indications of vertical tectonism along converging plate margins, Scotia Peninsula, Costa Rica.
Larry Mayer (Miami University, Oxford, Ohio) Tectonic geomorphology of the Basin and Range--Colorado Plateau boundary in Arizona.
Theodore Oberlander (University of California, Berkeley) Tectonics and stream deformation, Zagros Mountains.

Cliff Ollier (University of New England, Armidale, Australia) Morphotectonics of Continental Margins.
Yoko Ota (Yokohama National University, Japan) Marine terraces and their tectonic implications.
James Peterson (Southwest Texas State University, San Marcos) An equilibrium tendency model of piedmont scarp denudation, Wasatch Front, Utah.
David Russ (U.S. Geological Survey, Reston) Tectonic geomorphology of the northern Mississippi embayment: Application to the understanding of earthquakes.

M. Strecker (Cornell University, Ithaca) Tectonic geomorphology of the Sierras Pampeanas, northwest Argentina.

M. Summerfield (University of Edinburgh, Scotland) Plate tectonics and the evolution of the African landscape.
I. Karac (Israel Geological Survey, Jerusalem) Integrative approach to the study of recent crustal movements.
Mukang Han (University of Peking, China) Tectonic geomorphology in China.

For information about the 15th Annual Geomorphology Symposium write Professor Marie E. Morisawa, Department of Geological Sciences and Environmental Studies, State University of New York at Binghamton, Binghamton, New York 13901.

FIRST CONFERENCE ON SINKHOLES

The First Multidisciplinary Conference on Sinkholes will be held October 15-17, 1984, in Orlando, Florida. The conference is sponsored by the Florida Sinkhole Research Institute. Topics include case histories, causes, advance detection, site evaluation, engineering precautions, repair and stabilization, and effects on man. For information write: University of Central Florida, College of Extended Studies, Orlando, Florida 32816-0177.

QUATERNARY GEOLGY OF THE SOUTH-CENTRAL UNITED STATES

Margaret J. Guccione is organizing a symposium on the Quaternary geology of the south-central United States to be held at the meeting of the South-Central Section of the Geological Society of America in Fayetteville, Arkansas, April 15-16, 1985. If you are interested in presenting a paper or attending such a symposium contact Margaret (Peggy) at the Department of Geology, the University of Arkansas, Fayetteville, Arkansas 72701. The deadline for abstracts is November 21, 1984. Abstracts should be prepared on GSA forms and sent to M. J. Guccione at the address listed above.

DEADLINE FOR RECEIPT OF NEWSLETTER NEWS

Newsletters will be mailed in early January and again in June. Members wishing to use the newsletter as a means of announcing field trips, meetings, or other information are urged to provide the Division Secretary with the information by November 20 for inclusion in the January Newsletter and by May 1 for inclusion in the June Newsletter.
MACKIN GRANT COMMITTEE EXPANDED

A decision to expand the Mackin Grant evaluation committee was made at the Division Management Board annual meeting held in Indianapolis, November 1983. Previously, Mackin Grant applications were evaluated by the four division officers. The changes made and their objectives are explained in the following excerpts from the Secretary's Report to Council, May 1984:

The change from a point system to a ranking system for evaluating the Mackin Grants adopted at the New Orleans meeting in 1982, failed to satisfactorily solve the problems that prompted the change. The correspondence between Management Board members over this failure produced several useful suggestions and raised questions about whether or not policies employed in the past should be continued. The principal policy questions concerned: (a) should institutions and advisors who have more than one student applying for a Mackin Grant be required to rank their students, and (b) should Management Board members who are also the advisor of a Mackin Grant applicant be involved in the grant evaluation process?

In the past, institutions and advisors who had more than one student applying for a Mackin Grant have been required to rank their students. Opinion was divided about the desirability of continuing this policy. As noted by John K. Adams, the quality of the students and the diversity and significance of their research is commonly such that a fair comparison and ranking is difficult, if not impossible. Madle commented on the tendency for the ranking system to eliminate from further consideration all applicants other than those ranked first by their institution or advisor.

In the past, Management Board members whose own students were among the applicants for Mackin Grants did not rate the applications of their own students. However, in the system where students are ranked rather than rated by points, which was the system put into practice in 1983, an advisor's ranking or lack of ranking has an obvious impact on the final standing of his student. Not ranking their student makes that student last by default, and degrading the entire ballot of that Management Board member may be detrimental to other students who were ranked high on that ballot.

Easterbrook discussed the history and rationale for the policies followed in the past. Andrews suggested that when a Management Board member has a student applying for a Mackin Grant that they or the Division Chairman find a substitute to take their place on the evaluation panel. Eschman suggested that if that committee was expanded, the process for selecting committee members should be kept flexible, noting that this might be accomplished best by simply having the Chairman and Secretary add committee members as needed. In conclusion, it was agreed that an expanded committee, not to exceed seven, to which appointments and substitutions could be made as needed, would eliminate the need for institutions and advisors to rank students and the need for advisors to be involved with ranking their own students.

As a consequence of this action, a few members will be needed annually to serve as at-large members on the Mackin Grant Committee. Hopefully, you will answer yes when the Chairman asks for your services. The work amounts to evaluating and scoring about fifteen applications, each of which is four pages long, not counting transcripts.

John E. Costa was the first to serve as an at-large committee member. Our thanks to him for his willingness to help, especially in view of the short notice given.

PAST RECIPIENTS OF THE MACKIN GRANT

During the first decade of the Mackin Grant Program, 14 individuals were awarded grants. The grant recipients, their institutional affiliation, and research topics are listed below.

1974 -- Louis D. Carter, University of Southern California, "Quaternary geology in Baja California".
1975 -- Phillip Davis, University of Colorado, "Cirque glacier fluctuations and lacustrine chronologies".
1976 -- Award date changed.
1977 -- Daniel R. Muhs, University of Colorado, "Marine terraces-soil development, San Clemente Island, California".
1978 -- Lisa Osterman, University of Colorado, "Quaternary geology of Frobisher Bay, Baffin Island".
1979 -- Donna Marron, University of California, Berkeley, "Slope processes in Redwood National Park".
1980 -- Lucy L. Foley, Western Washington University, "Loess and paleosol stratigraphy in eastern Washington".
1980 -- Susan L. Gawarecki, Lehigh University, "Origin of the Railroad Ridge diamicton".
1981 -- Mary L. Gillam, University of Colorado, "Age and climate effects on soil development, Colorado and New Mexico".
1981 -- Julie Brigham, University of Colorado, "Chronology of Pleistocene marine deposits in coastal Alaska".
1982 -- Thomas F. Bullard, University of New Mexico, "Quaternary geomorphic evolution of a tributary to the Chaco River, northwestern New Mexico".
1982 -- J. Steven Kite, University of Wisconsin, "Late-glacial and Holocene alluvial chronology, St. Johns drainage basin, northern Maine and southern New Brunswick and Quebec".
1983 -- Jonathan M. Harbor, University of Colorado; "Chronology of Holocene events, geomorphic response, and eolian influx in alpine lakes in the Front Range, Colorado".
1983 -- David S. Shafer, University of Tennessee, "Quaternary climatic change, landscape evolution, and paleoecologic history, southern Appalachians, western North Carolina".
1983 -- Carolyn H. Eyles, University of Toronto, "Scarborough Bluffs, Lake Ontario basin, lithofacies codes and the model of diamicton deposition below floating ice".

MEETINGS

August 4-14, 1984
27th International Geological Congress, Moscow, USSR, Information: Secretary General, 27th International Geological Congress, Institute of the Lithosphere, USSR Academy of Sciences, 22, Staromonetny, Moscow, 109180, USSR; 231-48-36; Telex: LITOS 411484

August 13-15, 1984
American Quaternary Association Eighth Biennial Meeting, Boulder, Colorado, Information: AMQA, Office of Conference Services, Campus Box 153, University of Colorado, Boulder, CO 80310; (303) 492-5151

November 5-8, 1984
Geological Society of America and Associated Societies Annual Meeting, Reno, Nevada, Information: The Geological Society of America, P.O. Box 9140, Boulder, CO 80301; (303) 447-2020
PAST PANELS

1957-59
S. Judson
J. C. Frye
W. D. Thornbury
J. T. Hack
A. N. Strahler
J. B. Howard
1959-61
L. R. Leopold
J. P. Miller
G. M. Richmond
R. P. Sharp
M. G. Wolman
J. M. Zumberge
1961-62
S. F. Black
R. P. Goldthwait
H. W. Barefoot, Jr.
C. S. Denny
W. L. Nichols
A. N. Strahler
1962-63
E. H. Muller
R. R. Shaffer
C. A. Waehraftig
R. F. Black
R. P. Goldthwait
H. E. Wright, Jr.
1963-64
W. C. Bradly
R. P. Crandell
D. F. Eschman
C. A. Waehraftig

1964-65
S. A. Schum
A. N. Strahler
S. E. White
W. C. Bradly
A. L. Bloom
R. L. Shreve
D. R. Crandell
S. C. Porter
A. L. Washburn
D. F. Eschman
1966-67
A. L. Bloom
J. T. Hack
C. A. Waehraftig
A. N. Strahler
S. E. White
1968-69
M. G. Wolman
T. L. Poe
T. L. Poe
D. R. Crandell
C. A. Waehraftig
1969-70
Jan.
W. C. Bradly
A. L. Bloom
R. L. Shreve
D. R. Crandell
A. L. Washburn
1969-70
Nov.
P. W. Birkeland
H. W. Barefoot, Jr.
D. J. Easterbrook
W. C. Bradly
J. H. Hartshorn
1969-71
P. W. Birkeland
H. W. Barefoot, Jr.
D. J. Easterbrook
M. Morisawa
J. H. Hartshorn
1970-71
P. W. Birkeland
H. W. Barefoot, Jr.
D. J. Easterbrook
M. Morisawa
J. H. Hartshorn
1971-72
J. H. Hartshorn
R. V. Rife
S. E. White
R. R. Curry
S. C. Porter
1972-73
P. W. Birkeland
L. Clayton
M. Morisawa
R. R. Curry
S. C. Porter
1973-74
J. T. Andrews
A. L. Bloom
J. H. Hartshorn
P. B. Birkeland
L. Clayton
M. Morisawa
1974-75
J. T. Andrews
W. B. Bull
J. H. Hartshorn
W. H. Johnson
K. L. Pierce
J. W. Hawley
1975-76
W. H. Johnson
B. L. Pierce
J. W. Hawley
P. W. Birkeland
E. H. Muller
S. C. Porter
1976-77
P. W. Birkeland
E. H. Muller
S. C. Porter
V. R. Baker
M. Morisawa
1977-78
J. T. Andrews
V. R. Baker
M. Morisawa
J. B. Benedict
W. R. Farrand
S. E. White
1978-79
J. T. Andrews
W. B. Bull
J. H. Hartshorn
J. E. Armstrong
W. P. Birkeland
V. L. Pierce
1979-80
J. E. Armstrong
W. B. Bull
J. H. Hartshorn
G. M. Ashley
R. P. Goldthwait
R. J. Janda
1980-81
G. M. Ashley
R. P. Goldthwait
R. J. Janda
E. E. Ewenson
A. F. Schneider
G. I. Smith
1981-82
E. E. Ewenson
A. F. Schneider
G. I. Smith
R. F. Black
J. H. Hartshorn
N. W. Rutter
1982-83
R. F. Black
T. H. Hamilton
J. H. Hartshorn
R. C. Palmquist
D. F. Ritter

PAST CHAIRMAN OF THE DIVISION

1983
J. T. Andrews
1982
T. L. Poe
1981
M. Morisawa
1980
S. A. Schumm
1979
W. B. Bull
1978
A. L. Bloom
1977
W. C. Bradly
1976
L. H. Lattman
1975
R. L. Nichols
1974
D. R. Crandell
1973
H. E. Malde
1972
R. F. Flint
1971
R. P. Goldthwait
1970
D. M. Hopkins
1969
A. D. Howard
1968
W. D. Thornbury
1967
H. E. Wright, Jr.
1966
R. F. Black
1965
G. M. Richmond
1964
A. L. Washburn
1963
L. B. Leopold
1962
J. G. Fyles
1961
J. T. Hack
1960
C. S. Denny
1959
G. W. White
1958
J. H. Mackin
1957
J. H. Mackin
1955
E. Blackwelder

THE GEOLOGICAL SOCIETY OF AMERICA
3300 Penrose Place
P.O. Box 9140 - Boulder, Colorado 80301

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