

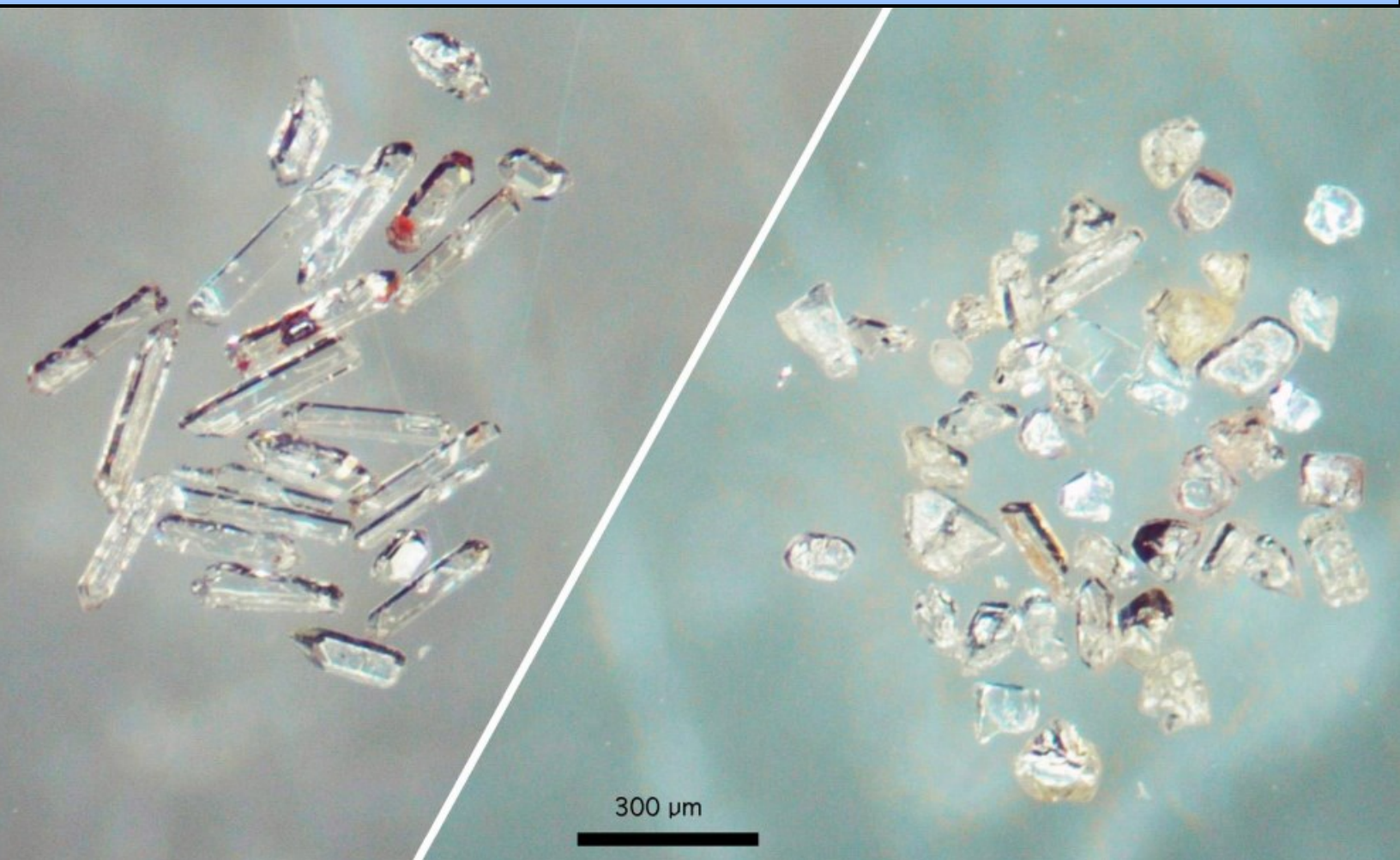
**MISSISSIPPI GEOLOGICAL SOCIETY**

# *e***BULLETIN**

**Volume 67**

**No. 8**

**April 2019**



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**BOLAND SCHOLARSHIP AWARDS**

**DUSTIN JOHNSON MEMORIAL AWARD**

**RADIOMETRIC AGE OF THE GLENDON LIMESTONE OF THE VICKSBURG GROUP AND THE YAZOO CLAY IN MISSISSIPPI**

Dr. David T. Dockery, RPG, Office of Geology



[www.missgeo.com](http://www.missgeo.com)

## 2018-2019 MGS MEETING SCHEDULE

When	What/Who	Where
September 13, 2018	Fall BBQ	Jackson Yacht Club-5:30pm
October 11, 2018	Ezat Heydari and Kiana McFadden	River Hills – 11:30am
November 8, 2018	ENERGY & POWER: SUPPLY & DEMAND Todd “Ike” Kiefer	River Hills – 11:30am
	<b>Merry Christmas</b>	
January 10, 2019	Dr. James B. Harris—Millsaps College	River Hills – 11:30am
February 7, 2019	Jeannie Barlow, Ph.D. USGS—Hydrologist	River Hills – 11:30am
March 7, 2019	Patrick Sullivan Mississippi Energy Institute	River Hills – 11:30am
<b>April 11, 2019</b>	<b>Boland Scholarship Awards Dustin Johnson Memorial Awards</b>	<b>River Hills – 11:30am</b>
May 9, 2019	Spring Fling	Jackson Yacht Club– 5:30pm

**Congratulations  
to the award winners!**

**Boland Scholarship  
Dustin Johnson Memorial**

OFFICERS MEETINGS
September 11, 2018
October 9, 2018
November 6, 2018
January 8, 2019
February 5, 2019
March 5, 2019
<b>April 9, 2019</b>
May 7, 2019



# MGS 2018-2019 BOARD OF DIRECTORS

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## *Boland Scholarship*

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	Vaughn Watkins	(601) 898-9347

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<b>GCAGS</b>	Danny Harrelson	U.S. Army R&D	(601) 634-2685

## *Other*

<b>Environmental</b>	John Ryan	Allen	(601) 936-4440
<b>Historian</b>	Stanley King	Independent	(601) 842-3539



# PRESIDENT'S LETTER

*Dr. David T. Dockery III, RPG*



Patrick Sullivan, President of the Mississippi Energy Institute (MEI), was the speaker at our last noon meeting on March 7. The small MGS turnout was a little embarrassing, especially when Patrick looked around and asked me how many people were coming. At the time MEI was lobbying for HB 740, which would return the Oil and Gas Board to a special fund agency. Patrick spoke on the bill at the MGS meeting as shown in the accompanying picture. Our small crowd had many questions at the end for which Patrick gave us the inside scoop. It seems that our small turnout didn't keep Patrick from prevailing on the issue; his update report is below.

UPDATE: The conference report for HB 740 has passed both the House and the Senate. The bill will return the Oil and Gas Board to a special fund agency, as we proposed. Those credited with passage of this are the following:

Senate - Lt Governor Reeves (and staff) for providing leadership, Senator Buck Clarke who handled it in his Appropriations Committee, Senator Sally Doty who advocated from her position as Energy Committee Chair

House - Representative Scott Bounds who authored the bill and persistently advocated through the entire process, Representative John Read who Chairs Appropriations Committee where the bill was assigned, Representative Gary Staples who Chairs the Energy Committee and has advocated for this for several years now.

We'll be in touch, but I just wanted to let everyone know. We are very appreciative of the work done by these members to support and advance our request.

Sincerely,

Patrick





# PRESIDENT'S LETTER

*Dr. David T. Dockery III, RPG*

On another issue, *The Jackson Volcano* historic marker has been placed at the entrance to a Belhaven Subdivision park. MGS sponsored this plaque with a contribution of \$2,000 for its cost. The accompanying pictures show James Matheny, MDEQ Office of Geology, beside the marker at a Belhaven Park entrance and a closeup of Dr. Reed Hogan, President of the Belhaven Improvement Association, beside the marker.





# BOLAND SCHOLARSHIP WATCH

Faculty & Students,

It's now April and the Mississippi Geological Society along with the Boland Scholarship Fund would like honor the most outstanding overall students for the 2018-2019 year.

Each year, the Boland Scholarship awards 1 student from each institution a check that rewards students for their hard work and dedication to the Geosciences and their community.

We look forward to a great year and hope to see you at our monthly meetings.

Best Regards,

Matt Caton  
Editor



THE UNIVERSITY OF  
SOUTHERN  
MISSISSIPPI

MILLSAPS  
COLLEGE



# **BOLAND SCHOLARSHIP AWARDS**

## **Lawrence F. Boland Scholarships**

### **Cooper Scott Cearley, Millsaps College**

Cooper is a Senior from Dallas, TX with a cumulative 3.3 GPA and a 3.9 GPA in Geology. His emphasis is in the field of Geophysics. He will receive his BS in May of 2019. He also has a minor in Math.

### **Kelly Truax, Mississippi State University**

Kelly is a senior from Starkville with a cumulative 3.97 GPA and a 4.0 GPA in Geology. While at State, she has been on the President's List every semester. She also received a B.F.A. in Acting from Missouri State University.

### **Sydney Kennedy, University of Southern Mississippi**

Sydney is a Senior from Decatur, MS with a cumulative 4.0 GPA and 4.0 GPA in Geology. While at USM, she has been on the President's List every semester.

### **Jordan Johnson, University of Mississippi**

Jordan is a Senior from Hanceville, Alabama, with a cumulative 3.7 GPA and a 4.0 GPA in Geological Engineering. She will graduate in May of 2019.

**CONGRATULATIONS TO THIS YEARS WINNERS!**



# **DUSTIN JOHNSON MEMORIAL AWARDS**

**Emily Welch, Mississippi State University**

Emily is a Senior from Columbia, MS and will receive her BS in Geology in 2019.

**Amber Morgan, University of Southern Mississippi**

Amber is a Junior from Poplarville, MS and will receive her BS in Geology in 2019.

The winners were selected from an outstanding group of nominees. All nominees were selected by the faculty of each College or University.

The award for each scholarship is \$1,000.00 and will be presented at the Thursday, April 11<sup>th</sup> meeting at River Hills Club at 11:30.

**CONGRATULATIONS TO THIS YEARS WINNERS!**





# NEWS

## *MS Gem and Mineral Society*

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### Mississippi Gem & Mineral Society

176 Tazan Avenue, Florence, Mississippi 39073-8720

- Home
- 2019 Gem, Mineral, Fossil & Jewelry Show in February
- Meetings
- Directions
- Lapidary School
- Membership
- Field Trips
- Classes and Newsletter
- Affiliations – AFMS & SFMS
- MGMS History – Some Highlights
- Contact Us




## Home

The Mississippi Gem and Mineral Society (MGMS) was established to promote knowledge and the enjoyment of activities related to the earth sciences. MGMS activities focus on rocks, minerals, fossils, lapidary arts, and jewelry making.

It's amazing how diverse this rock hobby is. There's something for every interest and its a hobby that the entire family can enjoy together.

Visitors are always welcome to join us at one of our regular meetings held at our MGMS Lapidary School. We're located just a few miles south of the capitol city of Jackson at 176 Tazan Avenue, Florence, Mississippi.

*Mississippi Gem & Mineral Society*  
.... Florence, Mississippi ....





# CURRENT PRICES



Marketwatch





**AAPG HEDBERG**  
**Hydrocarbon**  
**Microseepage: Recent**  
**Advances, New**  
**Applications, and**  
**Remaining Challenges**

18-20 June 2019 • Houston, TX

**Abstract Submission Deadline 20 January, 2019**

In June 2019 in Houston, we plan to bring together 70-90 international experts to review the state of knowledge of hydrocarbon microseepage.

For more information regarding abstract guidelines and topics visit AAPG website, [www.aapg.org](http://www.aapg.org) and look under Hedberg Research Conferences.



# MONTHLY POST

## *Dr. David T. Dockery III RPG*

### RADIOMETRIC AGE OF THE GLENDON LIMESTONE (VICKSBURG GROUP) AND THE YAZOO CLAY (JACKSON GROUP) IN MISSISSIPPI

David T. Dockery III, RPG

The relative age of the Vicksburg Group of Mississippi based on fossils is that of Rupelian Series/Stage of Europe (Belgium), a series used as a Global Chronostratigraphic Unit of Early Oligocene age. The absolute age of the Rupelian, according to Wikipedia and Britanica.com, spans from 33.9 to 28.1 million years ago (Latin, mega-annum, Ma). The absolute age range comes from radiometric ages of samples near the upper and lower boundaries of the stage (see chart).

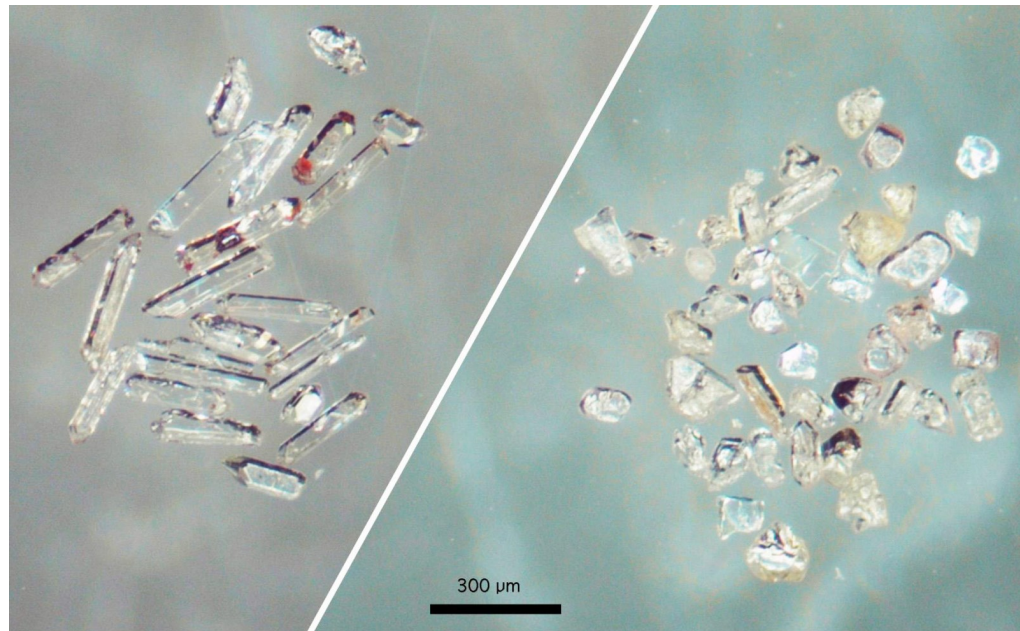
System/ Period	Series/ Epoch	Stage/ Age	Age (Ma)	
Neogene	Miocene	Aquitanian	younger	
Paleogene	Oligocene	Chattian	23.03	27.82
		<b>Rupelian</b>	27.82	33.9
	Eocene	Priabonian	33.9	37.8
		Bartonian	37.8	41.2
		Lutetian	41.2	47.8
		Ypresian	47.8	56.0
		Thanetian	56.0	59.2
	Paleocene	Selandian	59.2	61.6
		Danian	61.6	66.0
Cretaceous	Upper/ Late	Maastrichtian	older	
Subdivision of the Paleogene Period according to the ICS, as of 2017. <sup>[1]</sup>				



# MONTHLY POST

## *Dr. David T. Dockery III RPG*

Now a publication by Benjamin R. Jordan, Thomas E. Yancey, Paul V. Heinrich, Brent V. Miller, and Kevin McGuire, 2019, [The age and geochemistry of volcanic ash in the Catahoula Formation of Louisiana, Mississippi, and Texas, USA: *The Journal of Geology*, v. 127, no. 2, March 2019, p. 207-222] gives the age of a bentonite bed at the base of the Glendon Limestone in an excavation at the Rankin Trails Park and Amphitheater in Rankin County, Mississippi, as  $32.59 \pm 0.13$  Ma. This is the first radiometric age from the Vicksburg Group in Mississippi and was made from volcanic zircon crystals in the bentonite. Below are radiometric ages for bentonites in the Vicksburg Group and the upper Jackson Group Yazoo Clay of Priabonian Stage (Late Eocene) as determined by John Obradovich and revised by David Sawyer. The first two upper Yazoo Clay ages in the list are of Early Oligocene age.



Morphology of zircon crystals extracted from bentonite at the base of the Glendon Limestone at Brandon, Mississippi. Volcanic crystals at left have a radiometric age of 32.59 Ma. Detrital grains as right have Paleozoic (400 Ma) and Precambrian (900-1,300 Ma) ages.

**$32.59 \pm 0.13$  Ma**, Glendon Limestone, Vicksburg Group, Rankin County, MS.

**$33.67 \pm 0.15$  Ma**, upper Yazoo Clay, Jackson Group, Mossy Grove core, depth -87 feet, Hinds County, MS.

**$33.74 \pm 0.08$  Ma**, upper Yazoo Clay, Jackson Group, Society Ridge outcrop, Hinds County, MS.

**33.9 Ma**, Eocene-Oligocene boundary and Priabonian-Rupelian Stage boundary

**$34.10 \pm 0.16$  Ma**, Yazoo Clay, Jackson Group, Satartia outcrop, Yazoo County, MS.

**$34.55 \pm 0.17$  Ma**, Yazoo Clay, Jackson Group, Mossy Grove Core, depth -277 feet.



# GEOLOGY POST

## ARTICLES, PAPERS or NEWS?

**ATTENTION!!!!!!** Industry, Professors and Students:

I am adding a dedicated section that includes more content from the industry and our schools.

Submissions can include anything from professional papers, thesis abstracts, job opportunities to pictures. Anything!!!!

If you have any information or news you would like to share with the Society **PLEASE** email them to the MGS Editor at:

[mcaton@tellusoperating.com](mailto:mcaton@tellusoperating.com)

Thanks & Regards,

Matt Caton  
Editor

# GEO LINK POST

**USGS TAPESTRY OF TIME AND TERRAIN** <http://tapestry.usgs.gov> The CCGS is donating to all of the 5th and 6th grade schools in the Coastal Bend. Check it out—it is a spectacular map. You might want a framed one for your own office. The one in my office has glass and a metal frame, and it cost \$400 and it does not look as good as the ones we are giving to the schools. Call Owen 510-6224 if you want one for your office for \$150. Duncan, Mike, Chris, Dave, Bob Randy, Seb., Kevin, Ken, Craig, Patrick, Robert.

**FREE TEXAS TOPO'S** <http://www.tnris.state.tx.us/digital.htm> these are TIFF files from your state government that can be downloaded and printed. You can add them to SMT by converting them first in Globalmapper. Other digital data as well.

**FREE NATIONAL TOPO'S** [http://store.usgs.gov/b2c\\_usgs/b2c/start/\(xcm=r3standardpitrex\\_prd\)/.do](http://store.usgs.gov/b2c_usgs/b2c/start/(xcm=r3standardpitrex_prd)/.do) go to this webpage and look on the extreme right side to the box titled TOPO MAPS DOWNLOAD TOPO MAPS FREE.

<http://www.geographynetwork.com/> Go here and try their top 5 map services. My favorite is 'USGS Elevation Date.' Zoom in on your favorite places and see great shaded relief images. One of my favorites is the Great Sand Dunes National Park in south central Colorado. Nice Dunes.

<http://antwrp.gsfc.nasa.gov/apod/astropix.html> Astronomy picture of the day — awesome. I click this page everyday.

<http://www.spacimaging.com/gallery/ioweek/iow.htm> Amazing satellite images. Check out the gallery.

<http://www.ngdc.noaa.gov/seg/topo/globegal.shtml> More great maps to share with kids and students.

[www.geo.org](http://www.geo.org) Don't forget we have our own web page.

<http://micro.magneet.fsu.edu/primer/java/scienceoptiscu/owersof10/>

<http://asterweb.jpl.nasa.gov/gallery/default.htm> Great satellite images of volcanoes

<http://terra.nasa.gov/gallery/> More here

[www.ermapper.com](http://www.ermapper.com) They have a great free downloadable viewer for TIFF and other graphic files called ER Viewer.

[www.drillinginfo.com](http://www.drillinginfo.com) This is an incredible (subscription) well and completion data service for independents. Can be demo'ed for free.

<http://terraserver.com/> Go here to download free aerial photo images that can be plotted under your digital land and well data. Images down to 1 meter resolution, searchable by Lat Long coordinate. Useful for resolving well location questions.

<http://www.fs.fed.us/gpnl/volcanocams/msh/> This is a live cam of Mt. St. Helens refreshed every 5 minutes. At the bottom are old videos of past eruptions in this cycle. It is worth a watch especially now.



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**Thomas McGlothin\***

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**Richard R. Priddy\***

**Harry V. Spooner**

**Stewart W. Welch\***

**Julius Ridgeway**

**Dr. David T. Dockery III**

**\* deceased**



**MEMBERSHIP APPLICATION / RENEWAL FORM**

**MISSISSIPPI GEOLOGICAL SOCIETY**

**P.O. BOX 422, JACKSON, MISSISSIPPI 39205-0422**

**2018-2019**

Membership year is June through May

New Membership (\$20/yr)\_\_\_\_\_ Renewal (\$20/yr)\_\_\_\_\_ Student (FREE)\_\_\_\_\_ Associate (\$20/yr)\_\_\_\_\_

Boland Scholarship Fund Donation \$ \_\_\_\_\_ Total Amount Enclosed \$ \_\_\_\_\_

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Professional Associations, Certifications, & Licenses: \_\_\_\_\_

## MGS ADVERTISING ORDER FORM

September 2018 – May 2019

### I. Bulletin Advertisements:

<u>Size</u>	<u>Rate/Year</u>	<u>Amt. Remitted</u>
Full Page Ad (6" x 8")	\$500	\$ _____
1/2 Page Ad (6" x 4")	\$300	\$ _____
1/4 Page Ad (3" x 4")	\$200	\$ _____
Business Card Ad (1 1/2" x 3")	\$100	\$ _____
Professional Listing (1/2" x 3")	\$ 50	\$ _____

### II. Web Page Advertisements (www.missgeo.com):

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Front Page Sponsor (Banner Ad – limit of 5)	\$500	\$ _____
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Professional Listing/Link	\$100	\$ _____

(Note: Please contact Steve Walkinshaw at (601) 607-3227 or mail@visionexploration.com for details concerning placing your ad on the MGS web site.)

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1944-1945	L. R. McFarland	1978-1979	Les Aultman
1945-1946	J. B. Story	1979-1980	Philip R. Reeves
1946-1947	Frederic F. Mellen	1980-1981	Marshall Kern
1947-1948	H. Lee Spyres	1981-1982	Stephen Oivanki
	Robert D. Sprague	1982- 1983	James W. "Buddy" Twiner
1948-1949	Robert D. Sprague	1983- 1984	Charles H. Williams
1949-1950	E. T. "'Mike" Monsour	1984- 1985	C. Kip Ferns
1950-1951	J. Tate Clark	1985-1986	Steven S. Walkinshaw
	Charles E. Buck	1986-1987	J. R. "'Bob" White
1951-1952	George W. Field	1987-1988	Harry Spooner
1952-1953	James L. Md11in, Jr.	1988-1989	Stanley King
1953-1954	Wilbur H. Knight	1989-1990	Stan Galicki
1954-1955	A. Ed Blanton	1990-1991	E. James Files, Jr.
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1956-1957	Ben Ploch	1992-1993	Michael Noone/Stanley King
1957-1958	Emil Monsour	1993-1994	Brian Sims
1958-1959	Charles Brown	1994-1995	C. W. "Neil" Barnes
1959-1960	M. F. Kirby	1995-1996	Lester Aultman
1960-1961	Rudy Ewing	1996-1997	Jack S. Moody
1961-1962	Xavier M. Franscogna	1997-1998	George B. Vockroth
1962-1963	Robert B. Ross	1998-1999	Rick L. Ericksen
1963-1964	William A. Skees	1999-2000	Stanley King
	Marvin Oxley	2000-2001	John C. Marble
1964-1965	James F. Bollman	2001-2002	Andrew T. Sylte
1965-1966	Sankey L. Blanton	2002-2003	Aaron Lasker
1966-1967	Alan Jackson	2003-2004	John G. Cox
1967-1968	Julius M. Ridgway	2004-2005	James E. Starnes
1968-1969	Edward D. Minihan	2005-2006	Todd Hines
1969-1970	Kevin E. Cahill	2006-2007	Bob Schneeflock
1970-1971	John Lancaster	2007-2008	Tony Stuart
1971-1972	Larry Boland	2008-2009	Lisa Ivshin
1972-1973	Charles Barton	2009-2010	Joe Johnson
		2010-2011	Brian Sims
		2011-2012	Stanley King
		2012-2013	Jim Files
		2013-2014	Neil Barnes
		2014-2015	Ezat Heydari
		2015-2016	Jack Moody
		2016-2017	Cragin Knox
		2017-2018	David Hancock