

# PICK&PACK

THE BULLETIN OF THE COLORADO SPRINGS MINERALOGICAL SOCIETY Published Since 1960

July  
2013  
**PICK&PACK**  
Volume 53 Number 06

## CSMS General Meeting

**Thurs. July 18, 2013 7PM**

### **“I know what you dug last summer”**

Each year Florissant Fossil Beds hosts several college students for hands-on internships. Two or three students will present on their research and findings.

## **No CSMS General Meeting in August**

**We have a picnic instead.**

**Watch for a blastogram for details**

## **The CSMS Gem & Mineral Show was a great success and a good time was had by all**

**Pictures by Frank Rosenberg**

More Pictures on CSMS website and on pg7



CSMS is an incorporated non-profit organization with these goals:

- To promote and disseminate knowledge of the earth sciences, especially as they relate to mineralogy, lapidary, and fossils.
- To encourage study, collection, and fashioning of minerals.
- To accomplish the same through social meetings, lectures, programs, displays, shows, and field trips.
- The Pick & Pack is published 10 times each year to assist and promote the above.

### **Proud Members of:**

American Federation of Mineralogical Societies (AFMS)  
[www.amfed.org](http://www.amfed.org)

Rocky Mountain Federation of Mineralogical Societies (RMFMS)  
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**Colorado Springs  
Mineralogical Society**  
*Founded in 1936*

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**Treats for July to be provided by the Micro-mountain Group**

## CSMS Calendar

### July 2013

**Tue., Jul 2—No Fossil Group Meeting this month, 7 p.m., Senior Center.**

**Thu., Jul 4— No Board Meeting, 7 p.m., Senior Center.**

**Sat., Jul 6—Lapidary, 10-2 p.m., Sharon Holte 217.5683.**

**Smokey Hawk Field Trip**

**Tue., Jul 9—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719.495.8720**

**Sat., Jul 13—Hartsel Barite Field Trip**

**Thu., Jul 18—General Assembly, “I know what you dug last Summer” presented by Florrisant Interns. 7 p.m., Senior Center.**

**Pebble Pups & Juniors. Meetings resume Sep, Steven Veatch, 719.748.5010**

**Thu., Jul 25—Faceting Group, 7 p.m., Senior Center. Paul Berry, 719.578.5466**

**Jul, Jewelry Group, By appointment. Call, Bill Arnson, 719.337.8070. 15610 Alta Plaza Cir., Peyton**

**Jul, Crystal Group, Meetings resume Sep. Kevin Witte, 719 638-7919**

### August 2013

**Thu., Aug 1—Board Meeting, 7 p.m., Senior Center.**

**Sat., Aug 3—Lapidary, 10-2 p.m., Sharon Holte 217.5683.**

**Tue., Aug 6—Fossil Group, 7 p.m., Senior Center.**

**Sat., Aug 10—Peridot Clam Field Trip**

**Tue., Aug 13—Micromounts, 7 p.m., Senior Center. Dave Olsen, 719.495.8720**

**Thu., Aug 15—No General Assembly, 7 p.m., Senior Center.**

**Pebble Pups & Juniors. Meetings resume Sep, Steven Veatch, 719.748.5010**

**Thu., Aug 22—Faceting Group, 7 p.m., Senior Center. Paul Berry, 719.578.5466**

**Aug, Crystal Group, Meetings resume Sep. Kevin Witte, 719 638-7919**

**Aug, Jewelry Group, By appointment. Call, Bill Arnson, 719.337.8070. 15610 Alta Plaza Cir., Peyton**

### Other Events of Interest to CSMS Members

**July 18-21, Looking at Plants of the Past: A Tour Through Geological Time, 9AM-9PM, A Seminar on Petrified Wood, Colorado School of Mines, Museum Conference Room, All day field trip on Sunday. For more info contact, Beth Simmons [cloverknoll@comcast.com](mailto:cloverknoll@comcast.com), 303-986-9693.**

**July 20, 9 a.m. – 5 p.m., Dinosaur Express at the Colorado Railroad Museum, Golden. Dinosaur Ridge will host 10-12 booths at this event. For more info see [www.dinoridge.org](http://www.dinoridge.org) or <http://coloradorailroadmuseum.org/>.**

**Aug 8-11, Contin-Tail, Rodeo Grounds, Buena Vista [www.coloradorocks.org](http://www.coloradorocks.org)**

**Sat., Aug. 10, 10 a.m. – 2:30 p.m., monthly Dinosaur Discovery Day** public tour day at Dinosaur Ridge, Morrison CO. Held on the 2nd Saturday of each month, through October. Tour guides are stationed at each fossil and geologic stop to explain what you see in the Cretaceous and Jurassic rock formations. One can walk up and down the road to see the sights (no charge), or ride a shuttle bus (\$3). “Mr. Bones” (a “live” walking dinosaur skeleton) will be present at each monthly event. August features “Reptile Day” with live birds and reptiles from the Denver Zoo and elsewhere. See [www.dinoridge.org](http://www.dinoridge.org) for more info.

**Aug 15-18, Woodland Aug 15-18, Woodland Park Rock, Gem and Jewelry Show, 9-6PM, Located between Wal-Mart & Burger King on Hwy 24. More Info call 719-360-9665**

**Aug. 16-18, Lake George Gem & Mineral Show, Lake George, Park County, CO; <http://www.lggmclub.org/>**

**Sat, Sep 21, Canon City Geology Club field trip to Picketwire Canyons** Contact Cindy Smith 303-818-3084 Brochure:[http://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5409587.pdf](http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5409587.pdf)

**Each person makes their own reservation. Book your tour on:**

<http://www.recreation.gov/tourDetails.do?contractCode=NRSO&parkId=74974&tourId=341568&cat=1>

**or by calling 1-877-444-6777**

**The Senior Center is located at 1514 North Hancock in Colorado Springs. For more information on any of the sub-groups, meetings, and other CSMS valuable information, go to our website, [csms.us](http://csms.us)**



# GOETHITE: MINERAL OF MANY FACES

Mike Nelson csrockguy@yahoo.com

*Know thyself? If I knew myself, I'd run away.* Goethe

Since relocating to Colorado Springs, I have been fascinated by the specimens of goethite collected from rocks of the Pikes Peak Batholith. Early on in Kansas I knew goethite was an iron oxide [ $\text{Fe}^{+3}\text{O}(\text{OH})$ ] and usually some sort of a secondary mineral observable in many red-orange-black sedimentary rocks but that was about the extent of my knowledge. I had always assumed goethite was what I studied in mineralogy class- an ugly sort of “rust”, an iron mineral without much going for it, or some botryoidal lumps. As students, we used to assume that much of the iron/rust found in the Dakota Formation (Cretaceous) in central Kansas was goethite and called it bog iron. Therefore, I was greatly surprised when long time CSMS member Ray showed me his collection of goethite crystals—WOW. His specimens had delicate sprays of black and shiny acicular crystals and were beautiful. Ray told me that the mineral is associated with the quartz and amazonite crystals in the vugs of the batholith. In these types of deposits I believe goethite is a primary hydrothermal mineral (Figs. 1 and 2). Which got me wondering—where did the iron come from? Was it leached from some of the iron minerals in the granite such as hornblende? After the quartz and feldspar? I don't know the answer so perhaps some mineralogist could give me some help?



Fig. 1. Goethite spray from Precambrian rocks of the Pikes Peak batholith. Courtesy of Kevin.



Fig. 2. Goethite and quartz from the Pikes Peak Batholith. Courtesy of Kevin.



Fig. 3. Golden goethite collected from rocks of the Pikes Peak Batholith near Lake George, Colorado. Width of specimen ~3.3 cm

In the sedimentary environment (bogs) goethite is secondary and the result of oxidation of iron carried in circulating solutions. So again, the iron comes from where? Is it a weathering product, oxidation and hydration, of iron-rich detrital grains? Probably. Bog iron was one of the first ores mined in colonial North America and was eagerly sought out by settlers moving west across the continent. Hematite was commonly mixed in and is also considered to be a “bog iron”.

Not all goethite is black or dark brown in color and the Batholith has produced what is called Golden Goethite (Fig. 3). Goethite may also have a mammillary structure as in the specimen from Bisbee, Arizona (Fig. 4). I presume this type of mineralization is the result of oxidation of the metallic sulfides. One particular specimen (from ?Canada) that I have is a concretion with the top broken and the piece



## GOETHITE: MINERAL OF MANY FACES *continued*

displaying a fantastic arrangement of tiny acicular crystals (Fig. 5). Graves Mountain in Georgia has produced very nice bladed goethite (Fig. 6).



Fig. 4. Mammillary goethite from Bisbee, Arizona. Width of specimen ~2.4 cm.



Fig. 5. Sprays of acicular goethite displayed in a broken concretion. Specimen from Ontario?, Canada with width ~3.2 cm.



Fig. 6. Bladed (above right) and mammillary goethite covered with hematite. Specimen from Graves Mountain Georgia. Width (R-L) ~5 cm.

Goethite/limonite also commonly forms pseudomorphs—from virtually any iron (Fe+2) mineral such as pyrite, marcasite and siderite. As the mineral enters the oxidation zone, usually near the surface, there is a change in the iron from Fe+2 to Fe+3—a form stable in a surficial environment. One of the more famous goethite pseudomorph localities in the U.S. is at Pelican Point on Utah Lake near Provo. At this locality pyrite cubes are re-

placed by goethite (Fig. 7). In doing so, pyrite the iron sulfide ( $\text{FeS}_2$ ), has the sulfur ions replaced by oxygen and hydrogen and the result is a new mineral goethite ( $\text{Fe}^{+3}\text{O}(\text{OH})$ ), an iron oxyhydroxide. The mineral pyrite crystallizes in the cubic crystal system with the actual crystals commonly manifested in cubes, octahedrons, and pyritohedrons. Goethite is orthorhombic (three mutually perpendicular axes, all of different lengths—far from the cubes of pyrite) and if crystallized, forms acicular needles or flattened plates. What one observes at Pelican Point are beautiful cubes, originally pyrite, but now goethite. I collected crystals many decades ago but am now uncertain as to the land status and collecting possibilities.



Fig. 7. Goethite after pyrite. Pelican Point, Utah.

## GOETHITE: MINERAL OF MANY FACES continued

What I was really interested in when starting this offering was to find out more about the namesake of goethite -- Johann Wolfgang von Goethe. I had read parts of *Faust* in a college lit class and did not find it interesting at all, and sort of forgot about the man. A few years ago I had the opportunity to spend several weeks in Germany working with some institutions on starting cooperative undergraduate research programs. I also was enrolled in a "beginning" German language class, and it was a tough one. I especially was pleased that the class did not involve "tests"! But, I learned enough to order dunkles Bier (dark beer), Brot and Brotchen (bread and rolls), Brat or Wurst (sausage), and Spitzbein (cured pig knuckles). What more could I ask for? And, I could understand the train schedules. In addition, my spouse could understand the language much better than I could---so we traveled all over Germany on the trains and gained weight eating the aforementioned foods and partaking of adult beverages. The only problem we really had, and it was not much, was early-on in Belgium where I could not quite understand the entire menu, especially Kaninchen. I tried to question the staff but they were clueless as to an English translation. Finally one bright young man held up two fingers beside his ears and said "Bugs Bunny". The translation of the dinner---rabbit.

While traveling I had always wanted to visit the city of Weimar---for a couple of reasons: 1) it was located in the former East Germany (I was living in Frankfurt, formally West Germany); and 2) the constitution for the post-World War I German Reich was drafted here (1919) and the resulting government was informally known as the Weimar Republic. This tidbit stuck out in my mind from a high school history class since the German government was a parliamentary representative democracy (although very shaky at times) and was displaced by Adolph Hitler and his Nazis in 1933.

Upon arriving in Weimar I was sort of stunned at the beauty since the city was largely spared from carpet bombing by the Allied Air Force during WWII---why, I don't know. The city was full of very old buildings and a tremendous amount of history. I was able to visit the Town Church St. Peter and Paul (Herder Church) where Martin Luther visited/preached during his numerous visits from 1518-1540; it is an important part of the Protestant Reformation. The Duchess Anna Amalia Library includes a 1534 Luther Bible. Here in Colorado Springs we think that 1850 is old; however, this church is 300 years older!

Weimar was also the home of perhaps Germany's most important classical playwright, historian, and philosopher-- Joseph Christoph Friedrich von Schiller (1759-1805). Now, somewhere in grade school our class read the story about William Tell (Wilhelm Tell), a play penned by Schiller. In thinking about it, the story was a pleasant little offering about a bad guy vs. the good guy (Tell) who shot an apple off his son's head. Moral of the story, good guy wins. However, I have gone back and looked at a less sanitized version and the story is quite violent (probably unsuitable for our primary class). The play does concern the legendary Swiss archer Wilhelm Tell, but the main thesis seems to be the Swiss struggle for independence from the Hapsburg Empire in the 1300's. In the end Tell puts an arrow in the heart of the bad guy, "It is William Tell's work [he said]. Oh Lord have mercy on my soul".

One of the things that was sort of interesting to me as I toured Schiller Haus was how short Schiller's bed was. He was a not a tall person!



Fig. 8. Goethe ca. 1828.  
Photo from original painting  
by Joseph Karl Stieler.

During his final years in Weimar, Schiller was a friend of Johann Wolfgang von Goethe (1749-1832). Goethe was brilliant and evidently a genius (no IQ tests then); he was a politician, lawyer, diplomat, poet, writer, novelist, and scientist. In childhood he would memorize long parts of the first five books of Moses (the Jewish Torah), Virgil's Latin epic poem *Aeneid*, and Ovid's poem *Metamorphoses*. I have trouble memorizing my name sometimes!

As I said, I read part of *Faust* and it turned me off---no more Goethe for me! But I understand Goethe's greatest literary piece may be *Wilhelm Meister's Apprenticeship*. It is, according to some, one of the top ten novels of all time. I have not had the energy to tackle this one. As a botanist (self-taught) he wrote the *Metamorphosis of Plants*, and also maintained a magnificent garden at the Goethe Haus. I was in awe in the Garden being able to see plants that Goethe may have touched, or at least planted their ancestors.

But, germane to this piece, is that Goethe inherited a love and curiosity about rocks and minerals from his father. In addition, he inherited his father's mineral collection, added to it, and studied them. All-in-all, his collection included nearly 19,000 stones (as they liked to call them) and may have been the largest collection in Europe during his life. And, he advised the local government on



## GOETHITE: MINERAL OF MANY FACES continued

"mining". Some, not many, of his minerals are on display in the Goethe Haus while the majority seem tucked away in museum(s). I always wondered, where in the world did he display/keep these specimens?

So, the mineral goethite was named for Goethe in 1806 with the type locality at Hollertszug Mine, Rhineland-Palatinate, Germany ([www.MinDat.com](http://www.MinDat.com)). What I don't know: 1) is Goethe responsible for the mineral's discovery; 2) did he name it for himself (as at least one author stated); 3) if not, who named it?

A bit of trivia--what about the word *von* in both Schiller's and Goethe's name? This term, *von*, may indicate where a person is from, his or her place of residence. However, in the case of Schiller and Goethe *von* is a nobiliary particle (how is that for the word of the day?). In the case of Schiller and Goethe a "rich" aristocrat "enobled" (second word of the day) them, made them part of the family, and certainly gave them some resources to continue their humanistic activities.

As for Faust, he was ultimately saved despite his evil deeds because he continued to strive for perfection right up to the end (instead of not doing so and falling into mediocrity). Perhaps we can learn from that point.

And for my final words, another quote from Goethe talking about rockhounds and their hobby:

***A man can stand anything except a succession of ordinary days. Goethe***

## BRECKENRIDGE BIPYRAMIDAL QUARTZ CRYSTALS

By Frank Rosenberg

Sunday, June 16<sup>th</sup>, a small group of CSMS members had the pleasure of joining members of the Flatirons Mineral Club (FMC) and the Colorado Mineral Society (CMS) in a combined field trip to collect bipyramidal quartz crystals just outside Breckenridge, CO.

The collecting site was easy to get to. It is six miles south of Frisco just to the right (west) of route 9 about a tenth of a mile on a dirt road and up a hill by the DNR Kennels. The site itself was along the shoulders on each side of the dirt road. A small hand rake was all that was needed to sift through the sandy soil to collect the small quartz crystals.

This combined field trip gave all that attended an opportunity to get to know members of other clubs along the front range. A good time and good collecting was had by all.



Janetta Carrol looks for quartz crystals



Dale Clouse and CSMS President, Mark Lemesany use screens



Easy collecting



Bipyramidal quartz crystals collected by this writer

## PEBBLE PUPS CORNER

### Pebble Pups in the News

Luke Sattler had a poem entitled "Colorado" published in the June 2013 Ute Country News.

Jack Sepulveda also had a poem entitled "Glory" published in the June 2013 Ute Country News.



### More pictures from the Show

Pictures by Frank Rosenberg





## 2013 CSMS Officers

**Mark Lemesany, President**

**Jean Miller, Vice President**

**Renee Swanson, Secretary**

**Ann Proctor, Treasurer**

**Ellie Rosenberg, Editor**

**Susan Freeman, Membership Secretary**

**Sharon Holte, Member-at-Large**

**Frank Rosenberg, Member-at-Large**

**Roger Pittman, Past President**

## 2013 CSMS Chair Persons

**Kim & Bodie Packham, Annual Show Chairperson**

**Ron Yamiolkoski, Field Trip Director**

**Ron Yamiolkoski, Science Fair Chair**

**Brenda Hawley, Historian**

**Frank & Ellie Rosenberg, Librarians**

**Camera Club Chair is Vacant**

**Georgia Woodworth, Social Committee Chair**

**Ann Proctor, Store Keeper**

**Kevin Witte, Crystal Studies Group**

**Paul Berry, Faceting Group**

**TBD, Fossil Group**

**Bill Arnson, Jewelry Group**

**Sharon Holte, Lapidary Group**

**Steven Veatch, Juniors & Pebble Pups**

**Dave Olsen, Micromount Group**

**Gary del Valle, Webmaster**

To contact an officer or chairperson, go to [csms.us](http://csms.us), click on Board Members, and, if their name is underlined, click on it.

### Sub-Group Responsibilities for Refreshments for General Assembly Meetings

<b>Feb.</b>	<b>Mar.</b>	<b>Apr.</b>
<b>Crystal</b>	<b>Faceting</b>	<b>Fossil</b>
<b>May</b>	<b>June</b>	<b>July</b>
<b>Jewelry</b>	<b>Lapidary</b>	<b>Micromount</b>
<b>Aug.</b>	<b>Sept.</b>	<b>Oct.</b>
<b>Picnic</b>	<b>Projects</b>	<b>Board</b>
<b>Nov.</b>	<b>Dec.</b>	
<b>TBD</b>	<b>Christmas Party</b>	

## PRESIDENT'S CORNER

by Mark Lemesany



Hello everyone,

Wow, what a great show we had. We met and exceeded all my expectations. Once again I would like to thank all of the volunteers. Without all of you none of it would have been possible.

I got a lot of comments about how organized it was. The silent auction did really well. Yam kept people laughing and running. The kids booth had 600 kids. We had 1500 adults attend, so right around 2,000 people and all. The Mining Museum was so happy with us, we already set up the dates for next year. They are 6th 7th and 8th of June

2014. I hope everybody had a chance to come. Any comments or suggestions would be greatly appreciated.

Now that the work is done we can get off to the fun and go on some field trips. That's why I join the club so that I could get access to places to rockhound. If you have any questions, feel free to ask me or anyone else in the club. I'm sure we can help you out.

Thank you,

Mark Lemesany

PS: If you have a place you would like to take the club, we would like to help you set it up

## SECRETARY'S SPOT

by Renee Swanson

### MINUTES OF COLORADO SPRINGS MINERALOGICAL SOCIETY GENERAL MEETING JUNE 18, 2013

Called to order by Mark Lemesany.

Special announcement by Sharon Holte. Moira Lyne has suffered a heart attack and is in a nursing home. An estate sale consisting of her household goods and her mineral collection will be held on Saturday 9AM-3PM at 1905 Copper Creek Dr.

Mike Martin made this evening's presentation entitled "Fracking, Fact and Opinion." It was very informative.

Guests and new members were introduced.

Some Satellite Groups made presentations. Pebble Pups and Crystal Group do not meet in summer.

Old Business: Show stats; 1000 paying adults and approximately 600 children. Thanks to the Silent Auction team, \$1780 was added to the scholarship fund. It was a great show. Many thanks and kudos to Kim and Bode for all the work they did in organizing it. Next year's show will be June 6-8., 2014

New Business: The August Meeting will be a picnic and parking lot sale/swap on August 10 at the CSMS peridot claim.

Kim will give a wire wrapping class at her house in Divide on Sunday June 30.

Keith Roberts brought some Salomiline he found in New Mexico, a very rare and beautiful mineral.

Drawings for door prizes were held. The meeting was adjourned at 8:45.

Reminder Jack Morris of Last Chance Mine in Creed will be in the movie The Lone Ranger opening July 3.

Respectfully submitted Renee Swanson



# PICK&PACK

## Our Staff...

**Ellie Rosenberg—Editor**  
**CSMS Members Reporters**

We encourage everyone to submit articles, photos, illustrations or observations.

Share your experiences, trials and tribulations, your new finds, or simply your experience at our last field trip.

The ability to write well is NOT a requirement. We will fix the grammar while keeping the author's voice, style, and work intact.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed. The DEADLINE for items to be included in the next Pick & Pack, is the **21st of the month**

To submit an item, please use the following:

For hardcopy photos or articles, mail to the address below or bring them to the General Assembly Meeting. All hardcopy photos remain the property of the submitter and will be returned. Electronic photos should be submitted at resolutions above 200 dpi in TIF, BMP, JPG, or PIC format. Articles are preferred in word. Editors will correct font and type. All articles not shown with an author are provided by the Editor.

E-Mail to:

**[csmseditor@hotmail.com](mailto:csmseditor@hotmail.com)**

Mail to:

Pick & Pack Editor

PO Box 2

Colorado Springs, CO 80901

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## Classifieds



4th ANNUAL  
ROCK GYPSIES

# WOODLAND PARK ROCK, GEM AND JEWELRY SHOW



Thurs. - Sun. August 15th - 18th  
9:00am-6:00pm

Located between Walmart and Burger King  
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More Info?  
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## CSMS

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are available for sale.

See Storekeeper, Ann Proctor

**Hurry! Hurry!! Hurry!!**

**Have You Picked Up Your  
Membership Award Pin(s)?**

If you celebrated a CSMS anniversary  
in 2011 or 2012, your year pin award  
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## 2013 Lake George

**GEM**  **AND MINERAL SHOW**

**FRIDAY, SATURDAY, & SUNDAY**

**Aug. 16-18, 9 am to 5 pm**

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## Joining the Colorado Springs Mineralogical Society (CSMS)

General Assembly meetings are held the **third (3rd) Thursday of each month**, except January & August, (picnic) **beginning at 7:00 p.m.** at the Colorado Springs Senior Center, 1514 North Hancock Ave., Colorado Springs, CO. **Visitors are always welcome.**

CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group by RVSP, Lapidary Group by RVSP, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, check out the calendars on page 2 and the web site.

Yearly dues include 10 issues of the *PICK&PACK*, all field trips (additional fees may be required on some field trips, and members are responsible for all transportation to and from), participation in all Satellite Groups (some groups may request additional fees to help cover resource costs), free admission to the *Western Museum of Mining & Industry*, a year of learning and enjoyment, plus a lifetime of memories.

Individuals—\$30, Family—\$40, Juniors—\$15, Corporate—\$100, \*\*\*\*\*Application is on the web site.

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Assembly meeting or visit our web site: [www.csms.us](http://www.csms.us).