

The Sierra Pelona nagram



January 2021

... Member of the California Federation of Mineralogical Society Inc. ...

The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.

SPRC General Meeting

December 15, 2020

Zoom

The meeting was called to order at 7:10pm. There were 11 members in attendance: Tina White, Bill and Heidi Webber, Dianne Wohlleben, Trina Aeen, Ron Rackliffe, Julie Tinoco, Cheryl and Don Cogan, Betsy Swallow and Lynne Alexander.

It was agreed via email and members attending that the 2020 SPRC board would continue in their current positions, except that Ron Rackliffe would assume the position of CFMS Representative, replacing Evelyn Velie who has resigned to move to South Carolina. The board as stands is: Bill Webber-President, Julie Tinoco-Vice President, Shana Brunes-Ruiz-Treasurer, Heidi Webber-Secretary and Ron Rackliffe as CFMS Representative. Committee members will remain also.

That business completed, Tina White gave her presentation on Agates and Sodalite.

Respectfully Submitted,

Heidi S Webber, SPRC Secretary

Birthdays

January

Larry Holt
Larry Patrich
Martin Schreiner
Robin Shane
Bruce Velie
Austin Williams

February

Adam Hamilton
Brigitte Mazourek
Alan Pollack
John Wheeler
Tina White



Officers:

President – Bill Webber
Vice-President – Julie Tinoco
Secretary: Heidi Webber
Treasurer –Shana Brunes-Ruiz
Federation Director (CFMS/AFMS) --Ron Rackliffe

Chairpersons:

Claim--Linda Jenkins
Donation Rock Table--Akiko Strathmann
Equipment--Bill Webber
Field Trips – Julie Tinoco
Historian -Open
Hospitality – Ron Rackliffe
Membership – Heidi Webber
Website-- Larry Holt
Pelonagram Publisher, Editor – Heidi Webber
Programs –Tina White
Publicity –Open
Sunshine--Brigitte Mazourek

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at:

**The Clubhouse of the Greenbrier
Mobile Estates EAST
21301 Soledad Canyon Rd
Canyon Country, CA 91351**

Contact the Club or the Sierra Pelonagram Editor at:

Sierra Pelona Rock Club

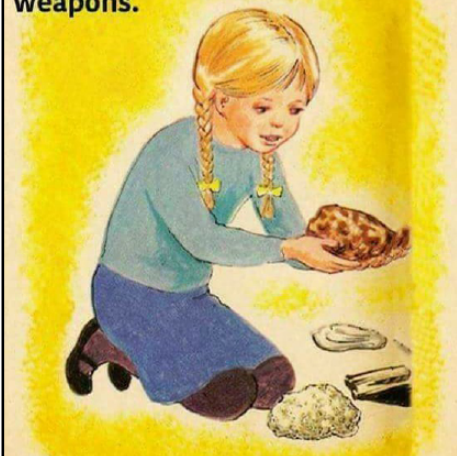
P.O. Box 221256

Newhall, Ca. 91322

Or e-mail: hwebber@pacbell.net

Visit the SPRC website www.sierrapelona.com

Susan collects all rocks, not just the ones she wants to use as weapons.



Hello Everyone.

I hope you had a happy and safe holiday. The weather has been so beautiful these last few days, but as much as we have enjoyed it, rain is desperately needed. Hopefully something will happen later this month and into February and March.

Heidi and I are still quite hunkered down with our granddaughter Patricia. This means my Honey-Do list is becoming shorter and shorter! We miss seeing and interacting with all of you and hope this mess ends soon! I know I'm preaching to the choir here.

If you haven't paid your dues yet, please mail them to Shana ASAP to our PO Box. They will be considered late if received after the February board meeting and membership will be dropped by the March board meeting. Late fees are \$2. Even though we are unable to have any sort of gathering, our expenses have remained when it comes to state filings, insurance and CFMS fees where they have similar static expenses.

So I'll close for now and hope for more encouraging news next month.

Bill Webber
President, SPRC



Time for the desert!

If you haven't paid them yet, dues are due by February 2. Anything postmarked after that date should add \$2 late fee. Mail to the club PO Box. \$10 for this year is still a good deal even though we are so extremely limited in everything we can do.

SPRC Board Meeting

January 5, 2021

Zoom

The meeting was called to order at 7:11pm. In attendance were Julie Tinoco, Ron Rackliffe and Bill and Heidi Webber.

There was no Treasurer's Report this month as Shana was in a bad car accident and had other things on her mind.

Heidi sent the Change of Officers page to the CFMS for Ron. Bill also made arrangements to take a box of CFMS files to him that Evelyn left for him.

Heidi will re-book the Board's Zoom meetings as there was trouble logging in tonight. This doesn't affect the General Meetings log-in link.

Tina said this month's program will be on Historic Atmospheric River Channels in California.

Being as there was no further business to discuss, the meeting was adjourned at 7:21pm. Heidi/Julie.

Respectfully Submitted

Heidi S Webber, SPRC Secretary

What Happens When Magnetic North and True North Align?

At some point in recent months, a once-in-a-lifetime event happened for people at Greenwich in the United Kingdom.

Magnetic compasses at the historic London area, known as the home of the Prime Meridian, were said to have pointed directly at the north geographic pole for the first time in 360 years.

This means that, for someone at Greenwich, magnetic north (the direction in which a compass needle points) would have been in exact alignment with geographic north.

Geographic north (also called "true north") is the direction towards the fixed point we call the North Pole.

Magnetic north is the direction towards the north magnetic pole, which is a wandering point where the Earth's magnetic field goes vertically down into the planet.

The north magnetic pole is currently about 400km south of the north geographic pole, but can move to about 1,000km away.

How do the Norths Align?

Magnetic north and geographic north align when the so-called "angle of declination," the difference between the two norths at a particular location, is 0°.

Declination is the angle in the horizontal plane between magnetic north and geographic north. It changes with time and geographic location.

On a map of the Earth, lines along which there is zero declination are called agonic lines. Agonic lines follow variable paths depending on time variation in the Earth's magnetic field.

Currently, zero declination is occurring in some parts of Western Australia, and will likely move westward in coming years.

That said, it's hard to predict exactly when an area will have zero declination. This is because the rate of change is slow and current models of the Earth's magnetic field only cover a few years, and are updated at roughly five-year intervals.

At some locations, alignment between magnetic north and geographic north is very unlikely at any time, based on predictions.

The Ever-changing Magnetic Poles

Most compasses point towards Earth's north magnetic pole, which is usually in a different place to the north geographic pole. The location of the magnetic poles is constantly changing.

Earth's magnetic poles exist because of its magnetic field, which is produced by electric currents in the liquid part of its core. This magnetic field is defined by intensity and two angles, inclination and declination.

The relationship between geographic location and declination is something people using magnetic compasses have to consider. Declination is the reason a compass reading for north in one location is different to a reading for north in another, especially if there is considerable distance between both locations.

Bush walkers have to be mindful of declination. In Perth, declination is currently close to 0° but in eastern Australia it can be up to 12°. This difference can be significant. If a bush walker following a magnetic compass disregards the local value of declination, they may walk in the wrong direction.

The polarity of Earth's magnetic poles has also changed over time and has undergone pole reversals. This was significant as we learnt more about plate tectonics in the 1960s, because it linked the idea of seafloor spreading from mid-ocean ridges to magnetic pole reversals.

Geographic North

Geographic north, perhaps the more straightforward of the two, is the direction that points straight at the North Pole from any location on Earth.

When flying an aircraft from A to B, we use directions based on geographic north. This is because we have accurate geographic locations for places and need to follow precise routes between them, usually trying to minimize fuel use by taking the shortest route. All GPS navigation uses geographic location.

Geographic coordinates, latitude and longitude, are defined relative to Earth's spheroidal shape. The geographic poles are at latitudes of 90°N (North Pole) and 90°S (South Pole), whereas the Equator is at 0°.

An Alignment at Greenwich

For hundreds of years, declination at Greenwich was negative, meaning compass needles were pointing west of true north.

At the time of writing this article I used an online calculator to discover that, at the Greenwich Observatory, the Earth's magnetic field currently has a declination just above zero, about +0.011°.

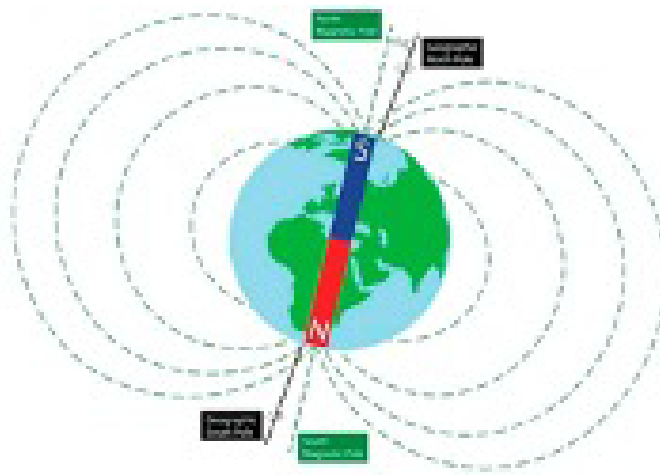
The average rate of change in the area is about 0.19° per year, which at Greenwich's latitude represents about 20km per year. This means next year, locations about 20km west of Greenwich will have zero declination.

It's impossible to say how long compasses at Greenwich will now point east of true north.

Regardless, an alignment after 360 years at the home of the Prime Meridian is undoubtedly a once-in-a-lifetime occurrence.

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The Earth's Magnetic Field



The lines of the Earth's magnetic field come vertically out of the Earth at the south magnetic pole and go vertically down into the Earth at the north magnetic pole.

Reference: Geology IN