



THE  
OUGHTRED  
SOCIETY

# Newsletter

Dec. 1, 2014

## From Your Newsletter Editor - Ed Chamberlain.....



It is cold here in northern New England. We just had our first snowstorm of the winter season, just in time to raise havoc with holiday travel for Thanksgiving. My daughter's plane arrived in Boston, a few minutes early, but the normal 2.5-hour bus ride north to Hanover, NH took 5 hours. Thanks to Christina's cell phone, I got regular updates on the progress of the bus. Then just as it was getting close, she called once more, and I bundled up with boots, parka, gloves and a wool ski hat . . . just in case my car slid off the road, and I would have to walk to a safe place. I had plowed the driveway in late afternoon, and was wondering about when the town roads would be plowed. There is a drop of nearly 700 feet elevation between my farm in the foothills of the White Mountains and the bus station. Then I saw the headlights of a big town plow truck going by, and knew that the drive to the bus station would be a piece of cake. . . . We had a fantastic turkey dinner the next day, and gave thanks for our abundance and good fortune. . . . Others in NH were not so lucky. A foot of heavy wet snow fell on the most populated area of the state, and more than 300,000 homes (about half of all homes in New Hampshire) lost their electrical power for all of the Thanksgiving Day holiday. Power lines were down everywhere. Road crews and their trucks came from as far away as New Jersey and New Brunswick (Canada) to help restore the grid. Two days later they were still working to put the power lines back in place, and many residents were still shivering in the cold.

I don't think that there was much of a hunt for slides rules during this storm, excepting, of course, on eBay for those that still had a connection to the Internet. That reminds me that I should get to the topic of this newsletter.

*by Ed Chamberlain*

### Slide Rule Collecting in New Hampshire.....

I did mention slide rule collecting in New Hampshire. I should warn the serious collector that NH flea markets and antique shops are poor venues for finding slide rules. In the past 20 years, I can count on one hand the number of interesting slide rules (and calculators) that I have picked from these places. Just 4 were of much consequence: 1) a K&E slide rule for dimensional analysis, 2) a Flynn Universal Trigonometric Combination Semi-Circular Slide Rule Protractor - Sine Table - Formula Finder; 3) an unlisted K&E Urea Index medical slide rule; and 4) a Curta Calculator in fine condition for just \$10. No dickering on the Curta, I paid the asking price!

Part of the problem with finding slide rules in New Hampshire is that in the era of slide rules, there were few colleges and universities in New Hampshire teaching science and engineering, the two professional education areas where slide rules were almost mandatory. Before 1970, not even the University of New Hampshire had an engineering school. The only two engineering schools were at Dartmouth College and New England College, and both of those colleges had fewer than 1000 students.

The other venue that I used to hunt for slide rules was the parking lot sale at the "Live Free or Die" antique tool auctions that occur in southern New Hampshire twice a year. There I have bought: 1) a

K&E Reymond Leather Calculator - nicely presented in its wooden case; 2) a very nice brass bound Gunter rule by Merrifield; 3) a rare set of 14 Barth machine shop slide rules; and 4) a Ross Precision Computer, in rough condition, with some of the painted spiral scale blistered.

In recent years I have stopped visiting these picking places. It has been 10 years since I found any, but common, weather beaten slide rules at inflated prices in New Hampshire.

Did I mention the "*Live Free or Die*" tool auction in the above? Yes, New Hampshire's motto is "*Live Free or Die*". Our license plates used to read "*Scenic New Hampshire*" in honor of the beautiful Lakes Region, the White Mountains, small towns with colonial architecture and covered bridges. But since the 1970s, and our "*Governor Strangelove*", who advocated tactical nuclear weapons for our air national guard, our license plates have been decorated with this politically charged motto.

*by Ed Chamberlain*

### News from the Oughtred Society's President - Bob De Cesaris.....



We are continuing to make plans for our International Meeting 2015...to be held in the Bay Area of California, during a weekend between September 15 and October 19, 2015. The meeting site will be near by or in the Computer History Museum in Mountain View, where its collection will be featured. This museum will be one of our primary highlights and focal points for the meeting. It has a major slide rule collection as well as examples of most early computers including a working replica of a Babbage Machine. Visits to other local museums, such as the nearby Space Shuttle Museum at NASA's Ames Research Center, are being investigated.

The Oughtred Society continues to seek volunteers to assist with planning and preparation for IM2015, especially for the position of IM2015 Proceedings Chairperson to solicit papers and presentations. Kate Matthews has graciously accepted the position of IM2015 Local Site Chairperson where she has begun working the meeting agenda and logistics for hotel, dining, tours, and other necessary arrangements.

In addition, the Oughtred Society Publications Committee (OSPC) continues to seeking additional assistance for a variety of Committee activities, including the coordination and preparation of printed and electronic publications in progress at OSPC related to IM 2015 papers, slide rules, calculators, and collections. Specific needs include coordinating, monitoring, tracking, and reporting the status of various projects.

**Please contact Bob De Cesaris <[robert.g.de.cesaris@intel.com](mailto:robert.g.de.cesaris@intel.com)> or Clark McCoy <[oughtredsociety@comcast.net](mailto:oughtredsociety@comcast.net)> if you are interested and willing to assist with any of our IM2015 events and activities. Thank you!**

*Reported by Bob De Cesaris*

### The International Meeting Trophy.....

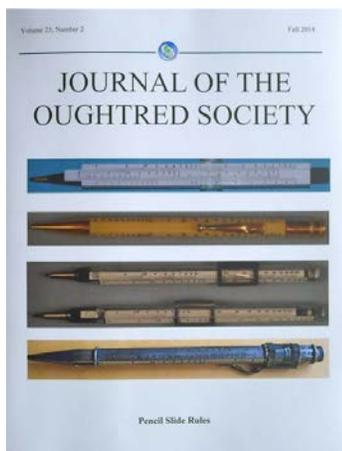
A trophy is passed from every International Meeting of Slide Rule and Historical Calculator Collectors to the next host Committee. This year I had the pleasure of accepting the trophy at IM2014 in Delft, The Netherlands, on behalf of the US organizers for IM2015. This trophy was first initiated at IM1995 in Utrecht, Netherlands. Nineteen IMs have been held since.

IM 1996	Cambridge, England	IM 2006	Greifswald, Deutschland
IM 1997	Stein/Nurnberg, Deutschland	IM 2007	Lelystad & Enkhuizen, Nederland
IM 1998	Huttwill, Schweiz	IM 2008	Royal Leamington Spa, England
IM 1999	Cambridge, England,	IM 2009	Greifswald, Deutschland
IM 2000	Ede, Nederland	IM 2010	Leiden, Nederland
IM 2001	München, Deutschland	IM 2011	Boston, United States
IM 2002	Royal Leamington Spa, England	IM 2012	Bletchley Park, England
IM 2003	Breukelen, Nederland	IM 2013	Berlin, Deutschland
IM 2004	Bad Driburg, Deutschland	IM 2014	Delft, Nederland
IM 2005	Cambridge, England		



Perhaps someone with a good memory will send me a message telling how this trophy got its start, and who should be credited for such a great idea.

*Reported by Ed Chamberlain*



### The Fall 2014 & Spring 2015 OS Journals.....

By now all OS members should have received the Fall issue of the Journal of the Oughtred Society. As we are getting used to, David Sweetman has done a fine job of putting together and editing this issue. Ten Oughtred Society members prepared articles. If you have not received a copy, contact the Oughtred Society at [<oughtredsociety@comcast.net>](mailto:oughtredsociety@comcast.net)

David Sweetman recently sent me updates for the **Spring, 2015 issue of the OS journal**. Look for articles on the following:

- Slide Rules at the National Museum of American History, by Amy Ackerberg-Hastings and Peggy Aldrich Kidwell
- Shadowboxes Make Good Slide Rule Displays, by Clay Castleberry
- K&E Sperry Calculators – An Update, by Peter Hopp, C. Eng. M.B.C.S.
- The Mauser-Federfix Helical Compression Spring Design Slide Rule, by Richard Smith Hughes

- What Happened to Hemmi?, by Werner H. Rudowski
- Pencil Slide Rules: Part 2 – The Devco Series, by Rodger Shepherd
- A Brief Survey of Combined Slide Rules – Part 2, by Panagiotis Venetsianos
- A Joint Meeting of the James Clerk Maxwell Foundation and the British Society for the History of Mathematics (BSHM) in Celebration of the 400th Anniversary of the Publication of John Napier's *Mirifici Logarithmorum Canonis Descriptio*, by Richard Simpson, Honorary Secretary, BSHM
- Gilbert Small's Pocket Calculator, by David Sweetman and Nathan Zeldes
- Slide Rule Scale Listing Conventions, by David Sweetman
- Recommended Reading, by David Sweetman
- Magnesium Slide Rules, by Tom Wyman

There is still time for getting committee, and national circle reports in the Spring OS Journal. Contact David Sweetman with details. David's email address is: [<d-dsweetman@att.net>](mailto:d-dsweetman@att.net)

*David Sweetman, Managing Editor JOS, reporting*

### Past Oughtred Society Journals Are Available on DVD.....



All past issues of the Journal of the Oughtred Society are now available in digital format on a DVD. The new DVD archive contains all Journal issues published since vol. 0, no. 0 in 1991. The DVD also includes three special publications: *The Slide Rule*, a reprint of the booklet published by Edwin Thacher; *Slide Rules in K&E Catalogs*, by Bruce Babcock; and *A Slide Rule Bibliography*, by Peter M. Hopp. Individual journals are presented as PDF files at high resolution. Price (including postage) for all OS members: \$95. Yearly updates for OS members will also be available for \$10. To order a DVD go to the OS website and click on the **Journal page** and pay for the disk via PayPal.

*Information from the OS web site as edited by your OS Newsletter editor*

### New Oughtred Society Members in November are .....

Steve McElderry of Saratoga, CA, and

Steven V. Schneider of Orinda, CA

*Welcome "Steves" to the Oughtred Society!*

**Joining the OS is easy & rewarding.** Just visit the Oughtred Society website and select Membership in the main menu. Pass the word to non-members who you know collect slide rules and other historic calculating instruments. Encourage them to join.

*Clark McCoy, Membership Secretary, reporting*

### News from the German RST.....

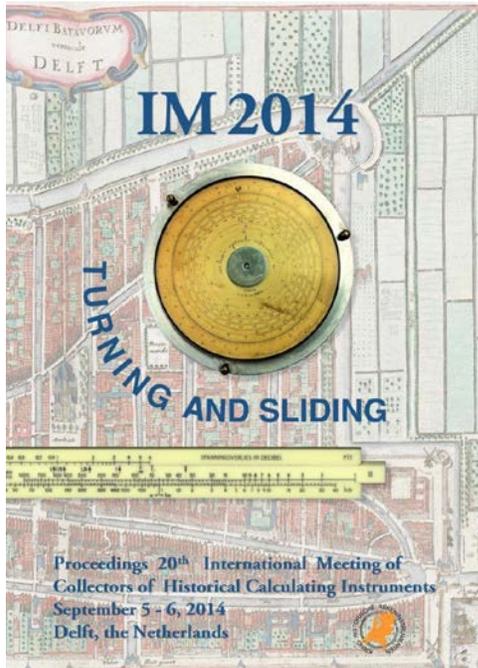
On November 8 the Arithmeum Museum in Bonn, Germany opened an exhibition of OS member Werner Rudowski's extraordinary collection of Asian abaci (Suanpan, Soroban, Tschu Pan, and Stschoty). Werner, a member of the German slide rule Krieg, loaned many rare examples in his collection to the Arithmeum for this exhibition. A catalogue is available. Further information is at:

[<http://www.rechenschieber.org/Abacus.pdf>](http://www.rechenschieber.org/Abacus.pdf) and

[<http://www.arithmeum.uni-bonn.de/en/home/>](http://www.arithmeum.uni-bonn.de/en/home/)

*Peter Holland Reporting*

## News from the Dutch Kring.....



### **The Proceedings of IM2014 Meeting in Delft**

After the successful IM2014 Meeting on Historical Calculating Instruments in Delft, The Netherlands, 5 – 6 September 2014, still has some copies of the Proceedings and its companion CD. You can obtain copies from our remaining stock by placing an order with the Dutch Kring. Copies are limited, so order soon, so not to be disappointed later. The details and costs for the Proceedings in both print and CD form are below:

- 40- euro without shipping, payment in cash
- 45- euro shipping by letter post to the Netherlands, payment by bank transfer (IBAN/BIC)
- 50- euro shipping by letter post to EU (European Union), payment by IBAN/BIC
- 52 - euro shipping by letter post outside the EU, payment by PayPal

Details of costs of the CD only:

- 10 - euro without or with shipping anywhere

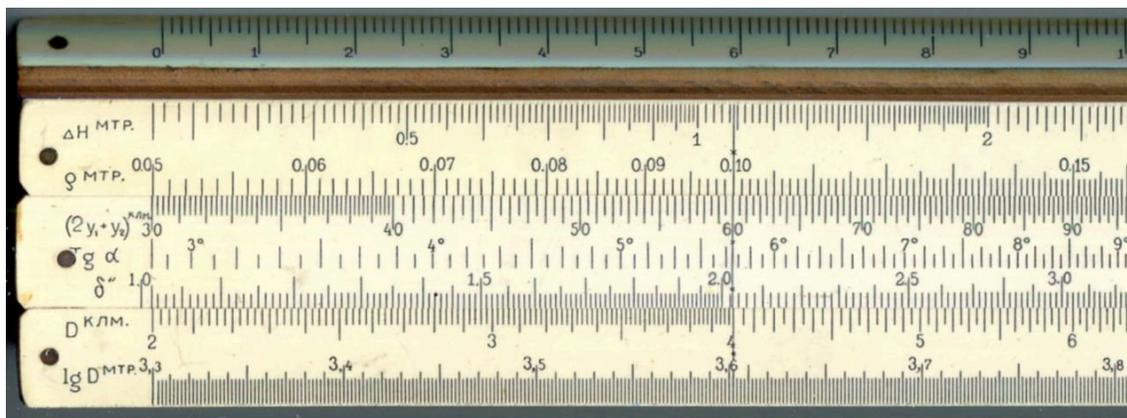
worldwide, payment by IBAN or PayPal

Orders with full address information can be sent by email to [<ovpoelje@rekenlinialen.org>](mailto:ovpoelje@rekenlinialen.org) and by direct payments to bank account of HR O E VAN POELJE, BIC = INGBNL2A, IBAN = NL13 INGB 0000 1252 07. Payments from outside EU to the PayPal account of [<ovpoelje@rekenlinialen.org>](mailto:ovpoelje@rekenlinialen.org)

### *Report from Otto van Poelje*

## Slide Rule Finds by Timo Leipälä.....

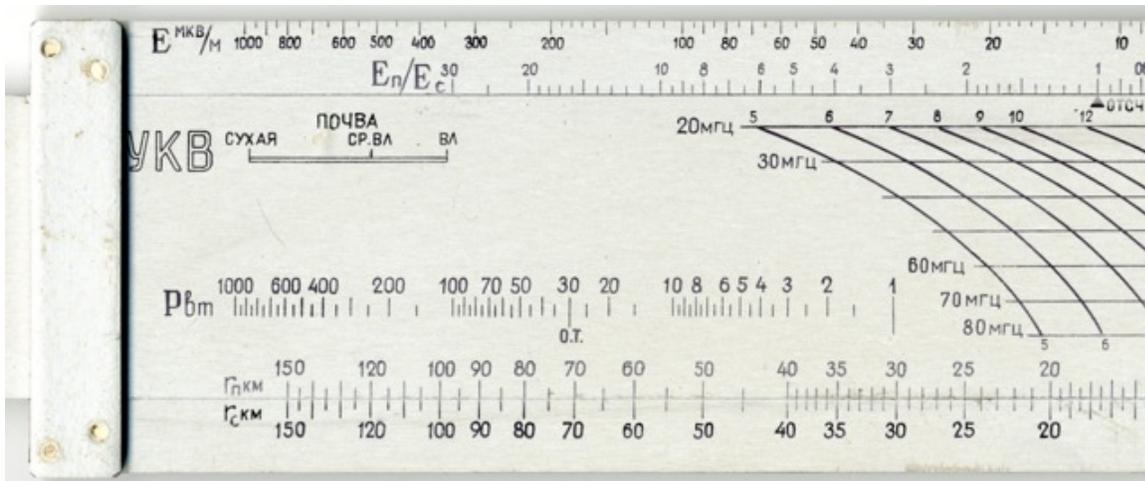
Timo Leipälä, from Finland, recently sent picture files of three interesting slide rules. The first is a **Russian Prometei LPG-2** slide rule. Timo thinks that the LPG stands for "*Lineika Prometei Geodeticheskaya*", which from the Russian language translates to "*Prometei Geodetic*", meaning some form of a surveyors or mapping slide rule.



**Timo's Russian Prometei LPG-2 Slide Rule**

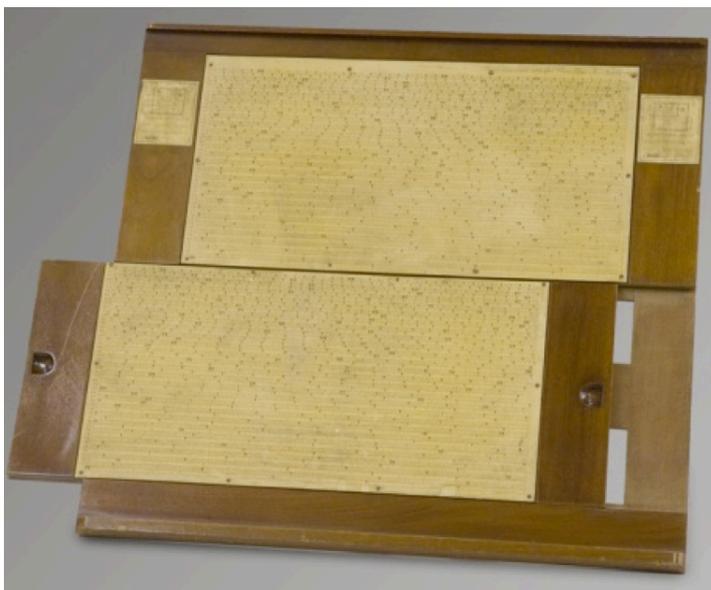
He also thinks that the scale label MTP (translated MTR) probably means meters and  $D^{KLM}$  probably means distance in kilometers. The backside has Gauss-Krüger formulas. From Wikipedia, I found that Gauss-Krüger is a map projection similar to the Mercator except that the projection cylinder is longitudinal along a meridian instead of the equator. . . . Maybe a reader of this Newsletter can contribute to a better understanding of the purpose of this slide rule, and suggest why the Gauss-Krüger projection.

The second slide rule picture sent by Timo is for a Russian "*Mystery*" slide rule, perhaps relating to radio frequency technology. Timo has three of this type, each made of plastic. A close up of one end is shown below. If you have an idea about the purpose of this slide rule, or the Prometei described above, please write your editor at [<edwin\\_chamberlain@valley.net>](mailto:edwin_chamberlain@valley.net)



**Timo's Russian "*Mystery*" Slide Rule**

The third slide rule that Timo provided is a graphical chart by **K. Gutsevich**, made ca. 1892-3 in Russia. He saw this slide rule in the Moscow Polytechnical Museum during a recent visit. This



slide rule is interesting to me because it is an example of a long scale slide rule having a scale length of about 12 m. The Gutsevich consists of fixed and sliding wooden plates with paper scale surfaces. A single log scale is printed on each of the wooden plates. Both of the scales are broken into 30 segments, each about 40 cm long. A transparent cursor with a hairline, necessary to relate the scale segments on the bottom plate to the scale segments on the upper plate, is missing. This is the longest of the graphical slide rules that I know of. Sorry, but I do not have a sharper image

of the scales. This item is in a Moscow museum, and I will have to wait until Timo can make another visit to Moscow to get more detailed pictures of the calculating scales.

*Reported by Ed Chamberlain*

**A Notable Slide Rule For Sale on eBay in November! .....**



For months, during one of my occasional forays into eBay in search for interesting slide rules, I have taken note of this lady's dress being listed under the "slide rule" category. The caption is: "NWOT Anthropologie Slide-Rule Dress Size 4." The description reads: "Floreat adds measured plum trim and appliqued crochet o the edges of this below-the-knee voile frock. Ties at back; Side zip; Cotton lining; Machine wash; Regular: 38.5"L; Imported". I don't see a slide rule in the model's hand, or one in a pocket? Is it that the board that she is sitting on is a slide? And it in some way rules? What am I missing here? . . By the way, the dress did not sell at an asking price of \$133.

*Reported by Ed Chamberlain*

**Another Notable Slide Rule From November's eBay Listings .....**

The following interesting slide rule was also posted on eBay in November, but did not get any bids:

**1970 AP-7 - Vintage USSR Soviet Russian Military Artillery Revolving Slide Rule AP-7 (for KM-30), 1970y (serial #1664-70) **minimum bid: \$300; there were no bids!****



Here is the description written by the Russian seller: "Russian Artillery Revolving (Rotated) Circular slide rule. This instrument has many scales and points. changed each others using turning handle at the right side. turn it clockwise and counterclockwise. Rule there are two spindles on which winds up the proofed tape with scales. There are two lamps in sockets inside body for illumination from outside battery. ~~second~~

*It has even some Scales and diagrams*

*You may*

*inside the SI*

*Has also the mobile o*

*circular slide rule is on the top part (calculate something about the Wind)"*

*"Dimensions - 12.5\*4\*3.5 inches. Weight - 1,91 kg !!! Comes with manual/description, logging, table for notes (metal), wires, 4 addit. bulbs, flannel napkin (Z.I.P.) "*

Note that this "slide rule" has two cylinders, in addition to a circular slide rule. One cylinder spools out a wide strip of paper like material with calculating scales on it. The other takes up the slack. One would need this device in hand to understand how it works.

*Reported by Ed Chamberlain*

## More from Your Newsletter Editor.....

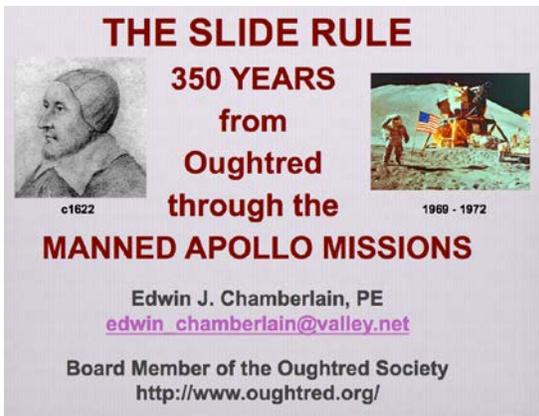
1) **Request for more Contributions to the OS Newsletter.** I ask again for more contributions from the readers of this newsletter. It is quite a task to put together a newsletter every month and keep it interesting. Take note, if there is more about slide rules, then there will be less about my family and New Hampshire! I am sure that there are many OS members that have mulling over details of a particular slide rule, and have some questions that need answers. Or they may want to announce to the slide rule world a local or regional slide rule-related meeting that they have noticed or participated (or will participate) in.

Take note of the Russian slide rules contributed by Timo Leipälä in this month's OS Newsletter. Timo is our slide rule collecting friend from Finland. Also take note that the Star Trek picture in the "*Lighter Side*" at the end of this Newsletter is a contribution of David Rance, our slide rule collector, England born, friend from The Netherlands. I also received some additions to my "*Space*" slide rule list; these from Leighton Lee, owner and curator of the Museum of Early Engineering Technology in Old Saybrook, CT

I encourage all to send your contributions to me at <edwin\_chamberlain@valley.net>.

I will do my best to include all contributions sent to me. Include picture files in jpg format if possible.

2) **Slide Rule Talk at the Kendal Retirement Center in Hanover, NH.** On January 7, 2015, I



will set up a display of slide rules and give a talk at the Kendal Retirement Community in Hanover, NH on "*The Slide Rule - 350 Years from Oughtred through the Manned Apollo Missions.*" I am looking forward to talking with 100+ old retired engineers, doctors and scientists about their experiences with slide rules.

This is a warm-up for my talk at NASA's Goddard Space Center in Greenbelt, Maryland on March 2, 2014. I am still looking to borrow an Ariston Martin Space Slide Rule for the NASA presentation.

3) **Space Slide Rules.** In response to my request for pictures of space slide rules, David Rance led me to Mike Konshak's 2008 article in Vol. 17, No. 1 of the Journal of the Oughtred Society. That article described Mike's experiences as a teenager with using slide rules for making altitude calculations for model rocket launches. Sorry, Mike, but I had missed that completely. It does not appear that special slide rules were used, but the rocketeer did learn to operate a slide rule with C, D, Sin & Cos scales. The reader can see Mike Konshak's paper at:

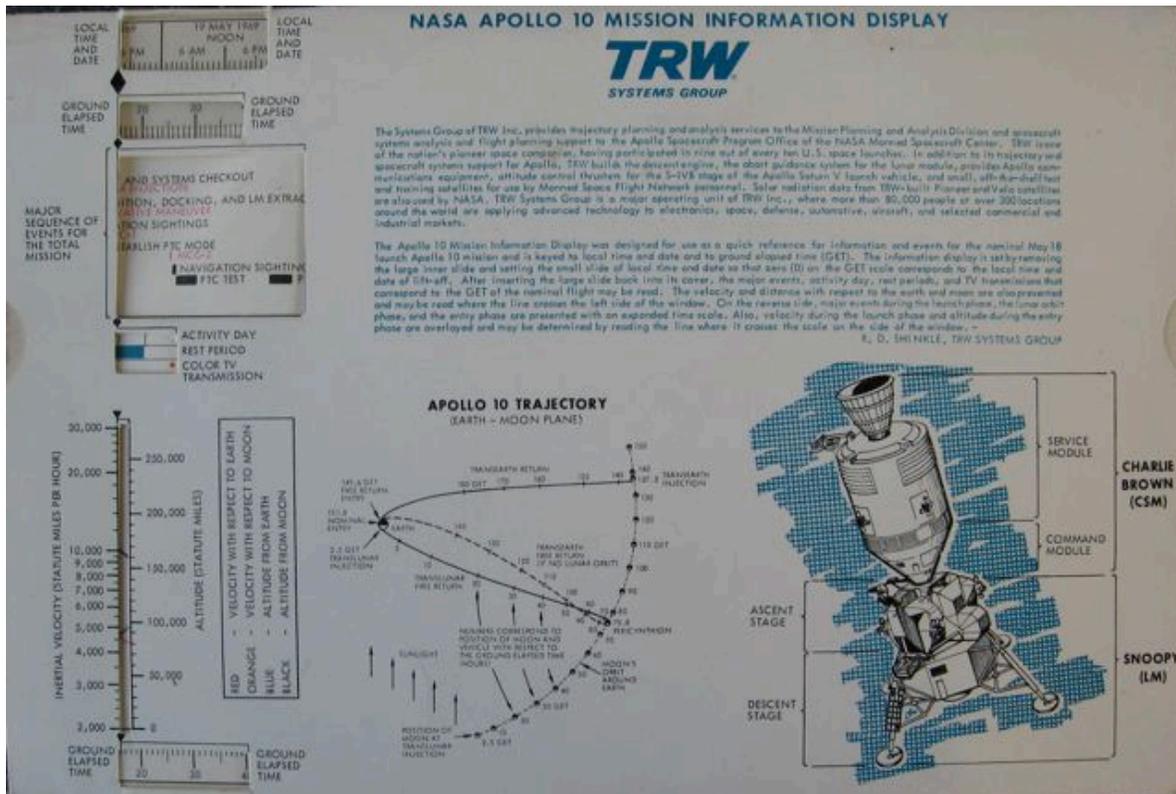
<<http://sliderules.lovett.com/cookiedev/extendeddisplayarticle.cgi?match=michaelkonshakxxxjournaloftheoughtredsocietyvol.17,no.1,2008pg22.1.jpg>>

David also recommended that I include in my list of space slide rules the flight computer (E-6B?) used by Dr. Spock in episodes of Star trek. See "*On The Lighter Side*" at the end of this Newsletter.

I also heard from Leighton Lee via Gillian Russo about Leighton's collection of '*Space*' slide rules. Gillian sent additions to my list for the following:

- Rand Sync-Sat Calculator: for determining the azimuth and elevation of a synchronous satellite in orbit; copyrighted 1971 by the Rand Corp
- North American Aviation Satellite Orbit Calculator

- TRW Apollo 10 Trajectory slide chart for Earth-Moon Plane: for quick reference about events leading to and during the Apollo 10 mission



TRW Apollo 10 Trajectory Slide Chart

4) Here is my pitch for the upcoming International Meeting, IM2015, in California. In addition to the outstanding slide rule collection and Babbage machine at the Computer History Museum, and the Space Shuttle Museum at NASA's Ames Research Center, two of the best Universities in world are just an hour or two drive away - Stanford University in Palo Alto and University of California in Berkeley. Also, the Computer Science Museum is right on the edge of the Google campus. A walk through its campus is worth the visit. Just an hour to the southwest is the Big Basin State Park - home of giant costal redwoods and 80 miles of hiking trails. Further south along the coast is the Monterey Peninsula, and its artist's colonies, and the Coastal Highway and its beautiful views. Just 2 more hours drive along the coast is the Hearst Castle, with its outstanding collection of art and antiques. A few more hours of beautiful drive along the Pacific Coast of California and you are in Los Angeles.

To the North of Mountain View is, perhaps, some of the most valuable real estate in North America in the Silicon Valley and San Francisco. Cross the San Francisco Bay Bridge and soon you are in wine and giant redwood country. Fifteen years ago, I picked a very nice 20 inch Wichmann slide rule with a flip-up magnifying glass at an antique shop in the Napa Valley. I know a bit about this area as I did graduate studies at the University of California in Berkeley many years ago. There is, yet, much more to do and see in this part of California. For Americans that live east of the Rocky Mountains and for our international members, IM2015 is a chance of a lifetime to combine the hobby of slide rule collecting and a grand vacation.

5) Finally I want to welcome the new proof-reader for this newsletter, Fred Astern, Professor and Chair, Department of Jewish Studies, San Francisco State University. Many thanks to our past Newsletter proof-reader, Ted Hume, for a job well done. I should also acknowledge the third member of your Newsletter team, Clark McCoy. Clark reformats my MS Word file to a pdf. file,

makes sure the text pieces and pictures are in the correct places and does the mass emailing to the Oughtred Society membership. One thing more, I almost always add last minute contributions after Fred has done his proof reading, Thus, I take the responsibility for all errors. In the interest of expediting the publication of the Newsletter, I pass the manuscript directly on to Clark.

*Reported by Ed Chamberlain*

**On The Lighter Side .....**



Dr. Spock, on a Star Trek mission, pondering his next move with an E-6B flight computer!

*Credit to David Rance*

*..... Send Contributions to: <[edwin\\_chamberlain@valley.net](mailto:edwin_chamberlain@valley.net)> .....*