National Mapping Division



Mapping Retirees Newsletter

Spring 2016 No. 145

Mapping Memories



Randy Olsen 06CRDO with "his quad." See article on Page 6.

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Some USGS Mapping History

The following press release paying tribute to USGS employee William A. Fischer was submitted by Theresa (Sue) Sousa 82EROS. This year is the 44th anniversary (July 23, 1972) of the launch of the Earth Resourses Technology Satellite (ERTS -1) later named Landsat-1.

United States Department of the Interior Geological Survey, National Center Reston, Virginia 22092

InformationOffice For release: IMMEDIATE (prepared July 30, 1980) Frank Forrester (703) 860-7444 or (703) 356-9567

OBITUARY

WILLIAM A. FISCHER, USGS, PIONEER IN PHOTOGEOLOGY, REMOTE SENSING

William A. Fischer, 61, a distinguished scientist with the U.S. Geological Survey for more than 35 years and a pioneer in the application of remote sensing techniques to the earth sciences, drowned Tuesday, July 29, 1980, while swimming near his home at Lake of the Woods, Locust Grove, VA, about 20 miles west of Fredericksburg.

Fisher gained international recognition for his research that proved the feasibility of expanding earth science knowledge through the use of high-altitude sensing. His research led to the concept and planning of the Earth Resources Technology Satellite (ERTS) system (now known as LANDSAT).

Fisher was born in Mount Olive, IL. He obtained a degree in geology from McKendree College, IL and completed advanced courses in geology from the University of Illinois.

He joined the USGS in 1942 as one of the nation's first photogeologists, interpreting geologic features from aerial photography. From 1944 to 1946, he served in the U.S. Navy as a photointerpretation officer in the Pacific area.

During his USGS career, working as a geologist, cartographer, and photogrammetrist, Fischer was a prime mover in demonstrating to the scientific and technologic communities the great value and utility of aircraft and spacecraft data in a practical and systematic approach to Earth surveys and resource studies.

Early in his career, as head of the USGS photogeology section, Fischer directed the mapping of Alaska petroleum reserves and led the mapping of suspected uranium-bearing areas in the western United States.

In the late 1950's and early 1960's, Fischer's research in remote sensing techniques drew national and international attention. He showed, for example, that infrared and other scanning devices carried in aircraft could detect and monitor earth science and environmental phenomena. Using such techniques, he was able to map areas of subsurface heat within Hawaiian volcanoes, and to detect areas where fresh groundwater was leaking into the Pacific Ocean from the Hawaiian Islands.

Spurred mostly by Fischer's imaginative research, the Department of the Interior established the EROS (Earth Resources Observation Systems) program in 1966. The program, managed by the USGS and carried out in cooperation with NASA, envisioned the use of remote-sensing observation instruments from a satellite to provide data interpretable for a variety of purposes in virtually the full range of natural and human resources activity.

Under Fischer's direction, the EROS program expanded and received broad support and participation from not only geologists, engineers, and cartographers in the United States, but from specialists from nations on nearly every continent.

The pioneering research and perceptiveness of Fischer's work was substantiated with the

launching of the first ERTS satellite by NASA on July 23, 1972. From the initial conception of the world's first earth resources survey satellite system to the time of his retirement in November 1979, Fischer played a key role in helping to plan national and international cooperative programs aimed at learning more about earth science phenomena, natural resources, and environmental changes from high-altitude platforms.

For his contributions to remote sensing research, Fischer was the recipient of numerous honors and awards. In 1965, he received the American Society of Photogrammetry's Colonel Claude Birdseye Award for service to photogrammetry and for contributions to photointerpretation. In 1969, he was granted the Meritorious Service Award of the Department of the Interior, and in 1973, was presented with Interior's highest honor, the Distinguished Service Award. In 1973, he was selected as the first recipient of the annual William T. Pecora Award, sponsored jointly by the Interior Department and NASA in recognition of "outstanding contributions of individuals or groups toward the understanding of the earth and its atmosphere by means of remote sensing." In 1975, he was awarded NASA's Medal of Exceptional Scientific Achievement, and in the same year, in recognition of his work toward the development of the EROS program and the establishment of the EROS Data Center at Sioux Falls, SD, Fischer was awarded an honorary Doctorate of Science Degree from Augustana College at Sioux Falls.

Memoirs of Mapping Paul Antill 83PD

In May of 1996 I published "MEMOIRS OF MAPPING," 50 copies, not 100 as shown in the frontispiece. There are no more bound copies available, however I do have a PDF version which I can send to your e-mail address FREE! As the PREFACE states: "The purpose of this book is to document some colorful, interesting and challenging aspects of topographic mapping experienced by fieldmen....if this colorful part of the history of USGS is not collected soon, it will be lost forever, much of it already is."

There are 20 chapters, one for each person responding. After two years of cajoling people for their input I finally went to press with what I had. The historic "floppy disc" of "Memoirs" did not capture the inset diagrams of bears, helicopters, rattlesnakes, etc. Sorry.

[Editor's note: Other historical mapping experiences include extensive writings by William Cook 77WMC and a book "Flapping Canvas" by June Stricklin, wife of John Stricklin RMMC District Engineer, Field Surveys. She details their experiences living in camps in the field in New Mexico. I have no idea where the book can be found. It was published by Simon & Northrup Publishing 3333 Midway Drive, #102 San Diego, CA 92110 in the year 2000.

New York Times Article on USGS Mapping

The New York Times Magazine

Letter of Recommendation: U.S.G.S. Topographical Maps

By Tom Vanderbilt May 11, 2016

At the close of the Second World War, the United States government embarked on an enormous artistic enterprise. It is estimated to have cost nearly \$3 billion and, at its height, employed more than 2,000 people. I am talking about the topographic mapping program of the United States Geological Survey. It was an opus of Whitmanesque proportion, a heroic rendering of the American landscape; every last whorl and hachure and dotted line of actual topography — not to mention the name of every last desert wash, old mine or glorified goat track — was exhaustively cataloged. This 54,000-tile mosaic was not, of course, done in the cause of aesthetics, but it nevertheless represents as gorgeous and complete a depiction of the country as any ever made.

For the past number of years, I have been collecting the U.S.G.S.'s maps, treating them as

eminently affordable pieces of American art. A favorite is the 1977 map of Eureka, Calif., which contrasts, in stunning dualism, the rugged bathymetry of the Pacific Ocean against the rolling hills of Humboldt County's redwood forests. Some are more abstract. Take, for example, Item 41017 in the U.S.G.S. online store. For \$12, you will be treated to an oversize, plastic-coated, shaded-relief map of the "Grand Canyon National Park and Vicinity," a sprawling, muscular and gorgeous sweep of brown and russet that looks less like the bird's-eye view of the canyon itself and more like the fractal, spidery spread of frost across a window pane. In a way, it calls to mind the work of Jackson Pollock, in particular his painting "Enchanted Forest." Perhaps Pollock was a kind of topographer himself, charting some inner territory — until he gave up on the project of representation altogether.

Most of my maps lie rolled up in tubes, tucked away like books to be perused at some future date. On some gray afternoons, sequestered in my Brooklyn apartment, I will pull out, say, a map of Arches National Park, spread it over my kitchen table and trace imaginary pathways across airbrushed depictions of reddish sandstone with my finger. I take in the tiny names of features, a matter-of-fact procession of gravel pits and drill holes. Then my eye hooks upon more floridly named features, each unlocking the imagination: "Cactus Rat Mine," "Bootlegger Canyon" or "The Poison Strip" (so named because of naturally occurring arsenic in the area that killed off sheep).

Some enigmatically named U.S.G.S. places and their rough coordinates:

Popcorn Cave: 41°, -121.366°

Kookooligit volcanic field: 63.599°, -170.433°

Bacchus Pit: 40.639°, -112.041°

Printer Boy Hill: 30.216°, -106.233°

Sometimes I will pick up a map because of some other interest in an area. I bought a circa-1968 "orthophoto" map (an aerial photograph with topographic overlays) of Rozel Point, on the shores of Utah's Great Salt Lake, simply because it would be, two years later, the site of Robert Smithson's "Spiral Jetty," the country's most celebrated piece of land art. I like to imagine that Smithson — who was obsessed with geology — visited Rozel with the very same map in hand. (I checked; he probably didn't.) Smithson said that he picked sites like Rozel because he wanted them to be "free of scenic meaning"; indeed, having been there, I can say that it is the sort of place that arguably looks better on an orthophoto map. In person, it just seems like rocky wastes and a dead lake. But the map, from above, captivates — a tempestuous burst of almost extraplanetary rust-colored desert strikingly offset by the pale blue lake. (Not all nearby maps are so exciting. One quadrant south is an entirely blue panel labeled, simply, "Great Salt Lake.")

The connection between the beauty of the territory and the beauty of the map is typically more direct; my home quadrant in Brooklyn, for example, is hardly sublime. This is because topo maps measure change, which I suspect is the key to their visual appeal. In his 1965 book "Cartographic Relief Presentation," the great Swiss authority Eduard Imhof suggests that the transition from light to dark was the pinnacle of both cartographic and artistic achievement. "It is simple to place in deepest shadow those steep slopes that are turned away from the light," he writes. "It is simple, also, to leave, completely unshaded, the steep slopes that face the light. The critical part, however, is what lies between the two." It is hardly surprising that Leonardo da Vinci, that master of the liminal techniques of sfumato and chiaroscuro, produced

some early topographical maps.

The beauty intrinsic to these maps is the byproduct of an entirely different mode of production, the last gasp of an antiquated way of representing the world. Larry Moore, a longtime cartographer with the U.S.G.S., told me, in a phone call, that the printed maps I so treasure are no longer made (and exist mainly in the ever-shrinking warehouses of the U.S.G.S.). "Back in the old days, the map was the product, and every map was drawn by hand," he said. "There was an assumption that every map would only be made once or twice in a century, so we went to extraordinary expense to make them not only correct but beautiful." The Geological Survey has a new mapping program, called "U.S. Topo," which, with its numerous layers of sophisticated data, is probably more precise — but less aesthetically pleasing.

"The older is a flat map or a globe map," the geographer Arthur Robinson once observed, "the more likely it is to be called an art object." There might be an echo of Kant here: Precisely because the historical topo maps are no longer necessary objects, they can be purely viewed as aesthetic objects. Any old iPhone will these days reliably tell you where you are, to within 10 feet or so, but only a well-made map can take you somewhere. [This article submitted by two sources, Eric Anderson and Libby Chandler]

SIR North Picnic

SIR North Picnic Richard Kleckner 04

I'm sure you all were anxiously waiting for the announcement of the 2016 SIR North Picnic. As you may remember last year's picnic had to be cancelled because of my cervical fusion surgery. I'm 100% healed, back in action, and starting to play golf again. Martha ended up having back surgery in November as well. And, we moved into our new house in November too. What a year! Glad that's past us.

As usual, the picnic itself will be on the last Friday in June. That will be the 24th starting at Noon. For those who may be interested in a golf outing that'll be Thursday the 23rd. We'll also do the winery tour again - new ones this year - on Thursday for those who aren't interested in golf. I'll put out more information later on lodging options and things to do.

A quick word about our new house. It's located just down the road from our old house in a gated community. It's not as pretentious as it sounds. The Guard House is unoccupied, and the gates are open from 6:00AM to 6:00PM. One big difference from our old house is that we're not actually on the water. We have an off-water lot, but we can see the water from our deck. From a square footage aspect we actually have more room than in our old house, so we can handle a crowd. Our boat is in our community boat dock. Swimming isn't as easy though. We love the friendly neighborhood. We knew three families here from church before we moved in, and we've gotten to know others.

I'll be providing more details such as lodging options as we approach the date. In the meantime, just let us know if you're going to be able to make it or not. Looking forward to seeing you all.

New address: 116 Sapphire Lane, Moneta, VA 24121 540-721-3616 - home phone 540-420-0008 - my cell number

A Rare Mapping Experience

My Quad

Randy Olsen 06CRDO

One of the nice things about retirement is that you have ample opportunities to reflect on the past and revere great mapping memories. This article is one of those reflections – a unique set of opportunities that made it possible to almost make my own topo map. Early in my career things just fell into place that made it possible to do the field work, aerotriangulation, photogrammetric compilation and cartographic editing on the very same quad at a time that the production process was very compartmentalized by Branch in a lengthy four+ year assembly line process.

How did that happen, you might ask? Timing is everything. I hired on as an Engineering Trainee in 1966 at the Pacific Region in Menlo Park, CA (more recently referred to as the Western Mapping Center). At the time entry level professional positions in the Topographic Division were in civil engineering and were considered "shortage category" because placements in the private sector were plentiful for early baby boomers and generally paid better than the government. Some of us "mapping geeks" considered a career at USGS was a dream come true even if salaries were lower at the entry level. I was a junior in civil engineering at UC Berkeley at the time I was assigned to the field project of this article during my college summer. I was a GS-4 CE trainee and at the time that was pretty good pay for a college summer.

The summer of 1968, most of the field projects were in eastern Oregon and Nevada. I felt like I really lucked out when I was assigned to the Chelan project in north central Washington state. When summer began, I got my truck in Menlo Park and headed for Washington. When I got to Chelan, where the project office was located, I met my new supervisor Bob Mead and most of the project crew. They helped me find lodging with a local who owned one of the marinas on Lake Chelan, so I was able to offset some of the rent with working on weekends



running the marina gas pump and taking people out on the lake water skiing. The project area went from Lake Chelan to the north and from the apple-growing region of the Methow Valley westward to the North Cascade mountains. It was mostly USFS Okanogan Nat'l Forest, heavily timbered, and aplenty with beautiful mountain streams. Some of the high country was above timberline and had fantastic views of the surrounding area.

The basic plan for the project was typical of that time. When the weather looked good, the entire crew did the geodetic control surveying as a team. We did the control work using triangulation with Wild T-2 theodolites, typically from mountain tops with line-ofsight to other mountain tops. For a week or so we also had helicopters to assist in getting to remote sites. Later on in Menlo Park, the control data gathered would be extended from known baseline positions to our new stations to establish a geodetic foundation for the specific quads on our project.



Everyone was assigned a primary quadrangle and did what was called "advanced field completion" meaning that the fundamental field phases were done before the actual photogrammetric mapping. My quadrangle (now named "Hungry Mountain") was in the Cascades foothills, heavily wooded, and had several popular USFS campgrounds with adjoining hiking trails and jeep roads. There were specific tasks each of us had to accomplish for our quads. There were selected areas in which we needed to establish elevations required for the elevation computation in the future aerotriangulation phase. Using plane-table and alidade, we traversed from a known bench mark to a photo-identifiable point in the required areas. We needed to find a minimal number of section corners to allow a best-fit of the original land office survey to our quad. Some of the section corners were brass caps, but many were

older and consisted of notched rocks that were often really hard to find. When the section corners were found we drew little maps on the backs of aerial photos that showed their proximity to photo-identifiable features such as lone trees and clearings among the timber. We needed to annotate our aerial photos with ground-truthing such as road and trail classification, delineation of special features such as campgrounds, mining sites, landmark fences, etc. We also needed to do geographic names research – in our case the Forest Service had a good handle on this, but in a few cases we needed to interview locals to resolve conflicts and acquire justification for new names on otherwise unnamed features. After a few days in the field, we would spend time in the field office cleaning up our field notes and any other paperwork needed to document our work.



In June, 1969, I graduated from UC Berkeley with my civil engineering degree and started working full-time at USGS, now in the Career Development Program. In this program, a small group of us moved around and spent a specified amount of time in each major phase of the mapping process. In the Fall of 1969, I was rotating through the Aerotriangulation (AT) Unit and actually did some of the data entry on the Chelan Project. At that time, AT was also a mini-assembly line – one group did the point marking on aerial photo films (called "pugging"), the next group did the data digitizing, and the supervisor did the stacking of IBM cards into a

format required by the AT computer program and then the de-bugging after the results came back, usually overnight. I did the data digitizing using a Kern PG-2 stereoplotter equipped with X,Y, and Z encoders. An IBM card resulted in every point digitized. I became fascinated by the AT process when going through this phase, and later in my career this became my technical specialty. It is hard to believe that in 1969 a mainframe IBM360 computer that filled most of a room had a memory capacity of about 300 kilobytes for an overnight computer run that cost \$50. Now we sweat when one of our 2 megabyte pictures takes more than 10 seconds to email! If you really want to have fun, show your grandkids a slide rule!



Well, here we are in 1970 and I am rotating through photogrammetric compilation to do my second quad. Chelan project was in the hopper and they let me do the quad that I did the field work on. This is a dark room setting with a light table desk. The equipment is a Balplex ER-55 stereoplotter, which was the typical instrument of the time. I enjoyed the setting – it is just you

and your map except for hearing your neighbors' radios and occasional cussing because of something Paul Harvey said! Most of the time is spent tracing out every contour and every road and anything else annotated on the photos from the field. The raw contours and other features are transferred to another piece of scribecoat and we can redraw them all so that they don't look like a rough draft. At the time, supervisors checked the work of new people. Some of them wanted every rock detailed, others wanted them all smoothed out so that the contours looked nice. Us newbies learned pretty quickly that to get along you catered to the whims of your supervisor. Also at the time, time was highly regimented. Coffee breaks happened when the cart with the bell came along, 15 minutes were carefully monitored, and lunch was 11:45 to 12:15 unless you took pre-approved annual leave. None the less, I have fond memories of me and my map in the darkroom!

Believe it or not, I was rotating through the Branch of Cartography a year or so later when my quad was getting there about the same time. I asked if I could do "my quad" and the powers that be gave the OK. I did not do the negative engraving – at the time that was a specialty of a small group who basically redrew our photogrammetric work with cartographic quality engraving. Our rotation included the cartographic editing, which consisted of preparing overlays with names, symbols, and other labeling. When combined with other overlays, consistency between them was checked over, and any other seemingly omissions or conflicts were resolved. The final combined copy was a sort of pre-press proof. After we as editors were OK with it, it went on to both supervisor and a final review team before it went to press. The work setting was a large open room kind of classroom style with the supervisor sitting up front. Radios were not as permissive as in photogrammetry, probably because it was a large open room. The other time regiment discussed above was also enforced.

I consider it a luck of timing and thanks to the supervisors at the time to allow me to do all of the major phases of my quad – Hungry Mountain, WA. It was printed in 1973 and was in stock in the USGS map sales network until last year. It is now available, as are all of the other 56,000 or so quads, print-on-demand at selected map sales outlets or anyone else that is computer-savvy and has a large-format printer. I ordered Hungry Mountain at my local Boulder CO Map Store and now have it framed in my family room (see picture of me and my map).

[Editor's note: Randy was Geometronics Branch Chief, Western Mapping Center 1982-1984; Deputy Assistant Division Chief for Research 1988; Assistant Division Chief for Production Management 1989; Chief, Rocky Mountain Mapping Center 1990-2000; Central Region Science Coordinator 2000-2006.]

Western Third Annual USGS Luncheon

The 3rd Annual USGS Luncheon will be held on Wednesday July 20, 2016 at the San Jose Harry's Hofbrau from 11:30 am to 2:30 pm. The address of the restaurant is 360 Saratoga Ave., San Jose, CA 408-2433-0434 or SanJose@HarrysHofbrau.com. The Hofbrau offers you a choice of lunch entrees, hot and cold sandwiches, soups, salads, daily specials, homemade desserts and assorted beverages, including spirits, for your purchase. Directions: From Highway 280 take the Saratoga Ave Exit and go Northeast on Saratoga Ave., go one block to Kiely Blvd. Continue on Saratoga past the Chevron Station on the right and then turn right into Harry's Hofbrau parking lot.

Retiree Doings

William Cook 77WMC (Covelo, CA) writes "June 3, 2016 will be my 90th birthday! I can still mow the lawn and drive a 1987 Chevy Celebrity and 2009 Dodge Grand Caravan. I lost Betty after 60 years, but our four kids are still doing well."

Ed Cyran04EMC (Fairfax, VA) writes "Doris and I have been cruising. We returned from a 14 day cruise in March and unfortunately we both got the flu. Seemed like there were a lot of folks coughing and hacking on both ships that we were on. It's hard not to get sick with almost 5,000 folks on board."

Vernice Dewing 81MCMC (Corpus Christi, TX) turned 96 on March 19 and is doing great for her age. She still has a quick comeback - witty.

Ray Fox 14MCMC (Rolla, MO) reports "Since retiring in July of 2014 I have been hiking the beautiful Ozarks with my two retiree pals, Bob Lemen and Jerry Wagner. We try and get out once a week, weather permitting. There are plentiful trails in the many state parks, conservation areas and of course the Ozark Trail. When not hiking or planning a hike at our weekly meetings at the Public House brew pub in Rolla, I am also volunteering at Grace (Greater Rolla Area Charitable Enterprise) driving their food truck and serving as a trustee at our church."

Russell Hale 80MCMC (Vichy, MO) writes "I collected another birthday this year with an 18 year mind and 90 year old legs. My mind says "go" and my legs say "no." A good Survey friend of ours, Claudia Skordal, said at this time in life a person needs something to look forward to, so one small trailer remains in our back yard and we are looking forward to warm weather. Our faith in the future is so strong we are sending in our dues for two more years."

Richard Meador 94MCMC (Cumberland, VA) writes "I am still working part time and Barbara is still keeping two kids full time and one great-grandchild every third week. We have eight grandkids and three great-grandkids. Everyone is doing good."

Lawrence Pettinger 07 (Winchester, VA) reports "We moved to Winchester, VA last year. We have a cottage at Westminster-Canterbury Shenandoah Valley retirement community. We are able to get back to Reston easily to see friends. Frank Baxter moved in just after we did - quite a surprise!"

Charles Scott 86MCMC (Rolla, MO) Marlowe writes "Noticed Charles' dues almost expired in 2015. Charles almost expired in 2015! ! But, he made it and is doing well. He is back home in Rolla and we are happily renewing his dues for two years."

Linda Wools 07MCGSC (St. James, MO) writes "We are still keeping busy with our farm and animals. We are enjoying the grandchildren and great-grandchildren. We also manage an occasional short trip."

Obituaries

Yutaka (Ham) Hamamoto 83WMC (Sunnyvale, CA), 93, passed away on March 23, 2016. He worked in the Technical Planning Section. He supplied onions for the WMC picnics. He made friends wherever he went. **Elizabeth M. Hardebeck 88MCMC** (Rolla,MO), 83, passed away May 23, 2016. She was born on January 24, 1933 in Flat River, MO. In addition to her parents, she was preceded in death by one brother and her life's companion, Edward D. Jones. Elizabeth, known as, "Aunt Tootie" by her nieces and nephews, graduated from the Missouri School of Mines & Metallurgy, Rolla with a B.S. in Chemical Engineering. She was employed by the USGS in Rolla and happily retired after 30 years of service. She will be remembered as a woman who enjoyed sharing her love of travel history, different cultures, antiques, and the arts that were all reflected in a lifetime of collections. She

is survived by two brothers; six nieces; four nephews; and eighteen great-nieces and nephews.

Lyman Theodore Helm (Rolla, MO), 80, passed away March 25, 2016 . He was born on September 6, 1935 in Waynesville, MO. On October 4, 1969 he married Wanda (Cox) Helm MCMC retiree and to this union 2 children were born. He was preceded in death by his parents; his in-laws; and a sister-in-law. Lyman graduated from Newburg High School in 1952. He served two years active duty in the U.S. Army, stationed in Darmstadt, Germany and served four years in the reserves. He worked in construction until 1966 when he started his civil service career at Ft. Leonard Wood. After 27 years he retired and worked at Wal-Mart for 2 1/2 years. Lyman was a member of

Salem Avenue Baptist Church. He thoroughly enjoyed working with the retirees on workdays and breakfast. He really loved the fried fish and fellowship at Reed's Lake. He enjoyed fishing and woodworking projects in his shop. Lyman is survived by his wife of 46 years, Wanda Helm; a son and wife; a daughter and husband; and five grandchildren. He babysat the four grandsons until March of 2007 when Wanda retired and they shared responsibility of all five grandchildren. He is also survived by a brother; a nephew and wife; a great-niece; numerous cousins, in-laws and lots of friends.

Dennis Moersch MCMC (Rolla,MO), 69, passed away on March 23, 2016. He was born on October 26, 1946. He attended Franklin High School in Livonia Michigan. Dennis joined the U.S. Army and served his country honorably. He is survived by his wife, Judy. He is interred in the Ft. Leonard Wood Veterans' Cemetery memorial columbarium in Waynesville MO.

Frank "Jay" Prendergast WMC (San Jose, CA), 81, passed away on May 10, 2016 after a battle with lung cancer. He was born on April 8, 1935. Jay spent 40 years working with the USGS. He was active in the Retirees by serving as Treasurer for the Picnic/Luncheon Committee and was especially active in putting on the NMD Photo Lab Christmas parties. He was an active photographer in all NMD social functions. For several years he organized NMD weekend get togethers at Pinecrest Lake in the Sierras. He is survived by a brother.

Earl Rosser 85EMC (Williamsburg, VA), 87, passed away February 17, 2014. He is survived by his wife Eleanor, a sister, a brother, a son, two grandchildren and two great-grandchildren.

Warren Edward Schmidt 82RT (Cary, NC), 90, died on March 27, 2016. He was born in Buffalo, NY on September 2, 1925. Warren served as a Sergeant during World War II in the US Army Field Artillery in New Guinea and the Philippines and as a Master Sergeant in the Corps of Engineers during the Korean Conflict. During his service in the Army, he was awarded three Bronze Stars. At the University of Buffalo, he received a BA in Geology and pursued graduate studies in Geography. He joined the CIA in 1952 where he met and married Audrey in 1954. In







1956-58, they enjoyed being stationed in London with British Intelligence. Upon returning to the US, Warren led the pioneering efforts to automate map making with the development and unclassified release of CIA's Cartographic Automatic Mapping program and World Data Maps One and Two. In 1975, he was awarded the CIA Career Intelligence Medal. Warren transferred to the USGS later in 1975. At the Survey, he headed the Topographic Division's Short Range Research and Development Branch. After retiring in 1982, he consulted with Rand McNally and Hammond mapping firms.

In retirement, Warren and Audrey were very active in charitable activities, church and community groups. In 1989 -1990, he and Audrey volunteered with the International Executive Service Corps in Central America where they designed a tourist road map for Costa Rica. He was a member of the Cornerstone Presbyterian Church of Cary, NC and the Cary Lions Club, where he served as President, Zone Chairman, and Vision Coordinator. Warren is survived by his three sons; one daughter-in-law; and two grandchildren. Preceding him in death were his parents, his wife Audrey, his brother and sister-in-law.

Kenneth Vernon Shaffer EMC (Sterling, VA), 88, passed away March 25, 2016. Born in California in 1927, he attended the California School for the Deaf in Berkeley and graduated from Gallaudet University with the Class of 1951, and was employed by the USGS as a Cartographer for 30 years. He is survived by his wife of 64 years, Elaine Liner Shaffer; one daughter and husband; one son; three grandchildren; two great-grandsons; numerous nieces and nephews; and two sisters-in-law.. He was predeceased by his parents, a brother and a sister. His friends all know him for his intense love of trains and by his many write-ups in publications for the Deaf.

Harold Stanley Starkel WMC (Fremont, CA), 83, passed away in May 2016. He was born in 1932 and grew up on a farm in Milton Freewater, OR. He served in the US Army during the Korean War and was the first in his family to graduate from college. At the U. of Oregon, Stan met his future wife, Mary Lee. They married in 1958. They moved to Fremont in 1960 where they raised their two daughters. Stan retired from the USGS after 36 years as a cartographer. Stan was an avid lifelong sports fan of the Oregon Ducks, SF 49ers, Oakland A's, SF Giants, and Golden State Warriors. He

enjoyed attending any sport played by his grandchildren and supporting their many teams including Mission San Jose Little League, Mission Valley Soccer League, Darien High School and Mission San Jose High School athletics. His gentle and quiet manner was well-loved by everyone who had the good fortune to know him. Stan had a quick wit, a fondness for trivia, a love/hate relationship with golf, and a great sense of humor. Stan is survived by his devoted wife of 58 years, Mary Lee; two daughters; eight grandchildren; and a great-grandson.

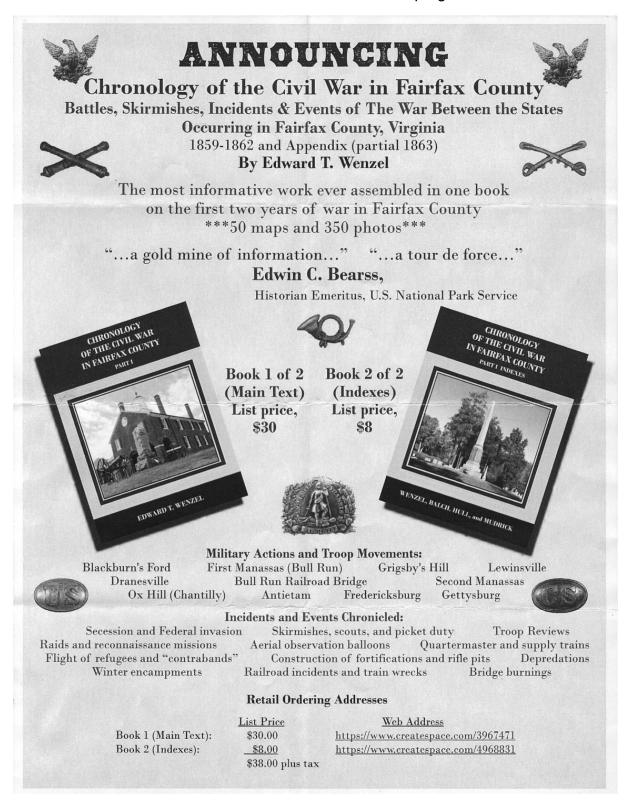
The First Two Years of the Civil War in Fairfax County, Virginia

The flyer below was provided by Ed Wenzel 96 MAC. Ed's work in the preservation of local Civil War sites has been featured in previous issues of the newsletter. He has now written the book "*Chronology of the Civil War in Fairfax County* [Virginia], *Part I*" covering the first two years of the War in Fairfax. The book is so large (616 pages, 8.5 x 11) that the index (195 pages) had to be printed as a second volume.





The book is published by the Bull Run Civil War Round Table, Centreville, VA, and printed on demand. Given the book's focus on one county, it's doubtful that it will be a big seller. It's actually a reference book that summarizes over 1,300 incidents and events that occurred in Fairfax through 1862. Ed assigned the copyright to the Round Table, a 501 (C) (3) non-profit. Any proceeds will go to Civil War preservation and related historical projects including land, markers, monuments, and educational activities. A college scholarship for local high school seniors has been established and the book fund will assist that program.



Luncheon Reports

NMD Retirees Luncheon #243 was held on March 21 at the Amphora Restaurant in Vienna, VA with 14 attendees. Don and Carol Keys reported that Ken Windle had a major stroke! They got a call from Ken and Carol stating that he is in a wheelchair and being rehabilitated and he is in good spirits! The Windles live in The Villages, FL. Roy Mullen reported that Marvin Shearer's daughter (Paula) wrote an article for the New Yorker magazine on the subject of mapping. She works for Pentagram Design. Paula Bowman reported that Aleene Ozborn is moving from Mississippi to Florida in April 2016. Paula also called Martha Hughes and had a good conversation.

EMC Luncheon scheduled for April 19 was cancelled due to the closure of the Old Country Buffet. It was decided that we would merge the EMC luncheon with the NMD Retirees luncheon that meets at the Amphora in Vienna, VA. Many of the NMD Retirees attendees also attended the EMC luncheon.

NMD Retirees Luncheon #244 was held on May 10 at the Amphora Restaurant in Vienna, VA with 16 attendees. A new member of the Mapping Retirees, Lynn Keefe 07USGS-ER, attended along with her husband, Dean. In order to avoid conflicts with attendance, we discussed which day to hold the luncheon. The fourth Tuesday of the month was selected. The next luncheon will be held on June 28.

Directory Changes

New Addresses

Bill Flynn - should be 14413 Dover Forest Drive in Directory

Richard "Dick" Kleckner 116 Sapphire Lane Moneta, VA 24121

Bruce Schwartz 1805 S. Balsam St. Apt.272 Lakewood, CO 80232

New/Changed E-mails

Keefe, Lynn lskusgs@aol.com Roberts, Phillip E. philsondraroberts@gmail.com

New/Reinstated Members

Marian Baker 121 Blues Crossing Lane Aberdeen, NC 28315

Lynn Keefe (Dean) 5711 Oak Green Way Burke, VA 22015

James "Jimmy" Kennedy (Kim) 12164 Holly Knoll Circle Great Falls, VA 22066

2

Donna Clarke	Robert Lemen	Louis Marlin, Jr.
43379 Fullerton St.	13945 County Road 4030	P.O. Box 117612
Ashburn, VA 20147	Rolla, MO 65401	Burlingame, CA 94011-7612

News From the North Carolina Firefighters

[Submitted by Frank MacCue 00MAC]

March 22, 2016

Captain Steven Gupton

Warren County EMS

540 Ridgeway Street

Warrenton, NC 27589

Dear Captain Gupton,

I have been waiting months to write this letter, but had no idea who to write it on behalf of until I recently received a message via Facebook from one of the EMT's with the Warren County Rescue Squad. In early August last year, my family was vacationing at a lake house in Gaston when my then 18 year old daughter was bitten by a snake. We called 911 and the rescue team arrived within minutes. Upon arrival, while two members of the team tended to her, the others captured and killed a large copperhead snake that they spotted near the garage door.

The Facebook message I received was from Nicholas Price, the most memorable member of the team. He remembered us after all this time and had wondered if Katherine was ok and how everything turned out. Nicholas was the one who cared for her in the back of the ambulance for the thirty plus minute ride to South Hill hospital. The compassion and patience he showed with a hysterical teenager was unbelievable. The fact that he remembered us and cared enough to reach out and inquire about her health brought tears to my eyes. I asked Nicholas who the other members of the team were. He said that the man who killed the snake was Chief Robby Ross from Church Hill Five Fork FD, and Frank and Alice MacCue with Church Hill.

My daughter Katherine and I would like to extend our sincere thanks and appreciation to each and every member of this team for their professionalism, compassion, and care during the entire event, and personally commend Nicholas Price for his role in my daughters care. You have a phenomenal group of men and women who went above and beyond all expectations and I will be forever grateful.

Kindly,

Doris Meixel 1604 Tewksbury Court Virginia Beach, VA 23456

A Family Tribute to Gilbert and Flora Schreiner

[Editor's Note: The following tribute to Gilbert Schreiner MCMC and his wife Flora was written by their children. I was going to make edits to shorten it, but on reading it I found it very interesting so here it is with some minor editing.]

Flora Eileen Hutchings was born on October 11, 1925 in Pinckneyville, III and grew up in southern Illinois with a large family on a large farm. Her parents were Richard and Anna Hutchings. After graduating from Pinckneyville Community High School, she attended Southern Illinois University. Gilbert and Flora both, being of the same age, lived through the depression as kids and learned early on how to stretch a dollar.

Gilbert Otto Schreiner grew up in the suburbs of St. Louis in a family steeped in the German way where as everything had to be done with the precision of a machinist and the discipline of a general. He was born September 3rd, 1925 in Memphis, TN. His parents were Frederick

Herman Schreiner and Rachel Emily Frederick. He went to University City grade school and University City High School in St. Louis, MO.

Gilbert was drafted into the United States Army right after high school and had to report to duty the day before his high school graduation ceremony in 1944. He served two years and two months during WWII. He was in the 87th Infantry Division and served in an Engineer Combat Battalion during the Battle of the Bulge. Flora also served in the war effort as a member of the United States Army Nursing Corps.

After the war, Gilbert attended Washington University in St. Louis. Around the same time, Flora Eileen Hutchings was attending Missouri Baptist Nursing School in St. Louis. Gilbert and Flora met on a bus and had immediately became good friends. After graduation, they were soon married. Date: June 13th, 1948.

Gill accepted a position at the United States Geological Survey as a cartographer drawing topographic maps so off they moved to Rolla, MO. Flo accepted a position as an registered nurse at the Phelps County hospital. As everybody did in those days, they started having kids. A big family was good when there was so much work to be done.

The family was pretty poor, Flo and Gill together only made about \$80 a week. Never-the-less Flo and Gill bought 40 acres with an old house on top of a rocky mountain full of scrub brush. After doing a good bit of remodeling, drilling a well, installing indoor plumbing, propping up old fences, picking the rocks out of a spot for a garden, and building a log hog house, they had something that resembled a farm. A milestone for a young struggling family.

Gill and Flo both had a great entrepreneurial spirit. Always planning on some kind of business that was going to make them a little more money. Gill was not one best suited for sitting in an office drawing maps all day, although he did it for 30 years. I know he spent a lot of time thinking about fishing on the many rivers around Rolla.

Early on, when the kids were still young, Gill and Flo bought a cabin on the Gasconade River in the Sports Haven Lodge area. This made for the worlds best times in the summers filled with all things boating, fishing, swimming, and cabin camping.

Gilbert had a lot of ideas about various businesses. One idea was to start a tree trimming business called Parkland Industries with an old rope block and tackle. When his two oldest boys were about 12-14 years old, Gilbert would send them up the trees with a rope and a bow saw and in his best drill sergeant voice that he learned in the Army would bark out orders on where to tie rope and were to cut a limb. The boys were not totally opposed to this arrangement as they liked climbing trees and liked getting to go to town on Saturdays. As soon as the boys hit 16, Gilbert lost his employees and Parkland Industries ceased to exist. Although the old red Ford truck with the hand painted sign on the door was driven for years and years after.

Another business was to raise fishing worms, but after our first and only visit to a worm farm the idea was quickly scrapped as the smell of rotting worms was too much to handle. A third idea was to collect ginseng in the woods, but with all the hunting I don't think we ever found one piece.

One of the few things that had a little more success was that Gilbert invented and received a patent on these crazy spectacles with one red lens and one blue lens. These glasses were supposed to assist ones stereoscopic vision while viewing aerial photos when drawing topographic maps. Although, I don't think he ever received compensation for his invention.

During the Cuban Missile Crisis, the call came out for everyone to build a bomb shelter, as in those days people had a tendency to believe what the Federal Government was saying and so Gilbert had a concrete bomb shelter built and buried in the back yard in order to protect the family from a nuclear bomb. I think we were the only ones for miles that had one. At any rate, it was a good place to store canned goods.

In the late 60s, Gilbert built a real nice 30'x30' barn with a nice garage door, store bought windows, and a tall hay loft with a real high truss roof. Of course with again forced kid labor, but this was one of the better jobs because he was buying brand new lumber and he bought a new skill saw instead of using a hand saw for all of the board cutting. The barn turned out beautiful, painted red with white trim, with a nice concrete floor.

All the while, Flora was moving up through the ranks at the hospital. She loved her work with the babies in obstetrics. The next position she accepted was administrator of Rolla Area Diagnostic Center working with mentally handicapped kids. She loved this job also and was extremely devoted in every aspect and decision on the care of these kids. Nothing was done without her approval. Remembering at one point, management wanted to use a cattle prod as a control method on the more aggressive patients. Of course Flo knew this was a terrible idea and to prove her point she shocked herself with the cattle prod. After that, it was never spoke of again.

After the Diagnostics Center was straightened out, she started her own business called Schreiner's Residential Care. A dormitory wing was added to our old house with a huge bathroom and shower area that accommodated the needs of the patients. I remember a laundry room with half a dozen washers and dryers that ran constantly as everybody's bed linens were changed everyday. Flo kept a large staff day and night and provided a very home-like setting for all her patients. Flora continued to expand with two more big living areas added there at the old homestead. Later on she bought another big home in Rolla. By this time Flo had became one of the biggest private employers in the county and took a great deal of care to help all of her employees with new skills and new outlooks on life as well as using her healing hands to care for the folks in her homes. Respect followed Flora's career and became one of the leading specialists on Alzheimer's and was asked to speak at annual conferences at the state capital. As Flora was doing all of this, her and Gilbert loved going to the farm auctions out in rural Missouri. After collecting a great many antiques, Flora opened an antique store. Most of her endeavors turned out quite well.

Gilbert enjoyed the era of the Jimmy Carter administration because he was a big proponent of solar energy and he spent a many nights designing and trying to implement a way to pull and save energy from the sun. Not much success was ever gained in those years, but before he died he did have the opportunity to put a modern solar system on the roof of his home which gave him great pleasure.

Sometime in the 70s, Flora and Gilbert bought a 100 acre farm halfway between Salem and Rolla up on the Higher Prairie Plateau in the northern part of the Ozarks. This was good flat prairie ground with lots of good grass, fences, ponds, and an old house. There at the old house was a well, dug and rocked in by the Native Americans that lived there when the country was full of large pine trees. Later, the Pioneers came in and pushed the Native Americans out, cut all the giant pine trees except for a few that are still standing there in the yard of the old house. Gilbert and his sons built a big hay barn 80'x200' with salvaged trusses from the old barracks buildings being given away by the Army base at Fort Leonard Wood. It wasn't long until Gill had some of the fattest cows in the area.

Sometime after, Gilbert bought a brand new Ford backhoe in an attempt to start a business with that. Of course without a dump truck and trailer work was limited. Along with free labor from his kids again, the business was pretty well doomed to failure. But never-the-less it was a good learning experience for all involved.

Flora retired from business after she had gotten sick from lymphoma cancer. In 1993, Gilbert and Flora auctioned and sold off most of their holdings and moved to Coalinga, CA to be closer their kids as most had migrated out to the central San Joaquin Valley.

In the early years, Flo and Gill both considered themselves conservative democrats with old southern conservative democratic values. After moving to California and seeing what the democratic party had become, they switched their party affiliation to republican. They were very interested and outspoken in politics. Flo mentioned on many occasions how in today's political environment she would have not been able to run her businesses with all of today's rules and regulations. Flora and Gilbert were consummate entrepreneurs, in the later years knowing their days were numbered, yet always saying, "If I were only twenty years younger, I would buy this property and start this business." With physical abilities diminishing there was no loss for the zest of life.

Throughout the years, Flora and Gilbert (with their tribe of ruffians in tow) migrated to the smallest churches. Once that church grew and became better established, off they'd go to another small church serving and tithing where most needed.

In January of 2009, lymphoma cancer again returned to Flo. Undergoing cancer therapy for the third time was all her body could handle. Flora Eileen Schreiner asked to go to Glory Land to be with her two sons Gilbert Lee and William Otto. Two days later the angels took her through the Pearly Gates of Heaven. Flora passed away on June 1st, 2009 at the age of 83 while under the care of Rachyl and her wonderful staff at the Ridge Rehab in Salinas, CA.

Gilbert met his Savior on February 2nd, 2016 at the age of 90 while also being under the care of Rachyl and her wonderful staff at the Ridge Rehab. He is buried at the Pleasant Valley Cemetery next to his beloved wife. Flora has been dearly missed for the past 7 years and Gilbert will be also.

The Flora and Gilbert Schreiner legacy has come to a close but their influence has not, so if you see the Schreiner boys and girls building something with excessive accuracy, you know it's just the German blood. Or investing time and money in an idea of good common sense or of uncommon sense, you'll know that the Flora and Gilbert Schreiner legacy lives on.

Through all the years of hard work and seemingly hard times, through it all, speaking as one of the sons, "We learned the meaning of hard work, how to work, and that we can do anything if we put our minds to it. The hard times were the best times, we loved it and we wouldn't want to change a thing. No regrets."

Gilbert and Flora Schreiner had six boys and one girl.

Mapping Memories from Bill Cook 77WMMC

After my return from Korea in the fall of 1953, Betty's Uncle, Gordon McKinstry, offered us the use of the family's Lake Sammamish summer home while I looked for employment. I had anticipated going to work for the U. S. Forest Service since I had veteran's preference and four years of federal service towards retirement already. However, with winter coming on and fiscal cutbacks, the Forest Service was laying off people. When I checked in with the University's College of Forestry, they advised me that a representative from the Topographic Division of the U. S. Geological Survey, by the name of Vernon S. Seward, was interviewing and recruiting qualified applicants.

Mr. Seward offered an intriguing and challenging prospect for employment but we would have to move to Sacramento, California. We procrastinated deciding for a while but after endless days of rain and the dark damp cabin under the trees on the lake shore, Betty said "Let's go to sunny California"!

Immediately after the Christmas holidays, we loaded most of our worldly possessions into a covered U-Haul trailer, hooked it to our 1953 Ford, and headed south on U.S. Highway 99 for sunny California!

The Topographic Division of the Survey was located in the Town and Country Section of North Sacramento at Fulton and Marconi. C. A. Ecklund was the Pacific Region Engineer in charge of the topographic mapping program for seven western states. The nearest affordable (\$75/Mo) housing we could find was 928 Rood Ave in Del Paso Heights; a fifteen minute commute.

January 18, 1954, I reported for one year of probationary work as a Cartographer (General), GS-5 at \$3410/annum. I was assigned to a dark little Multiplex booth where the maps were actually drafted by hand from an optical illusion created by overhead projectors that formed a stereo model from aerial photographs. There were about 24 of these booths working two shifts because of the need for maps of the Colorado River below the Glen Canyon Dam where carnotite was found; a yellow uranium ore needed for nuclear fuel in industry and in the cold war. The Atomic Energy Commission was funding the U.S.G.S. mapping program for preferential high priority defense remapping of the Paria Plateau and Marble Canyon one degree quadrangles into sixteen 7.5 minute large scale quadrangles.

The work was very interesting and challenging but every two weeks half of the compilers would switch from morning shift to evening shift and the other half from evening shift to morning shift. This disrupted our sleep habits and everyone consumed a lot of coffee to keep from going to sleep in their dark little booths!

My supervisor was Lowell Rogers, a pleasant, conscientious boss that was instrumental in helping me learn how to set up a model in which the projectors have to be set to the same relative position to each other and the heavy slate drafting table as the camera and airplane were at the instant of exposure. All those wiggly little brown contour lines were painstakingly drafted one at a time and he was responsible. Artistic expression was very important to correctly portray drainages, alluvial fans, lava plains, sand dunes, leveled fields, cirques,

glacial moraines, cliffs, mesas, etc. Costs were calculated on a square mile basis so that they could keep track of individual performance and encourage competition between compilers. We were allowed to listen to the radio as long as we kept the volume down so it didn't bother others.

I had taken a civil engineering course in photogrammetry at the University of Washington previously and since senior co-worker, George Katibah, was teaching a Saturday course at Sacramento State College on Advanced Photogrammetric Mapping Instruments, I availed myself of the opportunity to learn all I could about this new science.

I passed my one year probationary period and and the College of Forestry helped me resolve some educational qualification problems with the Civil Service Commission which allowed me to enter the professional classification. The Survey gave me some experience in base sheets plotting triangulation stations by latitude and longitude with a scale on large blank sheets of drafting paper that only had the lines of latitude and longitude inked on them. We used a magnifying glass and a pin point for plotting and then inked with a drafting pen. These formed the foundation on which the whole map was ultimately compiled and then photographically reduced to publication scale.

Early in the spring of 1955, R. R. Monbeck, Chief of Field Surveys, sent a memo asking for volunteers from photogrammetry to work in the field for the summer. I jumped at the chance to get out of that dark little booth and was assigned to a training class of about eight led by Ken Sax, an experienced field man. We were issued planetables, alidades, and a stadia rod. We started from a U. S. Coast and Geodetic Survey Bench Mark and ran practice lines for about a week, learning how to read and record in our notebooks the Beaman Arc method of supplemental control by stadia traverse. I previously had several surveying courses at the University of Washington but nothing as practical and efficient as the Survey method. Ken was a good instructor, the atmosphere was friendly, the other trainees were competent, and I was enthusiastic.

About May 9th, I drew a 1953 3/4 ton Chev pickup, I-45755, from the warehouse garage, a shovel, axe, tow line, tire chains, a bunch of blank survey notebooks, a first aid kit, a snake bit kit, and some report forms. We stored some of our possessions with Allied Van and Storage in Sacramento, and closed out our rented house. Betty drove our 1953 Ford sedan with Gail (who was still in diapers) and I took Joy with me in the pickup which carried a good load of camping gear and we departed for the White Rock Project about 80 miles north of Elko, Nevada.

May 11, 1955 we arrived in Mountain City, in a snowfall, and put up in the Modern Motel. The only claim to "Modern" were the flushing toilets! There we touched bases with George Kaufmann, the project supervisor. George decided we best reconnoiter the area for access and housing. I soon found that our access to the Bull Run Mountain area, Maggie Pass, was still closed by snow drifts from the winter. The project was bounded on the east by the Humboldt National Forest and the Independence Mountains. To the west it fell off to sagebrush and tumbleweeds. We found the people helpful and friendly in this predominantly sheep and cattle ranching area. There was a large gold and silver mine near the Owyhee River south of Mountain City. Bing Crosby had a large cattle ranch southwest a few miles and participated in the Mountain City annual rodeo days.

George hired a couple of Owyhee Indian field assistants by the name of Earl and Clifford Harney, father and son, and with their help we managed to clear the snow drifts from the road over Maggie Pass. This was met with enthusiasm by the local people because now the mail truck could again get through to the remote ranch mail boxes instead of piling up in the post office.

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Page 20

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Dues are \$6.00 per year. Please make check payable to Mapping Retirees. ...and how about some news or an anecdote?

If your address has changed, please complete the form below:

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Mapping Retirees Newsletter No. 145, Spring 2016

NEWS:



(Continue news on separate sheet if necessary)