

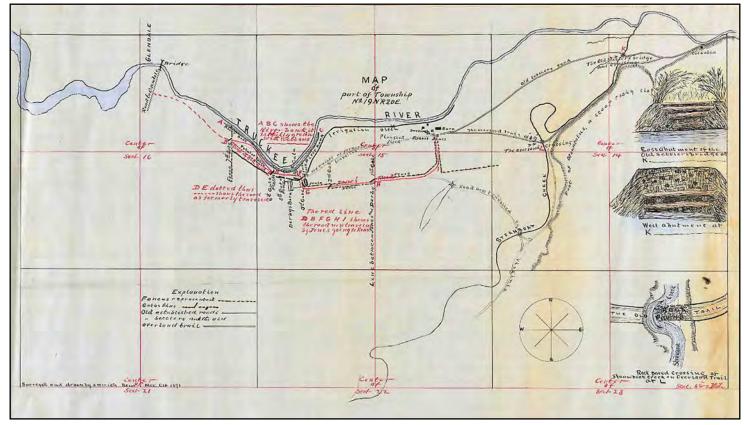
THE NEVADA TRAVERSE

National Society of Professional Surveyors
Member Western Rederation of Professional Surveyors

Vol. 42, No. 2

Journal of the Professional Land Surveyors of Nevada

2015





Charles Irish Surveyor General of Nevada Part I... See Page 5
2015 Conference Wrap Up... See Page 9

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The Nevada Traverse

This publication is issued quarterly by the **Nevada Association of Land Surveyors** (NALS) and is published as a service to the Land Surveying profession of the state of Nevada. *The Nevada Traverse* is an open forum for all surveyors, with an editorial policy predicated on the objective of NALS Constitution and Bylaws, Article II, which reads:

"The purpose of this association shall be to promote the common good and welfare of its members in their activities in the profession of Land Surveying; to promote and maintain the highest possible standards of professional ethics and practice; to promote professional uniformity; to promote public awareness and trust in Professional Land Surveyors and their work.

This organization, in its activities and in its membership, shall be non-political, non-partisan, non-sectarian, and non-discriminatory."

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The Editor's Corner



by Carl C.de Baca, PLS

"No man's life, liberty, or property is safe while the legislature is in session." This quote is usually incorrectly attributed to Mark Twain but was actually coined by New York attorney Gideon Tucker in 1866. That doesn't make it any less true and actually, some of Twain's thoughts on state legislatures are even more pointed. Here's a typical example: "In my experience, only third-rate intelligence is sent to Legislatures to make laws, because the first-rate article will not leave important private interests go unwatched to go and serve the public..." I bring this up because our legislature is in session this year and NALS members are lucky to have the eagle eye of Brett Lane, together with our new legislative consultant, Neena Laxalt watching over the activities in Carson City. So far there seems to be much to watch but for the moment we can leave the pitchforks and torches in the barn. We can be confident that Brett and Neena will let us know if we need to

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storm the castle. Please review Brett's preliminary Legislative report herein.

At the time of this writing, the 2015 NALS-CLSA Conference is still fresh in my mind. It was a great event, well attended and very profitable. Next year we will be on our own while CLSA celebrates their 50th anniversary at home. It looks very likely that NALS will have the 2016 conference in the southern part of the state, which should make a lot of long-suffering, hi-mileage SNALS members very happy indeed. I hope you enjoy the conference wrap-up, conference-related pieces by members Paul Pace and Caleb Micheli and the photo-collage. Semi-retired LS and full time professional photographer Steve Shambeck provided the wealth of photos seen in this edition. Thanks Steve!

Regarding this year's conference, Congratulations are in order for our 2014 award recipients! Glen Armstrong, Alan Riekki, Dan Church and Monsen Engineering. In addition to the recognition given to these fine folks, NALS gave out one additional award this year. Terry McHenry was honored with a Distinguished Service award for his 24 years of excellence at the helm of this magazine. An honor richly deserved!

Speaking of Alan Riekki stepping down from the BPELS, please join me in welcoming aboard NALS member Michael Kidd of the City of Henderson as Alan's replacement. Michael got his feet wet at the conference by sitting in on the BPELS round table session and was peppered with a wide range of questions, all of which he took in stride. Not bad for a newbie! We'll be chatting with Michael in a future edition of this magazine.

The Great Basin College Land Surveying/Geomatics program has just gone through its 10 year program evaluation. With all the ups and downs of our industry, the economy and the program itself, it's been a long ten years. Professor Byron Calkins has offered a brief update giving us some idea of where the program is headed in its next ten years.

The lag time between editions when a magazine is only published on a quarterly basis, is significant. An issue will be brought up for contemplation in one edition and by the time the next one goes to press, the issue will have been decided. Such was the case with the Supreme Court case North Carolina Board of Dental Examiners v. Federal Trade Commission. The court produced a rapid decision on this case which may have an impact on our profession. A summary of the decision is included in this edition for your edification.

Our in-house gonzo journalist Jason Caster gives us a humorous first-hand glimpse of Baseball spring training.

And last but certainly not least, Paul Pace regales us with another great story concerning survey history in Nevada with a well-researched and well-written article on esteemed Nevada surveyor Charles Irish.

I hope you had a great and prosperous spring and remember, unsolicited material and letters to the editor are always welcome!

About the Cover

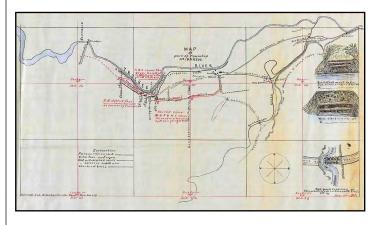
by Paul S. Pace, PLS

In 1890, Charles Wood Irish, now the former Surveyor General of Nevada, was out of work, replaced by George Turrinttin. He applied for and received an appointment as a U.S. Mineral Surveyor and began surveying in the Comstock. His attention was drawn to irrigation projects and in 1891 he produced several surveys along the Truckee River near Reno, as well as several along the Humboldt River, near Lovelock, Nevada. The map on the cover shows a portion of the Jones Ranch, near the small community of Glendale, surveyed and drawn by Irish in October of 1891. It is on the north side of the river and south of present day Glendale Avenue in Reno.

The map also indicates the location of the emigrant trail emerging from the Truckee River Canyon, at present day Vista, Nevada, crossing Steamboat Creek and the Jones Ranch and heading west.

From the Charles Wood Irish Papers, University of Iowa Libraries, Iowa City, Iowa

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The President's Report

by Trent Keenan, PLS



appy June, I would like to thank everyone for a great 1st quarter of the year. The first issue of The Nevada Traverse without Terry as our editor/leader went out just fine. There were no major hiccups and Carl did a great job of putting everything together and getting it submitted to Dave for the layout and printing setup. (First big hurdle of the year accomplished). Second big hurdle (for me anyway), for those of you who missed the CLSA-NALS Conference in March you missed a good one. And a big THANK YOU to Dorothy Calegari, Crissy Wilson and Nancy Almanzan for putting on another flawless conference at the Silver Legacy. The conference was well attended and we had some great round table discussions this year about the future of surveying and how to promote our profession to the younger generation. Speaking of the younger generation, the scholarship auction was great as always. And another big THANK YOU to Marty and Rhonda Crook for all your hard work and making sure we always have top notch items for sale! We also gave out our yearly NALS awards to the following: Dan Church for Article of the Year for his piece entitled Perceived Value, We gave the Meritorious Service award to a very deserving Alan Riekki, Alan has provided many years of dedication to the profession, and the Surveyor of the Year award went to the immediate past-president Glen Armstrong. Monsen Engineering was awarded the Sustaining Member of the year award for all the support they give throughout the year. Congratulations to you all and THANK YOU for all you have done!

While at the conference we held a quick board meeting. Here are some of the highlights we are working on:

Membership: Our numbers are looking better but we still need your help. If you know of a surveyor who is not a member, please whisper in their ear and tell them all the great things that are happening and the changes being made to this great association. If you don't want to talk to them, send me their contact information and I will talk to them ©. We always need new members!

Continuing Education: There was a FEMA work shop held in Las Vegas on March 4th, I hope those of you who attended enjoyed it. I missed it, but from the feedback I received it was well attended. The Lahontan Chapter is planning some really good workshops over the summer and we are trying to bring the same speakers to the Southern Chapter, check back on the website for upcoming events for your chapter.

Advanced Education: GBC - UNLV update: There was a meeting setup between GBC and UNLV, it was held on April 28th and the attendees were Dr. Hayes from UNLV, Michael Kidd (Nevada State Board member), Carl C.de Baca and the GBC staff. At the time of printing we do not know the outcome, but all we can do is hope for the best. And at very least is a start of some great communication behind the two schools.

<u>Scholarships</u>: At our March board meeting we awarded a scholarship to Norman Scott Weese. Norman is a current student in the GBC and is also the surveying class president. Congratulations Norman, keep up the good work!

Legislative: Brett and Neena are doing a great job this year. On behalf of the NALS board and membership we THANK YOU for your hard work and dedication to this association. Brett brings so much passion to this committee, we all hope you continue to be our NALS State Legislative Committee chairman for many years to come.

<u>Publications</u>: I have been working hard over the last two years to bring you the best website we can. I want it to have all the information you need to stay connected to your local chapters as well as your State Board. If there is anything you want to see added please do not hesitate to call me. I will add anything you feel can benefit your membership!

Conference: This year was Great as stated before. Now for the third hurdle of the year. Finding out what to do for the 2016 conference. As some of you have probably heard the rumblings, we will NOT be teaming up with CLSA next year. It is their 50th anniversary and they want a California themed conference, located in California. We at the NALS board completely understand the situation and want to congratulate them on the 50 years of success and wish for best conference they can have! We have already discussed being back together in 2017. Now for 2016, Nancy, Carl and I have started the discussions on a venue and possibly teaming up with Arizona in March or April of next year. There has been no MOU signed at this time but we are hopeful over the summer we will get all the details in place. The front runner places so far are the Sun Coast (Held the 2007 Conference there and it was successful) or possibly the Plaza Hotel. Stay tune to the website and I will posted all the updates there!

Trig Star: Sean Corkill and Jerry Juarez have done a great job this year as they have for the last few years. THANK YOU for your hard work! The last few exams were held in late May and you can check the NALS website for the winners.

That is a quick look into our board meeting and I hope you feel like you are update with everything that is going on with this association. I'm looking forward to a great second half of the year and looking forward to the changes ahead. Should you have any questions or concerns, or you would just like your voice to be heard you can call me at 702.823.3257 or email me at tkeenan@diamondbacklandsurveying.com



Desert Humanist Charles Irish Surveyor General of Nevada Part I

by Paul S. Pace, PLS

Beginnings

The newly elected president quickly set about picking his cabinet and filling appointments. Grover Cleveland was the first Democratic president elected since the Civil War and he promised to clean up government corruption during his election campaign. He said he would not fire any Republican who was doing a good job and promised to uphold an individual's merit over the patronage system of the past, a system that had placed so many incompetent bureaucrats into office.

Among the positions Cleveland needed to fill, in that springtime of 1885, were the Surveyors General for the U. S. Territories of Arizona and New Mexico. John P. Irish, a close political ally of the president, suggested his brother Charles might be a good fit for one of those appointments. An experienced land surveyor and civil engineer with an excellent reputation, Charles Wood Irish could certainly do the job. But the U. S. Senate, whose approval was needed to fill the positions, grumbled that the office ought to be held by individuals from those territories. Irish had worked in both the Arizona and New Mexico Territories and knew the ground, but the Senate was disinterested.

So Cleveland, paying no heed to the Senate, instead nominated Irish for the Surveyor General of Nevada, highlighting Charley Irish's long and varied experience. Undeterred by the president's recommendations, however, the Senate rejected the nomination, claiming Irish was little more than a carpetbagger. Cleveland went on to fill the remaining vacancies in his new administration; but he did not give up on Irish. Months later, the president saw another opportunity.

In a move that would presage Cleveland's long struggle with the Senate, he unapologetically named Irish to the post of Surveyor General of Nevada in a recess appointment, shortly after the Senate adjourned. The appointment would ultimately be subject to Senate approval, but could be in effect until the end of the next session of Congress. The appointment created a firestorm of protests in Nevada, particularly within the president's own party, who maintained that a Nevadan should be given what was described as "the most lucrative and important Federal office in Nevada".1

In the end, Nevada Senator William Stewart finally relented and agreed to work with the president on Irish's confirmation. But he cautioned the president that Irish would only be confirmed with the distinct understanding that, "no more carpetbaggers are to be sent to Nevada...".

Irish began his long career in 1852, as an eighteen year-old axeman on a survey crew. He would spend the next 52 years working as a surveyor, as well as a civil and mining engineer,

building infrastructure in America's heartland and her western territories. He would come to oversee Nevada's Public Lands and later, mine her mineral wealth. All the while, he pursued his passion for the natural sciences, educating himself, and many others, along the way.

That first survey project for Charley Irish was for Iowa's first railroad. Their seven-man crew was routing the proposed Lyons and Iowa City Railroad. Two years into the work, after Irish had been promoted Assistant to the Chief Engineer, the funds dried up and the project was terminated. However, he continued to practice surveying, platting villages and running boundaries throughout Johnson County, Iowa.

Irish also took on part-time work as a public school teacher in Johnson County. He taught science, fascinating his students with elaborate classroom experiments. One of his older students, a certain Susannah Abigail Yarbrough, was only four years younger than Irish. After she completed school, Abigail and Charley began dating. They were eventually married on Easter Sunday, 1855. A few years later, the couple relocated to Toledo, Iowa, where Irish continued his surveying practice, teaching school and routing railroads. By 1860, Charley and Abby had two daughters, Elizabeth and Ruth.

Between railroad projects, Irish was named City Engineer for Iowa City. He macadamized streets, designed storm water systems, planned a complete sewer system for the city and supervised the construction of a new bridge over the Iowa River, at Iowa City. Irish was also elected County Surveyor for nearby Tama County, Iowa.

The Natural Sciences

In August of 1869, Irish teamed up with Professor Gustavus Hinrichs³, a Danish-born faculty member of the University of Iowa, to make observations of a total solar eclipse from Iowa City, situated directly on the path of the event. Irish published the results of their work in the School Laboratory of Physical Science in June of 1871, under the title, "Observation of the Total Eclipse of the Sun of August 7, 1869, at Iowa City, Iowa".⁴

Irish, recognized now as a serious amateur astronomer, constructed an observatory at his home, with a small meridian transit instrument he designed and built himself. He also purchased a 4" refracting telescope by the French instrument-maker Charles Chevalier, an expensive instrument for the day. He used a German-made chronometer, with a Morse telegraphic register, for the determination of precise time.⁵

In the mid 1870's Irish was on the road again, surveying for the Atchison, Topeka and Santa Fe Railroad. The project was a rail line from La Junta, Colorado, on the headwaters of the Arkansas River, into the New Mexico Territory. New Mexico's Las Vegas Gazette reported that, "...C. W. Irish and others of the A. T. and S. F. Ry. engineers came in from the south today. They have traversed an immense extent of the country and explored the mountains to the S. W. There are several practicable routes though to Florence or Tucson. It was a hard trip and nearly all the party were down at one time or another..." They ran profiles south through Las Vegas, Albuquerque, Rincon and Deming, New Mexico, then turned west into the Arizona Territory, over Dragoon Summit and down into Tucson.

CONTINUED ON NEXT PAGE ▶

Desert Humanist Charles Irish... continued from previous page

Returning home to Iowa at the end of the project, Irish pursued his scientific interests, which included geology, botany and in particular, astronomy. He had plenty of opportunities. On the evening of February 12, 1875, the "Great Iowa Meteor", one of the most brilliant meteors in modern times, blasted across the southern Iowa skies. In fact, it was so dazzling it was visible across Missouri, Minnesota, Nebraska and Illinois. The meteor exploded several times as it came through the atmosphere, littering chunks of the rock over a large area along its path.

Irish and Hinrichs researched the meteorite⁶ and in a book entitled, "The Amana Meteorites of February 12, 1875, by G. D. Hinrichs, M.D.", the author noted that, "Mr. Irish...traveled to many points from which he had received observations, set up his instrument and took bearings and elevations by theodolite... to determine the orbit and velocity of the meteor." He added, "With much patience and skill, my friend and fellow townsman, Charles Wood Irish, collected and carefully studied all obtainable observations of this meteor, and published his results in two quarto pamphlets..."

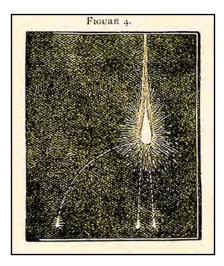


Illustration from C. W. Irish's

An Account of the Detonating Meteor of February 12, 1875

Courtesy of the Charles W. Irish Collection, University of Iowa Libraries,
Iowa City, Iowa

Hinrichs, together with Charley and John Irish, collected specimens from the meteorite's debris field. Ultimately, 700 pounds of the meteorite were recovered, the largest piece weighing 75 pounds. Irish published his findings in, *An Account of the Detonating Meteor of February 12, 1875*, and sent photos of the specimens to Professor A. S. Herschel of the British Association for the Advancement of Science.

From his observatory, Irish observed a transit of Mercury across the sun in May of 1878.⁹ He observed the 19th Century's last transit of Venus in December of 1882. He sent those data to William Payne, the director of the Carleton College Observatory, in Northfield, Minnesota. They were published in *The Sidereal Messenger*, ¹⁰ at that time, the world's only popular astronomical journal.

The Road West

Through the 1870's and early 1880's, Irish remained primarily occupied with railroad surveys. During that time he joined

the American Society of Civil Engineers and was one of the organizers of the Iowa Society of Civil Engineers, as well as the Agassiz Natural History Society of Iowa City.

But now the president was calling Irish to a new role. On November 12, 1886, Charles Wood Irish was sworn in as Surveyor General of the State of Nevada. He and Abby packed up and relocated their household to Reno. The move was life changing for Charley; he would remain a Nevada resident the rest of his life.

Despite harsh words from some in the U. S. Senate, Irish had many supporters. The Nevada State Journal quoted a letter from former Army Brigadier General Leonard Ross to a friend in Carson City, "Noticing in a Nevada newspaper recently some complaints that the Administration had appointed a carpet bagger, one Captain Irish, to an official position in your state, permit me to say if you had more such carpet baggers sent to your state, you would find it no disadvantage...Captain Irish is a man of finished education, a polished gentleman and an honest man." Ross, a Mexican and Civil War veteran, gave voice to the widespread belief that Irish was a first-rate candidate.

Christopher Columbus Powning, the previous Surveyor General of Nevada was neither a surveyor, nor an engineer. He was however, a politically connected Reno resident, the former owner, editor and publisher of the *Nevada State Journal* newspaper and a tireless promoter of Reno's business community. Powning's last Surveyor General Report to the General Land Office (G.L.O.), in June of 1886, was a cheery, three page assessment of the bright prospects for the state's mining, cattle and sheep ranching. That same year Grover Cleveland was married at a White House ceremony and dedicated the Statue of Liberty in New York Harbor. In November, General Powning was suspended by the G.L.O.

By contrast with his predecessor's 1886 report, Irish's first report to the G.L.O. was a lengthy, scathing indictment of the previous administration. He wrote, "The surveyor-general cannot bring up the arrears of office work without a larger appropriation from Congress. He found upon taking charge of his office, no system of keeping records, maps and notes of surveys, everything being thrown into boxes and pigeon holes, without care or order."

Irish was just getting started, "Many complaints are made of defective surveys in the State, and it is alleged in many instances that no corners have been established in the townships returned as surveyed. This causes the land owners to pay over again the expense of having their lines determined." On a brighter note, Irish added that during the year of 1887, "1,647 miles and 50.47 chains of surveys were run and marked in the field; also that, owing to the low price of silver...the number of mineral surveys was much lower...".

When he submitted his next annual report to the G.L.O., in June of 1888, the office was still behind in its work. Irish noted among other things that there was not enough money for new surveys and, "Reports continue to come into this office regarding the inaccurate and altogether unreliable character of the public surveys in various portions of the State. In many of these cases, I have...visited the localities in question, and in the case of Ts5 and 6 N, Rs 34 and 35 E, have reported to your office in detail the irregularity of the lines and corners as found in said townships. Standard township, section and other corners are reported as found all the way from a few

chains to twenty or more chains CONTINUED ON NEXT PAGE ▶

Desert Humanist Charles Irish... continued from previous page

away from their proper sites, and in many instances no corners nor a sign of any can be found." Irish gloomily added that he had no idea of how extensive the problem was, or how long it would take to repair. But he was certain of one thing: it would be expensive to remedy.

Irish's recess appointment ended and the Senate again took up the confirmation of Charles Wood Irish. On the 4th of January 1888, lame duck president Cleveland sent the Senate the nomination of "Chas. W. Irish, of Iowa City, Iowa", for Surveyor General of Nevada. Sensing he may have touched a political nerve, the president quickly withdrew the nomination as written and resubmitted it again on the 12th, now as "Chas. W. Irish, of Reno, Nevada".

Local pundits pounced. In an editorial printed in the Nevada State Journal for February 7, 1888, the writer called the president's change-up, "simply thimble-rigging in politics." The editor then took aim at Charley, "Mr. Irish's enforced residence here does not make him a citizen of Nevada...Opposition to carpet-baggers and carpet-bagism [sic] have been cardinal principles here for twenty years." Nevertheless, Irish won Senate approval to complete his term of office, though there was nothing enforced about his residence. Irish had grown fond of Nevada and planned to stay.

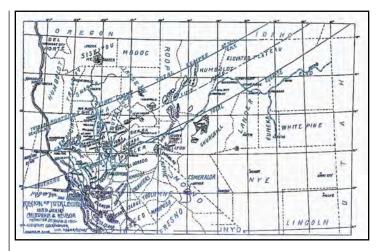


General Charles Wood Irish

The Eclipse of 1889

In 19th Century science, a solar eclipse still held great value in the effort to unlock the secrets of the solar system. So in 1888, when a total eclipse of the sun was predicted for the 1st of the coming January, astronomers from all over the United States began preparing to observe the event. With the path of totality coursing a relatively short distance north of the Reno, Nevada, Irish too took notice.

The line of totality fell across Honey Lake Valley, near the tiny village of Liegan, California, then the terminus of the Nevada California and Oregon Railway Company's track. ¹² Irish approached the railroad's management in Reno about transportation to the site. They immediately offered a special train to bring the Surveyor General, his party and all their gear the 70 meandering miles from Reno to Liegan.



Path of the total eclipse of January 1, 1889 from the Lick Observatory

Irish's observation team included Charles Friend, a German watch and instrument maker from Carson City, and serious amateur astronomer. Friend would be of notable help to the U.S. Coast and Geodetic Survey in the years to come. He also invited J. S. Hawkins of Carson City, the Honorable Tremmor Coffin and Sidney Pinniger, MD. Irish intended to photograph the eclipse, and placed that effort in the hands of Professor L. P. Butler, of Reno, James Moffat, a civil engineer from Silver Peak, Nevada, and Professor M. Miller of the University of Nevada.

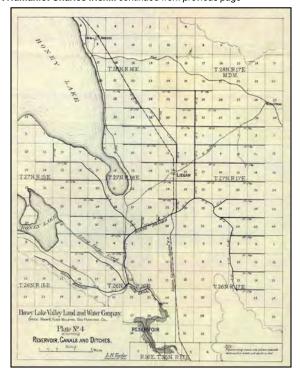
Ahead of the event, Irish traveled to Liegan with L. F. Warner, the Chief Engineer of the N.C. & O Railway Company, to recon the observing site. They established the latitude and longitude there, finding it about 6 miles west of the Nevada state line. Warner reported the elevation of the site as 4050 feet above sea level. This he took from the railroad's recent centerline survey from Liegan to the hot springs resort of Amadee, California, a few miles to the north. The rest of the party assembled their camp equipment, provisions and observing gear. And they brought a lot of it: two telescopes, two sextants with artificial horizons, two engineer's transits, a chronometer, thermometers, barometers and four photographic cameras of various apertures and focal lengths. On the morning of December 29th, the party boarded the train in Reno and left for Liegan.

J. S. Hawkins constructed a pivoting platform to which the cameras were fixed. He added a tangent screw and a homemade sighting tube and fixed them to the camera platform so the cameras could track the sun's motion. Irish made final time and meridian checks and the team was set for the observation.

A January 1st eclipse is rare. The 1889 event was the only one on that date in a 900-year period, 14 so observing parties ranged all over the Pacific slope. Smoked glass dealers did a brisk business in towns all along the path of the eclipse. Some expeditions traveled great distances to observe it. In fact, individuals from all over the country convened at Winnemucca, Nevada, also on the path of the eclipse. U.S. Deputy Surveyor Herbert B. Maxson set up an observing camp two miles west of Winnemucca, for groups of astronomers coming in from Harvard, Yale and Colgate Universities. Also arriving at Winnemucca were Thomas Drummond Davidson and his brother George, the sons of George Davidson of the USC&GS. They were there to photograph the sun's corona. The elder Davidson was busy conducting geodetic

CONTINUED ON NEXT PAGE ▶

Desert Humanist Charles Irish... continued from previous page



Map of Honey Lake Valley, showing Liegan and Amadee, California From the David Rumsey Map Collection

work on the coast and could not attend. Coming too was Dutch astronomer E. M. Van Harlingen from Ohio State University and John A. Brashear, noted lens maker and astronomer from the observatory in Allegany, Pennsylvania.¹⁵

Irish and his party were completely successful in documenting the event with precise timings during the phenomenon, photographs, sketches and meteorological measurements.



Photo of the observing camp at Liegan, California, January 1, 1889, from the Henderson Home News, January 1, 1993 via the Nevada State Historical Society

They remained at the site until midday of January 2nd, when they loaded their gear, bid adieu to the good inhabitants of Liegan and boarded their train back to Reno. Irish prepared an article for the *Reno Weekly Gazette and Stockman*, which was published in full on January 10, 1889. He sent a report to Professor Edward S. Holden, director of the James Lick

Observatory at Mount Hamilton, California. Holden published it in a pamphlet entitled *Reports on the Observations of the Total Eclipse of the Sun of January 1, 1889.* Irish's longest and most complete report was submitted to William W. Payne at the Carleton College Observatory, who published it in *The Sidereal Messenger, Volume VIII*, in 1889.

In the autumn of 1889, Irish and Charles Friend, together with a few like-minded colleagues, formed the Nevada Academy of Science. Irish was elected president, with Professor Friend as vice president and numerous faculty members from the University of Nevada named to the executive committee. ¹⁶

(Endnotes) 1 *Nevada State Journal*, (February 7, 1888) Pg 1

2The Sausalito News (March 3, 1887)

3 Hinrichs, fluent in 5 languages, was a science and languages professor at the University of Iowa, and a medical doctor. He is historically notable for being 1 of 6 researchers credited with the discovery of the Periodic System of Elements, and for his work on the so-called Amana Meteorite Shower with C. W. Irish. In 1875 he established the Iowa Weather Service, which he directed for 14 years.

4 Irish and Hinrichs collaborated many times over the years, despite the feeling by some that Hinrichs was "volatile, abrasive, and sometimes a vindictive..." From the Iowa City newspaper the *Press-Citizen* website, "Fabulous 150".

5 Reports of Observatories 1879 (Washington, DC, 1880) reprinted from Smithsonian Institute, 1879

6 A meteorite is a meteor that survives the trip through the atmosphere and impacts the earth.

7 Popular Science Monthly, "The Great Iowa Meteor", G. D. Hinrichs, September, 1875

8 London, 1877, Report of the $46^{\rm th}$ Meeting of the British Association for the Advancement of Science; held at Glasgow in September 1876

9 There were many such efforts before and during the 19th Century, especially with the more rare transits of Venus. They were used to determine the first realistic estimates of the scale of the solar system, and principally the Astronomical Unit, the distance from the earth to the sun. Irish published the data in several scientific journals.

10 The Sidereal Messenger, Volume 1, 1882-3. William Wallace Payne, director of the Carleton observatory, began publication of the Sidereal Messenger in 1882.

11 Nevada State Journal, January 22, 1887

12 Construction of the narrow gauge Nevada and California Railway began at the end of 1880. The road's name was later changed to the Nevada California and Oregon Railway Co. The Western Pacific RR purchased a portion of the road in 1917; the line north from Reno was converted to standard gauge and realigned away from Liegan and Amadee. Liegan disappeared into the Sierra Army Depot, near Herlong, California, during WWII. The Union Pacific Railroad now owns what remains of the line.

13 Friend built an astronomical observatory in Carson City, the first in the state of Nevada. He assisted the USC&GS with the California-Nevada boundary resurveys in the 1890's, as well as the C&GS's work in establishing the Nye county line, early in the 20th Century. Friend also established Nevada's first weather service. In 1887, the Nevada Legislature authorized a weather station in Carson City. Friend became its director and created volunteer weather stations across the state. His weather data are still referenced today. Friend died in 1907. The Association of Weather Services recognized him as a pioneer in weather service west of the Rocky Mountains.

14 Credited to Keith Johnson of the Fleishmann Planetarium, Reno Nevada, 1993

15 Many of John A. Brashear's telescopes and lens are still in use today, including at the Chabot Observatory in Oakland, CA. Brashear Crater on the Moon is named for him.

16 West American Scientist, Vol. VI, No. 48 (San Diego, October, 1889)



Conference Wrap Up

by Carl C.de Baca, PLS

It's a dangerous thing to make subjective comparisons between the most current conference and ones that came before, where you mind is clouded by distant fond memories. Having said that, this conference rocked hard! It was well attended (500+), offered a terrific program of classes and workshops, brought together a great group of vendors and allowed us to interact with a large and solid group of student helpers. There was a noticeable positive vibe running through the Silver Legacy from the Saturday pre-conference workshops clear through the mock trial on Wednesday. I (very subjectively) rank this as one of the best conferences we have had in several years. Following are a few of the highlights that this attendee observed during the course of the conference:

The keynote speech on Sunday was given by a Louisiana surveyor, tinkerer and technophile named Frank Willis. Mr. Willis gave us one view of the near future where we all take advantage of the vast array of cheap emerging technologies available to those with a creative bent. He described buying a drone kit and adding his own survey tools to it. He showed us terrestrial remote-control vehicles for survey applications that he had assembled himself and gave us links to cheap and powerful microprocessors. The message to take away from his discussion was that the profession is changing rapidly but there are still opportunities to get in on the ground floor and adopt new methods and new tools to stay current with the industry as it evolves. Many of these things can be done cheaply if you are not afraid to innovate.

The LS Review track was a virtual cavalcade of esteemed colleagues this year. Those studying for an exam were lucky to witness the inimitable David Paul Johnson offer up his GPS and Geodesy presentation where many household items, toys, tools and knick-knacks are employed to help the audience better visualize the concepts of geodesy. Delivered with deadpan humor and uncommon energy, this is always a must-see and DPJ never fails to pack the room. Those same LS aspirants were treated to Mike Hart, who spent all day on Monday working through the Public Land Survey System in his smooth Arkansas accent, seemingly undiminished by his years out here on the west coast. Mike is an expert who knows his subject matter intimately. On Tuesday the class included Evan Page of the California State Lands Commission using his broad experience in a detailed review of water boundaries. Frank Maxim finished up with a discussion of the California LS Act. The LS Review track is a key part of these conferences and they operate in a smooth and comprehensive manner. I offer a hearty 'thank you' to the conference committee and these surveyors/instructors who work so hard to make the LS Review track a success each year.

A new innovation at this conference was the implementation of 'round table' discussions. We had a NALS board discussion, a CLSA board discussion, a discussion on the various forms of student outreach and a discussion of the CLSA Leg. Program. There were also panel discussions with both the Nevada BPELS

and the California BPELS. These both offered an opportunity to meet and discuss items of interest with board personnel. Another panel discussion centered on QBS (if you don't know what that is, look it up!). This more informal setting gives many people the chance to ask questions or make their voices heard. I hope we see this format at all future conferences. In particular, the youth outreach roundtable was lively, to say the least. Chuck Karayan, Jerry Jaurez, Nancy Almanzan and others offered up observations based on personal experience that should help both NALS and CLSA move forward with more focused and coordinated efforts with respect to TWiST, the Boy Scout Survey Merit Badge, TrigStar and SkillsUSA. These programs will help secure a future generation of land surveyors.

Many workshops were offered between Sunday afternoon and Wednesday morning. There were workshops by NGS, workshops on Communications for surveyors, GIS, Mineral Survey Basics, Ethics, Laser scanning, Mobile Lidar, FEMA, property law, legal descriptions and GNSS Survey Standards. Among the numerous workshops, a few stand out: Understanding Least Squares by Larry Phipps, Mineral Survey – The Baptiste Story by Linda Smith and David Dorsett, Surveying the future by Larry Phipps and Business Aspects of Land Surveying by Jay Seymour. All in all, the program was terrific and if you left this conference without an abundance of PDU's and a lot of food for future cogitation, then you have no one to blame but yourself.

Sunday night saw the opening of our traditional 'hospitality suite' where libations and loud conversations were the order of the evening. I suspect much business takes place at these affairs, heaven knows the discussions seem earnest enough. I only wish I had a clearer memory of the event. Thanks to President Trent Keenan and his gracious wife Lisa for hosting the suite and not kicking us all out until our important business was done!

The luncheon on Monday featured comedian Tom Ryan who was absolutely hilarious. He did his homework and salted in among the many uproarious jokes he had a couple of survey-related pieces and one that featured California Surveyor John Wilusz by name – poking good natured fun at John's trip to Prague and subsequent geocaching experience. Bucket list item checked off— eh John? Ryan, who has opened for Jerry Seinfeld and appeared on the Tonight Show can be heard once in a while on Sirius/XM comedy stations. Hey conference committee, great catch! It's going to be hard to top this one in the future. I'm still chuckling at some of the bon mots Ryan tossed out.

The Scholarship Auction on Monday evening was, as usual, fantastic. Our old pal Lightnin', aka veterinarian and auctioneer Greg Williams, did the honors and was in great form. Many people paid more for an item than they otherwise would have due merely to a pause and a look from Lightnin'. I would have to say that based on the generous, aggressive and sustained bidding on all items brought forward, the economy must be improving! And as with all our auctions, the action is livened up both by the horde of student volunteers roaming the room challenging the bidders, and the students on the catwalk parading the auction items like runway models. The live auction brought in over \$25,000 in proceeds which go to CONTINUED ON NEXT PAGE >

Conference Wrap Up... continued from previous page

the states' foundations to fund scholarships. Money well spent – just tell yourself that when you cart that old transit home...

The Awards luncheon is always a special event where the outstanding efforts of a few are honored each year. This year's event, on Tuesday, was no exception. NALS honored Dan Church for Article of the Year for his piece entitled Perceived Value, gave the Meritorious Service award to Alan Reikki and bestowed the Surveyor of the Year award on immediate pastpresident Glen Armstrong. Monsen Engineering took home the Sustaining Member of the year award. Terry McHenry, retired editor of the Nevada Traverse magazine was honored with a special Distinguished Service award for his 24 years at the helm. Long time NALS member and frequent Traverse contributor Paul Pace delivered a heart-felt speech before calling Terry up to the podium to receive the award. CLSA, in addition to giving out 5 special scholarships to California geomatics students, honored their San Diego Chapter with Newsletter of the Year, their Central Valley Chapter for Website of the Year and bestowed this year's Distinguished Service Award on Bill Hofferber, past president of CLSA and indefatigable workhorse of the CLSA Foundation. Congratulations to all these awards winners. Our organizations are incalculably enriched by the outstanding efforts you put forth on behalf of our profession!

This conference runs like clockwork based on the organizational efforts of the our conference management, Dorothy Calegari, Crissy Wilson and the many members of both NALS and CLSA who volunteer their time to help make it a success. Our conference is so smooth that we tend to take it for granted and that is a shame. These folks deserve our thanks because what they get together and create each year is truly special. Another group of people who band together and produce a superior effort for our conference is the assemblage of student volunteers. This group works hard to help the conference committee in a million different ways. This is their chosen profession and the time they contribute to manning the workshop entrances, carrying auction items around, assisting the vendors, working the Auction, etc is greatly appreciated. Next year, when you pass a student working the conference, thank them for their efforts!

No conference can be successful without the contributions of the vendors. The Exhibitors' Hall is the site of a thousand interesting conversations and many people leave the conference with a brain full of contemplative thoughts about exciting new technologies, tools and markets. The vendors host refreshments and food throughout the conference and stand patiently waiting to introduce us to software and hardware that can make our jobs easier and more profitable. This year there were several examples of remote controlled devices, both aerial and aquatic that will one day be commonplace, just as our keynote speaker, Frank Willis predicts.

If you missed the conference and are reading this to see what went on this year, I hope you will attend next year's conference, because it will be worth it both for the educational opportunities provided and for the feeling of fellowship that comes with spending a couple days with your peers and colleagues. Have a great 2015 and see you next year!

(

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David Paul Johnson in Action



Mike Hart on Public Lands

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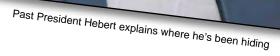


Marty Crook at work











Who says silent auctions are boring?

AWARDS



NALS 2014 Surveyor of the Year Award

The NALS Surveyor of the Year Award for 2014 goes to Immediate Past-President, Glen Armstrong. Glen capped off a very active run through the chairs by focusing on getting NALS' finances in order, improving the organization of the committees and increasing the order of our quarterly board meetings. NALS runs better than ever thanks to his efforts.

Always an integral part of our Legislative efforts, Glen has repeatedly made himself available over the years to testify before the legislature, attend committee meetings, review legislation and reach out to subject matter experts when needed. And finally, Glen played an important role in finding our new legislative consultant, Neena Laxalt.

Please join us in thanking Glen for his efforts over the years and give him a warm congratulations when you see him!



NALS 2014 Sustaining Member of the Year Award

Thanks to Monsen Engineering our Sustaining Member of the Year for all they do, all year long!



NALS 2014 Meritorious Service Award

NALS 2014 Meritorious Service Award accepted on behalf of Alan Riekki by Rany Mrowcki

The NALS Meritorious Service Award goes to Las Vegas City Surveyor, Alan Riekki. Alan's willingness to step up and serve when the times demand it is precisely what merits an award like the Meritorious Service Award.

During the recent period of time between the loss and then resurgence of Nevada's 4-Year Surveying Degree program, Alan dedicated a large amount of his time working hard with Great Basin College, UNLV and NALS to help maintain the Land Surveying degree program in Nevada.

As many of you in the room are aware, starting up an education program is an arduous task. Alan saw that there was an opportunity to improve the program and ran with it. When Alan wasn't researching successful curriculums and innovative methods of higher education, he was meeting with faculty and administrators to glean their knowledge and methods of how best to help get a process started. Alan's ability to collaborate and motivate helped maintain a momentum and positive environment that kept the process moving forward.

Nevada has been able to maintain her degree program. And now we are looking toward establishing that program throughout the state. This is in a large part thanks to Alan's hard work.

Thank vou Alan Riekki



NALS 2014 Nevada Traverse Article of the Year Award

Congratulations Dan Church for the Article of the Year!

AWARDS continued...

A Tribute to the Editor

by Paul S. Pace, PLS

Mark Twain once remarked, "How often we recall, with regret, that Napoleon once shot at a magazine editor and missed him and killed the publisher. But we remember with charity that his intentions were good."

A thankless, even dangerous, job then is magazine editing, surely now as in Twain's day. And yet there is no other person who can weave all the diverse elements of a professional journal together. There is no one who can maintain the continuity, the quality and the very voice of the publication. The editor is the backbone of any periodical.



Generally denied meaningful recognition, the editors labor on with the knowledge that it is somehow important. It's a wonder that people take the job. Still, without a competent editor, any publication would wither. The *Nevada Traverse* is no exception. Over the years the journal's editors have continually worked to elevate the quality and content of the publication. Every NALS member owes them all a debt of gratitude for keeping us informed, educated and entertained, as an association.

Since its inception in 1974, the *Traverse* has had a total of 9 editors. The latest, Carl C.de Baca, PLS, took on the job in January of this year. For the previous 24 years, Terry McHenry, PLS held the job, far and away longer than any of his predecessors. Terry led the magazine into the digital age, introduced color printing, routinely added content from other professional journals and regularly contributed articles and commentaries that he wrote, in addition to his column, The Editor's Corner. Despite that, Terry worked in the background, willing to let the journal speak for itself.

Beyond editing the *Traverse*, Terry was active in representing Nevada's surveyors in the State's legislature. Tracking legislation that could impact the profession, he also testified before the Commerce and Labor Committees in Carson City. He encouraged us as a membership to contribute to the content, informed us when one of our members passed and brought



our attention to causes worthy of our time and money. With a comprehensive knowledge of surveying, a command of the English language, superb organizational skills and ethics, Terry is a model for all of us.

Wrapping up a 50 year career in surveying, both in the private and the public sectors, and including his last years as editor, Terry has passed on the baton. We wish him well in his retirement.

Blaise Pascal is credited with once ending a letter with the observation: "I have written you a long letter because I did not have time to write a short one." Pascal was on target: good writing and editing takes time and effort. For his work on our behalf, NALS salutes Terry McHenry's 24 years as the editor of the *Nevada Traverse* by giving him a well-deserved 2014 Distinguished Service Award!



NALS Historic Committee Search

The Historic Committee is searching for pictures and narratives on past presidents and prominent contributive members. The presidents are known, but a list of contributive members needs to be developed. This year we hope to collect an overview of recollections, contributions and photos for both categories for future use. Respondents need not worry that two or more reply; information and photos received will be compiled by the committee.

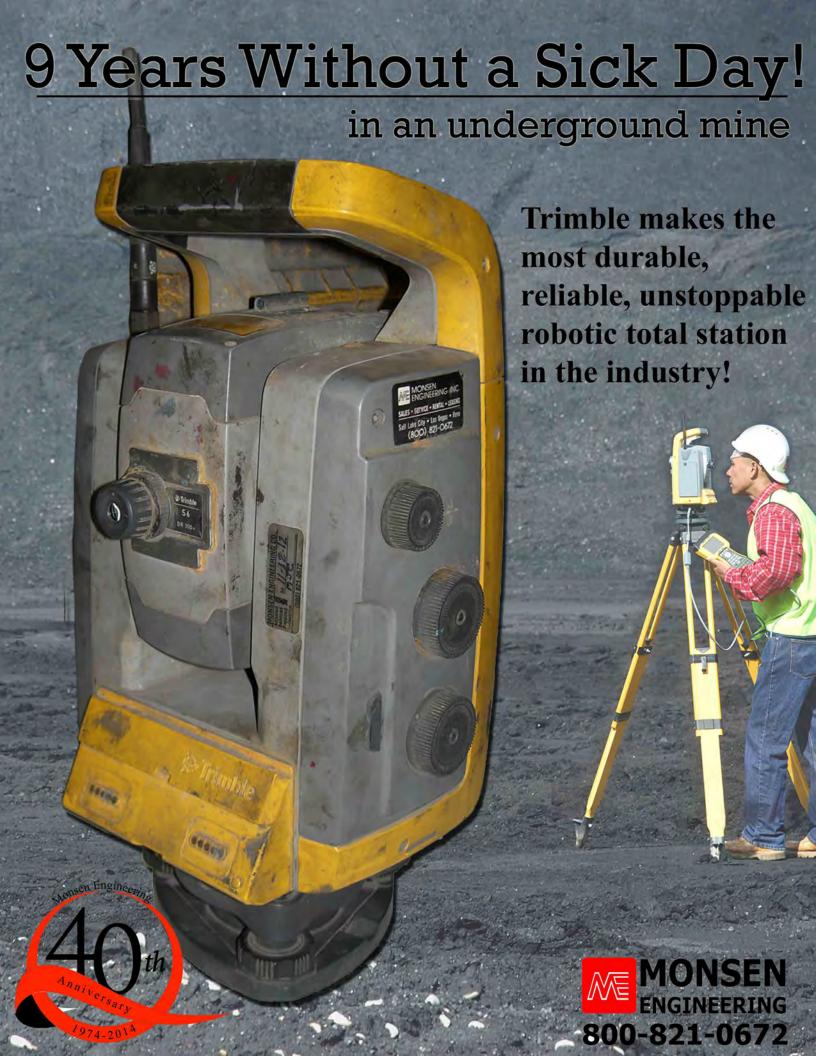


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The Nevada Association of Land Surveyors (NALS) was incorporated and chartered on November 2, 1973. As an Association of Professional Land Surveyors, our purpose is to promote the common good and welfare of our members in their activities in the profession of Land Surveying; to promote and maintain the highest possible standards of professional ethics and practice; to promote professional uniformity and to promote public awareness and trust in Professional Land Surveyors and their work.

Today, NALS membership is 200 strong and is comprised of Professional Land Surveyors, Land Surveying Interns, Associate Members, Corresponding Members, Sustaining Members and Student Members. There are 3 active chapters within the State of Nevada: The Great Basin Chapter in Elko, the Lahontan Chapter in the Reno/Sparks/Carson City area and the Southern Nevada Chapter in the Las Vegas/Henderson area.

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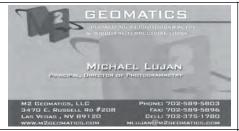


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Chat With Jon Warren President of NSPS

by Carl C.de Baca, PLS



Jon has recently taken the position of city surveyor for the City of Bellevue, Washington. He has worked in both the public and private sectors and has been involved in

NSPS, serving as a governor, area director and committee chair before moving into the officers group. He has been instrumental in helping NSPS make the organizational transformation that it has gone through over the last five years.

I sat down briefly with Jon at our conference in Reno. At that time he was president-elect of the organization but by the time you read this he will have ascended to the top spot in the national group. Jon has visited 5 state conferences already and is delivering a uniform message to each of us that NSPS is a modern organization with an important role to play in the future of our profession.

After all the recent reorganization efforts, NSPS is stable and moving toward new goals. An intentional focus on the government affairs committee and the effectiveness of our new government affairs consultant, John Palatiello and Associates, is paying dividends.

47 of the 50 states are on board as 100% members. The three not currently in the fold are Arkansas, West Virginia and California. Each has a different reason for not joining but the hope is that AR and WV will join up in the near future. NSPS continues to negotiate with CA.

NSPS just wrapped up the first on-line balloting for officers. This has been in the works for a long time and it's great to finally see it come to fruition.

The national organization is looking for new ways to promote TrigStar and there was discussion of that in Arlington.

We've had over 100,000 hits on the archived programs from the radio show indicating that this is an effective public relations tool.

NSPS is planning on hiring a media consultant for a series of projects including an introductory video to NSPS.

Jon is traveling to London this summer to attend an international geospatial conference. He says he would like to model future national conferences after this event.

Speaking of national conferences, NSPS held a joint conference with MAPPS, a geospatial organization made up of private mapping and photogrammetry firms in mid-April in Arlington, Virginia. The intent of this conference was to draw out federal agency individuals to both speak at and attend the event, thereby forging closer ties these people. Jon made it very clear that NSPS does not want any national conference to be perceived as competing with state-based events. The purpose of this conference and future events, as well as the target audience is distinct from states' events.

Perhaps we can catch up with Jon later in the year for a full-length interview $\hfill \oplus$

NALS/CLSA Joint Conference

by Caleb Micheli, GBC Land Surveying Geomatics Student

This past March I had the privilege of working the NALS/CLSA joint conference as the only student from Nevada. At first I was nervous, I knew very few people who would be attending and I was rooming with two students from California who I had never met before (they could have been murderers for all I knew). Within a few hours of arriving though, all the fears I had were put to rest. My roommates weren't the killing type and everyone was more than excited to talk to me about themselves and how great the profession of Land Surveying is.

It was an amazing thing to sit down for lunch with people such as Jon Warren, the NSPS president-elect, or to spend time with the students from California and Oregon at the Blackjack tables watching what little money we had change hands in the blink of an eye. The actual working part of the conference was great as well. Seeing how much hard work and time is put into the conference by so many different people really helps one appreciate it so much more. While working the sessions I was able to sit in and listen to the very knowledgeable speakers who I learned a great deal from. Of course the work wasn't just a learning experience, it was also fun. The most fun work was the Scholarship auction. All of the students worked the scholarship auction and we were all humbled by the generosity of the group of people in the room. Successful bidders for the auction items helped raise over \$25,000 for the two state scholarship funds and there is no way for me to say how grateful I am for everyone who participated.

There was also the silent auction at which I myself spent some money. There were lots of great items on the tables but the one that caught my eye was a pair of tickets to a San Francisco Giants game in September. I put a bid down for them with ten minutes left in the auction. I was confident someone would come and outbid me which was fine, every little dollar helps. At the end of the ten minutes though I was the last one on the sheet and I had to come up with 80 bucks. The best part though is the night before I had won 50 bucks at the Blackjack tables and for working the conference each student was given a per diem to help them be able to attend the conference. With both of these combined it was like I was paid to take the tickets. Winning them and not paying a dime was a great way to end an already amazing conference.

There were long nights and early mornings but I wouldn't trade the experience for the world. I would like to say thanks to Dorothy and Crissy for putting on an amazing conference and for being so wonderful to work with. Another special thanks goes to the NALS Great Basin Chapter for sponsoring me. They are the main reason I was able to travel to Reno and attend the conference. One more thanks belongs to all the unnamed surveyors who showed me nothing but kindness and gave me such great advice. Everything I experienced really helped solidify my decision of becoming a Surveyor. I can't wait to see you all next year!

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Program Statement

The Land Surveying and Geomatics program is committed to addressing the diverse and constantly changing needs of students throughout Nevada and in other locales who are preparing for a geomatics career by improving teaching methods, techniques, and content for delivering high quality educational experiences and achieving student success.

- 2 year AS Degree in Land Surveying and Geomatics
- 4 year BAS Degree in Land Surveying and Geomatics
- Quality of Instruction: 100% pass rate on the NCEES Fundamentals of Surveying Examination
- Competitive Wages: average graduate mean salary \$50,000 - \$75,000
- Affordable: average graduate student loan debt 0\$ - \$5,000
- Accessible: program offers 100% of the courses online and through mentoring programs.
- 2015 LSG graduate survey ranked the quality of this program as "excellent"



Great Basin College

Land Surveying/Geomatics Program Great Basin College 1500 College Parkway, HTC 130 Elko, Nevada (USA) 89801 Phone: (775) 753-2344 www.gbcnv.edu



GBC Annouces New Land Surveying and Geomatics Associate Degree

by Professor Byron Calkins

Great Basin College's Land Surveying and Geomatics (LSG) program was recently approved (by the GBC Faculty Senate Curriculum and Articulation committee) to offer a new Land Surveying and Geomatics Associate of Science degree beginning fall 2015.

The online Land Surveying and Geomatics (LSG) Associate of Science degree program is designed to transition traditional and non-traditional learners, who have limited post-secondary education, directly into a professional degree-seeking program of study. The Associate of Science in Land Surveying and Geomatics will implement the National Society of Professional Surveyors (NSPS) Certified Survey Technician (CST) certification series into the curriculum, which will help prepare the student for entry-level positions in surveying/mapping, civil engineering, resource management, and mining; as well as diverse technical opportunities within federal, state, and local government agencies. In addition to gaining technical employment, the program is also intended to provide a seamless pathway into

the Bachelor of Applied Science's (BAS) Land Surveying and Geomatics program. Ideally, the proposed Associate of Science Land Surveying and Geomatics degree, along with the BAS in LSG, will create a dual program that can accommodate the different needs of state licensure boards, survey firms, licensed land surveyors, working survey technicians, and traditional students.

The BAS Land Surveying and Geomatics program has seen positive enrollment numbers for the 2015 spring semester. Currently 31 students are registered in the BAS-LSG program. Of the 31 students enrolled, 11 students reside in Nevada. Projected enrollment for fall 2015 is 36 students, which matches our eight-year average enrollment figures. Great Basin College will be awarding the Bachelor of Applied Science degree in Land Surveying and Geomatics to seven outstanding students at this year's spring convocation.

On April 3, 2015 the LSG program review took place at GBC. The review committee was comprised of members from Great Basin College, New Mexico State University, and private industry. This mandated comprehensive program review was executed in order to retain our accreditation. The purpose of the program review is "to assure academic quality, and to determine if need, student demand, and available resources support their continuation." (Nevada System of Higher Education Title 4, Chapter 14, Section 4). Overall, the review went extremely well and we are waiting for the final report from our external review member. I would like to thank the NALS Great Basin Chapter for funding part of the expenses incurred by the review process.





NALS Board of Directors Meeting

Sunday, March 22rd, 2015

Members Present: Trent Keenan , Carl C.de Baca, Jerry Juarez, Kevin German, Halana Salazar, Nancy Almanzan, Steve Deveny, Doug Wood, Alan Dill

Call to Order: 10:12 am by Trent Keenan

Review and approve the agenda

Motion 15-6: Halana moved to approve agenda,

Second by Alan Dill.

Motion carried unanimously

Officer's Reports

1.01 President Trent Keenan

No written report.

11.02 President-Elect Carl C.de Baca

No written report.

Cover GBC & UNLV. Carl put together a meeting together.

11.03 Secretary Jerry Juarez

No written report – January 2015 minutes previously submitted and reviewed

Trent will put a link in the Traverse for committee reports. No treasurer data.

11.04 Treasurer Alan Dill

Data and written report attached.

Standing committee reports:

13.1 Constitution and Bylaws Trent Keenan No written report.

13.2 Membership Secretary and Chapter Presidents Carl handed out membership data. Need to contact resident members

That have not renewed. Analysis needs to be completed year to year.

Wallet cards to be distributed.

13.3 Continuing Education Chapter Presidents

Written Report submitted (So. Nev).

FEMA flood certificate workshops occurred in Carson City and Elko in December.

13.4 Advanced Education Carl C.de Baca

Written report submitted.

GBC and UNLV have agreed to meet probably in Elko. Patent Roffle

GBC has approved an associate's degree in Surveying. Very positive for the

4-year program.

13.5 Scholarships Kevin German

Written report submitted. Norman Scott Weese has an application. Seeking \$2,290.27.

Recommended 50%.

Motion 15-7: Motion made by Carl CdeBaca to award 100%. Seconded by Halana.

Motion carried unanimously. NALS to award Norman Scott Weese \$2,290.27.

13.6 Legislative Brett Lane

Written report submitted.

13.7 Publications – The Nevada Traverse Carl C.de Baca No written report.

First Traverse since Terry was positive. More content needed.

Extra copies were

Printed for distribution at the conference.

13.8 Conference Nancy Almanzan

Nevada turnout good. 104 at time of board meeting. Numbers are up from previous conferences.

No joint conference with CLSA for 2016. Arizona has interest in joining NALS for 2016. Visited several

places with Arizona conference chair. Waiting on proposals.

Utah was discussed.

13.9 Ethics Halana Salazar

No written report.

13.10 Communications Trent Keenan

No written report.

13.11 High School Outreach Jerry Juarez

13.11.1 Trig Star Jerry Juarez

Written report submitted.

13.11.2 Career Fairs Carl CdeBaca, Dan Church, &

Sean Corkill

Written report submitted (So. Nev)

13.12 Advanced Technology

No written report.

13.13 Nominations

Chapter Presidents

Tabled until 4th quarter

Special Committee Reports:

14.1 Great Basin Chapter Norm Rockwell

No written report

14.2 Lahontan Chapter Halana Salazar

Written report submitted

14.3 Southern Nevada Chapter Steve Deveny

Written report submitted

14.4 Western Federation of Professional Surveyors

Nancy Almanzan

No written report.

14.5 NSPS Paul Burn

No written report.

14.10 NSPS Foundation Carl C.de Baca

Written report submitted.

Motion 15-8: Motion by Carl to put proceeds from 2015 NALS Scholarship auction funds directly into the NSPS equipment fund. Second by Steve.

Motion carried unanimously.

Unfinished Business

No discussion.

New Busines

No discussion.

The date and location of the next board meeting to be determined.

Motion 15-9: Motion to adjourn made by Jerry, Second by Carl.

Motion carried unanimously.

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Great Basin Chapter Report

by Carl C.de Baca, PLS

<u>January Meeting:</u> January 12, 2015 at the Gold Dust West Casino; Elko, NV

5 members present.

- Student team from Great Basin College contemplating national student competition.
- At least one outside funding source for student competition expenses has been identified.
- An idea for a raffle to raise funds for the team was discussed.
- Supreme Court case 13-534 (North Carolina Board of Dental Examiners v FTC) was discussed.

<u>February Meeting:</u> February 9, 2015 at the Gold Dust West Casino; Elko, NV

7 members present.

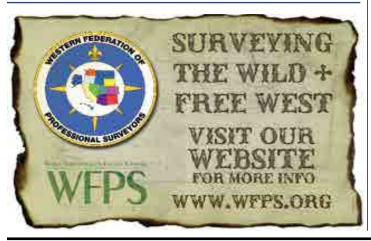
- Chapter voted to affirm sponsoring a student at this year's conference in Reno.
- The chapter sent thank you cards to those who put on the FEMA workshop in December.
- The chapter voted to establish on-line banking.
- The chapter voted to donate \$25 to the Elko County School District Science Fair for cash awards.

March Meeting: March 9, 2015 at the Gold Dust West Casino, Elko, NV.

7 members and guests present.

- Great Basin Chapter student member Caleb Micheli will attend the upcoming conference as a student helper.
- Shane Gardner the Carlson Regional Sales Director has agreed to speak at the May meeting and make a PDH presentation.
- Great Basin College will be having its ten-year Land Surveying Program Review on April 3, 2015.





Southern Nevada Chapter Report

by Steve L. Deveny PLS, President

Monthly Meetings

<u>January 22, 2015</u>: Steve L. Deveny, PLS presented a program titled "Federal Government Project Money Moving West" offering members 1.5 professional development hours.

<u>February 19, 2015</u>: Brett Lane, PLS presented a program titled "Ethics Continued" offering members 1.5 professional development hours.

March: No meeting due to the CLSA/NALS Conference.

Presentations

March 4. 2015: The Southern Nevada Chapter of the Nevada Association of Land Surveyors, The Nevada Division of Water Resources, and The US Department of Homeland Security, Federal Emergency Management Agency Present a free 4-hour continuing education seminar titled "The FEMA Elevation Certificate". Instructors were Sarah Owen, FEMA Region IX and Rob Palmer, CFM, State Flood State Floodplain Manager, Nevada Division of Water Resources. There were 49 attendees.

High School Outreach

 $\underline{\text{March 11, 2015}}$: Jeff and Ryan M. presented at the East Career and Technical Academy Career Fair.

March 16, 2015: Email received from David E. James, Director, Solar and Renewable Energy Programs, Associate Professor Department of Civil and Environmental Engineering and Construction, UNLV, as follows:

Last Wednesday I met with Jennie Johnson and her team to plan STEM activities for their Summer 2015 upward bound class session that runs from mid June to mid July.

I have been given Wednesdays for STEM activities.

There are about 70-80 Upward bound students, ranging in age from 15 through 18, who participate in the program.

They are very interested in hands-on applications of mathematics, and I immediately thought of both Trig Star (maybe a modified version that would include some field measurement) and X-marks the spot (pacing out boundaries with compasses) as possibilities that could be done by NALS in partnership with the UNLV Upward Bound math teacher (Madelyn McKittrick, who teaches math at Northwest Career and Technical Academy).

Would NALS be interested in partnering with UNLV Civil engineering and the Nevada Society of Professional Engineers in supporting this effort? It's a great opportunity to put your discipline front and center into the minds of a whole bunch of well motivated students, at the right time in their academic careers.

We could use some of the UNLV equipment you helped me identify, and do the field part first thing in the morning (they have breakfast in the dining commons at 7am, so could go out right after that, and then move indoors to work up the data or do the classroom/theory parts.

CONTINUED ON PAGE 29 ▶

Lahontan Chapter Report

Prepared by Halana Salazar

PAST ACTIVITY

- o Membership meetings
 - February 11th Siena Hotel & Casino
 - Eric Schmidt Douglas County GIS Coordinator gave a presentation on how they are putting together their GIS system for multiple counties. This was very well received with about 25 in attendance.

PLANNED ACTIVITY

- Membership Meetings
 - o March No meeting due to NALS Conference
 - April 8th at the Siena Hotel and Casino. Jim Dorsey will be speaking on the Nevada/ California state line.
- Continuing Education
 - o The LH chapter will be putting together two seminars this year. One in early June and one in November or December. We are hoping to cover legal descriptions & describing monuments, boundary and possibly an ALTA class.
- Membership
 - We are still trying to increase membership.

 This will be a focus for this year and will be discussed at the April BoD meeting.
- ❖ Summer Picnic & Potluck
 - We have booked Bowers Mansion in Washoe Valley for June 26th.
- Golf Tournament
 - Jason Caster and Kevin German are tournament co-chairman. They plan on booking it early so they have their pick of venue and date.
- * High School Outreach
 - o Jason Caster and Dan Church will be attending Galena High's career day on April $23^{\rm rd}$.

Legislative Report

by Brett N. Lane, PLS/WRS Committee Chair

As anticipated, since March 23 (the last day for new Bills to be introduced on the floor from the house of origin) the legislative action in Carson City has been frenetic. NALS is monitoring something over 20 Bills currently, together with several Senate Joint Resolutions. For the Record, in addition to "Pre-Filed" Bills, there were 486 Assembly Bills and 509 Senate Bills introduced this session, all of which were perused by Neena Laxalt and me. Details on this laborious activity will be forth coming in my "Post Legislative Session" wrap-up, which will appear in the next issue of the Traverse.

Suffice it to say that I have had some excellent assistance from Neena Laxalt, our Lobbyist for this, the 78th Session of the Nevada Legislature. I would also like to acknowledge the PLS members who have provided superlative input on some really comprehensive pieces of legislation affecting Water Rights; Common Interest Communities; Professional Licensing Boards; Prevailing Wages; The State Contractor's Board; Public Works Contracts; Fees for Public Records; The State Business Portal; Development Agreements; School District Project Contracts; and myriad issues related to Nevada's Sage Brush Rebellion, to name only a few.

I would like to personally thank the following individuals who responded in writing and or, attended workshops and testified before committees, when I asked them for input: Michael Buschleman, PLS; Glen Armstrong, PLS; Carl Cdebaca, PLS; Paul Burn, PLS and Halana Salazar, PLS. Others chimed in when the subjects were broached in conversations that were initiated for that purpose and you know who you are.

After repeatedly inviting input from the NALS State Board and the 3 Chapters I find it more than a bit disconcerting that I have received so little support, when so much is going on across so many topics that may affect us upon passage.

That being said, I remind you all that it is nothing short of imperative that more of you take an interest when the Law Makers convene in Carson City. As our newest Editor of this Professional Journal has reminded me in a quote from New York attorney Gideon Tucker in 1866:

"No man's life, liberty, or property is safe while the legislature is in session."

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Legal Alert



LEGAL ALERT

File This Under 'Threat to the Profession'

On February 25, the Supreme Court affirmed in a 6-3 decision written by Justice Kennedy, with Justices Alito, Scalia and Thomas dissenting, a ruling by the Fourth Circuit Court of Appeals that The North Carolina Board of Dental Examiners violated the Sherman Antitrust Act when trying to prevent non-dentists from offering certain services (teeth whitening) to the public. More fundamentally, it calls into question whether any board made up of practitioners may be able to regulate a profession without a fundamental conflict of interest. Board makeups may have to change to reduce practitioners to a minority of membership to survive. And boards may be irrevocably weakened by this decision.

FOLLOWING ARE SOME EXCERPTS FROM THE DECISION See Parker, supra at 351("[A] state does not give immunity to those who violate the Sherman Act by authorizing them to violate it, or by declaring that their action is lawful") ... State agencies are not simply by their governmental character sovereign actors for purposes of state-action immunity.

By statute, North Carolina delegates control over the practice of dentistry to the Board. The Act, however, says nothing about teeth whitening, a practice that did not exist when it was passed. After receiving complaints from other dentists about the nondentists' cheaper services, the Board's dentist members—some of whom offered whitening services—acted to expel the dentists' competitors from

the market. In so doing the Board relied upon cease-and desist letters threatening criminal liability, rather than any of the powers at its disposal that would invoke oversight by a politically accountable official.

The Sherman Act protects competition while also respecting federalism. It does not authorize the States to abandon markets to the unsupervised control of active market participants, whether trade associations or hybrid agencies. If a State wants to rely on active market participants as regulators, it must provide active supervision ...

The upshot is that board members may be liable for damages in federal antitrust lawsuits. That will certainly make you and me think hard before accepting an appointment to the Board of Professional Engineers and Land Surveyors. It also makes it likely that to counter the possible perception that a board could act in its members' financial self-interest, the states will forced to alter the makeup of future boards to reduce the participation of practicing professionals. That will have an impact in any board's ability to understand and regulate the finer points of a profession they are charged with overseeing.

But what this really means, in my acutely layman understanding of the ruling, is that the door is now, or soon will be opened to non-licensed individuals (think contractors... or better yet - think about all those folks with drones getting ready to fly) offering services typically available only through licensed surveyors and engineers. When a board doing its state-authorized duty then attempts to regulate this practice, the issue will go straight to court where, even if the FTC doesn't get involved, the precedent is now set at the highest level - regulation of a profession takes a back seat to free trade. Perhaps this is the direst interpretation of the ruling but the NCEES Amicus brief filed last summer clearly spelled out the potential threats such a decision would pose.

FOLLOWING ARE EXCERPTS FROM NCEES AMICUS BRIEF FILED IN THE SUMMER OF 2014

NCEES is concerned that the position adopted by the FTC and Fourth Circuit in this case, if affirmed, will subject its member licensing boards to second-guessing by federal antitrust regulators, impeding the boards' ability to effectively carry out their state-appointed task of regulating the engineering and surveying professions and protecting the general public. By denying immunity to state licensing boards that employ market participants unless they show active supervision by other parts of state governments, the decision directly interferes with the sovereign right of the States and their agencies to order their own affairs. And by exposing board members to the risk of federal antitrust lawsuits for doing their jobs, the decision will make it harder to recruit and retain board members willing to make the difficult decisions that are sometimes necessary to regulate their professions.

Not everyone on the high court saw things in the way that the majority did. As mentioned above, conservative stalwarts Justice Alito, Justice Scalia and Justice Thomas apparently shared NCEES' perspective. Justice Alito took the lead in dissent offering a cogent and thorough refutation of the majority opinion. Justice Alito's dissent is well-reasoned and logical, (though without positive effect for us). You can almost feel his frustration at his peers' resistance to common sense.

FOLLOWING ARE EXCERPTS FROM JUSTICE ALITO'S DISSENTING OPINION

Not only is the Court's decision inconsistent with the underlying theory of Parker; it will create practical problems and is likely to have far-reaching effects on the States' regulation of professions ... It is reasonable for States to decide that the individuals best able to regulate technical professions are practitioners with expertise in those very professions... As a result of today's decision, States may find it necessary to change the composition of medical, dental, and other boards, but it is not clear what sort of changes are needed to satisfy the test that the Court now adopts.

I can only imagine how difficult regulation of our own profession

CONTINUED ON NEXT PAGE ▶

Legal Alert... continued from previous page

will become if our board makeup is forced to reduce professionals to a minority of members. Will a non-surveyor regulator understand why certain things should only be done by licensed professionals? Who knows? It might take a while for us to feel the impact of this ruling but we certainly will feel it eventually. Each event like this tightens the noose on our future. First you weaken the boards and take away their institutional memory and detailed knowledge of the professions they regulate, then you bypass them entirely. End of regulation could mean end of profession.

I guess all we can do now is prognosticate the likely future outcome of the decision and use this as a prime example of missed opportunity (not that we could do anything about it other than make people aware some time ago) and make it an object lesson for our brethren in this "see something say something" era we live in. We all need to pay attention for possible threats to our livelihood and disseminate the details aggressively because our national government affairs committee and consultant cannot be expected to catch them all.

With subsequent discussion, I have come to realize that some people just can't see the threat to the profession. They can't move past the facts of the original case the ruling addressed. Teeth whitening — so what? They don't see that the facts of that case are now irrelevant and the only thing that matters is what the decision actually says and the grey area that it creates around its own horizon, like any other Supreme Court ruling. It's like those paintings of trees and rocks where the shape of an animal is cleverly hidden in the image. Some people can see it and some can't, and never do.



Southern Nevada Chapter Report... continued from page 26

You could take as much time on a Wednesday as needed; there's no artificial 40 minute or 80 minute class bell limitation. There might be room for 2 days, if needed.

Could you please let me know if you'd be interested? We'd need to start meeting with the Upwrd Bound staff to plan the curriculum (learning objectives, skills/knowledge to be developed, and learning activities to foster them).

My next meeting with them is Wednesday March 25.

Thank you! -Dave James

March 20, 2015: Sean presented at the Arbor View High School Career Fair.

No other Career Fairs have been scheduled for spring 2015.

A meeting will be held (sometime) during the CLSA-NALS Conference to coordinate efforts for High School Outreach programs happening over summer at UNLV.

Trig-Star

We have the 2015 test in our possession and the Trig-Star invites have been submitted. So far, two school has committed, West Career and Technical Academy & East Career and Technical Academy on Friday, May 1. More will be coming in. They always commit late in the season.

There has been a change in the math curriculum at the high school level in Clark County School District. What was once Algebra II / Trig is now Geometry / Trig.





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Remote Sensibilities



To Catch a Fish by Jason E. Caster, PLS

"Spring is nature's way of saying "Let's Party"!" ~ Robin Williams



As a lifelong baseball fanatic, I'm sheepish to admit that the first time I'd ever been to Spring Training was last year, 2014. I grew up a huge Los Angeles-California-Anaheim Angels fan (no, that disgusting amalgam of a moniker being currently used by the team will not be referenced here). And thus, as a matter of heredity (or sadism), I have passed that fandom on to my family. In 2009, the Baseball Gods smiled on my team when a High School kid from Jersey named Michael Nelson Trout fell all the way

to the 25^{th} pick in the June amateur draft, and into the arms of the Angels (sounds like a country song!). Fast forward to 2012, and the kid was tearing up the American League on his way to being unanimously picked as the League's Rookie of the Year.

MV-Tree

That summer, my sweet little daughter Kendall decided that Mike was her guy. Kendall was already an avid baseball fan by then (she had no choice), but when she got a glance at the Angels new wunderkind, she swooned. Trout just kept getting better in 2013, and in 2014 he won his first American League MVP award, helping the Angels to advance to the playoffs for the first time since 2009 (never mind what happened next). As his baseball stock was rising, his 'Q-Rating' was skyrocketing. Madison Avenue has been eager to embrace the handsome, humble Centerfielder, clearly a product of a good family, and a throwback to the good ol' days of baseball (cue John Fogerty). The inevitable comparisons to Mickey Mantle came easily, and now Trout is universally recognized as the new face of baseball, the perfect successor to the recently retired Derek Jeter.

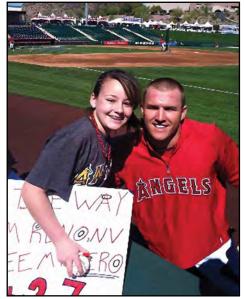
I am a regular reader (and infrequent contributor) to a website called Angelswin.com, a most excellent site devoted to all things Angels. It's my go-to source for Angels news and fan sniveling, as informative as it is entertaining (particularly when the Angels stink). As I was planning our first ever family Spring Training trip, I booked the dates to coincide with the annual Angelswin.com Fan Fest, a 3 day Trekkie-level Angels geek festival, complete with a hosted dinner attended by team players and front office staff on Saturday night, and a 'dugout chat' with the team President on

Sunday morning at Tempe Diablo Stadium, the Angels' Spring Training home. Clearly an exercise in self-indulgence, I disguised it to my wife Tracy as "an excellent opportunity for Kendall to get to meet Mike!", and I filled my poor daughter's head with thoughts of her and her hero sipping Pina Coladas (virgin, of course) poolside all weekend in between ballgames. Tracy was more apt to play it loose that weekend, not wanting to have an 'agenda' so to speak, but I was insistent, and surprisingly got my way. I had purchased a poster board and some magic markers at a local Dollar Store on Friday morning, and instructed Kendall to make a sign that illustrated her love for Mr. Trout, thereby increasing the likelihood that she be noticed by her hero. We attended the Angels games on Friday and Saturday afternoon, Kendall resplendent in Trout Hat (see Christmas tree), and dragging her poster around to various points in the ballpark (Dad likes to seize the opportunity to frequently upgrade seats, much to Mom's horror), but couldn't lure Trout's leer (sorry) on either day. We then attended the dinner on Saturday night, which provided some good photo ops with a few minor league players and media guys, and featured a delightfully eclectic menu of chicken choices (either Marsala or Fingers) for the bargain price of \$45/plate, Kendall once again with poster in tow. Alas, Mike Trout did not attend the dinner, and I started to realize that hanging out with the likes of me and 100+ other middle aged Fan boys was clearly beneath his station. Tracy was underwhelmed at this point, and I was anticipating the "I told you so" at any moment....I needed to rally.

Sunday morning was my last chance. Those of us who attended the dinner the night before (and had the related ticket stub to prove it), were permitted to attend the Dugout Chat with Angels President Tim Mead, an affable 60-something with a long history with the Angels (Tim started in the mail room in 1980, good story). The best part about this was that the chat started at 9 am, a full

hour before the general public was allowed in the stadium, and after the 30 minute Q&A with Mr. Mead, we had 30 minutes of Angels batting practice all to our lonesome (all 60 of us). Tracy was on Angels overload at this point, and eschewed the Sunday activities in favor of some shopping in Phoenix, so Kendall and I went alone. In what I can only describe as a paternal 'walk-off 3 run jack', Kendall caught the Big Fish's attention as he was stretching down by the Right Field foul line, where we had all gathered like lemmings as soon as the players started to appear from the clubhouse tunnel to begin batting practice. One by one, a few players and coaches strolled close to the railing, pausing to scribble their signatures on souvenir baseballs and take quick photos with their fans. Angels hitting coach and former MVP Don Baylor came by and signed Kendall's ball while I gushed, awkwardly asking him

a question about a game he won with an 11th inning home run off of the left field foul pole in 1979 (think Chris Farley interviewing Paul McCartney: Me: "Hey Don....'member when you hit that home run against the Yankees in July of 1979?" Don Baylor: "Yes." Me: "That was AWESOME!!".....crickets. I was just about to go fetch a paper bag to breathe into when I heard Kendall say DAD! DAD! Here he comes!! As he leaned against the railing close to Kendall, Mike Trout says "alright, real quick, I gotta go hit". Kendall leans in, they embrace, and I snapped off 3 photos with my phone. I quickly opened



To Catch A Fish... continued from previous page

the photo album to show Kendall, and breathed a sigh of relief as all 3 photos were clear, focused, and perfect. I frantically called Tracy and told her that my work as a father is done here, you can close up the patient! At the very least, I bought myself a year of 'cool equity' with my kid, as the facilitator of the magic moment. As the months wore on last year though, all Kendall could talk about was how could she top it next year.....oh boy.

Mission Accomplished-2014



Fast forward to last month, March 2015. For our 2nd trip to Arizona, I had planned with some friends to meet in Phoenix, rent a house for 5 days, and overdose on baseball. Kendall thought that the entire reason we were going this time was another chance for a 'grip and grin' with the Golden Boy again, and Dad would spare no expense and trouble to make that happen! Well, she was right. I had discussed going to several different ballparks

during the 5 days with the rest of the group, trying to spice it up a bit from last year's very Angel-centric trip, and everyone was on board....except Kendall. Oh no, she is all Halo, all the time. I do believe that she is aware that there are 29 other teams, but in her (actually guite advanced) little 13 year old brain, what's the point of watching baseball if there's no Magic Mike playing? Luckily, our weekend this time also coincided with the angelswin.com annual Fan Fest again, so I knew that I would have a better than average chance of getting close to The Messiah one more time. I was almost feeling cocky about being a back-to-back "Coolest Dad of the Year" nominee. We attended the dinner again, again no Mike. We went to 2 games at the Angels' ballpark, Kendall flying through the turnstiles each time to stake her claim of firstcome-first-served 'seats' in the lawn in dead center field, trying to get as close as possible to Wonder Boy each time, but no photo op emerged (although I did get to exchange some witty banter with one-time Angels substitute centerfielder Will Ferrell, trying out several 'Anchorman' quotes on him until "Milk was a bad choice!" got a chuckle and a finger point from Mr. Burgundy). A scheduling snafu by Yours Truly, and we missed the Sunday batting practice...our best (and probably last) chance to get the prize....a stupid picture! The Sunday game was an away game for the Angels at Camelback Ranch, the beautiful new Spring Training home of the Los Angeles Dodgers and Chicago White Sox (The Angels ballpark is a dump in comparison).

As a father of a daughter. I've often said that I have a lot of growing up to do before she gets to the dating age. I don't envy the poor pimply faced boy that shows up at my door for the first time, all nervous and voice crackling, because I'm pretty certain that the whole 'meeting her Dad' thing is going to really really suck for him. This all stems from the typically very strong bond between fathers and daughters, and the protective instinct that comes immediately upon the smacking of the buttocks by the obstetrician, and never ever goes away. Thus, I was feeling pretty low when Mike casually strolled by without stopping on his way to warm up for the Sunday game. I had once again made the Dollar Store poster material run, and Kendall had made a clever little sign that we were sure would grab the attention of the King Fish (like something sparkly and reeking of rotten cheese would).

Sunday's sign...Hail Mary time!



Alas, I had blown it. Seeing the tears welling in her little eyes, I contemplated stripping down and streaking out to centerfield, all pasty white and beer-gutted....I was desperate...I had to do something! Knowing that in Spring Training, the starting players typically only play 5 innings or so before they hit the links, we sat and waited until the top of the 6th, I figured we might have one more chance. As soon as the 3rd out was recorded in the bottom of the 5th, I told Kendall "Let's Go!" and we hustled down to the left field corner area, near

where the departing players would be headed to the clubhouse. My heart sank as I saw Mike walking about 50' off the foul line, looking like he was avoiding the throngs of 8-9 year olds with Sharpies and cheap Naugahyde souvenir baseballs in hand. Just as he was about to head down the tunnel and destroy my paternal credibility forever, Kendall held up her sign and velled MIKE!!!!!! Miraculously, he stopped, turned towards her, and wrapped his arm around her shoulder....and I got it. Actually, I got about 37 of them, but I had to be sure! Disaster averted, mission accomplished.

Mission Accomplished-2015

So now, the plan is to get one of these every year until Kendall's 22nd birthday. Optimally, the last in the series will be Mike on bended knee with something sparkly in his hand. As I mentioned before, I rue the day that I hear of her first date, and I've already developed a pretty strong Louis CK-style hatred for whomever that poor dude might be. Conversely, I could seriously get on board with being Mike Trout's Father-in-law! Michael, in the oft chance that you read a surveying quarterly from Nevada, I'd like to say thank you for saving my butt, and I think you're a great kid. And I promise that I will behave at the wedding... I was totally joking about the streaking thing....or was I?







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