

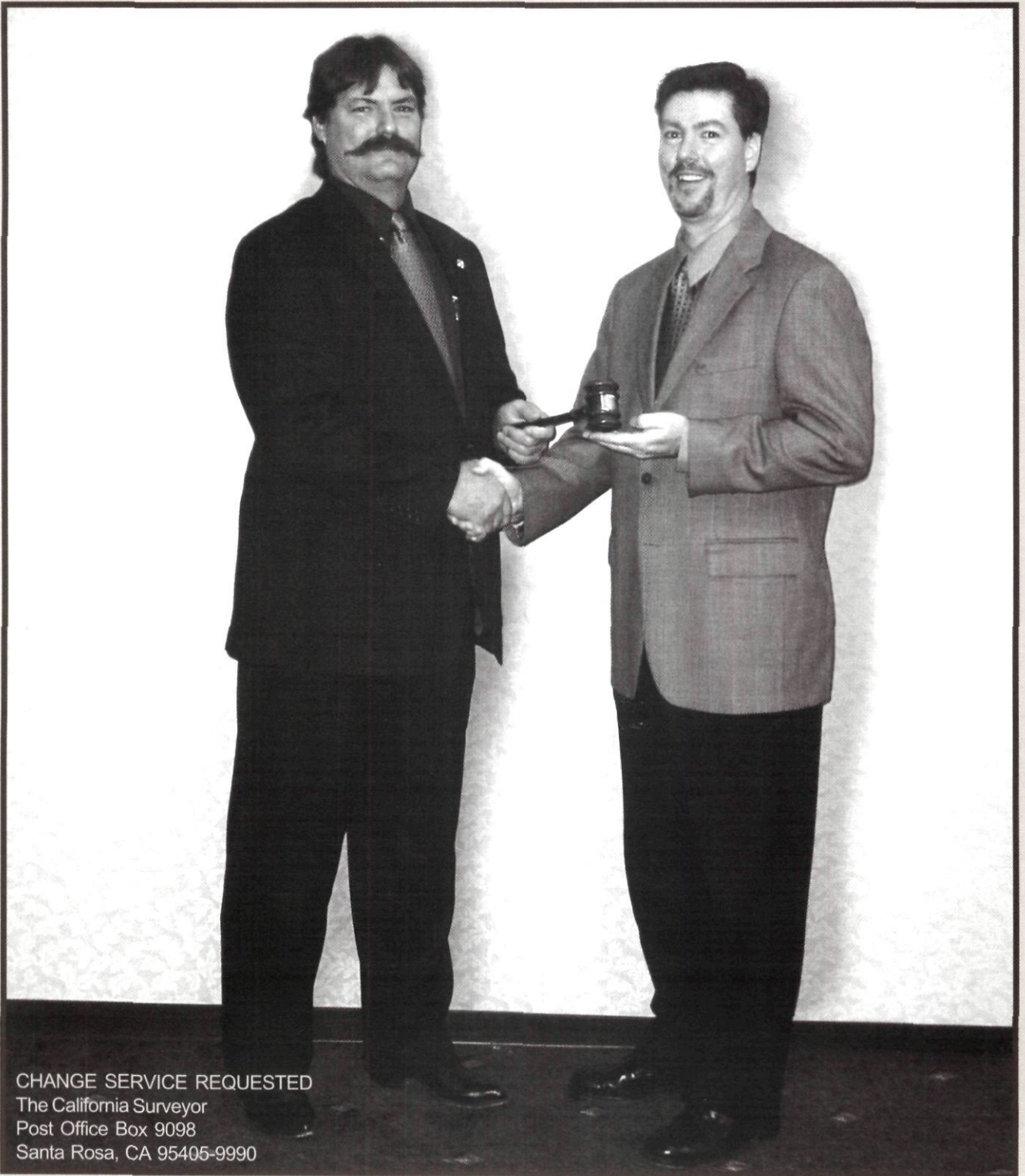
The Voice of the Land Surveyors of California

# SURVEYOR

*California*

Institutional Affiliate of American Congress on Surveying and Mapping

Spring 2002 Issue #134



CHANGE SERVICE REQUESTED

The California Surveyor  
Post Office Box 9098  
Santa Rosa, CA 95405-9990





# Surveyors Service Company

ISO 9001  
CERTIFIED

Sales • Service • Rentals • Training

## Now Open in San Diego!



For over 70 years, **SERVCO** has been known for quality products and dependable service. This tradition continues with our newest office in **SAN DIEGO!** Stop by today to see the largest, most complete selection of surveying equipment available.

*Come see Bob Elliott the newest employee at SERVCO*

- GPS/GIS SYSTEMS
- TOTAL STATIONS
- THEODOLITES
- TRANSITS
- SYSTEM SOFTWARE
- MACHINE CONTROL
- CONSTRUCTION LASERS
- BUILDER'S LEVELS
- FIELD SUPPLIES
- MEASURING TAPES
- WOOD STAKES & LATH
- USED EQUIPMENT
- INSTRUMENT REPAIR
- JOB-SITE DELIVERY
- TECHNICAL SUPPORT



**8170 Ronson Road,  
Suites # C & D  
San Diego, CA 92111  
tele: 800-282-4454  
fax: 858-278-8845**

[www.servco1.com](http://www.servco1.com)

Authorized  
**Leica**  
Geosystems  
Dealer

**Open 8 am - 5 pm  
Monday thru Friday**





**Authorized  
Sales and Service**

**GPS**

- Survey Grade Total Stations
- Mapping Grade Receivers
- Recreational Grade Receivers
- Reference Stations

**Robotic Total Stations**

**Optical Total Stations**

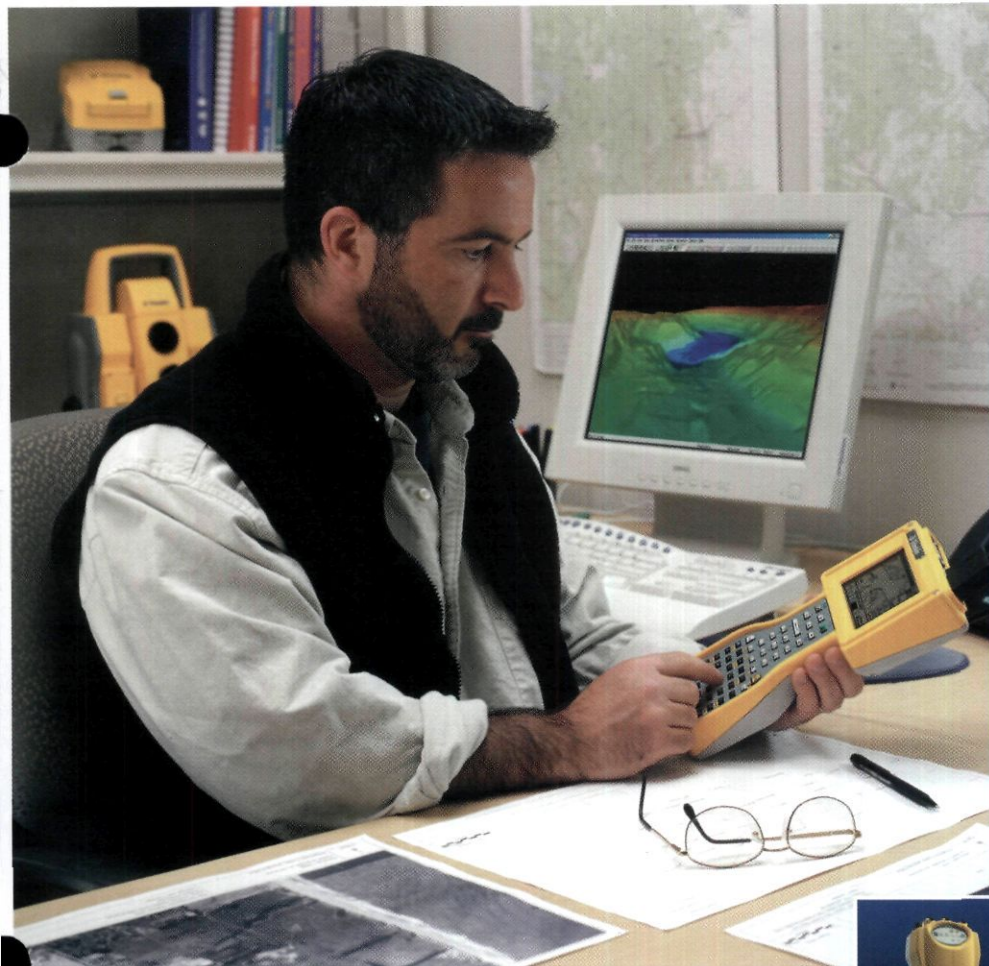
**Data Collectors**

**Field Computers**

**Software**

**Trimble Certified Training**

**Trimble Certified Repair**



# Everything today's surveyor needs. All in one place.

New design and construction methods require new kinds of positioning, delivered in a staggering variety of formats. GeoLine Positioning Systems is your authorized single source for a totally compatible toolset of the latest surveying technology to streamline your entire workflow.

We are working to grow with you. GeoLine has recently added new stores, more staff and expanded our repair facilities to give you the power to handle any challenges that come your way.



The Leaders in GPS and Optical Surveying,  
GIS and Mapping Technologies

**GeoLine Bellevue  
Corporate Headquarters**

1555 132<sup>nd</sup> Avenue North East  
Bellevue, WA 98005-2265  
800.523.6408  
[www.geoline.com](http://www.geoline.com)

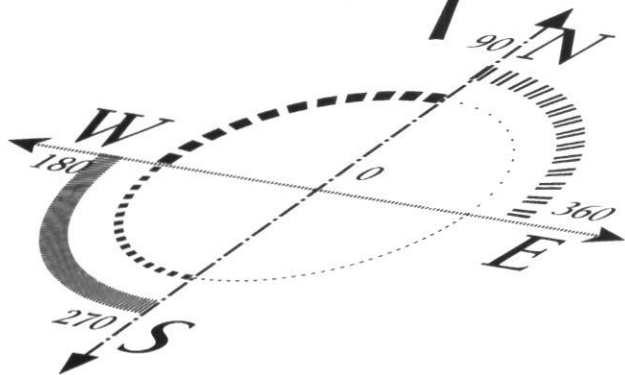
**Sales Offices in:**

San Francisco, CA  
415.345.9970

Los Angeles, CA  
818.760.4326

Reno, NV  
775.359.3357

# Don't Lose Your Way



## SURVEY MARKERS

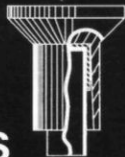
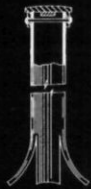
MONUMENTS

REBAR CAPS

PIPE CAPS

BENCH MARKS

& ACCESSORIES



FOR CATALOG CALL  
(520) 882-7363 or 1-800-323-4578  
OR WRITE:



**SURVEY MARKERS & MONUMENTS**

A Division of Desert Engineering Group, Inc.  
3162 E. 46th Street, Tucson, Arizona, 85713

## CLSA Officers 2002

Marc R. Van Zuuk, P.L.S. • President  
Raymond L. Mathe, P.L.S. • President-Elect  
Dean J. Palumbo, P.L.S. • Secretary  
Robert C. Hart, P.L.S. • Treasurer  
Patrick J. Tami, P.L.S. • Immed. Past President  
Dorothy C. Calegari • Executive Director

## Board of Directors Chapter Representatives

### Bakersfield

Kevin Morris, P.L.S.

### Central Coast

Randy Ellison, P.L.S. • Linda M. Richardson, P.L.S.  
S. Randy Woodjack, P.L.S.

### Central Valley

Mike Turnrose, P.L.S.

### Channel Islands

James T. Pilarski, P.L.S. • Joseph P. Tennyson, P.L.S.

### Desert Chapter

Harrison P. Barton, P.L.S.

### East Bay

Harold B. Davis, P.L.S. • Alan R. Duback, P.L.S.  
Leslie H. Freligh, P.L.S.

### Gold Country

Anthony J. Spillane, P.L.S. • Keith M. Waters, P.L.S.

### Humboldt

Barry L. Kolstad, P.L.S.

### Lake/Mendocino

Donald H. McMath, P.L.S.

### Los Angeles

Steven Gehrke, P.L.S. • Dan May, P.L.S.

### Marin

David P. Harp, P.L.S.

### Monterey Bay

Bruce D. Barton, P.L.S. • Lynn A. Kovach, P.L.S.  
Michael K. Welch, P.L.S.

### Mother Lode

Russell "Frank" Walter, P.L.S.

### Northern Counties

James M. Herrick, P.L.S.

### Orange County

Richard Maher, P.L.S. • William R. Ralls, P.L.S.  
Cecilia Whitaker, P.L.S. • David Woolley, P.L.S.

### Riverside/San Bernardino

Brian H. Hess, P.L.S. • Joseph R. Willard, P.L.S.

### Sacramento

Carl C. deBaca, P.L.S. • Jerold L. Peterson, P.L.S.

### San Diego

Michael Butcher, P.L.S. • Lonie K. Cyr, P.L.S.  
Scott Hurst, P.L.S. • Jacob F. Roth, P.L.S.  
David P. Viera, P.L.S.

### San Joaquin Valley

Ted J. Kerber, P.L.S.

### Santa Clara/San Mateo

Paul W. Lamoreaux Jr., P.L.S. • Keith L. Nofield, P.L.S.

### Sonoma County

Michael E. Ford, P.L.S. • Gordon P. Meininger, P.L.S.



# Surveyor *California*

is the quarterly publication of the California Land Surveyors Association, Inc. and is published as a service to the land surveying profession of California. It is mailed to all Licensed Land Surveyors in the State of California as well as to all members of California Land Surveyors Association, Inc. The California Surveyor is an open forum for all Surveyors, with an editorial policy predicated on the preamble to the Articles of Incorporation of the California Land Surveyors Association, Inc. and its stated aims and objectives, which read:

"Recognizing that the true merit of a profession is determined by the value of its services to society, the California Land Surveyors Association does hereby dedicate itself to the promotion and protection of the profession of land surveying as a social and economic influence vital to the welfare of society, community, and state."

"The purpose of this organization is 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 practices, to promote professional uniformity, to promote public faith and dependence in the Land Surveyors and their work."

## PERSONNEL

### OWNER

California Land Surveyors Association, Inc.

### CENTRAL OFFICE

P.O. Box 9098, Santa Rosa, CA 95405-9990  
E-Mail address: [clsa@ca-surveyors.org](mailto:clsa@ca-surveyors.org)  
CLSA Homepage: [www.ca-surveyors.org](http://www.ca-surveyors.org)

### EDITOR

Phillip A. Danskin, P.L.S.

### ASSISTANT EDITOR

Dave Ryan, P.L.S.

## ADVERTISING

Commercial advertising is accepted by The California Surveyor. Advertising rates and information can be obtained by contacting CLSA Central Office, P.O. Box 9098, Santa Rosa, CA 95405, (707) 578-6016, Fax (707) 578-4406. Circulation: 4,800.

## EDITORIAL MATERIAL

All articles reports, letters, and contributions are accepted and will be considered for publication regardless of the author's affiliation with the California Land Surveyors Association, Inc. Contributions submitted on floppy diskette medium are encouraged. For compatibility, disks should be 5.25 or 3.5 inch, MSDOS (IBM compatible) format. We can accept ASCII text files or word processor files from the following programs: WordPerfect or Microsoft Word.

## EDITOR'S ADDRESS

Phillip A. Danskin, P.L.S.  
Phil Danskin & Associates  
P.O. Box 1796, Sonoma, CA 95476-1796  
E-Mail address: [geometre@vom.com](mailto:geometre@vom.com)

## DEADLINE DATES

Spring .....	January 10	Summer .....	April 10
Fall .....	July 10	Winter .....	October 10

Articles, reports, letters, etc., received after the above mentioned date will be considered for the next edition.

*Opinions expressed by the editor or individual writers are not necessarily endorsed by the California Land Surveyors Association Officers or its Board of Directors. Original articles may be reprinted with due credit given to the source and written notification to the California Land Surveyors Association.*

# Inside This Issue

## Features

### Recent Legal Developments Concerning Encroachments

by: Douglas J. Dennington, Esq. .... 11

### The Surveyor's Image

by: Wray Childers, PLS ..... 14

### New Developments for Lot Line Adjustments

by: Lisa Weil, Esq. .... 16

### Ol' Timer's Night

by: Michael O'Hern, PLS & David Crivelli, PLS. .... 18

### Thomas Benton Catron

by: Franklin E. Wilson ..... 19

### Metrication

by: National Institute of Building Sciences ..... 28

## Department

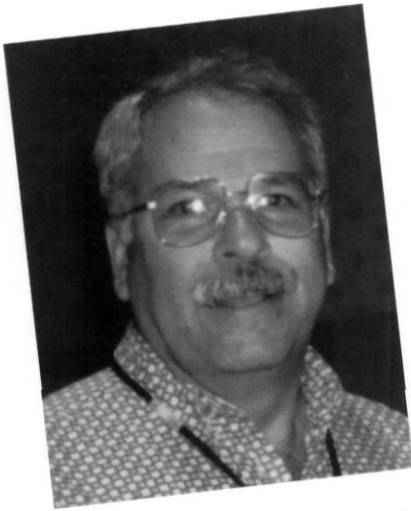
From the Editor .....	6
Letters to the Editor .....	8
President's Message .....	9
CLSA Publication Order Form .....	25
Index to Advertisers .....	26
Welcome New Members .....	27
CLSA Membership Application Form .....	29

## On The Cover

CLSA Immediate Past President Pat J. Tami (right), passing the gavel to 2002 President Marc R. Van Zuuk







# Here We Go Again!

**T**echnology. Isn't technology wonderful?! County Recorder's Offices are now beginning to employ scanning technologies - making documents instantaneously available. Clerks love this technology because of its ease in retrieval. What more could we want? *Legibility would be nice!*

## True Story Time . . .

Once upon a time there was a surveyor named Fastidious Fill. His friends called him 'Fats'. For many years, Fats called upon Alice Sweet at the Recorder's Office for map copies and deeds. Ms. Sweet was a wonderful lady who had worked at the Office of Records for so many years, that some folks thought her to be the "scrivener for Moses". She had the appearance of a happy-faced docent, but more accurately she was a dedicated public servant, in the true sense of the term. She knew where every paper, microfiche and map was - original or copies. If you had the need for a skeleton, in a matter of minutes Alice would have unearthed your request. Most importantly, she knew the importance of these records - not just to title companies, but to surveyors, engineers, attorneys, genealogist and historians. She 'understood' her job! *That was yesteryear!*

Recorder's Offices are not immune to 'bottom line' (mentality liken that of large corporations). Some Recorder's seem to have forgotten or are oblivious to their purpose - *Archiving!*

On a blistery cold day in December, Fastidious Fill was told by the City that his Certificates of Compliance were ready for recordation. "*That was fast,*" thought Fats. After only one year, five months and 27 days, (enough '*hoop jumping*' that Fats and his client are now Certified Circus Performers), they were ready to record! The city had requested that original deed copies be attached to the Certificates. Fats thought: "*Good idea, City!*" The finish line was in site. Fats had his Certificates of Compliance in hand and was as anxious to record 'em as a groom was to consummate his wedding night!

What a wonderful holiday present for his client, Fats thought - *recorded* Certificates of Compliance! No more circus acts. The holiday spirits were present along with a strong wafting

smell of Pinaceae. It was a merry time of year. With his client's COCs in hand, Fastidious Fill skipped to the Recorder's Office, whistling like one of the Seven Dwarfs. It was going to be a wonderful day, he thought! After a twenty minute wait in the 'Recordings' line . . . the clerk was ready to help Mr. Fill record the documents. She peered over the documents like an Nazi SS officer inspecting the fraudulent passport of a fleeing Jew. "Nein! Dis iz not ackzeptable" she screamed! "Raus! Out!" What?! "Why isn't it acceptable?" Fats asked. "Dis not ackzeptable," she repeated. "Not Readable!" She said inhaling on her cigarette holder - palm up! "But the city requested that a copy of the deed, obtained from *your* office, be attached," I explained.

She stormed off in goose-step to her supervisor! Ahh, Fats thought, if only Alice Sweet was here. She'd straighten this out!

"Nein!" she said, while turning her head negatively and in unison with her right palm flicking upward and outward, like shooing an obnoxious insect off her hand. "*Da Commandant say, not goot. Not legible. You must vretypen und vee vill put zee note on it that it has been vretyped. Das is goot! Next!*" She reiterated repeating the head and hand motion.

"But" . . .

"Auf widerschen. Next!"

Fats was dumbfounded. The documents attached to the Certificates of Compliance, came from the very office that will not accept them. How idiotic! Recorders do not record any instrument that is not completely legible, but if you demand a legible quality copy of an instrument - they more or less imply you can go (BLEEP!) yourself! Is this any way to run an Office charged with *archiving* crucial documents?!

## Legislation time? . . .

I think it might be apropos for some Government Code amendments. If these people are going to embrace this wonderful technology, do it with some *standards*. Clients have paid substantial dollars for copies of instruments as



though toner was needed or it was copied on invisible ink! And to the tune of two dollars a page! Maps that are so unreadable that trying to decipher some bearings and distances, are harder to do than driving to Mars for a Snickers bar on your lunch break. There should be a definable gray-scale standard regarding contrast. There should be minimum definable scanning and printing standards for maps and instruments. Anything less is 'cartoon quality' archiving! Worthless. We should ally our profession with other user-professions such as the title industry, legal, architectural and real estate professionals, in order to establish minimum digital standards for the offices of the Recorder! As for the vendors that sold recorders this technology - shame on them! There's that smell of fish again . . .

### Fishin' for a young 'un . . .

We have learned, or at least I have, of the benefits of Trigstar. Sharing our profession with young people has helped to shed light on what we do, not only to the students but also their instructors. Trigstar also gives practical application to students and the importance to their studies. Now to quote chef Emeril, "lets kick it up a notch" with coloring books from CLSA! Although they're aimed towards a younger crowd they contain some dandy survey trivia. So pick up an order and spread the word! Keep a stack of 'em in your field rig. If your client has small children, or you find a little surveyors shadow behind you, give 'em a coloring book. They'll soon learn *Surveying is cool!*



## Tri State Photogrammetry

Northwest Region Office  
1925 E. Prater Way  
Sparks, Nevada 89434  
(775) 358-9491  
Fax: (775) 358-3664

Southwest Region Office  
3471 W. Oquendo Rd., Ste. 102  
Las Vegas, Nevada 89118  
(702) 222-0986  
Fax: (702) 895-9652

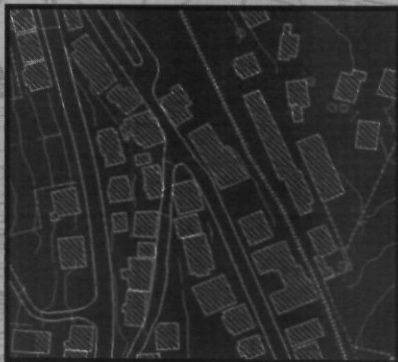


Topographic &  
Planimetric Mapping  
For Design Engineering

Digital Orthophotography  
& Cadastral Mapping

GPS/RTK  
Surveys

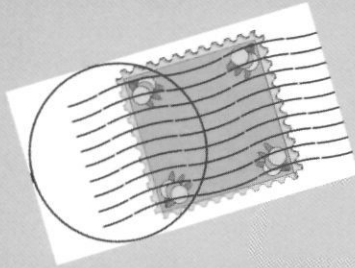
Image Matched  
DTM/DEM &  
Contouring



1-800-411-3752  
[www.TriStateLtd.com](http://www.TriStateLtd.com)



# Letters to the Editor



## ♦ Enjoy The California Surveyor

I can't remember when I last sent your organization a few dollars, probably two years ago. I don't practice surveying anymore, but I enjoy your magazine and think I should pony up a bit in order to continue receiving it.

I'm enclosing . . . and I hope to read many more issues!

Sincerely,

Hank Schwarz, (Ex LS 3123)  
Truckee, CA

*Hank, you made my day! Thank you for your generous gift to 'our' organization! It will be used wisely. - Editor*

# Book Review

## UP AND DOWN CALIFORNIA IN 1860-1864: The Journal of William H. Brewer

University of California Press ISBN 0-520-02762-0

Have I got a fun book for you! The wife was lookin' for a Christmas gift for yours truly and boy did she find a gem! Up and Down California are the journals of a Geological Surveyor, William H. Brewer from 1860-1864. It will conjure up memories of topographies for every person in every place in this great State! His descriptions are so skillfully written that you can almost smell the place. Simple events become meaningful relationships to the author. Brewer was a man of integrity, intelligence, fortitude and a bit of what we would now term 'red neck' - what a writer! If you want an interesting book on California survey history - you'll enjoy this one! - *Editor*

# Stay Informed

www.ca-surveyors.org  
www.ca-surveyors.org  
www.ca-surveyors.org

by visiting the CLSA website for

- **Future Events**
- **Classifieds**
- **Discussion**
- **Surveying Links....**

...and for Members Only

- **Selected Statutes**
- **AG Opinions**
- **Case Law**

To join CLSA,  
complete membership form  
in this magazine

# SURVEYING STAKES

Prices for Most Popular Sizes



**SAVE OVER  
50%!  
ON THE  
FINEST  
STEEL PIPE  
BOUNDARY  
STAKES**

**GALVANIZED  
PIPE  
AVAILABLE**

**CALL FOR QUOTES**



3/4" I.D. x 12"	.46c ea.
1" I.D. x 12"	.63c ea.
1 1/2" I.D. x 12"	.95c ea.
2" I.D. x 12"	1.20 ea.
3/4" I.D. x 18"	.60c ea.
1" I.D. x 18"	.83c ea.
1 1/2" I.D. x 18"	1.18 ea.
2" I.D. x 18"	1.63 ea.
3/4" I.D. x 24"	.74c ea.
1" I.D. x 24"	1.04 ea.
1 1/2" I.D. x 24"	1.62 ea.
2" I.D. x 24"	2.04 ea.
3/4" I.D. x 30"	.89c ea.
1" I.D. x 30"	1.24 ea.
1 1/2" I.D. x 30"	1.95 ea.
2" I.D. x 30"	2.47 ea.

### Immediate Delivery!

Please feel free to call for Prices on any size not listed above. We cut any size and length.

## INDUSTRIAL PIPE & STEEL CO.

9936 E. Rush St., So. El Monte, CA 91733  
(626)443-9467 (Nationwide) 800-423-4981

Fax (626)579-4602 • Mon-Fri:7:00-5:00, Sat:7:30-1:00



# President's Message



One month into the new year and our first quarterly board meeting is under the belt. The gavel has passed, new officers installed, the new chapter representatives are on board and the new slate of Committee chairs has been approved. Ladies and gentleman, we're off and running!

Many of last years Committee chairs have again volunteered generously of their time and efforts. The board approved slate also has some new names and faces. While our organization is up and running with all of our new officers, directors and committee chairs and members, we are running directly into some very important issues that are anything but new.

Most every Land Surveyor in this state is aware that the Honorable Gray Davis, governor of our great state, has still not made any appointments to the State Board for Professional Engineers and Land Surveyors (BPELS). We as Professional Land Surveyors have not had representation at BPELS for about two years now. This year the situation grows ever more crucial as 2 more BPELS members grace periods expire in June. That will leave a 13 member board which requires 7 members to have a quorum, with only 6 members.

Our governor's motive for allowing the Board to become unable to conduct business after June of this year is the subject of speculation having magnitudes of gold rush proportions. I've heard and read numerous well thought out possibilities but the truth remains guarded with Governor Davis and his staff. The only certain part of this situation is that it impacts every Professional Land Surveyor and Engineer in this state.

The Board is currently working on such issues as mandatory fingerprinting for license renewal, increased fees in combination with shorter renewal periods, Code of Conduct and implementation of the NCEES National Land Surveyors Examination in 2003. Will these and other issues become political footballs in the legislature should the Board cease to exist?

During this time of uncertainty, change, and transition at BPELS, we as a profession need to have an active presence at the upcoming Board meetings. We must stay well informed and speak loudly, with authority in a timely manner as a new Board, or what might replace it, takes shape. I believe our professional interests, and the interests of the public health, safety, and welfare are best served by having a seasoned veteran from the trenches acting as our representative.

The last person to represent the Land Surveying profession as a member of BPELS was George Shambeck. I am pleased, proud, and relieved that Mr. Shambeck has agreed to be CLSA's liaison to BPELS for this year. His knowledge of how the Board works, its purpose and its functionality are a vital asset. There simply is no better person to represent us during this important time frame.

I encourage every licensee of this state to write to Governor Davis, encouraging him to make appointments to BPELS prior to June. If you have already written, I thank you. Please write again. If you have not yet written, please do so now. Time is of the essence.

At the national level, the efforts of the NCEES Model Law Task Force are continuing. I have appointed an ad hoc committee to assist our NCEES liaison to monitor the proposed changes in the wording and to represent California's somewhat unique position. Every chapter is encouraged to discuss the Model Law and its revisions at your meetings. Your input is mandatory as we continue to formulate our State Association's position on the proposed changes. (Several members of CLSA also serve on the Examination for Professional Surveyors committee at NCEES)

Over the last several years, our GIS liaison Lee Hennes has invested tremendous amount of personal time and effort representing the Land Surveying profession at meetings with the leaders in the GIS industry. Much positive progress has been made in reshaping old concepts of what the Land

*Continued on page 10*

Surveying profession and GIS practice are, and where to draw distinction between them. Reed Bekins will pick up for Lee beginning this year to continue this process of clarification and definition, that may ultimately find its way into NCEES model law

GIS is only one face of cutting edge technology with a large potential for inappropriate use and applications. The power and versatility of modern high tech tools has lead many users to believe that the Land Surveyors Act does not apply to them. They are simply using the technology. After all, it is only Land Surveying when you create things by walking around looking through that camera thing with dirty boots on, right? Our profession may soon be confronted with a new face on this old issue.

Enter a not so new technology, Light Detection and Ranging, more commonly known as LiDAR. A powerful imaging tool in both airborne and terrestrial applications, this tool has the potential of creating the same "I'm-not-surveying-the tool-is" attitude that permeates the GIS community. Today a turn key terrestrial system with training and support costs about what an HP3820A electronic total station cost new, in late 70's dollars. With the current demand for fast, cheap data for input into GIS databases, you can be sure it will soon find widespread use and acceptance.

We as a Profession, must continue to remind users of this new technology, that Land Surveying is an activity, not a tool. Active participation in dialog that shapes the image of our profession to those outside of it, is essential. I encourage all members and non-members alike, to attend Chapter meetings in your area. Invite those who we work with in related professions to attend with us or perhaps speak on their area of expertise.

Dialogue between professionals breeds understanding. Understanding breeds acknowledgement and respect. With understanding, acknowledgement, and respect, our profession and the public will benefit. One of my relatives from the corn belt once told me, "everybody does better when everybody does better." He was speaking of farming but I believe it applies to us as well. The dirty boots still fit, and he is still right.

# **ALLEN** Instruments & Supplies **Spectra Pacific**

**PROVIDING THE HIGHEST QUALITY INSTRUMENTS, SERVICE, SUPPLIES, and TRAINING AT THE BEST PRICES!**



## **GPS 5700 Total Station System**

The GPS Total Station® 5700 optimizes every phase of the survey workflow, creating a total station that's a total solution. The Trimble GPS Total Station 5700 system is a truly integrated all-Trimble system, with GPS, radios, survey controller, and office software all custom developed by Trimble for a totally integrated workflow.

The 5600 Total Station series is a completely integrated surveying™ solution: complete with a range of control units or controllers that can be mounted on the super-light pole for fast, effective survey work. Combine with a suite of survey office software for all of your data processing, design, CAD and visualization needs.

## **5600 Total Station**



**2940 E. La Palma Avenue, Suite E, Anaheim, CA 92806**  
**800-215-2737**  
**714-238-3434 • FAX 714-238-3441**

**Authorized Trimble Service Provider**  
**Monthly Certified Trimble Training Classes**  
**Large Selection of Rental Equipment and Supplies**





## Recent Legal Developments Concerning Encroachments: Should They Stay or Should They Go?

Mr. Dennington is a partner in the law firm of Rutan & Tucker, LLP, Costa Mesa, California. He has an undergraduate degree in civil engineering. Mr. Dennington's practice centers on real estate and public works litigation, including boundary, encroachment and easement disputes, adverse possession and prescription, land-use issues, eminent domain and inverse condemnation. Mr. Dennington may be contacted by telephone (714) 641-3419, or by e-mail at [ddennington@rutan.com](mailto:ddennington@rutan.com)

### 1. Introduction

After hearing the bad news from his land surveyor, a property owner calls his attorney to inform him that a portion of his new \$75,000 swimming pool encroaches onto the neighbor's property. Exhausting every conceivable excuse for why he didn't hire the surveyor until after the swimming pool was built, he gathers his strength to ask his attorney, "do I have to move my swimming pool?" The attorney boldly responds, "maybe."

The attorney's equivocal response is not just a function of his normal cautious demeanor. Neither the Legislature nor the courts in California have given the attorney much in the way of a clear set of rules from which a predictable outcome can be assessed in any given encroachment dispute. The unpredictable nature of the legal framework applicable to encroachments was recently confirmed by the California Court of Appeal in *Hirshfield v. Schwartz* (2001) 91 Cal.App.4th 749. As discussed below, whether a property owner may compel his neighbor to remove an encroachment depends on the "intent" of the encroacher, the damage that might be suffered by the neighbor from the encroachment, and what hardship the encroacher might suffer if the court compelled the removal of the encroachment. These are factually-intensive issues which would have to be thoroughly analyzed before one could accurately predict the fate of a given encroachment.

### 2. The Facts and Holding of *Hirshfield v. Schwartz*

The decision of *Hirshfield v. Schwartz* involved two adjoining landowners (the Hirshfields and the Schwartzes) who, without knowing the exact location of their common

boundary line, constructed various improvements on each other's land. The Schwartzes, for example, built waterfalls, a koi pond, stone deck, putting green, and block wall which encroached onto portions of the Hirshfields' property. The Hirshfields, in turn, used a small portion of the Schwartzes' property for setback and landscaping.

In 1997, the Hirshfields filed a lawsuit against the Schwartzes for the purpose of recovering the portions of their property which the Schwartzes had been using over the years. The Hirshfields claimed they needed to reclaim the property in order to build a circular driveway and a greenhouse. The

*Continued on page 12*

# SURV-KAP

**The Landmark Name in Survey Products**



**Same Day Shipping Available!**  
**Factory Direct Prices!**  
**Small & Custom Orders Welcome!**  
**Individual Attention!**  
**Guaranteed Satisfaction!**

<ul style="list-style-type: none"><li>• Markers</li><li>• Caps</li><li>• Stakes</li><li>• Monuments</li><li>• Accessories</li></ul>	<div style="border: 1px solid black; padding: 5px; background-color: black; color: white;"><h2 style="margin: 0;">FREE</h2><p style="margin: 0; font-size: small;">CATALOG &amp; PRICE LIST</p></div>	<ul style="list-style-type: none"><li>• Aluminum</li><li>• Brass</li><li>• Stainless Steel</li><li>• CARSONITE</li><li>• PERMAMARK</li></ul>
---	---	--

**1-800-445-5320 FAX: 520-792-2030**  
P.O. Box 27367 / Tucson AZ 85726  
[www.surv-kap.com](http://www.surv-kap.com) / [survkap@mindspring.com](mailto:survkap@mindspring.com)

Schwartzes, in turn, filed a cross-complaint against the Hirshfields concerning the portion of their property which the Hirshfields had been using for landscaping and setback. (The Schwartzes later dismissed their lawsuit.)

After a full evidentiary trial, the trial judge ruled that the Hirshfields could not compel the Schwartzes to remove their improvements and that the Schwartzes had an "equitable easement" to maintain those improvements (at least until the time the Schwartzes decided to sell their home). The trial judge did, however, make the Schwartzes pay for the portion of the Hirshfields' property which the Schwartzes had been using for their encroachments.

The Hirshfields then appealed the trial judge's decision to the California Court of Appeal. The Court of Appeal held that the trial court employed the correct standard to determine whether the Hirshfields could force the Schwartzes to remove their encroaching improvements and that the trial court properly rejected the Hirshfields' request for an "injunction" that would compel the Schwartzes to remove the encroachments. The Court of Appeal also affirmed the trial court's ruling that the Schwartzes' had an "equitable easement" to keep their encroachment until the Schwartzes decided to sell their home. In affirming the trial court's decision, the Court of Appeal applied a three-prong test to determine whether the "hardships" balanced in favor of the Schwartzes or the Hirshfields.<sup>1</sup> The test, which would presumably be applied to any encroachment dispute, was described as follows:

"First, the defendant [i.e., the "encroacher"] must be innocent. That is, his encroachment must not be willful or negligent. The court should consider the parties' conduct to determine who is responsible for the dispute. Second, unless the rights of the public would be harmed, the court should grant the injunction [i.e., force the encroacher to remove the encroachment] if the plaintiff 'will suffer irreparable injury regardless of the injury to defendant.' Third, the hardship to the defendant from granting the injunction 'must be greatly disproportionate to the hardship caused plaintiff by the continuance of the encroachment and this fact must clearly appear in the evidence and must be proved by the defendant...'"

The Court of Appeal acknowledged that the equities balanced in favor of the Schwartzes given the substantial expense they would incur in removing the encroaching improvements (which included a block wall, several motors

for the waterfalls and swimming pool, and various electrical lines), as compared to the relatively insignificant burden the encroachments imposed on the Hirshfields.

### **3. The Fate of an Encroachment Will Turn on the "Balancing of the Equities" in Every Case**

Every encroachment suffers from a different set of circumstances under which it was created. In determining whether any given encroachment must be removed, a court will apply a "balancing test" in every case to compare the equities of and hardships to the different parties.

#### **(a) Is the Encroacher "Innocent?"**

The first question the court will have to decide is whether the encroacher was "innocent". A person who intentionally and without consent builds on the land of another would under no circumstances be deemed "innocent." That is, the courts of equity will not open their doors to intentional trespassers and award them a right in someone else's property even if the costs of removing the encroachment far exceed the burden placed on the neighbor by the encroachment.<sup>2</sup> If they did, a landowner who simply wanted to "take" another person's property could do so without consequence and would be given what would amount to be a private right of eminent domain.<sup>3</sup> Thus, if the encroachment was constructed intentionally and without the consent of the adjoining landowner, the court would likely go no further and could order the removal of the encroachment, without regard to the hardship the encroacher might suffer as a result of the removal.

The question of "innocence" will not always turn on the intent of the encroacher. An encroacher who does not intentionally build on the land of another, but who negligently does so, would not be "innocent" either. As the Court of Appeal explained in *Hirshfield*, the courts will look to the conduct of the parties "to determine who is responsible for the dispute" when deciding whether the encroacher is "innocent." This will require not just an assessment of the intent of the encroacher, but whether the encroacher used "reasonable care" when building his improvements.

#### **(b) What is the Burden Imposed on the Adjoining Landowner from the Encroachment?**

If the encroacher is deemed innocent, a court will next consider the hardship imposed on the adjoining landowner by the encroachment. If the encroachment imposes an "irreparable injury" on the adjoining landowner, a court may

1. This test was first approved by the California Supreme Court in *Christensen v. Tucker* (1952) 114 Cal.2d554.

2. This assumes that the intentional trespasser has not acquired rights through "adverse possession" or "prescription." Under certain circumstances and intentional trespasser may be awarded rights to property by simply possessing or using another's property under "claim or right" for a period of five years.

3. The author notes that the cost of litigating these factually intensive questions frequently exceed any value the resolution obtained in the litigation may provide and, should cooler heads prevail at the outset, the parties might do well to avoid these costs through some sort of compromise.



very well require its removal. In making this assessment, the court is not supposed to consider the hardship which would be placed on the encroacher from the removal of the encroachment. In other words, the court should consider the harm imposed on the adjoining landowner from the encroachment in isolation; if the harm is "irreparable," the encroachment should be removed even if the removal would impose a great hardship on the encroacher. In the *Hirshfield* case, the Hirshfields were unable to point to any competent evidence which would demonstrate this type of irreparable injury. They had vague plans to build a greenhouse and circular driveway, but were not able to demonstrate that they needed those improvements or that those improvements could not be built around the encroachment.

***(c) Would the Hardship to the Encroacher from the Removal of the Encroachment be "Greatly Disproportionate" to the Burden Imposed on the Neighbor from the Encroachment?***


Finally, assuming the encroacher was "innocent" and the adjoining landowner would not suffer "irreparable injury" from the encroachment; the court will next assess whether the hardship to the encroacher from the removal of the encroachment would be greatly disproportionate to any injury suffered by the adjoining landowner. Although this prong of the test should only be considered after the encroacher passes the first two prongs, most courts dealing with encroachment issues (even the *Hirshfield* court) spend most of their time

attempting to figure out which party will be harmed the greatest. The questions invariably asked are, "what would the encroacher lose (in terms of actual relocation costs) if he were forced to remove the encroachment," and "how do those costs compare to the damages suffered by the adjoining landowner for the loss of use of the portion of the property the encroachment occupies?" In *Hirshfield*, the Court of Appeal agreed with the trial court that the costs of removal would be substantial, particularly in comparison to the weak showing by the Hirshfields of any concrete damage they would suffer by reason of the encroachment. The Court noted that the Hirshfields' plans for a new greenhouse and driveway "lacked weight." The trial court also mitigated any damage to the Hirshfields by requiring the Schwartzes to pay, based on a price per square foot, for the land actually occupied by the encroachment.

**4. Conclusion: Must the Encroachment Go?**

Getting back to the original conversation between the owner of the encroaching swimming pool and his attorney, the attorney had ample justification for not giving his client a straight "yes or no" answer. The answer to the question will turn on any number of circumstances, including the intent and reasonableness of his client when building the swimming pool, the client's belief (or lack of belief) as to the location of his property line, the hardships imposed on the neighboring property owner from the swimming pool, and a comparison of such hardships to the actual costs which the client would incur in relocating the swimming pool. Every case will turn on these factually intensive and differing circumstances.<sup>4</sup>



<p>AERIAL PHOTOGRAPHY</p> <p>DIGITAL MAPPING</p> <p>TOPOGRAPHIC &amp; PLANIMETRIC MAPPING</p> <p>DIGITAL ORTHOPHOTOS</p> <p>REMOTE SENSING</p> <p>GIS</p> <p>QA/QC</p>	 <p>HJW GEOSPATIAL, INC.</p> <p>800.383.2991</p> <p>www.hjw.com</p>
--	--

4. The author notes that the cost of litigating these factually intensive questions frequently exceed any value the resolution obtained in the litigation may provide and, should cooler heads prevail at the outset, the parties might do well to avoid these costs through some sort of compromise.

# The Surveyor's Image

Occasionally we surveyors lament about the public's perception of the surveying profession's image as being something less than we think it should be or want it to be. We say to ourselves, and others, things like "Why doesn't the public give us the respect we deserve?" "Why is it so hard to justify our fees in the eyes of some of our clients?" "Why don't some of our clients recognize the value of our services?"

Does the reader of this article feel the image of the surveying profession is adequate? If your answer is yes, then don't read on and head back to your island. If you think our image can be enhanced, read on.

Webster's New Riverside University Dictionary defines "Image" in part as: "the character projected by someone or something to the public: Reputation", "to symbolize or typify", "to picture mentally".

How can we enhance our image? There are many ways. Some are complicated and expensive to implement such as marketing and promotion strategies; others are relatively simple and inexpensive. This article will broach the latter. Let's ask ourselves some questions so we can gain a better understanding of some of the items that may affect our "image" through the public's eyes.

Do you and your staff dress appropriately? At the office? In the field? At public meetings? At client meetings? At the attorney's office? How do other professionals dress in similar situations? Do you stack up?

Do your field personnel dress appropriately? Do they look like they are going to a beach party or a jobsite where your client is paying \$100/hour? Are they the only workers on a construction site without hardhats? Are they the only workers on a construction site wearing tennis shoes? Do they work on public roads without safety vests, signs, cones or other appropriate safety equipment? Do they track chunks of mud into public buildings? Do they trespass? Are they courteous to the public? Do they have a good work ethic through the eyes of your clients?

What impressions do you leave with people who visit your office? Is it clean, organized and comfortable? Is your staff courteous, respectful and professional? Does your office environment project the image of a successful, modern, professional firm or that of a behind-the-times, disorganized service provider?

Are your vehicles and survey equipment clean, organized, and in good working condition? Bad muffler? Rusty chain? Is duct tape holding anything together? Are survey monuments and construction stakes plumb and legibly marked?

Are your plats and other deliverables professional looking? Do they meet the applicable minimum standards? Do they satisfy the project requirements?

Are they correct? Do you file numerous affidavits to correct simple mistakes in your work? Have you filed an affidavit to correct an affidavit to correct a simple mistake?

Are your letters, reports and other correspondence professional looking? Are they in the proper format? Do they have correct grammar, spelling and content? Do you keep your clients educated and informed on the project? Do you use the appropriate medium to communicate with your clients and the public? Do you make a phone call when a letter is more appropriate? Do you complete work under a verbal contract when a written contract is more appropriate? Do you expend the appropriate level of effort when estimating fees and submitting proposals or do you "wing it" too often, resulting in client dissatisfaction?

There are many more questions each one of us can ask ourselves to help identify "the simple" items that affect our image and to implement ways to enhance our image accordingly. It is up to each one of us to do our part for the good of the surveying profession.



## Lewis & Lewis

Ventura: 1600 Callens Rd. Ventura, CA 93003  
(805) 644-7405 FAX (805) 644-5780  
**Toll Free (800) 342-3607 or 235-3377**

San Diego: 540 S. Andreasen Dr. Suite A  
Escondido, CA 92029  
(760) 747-8823 FAX (760) 480-5778



### Quality Products - Service - Support

- Land Surveying Equipment
- GPS Systems
- Computer Products
- Accessories & Supplies

Sales - Rentals - Financing  
Service - Repairs

Call for Product Information & L&L Price Guide



Web Site: [www.lewis-lewis.net](http://www.lewis-lewis.net)  
Email: [sales@lewis-lewis.net](mailto:sales@lewis-lewis.net)





*Start off the season knowing you have the right equipment.*

*We have the right equipment and the right financing program! It doesn't get better than 0%!*



**YES!**  
**0.0% Interest**  
for  
**36 Months**

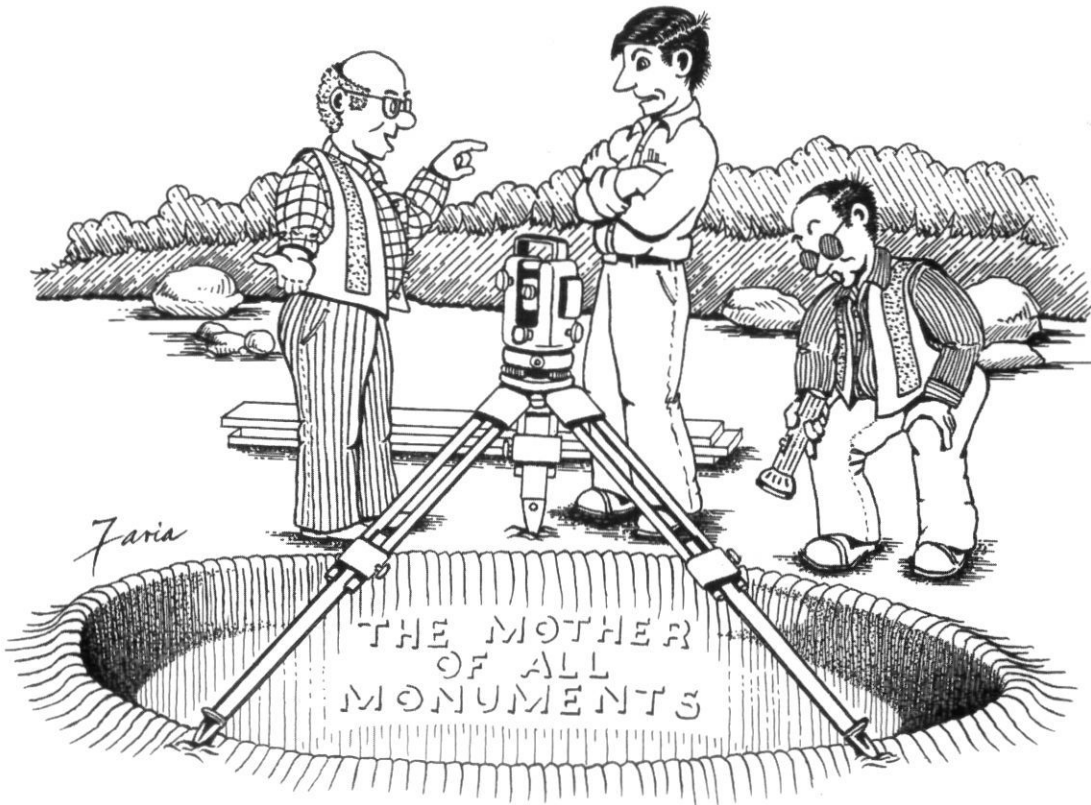
*Call today for your personal demonstration. We can show you exactly the right product to meet your needs for today and tomorrow.*

*Topcon Positioning, positioning you for the future.*

916-374-8575  
Fax 916-374-8329

**800-500-8575**

[www.topconca.com](http://www.topconca.com)



# New Developments for Lot Line Adjustments

Effective January 1, 2002, new rules relating to lot line adjustments went into effect. The most important change to the law affects the number of parcels that can be the subject of a lot line adjustment. Under the prior law, there was no restriction as to the number of lots that could be involved in a lot line adjustment. The legislature appeared not to have been concerned with the number of lots involved in a lot line adjustment, evidenced by its use of the phrase "two or more." See *San Dieguito Partnership v. City of San Diego*, 7 Cal. App. 4<sup>th</sup> 748, 757 (1992). Now, however, the lot line adjustment may only involve "four or fewer parcels." If the subdivider desires to adjust the boundaries of more than four parcels, he or she must now go through the mapping process and file a parcel map or tentative and final map, depending on the circumstances.

Another important change to the lot line adjustment rules is that the parcels must now be "adjoining." Prior law permitted the parcels to be "adjacent" which the court held to mean "near or close to," but not adjoining, touching or contiguous. See *San Dieguito*, 7 Cal. App. 4<sup>th</sup> at 757.

Finally, the parcels resulting from the lot line adjustment must conform not only to the zoning and building codes of the applicable city or county, but also to the general plan, and any coastal plan if the property is located in a coastal zone.

These new rules were a reaction to a request by the Hearst Corporation for certificates of compliance on the 80,000 acre Hearst Ranch in San Luis Obispo. The fear was that the Hearst Corporation would obtain certificates of compliance for multiple lots (the request was for 279) and then process a lot line adjustment. The Hearst Corporation was not interested in developing all lots, but rather intended to sell the lots to governmental agencies or land trusts for conservation purposes.

Bill analysis prepared for the legislature for SB497 noted that lot line adjustments were exceptions to the usual requirements for subdivision approval and effectively resubdivided property

without providing infrastructure or conforming to community land use plans, and also avoiding compliance with general plan, specific plan and California Environmental Quality Act (CEQA) requirements. However, this statement is incorrect with respect to the authorizations granted by the Map Act. Compliance with the Map Act only permits a subdivider to sell, lease or finance property. It is not a permit to develop or build. The subdivider must still comply with all local land use controls (including, general plan, zoning, and CEQA, if required) before the local agency issues any development permit. It was not necessary to amend the lot line adjustment rules to require a subdivider to comply with local land use regulations outside the scope of the Map Act, as this requirement already existed.

Several questions are left open by this new legislation. Does it apply to lot line adjustment applications that were submitted prior to December 31, 2001, but not approved? Does it apply to lot line adjustments that have been approved prior to December 31, 2001? Can a subdivider process successive lot line adjustments containing four or fewer parcels? In the author's opinion, the new rules apply to lot line adjustment applications that were submitted prior to December 31, 2001, but not to lot line adjustments that have been approved prior to December 31, 2001. In addition, it is likely that the courts will not permit successive lot line adjustments that are done for the sole purpose of evading the Map Act, as described in *Bright v. Board of Supervisors*, 66 Cal. App. 3d 191 (1977), where the subdivider attempted to evade the tentative and final map requirements by filing successive parcel maps and *Pratt v. Adams*, 229 Cal. App. 2d 602 (1964), where the subdivider attempted to use a partition action to subdivide one parcel into 38.

Lisa D. Weil is a senior associate in the Walnut Creek Office of McCutchen, Doyle, Brown & Enerson



Use all your  
senses to  
control all your  
sensors.



**TSCe AND SURVEY  
CONTROLLER SOFTWARE**

**Survey with ESP: Extra-Sensory Productivity.**

Introducing two of the newest tools in the Trimble Toolbox: The TSCe™ Controller, and our new Windows CE-based Trimble Survey Controller™ Software. Together, they form a powerful multi-tasking system that uses sight, sound, and touch to speed you through your workday.

The TSCe extends our popular Trimble Survey Controller software to an advanced new platform. To select a function or change displays just tap its sunlight-viewable touch screen. With Trimble Survey Controller software you can load your DTM into the controller as a Grid or TIN file. Then get cut and fill values in real-time by tapping on the screen. Background maps can also be loaded to give you a detailed site reference as you survey, and audible voice cues alert you to important messages as they arise.

Best of all, the TSCe seamlessly switches between Trimble's GPS and Total Station systems, including full support for robotic operation. It even works with instruments from other manufacturers. So get down to your Trimble dealer and see just how "sensible" a controller can be!



- **Sight**  
Survey in real time against a background map and see cut and fill values against your DTM.
- **Sound**  
Voice prompts alert you to important messages as they arise.
- **Touch**  
Select and review any point at a touch of the map-centric graphic display.
- **Brains**  
Windows CE operating system with true multi-tasking capability.

[WWW.TRIMBLE.COM](http://WWW.TRIMBLE.COM)

TRIMBLE ENGINEERING AND CONSTRUCTION DIVISION 1.800.538.7800 U.S. 937.233.8921 FAX: 937.233.9441

 **Trimble**

 **SPECTRA  
PRECISION**

Spectra Precision  
is now part of Trimble

# Ol' Timer's Night

On November 14, 2001, the Humboldt Chapter held a dinner meeting to honor Hugh E. Kelly, LS 2820. Approximately 75 surveyors, spouses, and friends attended the meeting at the historic Carson Mansion in Eureka.



This old photo comes from a book entitled, "An Oregon Boy in the Yukon, an Alaska Highway Story", by Willis Grafe. Pictured L-R, Hugh Kelly, Clyde Hill, M.W.(Bill) Ash, Tom Kirkwood, Billy W. Bassett.

Hugh's surveying career began early, at the side of his father Frank Kelly, LS 764. At the age of 17, Hugh traveled to Alaska to work on a crew surveying for the construction of the Alcan Highway. There he attained the position of chief of a topographic survey party at the age of 18.

After serving in combat in WWII in Europe, Hugh returned to California, attending UC Berkeley. After graduation he returned to Humboldt County and worked with his father in the County Surveyor's Office for a few years, then in private practice. Hugh was licensed in 1954.

Hugh believed in filing records of surveys well before it was standard practice. The results of a statistical analysis of the tract maps, parcel maps, records of surveys, and corner records filed in Humboldt County were presented at the meeting. The analysis was compiled by Michael Hollins, LS. The distinction of having the highest total number of tract maps, parcel maps, records of surveys, and corner records is held by Hugh. His total of 1,146 is 359 higher than the next most prolific surveyor. In fact, Hugh has signed over 9% of the total number of maps ever filed in Humboldt County. Not only has he filed the most maps, but the survey

work he performed was of the highest professional standard. Surveyors in this area would agree that retracing Hugh Kelly's work or performing adjacent surveys makes their work much easier.

Mike McGee, LS 3945, who began his career here in Humboldt County, was unable to attend the meeting but wrote in a letter read to the audience, "You are a man whom I have held in the highest esteem throughout my professional career. You have, throughout your life, led the profession in Humboldt County by example. Your tenacity for finding lost corners and your practical application of the rules of boundary control are exemplary. Your willingness to have an open mind in the exchange of information and the resolution of disagreements has set you apart. In my life, you are the epitome of a truly professional land surveyor." Mike's sentiments are shared by many.

Hugh entertained the audience with colorful stories of many of the surveyors he has worked with. Many members of the audience contributed equally colorful stories about Hugh. Some of Hugh Kelly's peers that attended were Don Bushnell, LS 2786; Thurman White, LS 2910; Al Nilson, LS 3150; and Ray Haberstock, LS 3431.

Hugh retired from his surveying firm in 1991. He remains active in consulting regarding surveying problems and is always willing to help surveyors understand the history of surveying in Humboldt County.



Pictured L-R Hugh Kelly and Michael O'Hern

A plaque was presented to Hugh Kelly by the Humboldt Chapter which reads: "In recognition of a lifetime of dedication to the profession of land surveying." Thank you Hugh Kelly.

Submitted by Michael O'Hern, PLS, of Kelly-O'Hern Associates, and David Crivelli, PLS, of Oscar Larson and Associates, Eureka CA, both members of the Humboldt Chapter of CLSA

Thanks Michael & David - what a colorful guy, not to mention the old photograph! - Ed

# Thomas Benton Catron

## Land Fraud In Territorial New Mexico

For 30 years at the end of the last century, New Mexico was the stage for one of the most infamous land fraud schemes ever to be perpetrated. At the center, one man acquired a land empire the size of Maryland.

Thomas B. Catron came to New Mexico in 1866, driving two wagons loaded with sacks of flour. He sold his goods for \$10,000 and over the next thirty years turned that profit into the largest landholding ever owned by one individual in the history of the United States.

His ability to accumulate so much property was enhanced by his association with people who would cooperate for their mutual benefit and by the land laws of the Federal Government that were open to abuse. By using his position as an attorney he was able to defraud poor natives, acquiring vast tracts of land.

**Thomas B. Catron came to New Mexico in 1866, driving two wagons loaded with sacks of flour. He sold his goods for \$10,000 and over the next thirty years turned that profit into the largest landholding ever owned by one individual in the history of the United States.**

The stage for massive land fraud was set by the Federal Government. Most of the arable land in the territory was claimed by Spanish and Mexican settlers who has already been in New Mexico for two hundred years. This land had to be adjudicated by the Court of Private Land Claims before the claims were considered valid. Until the claims were settled, an area of 35,000,000 acres, or half the territory, existed with uncertain title due to unscrupulous owners trying to stretch or enlarge their original claims.


Thomas Catron began working as a lawyer, representing persons who wished to perfect their land title. By taking advantage of their lack of knowledge of land values and their lack of understanding of legal procedures, he was able to steal their land.

His first conquest was the Mora Grant in northern New Mexico. The Grant was confirmed by the United States Congress in 1860 as a valid land grant. Catron and his associates began acquiring the undivided interest of the


original seventy six grantees. Several shares were purchased outright until Catron devised a plan whereby he would represent to the shareholder that if they sold their entire interest to Catron, he would then deed back the portion of the grant that they used as a home site.

His practice was unethical and probably illegal in that he would not return the portion he had agreed to. This usually went undetected for years because of the general respect that the shareholders had in authority. He only paid six dollars to three hundred dollars per each two thousand acre share when making an outright purchase from the original grantees. Combining fraud and outright purchases, he and his group came to own the entire several hundred thousand acre grant.

*Continued on page 20*



LAND SURVEYING  
MAPPING  
GLOBAL INFORMATION SYSTEMS



PLANNING ■  
DESIGN ■  
CONSTRUCTION ■

Offices located in

- Camarillo
- Carlsbad
- Irvine
- Palm Desert
- San Diego
- San Jose
- Temecula
- Walnut Creek

800.479.3808      www.RBF.com



Land syndicates sprang up throughout the territory but none was more infamous than the Santa Fe Ring, of which Catron was a member. With Catron as a leader, the ring's interest spread from the Mora Land Grant to other large land grants. The ring's success was owed in part to unethical government employees and elected officials. Catron himself eventually became the first U.S. Senator for New Mexico. His partner in the Santa Fe Ring, Stephen B. Elkins, was also a Senator and used his influence with Congress to approve fraudulent land grant claims.

T. Rush Spencer was assigned to the New Mexico Territory as its Surveyor General in 1869. As a government employee, he was charged with conducting, through use of his deputies, the land surveys in New Mexico. Catron quickly drew Spencer into the Ring and together they conspired to commit massive fraud against the government and the people of the territory. Even though the Maxwell Land Grant had been believed to contain only 96,000 acres, Surveyor General Spencer surveyed the grant at 1,714,646 acres. The grant was surveyed at the expense of the public and was patented to a group known as the Maxwell Land Grant and Railroad Company. Not surprisingly, both Catron and Spencer were members along with the Governor of the New Mexico Territory, William A. Pile.

In September, 1872, James K. Proudfit became Surveyor General of the Territory and within three weeks, he, Catron, Elkins and two others incorporated to form the Consolidated Land, Cattle Raising and Wool Growing Company. His desire was to survey all the remaining unsurveyed land in the state. His request to Congress for funds was sharply curtailed because the Public Land Commissioner believed there was ample available land that had been surveyed. Indeed, of the 4,800,000 acres supposedly surveyed, only 150,000 had been homesteaded.

While the Homestead Act required that land be capable of growing crops, Proudfit overlooked this and surveyed land suitable only for ranching. His surveys were concentrated on the acres containing water because it was quickly determined that if one possessed the water, then they would have full use of thousands of acres of public land surrounding the water.

Henry M. Atkinson became Surveyor General in 1876, and proceeded to supervise the greatest amount of land surveying in the Territory up until that time. During his tenure, his services to the New Mexico Territory were secondary to his own interest in what can only be described as malfeasance in office. By providing plats of the area to his partners long before they were approved or filed in the land office in Santa Fe, his partners knew which land had water and could prepare preemptive claims that stated they were settled on the land.



**RICK  
ENGINEERING  
COMPANY**

**Civil Engineering  
Transportation  
Construction Support  
Water Resources  
Survey And Mapping  
Photogrammetry  
Specialized Computer Services  
Legal Support Services  
Creative Services  
Land Use Planning  
Redevelopment**

**San Diego, CA 92110-2596  
Tel: (619) 291-0707  
[www.rickeng.com](http://www.rickeng.com)**

**San Diego • Riverside • Orange  
Phoenix • Tucson**

To understand the extent of the fraud, we must explore the legislative background leading to the formation of the system. Free land was given to settlers in order to attract people to the Territory for the purpose of protecting the existing residents and lands of government. During this time, there were marauding bands of Indians that made travel unsafe and settlement away from a community hazardous. The Donation Act of 1854 was intended to give 160 acres to any claimant who would reside on the land for four years.

The Homestead Act of 1862 was intended to provide 160 acres free land for those who would actually settle the land. While the 160 acre tract size was ample in the wet, fertile farmlands of the midwest states, the size was too small for arid New Mexico.

Adjoining ranchers would encourage a homesteader to hold on, to prove his claim, then sell that claim to the neighboring rancher at rock bottom prices when the homesteader eventually realized he couldn't survive on the arid land.

With an amendment to the act in 1879 that allowed the settler to pay a cash deposit to have a survey performed and receive return of the cash upon completion of the survey, Congress opened the door to immense fraud. The cash deposit system was set up whereby a "settler" would apply to have a survey of a Township, containing 36 square miles, where he supposedly had settled.

The application that a "settler" signed was so loosely worded that many a non settler easily made claim to land he had never even seen before. Using the fictitious settler, who would actually appear at the land office in person, the syndicates came to control vast areas in New Mexico. The practice of obtaining several fraudulent claims and then selling them to Catron or similar syndicates was widespread.

---

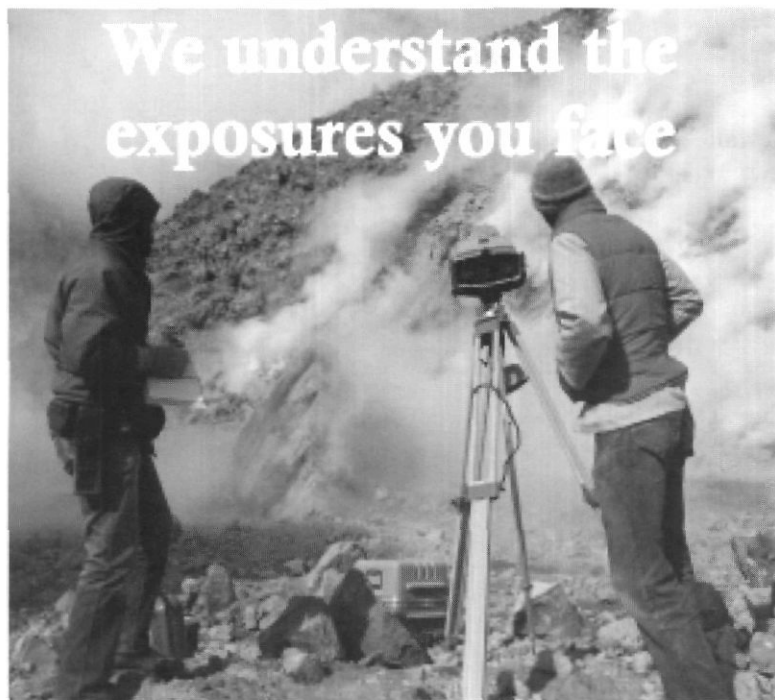
***The Homestead Act of 1862 was intended to provide 160 acres free land for those who would actually settle the land. While the 160 acre tract size was ample in the wet, fertile farmlands of the midwest states, the size was too small for arid New Mexico.***

---

A typical syndicate would operate involving surveyors, attorneys such as Catron, land office clerks and elected officials. Without all of these persons committed to acting on their own behalf to the detriment of the government and the public, such flagrant abuse of the system would not have been possible.

The chain of fraud used by a typical ring was well planned. First they would determine where the choice water areas were located based on the survey provided. A "dummy claimant" would be paid a small fee to file a claim stating they had resided on the property for 14 months and had a preemptive right. The "claimant" would then pay a survey fee deposit.

The plat, previously seen by the syndicate, would then be filed in the Land office of the Territory. The surveyor would be paid for his work which was often fictitious. The "dummy" claimant would then apply the deposit to the fee for the homestead. Title to the land would be transferred to the syndicate. The dummy would then take a fraudulent copy of the Special Deposit Certificate to another office and declare the original to be lost. This allowed the syndicate to obtain title to the land, pay themselves for



**We understand the  
exposures you face**

**RA&MCO**  
INSURANCE SERVICES

Ask your broker for a  
RA&MCO Professional  
Liability Insurance quote.

Professionals insuring Professionals® [www.ramco-ins.com](http://www.ramco-ins.com) / 1-800-684-7475

*Continued on page 23*

# In Search of Something Better?



**Theirs**



**Ours**

Up to 200%  
Higher Resolution

Now  
There's A  
Better Alternative



*ParcelQuest from CD-Data is the only source you'll ever need for the most accurate, assessor-direct data and crystal clear maps.*

Unlike other costly alternatives, ParcelQuest provides; crystal clear, detailed maps; the most accurate data; more qualitative information; monthly updates; the most current information available; and live technical support. And if that's not enough, ParcelQuest is easy-to-use and very affordable. Find out why over 95% of our customers choose ParcelQuest every year. Visit us on the web or call us today. The best assessor-direct data and maps are just a phone call away.

For more  
information call:  
CD-DATA  
(619) 265-2586

Visit us on-line at [www.cd-data.com](http://www.cd-data.com)

**ParcelQuest**  
by CD-DATA

*Assessor Direct Data and Maps*



surveys that had never been performed, or partially performed, and then be reimbursed for the lost certificate. Often, the proceeds from the lost certificate were applied to yet another homestead claim.

In New Mexico, between 1862 and 1869, when the Homestead Act was authorized, only \$13,400.00 was received in the Special Deposit Account. From 1880 through 1884, almost \$900,000.00 was tendered through the use of the system. Abuse of the deposit system became so intolerable that a law was passed restricting use of the certificate of deposit to the district in which the land was located.

The end of the syndicates' acquisition of public lands started with the 1884 appointment of Clarence Pullen as Surveyor General of the territory. This man of virtue set out to reform the deposit system and was successful for his short tenure. In 1885, President Cleveland selected George W. Julian to serve as the Surveyor General. Cleveland chose this honest man who could not be bought at any price because they shared common concern that the public lands of the west were being acquired by fraud at an uncontrollable pace.

Under his command, the deposit system was terminated and surveys for homesteads were performed only when the land was actually settled. In addition, due to the large number of suspected fraud cases and the investigation of these, filing of homestead entries was halted in large areas of the territory.

With the death of the syndicates in New Mexico, Catron turned his attention to holding onto the empire he had acquired, estimated at three million acres, distributed amongst 40 various

land grants and another three million acres of public land. By 1890, Catron had reached his peak. The decade that followed saw substantial losses,

---

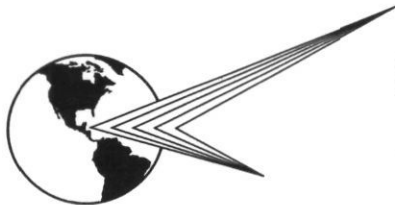
**By 1890, Catron had reached his peak. The decade that followed saw substantial losses, including the forced sale of the 600,000 acre Tierra Amarilla Grant. In 1913, his first acquisition, the Mora Grant was sold for unpaid taxes.**

---

including the forced sale of the 600,000 acre Tierra Amarilla Grant. In 1913, his first acquisition, the Mora Grant was sold for unpaid taxes. By the time Thomas Catron's death in 1921, his son Charles had managed to retain only seven of the grants and these were heavily mortgaged.

The study of Catron's life and his association with members of the Santa Fe Ring give those in the profession today a closer look at a dark side of our history. These men had positions of trust and respect by means of their educations,

*Continued on page 24*



## CARTWRIGHT AERIAL SURVEYS, INC. (SINCE 1946)

### AERIAL PHOTOGRAPHY

Black & White, B&W Infrared  
Color, Color Infrared  
Historical Film Library

### PHOTOGRAMMETRY

Topographic Mapping  
Digital Orthophotos  
Volume Calculations  
Digital Terrain Modeling

### PHOTO LABORATORY

Film Processing  
Scaled Enlargements  
Rectified Enlargements



5979 Freeport Boulevard  
Sacramento, CA 95822-3506  
Phone (916) 421-3465 • Fax (916) 422-9631  
E-Mail: [mapping@casmag.com](mailto:mapping@casmag.com) • Web: [casmag.com](http://casmag.com)

# CLSA Seminars

EDUCATION

**Advanced  
Subdivision Map Act**  
Speaker *Mike Durkee, Esq.*  
to be presented in three  
locations in May

**Boundary Control  
& Legal Principals**  
Speaker *Walt Robillard, Esq.*  
May 23 in Orange County  
May 24 in Sacramento

Visit the CLSA Website for more  
information: [www.ca-surveyors.org](http://www.ca-surveyors.org)

rare amongst the populace of the time, and their willingness to assume leadership positions. Catron and his cronies failed to act faithfully to the public or to the individuals they had daily contact with.

In this case, enactment of stricter laws and the appointment of honest men eventually put an end to the widespread abuses and fraud.

#### Work Cited

Livermore, Marlin. "The Era of Fictitious Surveys." POB Magazine, 16.2 (1990).

Westphall, Victor. *Thomas Benton Catron and His Era*. Arizona, University of Arizona Press, 1973.

Westphall, Victor. *The Public Domain in New Mexico, 1854-1891*. New Mexico, University of New Mexico Press, 1965.

Reprinted from the *New Mexico Surveyor*

# People who do the job right the first time.

Does anyone care about survey marker quality like you? We do. At Berntsen, we have customer service and technical support staff who understand the business you're in. We understand the products you need. We have years of industry history. We've set our own high standards to excel in survey markers, and in the level of quality we provide to you.

Today, we lead the industry in providing the best survey markers and accessories to busy people like you. People who expect the best. People who need to have the flexibility to order anytime, day or night. People who do the job right the first time. Call us at (800) 356-7388, or order online at [www.berntsen.com](http://www.berntsen.com). Quality from us to YOU.

**Berntsen**  
Survey Markers  
800.356.7388  
[www.berntsen.com](http://www.berntsen.com)

Berntsen International, Inc. • PO Box 8670 • Madison, WI 53708-8670  
Tel: 800-356-7388 • Fax: 800-249-9794 • Email: [surveymark@berntsen.com](mailto:surveymark@berntsen.com)



**FREE HAT!**  
with \$50+ online purchase

CLSA PUBLICATION ORDER FORM	CLSA MEMBER PRICE	PUBLIC AGENCY PRICE	* NON MEMBER PRICE	NO. OF COPIES	TOTAL
<b>2002 Complete Package</b> includes: PLS Roster, Pre '82 CE Numerical Listing, PE & PLS Act with Board Rules, Subdivision Map Act <b>and Index</b> & Binder	\$28.00	\$34.00	\$49.00		
<b>2002 Complete Package</b> (as above) includes: PE & PLS Act with Board Rules & Subdivision Map Act <b>and Index</b> on Disk	\$36.00	\$43.00	\$63.00		
<b>2002 Refill Package</b> includes: PLS Roster, PE & PLS Act with Board Rules & Subdivision Map Act <b>and Index</b>	\$20.00	\$24.00	\$35.00		
<b>2002 Refill Package</b> (as above) plus Disk	\$28.00	\$34.00	\$49.00		
<b>2002 PE Act &amp; PLS Act with Board Rules</b> (5 1/2 x 8 1/2)	\$7.00	\$9.00	\$12.00		
<b>2002 Subdivision Map Act and Index</b> (5 1/2 x 8 1/2)	\$7.00	\$9.00	\$12.00		
<b>2002 Celestial Observation Handbook &amp; Ephemeris</b> (Sokkia) with HP-41, HP-42 & HP-48 Programs	\$5.00	\$6.00	\$7.00		
<b>California Coordinate Projection Tables – NAD '83</b> By Ira Alexander, CE, PLS & Robert J. Alexander, PE	\$8.00	\$10.00	\$14.00		
<b>Right of Entry Cards</b> (minimum order is 2)	\$1.50/ea.	\$2.00/ea.	\$3.00/ea.		
<b>Right of Entry Door Hangers</b> (includes 1 Right of Entry Card) (Pkg. of 50)	\$5.00/Pkg.	\$6.00/Pkg.	\$10.00/Pkg.		
<b>Corner Record Forms – BORPELS 1297</b> (Pkg. of 25)	\$10.00/Pkg.	\$12.00/Pkg.	\$17.50/Pkg.		
<b>Land Surveying Brochures</b> (Pkg. of 50)	\$15.00/Pkg.	\$18.00/Pkg.	\$30.00/Pkg.		
<b>Standard Contract Forms</b> Agreement for Professional Services (Pad of 25)	\$6.00/Pad	\$7.00/Pad	\$12.00/Pad		
<b>Land Surveying for the Land Owner &amp; Real Estate Professional</b> , by Daniel E. Beardslee, PLS	\$8.00	\$10.00	\$12.00		
<b>CLSA Decals or Bumper Stickers</b> (Decals or Bumper Stickers)	\$1.50/ea.	N/A	N/A		
<b>Land Surveying Story/Coloring Books</b> (Pkg. of 10)	\$24.00/Pkg.	\$28.00/Pkg.	\$36.00/Pkg.		
<b>CLSA Video "A Career Without Boundaries"</b> (A 10 minute video)	\$8.00	\$10.00	\$12.00		

- Member prices are only available to State members of CLSA.
- Fax orders are accepted with Visa or MasterCard payment only  
Fax to 707-578-4406
- Please allow 2 weeks for delivery.
- Orders must be received by 2:00 PM for same day FedEx Delivery.

- **Mail your order form and payment to:**  
CLSA Central Office  
PO Box 9098  
Santa Rosa, CA 95405  
Phone: (707) 578-6016 Fax: (707) 578-4406

\*The difference between member & non-member price may be applied toward membership.

**Subtotal 1**

**Shipping & Handling**  
Up to \$20.00 add \$4.50  
\$20.00 - \$40.00 add \$7.50  
\$40.01 - \$60.00 add \$9.00  
\$60.01 and above add 15%

**Next Day Shipping provide  
FedEx Account Number**  
# \_\_\_\_\_  
**Add \$10.00 Handling fee.**

**Subtotal 2**

**CA Sales Tax**  
Outside Sonoma County Tax 7.25%  
Sonoma County Tax 7.50%

**TOTAL**

**Payment Enclosed:**

Check       M/Card/Visa       AMEX

**Account #**

**Expiration Date**

**Name on Card**

**Authorized Signature**

**For Office Use Only**

TCS

**Shipping Information**

Name \_\_\_\_\_

Company (if company is mailing address below) \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_



## The Old Surveyor

*Younger surveyors look at me  
And listen while I say –  
“I’ve earned each deep etched line you see,  
each hair that’s turned to grey.”*

*I’ve shoveled, plowed and dug by hand  
My back would bend and ache.  
I searched for monuments upon the land  
And I often found the stake.*

*My hands have hacked and cut the thicket;  
My legs have walked the miles.  
Finding the corner was just the ticket,  
For bringing on the smiles.*

*I’ve packed the transit, pulled the chain  
And all the tools I’ve carted;  
In the blazing heat and freezing rain  
Just to return from where I started.*

*Shot the sun during the day  
And polaris during the night,  
Each observation showed the way,  
By use of the theodolite.*

*Cranked out the sines and cosines  
On the old hand-crank Monroe;  
Put the lats and deps on the proper lines  
So the acres we would know.*

*Put pen and ink upon the plats  
And from field notes I’ve drafted  
Prepared the legals and the maps  
My final survey product crafted.*

*Hospitals, parks, church and schools,  
Pipelines for oil and such,  
Set out by surveyor’s skills and tools,  
Have felt my eager touch.*

*When work has reached the end of day  
And passed the final test  
It makes you proud when you can say –  
“I helped and gave my best.”*

*A fair day’s work for a fair day’s pay  
You’ve heard it said, I know.  
It’s a fair way to spend your day,  
And I’ve always found it so.*

*I’m old now, soon will be set aside  
My course is nearly run.  
But always I can state with pride,  
I left my jobs well done.*

## Postcards



A friend of mine went to New Zealand for a vacation and took a photo of this mosaic monument set in 1988 by the New Zealand Institute of Surveyors. She said it is located high on a hill top above the Bay of Islands, New Zealand and you there is a wonderful view of the bays and islands all around.

Judy Frank  
Johnson-Frank Associates

*We’re a sick lot, Judy . We have our friends  
takin’ pictures of survey monuments too! - Ed*

## Index To Advertisers

Allen Instruments & Supplies .....	10
Berntsen International, Inc. ....	24
California Surveying & Drafting .....	32
Cartwright Aerial .....	23
CD Data .....	22
C&C Aerial Mapping .....	24
Eastern Special Risk Insurance Agency .....	27
GeoLine Positioning Systems .....	3
HJW & Associates .....	13
Industrial Pipe & Steel .....	8
Lewis & Lewis .....	14
Mark-It (Desert Engineering) .....	4
RA & MCO Insurance .....	21
RBF Consulting .....	19
Rick Engineering Company. ....	20
Surveyors Service Company (SERVCO) .....	2, 31
Surv-Kap .....	11
Topcon California .....	15
Tri State Photogrammetry .....	7
Trimble Engineering & Const. Div. ....	17

# Welcome New CLSA Members

## Affiliate

Gencaya Aliyazicioglu  
 Brian S. Borum  
 Michele L. Discher  
 Charles H. Katz  
 Jeremy W. Kruger  
 Juan E. Madrid  
 Russell F. Mohr  
 William C. Stampados

## Associate

Nathan J. Dang  
 Brian A. Dodd  
 Barbara Foss  
 Danny A. Gregory  
 Jason M. Krane  
 Bill Mahrenholz  
 Robert E. Peterson  
 Daniel R. Schwartz  
 Paul A. Wagner

## Corporate

William D. Boerner  
 Scott A. Bryant  
 Scott A. Clayton  
 Patrick T. Corcoran  
 Dennis Dillman  
 Jim O. Eyerman  
 Brian G. Faraci  
 Kenneth A. Fisher  
 Martin A. Gage  
 Jeffrey A. Gutierrez  
 Michael H. Haile  
 Kristi Ingram  
 Douglas W. Joslin  
 David W. Kopp  
 William G. Laird  
 Brian Kent Mickelson  
 Ellwood A. Oehlert  
 Jay K. Seymour  
 William Eugene Snow

Jill Van Houten  
 Bruce L. Watkins  
 Derrill G. Whitten Jr.  
 Andrew J. Wilkinson

## Out-of-State Corporate

Gary G. Eidson  
 William T. Kruger  
 Robert L. Pinnell

## Student

David J. Klakovich  
 Jennifer O'Gorman  
 Victor E. Ross  
 Jason A. Thomas  
 Nicholas A. Vanlandingham

## "QUICK-QUOTE" PROFESSIONAL LIABILITY INSURANCE FOR LAND SURVEYORS

Our firm writes coverage in over 40 states with a well known "A++XI" carrier. Take a few moments to fill out our "QUICK QUOTE" application and we will provide you with a premium indication immediately.

Name \_\_\_\_\_ Title \_\_\_\_\_ Phone \_\_\_\_\_  
 Firm \_\_\_\_\_ Home Office Mailing Address \_\_\_\_\_  
 City/State \_\_\_\_\_ Zip \_\_\_\_\_ Fax \_\_\_\_\_  
 Established \_\_\_\_\_ (YR) Business entity is: Individual, Partnership, Corporation, Other (Detail) \_\_\_\_\_  
 Services: Are you engaged in any business other than land surveying?  Yes  No If so, a separate application must be submitted. Contact our office. Projects: Indicate % of receipts from each of the following: Condos \_\_\_\_\_ % Residential Developments/Tract Homes \_\_\_\_\_ % Oil or Gas Pipelines \_\_\_\_\_ % Dams \_\_\_\_\_ % Bridges \_\_\_\_\_ % Tunnels \_\_\_\_\_ % Other (describe) \_\_\_\_\_ (Total should equal 100%)  
 Total billings for land surveying services: Past Year \_\_\_\_\_ Current Year \_\_\_\_\_  
 No. of employed staff: Surveyors \_\_\_\_\_ Draftsmen \_\_\_\_\_ Chainmen \_\_\_\_\_ Clerical \_\_\_\_\_  
 Are subcontractors used?  Yes  No If yes, are certificates of insurance obtained?  Yes  No What % of your work is done by subcontractors? \_\_\_\_\_ %  
 Current Carrier \_\_\_\_\_ Past year's premium \_\_\_\_\_  
 Policy expiration date \_\_\_\_\_ Retroactive date (original claims-made inception date) \_\_\_\_\_  
 Professional Liability claims past 5 years  Yes  No If yes, send a sheet with claim details

MAIL OR FAX THIS FORM WITH A BRIEF RESUME OF THE FIRM'S PRINCIPALS TO:  
**EASTERN SPECIAL RISK INSURANCE AGENCY**, 68 BROWN ROAD, P.O. BOX 218, HARVARD, MA 01451  
 PHONE (978) 456-8200, WATS (800) 341-1110, FAX (978) 456-3245, E-MAIL – SPECRISK@AOL.COM  
 CA License #0619313

# METRICATION

## What Will Change and What Will Stay The Same

### Pipe and Fittings

#### What will change

- Nominal pipe and fitting designations, from inches to millimeters.

#### What will stay the same

- Pipe and fitting cross sections and threads.

Pipes and fittings are produced in "soft" decimal inch dimensions but are identified in nominal inch sizes as a matter of convenience. A 2-inch pipe has neither an inside nor an outside diameter of 2 inches, a 1-inch fitting has no exact 1-inch dimension, and a 1/2-inch sprinkler head contains no 1/2 inch dimension anywhere; consequently, there is no need to "hard" convert pipes and fittings to rounded metric dimensions. They will not change size but simply be relabeled in metric units as follows:

1/8" = 6 mm	1 -1/4" = 32 mm
3/16" = 7 mm	1-1/2" = 40 mm
1/4" = 8 mm	2" = 50 mm
3/8" = 10 mm	2-1/2" = 65 mm
1/2" = 15 mm	3" = 75 mm
5/8" = 18 mm	4" = 100 mm
3/4" = 20 mm	4-1/2" = 115 mm
1" = 25 mm	1" = 25mm for all larger sizes

### Rebar

#### What will change

- Rebar has been renamed per ASTM standards as follows:

No. 3 to No. 10  
No. 4 to No. 13  
No. 5 to No. 16  
No. 6 to No. 19  
No. 7 to No. 22  
No. 8 to No. 25  
No. 9 to No. 29  
No. 10 to No. 32  
No. 11 to No. 36  
No. 14 to No. 43  
No. 18 to No. 57

#### What will stay the same

- Rebar cross sections

### Drawings

#### What will change

- Units of measure, from feet and inches to millimeters for all building dimensions and to meters for large site plans and civil engineering drawings. Unit notations are unnecessary: if there's no decimal point, it's millimeters; if there's a decimal point carried to one, two or three places, it's meters. In accordance with ASTM E621, centimeters are not used in construction because (1) they are not consistent with the preferred use of multiples that represent tertiary powers of ten, (2) the order of magnitude between a millimeter and centimeter is only 10 and the use of both units would lead to confusion, and (3) the millimeter provides integers within appropriate tolerances for all building dimensions and nearly all building product dimensions so that decimal fractions are almost entirely eliminated from construction documents.

- Drawing scales, from inch-fractions-to-feet to true ratios. Preferred metric scales are:

1:1 (full size)  
1:5 (close to 3" = 1'-0")  
1:20 (between 1/2" = 1'-0" and 1-1/2" = 1'-0")  
1:50 (close to 1/4" = 1'-0")  
1:100 (close to 1/8" = 1'-0")  
1:200 (close to 1/16" = 1'-0")  
1:500 (close to 1" = 40'-0")  
1:1000 (close to 1" = 80'-0")

As a means of comparison, inch-fraction scales may be converted to true ratios by multiplying the scale's divisor by 12 (for example, for 1/4" = 1'-0", multiply the 4 by 12 for a true ratio of 1:48).

- Drawing sizes, to ISO "A" series:

A0 (1189 x 841 mm, 46.8 x 33.1 inches)  
A1 (841 x 594 mm, 33.1 x 23.4 inches)  
A2 (594 x 420 mm, 23.4 x 16.5 inches)  
A3 (420 x 297 mm, 16.5 x 11.7 inches)  
A4 (297 x 210 mm, 11.7 x 8.3 inches)

Of course, metric drawings can be made on any size paper.

#### What will stay the same

- Drawing contents.

**Never use dual units** (both inch-pound and metric) on drawings. It increases dimensioning time, doubles the chance for errors, makes drawings more confusing, and only postpones the learning process.



# Here's Some Important Information About CLSA

The goal of the California Land Surveyors Association is to promote and enhance the profession of surveying, to promote the common good and welfare of its members, to promote and maintain the highest possible standards of professional ethics and practice, and to elevate the public's understanding of our profession. CLSA represents all Land Surveyors, whether they are employees or proprietors, whether in the public or private sector.

## Representation

**LOCAL:** Your local chapter represents you in local issues. Through your chapter representative to the State Board of Directors, the individual member can direct the course CLSA will take. **STATE:** The Surveyor is represented at the state level through an active legislative program, legislative advocate, and liaison with the State Board of Registration. **REGIONAL:** CLSA is an active member of the Western Federation of Professional Surveyors. This Federation is composed of associations throughout the western United States and addresses regional issues. **NATIONAL:** Through institutional affiliation with the National Society of Professional Surveyors and the American Congress on Surveying and Mapping, CLSA is represented at the national level.

## Educational Opportunities

CLSA presents annual conferences which provide technical and business programs, as well as exhibits of the latest in surveying and computing technology. Seminars and workshops are presented to assist in continuing education. CLSA publishes the California Surveyor magazine and the CLSA NEWS to keep the membership abreast of changing legislation, legal opinions, and other items which affect our profession.

## Business and Professional Services

CLSA provides a fully staffed central office which is available to answer questions or to provide up-to-date referrals concerning legislation, educational opportunities, job opportunities, or other issues concerning our membership. Professional liability insurance programs are available to members.

## JOIN CLSA TODAY!

- **CORPORATE MEMBER** \*\$159.00 + Entrance Fee. Shall have a valid CA Professional Land Surveyor or Photogrammetric license.
- **CE CORPORATE MEMBER** \*\$159.00 + Entrance Fee. Any California registered Civil Engineer who is authorized to practice land surveying pursuant to Article 3, Section 8731 of the PLS Act and must be actively practicing land surveying and show sufficient proof thereof. CE Corporate membership must be approved by the Board of Directors.
- **AFFILIATE MEMBER** \*\$79.50 + Entrance Fee. Any person who, in their profession or vocation, relies upon the fundamentals of land surveying.
- **ASSOCIATE MEMBER GRADE** \*\$79.50 + Entrance Fee. Any person who holds a valid certificate as a Land Surveyor-in-Training.
- **OUT-OF-STATE CORPORATE MEMBER GRADE** \*\$79.50 + Entrance Fee. Any person who resides in a state other than CA, who is a member of the other state's Association, and meets the requirements of Corporate Member.
- **STUDENT MEMBER GRADE** \*\$15.90. A student in a college or university actively pursuing a surveying education.
- **SUSTAINING MEMBER GRADE** \*Annual Dues \$318.00 + Entrance Fee. Any individual, company or corporation who, by their interest in the land surveying profession, is desirous of supporting the purposes and objectives of this corporation.

1. Member Grade Applying for \_\_\_\_\_ Date \_\_\_\_\_
2. Name (Full) \_\_\_\_\_  
FIRST MI LAST
3. Mailing Address \_\_\_\_\_  
STREET COUNTY  
CITY STATE ZIP
4. Mailing Address is:  Business  Residence 5. Bus. Phone \_\_\_\_\_
6. Res. Phone \_\_\_\_\_ 7. Fax \_\_\_\_\_ 8. E-mail \_\_\_\_\_
9. Name of Firm, Agency or College \_\_\_\_\_
10. California License Number PLS# \_\_\_\_\_ LSIT# \_\_\_\_\_ RCE# \_\_\_\_\_ EIT# \_\_\_\_\_
11. Have you previously been a member of the State Association?  Yes  No Year \_\_\_\_\_
12. Signature of Applicant \_\_\_\_\_

Mail your completed application to:

CLSA Central Office  
PO Box 9098  
Santa Rosa, CA 95405

Questions?  
Phone: (707)578-6016  
Fax: (707)578-4406  
clsa@ca-surveyors.org

\*First Year Dues are to be prorated from date of application

- Check Enclosed Dues \$ \_\_\_\_\_ + Entrance Fee \$ \_\_\_\_\_ = Total Amount \$ \_\_\_\_\_
- Visa Credit Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_
- MasterCard Authorized Signature \_\_\_\_\_

# Sustaining Members

**Steve Dillon**

**ARROWHEAD MAPPING CO**  
673 S. Cooley Dr Suite 102  
Colton, CA 92324  
Phone: 909-887-5969  
Fax: 909-887-4117



Aerial Photography  
Topographic Mapping  
Digital Orthophotos



**Surveyors Service Company**  
2942 Century Place  
Costa Mesa, CA 92626

**Stanton Mahler**  
President



Office: 800-938-0606  
714-546-0606

Fax: 714-546-9724



HANS I. HASELBACH (Jr.)

**HASELBACH**  
SURVEYING  
INSTRUMENTS

SURVEYING & GPS SYSTEMS  
INSTRUMENT SERVICE & REPAIR



(800) 462-8181  
(650) 348-7247  
1447 Rollins Road  
Burlingame, CA 94010



**Steve Carlon**

Branch Manager  
3380 Industrial Blvd., Suite 105  
West Sacramento, CA 95691

(800) 500-8575  
(916) 374-8575  
FAX (916) 374-8329

**ARIS**  
INSURANCE SERVICES  
STATE LICENSE # 0795446

**MARSHA L. BASTIAN**

2101 BUSINESS CENTER DRIVE  
Suite 230  
Irvine, CA 92612

888-777-2107  
Fax 888-777-2109  
Lic. # 0A29944



**PETER WILKIEWICZ**  
REGIONAL SALES MANAGER, SOUTHWESTERN REGION

MAGELLAN CORPORATION  
471 El Camino Real, Santa Clara, CA 95050-4300  
Tel: 408.615.5243 • Fax: 408.615.5200  
petew@ashtech.com • www.ashtech.com



**PAUL C. OGDEN**  
President/CEO

MANUFACTURING CO., INC.

4155 Oasis Road  
Redding, CA 96003  
(530) 225-8155

1-800-824-4744  
Fax (530) 225-8162  
seco@surveying.com

Visit our on line catalog @ [www.surveying.com](http://www.surveying.com)



**Lewis & Lewis Enterprises**  
SALES - RENTALS - SERVICE

Call Toll Free (800) 342-3607  
Quality

Products Service & Support TOPCON



**TrimbleNavigation**

P.O. BOX 1328 1600 CALLENS RD VENTURA, CA 93003  
(805) 644-7405 FAX (805) 642-3970



**Nikon** **Trimble** **Geodimeter**  
SACRAMENTO—(916) 344-0232 • (800) 243-1414  
LIVERMORE—(925) 960-0323 • (800) 988-0838  
[www.cdsinc.com](http://www.cdsinc.com)



**Johan Larsson**  
Sales Engineer

GEODIMETER OF NORTHERN CALIFORNIA  
340 E. Middlefield Rd., Mountain View, CA 94043  
Phone: 650-254-1400 Fax: 650-254-1454  
Mobile: 415-860-3416  
E-mail: [johanlarsson@msn.com](mailto:johanlarsson@msn.com)  
Internet: [www.spectraprecision.com](http://www.spectraprecision.com)



3820 Del Amo Boulevard, #303  
Torrance, California 90503

Phone (888) 742-8230  
(310) 542-2110  
Fax (310) 542-5883  
Pager (310) 715-5040  
[rshafer@trinitycapital.com](mailto:rshafer@trinitycapital.com)  
[www.trinitycapital.com](http://www.trinitycapital.com)

**Robert J. Shafer**  
National Accounts Manager

**Chuck Madrid**  
Surveying Systems, Sales and Training

*Surveying Systems, Equipment & Supplies  
Builders Instruments and Laser Systems*

**Topcon Instruments**  
Sales Service Rentals Repairs

**ESC**  
**Engineering Supply Company**

5700 Imhoff Dr., Suite C  
Concord, Calif. 94520  
Phone: 510/680-4701  
Phone: 800/788-3307  
Fax: 510/680-2504



**MITCHEL E. BARTORELLI**  
ASSOCIATE

**(775) 358-9491**

Digital Mapping  
Aerial Photography  
GIS Services  
Digital Orthophotography  
Volume Services  
Global Positioning Services

*Land Information Solutions*

1925 E. PRATER WAY [www.TriStateLtd.com](http://www.TriStateLtd.com)  
SPARKS, NV 89434-8938 FAX (775) 358-3664  
Email: [MBartorelli@TriStateLtd.com](mailto:MBartorelli@TriStateLtd.com) (800) 411-3752



**Hammon, Jensen, Wallen & Associates, Inc.**

- Aerial Photography
- Digital Orthophotos
- Digital Mapping
- Remote Sensing
- GIS Base Mapping

1-800-383-2991

[www.hjw.com](http://www.hjw.com)

**SURV-KAP, INC.**

**RICHARD B. ROPER**  
President

P.O. Box 27367 Tucson, Arizona 85726 (520) 622-6011 / 1 (800) 445-5320 FAX (520) 792-2030  
3225 East 47th Street Tucson, Arizona 85713 Phone: 800/788-3307 Fax: 510/680-2504

## SUSTAINING MEMBERSHIP

Membership in the California Land Surveyors Association, Inc. as a Sustaining Member is open to any individual, company, or corporation who, by their interest in the land surveying profession, is desirous of supporting the purposes and objectives of this Association. For information regarding Sustaining Membership, contact CLSA Central Office, P.O. Box 9098, Santa Rosa, CA 95405. Tel: (707) 578-6016 Fax: (707) 578-4406



Leica TPS700 Performance Series

Surveying  
Experts

**Leica**

**TPS700 total stations now come with automated target recognition**

MADE TO MEASURE

Whether you measure dozens or hundreds of points a day, with automatic target recognition you will measure more: roughly aim the telescope, start the measurement, done! The TPS700auto automatic target recognition takes care of the fine pointing for you. Result: less fatigue and consistent accuracy in the shortest possible time. Benefit from this unique technology, available for the first time in the TPS700 performance class. Call Surveyors Service Company today at 800-432-8380 for your personal quotation and field demonstration.

**Nevada**

5328 W. Spring Mtn Rd  
Suite# 305  
Las Vegas, NV 89146  
800-432-8380  
702-944-5164 (fax)

**California**

Corporate Office  
2942 Century Place  
Costa Mesa, CA 92626  
800-938-0606  
714-546-9724 (fax)

**California**

8170 Ronson Road  
Suites C & D  
San Diego, CA 92111  
800-282-4454  
858-278-8845 (fax)

**Arizona**

4317 North 16th St  
Phoenix, AZ 85016  
800-938-0608  
602-274-3740 (fax)

**New Mexico**

405 Montano Road  
Suite# 2  
Albuquerque, NM 87107  
800-938-0609  
505-345-3499 (fax)



**Surveyors  
Service Company**  
servco1.com



# CALIFORNIA SURVEYING & DRAFTING SUPPLY

TOTAL INTEGRATED  
**SURVEYING  
SOLUTIONS...**

GPS



 **Trimble**

ROBOTICS



DATA COLLECTION



SOFTWARE



CERTIFIED TRAINING  
& SUPPORT



FROM **CONCEPT  
TO COMPLETION**



**SURVEYING & DRAFTING**

**SUPPLY**

WWW.CSDSINC.COM  
email: csds@csdsinc.com

## SACRAMENTO

4733 Auburn Boulevard  
Sacramento, CA 95841  
(916) 344-0232 • (800) 243-1414  
FAX: (916) 344-2998

## LIVERMORE

6111 Southfront Road #C  
Livermore, CA 94550  
(925) 960-0323 • (800) 988-0838  
FAX: (925) 960-0326

**SALES • SERVICE • RENTAL**