

Institutional Affiliate of American Congress on Surveying and Mapping

# The California Surveyor

## THE VOICE OF THE LAND SURVEYORS OF CALIFORNIA

#### No. 26

#### WINTER EDITION

1972

#### PRESIDENT'S CORNER

#### Chuck Wooldridge, L.S.

CLSA 72. That's what it says on one of my licenses! The license on my car. How's that for an ego trip that also supports my profession and its association, along with supporting the ecology? And why not? Aren't they all worthy of support? You can do the same thing. There are many combinations including CLSA, or your initials and L.S.

Ecology and the environment. That has certainly been newsworthy the past few months. The Supreme Court landmark decision in the case of Friends of Mammoth vs. Mono County, and the panic it created for many of our members. Then Proposition 20 on the ballot, followed by the legislature rush to get on the bandwagon.

One thing certain, there will be legislative activity regarding the environment for many years to come. Surveyors have asked why is CLSA interested or involved in such legislation. We still have the right to prepare and file Tentative Maps, and if this isn't involved in the environmental problems, I'd like to know what is.

Another legislative interest that is bound to continue for many years is the continual attempts to change the Land Surveyors Act. 1973 will probably see a law requiring Continuing Professional Development. The Senate is convinced that we (along with all licensed or registered businesses and professions) are not fulfilling our responsibility to the public by a fee only license renewal method.

This association has strongly endorsed a requirement for continuing development. Educational deficiencies comprise the greatest problem facing the land surveyor. It does become somewhat difficult to comprehend the thinking of a legislature that says we must continue learning and updating our knowledge, but refuses to let us increase the requirements to enter the profession.

That is exactly what happened. Both CLSA and the Board of Registration introduced bills to increase the prerequisite education and experience requirements last year. Neither bill was approved.

#### **SENATE RESOLUTION 62**

By Senator Coombs

#### Relative to land surveying

WHEREAS, The citizens of the State of California have a right to expect protection of the public interest through the laws requiring registration of professionals practicing land surveying; and

WHEREAS, The capability of Sections 6731 and 8731 of the Business and Professions Code to adequately protect the public welfare has been questioned by certain of the professional societies; and

WHEREAS, The State Board of Registration for Professional Engineers has instigated studies and instituted recent changes regarding the examination and licensing prerequisite for such registration; now, therefore, be it

Resolved by the Senate of the State of California, That the Members request the State Board of Registration for Professional Engineers to review its policies and studies on the matter and report thereon to the Senate Business and Professions Committee by November 1, 1972; and be it further

*Resolved*, That the Senate Business and Professions Committee review such report and the facts and opinions presented by the professional societies interested in interim study; and be it further

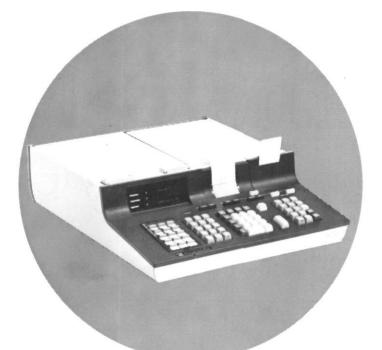
*Resolved*, That the Secretary of the Senate transmit a copy of this resolution to the State Board of Registration for Professional Engineers.

THIS IS TO CERTIFY THAT THE ABOVE RESOLUTION WAS ADOPTED BY THE SENATE ON July 12, 1972.

Continued on Page 6

DARRYL R. WHITE Secretary of the Senate

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## Look Into The Series 9800 You'll See Big Savings In Field Data Reduction and General Office Computing.

No matter what methods and equipment you're currently using, an HP Series 9800 Programmable Calculator System will cut your manpower requirements and cost significantly. Take field data reduction, for example. With a Series 9800/Model 10, you can take the raw data from an entire day's work by one crew – and transform it to a typed record, in half an hour. That's just the beginning. Once your field data is out of the way, your secretary can take over and run your payroll, billing, and other bookkeeping.

And just to make sure these savings show up in your ledger immediately, we've made the Series 9800 the easiest-to-operate calculator on the market.

Anyone can use the Model 10 after a 10 to 15 minute demonstration. Here's how. Just enter the program (from our fully documented Surveying Program PAC), then follow the English language instructions as they appear on the HP exclusive alphanumeric printer (or on the optional Typewriter). Everything is automatic. You really don't need to know a thing about computers.

The nicest thing about a Series 9800 Calculator is this. Dollar for dollar you get more performance than any other calculator on the market! Here's why. A basic Model 10 costs just \$2975, yet can compute the closure error and adjust a twenty-leg traverse in seconds. A fully configured system consisting of a Card Reader, Model 10 with big memory, surveying keyboard, and alphanumeric options, and an output Typewriter will cost you less than \$2.00 per working hour-even if you use it only four hours per day, twenty days per month.

Get your hands on the Series 9800 profit builders. Contact one of the 57 Hewlett-Packard Sales and Service Offices in the U.S. and Canada for a demonstration. You'll also want to look into the HP 3800 Electronic Distance Meter. It can boost your field production as dramatically as the Series 9800 boosts your office production. Hewlett-Packard, NorthHollywood,Fullerton, Sacramento, Palo Alto, San Diego.

Worth Looking Into

BO/92/2

The Board of Directors met at the Royal Inn at the San Francisco Airport on October 28, 1972, at 10:10 A.M. After the call to order, the Board adopted Resolution 72-10, chartering the San Fernando Valley Chapter, as Chapter No. 17. President Charles Wooldridge reported on a meeting he and Jim Adams attended, wherein the Presidents or appointed representatives of all State Engineering and Surveying Societies will form an organization to coordinate activities. The Board approved this activity.

The Secretary-Treasurer presented the Financial Report as of October 1, 1972. Expenditure Total \$9,416.46, with a budget balance of \$6,404.54, and a bank balance of \$5,750.26. Proposed amendments to the budget were adopted, giving a new budget total of \$15,156, \$665 below the budget as adopted on March 16th. The Board also adopted a proposal that regular members, residing out of State and not practicing in California be allowed to request affiliate status.

The membership committee had submitted two proposals regarding dues for 1972, and the Board adopted the second of these proposals, as Resolution 72-11. The Board then set dues for all other grades of membership, the same as 1972.

Executive Secretary, Jim Adams reported on the membership as of October 19, 1972: Fellowship – 3; Regular – 350; Associate – 55; Affiliate – 7; Total – 415. Of these, 25 regular, 10 associate, and 6 affiliate have joined since January 1, 1972.

The several committees then made reports of activities nee the last board meeting. The nomination committee presented a slate of officers for 1973, consisting of Eugene Lockton, President; James E. Adams, Vice-President; Harold B. Davis, Secretary-Treasurer; Homer Banks, Jr., Robert L. Carpenter, Lawrence J. Cloney, Edward A. Griffin, Paul W. Lamoreaux, Joseph F. Switzer, and Eugene Foster, Directors-at-Large. At Mr. Foster's request, his name was deleted. The Board directed the Executive Secretary to present this slate to the membership. Jerry Tippin, Convention Committee Chairman, reported that the 1974 convention will be held in San Diego, at a site to be chosen. Ed Boris, Editor and Publication Committee Chairman, announced his resignation from these positions effective January 1, 1973.

John Pedri, the L.S. member of the Board of Registration, requested input from people interested in preparing test questions for future examinations. Interested parties should write to John, giving their expertise, so that people will only be requested to prepare questions in their major sphere of endeavor.

The several chapters, then, reported on their activities. Lake Mendocino is undertaking a program of improvement of record of survey filings, in an attempt to update and rectify the records.

The next meeting of the board will be held at the Royal Inn of the San Francisco Airport on January 13, 973, at 10:00 A.M. All members of the Association are invited to attend, observe, and present any comments on the Association or board activities. The legislation committee met in August and September while the legislature was out of session. We are starting to develop our 1973 program. This early program development has some problems when the legislative session will not end until next December, but by that time it would be too close to next year.

Our legislative committee could use some additional help. If you would be interested in working with this committee please contact Ed Griffin or any member of the committee.

It was quite a shock to learn that a bill was introduced in the State of Hawaii legislature to allow engineers to practice land surveying without being licensed. Very recently one of our members told me that such a provision could never again be proposed, that the present situation in California was only a historical remnant of the days when civil engineers were surveyors and surveying was considered professional work. He felt that the engineers are now our co-professionals and that they would never again push legislation that would down grade or abolish the profession of land surveying.

It is unfortunate, but I think the Hawaii bill illustrates that we are only co-professionals while we exercise prudence and remain consolidated within a group such as our association. This bill also shows the implicit necessity of continuing a strong legislative program.

I wonder if the enlightened leaders of the engineering profession realize that a new ethic should be adopted that will serve to protect the consumer and at the same time increase the prestige of the various professions. Such a new ethic I suggest can be drawn from the philosophy of Aldo Leopold who stresses "that the individual is a member of a community of interdependent parts." This new ethic must recognize that engineers, geologist, land surveyors, landscape architects, and architects are all a part of the community of man. These various professions can be altered and managed, but each also has a right to continued existence as long as they continue to perform a service critically needed by the public.

#### IN MEMORIUM

Frank B. "Buster" Lewis, aged 69, died suddenly in Watsonville, October 1, 1972.

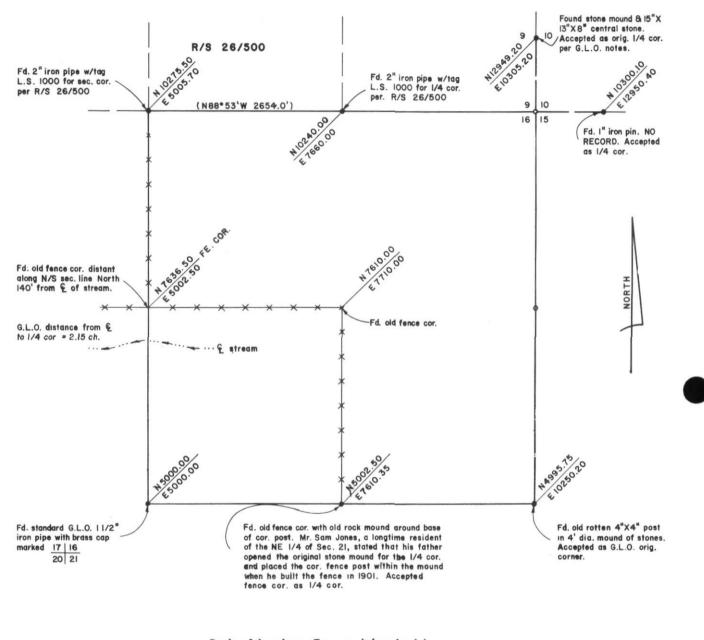
A Native of Watsonville, California, "Buster" followed in his father's footsteps as a Land Surveyor, and his grandfather, J.J. Lewis, started a surveying practice in Watsonville in 1874. Buster's great uncle, William J. Lewis, was Santa Clara County's first County Surveyor in the 1850's.

Buster is survived by his wife, Helen, two sons, and one daughter.

One of his sons, Kenneth, is a Licensed Surveyor, and is carrying on the family heritage in Watsonville.

Buster was the Santa Cruz County Surveyor from, January, 1955, until his retirement in November, 1971.

He was always very popular and knowledgeable in his profession, and he will be greatly missed by his colleagues.



Basis of bearings: True as defermined by solar observation.

- Monuments found.
- Dimensional point nothing found
- ( ) Record per R/S 26/500

#### THE L.S. EXAM PROBLEM

Roger Swink, L.S.

Each edition will carry the best answers for the previous edition's problem with credit given to the persons submitting ne best answers. We invite all interested surveyors or their employees to submit answers.

The examination problems from the 1970 Licensed Surveyors Examination are copyrighted by the Board of Registration for Professional Engineers and may not be reproduced without written permission from the Board. The Board is not involved in authorship of the solution.

Problem D2 - Wt. 25 (L.S. Part D, August 1970)

The owner of record of the southwest quarter of Section 16 T31N, R15E, MDM in Ajax County is a Mr. James Smith. Mr. Smith holds a deed recorded January 1, 1940 in Volume 2350, page 15, Official Records of Ajax County.

The figure on the following page shows the results of a retracement survey of Section 16. The found corners are identified, and assigned coordinates are shown.

Section 16 and the surrounding sections are of regular dimensions.

#### **REQUIRED:**

- a. Compute the locations of the missing corners to properly subdivide Section 16.
- b. What are the dimensions of the boundary lines of the Southwest quarter of Section 16?
- c. How would you inform Mr. Smith regarding the limits of his ownership? At what corners would you set or reset monuments?

NOTE: The above problem was edited for publication)

#### THE L.S. EXAM SOLUTION

#### Roger Swink, L.S.

The best solution for the L.S. Exam Problem as published in the *Fall Edition* of *The California Surveyor* were submitted by *Carl Cross, L.S.* and *Harold Davis, L.S.* The general consensus of the answers submitted is presented below.

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Problem D3 - Wt. 25 (L.S. Part D, August 1970)

a. The first three courses in the Schloss description determine the southerly line of Schloss. The course S 77°44′50′′ W, 299.04 feet becomes 292.14 feet because of the angle measured in the field at the southwesterly corner of Lot 14.

Hampton's South line is parallel with Victoria Avenue and his East line is parallel with the West line of Lot 14. It then becomes a problem in mathematics to determine the distances of the boundary of the Hampton parcel.

ote: The technical editor questions whether enough field work has been completed to determine the South line of Schloss and, after reading all of the solutions, still does not know what an "original c.p" is.

#### CLASSIFIED ANNOUNCEMENTS

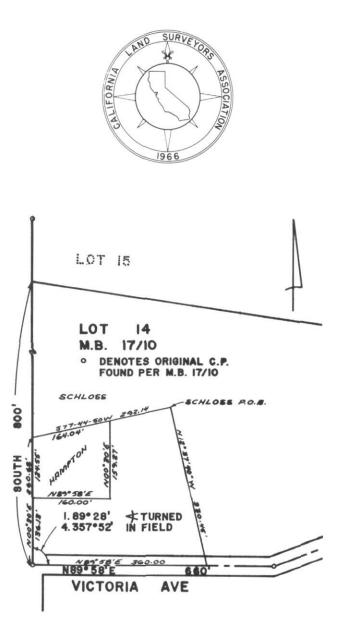
Rates: \$2/line CLSA members; \$4/line non-members and business

USED CURTA CALCULATORS

I have some VERY SLIGHTLY used machines acquired in a very special deal. Here is an opportunity to pick up one or more at almost half price. Be surprised, absolutely like new (New machine guarantee furnished) While they last Model #1 \$69.00 Model #2 \$89.00. Write for details Box 275 CS Chatsworth, Calif. 91311.

FOR SALE-PHO-CAL E.C.S. Computer System Excellent working condition. No reasonable offer refused. P.O. Box 520, Sebastopol, California 95472.

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#### STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS THE FOLLOWING APPLICANTS PASSED THE APRIL 8 and 15, 1972 WRITTEN EXAMINATION FOR LICENSE AS A LAND SURVEYOR

#### NORTHERN CALIFORNIA

| Ackerman, Paul John       Woodland         Agee, Robert Gilmore, Jr.       Oroville         Akinshin, Valeriy       San Carlos         Anderson, Gene Lavare       Carmichael         Baker, Kenneth Eden       Nevada City         Bakken, Harold Wilbur       Castro Valley         Batten, James R.       Paradise         Carey, Joseph Patrick       Hayward         Cook, Fred Willard       Redding         Elliott, Grand M., Jr.       Oroville         Gardner, Edwin Bentley       Novato         Greenwood, John Abel       Sacramento         Grow, Robert Price       Modesto         Guthrie, R.L       Sacramento         Hall, Edward Kenneth       Yuba City         Hansen, Richard Carl       Sacramento         Jones, Jimmy Dean       Sacramento         King, Victor Duane       Moss Beach         Klein, John Bernard       Napa         Krasovec, Alfred Joseph       Sacramento         Liden, David Lee       Rancho Cordova         Lyon, Waiter Gael       Susanville         Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bakken, Harold Wilbur       Castro Valley         Batten, James R.       Paradise         Carey, Joseph Patrick       Hayward         Cook, Fred Willard       Redding         Elliott, Grand M., Jr.       Oroville         Gardner, Edwin Bentley       Novato         Greenwood, John Abel       Sacramento         Greenwood, John Abel       Sacramento         Greenwood, John Abel       Sacramento         Guthrie, R.L       Sacramento         Hall, Edward Kenneth       Yuba City         Hansen, Richard Carl       Sacramento         Jones, Jimmy Dean       Sacramento         Jones, Jimmy Dean       Sacramento         King, Victor Duane       Moss Beach         Klein, John Bernard       Napa         Krasovec, Alfred Joseph       Sacramento         Liden, David Lee       Rancho Cordova         Lyon, Walter Gael       Martinez         Nagel, Fredric Rand       Susanville         Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward <t< td=""></t<> |
| Cook, Fred WillardReddingElliott, Grand M., Jr.OrovilleGardner, Edwin BentleyNovatoGreenwood, John AbelSacramentoGrow, Robert PriceModestoGuthrie, R.L.SacramentoHall, Edward KennethYuba CityHansen, Richard CarlSacramentoJones, Jimmy DeanSacramentoKing, Victor DuaneMoss BeachKlein, John BernardNapaKrasovec, Alfred JosephSacramentoLiden, David LeeRancho CordovaLyon, Walter GaelKelseyvilleMiller, Ronald CharlesMartinezNagel, Fredric RandSusanvilleOdekirk, Thomas FrederickOrovillePeoples, Pat AllanConcordPitts, Rodney RemmelSebastopolRichey, Robert GrimesJacksonRovera, Donald CarlFair OaksSelf, James DonaldClovisSorensen, Edward LeeFairi OaksSelf, James DonaldSacramentoTurner, Ronald WayneS. Lake TahoeWiegman, Christopher CharlesNevada City                                                                                                                                                                                                                                                                                                                                                                                                             |
| Gardner, Edwin BentleyNovatoGreenwood, John AbelSacramentoGrow, Robert PriceModestoGuthrie, R.L.SacramentoHall, Edward KennethYuba CityHansen, Richard CarlSacramentoJones, Jimmy DeanSacramentoKing, Victor DuaneMoss BeachKlein, John BernardNapaKrasovec, Alfred JosephSacramentoLiden, David LeeRancho CordovaLyon, Walter GaelKelseyvilleMiller, Ronald CharlesMartinezNagel, Fredric RandSusanvilleOdekirk, Thomas FrederickOrovillePeoples, Pat AllanConcordPitts, Rodney RemmelSebastopolRichey, Robert GrimesJacksonRovera, Donald CarlFair OaksSelf, James DonaldClovisSorensen, Edward LeeFairifieldStinchfield, Richard AlbertSacramentoTurner, Ronald WayneS. Lake TahoeWiegman, Christopher CharlesNevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Greenwood, John Abel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Hansen, Richard Carl       Sacramento         Jones, Jimmy Dean       Sacramento         King, Victor Duane       Moss Beach         Klein, John Bernard       Napa         Krasovec, Alfred Joseph       Sacramento         Liden, David Lee       Rancho Cordova         Lyon, Walter Gael       Kelseyville         Miller, Ronald Charles       Martinez         Nagel, Fredric Rand       Susanville         Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                               |
| King, Victor DuaneMoss BeachKlein, John BernardNapaKrasovec, Alfred JosephSacramentoLiden, David LeeRancho CordovaLyon, Walter GaelKelseyvilleMiller, Ronald CharlesMartinezNagel, Fredric RandSusanvilleOdekirk, Thomas FrederickOrovillePeoples, Pat AllanConcordPitts, Rodney RemmelSebastopolRichey, Robert GrimesJacksonRovera, Donald CarlReddingSchumann, David EdwardFair OaksSelf, James DonaldClovisSorensen, Edward LeeFairfieldStinchfield, Richard AlbertSacramentoTurner, Ronald WayneS. Lake TahoeWiegman, Christopher CharlesNevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Klein, John Bernard      Napa         Krasovec, Alfred Joseph       Sacramento         Liden, David Lee       Rancho Cordova         Lyon, Walter Gael       Kelseyville         Miller, Ronald Charles       Martinez         Nagel, Fredric Rand       Susanville         Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                     |
| Lyon, Walter Gael       Kelseyville         Miller, Ronald Charles       Martinez         Nagel, Fredric Rand       Susanville         Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Nagel, Fredric Rand       Susanville         Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Odekirk, Thomas Frederick       Oroville         Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Peoples, Pat Allan       Concord         Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Pitts, Rodney Remmel       Sebastopol         Richey, Robert Grimes       Jackson         Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rovera, Donald Carl       Redding         Schumann, David Edward       Fair Oaks         Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Self, James Donald       Clovis         Sorensen, Edward Lee       Fairfield         Stinchfield, Richard Albert       Sacramento         Turner, Ronald Wayne       S. Lake Tahoe         Wiegman, Christopher Charles       Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Wiegman, Christopher Charles Nevada City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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#### SOUTHERN CALIFORNIA

| Beaird, Gilbert Presley | Mission Viejo    |
|-------------------------|------------------|
| Blake, James Sutton     | Lakeview Terrace |
| Brooks, Douglas Wayne   | North Hollywood  |
| Bryant, Joe Henry       | Reseda           |
| Burt, Douglas Lee       | Anaheim          |
| Chambers, George Edward | Burbank          |
| Coates, Henry Wendell   | Carson           |
| Crawford, John Thomas   | West Covina      |

#### PRESIDENT'S CORNER (Continued from Page 1)

My father used to give me somewhat similar advise, "When the day comes that you don't learn something, its time to move on." Sage advise, especially for the poorly educated surveyor. Fortunately, the future surveyor will probably be more knowledgeable than his predecessor. Survey education for the surveyor is available, including higher degrees as well as the B.S.

It is with a twinge of nostalgia that I think of the surveyor in cap and gown, with B.S., M.S. and Ph.D. after his name. Like so many older surveyors, I like to think of him as a rugged, self-taught individual in boots or "tin pants," peering through the weird camera on three legs. We've built that image, and

| Dean, Stephen West       Glendora         DeGroot, David Allen       Anaheim         Dickerson, Robert Lee       Bakersfield         Dietrich, Joseph Milton       Inglewood                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Erenyi, Stephen Istvan Anaheim                                                                                                                                                                   |
| Gann, Irving Thomas, Jr                                                                                                                                                                          |
| Hiatt, Robert Roy                                                                                                                                                                                |
| Jones, Bob L Huntington Beach                                                                                                                                                                    |
| Kabalin, Robert Augustine                                                                                                                                                                        |
| Leger, Robert Louis La Mesa<br>Lieser, John Edward Fullerton<br>Lindell, David Louis                                                                                                             |
| MacNeil, Robert Alden Canoga Park<br>McBurney, Earl Charles Buena Park<br>Mosley, Philip Kirk Ontario                                                                                            |
| Niccum, Robert Charles Sun Valley<br>Nyholt, Franklin Gilbert                                                                                                                                    |
| Olson, Wesley Keith Canoga Park                                                                                                                                                                  |
| Padilla, Jake Ignacio                                                                                                                                                                            |
| Reader, Robert William                                                                                                                                                                           |
| Simons, Donald Francis Westminster                                                                                                                                                               |
| Taylor, Paul Ronald       Granada Hills         Taylor, Samuel Lawrence, Jr.       Grover City         Tenney, Darrel Lyle       Lakewood         Tuggle, Charles Alvin       Westminster        |
| Van Ness, Gary Leslie                                                                                                                                                                            |
| Whitsell, Jerome Doyle       San Bernardino         Williams, Lewis Clement       San Gabriel         Wilson, Melvin Charles       Palos Verdes Penin.         Woods, Robert Perry       Tarzana |

#### OUT-OF-STATE

Kennerson, Jack Lee ..... Willow, Alaska

wonder why we can't be accepted as professionals, along with the doctors and lawyers.

Tomorrow's surveyor has a better chance for professional recognition, but he must still earn it. We here today can be of immense help to him. By precept and example, we can exhibit professional characteristics for him to emulate. By working with the other professions we can show him a maturity and problem solving capacity. By working with the colleges, we can help guide his teachers. By active membership in the association (receiving the newsletter as well as The California Surveyor) we can keep abreast of developments. By leaving him a better world than we found, we can encourage him to perpetuate our profession.

## More Surveyors Use The HP 3800 Distance Meter Than All The Others In Its Class Put Together

That's right. Over 2,000 surveyors in the U.S. and Canada looked into the Hewlett-Packard 3800and bought one. Today, that means there are more 3800's in use than all the other short range Electronic Distance Meters put together. Here's why:

Best Range And Accuracy For The Money. The HP 3800 will consistently measure distances up to 10,000 feet, and do it with a repeatable accuracy of one part in 100,000 or better. What's more, the 3800 will maintain this accuracy despite people, automobiles, or branches moving across its line of sight.

Direct Read-Out In Feet Or Meters. Depending on your need, you have your choice of two 3800 Distance Meters. The 3800A gives you direct read-out in feet, up to 10,000 feet; the 3800B, direct read-out in meters, to 3,000+ meters. Both Models feature environmental correction capability for added precision. And, an easy-to-use control panel that reduces training, speeds measurement.

Technology: An Assurance Of Performance. For those of you who don't know us, allow us to introduce ourselves. We're one of the world's leading designers and manufacturers of precision electronic measurement equipment and computing equipment. To that end, we build over 2,000 products for scientists, engineers, doctors, and businessmen. Typical examples, in addition to the 3800, include: a clock accurate to one second in 30,000 years, used to time Apollo Moon Landings; an electronic "stethescope" that can listen to the heart of an unborn baby as early as 12 weeks after conception; a thermometer with a resolution of 1/10,000 Centigrade degree; hand-held calculators; and our Series 9800 desk-top computers.

The latter can boost your office production as dramatically as the 3800 boosts your field production.

Added Value: The New Vertical Circle. Since many of you have expressed the desire to measure slope and distance from the same set-up, a Vertical Circle is now available. It mounts on your 3800, providing you the additional data required for convenient reduction of slope distance to horizontal distance.

For more information or a "hands-on" demonstration of the HP 3800 Distance Meter with Vertical Circle, or the Series 9800 Desk-Top Computers, call one of our 57 U.S. or Canadian Sales and Service Offices. Or write: Hewlett-Packard, P.O. Box 301, Loveland, Colorado 80537.

#### Worth Looking Into



## COMMENTS AND LETTERS, From In, Out and Around

Dear Mr. Swink, Technical Editor:

We have read with much interest your article, "Line and Distance Simultaneously" in The California Surveyor. We would like to inform you about two instruments from Carl Zeiss of West Germany which have been in practical use for more than one year. Both instrument types are in production and are available on short notice. The instruments are the Zeiss Reg Elta 14 and SM-11.

Both are theodolites with built-in rangefinders, and therefore distances and angles are measured simultaneously. For the electrical and optical pointing the same telescope is used, and that means that only one pointing to the target is necessary. The telescopes can be plunged and the angles can be read in both positions. The SM-11 is a self-contained unit, the battery being built into the instrument and the read-out is also in the instrument itself. Consequently, no cords are necessary. A reduction sector to reduce the slope distance to horizontal distance is also displayed in the instrument. The horizontal distance can thus easily be calculated in the field with the help of a small hand calculator.

The Reg Elta 14 measures automatically the distance, reads the horizontal and vertical circles and records on paper tape in the field distance, horizontal and vertical circle readings and twelve numbers for the identification of standpoint and target. This is all done automatically in fifteen seconds. This tape can be put into a computer and the computer can give you the desired results.

The Reg Elta can also be connected via an interface directly to a desk computer; for instance, the Hewlett Packard 9100B. Such a system has been used during the Olympic games in Munich for practically all distance measurements. The same system has also been applied for staking out according to right-angle coordinates. The flexibility and speed of such a system in the field for staking out complicated projects cannot be surpassed by any other instrument combination.

Very truly yours,

**KEUFFEL & ESSER CO.** Dieter F. Schellens, Staff Consultant Surveying & Photogrammetry

Technical Editors Note:

An effective method for suppliers and manufactures to reach all California Licensed Land Surveyors is through advertisements in The California Surveyor. The Carl Zeiss electronic tacheometers have not been advertised in The California Surveyor or Surveying and Mapping within the last vear.

Although Carl Zeiss appears to have solved many of the problems presented in the fall edition, their equipment requires seven reflectors to measure 4000 feet and nineteen reflectors to measure 6000 feet.

The members of the Mother Lode Chapter, through the auspices of the Columbia Junior College, is offering a seminar type class for people who plan to take the Land Surveyors Examination in the near future. The response was great, with an unexpected thirty plus people signing up, encompassing an area of about fifty miles in radius.

CLASS FOR PROSPECTIVE LAND SURVEYORS

They are using a syllabus of questions similar to those on past exams, grouped into 22 sessions, such as astronomy, horizontal measurement, traverse and computation, control surveys, highway curves, etc. Individuals are assigned research questions for presentation to the class in written and verbal form. A bibliography of twenty-five books and publications has been compiled for use as resource material for the presentations. Typical assignments are as follows: Subdivision of Regular Interior Section (Legal History, Effects of Adverse Possession), Subdivision of Closing Section in 5 & 6 (History, System of Government Lots), Townsite Surveys (Government, Trust, and Original, Resurveying), plus others.

Due to unforeseen circumstances, Bill Geddis, the original instructor had to move to another part of the State. The class is now being taught by J.H. Andersen, L.S., and R.F. Walter, L.S., for the Mother Lode Chapter.

#### MASTERS SURVEYING COURSE

Tom Gribbin, L.S.

John H. Andersen, L.

Applications of Modern Surveying Techniques (CE 282) is being offered at the University of Santa Clara as a part of the Public Works Administration Program Toward Masters Degree in Engineering. Tom Gribbin of Kaiser/Aetna is the instructor.

The class is composed of city engineers, directors of public works and project engineers and personnel holding B.S. degrees in civil engineering as a prerequisite for attendance at the class.

The objective of the class is to relay to the members the newer techniques, instrumentation, policies, and laws relating to modern surveying and mapping. Emphasis is placed upon photogrammetry, instrumentation (precise measuring devices), coordinate systems-special type survey and mapping techniques, and discussion of the more recent mapping laws and ordinances of local jurisdictions.

#### DEADLINE DATES FOR THE CALIFORNIA SURVEYOR Spring Edition ..... February 10, 1973

Summer Edition ..... May 12, 1973

Articles, Reports, Letters, etc., received after the above mentioned date will be placed in the next Edition. Editor



FEBRUARY16-18, 1973

WASHINGTON'S BIRTHDAY 1 PM Friday to 1:30 PM Sunday

Technical Programs of Relevant Surveying Problems

## 1973 C.L.S.A. CONVENTION Santa Clara–San Mateo Chapter

Commercial Exhibits of Modern Surveying Equipment

HYATT HOUSE - SAN JOSE

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|     | California                                                                                             | Environme                             | ntal Pr            | otectio                 | n Proj                    | gram          |            |
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|     | California I                                                                                           | Environment                           |                    |                         |                           | am *          |            |
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- 2. Duplicate requests will be determined by lottery. If your choice is not available, but you would accept it preceded or followed by a number, 1 through 99, please indicate the number
- 3. DMV will notify you of the plates you will be assigned.
- 4. Plates will be sent to the DMV office you indicate to exchange your present license plates.
- 5. If plates are intended for a new car to be purchased, indicate this on the DMV office line on the face of the form.
- 6. The department has the right to refuse any combination of letters and/or numbers that may carry connotations offensive to good taste and decency, or which would be misleading, or in conflict with any license plate series now issued. (Example BOB123 or 123BOB is not acceptable.)
- 7. The personalized plates will be your personal property subject to: (a.) Payment of an additional \$10 fee each calendar year. (b.) Payment of an additional \$12 fee each time the plates are transferred to another vehicle. (c.) Must be surrendered when you sell, trade or otherwise dispose of the vehicle to which they are assigned, if you do not transfer the plates to another vehicle at that time.

\*California's Environmental Protection Program: to preserve and protect California's environment, especially by controlling air pollution generated by motor vehicles.

#### New C.L.S.A. Members - Third Quarter 1972

| Regular Members                 |     |
|---------------------------------|-----|
| Raymond Armada                  | nt  |
| dison S. Ayer                   |     |
| Valter O. Hansen Reddin         | n   |
| Villiam R. Haynes               | n   |
| harles A. Johnson Coache        | lla |
| eonard Lenyer, Jr San Luis Obis | ро  |
| Valter G. Lyon                  | lle |
| ames A. Marshall Arcad          | lia |
| Oon Nasland San Die             | go  |
| Vayne A. Riggins Reddi          | ng  |
| Richard Stinchfield Sacramen    | to  |
| eo L. Strecker La Quin          | to  |
| amuel L. Taylor, Jr Grover Ci   | ty  |
| Gerald W. White                 | WS  |
| teven J. WilliamsRancho Cordo   | va  |
|                                 |     |

#### Affiliate Members

| Fred E. Myers | Walnut | Creek |
|---------------|--------|-------|
|---------------|--------|-------|

Associate Members

Virgil L. Hendrix ..... Northridge

#### Fellowship Member for 1972

| G. Ross Armsted .  |  | • |   |   |   | • |   |   | • |  |   | • |   |   |   |   |   |   | • |     | Soquel  |
|--------------------|--|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|-----|---------|
| Eugene Lockton .   |  |   |   |   |   |   |   |   |   |  | • |   | • | • | • | • |   | • |   | San | Rafael  |
| Joseph J. Scherf . |  | • | • | • | • |   | e | • |   |  | • | • | • |   |   | • | • | • | 2 | • • | . Ukiah |





#### **PROFESSIONAL CODE**

It shall be considered professional and consistent with honorable and dignified professional conduct for any member of the California Land Surveyors Association:

- To devote effort and support programs to raise the profes-sional, ethical and social status of Land Surveying. To maintain a campaign for public recognition of professional 1.
- 2 contribution to the ethical, economical and social well-being of citizens of California and of the United States.
- To accept and maintain standards of professional conduct of the highest order to win the respect and admiration of all 3 citizens.
- 4 To protect the profession of Land Surveying and the public against the unqualified.
- To To promote an effective program of exchange, communication and cooperation amongst its professional 5 members.
- 6. To maintain a constant effort of understanding between professionals in government service and private consulting, recognizing the common aims and philosophies and mutual respect of the professional society.
- To promote and stimulate leadership in public service on a 7
- community, state and national level. To promote and maintain an effective and continuous program of expanding our knowledge of social and technical 8 advances.
- To protect the professional reputation, prospects and practice 9 of another professional with the same vigor and determination as he would his own.
- To manage his professional ethics with the courage to uphold 10. his integrity over all other considerations.
- To publish thoughtful and subdued public announcements free from ostentatious complimentary or laudatory impl cations. Professional cards, brochures, posted projects, press releases of worthy news items and project participation notices are acceptable forms of public announcements.

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