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Page 8 photo of Fred our 1st President

The California Surveyor

THE VOICE OF THE LAND SURVEYORS OF CALIFORNIA

NO. 42

SUMMER EDITION

1976

CONVENTION

by Leonard Lindenbaum

On April 1, 2 & 3, 1976 members of the California Land Surveyors Association, their families and students of the Surveying profession met at the Sheraton-Universal Hotel to take part in the 1976 CLSA Convention. The general reaction from those in attendance was that the Convention was a social as well as a technical success.

The social aspect of the convention was highlighted by the Ladies' Activities, the Exhibitors Cocktail Party and the Dinner Dance. The Ladies' Activities included a tour of Universal Studios with lunch at their commissary, a guided tour of the Huntington Library and luncheon at the beautiful Huntington-Sheraton Hotel and lounging and refreshments in the Presidential Suite at the Sheraton-Universal. Door prizes and gifts were given out at various times during the convention. The Cocktail Party and Dinner Dance were held in the spacious Garden Room atop the hotel.

Twenty-two distributors attended the convention and exhibited the latest survey equipment. The technical portion of the convention was capped by the appearance of Capt. Sam Baker, National Director of the NGS and National President of ACSM. The keynote speaker at the Friday luncheon was William Hewlett of Hewlett-Packard who spoke on his firm's relations to surveying. Another interesting highlight of the technical program was a tour of the NOAA ship Fairweather, for which we are indebted to the officers and crew of the ship.

Special attention should be directed to Lori Carpenter and Dee Bender for outstanding achievement in planning the very successful Ladies' Activities, the speakers who gave of their time to appear at the technical sessions and the members of the Convention Committee for their efforts making the 1976 convention a memorable function. The Convention Committee would also like to take this opportunity to thank those students who worked at the technical sessions, and the many chapters that donated gifts to be given as door prizes. ▲

C.L.S.A. LEGISLATIVE COMMITTEE REPORT

by Richard Fultz, L.S.

The C.L.S.A. Legislative Committee met in March and April, and a May meeting has been scheduled.

The committee is currently following over fifty bills which are of concern to Land Surveyors.

C.L.S.A.'s bill (AB 1511), revising qualifying requirements for applicants for the Land Surveyors exam, has been approved by the Senate Committee on Business and Professions and is now awaiting final legislative approval on the Senate floor.

Several bills introduced in the current '75-'76, two-year session have been passed by the legislature and signed into law by the Governor. Some of the more significant of the chaptered bills are as follows:

AB 1341, Chapter 5 of Statutes of 1976, requires governing agencies to notify the boards of schools or school districts of tentative maps filed for subdivisions within their boundaries.

AB 1798, Chapter 579 of Statutes of 1975, revises Section 8801 of the Business and Professions Code to provide for staggered expiration dates for license renewal after July 1, 1976. (See details in the Convention issue of the California Surveyor).

AB 2166, Chapter 896 of Statutes of 1975, revises licensing and regulating provisions of the Professional Engineers Act, generally deleting obsolete provisions.

AB 2342, Chapter 21 of Statutes of 1976, limits local agency disapproval of subdivision maps to the agency's finding that the map fails to meet or perform requirements or conditions imposed by the Subdivision Map Act, and mandates that local law include a procedure for waiver of the provisions of Section 66473 for immaterial technical and inadvertant error which does not materially affect the validity of the map.

AB 2381, Chapter 92 of Statutes of 1976, exempts a lot line adjustment between two or more adjacent parcels (where a greater number of parcels is not created), from the Map Act provisions, provided it is approved by resolution of the local agency. ▲



It is unwise to pay too much, but worse to pay too little.

When you pay too much, you lose a little money, that is all. But when you pay too little you sometimes lose all, because the thing you have bought was incapable of doing what it was bought to do.

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The California Surveyor

is the quarterly publication of The California Land Surveyors Association and is published as a service to the Land Surveying profession of California. It is mailed to all Licensed Land Surveyors and Land Surveyors in Training in the state of California as well as to all members of California Land Surveyors Association. The California Surveyor is an open forum for all surveyors, with an editorial policy predicated on the preamble to the constitution of the California Land Surveyors Association 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."

Advertising

Commercial advertising is accepted by "The California Surveyor" and advertising rates and information can be obtained by contacting the Editor, P.O. Box 3707, Hayward, CA 94540.

Classified advertising is published at the rate of \$2 per line for members of C.L.S.A. and \$4 per line for non-members and should also be directed to the Editor of "The California Surveyor."

Sustaining Membership

Membership in the California Land Surveyors Association 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 the Editor of "The California Surveyor."

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. Material should be sent to "The California Surveyor," P.O. Box 3707, Hayward, California 94540.

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DEADLINE DATES FOR THE CALIFORNIA SURVEYOR

FALL AUGUST 14, 1976
WINTER NOVEMBER 13, 1976

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

Editor

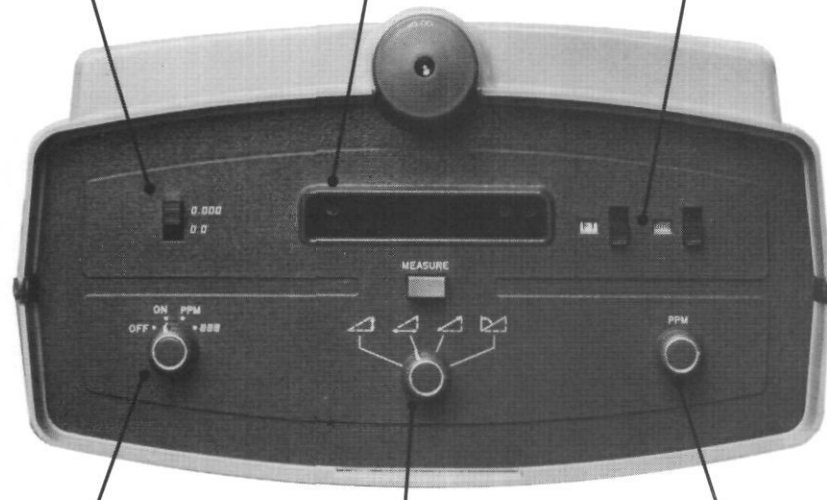
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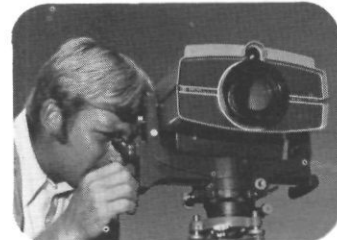
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A THOUGHT

COLLISION COURSE

by Eugene Lockton, L.S.

We have often opined that the primary function of C.L.S.A. lies in the upgrading of our vocational service to the public as effected by self-policing within the local chapter. Several observations support this contention. First is the notable fact that a far greater degree of intimate knowledge of one another's activities accrues to the logical chapter's membership than can be expected to evolve from outside investigation. Secondly the congenial atmosphere of a fraternal group supports constructive discussion as opposed to reluctant compliance to an enforced directive. There is, in addition, an instructional contribution stemming from discussions of specific individual problems.

A conclusion might then be stated that "if a little is good, more is better;" that we should plan for expansion of the number of chapters, shrinking the travel time to chapter meetings as well as giving longer discussion periods to each participant.

However desirable such a program might be, it is obvious that it is on a collision course with effective Board action under the present representational system. Our Board meetings could well be justified on the basis of get-togetherness of the greater community and I certainly do not suggest this with any facetiousness. But to expect any Board chairman to assimilate the opinions of forty delegates through the medium of oral discussion was long ago proven impossible. So we go to committees for the handling of controversial matters. Now among surveyors, all matters are controversial so there is the inevitable motion to "refer back to committee for a report at the next meeting." Clearly any additional chapter representatives would only make matters worse. Something has to give.

We believe that the organization of CLSA around the local chapter must be held inviolate, constituting as it does, our major resource. Representation then must yield, and being only relative, can be pared down to a reasonable number with a tremendous saving of energy. It is probable that a board meeting costs, in terms of contributed manpower, travel and other expense, around \$4000.00. The effort could be put to better use.

Would it be possible to maintain the democratic representation we all feel is important and yet avoid cluttering the scene with bodies by resorting to a simple postcard proxy? Certainly we must share sufficient acquaintanceship to be aware of one another's political philosophies and it should be no problem to determine in advance who among us expects to be in attendance. Before CLSA, mutual trust was virtually non-existent among surveyors. It is the very foundation of strong social organization. Perhaps we should encourage its development in this manner. ▲

. . . According to the "Encyclopedia of Sports," the pitching distance in the 1870's was 45 feet. In 1881, it was lengthened to 50 feet. In 1893, it was lengthened to 60 feet 6 inches.

Why 60'-6"

The plan called for 60 feet. The diagram read 60'-0" but the surveyor mistook it for 60'-6".

And nobody ever changed it.

C.L.S.A. Educational Activities

by Chuck Wooldridge, Education Coordinator

EVIDENCE AND RESPONSIBILITIES WORKSHOP

What is Evidence as it pertains to land surveys? Do you, as a surveyor, have any responsibilities for the collection of evidence? How do you know when you have enough evidence? What is enough evidence? What are your responsibilities if you don't have all the evidence?

If you can't answer each question immediately and with full assurance of your answers, this workshop just may be the workshop you've been waiting for. (And if you can, the Education Division may be looking for you!)

Reservation forms will soon be in the mail to members for this important offering. As of this writing, they will also be sent to members of the Northern California Section of the American Congress on Surveying and Mapping, who have indicated a desire to co-sponsor the northern seminar.

September 23 in the San Bernardino area and September 25 in Sacramento are to be the only California presentations of this offering featuring Walter G. Robillard, Land Surveyor with the U. S. Forest Service. A licensed land surveyor, Walt spends much of his time representing the Service in litigation so is well qualified to guide us with his experience.

Registration information will also be presented in the next issue of the California Surveyor.

BUSINESS MANAGEMENT WORKSHOP

Early in 1977 your Association plans to present a workshop on Business Management. Co-Chairmen Chuck Willess and Bill Nothomb are working with their committee to fill the important void in the educational offerings for surveyors. They, and all other members of the committee can draw from their own personal knowledge, having survived as principals in their own business.

There is still time for you to influence the planning. If you have your own ideas about subject matter or speakers, now is the time to make your ideas known. A phone call or letter to either co-chairmen, the coordinator or headquarters office is all it takes. Watch for further announcements and plan now to attend this seminar on Business Management for the Surveyor. ▲

No. Cal. Conference

The Feather River and Northern Counties Chapter will hold the Northern California Land Surveyors Conference at the Holiday Inn in Chico on October 30, 1976.

The scheduled speakers include Richard Fultz, R. G. Fredricksen & Associates; Ed Griffin, Bureau of Land Management and current President of CLSA; Larry Hyder, self-employed forester and researcher of surveys; Maurice E. Lafferty, Great Basins Aerial Services; Roy Minnick, State Lands Commission and instructor; and Gordon H. Wattles, self-employed author and lecturer after a distinguished career with Title Insurance and Trust Company.

A complete agenda and the registration information will be in the Fall Edition of the California Surveyor. ▲

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NEWS FROM THE BOARD

by Ray Thinggaard

The Board has established a committee to study the issue "Responsible Charge." This is not to be confused with items contained in Board Rule 417 relative to areas of competence, but rather supervision. The committee is looking into such matters as: How many subordinates can a registered professional supervise? Must a field office have a licensed professional in residence? and Can a licensee supervise two or more geographical locations at the same time?

The Civil Engineering & Land Surveying Practice Committee that unquestionably accepted the Attorney General's dubious opinion that grading plans are fixed works has been disbanded.

The Board has sent local governments an EIR policy statement indicating what portions of EIR's must be prepared and signed by a Licensed Professional Engineer. Should you desire a copy, write the Board of Registration.

The Board has taken the following position on the questions posed by a County Surveyor's Office:

Q. Is a record of survey required when, in the process of doing a construction survey, property corners are established and temporary corners set so that the construction survey can be accomplished?

A. Yes.

Q. What constitutes a durable corner under Section 8771?

A. Any monument of such physical condition that it remains as permanent a monument as is reasonably possible, taking into account the effect of elements or composition of soil.

Q. Can a County enact an ordinance to charge a checking fee for the examination of a Record of Survey?

A. No, only the recording fee of \$5.00 for the 1st page and \$2.00 for each additional page.

Q. Can a County refuse to file a Record of Survey which does not comply with Section 8763, 8764 (a), (b), (c), (d), (e), (f), 8766 (a) or (b)?

A. Yes, they are mandatory and the map is incomplete until compliance. The county is cautioned, however, not to interfere with professional judgement.

Q. Can the surveyor demand his R.O.S. map be filed, if after 20 days the County Surveyor has not yet examined the map?

A. No, it cannot be filed until it has been examined by the County Surveyor, but the County Surveyor "shall examine" the Record of Survey filed with him within 20 days after receiving it. This, of course, can be changed by mutual agreement.

CLSA would like to take this opportunity to congratulate the following recently licensed Land Surveyor's who were successful on the November examination:

NORTHERN CALIFORNIA

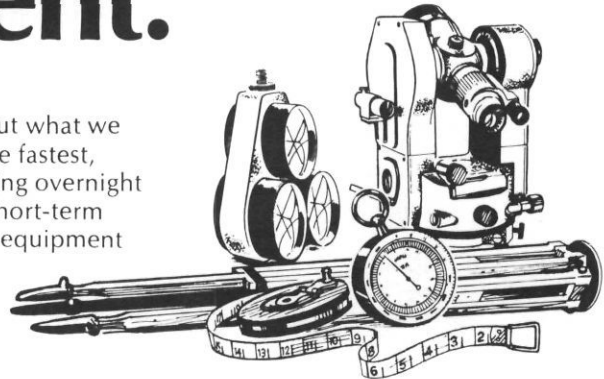
Alexander, William L., 716 Hydra Ln., Foster City 94404
Andrews, William M., 1732 County Ln., Eureka 95501
Blodger, John W., Rt. 1, Box 1460, Meadow Vista 95722
Foster, Richard Lance, 2075 Marlboro Ct. #3, San Jose 95128
Frost, Stephen C., 7657 Garden Gate Dr., Citrus Heights 95610
Gibson, Lloyd M. Jr., 150 N. B., Tulare 93274
Gipson, Frank W., 3910 Judy Ln., Visalia 93277
Hawkins, Claire C., 4450 Cherry Glen, Vacaville 95688
Jones, Stephen L. 8510 N. Chestnut Ave., Clovis 93612
Klopotek, Jerome P., 9358 Tilton Ln., Orangevale 95662
Marcott, Martin D., 5042 Amethyst Ct., San Jose 95123
Mays, Edward W., 3506 Twin Oaks Dr., Napa 94558
Parsons, Robert James, 1989 Grand View St., Seaside 93955
Pelletier, Robert J., 1145 Butte, Redding 96001
Petersen, Terence Mark, P.O. Box 1322, Nevada City 95959
Radio, Joel, 56 Sage Rd., Carmel Valley 93924
Rieland, Andrew Leroy, Rt. 3, Box 328-D, Cottonwood 96022
Rietjens, John H., 336 Linden Ave., Auburn 95603
Seace, John T., 5211 Harte Way, Sacramento 95822
Shafer, Melvin L., 520 Loretto Dr., Roseville 95678
Shelton, Richard G., 14266 Lake Blvd., Summit City 96089
Shirkey, Larry Graves, 2912 Vista Place, Antioch 94509
Sinnicks, Mark L. Jr., 221 Elm Ave., Mill Valley 94941
Stapleton, James G., 8100 Lichen Dr., Citrus Heights 95610
Stapp, Gerald W., Box 2038 Banner Mtn. Rd., Nevada City 95959
Sturgess, Bryant N., 6112 Coyle Ave., Carmichael 95608
Thumlert, Stephen R., 34 W. Somoma Ave., Stockton 95204
Valley, Kenneth H., 202 South Coalinga, Coalinga 93210
Vegvary, Ivan, 231 29th St., Oakland 94611
Waters, Keith M., 98 Rome Rd., Nevada City 95959
Whittemore, Merle W. Jr., P. O. Box 121, Altaville 95221
Wulfert, Thomas M., P.O. Box 673, Red Bluff 96080

SOUTHERN CALIFORNIA

Berg, Thomas C., 375 Camden Place, Laguna Beach 92651
Blakely, William Earl, 889 Senate St., Costa Mesa 92627
Breen, Thomas M., 20554 Loyaltan Dr., Walnut 91789
Butler, James S., 3512 McCourry St., Bakersfield 93304
Cassera, Richard H., 524 Ferro Ln. Paso Robles 93446
Cole, Fred Leland, 1357 W. Marshall Blvd., San Bernardino 92400
Cook, Lawrence Paul, 3471 Moore St., Los Angeles, 90066
Cotton, Larry Eugene, 6974 Blythe, Highland 92346
Cullen, James A., 237 Pasqual Ln., San Gabriel 91775
Cutler, Gary E., 3112 Levante St., Carlsbad 92008
Dettelbach, William H., 246 N. Primrose Ave., Monrovia 91016
Doyle, Gerald P., 7307 Lenox Ave., Riverside 92504
Elwell, Robert C., 2523 S. El Capitan Ave., Arcadia 91006
Holt, John Charles, 2233 Raleigh Ave., Costa Mesa 92627
Kenney, Joseph T., 1536 E. Washington Ave., Escondido 92027
Klage, Errol K., 8749 Jackie Dr., San Diego 92119
La Casella, Joseph F., 361 W. Alameda Ave., Burbank 91506
Langone, James K., 869 W. G. St., Colton 92324
McElroy, Gordon Lee, 1742 Halley St., San Diego 92154
Meyer, James Lee, 1631 Poinciana Dr., El Cajon 92021
Morgan, Orville E., P.O. Box 571, Atascadero 93422
Murray, William Earl, 17311 Apel Ln., Huntington Beach
Newton, Otto Jr., 1300 Elder St., Oxnard 93030
O'Bryant, Michael G., 681 S. Magnolia, Rialto 92376
Parker, Ronald C., 8861 Lance Ave., Spring Valley, 92077
Petyo, Michael, 2529 S. Towner St., Santa Ana 92707
Potter, William H., 2909 Cambria Ave., Bakersfield 93304
Preece, Steven W. 23147 Cerca Dr., Valencia 91355
Reuter, Charles A., 18734 W. Bookham Dr., Saugus 91351
Riddle, Edmund D., 3340 Florecita Dr., Altadena 91001
Schoettmer, Robert Gene, 6967 Batista St., San Diego 92111
Sheldon, Gary K., 17251 Wildrose Ln., Huntington Beach
Watkins, Ronnie Mike, 828 James Place, Pomona 91767
Weaver, Wade D., 409 W. Mariposa, Altadena 91001
Wright, Robert P., 2701 Longley Way, Arcadia 91006
Ybarra, Gabriel D., 4466 Angelo St., Riverside 92507

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*†K&E MICRORANGER DISTANCE METER	30.00	18.00	12.00
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*RETRO-RAY SINGLE PRISM ASSEMBLY FOR ALL DISTANCE METERS	1.00	.60	.40
*RETRO-RAY TRIPLE PRISM ASSEMBLY FOR ALL DISTANCE METERS	2.50	1.50	1.00
CUBIC DM-20 ELECTROTAPES — Two units	40.00	24.00	16.00
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*KERN #173W TRIPOD WITH 5/8 x 1 1/4 ADAPTOR	1.50	.90	.60
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*LIETZ #7311-35 TRIBRACH WITH OPTICAL PLUMMET	.75	.45	.30
*LIETZ #7311-38 5/8 x 11 TRIBRACH PRISM ADAPTOR	.50	.30	.20
*LIETZ #7312-45 TRAVERSE SET	5.00	3.00	2.00
*LIETZ TM-1A OR ASKANIA A-2a DIRECTIONAL THEODOLITE	15.00	9.00	6.00
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*LIETZ B-1 AUTOMATIC LEVEL	4.00	2.40	1.60
*LIETZ B-2 AUTOMATIC LEVEL	3.00	1.80	1.20
*CUBIC DM-40 AUTOTAPE WITH TWO RESPONDERS	300.00	150.00	100.00
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FRED M. DARBY
1902-1976

Fred M. Darby born in Ohio, October 4, 1902, passed away January 12, 1976.

Fred was employed by Southern California Edison Company for many years. In 1946 he moved to Roseburg, Oregon, becoming the Deputy County Surveyor for Douglas County. He served in that capacity until he was appointed County Surveyor in January 1956.

While County Surveyor, he was instrumental in organizing the Oregon Section of the American Congress on Surveying and Mapping (ACSM) and during 1958-59 served as its first chairman.

In 1962 he was elected President of the Oregon State Association of County Engineers and Surveyors Association.

From 1964 through 1966 he was elected Director at Large for the ACSM. He was then appointed chairman of the Committee on the Restoration and Preservation of Monuments Marking the Survey of Public Lands, for the Land Surveys Division of ACSM.

In 1965 when his term as County Surveyor ended, he moved to Sacramento where he was employed by the California Department of Water Resources as a right of way engineer.

He was the first President of the California Land Surveyors Association, being elected in 1967.

In 1967 Fred transferred to the Department of Public Works, Division of Bay Toll Crossing where he acted as a right of way engineer until he retired in 1969.

Fred was extremely interested in improvement in the professional stature of Land Surveying and spent much of his time and energy emphasizing the need for upgraded training and professionalism amongst its entrepreneurs.

He is survived by his loving wife Priscilla of Oakland, California and son Michael of Beaverton, Oregon. ▲

C.L.S.A. MEMBERSHIP

C.L.S.A. MEMBERSHIP

Members as of April 1, 1976	607
Sustaining members	1
Regular Members	398
Associate Members	134
Affiliate Members	35
Student Members	40

NEW MEMBERS, FIRST QUARTER, 1976

Regular Members

D. W. Clark, LS	Robert C. Priestaf, LS
John T. Crawford, LS	Jerry E. Roe, LS
Vincent J. D'Alo, LS	Kent J. Schoenberger, LS
Leon A. Ferdinand, LS	William R. Showalter, LS
Alan G. Miller, LS	Clark Whittle, LS
J. W. Parker, LS	

Associate Members

Philip L. Pearman	Frank T. Lewis
Francis Calkins	David S. McRobbie
Larry W. Gentry	Robert L. Minesinger
Floyd L. Greene	Gregory Owens
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Donald R. Jackson	R. T. Pretzinger
Robert L. Keck	Bruce W. Starr
Errol K. Klagge	Byron L. Woosley

Affiliate Members

Fred L. Kloepper	Joachim Scheller
T. N. Lafleur, Jr.	John R. Wilson
Paul A. Prtichard	

Student Members

D. Allan Ralls	Gary T. Leonard
Darrell G. Bain	Kyle Patten
Howard P. Crider	David G. Robin
Joseph W. Betit	Liaina Salausa, Jr.
Pericles Cosseboom	

NEWS BRIEFS

... C.L.S.A. Board of Directors has voted to provide free advertising space for student members of C.L.S.A. looking for summer or part time employment while completing their education. They will have to be applying from an accredited program (or one having applied for accreditation) and provide the "Surveyor" with a brief resume plus information with regards to area of interest and availability.

... Richard E. Hauck, instructor of surveying and photogrammetry at Pasadena City College has advised the "Surveyor" that there are six people in his programs who are seeking summer employment. Anyone interested should call him at 213-578-7308.

... Purdue University is graduating 13 students in May and students in August who are interested in permanent employment. Interested parties should contact John G. McEntyre, School of Civil Engineering, Purdue University, West Lafayette, Indiana 47906.

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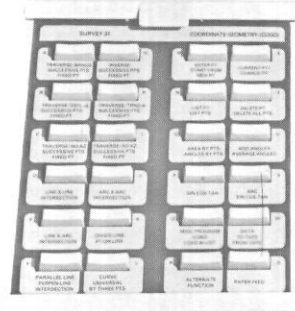
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LEAGUE OF CALIFORNIA SURVEYING ORGANIZATIONS — NORTH SECTION

by Myron A. Lewis, L.S.

The Northern Region is continuing to hold meetings on the third (3rd) Thursday of each month. Presently, we are working with material submitted from the Southern Region of the League. Our Northern Regional Section is trying to prepare workable guidelines for position papers that should be acceptable to both the public and private sectors of the Land Surveying Profession. We would appreciate the attendance and comments of Land Surveyors in private practice. For the time and location of our next meeting and/or any comments you may wish to submit, contact me through this newsletter's mailing address.

To aid us in arriving at some worthwhile conclusions, please give us your comments to the following nineteen (19) questions. Also, send or bring with you, any questions you may have.

1. Are standards necessary?
2. Are standards justified and practical?
3. What are reasonable standards?
4. Are enforcing government agencies too strict or too lenient?
5. Should we go by the class of accuracy as described by Curt Brown in his books?
6. Should accuracy be described as a ratio of 1:10,000, 1:20,000, etc? And if so why?
7. Should accuracy be described as being within a certain amount from the true position?

8. Should the value of the land be a factor in describing the accuracy of a job?
9. How strong a scientific approach should we take in setting accuracy standards of practice?
10. Should procedure be included with accuracy?
11. What is a monument?
12. How should monuments be indicated in filed maps?
13. Should basis of bearing show on each sheet of a map set?
14. The map scale should be next to the North arrow and be graphic for photographic reduction.
15. Coordinates should show only on existing monuments.
16. Certificates should be grouped together and be located along the perimeter of the sheet.
17. Legend to show on each sheet.
18. Legend to show only on one sheet but other sheets will show a reference to its page location.
19. Should a standard set of symbols for survey practice be included in this report? ▲

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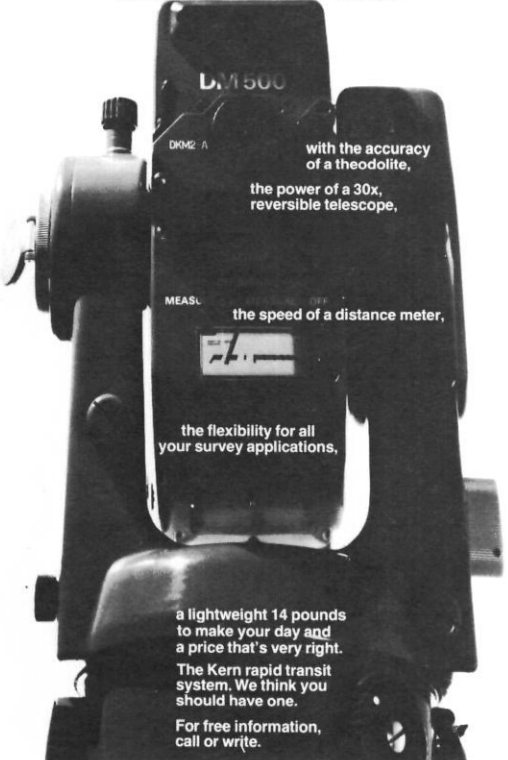
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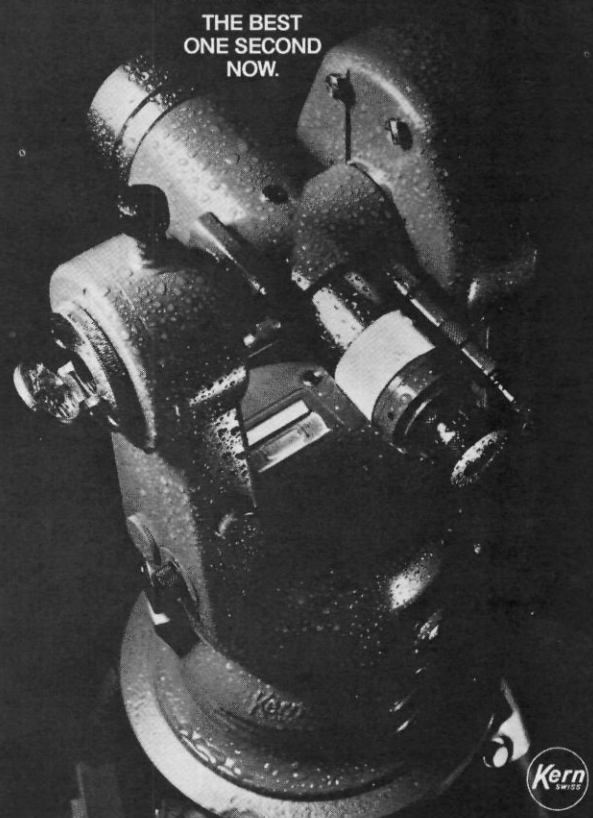
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EDITORIAL COMMENTS

FIELD NOTES

by Allan Ralls-Vice President of C.S.L.A.
Student Chapter, Fresno

When most of the civilized world was under the rule of the Roman Empire, land surveyors, or Agrimensores as they were called, came to be known as members of a recognized profession. It has been recorded that in the later years of the empire, they received large salaries and were honored with titles.

Two thousand years later, the modern land surveyor is struggling for due recognition (and commensurate salaries) with other professions in the engineering field. The problem lies in the popular observation of surveying as a subfunction of civil engineering, rather than as a peer profession. This nemesis is at the same time enhanced and complicated by the defining of surveying by Civil Service Commission and other standards-setting groups as that of a technical field. As an example, the International Standard Classification of Occupations' definition of surveyor is that of a technician.

The National Labor Relations Act says a profession is based on knowledge acquired through the academic process. It seems axiomatic then that surveying cannot advance professionally until a B.S. degree, plus experience, is a requirement for registration in *all* states. At this time, Michigan is the only state that has a B.S. degree as a prerequisite for eligibility to take the exam for registration as a Licensed Land Surveyor. Through the efforts of groups like the California Land Surveyors Association, California does allow the B.S. degree in surveying to count as four years of the required six years' experience. Recently, the law has been changed to read, in effect, that while four years of education is required, experience *MAY* be substituted for the four years of education. This is certainly a step forward for California, but it is a far cry from the parity of recognition that must be achieved for the truly professional land surveyor.

In most states, California being no exception, a registered civil engineer, meaning one who has passed the state examination in "Civil Engineering," is allowed to practice land surveying. In the civil engineering curricula at CSUF and at Purdue University, one of the nation's most prestigious engineering schools [and certainly the largest, with an engineering undergraduate enrollment of over 4,200 (1975)], the emphasis on surveying has almost reached annihilation. At Purdue, the civil engineering curriculum is now down to a two-credit-hour appreciation-level course in surveying; and at CSUF, CE majors are required to take only two semesters of surveying.

Schools, like CSUF, need the support of practicing professionals as well as standards-setting organizations, such as the Civil Service Commissions and the State Licensing Boards, in establishing the proper approach to the much-needed professional education of the land surveyor.

The current definitions and requirements of land surveyors must be changed to emphasize education. It is said that you have to earn the right to be considered by your peers as a professional! A clear division between the technologist and the professional surveyor must be universally recognized and accepted. There can be no compromising. The graduates of the

Surveying and Photogrammetry program at CSUF have therefore taken the first step in becoming professional surveyors, not surveying technicians! The establishment of the B.S. program at CSUF is unquestionably the greatest leap forward in the Western States in making available the professional degree that this ancient profession so badly needed. ▲

PRESIDENT'S CORNER

by A.E. Griffin, L.S.

Last year your Board of Directors arranged to have an Organizational Planning Meeting conducted by Sherie Berger the day before the second board meeting of the year. The meeting was considered to have been quite successful. It was decided to have a similar meeting again this year, and again the meeting was very productive.

Many suggestions to increase the effectiveness of our board meetings were made. A resolution to the board developed which would have significant effect on the future actions of the Association. The resolution was introduced at the Board meeting the next day, but it was put over until the July meeting to allow the Chapter Representatives to get instructions from their chapters on how to vote.

The resolution provides that a committee be established to layout and execute a plan of action leading to the revision of the California Land Surveyor's Act along the lines of the National Council of Engineering Examiners' model land surveyor's act. The model act defines land surveying as any service or work, the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences, and the relevant requirements of law for adequate evidence to the act of measuring and locating lines, angles, elevations, natural and man-made features in the air, on the surface of the earth, within underground workings, and on the beds of bodies of water for the purpose of determining areas and volumes for the monumenting of property boundaries, and for the platting, and layout of lands and subdivisions thereof, including the topography, alignment and grades of improvements and for the preparation and perpetuation of maps, record plats, field note records and property descriptions. The resolution provides for the committee to pursue liaison efforts with other associations or interested groups to see if a mutually agreeable solution to the problems in the Land Surveyor's Act is possible. When this effort has progressed as far as possible, a proposed new law containing as much agreement as possible would be prepared. This law would then be submitted to the legislature and vigorously pushed by our Association, and hopefully by the other engineering societies.

This is a very important step for your Association. It is necessary that we know your desires in this matter. Do you wish us to commit ourselves to this course of action? Be sure that you attend one of your local chapter meetings and let your chapter representative know how you feel about this resolution. He represents your chapter and he needs your advice on how to vote at our next board meeting. ▲

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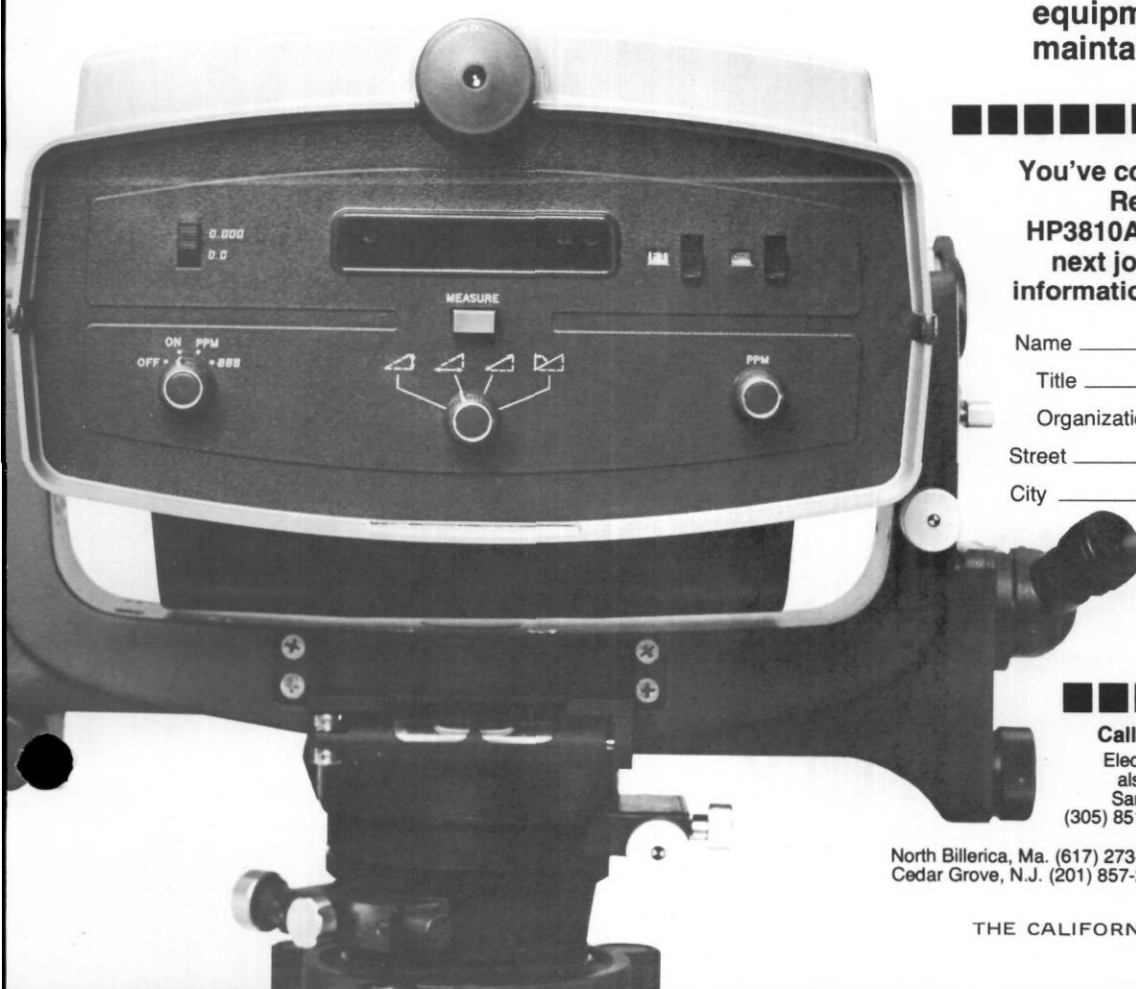
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WHAT'S LAND SURVEYING?

by Donald E. Bender

Land Surveying is boundary surveying; Land Surveying is defined by section 8726 of the Land Surveyors Act; Land Surveying includes cook book engineering; Land Surveying is a separate and independent profession; Land Surveying is a branch of engineering; Land Surveying is part of civil engineering. Sound familiar?

The debate between the surveying and engineering societies has continued without agreement for over one hundred years. Some societies claim to represent the entire complement of surveying activities, while others claim a more specialized interest. The lack of agreement between the societies is resulting in confusion among Land Surveyors as to what to call the services they provide their client or employer, as well as what services are professional or technical in nature.

But what about the public? Is the public confused by this lack of agreement among Surveyors? A quick visit with a contract administrator or personnel officer will provide a glimpse of how the public views land surveying. Ask how Surveyors and Surveying are classified, and you will find the public, i.e., your client, employer, or educator is as confused about what constitutes land surveying as are Land Surveyors.

On January 24, 1976, the CLSA Board of Directors created the Land Surveying Definition and Classification Committee. The committee has been charged by President Griffin "to obtain agreement on a definition of land surveying as practiced in California." The expressed goal for this agreement is to enable CLSA to "go to people outside the profession and say — this is land surveying." We intend to contact various federal and state agencies which classify surveying and surveyors in order "to obtain proper classification of land surveying."

The committee charged has set an ambitious schedule to establish an acceptable definition of land surveying within California by January 1977. We appeal to the readership to advise the committee of existing definitions you believe we should consider or conclusions you feel the committee should reach. We plan to submit our findings and recommendations to the Board of Directors for review in October. Early submission of your input will provide the committee sufficient time to consider all material submitted and all points of view.

We invite the support of interested societies and individuals to participate in the 1977 project of working to obtain proper classification of land surveying. ▲

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SOMETHING FOR EVERYTHING AT CLSA CONVENTION 1977

by: SHIRLEY FISCHER & COLETTE BLOMQUIST

Co-ordinators for Ladies Activities

We are already planning our activities for next years convention at the Airport Marina in Burlingame. The following list is just a few of the features we have to offer in the San Francisco Bay Area, and we have more existing ideas to look into.

- (1) CIRCLE STAR THEATER; super star entertainment, such as John Davidson, Johnny Cash and Mitze Gaynor (subject to stars appearing during convention dates.)
- (2) ACRES OF ORCHIDS; interesting tour of Rod McLellan Co. Nursery "a rare beautiful sight."
- (3) ALLIED ARTS GUILD; a California showplace, shops and fine restaurants.
- (4) MARINE WORLD-AFRICA U.S.A.; ski boat show, jungle theater, raft safari, dolphin show and many more exciting events.
- (5) RED & WHITE FLEET; tours of San Francisco Bay.
- (6) SUNSET MAGAZINE & GARDENS; tour through editorial office and landscaped gardens.
- (7) BAY MEADOWS; horse racing, club house facilities for dining—the gentlemen will be joining us for this.
- (8) SAN FRANCISCO; shopping sprees—shuttle bus service from Airport Marina to the "City by the Bay" for fine shopping.

Our goal is to make this a successful convention for the ladies by offering diversified activities. "Something for Everyone" will be the theme we will strive for. We ask for your support in EARLY pre-registration, in order for us to have ample time to plan a program that will be of the most interest to all attending. ▲

Letters to the Editor

Re: C.L.S.A. offer in the California Surveyor No. 41 for copies of the revised "Supplement to the Manual of Instructions . . ."

Dear Editor,

I wonder how many others thought they were obtaining new information to improve their understanding only to be disappointed a month later upon discovering they had wasted \$2 on a useless second copy of "Restoration of Lost and Obliterated Corners."


Robert G. Hoerger
Berkeley, California

Editor's Note:

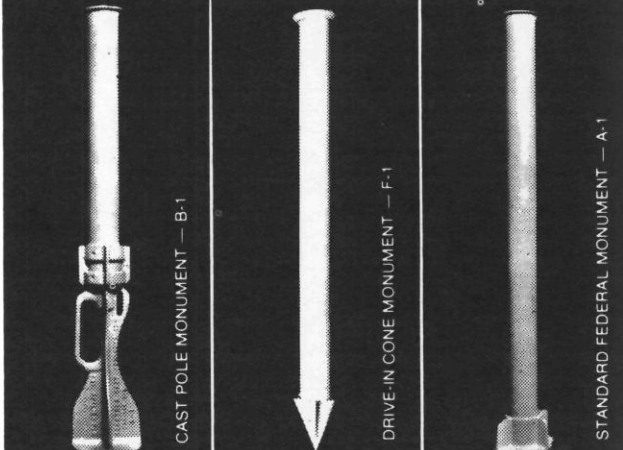
At no time did C.L.S.A. advertise that they were offering any new or different publication, we simply served as a middle man to provide a service to surveyors and insure an adequate supply of the publication for California. Had Mr. Hoerger been a member of C.L.S.A. and attended local chapter meetings, he would have been able to examine the merchandise prior to purchase and would also have saved himself half of the cost. It is regrettable that he was unhappy and I can only suggest that he get more involved with C.L.S.A. to insure a better understanding in the future. ▲

Berntsen

magnetic survey monuments



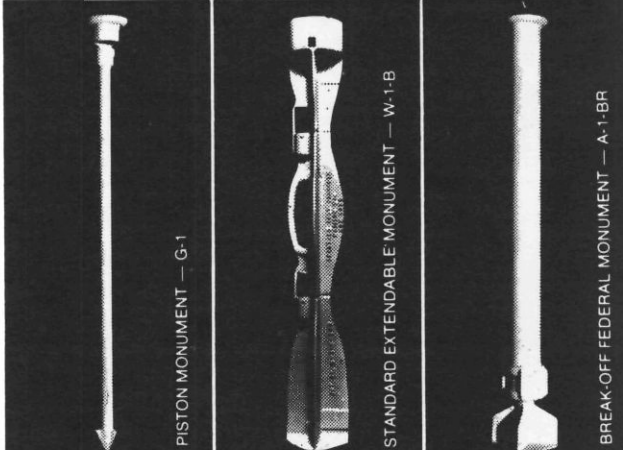
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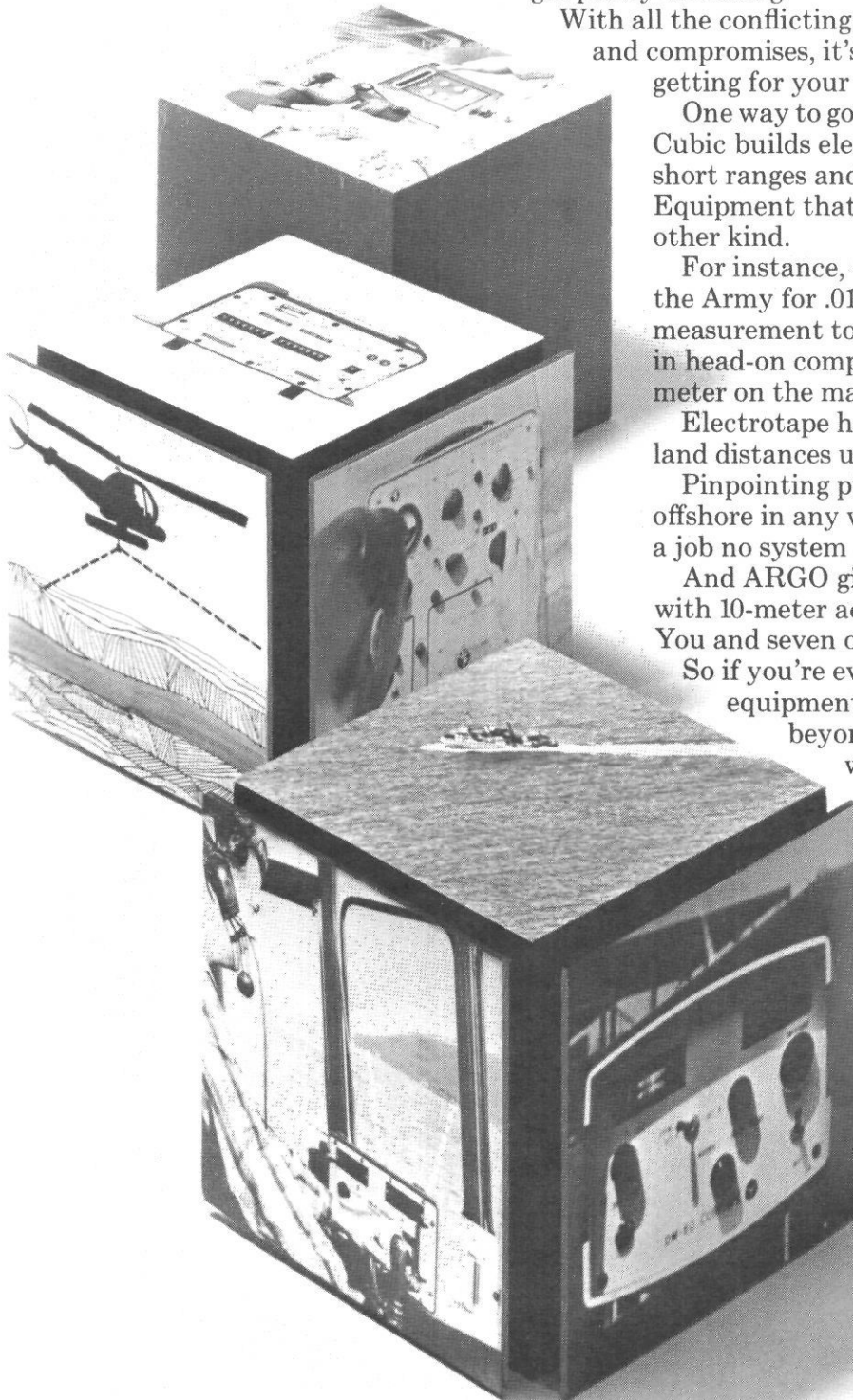
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The CLSA Convention Committee discussed the possibility of having the 1978 Convention aboard PRINCESS CRUISES' "3 day party cruise ship." At this year's Convention (Sheraton-Universal in North Hollywood), a brochure about this cruise was given out, a movie was shown in the exhibit area, a brief question & answer period was held and a questionnaire polling those present at the Convention was handed out. About half of those attending the session when the questionnaire was handed out, answered the questions and returned the questionnaire. Two-thirds of those returning the questionnaire were in favor of the "Cruise-Convention." The Convention Committee felt that this was not enough of a "Go-Response," both in numbers of questionnaires returned and in percentage of those in favor. The Committee also felt that those not interested in going had many good reasons for not wanting to go, so it was decided to no longer pursue the "Cruise-Convention" idea.

However, this idea of a cruise has been passed on to the Education Committee to see if a "Cruise-Workshop" would be feasible. A brief explanation and a questionnaire follows. Please fill out and return the questionnaire, so the Education Committee can make a determination.

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(Continued on page 20)

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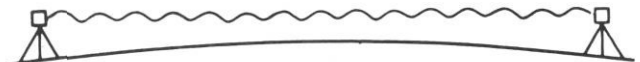
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in the memory of "SURVEY 31"

(An unlimited number of points, not just 2000 like some computers, can also be indirectly stored on magnetic tape)

... and 5,120 steps of "Program Memory"
can do many things with them:

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see how "SURVEY 31" can save you time!

Call, write or return the coupon to:

ENGINEERING SERVICES COMPANY 14604 205th S.E. / Renton, Wa. 98055 / (206) 226-7950

CLSA SUSTAINING MEMBER

Bill Watson, Sales Manager

**GUARANTEED FOR ONE YEAR AND SERVICED BY
TEKTRONIX, INC.** — the world's largest manufacturer
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instruments.

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San Diego	MINNESOTA St. Paul	OREGON Tigard	UTAH Salt Lake City
Santa Clara			WASHINGTON Seattle
Woodland Hills			

WE WANT TO KNOW MORE ABOUT SURVEY 31

Name _____

Company _____

Address _____

City _____

State _____ Zip _____

Phone _____

CRUISE — WORKSHOP

Buffet dinner will be served aboard ship (starting at 7:30 PM) with an 8:00 PM (sharp) ship departure. After dinner, everyone will be free to roam the ship.

Technical sessions will take place most of Saturday ("all-you-can-eat" breakfast, brunch and lunch are provided), with a two hour afternoon break as the ship cruises around Guadalupe Island to observe the mysterious animal life. Saturday evening will begin with a free "Captain's Cocktail Party," followed by dinner and then a free show provided by the ship. Then dancing in various lounges until . . . ?

On Sunday, the ship will dock at Ensenada, Mexico, at 8:00 AM for a day of shopping. Again "all-you-can-eat" breakfast, brunch and lunch will be provided aboard ship. The ship will depart at 4:00 PM. The last technical session will be from 4:30 PM to 6:00 PM, followed by dinner and more entertainment.

The ship will return to LA at 8:00 AM Monday. Breakfast

will be aboard ship and departure by 10:30 AM. Buses will return those that want to go to LA Airport (free, again) for noon (+) departures.

ADDITIONAL COMMENTS

It should be kept in mind that these type of professional gatherings are TAX WRITE-OFFS.

All meals are included in the cost of the cruise: Friday dinner, 4 meals on Saturday and Sunday, and Monday breakfast ("all-you-can-eat" at each meal).

The only extra costs aboard ship would be for the bar, tips and souvenirs.

Depending on the number of people that would come on this "Cruise-Workshop," the cruise cost per person would be between \$300 and \$330 for the 3 nights and 2½ (+) days. The cost to attend the technical sessions would be an additional \$50 (+).

Cancellations prior to 30 days would be fully refunded. ▲

"CRUISE-WORKSHOP" QUESTIONNAIRE

Return to: Cruise-Workshop

7129 Via Colina
San Jose, CA 95139

1. Would you like to see CLSA hold a fall 1977 Workshop aboard a cruise ship? YES NO
2. If the answer to #1 is YES, please answer the following:
 - (a) Would you bring your wife or a guest? YES NO
 - (b) Would you be willing to pay 10% of the cost (approximately \$30 per person) one year in advance of sailing? YES NO
 - (c) Would you be willing to invite members of the Nevada Association of Land Surveyors? YES NO
3. If the answer to #1 is NO, please explain why: _____

CLSA Member. . . . YES NO

Name (print)

NEW SURVEYING COMPUTER

SURVEY 31, a new computer specifically designed for surveying computations has recently been announced by Engineering Services Company of Renton, Washington.

Most commonly used surveying functions (traverse, inverse, curves, etc.) are built directly into SURVEY 31 with a ROM (Read Only Memory). Any of the built-in solutions are instantaneously available by touching one or two appropriately labeled keys. Loading of programs is unnecessary for many operations however they are available on magnetic tape if needed. In addition to the built-in surveying functions, programs are also available for related applications such as earthwork, hydraulics, structures, etc.

300 coordinate pairs (or optionally 100 pairs at a lesser price) may be stored directly into the memory of SURVEY 31. Storing points directly into memory, as opposed to slower indirect storage on magnetic tapes as done on most computers, allows instantaneous access between all points at any time. It is possible however, to also store an unlimited number of points on magnetic tapes with an access time of from 6 to 36 seconds. A flexible disc memory with a capacity of over 16,000 points per disc and an access time of less than 1 second to any point is also available as a peripheral.

Using SURVEY 31 is as easy as ABC according to Bill

Watson of Engineering Services Company. To elaborate, the operator selects the problem to be solved by touching one or two of 24 clearly labeled keys on the keyboard. The computer then responds with an appropriate prompting message requesting certain data to be entered. The operator enters the requested data and then simply reads the alphabetically identified result from a quiet, thermally printed paper tape.

He further stated, "to sum up what is offered is a much more powerful computer with more complete programs at a better price."

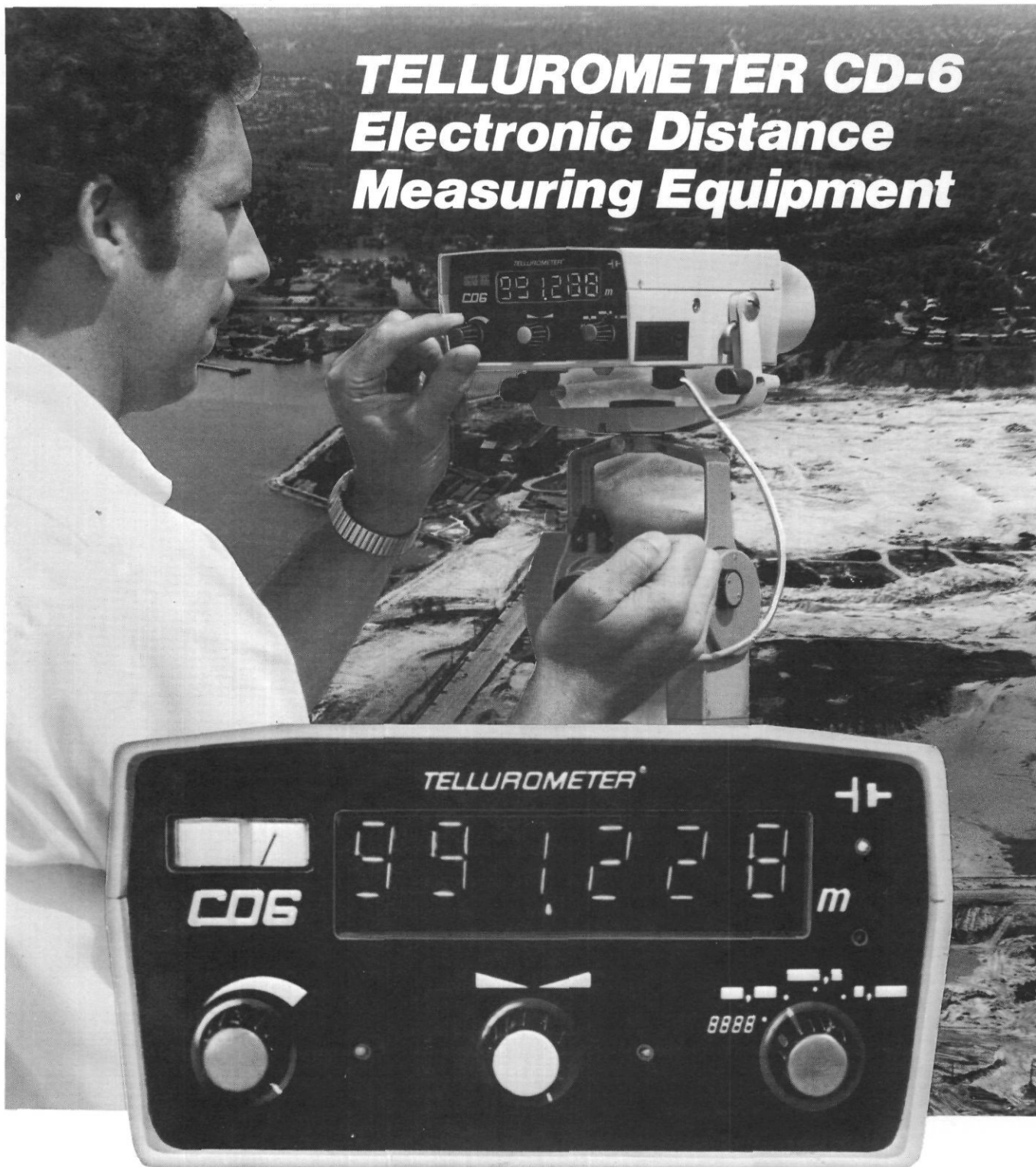
Price of the computer with 100 point storage is \$4195 and with 300 point storage, \$4595. Price of the ROM and the program library is \$895.

The mainframe of SURVEY 31 is manufactured by Tektronix, Inc. of Beaverton, Oregon a leading manufacturer of oscilloscopes and other precision electronic instruments. The entire system is guaranteed for one full year and serviced at any of 38 Tektronix service centers in the United States.

Peripheral devices include wide page printers, flatbed and drum plotters, disc memories, graphic displays, digitizers and many other devices.

Advance orders for delivery starting the first week of July, 1976 are now being accepted by Engineering Services Company. ▲

TELLUROMETER CD-6 Electronic Distance Measuring Equipment



ACTUAL SIZE

- Theodolite Mountable
- Measurements Unaffected by Beam Interruptions
- Fully Automatic Digital Readout
- Small and Compact
- Simple Operation

- High Accuracy
- Range: .1 meter to 2000 meters
- Accuracy: $\pm 5 \text{ mm} + 5 \text{ ppm}$
- Resolution: 1 mm
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- Tilting Angle: $+30^\circ -35^\circ$

See your Tellurometer agent for delivery, or write: -

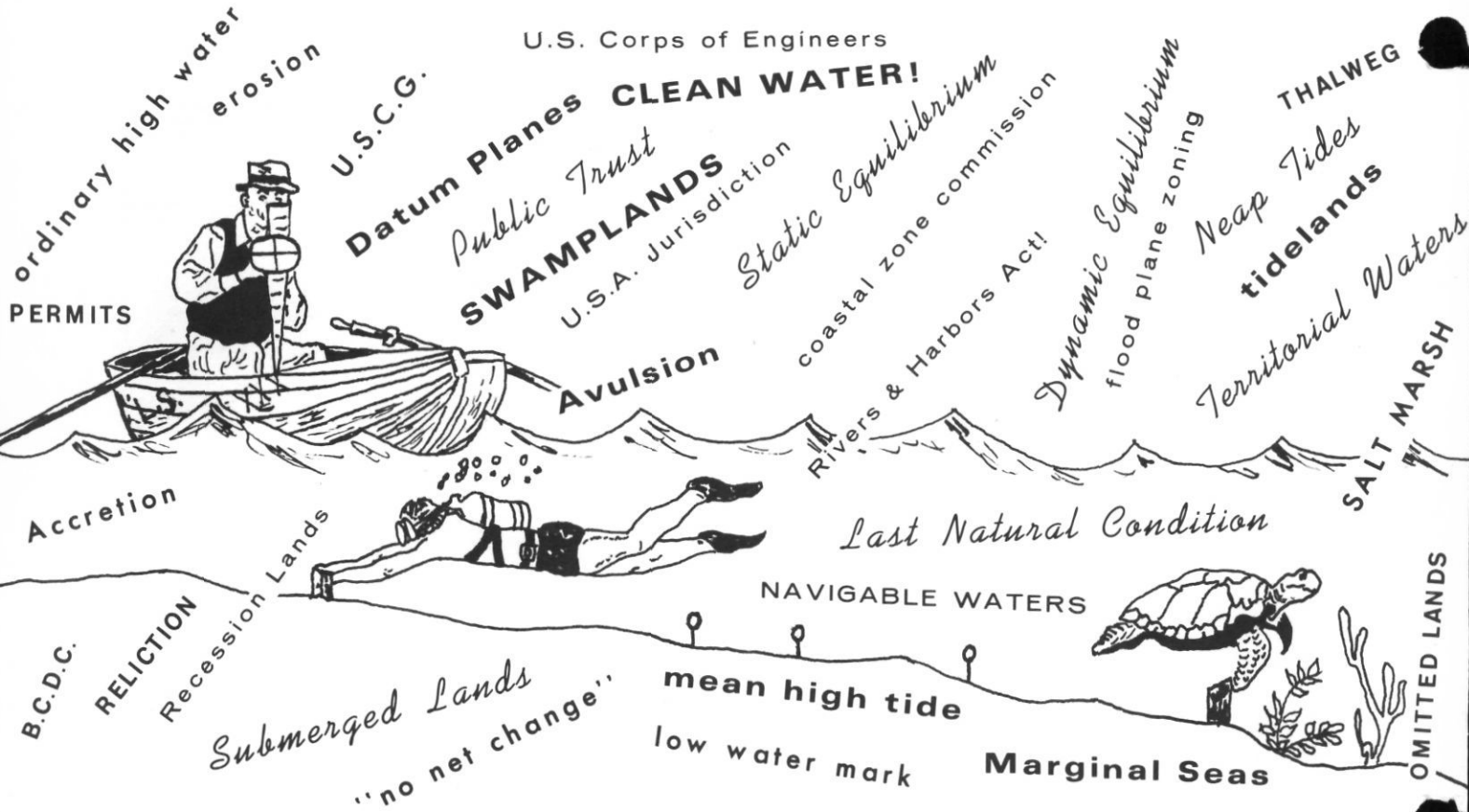


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A PRESENTATION BY CALIFORNIA LAND SURVEYORS ASSOCIATION

U.S. Corps of Engineers



A WORKSHOP ON WATER AND WATER RELATED BOUNDARIES

- WHEN: November 5 & 6, 1976
- WHERE: San Francisco International Airport
Airport Marina Hotel
- COSTS: (To be announced later)
- PARTICIPATION: (Limited to 100)

SUBJECTS: (Tentitive Program)

- | | |
|---|---|
| <ul style="list-style-type: none"> ● THE TITLE CO. LOOKS AT WATER BOUNDARIES ● FEDERAL/STATE JURISDICTION BOUNDARY DETERMINATION-PRESENT STATE OF THE ART ● THE LAW LOOKS AT WATER BOUNDARIES ● THE MEANDER LINE-A TRADITIONAL DOCTRINE ● WHAT OTHER STATES ARE DOING! | <ul style="list-style-type: none"> ● THE GENESIS OF WATER BOUNDARIES ● FACT, FANTASY & FICTION ● SOURCES OF THE EVIDENCE OF CHANGE ● FEDERAL VERSUS STATE RULES ● TYPICAL APPLICATIONS IN SURVEYING PRACTICE ● OTHERS |
|---|---|

SUSTAINING MEMBERS

 <p>HEWLETT <i>hp</i> PACKARD</p> <p>Electronic Distance Meters Total Station Programmable Calculators</p>	 <p>Kern SWISS</p>	 <p>SURVEYORS SERVICE CO.</p> <p>P.O. Box 1500 COSTA MESA, CALIF. 92626</p>
 <p>WANG</p> <p>LABORATORIES, INC.</p> <p>TEWKSBURY, MASSACHUSETTS 01876.</p>	<p>AGA</p> <p>Service throughout the world.</p>	<p>LEWIS & LEWIS</p> <p>surveying equipment</p> <p>Ventura, California</p>
 <p>KEUFFEL & ESSER CO.</p>	 <p>LIETZ</p>	<p>ENGINEERING COMPUTER SERVICES</p> <p>2200 'F' St. Bakersfield, Calif. 93301 Phone (805) 325-7012</p>
<p>ENGINEERING SERVICES COMPANY</p> <p>14604 205th S.E. Renton, Washington 98055</p>		 <p>Electro Rent Corporation A Telecor Company</p>

APPLICATION FOR MEMBERSHIP IN THE CALIFORNIA LAND SURVEYOR'S ASSOCIATION

- MEMBER GRADE:** Have a valid California Land Surveyor's or Photogrammetric Surveyor's License
- AFFILIATE MEMBER GRADE:** R.C.E. or those who rely upon the principles of land surveying.
- ASSOCIATE MEMBER GRADE:** Work in land surveying and be recommended by a member.
- STUDENT MEMBER GRADE:** Actively pursuing a Land Surveying Education.

a. Name _____ County _____

b. Address _____ Zip _____

c. Mailing Address _____ Phone No. _____

d. Employment: Private _____ (Principal _____) Retired _____ Public _____

Name of Firm or Agency _____

e. Signature and L.S., P.S. or C.E. No. _____

f. Recommended by (Associate & Affiliate Grade Only) _____

Dues schedule: *Member \$50.00 Affiliate \$25.00 *Associate \$10.00 *Student \$5.00 (*Entrance Fee \$15.00)

Mail application and check to: California Land Surveyor Association • P.O. Box 1363, Santa Rosa, Ca. 95403

I authorize charge to my: Master Charge Account No: _____
Enter 4 numbers which appear on Master Charge card directly above your name:

BankAmericard No: _____ Expires: _____
Date

FIRST YEAR'S ANNUAL DUES ARE TO BE PRO RATED FROM DATE OF APPLICATION

CALIFORNIA LAND SURVEYORS ASSOCIATION

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Executive Secretary — JAMES E. ADAMS, P.O. Box 11592, Santa Rosa, CA 95406

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