

Institutional Affiliate of American Congress on Surveying and Mapping.

The California Surveyor

No. 68

The Voice of the Land Surveyors of California

Spring 1982

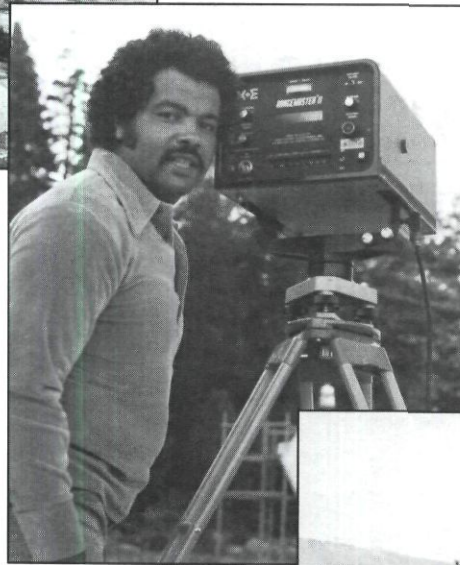
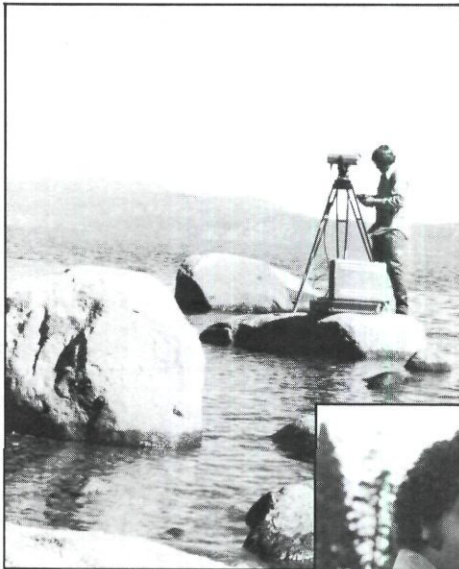


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The California Surveyor

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."

Personnel

Owner: California Land Surveyors Association
 Editor: R. E. Baldwin, L.S.
 Sales Manager: D. Calegari

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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*.

Unless indicated, all articles in this publication are prepared by the editor.

EDITOR: **R. E. Baldwin, L.S.**
 1345 California St.
 Berkeley, CA 94703

DEADLINE DATES FOR THE CALIFORNIA SURVEYOR

Summer July 15, 1982
 Fall October 15, 1982

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

Editor

Cover: Running Geodetic Control for shoreline survey at Lake Tahoe: Bryan Sturges (upper), Tony Shelton (center), Bob Lea and Brian Sturges (lower). Photos courtesy of Jim Dowden.

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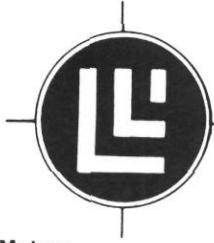
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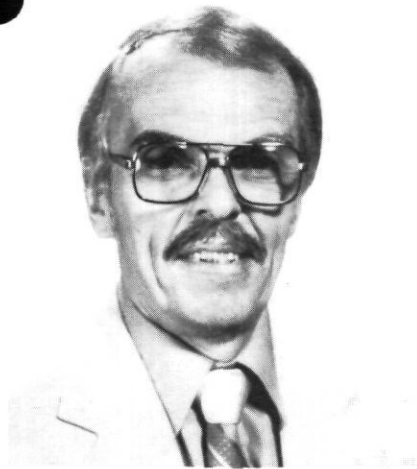


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President's Message



Upon taking office as president for 1982 at the January Board of Directors meeting, I outlined my primary goals for the year which I wish to share with you, the membership.

My first goal is to develop strong committees made up of individuals who are willing to

donate the necessary time to achieve the goals and objectives of the particular committee. By the time you receive this issue of the California Surveyor, you will have received a letter from me requesting you to consider participation on one of the committees listed in the letter. I urge you to carefully consider the contents of that letter as well as the accompanying information and should you have the time and interest, volunteer for one of the committees. As stated in the letter, a committee is one of the most productive tools with which an organization has to work. It is important for the health and vitality of every association that all members take an active role by voluntarily serving on its committees.

My second goal is to develop equally strong and active chapters that meet the needs of the land surveyor at the local level. In order to maintain active chapters,

it is imperative that they develop a strong monthly program that is of interest to the land surveyor. A few hours a month for a program committee to develop ideas is a small effort that will reap great rewards. Our executive director and I are available for any assistance you may need.

A year passes rather quickly; however, you can be assured that the Board of Directors of the Association and I will make the strongest effort to meet these goals.

Both our vice president and I as well as our executive director plan on visiting as many chapters as we can during the year. I am looking forward to meeting as many of you as possible and hearing your views and ideas as to the the direction the Association should be going. Charles E. Moore, L.S.
President

□

News Briefs

LIFE MEMBERSHIP FOR G. HARLAN DYE

G. Harlan Dye, L.S. 2748, a Charter Member of the San Diego Chapter, was given Life Membership in the California Land Surveyors Association at the January meeting of the Board of Directors in grateful appreciation of his strong and continued support of the cause of the Land Surveyor in California and of C.L.S.A.

ARIZONA LICENSES WITHOUT EXAM

On November 5, 1981, the Technical Board of Registration of the State of Arizona licensed some 59 applicants (beginning with number 14160) to practice as Professional Land Surveyors without first holding them for an examination to determine minimum competency. The Western Federation of Professional Land Surveyors

(WFPLS) has sent Arizona's Board a resolution requesting that the Board "develop guidelines and policies that will restore adequate safeguards for the public," and "take steps to re-evaluate those individuals registered under the above referenced conditions."

EQUIPMENT STOLEN

Anyone coming across the following stolen items are requested to contact Paul Pritchard at (209) 226-2920: Zeiss Ni2 Level Serial No. 43762; Leitz T60-DT Theodolite Serial No. 134835; and Schonstedt Pipe Locator Serial No. 7330.

HEARINGS ON S. 706

On February 11, 1982, ACSM-ASP testified in support of a modified version of Senate Bill S. 706, the Federal Land Survey Act. The testimony will appear in the next issue of the ACSM Bulletin.

Robert E. Myers, State Surveyor of Missouri, and the ACSM member who serves as the focal point for activity on S. 706 and H.R. 4399 presented the testimony. He was accompanied at the witness table by W.A. Radlinski, Executive Manager, COMPASS; John M. Palatiello, Government Affairs Director for ACSM and ASP; and Kate Boyce from the firm of ACSM's legal counsel.

The hearings were held by the Subcommittee on Public Lands and Reserved Water, Senate Committee on Energy and Natural Resources, Chaired by Senator Malcolm Wallop, Wyoming. Also in attendance were Senators Pete V. Domenici, New Mexico; Paul E. Tsongas, Massachusetts; Steven D. Symms, Idaho; and John W. Warner, Virginia. Senator Domenici gave a comprehensive

(Continued on Page 7)



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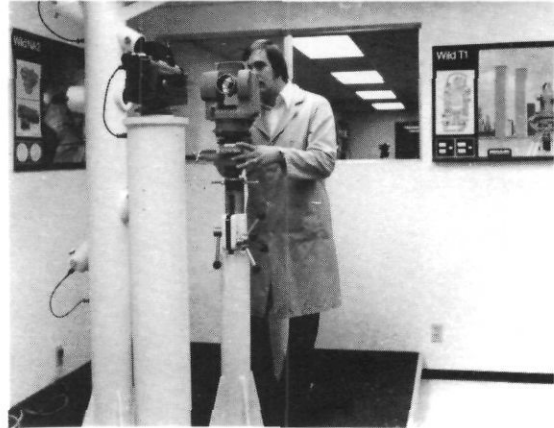
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(continued from Page 5)

statement in support of the bill which he introduced. Additionally, Senator Harrison H. Schmitt, New Mexico, testified in support of the bill with principal emphasis on the need for more surveys, more accurate surveys, and more timely completion of surveys.

Testifying against the bill were representatives of the Bureau of Land Management and the Forest Service. The FS witness referred to an alternative bill which the Administration is developing, but he was unable to say what it was. Chairman Wallop told him that they had better "Get their proposal to the station if they want to get on the train."

BLM said they have plans for correcting surveys in problem areas by 1984 and do not need any legislation. Many of BLM's objections to S. 706 would be overcome by H.R. 4399 which ACSM was instrumental in getting introduced. Senator Wallop said he had problems with the inherent thrust of BLM's testimony, being familiar with the frustration the people in Wyoming have with BLM's lack of a timetable.

ASP AND ACSM ESTABLISH JOINT EDUCATION PROGRAM

A Joint Education Program was established by the American Congress on Surveying and Mapping and the American Society of Photogrammetry on December 1, 1981. The action, approved by the

Council of Mapping, Photogrammetry and Surveying Societies (COMPASS), was the first joint program to be established under the affiliation approved by the respective Boards of Direction on September 8, 1981, and will be headed by Dr. Marshall W. Davies, Education Director of ACSM.

The education committees of the two associations will be reorganized into one and will jointly address the education concerns that affect surveying, cartography, photogrammetry and remote sensing. A single education policy for the affiliated professions will be developed. Future workshops and seminars will be jointly conducted and the subject matter will be more varied. Other features of the joint program call for a joint student chapter committee, joint student chapters at the various schools and universities, and joint education awards.

The Statement of Affiliation also calls for a joint government affairs program, which is expected to be established shortly, and for the collocation of the respective headquarters. The two staffs will be located in the same offices by early summer, 1982. At their annual convention in Denver, March 14-20, 1982, the two Boards of Direction will consider a plan now in preparation for consolidating ACSM and ASP. □

ACSM and ASP ANNOUNCE NEW PUBLICATIONS PRICING POLICY

In an action to provide additional advantages to its members from the recent affiliation, the American Society of Photogrammetry and the American Congress on Surveying and Mapping announced that henceforth members of one society may purchase the other's publications at member's prices. Included are selected text books on surveying and mapping as well as plastic relief maps.

Information on the availability of ACSM publications may be obtained from:

Ms. Terry Tate
ACSM

210 Little Falls Street
Falls Church, Virginia 22046
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Information about ASP publications may be obtained from:

Mrs. Jean Engel
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Surveyors Historical Society

NON-PROFIT CORPORATE STATUS ACHIEVED

by F.D. Uzes, Chairman

Some significant achievements were realized during the latter part of 1981, which marks the beginning of a new era for this Society. Our future seems indeed bright.

First, the month of September brought with it our long-sought goal of being chartered as a non-profit corporation. Now we can begin on some of the more interesting programs that everyone has been waiting for.

At the September 9, 1981 meeting in San Francisco, ballots for two-year terms as directors were counted, with the following members being elected:

Curtis Brown	Myron Lewis
Robert Curtis	Francois Uzes
Cecil Hanson	Michael Welch
Maurice Lafferty	

Later in the month, officers were selected as follows:

Francois Uzes, President
Robert Curtis, Vice President
Myron Lewis, Secretary
Michael Welch, Chief Financial Advisor

OUTSTANDING MUSEUM DISPLAY SCHEDULED

With the organization established, efforts were renewed for the placement of displays, acquisition of materials, etc. A major public display of historic surveying memorabilia has been arranged to begin next fall. We have been granted six-months use of the Big Four Room at the California State Railroad Museum, located in Old Town, Sacramento. This is a large carpeted room, fronting directly onto the railroad plaza, and bypassing the admission gate.

Tentative plans are to display about 60 large instruments, half on tripods, half in glass show-cases. The instruments will be selected to be representative of all of the branches of surveying. We will utilize approximately twenty 6-foot long cases, each with two

shelves, giving an enclosed display capability of 240 linear feet. There will also be dozens of smaller instruments, not to mention books, catalogs, chains, etc. On the perimeter walls will be poster-sized old surveying photographs and maps.

Items will be included to illustrate the numerous specialty fields, such as ancient history, mineral, mining, rural land, public domain, municipal, topographic, hydrographic, construction, astronomical, photographic, geodetic, office calculations, and plat preparation.

Success in this endeavor means a lot of hard work, plus a goodly expenditure of money. The cost can be reduced through donated labor and materials. The services of everyone in a position to aid in this undertaking will certainly be appreciated.

Some of the items which are expected to be on public display for the first time are: Bronze plumb bob, c. 1st Century A.D.; Bronze dividers, c. 1st Century A.D.; Zeiss Iena mini-theodolite (prototype of Wild T-2), c. 1911?; English tubular water level, c. 1890, with graduated staffs; 66 ft. Gunter chain weighing 13 lbs; plus other surprises.

Members having appropriate items they wish to include in the display should contact me in the near future. With over 1,800 sq. ft. of display area, we intend to put on quite a show.

Our objectives are sound, and we will succeed in bringing them to a reality. Also, mark your calendars to reserve the opening day of the Railroad Museum display - October 9, 1982. The museum is a super facility to visit, and with our added input it will be sensational.

□

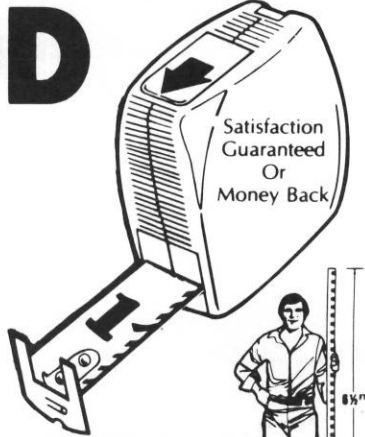
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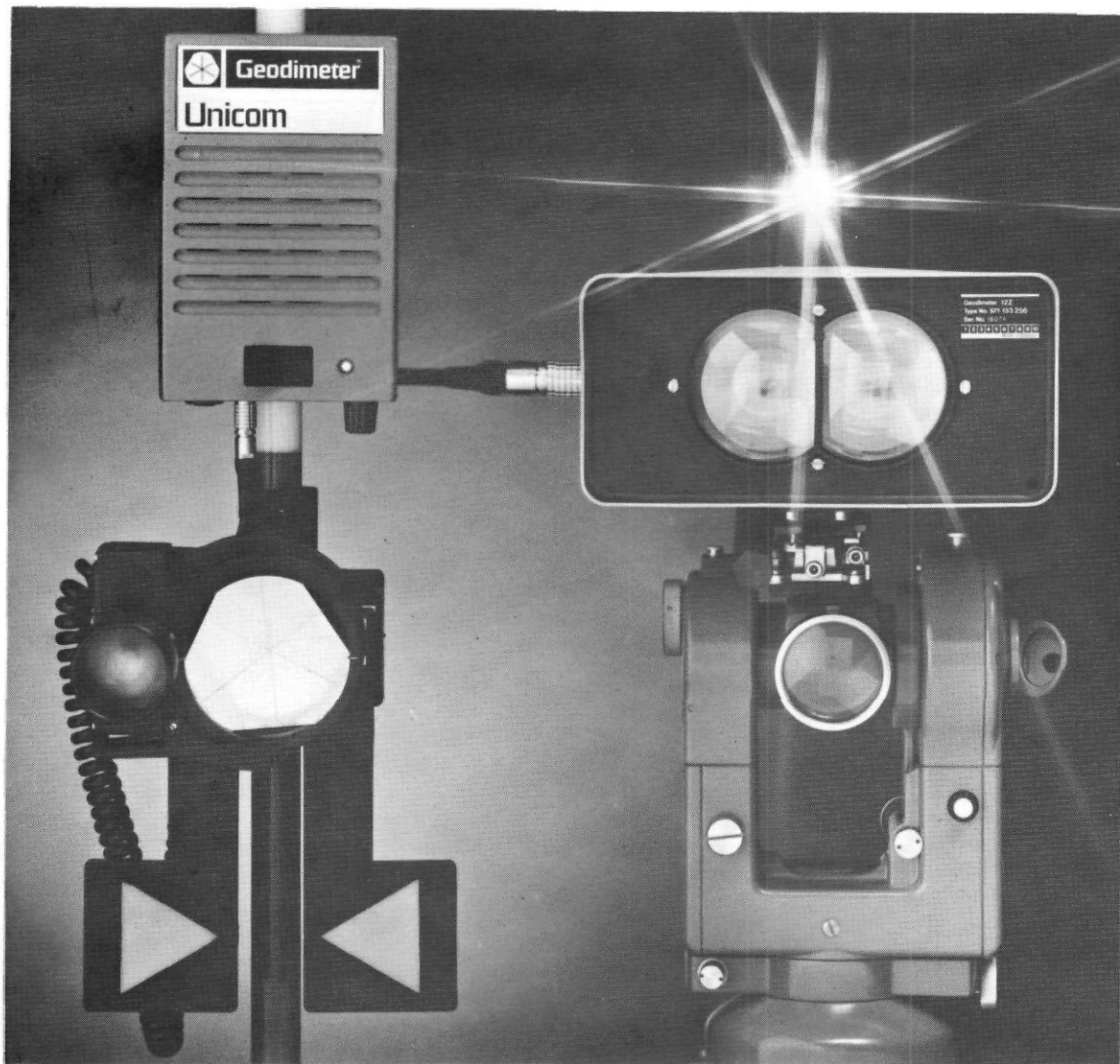
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Letters

IMPLIED ACCURACY

Editor: A few years ago I felt compelled to write the California Surveyor concerning the difference between precision and accuracy. Now with the proliferation of desktop computers and their product, I again have this strange compulsion to call attention to all of the maps now being filed with course lengths from 5 to 200 feet in length and bearings shown to one second of arc.

Have the authors of these maps stopped to consider the field procedures they employ? Usually a 20 second instrument sighting either

a range pole or a plumb-bob string, then taken the time or thought to realize that the tangent offset for 5 seconds of arc is 0.0048 feet, while standard plumb-bob string is approximately 0.006 in diameter?

I contend that if a practitioner is doing responsible work, his error of closure is negligible and of little consequence to a re-tracer of his work, and there is absolutely no need for showing these adjusted courses as they are appearing with increasing frequency.

I believe a "Record of Survey" should be just that, a record of what the surveyor did and hope-

fully even an explanation of why he did it. It is NOT a record of his particular calculator's ability to mathematically manipulate numbers!

I would welcome a rebuttal from those who feel they have an argument for showing things to an implied precision that they have not achieved in the field. I will not accept the argument of quantity of output only that of quality.

Arguments may be sent to:
George R. Dunbar, L.S.
P.O. Box 1018
Santa Cruz, CA 95061

□

From the Editor

APOLOGY

The article entitled "A Blueprint for Competition" which appeared in the last edition of *The California Surveyor* was run mistakenly and WITHOUT the knowledge or consent of the author. The article was received from a source other than the author, and was a rough draft NOT intended for publication. We apologize to the author and to our readership for this error.

SUNSET

Those of you who read your Professional Engineers Report will have noted that the Board of Registration for Professional Engineers has begun its review of California's Title Acts and expects this process to be completed by the end of April. After the Title Acts have been reviewed, the Board will begin reviewing the Practice Acts, one of which regulates the practice of Land Surveying. The purpose of this review is to determine whether or not the professions regulated by those acts should be regulated at all, and if so what changes should be made in those acts. This review should be of interest to all Land Surveyors for it will determine the future of not merely the mechanics of regulation, but whether the profession will be regulated at all, i.e., whether or not there will even be

Licensed Land Surveyors in California's future. In this edition of *The California Surveyor* you will find an article about how surveyors in Texas almost lost their Professional Registration—read it well, for the same situation has come to California. The California Land Surveyors Association has been and will continue to work with the Board of Registration, and in the halls of the State Capitol to represent the interests of professional Land Surveyors and the public whom we serve. Now more than ever CLSA needs your membership and support.

NEW OFFICERS

1982 has brought us a new slate of officers. Our new president is Charles Moore of San Diego, vice president is James Crabtree of Eureka, secretary is James Dorsey of Simi Valley and treasurer is Kevin McHugh of Irvine. Along with these we have a new group of Chapter Representatives — their names are printed inside the front cover of *The California Surveyor*. Get to know them, for it is they who give of their own time to represent YOU on the Board of Directors of the Association. We are looking forward to a fruitful year and welcome all of the new talent!

EQUIPMENT CORNER

We are introducing in this edi-

tion a regular column entitled "Equipment Corner." This column was originated by the author, Reily Smith. For those of us who are having equipment problems and for those of us who wish to sing the praises of our equipment, "Equipment Corner" will provide a service and a forum. This type of regular feature has long been needed, but it took someone interested enough to volunteer to make it happen. If you have an idea for a regular feature AND you are interested in working to make that idea become reality, contact the editor.

NEW PRINTER

This edition of *The California Surveyor* is being printed by a firm which we are using on a trial basis. This is primarily due to the efforts of C.L.S.A. to reduce the cost of the magazine in order to put our financial resources into other programs. We ask that our readers look over this edition carefully and then give us their opinions as to the overall material quality (printing, paper, read ability, etc.) as compared to previous issues. This information will be used to determine whether or not we want to continue on with this new printing firm. Please send your comments to Dorothy Calegari at C.L.S.A.'s central office in Santa Rosa.

□

New Products

"THE EDM WITH A VOICE"

AGA Geodimeter, Inc., has introduced a new model EDM designed to bring a new standard of productivity to field surveying.

A unique feature of Geodimeter 122 is Unicom, which transmits the operator's vocal instructions via the infra-red measuring light beam to the reflector rodperson. Unlike the usual walkie-talkie set-up, it leaves both hands free, requires no FCC license and suffers no interference from weather or competing communications.

Also contributing to speed is Tracklight, a guide-light system mounted in the EDM's handle.

As was Geodimeter 120, Geodimeter 122 is equipped with direct output to Geodat data recorder and a vertical angle sensor.

Another new feature is high-precision mode, which gives arithmetic mean readings down to 0.0001 meter. One optional function is Remote Object Elevation. With it the instrument shows the correct difference in height at each change of vertical angle.

All of the high-productivity features, except direct data output, are available as individual options on the lower-cost, shorter-range Geodimeter 116 EDM.

For more information, contact AGA Geodimeter, Inc., toll free 800-772-2664.

□

COMPUTER GRAPHICS DIRECTORY

The 1982 Computer Graphics Directory, covering suppliers of hardware, software, systems and services, is announced by Stanley Klein, directory publisher, who is also publisher/editor of The Harvard Newsletter on Computer Graphics. The more than 100-page directory is aimed at computer graphics end users, systems integrators, and other person having an interest in the field.

Organization of the directory and format are intended to facilitate its use. A main section lists vendors alphabetically, giving such information as address, telephone number, person to contact, and a brief description of that

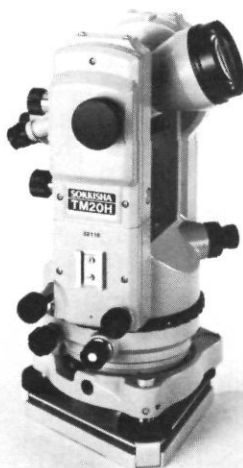
company's overall products and services.

A second section lists the vendors under specific categories by products and services, type of technology employed, or applications served.

Other pages identify sponsors of computer graphic seminars, conferences, courses, and technology and market research reports. Finally, an executive summary analyzes the computer graphics field based on information garnered in the course of compiling the directory. Publication is scheduled for first quarter 1982. Price: \$47.

Contact: Stanley Klein, (617) 443-4671.

□



NEW THEODOLITES FROM LIETZ

The Lietz Company has announced its new TM-20H digital reading theodolite, featuring magnetically-damped automatic indexing for vertical angles. Horizontal and vertical circles are graduated to 1° with micrometer reading to 20 seconds, and are viewed simultaneously. 30x telescope and equal height standards are predrilled for easy EDM attachment. The TM-20H features upper and lower motions plus a circle positioning ring to permit presetting of any horizontal circle reading, an optical plummet in the upper alidade, universal joint clamps,

and an illumination battery pack for work at night.

The Lietz Company also announced two other additions, the TS-6 and TS-20A. The scale-reading TS-6 measures horizontal and vertical angles directly to 1 minute with estimation to 6 seconds. Horizontal and vertical readouts are viewed simultaneously through the microscope adjacent to the telescope. The TS-6 features a magnetically damped "Rare Earth" compensator for automatic vertical circle indexing and a red indexing alert warns when the theodolite needs to be leveled. Equal height standards and 30x telescope are predrilled for easy attachment of EDM.

The Lietz scale-reading TS-20A measures both horizontal and vertical angles directly to 1 minute with estimation to 20 seconds. Microscope next to 30x telescope displays horizontal and vertical readouts simultaneously. Equal height standards and telescope are predrilled for EDM attachment. The TS-20A features upper and lower motions, a horizontal circle positioning ring for presetting of any horizontal circle reading, optical plummet in the upper alidade and universal joint clamps.

For additional information, contact K. Lantz, The Lietz Company, (913) 492-4990.

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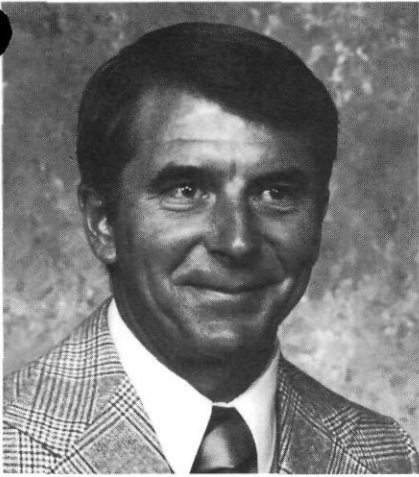
AGA SOFTWARE PROGRAM

AGA Geodimeter, Inc., now offers software to assist surveying operations in making the transition to an automated field-to-office data system. Special software packages are designed to work with the Geodat field recorder and existing field and office equipment/procedures to eliminate time-consuming and error-prone computations and data transfer methods.

Older Geodimeter 112 and 120 Electronic Distance Meters and the new Geodimeter 122 ("the EDM with a Voice") transfer data directly into the Geodat recorder and, for unlimited storage, to tape

(continued on Page 13)

Equipment Corner



ABOUT THE AUTHOR:

Mr. Smith is a Licensed Land Surveyor with 14 years experience in the profession. He is 37 years old, holds a bachelor's degree from California State University, Los Angeles in Business Administration, and operates his own surveying firm in Bakersfield. He is a member of both C.L.S.A. and A.C.S.M.

EQUIPMENT CORNER

by Reily Smith

I'm mad! After sending a new distance meter in for repairs for the third time in less than a year and having similar luck with a set of new FM radios, I just realized that surveyors are barraged with

advertising, but we have no reviews of the equipment from the surveyors trying to make a living with it! Personally, I've had my share of horror stories with everything from rod bubbles to drafting machines. If other surveyors are having similar problems perhaps it's time we do something about it.

One solution to the above problem may be better communication. Most of our professional publications are so heavily dependent on manufacturers advertising, they never say anything critical about the equipment we use. Let's change that! Let's exchange information about the good and bad equipment. This exchange of information will help others reach a purchase decision and maybe save them the time and money we wasted when we purchased a lemon. The manufacturers and dealers depend on us and visa versa; yet, it seems that all we do is take what they offer. We are living in an age of constant technological change that can make our job better; yet, equipment that does not perform as we expect, may introduce costly errors and increase job time when we least expect it. Because of these rapid changes, we have an even greater need to "get the most bang for the buck."

Let's conduct polls among our membership of various classes of equipment. Next publication, we will summarize the results of a poll on EDMs. We'll give the number of respondents and the statistical results; plus, overall ratings including some comments. Future polls in "The California Surveyor" will cover theodolites, levels, computers, radios, etc. The card enclosed in this edition should be used to "sing the praises" of good distance meters, as well as "tell it like it is" with those distance meters that don't perform. To make the poll fair and representative, each of us should take five minutes to respond. If we pull together on this one, we'll all benefit by purchasing fewer unsuitable products.

In addition to the poll, let's use the clout of the California Land Surveyors Association as a surveyor's advocate. If you cannot resolve a problem with a manufacturer or dealer, write us. We will publish your problem and the response from the manufacturer/dealer. Nearly every surveyor in California will see your complaint and how the manufacturer/dealer handles it.

(continued from Page 12)
cassettes. Popular microcomputers and line printers or printer-plotters, with the special Geodimeter software packages, then process the data, computing basic traverse statistics and performing validity checks, allowing direct editing, coordinate computation and coordinate adjustment. Coordinate data is then stored in a compatible format for access by the various software application packages.

A new brochure, "The Geodimeter Connection," details elements of the new automation service. Free copies are available

by contacting Del Baldwin at AGA Geodimeter, Inc., toll-free 800-772-2664.

DISCO-TECH ANNOUNCES CP/M VERSIONS OF TWO LAND SURVEYING PROGRAMS

DISCO-TECH has announced that its applications will soon be released in CP/M versions.

Just introduced are the first two programs in DISCO-TECH's new CP/M series, CoGo and FiNDeR, Coordinate Geometry and Field Note Data Reduction, corner-

stones of the SURVEY 80-CP/M package.

Now most serious microcomputer users will be able to use their programs, simply by installing a CP/M operating system.

DISCO-TECH application programs will continue to be available in versions for TRS-80 Models I and III. TRS-80 Model II is a CP/M-compatible microcomputer.

For more information and descriptive brochures, contact DISCO-TECH, P.O. Box 1659, Santa Rosa, CA 95402; telephone (707) 523-1600.

News from the Board of Registration

by James N. Dowden, L.S.

Significant actions and general discussions at the meeting of the Board of Registration for Professional Engineers, Wednesday, January 20, 1982, relative to the implementation of SB 2 (1979), and related issues prompts this report.

1. SB 602 (chartered engineers) was heard in Senate Finance Committee last Monday, but failed by 6-4 vote. It therefore appears that SB 602 is dead unless a rehearing is granted. Only individuals testified—indicating lack of industry support.

2. SB 965 (soils engineer authority). The Board had for consideration, draft revisions suggested by the California Legislative Council of Professional Engineers (CLCPE). However, the Board had considerable difficulty in deciding whether to support the CLCPE's concept in view of the Board's ongoing program of regulation

review. The CLCPE representative stated that a final draft of their proposal should be completed within a week.

Of interest to Land Surveyors is the fact that, as SB 965 is presently worded, the chartered engineers does *not* include land surveyors, and establishes a separate licensing board for land surveyors within the Department of Consumer Affairs.

3. The Board had for consideration legislation proposed by the California Council of Civil Engineers and Land Surveyors which would:

a. Provide that all persons registered as Civil Engineers after January 1, 1982, shall be authorized to practice all forms of land surveying, except surveying which establishes or retraces any property or boundary line of any parcel of land, and;

b. Provides that, upon application, any person who became re-

gistered as a civil engineer prior to January 1, 1982, shall be issued a license as a land surveyor with full authority, without further qualification, examination or other requirements.

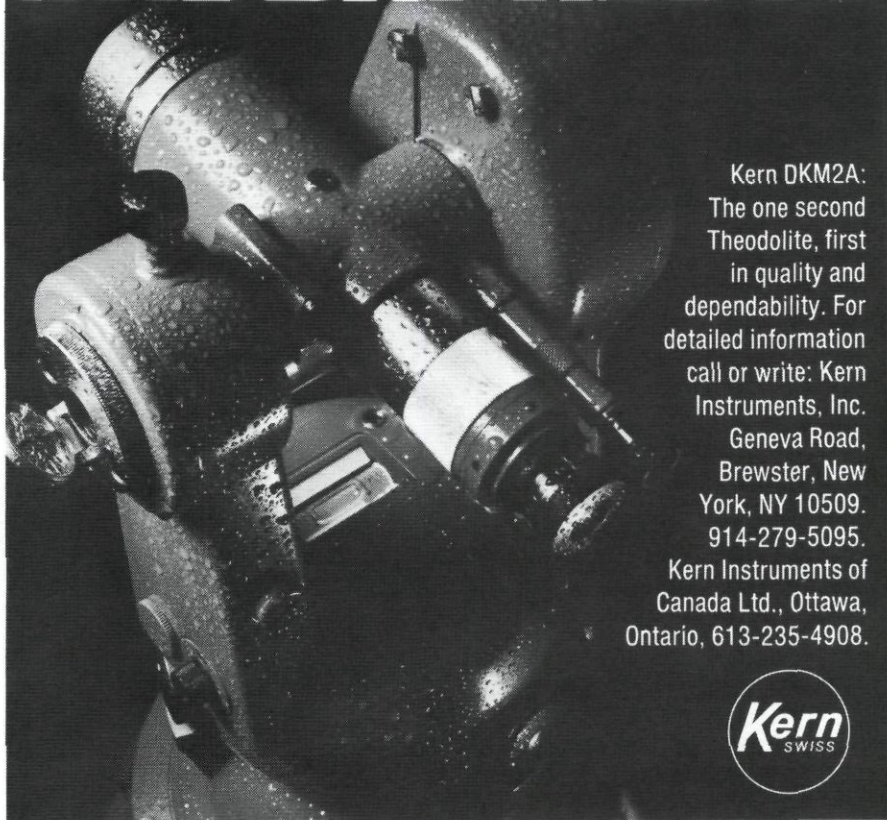
The Board after considerable discussion voted unanimously to oppose the proposal on the basis that it is premature in view of the Board's ongoing program of regulation review, and may conflict with the Board's legislative proposal to be finalized at the conclusion of the regulation review process.

4. The Board had for consideration a draft of criteria for review of land surveying practice, in order to clarify the problem of overlap with civil engineering.

The Board adopted the criteria as presented by staff, and scheduled a public hearing for the May meeting. CLSA should be well rep-

(continued on Page 19)

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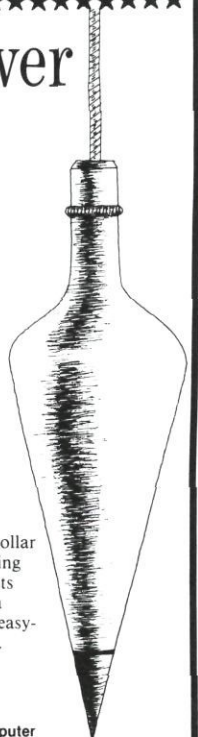
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Drawing on the technical expertise which produced the GTS-10D Guppy, Topcon now introduces the new GTS-2 Geodetic Total Station.

More sophisticated than the Guppy, the GTS-2 features an improved theodolite, greater range capability and an optional slope reduction keyboard. Combining a 1 mile range distance meter with a 10 second theodolite enables you to precisely satisfy all your surveying requirements from construction to traversing. Yet all of this expertise weighs only a light 14 pounds.

The GTS-2 is easy to carry and even easier to operate. Single pointing provides both distance and angular readings. Now light level adjustments are fully automatic. Just fix on the target and in less than 10 seconds distances are displayed. Under average atmospheric conditions you can measure over 1 mile.

Also incorporated are an on-board battery and a telescope which plunges a full 360°. An optional accessory is the slope reduction keyboard with full state-of-the-art capabilities. Now you can hold the finest and most convenient surveying system in one hand.

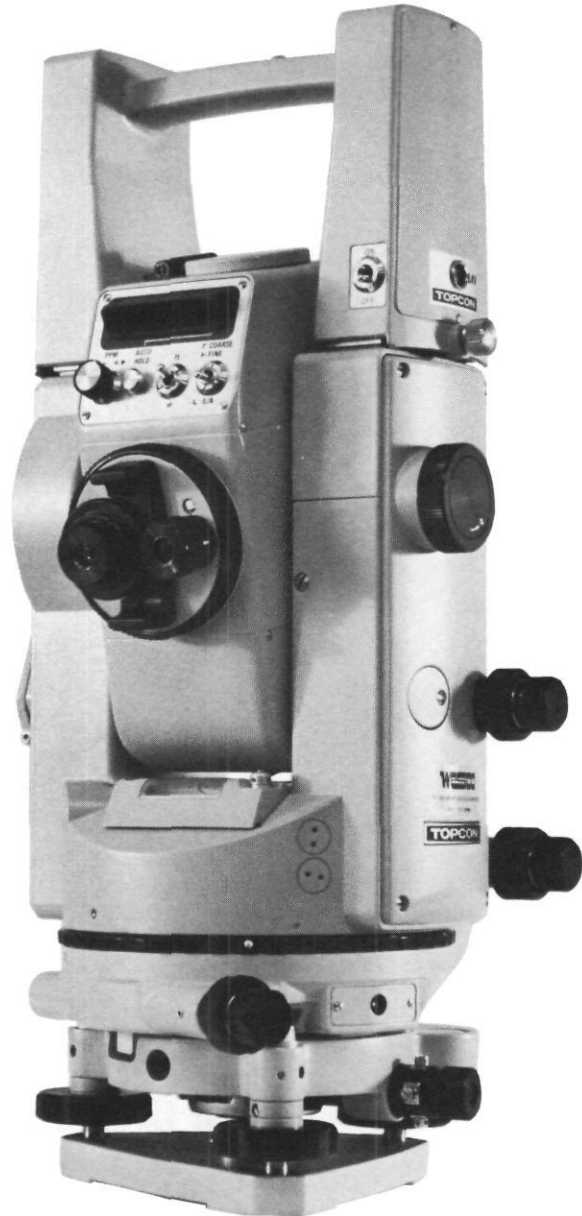
Our complete total station package includes a Topcon GTS-2, spare battery, triple prism assembly, tilting single prism assembly, prism target, prism carrying bags, tripod and stake-out range pole.

We're so confident of the GTS-2's reliability that we back it with the best EDM service in the country. Should a breakdown occur during the warranty period, we'll provide you with a free loaner if we can't repair it within 24 hours, freight included.

To take advantage of our low package price or for further information call Wessco toll free at 800-422-7359; or if out of state phone 800-525-0266. Terms and conditions of this low package price are payment in advance or upon delivery of the equipment.

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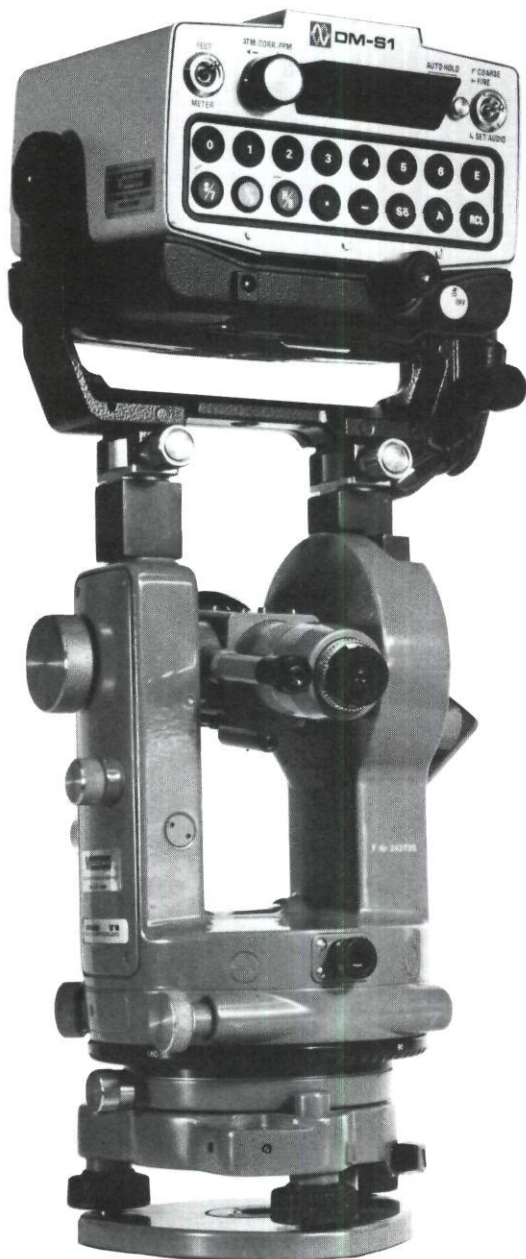
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Together the two comprise an ideal package. Used separately, the distance meter and theodolite afford you increased versatility by enabling you to interchange instruments as the need arises.

Standard features on the DM-S1 are: (1) Pushbutton Horizontal and Vertical Distance Reduction, (2) Automatic Light Attenuation, (3) Improved Sighting Optics, (4) Self-Contained Battery Pack, (5) Programmable Stake-Out Mode and (6) Tracking Mode.

In addition the self-contained battery pack, attached under the distance meter, eliminates a separate battery and cable for more freedom of movement. DM-S1's programmable stake-out mode further simplifies stake-out work.

Simply preset desired horizontal or vertical distance and the EDM calculates how far you need to move your prism. On the DM-S1 the tracking mode updates distances every second to expedite layout work.

With automatic light attenuation the easy-to-operate DM-S1 is almost fool-proof. Just point the distance meter and theodolite at your target. Automatically you'll obtain readings in less than 10 seconds. Under average atmospheric conditions you can measure over 1 mile.

Our complete package includes a Topcon DM-S1, Wild T-1 or T-16D theodolite, battery and charger, tool kit, triple prism and single prism with carrying bags, tribrach, prism adaptor, pointing target, stake-out range pole, two tripods, barometer, thermometer, EDM mounts and installation.

We've sold over 400 systems with Topcon EDM and we're so confident of this package that we back it with the best EDM service in the country.

Should a breakdown occur during the warranty period, we'll provide you with a free loaner if we can't repair it within 24 hours, freight included.

This package's list price is \$11,660.00. Wessco's price is under \$9000.00. Our offer is subject to change without notice should manufacturers increase their prices.

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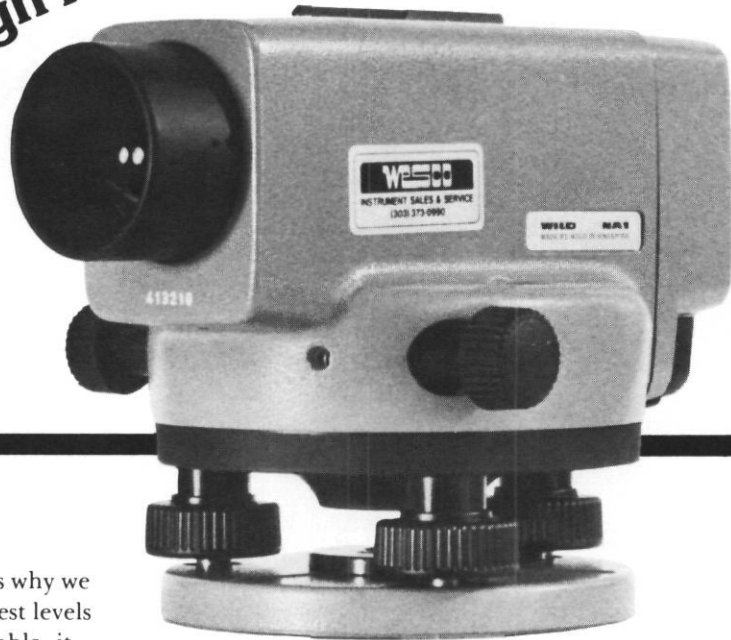
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And the Wild name on an instrument means superb quality as well as dependability. On the NA-1 a unique Wild feature is the pushbutton control which automatically self-checks the compensator and verifies that it's functioning properly. High winds and heavy traffic conditions no longer present insurmountable problems because the NA-1's superior dampening system helps overcome them.

Our complete automatic level package includes: a Wild NA-1 automatic level, Wessco heavy-duty, wooden, wide-frame tripod and a high quality metal-faced wooden level rod (your choice of San Francisco or Philadelphia styles).

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(continued from Page 14)

resented at this meeting and be prepared to offer testimony.

5. The Board had for consideration the staff review of the Title Act Branch of Chemical Engineering established in 1947 by the Legislature as a protected title, using the final recommended criteria developed last year, and according to Board schedule.

The Board discussed the staff review in considerable detail and listened to testimony from witnesses.

This is the first of 13 preliminary reports to be compiled by the Board for reviewer comment during the next 3 to 4 months, in response to the recommendations of the "Schulman Report" of last year.

Copies of this initial report will be distributed to the entire Board mailing list. Subsequent reports

will be limited to those persons desiring to be placed on a special mailing list for future reports.

The Board accepted the report and approved distribution.

Listening to the lengthy discussions by the Board, a number of impressions about the present Board's attitudes and concerns could be discerned:

1. The Board's attitudes about the "grandfather" concept is very low. While "vested rights" were not specifically mentioned, I feel that the two go hand-in-hand, one cannot function without the other. Hence, one must conclude that "vested rights" are also law.
2. An interesting effect of SB 2 was also considered by the Board. An RCE who let his license lapse,

had requested reinstatement. This particular individual had specialized in land surveying. The Board had to decide whether reinstatement after January 1, 1982 subjected him to the provisions of SB 2.

3. The Board also had to decide whether the present Director of Cal-Trans should be disciplined for practicing civil engineering without a license. (The bridge width controversy in Mendocino County).

After much discussion, the Board accepted counsel's opinion that the Board lacked jurisdiction.

5. The Board has amendments proposed for Board Rule 424 (experience). Affects Sections 8741 and 8742 of the Land Surveyors Act. □



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Public Records

RECORDS OF SURVEY — COUNTY BY COUNTY

C.L.S.A.'s Professional Practice Committee has compiled a report on the manner in which the various Counties handle Record of Survey Maps. As can be seen from the information tabulated below, there is a wide variety in the ways that Records of Survey are processed and in fees charged. The tabulation below gives County by County responses to the following questions:

1. Does your local county charge for checking Record of Surveys?
2. If so, how much?
3. Is there a distinction made if the survey is preliminary to a subdivision?
4. If a Parcel Map is exempt from Parcel Map Requirements, is a Record of Survey required in lieu of the Parcel Map?
5. Does your local County Surveyor take an active role in Record of Survey checking to the point that they give direction to survey practice and interpretation?

6. How many hours, on the average, does the local County Surveyor spend on Map Checking a Record of Survey?
7. Does the local County Surveyor encourage the use of "Corner Records"?
8. Does the local County Surveyor discourage "Corner Records" and require Record of Survey instead of?
9. How many Records of Survey are filed in your County?
10. Has the number changed drastically within the past year?

COUNTIES	#1		#2	#3		#4		#5		#6	#7		#8		#9	#10	
	Yes	No		Yes	No	Yes	No	Yes	No		Yes	No	Yes	No		Yes	No
ALPINE	x		10.00	x		x		x		8		x		x	30		x
AMADOR	x		25.00	x		x		x		3	x			x	59		x
BUTTE	x		70.00	x				x		varies	x			x	1,000	x	
CALAVERAS		x		x	x			x		7 hrs.		x		x	50-70		x
CONTRA COSTA		x		x		x		x		6	x			x	3,500	x	
COLUSA		x		n/a		x		x		4		x		x	10-12 yrs.		x
DEL NORTE	x		60.00/Sh.	x		x	x	x		4+		x		x	50-60	x	
FRESNO	x		100.00	x		x		x		9	x			x	80		x
HUMBOLDT		x		x		x		x		1+	x			x	6,000+		x
IMPERIAL		x		x		x			x	3-4	x			x	2-3	x	
INYO		x		x		x		x			x			x	298	x	
KERN		x		x		x		x		2½ hrs.	x			x	55		x
KINGS		x		x		x		x		2 hrs.	x			x	50/yr.		x
LAKE		x		x		x		x		30/mo.	x			x	130/yr.		x
LASSEN	x		75.00	x	x	x		x		4 hrs.	x			x	300+		x
MADERA		x		x	x			x			x			x	58		
MARIN	x		30-75.00	x	x			x		4-24		x	x	x	76/yr.	x	
MARIPOSA		x		x		x		x		2-4	x			x	2,000+	x	
MENDOCINO		x		x		x		x			x			x	100		x
MERCED		x		x		x		x		10	x			x	30-35		x
MONO	x		30-90			x				2-3					500+		x
MONTEREY	x		30+	x	x			x		37	x			x	45-65/yr.		x
NEVADA	x		175.00	x	x			x		2¼	x			x	100/yr.	x	
ORANGE	x		30.00	x		x		x		20 hrs.	x			x	30		x
PLACER	x		90-220	x				x		10	x			x	44	x	
PLUMAS		x		x		x		x		10	x		x		771		x
RIVERSIDE	x		160.00	x		x		x		12	x			x	140	x	
SAN BENITO		x		x		x		x		3		x		x	12/yr.		x
SAN BERNARDINO		x		x		x		x		18	x			x	250/yr		x
SAN DIEGO		x		x		x		x		6 hrs.	x			x	144/yr.	x	
SAN FRANCISCO	x		325./ Act. Cost	x				x		8-16					6/yr.		x
SAN JOAQUIN	x		75.00	x				x		6 hrs.	x			x	26		x
SAN LUIS OBISPO	x		100.00	x		x		x		4-5	x			x	300		x
SANTA CLARA		x		x		x		x		6 hrs.		x	x		91 ('81)		x
SANTA CRUZ	x		25.00	x				x			x			x	3,000		x
SHASTA		x		x		x		x		1½ hrs.				x	140		x
SISKIYOU		x		x		x		x		10	x			x	1633		x
SOLANO		x		x		x		x		6-8 hrs.	x			x	30-40		x
SONOMA	x		100 High	x		x		x		3	x			x	150		x
STANISLAUS		x		x	x			x		4	x			x	46		x
SUTTER		x		x				x		6		x	x				x
TEHAMA				x		x		x		3	x			x	45-60		x
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TULARE		x		x		x		x		8	x			x	1200		x
VENTURA	x		100-825+	x		x		x		4-8	x			x	14	x	
YOLO		x		x				x		3	x			x	12		x
YUBA		x		x				x		12		x		x	25		x

47 COUNTIES RESPONDED 19 27 varies 3 42 10 30 33 12 varies 34 11 4 41 — 13 33

Perspectives

RESURVEYS AND THE REMAINDER PARCEL

by Andrew G. Stine

*Licensed Land Surveyor in the
states of California, New York,
and Vermont.*

ABOUT THE AUTHOR: Mr. Stine received his California L.S. in 1954, his New York L.S. in 1956, and his Vermont L.S. in 1969. He began his surveying career in New York when he was 16 years old. He attended engineering college at N.Y.U. in 1942, and the Army Topographical Surveying School at the University of Kentucky in 1943. After surveying with the Army in Greenland and California, he worked until 1955 in San Bernardino County. Since 1956 he has maintained a private practice in New York, taking time to also survey for the acquisition of the Erie National Wildlife Refuge in Pennsylvania and for acquisition of highway right of way in Vermont. He graduated from Adirondack Community College in 1980 with an A.S. in Business Administration and from Skidmore College in 1981 with a B.S. in Business Management.

At the risk of seeming arrogant, I am going to write this short article entirely from my own experience, rather than quoting a variety of reference books. The reference books have had their input, however. There is a shelf of them next to my drawing table which I have referred to frequently during my career in Land Surveying.

I am not going to waste time talking about the subdivision of land. This is amply covered in other places. In the past few months I have been unable to find much written about the resurveys of land. Perhaps because it is too much of a daily problem with surveyors and therefore tends to be accepted as routine and unworthy of comment. My work load as a private practice land surveyor was largely the problem of resurveys which were frequently of remainder parcels. The problem is to retrace and reestablish the originally intended boundaries as described in the deeds and marked on the ground.

Land boundaries result from the transfer of ownership of parcels of land. The deed is both a contract and a description or specification of the parcel which is transferred. A bill of sale is a good comparison. On the basis of these transfers, buildings are built, fences are built, cattle are pastured, trees are cut, crops are planted and harvested, roads are built, and in every case, use of the parcel of land is based on the owner's understanding of the boundaries of that land. Adjacent owners, using their land to a common boundary, create a line of use which reinforces the survey and the deed.

Resurveys are made for many reasons. Common among them are: the need of a new owner to understand what his boundaries are, the need for a builder to place his construction work within the bounds of the parcel he is authorized to work on, the need of a developer to subdivide a large parcel into smaller parcels for construction and resale. The surveyor is then called in to find these original boundaries. In spite of modern technology, the IDENTIFICATION of these original boundaries has not lost its importance.

When I started surveying, the use of the versine and the secant was common among field party personnel because their use involved a multiplication and/or subtraction instead of a division by the cosine, which was generally a series of nines, eights, or sevens. Field parties were restricted to the use of logarithms, long-hand calculation, or slide rules. The last were used as a check on the other two methods. Now they have the hand held electronic calculators, some of which have the capability to derive a needed trig function faster than it can be found in a book of tables. This increases the production capability of a field party.

In the office we have the advanced technology computers that are capable of working the traverse from the field notes and of plotting it. These things are valued servants which relieve the surveyor of a tremendous amount of hack

work and enable him to locate much more evidence in the field for assessment in the decision making process. He is able to see what fits the deed from a larger grouping of physical evidence than was practical to use before. The trend is toward showing finer divisions on the map: bearings to fractions of a second and distances to the third or fourth decimal of a foot, as they are printed out by the machine. These tend to create a delusion of accuracy in the mind of the viewer of the map. Just as a matter of balance, let us take the case of a corner monument which was set fifty years ago. An iron pipe. It has rusted. It has been raised by frost each winter and settled back each summer. It is still identifiable as the corner called for in the deed, and is used by the owners as such. A distance to the third decimal of a foot to such a monument borders on the ridiculous, even though that monument is, and should be, accepted as the corner. Regarding such a corner, the surveyor's function is to identify it as such. If he finds it in extremely poor condition, he should replace it, in the same location.

The surveyor's function in all this is to try to retrace the intent of the original deed on the ground and to draw a plat of it as a record of the work he did so that the next man will be able to follow his work. The surveyor is bound by the deeds and by the evidence on the ground. He is not bound by those wishes of his client which are in conflict with the deed or the physical evidence.

Although parcel descriptions should be written by surveyors, they very often were written by laymen. At the time they were written, all parties understood exactly what was meant. The original parties may have died, the language undergoes changes daily, and some of the original monuments have disappeared. It is necessary that the original intent still be followed. Court decisions have repeatedly reinforced this necessity.

A good plan for a resurvey is to trace the deed back to the original

conveyance of that particular parcel. In particular, the surveyor should know whether or not he is dealing with a remainder parcel. A very high portion of his surveys will be of remainder parcels because of the special uncertainties involved with them. The remainder parcel is the last surveyed parcel or the last conveyed parcel from a larger parcel. It is very often conveyed by an estate. Sometimes the deed will be very loosely worded; sometimes it will have dimensions, put there by well intentioned persons without survey information. They simply did not know enough about the parcel to write an accurate description. When I worked for the Fish and Wildlife Service, I surveyed such a parcel. I had been ordered not to go and research in the record office because "the attorneys who were searching title had done that." The deed had dimensions, so I didn't, until after I completed the survey with a nine acre error from following those dimensions. If I had gone to the record office, found the original parcel description and taken all the prior sales from it, I would have been correct. It would have been surveyed as the farmer working it knew it to be. That mistake got clear to the Chief of Surveys in Washington. While it was on its way, I found the error, corrected it, and sent the correction after it. The resulting discussion was not pleasant, but was memorable.

We still need to remember, in these days of electronic aids, the necessity to follow our rules of evidence to establish our priorities. Because our planet is a flexible thing, constantly changing, the monument is the first thing that we need to use and give credence to. A monument is a physical object which is where the deed says it should be within reasonable limits. The types vary everywhere from an identifiable wooden stake, concrete monument, iron pipe, plastic corner, bronze corner, a stone cairn, a corner tree, a fence post, to other things of like nature. Metal detectors tell us where to find the metal ones; we still need to dig for the others. Lines of use are also monuments within the meaning of this. They can be fence lines, a dirt berm (which is a difference in

elevation between the adjoining parcels created by difference in use by their owners), a lane, streams, roads, etc. With some of these the difference between layman's language and technical language must be taken into account. To a surveyor the road boundary is the right of way boundary; to a layman it may be the edge of the pavement. Fence lines must be used with caution because very often a crooked fence line will be found on a boundary which was intended to be straight. This results from using existing trees to hold the wire rather than setting fence posts on line. Although the variations from a straight line were probably acceptable to the owners who built the fence, the straight boundary should be monumented. Aerial photographs are useful tools for matching deeds to lines of use, especially when dealing with rural parcels.

Distances called for in the deed are the next thing we turn to. Our ability to measure distances has steadily refined itself over the past centuries. Now it is quite good. It was reliable long before our angle measuring devices were reliable. The development of laser measurements has been an improvement over the previous steel chain because of its speed and its ability to measure longer lines in one operation. Typically, my working area had a temperature range of 80°F from summer to winter working conditions. Definitely, my chain was affected by those temperatures. In the last century the chain was constructed of actual links which would tend to wear and elongate, changing the chain's length.

Direction is the next thing to be considered. Bearings were often given as magnetic. The compass is affected by electric lines, automobiles, iron tools used by the survey party, mineral deposits, and other things. The trend nowadays is toward the use of astronomical observations of the sun or polaris to determine a base bearing for the survey. Unless specified "True," and therefore capable of retracement using another astronomical observation, the directions given in the deed should be taken as relative to each other. The deed is plotted with the lines in their proper relation to

each other and matched with what is found in the field.

Area is the last thing we give credence to. Very often deeds written by laymen had areas that were estimated. Farmers who used the land were very good at estimating the area in fields they worked and very poor in estimating area of wooded lands. So, if the area conflicts with the distances or directions, the area should be corrected.

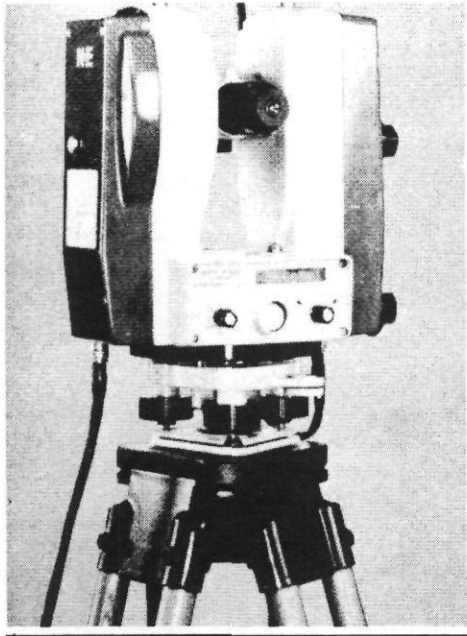
Mistakes in the deed sometimes go back to the original deed and sometimes are introduced later as copying errors. Such an error is in the deed to my farm. One course was copied twice. The error was not made in the original conveyance and it was simple to trace back to the original conveyance and eliminate the error. Mistakes in the deed can be usually be identified. If they have been implemented and adverse possession enters the picture, mistakes may not be capable of correction.

The surveyor should keep in mind that *deeds create* the boundaries and that *maps document* them. In any case, the best rule to follow to replace missing corners, including a missing point of beginning, is to work from the *known* to the *missing*. Careful comparison of found corners and lines of use with the deed provides a known basis from which to work to replace the missing corners. If the information is not sufficient in the deed for the parcel we are surveying, we should go to the deeds for neighboring parcels for supplementary information. Conflicts may be resolved by tracing back to the conveyance which created the boundary. Subsequent deeds may change the language in an attempt to clarify the description, without intending to change the parcel. Since intent to change the parcel was not present, they should not be allowed to change it.

I have no intent to belittle the recent advances in surveying equipment and in technique resulting therefrom. They are really welcome as our scientific servants. The other face of land surveying, the art of finding and matching physical evidence with the intent of the deeds involved, is still a basic importance to the successful resurvey. My intent here is to reinforce our objective way of serving our clients and communities. □

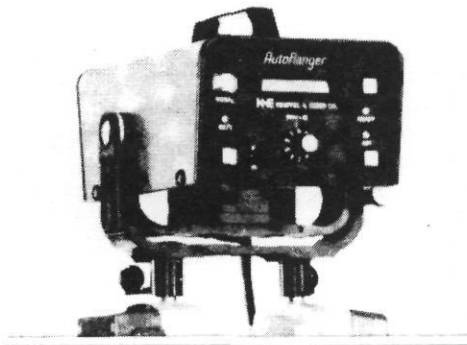
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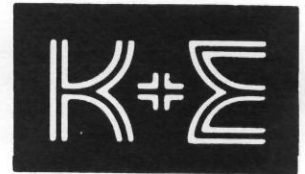
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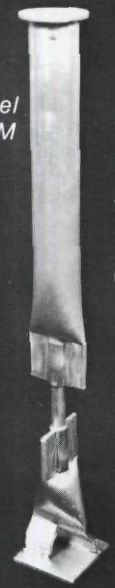


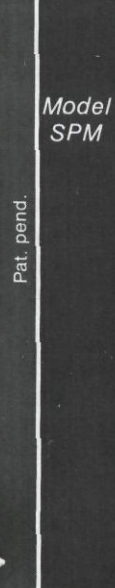
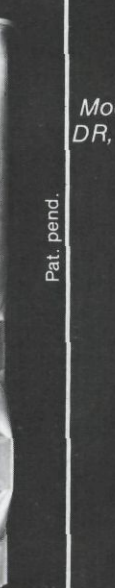
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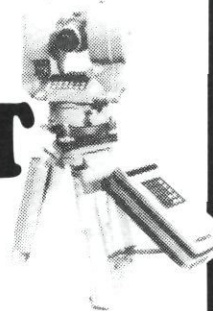
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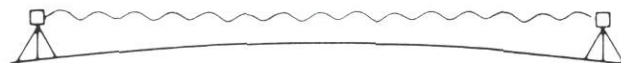
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**TEXAS SURVEYORS AND
A RACE WITH SUNSET**

Kenneth G. Gold

Principal Surveyor, Houston

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BIOGRAPHICAL SKETCH

KENNETH G. GOLD is a registered land surveyor in Texas, and is the Principal Surveyor and head of the Surveying and Mapping Di-

vision at Houston Lighting and Power Company. He received his education at Trinity University in San Antonio and at the University of Houston. He served in the U.S. Marine Corps during World War II and the Korean conflict.

Ken has been a member of ACSM since 1963. He is a past president of the Texas Surveyors Association (TSA). In addition to ACSM delegate, he is chairman of the Standards Committee and serves on the Texas Mapping Advisory Committee, the Governmental Affairs Committee, and in other capacities.

He has written various papers published by the TSA and has been an instructor of Short Courses at Texas A & M and at Lamar University. Ken is married;

has three children and one grandchild.

ABSTRACT

The Texas Surveyors Association was caught up in Sunset Legislation early in 1977. The paper tracks the steps this Association followed toward overcoming a threatened loss of the surveyors' registration law in Texas. The path was blazed through the bowels of the State Legislature, the snares and entanglements of a bureaucracy and the political intrigue that thwarted every effort, from the dismal beginning to the "cliff hanger" conclusion.

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Student Notes

by *Craig A. Lee, President*
Mary Niederberger, Vice-President
Rina Molari, Secretary-Treasurer
CLSA Student Chapter
California State
University, Fresno

The spring semester is now in full swing. The student officers of the professional organizations have met several times to plan our activities for the semester. Proposed activities include our annual spring picnic and, in April, the CLSA Conference in San Diego. We were asked by Chuck Moore to supply manpower, so several students attended.

Between semesters, we held our 21st Annual Conference, which was quite successful. There were about 180 people attending, nine exhibitors, and many fine speakers. In conjunction with the conference was our awards dinner where seven surveying scholarships were awarded. Three CLSA Scholarships were awarded to Jon Lab, Vince Duda, and Jay Goldfarb; the Teledyne Scholarship was awarded to Pete Gustafson; two Conference Scholarships went to Mitch Duryea and

Kathleen Cline; and the Neil Nelson Memorial Scholarship went to Mary Niederberger. We congratulate them, and extend our thanks to the scholarships' sponsors. We would like to extend our appreciation to Jim Adams who donated \$100 to the CLSA Scholarship fund.

The Surveying Department at CSU, Fresno, is faring well. At this writing, there are 145 students officially enrolled in the program. The faculty consists of four full-time professors: Drs. Fared Nader, Mushtaq Hussain, John Hatzopoulos, and George Burnham. In addition, there are two visiting professors: Dr. Francis Fajemirokun, from Nigeria, and Dr. Kunwar Rampal, from India; and two part-time professors: James Arnold and Bill Anderson. The two visiting professors will be leaving after this semester, and hopefully will be replaced by two new full-time professors. As of next fall, CSU, Fresno, will probably offer an M.S. Degree in Surveying and Photogrammetry.

Two new courses are being offered: Surveying Astronomy this semester and Survey Systems in the fall semester. Survey Astronomy has always been covered in bits and pieces in each of our basic surveying and geodesy classes; now, it is being covered thoroughly in this one class. The Survey Systems class is intended to cover subjects such as land surveying and boundary surveys which are now covered briefly in our other classes. Dr. Nader is working closely with Jim Adams, CLSA's liaison with the student chapter, and Chuck Moore, CLSA's new president, in an attempt to involve CLSA members, who have experience in these areas, as Guest Lecturers. We feel that this sort of involvement would be very beneficial to all parties concerned, and hope that it is successful.

Should you want any information on any of the topics covered in this article, please write to: CSU, Fresno, CLSA Student Chapter, P.O. Box 482, Clovis, CA 93612

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INTRODUCTION

Most surveyors across the country are slowly awakening to the Sunset Legislation that is spreading from state to state. Except for some special details relevant to the individual states, the Sunset Legislation in any state is basically of similar design. As such, the legislation tries to eliminate waste in state agencies and establishes a "watch dog" posture to monitor most or all agencies by formally reviewing them on a cyclical schedule about once every 10 or 12 years. The legislation normally creates a body, committee or commission to perform these reviews and among its many duties, the commission must decide on a recommendation to the legislature on each agency as to whether the agency should be continued, modified, combined with another, or abolished.

The Sunset Legislation usually has one very pointed stinger — it alters *all* statutory law authorizing or creating agencies by attaching an amendment that terminates or abolishes every agency at some point in time shortly after the reviewing body or commission has completed the examination. Therefore, if no recommendation is made to the legislature about an agency, and no legislation is passed to override the Sunset Law, the agency is caught in the sunset process and ceases to exist.

TEXT

The Texas Legislature, like all other legislatures, is supposed to represent its constituency. The members are not unlike other politicians in other states, unless they are possibly more boisterous, independent, erratic, flamboyant, unpredictable or dedicated. Most are honorable men and women, but are beset by tugs from special interest groups and are necessarily sensitive to the vocal minorities, consumer advocates and the pressures of schedule. They must also gently "tippy-toe" over, and around and through a host of campaign contributors and political action committees to avoid overturning applecarts and igniting vital bridges.

The Texas Legislature convenes every other odd-numbered year

and faces a deluge of three or four thousand bills that must be addressed during the 120 day session, which ends the last day of May. It is a sight to behold. There are cliques and clans, personal performances, filibusters, cries of outrage and indignation, voice votes and the incessant pounding of a gigantic gavel — sometimes reminding one of the "clackety-clack" of a freight train's wheels roaring through the chambers.

Out of this dynamo of legislation came the Texas Sunset Bill. It was 1977 and the Texas Surveyors had been busy conducting a variety of educational short courses, developing surveying standards, contemplating building a permanent home, trying to hire a legal counsel, fretting over their budget and even getting their registration law amended during the same session without much attention to what else was happening on Capitol Hill.

Late in 1977, the Texas Surveyors Association (TSA) President asked the Executive Director for a run-down on something called the Sunset Bill. When the report was given at the Board of Directors meeting, there was a moment of silence which quickly evolved to a mutter and then to a disorderly roar. There were great differences of opinion as to what effect this legislation would have on the surveying profession. It was difficult to believe that this seemingly harmless legislation actually stuck an amendment on the surveyors' enabling legislation and that this reasonably complacent profession was now faced with dissolution. The fat was in the fire and there was a tendency to gallop off in many directions.

For better understanding of the surveyor situation in Texas, it is necessary to review what existed at the time the Sunset Legislation became effective.

Most of the citizens of Texas were not aware that there are three kinds of surveyors in the state: The County Surveyor, the Licensed State Land Surveyor and the Registered Public Surveyor — and all of them at one time or another have been erroneously referred to by the general public as

engineers. Actually some engineers did do surveying work but not under their law, only under an attorney general's opinion, which was an interpretation of one of the exceptions in the Registered Public Surveyors Act of 1955. This exception had been a sore spot for many years.

The County Surveyor is an elected county official as provided by the Texas Constitution dating back to 1837. His primary responsibility is to the County Commissioner's Court for surveys and survey records of state or county lands within his county. His *only* qualification to perform his job is that he had been elected. Unfortunately the Sunset Law did not affect this position.

The Licensed State Land Surveyor was created by the Texas Legislature in 1919, because many counties did not have county surveyors and the county surveyors who did exist could only survey in their own counties. The Licensed State Land Surveyor is an agent of the state. His primary responsibility is to the Commissioner of the General Land Office. The existing law required the Licensed State Land Surveyor to be a Registered Public Surveyor before he could qualify to take the Licensed State Land Surveyor's examination.

The Registered Public Surveyor was created by the Texas Legislature in 1955 for the sole purpose of regulating the practice of surveying for the public. The Registered Public Surveyor is responsible to his client, the public and to the Registration Board and he could be held accountable for his work in a variety of ways as was provided for in the Registration Act of 1955 or under rules and regulations of the Board.

The Sunset Legislation had created an Advisory Commission that was comprised of four state senators and four state representatives. The Sunset Commission in turn created an investigative and advisory staff. This staff generated sizeable reports regarding the Registered Public Surveyor and Licensed State Land Surveyor Boards. These reports were compiled from investigations and questionnaires in great detail and much of the information was

correct. As might be expected, some important issues were erroneously stated. Briefly, the Commission Staff made their investigations of both boards and their report recommended, among many things, that these boards be combined. Nowhere did their report favorably address the protection the public received as a result of the efforts of these boards. Nor did the report hint that the two surveyor agencies should be abolished.

The Texas Surveyors Association, through its heretofore moderately active Governmental Affairs Committee, was shaken into a beehive of activity. Surveyors who were aware of what had happened had to snap the other uninvolved surveyors out of their complacency. In many instances it was almost necessary to rely on the time-tested method of using a two-by-four to get their attention.

The Governmental Affairs Committee held a number of meetings, some with members of the Registration and Licensing Boards, some as "skull" sessions and some for strategy. Time was of the essence, and also the biggest enemy throughout the operation.

The public hearings before the Sunset Commission in March of 1978 brought forth prepared testimony from TSA members and interested parties supporting the continuance of surveyor registration in Texas.

TSA presented a position paper at the hearing; highlights of which focused on eight separate issues in retort to the staff report. TSA offered contrasting opinions on:

1. Responsibilities of different types of surveyors.
2. Education of surveyors.
3. Expenses of Registration Board.
4. Similar Board functions.
5. Easier registration, lower qualifications.
6. Media advertising.
7. Staff report conclusion.
8. Recommendations for restructuring the law.

The Commission, while interested in the testimony, was seemingly intent on some drastic changes in the law — if not worse!

And it was worse! The TSA newsletter in May, 1978 covered the subject with these headline words:

**SUN SETS ON SURVEYORS
LAWS ARE TO EXPIRE
SEPTEMBER 1, 1979**

The headline was followed up by one demoralizing paragraph that reported the facts when it stated:

"On Friday, May 26, 1978, at or about 10:55 A.M. the Sunset Commission voted to make no recommendation to the legislature for the continuation of the State Board of Registration for public surveyors. Prior to this action the commission had similarly voted to make no recommendations for continuation of the Board of Examiners for Licensed State Land Surveyors. The sun will be allowed to set on these two agencies and laws regulating surveying in Texas will draw to an end September 1, 1979."

A third paragraph dramatized the situation in an attempt to jar the members loose from the security of their complacency—or apathy:

"A tiny group of about nine interested observers was all that had come to the State Capitol for moral support to watch and wait as their chosen profession was rolled into 'surgery'. This group was appalled as the diagnosis developed. The Profession, as most surveyors have known it for the past 23 years, was matter-of-factly handed a staggering verdict: Prognosis: terminal."

From that point on the Association was faced with a do-or-die situation. It is all but impossible to list all the different efforts that went on across the state. Much midnight oil was burned by many member at many different places, at many different times and yet those that were working still felt they needed more help.

The Governmental Affairs Committee received a charge from the TSA Board of Directors giving the Committee carte blanche authority to get the registration law reinstated. Individual assignments were made and the committee grew to approximately thirty regular members all dedicated to changing the Commission's position.

The Sunset Commission members were placed under a virtual

siege with personal visits, phone calls and letters—all supporting the surveyor's position. Meanwhile, there was official concern that TSA really didn't have its act together — that they were blasting away in the dark with a sawed-off shotgun.

Then came another major event which was undoubtedly the most important single decision that was made — the Association needed professional guidance. Meetings were held to decide on which professional legislative counsel should be employed. The decision was to hire Mr. Greg Hooser who represented the law firm of Stubbs, McRae, Sealy, Laughlin, & Browder. It was going to be expensive, but in a do-or-die situation, money had to take the back seat. Looking back, it is still the best decision TSA ever made.

Mr. Hooser outlined various game plans for working with the Sunset Commission and asked for membership support in a number of areas. Mr. Hooser was asked to coordinate his activities through the Governmental Affairs Committee for optimum effect and communication. With renewed vigor the surveyors were off and running.

In order to meet the staggering financial obligations a legal assistance fund was set up and throughout the "campaign" the members were continuously encouraged to contribute as much as they could. The end result was satisfying. TSA eventually reached their financial goal with a little to spare.

A crash program was initiated to thrash out the many differences in surveyor's thinking toward developing a good surveyors bill. The major goal was still to get new enabling legislation, but a high priority, secondary goal was to remove the engineer's exemption once and for all.

The Sunset Commission was presented TSA's version of a legislative draft bill, but the commission chose to adopt their staff's version which was hardly a workable bill. None the less, after much negotiation with TSA, the Commission came out with a recommendation that the two surveyors' regulatory Boards be combined — which was good. But the method of combin-

ing and all the other verbage in the staff's bill left a great deal to be desired. The Commission's bill did, however, essentially remove the engineers' exemption. Then TSA waited to see if the Commission bill would be pre-filed by any Commission member.

While waiting, the surveyors were busy developing and polishing their own legislative bill. Furthermore, they were successful in getting Representative Bennie Bock, a Democrat from New Braunsfels, who was the Vice Chairman of the Sunset Commission and Senator Ike Harris, a Republican from Dallas as sponsors for TSA's proposed legislation in each house. Timing was a major factor; in fact, it was becoming crucial. All the activities had to be monitored closely so that Mr. Hooser, the lobbyist, could keep a handle on what was happening. There also was concern that TSA should pre-file its bill before the legislative session began. Mr. Hooser's strategy was to continue to "hold fire" in order to get a better indication of what the individual members of the Sunset Commission might do with the Commission's bill, what the "consumer advocates" might do and what any possible adversaries may do. So the surveyors waited until the legislature convened. Shortly thereafter TSA's bill was filed in the Senate and as a professional courtesy, copies were sent to the Texas Society of Professional Engineers (TSPE) and the Consulting Engineers Council (CEC).

Early in February, 1979, a meeting was held in Mr. Hooser's office building between representatives of TSPE, CEC and TSA. The engineers were sincerely concerned about the omission of the engineers' exemption and wanted the exemption reinstated so they could support TSA's bill. TSA was acutely aware that there were 35,000 professional engineers compared to 1400 registered surveyors. If the surveyors knew it, the legislature was bound to know it, too. Therefore, TSA was agreeable to read and study any such amendment the engineers might offer, only if it considerably differed from the amendment in the existing law.

After reviewing the proposed amendment, the Governmental Affairs Committee felt TSA could not support it in any way and the TSPE — CEC representatives were so informed. From that point on the Association found themselves "friendly adversaries" over this point. The battle lines had been drawn.

After the House Bill was filed and brought before the House Government Organization Committee, TSA really knew it had a fight on its hands. Testimony at the hearing brought encouragement to the surveyors, but, as planned, the bill was sent to a subcommittee. TSA thought they had the advantage there, but many days later, the subcommittee stacked numerous amendments including the engineers' exemption back on the bill. It was a bad day all around.

The next day the Senate State Affairs Committee met and passed the TSA Companion Bill to the Senate floor virtually unharmed without the engineers' exemption. The surveyors were elated. Lobbying on both sides had been and was intense. TSA members were turning out and trying to get to their legislators from many directions. The engineers' lobbyists were just as busy. Paradoxically, as the TSPE and CEC lobbied against TSA, the Board of Registration for Professional Engineers endorsed the surveyors' bill. This was bound to be a major factor in the final outcome and a good indication of how confusing the issues had become.

TSA had lost in the House Subcommittee and won in the Senate State Affairs Committee. Lobbyist Greg Hooser summed it up with a sigh, "In this kind of business, it's chicken one day and feathers the next."

The House Subcommittee had severely damaged TSA's bill and the surveyors needed to get it cleaned up in the full House Government Organization Committee meeting. That committee consisted of 11 members and when they met on TSA's bill they had a quorum of seven members attending. The debate was fiery and lengthy. Out of the 11 member committee with seven attending, the vote was taken and two abstained, three voted for TSA's bill

as it was cleaned up *without* the engineers' exemption and two voted against. TSA squeaked through an 11 member committee with a 3 to 2 vote. The House Bill could now go to the floor.

The next showdown was to be on the Senate floor where TSA expected the engineers would attempt to get their amendment reinstated. Several members wrote letters to *all* the senators, timed to hit their office just before the bill was brought up. As it turned out the vote came quickly and somehow the amendment did not get introduced. The bill passed the Senate 28 to 0. (There is a rumor that the senator designated to introduce the engineers' exemption amendment was called from the floor just before the surveyors' bill was considered.)

It was late in the legislative session and the clock was ticking. Both Houses of the Legislature were buzzing with activity. Numerous controversial bills were on the crowded dockets and the legislators were swamped with urgings from special interest groups. The surveyors were then advised by Mr. Hooser to substitute the Senate Bill for the House Bill. TSA's committee agreed and so did their House sponsor, Rep. Bock. It was a calculated risk, but the Senate Bill was cleaner and had the dignity of Senate approval.

TSA's letter writing campaign was then directed at the Representatives to give them a timely reminder of the surveyors' needs just before the bill hit the House floor. Time seemed to pass so quickly, but Rep. Bock got the Senate Bill introduced in the House and it was immediately sent to the House Government Organization Committee during a floor recess. This was the same committee from which TSA's House Bill had squeaked through with a 3-2 vote. TSA had enjoyed chicken before, but this time it was feathers. The Committee *approved the amendment to exempt engineers* and the fat was back in the fire, again! The next battle was on the House floor.

Mr. Hooser stayed very busy cornering representatives to sway them his way; the engineers were equally busy trying to pull them

away. A last minute assessment of the odds showed TSA's bill had just better than a 50-50 chance. It was a horse race. John Poerner, the Railroad Commissioner, a Registered Surveyor and former representative joined with TSA and talked to a number of representatives on the House floor. It helped.

TSA's bill was brought to the floor and amendments were tossed about. It was through the efforts of Rep. Milton Fox, Fred Agnich and Lance Lalor and their speaking against the engineers' exemption that the bill was passed by a vote of 115 for and 14 against. But unfortunately it was slightly different to the Senate version. So back to the Senate!

Earlier it was mentioned that the Texas Legislature was, among many things, unpredictable. At that point in time the Senate was debating the pros and cons of holding a presidential primary in Texas. Some 11 senators were intent upon having their way and even threatened to walk out, leaving the Senate without a quorum. Because of their ability to shut down the Senate's activities, the media dubbed them the "Killer Bees."

The clock was ticking that Friday and Mr. Hooser raced back to the Senate to get their concurrence. The end of the road was in sight! The surveyors were just minutes away from success — but that Friday morning the "Killer Bees" had walked out of the Senate just before Mr. Hooser got there! The Senate was dead!

Days passed and the Lt. Governor sent the highway patrol out to find the absent senators, but they couldn't be found!

However, the story ends happily, for the "Bees" finally returned and the following Wednesday, May 23, the Senate voted to accept the House amendments to the surveyors bill. Any casual observer may well wonder, "Why all the rush and frustration? The legislature still had seven more days before it adjourned."

The Bill was signed by the Governor and became effective June 16, 1979.

CONCLUSION

The law now combines the Licensed State Land Surveyor and Registered Public Surveyor

Boards into one Texas Board of Land Surveying. The new Board consists of the Commissioner of the General Land Office, two Licensed State Land Surveyors, four Registered Public Surveyors and three members from the general public.

The surveyors in TSA mopped their brows and reflected on the many lessons that were learned the hard way:

1. Stay active in your legislature; know your legislators.
2. Retain a well qualified lobbyist and attorney.
3. Develop and maintain a Political Action Committee.
4. Maintain a good organization for coordination of activities.

5. Delegate responsibility only to a few reliable people.
6. Have one spokesman.
7. Plan the operation meticulously, timing can be critical.
8. Spare no expense, but spend wisely.
9. Communicate, communicate, *communicate*.
10. What is legislated can be *un*-legislated.
11. Pray a lot.

There is a great doubt that the Texas Surveyors can maintain the intense interest that was generated during 1977, '78 and '79 but never again will they allow themselves to be caught so unprepared — unless they forget that sunset will come around again in 1991.

□

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Legislation

by Harold B. Davis, L.S.
Chairman, Legislative Committee

Continuing the process initiated on the last issue, the legislative committee here presents a few more bills which passed into law on January 1, 1982:

AB 605: (Chapter 88, Statutes of 1981) Amended Section 337.15 of the Code of Civil Procedure, relating to limitations of actions. This bill provides that the 10 year period during which an action for damages arising from a latent deficiency against persons (incl. L.S.) who perform various services relative to the construction of improvements on real property defines substantial completion. Section 337.15 (g) now reads:

“(g) The 10-year period specified in subdivision (a) shall commence upon substantial completion of the improvement, but not later than the date of one of the following, whichever first occurs:

1. The date of final inspection by the applicable public agency.
2. The date of recordation of a valid notice of completion.
3. The date of use or occupation of the improvement.
4. One year after termination or cessation of work on the improvement.

The date of substantial completion shall relate specifically to the performance or furnishing design, specifications, surveying, planning supervision, testing, observation of construction or construction services by each profession or trade rendering services to the improvement.”

AB 745: (Chapter 519, Statutes of 1981) Added Section 110010.7 to the Business and Professions Code relating to land use. This bill provides that a person may offer to sell real property, conditioned to the approval of a tentative or parcel map. This section reads:

“110010.7. The notice of intention specified in Section 11010 shall not apply to nonbinding expressions of intent to purchase or lease which an owner, agent, or subdivider is required to obtain from the tenants of units which are proposed to be converted to a

condominium, community apartment project, or stock cooperative project, by ordinance, or as a condition to the approval of a tentative or parcel map pursuant to Division 2 (commencing with Section 66410) of Title 7 of the Government Code.”

SB 160: (Chapter 957, Statutes of 1981) Amended Section 116.2 of the Code of Civil Procedure, relating to small claims court.

This bill raised the jurisdiction of small claims courts to \$1,500.

SB 180: (Chapter 958, Statutes of 1981) Amended various sections of the Code of Civil Procedure and added Section 818.9 of the Government Code, relating to small claims courts.

This bill also raised the small claims limitation to \$1,500 and provides various other changes to small claims court procedures.

SB 257: (Chapter 1087, Statutes of 1981) Permit reform act of 1981. Added Chapter 3 to Part 6.7 of Division 3 of Title 2 of the Government Code.

This bill provides for facilitating the processing of permits, licenses, certification registrations, etc. from state agencies.

AB 1259: (Chapter 502, Statutes of 1981) Amended Sections 6755 and 8741 and repealed Sections 8740.1 and 8740.2 of the Business and Professions Code.

This bill authorizes the State Board of Registration to provide assignment to a special examination for those applicants for licensing as a land Surveyor “whose educational qualifications are equal to, and whose experience qualifications substantially exceed,” the statutory requirements.

This bill was amended at the last minute by the efforts of this association, in order to require the above stated requirement. For this effort, I wish to extend the thanks and appreciation of the committee to those who contacted their representatives.

Remember, if you wish to read the full text of these bills, you may obtain a free copy by contacting your Assemblyman or Senator. □

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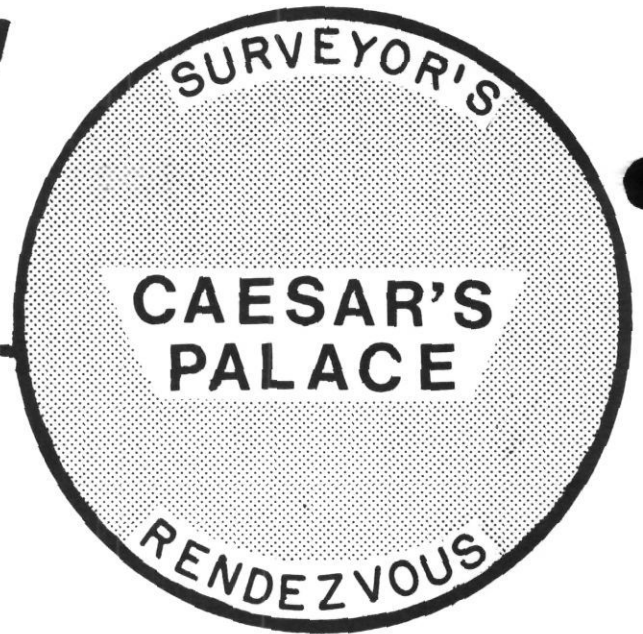
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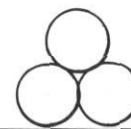


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