

Institutional Affiliate of American Congress on Surveying and Mapping.

The California Surveyor

No. 67

The Voice of the Land Surveyors of California

Winter/Conference 1982

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DIEGO '82

San Diego '82 Page 20

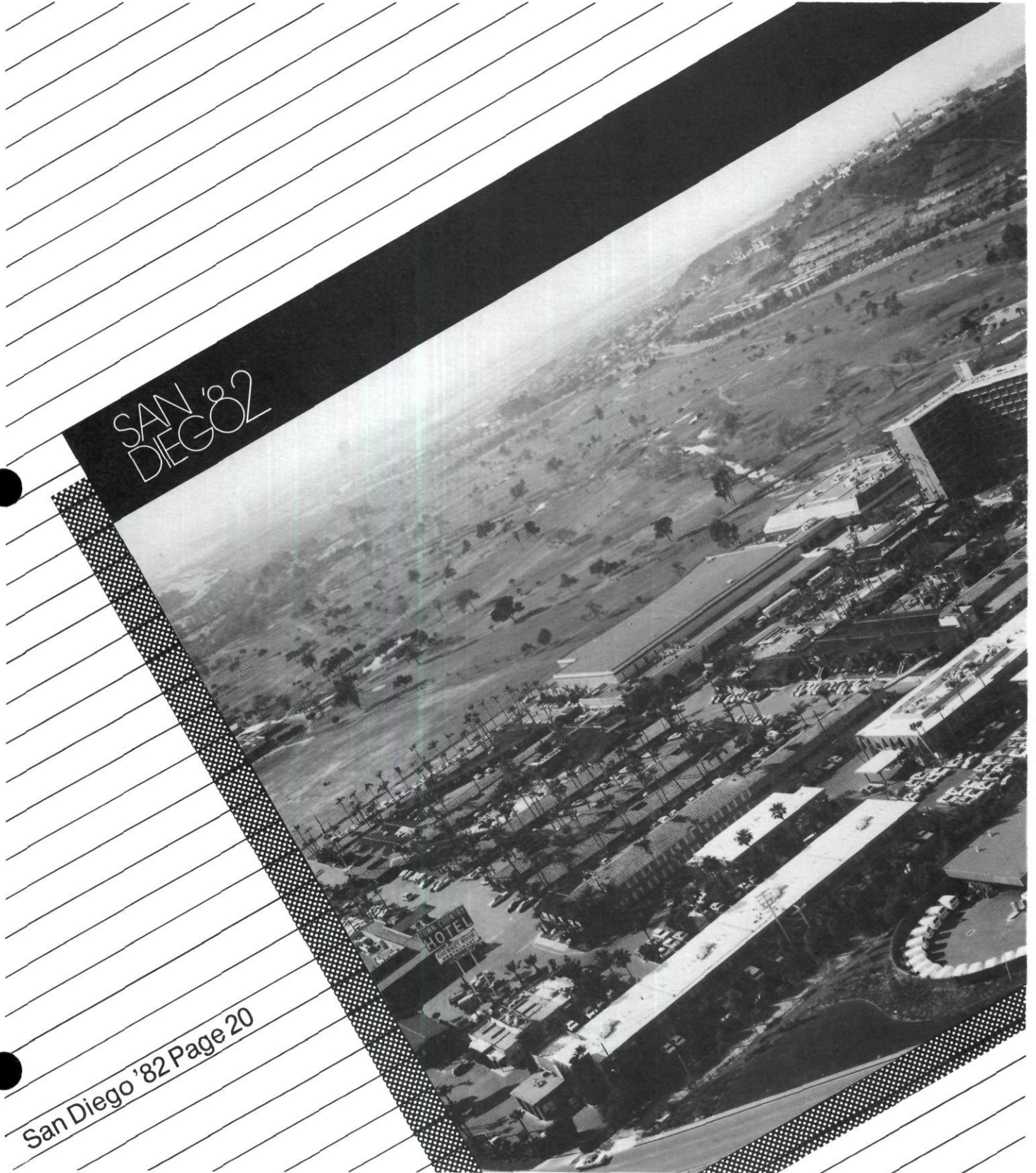


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The California Surveyor

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."

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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.
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 Berkeley, CA 94703

DEADLINE DATES FOR THE CALIFORNIA SURVEYOR

Spring Feb 25, 1982
 Summer May 19, 1982

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

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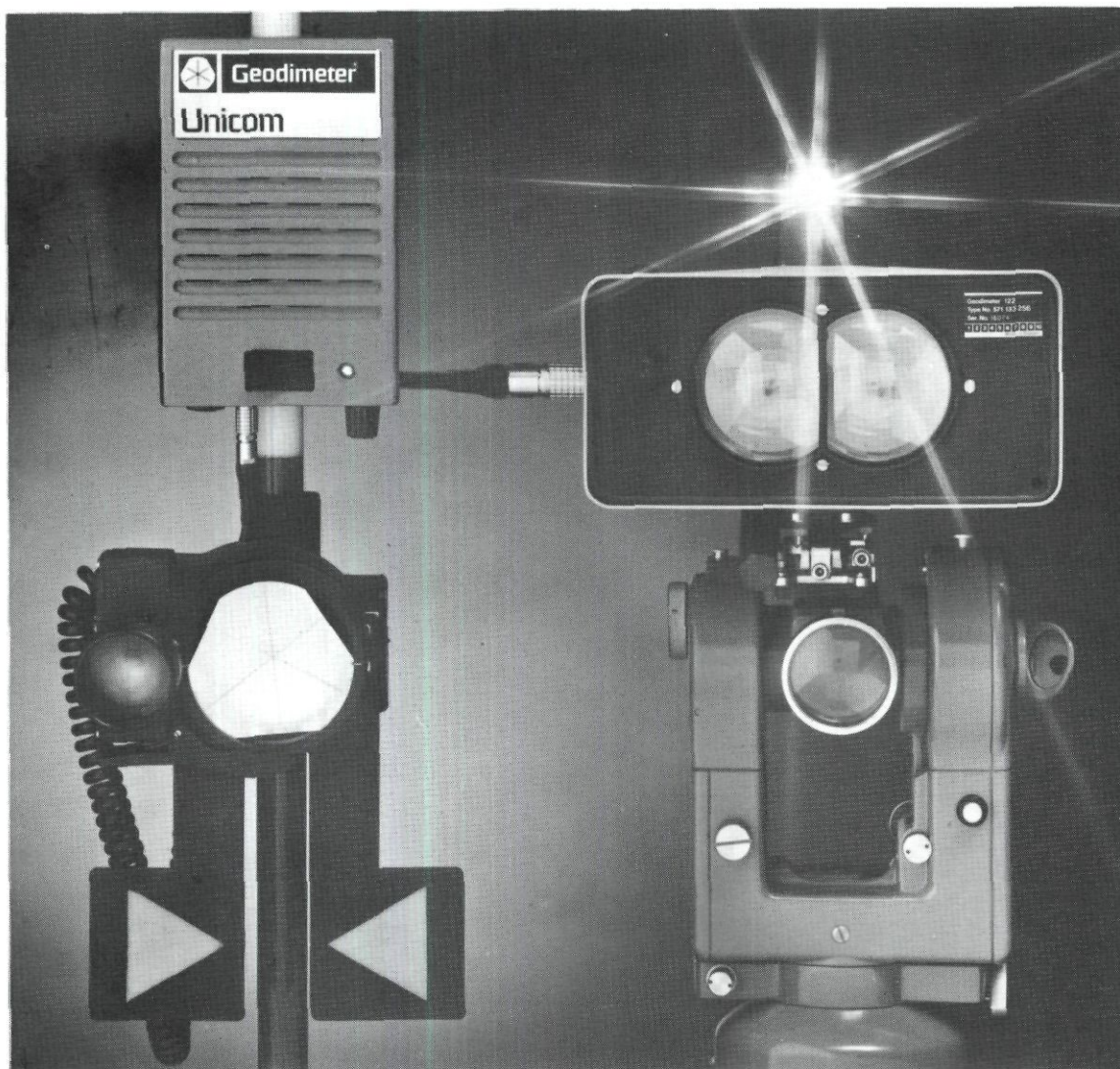
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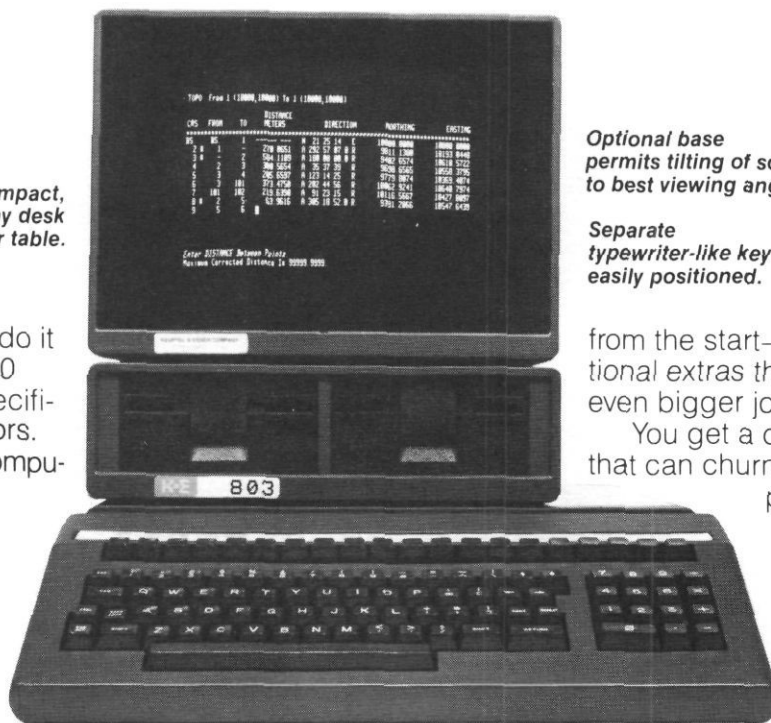
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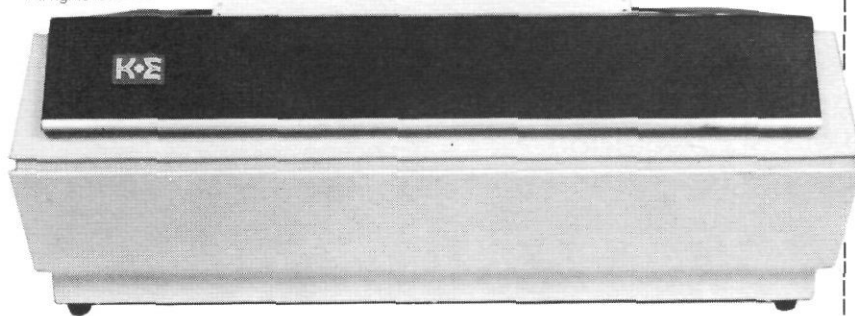
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President's Message



My term as President will soon be over. It has been an interesting and rewarding two years. I feel honored to have served such a fine Association and profession in this capacity.

I would like to express my appreciation to all who have given of their personal time and talents for the betterment of CLSA. Our Association has benefited from many hours put forth by the Board of Directors, Committees, as well as Chapters.

I extend my congratulations to our

Nominating Committee on the selection of a fine slate of candidates for 1982 and offer my continued support for the coming year. I would like to wish everyone a prosperous 1982, and look forward to seeing you at our 1982 annual conference in San Diego.

William O. Gentry, L.S.
President

News Digest

ONE DAY SEMINAR

The California Land Surveyors Association, Orange County Chapter, presents a one-day seminar entitled "Preparation and Processing of Record Maps", which will take you through the life cycle of a record map, from the drafting table through the County Surveyor's Office to recordation. The course, taught by experts from the private sector, title companies and the County Surveyor's Office, is designed to assist in the understanding of map processing for the surveyor, planner, engineer, draftsman, title examiner, and legal description writer.

Discussions will center around the preparation and processing of tract maps, parcel maps and record of survey maps. Specific topics to be covered, with viewpoints from both the private and public sector, include: avoiding pitfalls common to Tentative Map preparation, Final Map research and Final Map preparation; understanding the workings of the County Surveyor's Office; policies and standards of Public Agencies; problem areas between private and public sector; what is "Substantial Conformance?"; conditions of approval and how to meet them; the value of boundary review prior to Final Map preparation.

Additional input will be provided by representatives from the title insurance industry. The presentation by our panel of speakers will be concluded with a question and answer period.

The Seminar will be held January 29, 1982, at the Saddleback Inn, Santa Ana, California. Contact: Chuck Mette, Seminar Chairman (714) 953-2020 or Bill Green, Education Chairman (714) 833-0070. CLSA, P.O. Box 4012, Santa Ana, California 92702.

STOLEN INSTRUMENT

During October, 1981, a ca. 1915 brass wye level manufactured by the A. Lietz Co., serial #5968, was stolen in Sacramento, California, from a private party. Anyone coming in contact with this instrument is asked to notify the Surveyors Historical Society, 10324 Newton Way, Rancho Cordova, California 95670, or telephone Mr. Bud Uzes at (916) 791-0148.

brass eye level manufactured by the A. Lietz Co, serial #5968, was stolen

CONFERENCE AT CUSF

The 21st Annual San Joaquin Valley Surveying and Photogrammetry Conference, "Progress Through Diversity," will be held Friday, January 22, 1982, and Saturday, January 23, 1982, at California State University, Fresno, Speech Arts Building, John Wright Theatre. Cost: \$8.00 for Students/\$15.00 for both days, including dinner Friday; \$12.50 for all other attendees for both Friday and Saturday; \$22.50 for both days, including dinner Friday evening.

Speakers, exhibitors, schedules,

maps, dinner menu, and program to follow at a later date. For more information, please call or write: Dr. Fareed Nader, School of Engineering, California State University, Fresno, Fresno, California 93740, Telephone: (209) 294-2603.

ARMY DEVELOPS NEW ASTRONOMICAL SURVEYING DEVICE

Review of an article entitled "Finding True North Easily", The Military Engineer, July-August, 1981

The Army Engineer Topographic Laboratories at Fort Belvoir, Virginia, has developed a fast, improved procedure for establishing true north or south to an accuracy of 2 mils or less which it calls "The Circumpolar Method of Orientation." The device consists of three etched circles added to the reticle of the aiming circles used by Army artillery units. When Polaris and two other circumpolar stars are set on the proper circles, the instrument is pointing at true north. No calculations, tables or timing systems are required. It is claimed that operators familiar with the aiming circle can be trained in the new procedure within half an hour.

ASP AND ACSM AGREE TO AFFILIATE

The American Society of Photogrammetry (ASP) and the American

(Continued on Page 7)



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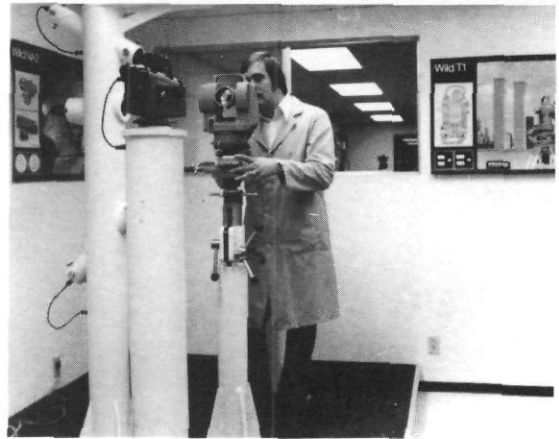
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News Digest

(Continued from Page 5)

Congress on Surveying and Mapping (ACSM) have agreed to join in close association in order to represent more effectively the interrelated professions of surveying, cartography, photogrammetry and remote sensing. The respective Boards of Direction approved the affiliation action at their separate meetings in San Francisco on September 8, 1981.

The two societies have held their annual conventions jointly and successfully since 1955. The coordinating mechanism for the conventions was a joint committee called COM-PASS, the Committee of Mapping, Photogrammetry and Surveying Societies. ACSM and ASP have also jointly sponsored other technical meetings and worked together at the management level, their respective headquarters being only two blocks apart in Falls Church, Virginia.

ASP was formed in 1934 and has about 7,500 members, mostly photogrammetrists and remote sensing specialists. A majority of ASP members work in fields related to surveying and mapping. ACSM was formed in 1941 and has about 11,000 members, almost all of whom work in the surveying and mapping field. About a thousand individuals belong to both ASP and ACSM.

In making the announcement, ASP President Zarzycki and ACSM President Morrision said that "This is a great day for both societies. Such a joint operation has been discussed for years. Now it is a reality." In a

note of reassurance to their respective memberships they said, "There is no question in our minds but what these moves will be of great long-term benefit to individual members and the professions they are engaged in."

UNIVERSITY OF MAINE PROGRAM ACCREDITED

In August 1981, the Accreditation Board for Engineering and Technology (ABET) accredited the Surveying Engineering program (bachelor's degree) at the University of Maine at Orono. It thus became the second accredited surveying program in the nation.

The beginning of the Surveying Engineering program resulted from the initiative of New England's surveyors. The program is part of the New England Regional Student Program and is administered by the Department of Civil Engineering. There are currently four full-time faculty members teaching in surveying, each of whom has special expertise in land information systems and/or advanced technical aspects of surveying.

The Surveying Engineering program at UMO was designed and is continually evaluated in light of certain fundamental concepts: surveying graduates must have an education which encourages growth during their professional careers; they must be prepared to pursue innovative routes in responding to the needs of society. Students are required to take a core group of courses in science,

mathematics and liberal arts. A broad background in the many disciplines of surveying is provided by the following additional courses: single semester courses in computer programming, micro-processors, statistics, linear algebra, adjustment computations, remote sensing, cadastral system design, environmental law; two semester courses in legal aspects of surveying and land use planning; three semester courses in (traditional) surveying, photogrammetry and geodesy.

Further information on the Surveying Engineering program can be obtained from: John Alexander, Chairman; Dept. of Civil Engineering, 103 Boardman Hall, University of Maine, Orono, ME 04469.

CCSF ANNOUNCES SCHOLARSHIP

This scholarship is named in honor of Roswell M. Towill, founder of a San Francisco-based engineering firm specializing in surveying and photogrammetric engineering. The award, offered each semester, is of at least \$250 from an initial grant of \$5,000. The applicant must be majoring in Civil Engineering Technology, Surveying option, have a minimum GPA of 3.00, and have completed at least 15 semester units in surveying subjects.

Applications should be made in October and March to Dr. D.E. Slavoj, CET program advisor, Science Building, Room 143.

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Education

A BLUEPRINT FOR COMPETITION

by D. W. Gibson,
University of Florida

Competition among land surveyors is intense for the available work. Over the years, I've listened to surveyors bemoan price cutting that eventually leads to reduced levels of professional service to the client. In turn, wages paid to employees are reduced to the point that highly qualified potential employees find greener pastures elsewhere.

The cause of the price cutting war, the resulting damage to the public, the deteriorating quality of surveying employees and the surveyor's struggling is the apprentice system of professional education.

THE APPRENTICE SYSTEM

Typically, a future professional surveyor seldom plans to become a surveyor from early in life, except for a few sons and daughters of surveyors. Instead, most choose their surveying career after accepting a job as rodman on a surveying crew. Some are good high school students, others are not. Some attend one, two or three years of college but fail to finish for some reason. Relatively few finish college. In any case, the typical surveyor does not find strong career direction early in life. Most try several odd jobs and trades before taking that first surveying job. Some are introduced to surveying in the armed forces. Most are married and feel pressure to start a career due to family responsibilities.

Upon taking that first job, the future surveyor falls in love with the work, its robustness and discipline. Under the stern hand of a good surveyor, the person is disciplined in team work, thoroughness and accuracy. Initially, the party chief is that role model.

Interest and personal involvement with surveying work are soon evidenced by increased production and effectiveness. The managing professional surveyor, always keeping a watchful eye for potential key personnel for the firm, soon becomes aware of this person through reports from the party chief and other field employees. The employee soon advances to instrumentman and eventually junior party chief with ever

more commitment to work. At some point, the managing surveyor makes the grand offer, "I think you have a future in surveying. Stick with this firm and I'll teach you what you need. If you have enough drive your possibilities are unlimited. Eventually you could be a registered surveyor and part owner of this firm." To this person, perhaps 22-28 years old, the offer sounds like heaven as if to say, "Just imagine some client may actually pay me to do this work someday." The professional surveyor/businessman now becomes the role model and the career is begun in earnest as an apprentice of the sponsoring surveyor.

The advancement process is selective according to the person's drive and ability. Some stay at a party chief as a career, lacking the tools and motivation to advance. Some take the step into the office to be chief of parties or drafter. The next step is to learn computing, soon followed by the legal aspects. Finally, the prospect may advance to office manager and is taught the business affairs having direct contact with clients.

After moving to the office, the licensing exam becomes important. The managing surveyor assumes responsibility for the prospect's "formal" education. At this point, college is out of the question, both for the employee and the financial health of the firm. Standard reference books are loaned. The firm may pay for the ICS course if completed. The prospect is sent to seminars when available. Upon satisfying the minimum work experience, from six to twelve years depending on the state, the exam is taken one, two, three or more times until passed.

The licensed surveyor then usually remains with the sponsoring firm until advancement opportunities stop. Then at an opportune moment the surveyor breaks away to fulfill another promise made by the sponsoring surveyor, to be the owner of a small surveying business. As a result, the sponsoring surveyor has been "cloned" — a nearly exact duplicate has been created that now is in competition. This new surveyor knows his sponsoring surveyor's methods very well and most of his thinking. An analysis of the surveying profession in a community will show that

originally there was one surveyor that trained three who in turn produced 15 and so on. Of course, there are exceptions caused by migrations of individual surveyors but, still, a "lineage" of apprenticeship exists for most surveyors of an area.

The intense competition is now caused for obvious reasons. A group of professional surveyors, each having the same credentials, the same thinking, the same methods, using the same tools are competing for the same work knowing exactly how the other surveyors will perform it and how much their cost proposals will be. And now as minimum technical standards are adopted for boundary surveys, the discrimination of level of service is largely removed. The only remaining discriminator in selection is price.

Some surveyors readily admit their problem — lack of diversification and flexibility. Since they were educated by experience on a rather narrow scope of services performed by sponsoring surveyors, they feel competent only on that type work and therefore they feel trapped. Profit is made by a relatively few through high productivity, refinement of methods, local reputation and collection of survey records. Since everyone is using the same tools, the only profit hope is to do the job faster and more efficiently. Many times the scope of service and quality of the work suffers. At any rate, succeeding is *hard work*, often too hard to be gratifying as a long term way of life.

Profit in the highly competitive marketplace is also possible by reducing non-salary overhead such as offices, trucks and equipment to a minimum. Therefore some surveyors work out of their houses, using a second-hand station wagon as a survey vehicle. The public is eventually injured by a lack of attachable assets to cover damages caused by the surveyor.

Another technique for profit is to lessen the cost of doing business through low wage scales paid to employees. As a result, quality prospects are not attracted by the apprenticeship offer. The lower ranks become less and less capable in response to the lower wages paid by the owners.

(Continued on Page 13)



Time to Wake Up!

MORE STRAIGHT TALK FROM SIERRA CYBERNETICS

If you're thinking about getting a new computer system for your office, you may be inclined to purchase the old standard of the industry, H-P, or one of the small Apple or Radio-Shack based systems that seem awfully cheap. You are probably asking for a whole lot of trouble if you expect your business to grow in the future.

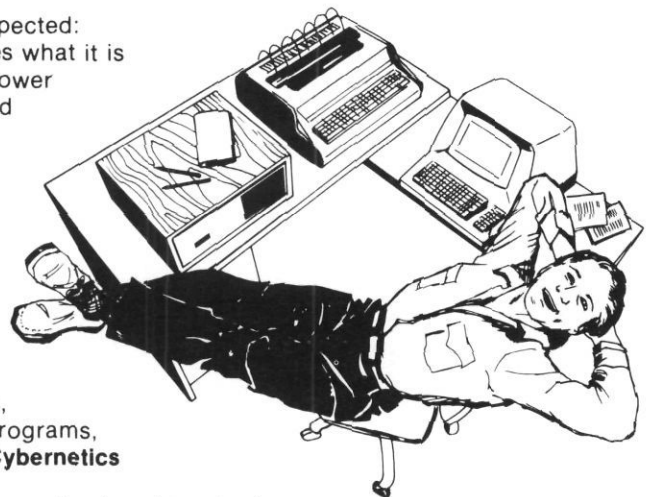
If you buy the H-P 85, you may find the available memory too small to fit many larger programs that are developed for special applications. You may tire of a screen that does not have enough columns to show a complete letter or form. You may be appalled at the cost of extra equipment you may want in the future, and the lack of incompatibility with equipment developed by other manufacturers. And, most of all, you may be disappointed because you cannot change any of the programs for your particular application or surveying style.

If you buy one of the "fly by night" systems, you may find that the programs run like they were written by an amateur programmer, or someone who does not think like a surveyor. You will probably find the supplier is selling a hobby-grade computer, and not a business grade computer. You may find the printer is a cheapo one, that takes special paper, or prints out unreadable text.

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Professionalism

A brief history of the regulation of land surveying and land surveyors and the professional practice of land surveying in California.

by James N. Dowden, L.S.

The public need to regulate the practice of surveying and mapping arose early in California's history, receiving its impetus in the late 1880s, culminating in the passage of "an act to define the duties of and to license land surveyors" approved March 31, 1891.

During the late 1880s, the technical society of the Pacific Coast, under the urging of A.T. Herrmann, C.E. Grunsky, Otto Von Geldern and others, began a series of discussions which eventually led to the Act approved March 31, 1891.

In addition, the minutes of the old technical society of the Pacific Coast are most revealing as to the problems besetting the profession at that time.

Many factors combined to initiate the licensing laws, among which were the infamous Benson Syndicate scandals of the early 1880s; real estate promotion schemes showing tracts of subdivided lands for sale, created wholly on paper; the lack of adequate monumentation of many surveys, and the practice of setting so-called "sucker corners", or worse — no corners at all!

Perhaps more important than the above abuses was the lack of a system by which records of a survey creating boundaries between land ownerships could be preserved and become a part of the public domain.

The recording system for permanently documenting the record of land transfers preserved the "what" of the conveyance, but failed in many instances to identify the "where" of the land.

The "record of survey" map was designed in 1891 in California to fulfill this need, and still does today.

It is fundamental to our land ownership system that original surveys *create* boundaries — subsequently surveys must retrace these lines, finding and preserving the position and character of the original monumentation.

The record of the changing character of these monuments with respect to time is essential to the system, for it is far better to find a

faulty measurement on a line in the right location than to have an accurate measure on a line in the wrong place.

Line disputes have been, and still are, a major source of homicide and litigation in this country.

The practice of surveying and mapping has expanded greatly over the years; the highly sophisticated instrumentation and supporting equipment, including high speed electronic calculators, produce results that could not be dreamed of 20 years ago, thus relieving the land surveyor of much of the tedium and routine of the technical aspects of his profession.

In addition, today's land surveyor now must be intimately familiar with the four legislative acts that govern the practice: the "Land Surveyors Act", the "Subdivided Lands Act", the "Subdivision Map Act" and the "Plane Coordinate Act".

The surveyor must also deal with a host of local ordinances, regulations and regulatory agencies in processing a client's project through to completion.

In 1974, the legislature amended, revised and greatly expanded the Subdivision Map Act and recodified same to the government code, thus adding some 360 incorporated cities as the lead agency in the processing of land division maps.

Since 1972, in coastal counties, surveyors must know how to deal with the California Coastal Commission and its rules and regulations.

Since 1967, for San Francisco Bay counties, the surveyor must deal with the Bay Conservation and Development Commission and its rules and regulations.

If a client's project involves work on or adjacent to navigable waters of the United States, knowledge of the permit requirements of the U.S. Corps of Engineers is essential.

In the Lake Tahoe basin Cal/Trpa rules the roost as to land development projects.

Thus the role of the land surveyors, their products and services to clients has been greatly expanded from the traditional mode of practice.

Thus, one wonders wherein doth lie the breeding, training and educa-

tion of today's land surveyor?

Land surveying historically has been learned through the apprenticeship system — particularly boundary surveying — and through self study. Our academic institutions have in the past been able to teach the mensuration sciences, but have never been able to formulate a satisfactory curricula that would satisfy the needs of a profession that derives its origin from that peculiar admixture of land titles, law and the mensuration sciences.

What are boundaries is a matter of law, where they are is a matter of fact.

Boundary surveying is an art, not a science, and as Chief Justice Cooley of the Michigan Supreme Court observed in 1888 in his classic paper "The quasi judicial functions of surveyors";

"When a man has had a training in one of the exact sciences, where every problem within its purview is supposed to be susceptible of accurate solution, he is likely to be not a little impatient when he is told that, under some circumstances he must recognize inaccuracies and govern his action by facts which lead him away from the results which theoretically he ought to reach. Observation warrants us in saying that this remark may frequently be made of surveyors."

Is it little wonder that the Land Surveyors Act still requires six years of experience and the endorsement of licensed contemporaries before being allowed to sit for the second half of the Land Surveyors examination, — and these are only *minimum* qualifications!

To summarize, the Land Surveyors Act was first enacted in 1891 and was administered by the State Surveyor Generals office until 1929, when the legislature, upon recommendation of the then incumbent Surveyor General, was abolished as a constitutionally elected public office.

In its place, the State Lands Division within the Department of Finance was created to continue the ministerial functions of securing satisfaction of the State's entitlement under the many federal grants of public domain lands within Califor-

nia's borders, and to continue the land sales program of the State.

During this period and on a parallel course was the creation of the Board of Registration for Civil Engineers which became a matter of major public concern as a result of the tragic failure of the Saint Francis Dam in Southern California.

As a result of this dichotomy of parallel circumstances, the administration of the Land Surveyors Act and the registration and licensing of land surveyors was transferred to the newly created Civil Engineers Board of Registration — a process which persists today.

As land surveyors or potential land surveyors one must be familiar with the Land Surveyors Act and the rules and regulations governing the prac-

tice of land surveying in this state.

This law as presently structured comprises Chapter 15, Division 3 of the Business and Professions Code, consisting of Sections 8700 to 8805.

Every practicing land surveyor in California is charged with the knowledge of his practice act and the rules and regulations propounded by the Board of Registration for Professional Engineers, governing the practice of land surveying in this state.

The rules and regulations of the Board are contained in Title 16, Chapter 5 of the California Administrative Code.

Every land surveyor or potential land surveyor must be intimately familiar with these laws and govern his practice accordingly; otherwise his liabilities will become an insur-

mountable burden.

The key phrase in both the Land Surveyors Act and the Board's rules and regulations is "responsible charge".

Registration and licensure as a practitioner is a privilege, not a right! — so I urge that each of you obtain a copy of the "Professional Engineers Act, the Land Surveyors Act with Rules and Regulations," from the State Board of Registration.

It goes without saying that of the 87,000+ registrants currently regulated by the Board, comprising 20 disciplines, 40% of the complaints filed with the Board are in the practice of land surveying. Yet, land surveyors consist of only 2,400+ registrants! Would you be one of these? ▲

Legislation

by *Harold B. Davis, L.S.*
Co-Chairman,
Legislative Committee

The Legislative Committee has reviewed, monitored, supported and opposed many items of legislation in 1981, on behalf of the membership of C.L.S.A. The Committee will be highlighting some of these bills in this and future editions of the *California Surveyor*.

All bills of which have been passed into law will be identified by house of origin and number (i.e. S.B. means Senate Bill and A.B. means Assembly Bill) by Chapter, and then by Code and Section. These bills become law on the first of January of the year following passage.

S.B. 16 (Chapter 372, Statutes of 1981)

Amended Section 8773 of the Business and Professions Code (Land Surveyors Act), pertaining to Corner Records, and cleans up a gray area in the code.

Section 8773 (b), reads "After the establishment of a lost corner, as defined by the Manual of Instructions for the Survey of the Public Lands of the United States, a record of survey shall be filed as set forth in Section 8764.

A.B. 612 (Chapter 482, Statutes of 1981) Amended Section 66452.6 of the Government Code (Subdivision Map Act), to increase the expiration period of a tentative map to 24 months, and allows a 12 month extension. It also allows a map to lie dormant through a development moratorium or a law suit.

A.B. 621 (Chapter 306, Statutes of 1981) Revised the State Contract Act.

If you wish to read the full text of these or any other bills, you may obtain a copy by calling on your senator or assemblyman.

If you feel that a certain law needs to be enacted or amended, contact any member of the Legislative Committee or C.L.S.A. Headquarters in Santa Rosa.

by: *Harold B. Davis, L.S.*
Co-Chairman,
Legislative Committee

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Education

(Continued from Page 9)

Therefore the future apprentices are chosen from a group of less capable prospects, thereby causing the next generation of surveyors to be of less overall ability. A degeneration cycle results that will eventually produce a group of surveyors so far away from the technology of the day that others, using innovative techniques, can do the job better and cheaper. At that time the apprenticeship surveyor's inflexibility will prevent the rapid change needed to compete.

A primary example is topo mapping by photogrammetry. A second profession of photogrammetry exists only because of the inflexibility of the apprenticeship surveyor of the 1950s and 1960s when photogrammetry made great strides. As the apprenticeship surveyor tried to learn photogrammetry, soon all the feeling for the profession he fell in love with is lost. In most cases, the surveyor did not fall in love with the professional

work of determining the elevations and contour of the earth's surface but with the robust field-oriented life of the survey party. Departures from that life whether into a new technology or into the business world often produces a fish out of water. The apprenticeship system not only intensifies competition but it strangles technological change of methods within surveying. How can a new apprentice learn a technology from a surveyor that never practiced it?

Apprenticeship assumes that the tools and methods will be relatively fixed and that the abilities and attributes of the sponsoring surveyor will be valuable to the apprentice throughout a forty year career. For some reason the U.S.A. from 1880 to 1980 fit that requirement perfectly. In the middle 1800s John Young produced the first American-type transiting theodolite — later abbreviated to transit. AK & E "paragon" type transit was first available about 1880 and was still being purchased by sur-

veyors in 1970.

Nearly one hundred years of constant surveying tools and methods were in existence. An 1842 edition of a treatise on surveying contains a traverse table nearly identical to those appearing in modern basic texts. Coordinates aren't new, they were just called Total Latitude and Total Departure. In an era of fixed tools and methods, apprenticeship is perhaps the best education methods. With enough time, the knowledge of the tool's use advances until the user is an artisan. The profit motive requires *artistic* fine tuning of the tool's use. To be a transit-tape surveyor, the best way to learn *was* to become an apprentice to a respected surveyor having artistic knowledge learned by experience.



However, those that survived and succeeded in the next thirty years are those who are *experts at change*. In today's changing technology, tools and methods can be expected to turn over at ever increasing rates.

The pole was replaced in circa 1750 by the compass and chain, which was replaced circa 1900 by the transit and tape which was replaced circa 1970 by EDM and theodolite. These intervals of 150 and 70 will soon be followed by technology turnovers of 25, 10 and eventually 5 years. The modern surveying profession must have an accurate scenario of the future practice environment. Steps must be taken today to prepare for that future. Those firms that win will have the most accurate view of the future and the most flexibility to change toward that future. But one thing is certain: traditional apprenticeship education will not supply the required people. The university graduates as preprofessionals are experts at change because of the nature of their university experience. The modern university is no picnic. The work load, stress and learning pace is astounding. Many of our students look forward to working on a surveying job to *rest up*. If a student can't handle the fast learning pace, they don't graduate. The university environment is the most accurate simulator of the working environment of the future professional surveyor. For that reason, future surveyors should


(Continued on Page 30)

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News from the Board of Registration

by Chuck Moore, Lou Hall, and Gary Shelton

On Friday, September 11, 1981, the State Board of Registration for Professional Engineers held their meeting at the Hotel Del Coronado in Coronado, California. The Land Surveying profession was well represented at that meeting by at least eight members of the San Diego Chapter of CLSA as well as by Gary Shelton and Jim Dowden, CLSA's Board Liaison Committee representatives.

Upon opening the meeting, the Board requested a report on the activities of the Joint Professional Practices Committee (JPPC) in San Diego County. The report was given by Lou Hall, a member of the Committee. The JPPC is a joint effort of CLSA and CCCE&LS to remind all individuals performing land surveys within San Diego County of their responsibility to comply with the *Land Surveyors Act in filing Records of Survey or Corner Records* as is appropriate. The number of Records of Survey and Corner Records filed in the County has increased three-fold since the JPPC began operations in August of 1979.

Gary Shelton, County Surveyor of Orange County, gave the Board several reasons why it is necessary that they License post-January 1 1982 engineers who take and pass the L.S. Examination, and Jim Dowden also indicated to the Board that CLSA was recommending licensure of all civil engineers who pass the Land Surveyor examination in the future. Other speakers from the audience spoke in favor of this position.

ATTORNEY GENERAL'S OPINION AIRED

The Attorney General gave an opinion as to what Senate Bill 2 did and did not do. The following is a summary of issues addressed by the Attorney General:

1. Does the Engineer registered after January 1, 1982 need a special registration number to distinguish him/her from CEs registered prior to January 1, 1982? No, the date on the CE license will differentiate.

2. Must CEs who pass the LS exam have both licenses? No, there is no requirement in SB 2 to mandate a license. If they elect to have a license

and make such a request, the Board can issue one.

3. Would the CE be required to maintain both a CE and an LS license to practice land surveying? No, a CE who passes the second division of the LS examination may practice land surveying under the sole authority of his/her CE license.

4. Is there authority under the Act to charge renewal fees for the LS license held by CEs registered after January 1, 1982? Yes, the same authority that exists for any LS licensee who wishes to renew a license.

5. Should a CE applicant pay the same fee for the LS exam as other LS applicants? Section 8805(a)(2) says CE applicants for the LS exam under Section 8731 shall not pay more than the actual cost of the exam. CEs should be charged the same fees as are currently being charged for the land surveyor examination and license renewal.

6. Are CEs required to have two years of land surveying experience to take the LS? No, under SB 2, Section 8742(c), only registration as a civil engineer is required, nothing more. (Legislation being recommended.)

7. Can a CE registered after 1982 use the title "Land Surveyor" if he/she takes the second part of the LS exam, but does not request a license as a land surveyor? No. Under Section 8751 of the Business and Professions Code, no person can represent himself as, or use the title of, licensed land surveyor, land surveyor, professional engineer in land surveyor, land survey engineer, survey engineer, geodetic engineer, or geometronic engineer unless he/she is the *holder of a valid, unsuspended and unrevoked license*. Under SB 2, registration as a CE and passage of the second part of the LS examination gives a CE authority to *practice* land surveying. The license gives authority to *use the title* "land surveyor".

8. Can a CE registered before 1982 now authorized to practice land surveying get an LS license without taking the second division of the LS exam? No. Under Section 8747 of the Business and Professions Code, passage of the second part of the LS examination is a prerequisite to the issuance of a license.

9. Is it true that Section 6731(a) as amended by SB 2, is a specific provision and governs over the general requirement of Section 8747 so that the requirement to issue an LS license to anyone who takes the second division of LS exam is not controlling? Yes. Agree with Bill Goode's memo on this point with one minor qualification: his reference to the requirement concerning issuance of a license should be to Section 8747, instead of to Section 8742.

10. What effect will SB 2 have on out-of-state civil engineers? Must a Civil Engineer registered in another state and applying for reciprocity in California after January 1, 1982 pass the LS exam to practice land surveying? Yes. This applied to CEs registered out-of-state before and after the January 1, 1982 deadline.

11. If a civil engineer registered after 1982 obtained a license in land surveying and later was subject to discipline because of a violation of the *Land Surveyor's Act*, could the Board revoke or suspend his/her civil engineering certificate as well as his/her land surveying license? Section 8780 of the Business and Professions Code specifies that the Board may suspend or revoke the license or certificate of a licensed land surveyor or registered civil engineer in certain specified circumstances. We interpret that section to allow the Board to revoke or suspend both a land surveyor's license and a civil engineer's certificate or registration in cases where a party holding both the license and the certificate has violated the *Land Surveying Act*.

It could be argued that the use of the disjunctive "or" in the statute with reference to revocation of the license *or* the certificate forces the Board to choose to revoke either the license or the certificate, but not both. We believe this interpretation would be contrary to principles of statutory construction which forbid interpretations which cause absurd results. In this case, the absurd result of this interpretation would be that a civil engineer who did not also hold a land surveyor's license could have his civil engineering registration revoked, while one who held both the license and the registration could avoid discipline affecting his/her

Continued on Page 30

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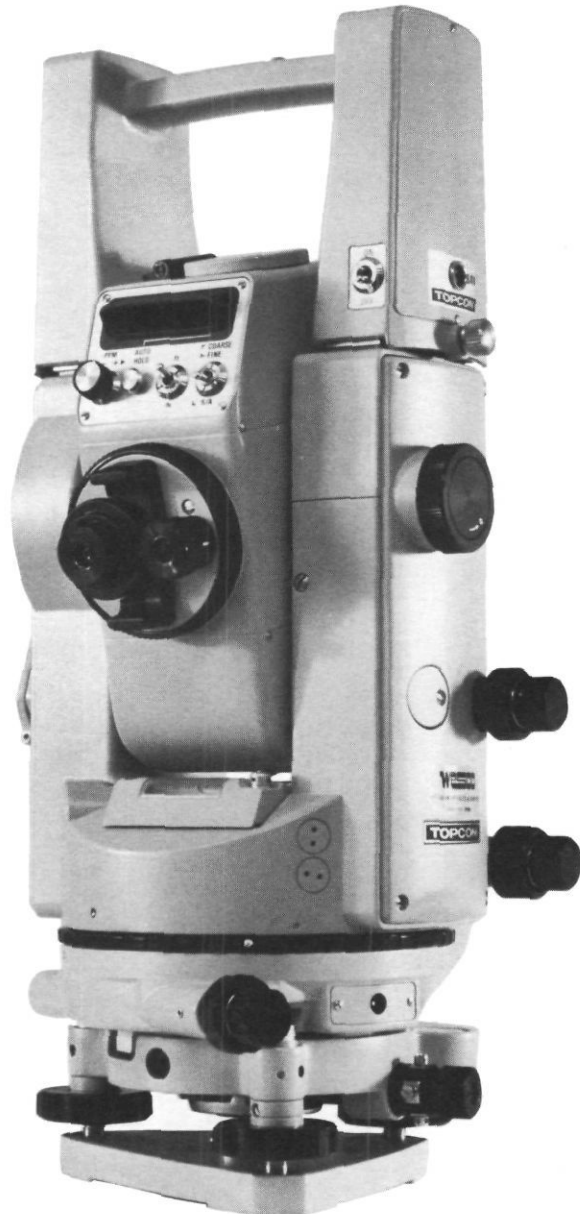
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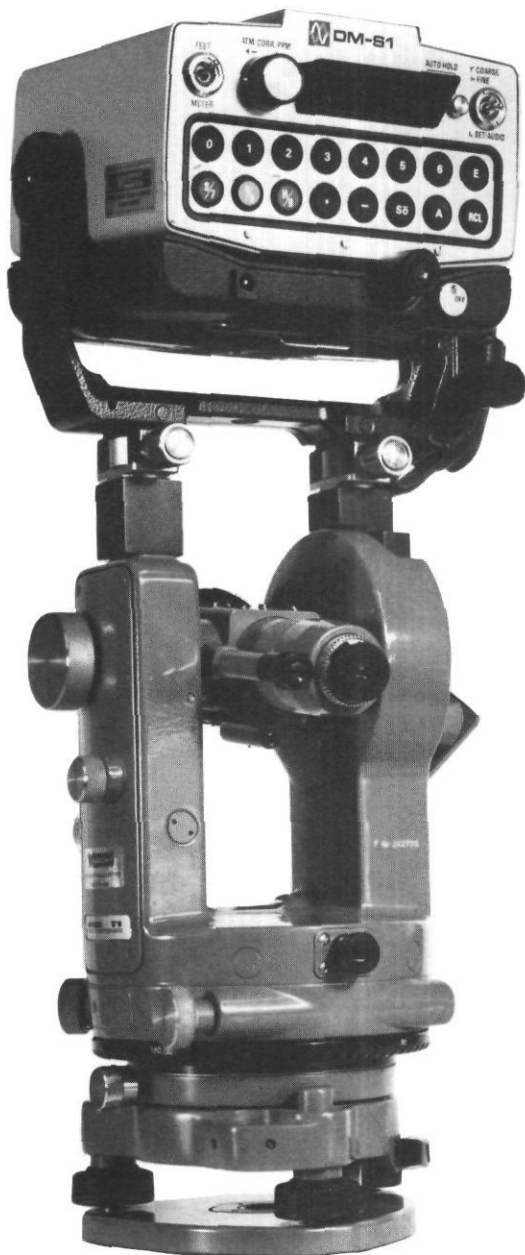


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Student Notes

by Craig Lee, President, and
Mary Niederberger, Vice-President,
Secretary-Treasurer, CLSA
Student Chapter, California State
University, Fresno

The fall semester at State has started with a flurry of activity. Several faculty members and at least a dozen students attended the Fall Joint ACSM-ASP Technical Meeting, held in San Francisco, from September 9 to 11, 1981. Our own Dr. Fareed Nader was a participant in the proceedings, moderating the session on education. For the students on the West Coast, and particularly California, this was a rare opportunity to attend a National Convention. The broad range of topics covered, and the excellent exhibitor's section, were exciting and informative.

The students have been introduced to three new faculty members: Dr. R. Ben Buckner is a visiting Professor for the Fall Semester from Ohio State University; Dr. Kunwar Rampal is a visiting Professor from the Indian Institute of Technology, Kanpur, India, for the entire year; and Dr. Francis A. Fajemirokun is a visiting Professor from the University of Lagos, Lagos, Nigeria, for the entire year.

The officers of the three student chapters (CLSA, ACSM, and ASP) and the officers of the Surveying and Photogrammetry Association have met twice to start planning this year's activities. Our first general meeting was held September 16th, and our fall picnic was held Saturday, September 26.

Planning the 21st Annual Surveying and Photogrammetry Conference is the topic which is the focus of our attention right now. A committee has been formed to handle the conference, with Mary Niederberger acting as chairperson for the student's committee for coordination with the faculty in organizing the conference. The conference has become a popular professional activity, and is an exciting opportunity to expose the new students to the profession, as well as to show off our Surveying and Photogrammetry Program, which at this writing is still the only Surveying and Photogrammetry Program in the country which

is accredited. The exhibitor turnout is expected to be good, so make plans now to attend. Joe Bell, of San Bernardino, will be holding a workshop on the HP-41, which should be quite interesting. We hope to see many of you there. (For more information,

contact either Dr. Fareed Nader, (209) 294-3955 or 294-2603, or Mary Niederberger, (209) 291-8080 or 487-5430.

The students have made a good start and a rewarding school year is anticipated.



Standing: left to right, Jon M. Lamb - President Surveying and Photogrammetry Assoc., Gwen Gee - Secretary/Treasurer American Society of Photogrammetry, Kathleen Cline - President American Congress on Surveying and Mapping, Mary Niederberger - Vice President California Land Surveyors Assoc. Sitting: left to right, Jeff Sano - Vice President A.S.P., Linda Bishop - Sec/Treas. A.C.S.M., Patrick Carroll - President A.S.P., Bartalome J. Racca - Sec/Treas. S&P Assoc., and Craig Lee - President C.L.S.A., Andy Smith - Vice President S&P Assoc., and Joseph Kosko - Vice President A.C.S.M. are not shown.

The annual general meeting of the members was held on September 17, 1981, and new officers were elected for 1981-82 school year (see photo caption).

Several faculty members and the students attended the Fall Joint ACSM-ASP Technical Meeting held at San Francisco from September 9-11, 1981. A report on the meeting was presented by one of the students.

Preliminary plans for the 21st Annual Surveying and Photogrammetry Conference scheduled for January 22-23, 1982 at the C.S.U.F. campus were discussed. Mary Niederberger was chosen chairperson for the students' committee for coordination with the faculty in organizing the conference. This conference has

become a popular professional activity and attracts over 300 regional surveyors and other members of the profession from government and academic institutions.

The student chapter members were introduced to and greeted the new faculty members. Dr. Ben Buckner is a visiting professor for the Fall Semester from Ohio from the Indian Institute of Technology, Kanpur, India. Dr. Francis A. Fajemirokun is a visiting professor from the University of Lagos, Lagos, Nigeria, for the current academic year.

The chapter has made a significant start and an active and professionally rewarding school year is anticipated.



CALIFORNIA LAND SURVEYORS ASSOCIATION

1982 CONFERENCE
CONVENTION CENTER
Town and Country Hotel
San Diego, California

PRELIMINARY PROGRAM

THURSDAY, April 1, 1982

A.M.

8:00 A.M. REGISTRATION DESK OPENS - Mission Ballroom Foyer
8:00 A.M. Golf Tournament
2:00 P.M. Tennis Tournament
10:00 A.M. - 3:00 P.M. Sport Fishing
9:30 A.M. - 5:00 P.M. PHOTOGRAMMETRY APPLICATIONS WORKSHOP - De Anza-Mesa Room
Maurice "Gene" Lafferty, Great Basin Aerial Surveys, Sparks, Nevada
Tom Rattray, Rattray & Associates, Escondido, California
3:30 P.M. - 5:00 P.M. General CLSA Membership Meeting - Padre-Sierra Room
6:30 P.M. Exhibitor Sponsored Cocktail Party - Tiki Hut

FRIDAY, APRIL 2, 1982

A.M.

7:00 A.M. Bus leaves Convention Center for Mission Bay - 10 km, Fun Run
7:30 A.M. REGISTRATION DESK OPENS - Mission Ballroom Foyer
8:00 A.M. Coffee and Rolls in the Exhibit area - Presidio Room
9:30 A.M. OFFICIAL OPENING of the 1982 CONFERENCE - Friars, Padre, Sierra Rooms
Welcoming remarks, recognition of dignitaries and opening address.
Keynote Speaker - Michael Schulman, Public Member, California State Board of Registration for Professional Engineers.
11:00 A.M. Official Opening of Exhibit Area - Presidio Room

P.M.

12:00 P.M. Luncheon
"The New Economic Recovery Tax Act of 1981" "How It Can Effect the Businessman"
Larry F. Beltramo, Equitec Financial Group, Inc., San Diego, California.
1:30 P.M. "Effective Presentations", Bobette Williamson, Co-Director of the Motivators, San Diego, California.
3:00 P.M. Coffee with Exhibitors
3:20 P.M. "Projecting A Professional Image" or "Clothes Make the Man", Rita Goldberg, Business Image Consultant, San Diego, California.
4:10 P.M. "Understanding Your Client - Your Client Understand You", Better Relations for Better Business.
George V. Oliver, Business Consultant, San Diego, California.
6:00 P.M. Buses leave for "Evening at Sea World".

SATURDAY, APRIL 3, 1982

A.M.

8:00 A.M. REGISTRATION DESK OPENS - Mission Ballroom Foyer
8:00 A.M. PROPRIETORS COUNCIL MEETING
9:00 A.M. Report on the Activities of the Joint Professional Practices Committee in San Diego, Keith Klagge, Klagge - Stevens & Associates, El Cajon, California.
Louis Hall, Principal Land Surveyor, County of San Diego.
9:40 A.M. "Computer Graphics" A Panel Discussion, Charles S. Hodge, Director of Computer Servies, Boyle Engineering Services, Newport Beach, California, Charles Safford, Rick Engineering Company, San Diego, California.

P.M.

12:00 P.M. Luncheon
"Rattlesnakes A Land Surveyor's Occupational Hazard", Christina M. McComb, Biologist, Julian, California.

- 1:30 P.M. "Activities of the Land Surveyor Committee of the State Board of Registration for Professional Engineers", Juanita Hall-Cobb, Public Member, State Board of Registration for Professional Engineers. Fred Seiji, Land Surveyor Member, State Board of Registration for Professional Engineers.
- 2:30 P.M. Mechanics Liens - What's In It For You?", Thomas A. Gade, Attorney at Law, Civil Engineer, San Diego, California.
- 3:10 P.M. Coffee - Mission Foyer
- 3:30 P.M. "Land Surveyors Liability". Neil Cummins, Jr., Attorney at Law, Land Surveyor and Civil Engineer, Reseda, California.
- 4:10 P.M. Conference Closing Remarks.
- 5:30 P.M. Buses leave for Tijuana.

LADIES ACTIVITIES

THURSDAY, APRIL 1, 1982

- 8:30 A.M. Ladies Hospitality Room Opens
- 1:00 – 5:00 P.M. "Color and You" Workshop, Alayne Harris, Color Coordinator, Solana Beach, California.

FRIDAY, APRIL 2, 1982

- 8:30 A.M. Ladies Hospitality Room Opens
- 9:00 A.M. Jazzercise Demonstration
- 11:00 – 2:30 P.M. Brunch, Fashion Accessory and Coordination Show and Shopping, Bazaar Del Mundo, Old Town, San Diego, California.

SATURDAY, APRIL 3, 1982

- 8:30 A.M. Ladies Hospitality Room Opens.
- 9:00 A.M. – 2:00 P.M. San Diego Bay Bus Tour and Lunch and Shopping at Seaport Village.

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SPOUSE PROGRAM...FRI./SAT.

INFORMATION



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YES NO

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ITEM	PRICE PER PERSON	NO.	AMOUNT	ITEM	PRICE PER PERSON	NO.	AMOUNT
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MEMBER	\$ 90.00			FRIDAY MEN'S Lunch	\$ 7.50		
NON-MEMBER	\$110.00			FRIDAY LADIES Brunch/Shopping	\$ 11.50		
WALK-IN	\$110.00			FRIDAY DINNER/DANCE Sea World	\$ 20.00		
SPOUSE	\$ 30.00			SATURDAY MEN'S Lunch	\$ 7.50		
STUDENT	\$ 15.00			SATURDAY LADIES Tour/Luncheon	\$ 12.50		
SOCIAL ACTIVITIES				SATURDAY DINNER Caliente	\$ 18.00		
THURSDAY A.M. Golf Tournament	\$ 30.00			WORKSHOPS			
THURSDAY A.M. Sport Fishing	\$ 30.00			THURSDAY LADIES "Color and You" (35 Max.)	\$ 10.00		
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FRIDAY A.M. 10 KM Fun Run	\$ 10.00			T-Shirt size <input type="checkbox"/> SM, <input type="checkbox"/> MED, <input type="checkbox"/> LG, <input type="checkbox"/> X-LG			

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(Continued on Page 25)

Events

SAN DIEGO CHAPTER MEETS WITH STATE BOARD MEMBERS

by C.E. Moore, L.S.

On Thursday evening, September 10, 1981, the San Diego Chapter of CLSA hosted members of the Land Surveyor Committee of the State Board of Registration for Professional Engineers at a dinner meeting at Caesars Restaurant in Mission Valley. In attendance were over 80 people, including members of the San Diego Chapter, their wives and friends, six members from CLSA's Orange County Chapter, along with Gary Shelton and Jim Dowden, CLSA Board Liaison Committee members from southern and northern California respectively.

Roy Nakagawa, Civil Engineer

member of the Land Surveyor Committee of the Board, spoke on enforcement. Roy described the complaint process and states that individuals who file complaints will not be involved. In addition, he stated that 40% of the complaints filed deal with land surveying activities. Due to the size of the investigative staff, Roy commented that the Board is using committees made up of land surveyors to assist the Board in its investigations. He also applauded the efforts of the Joint Professional Practices Committee of CLSA's San Diego Chapter to monitor the practice of land surveying in its local area.

Juanita Hall-Cobb, public member of the Land Surveyor Committee, discussed the qualifications requirement of the land surveyor examination, and stated that the Board

is seeking input from professional organizations as to what qualifies as experience.

Fred Seiji, L.S. Member of the Board, thanked the members of CLSA who prepared the 1981 L.S. Examination. He also commented on the Board's plan to implement S.B. 2, and stated that it may be necessary to initiate legislation.

It was interesting to note the large number of questions asked of Board members by the audience, and was obvious that the land surveyor is vitally interested in the activities of the Board. After the meeting, the Board members commented on the great interest, support, and enthusiasm shown by surveyors in the activities of the Board and in their profession. ▲

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In Appreciation

CLSA MEMBER HONORED FOR OUTSTANDING SERVICE

by Chuck Moore, L.S.

At the October 31, 1981 meeting of the Board of Directors of CLSA, James N. Dowden, L.S., was presented with an engraved "Certificate of Appreciation" for his outstanding and valuable services to the Association and to the Land Surveying profession.

Jim began his tenure with CLSA as an active participant in the formation of the Association from 1964-1966. He was a Director At Large from 1966 to 1967 and again from 1974 to 1976. He was the Chapter Representative for the Sacramento Chapter from 1967 to 1974 and from 1977 to 1979. Jim's past Committee activities include: Chairman, Liaison with Local Government Committee; Chairman, Publications Committee (*Cal Surveyor*); Member, Convention Committee; Chairman, Liaison with ACSM Committee; and Chairman, Water Boundaries Workshop.

Currently, Jim is Chairman of the Special Committee on the Readjustment of the North American Geodetic Data Base, Chairman on the Special Committee on the Review of the Subdivision Map Act, and

(Continued on Page 24)

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Hewlett Packard 3808 Distance Meter	50.00	1,200.00
Tellurometer CA 1000	35.00	700.00
Cubic DM-60 Cubitape	25.00	450.00
Cubic DM-20 Electrotape*	40.00	700.00
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Cubic DM-40 Autotape, Modified	300.00	4,500.00
Printer for Autotape	15.00	150.00
HP 5150 Thermal printer for Mini-ranger or 3 range Autotape	50.00	500.00
Optical Surveying Equipment:		
Lietz BT-20 Transit, Optical plummet, 20" horizontal, 1" vertical	6.00	120.00
K & E Transit (20" & 1")	5.00	100.00
Wild T-2 Theodolite (1" direct reading)	20.00	550.00
Lietz B-1 Engineers Automatic Level	6.00	100.00
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Raytheon DSF-600 Deepwater Fathometer	200.00	2,000.00
EG&G Mark 1-B Side Scan Sonar* **	500.00	4,000.00
EG&G Uniboom Sismic Profile* **	400.00	3,000.00
EG&G Sparker (1000 joule)* **	400.00	3,000.00
Braincon-Histogram Recording Current Meter	50.00	500.00
Teledyne-Gurley Current Meter	25.00	250.00
Honeywell Sea Scanar	50.00	500.00
Shipek Sediment Sampler	50.00	300.00
Miscellaneous:		
American Paulin Altimeter M-1	4.00	100.00
American Paulin Recording Barograph	15.00	150.00
Triple Prism reflector assembly	3.00	65.00
HP 9815 Surveying Calculator with Software	30.00	300.00
Super Cobra (portable drill)	60.00	650.00
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In Appreciation (Continued from Page 23)



Member of the Special Task Force on the Subdivision Map Act of the California State Assembly Committee on Local Government. Jim has also been extremely active as a member of the State Board of Registration Liaison Committee regarding implementation of S.B. 2, and as a member of the L.S. Examination Committee. He works very closely in this regard with the Land Surveyor Committee of the State Board of Registration, attending their meetings and providing expert input to both the Board and to CLSA.

Jim also spearheaded the reorganization of the Sacramento Chapter of CLSA, has presented numerous papers on a variety of topics at CLSA, ACSM, and Cal State University at Fresno Conferences, as well as other state and national Conferences.

Thanks, Jim, for all your efforts and accomplishments on behalf of the Land Surveyors of California!!!



CALIFORNIA
LAND SURVEYORS
ASSOCIATION
1982 CONFERENCE
"SAN DIEGO '82"

Dear Member and/or Guest:

Let us take this opportunity to extend to you a very warm and sincere invitation to attend "San Diego '82", the California Land Surveyors Association 1982 Conference at the Convention Center, Town and Country Hotel in San Diego, California from Thursday, April 1st through Saturday, April 3, 1982.

Our Committees have made every effort to insure that "San Diego '82" will be a most memorable conference in keeping with the tradition set by previous C.L.S.A. conferences.

This information sheet is to provide you with general information about the conference and hopefully pre-answer any questions you may have.

REGISTRATION

The Registration Form has several categories of Registration. The standard registration fee of \$90.00 is only for those individuals who are **members** of C.L.S.A.

The Non-Member category is for those individuals who are not members of C.L.S.A.

Walk-In Registration is for those individuals who register at the conference whether they are members or not.

Spouse Registration is intended for those individuals who are attending the conference with a member/non-member and is of the opposite sex of the member.

Student Registration is intended for those individuals who attend school on a full time basis. For those of you who are full time college students, we will require verification from an official of the college returned with your registration form for you to qualify for student registration.

PLEASE NOTE: Registration for the Social Activities cannot be guaranteed unless reservations are received by C.L.S.A., prior to March 15, 1982, due to limited space available.

HOTEL RESERVATIONS

In order to insure accommodations at the Town & Country Hotel, we urge you to make your hotel reservations using the enclosed Hotel Reservation Card, as soon as possible. The rates as quoted on the card are convention rates and are guaranteed from the night of Thursday, April 1, through the night of Saturday, April 3rd. Please use the enclosed Hotel Reservation Card for your **ENTIRE** reservation. To guarantee your reservation, you must **include one nights deposit** when making your reservation. In the event the Town & Country Hotel has no rooms available upon receipt of your reservation, a reservation will be made at another convenient hotel. You will be notified by that hotel that they have your reservation.

SOCIAL

ON THURSDAY MORNING, there will be a Golf Tournament, Sport Fishing Trip and Tennis Tournament.

ON THURSDAY EVENING, the Exhibitors will be hosting a Get Acquainted Cocktail Party at the Tiki Hut.

ON FRIDAY MORNING, there will be a 10 k Fun Run around Mission Bay.

ON FRIDAY EVENING, there will be a private evening at Sea World including a show, dinner and Country Western Dance with music provided by White Lighting Express and western dance instruction by Don Silva and Janita Harwood.

ON SATURDAY EVENING, there will be shopping in Tijuana and a dinner and evening at the dog races at Agua Caliente Race Track in Tijuana, Mexico.

LADIES ACTIVITIES

THURSDAY - APRIL 1, 1982

The exciting and vibrant ALAYNE HARRIS is offering a 4-hour Workshop on "COLOR AND YOU". This inspiring workshop demonstrates the effects color plays on one's appearance, moods and personality. In addition Ms. Harris will do four COMPLETE "RE-DO'S" from the participating audience. This will include make-up, style and lines that flatter your individual shape and needs. This type of workshop has been offered in Los Angeles for up to \$200 a person, so don't miss out!

We regret that the workshop is limited to 35 ladies on a "first-come first-served" basis. If there is enough interested to schedule a second workshop we can possibly arrange it if enough notice is given. So get your name down early for this educational workshop!

FRIDAY - APRIL 2, 1982

Start your morning off right by attending a demonstration of JAZZERCISE and the basic movements. This fun demonstration will be held at the hotel. If you ever wanted to try this fun and unique way of exercising now's the time. Be sure to wear something comfortable.

Later this morning buses will leave the hotel for the BAZAAR DEL MUNDO in Old Town San Diego. Brunch will be served in a quaint restaurant, the "HAMBURGUESA!" The restaurant is surrounded by lush gardens, unique and colorful stores. During brunch, relax and enjoy a FASHION ACCESSORY and COORDINATION SHOW. Learn how to take your wardrobe and update it to today's trends by simply adding fun accessories and/or creating an interchangeable wardrobe.

After brunch there will be plenty of time to shop and browse through the stores and fascinating museums, or return to the bus for your trip back to the hotel.

SATURDAY - APRIL 3, 1982

Be sure to bring your cameras to capture the breathtaking panoramic view of San Diego, one of America's most colorful cities. You will see it's famous harbors, San Diego Bay and visit the CABRILLO MONUMENT in Point Loma. Then from there it is off to San Diego's newest attraction, SEAPORT VILLAGE: you will enjoy lunch at the HARBOR HOUSE RESTAURANT, nestled on the edge of San Diego Bay. Enjoy a leisurely stroll and explore over 60 shops featuring the county's most delightful selection of hand-crafted collectibles, fine art, jewelry, toys, kites and quality gifts. Finish this fun filled day with a free whirl on the BROADWAY FLYING HORSES CAROUSEL. The restored turn-of-the-century merry go round captures the spirit that delighted many for decades at Coney Island and later in Salisbury Beach, Massachusetts.

Now that you have all the information you need, we hope we have convinced you to join us at the Town & Country Hotel. We guarantee to show you an exciting time.



CALIFORNIA LAND SURVEYORS ASSOCIATION 1982 CONFERENCE

ABSTRACTS OF CONFERENCE PRESENTATIONS

"AERIAL PHOTOGRAMMETRY APPLICATIONS" WORKSHOP

Photogrammetric Applications for Surveyors is a workshop to show you, the surveyor or the engineer, how to apply aerial measurements to your surveying or engineering business to increase your sales and profit levels.

This is not a basic photogrammetry course and registrants should be familiar with the basic concepts of photogrammetry, either from experience or from special studies or workshops.

The course will last seven hours and will cover the applications of simple aerial photography, graphical photogrammetry, digital photogrammetry and analytical photogrammetry to the day to day business of surveying and engineering.

The instructors for the workshop will present various photogrammetric techniques which can be substituted for most traditional ground survey methods. Open discussions of the expected accuracies and costs of the various aerial methods will be emphasized so that the practicing professional will be better able to judge whether to go "aerial" or stay conventional.

"RATTLESNAKES: A LAND SURVEYOR'S OCCUPATIONAL HAZARD"

How often in a year do you, the land surveyor, encounter rattlesnakes? Once, twice, more? Would you like to reduce your chances of encountering these deadly snakes? You can, if you know the habits of rattlesnakes and take some simple precautions. How can you find out about rattlesnakes? At the CLSA 1982 Conference there will be a slide presentation and talk entitled "Rattlesnakes - A Land Surveyor's Occupational Hazard." This presentation will discuss rattlesnakes common to California, where they are usually encountered, how to avoid them, and what first aid procedures to use if your encounter is unpleasant.

"EFFECTIVE PRESENTATIONS"

This session will describe how to prepare and give presentations to a variety of audiences, including city councils, planning commissions, school boards, and community associations. You will learn how to research the composition and concerns of your audience, how to decide on objectives for your presentation, how to organize your presentation. The mechanics of giving the presentation will be discussed and you'll receive tips on use of voice, gestures and eye contact, as well as ideas on how to handle those difficult questions that get tossed in your direction.

"PROJECTING A PROFESSIONAL IMAGE" OR "CLOTHES MAKE THE MAN"

Rita Goldberg, a corporate image consultant will share the latest techniques in looking good. "All's fair in love and war and looking terrific. Just don't tell them what you've done" is Rita's philosophy.

You will learn how to plan your wardrobe style for maximum flexibility on a minimum budget. How to assert yourself when buying clothes and how to choose the best look for you. Want to look taller, thinner, healthier - your best! Join Rita in her fun filled informative energizing presentation.

"UNDERSTANDING YOUR CLIENT - YOUR CLIENT UNDERSTANDING YOU"

Better Relations, For Better Business.

Technical skills insure a right to be in business. A client, is the bloodstream of a business. Communication - where a businessman spends an overwhelming proportion of his time - is the heartbeat of a business. No business can succeed without this trilogy. Lingering accounts receivables, frustration, misunderstandings that lead to costly litigation, are all man-made. They don't happen by themselves. It's the businessman who, in a professional manner, must be the catalyst to establish rapport with his clients in shared meaning, definition of terms, facts, numbers, decoding, utilizing effective listening to affect a harmonious, two-way understanding such that at the conclusion of any agreement for services fulfilled, a win-win situation is created for both the client and the businessman.

Report on the Activities of the JOINT PROFESSIONAL PRACTICE COMMITTEE in San Diego County

It has been recognized for many years that only a small portion of the surveys being performed in San Diego County which require the filing of a record of survey or corner record, in accordance with the requirements of the Land Surveyors Act, actually had these records filed.

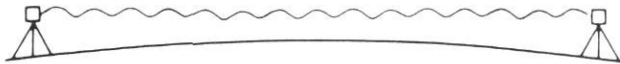
In 1979, Mr. Louis Hall, County Surveyor of the County of San Diego, approached the local Chapters of CLSA and CCE&LS seeking assistance in correcting this problem. Both organizations were receptive and thus formed a "Joint Professional Practice Committee" and appointed Mr. Keith Klagge as Chairman. The committee initiated a program involving educational and enforcement activities in conjunction with the State Board of Registration for Professional Engineers.

The committee's efforts have resulted in a marked increase in the number of records being filed and by an obvious improvement in the knowledge of the law by the profession.

"COMPUTER GRAPHICS"

Land Surveyors and Engineers are some of the first users of computer graphics, and they continue using them on all manner of applications; tract maps, contour maps, plan/profile, and cross-sections. Samples of these and other computer developed drawings will be presented and discussed. Computer Aided Drafting (CAD) is coming of age, with decreasing costs and increased capabilities. Professionals are confronted with a proliferation of vendors of these systems and services. Serious attention has to be given to their selection, in order to avoid regrettable acquisitions. Important questions of reliability, authenticity, and serviceability are to be answered. Computer graphic results are impressive, but getting these results requires careful planning.

(Continued on Page 29)



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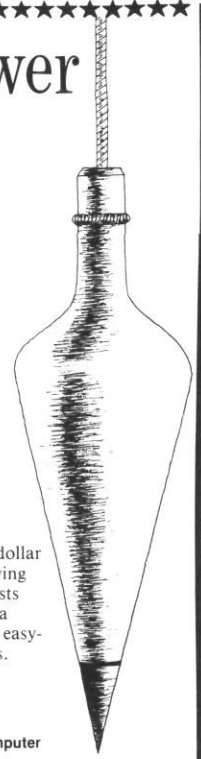
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LEGISLATIVE ACTIVITIES of the STATE BOARD of REGISTRATION for PROFESSIONAL ENGINEERS RELATED to LAND SURVEYORS

Juanita Hall-Cobb will discuss current activities the Board of Registration has initiated in order to comply with a legislative mandate (AB1111) to review its rules. These activities include a thorough examination of the current licensing procedures and the development of criteria against which the title disciplines of engineering are being compared in order to determine whether each discipline warrants practice protection, the creation of an authority within a practice protected discipline or de-regulation.

The Board has initiated a parallel process of comparing the practice of land surveying against a similar set of criteria. The results of this latter process will provide the Board with information which may affect the regulation of land surveying in California.

"BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS RECOGNITION OF THE LAND SURVEYOR – IS IT EQUAL TO ENGINEERS?"

An opinion of the Land Surveyor member of the Board on the recognition given to approximately 2500 land surveyors amongst 70,000 plus registered professional engineers. The presentation affords those who do not follow the activities of the Board an insight as to how the Board perceives the roll of the present day land surveyor.

"MECHANIC'S LIENS, WHAT'S IN IT FOR YOU?"

"Mechanic's Liens, What's In It For You?" will cover the California law relating to mechanic's liens in general. It will deal with the preliminary requirements to establish mechanic's lien claim right and necessity for timely action in order to perfect a mechanic's lien claim.

The lecture will cover what is required of a land surveyor if he has contracted directly with a landowner. The subject of a land surveyor working for someone other than the real property owner will be discussed. Included will be the topic of on-site activity that gives rise to a mechanic's lien claim.

"LAND SURVEYOR'S LIABILITY"

Since 1951 California Courts have been steadily expanding the number of potential plaintiffs in situations where an error is made by a land surveyor, but there are still a few limits. This paper will examine recent cases from California and other jurisdictions to show what those limits are presently and to indicate the direction in which those limits may expand in the near future. Also included in the paper will be a discussion of land surveyor's liability under theories of express and implied warranty and on third party beneficiary contracts.

THE NEW ECONOMIC RECOVERY TAX ACT of 1981 "HOW IT CAN EFFECT THE BUSINESSMAN"

Our program will be focusing on the new tax law changes which will be effective to the self employed and corporate employee. Ideas will be discussed on how to take full advantage of these changes.

CALIFORNIA LAND SURVEYORS ASSOC.

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Board News (Continued from Page 14)

civil certification. Land surveying is still considered part of civil engineering practice and, as such, the civil engineering certificate must be subject to revocation or suspension under Section 8780.

The board is proposing legislation to clean up problems with SB 2 and is seeking input from all professional societies, as well as individuals impacted by the regulation of survey practice. It would behoove those of us who have never written a letter or attended a Board of Registration meeting to do so in 1982; otherwise, legislation might once again place the professional surveyor subservient to other professions.



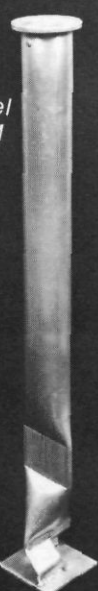


Education (Continued from Page 13)

be university graduates.

Surveying is a technical profession and will become more so. The basic principles and foundations of technology can be learned so that the future surveyor has tools to change as the working environment demands.

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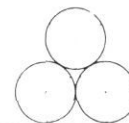
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