

CLSA

Institutional Affiliate of American
Congress on Surveying and
Mapping

The California Surveyor

THE VOICE OF THE LAND SURVEYORS OF CALIFORNIA

NO. 36

CONVENTION - SPECIAL EDITION

1975

BI-STATE N.A.L.S.-C.L.S.A. CONVENTION

"FUTURE DIRECTIONS IN SURVEYING"

The California Land Surveyors Association and the Nevada Association of Land Surveyors are sponsoring a bi-state Convention to be held at the Sahara Tahoe Hotel, Lake Tahoe, Nevada on March 6-8, 1975.

As at past CLSA Conventions, technical conferences and equipment exhibits will be the feature attractions. Also in store are three outstanding social events. The lunch (both for men and women) on Friday will have a noted Nevada rancher as guest speaker, Mr. Joe Conforte. The Friday night dinner (again for men and women) will be at the Sahara Tahoe Hotel Dinner Show and will feature entertainment by Doc Severinsen of the Johnny Carson Show. The lunch on Saturday for the women will be highlighted by a fashion show: William Fitzgerald's FACES AND FASHIONS, "Then and Now."

After an investigation into the technical conferences, it becomes immediately evident of the high caliber of guest speakers who will be attending. The speakers come, not only locally from both states, but several are coming from out of state and they all carry very outstanding credentials with them. Those from out of state include Mr. Bernard Hostrop from BLM, Washington, D.C., Mr. Walter Robillard from ACSM and the U.S. Forest Service, Atlanta, Dr. R. Ben Buckner of Ohio State University and Professor Walter Anderson from NCEE and Michigan Technological University. It goes without saying that if "Future Directions" are to be talked about, no one is more qualified than these men.

For those interested in the out-of-doors, there is hardly a place any more beautiful in the winter than Lake Tahoe and for those who want to stay indoors, there is hardly a place with any more inside attractions than those that exist in the Tahoe "clubs."

So, to be "where it's at," "do your thing" and "make" the 1975 Convention at the Sahara Tahoe.

FLASH!

Winners of the "Test Your Computing Skill" puzzle contest will be announced at the N.A.L.S.-C.L.S.A. Convention. Prizes will be mailed following the convention.

One lucky person from the list of winners of the puzzle contest (Winter '74), who attends the 1975 N.A.L.S.-C.L.S.A. convention, will receive a Brunton compass (courtesy of Surveyors Service). Contestant must be present to win. ▲

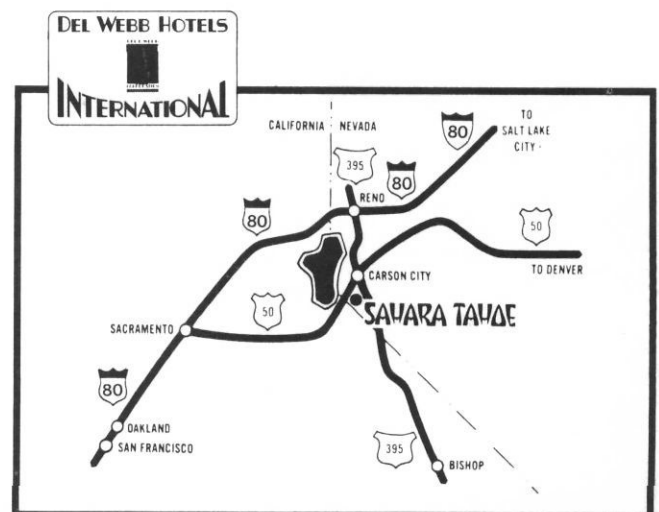
SPECIAL ANNOUNCEMENTS

The Lahontan Chapter of NALS will provide transportation from the Reno Airport to the Sahara Hotel. Please notify Frank Gentry (702-882-8897) at least three days prior to arrival. The Tahoe Chapter of CLSA will provide the same from South Lake Tahoe Airport. Call Jerry Tippin (916-583-3417) at least three days early also.

It should be especially noted that in order to apply the 10% discount for early registration, the pre-registration has to be paid, mailed and postmarked no later than FEBRUARY 20TH. The 10% is to be taken off the total as shown on the pre-registration form. Also it should be noted, that paying through either Bank Americard or Master Charge is acceptable. Because of guarantees required by the hotel, no refunds on convention activities can be given back after March 3rd.

If anyone is interested in attending any of the shows at other clubs, reservations can be made by Jerry Tippin. Please write to him as soon as possible at the noted P.O. Box, as reservations are on a first come-first served basis.

Also note that \$5.00 of the non-member registration fee can be applied towards membership in either CLSA or NALS.





"When establishing my business I didn't feel I could afford this LUXURY, now I can't see how I stayed in business without this NECESSITY."



"Professional surveying requires good people using good equipment. Occasionally we have difficulty finding good people, not so the equipment, thanks to HP."

Now you can lease the new HP 3805 Distance Meter for less than \$108* per month.

Cost-conscious surveyors want measurement equipment that will give them fast, profitable production. But many are stymied by the high cost of investment capital. And that's where HP's new lease plan comes in. It gives you immediate access to the most advanced measurement equipment with no large outlay of precious working capital.

How the plan works. Suppose you want the HP 3805 Distance Meter, the automatic readout meter that cuts measurement time to six seconds—and cuts measurement costs by as much as 50%. Here's what the lease arrangements would be:

- Down payment—First monthly payment.
- Monthly payment—2.778% of list price during years 1 through 3.
- 2.2% during 4th and 5th year.
- Period—5 years.
- Purchase Option—46% of list price after 3 years, 5% after 5 years.

Example: HP 3805A Distance Meter . . . \$3,595.00
 Optional battery pod and recharger 290.00
 Down payment, monthly payment (2.778% of \$3,885) = \$ 107.93



Sales and service from 172 offices in 65 countries.
 P.O. Box 301 Loveland, Colorado 80537

Lease all the HP surveying equipment you need. The example mentions the HP 3805 because it just happens to be our most popular distance meter. Probably because it has a built-in computer that averages 3,000 measurements in six seconds and a built-in battery that eliminates awkward cables—and a display that lets you read distance in either feet or meters at the flip of a switch. But you can also choose the HP 3800—which many surveyors consider unsurpassed for repeatable, first-order accuracy in shots up to 10,000 feet or 3,000 meters. In addition to distance meters and accessories, the lease plan may include the surveying calculators and peripheral equipment that can help you build a more profitable operation. For full details, call your local HP Sales Office or send us the coupon.

*Domestic U.S.A. price plus applicable taxes.

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HP Civil Engineering Division CA
 P.O. Box 301, Loveland, Colorado 80537

I would like to lease the HP 3805A Distance Meter. Contact me immediately.

I would like a demonstration of HP Surveying Products.
 Distance Meters Programmable Calculators

Please send me more information on HP Calculators and Surveying Products.

Name _____

Title _____ Phone _____

Company _____

City _____ State _____ Zip _____

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KNOW YOUR SUSTAINING MEMBERS

SURVEYORS SERVICE

"The name is what they do!" may not be grammatical, but it pretty well describes the activities of Surveyors Service Company of Costa Mesa, one of CLSA's sustaining members.

Dedicated to the field needs of the land surveyors, and with skilled maintenance and repair of geodetic instruments the foundation of its efforts, SERVCO is now nearing a half-century of service to its wide-spread clientele.

As distributors for the world-renowned line of fine surveying equipment produced by Wild-Heerbrugg, Surveyors Service Company's staff takes pride in their record of assisting California licensed land surveyors in upgrading their professional competence and skill with modern equipment and instrumentation.

Whether it be plumb bobs or vertical collimators; precise leveling rods or folding rules; pocket tape-rules, chain tapes or electronic distance measuring systems; transits or theodolites, CLSA members will find SERVCO's representatives competent and courteous and ready to serve you. ▲

AGA

AGA was founded in 1904, is headquartered in Lidings, Sweden, and has been engaged in the design and manufacture of electro-optical instruments since 1948. AGA's diverse product lines include industrial gases, welding products, batteries, radiators, electronics and medical equipment.

Represented by subsidiaries or agents in 50 countries, AGA is truly an international firm employing in excess of 14,000 people.

The name Geodimeter is a registered trademark of AGA and represents the ultimate in distance measuring instruments. The most recently introduced Geodimeters (R), using visible laser beams for target acquisition, are models 700 and 76.

Model 700 is a surveying system combining in one easy-to-use unit, an electronic theodolite, a direct readout measuring device, and a built-in computer. It displays with one sighting, slope measurements and horizontal distances to over a quarter of a mile, making 2-man surveying crews practical for the first time.

Model 76, manufactured in Secaucus, New Jersey, is a low-priced distance measuring system also with a built-in computer providing fully automatic operation and digital readout.

The Secaucus facility, headquarters of the U.S. subsidiary AGA Corporation, houses in addition to the manufacturing facility, sales offices, service and repair center and a large inventory of accessories and spare parts. The facility is located at 550 County Avenue, Secaucus, New Jersey 07094. Requests for additional information may be directed to: Manager Marketing Administration, Geodetic Instruments, located at the above address.

LEWIS & LEWIS COMPANY

Lewis & Lewis Company was originally started by Mr. R. B. Lewis as a locally oriented Civil Engineer-Land Surveyor Company in Ventura, California. During 1953, a partnership was formed by Mr. R. B. Lewis and his son, Mr. R. T. Lewis. In 1953, Mr. Robert T. Lewis took over active management of the firm. During the next few years, "Bob" Lewis became one of the first to actively pursue the burgeoning offshore and navigational work. Using the most modern electronic equipment and survey techniques, the Company became world-wide in scope and operation, sending men and equipment to wherever the need arose.

In the natural course of events, another facet of the business was born. Because much of the precision equipment used by the firm was too costly for many individuals and companies to own, a rental division was started and has grown to include most types of survey equipment.

In conjunction with the Rental Division, the firm of Lewis & Lewis has recently begun sales of selected quality surveying equipment. One of the first items distributed on a national scale was the Retro-Ray line of retro-reflectors - originally used and tested in the operational side of the business. A rental/purchase plan for Distance Measuring Equipment and related survey equipment has also been created.

Future plans include a broadening of the marketing base of Lewis & Lewis. As more equipment is tested and added to the line, the Company will offer the options of Lease, Rental, Purchase - or a combination of these plus full service capability - anywhere there is a need.

KEUFFEL & ESSER COMPANY

The Keuffel & Esser Company of Morristown, New Jersey, maintains a full line of quality geodetic instruments, field equipment and map-making materials. In addition to the standard line of transits and levels, K&E is the exclusive distributor in the United States for Zeiss (West Germany) geodetic and photogrammetric instruments. Among the items offered in the Zeiss line is the Th2 One-Second Theodolite, the Th43 Optical Scale Repeating Theodolite, the SM 11 and Reg Elta Electronic Recording Tacheometers and the famous Ni1 and Ni2 Self-Leveling Levels. Also available in the K&E line are other electronic distance-measuring instrumentation covering distances from 1 to 40 miles. K&E offers its line of STABILENE Films for map making in applications of precision cartography. This wide variety of proven products includes sensitized as well as unsensitized materials in peelable and scribable forms. For additional information contact Keuffel & Esser Company, 1327 South Olive St., Los Angeles, Calif. 90015 (telephone 213/747-7601) or Keuffel & Esser Company, 223 Lawrence Ave., South San Francisco, Calif. 94080 (telephone 415/873-6850).

Continued on page 4

KNOW YOUR SUSTAINING MEMBERS

Continued from page 3

HEWLETT-PACKARD COMPANY

Hewlett-Packard — "Creators of Working Tools for People Who Measure and Compute" — is one of the world's leading designers and manufacturers of electronic measuring and test instruments and systems; electronic calculators, computer and computer systems; medical instruments and systems; instruments and systems for chemical analysis; and high-technology, solid-state components.

Founded in 1939, with headquarters in Palo Alto, California, the company is an international organization with some 25,000 employees. Hewlett-Packard produces more than 3,000 products at 20 domestic divisions in California, Colorado, Oregon, Idaho, Massachusetts, New Jersey and Pennsylvania and at six overseas plants located in the German Federal Republic, Scotland, France, Japan, Singapore, and Malaysia. These products are marketed throughout 100 countries abroad, primarily through the company's own network of sales and service offices.

A large share of Hewlett-Packard's resources are devoted to the design and manufacture of distance measuring systems, programmable desk-top calculators and peripherals, and powerful pocket-sized calculators for the surveyor.

The latest contribution from HP's Civil Engineering Division to the Series 3800 line of Distance Meters is the new low cost HP3805A Distance Meter that features a built-in computer that "thinks" to assure distance accuracy.

In the expanding calculator line, the latest contribution is the HP-65 Pocket Calculator, the first pocket-sized calculator to provide full programming capability in the field for the surveyor.

Complete information on Hewlett-Packard Surveying Products is available from local HP Sales and Service Offices in Sacramento, Palo Alto, Fullerton, North Hollywood, Los Angeles, San Diego, or from Hewlett-Packard Civil Engineering Division, P.O. Box 301, Loveland, Colorado 80537, (303) 667-5000.

ENGINEERING COMPUTER SERVICES

Engineering computer services is affiliated with a Bakersfield civil engineering and surveying firm and was formed in November 1973.

We have been providing a computing service for civil engineers and land surveyors in California, Arizona and Nevada since July of 1974 using our Wang Computer Plotter System.

In addition to computing and plotting subdivision maps we can provide calculations and/or plots for plan and profiles of streets, sewers, storm drains. Also, FHA type plot plans, condominium plans, base maps or other special maps.

Price lists and samples of our work are available by calling or writing to Engineering Computer Services, ATTN: Jim Butler, 2200 "F" Street, Bakersfield, California, 93301, (805) 325-7012. ▲

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Experienced
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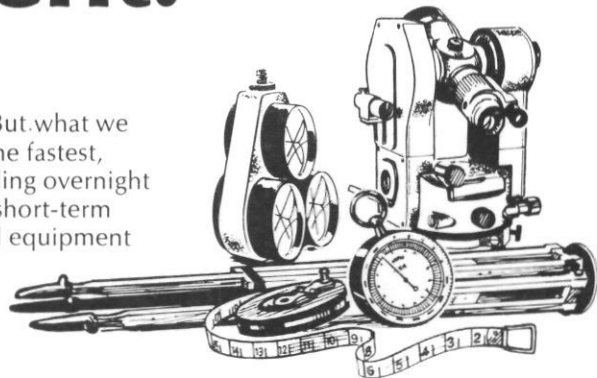
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We rent profits, not just equipment.

We probably don't have to tell you that renting pays off. But what we would like to tell you is that Lewis & Lewis offers one of the fastest, most flexible rental programs you'll find anywhere, including overnight delivery to any of the fifty states, low rates (especially on short-term rentals) and complete recovery of rental costs on selected equipment through later purchase. Check our price list and try us next time — you'll see why we're really renting you profits, not just equipment!



EQUIPMENT	1st 10 DAYS PER DAY	AFTER 10 DAYS PER DAY	AFTER 90 DAYS PER DAY
CUBIC DM-60 CUBITAPE DISTANCE METER — Including power supply, altimeter, thermometer, two Kern tripods, one single prism assembly	\$ 25.00	\$ 15.00	\$ 10.00
HEWLETT-PACKARD H.P. 3805 DISTANCE METER — Including power supply, altimeter, thermometer, two Kern tripods, one single prism assembly	25.00	15.00	10.00
HEWLETT-PACKARD 3800A DISTANCE METER — Including power supply, altimeter, thermometer, two Kern tripods, one single prism assembly	25.00	15.00	10.00
RETRO-RAY TRIPLE PRISM ASSEMBLY FOR H.P. 3800A OR DM-60 CUBITAPE — Including Kern tripod with adaptor	3.75	2.25	1.50
RETRO-RAY SINGLE PRISM ASSEMBLY FOR H.P. 3800 OR DM-60 CUBITAPE — Including Kern tripod with adaptor	2.25	1.35	0.90
CUBIC DM-40 AUTOTAPE — Basic system including interrogator and two responders, tripods	300.00	150.00	100.00
AUTOTAPE THERMOELECTRIC GENERATOR — Propane power, 12 volts, 60 watts	20.00	9.00	6.00
MOTOROLA RANGE POSITIONING SYSTEM (RPS) — Basic system including two coded transponders	250.00	120.00	80.00
MOTOROLA MINI-RANGER — Basic system including two coded transponders	200.00	90.00	60.00
ADDITIONAL RPS OR MINI-RANGER CODED TRANSPONDERS	30.00	15.00	10.00
AUTOTAPE, RPS OR MINI-RANGER PRINTER — Automatically prints out ranges at three second intervals or upon command	15.00	6.00	4.00
RPS OR MINI-RANGER THERMOELECTRIC GENERATORS — Propane powered, 24 volt, 20 watts	10.00	4.50	3.00
RAYTHEON DE-719 RECORDING FATHOMETER — Portable, 12 VDC or 115 VAC, 410' depth range	25.00	15.00	10.00
RAYTHEON DE-119D RECORDING FATHOMETER — Portable, 12 VDC, 240' depth range	20.00	12.00	8.00
CUBIC DM-20 ELECTROTAPES — Two units including tripods, psychrometers and altimeters	40.00	24.00	16.00
ELECTROTAPE TILTING HEADS — Two units	2.50	1.50	1.00
SPECTRA-PHYSICS LT-3 LASER TRANSIT-LITE — Including fan beam attachment 12 VDC-115 VAC power supply and tripod	20.00	12.00	8.00
ASKANIA A-2e 1" DIRECTIONAL THEODOLITE — Including tripod	15.00	9.00	6.00
ASKANIA A-1e 20" REPEATING THEODOLITE — Including tripod	10.00	6.00	4.00
AMERICAN PAULIN MODEL M-2 SURVEYING ALTIMETER — 0 to 10,000 feet, 2 foot graduation	4.00	2.40	1.60
20" SURVEYORS TRANSIT — Including tripod	4.00	2.40	1.60
AUTOMATIC LEVEL — Including tripod	3.50	2.10	1.40

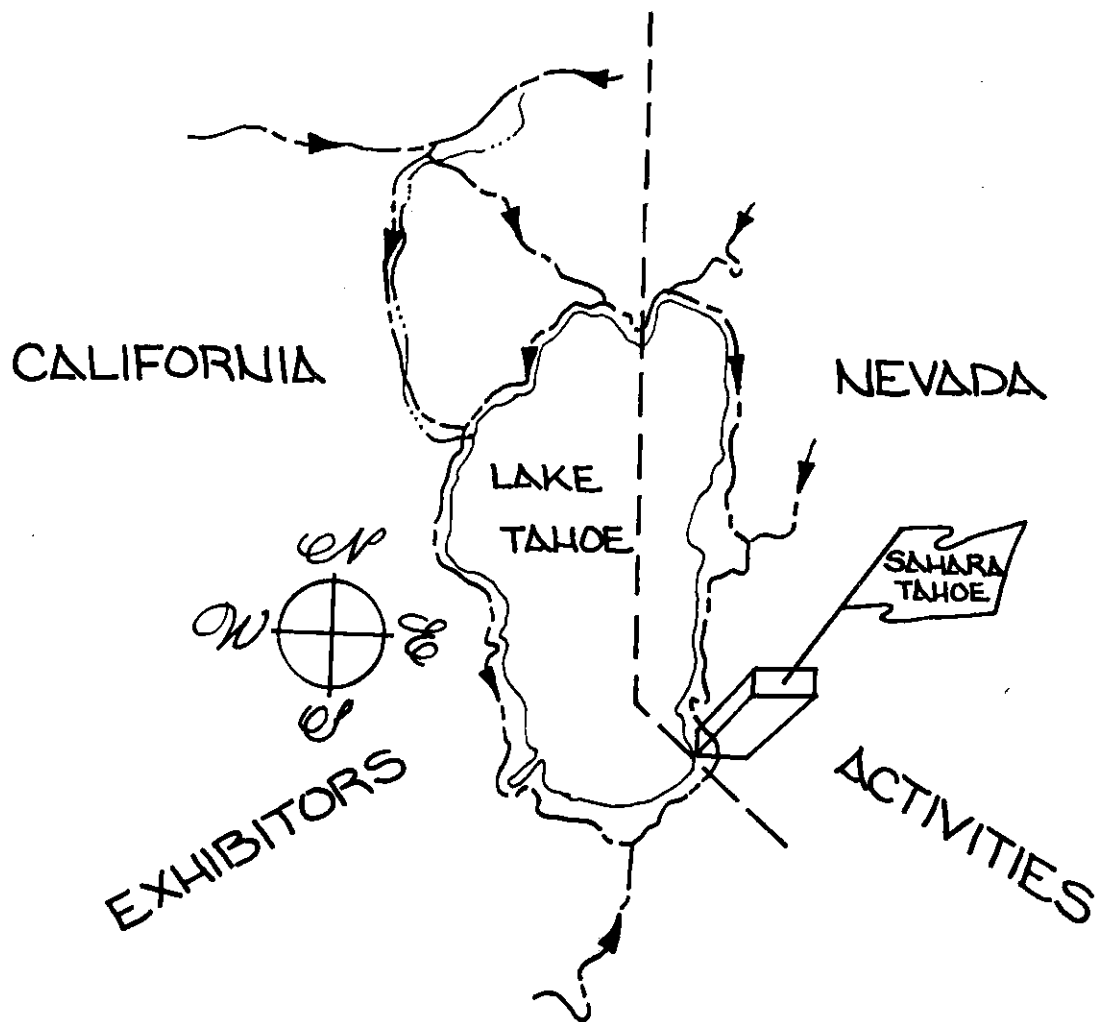
Minimum rental charge: \$10.00 exclusive of shipping charges. Rental charges commence on the day the equipment leaves Ventura, California, and terminate on the day the equipment is returned or shipped for return from lessee's location. Lessee pays all round trip shipping charges on rented equipment. Rates for longer periods available on request. Rates subject to change without notice.



Lewis & Lewis

surveying equipment

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Ventura, Ca. 93001 • (805) 643-8673



"FUTURE DIRECTIONS IN SURVEYING"
 AND THEY ALL LEAD TO
 SAHARA TAHOE
 MARCH 6-7-8, 1975
 FOR THE BI-STATE N.A.L.S.-C.L.S.A. CONVENTION

For instant ranging up to 8 miles. The long-range fully automatic RANGER III EDM meter.

Field Proven: The Ranger electronic distance measuring system has a valid history of success with state highway departments, federal agencies, civil engineers and leading land surveyors.

Accurate: The Ranger III is accurate to within ± 0.02 ft. +2 ppm for the limits of its range. Or from 3 feet to more than 8 miles.

Fully Automatic: Operators simply aim the visible laser beam at a retro-reflector, set the return light level, dial-in atmospheric and instrument corrections, and touch a button. Digital readout is displayed instantly.



Measurements in either Feet or Meters: Conversion from one unit of measurement to the other is no problem. Simply change a switch position.

Easy Operation: Ranger III provides simple and quick operation. Users enjoy substantial savings; lower training costs; more measurements and greater accuracy in less time; fewer personnel for field and office data reduction.

Lightweight, Rugged: Total weight—36 lbs. Helium-neon laser light source, computer, and distance display unit are contained in single unit. Connects to a 12-volt storage battery by a single cable.

Choice of Models: The Ranger III is shown here, but for shorter distances, you can also choose the Ranger II (from 3 feet to 4 miles) or the Ranger I (from 1 meter to 4 kilometers).

And Much, Much More: Now that we've exposed you to some of the Ranger's qualifications, why not judge them all for yourself? For complete details, just write us at Keuffel & Esser Co.

For 3 feet up to 8 miles, the Ranger III meter stands alone.



KEUFFEL & ESSER CO.

223 Lawrence Ave.
South San Francisco, Calif. 94080
Phone: 415 873-6850

1327 South Olive St.
Los Angeles, Calif. 90015
Phone: 213 747-7601



RANGER

FUTURE DIRECTIONS

THURSDAY, March 6th

- 4:00 p.m. Registration begins.
7:00 p.m. Exhibitor-sponsored cocktail party.
8:00 p.m. No host bar opens.

FRIDAY, March 7th

- 9:00 a.m. Convention opening ceremonies:
Co-chairmen — Jerry W. Tippin, L.S. (CLSA)
Eugene B. Longfield, C.E. & L.S. (NALS)
CLSA President — Joseph J. Scherf, L.S.
NALS President — Frank W. Gentry, L.S.
Welcome — Robert E. Rose, Lt. Governor of Nevada.
- 10:00 a.m. Coffee break in exhibit area.
- 10:30 a.m. Technical conference: "Environmental Laws — Friend or Foe?"
Moderator — Dan Asikainen, P.E. & L.S. (Assistant Right-of-Way Engineer for Sierra Pacific Power Company, Reno; Land Surveyor in California and Nevada; State Secretary of NALS).
Guest Speaker — a representative of the Federal Environmental Protection Agency will speak on the Federal programs.
- 11:30 a.m. Pre-lunch break in exhibit area.
- 11:45 a.m. Lunch (Buffet).
Moderator — Frank W. Gentry, L.S. (private practice in Carson City; Land Surveyor in California and Nevada; President of NALS).
Guest Speaker — Joe Conforte, a noted Nevada Rancher. Mr. Conforte will speak about the "house specialties" featured at his famous Mustang Ranch. It should be noted that Mr. Conforte's talk is strictly ADULT entertainment and is RATED "R".
- 1:30 p.m. Technical conference: "National Trends in Surveying," a panel discussion.
Moderator — Gilbert D. Buck, L.S. (Land Planning Consultant in Las Vegas; Land Surveyor in Arizona, California & Nevada; former Deputy Surveyor for Clark County, Nev.; past President of NALS).
Bernard W. Hostrop — (Chief of Division of Cadastral Surveys, Bureau of Land Management, Washington, D.C.; registered in Wyoming as a Civil Engineer and a Land Surveyor).
Walter G. Robillard, U.S. Land Surveyor (Regional Cadastral Surveyor, U.S. Forest Service, Atlanta, Georgia; registered Land Surveyor in Georgia, North Carolina, Kentucky and Florida; current Chairman of ACSM Land Surveys Division).
- 2:45 p.m. Coffee break in exhibit area.
- 3:15 p.m. Technical conference: "Surveying Education — More or Less?" a panel discussion.
Moderator — Ray J. Peters, L.S. (private practice in Lafayette, CA.; immediate past L.S. member — California State Board of Registration for Professional Engineers; teaches surveying classes at U.C. Extension, Berkeley).
Two Year Program — Richard E. Hauck, L.S. (teaches Surveying and Photogrammetry at Pasadena City College; has AA degree in Civil Engineering Technology; graduate in Highway Engineering, ICS; completed a National Science Foundation Geometronics Institute at Purdue University and a Photogrammetry Course at International Training Center in the Netherlands; was a Senior Party Chief for L.A. County Road Dept.).
Four Year Program — Dr. R. Ben Buckner (Assistant Professor, Dept. of Geodetic Science and Dept. of Civil Engineering, Ohio State University; Ph. D. in Civil and Environmental Engineering; M.S. degrees in Civil Engineering and Urban and Regional Planning; consultant to Ohio's State Registration Board; Registered Engineer and Land Surveyor in Ohio, Wisconsin and Illinois).
Union Apprenticeship Program — Arthur A. Pennebaker (Administrator of the Northern California Surveyors Joint Apprenticeship Committee Training Program of the Operating Engineers, Local Union No. 3; was in Army Engineers in World War II; father was a Land Surveyor in California — LS1186).
- 5:00 p.m. Pre-dinner break
- 6:00 p.m. Dinner (Prime Rib) at the Sahara Hotel Dinner Show — Entertainment provided by Doc Severinsen of the Johnny Carson Show.

NS IN SURVEYING

SATURDAY, March 8th

- 8:30 a.m. Morning FIZZ.
- 9:00 a.m. Technical conference: "California Map Act — Changed for the Good?", a panel discussion.
Moderator — Charles A. Wooldridge, L.S. & P.E. (Project Engineer and Associate, E. F. Cook & Associates, Ltd., San Diego; Past President of CLSA; Chairman of CLSA Education Committee).
PRO — Robert S. Willett, representative from the California League of Cities (Supervising Deputy, Office of County Counsel, Sacramento).
CON — Ted C. Fairfield, R.C.E. (Principal in MacKay & Soms, Civil Engineering firm; President of MacKay & Soms Environmental Center, Santa Clara, CA.; registered C.E. in California, Nevada, Oregon and Washington).
- 10:15 a.m. Coffee break in exhibit area.
- 10:45 a.m. Technical conference: "The Sky Above — the Earth Below." a panel discussion.
Moderator — Maurice E. Lafferty, L.S. (President of Great Basin Aerial Services — Surveying and Photogrammetry, Sparks, Nevada; State Director of NALS; Vice-chairman of the Cadastral Surveys Committee of ASP).
Remote Sensing — Dr. Paul T. Tueller (Professor of Range Ecology, University of Nevada — Reno; extensive background in remote sensing of renewable natural resources, game-range management and plant ecology; commercial pilot's license).
USGS Orthophoto Products for the Surveyor — Robert E. Altenhofen (Chief, Branch of Photogrammetry, Western Mapping Center, USGS, Menlo Park, CA; BS in C.E.; Past President of ASP).
- 12:00
NOON Lunch (Chef's Salad).
Moderator — Jerry W. Tippin, L.S. (Vice President of Raymond Vail & Associates; Office Manager of Tahoe City Office).
Invitations to CLSA and NALS 1976 Conventions.
- 2:00 p.m. Technical conference: "Recent Developments in Computerized Mapping Systems," a panel discussion.
Moderator — Paul W. Lanoreaux, L.S. (Real Estate Engineer at BART, Oakland, involved in Surveying and Mapping of BART'S R/W; Chairman of CLSA State Convention Committee for 1975).
Donald F. Gratz (President-Elect of Computer Graphics, Inc., Walnut Creek, CA., a computing and mapping service bureau; current President of Bowles, Taddeo and Associates, a computing and mapping software development firm in San Francisco).
Gil Wolfe (District Manager of Civil Engineering for Neeley Enterprises of Hewlett-Packard; graduate of Jacksonville University with B.S. degree).
- 3:15 p.m. Coffee break in exhibit area.
- 3:45 p.m. Technical conference: "Future Directions in Land Surveyor Registration," a panel discussion.
Moderator — John P. Pedri, L.S. (Land Surveyor Member of the California State Board; member of NCEE Land Surveying Committee; County Surveyor of Tuolumne County, Sonora, CA.).
California Board — William J. "Jim" Jurkovich, R.C.E. (Past President of the State Board; member of NCEE Constitution and Bylaws Committee; Supervising Bridge Engineer, Bridge Department, California Division of Highways, Sacramento).
Nevada Board — Edward L. Pine, P.E. & L.S. (Chairman of the State Board; Vice-President of University of Nevada — Reno; retired Colonel, U.S. Army Corps of Engineers.).
NCEE — Walter T. Anderson, P.E. (Professor and Administrative Assistant in the Dept. of Electrical Engineering at Michigan Technological University; member of the Michigan Board of Registration for Land Surveyors; Vice President and Director of NCEE; P.E. in Michigan and Wisconsin).
- 5:45 p.m. Adjourn

ESPECIALLY FOR THE WOMEN

THURSDAY, March 6th

- 7:00 p.m. Exhibitor-sponsored cocktail party (everybody).
- 8:00 p.m. No host bar opens (everybody).

FRIDAY, March 7th

- 10:00 a.m. Hospitality Room opens (gaming film on "how to win" will be shown continuously during the day).
- 11:45 a.m. Lunch (Buffet) (everybody).
- 6:00 p.m. Dinner (Prime Rib) at the Sahara Hotel
- Dinner Show — Entertainment provided by Doc Severinsen of the Johnny Carson Show (everybody).

SATURDAY, March 8th

- 8:30 a.m. Morning Fizz (everybody).
- 9:00 a.m. Hospitality Room opens.
- 12:00 NOON Fashion Show (including lunch — Chef's Salad): William Fitzgerald's **FACES AND FASHIONS, "Then and Now."** Leading fashion and cosmetic authority, William Fitzgerald has given numerous seminars and demonstrations throughout the United States on the techniques of cosmetic application. "All women are beautiful," he maintains. Cosmetics are used to enhance a woman's natural beauty and he suggests that every woman find a variation of the popular make-up look that is particularly flattering to her. As he presents the American Beauty Beginning with an original 1885 gown, then to the Gay Gibson Girls and through the liberated seventies, Fitzgerald demonstrates the importance of coordinating Cosmetics and Fashions to achieve an individual, sophisticated look. Historic comments on early make-up, including the use of charcoal to accent the eyes and the pinching of cheeks for a rosy facial glow, make this an unusually entertaining fashion show.

REGISTRATION FORM

NAME OF REGISTRANT		GUEST	
ADDRESS		CITY, STATE ZIP	
EMPLOYER		MEMBERSHIP	
		<input type="checkbox"/> CLSA <input type="checkbox"/> NALS <input type="checkbox"/> Neither	
ITEM	PRICE	NO. DESIRED	TOTAL
REGISTRATION Member	20.00		
REGISTRATION Non-Member	25.00*		
REGISTRATION Student	5.00		
FRIDAY BUFFET	6.00		
FRIDAY DINNER SHOW	13.50		
SATURDAY MORN. FIZZ	3.50		
SATURDAY LUNCH	5.00		
LADIES SATURDAY LUNCH	6.00		
ENCLOSED \$ _____		SUB TOTAL	
CHARGE TO MY <input type="checkbox"/> B of A CARD		Less 10% Early Reg**	
<input type="checkbox"/> MC. CARD		TOTAL	
CARD NO. _____	PAYABLE TO: C.L.S.A. — N.A.L.S.		
EXPIRES _____	Box 879		
AUTHORIZED SIGNATURE _____	Tahoe City, Calif. 95730		
*\$5.00 of Non-Member Reg. Fee Can Be Applied Toward Assoc. Membership			
**Pre-Registration Discount (Less 10% if paid & mailed before Feb. 20)			

AN ASSESSMENT

by A.E. "Ed." Griffin, L.S.

For the first time in half a century the land surveyor can start to look to the future with confidence. New tools, new education and new comradeship have caused a reawakening among land surveyors. While the surveyors progress has been at different speeds in different states, some advancement has been shown in almost all states which means that we are making progress nationally.

All is not rosy, there are still many problems to be solved, but the land surveyors apathy has been awakened and he has started to lay the base for professional development. He has learned to speak for himself and to protect what is left of his area of proficiency.

The recent refinements in our tools, which have improved our product and reduced the time and effort necessary to execute surveys, has been a great step forward for us. A few years ago who would have thought of the ease of measurement we enjoy with our electronic distance measurement instruments. The laser range pole, the auto surveyor, and the georeceiver have just come on the market, and even more exotic improvements are just over the horizon.

Along with the new tools are new legal procedures that are helping us to get the job done better. The new corner record acts recently passed in most states will allow us to keep a record of any changes in the control of property boundaries. Forty-four of the fifty states now give the land surveyor an area of practice. Those of us from California have to look with envy on our brothers who are joining us at Lake Tahoe. Nevada is one of the progressive states that has recognized land surveying as a separate profession practicing in a specialized area. The Nevada Land Surveyors Association and the Civil Engineers are able to cooperate and assist each other. How different this is from California where we are told that land surveying must be civil engineering but we don't speak to each other. A number of States have recently established Survey Authorities to maintain and preserve the survey records and monuments. The National Council of Engineering Examiners Model Land Surveyor's Act has been accepted as the basis of the registration law in a number of States. All fifty of our States now have registration acts for land surveyors.

The recent degree programs in surveying are significant steps forward for the land surveyor. Fresno State University, Purdue University, and Ferris State College all grant a Bachelor of Science degree in surveying. Most of us realize that the land surveying profession has a basic career pattern and requirements that are distinctly separate and different from Civil Engineering, Forestry, Architecture or other professions. In the future the acceptable method of entrance into the profession of land surveying will be through these programs or others like them.

Maybe the most important advancement of all is the fact that there are now forty state land surveyors associations and twenty-six sections of the American Congress on Surveying and Mapping which are now actively helping to improve the surveying and mapping profession.

The foundation has been laid, but as those of us from California know, there is still a long way to go before our profession is secure. The past areas of advancement is only the spring board from which continued effort is needed to propel our profession forward. A great struggle will be needed to obtain an area of practice for those of us in the six retarded States. The last holdouts of any obsolete idea are always the hardest to convince that improvements are necessary. For all practical purposes the plan (plan "A") to do away with land surveyors in California is dead but the traditional few will not allow it to be

forgotten. Considerable effort will be necessary but these six states must be convinced that the public interest requires a separate area of practice for the land surveyor.

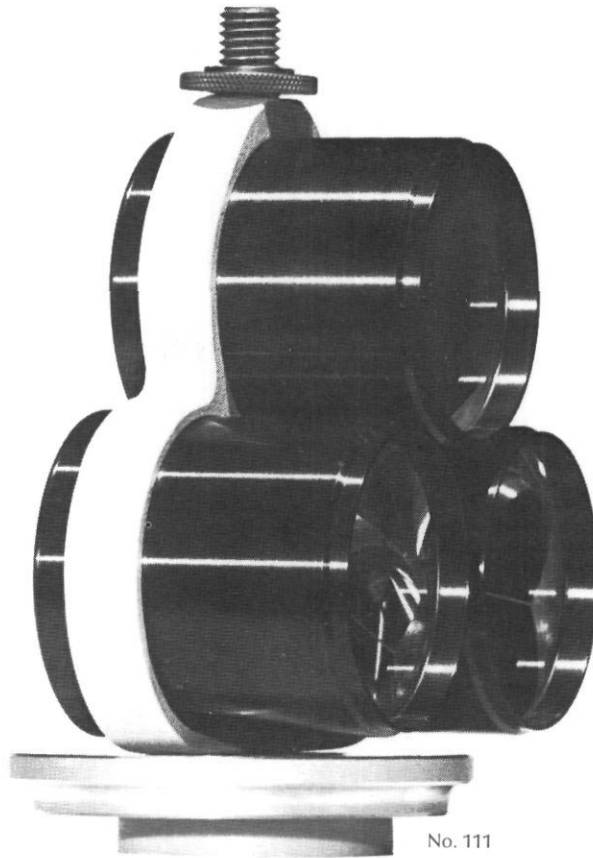
The second most important problem facing the surveyor today is the final annulment of the 1959 American Society of Civil Engineers policy statement on surveying and mapping. This policy places all surveying and mapping except land surveying into a technical classification. While ASCE has not really pushed, and in fact has been soft-pedaling this policy, many others have been implementing it. Most of the new Department of Labor job classifications for surveying positions are being written in line with this policy. Many governmental agencies refer to it in classifying their surveying positions. The City of Los Angeles has recently required its survey supervisors to become a part of a non-professional labor management bargaining unit and many of the reasons given for this action seem to be taken from ASCE's 1959 policy statement. It was also interesting to note that no engineering society offered any aid to the City of Los Angeles surveyors. Here in California the person who checks our maps in the County Engineers or County Surveyors Offices is usually a technician who receives little or no supervision from anyone with any surveying background. This problem has largely come about since 1959. If ASCE's policy is not revised soon most governmental agencies are going to be forced to contract survey work as technical work requiring bid procedures, instead of using the present practice of considering surveying and mapping to be professional and subject to negotiation.

With the new college courses in surveying and mapping have come some problems that will need to be corrected. Most of these programs are in the engineering department. This in itself is no problem. However, most of the schools are requiring that the courses parallel those of the engineering programs. With the present emphasis in the engineering curriculum on science, there is just not enough time to teach a first class course in surveying combined with a second class one in engineering. There is no objection to a surveying student taking two years of physics, chemistry, and calculus providing he can get all of the surveying and related courses that he needs. There is objection to the future surveyor having to take a fourth semester of calculus when he doesn't have time to take courses in evidence evaluation, description construction, report writing or cartography. The survey programs are new and the colleges need guidance from the practicing surveyor as to what the content of the programs should be. If we will put forth the effort through our societies this problem can be easily corrected.

Another topic which needs our attention is that of land mapping and title records. With all of the dependence this country places on property ownership it has the most antiquated system of land records imaginable. The land surveyor should be in the forefront of updating this record system at the same time he is improving his measurement procedures.

Lastly there is a recent movement to revise the way that our registration boards are set up. If changes are necessary, and many of us think that some changes are needed, we should be the ones proposing the needed changes. If our boards do not serve the public interest we know it and we had best make reasonable revisions before unwelcome provisions are forced on us.

As I said earlier the foundation for our profession has been reconstructed but, we now must rebuild the framework that will carry us through to fully accepted professional status. It is only by our work to advance our profession that we will obtain the acceptance required to attain this status. ▲



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