

Institutional Affiliate of American Congress on Surveying and Mapping.

# The California Surveyor

No. 73

The Voice of the Land Surveyors of California

Winter 1984



## "SURVEYORS, THE NEW IMAGE" CONFERENCE

March 28, 29, 30, April 1, 1984  
Sahara Tahoe, South Shore  
Lake Tahoe (*Site of previously  
successful conferences.*)

**THURSDAY, MARCH 28 P.M.**

Personnel Management  
Liability  
Exhibitor's Cocktail Party

**FRIDAY, MARCH 30**

Financial Management  
Marketing  
The Politics of Legislation  
Boundary Law

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**Hotel Information**

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## The California Surveyor

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

"Recognizing that the true merit of a profession is determined by the value of its services to society, the 'California Land Surveyors Association' does hereby dedicate itself to the promotion and protection of the profession of Land Surveying as a social and economic influence vital to the welfare of society, community and state."

"The purpose of this organization is to promote the common good and welfare of its members in their activities in the profession of Land Surveying, to promote and maintain the highest possible standards of professional ethics and practices, to promote professional uniformity, to promote public faith and dependence in the Land Surveyors and their work."

### Personnel

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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: J.E. Terry, L.S.I.T.  
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### DEADLINE DATES FOR THE CALIFORNIA SURVEYOR

Spring ..... March 15., 1984

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

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# President's Message

## A MESSAGE FROM YOUR NEW PRESIDENT

A new year is upon us. Spring is just around the corner. Economic recovery is here. It is said that there is a time for everything. A time to be a child, a time for play, a time for work, a time to reflect, a time to plan, a time to put away things that are old and a time to put on things new.

For this is as it should be. For in this ever changing world, nothing remains the same. So together let us all go forward. Let us go declare our own place in the sun. For from our heritage that predates the pyramids, back to man's earliest acts of civilization, was to declare the boundary of his domain. We are the oldest honorable profession. Our American predecessors include George Washington, Thomas Jefferson and Abraham Lincoln. In 1891, Surveyors were the first profession to be licensed in California. This then is self-evident that a place in the sun is already ours. We do not need to stand in anyone's shadow, nor do we wish to cast a shadow on anyone else.

We are what we are. Let us become all that we can be. Let me wish each and everyone of you a Happy New Year. As a reflection of how we should be, let me share with you a statement from an unknown author:

"Go placidly amid the noise and haste, and remember what peace there may be in silence. As far as possible without surrender be on good terms with all persons. Speak your truth quietly and clearly; and listen to others, even the dull and ignorant; they too have their story. Avoid loud and aggressive persons, they are vexations to the spirit. If you compare yourself with others, you may become vain and bitter; for always there will be greater and lesser persons than yourself. Enjoy your achievements as well as your plans. Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time. Exercise caution in your business affairs; for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals; and everywhere life is full of

heroism. Be yourself. Especially, do not feign affection. Neither be cynical about love; for in the face of all aridity and disenchantment it is perennial as the grass. Take kindly the counsel of the years, gracefully surrendering the things of youth. Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with imaginings. Many fears are born of fatigue and loneliness. Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should. Therefore be at peace with God. Whatever you conceive Him to be, and whatever your labors and aspirations, in the noisy confusion of life keep peace with your soul. With all its sham, drudgery and broken dreams, it is still a beautiful world. Be careful. Strive to be happy."

Join with me as we walk the path of our profession. A course that reflects our collective efforts, gives pride to ourselves and serves the public as we make our contribution to society.

James R. Dorsey, L.S.  
President, CLSA



**JAMES R. DORSEY** has 29 years of experience in boundary and title matters. He currently is President

and Chief Executive Officer of James Drosey & Assoc., Inc., Land and Boundary Consultants, where his practice includes, among others, consultation for the title industry, the State of California, Metropolitan Water District, and Southern Pacific Transportation Company on boundary matters.

He is the author of "Insuring Wetlands" and co-author of "A Study of Title Problems on Swamp and Overflowed Lands." He has presented papers on boundaries for the California Land Surveyors Association, California Land Title Association, and the American Society of Civil Engineers.

Before becoming president of the California Land Surveyors Association, he was the past president and founder of the Los Angeles-Ventura Chapter of CLSA. He is named in "Who's Who's in California," a Licensed Land Surveyor in California and Arizona, and an "Abel Toastmaster."

Mr. Dorsey is a resident of Simi Valley. He has been married for 27 years and has two sons.

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# Letters to the Editor

Editor: The article on page 4 of the California Surveyor, Fall 1983, entitled "The S.I." by Harry W. Abbot, L.S. helps to point out an idea I have had for some time. Basic information seems to indicate that the majority of the old time surveyors were accurate and conscientious in their work. But when one makes such a statement, one must take into account the instruments used at the time and the standards required.

I have done considerable work where I have had to find old G.L.O. corners. I have also noticed that the younger generation of surveyors do not, in general, have the knowledge or ability to find the lost corner. In tracing old General Land Office lines I found over 50 years ago that a transit (the best instrument available at the time) was no good for retracing the old G.L.O. section line. It was necessary to come as close as possible to the same type of work that the original surveyor used. Also, one had to study the habits of the surveyor in that township. I found that the best way to find the old survey corners was to use a compass (preferably staff compass) and trailer tape to find the corner. Often the surveyor was quite accurate with the simple instrument being used or even pacing. After finding the corner the transit crew could then run a more accurate line for distance and bearing.

In order to follow the old surveys, one should try to step in the tracks of the original surveyor—often you must be as good at reading signs as the old mountain men were in following an Indian's trail. For example, what kind of a scar would a 50 or 70 year blaze leave in the bark? I have cut out bearing trees for over 12 inches in the wood. Also, often the "3 foot mound of stone at a corner" will only show up as a resemblance of a circle of stone that is different from anything else nearby and inside the circle is the rotten post or a properly marked stone.

Too many of the modern surveyors think that because a measurement does not come out the same as today's sophisticated instruments read, that in that case the old survey was not correct. What was the standard in 1870? What kind of

instruments did the surveyor use? Look at the notes—how many miles did he do in a day? (You can't even do a mile today).

Too many people require errors of closure that are impossible with the instrumentation in use. Also, if the error is so small, that when it is required, how can one even use a crosshair in his transit without being off?

Many times some of the modern surveyors do not even follow the rules in the GLO Manual for retracements and subdividing. Such as finding the original corner, or relocating according to the manual, and connecting corners with a straight line and splitting distances as per the manual. I have seen them say the old corner is wrong, set a new corner, and all because their measurements with modern equipment did not check with the original survey.

I mentioned above that study of the habits of the original surveyor was a necessity. For example: I worked in an area in Southern Oregon one time where all corners were a stone *properly scribed in the notes*. This surveyor did not establish any bearing trees even when in timber. 1/4 corners were properly scribed on the rock. The section corners had one notch only—facing the closest township line. The corners were there and the measurements were good for the standards required when the work was done. Another surveyor ran very good north and south section lines. The quarter corners on the east west lines were set by an axeman, paced, and with no compass. (An old man over 80 years old knew the crew).

My main beef is that I think criticism of old work should take into consideration the requirements of the day the work was done and the conditions it was being done under. Original corners should be found and then the modern instruments can be used to give a correct measurement and alignment. But, I believe that in most cases, the old survey is still the governing survey for corners.

These are just some thoughts I have had. Another is that in some cases the courts have made rulings that are contrary to some rules of

surveying, because of ignorance on the part of a judge.

I am, for all practical purposes, out of the surveying business. Age plus some medical problems meant that I have done nothing for over five years. I do not consider myself a good modern surveyor. I never did like subdivision or lot work. Roads are fine—but the best of all was retracing old GLO surveys. It was a pleasure to find a line tree with a faint scar in the bark where called for in the notes. To find a corner by retracing your random line from a creek bed so as to coincide with the surveyor notes as to the creek crossing. Yes, the corner was there but bearing trees were gone. Finding an old corner in badly burned areas based on remains of stumps that fit the location and then under the sod finding a rotted 4"x4" post. Do this by feeling.

I hope I did not bore you.

Harold G. Powell  
California LS 2919

□

## PHOTOS WANTED

The California Surveyor is requesting cover photos from its readership. Photos should be 8"x10" glossy-for-repro. Information regarding the subject of the photo plus the photographer/contributor should be sent to the Editor along with the photo and a letter giving The California Surveyor permission to publish the material.



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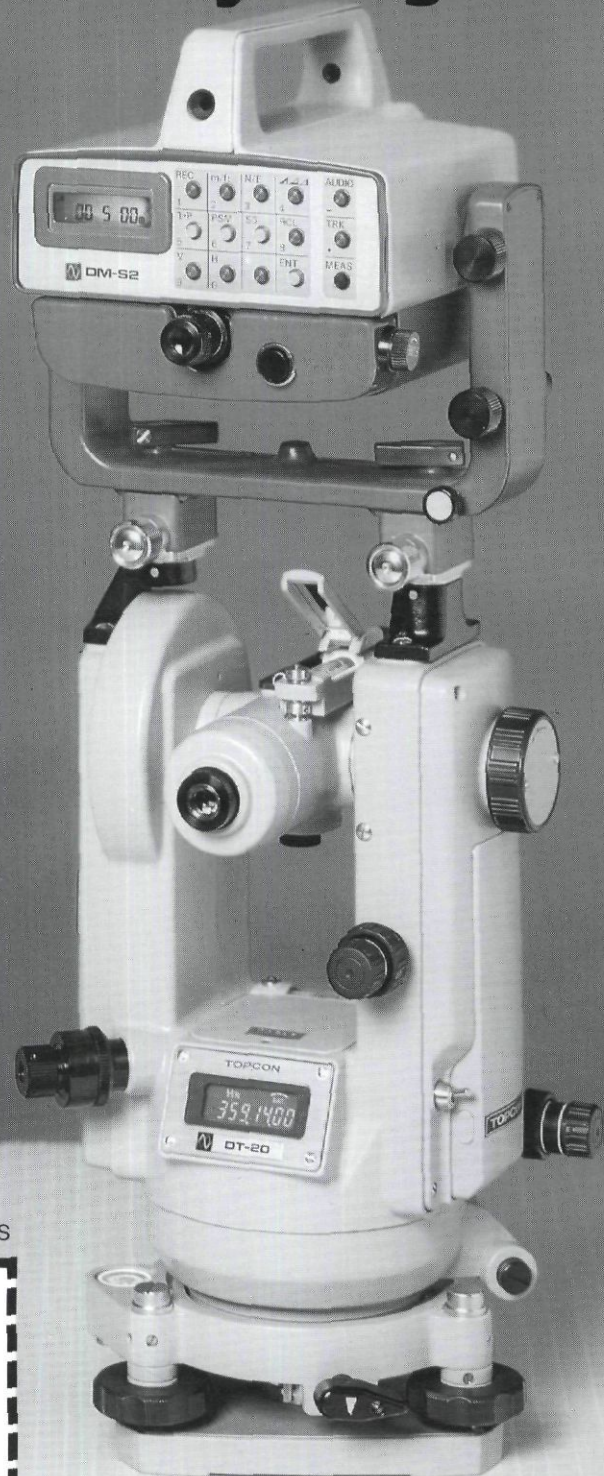
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# Articles

## DOCTRINES OF AGREEMENT

EDITOR'S NOTE: The following is a presentation made on parol agreement and acquiescence by Dr. David R. Knowles at the Multi-State Land Surveyors Conference Nov. 5, 1982.

by: David Knowles

Let's define three types of boundary lines. We as surveyors use the work boundary or property line quite loosely, and at times it may mean one thing to us while it may mean something else to our clients.

Just like the case of the displeased client who, after having his property surveyed, discovered that only his corners were marked instead of the entire lines or that he had built his fence on a random traverse line.

First of all there is record title. A record title line is what the public record shows that a person owns to. Many of us may think of this as a deed line, and deeds do primarily make up record title. But what a land owner has described in his deed frequently is not what he has record title to. As an example let's suppose that Smith owns and has a deed to the SW $\frac{1}{4}$  of the SE $\frac{1}{4}$  of a section. He then sells the south 10 acres to Jones with this deed being recorded. Smith will still have his deed describing a forty but the record will show that he owns only that part of the forty that he has not sold to Jones.

Also, record title will differ from a deed line when there is an overlap of descriptions and junior-senior rights are involved. Suppose Smith sold the east 660 feet of the forty to Jones, and then at later date sold the west 660 feet to Brown. After selling to Jones, Smith's record title is to the remainder. If this forty is less than 1320 feet wide then Brown's record title will be to the west line of Jones rather than the line described in his deed as being at 660 feet.

Next there is a possession boundary line, what a person is possessing to. It must be something physical. Usually it is a fence but it could be a road, a bluff or even the edge of a plowed field. It is important that this boundary be possessed to. Suppose that White has fenced in his pasture. On the other side of the fence is land owned by Black, but is grown up in trees and brush

and Black isn't doing anything with it. Then the fence would be a possession line for White but not for Black.

Finally there is an ownership boundary, which is the line to which a person owns. Or maybe it would be better to say a line to which a person has a right to possess.

We have now defined three types of boundaries: record title, possession and ownership. Wouldn't it be nice if on every survey all three of these were the very same line? Ownership will usually coincide with either record title or possession when the two are not in agreement. But in Arkansas, which is probably the sole exception, ownership could be something other than record title or possession. If a person has color of title to some area and is in possession of a portion of this, and the true owner is not in possession of any of the remainder, then this possessor can claim ownership to the remainder through adverse possession.

Almost always ownership starts with record title, then through adverse possession, parol agreement, or acquiescence it may shift to possession. Surely all of you know what adverse possession is! It is another one of those terms like property line, Kleenex and Coke that is used as a catch-all for everything. Anytime possession becomes ownership is it always due to adverse possession? No! In all probability, at least in Arkansas, most possession lines that have become ownership have done so through acquiescence rather than adverse possession.

Also, unfortunately, there are many surveyors who think that if a fence has been in place for seven years, ten years, fifteen years or whatever the statute of limitations calls for in his state, that this fence has become ownership. There is one supreme court decision where a fence was in place for only one day and it became the ownership line. And there are numerous cases where a fence has existed for much longer than the statute of limitation and was ruled not to be the ownership. Instead the courts held to record title.

Because of the many misconcep-

tions concerning possession, and in particularly adverse possession, the surveyor needs to learn more about parol agreement and acquiescence.

Let's first look at the general requirements for parol agreement and acquiescence, and then we will look at the differences or exceptions for each participation state here at the conference.

The word parol, for all practical purpose, means oral. So a parol agreement is where an ownership line is moved or changed by an oral agreement between the two parties involved. Now, according to the statute of frauds the conveyance of property must be in writing and it might seem that orally transferring ownership would not be binding. This point is often spoken to by the courts with the following quote being typical.

*It is a familiar doctrine of law that title to real property cannot be transferred by parol. It is equally forbidden by the principles of common law and the expressed provisions of the statute of frauds. It is equally settled, however, that the owners of adjoining tracts may by parol agreement settle a disputed boundary between them. Such an adjustment if followed by possession may be binding on them, not because it passes title, but because it determines the location of that which was unknown.*

So you see the courts are getting around the statute of frauds by saying that the land owners are not conveying title, they are just settling something that was uncertain. It is almost like exchanging quick claim deeds except that it is oral rather than in writing.

Now there are some very strict requirements for parol agreement. First of all the true line (record title) must be unknown. On this point the courts have generally ruled that it only has to be unknown in the minds of the parties involved. The corners might be marked with rebar or some other monument, but they are covered up with dirt or grown over by grass. A surveyor with a magnetic locator might not have any trouble finding the monuments, but if the land owners don't know where they are, then in their minds the line is unknown.

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There is one very good decision in Arkansas in which two parties did not know where the true line was. As it turns out it involved two women. One woman was out putting in a fence along the true line which happened to be just inside of a rocky field. The neighbor lady seeing the difficulty being encountered in putting in the fence posts said, "My, that is too much trouble. Why don't you just run the fence over there along the tree line on my property. It will save you from having to put in those posts. I'll just give you that land. I've got over a hundred acres and I won't miss this little bit." Well, later both ladies sold their respective pieces of property, probably to some men, and the new owners got into a boundary dispute over the strip. One party claimed the fence was an agreed boundary. The court said no because the true line was known. You can't convey or give away property orally. It must be in writing.

Next, the parties must orally agree to a new line, irrespective of record title. In other words they can't be agreeing to where they think record title is. They have to be saying, "To heck with where the true line might be. It costs too much to hire a surveyor. Let's just let a new line be here. Let's not worry about who's going to gain a little land or who's going to lose a little. We're just going to let it be here." If they are not agreeing to a new line but instead where they think the true line is, then we have what is known as a "mistaken boundary." In this case once the true line is found neither party is bound to the agreed line because all they ever agreed to was the true line. Later we will discuss where in some of the states a mistaken boundary may eventually become binding.

After a line has been agreed to, then it might be marked and possessed to. This in effect shows that the agreement is acceptable to both parties and there is no question about the location of the new boundary. In some states the entire line must be marked and possessed to while in others if only a portion is marked then the line can be extended. Again, we will look at these differences later.

Once all of the requirements for parol agreement have been met—true line unknown, orally agree to a new line irrespective of the true line, and this agreement being accepted as evidence by marking and possession by both parties—then the ownership will move from record title, or wherever else it might have been to the agreed line. This takes effect and becomes binding immediately. It does not have to exist for as long as the statutory period. As was mentioned previously, just one day after a fence had been erected on an agreed boundary one of the parties wanted to back out of the agreement. But no sir, he was bound by the agreement. It was too late.

Now let's look at acquiescence. Basically acquiescence means to agree by being silent. You can almost think of it as being the same as parol agreement except that instead of agreeing orally the parties agree by being silent, or by their actions. In other words, it is an implied agreement rather than being expressed orally. Let's look at an example that has nothing to do with boundaries. A student is in his room, sitting at his desk with just his shorts on, studying for a test. His billfold and car keys are lying on the desk beside him. The student's roommate walks in, picks up the car keys and says that he is going to run down to the liquor store and get some beer. To this the student says, "Hurry back, I sure am thirsty." Now even though the student didn't expressly give permission to his roommate to use the car, this permission was implied. It was obvious that the car was going to be used and if the student objected he should have said so.

This same thing can happen with boundaries. The parties agree by being silent or by their actions. With the exception of an oral statement, this may seem to be the same as parol agreement. By the way, the line must be marked and possessed to as in parol agreements. But there are two very important differences.

First, in parol agreement the boundary becomes binding immediately. However, in acquiescence how long would a person have to be quiet before an agree-

ment was implied? Well, in general the courts have said that this time period must be equal to the statutory period. So instead of one day we are looking at seven years or more.

Second, and maybe more important, in parol agreement the parties had to be agreeing to a new line irrespective of the true line. But in acquiescence they aren't saying anything to each other, it's just their actions. So, what are they agreeing to—a new line or the true line? It's not known so consequently it doesn't matter. A case of mistaken boundary does not affect acquiescence.

One might now wonder what would be the difference between acquiescence and adverse possession? Acquiescence involves both land owners. It is bilateral. Both parties must possess to the line and by their actions show agreement. Adverse possession on the other hand is unilateral. We're talking about just the actions of one party. Also the possession by this party must be hostile. That is to say he must think that he has a right to possess to the line regardless of where the true line might be. Just as in parol agreement a mistaken boundary will defeat adverse possession, but not acquiescence.

This concludes the general requirements for parol agreement and acquiescence. Let's now look at some exceptions for the participating states. For parol agreement in all of the states the true line must be unknown. A mistaken boundary does not bind the parties except in Iowa and Oklahoma when possession has been maintained for more than the statutory period. Also in Oklahoma, the mistaken boundary may be binding in less than the statutory period if valuable improvements have been made.

In Missouri, the entire line does not have to be marked. Or at least there is a case where a marked line was extended. The same can be assumed for Iowa since this is the rule for acquiescence in that state.

The time of possession is less than the statutory period for all the states, but no definite minimum time has been decided. The shortest time found was one day for Arkan-

## Articles (continued)

sas. It is doubted, however, that such a short period of time would be upheld in the other states.

For acquiescence there are no difference except for the statutory period. In Arkansas it is seven years, Iowa ten years, Kansas fifteen years and Oklahoma fifteen years. In Missouri the courts have not set a time period. They use the rule "long enough to evidence mutual acceptance of the dividing line—and this will depend on the circumstances of each case."

We have just spent considerable time discussing parol agreement and acquiescence. Why? What are the surveyor's responsibilities concerning these agreements. It has been often stated "The surveyor locates record title and shows any discrepancy between this line and possession. He does not make decisions concerning ownership." This is a pretty safe statement. Unwritten agreements are dependent on what people said, what was in their minds, and their actions. Not just the facts on the ground and what is a matter of record. Also, agreements frequently involve previous owners on both sides of the posses-

sion line. How is the surveyor going to obtain all of this information? Hold court in the field or in his office? And under what authority? Numerous judges have stated, without exception, what they want from the surveyor is the location of record title and they will decide which line is ownership.

Actually, there are some very good reasons why you as a surveyor should have at least some knowledge of parol agreement and acquiescence as well as adverse possession. You are usually the first person to discover a conflict between record title and possession and hence the possibility of ownership coinciding with possession. You must, as a minimum, inform your client of this possibility. The lack of such notice could mislead the client into a false sense of dependence on the surveyed line and the removal of encroachments. This is particularly true since so much of the public believe that what is surveyed is what they own. In addition to such notice, the client should be advised that if he wishes to assert his right to record title, in the case of encroachment,

or to possession, when encroaching on another, legal counsel should be sought.

Locating record title and showing any discrepancy with possession is a good statement as far as it goes. But maybe it just doesn't go far enough. When you locate record title for a client what does he have? Really all he has is just a professional opinion. The courts have a very high regard for your professional opinion, but still that's all that is is—an opinion. Your opinion, or if you like, your survey, is not binding on either your client or the adjoiner.

In so many instances the ascertainment of record title is difficult. Reliable evidence is meager with many assumptions having to be made. A survey by another competent surveyor might very well result in yet another line. And here in the middle of all of this sets a possession line that, in the case of parol agreement and acquiescence, everybody has been happy with, or at least not concerned about.

Let's consider an alternative. Suppose you as a knowledgeable surveyor suspect the probability of parol agreement or acquiescence. Precise location of record title is doubtful or extensive survey work at considerable expense to the client is required. You approach your client with the possibility of agreeing to the possession line and getting the adjoiner to do the same (he probably agrees anyway). You monument and describe the line. Then your client and adjoiner exchange quick claim deeds.

Now, what do we have? Record title, possession and ownership all in agreement with no litigation. And what does your client have? A peaceful and definite solution to his boundary problem. A solution that he can rely upon, and in all probability at less expense.

This may not be the solution to every boundary problem involving possession, but it is a possibility that should be considered. And the more knowledgeable you are about parol agreement and acquiescence the better you can advise your client. Maybe we as surveyors need to concentrate more on solving boundary problems—not just finding them. After all, we are in the

(Continued on page 29)

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# Equipment Corner

by Reily Smith

You will find the results of the last poll on computers on the following page. As you can see, quite a few brands are being used. I'm sorry I did not ask the respondents to specify the model number.

The following computer related publications were recommended. (No addresses were given)

1. H/P
2. Survey Calculations Journal
3. P.O.B.
4. Byte
5. PPC Calculator Journal
6. Dr. Dobbs Journal
7. Micro Systems
8. Access
9. Interface Age (catalogue)
10. Portable Companion
11. Keith Houseman Newsletter

The most interesting comments were from surveyors who only ran one to three crews and said they

could not do business without their computers! I guess the time is approaching for some of us to come out of the cave! As you know these machines are revolutionizing drafting, office record keeping, photogrammetric compiling, field data gathering, office computations, etc. What is it going to be like in a few years when we all have "black boxes" for satellite location?

Some of the questions you should ask yourself before buying a computer are:

1. Exactly what do you want the computer to do for you?
2. How much time savings will it take to justify the expenditure and will the machine you are looking at do this.
3. How much time do you have to do your own programming?
4. Consider potential obsolescence.

5. Availability and compatibility of software and hardware.

The next Equipment Corner poll will be on equipment suppliers. The dozen, or so suppliers are competing for a fairly small market. As you know, the more service they offer, the higher their prices have to be to cover it. I'm hoping the poll will give the suppliers some feedback and maybe help some unhappy surveyors find a new supplier. My supplier told me that he feels the only way he can have an unhappy customer is if he doesn't know about him!

I am running out of ideas and time for the Equipment Corner article. If one of you has some fresh ideas and a little time I would be happy to assist you in doing the next article. Please write, or phone some evening at (805) 871-9491.

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# Equipment Corner's Computer Questionnaire Results

BRAND OF COMPUTER	NUMBER OF RESPONSES	RECOMMEND		PERIPHERAL SOFTWARE	PERIPHERAL HARDWARE	COST EFFICIENT		AVERAGE NUMBER OF EMPLOYEES IN FIRM	SPECIAL HELPFUL FEATURES
		YES	NO			YES	NO		
HP41-CV	8	8	0	Garner 1A & 1B Ram Survey packs, R.P.N., card reader	Module appl., printer Sup-r-rom, 1-L looping printer	7	0	8	Portable, ease in adaptabilities price, strong program for field use
HP41-C	4	3	0	Software in EPROM Garner IC Survey System	Printer,	4	0	11	Reliable, portable, inexpensive overall capability, very flexible, battery operated
HP (did not specify model)	3	3	0	Auto Contour plot	(Excellent)	3	0	14	Little down time
HP 86B	1	1	0	Lewis & Lewis package		1	0	14	Ease in adaptabilities
HP 85B	1	1	0	HP Vol. C Software allows plotting coordinates	Dual disk drive, printer, plotte, large HP pen plotter	1	0	10	
HP 9815A	1	1	0			1	0	small	Provides handy point storage for all jobs by file no. for easy retrieval
HP 9815S	1	1	0	HP Vol. 2 and 1		1	0	35	Compact
Morrow Designs	2	2	0	Good software, Sierra Cybernetics-Survey Programs	Reasonable price	2	0	7	No fan noise, low cost, fast, will do other work i.e. work processing, accounting, etc.
Cromemco (did not specify model)	1	1	0	has written own software	Houston instrument plotter CPS 14-S	1	0	1	Very reliable, good basic & excellent Fortran IV, fast
Cromemco Z-2D (built from kit)	1	1	0	CP/M 2.2 Operating system, bank memory, wrote own soft- ware for field & office		1	0	6	Good quality equipment, reliable, had for 7 years, no serious problems
North Star	2	2	0	Sierra Cybernetics, spell binder word processing Micro source Autoscribe	Diablo printer	2	0	6	It has good language, expandable memory & software is excellent
Apple IIE	1	1	0	1200 points per job Multiple line display	Dot Matrix print out	1	0	35	Starplot & Benchmark will plot on dot-matrix printer
Apple II	1	1	0			1	0	4	Versatile, Benchmark has written a great set of cogo programs
Franklin 1000	1	1	0			1	0	4	Versatile—close second to Survey 31
Survey 31	1	1	0			1	0	4	Easy to use
Wang	1	1	0	Survey packs		1	0	small	Portable with a strong program for field use
Sierra Cybernetics Pioneer	1	1	0	Supplied by Sierra Cybernetics		1	0	1	Was built by a surveyor for surveyors
IBM	1	1	0	Plotter, color graphics		1	0	5	Speed — storage
Sanyo MBC 1000	1	1	0	Disco-Tech "Survey 80" used w/EPSON MX100 for print plotting		1	0	7	The basic CP/M machine is economical and capable of all office requirements including surveying, engineering, word processing and accounting
Radio Shack PC-3	1	1	0	Surveyor program from Pocket Info Corp.		1	0	1	Can fit in pocket or with printer on clip board—basic language, easy to write new programs for unique problems
TRS-80 Model III	1	1	0	Disco-Tech Software Radio Shed surveying software	Printer-Plotter	0	1	5	Peripherals are generally less expensive
Osborne I	1	0	1	Word Star, Supercalc, D base II		1	0	5	Low cost-portable

# Of Interest

## GOVERNMENT AFFAIRS REPORT

### Senate Clarifies Surveying and Mapping In Brooks Bill

All federal agencies should be using the Brooks Bill method of procurement of surveying and mapping services as a result of a colloquy on the floor of the United States Senate between Senators Charles Percy (R-IL) and William Cohen (R-ME). The senators' remarks came on November 11 during consideration of S.338, the Competition in Contracting Act.

Sen. Percy noted that S.338 continues to recognize the traditional method of procurement for architect and engineer services. He further noted that the General Accounting Office has issued several "overly restrictive" interpretations that surveying and mapping services are not included in the Brooks Bill. Finally, the Illinois Republican pointed out that the Supplemental Appropriation bill (PL98-63) contained language authorizing use of the Brooks Bill for surveying and mapping procurement by the Corps of Engineers. Sen. Cohen, sponsor of S.338 and chairman of the senate subcommittee with jurisdiction over procurement legislation, replied that the appropriations language "does not only apply to the Corps of Engineers, but to all Government procuring agencies."

### National Surveyors Week Passes House: Goes To President

The resolution authorizing the President to proclaim March 11-17, 1984 as "National Surveyors Week" passed the U.S. House of Representatives on November 17 and has been sent to President Reagan for his signature. The House action came after more than 218 members of Congress cosponsored the resolution authored by Rep. G. William Whitehurst (R-VA). An identical measure, introduced by Sen. Strom Thurmond (R-SC), passed the Senate earlier this year.

On November 30, 1983, President Reagan signed Public Law 98-182, a resolution authorizing the designation of March 11-17, 1984 as "National Surveyors Week."

This observance, which was moved through Congress as a result of the efforts of scores of NSPS members, as well as many of your organization's members. For your efforts and those of your members, we are grateful.

President Reagan's signing of this resolution is just the beginning of our "National Surveyors Week" activities. I believe this observance provides our profession with an opportunity to tell the public and other professionals just what surveying, in all its disciplines, is all about.

Congratulations and thanks to P. Porcher "Shav" Gregg for his leadership in coordinating efforts to secure the needed cosponsors, and to the scores of ACSM members who contacted their Representatives and Senators urging support for the resolutions. Enclosed is a final list of those members of the U.S. House and Senate in each state who cosponsored the resolutions. Please write the members of your state Congressional delegation who appear on this list and thank them for their support. Finally, every surveyor should start planning now to promote National Surveyors Week activities in his or her firm, agency or community.

### President Signs Surveyor's Surface Mining Act Amendment

President Reagan, on November 4, signed into law the 1984 Interior Appropriations Bill (PL98-146), which includes the amendment offered by Sen. Robert Byrd (D-WV) to reinstate land surveyors as lead professionals in the Surface Mining Act. States with approved surface mining programs must now revise their regulations to reflect this change in Federal law.

### Forest Service Adopts ACSM-ASP Changes to Small Tracts Rules

The U.S. Forest Service will soon issue final regulations implementing the "Small Tracts Act" (PL97-465), which authorizes the

Secretary of Agriculture to convey small tracts of Forest Service land involved in boundary disputes. ACSM-ASP has learned these final rules will include several revisions suggested by the societies, including the recording of conveyance documents in state or local land offices, use of licensed surveyors or Forest Service surveyors for any needed resurveys, and compliance with state survey law in the resurvey of lands to be conveyed. The final regulations are expected to soon be published in the Federal Register.

### BLM SURVEY

The Bureau of Land Management will be conducting a:

1. dependent resurvey of the Range Line and a portion of the subdivisional lines, certain subdivision-of-section lines of Townships 27 South, Ranges 36 and 37 East, under Group No. 858, and

2. the independent resurvey of a portion of the township subdivisional lines of Township 27 South, Range 36 East, Mount Diablo Meridian, under Group No. 859, California.

Roger J. Mercer, Cadastral Surveyor, will begin this survey during this field season.

### 1984 NCEE ANNUAL MEETING TO BE HELD IN SAN FRANCISCO

The 1984 Annual meeting of the National Council of Engineering Examiners (NCEE) will be held August 12-15, 1984 at the St. Francis Hotel in San Francisco.

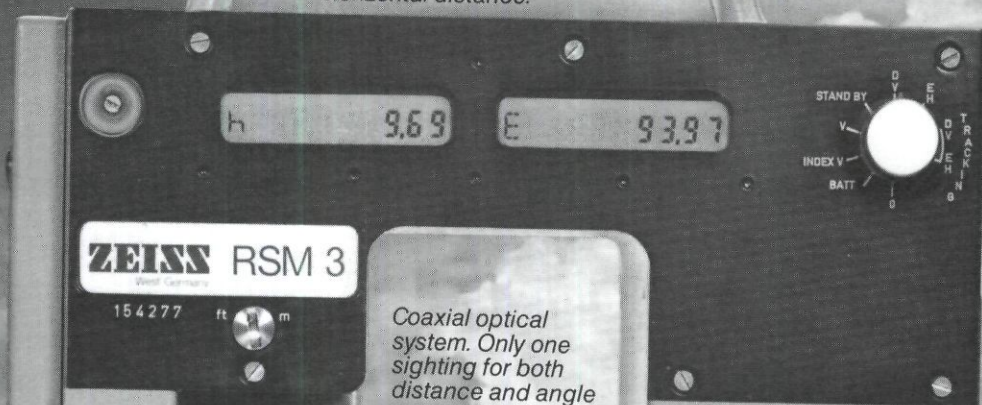
The California State Board of Registration for Professional Engineers and Land Surveyors will be the host Board for this meeting. CLSA will join other engineering societies in sponsoring a dinner for the NCEE Board and guests.

One important item to be discussed at the annual meeting will be the 1984 proposed revised NCEE Model Law, a guide prepared by NCEE for use by its member boards, and the State Legislatures in the interest of promoting uniform laws for the registration of Engineers and Land Surveyors.

(Continued on page 28)

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# New Board Members

## Sharon Reid—Public Member

Sharon Reid has been appointed by the Senate Rules Committee to serve a four year term beginning June 1, 1983.

Ms. Reid began her professional career as a high school English and reading teacher. Before accepting her current position with the San Diego County Department of Public Works, Ms. Reid served as an Executive Assistant to the San Diego County Board of Supervisors. Her present position as Solid Waste Program Manager gives her the responsibility for regional planning and management of the 2.2 million tons of waste generated annually in the county.

Ms. Reid is an active member of the California Solid Waste Forum, American Society for Public Administration, American Public Works Association, Women in Government and various civic committees.



Ms. Reid holds a Masters degree in Education from San Diego State University where she is currently a candidate for a Masters degree in Public Administration.

## Larry Dolson—Public Member

Larry Dolson has been appointed by the Speaker of the Assembly, Willie Brown, to serve a four year term beginning June 1, 1983.

Mr. Dolson is the General Manager of the California Association of Professional Employees, AFL-CIO. This organization represents Engineers, Surveyors and other engineering-related technical classifications in Southern California, primarily in Los Angeles County.

Mr. Dolson holds a Bachelor of Science degree in Industrial Relations from UCLA.

He is a member of the Los Angeles County Employment Training Advisory Council, the Los Angeles County Contracting Advisory Committee, and he is also on the Executive Board of the Los Angeles County Federation of Labor's Council on Political Education.

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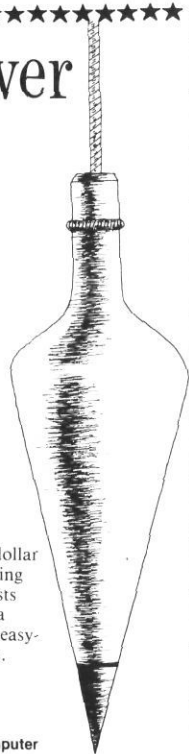
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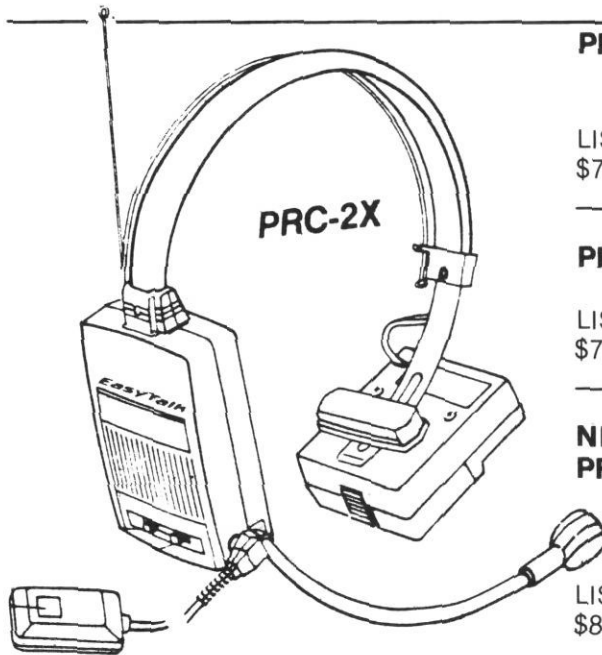
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# Legislative Information

## LEGISLATIVE COUNSEL'S DIGEST OF AB 1789 (ROOS)

An act to amend Sections 6731, 8726, and 8742 of, and to add Sections 6731.1, 6731.2, 8726.1, and 8761.1 to, the Business and Professions Code, relating to engineering and surveying.

AB 1789 (Roos). Civil engineers.

Existing law generally authorizes civil engineers to engage in the practice of land surveying with the same rights and privileges, and the same duties and responsibilities of a licensed land surveyor; however, existing law requires civil engineers who become registered after January 1, 1982, to pass a prescribed examination in order to engage in the practice of land surveying.

This bill would provide instead that civil engineers registered prior to January 1, 1982, shall be authorized to practice land surveying, as specified. The bill would authorize a civil engineer who is not authorized to perform land surveying to offer to practice or procure land surveying work provided all the land surveying work is performed by, or under the direction of, a person authorized to perform land surveying, as specified. The bill would set forth an analogous provision for land surveyors performing civil engineering work, as specified.

Existing law provides that a person who is registered as a civil engineer, among others, is qualified to take the second division of the examination for licensure as a land surveyor.

This bill would require that in order to be qualified for that examination the engineer shall have two years of actual experience in land surveying.

The bill would specifically include activities with respect to the alignment, elevation, or position of fixed works by specific means among those included in the statutory definition of the practice of civil engineering and the practice of land surveying.

The bill would also declare that the authority of a licensed land surveyor or registered civil engineer to prepare, sign, issue, stamp, or seal any map, plat, report, description,

or other document shall be consistent with that person's authority to practice land surveying.

## MESSAGE FROM THE CLSA PRESIDENT

The 1983 legislative session is over. The California Land Surveyors Association successfully sponsored and coordinated passage of several bills which benefit Land Surveyors. We also successfully challenged a particularly destructive bill which would have virtually repealed most of what SB 2 had accomplished.

Earlier this year we were faced with AB 1334 (Baker), which would have authorized all surveying except boundary for post 1982 Civil Engineers. Our first attempt to challenge AB 1334 was to offer alternative compromise legislation. We tried to do this with an amendment of our own SB 2 implementation bill, AB 1789 (Roos). We were told by our author that we could not amend our bill because it would be controversial. Fortunately, during this same period we were working with the State Board of Registration on language we would use to amend AB 1789. The Board agreed to cosponsor our bill and with their help we were able to amend AB 1789 and convince our author that although our bill was controversial, it offered a better solution to the SB 2 implementation issues than did AB 1334. Subsequently, AB 1334 was amended to be identical to AB 1789. Both were chaptered as law in September; AB 1789 (Roos) over AB 1334 (Baker).

It is significant that the Board has taken an active role in supporting this legislation. It appears that in the past, CLSA and CCCE & LS have proceeded with little regard for the Board when pursuing legislation affecting the regulation of civil engineering and land surveying. I feel that it is imperative that we maintain a close working relationship with the Board. We need to actively participate in the interpretation and implementation of AB 1789 and the criteria review now being studied

by the Board.

James W. Crabtree, LS  
President

## OTHER LEGISLATION SPONSORED BY CLSA . . .

The following are measures sponsored and coordinated by CLSA, which have been approved by the Governor during the 1983 legislative session:

### SB427 (Johnson), CHAPTER 150, STATUTES OF 1983

An act to amend Section 101, 130, 205, 6710, 8706, and 8710 of the Business and Professions Code, relating to professional engineers.

### Legislative Counsel's Digest SB 427, Johnson. State Board of Registration for Professional Engineers.

Existing law provides for the State Board of Registration for Professional Engineers, within the Department of Consumer Affairs.

This bill would rename that board the State Board of Registration for Professional Engineers and Land Surveyors.

### SB 258 (L. Green), CHAPTER 469, STATUTES OF 1983

An act to amend the heading of Chapter 10 (commencing with Section 4525) of Division 5 of Title 1 of, and Sections 4525, 4526, 4527, and 4528 of the Government Code, relating to public contracts.

### Legislative Counsel's Digest SB 258, L. Greene, Public contracts: land surveying.

Existing law declares, as a matter of public policy, that contracts negotiated by the state or its political subdivisions for architectural or engineering services must be based on demonstrated competence and professional qualifications for the services required, rather than competitive bidding.

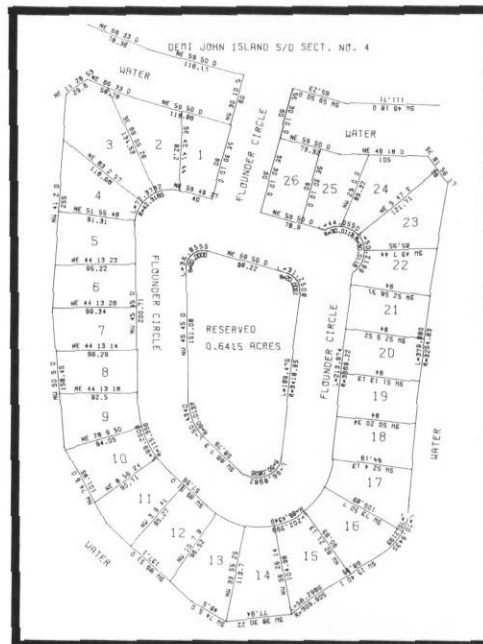
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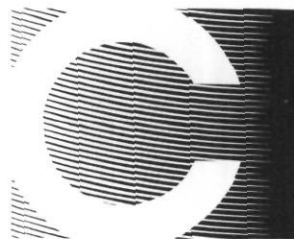
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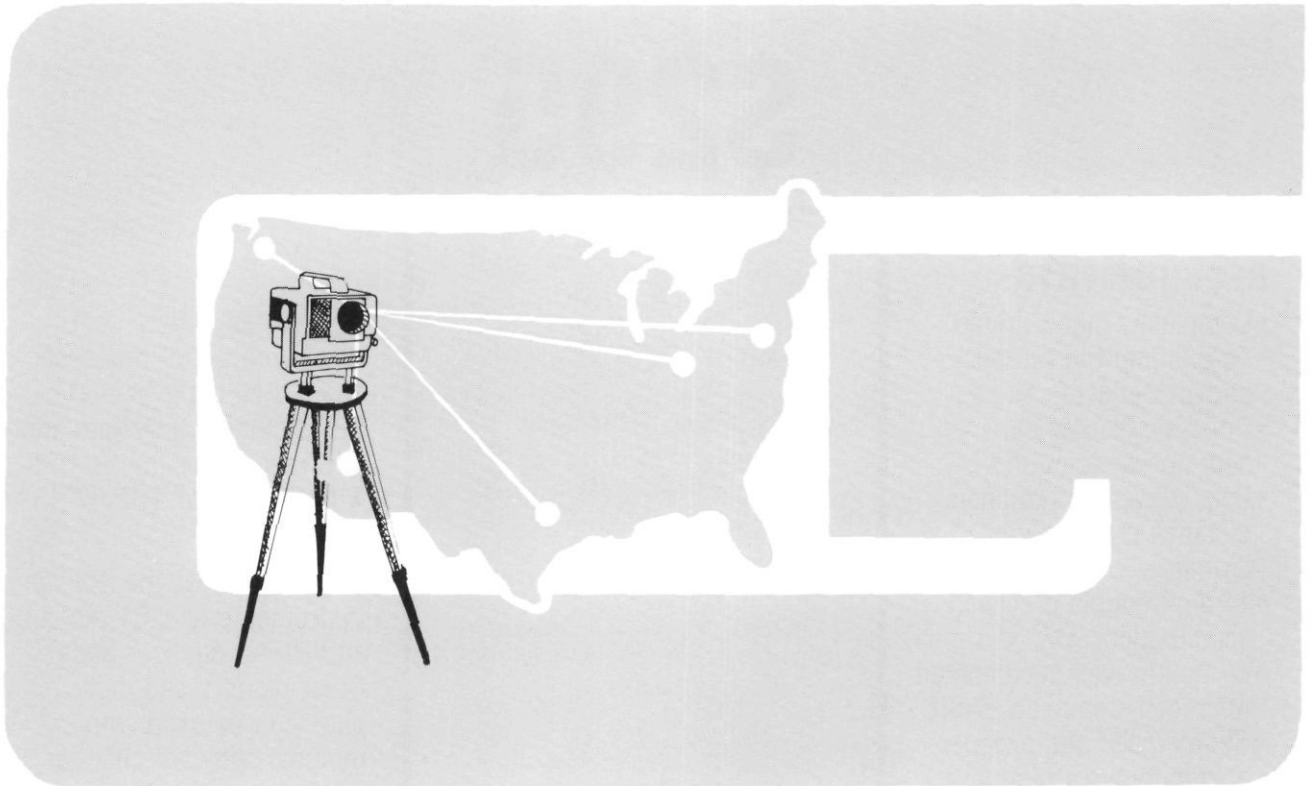
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# News Briefs

## NSPS LONG RANGE GOALS

**NOTE TO STATE AFFILIATES:** Your help is needed in making the goals of NSPS more widely known. Please print these goals in your next publication to your membership.

Promote the policy of the required licensure as a "surveyor." Promote the widest possible acceptance and updating of the "surveyor" profession concept as defined by ACSM in 1969.

Provide leadership and direction for the evolution of surveying from a profession primarily concerned with boundary location to a profession encompassing the broad concept of the documentation of land use, including ownership, location, improvements, zoning, valuation, development and so on.

Strive to achieve the minimum requirement of a bachelor of science degree in surveying for licensure as a "surveyor."

Encourage the establishment of regional surveying centers to edu-

cate the professional surveyor.

Assume a leadership role to implement programs to assure the adoption of the modern concept of land data systems and the multiple purpose cadastre.

Advance the evolution of the surveyor's profession in the United States by the formation of professional disciplines within NSPS.

Promote an educational program of professional development so that surveyors now in practice will better serve and protect the public.

Provide leadership for continuing surveillance of the Federal legislative and regulatory process, striving to impact all Federal activity as it regards the surveying profession. □

## STATE BROCHURE REPOSITORY

The Missouri Division of Geology and Land Surveying has agreed to act as a repository for state surveying brochures. Criteria for deposit and withdrawal are:

• Charles Tapley, Secretary of the Board of Governors, has been designated as the liaison between state affiliates and the repository. Individual state societies should provide the Secretary with brochures. The Secretary will submit all materials received to the repository on a regular basis.

• All state surveying brochures submitted will be microfilmed, using a separate microfiche for each state. This makes it possible to retrieve information by state. It also facilitates amending and updating as additional information is provided.

• Anyone wishing to obtain copies of the information on file in the repository should contact:

Jack C. McDermott  
(314) 364-1752

The current charge for copies is 55¢ each, with a \$1.00 minimum. Users will be billed directly. □

(Continued on page 27)



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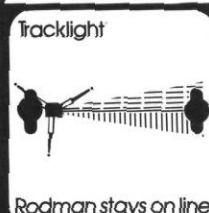
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*Tidal Datum Planes*—This publication describes the criteria and characteristics of different types of tide, how tide observations are conducted and how the different tidal datums are derived. \$3.00 ea.

*Shore and Sea Boundaries* (1962) Reprint 1975—Aaron L. Shalowitz, U.S. Department of Commerce Publication No. 10-1

*Vol. II—The Interpretation and Use of U.S. Coast and Geodetic Survey Data* . . . . . \$11.95 ea.

*Restoration of Lost or Obliterated Corners & Subdivision of Sections*—a guide for surveyors—U.S. Department of Interior, Bureau of Land Management—1974 Edition . . . . . \$ .75 ea

*Metric Practice Guide for Surveying and Mapping*—American Congress on Surveying and Mapping. This Metric Practice Guide has been prepared to aid those engaged in surveying and mapping in the use of the International System of Units (SI) in accordance with recommendations contained in the Metric Conversion Act of 1975, Public Law 94-168. \$1.50 ea.

## Proprietors Council

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# News Briefs

## VOLUME TRACES HISTORY OF SURVEYING

A new volume from the Bureau of Land Management traces 200 years of surveying in the United States. *A History of the Rectangular Survey System* provides surveyors, historians, land use specialists, and attorneys with a reference to rules and regulations governing public land surveys, as well as the laws upon which they are based. It is especially beneficial to the legal community for research and for contemporary decision making, understanding, and judgements in land disputes.

The history begins with political, social, and economic events (such as the English colonization of America, land tenure systems, and the Revolutionary War) that led to the first land ordinance in 1785. It continues with the development of the rectangular system of surveys over a period of 60 years, from 1785 to 1849. The next section traces the period between 1849 and 1910 when Congress established the Department of the Interior and placed the General Land Office under its jurisdiction. The final period covered begins with the organization of the General Land Office under the direct system of surveying in 1910 to the closing of the Office in 1946.

The volume also includes a list of the Commissioners of the General Land Office, Surveyors General of the public lands of each State, Illustrations of original survey maps, diagrams, and an appendix containing the original *Instructions to the Deputy Surveyors*, circulars, important letters, and pertinent parts of the *Manuals of Surveying Instructions*.

The 774-page book, *A History of the Rectangular Survey System*, stock number 024-011-00150-6, is available for \$25. Send prepayment to Dept. 36-CQ, Superintendent of Documents, Washington, DC 20402, or to order by MasterCard or VISA call (202) 783-3238.

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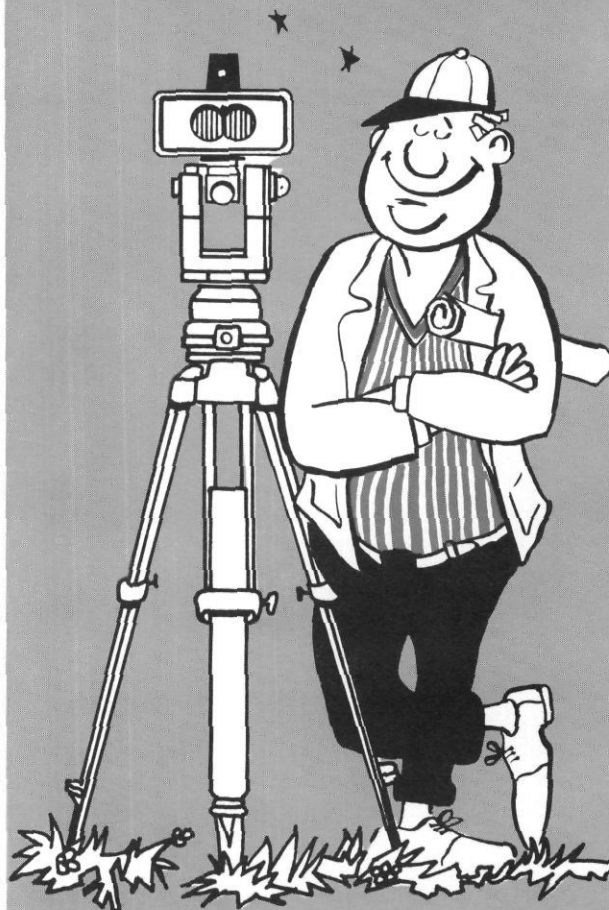
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# Of Interest

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## FILM "THE LAND SURVEYOR"

This film continues to be shown to groups within Iowa; one of the more recent showings being before the Iowa State Association of Assessors and the Institute of Iowa Certified Assessors in Des Moines. It has also traveled recently to the annual Saskatchewan Land Surveyors Association meeting in Canada and the Owens Technical College in Toledo, Ohio. For more information about this film contact:

Donald K. Wall  
Civil Engineering Department  
Iowa State University  
Ames, IA 50011  
(515) 294-6384

## IN MEMORIUM

Robert Paul Hilliard was born March 23, 1942 and died December 21, 1983 in Atascadero, California of pulmonary fibrosis, a rare and debilitating disease.

He is survived by his wife Susan and his three sons: Paul, 16; Tom, 15, and Cory, 11.

Bob Hilliard owned and operated his own surveying company in Atascadero, California for 8 years. Prior to this he had worked for the State of California as a surveyor for 12 years. While working for the state, he obtained his license in Land Surveying.

He was well liked, well respected by his colleagues and it was his determination and thoroughness that caused his quality of work to be evident.

Bob Hilliard as one of Jehovah's Witnesses had as his hope the prospect of being resurrected back to life on earth under better and healthier conditions. In response to this, he continued working as he was able until his death.

## Articles (Continued from page 8)

service business.

Think about it.

—from Arkansas H.I.P.I.,  
March '83

### SURVEYING THE EDUCATION CRISIS: Local Industry Organizations Tackle Problem Head-On

Improving the quality of education is a hot topic in Sacramento today, but when it comes to paying the bill for better education, the willingness to do something seems to disappear. While the politicians argue, two Orange County groups have bitten off a small part of the problem, and are attempting to show what private industry can do to play a leading role in higher education.

The Orange County groups are both local chapters of two large professional organizations in the surveying and civil engineering fields, and their goal is to establish and financially support, Southern California's only comprehensive undergraduate four-year program leading to a degree in Land Surveying.

The California Council of Civil Engineers and Land Surveyors (CCCELS), together with the California Land Surveyors Association, have formed a Joint Education Committee which is hopeful of seeing its program on a major Southern California campus by Fall of 1984.

Negotiations are underway with several major schools and the Education Committee intends to provide the selected school with financial and professional support in establishing and continuing the program, as well as plans for a substantial scholarship program. According to Kevin McHugh of the Jack Raub Co., the Education Committee chairman, over \$10,000 has been committed by the sponsoring organization, and numerous other related groups have expressed an interest in providing financial support. "We are delighted with the initial interest shown in our project, from the educational, industrial and professional communities. The surveying profession plays an integral, foundational part in our society, especially within the construction industry of Southern California, and it is important to the profession, the in-

dustry and the community to ensure a source of well-qualified graduates in the future," noted McHugh.

Surveying is one of the oldest of all professions, dating back to 1,000 B.C., and such notables from our history as George Washington, Thomas Jefferson and Abraham Lincoln were all survey practitioners. While the art of surveying is a quiet, subtle and "behind the scenes" science, the world as we know it today would not exist without it. From navigation to drawing maps, constructing roads or building houses, surveying is an absolute necessity.

Today, surveying courses are integrated into civil engineering programs in most universities, but McHugh explains that, "with the growth in technology and subsequent growth of critical courses in both fields, it has become necessary to develop a separate program to ensure proper training in both disciplines."

Students interested in scholarship information and any interested parties or organizations may obtain further information by contacting Kevin McHugh at the Jack Raub Co. in Mission Viejo.

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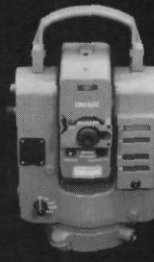
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# Proprietors Council

The California Land Surveyors' Association has established a PROPRIETOR'S COUNCIL, designed to meet the needs of the private surveying practitioner by providing business education, specialized services and State and Local influence on regulatory agencies.

Among the benefits derived from the PROPRIETOR'S COUNCIL will be a monthly newsletter, modeled upon the needs of the proprietor. This letter is to cover information such as liability, ethics, finance, credit, tax benefits, client relations, business practices, billings, economic trends, contractual practices, accounting, legal, collections, etc.

Specialty speakers such as attorneys, accountants, business consultants, insurance consultants, investment consultants, corporation tax consultants, etc. will be available at quarterly meetings and at training workshops.

Benefits of the PROPRIETOR'S COUNCIL, other than the monthly newsletters and workshops already mentioned, are anticipated to be: Create standard work order form; set up Bureau of Land Management account; provide a collection service, monitor and lobby for professional business legislation; publish or purchase copies of the Land Surveyors Act; develop a group health program; examine and analyze software of various computers; allow group purchase; advertise used equipment; monitor employment situations; create a hotsheet; provide local liaison or monitoring of regional or local problems by chapters; develop standard

of procedures; develop standards of accuracy; provide lobby for local or regional agencies; provide liaison with the Board of Registration regarding disciplinary proceedings; provide accounting consultants, legal consultants, and tax consultants; monitor case law; and many other services as the membership may from time to time direct.

The initiation fee is \$100 and the monthly dues are \$10. Each member will be assigned to one of five regional chapters in the State, by preference. These chapters will have at least one quarterly meeting and one general yearly meeting. The meetings will normally be conducted on a Saturday so that a brief business discussion can be followed with intensive training by specialist in areas of interest. The chapter's representatives shall preside at the meeting and shall constitute one of the five member Board of Directors, which conducts the business of the PROPRIETOR'S COUNCIL. A paid Executive Secretary will execute the direction of the Board.

If you are not a member of CLSA and would like a complimentary copy of this first newsletter, or if you are a member and did not receive your copy, write to CLSA CENTRAL OFFICE, P.O. Box 9098, Santa Rosa, CA 95405.

In order to become a member of the PROPRIETOR'S COUNCIL, fill out the enclosed form, submit the initiation fee and first year's dues for 1984, and return to the address provided on the membership application form. You will be contacted within a short time as to your chapter meeting location.

## GIVE YOUR EMPLOYEES AN EXTRA CHECK THIS MONTH.

Help your employees fight the Silent Killer—High Blood Pressure. Start a blood pressure checkup program at your workplace.

Please send me a copy of "HIGH BLOOD PRESSURE: DETECTION AND CONTROL AT THE WORKPLACE!"

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Company \_\_\_\_\_

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City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Mail to: Gerald J. Wilson, Director, Field Office, Citizens For The Treatment Of High Blood Pressure, Inc., 1140 Connecticut Avenue, N.W., Suite 604, Washington, D.C. 20036

**HIGH BLOOD PRESSURE**  
WHAT YOU DON'T KNOW ABOUT IT CAN KILL YOU



A Public Service of Citizens For The Treatment Of High Blood Pressure, Inc., National Hypertension Association and this magazine.

## Surveyor Software

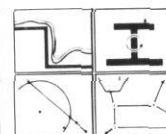
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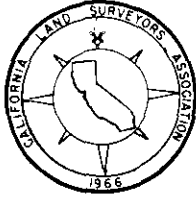
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### PROPRIETOR'S COUNCIL Membership Application

#### I. CLSA CORPORATE MEMBER

Name \_\_\_\_\_ Telephone (\_\_\_\_) \_\_\_\_\_  
 Address \_\_\_\_\_ License No. \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 CLSA Chapter \_\_\_\_\_  
 Sponsor's Signature \_\_\_\_\_

#### II. FIRM

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_  
 Telephone (\_\_\_\_) \_\_\_\_\_  
 County \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_

#### III. DUES

Initial Membership Charge \$100.00  
 1984 Dues/\$120.00/year \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  
 Check Enclosed       Bill my Master Charge  
 Please bill me       Bill my Visa  
 Credit Card No. \_\_\_\_\_  
 Exp. Date \_\_\_\_\_ Signature \_\_\_\_\_

\*First year's annual dues are prorated from the date of application.

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