# HOOSIER SURVEYOR



QUARTERLY PUBLICATION OF THE INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, INC.

VOLUME 13 NUMBER 2 SUMMER 1986



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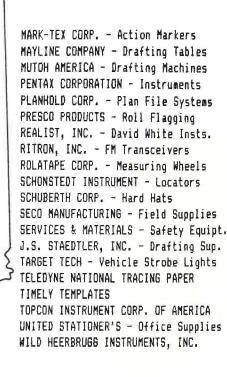




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**VOLUME 13, NUMBER 2, SUMMER 1986** 

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Deadlines for copy for various planned issues of the HOOSIER SURVEYOR are as

Winter issue - January 31 Summer issue - July 31 Spring issue - April 30 Fall issue -October 31. The HOOSIER SURVEYOR is composed and reproduced by Marbaugh Engineering Supply Co., Inc., Indianapolis, IN.

The HOOSIER SURVEYOR is published quarterly by the INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS, to inform land surveyors and related professions, government officials, educational institutions, libraries, contractors, suppliers, and associated businesses and industries about land surveying affairs. 5355 E. 38th Street, Suite 209 Editorial/Advertising Offices:

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Advertising rates, closing dates, circulation data on request. Contributed articles, photographs subject to space limitations. **Gary Kent** 

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PRESIDENT'S MESSAGE

Dear Fellow Surveyors:

I am now eight months into my term of office and I find myself thinking about what the Society is doing for you, the Professional Land Surveyor.

In May of this year I attended a public hearing of the Indiana Board of Registration for Professional Engineers and Land Surveyors along with the following I.S.P.L.S. Representatives:

Robert Bigelow, Immediate Past President of I.S.P.L.S. Jake Hall, Chairman of the Governmental Affairs Committee

Don Bengel, President Elect

Wes Day, Chairman of the Registration Board Liaison Committee

Dan Pusey, Secretary of I.S.P.L.S.

We were there to represent you and the future of your profession.

At that meeting we supported the Registration Board's proposed amendments to their rules of which would require a four year degree and a subsequent four years of experience to sit for the L.S. Exam or twelve credit hours of college math, eight credit hours of college science and twelve credit hours of college surveying courses along with seven years of experience in land surveying to sit for the L.S. Exam.

Through the efforts of your Fellow members present at that public hearing and the efforts of Luther Condre, the professional land surveyor member of the Registration Board, the above amendments were passed and will become effective January 1, 1988.

There were also other amendments to the rules that were passed at the public hearing that may have an effect on the way you operate your business. These rule changes will be discussed at the next annual convention in January of 1987. I would urge you to be there.

There are many other activities going on which concern your interests and your profession.

President's Message (continued on page 22)

#### PURDUE'S PROFESSOR McENTYRE RETIRES

Professor John G. McEntyre was honored this past spring by colleagues, students and many others in the surveying profession upon his retirement after 40 years of teaching. Both at a special retirement dinner on April 16th and at the 14th annual Student Recognition Banquet on the 19th, John was praised for his tireless dedication and professionalism by a variety of local, state and national leaders in the surveying profession.

John McEntyre is best known in Indiana for his efforts and work in the Purdue Land Surveying program; however, he is also past chairman of the former Land Surveys Division of ACSM and has received numerous awards for his work on a national level. He continues to be active at all levels of the profession, from the Purdue Student Chapter to the American Congress on Surveying and Mapping. Dr. McEntyre was named the first "President Emeritus" of the National Society for Professional Surveyors this past March at the ACSM Spring Convention in Washington, D.C.

Among the awards received this spring were an appointment as Honorary Deputy U.S. Land Surveyor by Bernard Hostrop, Chief of the Division of the U.S. Cadastral Survey and a plaque from the Indiana State Board of Registration in appreciation of his many years work in preparing the L.S. exam in Indiana. Former NSPS President John Thalacker made

the presentation in which Professor McEntyre was named "President Emeritus". The Purdue Land Surveying Program alumni presented the retiring professor with a set of four paintings depicting the evolution of the American Land Surveyor.

In addition to the accomplishments already listed, Dr. McEntyre authored a texbook LAND SURVEY SYSTEMS, spent 4 years serving as a technical consultant to the Afghanistan Cadastral Survey (1963-1967) and is a past president of the Kansas section of the American Society of Civil Engineers and the Indiana Society of Professional Land Surveyors.

We all wish John the best in his retirement, but hope to see him continue to give his welcome assistance to those of us still fighting the battles.



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#### **SURVEYORS IN PRIVATE PRACTICE**

"Surveyors in Private Practice" was born in Evansville at the 1986 Annual Convention. We are a small group with big ideas and high ideals. We hope to become a majority voice that condemns unfair competition in the surveying profession.

Whenever the subject of public officials using their offices for private gain is discussed, someone invariably counters with the question "Who's your quarrel with?" and dismisses it as jealousy or a personality conflict. Well, that is not the issue. It is a question of ethics and honesty and although the small business practicioner may be harmed the most, unfair competion is causing problems for our entire profession.

Here in southeastern Indiana, it is a common misconception that the County Surveyor must do all the private work in his county, be he Registered or not. Perhaps this is the reason that many people do recognize us as professionals. They reason that anyone, Registered or not, can become the County Surveyor and do Land Surveying. Every County Surveyor who doubles as a private surveyor perpetuates this misconception by the public. We need to educate the public about the business of the private Land Surveyor.

For the benefit of those lucky few who don't know a problem exists, we would like to list some of the ways in which a County Surveyor can abuse his office. We are not saying that all County Surveyos do these things nor are they the only public officials abusing their positions, as State Highway Department employees are also doubling as private surveyors. A County Surveyor can get free deed research and copies of documents. He can use the County vehicles, employees and equipment to perform private work He can use the courthouse for his private office, giving him free utilities and telephone service. He can use the County Planning Commission to monopolize the private work or to veto the plans of his competition. He can criticize or reject the plats of his competitors for trivial reasons. He can revise the official corner record book to conform with his own private surveys.

A recent newspaper article out of Vincennes, Indiana described ghost employment and theft by some public employees. In this case fifteen indictments were handed down against five individuals employed by the Vincennes sewer and parks departments. Among the charges were multiple counts of ghost employment and theft as related to misuse of public funds. It was alleged that the individuals involved had used public employees and funds to paint their homes, roof their houses, build fences and cut down trees.

Are State Highway employees and County Surveyors who abuse their positions any less guilty? Do we wish to condone this type of activity with our silence?

"Surveyors in Private Practice" would like to see this problem resolved within the profession, not in the courts. We believe that there is enough work in every county to keep a full-time and adequately compensated County Surveyor and at least one deputy. Corner perpetuation programs are nonexistent in many counties and county highway departments need professional help with drainage and other problems. If County Surveyors were given a salary commensurate with their legal duties and completely removed from private practice, everyone would benefit.

A public official using public facilities has virtually no overhead and can offer private services at a fee near the cost level of totally private competition. This causes the private surveyor's fee schedule to appear unreasonable to the public. How can the private surveyor hire a land surveying graduate at \$20,000 per year, when he can't earn that much himself? How can he continue to purchase the newest technology and amortize his equipment investment? Perhaps, he thinks that he cannot afford to support ISPLS and attend the annual convention and continuing education programs. It was mentioned at Evansville that ISPLS membership has dropped and that enrollment in Purdue's Land Surveying program has declined. We believe there is some correlation between these two facts and the problem outlined above. No other profession has such widespread unfair competition, where our tax dollars support the competition. How can we encourage young people to enter a profession in which opportunity is limited by political chance? This is entirely contradictory to free enterprise.

We believe that Indiana surveyors are basically an honest group and that ISPLS members are generally in favor of removing public officials from private practice and ending unfair competition. However, since this issue generates so much controversy and since many ISPLS members are also County Surveyors, we feel that a separate organization or subgroup within ISPLS, "Surveyors in Private Practice", can better address this problem. Anyone who is totlally in private practice and interested in attending an organizational meeting, please contact us:

Surveyor in Private Practice c/o Ray Redelman, L>S> RR # 2, Box 301-A Brookville, Indiana 47012 317/647-5077

Editor's note: Surveyor's in Private Practice is not affiliated with the Indiana Society of Professional Land Surveyors, Inc.

#### **ISPLS CHAPTERS NEWS**

#### **CENTRAL INDIANA**

The Central Indiana Chapter of ISPLS recently elected new officers. The Chapter is now being directed by President Doug Herendeen, Vice-President Rick Miller, Secretary Bill Luecht, Treasurer Terry Miller and Directors Doug Lechner, Don Borches and Art Kaser. At the last chapter meeting, Wes Day and Carl Anderson of the ISPLS Standards Committee spoke on the new Surveying Standards. The meeting was attended by about thirty five Central Indiana surveyors and technicians. The previous meeting featured Mr. Tom Pugh of the local SCS Office and the next meeting, scheduled for September 24th, will be a tour of the newly renovated Johnson County Courthouse.

#### **TECUMSEH**

In recent months, Tecumseh Chapter of ISPLS has met a number of times. Programs have featured a presentation by the White River Park Commission and a special emphasis on the Tria Star ACSM-NSPS program. Tecumseh Chapter prepared a slide program for use with Trig Star and members sponsored Trig Star competitions at all of the local high schools. Trig Star Committee, headed

by Rodger Durham is to be commended for a fine effort in promoting the surveying profession though Trig Star.

Additional activities in the Tecumseh Chapter area have included an EDM Baseline established in a project by the Purdue Student Chapter. Current officers of the Tecumseh Chapter include President John DeMais, Vice President Steve Murray and Secretary-Treasurer Bob Gross.

#### **NORTHWEST**

The Northwest Chapter of ISPLS recently sponsored a "Surveyor's Week" display at the Valparaiso Public Library for the third year in a row. Members Rich Hudson and ISPLS President Elect Don Bengel assisted in the booth.



(Photo by Post Tribune — Gary, Indiana)

#### PURDUE SURVEYING SCHOLARSHIP AWARDED

On April 19th, the Purdue Land Surveying program held its 14th annual recognition banquet in Lafayette. ISPLS sponsored a \$500 scholarship awarded to junior Jess Gwinn of Indianapolis. The banquet enjoyed a higher than usual level of interest and attendence this year due to the retirement of Dr. John McEntyre.

#### **VINCENNES STUDENTS RECEIVE AWARDS**

This past spring, two Vincennes University Students were awarded \$500 scholarships to assist in pursuing their study of Surveying Technology at VU. Professor of Surveying Technology Art Haase presented a \$500 ISPLS Scholarship check to Freshman Marty James, a 1985 graduate of Eastern Greene County High School and The Friends of Surveying Technology sponsored \$500 scholarship which was presented to Keriem Taylor of Rockville, Indiana.





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#### BOARD OF REGISTRATION ADOPTS NEW RULES

The Indiana State Board of Registration for Engineers and Land Surveyors adopted far-reaching new board rules this spring. The following is a copy of some of the more important rules changes relating to Land Surveyors, but keep in mind that these are only a portion of the changes. It is recommended that all surveyors obtain a copy of the new rules and study them carefully.

#### 864 IAC 1.1-11-9 Professional reports. statements and testimony

Authority: IC 25-31-1-7; IC 25-31-1-8 Affected: IC 25-31-1-22.1

Sec. 9. The engineer or land surveyor registrant shall be completely objective and truthful in all professional reports, statements, or testimony. He shall include all relevant and pertinent information in such reports, statements, or testimony. Registrant shall not reveal facts, data or confidential information obtained in a professional capacity without the prior consent of the client or employer except as authorized or required by law. (State Board of Registration for Professional Engineers and Land Surveyors; Rule 11, Sec 9; filed Feb 29, 1980, 3:40 pm: 3 IR 635)

#### 864 IAC 1.1-11-26 Professional reputation. other registrants

Authority: IC 25-31-1-7; IC 25-31-1-8 Affected: IC 25-31-1-22.1

Sec. 26. The registrant shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice or employment of other registrants, nor indiscriminately criticize other registrant's work.

#### 864 IAC 1.1-11-18 Public controcts; conflict of interest

Authority: IC 25-31-1-7; IC 25-31-1-8 Affected: IC 25-31-1-22.1

Sec. 18. The engineer or land surveyor registrant shall not solicit or accept an engineering or land surveying professional contract from a governmental body on which a principal or officer of his organization serves as a member. Conversely, registrants serving as members, advisors, or employees of a governmental body or department, who are the principles or employees of a private concern, shall not participate in decisions with respect to professional services offered or provided by said concern to the governmental body which they serve. (State Board of Registration for Professional Engineers and Land Surveyors; Rule 11, Sec 18; filed Feb 29, 1980, 3:40 pm: 3 IR 636)

#### 864 IAC 1.1-2-5 Land surveyors-intraining; education and work experience

Authority: IC 25-31-1-7; IC 25-31-1-8 Affected: IC 25-31-1-12

Sec. 5. SIT. (a) A student enrolled in an approved land surveying gurriculum in the State of Indiana may apply to take the last SIT Examination scheduled to be given, on the campus being attended, prior to the students expected completion of the graduation requirements.

- (b) (a) A graduate from an approved land surveying curriculum may apply for admission to the SIT Examination.
- (c) A graduate from any curriculum other than in (a) and (b) above shall have a period of surveying work experience before admittance to the SIT Examination. The following table is used by the Board for its own guidance in evaluating combined education and experience.
- (b) Effective January 1, 1988, an applicant for registration as an SIT who lacks a degree in an approved land surveying curriculum shall not be deemed to have sufficient special knowledge and skill approximating that required through graduation from an approved land surveying curriculm unless he can show proof that he has acquired the requisite experience together with a minimum level of education whereby he has been credited with the successful completion of (1) at least twelve (12) semester credit hours or the equivalent thereof in college level mathematics which must include calculus and/or differential equations and (2) at least eight (8) semester credit hours or the equivalent thereof in college level physical sciences and (3) at least twelve (12) credit hours or the equivalent thereof in college level fundamentals of land surveying. This minimum level of education must be

combined with proof of no less than three (3) years of the applicant's experience in land surveying meeting the qualitative experience standards of IC 25-31-1-12(d) in order for the applicant to be qualified for registration as an SIT. The total required years of land surveying experience may be reduced by no more than two (2) years upon the board's approval of a reduction in the total required experience time on account of the applicant's successful completion of other acceptable courses integral to the land surveying discipline.

(c) A student enrolled in an approved land surveying curriculum in the State of Indiana may apply to take the last SIT Examination scheduled to be given, on the campus being attended, prior to the students expected completion of the graduation requirements.

#### EDUCATION MINIMUM WORK EXPERIENCE YEARS

Surveying BS, approved	just prior to graduation	
Surveying BS, non-approved (four-years)	1	
BS Civil Engineering ECPD	ţ	
BS Other Engineering ECPD	2	
Bachelor's Degree, in Surveying Technology	2	
Bachelor's Degree, other Engineering non-approved	3	
Bachelor's Degree <del>,</del> non-surveying	4	

Reference: Section 12, Act of 1935, Ch 148 as amended. (IC 1971, 25-31-1-12) (State Board of Registration for Professional Engineers and Land Surveyors; Rule 2, Sec 5. filed Feb 29, 1980, 3:40 pm: 3 IR 628)

#### IAC 1.1-2-3 Land surveyors; education and work experience

Authority: IC 25-31-1-7; IC 25-31-1-8 Affected: IC 25-31-1-12

Sec. 3. Land Surveyor. (a) The following table is used by the board for its own guidance in evaluating combined education and experience to determine if it is sufficient to satisfy minimum registration requirements under IC 25-31-1-12 for land surveyor registration. When in the judgment of the Board the information supplied by the applicant and other information verified by the board indicates that the applicant did not graduate from a land surveying curriculum of at least four years approved by the Board such applicant will be required to submit evidence of more than four years of land surveying experience. Such experience must be of a length and quality to warrant the applicant being placed in responsible charge of land surveying work. The following table is used by the Board for its own quidance in evaluating combined education and experience.

EDUCATION	MINIMUM WORK EXPERIENCE YEARS
EDUCATION	MINIMUM YEARS OF WORK EXPERIENCE
	FOLLOWING

BACHELOR'S DEGREE

2

3

4

Doctorate in land surveying discipline following Bachelor's degree in board approved land surveying curriculum

Master's degree in land surveying discipline following Bachelor's degree in board approved land surveying curriculum

Bachelor's degree in a board approved land surveying curriculum

(b) Effective January 1, 1988, an applicant for registration as a land surveyor who lacks any one of the degrees above listed shall not be deemed to have sufficient special knowledge of mathematics and surveying principles and methods to qualify him to be placed in responsible charge of land surveying work requiring the exercise of judgment in the application of surveying sciences to the sound solution of land surveying problems unless he can show proof that he has acquired the requisite experience together with a minimum level of education whereby he has been credited with the successful completion of (1) at least twelve (12) semester credit hours or the equivalent thereof in college level mathematics which must include calculus and/or differential equations and (2) at least eight (8) semester credit hours or the equivalent thereof in college level physical sciences and (3) at least twelve (12) credit hours or the equivalent thereof in college level fundamentals of land surveying.

This minimum level of education must be combined with proof of no less than seven (7) years of the applicant's experience in land surveying meeting the qualitative experience standards of IC 25-31-12 (b)(2) in order for the applicant to be qualified for registration as a land surveyor. The total required years of land surveying experience may be reduced by no more than two (2) years upon the board's approval of a reduction in the total required experience time on account of the applicant's successful completion of other acceptable courses integral to the land surveying discipline.

4	
Dectorate in Land	
Surveying discipline*	2
Master's Degree, in Land	
Surveying Discipline*	3
Bachelor's Degree, in	
Land Surveying Board	
approved	4
Bachelor's Degree, in Civil	
Engineering ECPD	<b>5</b>
Bachelor's Degree, in Civil	
Engineering; non-ECPD	6
Bachelor's Degree, in	
Surveying Technology	7
Bachelor's Degree, in other	
Engineering ECPD	7
	•
Bachelor's Degree, in other	•
Engineering, non-ECPD	8
Bachelor's Degree in non	
Engineering	10

\*Credit for land Surveying experience based on an advance degree in land surveying will be limited to applicants who have completed a four year curriculum in a Board Approved Land Surveying Curriculum.

It has been the experience of the Board that an applicant who lacks an earned baccalaureate degree has difficulty meeting the requirements of sub-Section 25-31-1-12(b)(2), of the Indiana Registration Acts "Hand surveying education and experience in land surveying work which indicated that the applicant has acquired knowledge and skill and practical experience in land surveying werk approximating that required for reaistration as a professional land surveyor under sub-Section 26-31-1-12(b)(1)." (State Board of Registration for Professional Engineers and Land Surveyors; Rule 2, Sec 3; filed Feb 29, 1980, 3:40 pm: 3 IR 628)

#### ISPLS SUSTAINING MEMBERS 1986-1987

Accu-Air Surveys, Inc. PO Box 63, 1220 "A" Ave., Freeman Field Seymour, Indiana 47274

Harrison Marker and Instrument Company Box 66 Anoka, Minnesota 55303

> Kara Company, Inc. 4400 Riverside Ave. Lyons, Illinois 60534

Hickerson Instrument Co., Inc. 6011 E. 34th Street Indianapolis, Indiana 46226

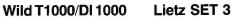
G. Lengeman Company 2314 N. 5th Street PO Box 496 Niles, Michigan 49120

Marbaugh Engineering Supply Co., Inc. 121 W. North Street Indianapolis, Indiana 46204

> Schonstedt Instrument Company 1775 Wiehle Ave. Reston, Virginia 22090

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170 East Kirkham St. Louis. MO 63119



#### NSPS WOMENS FORUM

The July 1986 Newsletter of the ACSM-NSPS Forum for Women in Surveying included numerous articles and commentaries regarding activities and member news. Chair Jocelyn Martin reported on her attendence at the Fig Congress meeting in Toronto in June and commented on the adjustment of the horizontal and vertical datums.

Wendy Straight, Chair of the ACSM Membership Development Committee, asked for members of the Forum to volunteer to attend state affiliate meetings as an ACSM representative to help increase ACSM representation in the surveying community and to give women attending those meetings a chance to meet and ACSM representative.

NSPS has reaffirmed its support for professional advertising standards previously agreed upon. The Forum looks forward to discussion in this regard in Anchorage.



#### MEET THE MEMBERS

Hughart M. Brown has been employed the past 4 years at Metropolitan State College in Denver, Colorado. Originally from Kingston, West Indies, he credits the past Director of Surveys in Jamaica, Orville B. Rogers, as the prime influence in his decision to enter the surveying profession.

Hughart is a graduate of Purdue and is an active Fellow in the Royal Institution of Chartered Surveyors. He is on the local (Denver) committee for the upcoming Urban Regional Information Systems Association conference and counts travel, coin and plate collecting and reading epitaphs on cemetary headstones as hobbies.

Mr. Brown believes ISPLS' primary goal at this time should be to carefully monitor the new survey standards.

(Hughart M. Brown, 1330 Yarrow Street #G-10, Lakewood, Colorado 80215) .

#### CALENDER

September 28 - October 3, 1986 ASPRS-ACSM Fall Convention, Anchorage, Alaska

October 11, 1986 ISPLS Standards Workshop, Plymouth, IN

October 25, 1986 ISPLS Standards Workshop, Indianapolis

November 8, 1986 ISPLS Standards Workshop, Seymour, IN

November 22, 1986 ISPLS Standards Workshop, Princeton, IN

January 14-16, 1987 ISPLS Annual Convention, Purdue University, West Lafayette, IN

# G. Lengemann Company, Inc.

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#### INDIANA - KENTUCKY BOUNDARY DISPUTE RESOLVED

ISPLS Director and Clark County Surveyor Rollyn Blankenbeker reports that this past November, the Indiana Attorney General's Office filed maps of the new Indiana-Kentucky boundary line in the Recorders Offices of thirteen southern Indiana counties. On November 4th, The United States Supreme Court accepted the recommendations of the Special Master assigned in the case which essentially fixes the boundary as the 1792 low watermark on the north side of the River. The exact boundary is identified on a series of maps prepared for that purpose showing the latitude and longitude and state plane coordinates of each angle point in the line. ISPLS member William Kreisle was instrumental in bringing about the successful conclusion of the case and in the preparation of the maps. Former ISPLS President Roger Woodfill also participated in portions of the retracement survey.

In the

#### Supreme Court of the United States

October Term 1985

No. 81, Original

THE COMMONWEALTH OF KENTUCKY, Plaintiff,

V.

THE STATE OF INDIANA,

Defendant.

#### REPORT OF SPECIAL MASTER

ROBERT VAN PELT, United States Senior District Judge Special Master

#### SUPREME COURT OF THE UNITED STATES KENTUCKY v. INDIANA

No. 81, Original Decided \_\_\_\_\_, 198

DECREE

It is ordered, adjudged and decreed that:

- 1. The boundary line between the State of Indiana and the Commonwealth of Kentucky is fixed as geodetically described in Joint Exhibit 50 to the Special Master's Report filed with this Court on \_\_\_\_\_\_\_, 1985. Joint Exhibit 50 is incorporated by reference herein.
- 2. Copies of this Decree, and the Special Master's Report (including Joint Exhibits 1-50, inclusive) shall be filed with the Clerk of this Court, the Archives Division of the Indiana Commission on Public Records of Indiana; and the Secretary of State of the Commonwealth of Kentucky.
- 3. Copies of this Decree, and the Special Master's Report (including Joint Exhibit 50 and paper prints of Joint Exhibits 1-49, inclusive, once they become available) shall be filed with the Office of the County Recorder in each of the following Indiana counties: the counties of Posey, Vanderburgh, Warrick, Spencer, Perry, Crawford, Harrison, Floyd, Clark, Jefferson, Switzerland, Ohio, and Dearborn; and with the County Clerk's Office in the Commonwealth of Kentucky in each of the following Kentucky counties: the counties of Union, Henderson, Daviess, Hancock, Breckinridge, Meade, Hardin, Jefferson, Oldham, Trimble, Carroll, Gallatin, and Boone.
- 4. The State of Indiana and the Commonwealth of Kentucky each have concurrent jurisdiction over the Ohio River.
- 5. The costs of this proceeding shall be divided between the parties as recommended by the Special Master.

#### ACSM NAMES RICHARD F. DORMAN NEW EXECUTIVE DIRECTOR

FALLS CHURCH, VIRGINIA The American Congress on
Surveying and Mapping has
announced the appointment
of Richard F. "Rick"
Dorman, CAE, as its new
Executive Director,
effective July 7th.

Mr. Dorman is a seasoned professional association manager with fifteen yeras experience in not-forprofit organizations. As a volunteer he has held positions from committee chairman to president, as well as founder. As a professional, Mr. Dorman has represented national charities at the local and regional levels. On the national scene he has represented a federation of associations with over 300,000 members.

Mr. Dorman has conducted workshops and seminars for the American Society of Association Executives (ASAE), Greater Washington Society of Association Executives (GWSAE) and other associations on such issues as organizational structure, leadership, motivation, membership recruitment and retention, public and media relations, oral communication and fund raising.

Mr. Dorman's university days were spent at Franklin University in Ohio and he is a graduate of the ASAE/Unicersity of Maryland Executive Development Program. He was awarded the designation of Certified Association Executive (CAE) by the American Society of Association Executives in 1984.

For many years in his native Ohio, Mr. Dorman organized and coached youth and adult sports and was active in local politics. He is the father of two sons and currently resides in Alexandria, Virginia with his wife Ann Marie.



# Interested In Joining Your National Association?...

Complete the form below to receive information about the American Congress on Surveying and Mapping.

n receiving information information to:
Zip
orm to: nip Department falls Street 7irginia 22046 1-2446

# ACSM Professional Surveyor Grade Descriptions



he purpose of these grade descriptions is to enable employers and employees to ascertain an individual's professional grade. The system can also be a helpful tool for encouraging improvement of one's ability to qualify for higher grades and facilitate agreement between the employer and the employee regarding each level of responsibility.

It must be stressed that the grade descriptions are intended to cover the requirements of a wide range of typical organizations, but cannot possibly fit all. Most employers will not have the full range of positions listed.

Descriptions should be considered as typical characteristics of a particular grade, rather than as desirable or minimum requirements. For example, it is expected that in many areas of practice, such as research and development, individuals filling middle or higher level positions would routinely have graduate degrees, though this is not indicated. All descriptive matter should be considered when a position is being evaluated. Literal conformance with every item in the descriptions is not necessary when there is a preponderance of evidence that the person measures up to the intended level of competence and responsibility.

Suitable recognition and salary scales should be provided for the person who selects the technical path for advancement so that this employee may achieve the same or greater professional and economic status as the employee who advances along the management path. The grade descriptions include language applicable to both.

Many positions may require an advanced degree. There also may be cases where individuals holding positions have degrees in certain other closely related fields.

The "suggested compensation" includes a multiplier, "X." "X" is the current annual average starting salary for new surveying graduates for a geographical region.

# ACSM Professional Surveyor Grade Descriptions

0.000(310) 140		a. Garroy	or a rado b	Coorphons				
GENERAL CHARACTERISTICS	SURVEYOR I/II  This is entry level for professional work Performs assignment designed to develop professional work knowledge and abilities, requiring application of standard techniques, procedures, and criteria in carrying out a sequence of related surveying or mapping tasks. Limited exercise of judgment is required on details of work and in making preliminary selection and adaptations of surveying and related mapping alternatives.	criteria, using judgment in making minor adaptations and modifications. Assign- ments have clear and specific objectives and require the investigation of a limited number of variables. Performance at this level requires developmental experience	SURVEYOR IV  As a fully competent surveyor in all conventional aspects, plans and conducts work requiring judgment in the independent evaluation, selection, adaptation, and modification of standard techniques, procedures, and criteria. Devises new approaches to problems encountered. Requires sufficient professional experience to assure competence, or for positions primarily of a research nature, completion of all requirements for a doctoral degree.	Applies specialized and diversified knd surveying principles and practices to broad ai so decisions independently on surveying and mapping problems and methods, and represents the organization in conferences to resolve important questions and to plan and coordinate work. Requires the use of advanced techniques and extension of theories, precepts and practices of his/her field and related sciences and disciplines. The knowledge and expertise required for this level of work usually result from progressive experience. May establish standards.	SURVEYOR VI  Has	SURVEYOR VII  Makes decisions and recommendations that are recognized as authoritative and have an important impact on extensive surveying and mapping activities. Initiates and maintains extensive contacts with key surveyors and officials of other organizations and companies, requiring skill in persuasion and negotiation of critical issues. At this level individuals will have demonstrated creativity, foresight, and mature judgment in anticipating and solving unprecedented surveying or mapping problems, determining program objectives and requirements, organizing programs and projects, and developing standards and guides for diverse surveying and mapping activities. Recommends (or may establish) policy and goals. Establishes objectives.	SURVEYOR VIII  Makes decisions and recommendations that are recognized as authoritative and have a far-reaching impact on extensive surveying or mapping and related activities of the company. Negotiates critical and controversial issues with top level surveyors and officers of other organizations and companies. Individuals at this level demonstrate a high degree of creativity, loresight, and mature judgment in planning, organizing, and guiding extensive programs and activities of outstanding novelty and importance. Establishes policy and long-range goals.	SURVEYOR IX  A surveyor in this level is either (1) in charge of programs so extensive and complex as to require staft and resources of sizeable magnitude (e.g., research and development, a department of government responsible for extensive programs, or the major component of an organization responsible for the surveying or mapping required to meet the objectives of this organization) or (2) is an individual researcher or consultant who is recognized as a national and/or international authority and leader in an area of surveying or mapping science interest and investigations. Establish policy and long-range goals.
DIRECTOR RECEIVED	Supervisor screens assignment for un- usual or difficult problems and selects techniques and procedures to be applied on nonroutine work. Receives close su- pervision on new aspects of assign- ments.	Receives instructions on specific assign- ment objectives, complex features, and possible solution. Assistance is furnish- ed on unusual problems and work is re- viewed for application of sound profes- sional judgment.	Independently performs most assignments with instruction as to the general results expected. Receives technical guidance on unusual or complex problems and supervisory approval on proposed plans for projects.	Supervision and guidance relate largely to overall objectives, critical issues, new concepts and policy matters. Consults with supervisor concerning unusual problems and developments.	Supervision received is essentially administrative with assignments given in terms of broad general objectives and limits.	Supervision received is essentially administrative with assignments given in terms of broad general objectives and limits.	Receives general administrative direction.	
RESPONSIBILITY FOR DIRECTION OF OTHERS	May be assisted by a few aids or technicians.	May supervise or coordinate the work of draftsmen, technicians, and others who assist in specific assignments. Checks for compliance with established standards.	May supervise or coordinate the work of draftsmen, technicians, and others who assist in specific assignments. Checks for compliance with established standards.	Supervises, coordinates, and reviews the work of a staff of professionals, estimates manpower needs and schedules and assigns work to meet completion date. Or, as individual researcher or staff specialist may be assisted on project by other surveyors or technicians. Checks for compliance with standards.	Plans, organizes, and supervises the work of a staff of professionals. Evaluates progress of the staff and results obtained. Recommends major changes to achieve overall objectives. As individual research or staff specialist may be assisted on individual projects by other surveyors or technicians. Checks for compliance with policy.	Directs several subordinate supervisors or team leaders, some of whom are in positions comparable to Surveyor VI, or, as individual researcher and consultant, may be assisted on individual projects by other surveyors and technicians.	Supervises several subordinate supervisors or team leaders, some of whose positions are comparable to Grade VII, or individual researchers, some of whose positions are comparable to Grade VIII. As an individual researcher and consultant may be assisted on individual projects by other surveyors or mapping scientists.	
TYPICAL DUTIES AND RESPONSIBILITIES	Using prescribed methods, performs specific and limited portions of a broader assignment of an experienced surveyor or mapping scientist. Applies standard practices and techniques in specific situations, adjusts and correlates data, recognizes discrepancies in results, and follows operations through a series of related detailed steps or processes.	Performs work which involves conventional types of plans, investigations, surveys, structures, or equipment with relatively few complex leatures for which precedents exist. Assignments usually include one or more of the following: Assembly of specifications, process studies, research investigations, report preparation, and other activities of limited scope requiring knowledge of principles and techniques commonly employed in the specific narrow area of assignments.	Plans, schedules, conducts, or coordinates detailed phases of the work in a part of a major project or in a total project of moderate scope. Performs work which involves conventional surveying and related mapping practices but may include a variety of complex features, such as conflicting coordination requirements. Work requires a broad knowledge of precedents in the specialty area and a good knowledge of principles and practice in other areas. Writes specifications.	One or more of the following: (1) As a supervisor, plans, develops, coordinates, and directs a large and important surveying project or a number of small projects with many complex features. A substantial portion of the work supervised is comparable to that described for Surveyor IV. (2) As individual researcher or worker, carries out complex or novel assignments requiring the development of new or refined equipment, processes products, and/or scientific methods. (3) As staft specialist, develops and evaluates plans and criteria for a variety of projects and activities to be carried out by others. Assesses the leasibility and soundness of proposed evaluation tests, products, or equipment when necessary data are insufficient. Usually performs as staff advisor and consultant as to a technical specialty, or a program function.	One or more of the following: (1) As a supervisor (a) plans, develops, coordinates, and directs a number of large and important projects or a project of major scope and importance, or (b) is responsible for the entire surveying program including related mapping activity, of an organization when the program is of limited complexity and scope. The extent of his/her responsibilities generally requires a few (three to five) subordinate supervisors or team leaders with at least a position comparable to level V. (2) As individual researcher or worker, concleves, plans, and conducts research in problem areas of considerable scope and complexity. The problems must be approached through a series of complete and conceptually related studies, are difficult to deline, require unconventional and novel approaches, and require sophisticated research techniques. Available guides and precedents contain critical gaps, are only partially related to the problem or may be largely tacking due to the novel character of the project. At this level, the individual researcher generally will have contributed inventions, new designs, or lechniques which are of material significance in the solution of important problems. (3) As staff member serves as the technical specialist for the organization (division or company) in the application of advance ties, concepts, principles, and processes for an ass' of responsibility (i.e., subject matter function, type or equipment, or product). Keeps abreast of members of programs or new programs warranted by such developments.	One or both of the following: (1) In a supervisory capacity is responsible for (a) an important segment of the surveying or mapping program of an organization with extensive and diversified engineering requirements, or (b) the entire surveying program of an organization when it is more limited in scope. The overall surveying program contains critical problems. The solution to these problems requires major technological advances and opens the way for extensive related development. The extent of his /her responsibilities generally requires several subordinate organizational segments or teams. Recommends facilities, personnel, and funds, required to carry out programs which are directly related with and directed toward fulfillment of overall organization objectives. (2) As individual researcher and consultant is a recognized leader and authorily in his/her organization in a broad area of specialization or in a narrow but intensely specialized field. Selects research problems to further the organization's objectives. Conceives and plans investigations of broad areas of considerable novelty and importance for which precedents are lacking in areas critical to the overall surveying or mapping program. Is consulted extensively by associates and others with a high degree of reliance placed on his/her scientific interpretations and advice. Typically, will have contributed inventions, new designs, or fechniques which are regarded as major advances in the field.	would represent an advance of great significance and importance. Performs advisory and consulting work	
ALTERNATIVE POSITION TITLES	Junior Surveyor, Surveyor in Training, Assistant Surveyor.	Associate Surveyor, Assistant Surveyor, Inspector,	Surveyor, Resident Surveyor, Research Surveyor, Contract Administrator, Instructor.	Senior or Principal Surveyor Resident, Project, Office, Research, Assistant Division Surveyor, Assistant Pro- fessor, Project Leader.	Senior or Principal Surveyor, Division, District, Regional Assistant, Division, District or Chief Surveyor, Consultant, Associate Professor, <sup>2</sup> City or County Surveyor, Group Leader.	Principal Surveyor, Division or District Manager, Department Manager, Director or Assistant Director of Research, Consultant, Professor, Politinguished Professor, Or Department Head, Assistant Chief or Chief Surveyor, City or County Surveyor,	State Geodesist, Director of State Survey, Chief Surveyor, Bureau Surveyor, Director of Research, Department Head or Dean. County Surveyor, City Surveyor, Senior Fellow, Senior Staff, Senior Advisor, Senior Consultant, Surveying Manager.	Director of Surveying or Mapping, General Manager, Vice President, President, Partner, Dean,*
Bachelor's Degree in Surveying from an Appropriate continuing or graduate edu-cation.  ABET accredited curriculum or equiva-cation.								
EBUCATION	lent.	cation	'Master's Degree (For Academic Postions),		<sup>2</sup> Doctoral Degree (For Academic Positions)			
LICENSURE/REGISTRATION STATUS	Professional in Training.  Licensed Professional				19			
TYPICAL PROFESSIONAL ATTAINMENTS	Belongs to Professional Societies (Associate Grade or equivalent).		Belongs to Professional Society (Member Grade).	Belongs to Professional Society (Member Grade). Pub- lishes papers, articles, textbooks, or makes presenta- tions, gives lectures, provides training, etc.	Belongs to Professional Society (Fellow Grade Eligibility). Publishes papers, articles, textbooks, or makes presentation, gives lectures, provides training, etc.			
FEDERAL GRADES (GS)	5/7	9	11	12	13	14	15	16 Senior Executive Service.
CUMULATIVE PROFESSIONAL EXPERIENCE PRIOR TO ENTRY	0	2	4+	6+	7+	Minimum of one year experience in next lower grade.		
SUGGESTED COMPENSATION	X-1.3X	1.5X-2.0X	1.8X-2.4X	2.2X-2,9X	2.6X-3.4X	3.1X and up.		

(President's Message continued from p. 3)

Jake Hall, chairman of the Governmental Affairs Committee, is working with our lobbyist, Jack Ryan, on establishing legislative priorities for the 1987 General Assembly, some of which are as follows:

Revision of present tort laws in order to decrease the land surveyor's liability.

A four year degree requirement to sit for the L.S.

Enabling legislation to allow the Registration Board to require continuing education.

Right-of-entry law that will allow surveyors the right to cross private lands during the performance of a survey.

Revision of state surface mining law that is in line with the federal law.

Art Haase and his Continuing Education Committee are working hard at planning the four one day work shops for this fall titled THE NEW STANDARDS. Some of the individuals working on this committee are Dave Pilz, Jake Hall, Roger Woodfill, Danny Leek, Carl Anderson, and Wes Day.

Bob Bigelow and his Collegiate Liaison Committee have met with Felix Haas, Vice President at Purdue, Dean Yang, Dean of the Schools of Engineering and Professor Michael, Head of the School of Civil Engineering, and are diligently working to preserve the School of Land Surveying at Purdue University. The different members of this committe are John Schneider, John Beals, Rex Bowman, Brad DeReamer and myself.

Many other committees and your Board of Directors are meeting and working on your behalf so that this profession we work in will continue to grow and prosper.

At the beginning of this message I found myself thinking about what the Society is doing for you and your profession. I have discussed just a few of the activities that are taking place this year.

If you agree with what we are doing please drop me a line and let me know. If you have a complaint, I also want to know.

I now find myself thinking about what you, the Professional Land Surveyor, are doing for the Profession and the Society.

Professionally yours,

Patrick N. Cunningham

#### THANK YOU!!

\*\*\*\*\*\*\*\*

ISPLS Office Secretary Peggy Archer wishes to express her appreciation to all who remembered her during her recent hospitalization, surgery and recovery.

#### 1986-1987 ISPLS BUDGET

(As adopted June 21, 1986)

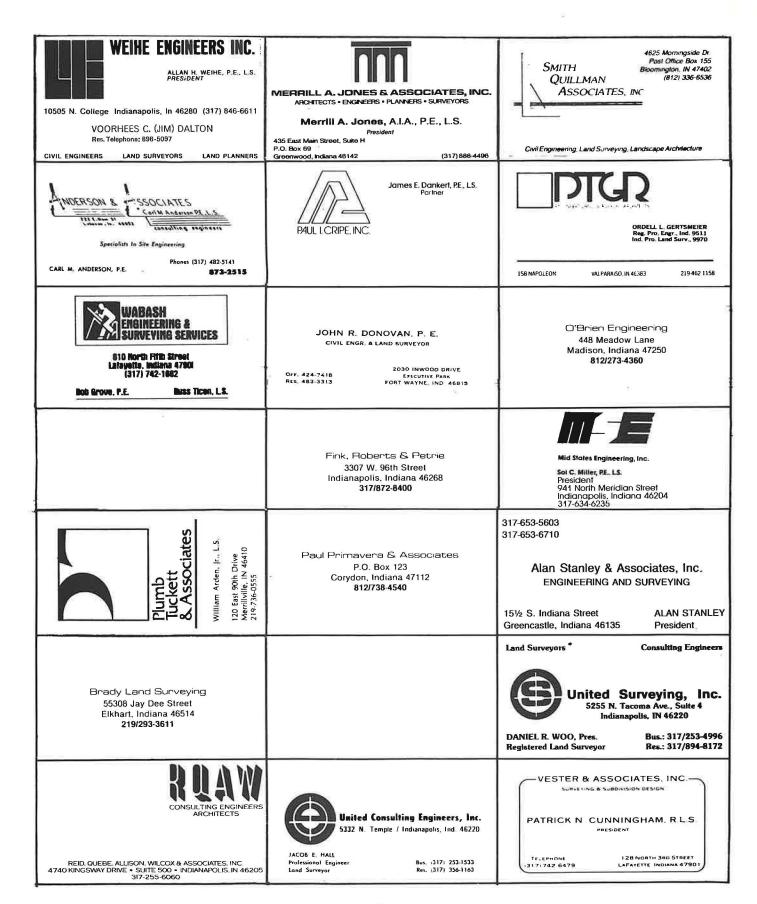


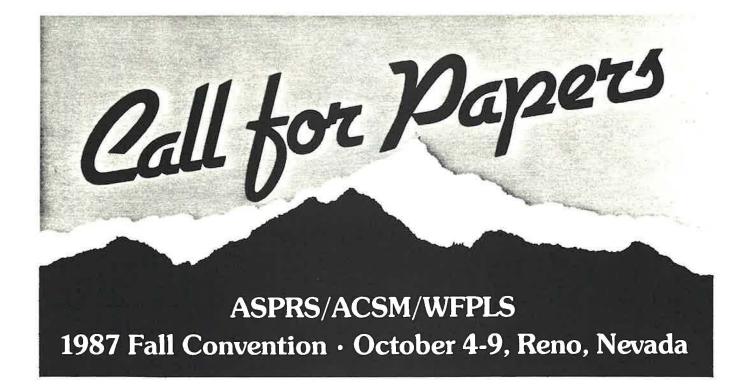
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I-10	Membership-Regular	\$21,000
<b>I-11</b>	Membership-Associate	350
I-12	Membership-Junior	2,400
I-13	Membership-Student	250
I-14	Membership-Firm	3,500
I-15	Membership-Sustaining	1,100
I-20	Advertising	1,060
I-30	Annual Convention	4,000
I-31	Manual Sales	1,500
I-32	Workshops	3,000
I-33	Workshop Book Sales	1,000
I-40	Interest	3,800
		0,000
I-52	Miscellaneous Income	2,000
From re	serves	2,082
Total		47,042
	_	
EXPENSE	5	
S-10	Office Rent	3,300
0-20	Molowhous	3,300

1-52	Miscellaneous Income	2,000
From re	serves	2,082
Total		47,042
EVDENCE		
EXPENSE	5	
S-10	Office Rent	3,300
S-20	Telephone	1,250
S-30	Office Supplies	900
S-40	Postage	1,600
S-50	Office Equipment	000
S-60	Sales Tax	100
S-70	Equip. Repair & Maint.	300
S-80	Accounting Service	900
S-85	Legal Services	000
S-90	Insurance	1,350
S-100	Library	300
G-10	Hoosier Surveyor	4,400
G-20	Misc. Printing	100
G-30	President's Contingency	250
G-50	NSPS Governor	1,700
G-70	Government Affairs	5,000
G-71	Public Relations	2,000
G-80	Historic Landmarks	100
G-90	Scholarship	1,000
G-110	Annual Convention	1,000
G-111	Workshops	2,500
G-112	Manuals	500
C-10	Misc. Expense	500
C-60	Awards	250
C-80	Committee Expenses	400
C-81	Membership Development	400
P-10	Gross Payroll	14,560
P-20	FICA	1,042
P-30	State Unemployment	180
P-40	Workman's Comp.	140
P-50	Medical Insurance	900
P-60	Federal Unemployment	120
Total		47,042

#### **Firm Members**





The American Society for Photogrammetry and Remote Sensing, the American Congress on Surveying and Mapping and the Western Federation of Professional Land Surveyors will be "Prospecting New Horizons" in Reno. We are searching for papers that:

 reveal unique and unusual approaches to new technologies

 examine the impact of quaquaversal aspects on the surveying, mapping, and photogrammetric sciences

 probe the implications of recent government actions

 explore the impact of legal liabilities and court decisions on the professions

Papers will be presented during the technical program at the Convention.

Proposals must be typewritten in English on one side of a sheet of paper. They must describe the major thrust of the paper and include the title, names of authors, position, address, telephone number and professional affiliation.

**Deadline:** Proposal must be received by February 1, 1987. Camera-ready manuscripts of accepted papers must be received by May 15, 1987.

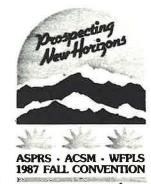
Presentation time for selected papers is limited to twenty minutes.

To request information or submit proposals send to:

ASPRS, Sky Chamard P.O. Box 10761 Eugene, OK 97440 ACSM, Paul Lamoreaux, Jr. 3942 Kent Way San Francisco, CA 94080 WFPLS, Bob Cray 4086 400th Ave, W. Oak Harbor, WA 98277

#### Call for Papers Reconvened Session · Honolulu, Hawaii

The Honolulu Section, ACSM, is accepting proposals for papers at a reconvened session of the 1987 Reno Convention. For information write to: ACSM, Honolulu Section, P.O. Box 2981, Honolulu, HI 96802.



Reno, Nevada October 4-9

#### **ISPLS APPLICATION FOR MEMBERSHIP**

(Type or Print all information - check box for mailing address desired.)

NAME		First			Middle	AGE
☐ HOME ADDRESS	Street and Number	City	State	7:-	_ PHONE _	=
☐ BUSINESS ADDRESS .	Street and Number	City	State	Zip	_ PHONE _	
PRESENT OCCUPATION_	Firm Name	City	State	Zip		
SCHOOL ATTENDING	d .					Position
REGISTRATION STATUS_	Name					Grade
MEMBER OF AMERICAN O	L.S., P.E., or S.I.T. Number	VEVING AND	MARRING			State
		VETING AND	MAPPING		Yes	No
MEMBER OF LOCAL CHAI	PTER OF I.S.P.L.S.	Yes		No	-	Chapter
TYPE OF MEMBERS    MEMBER	\$90.00	Name		REFEF Addres	RENCES	Phone
☐ ASSOCIATE	\$50.00					
Check On	ie	*				
I hereby certify the above s the "Indiana Society of Pro	tatements are true a ofessional Land Surv	and correct ar veyors'' and v	d that I wil vill promote	l abide by e and upho	the Constitutold its princip	tion and By-Laws o

#### **MEMBERSHIP CLASSIFICATIONS**

Member: A member of this Corporation shall be limited to Registered Land Surveyors in good standing with the Indiana State Board of Registration for Land Surveyors. A member shall be eligible to vote, hold office and to participate fully in the affairs of the Cor-

A Junior Membership will be granted to those non-registered individuals who are endeavoring to make Surveying their chosen career. A Junior Member is entitled to vote and participate fully in the affairs of the Corporation but shall not be entitled to hold

Associate: An Associate Membership will be granted to anyone who is associated or affiliated with the Land Surveying profession but is not otherwise pursuing registration or any non-resident who is registered and in good standing as a Land Surveyor. An Associate Member is not entitled to vote or hold office but will receive Newsletters and be invited to participate in meetings.

Student:

Junior:

A Student Member shall have the same eligibility requirements as those of a Junior Member, except that this class of Membership shall apply for a period of four (4) years only. A Student Member is not entitled to vote or hold office but will receive Newsletters and be invited to participate in meetings.

# ATTEND 5 PLAN

# CONFERENCE 1987 16, ∞ ISPLS 15, 14, 35th ANNUAL JANUARY

conference was held on campus, was the last time the 1972

Professor Kenneth Curtis **CHAIRMAN PROGRAM** 



Co-Sponsored

Professional Land Surveyors School of Civil Engineering Conferences of of Society Purdue Division Indiana Purdue

MARK YOUR CALENDAR NOW!!!

26

27

#### LIMITED EDITION I.S.P.L.S. BELT BUCKLES

The Scholarship Committee has arranged to have a limited number of these handmade logo belt buckles made in order to accomplish two important goals. One, profits from the sale will be designated for the ISPLS Scholarship Fund and two, these belt buckles will provide the members with a unique way of showing their professional affiliation.

The belt buckles are hand made on plate polished brass, acid etched, and the logo is enamel filled so that normal wear will not destroy the attractive blue on brass logo.

2" x 3.25" Wide Buckle \$ 2	25 each * Postage & Handling included
2" x 1.50" Narrow Buckle \$ 2	25 each * Postage & Handling included
PLEASE CHECK WHICH LOGO TO BE CREATED:	NEH
Send orders to:	Buckles sent to:
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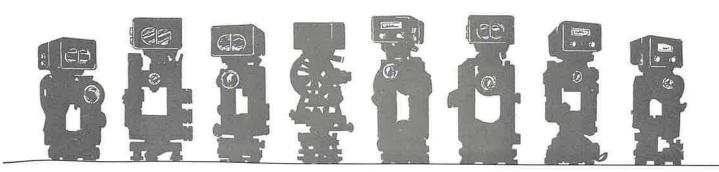
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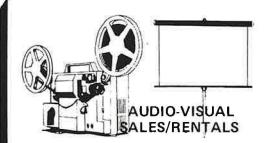
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