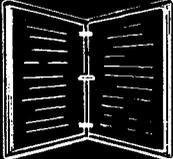


**ENGINEERING
TECHNICAL
INFORMATION
SYSTEM**

FIELD NOTES • TECHNICAL REPORTS • TEXTS
DATA RETRIEVAL • CURRENT AWARENESS

Field  Notes

Volume 6 Number 10 October 1974

Washington Office Engineering News

**Editor's Note—Corrections to
July and August Field Notes**

**Index of published Field Notes
Articles- -
May 1969 — September 1974**



FOREST SERVICE • U.S. DEPARTMENT OF AGRICULTURE

ENGINEERING FIELD NOTES

This publication is a monthly newsletter published to exchange engineering information and ideas of a technical or administrative nature among Forest Service personnel. The text in the publication represents the personal opinions of the respective author and must not be construed as recommended or approved procedures, mandatory instructions, or policy, except by FSM references.

This publication is not intended to be exclusively for engineers. However, because of the type of material in the publication, all engineers and engineering technicians should read each issue.

This publication is distributed from the Washington Office directly to all Regional, Station, and Area Headquarters. If you are not now receiving a copy and would like one, ask your Office Manager or the Regional Information Coordinator to increase the number of copies sent to your office. Use Form 7100-60 for this purpose. Copies of back issues are also available from the Washington Office and can be ordered on Form 7100-60.

Material submitted to the Washington Office for publication should be reviewed by the respective Regional Office to see that the information is current, timely, technically accurate, informative, and of interest to engineers Service-wide (FSM 7113). The length of material submitted may vary from several sentences to several typewritten pages. However, short articles or news items are preferred. The Washington Office will edit for grammar only. All material submitted to the Washington Office should be typed double-spaced, and all illustrations should be original drawings or glossy black and white photos.

Each Region has an Information Coordinator to whom field personnel should submit both questions and material for publication. The Coordinators are:

R-1	Bob Hinshaw	R-6	Kjell Bakke
R-2	Allen Groven	R-8	Ernest Quinn
R-3	Bill Strohschein	R-9	Ron Pokrandt
R-4	Fleet Stanton	R-10	Bill Vischer
R-5	Jim McCoy	WO	Al Colley

Coordinators should direct questions concerning format, editing, publishing dates, etc., to Fran Owsley, Editor, Division of Engineering, Forest Service, USDA, Washington, D. C. 20250.

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FIELD NOTES

WASHINGTON OFFICE ENGINEERING NEWS

TECHNOLOGICAL IMPROVEMENTS

Heyward T. Taylor
Assistant Director

ENGINEERING DESIGN SUPPORT GROUP MOVES TO FORT COLLINS

The Washington Office Engineering Design Support Group (EDSG) has moved to the Fort Collins, Colorado Computer Center. The three-man group is made up of Ted Lupien and Mack Litten from the Washington Office and Harvey Krantz from Region 9. Harvey replaces Red Thompson, who has been assigned engineering ADP development responsibilities in the Washington Office. The move to Fort Collins was recommended by the EDSG Steering Committee. This move makes RDS more responsive to regional needs through direct access to the computer rather than access through telecommunications.

EDSG members work staggered duty hours making their aggregated hours of duty coincide with those of the different regions. One of the group members is always available to help regional employees regardless of time zone differences.

INTERACTIVE ROAD DESIGN SYSTEM

We have recently begun field validation of the Interactive Road Design System (IRDS). This system was initially tested on the Medicine Bow National Forest. Many of the shortcomings uncovered at that time have been corrected; however, the system will be under close observation this design season. All reports from Regional Engineering Coordinators who are instructing field units feel that much more timely response to road design needs will be facilitated through the use of IRDS.

CONSULTATION AND STANDARDS

Charles R. Weller
Assistant Director

TSPP IMPLEMENTATION

Consultation and Standards is now staffing to accommodate the latest technology and equipment. Vic DeKalb, for the past five years Project Leader of the Transportation System Planning Project in Berkeley, has agreed to transfer to Washington to aid in the implementation of the processes and programs he helped to develop. We are sure that there are many opportunities for using coordinated programs in the furtherance of more efficient planning. We look forward to Vic's arrival and expect early, positive results from our Transportation System Planning Program.



EDITOR'S NOTE

Following are corrections to material that appeared in the July and August issues of FIELD NOTES.

- FIELD NOTES, July 1974, page 3. The table should read as follows:

Standpipes, Stacks, Poles, and Ropes

Upright Cylinder for $d\sqrt{P} > 1.5$			
Slenderness h/d	25	7	1
Surface Condition	C_d	C_d	C_d
Smooth Surface Metal, timber, concrete	0.55	0.5	0.45
Rough Surface Round ribs Rib height = 2% d	0.9	0.8	0.7
Very rough surface Sharp ribs Rib height = 7% d	1.2	1.0	0.8
Smooth rough surface Sharp edges	1.4	1.2	1.0
Long cylinder for $L/d > 100$	$d\sqrt{P}$	< 1.5	> 1.5
Surface condition		C_d	C_d
Smooth wires, rods, pipes		1.2	0.5
Rough wires, rods		1.2	0.7
Fine wire cables		1.2	0.9
Thick wire cables		1.3	1.1

- FIELD NOTES, August 1974, page 4. The equation should read as follows:

$$P_j(F) = \left[P + r_j - Pr_j \right] \left[(1 - P)^{j-1} \left(\prod_{i=1}^{j-1} [1 - r_i] \right) \right]$$

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by Harry Kevich, Architect, Region 5

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Construction of the Administrative Office for the MI-WOK Ranger District

by Harry Kevich

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Designing for the Handicapped – Some Unusual Problems

by Gary Marple, National Forest in Florida

November 1971, Volume 3, Number 11

Facility Maintenance

(News Item) submitted by John Grosvenor, Regional Office, Region 5

March 1974, Volume 6, Number 3

Forest Service Unitized Construction

by John Lamb, Washington Office and Harry Kevich, Region 5, Regional Office

May 1969, Volume 1, Number 1

USDA Agriculture Handbook, Number 73, “Wood-Frame House Construction”

Revised and Reissued July 1970

(News Item)

November 1970, Volume 2, Number 11

Cadastral Surveys

A Field Evaluation of the Wild DI-10 DISTOMAT

by W. G. Robillard, Cadastral Surveyor, Region 8

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A New Instrument for an Old Discipline

by Dan L. Reed, Supervisory Engineer Technician, Region 5

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A New Slide-Tape Program, "Corner Search and Rescue, California Style"
(News Item) submitted by Daniel M. McVay, Washington Office
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A Sub-Routine for Use with the Monroe Epic 3000 Programmable Printing
Calculator
by Leroy E. Lewis, Cadastral Surveyor, Supervisor's Office,
Francis Marion-Sumter National Forest
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Investigation and Development of New Cadastral Surveying Procedures and
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by Daniel M. McVay and James D. Hogan, Washington Office
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Managing the Time of Survey Crews in the Eldorado National Forest
(News Item) taken from an article by Ed Tomm, Civil Engineer, and
Sam Fischer, Forest Engineer, Eldorado National Forest
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Metrication – Surveying Conversion Factors by the International System of
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by B. W. Hostrop, Washington Office
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More on Land Surveying
(Quoted from the State of Alabama Board of Registration for Professional
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North Seeking Gyro System
by Victor H. Hedman, Regional Cadastral Surveyor, Eastern Region
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North Seeking Gyro Systems
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North Seeking Gyro Systems
by Victor H. Hedman, Regional Cadastral Surveyor, Eastern Region, and
Daniel M. McVay, Staff Engineer, Washington Office
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Preservation of Tree Land Corners
by George F. Butts, Registered Land Surveyor, Green Mountain National Forest
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Remote Computer Processing in Regions 2, 3, 8, and 9
by Jim Hogan, Washington Office
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The H. D. 3800A Distance Meter
(News Item) by Daniel M. McVay, Washington Office
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The St. Joe Cadastral Engineering Program
submitted by Daniel M. McVay, Washington Office
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by L. Bruce Sumner, Regional Cadastral Surveyor, Region 5
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Network Analysis System
by James M. McCoy, Construction Staff Assistant, Region 5
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A Quick Cure for Rock Defacements
(News Item) submitted by Region 10
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Getting Involved in Environmental Planning
by John Daly, Region 8
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People and Environment
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Testimony at the Environmental Protection Hearing
by Robin Harrison (Denver, Colorado – October 1, 1971)
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Equipment Development

How ROPS Can Serve as FOPS
by Leonard Della-Moretta, San Dimas Equipment Development Center
January 1974, Volume 6, Number 1

Implement-Carrying Hitch for Four-Wheel Skidder
by Dan W. McKenzie, San Dimas Equipment Development Center
September 1973, Volume 5, Number 9

Tractor Mounted Implement Hitch (Crawler and Wheel Skidder)
by Jerry L. Edwards, Regional Office, Region 8
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A 3-Dimensional Plotting System
by Olin Bockes, Washington Office
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Color Infrared Film Developed to a Negative?
by Alan Koch, Regional Office, Region 6
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Combined Right-of-Way and Road Design Aerial Photography
by Max C. Montgomery, San Bernardino National Forest
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Contracting for Aerial Photography
by Clair L. Arneson and Richard L. Bradley, Washington Office
August 1969, Volume 1, Number 3

Hand Held Platen for Relative Orientation of Stereo Models
by Richard Brush, Engineering Technician, Boise National Forest
January–February 1972, Volume 4, Numbers 1 and 2

Special Report on the First Earth Resources Technology Satellite
(News Item) by Ray P. Allison, Washington Office
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Stereo Projection System
by Larry Huston, Region 3
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Utilization of 5-Drawer Flat Map Cabinets as a Layout Table
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House Subcommittee Hearing on the Federal Aid Highway Act of 1970
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(News Item) by C. D. Swarthout, Division of Engineering, California Region
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ED&T Report – 7160-2 – Field Maintenance of Rotted Wood Signs
(News Item) by Reg Pragnell, Washington Office
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Engineering Geology in a Massively Unstable Region
by Thomas K. Collins and Billie G. Hicks, Klamath National Forest
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Region 1 Utility Corridor Task Force
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by the ASCE Task Committee on Safety Policy with a note from M. R. Howlett
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The New Color of Engineering Field Notes
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Use of a Rotary Drilling Rig for Investigation and Repair of an Earthfill Dam
by John S. Boyd, Staff Geologist, Region 3, and John P. Haynes, Staff Engineer,
Region 3
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Multi-Discipline Planning Teams
(News Item) by D. C. Turner, Assistant Director, Division of Engineering,
Washington Office
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by Stanley A. Thorn, Region 6
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by Larry Hendrickson, Washington Office
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Region 2 Materials Training Conducted in Region 4 Materials Laboratory
(News Item) by Martin Everitt, Materials Engineer, Region 2
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by Thomas Dooley, Zone Engineer, Ottawa National Forest
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