



IEEE Group on Professional Communication

NEWSLETTER

Newsletter Editor--Emily Schlesinger

Vol. 20

October 1977

No. 4

OFFICERS
OF
G-PC

Emily Schlesinger, President
Baltimore Gas & Electric Co.
Baltimore, MD 21203

Thomas Patterson, Vice-Pres.
GTE Labs, 40 Sylvan Rd.
Waltham, MA 02154

John Phillips, Treasurer
RCA Building 204-2
Cherry Hill, NJ 08101

Letter from the President

The meeting of PC's AdCom scheduled for August was cancelled. Our next will be the so-called "annual" meeting, November 11, at IEEE Headquarters, 345 E. 47th Street, New York City, from 10 AM to 3 PM. We will greet new AdCom members, elect officers, and push ahead with plans for 1978. As usual, friends, visitors, and all PC-ers will be welcome.

This issue of PC's Newsletter, again, draws heavily from other IEEE publications, from the work of individual writers concerned directly with communication and from the newsletters of organization-members of the Council of Communication Societies.

The American Science Film Association's Notes for July contained several lists and descriptions of films that are reprinted here for the general information of

us all and for possible use by some who may be seeking program or instructional material.

The Industrial Communication Council's Newsletter for April also contained source data--on adapting to the use of SI metrics--that may be useful to some PC-ers.

The cautions, "funnies," wise words, and bad examples will, it is hoped, help us all be alert, encouraged, and more skillful as we try to promote quality in communication.

Please note the proposed changes to PC's Constitution and Bylaws, and promote the IEEE/PC/Blicq Workshop on Communication and Report Writing.

Changes to Constitution and By-laws

The following changes in PC's Constitution and Bylaws have been approved by our AdCom and IEEE's Director of Technical Activities. Unless more than 5% of the membership object within thirty days of receiving this publication, these changes will be adopted.

CONSTITUTION

Article V:

Present

Proposed

Section 1.

The Group is administered by an Administrative Committee of 18 elected members of the Group.

The Group is managed by an Administrative Committee (AdCom) of 18 elected members-at-large and other ex-officio members designated in the Bylaws.

Section 2.

. . . No member serves more than two consecutive terms.

Delete.

Section 3.

References to Chairman and vice Chairman.

Change to President and Vice President (here and throughout the document).

. . . no member may serve more than two consecutive terms in either position.

Delete.

Section 4.

The newly elected Chairman appoints a Secretary and Treasurer for a one-year term. These officers need not be members of the Administrative Committee.

The newly elected President appoints a Secretary and a Treasurer for a one-year term. If these officers are not elected members-at-large of AdCom, they become ex-officio members of AdCom.

Sections 5 and 6.

Pronouns "he" and "his," "his" and "him."

Change to "he/she" and "his/her" and "his/her," "him/her," throughout.

Article VII, Meetings:

Section 1.

Lengthy and complicated.

Article VII, Meetings and Conferences.

Section 1.

The Group sponsors or co-sponsors at least one technical conference, work-shop, etc., each year. These may be held in cooperation with another IEEE organization, or with a non-IEEE technical organization, subject to IEEE rules and regulations.

Section 3.

Lengthy and complicated.

Section 3.

At least one meeting of the AdCom, the annual meeting, shall be held each year in accordance with the Bylaws. Other meetings may be called by the President, or, upon request, by at least two other members of the AdCom, with at least a 30-day notice.

Section 4.

. . . Ex-officio members do not vote except for the special cases defined in the Bylaws.

Ex-officio members have a vote on all matters of the Group except as defined in the Bylaws.

BYLAWS

Present

Proposed

Bylaw 2.

Add:

Paragraph 6. The Group's major mission is tutorial for IEEE members; i.e., is to help working engineers improve their communication skills, inform engineers of new ideas and methods in communication, and guide engineering organizations in establishing new or improving existing communication programs.

Bylaw 4, Finances.

Paragraph 1, Sources.

The annual Group fee shall be four (4) dollars for IEEE members and eighteen (18) dollars for Group Affiliates.

As part of the usual budget cycle, the AdCom shall review and reconfirm or adjust the annual membership bill. Any change shall be promptly reported to the entire membership, through the Newsletter or other appropriate means.

Paragraph 2, Treasurer.

. . . He is assisted in the planning and implementation of financial matters by the Ways and Means Committee as described in Bylaw 5, Paragraph 3.7.

. . . The Treasurer is assisted by, and may be Chairman of, the Ways and Means Committee as described in Bylaw 5, Paragraph 3.7.

Bylaw 5, Organizations.

Paragraph 2, Administrative Committee

In addition to the 18 elected members-at-large, the AdCom may include the following ex-officio members:

In addition to 18 elected members, the AdCom may include the following ex-officio members:

- a. The Chairmen of all standing committees.
- b. The editors of the Group publications, and
- c. The immediate past AdCom Chairman.

- a. Secretary.
- b. Treasurer.
- c. Chairmen of all standing committees.
- d. Editors of the Group publications.

Other ex-officio members may be appointed as deemed necessary by the AdCom Chairman. Only the ex-officio members listed above, however, shall be voting members of the AdCom.

Paragraph 3.1 Meetings Committee

Bylaw 6, Nominations and Elections.
Paragraph 4, Election of Officers.

Bylaw 7, Meetings.
Paragraph 1, Group Meetings.
Group meetings are conducted in accordance with Article VII of the Group Constitution.

Paragraph 2.3, Meeting Activities
... he is assumed to have ratified the minutes.

e. The immediate past AdCom President.

The above ex-officio members of the AdCom shall be voting members on all matters except election of AdCom officers. Other appointments may be made as deemed necessary by the AdCom President but they shall not be voting members of AdCom.

Add:

The Chairman of the Meetings Committee and its members assume office upon appointment and serve until their successors are appointed or until their respective assignments have been completed.

Add to second sentence (after a semicolon):
only elected members at large may vote for these officers.

Group Conferences.

Group conferences are conducted in accordance with Article VII of the Group Constitution. The Group conducts special programs, such as national conferences, to establish and maintain a cadre of professional communicators to implement the primary purposes of the Group.

...the minutes are assumed to be ratified.

Effective Communication

In the quickening pace of today's business competition, many engineers are hiding their technical and business expertise in poorly organized, uninteresting, ineffective written communications.

This is an unfortunate fact. Only by developing effective communication skills can talented engineers achieve the success they deserve.

With PC, IEEE's Educational Activities Board (EAB) believes that every engineer has latent writing ability and can easily learn the proven techniques that produce successful communications in every area of his or her work.

The new two-day Communication and Report Writing Workshop is IEEE's response to a definite need. Here is a highly interactive, idea-packed short course that teaches you, step by proven step, how to transmit technical and business information clearly, efficiently, persuasively; in short, how to communicate for results.

Developed by PC's Education Committee, the course has been successfully presented to over 40 classes of engineers and other professionals and has received the enthusiastic endorsement of the EAB.

Upon completion of the course, each participant should be equipped to write clear, cogent, explicit technical communications of every type, from routine correspondence to formal engineering reports and feasibility studies.

This course is aimed at engineers, scientists, technologists, managers and administrators whose job duties require the regular issuance of letters, analyses, recommendations and reports.

Prof. Ronald S. Blicq was technical editor/training coordinator for 10 years with the Electronics Division of CAE Industries, Canada, and is now head of the Industrial and Technology Communications Department Red River Community College, Winnipeg, Canada. He is currently chairman of the IEEE Professional Communications Group's Education Committee and is the author of two books on technical and business communications.

The course textbook is "Technically--Write!", written by Prof. Blicq and published by Prentice-Hall. Several pages of notes supplement the text and the classroom instructions.

Because Prof. Blicq insists on personalized attention to individual student needs, the class size is automatically limited to 30 participants. When classes are filled, subsequent registrants will be notified and their payments refunded.

The Workshop on Communication and Report Writing is being offered in six U.S. cities this season. See the course prospectus and registration form elsewhere in this Newsletter.

New Newsletter

Communication News, which began publication in July, plans to provide communicators in Washington, D.C., with information about services and products locally available for use in advertising, publication, and sales.

Vol. No. 1, contains a notice about the publication (Arlington, VA) of a new free magazine, Media and Design, with news and features pertaining to audiovisual and graphic arts industries; gives a local source of subject ideas for free-lance writers and journalists; discusses five Washington sources of slides and photographs and Washington's Freelancers' Registry (about 100 portfolios of professionals with talent in photography, commercial art, writing, editing, media research, audiovisual production, etc.).

To subscribe to Communication News, send \$26 for the first six issues (July-December, 1977) to 26 Goodport Court, Gaithersburg, MD, 20760.

Sound / Slide Presentations

Increased use is being made of the sound/slide medium in presenting current science developments. For example, at the recent American Geophysical Conference in Washington, DC, a typical sound/slide show brought scientists at the meeting up-to-date concerning the latest developments of the Lawrence Berkeley Lab in the field of energy research.

When asked, "Why a sound/slide show instead of a film?" Jim Halverson of the Berkley Lab and the American Science Film Association explained as follows: "There are several basic reasons: they can be produced in less time at a lower cost; there is a greater availability of slides or still pictures; editing is very simple; sound recording and duplication are easier; changes and updating are simple to do. Also, there are available more sound/slide projectors with automatic slide changing. Motion in slide shows can be simulated in several ways. I have been recently using Polarmotion, a special Polaroid filter material rotating in front of the lens of the projector to give the appearance of motion on a slide. With careful planning, many aspects of motion can be achieved."

--From ASFA Notes (July)

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Persons and organizations receiving this Newsletter are welcome to circulate and reprint material from it, provided that credit is given to the IEEE Group on Professional Communication and to the original sources cited.

Animated Vu-graphs

Communication News (July) describes animated vu-graphs which are much less expensive than motion pictures or animated films. Polarization of certain portions of a picture illustrates dynamic concepts, so that, for example, hearts beat, lines or figures representing functions move at different speeds, heat rises--and audiences become more attentive. Polarized vu-graphs may be obtained in many sizes for a variety of uses and types of projection.

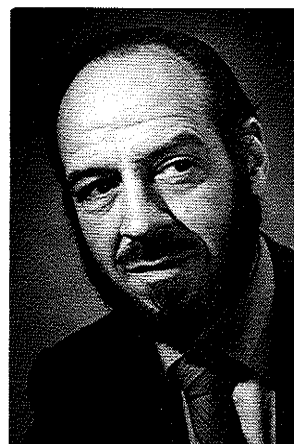
Nominees for Ad Com

Six PC members have been named for election to fill the six AdCom vacancies which exist for the three-year term, 1978-80. As the number of nominees equals the number of open positions, preparation and mailing of ballots to the general membership will be eliminated, and the Secretary will be instructed to record a unanimous vote at the November AdCom meeting.

If other names are proposed by petition (the signature of 15 Group members, excluding students, are required), voting by all Group members will be necessary.

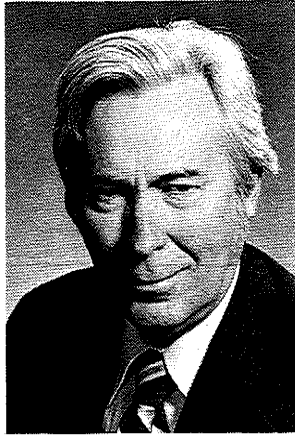
Members who object to "blanket elections" are again urged to signify their displeasure by offering to serve on an AdCom committee; or they might like to be Area Representatives.

The nominees, in alphabetical order, are as follows:



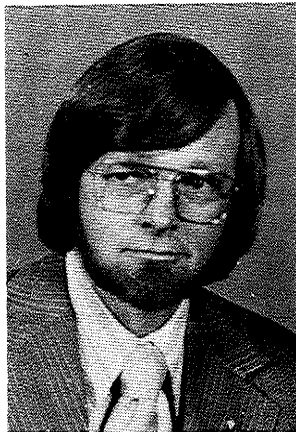
Ronald S. Blicq

Ron Blicq heads the Industrial and Technology Communications Department of the Red River Community College, Winnipeg, Manitoba. Formerly, he served for ten years as an avionics officer with the Royal Air Force in England and ten years as a technical editor and training coordinator in the Electronics Division of CAE Industries in Canada. Ron is chairman of PC's Education Committee; he designed and, with Continuing Education personnel, is coordinating the home-study course, "Technically--Write!" and the workshop, "Communication and Report Writing," sponsored by IEEE's Educational Activities Board. Author of two books on technical and business writing, Ron is eligible for election to a second term on PC's AdCom.



William D. Bulloch

As Director, Technical Publications and Advertising at Bell Telephone Laboratories in Murray Hill, NJ, Bill Bulloch is responsible for the Bell System Technical Journal, the Bell Laboratories Record, the Bell advertising program, and several other technical publication programs. He holds AB and MS degrees and for six years taught mathematics and physics at the University of North Carolina. Bill is eligible for election to a second term on PC's AdCom.



Jimmy D. Crawford

From 1964 to 1968, Jim Crawford was an Electrical Engineer for Sigma Instruments in Braintree, MA. He designed solid-state instruments and controls for electric utilities and wrote a monthly column of engineering news for the company publication, Sigmazette.

In 1968, he joined the Foxboro Company in Foxboro, MA, as a supervisor responsible for the writing, editing, and publishing of standard and custom supporting literature for analog and digital systems.

He is now Managing Editor of Technical Marketing Communications at Foxboro. He plans and manages communication projects directed to selling, programming, operating, and maintaining digital computer systems for controlling such process variables as pressure, temperature, humidity, and flow.

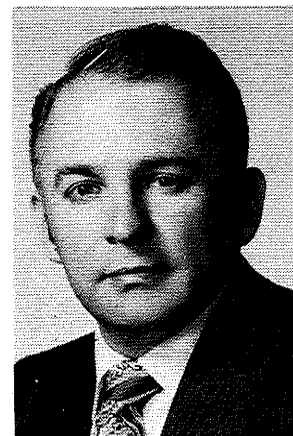
Jim holds ASEE (electronic) and BSEE degrees from Northeastern University. He studied technical communication at MIT and has been a part-time free lance consultant in technical communication, sales promotion, and public relations. As one who understands both the science of engineering and the art of communication, he sees irony and disorder in technology and writes humorous articles about them--e.g., "Disk vs. Disk: One of Life's Small Wars," in a recent issue of Computerworld, and a tongue-in-cheek, nearly finished history of digital computers.

A member of IEEE and PC since 1964, Jim has taught technical writing in the past and now teaches digital computer electronics in the evening division of Sylvia Technical School, Waltham, MA.



Pleasant H. McBride

As a Vice President of the California-based Informatics Information Systems Company, Pat McBride manages NASA's Scientific and Technical Information Facility in Washington, D.C. He holds a BSEE degree and membership in IEEE and the Association for Computing Machinery. A more complete biography was printed in our July Newsletter. During 1977, Pat has been PC's Membership Chairman. He is eligible for election to a first term on AdCom.



Thomas O. Nichols

Tom Nichols began his career in electronics with the U.S. Navy and studied electrical engineering at the University of Maryland. During 14 years with Page Com-

munications Engineers in Vienna, VA, he was "heavily involved" in the preparation and use of engineering proposals, reports, specifications, and manuals, and later of management plans and marketing literature; the documents pertained to aircraft communication, training, and support systems.

As President of the Dynacom Division of Dynalec-tron Corporation, in McLean VA, Tom is now responsible for major portions of the company's multilingual operation and marketing documents. These deal with the provision of diversified technical services for elec-tronic and mechanical components in aircraft, petro-chemical and metallurgical plants, and missiles.

Tom holds BS and MBA degrees from American Uni-versity; he has lectured on resumé writing and job in-terviewing at Northern Virginia Community College and is a 20-year member of IEEE.



Jane E. Swanson

Now Corporate Legal Administrator for the Environ-mental Elements Corporation in Baltimore, Jane Swanson has worked in other organizations as writer, editor, publication manager, and marketing director. She holds AB and JD degrees and membership in The Society for Technical Communication and the American Bar Associa-tion. A more complete biography was printed in our July Newsletter. Jane is eligible for election to serve on PC's AdCom for a second term.

TV is No. 1

From the Television Information Office and Roper surveys via Communication News (July) come the fol-lowing reports of public opinion:

In 1969, newspapers were the American public's primary source of news, but in 1973 television re-placed them. Radio, in third place, is dropping further and further behind. Television, in addition to being the most popular news medium, is also consid-ered the most believable.

Book Review

HOW TO WRITE INFORMATION MAPPING, Robert E. Horn. In-formation Resources, Inc., P.O. Box 417, Lexington, MA 02173. Looseleaf, 8-1/2 x 11, 440 pp., \$50.

The technique called Information Mapping applies concepts of modularity and system analysis to the prep-eration of training, product, accounting, procedural, and computer software manuals. The How To volume for Information Mapping is a course in structured writing --a combination textbook, programmed self-instruction manual, guide for teachers, discussion of rationale, presentation of examples, and basis for seminars.

Information mapping procedure classifies sen-tences and diagrams into labeled units called informa-tion blocks (in traditional terms, labels correspond to headings and blocks to paragraphs or sub-para-graphs). A block thus consists of a label plus one or more sentences or pieces of graphic data about a fragment of subject matter. An information map is a page of information blocks separated by horizontal lines, with block labels in the left-hand margin. Six basic types of map provide for presenting, respective-ly, information on

- Fact
- Concept
- Classification
- Structure
- Procedure
- Process

To make up these six types of map, blocks are chosen from a set of 35. Eight blocks are used in all or any map--i.e., Name of Map, Introduction, Comment, Synonym, Diagram, Analogy, Related Pages, and Use. Some blocks are appropriate for two types of map--i.e., Description pertains to both Structure and Process, and Example/Non-example to both Structure and Concept. The other blocks appear in one type of map only--i.e., List, Tree, and Table in Classification Maps; Flow-chart, Checklist, Worksheet, etc., in Procedure Maps; Parts in Structure Maps; Definition and Rules in Con-cept Maps.

A writer who uses this concept of blocks is forced to separate definitions from rules, rules from examples, examples from comment, and so on, and to la-bel each block generically. Thus his presentation be-comes modular and his reader perceives distinct seg-ments--"blocks"--of information.

In this "20th century way of writing," logical groupings and typographic cues "organize" any complex message into a logical, coherent series of simple fragments so that writers and readers can "step through" the presenting and receiving of information. Using the prescribed system, writers can prepare de-scriptive and explanatory technical material in a standard format and can unify text with decision tables, flowcharts, diagrams, and so on. Readers, in turn, find that the consistent functional categorizing of subject matter not only simplifies both initial fa-miliarization and later referencing but also increases understanding of facts and relationships.

WORKSHOP ON COMMUNICATION AND REPORT WRITING

COURSE OUTLINE

FIRST DAY

Sharpening Writing Style: The difference between "tell" and "sell"; identifying main message; choosing the right words; cutting out "chaff"; knowing when to stop; message visibility.

Organizing the Writing Task: Identifying the reader and his or her needs; homing in on the facts; building an outline; writing creatively; reading objectively; how to revise.

Writing Technical and Business Correspondence: Clarity; brevity; sincerity; format.

Writing Short Information Reports: Occurrence reports; field trip and progress reports; inspection reports.

SECOND DAY

Taking and Writing Minutes of Meetings

Writing Long Informal Reports: Investigation and evaluation reports; feasibility studies and proposals.

Writing Formal Reports: Six basic parts; seven subsidiary parts; standard format; alternative format; discussion — chronological, subject, or concept arrangements.

Other Subjects: Depending on participants' needs and time available, additional subjects might be covered, such as editing other writers' words, abbreviations, headings and paragraph numbering, handling illustrations and diagrams, working with typists, etc.

PRE-WORKSHOP ASSIGNMENT

Important: In order to get a head start in this fast-paced learning experience, participants are asked to complete and bring with them two short written assignments. Registrants will receive instructions, plus a copy of the course textbook, about 10 to 14 days before the first session. To assure delivery of these materials in time, early registration is required.

Your complete Registration Form should be received by the IEEE at least three weeks in advance of the course opening date.

GENERAL INFORMATION

Tuition

IEEE members \$125.00
Nonmembers \$160.00

In most cases, the entire cost of this course is tax deductible.

Sessions and Times

The course day begins at 9:00 A.M. and closes at 4:30 P.M.

Meals and Lodging

Luncheons and coffee-breaks are included in the tuition. Room arrangements, however, are the responsibility of the individual participants.

Application and Registration

Registrants are urged to complete and mail the Registration Form at least three weeks before the course opening date. Individuals must remit payment with order. Companies may enroll for any number of employees — supplying names and titles — by purchase order or check (made payable to IEEE).

Certificate of Completion

An IEEE Certificate of Completion will be mailed to all participants who have successfully completed this course.

Cancellations and Refunds

The IEEE reserves the right to cancel any course due to insufficient enrollment. In this case, pre-registered participants will be notified in advance and full refunds made. Individual cancellations not postmarked one week before the course's opening date will be subject to the full course fee.

SHORT COURSE LOCATIONS AND DATES

NEW BRUNSWICK
Sheraton-Regal Inn
Kingsbridge Road
Piscataway, NJ 08854
201/469-5725

Sept. 30-Oct. 1

NEW HAVEN
Sheraton-Park Plaza Hotel
Chapel Square
New Haven, CT 06510
203/772-1700

Oct. 7-8

ATLANTA
Sheraton-Biltmore
817 West Peachtree, N.E.
Atlanta, GA 30383
404/881-9500

Oct. 14-15

MINNEAPOLIS
Sheraton-Ritz
315 Nicollet Mall
Minneapolis, MN 55401
612/336-5711

Oct. 28-29

LOS ANGELES
Sheraton West Hotel
2965 Wilshire Blvd.
Los Angeles, CA 90010
213/382-7171

Nov. 4-5

DENVER
Sheraton-Denver Airport
3535 Quebec Street
Denver, CO 80207
303/333-7711

Nov. 11-12

Hotel Accommodations:

Courses are presented at the hotels listed here. The cost of hotel rooms is not included in the course fee, nor does the IEEE arrange for hotel reservations. However, the hotels hold a block of rooms for participants until two weeks before course opening dates. We suggest you call or write the hotel directly, mentioning IEEE, the course title, and dates attending.

REGISTER NOW. USE THIS FORM.

Registration Form

Communications and Report Writing Workshop

Please register me (us) for this course at the location checked below:

- ☐ Sept. 30-Oct. 1, New Brunswick
☐ Oct. 7-8, New Haven
☐ Oct. 14-15, Atlanta
☐ Oct. 28-29, Minneapolis
☐ Nov. 4-5, Los Angeles
☐ Nov. 11-12, Denver

Fee: IEEE members \$125.00
Nonmembers \$160.00

☐ Payment enclosed in the amount of \$ _____
(Make payable to IEEE.)

☐ Company purchase order attached.

Please send information on IEEE Short Courses for

☐ In-Plant presentation; ☐ IEEE-unit co-sponsorship.

Please print or type

Company _____
Business phone _____
Address _____
City _____
State _____ Zip _____

Name and title of participants.

IEEE members must also enter their Member Number.

1. _____
2. _____
3. _____

Send to: Education Registrar
IEEE SERVICE CENTER
445 Hoes Lane
Piscataway, N.J. 08854
201/981-0060

Use English Not Gibberish

Recent issues of this Newsletter have mentioned two books by Edwin Newman--Strictly Speaking (1974) and A Civil Tongue (1975). Both are published by Bobbs-Merrill. They cost \$7.95 each and can be found in public and university libraries. They concern mismanagement--fuzzy, bombastic, stereotyped use of the English language.

Newman has gathered material on this subject during his years (since 1952) as correspondent, critic, and commentator for the National Broadcasting Company. His examples come from newspapers, radio, and television; from words spoken and documents written by weather forecasters, corporation and college presidents, diplomats and politicians, social scientists and educators, restaurateurs and advertisers, national-league ball players, critics of art and literature, and just plain folks.

The variety and multiplicity of these sources of jargon, trick phrases, and "gelatinous verbiage" are appalling, but the multiplicity of examples is horrifying. With "sweet reason and sour comments" Newman quotes phrases and identifies their origins. Sometimes he himself mockingly carries the use of "language pollutants" to humorous extremes and composes high-tone dialogs.

Many of the expressions he notes are repetitious like

young juvenile
true facts
7 AM in the morning
square-shaped
successfully foiled
fatal slaying.

Some are incorrect, like

greivous damage
escapegoat
irrevelant
ran rampart
Joan D. Arc
spirit de corps
slice beef in au jus
Take he or she to school

Some are silly, like

peer stuff
a fun idea
right on
pretty good
eyeball-to-eyeball
hopefully
y'know

In Strictly Speaking, Newman writes about "formula language" and the language of political conventions; about puffy words like

eventuate
supportive
judgmental;

about the use of

medication
(instead of medicine)

subject matter
(instead of subject)

confidence factor
(instead of confidence);

about

punting situation
rhetorical thrust
the studiology of baseball
shower activity (i.e., rain).

In A Civil Tongue are more of the same. Some words have been overused, some have been misapplied:

dialog, spirit of dialog
in-depth discussion
effectiveness
confrontation
parameter
global
major
milestone
viable, non-viable
linkage
spectrum

Some of the "puffs" are almost frightening:

human interment space (cemetery)
law enforcement center (jail? law court?)
culinary center
place de dinner
complimentary beverage
overstrategize
televisionization
growingness
trialability
private sector
signage
multi-disciplinarity
interdisciplinarity
input/output/thruput quantum
massified symbolism
conceptualized thrust
remediation
remediation-type activities
majoritarian sentiments
prophecized

The titles of four chapters in A Civil Tongue suggest the wit with which Newman discusses these horrors:

A One-way Streetcar Named Detente
Ize Front
Paradigm Lost
Myself Will Be Back After This Message

Both books contain gobbledygook expressions coined by Newman himself in criticism. These include

imaginary fantasy,
escalated interpersonal altercations (assault and murder),

and a description of a class in elementary school (p. 133)--

During a module in the learning station, the facilitator emitted proximity reinforcers in the direction of the learners.

Understandable? No more or less than the quoted explanation (p. 150) that a college bookstore "considers its role to be to create the broadest possible interface of the world of information packages and the whole university community, and to serve as a retail outlet on the campus to fulfill other service requirements." This means that the bookstore sells books and stationery.

And then there is that small weapon in the CIA's arsenal, the nondiscernible microbionoculator--a dart gun with silencer.

What can we do about such ridiculous expressions? We can read one of Newman's books--they are vastly entertaining--or even pay attention to the examples quoted in this review. Then, aware of the horrors of such linguistic vandalism, we can try to speak and write meaningful English rather than foolish, hollow, or grandiose Anglo-Latinic verbiage.

Felonious Assault

Edwin Newman is not alone in recognizing that as we devalue our language we devalue ourselves as human beings.

Edward Bliss, Jr., in "News Watch" (TV Guide, April 16-22), complains about broadcast journalists who commit "felonious assault" on English. He hears --and deplores--sentences like "For he and his wife, this is a sad time," "Carter won like he said he would," and "To you and I, it is just garbage."

"Save we from this!" Bliss echoes Newman.

In the same article, Bliss points out that robbery (theft) is not the same as burglary (breaking and entering), and that Sir Alexander Fleming did not invent, but did discover, penicillin.

"Language is a tool," says Bliss, who was formerly a writer and editor with CBS News and now teaches broadcast journalism at the American University in Washington, DC. Why say "interred expeditiously" instead of "buried quickly"?

Too often, it appears, our communication is merely delusion.

Too Alive or Dying?

While Edwin Newman worries about Americans being the death of English, Meir Medan worries about Israel's being the death of Hebrew.

As reported recently by Marcus Eliason in the Baltimore Sun (May 29), Medan attributes the woes of Hebrew to "an atmosphere of permissiveness in which anything goes, provided it's hip."

According to this purist member of the Hebrew University's Academy of Language, the people of modern Israel are proud to use Hebrew but seem to feel that speaking it is more important than speaking it correctly. New terms are coined every day, often without careful consideration, and there is much "bad" grammar and idiosyncratic expression.

Hebrew "needs a diet," says Medan. "Everyone's making up new words and misusing the old ones. We are facing cultural disaster." So also says Edwin Newman--about American English.

Washingtonese

An institution of higher education shall be eligible for a grant for a project pursuant to this part in any fiscal year only if such institution has expended from current funds available for that year for instructional and library purposes, other than personnel costs, during the preceding fiscal year an amount not less than the amount expended, per equivalent full-time student, or in the aggregate, whichever is less, by such institution from current funds for such purposes during the second preceding fiscal year.

--Proposed amendment to a HEW Department regulation reprinted from the Aerospace and Electronic Systems Society Newsletter, June 1977.

Z-Z-ZAAP! Pow! for Linguistic Butchers

Journalist James J. Kilpatrick, writing in The (Baltimore) Sun for April 24, says that he was inspired by Edwin Newman to invent an invention.

He wants to put in every newspaper, government, and magazine publishing office a master console equipped with cowbells, buzzers, gongs, and light-flashers. The console would be hooked to a computer and the computer to all typewriters in the building.

This marvelous machine would be programmed, for example, to sound a gong whenever anyone wrote that something "remains to be seen." It might fire off a roman candle at "single most"; light up a red eye at "component parts"; ring bells for "instructional modules" and "past experience" or "future prospects"; explode a smoke bomb at "surrounded on all sides."

By using many such noisy, gaudy machines, Kilpatrick suggests, we might ultimately "restore the muscular body of [English], a beautiful language now sorely burdened by flab."

The Shadow Knows

John Barbour, in the Baltimore Sun (May 22), thinks that a shadow follows Edwin Newman. When Newman says something like "oddly enough," the shadow says, "Omit 'enough'." When Newman says, "Very excellent," the shadow says, "Very excellent?"

When Newman hears "work processing center" the shadow wonders, "typing pool?" When Newman talks about experts on Far Eastern affairs, the shadow whispers, "Are they Orient-oriented?"

But remember, Barbour cautions his readers. "If someone is following Edwin Newman, Edwin Newman is following you."

Collective Nouns

This consortium of scientific groups was convened by Anon in the Journal of Irreproducible Results (14,4; 1965):

A pile of nuclear physicists
A grid of electrical engineers
A set of pure mathematicians
A field of theoretical physicists
An amalgamation of metallurgists
A line of spectroscopists
A coagulation of colloid chemists
A galaxy of cosmologists
A cloud of theoretical meteorologists
A shower of applied meteorologists
A litter of geneticists
A knot of nautical engineers
A labyrinth of communication engineers
An exhibition of Nobel prize winners
An intrigue of council members
A dissonance of faculty members
A stack of librarians
A chain of security officers
A complex of psychologists
A wing of ornithologists
A batch of fermentation chemists
A colony of bacteriologists

Vacation Blues

My typist has gone on hir holiday
My typist has gohn on a spree,
Mx typish hap gone oh hyr haliduy,
O gring bacq mu hypist to me.
Gling bac% oK Sring back
Oh bynk b4ck mu tipisth to mi, tu mo,
Btung bisq ocsling 8ack
Oh Blynck ba"k mi tluys? to m5
Odaerm!

Nobody

The following is adapted from a story which was reprinted from The New York Professional Engineer by the Reliability Group Newsletter (April 1976):

Anna Somebody, Thomas Everybody, Pete Anybody and Joe Nobody were members of IEEE's PC Group. They were odd people and most difficult to understand.

All four paid their dues and read the PC Newsletter. EVERYBODY went golfing, bowling, or fishing during his spare time, or stayed home, or visited friends. ANYBODY wanted to go to AdCom meetings but was afraid SOMEBODY might give him some work. NOBODY went to AdCom meetings.

Really NOBODY was the most active and conscientious one of the four. NOBODY did committee work, NOBODY accepted responsibility in local affairs. Once they needed a Committee Chairman. EVERYBODY thought ANYBODY would do it, and SOMEBODY thought EVERYBODY should. Guess who finally did it? That's right--NOBODY!

It happened that a fifth Engineer became an IEEE member. EVERYBODY thought SOMEBODY should get him to join the PC Group. ANYBODY could at least have made an effort. Guess who finally got him to join. NOBODY.

Academics

A Research Initiation Grant of \$10,000 for 1978-9 has been allocated to each of the five Founder Societies in the Engineering Foundation--ASCE, AIMPE, ASME, AICE, and IEEE. To apply for IEEE's Grant, members must send proposals to the Chairman of the Technical Activities Board before December 1, 1977. Details and instructions are available from the TAB office at IEEE Headquarters.

* * * * *

A 17-minute color videotape (Umatic, 3/4") describing a program for sharing scientific equipment is available from

Media Resources Center
121 Pearson Hall
Iowa State University
Ames, Iowa 50010

for rental at \$20 or purchase at \$30. The program, a result of research sponsored by the National Science Foundation, attempts to help faculty members overcome shortages which hamper scientific research and teaching.

Far Out

Images of the earth, made by the multi-spectral sensors of Landsat I and II, are available in a variety of sizes and formats. Write for details and prices to

User Services Unit
EROS Data Center
Sioux Falls, SD 57198

"Space pictures" of hometown, estate, or favorite vacation area may be purchased. (EROS = Earth Resources Observation Systems).

* * * * *

Information about the Viking spacecrafts' probe of Mars may be obtained as follows to make an interesting technical or club meeting:

The Viking Telelecture consists of a slide presentation plus a telephone hookup to a Viking Project Officer who provides background information and answers your questions directly. Arranged on an individual basis, the telelecture can place emphasis on a particular theme of special interest to your group. The Telelecture is suitable for groups of 15 to 600 people. Time devoted to the presentation is approximately 45 minutes with an additional 15 minutes set aside for a question and answer session. You will need a 35 mm slide projector, a speaker phone, and a suitable PA system for a large group. Write to Mr. Leonard David, Forum for the Advancement of Students in Science and Technology, Inc. (FASST), 1785 Massachusetts Avenue, NW, Washington, D.C. 20036.

--These two items have been adapted from the IEEE Student Newsletter, February 1977.

Science Film

In Science Film, quarterly publication of the International Scientific Film Association (ISFA) articles are printed in both French and English. Issue No. 12 (1975) contains "Scientific Films: A Look from Inside a Research Laboratory," by G. Diemer of Philips Research Laboratories, Eindhoven, The Netherlands--a discussion of the problem of publicizing research results in general, and, more particularly, in the medium of film.

Diemer points out that from the point of view of the research institution, communication of research results serves three purposes; that is, to

1. Further the prestige of researcher and institution
2. Permit and obtain exchange of information with other researchers
3. Motivate educators, designers, consumers, etc., to use the results

The form and medium in which any message should be communicated depend, of course, upon the nature of the audience. Diemer thinks that notwithstanding the availability of all kinds of audiovisual media, the traditional combination of printing and reading is highly efficient, but only if content and presentation are adapted to the needs and receptivity of those being addressed. At present, he thinks, researchers and research institutions need more cooperative growth, more insight, more experience, and perhaps changes in organization before they will be able to prepare effective film presentations themselves. The development of photonics departments is a step in this direction. The making of complete research films for showings of, say 30 minutes, is now most often left to professional audiovisual specialists and producers of television programs.

In the third part of his article, Diemer discusses the fact that constraints are imposed on the film presentation of research results by the researchers and their institutions, by professional and commercial organizations that shape scientific films and audio packages, and by the backgrounds, needs, opinions, and intelligence of audiences.

The same issue of Science Film contains comments on Diemer's article by Arthur Garratt, Managing Director of Cougar Films, and Jerome Verhaeghe, President of the Popular Science Film Section of ISFA. Their remarks supplement, complement, and support Diemer's presentation.

The other two items in Science Film No. 12 are the summary-descriptions of 20 research films (in medicine, astronomy, physics, anthropology, biology, etc.) and a bibliography of articles describing film techniques newly developed or adapted for presentation of scientific and technical material.

The ill and unfit choice of words wonderfully obstructs the understanding.

--Francis Bacon (1620)

PRINT

In one part of the article, "Scientific Films," which is summarized elsewhere in this Newsletter, G. Diemer discusses form of communication--that is, the medium chosen to convey a given message. He comments that the use of film is clearly indicated in some cases; for example, when it is desired to demonstrate specific phenomena evolving in time. But he points out that the ratio of effort expended to benefits gained very often shows film to be less efficient than PRINT, a medium which he describes in an Addendum to his article. Here in full is Diemer's Addendum:

PRINT

Let us imagine that we have evolved to the post-McLuhan society. The following announcement might then be envisaged:

"A new aid to rapid - almost magical - communication and information has just made its appearance. Indications are that, if it catches on, all electronic gadgets will be so much junk.

"The device is known as the PReCise Information Tool. The makers generally call it by the acronym PRINT.

"It is claimed to have many advantages over the old-style information and communication aids on which most people are brought up nowadays. It has no wires, no electric circuits to break down. No connection is needed to an electricity power point. It is made entirely without mechanical parts that go wrong or may need replacement. The cheap process for mass production of PRINTs makes it possible for the user to have a private, dedicated data set at hand for use at any moment.

"Anyone can use PRINT - even children - and, thanks to its ergonomic design, no mental or physical stress is involved in handling it. It fits comfortably into the hands and it can be conveniently used sitting in an armchair by the fire. A small accessory, available at trifling extra cost, is the pencil. This enables the user to add or skip information and to adapt the system to personal needs. Unnecessary information is easily erased or discarded by throwing it into the fire.

"How does this revolutionary, unbelievably easy invention work?

"Basically, PRINT consists only of one or more papersheets. Each sheet is numbered consecutively so that the sheets can be used in an appropriate order. Each sheet of paper presents the user with a sequence in the form of symbols and/or images which he absorbs optically for automatic registration in the brain. When one sheet from a multisheet of PRINT has been assimilated, a flick of the finger turns it over and further information is found on the next sheet.

"PRINT is, in fact, a low-cost and space-saving display. If desired, both sides of each sheet may be used and in this way even greater economy is effected. No buttons need be pressed to move from one sheet to another or to start PRINT working.

"PRINT may be taken up at any time and instantly it is ready for use, since nothing has to be connected up or switched on. The user may turn at will to any

sheet or to any part of a particular sheet, going backwards or forwards as he pleases. PRINT, thus, provides true random access to a non-volatile memory.

"PRINTs may be stored in handy portfolios on the cover of which their contents can be listed for ease of reference. They thus provide a convenient method for compiling private data sets eliminating the need for access to central, on-line data sets via complicated remote terminals. PRINT also offers the possibility of simultaneous display of any number of data sheets without the need for display terminals with multiple-page facilities. A selection of the most interesting information can be presented in the form of 'pictures on the wall.'

"PRINT involves no upkeep costs; no batteries or any other power supply are needed since the motive power - thanks to an ingenious device patented by the makers - is supplied by the brain of the user.

"Altogether the PReCise INformation Tool seems to have great advantages and no drawbacks. We predict a big future for it."

Newsletters

In the United States at least, newsletters are now perhaps the most popular and effective print medium. So says an article by Albert Walker, professor of journalism at Northern Illinois University, in a recent issue (1977/1) of the Journal of Organizational Communication, quarterly publication of the International Association of Business Communicators.

Walker estimates that 50,000 organizations, agencies, businesses, and other groups in the US are represented by newsletters, which publicize some 5000 activist causes, 2000 commercial interests, and more than 6000 subjects from abrasives to zoological parks. There is even a Newsletter on Newsletters.

The IABC article points out that the newsletter is a very old and respected print medium. Newsletters were published by Chinese rulers around 200 BC to keep the court retinue informed, and by banks and insurance companies in seventeenth-century England to tell investors about shipping activities. The first newspaper in the North American colonies was not a newspaper at all but the Boston Newsletter of 1704.

Newsletters are published to inform, persuade, advise, and encourage. They differ in purpose, content, format, and method of delivery; that is, they may be commercial or promotional; contain news, reviews, or summaries; advocate special causes or support particular interests; have newspaper or magazine format; appear as inserts in magazines, bills, or pay envelopes.

Every typist is now a potential typesetter. Anyone can become a publisher by using a low-cost duplicating process. Readers tend to scan and skim through a newsletter as soon as it is delivered, laying magazines aside to be read in "time that never comes." Newsletters, in short, are "creating a revolution in journalism."

Shorts

"Career and Life Planning for Students," by John Picarelli, originally a series of articles in recent issues of the IEEE Student Newsletter, is being published as a pamphlet. PC-ers may be interested on behalf of young relatives, friends, or colleagues. Write to Judy Rundle, IEEE Student Activities, 345 East 47th Street, New York, NY 10017.

* * * * *

PC-ers who travel for business or pleasure may want to participate in a program recently announced by IEEE's Educational Activities Board. If arrangements are made in advance, an honorarium of \$300 per teaching day and local travel expenses will be paid for teaching short courses. When requesting details, send brief biography, description of course or subject, and travel plans to Vincent Giardina, IEEE Continuing Education, 445 Hoes Lane, Piscataway, NJ 08854.

SI Metrics

The Industrial Communication Council's Newsletter for April contains a 4 1/2-page article on "How to Communicate Metrics to Your Organization." Author Forbes LeClair points out that "conversion" or "going metric" is not only a mathematical exercise but also an emotional difficulty. We must learn to think in metric terminology, he says, and forget about "translating."

In introducing metrics to Ontario Hydro personnel, LeClair has used, among other aids, a slide presentation, posters, a technical tabloid, a management newsletter, written instructions and specifications, and the characters "Millie Gram" and "Buddy Watt." The two steps of learning, according to this author, are general awareness and particular familiarization.

An addendum to LeClair's article is this brief history of "metric":

The metric system of measurement was used extensively by the scientific community in Europe during the nineteenth century. It was originally established by the French. Britain adopted a modified system based on the centimetre, gram and second, known as the CGS SYSTEM, but this was never used in British commerce, only by the scientists.

In 1904, the CGS System was dropped and the metre and kilogram were adopted in Britain as the base units for length and mass. Thus the MKS SYSTEM--metre, kilogram, second--came into use.

In 1935, a professor Giorgi recommended that mechanical units be linked to electrical units by adopting a fourth base unit--the ampere. When this idea was formally adopted in 1954, it produced the MKSA SYSTEM--metre, kilogram, second, ampere.

In the late 1950s, further base units were added to the MKSA system--kelvin, candela, and mole. This expansion led in 1960 to the establishment of the International System of Units (Le Système Internationale d'Unités), for which the abbreviation SI is used.

SI, a practical, coherent system of measurement, is being adopted worldwide to improve communication by standardizing units.

LeClair warns that education in metric conversion must be preplanned, specially designed and timed, given a definite priority in any particular field. Noting that a gram of prevention is worth a kilogram of cure, he gives guidelines for teaching employees to THINK METRIC and quotes Senator Charles Sumner's comment, made 110 years ago, on the US Metric Act of 1866:

They who have already passed a certain period of life may not adopt it; but the rising generation will embrace it and ever afterwards number it among the choicest possessions of an advanced civilization.

The following list contains titles selected from the list which concludes LeClair's article:

National Bureau of Standards Metric Guidelines, Metric Practice Guide and Style Manual.

Available from AMJ Publishing Co., a Division of Polymetric Services, Inc., Tarzana, CA, 91356.

The World of Measurements, by H. A. Klein.

The definitive book on the units and concepts of measuring; 1974, 736 pp., \$14.95; Simon and Schuster, 630 Fifth Ave., New York, NY 10020.

Metric Practice Guide. ASTM E380-76; in Canada, CSA Standard Z234.1-76; the same as IEEE Standard 268-1976 except for the spelling of two words throughout (ASTM writes metre and litre, IEEE has meter and liter.)

The Guide gives conversion factors and rules for use. American Society for Testing and Materials, 1916 Race St., Philadelphia, PA, 19103; or IEEE Service Center, 445 Hoes Lane, Piscataway, NJ, 08854.

Three publications available singly or in quantity from

Metric Promotions
1165 Leslie Street
Don Mills, Ontario
Canada M3C 2K8

1. Metric Made Easy, \$5.95

A four-step self-education kit.

2. Writing SI Metric, \$1.95

A 20-page guide to correct metric practice in writing, typing, and printing.

3. Metric Awareness Posters, \$9.75

Book (8 1/2" x 11") of posters on the seven basic SI units; perforations for easy tear-out; instructions for use in conversion program.

Two pocket-books available at \$1.95 each from

NTDPMA
9300 Livingston Road
Washington, DC 20022

1. Basic Training Guide to the New Metric and SI Units

2. Reference Handbook for the Proper Usage of Metric-SI in Science and Engineering

Dun and Bradstreet's Guide to Metric Transition for Managers, \$19.95, hard cover. Harper & Row, 10 East 53rd Street, New York, NY 10022

Information on Films

A free computer listing of the following films plus 40 others on related issues is available from

John Dowling
Physics Department
Mansfield State College
Mansfield, PA 16933

The listing gives information on production and distribution, a short summary, level of audience, source of review (if any).

Versus--by and about NATO

Hiroshima/Nagasaki

Building of the Bomb--historical perspective

Lovejoy's Nuclear Way--radical attempt to halt nuclear power

Nuclear Power Dilemma

Bridge to Tomorrow--need for nuclear power

Plutonium Connection

Knowledge or Certainty--social responsibility of the scientist

FEA Cinema

As part of its public information/understanding program, the Office of Communications and Public Affairs of the Federal Energy Administration has released the following films. All are 16mm, optical sound in color, and available on free loan to schools, civic and professional groups, and television stations:

When the Circuit Breaks. 28 minutes. Looks at past, present, and future energy uses and demands; Spanish language version also available.

Don't Cut Us Off. 16 minutes. Documents the activities of four cities to solve the high cost of energy as it affects the poor and elderly.

Up the Power Curve. 10 minutes. Shows the practicality of energy conservation and the important role it plays in helping solve some of our energy problems.

These films can be purchased from the National Audio-visual Center in Washington, DC 20409. FEA films currently in production scheduled for fall '77 release include Reserved for Tomorrow: A National Oil Reservoir; Coal: The New Energy; Energy: Update on America; Futureenergy: A Mini-Documentary Series.

For further information about these films, contact Visual Information Officer, Office of Communications and Public Affairs, Federal Energy Administration, Washington, DC 20008.

American Film Festival

Prize-winners at the American Film Festival (May 23-28):

Earth Science

Face of the Earth (National Film Board)

A Desert Place (Time-Life Multimedia)

Anthropology/Ethnography

From the First People (Alaska Native Heritage Film Project)

The Ax Fight (Documentary Educational Resources)

Physical Sciences & Math

Universe (NASA Headquarters)

The Moon: A Giant Step in Geology (EBEC)

Biological Sciences

Nightlife (Phoenix Films)

Why Do Birds Sing? (Time-Life Multimedia)

Environment

A Measure of Change (Urbanimage Corp.)

Baymen--Our Waters Are Dying (Anne Belle)

Nature & Wildlife

The End of the Game (Phoenix Films)

The Right Whale: An Endangered Species (National Geographic)

Medial Science for Professionals

The Dynamic Kidney, Part 1 (Eli Lilly)

The Human Brain (Hoffman-LaRoche)

Further information is available from the Educational Film Library Association, 45 West 61st Street, New York, 10023, 212-246-4533.

A program listing all the films shown during the Festival is available from EFLA at \$3.00.

Energy Films

Bill Loosely's Heat Pump. 1976. 10 min. Bullfrog Films, Box 114, Milford Square, PA. 18935. Describes a system to gather heat from the ground below frost level.

Bridge to Tomorrow. 1977. 27 min. Screenscope, 1022 Wilson Blvd., Arlington, Va. 22209. Promotes use of nuclear fission.

Energy: Toward the Age of Abundance. 1975. 19 min. ACI Films, 35 W. 45th Street, New York, NY 10036. Warns of depletion of fossil fuels, promises unlimited energy from fusion and sun.

Fusion: The Energy Promise. 52 min. Time-Life, 100 Eisenhower Dr., Paramus, NJ 07652. Traces history of the international race to achieve fusion, with explanations.

Fusion: The Ultimate Fire. 1976. 14 min. BFA Educational Media, 2211 Michigan Ave., Santa Monica, CA 90404. Describes nature, significance, and current research efforts on fusion.

More Nuclear Power Stations. 1976. 50 min. Green Mountain Post Films, PO Box 177, Montague, MA 01351. Questions the need for more nuclear power stations.

The Need for Nuclear: Our Energy Options. 1976. 20 min. Atomic Industrial Forum, 7101 Wisconsin Ave., NW, Washington, DC 20014.

Power from the Earth. 1975. 13 min. Doubleday Multimedia, Box 11607, 1371 Reynolds Ave., Santa Ana, CA 92705.

Saving Energy at Home. 1975. 13 min. Ramsgate Films, 704 Santa Monica Blvd., Santa Monica, CA 90401.

Communication

A newly-hired traveling salesman from South Louisiana wrote his first report to the home office. It stunned the brass in the sales department because, obviously, the man was almost illiterate. Here is what he wrote:

"May, Boss, I done seen them outfit, and you know, chere, they ain't never bot a dimes worth of nothing from us and may I done sole them a couple hunerd thousand dollars of that stuff you told me. I am now going to big Chicawgo."

Before this Cajun could be given the old heave-ho, a letter came from him in Chicago:

"Sas ses chec chose--you know, I done cum here and may sole then a helf a million."

Fearful if he did and fearful if he didn't fire the salesman, the manager dumped the problem in the president's lap. The following morning the two letters were posted on the office bulletin board--with a memo from the president above them:

"May let me tell you, we ben spending two mutch tyme tryeing to spel rite instedd ov tryeing to sel. Lett's watch them sails, you hear. I want evrybodie, mon chere, to reed these letters from ovr new man, who is on the rode doin a grate jobb for us. You shud goe out and do like he done."

--From "Regional Communications," by R. J. Gros in the Bulletin of the American Business Communication Association, December 1976.

Views and News

The United Nations Committee on the Peaceful Uses of Outer Space met recently in Vienna, Austria, but found itself mired in disagreements.

The discussions dealt basically with two deceptively simple topics that become political mare's nests as soon as they are given a little thought; namely, the distribution of earth-resources data and the direct broadcast of television programs from satellites.

All countries agree, for example, that the data from Landsat (and from the still-to-be-launched Seasat) should be distributed--but should data on each country go only to that country or to anyone who asks for it, or should a country have a right to grant or withhold permission for access to its data?

One problem is that, at least at present, the earth-resources satellites are owned and operated and the data streams into just one country--the United States. This situation obviously puts the US in an advantageous position which is enhanced by the fact that much of the interpretive expertise for this data is also in the US--the rest of it is in other developed countries.

The developing countries, on the other hand, worry about what will happen if major oil or mineral finds are discovered from Landsat data on their territory. Will they be able to control or prevent a rush of outsiders eager to "help" them exploit the newfound resources?

The concentration of technology in the Western developed countries, particularly the US, also is the source of disagreement about direct-broadcast satellites.

The Soviet Union, already experienced with the appeal of Western programming to its citizens in border regions, is concerned not only that the US will use a direct-broadcast satellite for ideological propaganda but also that the wide availability of standard Western programming would lure Soviet citizens away from Russia's own programs. While Russia can and does electronically jam US radio transmissions beamed at the Soviet area, they are reluctant to undertake TV jamming since it is a far more difficult and costly job. Thus they are joining the developing countries in the UN in an effort to have the world body agree to a system of controls on direct-broadcast-satellite use.

Since the Soviet bloc plus the developing countries control a substantial majority in the UN General Assembly, the developed countries of the West are dragging their heels about coming to any agreement on an approach to controls of direct broadcasting from satellites because they wish to maintain, and to have the UN reaffirm, the concept of the world-wide free flow of information.

At the moment the West is arguing in committee that there is no need to decide about direct-broadcast controls now because, what with the present state of frequency spectrum crowding, there won't be enough direct-broadcast satellites to make any difference for another ten to fifteen years.

The Soviet and developing countries, however, well aware that direct-broadcast satellites have been orbited on only an experimental basis so far, want to establish the principles of controls early before their "rights", as they see them, are trampled by an onrushing technology.

--Item reprinted from Communication News for July, which cites the Washington Post as its source of information.

Book Review

DESIGNING TECHNICAL REPORTS: Writing for Audiences in Organizations, J. C. Mathes and D. W. Stevenson. Indianapolis: Bobbs-Merrill, 1976. Hardcover, 8-1/2 x 11, 396 pp., \$14.95.

In Designing Technical Reports, two members of the Humanities Department of the College of Engineering at the University of Michigan have applied concepts of design and structural analysis to engineering writing.

The authors begin by pointing out the differences between preparing reports in college and preparing them in industry. That is, students write for one person, a professor, who is better informed than they and to whom they try to demonstrate their mastery of ideas and information. Practicing engineers, on the other hand, write for an organization, a group of persons with a variety of needs and backgrounds, to inform, guide decision-making, and recommend courses of action.

Considering these differences, and believing that problems of technical communication can be approached as systematically as problems of structural engineering, Mathes and Stevenson have written a how-to manual for designing reports. Even style, format, and editing are treated as design problems.

The book focuses on questions that every engineer must answer before beginning to write:

Who is to read the report?
What do the readers want or need to know?
What does the writer want to accomplish?
How should the report be structured to meet these specifications?

One cannot design a serviceable tool, or bridge, or inventory system, or report, Mathes and Stevenson believe, without first being well-informed about how the finished product will be used, by whom, and for what purposes.

Accordingly, they discuss the writing of a technical report as a design process with three stages. First, the writer must determine what will be the function of the report in the organizational system in which it is presented. More specifically, engineer/authors must understand the prevailing communication system or process which their reports will enter. Next, they must identify the persons who will read each report; characterize them according to position, knowledge, and personality; and classify them in terms of how they will use the report. Then, in view of this audience-analysis, writers must determine their purpose for writing and decide how best to state or indicate this purpose.

The next stage of report writing as an engineering activity is that of designing the report. Mathes and Stevenson recommend that every report should have two clearly distinct components: introduction, consisting of preliminaries and a summary, to provide a useful overview of problem and proposed solution; and body, consisting of discussion and attachments, to provide details of problem, investigation and "back-up," and solution.

Designing Technical Reports describes structures and methods for preparing both opening and discussion components for different kinds of report, gives examples, and considers the use of sub-components. Two developmental strategies are recommended:

Generalize first, then explain particulars.
Discuss particulars in a sequence of descending significance.

Mathes and Stevenson follow their treatments of function analysis and over-all design with a section called "Writing and Editing the Report." Here again they stress the importance of general-to-particular and more-to-less-important strategies, this time as applied in designing and arranging a report's segments and units. Patterns of internal design are discussed for presenting persuasive, descriptive, explanatory, cause/effect, question/answer, and comparative material.

Tactics for revision are similarly treated as matters of design. Poorly edited sentences, say Mathes and Stevenson (p. 142), are like noise in a system of audible communication.

They can interfere with the clear reception of the signal and at times can even block out the signal entirely. Although few writers enjoy the routine work of filtering out this noise, the work must be done. Doing it efficiently means that you must edit sentences both in context and individually.

The chapter on editing accordingly discusses the inter-relatedness of sentences within segments and units of a report and problems of making individual sentences direct, clear, and efficient.

In considering the structural aspects of layout and visual aids, Mathes and Stevenson write (p. 162),

The design of a report is not the design of an idea; it is the design of a thing. The report writer must therefore understand how physical design features can reinforce and clarify ideas.

Four devices are recommended for calling attention to the intellectual design of a report: headings, transitional paragraphs that restate or forecast, numbering, and white-spacing. Similarly, visual aids--chart, graph, table, photograph, diagram--are considered as elements of design which complement and clarify a text when they are well placed, well conceived, and well executed.

These discussions--of how to determine the function of a proposed report, how to design the report, and how to write and edit it--occupy about half of Mathes and Stevenson's volume. The other half consists of, first, a guide and checklist, which together make up a basic procedure for planning a report from draft to publication; and second, nine complete reports,

which embody the rhetorical principles advocated in the text and, taken together, illustrate the underlying similarity of reports designed for an audience.

Designing Technical Reports seems indeed to be the "superior text" of the publisher's description. It contains much material, is well-designed, "reads" smoothly and persuasively. Young engineers beginning to write technical reports as job assignments, and older engineers for whom writing is difficult may find its structural approach greatly to their liking. Individuals may read the book and apply Mathes and Stevenson's design principles as a means of self-improvement; supervisors of industry training courses may recommend it as a combined exposition of principles and tool for on-the-job service.

Designing Technical Reports is not a textbook for slogging through and working exercises (there are no exercises), but a volume to read for understanding and keep open for practical day-to-day guidance.

Engineering Management

The theme of the 1977 Joint Engineering Management Conference (JEMC) is "Engineering Management: Key to Productivity." The conference will be held at Stouffer's Cincinnati Towers in Cincinnati, Ohio on October 31 and November 1, 1977.

This conference continues the twenty-five year tradition which was begun April 15, 1953 in Detroit, with the first Annual Engineering Management Conference sponsored by the Management Division of the American Society of Mechanical Engineers. Present sponsors of the JEMC are AIIE, ASCE, ASME, ASOC, IEEE and the Engineer Institute of Canada; more than 500,000 engineers are represented. One of the sponsoring societies manages the conference each year. AIIE is in charge in 1977, and IEEE will be host in Denver in 1978.

At this year's Conference, speakers and discussions will consider many aspects of management for productivity, including profits, competitiveness, work measurement, education and skills, safety, communication, and innovation.

Keynote speaker for the 1977 JEMC will be J. H. Kehlbeck, President of AIIE. The luncheon speaker on October 31 will be W. L. Cisler, former Chairman and President of Detroit Edison Company, who spoke at the first Engineering Management Conference in 1953.

For more details on this meeting, the only national conference on engineering management, contact

Paul H. Bluestein, P.E.,
3420 Section Road
Cincinnati, Ohio 45237

(513) 731-3415

Education is what survives when what has been learned has been forgotten.

--B. F. Skinner (1964)

Science International

Science International is a group of researchers involved in presenting scientific happenings in a manner that is clear and understandable to laypersons. SI has produced a new science-entertainment television show called What Will They Think of Next?, now in its second season.

The presentation is described as "slick, vigorous, fast-paced, and chock-full of fascinating information." Its first half consists of a series of film clips on exciting science news, worldwide; the other half is a professional cartoon which uses the new Speffigen Visual Presentation technique.

For more information, write to Marcia Topp, Film Coordinator, Science International, 81 Barber Greene Rd., Don Mill, Ontario, Canada M3C 2A3.

Photonics

Have you met the word PHOTONICS yet? W. G. Hyzer, in Photomethods for May, reports that the term describes the science of systems in which photons are the principle carriers of communication. It covers such fields as high-speed photography, technical photography, photo-optical instrumentation, and so on.

Thus photography is a branch of photonics dealing with imaging technology. Use of the term photonics may be thought analogous to today's use of electronics, which began as radio engineering.

--From ASFA Notes (July)

Weldo D-rings

* An improved loose-leaf binder is being made by Weldo Plastics of Toronto and Chicago. Its rings--three or seven--are D-shaped, not circular, and bonded to the back, not the spine. These two features virtually eliminate the tearing of pages in ordinary use and permit tabs to be visible at all times. The new binders open flat and hold about 25% more paper than traditional binders. For prices, a sample of the welded vinyl binder material, and information about binder construction and art work, write to Weldo Plastics at 181 Bridgeland Avenue, Toronto, Canada, M6A 1Y7, or 939 W. 35th Street, Chicago, IL, 60609.

Careful, Now

The engineered safety features system initiation instrumentation setting limits and permissible by-passes shall be as stated in Table 3.14.1.

Speak Better

Guide for Better Technical Presentations, by Robert M. Woelfle, may be obtained from

IEEE Press
345 E. 47th Street
New York, NY 10017

Prices are as follows: Paperbound, \$7.95, to IEEE members only; clothbound, \$11.95 to IEEE members, \$15.95 to others. Send check with order.

This is an excellent collection of reprinted articles about how to present technical material to an audience--planning for effectiveness, perfecting delivery, using visual aids, etc.

Write Better

"Technically--Write!," the Home-Study Course, is still being offered by IEEE's Educational Activities Board and the Group on Professional Communication. This correspondence course features personal interaction. Students mail completed assignments to individual instructors, who appraise the work and return practical comments. Specific attention and easy-paced teaching help those with undeveloped writing skills to advance from a partial grasp to confident control of communication techniques.

Eleven "packages" cover such topics as occurrence and field-trip reports, letter writing, job descriptions, resumes, and technical articles. Students learn how to recognize communications that may be ignored or misinterpreted, and how to write messages that get desired attention and action. The course can be completed in about 3 1/2 months.

IEEE members may enroll for \$80 (give membership number); non-IEEE members, for \$105. Include \$2 for handling and delivery. Send inquiry or check to

V. J. Giardina
IEEE Continuing Education
445 Hoes Lane
Piscataway, NJ 08854

Plan Better

Report Construction, by Mary Fran Buehler, may be obtained from

IEEE-PC
6411 Chillum Place, N.W.
Washington, D.C. 20012

Prices are as follows: 1 to 10 copies, \$2.00 each; 11 to 25 copies, \$1.90 each; 26 or more, \$1.75 each. Send check with order; at these prices, we cannot afford to bill.

This is a clear, concise, practical guide--not on how to write, but on how to "build" a structure for conveying technical information.

US Air Force Systems Command

The May Newsletter of the Aerospace and Electronics Systems Society discusses the U.S. Air Force Systems Command in the first of a projected series of articles on the organization, functions, operations, and programs of groups which operate in the Society's field of interest. A summary of the article follows:

The Air Force Systems Command (ASFC), established April 1, 1961, is responsible for the advancement of aerospace science and technology and its adaptation into operational aerospace systems. Systems Command is organized to provide effective management of Air Force scientific and technical resources to accomplish its mission.

ASFC also meets the major space responsibilities of the Department of Defense (DOD). These include research, development, test, and engineering of satellites, boosters, space probes, and associated systems needed to support specific National Aeronautics and Space Administration (NASA) projects and programs arising under basic agreements between DOD and NASA.

ASFC headquarters at Andrews Air Force Base (AFB), Md., directs the operations of divisions, development and test centers, ranges, and laboratories, and coordinates the military and civilian scientific and industrial efforts of the United States toward the development and procurement of aerospace weapon systems.

Some 55,400 officers, airmen, and civilians at more than 200 installations, in the fifty States and abroad, take part in this effort.

Information

The Foreign Technology Division at Wright-Patterson AFB (Ohio) acquires, analyzes, and disseminates information on foreign aerospace technology.

Technology

1. The Aerospace Medical Division at Brooks AFB (Texas) conducts biomedical and biotechnical research, development, and test programs to explore the capabilities of man in aerospace operations. Units of this Division include

- * Medical Center at Lackland AFB (Texas)
- * Research Laboratory at Wright-Patterson AFB
- * School of Medicine at Brooks AFB

2. The Director of Science and Technology at Andrews AFB headquarters administers laboratory research and development programs; work is performed as follows:

- * on weapons at Kirtland AFB (New Mexico)
- * on rockets at Edwards AFB (California)
- * on aircraft armament at Eglin AFB (Florida)
- * on human resources at Brooks AFB
- * on geophysics at Hanscom AFB (Massachusetts)

3. The Office of Scientific Research at Bolling AFB (D.C.) awards grants and contracts for basic investigations. It is responsible for work done in physics, chemistry, and mathematics at the USAF Academy (Colorado) and for activities of the European Office of Aerospace Research and Development (London) which links the Air Force with scientific communities abroad.

4. Aeronautical Laboratories at Wright-Patterson AFB investigate flight dynamics, materials, avionics, and aero-propulsion.

5. The Air Development Center at Griffiss AFB (New York) conducts research and development programs in information sciences and communication.

Products

1. The Space and Missile Systems Organization (SAMSO) at Los Angeles AFB manages the design, development, acquisition, launching, and tracking of missile systems. Part of this work is operation of the Satellite Control Facility which conducts on-orbit, real-time tests of DOD satellites.

Another part of SAMSO is the Space and Missile Test Center at Vandenberg AFB (California) which manages satellite launches and ballistic tests, and supervises data-gathering sites scattered from the California coast to the Indian Ocean--i.e., in the Western Test Range.

2. The Eastern Test Range is managed from Patrick AFB. This missile-testing facility extends from Florida down the Atlantic and into the Indian Ocean.

Cape Canaveral is Station One, the launch site. Tracking and data-gathering stations are at Grand Bahama, Grand Turk, Antigua, and Ascension Islands. The last land station is near Pretoria, Republic of South Africa.

The Air Force, Army, Navy, NASA, and foreign countries use this Range in developing missile and space-exploration projects. Radar, optical and continuous-wave devices track vehicles, and telemetry equipment records flight performance.

3. The Aeronautical Systems Division at Wright-Patterson AFB manages the development and acquisition of such equipment as

- * the B-1 advanced strategic bomber
- * the F-15 "Eagle" tactical fighter
- * remotely piloted vehicles (RPVs)
- * the Maverick (television-guided air-to-ground anti-tank weapon)
- * "flying laboratories" for various research and development projects

4. The Electronic Systems Division at Hanscom AFB is responsible for the development, acquisition, and delivery of electronic systems and equipment for aerospace communication. These systems take many forms, such as

- * a joint U.S.-Canada network of civilian/military radar sites
- * an updating of the underground combat operations center for NORAD (North American Air Defense Council)
- * long-range coastal radar networks
- * satellite communication terminals
- * an air-borne radar-and-communication post
- * the use of computers to solve command and control problems

Support

1. The Contract Management Division at Kirtland AFB manages the administration of contracts held by 20 major defense suppliers from Air Force, Army, Navy, NASA, and other government purchasing agencies.

2. The Civil Engineering Center at Tyndall AFB (Florida) conducts research and development projects and provides technical services related to civil engineering and environmental problems of the Air Force.

Test

1. The Flight Test Center at Edwards AFB tests and evaluates manned and unmanned aircraft systems, vehicles, and devices; participates in U.S., private, and foreign test programs; and operates the USAF Test Pilot School.

Located about 100 miles northeast of Los Angeles on the western edge of the Mojave Desert, the Test Center has one of the largest ground complexes (301,000 acres) in the Air Force; at its immediate disposal are over 14,500 square miles of restricted airspace. Within the Edwards reservation are 65 square miles of usable landing area on two dry lake beds with runway lengths up to 7.5 miles. This complements the 15,000-foot main runway. Additionally, ideal flying weather and a semi-isolated location combine to afford an environment highly conducive to safe and successful flight tests.

Equipment now being evaluated includes

- * E-3A Airborne Warning and Control System (AWACS)
- * B-1 strategic bomber
- * F-5E/F, F-15, and F-16 fighters

2. The Armament Development and Test Center at Eglin AFB researches, develops, tests, and acquires for inventory all non-nuclear armament for Air Force tactical and strategic units.

The work covers air-launched tactical and defense missiles, guided weapons, aircraft guns and ammunition, targets, and related support equipment; also electromagnetic-warfare and inertial-navigation systems.

Tests are carried out over more than 720 square miles of land and 44,000 square miles of the Gulf of Mexico.

3. The Engineering Development Center at Arnold AFB (Texas) contains the free world's largest

and most advanced complex of test facilities for simulation of aerospace flight. Its mission is to insure that aerospace hardware--aircraft, missiles, spacecraft, jet and rocket propulsion systems, and other components--will "work right the first time they fly."

The three major facilities of the center contain some 40 test units in which flight conditions can be simulated from sea level to altitudes of 1,000 miles and from subsonic velocities to more than 20,000 miles an hour. Equipment being tested ranges in size from small-scale models to full-scale vehicles with propulsion systems installed and operating.

Some engineering development work for virtually every major U.S. aerospace system has been supported by tests at this Center, and a number of unexpected problems encountered in operating systems have been quickly and economically solved. Tests are conducted for the Air Force, Army, Navy, NASA, and other federal agencies and their aerospace contractors.

CCS Meeting / Seminar

The Council of Communication Societies (PC is one of its 19 members) held a mini-conference that consisted of an afternoon business meeting on June 9 and an all-day seminar on June 10.

Business

It was pointed out that individual members of CCS member organizations (e.g., PC-ers) may receive 12 issues of Communication Notes for \$6.00 (half-price). This excellent monthly newsletter, "A Digest of News for Communication Professionals," contains full reports of CCS's twice-yearly seminars; a running calendar (2 to 6 months ahead) of meetings, workshops, and seminars dealing with communication; and brief reports on journals and journal articles, activities, books, people, organizations, and technology variously relating to communication. Send \$6 with request for subscription to CCS, P.O. Box 1074, Silver Spring, MD, 20910; include your IEEE Member No. and identify yourself as a PC-er (Canada and Mexico, \$10; elsewhere, \$18).

Most CCS organizations share conference reciprocity (i.e., registration at member rates), and ideas of inter-society conference participation, scheduling, and programming are being considered. Other tentative CCS projects: compilation of bibliographies on communication and an index of communication courses and curricula, printing career brochures, publishing state-of-the-art papers by individual members of member societies.

Seminar

The seminar program was designed to show implications of the free flow of information and of the concept that freedom to communicate is a basic human right.

Attorney Heather Florence discussed First Amendment freedoms, pointing out that minor losses today may cause major losses tomorrow. The focus of national attention, however, is and should be varied and changing. In 1970 and 1971, we were concerned about national security and the right to publish the Pentagon Papers. In 1976 and 1977, problems related to pornography and pharmacological advertising became important. Arguments about defamation of character and invasion of privacy are always with us.

Journalist Nat Hentoff urged repeal of the First Amendment. The ability of individuals to sue for libel, he said, makes authors and publishers fearful of writing and printing the truth.

Dan Lacy, a vice-president of McGraw-Hill (hosts of the seminar), discussed technology and institutional structures as factors in communication. He pointed out the burst of new forces which began to affect communication in the last 20 years of the last century--the steam-powered rotary press, mechanical paper-making, large-scale rail transportation, universal elementary education, growth of corporations, and so on. Then in this century came phonograph recording, the film industry, radio, television, publishing complexes, and the computer. In the presence of these, Lacy suggested, freedom to speak has become less significant than access to a medium of communication.

He also pointed out that in the United States, the question of being allowed to speak is far more complex than a matter of freedom vs. censorship. We tend to forget how deeply our Government is involved in communication.

Federal bureaus and departments not only engage in assorted judicial functions (such as antitrust and libel cases) and executive functions (such as a administration of copyright and regulation of electronic

communication media), but also have made the U.S. Government both the nation's largest producer of printed material and motion pictures and one of the nation's largest consumers of information. Perhaps half the books published in the country are purchased with Federal money.

In addition, Government is a crucial originator and prime source of vast quantities of information. For instance, it is essentially the sole source for information about defense issues, and that information is controlled so carefully that the public, by and large, knows only what the Government wants it to. Much the same can be said about major international issues, and even such mundane affairs as wheat futures.

Indeed, our Federal government is so intimately involved with communication affairs that it cannot be excluded from them; rather the best we can do is try to restrain the exercise of its power.

Recently, however, the ability of the government to use its power has been increased by the advent of the computer, which provides information about people from the IRS data bank and about business from the SEC data bank. Computers also print, abstract, store, reprint, index, and copy journal articles; as scientific publishing becomes less and less profitable, Government may take it over.

Robert Freedman, attorney for Station WNET in New York, discussed freedom of information from the perspective of Public Broadcasting. The Federal Communication Commission makes rules, sues, and judges litigations, he pointed out, to ensure that broadcasters serve the public fairly in their service areas. He also discussed broadcasters' difficulties in balancing the public's right to be informed against individuals' rights to privacy.

Faith is a fine invention
For gentlemen who see;
But microscopes are prudent
In an emergency.

--Emily Dickinson (1880)

MEMBERSHIP APPLICATION

IEEE GROUP ON PROFESSIONAL COMMUNICATIONS

Sent to: IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854

Name _____ IEEE Membership No. _____

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☐ I am a _____ member of IEEE and hereby apply for membership in the Group on Professional Communications.
grade I enclose a check for the Group tee* (made payable to IEEE).

☐ I am not now a member of IEEE but would like to join. Please send information.

*Group Fee: \$6.00.