

IEEE

NEWSLETTER



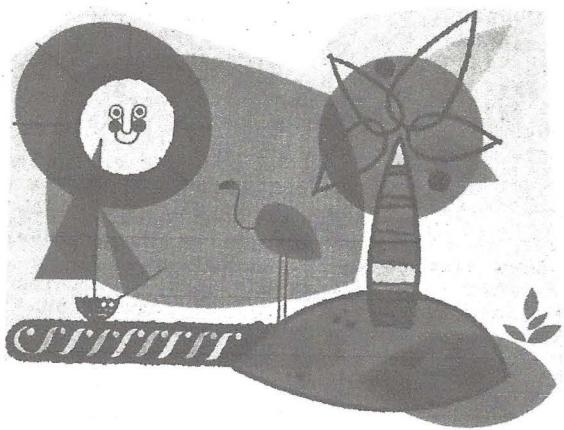
ELECTROMAGNETIC COMPATIBILITY GROUP

ISSUE NO. 60

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JULY 1969

EDITOR'S NOTE



Summer is traditionally vacation time for those who indulge in the endless duels of management and the weary tribulations of engineering for fifty weeks of the year. As creatures of habit, many of us take those remaining scant two weeks as a "Busman's Holiday." This Newsletter is the Editor's Busman's issue. It contains a roster of G-EMC members as of June 30, 1969, since such a roster would require too much space from a regular issue. Now with additional space available, we are also including some news items planned for the September issue in order to reduce the latter's load.

With this issue, your editor starts his second year at the helm. For the first few months, the Newsletter seemed to be a one-way medium of communication to sew the ~~eyes~~ of our members. But with the help of the Newsletter staff and particularly Marty (Ira Berman) with Chapter Chatter, we began to receive feedback from the various Chapter Chairmen, and were able to adjust our editorial policy to include the few expressed desires. Our ~~editorial~~ policies will continue to display a ~~flexable~~ dynamic posture with new features being added and some deleted. Therefore, we encouraged our members to express their likes and dislikes to assure that desired features are retained or are added.

As a first step toward my second year, I would like to thank the Newsletter staff, the management of the Space Systems Organization of the General Electric Company, and the many other individuals who have voluntarily contributed their efforts, support and information to this publication.

Robert D. Goldblum

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G-EMC NEWS & VIEWS

Editor's Notes on the June AdCom Meeting

Symposium

- Total attendance - 660
- Display booths - 41 with several late applicants turned away
- Financial report - considerable cash surplus, amount pending final audit

Selection of Officers

For the past year, the AdCom had debated the possible automatic succession of the Vice Chairman to the office of Chairman. It was finally decided not to formalize such an arrangement.

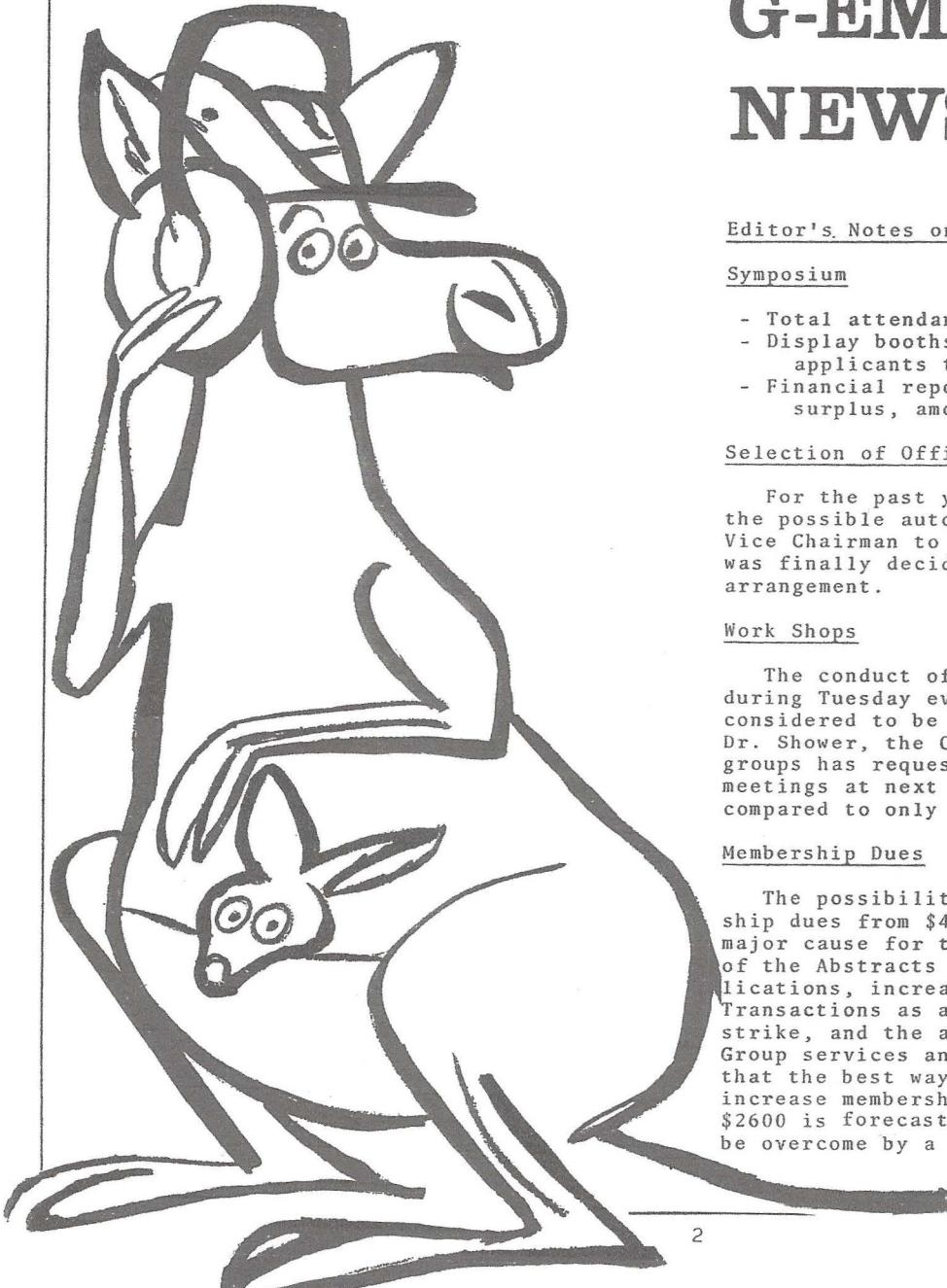
Work Shops

The conduct of work shops or working groups during Tuesday evening of the Symposium was considered to be quite successful. As a result Dr. Shower, the Chairman and organizer of these groups has requested time for 10 working group meetings at next year's Symposium at Anaheim, compared to only 5 this year.

Membership Dues

The possibility of increasing Group membership dues from \$4 to \$6 was discussed. The major cause for the increase is the addition of the Abstracts to the list of regular publications, increase printing costs of the Transactions as a result of a recent printer's strike, and the affects of inflation on other Group services and activities. It was stated that the best way to keep the dues down, is to increase membership. An operating deficit of \$2600 is forecast for this year, but this may be overcome by a surplus from the Symposium.

(Continued)



Closing

Due to the lateness of the hour, the meeting was adjourned prior to the completion of the agenda. This was the largest and most controversial AdCom meeting your editor has attended in the past three years. The free expression of ideas and opinions was the main factor to cause the meeting which started at 7:30 PM, to continue past 1 AM. It must have been the influence of the incentive of the pay, or the desire to improve state of the society.

L. A. EMC CHAPTER TAKES TOP AWARD

The Electromagnetic Compatibility Chapter of Los Angeles Council, Institute of Electrical and Electronics Engineers, has won the Council award as "Chapter of the Year."

Announcement was made by Raymond E. Banks, Council Executive Secretary, and the documented award was presented by G. L. Barcus, Chairman, at the Annual Installation Dinner Dance of the Council, held June 7 at Ports O'Call Restaurant, San Pedro, California

Chapter Chairman James A. Spagon, Section Head of EMC Requirements and Analysis, TRW Systems Group, was unable to receive the award due to his brand new baby daughter's homecoming. George R. Ufen, Past Chapter Chairman, and Chairman of the 1970 IEEE/EMC Symposium, accepted the award in Jim's absence.

Bylaws

For the past year, the Group bylaws revisions have been discussed at each meeting of the Administrative Committee. Again, new comments were submitted immediately prior to the vote to accept the revisions. As a result, the vote was postponed until the next meeting. The bylaws committee chairman, Len Thomas, expressed the request that all comments from AdCom members be submitted to him in reasonable advance of the next meeting.

JAMES SPAGON HONORED FOR ADVANCING EMC



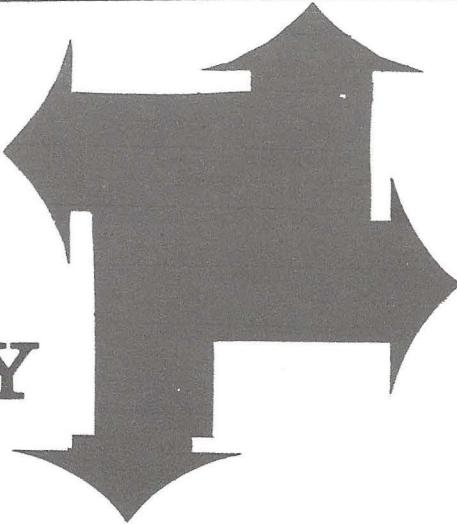
At the final 1968-69 meeting of the Southern California EMC Chapter, IEEE, James A. Spagon, Chairman, was awarded a plaque "for his dedication in advancing the science of Electromagnetic Compatibility."

Award was made by George R. Ufen, past Chapter Chairman, and Chairman of the 1970 IEEE/EMC Symposium. Presentation of the plaque was during the final session of an EMC Specialist Workshop -- "Foundations for the Future" -- which was attended by well over 100 persons at the Anaheim Convention Center. Many workshop attendees remained for the Society of Automotive Engineers', Committee AE-4, two-day convention which followed.

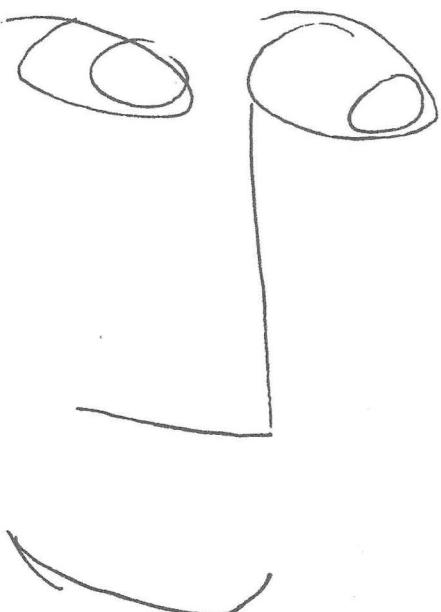
Jim Spagon, Section Head of Electromagnetic Compatibility Requirements and Analysis, TRW Systems Group, is active in the EMC community both locally and nationally. Besides chairing the Southern California Chapter this year, he also serves as National G-EMC Student Activities Chairman for the IEEE, and is Secretary of the 1970 IEEE/EMC Symposium. Under his chairmanship, the Southern California EMC Chapter was named "Chapter of the Year" by the Los Angeles Council, IEEE. Jim also is a member of G-46 Committee on EMC, Electronic Industries Assn.

According to Mr. Spagon, the recent Specialist Workshop was designed to delineate specialist areas within EMC, and to identify state-of-the-art in each area, and future direction for development.

MISCELLANY



*a bit of
Humor*



YOU THINK YOU HAVE TROUBLES

The "Star" swears that the following letter was written by a bricklayer in Toronto, to a contracting firm for which he worked.

"When I got to the building I found that a high wind had knocked some bricks off the top, so I rigged up a beam with a pulley at the top of the building and hoisted up a couple of barrels full of bricks.

When I fixed the building there was a lot of bricks left over. I hoisted the barrel back again and secured the line at the bottom, then went up and filled the barrel with the bricks that were left over. Then I went down to the bottom and cast off the line.

Unfortunately the barrel of bricks was heavier than I was and before I knew what was happening the barrel started down jerking me off the ground. I decided to hang on and halfway up I met the barrel coming down and received a severe blow on the shoulder.

I then continued to the bottom, banging my head on the beam and getting my fingers jammed in the pulley. When the barrel hit the ground it burst its bottom, allowing all the bricks to spill out. I was now heavier than the barrel and so started down again at a high speed.

Halfway down I met the barrel coming up and received severe injuries to my shins. When I hit the ground I landed on the pile of bricks, getting several painful cuts from the sharp edges.

At this point I lost my presence of mind because I let go of the rope. The barrel came down giving me another heavy blow on the head, putting me in the hospital.

I respectfully request sick leave."

(Reprinted from the Parts, Materials & Packaging Group Newsletter, Nov. 1968).

(Continued)

The following two items are reprinted from the G-EM Newsletter:

THE PRESIDENT'S TELECOMMUNICATIONS STUDY

The Telecommunications Task Force Report - the only high-level study of the U.S. communications policy ever written - may not be officially released for some time (if ever). However, your correspondent is able to reveal certain major highlights contained in the 476-page, \$1 million report. Basically the report stresses the present chaotic state of the spectrum management and proposes a new strengthened Executive Branch organization to deal with communications policy. Other points of interest: Increased funds for the FCC to adequately handle day-to-day business. The use of low-powered TV channels for ghetto needs. Domestic satellite system providing free channels for non-commercial instructional TV. Financing of non-commercial TV to meet need for more resourceful and varied TV service. The report does not indicate great enthusiasm for direct satellite-to-home programming, video records, or pay TV.

HIGHER SALARIES FOR 1969 GRADUATES

Engineering students graduating in 1969 can expect to get starting salaries up to \$829 monthly, according to a College Placement Council report. Based on a survey of 122 colleges and universities, the council finds that the starting salaries offered to technical graduates have increased 4.3% over 1968, as recruiting jumped 25%.

Reprinted from the March 1967 Newsletter of the IEEE Group on Systems Science and Cybernetics

HOW TO SUCCEED AS A PROFESSIONAL COMMITTEEMAN

W.D. Rowe, Consultant
Sudbury, Ma.

The numerous professional and industry societies and organizations in the engineering field provide an opportunity for participation in their operation. Formal and informal committees and task groups exist upon both a local and national basis. In most cases these organizations are totally dependent upon the volunteer participation of members. This volunteer work is considered a professional contribution and can aid in furthering one's professional career.

Participation can be time consuming, and will dilute your primary activities. Yet many of the leading members of the engineering profession spend a portion of their time in committee participation. They hold offices in these societies and on various committees and offices associated with conferences and meetings.

Why do they devote their time in this manner? What do they get out of it? One must understand these motives before considering how to get on a committee, and then how to perform successfully.

Motivation:

Prestige - Recognition of your contributions by other members of the profession provides a great deal of prestige.

The contribution may often be an administrative rather than technical one, but is considered valuable since it furthers the professional aims of the society. Lists of professional committee participation look good on a resume if not over-done. Your employer also reaps the rewards of your prestige as your sponsor.

Opportunity for Travel

Most companies will allow travel expenses for participation in professional activities before they allot quotas for those who want to attend technical meetings. Companies feel that active participation in these activities by professional employees brings recognition to the company as well. Since these activities imply leadership and recognition in the profession, they are usually more than willing to make the investment.

If travel is something you enjoy, participation on a national basis will provide the greatest opportunity for varied itineraries. If not, participate at the local level.

Meet People

Participation brings one in contact with leaders in the profession. It provides an opportunity to meet a wide variety of interesting and successful people with whom you would not ordinarily come in contact. It is an opportunity to broaden your horizons over those provided by your company. The contracts that you make professionally will serve you well as you continue to advance in your work.

Act on Eliminating a Gripe

The professional societies are never perfect. Its members continually gripe about the lack of quality and quantity of services. If you feel strongly about some of these deficiencies to the point where you wish to do something about it, then the first step is participation in committees that affect the areas of deficiency.

Finding a Technical Forum

If you are looking for a forum for discussion of technical material, then most likely you won't find it by committee participation. Most participation is administrative rather than technical in nature. The technical forum, for better or worse, still remains the function of the technical conferences and publications. Although committee participation often provides an opportunity for direct technical contributions at technical conferences, the committee meetings are rarely technical

(Continued)

Qualifications for Participation

The qualifications for participation are relatively few but important.

1. Contribute time - You must be willing to contribute the time necessary to undertake the job and tasks you will commit yourself to, and stick with them until completion.
2. Company support - Your company must provide its direct support to your undertaking in time and expenses. An outright commitment of your company to support you is vital.
3. Willingness to work - You must be willing to do some hard work. Many of the tasks assigned to you by a committee chairman will be difficult, require ingenuity and knowledge, and take time. It is important that you understand this when accepting a task, and then strive to complete it successfully.

That's all!

It may be hard to believe, but initial competence or experience is not necessary. There is a definite lack of good, responsible people who are willing to put the time and hard work in on all committees. Any time such a person can be found, the committee chairman will welcome this good worker's participation.

If you are just starting on route to being a professional committeeman, you must first prove yourself. You must demonstrate that you are a worker, not a space occupier, and are willing to put in the necessary time. You do this by serving an "apprenticeship" on an appointive subcommittee, appointed task group etc.

Getting appointed to one of these sub-groups is easy. Let the chairman or appointing officer know that you are available and desire to participate. There are several ways of doing this:

1. Contact the chairman directly by letter; or in person, with the follow-up letter.
2. Have your company contact the chairman by letter or provide you with an introduction.
3. Have an intermediate who knows the chairman contact him for you.

These are in order of increasing desirability, the least desirable first.

Very few committee chairmen will ignore a request for active participation. If an individual or your company sponsors you, don't let them down. Their reputation is at stake as well as yours.

The Successful Committeemen

There are very few successful committeemen among the large numbers of participants. The successful man is a member of the core group that runs the committee. He has gotten there by hard, diligent work that goes along with accepting responsibility. One finds that most members of any committee are "visitors and guests", not active participants. This is true of any organization.

The rules for the man who wants to be considered a member of the core group are:

1. Accept responsibility and carry out the task to its successful completion.
2. Learn when to say "No!" Accept no more responsibility than you are able to undertake. Don't take on too much and distribute your efforts across the board.
3. Be ethical and operate in a straightforward, honest manner. There is little to gain materially and your professional reputation is at stake if you don't act in this manner.
4. Be progressive Work and generate ideas to make your committee a better one to serve its constituents and dependents. Find out what they need and want, and suggest how these aims can be better implemented.
5. Attend meetings Diligently attend all meetings. There is no better way to demonstrate interest. Many a man has become a committee officer by being the only other attendee besides the officers.

If you follow these simple rules, and have anything on the ball at all, that's it. Your reputation will grow and the appointing and nominating officers will seek you out. You can then take on as much or little as you wish, as long as you do it well. Be a contributor, not a 'hanger-on'.

CORRECTION PLEASE

WE HAVE PRINTED AN ERROR, ON PAGE 8 OF THE JUNE 1969 ISSUE OF THE G-EMC NEWSLETTER. PLEASE NOTE THAT JOHN MERRELL IS EMPLOYED BY GLENAIRE, NOT GENISTRON.



R. C. Legion

membership

listing

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<u>New Jersey Coast (54)</u>	F. B. Alvarez C. F. W. Anderson R. H. Barton H. H. Bly Maxwell A. Brown J. J. Byrne Nello R. Castellini John F. Chappell J. H. Chislow Simon Cohen Harris Drucker John Egli Harry K. Estelle B. J. Fansler Ronald G. Ritch Carl L. Hammond Robert F. Holsclaw L. E. Hunt K. Ikrath Buy D. Johnson, Jr. Charles D. Joly Warren A. Kesselman R. A. Kulinyi T. W. Larson Barbara G. Lichter R. J. Linhart John Lucyk E. L. Luke C. W. Lundgren, Jr. P. A. Major V. J. Mancino F. L. Martinson Raymond K. Masnaghetti M. B. McCaleb Donald W. McLelland B. C. Miller		<u>North Central Ohio</u> Ronald W. Brewer C. G. Svala		
		<u>Washington</u> John E. Abernathy, Jr. J. D. Ahlgren W. S. Alberts C. C. Allen D. A. Allen Charles M. Anderson S. L. Bailey H. L. Baker R. Basham R. Bateman D. C. Beaumarriage R. R. Black Jack T. Blackwell R. J. Boteilho G. E. Brackett B. A. Brown J. R. Buckman R. N. Bullock Major Gordon L. Carpenter A. F. Carroll J. M. Carter W. S. F. Chu	<u>Philadelphia</u> W. E. Amos R. E. Anderson P.M. Andress Ralph E. Bailey V. H. Bashaw R. S. Berkowitz I. M. Berman D. L. Bierly, Jr. F. J. Bloom H. A. Bond William F. Boral C. C. Borden E. M. Brown A. L. Cavalieri, Jr. J. P. Chmielewski F. R. Clark S. H. Colodny Barton L. Conard Terry W. Dietrich J. P. Ellis R. V. Faris Conrad J. Fowler Raymond D. French		

<p>REGION 3</p> <p><u>Alabama</u> J. D. Creel Leonard W. Thomas, Jr. <u>Atlanta</u> F. L. Cain Lorimer Clayton, Jr.</p>	<p>Hugh W. Denny Ernest E. Donaldson, Jr. R. S. Duggan, Jr. W. D. Evans W. R. Free John H. Gutzke T. G. Hickman R. A. Holbrook F. P. Holder E. G. Holmes H. H. Jenkins R. C. Johnson D. W. Matthias, Jr. M. D. Prince W. L. Reagh D. W. Rovertson R. W. Smith J. W. Stephenson, Jr. Mc Curdy A. Thigpen J. C. Toler David F. Vrooman E. W. Wood</p> <p><u>Baton Rouge</u> A. Switzer</p> <p><u>Canaveral</u> P. N. Bosworth J. E. Bush A. T. Hanak James C. Kooper J. H. Kress H. O. Peterson C. N. Raney O. B. Rawls G. A. Tagge Elmer L. Taylor E. J. Tyzenhouse D. M. Vantassell, Jr.</p> <p><u>Central Virginia</u> W. L. Braun R. P. Gifford L. U. C. Kelling K. O. Lee J. Burton Linker, Jr. Richard T. Myers Neal H. Shepherd</p> <p><u>Florida West Coast</u> Charles M. Dean G. F. Lampkin C. G. Masters, Jr. W. E. Porter John L. Theimer Edwin Lee Whiter</p> <p><u>Fort Walton</u> K. L. Huntley J. T. Mizelle</p> <p><u>Gainesville</u> R. R. McPherson</p> <p><u>Hampton Roads</u> J. N. Boland R. P. Faust Robert E. Metcalfe J. W. Rouzie</p> <p><u>Huntsville</u> J. P. Butler R. J. Ellis R. Filipowsky B. H. Gallup W. S. Kastorff T. A. Prestwood, Jr. H. R. Seid W. J. Steen J. W. Weimer</p>	<p><u>Lexington</u> Robert R. Lisk</p> <p><u>Louisville</u> E. L. Marven, Sr. T. L. Wilson</p> <p><u>Miami</u> Hervert Austin Cook R. A. Stute</p> <p><u>Mississippi</u> G. D. Causey W. F. Johnson Henry R. Mutz</p> <p><u>New Orleans</u> Glenn E. Bell L. S. Boudreaux, 3rd J. A. Cronvich J. C. Hughes, Jr. R. A. Jacob J. W. Joyner N. R. Landry B. C. Segrest C. R. Short, Jr. C. D. Smith</p> <p><u>Orlando</u> R. N. Hokkanen Ernest A. Langpaul G. F. McClure J. V. Michaels C. W. North B. H. Robinson, Jr. H. K. Tang C. D. Whitescarver C. L. Wilkerson, Jr.</p> <p><u>Palm Beach</u> W. C. Aycock B. B. Burklund F. W. Dauer L. W. Feeney E. D. A. Geoghegan Karl E. Pommer, 2nd Julio C. Sardinas</p> <p><u>Panama City</u> E. H. Barnes H. N. Dawirs</p> <p><u>Richmond</u> L. J. Lysher J. R. Pollard R. N. Sparbel</p> <p><u>South Carolina</u> S. Vogel</p> <p><u>Daytona</u> R. P. Bouchard R. R. Raschke Wm. A. Wilson</p> <p><u>Central North Carolina</u> John E. Roquet</p> <p><u>Eastern North Carolina</u> Jack D. Williams</p> <p><u>Winston-Salem</u> G. C. Watford</p>	<p>REGION 4</p> <p><u>Cedar Rapids</u> R. O. Diedrichs D. K. Grimm</p> <p><u>Central Illinois</u> C. J. Armstrong J. D. Dyson</p> <p><u>Central Indiana</u> V. Cones H. D. Fassburg R. H. George Fred O. Kask R. L. Larson</p> <p><u>Chicago</u> T. A. Akers C. A. Anderson Robert J. Bateman J. H. Beall J. A. Bellino Alfredas Blyskis J. E. Bridges L. B. Costello A. J. Curry, Jr. Edward C. Dumay Dennis Dzierzawski B. Ebstein R. F. Elsner Leonard C. Emigh Lawrence J. Fay E. R. Follin, Jr. M. J. Frazier F. F. Fromme Lawrence V. Galimski R. Goldstein D. J. Healy H. R. Hegner C. K. Helfrick J. Hunvald J. T. James M. S. Kiver J. J. Drstansky F. A. Lakowski M. Marks C. F. Maulsby P. A. Mihalkanin D. A. Miller I. N. Mindel G. M. Nemcek F. A. Parker Robert A. Petersen Edward L. Price F. D. Reese Carl L. Scheirman R. M. Schildgen W. A. Schesinger D. O. Schwennesen Thomas G. Shaven Emil Skocynec Steve Smandra, Jr. L. S. Smulkstys R. M. Soria R. G. Thomas R. A. Waghorne P. M. Walters I. R. Wayne H. L. Wolfman F. W. Yazombek</p> <p><u>Fort Wayne</u> J. G. Mast Alan B. Showalter</p> <p><u>Madison</u> Bernardo Reyes</p>	<p><u>Milwaukee</u> L. C. Aicher, Jr. F. A. Blomdahl David L. Devine W. K. Genthe F. N. Klein W. J. McMartin H. M. Schlicke B. G. Wheeler S. Yamasaki</p> <p><u>Nebraska</u> A. G. Carpenter C. H. Ostler V. Podbielski K. H. Wycoff</p> <p><u>Northeast Michigan</u> C. G. Currin Leon R. Dickson, Jr. W. J. McBride</p> <p><u>Rock River Valley</u> N. H. Arendsorf Joseph S. Naber T. J. Tveit</p> <p><u>South Bend</u> John B. Haneiko</p> <p><u>Southeastern Michigan</u> Nicholas Alimpich W. R. Dehart A. C. Doty, Jr. George H. Grenier F. W. Hare Richard W. Hogan J. A. M. Lyon G. M. Peace, Sr. H. A. Penhollow Frank D. Risko C. E. Schultheiss R. B. Wallace C. T. Young</p> <p><u>Southern Minnesota</u> Wayne J. Casanova R. A. Christiansen R. E. Jones D. A. Merkel G. A. Wales</p> <p><u>Toledo</u> E. M. Murley, Jr. E. W. Pierce</p> <p><u>Twin Cities</u> N. B. Coil E. F. Finegan, Jr. Alvin C. Hastings J. Hornsby, Jr. Orris R. Johnson D. J. Keating A. J. Kosters J. J. Labianco J. W. Nesting J. E. Nordstrom E. R. Pelzel, Jr. D. V. Romano C. M. Schreiner C. A. Swenson L. Werner</p> <p><u>West Michigan</u> L. M. Yike</p>
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REGION 5

Central Texas

C. W. Chapman
W. E. Cory
W. C. Dolle
L. S. Fountain
W. D. Gregg
O. L. Jouffray
C. C. Lambert
D. R. Malone
F. J. Morris
John D. Osborn
G. N. Vansteenberg
R. J. Welty
C. P. Wilkes
J. F. Willman

Dallas

M. A. Bondy
Gerald A. Bullock
F. K. Clark, Jr.
David L. Clifton
G. S. Crockett
J. Gragg
W. C. Grubbs, Jr.
C. M. Jones
Malcolm A. MacLeod
John G. Mast
J. Ronald Moser
Daniel W. Newby
E. W. Paschettag
G. R. Steele

Denver

Wilbur J. Anson
G. D. Gierhart
F. M. Greene
D. F. Holaday
D. L. Howard
C. L. Hudson
Vir N. James
J. E. Kluge
John Kornfeld
K. A. Norton
F. P. Phelps
Henry B. Ray
D. F. Schulz
H. E. Taggart
J. J. Tary
Karl R. Wendt

El Paso

R. E. Gnauck
H. A. Gschwind, Jr.
G. W. Miller, Jr.
A. M. Rojash

Fort Worth

R. J. Brown, Jr.
A. B. Cook
J. I. Koski
J. L. Moe
John J. Shostak
O. E. Watkins

Houston

E. F. Ball
L. Nelson Bates
Newton T. Buras, Jr.
G. H. Ducker
W. J. Flickinger
J. P. German
V. E. Haywood
T. H. Herring
W. T. Hudgins, Jr.
David Kemle

E. E. Smith
Robert L. Stokeld
Wilson M. Wheat

Kansas City

John I. Brown
R. L. Clarke
H. G. Arden
J. Bremer, Jr.
C. L. Fisher
A. F. Garrett
D. E. Kliros
J. D. Lee
B. L. McArdle
W. B. Shelley
R. M. Soldanelis
Charles D. Tolson

Shreveport

F. L. Creswell
J. M. Gorenflo

Tulsa

J. E. Hawkins
L. C. Labarthe
J. H. Robinson, 3rd
R. T. Stinchcomb
J. C. Westervelt

West Central Texas

R. G. Yoas
Wichita

D. E. Denny
Leonard O. Hendry
W. R. Johnson

REGION 6

Albuquerque

D. J. Eggeman
Herbert M. Fernandez
E. L. Jordan
Richard F. Merian

Alamogordo-Holloman

D. Y. Suzuki

Alaska

W. A. Dolan
J. E. Sullenger, Jr.

Fort Huachuca

Paul Billick
J. E. Dodge
C. M. Ordonez
M. G. Stiles

Hawaii

M. Asato
R. Donald Brough
Arthur A. Casey, Jr.
R. R. Ford
John L. Gnagy
J. M. Jouvenat
W. J. Lannes, 3rd
Wayne Takano

Las Vegas

J. D. Gilbert
John A. Kuypers

Montana

Victor Morats

Phoenix

Dwayne R. Awerkamp
Yun Chang
John H. Denny
Bernard H. Flood
Carl P. Jesperson
D. J. Jobe
W. H. Lawrence, Jr.
R. F. Leland
V. I. Minkel
B. E. Roseberry
R. E. Samuelson
B. E. Simmons

Portland

Homer T. Curtis
Francis H. McCann
F. E. Miller
R. E. Show
H. E. Todd
A. A. Tucker, Jr.

Richland

W. G. Parmelee

Sacramento

H. E. Felix
A. F. Hoeftlich
R. I. Mower
A. L. Peterson

San Diego

Gary M. Agatep
Walter M. Alderman
H. D. Branstetter
J. D. Browder
J. W. Crooks, Jr.
Robert A. Haulman
William A. Hebert
R. M. Henkel
Laurence C. Iott
S. G. Kolupaev
James F. Leavy
Mao Shiu Lin
A. G. Loveberg, Jr.
D. P. Mealey
Calvin J. Meierbach tol
H. K. Mertel
A. H. Mills
W. F. Pickett
James H. Schukantz
C. W. Schwieger
John Shepard
Robert N. Smith
Bennett Weinbaum
Theron C. Wells

Seattle

H. S. Bains
R. J. Ballata
Douglas L. Barnhart
F. A. Beauchamp
J. D. Belenski
Herbert W. Bethel
Max H. Bice
Ralph Pl Brady
H. A. Burger
R. A. Busse
B. L. Carlson, Jr.
J. M. Carter
W. W. Cooley
D. L. Dennis
J. J. Dicomes, Jr.
R. K. Donohue
A. E. Dorband
S. L. Dyrnes
A. Eckersley
F. D. Erps
William E. Forland
G. M. Gillett
Richard F. Holtman
L. Jorgensen
H. H. Judson, Jr.
K. M. Kalanquin
August T. Karlson
W. J. C. Klamm, Jr.
E. D. Knowles
R. O. Lewis, Jr.
G. M. Magura
J. E. Maynard
David Doon
W. S. Drummond

San Francisco

L. A. Addleman
C. A. Andrews, Jr.
M. H. Baer
Savas Umit Baran
Paul E. Bolander
D. D. Burdick
Bertram M. Burriss, Jr.
King S. Chan
Wilson Chu
Donald B. Clark
W. G. Coe
Alan F. Culbertson
J. A. Dann
David Doon
W. S. Drummond

Edward Edison
P. A. Ekstrand
A. Fong
R. Gaebele
G. D. Gillett
Michael A. Gray
W. E. Haas
G. H. Hagn
Albert E. Hayes, Jr.
J. D. Hoffman
F. M. Hom
H. R. Irwin
P. Jereb
L. G. Jones
Philip M. Kane
R. H. Kelkenberg
John P. King
J. F. Kirk
M. V. Lamasney
O. Lawrence
W. Mancuso
M. M. Marks
J. S. Mascovich
G. Mauersberger
H. J. Mohr
C. B. Morgan
A. Nalbandian
J. R. Noon
Guy L. Ottlinger
W. R. Purcell
L. P. Robinson
John P. Rooney
E. C. Rose
W. H. Sanders
B. Schenker
Clarence G. Schwender
V. Siegfried
C. K. Snyder
P. F. Spencer
Richard H. Stone
William E. Swift
L. A. G. Terveen
D. S. Toomb
V. M. Turesin
Edward F. Vance
V. J. Vanvelzer
James C. Walton
S. G. Whittlesey, Jr.
Carroll W. Wholey
S. Yakahi
Leo Young

H. S. Bains
R. J. Ballata
Douglas L. Barnhart
F. A. Beauchamp
J. D. Belenski
Herbert W. Bethel
Max H. Bice
Ralph Pl Brady
H. A. Burger
R. A. Busse
B. L. Carlson, Jr.
J. M. Carter
W. W. Cooley
D. L. Dennis
J. J. Dicomes, Jr.
R. K. Donohue
A. E. Dorband
S. L. Dyrnes
A. Eckersley
F. D. Erps
William E. Forland
G. M. Gillett
Richard F. Holtman
L. Jorgensen
H. H. Judson, Jr.
K. M. Kalanquin
August T. Karlson
W. J. C. Klamm, Jr.
E. D. Knowles
R. O. Lewis, Jr.
G. M. Magura
J. E. Maynard
David Doon
Gale H. McFarland
D. W. Montgomery

E. H. Nowak, Jr.

James M. Osborn
H. F. Parks
Edward J. Quenemoen
R. R. Reed
R. J. Rettberg
R. B. Schulz
Paul A. Shaw, Sr.
R. L. Shirrod
John A. Sutherland, Jr.
Harold C. Todd
J. W. Trumbo
Paul S. Vena
R. M. Wisner

Spokane

L. B. Craine

Tucson

A. C. Armstrong
R. D. August
Thomas J. Flahie
E. A. Hayes
A. J. Hoehn, Jr.
L. K. Kington
E. E. Koons
E. R. Michalk
C. W. Milligan
J. K. Oliver, Jr.
M. E. Farmer
R. R. Seach
I. J. Sorkin
R. E. Steinebach, Jr.
A. S. Thompson

Utah

E. C. Hungerford
David E. Wilson

Buenaventura

R. L. Andrews
E. E. Angle
H. Berger
Don B. Clark
William T. Hamilton
P. Peringer
Dion R. Salfen
James C. Senn
L. L. Slatten

Foothill

Stefan V. Berlinski
F. C. Brugma
O. G. Elzie
J. F. Gray
J. F. McElwee
R. A. Molz
M. W. Shores
E. N. Skomal
R. D. Smith
G. G. Sundberg
C. W. Young

Met. Los Angeles

E. B. Arrowsmith
Paul Chow
Ralph Chow
Dennis D. Davidson
J. A. Eckert, Jr.
Randy Gutentag
Gaylord Hammerwold
Eric O. Lindgren
L. E. Ludekens
Patrick Mak
H. L. Malone
Luther E. Monell
B. L. Myers
F. J. Nichols
Ray T. Ogawa
A. T. Parker
L. Schwartz
Ray T. Turner

J. H. Watson	J. R. Smith	W. G. Miller	Northern Alberta	C. Egidi
Jack R. Witz	S. Stepanoff	D. L. Moore	G. Bidulock	G. Quazza
John W. Wright	Donald M. Thommen	V. P. Musil	Vancouver	H. P. Rosenthal
S. Zeitlin	C. W. Tong	David A. Nesheim	R. Bartholomew	P. Schiaffino
<u>Orange County</u>	G. R. Ufen	D. V. Noren	J. A. Galt	A. Vergani
W. E. Ahlberg	Robert D. Wan selow	C. B. Pearlston, Jr.	H. A. Hoyles	C. Zanelli
J. E. Berger	Gene E. Willeford	John A. Salzetti	W. L. McCarter	<u>Norway</u>
M. F. Blaski	H. R. Zajac	R. Bartholomew	H. M. Vanallen	E. Kulvik
J. Ciglar	W. C. Zeuch	J. A. Spagon	P. W. Waddington	<u>Republic of Ireland</u>
H. E. Commons	<u>San Gabriel Valley</u>	B. C. Thereault	<u>Victoria</u>	A. F. Boff
J. W. Cox, Jr.	B. W. Baker	B. A. Tueling	L. G. Cumming	Brian Brammer
A. N. Fiore	J. G. Bastow, Jr.	T. G. Walter	<u>Winnipeg</u>	P. Carmichael
Kenneth M. Fisher	Samuel A. Bradley	<u>Vandenburg</u>	Ernest J. Klein	N. J. Clark
Robert E. Freeman	C. E. Kirk, Jr.	R. E. Foreman	<u>Antelope Valley</u>	R. C. Cuffe
D. E. Harriman, Jr.	D. Prisbrey	J. F. Price	A. E. Wolfe, Jr.	W. H. Devenish
Eric K. Honka	N. P. Roe	D. E. Rush	<u>Santa Barbara</u>	T. J. Dibble
R. A. Key	F. W. Schor	<u>Santa Monica Bay</u>	<u>Benelux</u>	K. E. Harris
R. J. Kramer	E. M. Walkey	O. R. Abernathy	P. Bouchier	B. Hedge
W. Lash	A. C. Whittlesey	A. P. Albrecht	Y. Boxma	R. I. Kinross
Gerald E. Lau	<u>Antelope Valley</u>	Gale O. Allen	W. B. Brouwer	J. E. G. Wilks
G. W. Legel	W. S. Barquist, Jr.	Donald P. Armstrong	G. G. Cantraine	<u>Germany</u>
J. G. Lindenmeyer	C. William Bergman	William E. Becher	H. P. Debruyne	V. G. L. Aschoff
W. L. Lyons	R. S. Hutcheon	D. E. Beecher	M. Groenenboom	Gottfried Farwer
L. E. Martin	<u>Santa Monica Bay</u>	Robert C. Caddell	H. H. Hannesen	Rolf G. Fritz
Jean R. Miller	O. R. Abernathy	Ronald Chun	Y. V. Hecq	Helmut Geissler
A. Mori	A. P. Albrecht	R. B. Cowdell	H. H. Heeroma	F. R. Guntsch
W. Morton	Gale O. Allen	Dennis M. Emmerich	P. G. A. Jespers	P. H. Jacottet
S. Motoike	Donald P. Armstrong	J. R. Fisher	Adriaan Penning	E. L. Koch
A. J. Perrella	William E. Becher	Howard Fong	D. C. Schering	L. Rohde
R. E. Ramage	D. E. Beecher	Douglas M. Gordon	Jacobus Stolk	W. H. Schoenfeld
Raymond P. Rice	Robert C. Caddell	A. L. Hiebert	J. G. Vanbladel	<u>Sweden</u>
R. E. Robertson	R. B. Cowdell	N. Kadar	J. C. Vanstaveren	Jan I. H. Askne
Victor B. Robnett	Dennis M. Emmerich	E. V. Kavaugh	H. Vigneron	L. Ejewall
William A. Rousey	J. R. Fisher	H. G. F. Langecker	<u>Egypt</u>	A. L. Elfving
R. C. Scott, Jr.	Howard Fong	Michael E. Louder	Abdel-Latif I. Ahmed	S. G. Gertzell
F. E. Shaw	Douglas M. Gordon	Richard F. Maulhardt	<u>France</u>	J. Gunmar
Hector M. Smith	A. L. Hiebert	J. W. McDonald, Jr.	V. A. Altovsky	G. Lindstrom
D. W. Stratton	N. Kadar	Wallace P. Morrison	M. S. Denouette	T. L. Lindstrom
R. G. Tyrrell	E. V. Kavaugh	H. H. Ohta	J. D. Deschamps	A. Lundqvist
Laurence J. Vaclavik	H. G. F. Langecker	Kim R. Schuette	Emile P. Ducros	E. G. Malmlow
Emil J. Valcek	Michael E. Louder	R. W. Schult	Louis J. Fechant	G. A. Markesjo
Lawrence J. Zynda	Richard F. Maulhardt	S. Sensiper	P. A. Grivet	A. J. K. Olsson
<u>San Fernando Valley</u>	J. W. McDonald, Jr.	H. D. Shoulders	E. Labin	O. Perers
Leo A. Arndt	Wallace P. Morrison	M. Smith	F. Mayer	Lennart J. Rapp
Ernst L. Bock	H. H. Ohta	E. B. Soltwedel	W. Mazel	S. Sjogren
Martin M. Bondar	Kim R. Schuette	R. C. Twomey	J. H. Robieux	B. Stjernberg
Robert P. Borofka	R. W. Schult	H. B. Waterman	<u>Switzerland</u>	B. Westerhult
Robert L. Carr	S. Sensiper	H. Z. Wilson	Walter E. Gerber	Tord O. Wikzen
E. D. Cochran	H. D. Shoulders	T. O. Wonderly	G. Guanella	<u>Middle & South Italy</u>
Paul G. Colliander	M. Smith	Yim-Hei J. Yeung	Harry A. Laett	G. Gommellini
R. J. De Martino	E. B. Soltwedel	<u>South Bay Harbor</u>	Guido J. Lang	T. Leardini
J. Dennis	R. C. Twomey	Rowland R. Bartoo	Max J. Milz	U. Pizzarelli
Andre J. Devot	H. B. Waterman	Ruben Bergay	A. V. A. Mueller	G. M. Seccosardo
J. W. Duncan, Jr.	H. Z. Wilson	James L. Brooks	Pierre E. Schmid	U. Tiberio
Eric R. Eustis	T. O. Wonderly	John N. Buterbaugh	R. Smith	<u>Spain</u>
Hollice A. Favors	Yim-Hei J. Yeung	R. F. Collins	<u>Israel</u>	Marcelino Lage
D. T. Frankos	<u>South Bay Harbor</u>	Linda C. Cranmer	David Bronstein	R. T. Segovia
T. L. Gottier	Rowland R. Bartoo	John M. Dailey	E. Caspi	<u>Denmark</u>
S. J. Grossman	Ruben Bergay	D. S. Davis	Shlomo Karniel	M. P. S. Gronlund
J. J. Guarrrera	James L. Brooks	John Ekparian	M. J. Ronen	H. L. Knudsen
Delbert M. Hish	John N. Buterbaugh	J. F. Fischer, Jr.	Joseph K. Sella	D. S. Nag
W. R. Hutcherson	R. F. Collins	L. B. Flint	M. S. Simhi	Aksel K. Norgaard
D. L. Ingram	Linda C. Cranmer	Roger C. Follett	<u>North Italy</u>	Leif Rystrom
T. J. Kausek	John M. Dailey	Lewis O. Frith	A. D. Derossi	<u>No Established Sections</u>
Frank J. Kelley	D. S. Davis	Harold Gerson	G. Devito	I. N. Denisendo
H. Knoller	John Ekparian	Ellis D. Hammer		F. W. Gundlach
Dale A. Knox	J. F. Fischer, Jr.	A. S. Hoffman		N. Karimbas
R. W. Koehler	L. B. Flint	E. S. Hughes		J. J. Pohjanpaloo
George M. Kunkel	Roger C. Follett	R. H. Jaehnig		L. Szanto
Ralph A. Lamm	Lewis O. Frith	M. F. Krupp		
John D. MacMillan	Harold Gerson	Larry Le Doux		
Kirke W. Marsh-	Ellis D. Hammer	A. I. Lisiecki		
Walter D. McKerchar	A. S. Hoffman	Calvin E. Miller		
E. H. Medler	E. S. Hughes			
John E. Merrell	R. H. Jaehnig			
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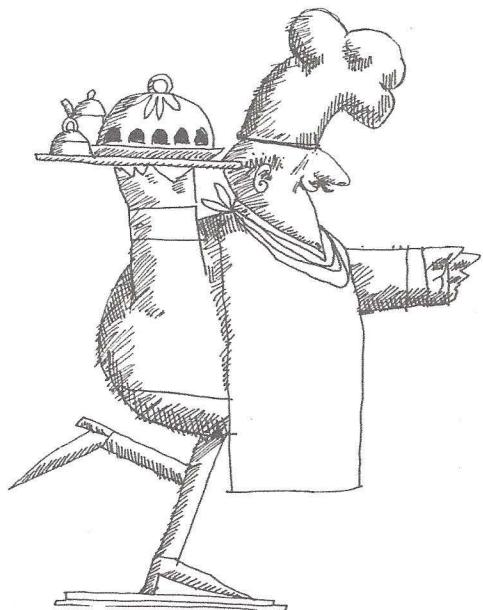
REGION 9

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D. W. Gamba	Isami Tokunaga Hajime Yamaguchi Masaru Yamano Takashi Yamazaki Tsuguo Yoshida Takeo Yoshino
<u>Chile</u>	
W. Feick	
<u>Colombia</u>	
Kazys B. Gabriunas	
<u>Puerto Rico & Virgin Islands</u>	<u>No Established Sections</u>
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Rio de Janerio	
Nicholas L. Brooking	
<u>Sao Paulo</u>	<u>No Established Sections</u>
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<u>Venezuelan</u>	Abdul M. Kakar Mangho J. Kirpalani I. McInnes V. S. Nazirahmed K. L. Rao James. B. Rudd M. C. Varshney
<u>No Established Sections</u>	
F. M. Perra	

REGION 10

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NEW PRODUCTS & BROCHURES



SHIELDING BULLETIN

"Helpful Information for Designing a Magnetic Shield", by Owen I. Haszard, is available on inquiry. This article takes the witchcraft out of magnetic shielding and shows that it is a science which can be understood by engineers. The article contains hundreds of actual measurements, and presents measured shielding ratios. James Millen Mfg. Co. Inc, Malden, Ma.

NOTCH FILTER FEATURES THREE FILTERS IN A RACK

The following advertisement appeared in the May 1969 issue of Frequency Technology:

The Model NMF-60 provides three independent 70 dB notches at 60, 120, and 180 Hz, with each filter capable of operating separately or in a series, and all contained in a standard 19-inch rack configuration. The unit virtually eliminates power frequency interference on signal lines, and is designed as a general purpose laboratory instrument, as well as an EMI test instrument for low frequency interference per MIL-STD-826 and 462 specs. Electro-Magnetic Capability Dept., Sanders Associates, Inc., Nashua, N.H.

VHF/UHF PREAMPLIFIER

This low-noise, low-level transistorized amplifier is designed for use as a general purpose amplifier, preamplifier and isolator. It consists of a three-stage amplifier, a 30 MHz stop-band filter, and an ac power supply. Frequency range is from 150 kHz to 1 GHz. In many measurement applications, the Model 1237 improves sensitivity for a sharper null, greater accuracy, and better bridge performance. Large reverse attenuation makes it particularly useful as part of a heterodyne detector system used with a bridge for small-signal measurements. General Radio Company, West Concord, Ma.

AVICA-FLEX HYPERNAM SHIELDING

The Avica Corporation has announced the development of a new flexible cable shield which is produced from Westinghouse Hypernam (80% nickel, 20% iron) material. According to preliminary test results, the manufacturer states that Avica's shielding appears to be superior to that which is available on the market today, both in attenuation and flexibility. A brochure containing test results and describing various types of flexible cable shields, bellows assemblers, expansion joints, end attachments and couplings, is available by contacting Mr. P.M. Coffee, Vice President, Marketing, Avica Corporation, Box 180, Newport, Rhode Island 02840. Telephone 401-846-9100.

(Continued)

EIA EMC BULLETINS

Electromagnetic Compatibility Bulletins #1 and 2, Introduction to the EMC Designer's Guide, and, Specifications, Standards and Bibliography. The publication of Sections 1 and 2 of the ten-section Electromagnetic Compatibility Designer's Guide completes a four-year project by the Engineering Department G-46 Committee. In 1962 the Military Electronic Systems M-5.8 Subcommittee on Electromagnetic Compatibility, now the G-46 EMC Committee, recognized the need for development of an electronic equipment Designer's Guide on Electromagnetic Compatibility which would fill the need for providing EMC guidance to electronics design engineers. The complete EMC Designer's Guide was therefore envisioned as just that - an electronic engineer's EMC designer's guide which would not contain all the EMC design answers in detail but which would provide him the more fundamental EMC principles and alert him to seek more expert consultative advice as the need became apparent. In the intervening six years with the emergence of more definitive and stringent government EMC requirements documents, the need for the Designer's Guide has become even more well defined. As they were completed, the various sections were published as EIA Electromagnetic Compatibility Bulletins.

The first EMC Bulletin was published in February 1964; two were published in 1966, two in 1967; and three in 1968 to complete the series of ten. The published EMC Bulletins carry number which correspond to the Sections of the completed Designer's Guide. Thus, with the publication of the last three EMC Bulletins in 1968, EMC Bulletins 1 thru 10 became Sections 1 through 10 of the completed EMC Designer's Guide. The EIA Engineering Dept. does not intend to bind the ten EMC Bulletins and distribute them as a bound EMC Designer's Guide, but will make available each individual EMC Bulletin separately to allow individual purchase of missing Bulletins to complete the Guide, or will sell the complete set of ten Bulletins as one complete EMC Designer's Guide. The ten EMC Bulletins which make up the complete EMC Designer's Guide are:

EMC Bulletin #1-Introduction to the EMC Designer's Guide....\$.35 per copy

EMC Bulletin #2-Specifications, Standards and Bibliography....\$.50 per copy

EMC Bulletin #3-Testing and Measurement Techniques for Electronic Equipment....\$.30 per copy

EMC Bulletin #4-System Design of Electronic Equipment....\$.1.80 per copy

EMC Bulletin #5-Bonding of Electronic Equipment....\$.2.00 per copy

EMC Bulletin #6-Grounding of Electronic Equipment....\$.70 per copy

EMC Bulletin #7-Enclosure for Electronic Equipment....\$2.50 per copy

EMC Bulletin #8-Cabling of Electronic Equipment....\$.1.25 per copy

EMC Bulletin #9-Filtering of Electronic Equipment....\$.2.70 per copy

EMC Bulletin #10-Electromagnetic Susceptibility....\$.2.50 per copy

The above Engineering Publications are available from the EIA Engineering Dept., 2001 Eye Street, N.W., Washington, D.C. 20006, at the prices indicated.

MINIMUM ORDER FOR ALL ENGINEERING PUBLICATIONS AND STANDARDS \$1.00

EASCON '69

The Electronics and Aerospace Systems Convention and Exposition featuring military and space electronic systems and equipment will be held on October 27-29, 1969 at the Sheraton Park Hotel, Washington, D.C. EASCON '69 is planning a comprehensive unclassified technical program to cover the important new developments in the technology of aerospace and electronics equipment, systems, devices and processes.

The technical program will treat not only military and space systems, but will cover application of aerospace and electronic technology to the urgent problems of our time. Technical sessions now in the planning stage include Satellite Communication Systems and Satellite Navigation Systems, with attention to terrestrial as well as space segments; Earth Resources Exploration by Satellite and Aircraft, Aircraft Navigation and Landing Systems, Pattern Recognition, Radar, Exotic Power Sources, Urban Problems and Aerospace Technology, Electronics in Transportation, Sensor Systems, Terrestrial Communication, Coding and Signal Processing, and Lunar Exploration. More sessions will be organized if papers of compelling interest are received on other topics.

A unique opportunity for exposition exhibitors to explain in depth the technical innovations incorporated in equipment on display will be afforded by an Exhibitors Technical Session.

Originality, importance and technical excellence will be the criteria for selection of these as well as other papers for the technical program.

(Continued)

1971 INTERNATIONAL SYMPOSIUM ON ANTENNAS AND
PROPAGATION TO BE HELD SEPTEMBER 1-3, 1971--
SENDAI, JAPAN

To further the exchange of international courtesies, technical research announcements, and discussions on the matters of antennas, propagation, electromagnetic theory and related problems, and to foster international developments in these fields the 1971 International Symposium on Antennas and Propagation will be held in Sendai, Japan.

NASA EMC SPEC AVAILABLE

NASA has prepared an EMC procurement document entitled, "Electromagnetic Compatibility Specification Standard for Aerospace Ground Equipment," # GSFC S-523-P-7, dated Nov. 17, 1967. The included standards and test methods compare to MIL-I-6181D, MIL-STD 826A, MIL-STD 449C and MIL-E-6051D; the standards being made more stringent in certain frequency ranges to meet tracking station EMC requirements.

This 78 page document was prepared by the Genisco Technology Corporation, under NASA contract NAS5-10017, for the Goddard Space Flight Center's Radio Frequency Interference Reduction Program.

A copy can be obtained by writing to:

Goddard Space Flight Center
Specification Depository
Code 252
Greenbelt, Md. 20771

MEETINGS

&

EVENTS

The Symposium is sponsored by the Institute of Electronics and Communication Engineers of Japan, in cooperation with the Antennas and Propagation Group of The Institute of Electrical and Electronics Engineers. The symposium is supported by the Science Council of Japan and the International Scientific Radio Union.

Papers from all over the world will be given in the following sectors:

Spacecraft Antennas
Low-noise Antennas
Antennas in Plasma
Adaptive Antenna Systems
Linear Antennas
Electromagnetic Theory
Propagation of Millimeter-Submillimeter and Light-waves
Propagation in Plasma
Propagation in Space
Radio and Atmosphere
Engineering Application of Radio Propagation

Persons interested in having the forthcoming second announcement of the symposium are invited to communicate with Dr. K. Nagai, Secretary of the Executive Committee of the Symposium. The address is Denshi-Tsushin-Gakkai, Kikai-Shinko-Kaikan, Bldg. Shiba Park 21-1-5, Minatoku, Tokyo, Japan.

(Continued)

CONFERENCE ON SIGNAL PROCESSING METHODS
FOR RADIOTELEPHONY TO BE HELD MAY 19-21, 1970
LONDON, ENGLAND

A review of the processing methods available for radiotelephony transmission, and a study of the techniques required to match transmission methods to the requirements of the information to be sent and the characteristics of the propagation path, are the objects of a conference to be held in London from the 19th to 21st May 1970.

The conference, entitled 'Signal processing methods for radiotelephony', is being organized by the IEE, in association with the Institution of Electronic and Radio Engineers and the Institute of Electrical and Electronics Engineers (UK & Republic of Ireland Section).

The conference programme will include the following subjects:

techniques for bandwidth reduction,
techniques for power conservation,
techniques for matching to propagation
path characteristics,
digitisation methods - system characteristics
and performance,
ancillary problems, e.g. speech quality
assessment,
privacy techniques.

Offer of contributions (not exceeding 2000 words) for consideration for inclusion in the conference programme will be welcomed by the organizing committee.

Those intending to submit contributions should send a 250 word synopsis to the IEE Conference Department before the 25th August 1969. The full manuscripts will be required by the 29th December 1969.

Registration forms and further details of the conference will be available in due course from the IEE Conference Department.

ACTIVE FILTER DESIGN: THEORY AND PRACTICE

A five-day short course on active filter design will be conducted by the University of California, Los Angeles (UCLA) on September 22-26, 1969. The purpose of the course is to present background theory on integrable active RC filters including a transfer characteristic approximation problem, and to describe selected methods found suitable for inductorless filter design, computer-aided design and optimization of active filter.

Course Description:

Passive RC networks--properties and synthesis methods...active network elements...sensitivity and stability problems...synthesis methods using voltage amplifiers, operational amplifiers and gyrators...filter design using simulated inductance...design considerations ...solution of the transfer characteristics approximation problem...computer-aided design and optimization.

Housing:

To assist participants in securing housing, a list of accommodations near the UCLA campus is sent upon receipt of \$275 fee or reservation for the course.

Enrollment:

Early enrollment is advised. Reservations may be requested for industry and government employees requiring time to obtain authorization. Companies may enroll for any given number of individuals, supplying names later.

To insure enrollment, individual names must be received by the University before September 9, 1969. For additional applications, use separate sheet giving information requested on enrollment form, indicate if parking permit is desired.

Information:

For information concerning the program, write P.O. Box 24902, Engineering and Physical Sciences Extension, University Extension, UCLA, Los Angeles, Ca. 90024. Telephone:
(213) 825-3344 or
825-1295.

ACKNOWLEDGEMENTS

The editor would like to thank the following individuals and their employers for their contributions to this issue of the Newsletter.

S. K. Mitra

University of California

G. R. Ufen

Fairchild Electro-Metrics



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