



IEEE

RELIABILITY GROUP NEWSLETTER

Paul Gottfried, Editor
Booz Allen Applied Research

VOL XIII - ISSUE 4 - OCTOBER 1968 Bethesda, Md. 20014

CONTENTS

EDITOR'S NOTES	1
CHAPTER NEWS	2-3
CONFERENCES	3
SHORT COURSES	4
PUBLICATIONS	4
PERSONALIA	4
AN APOLOGY	5
MEET YOUR ADCOM	5-6
ADCOM MEETING DIGEST	7
CALL FOR NOMINATIONS	7
ACTION ITEM: All G-R Members	8
MEMBERSHIP ROSTER	9-19

EDITOR'S NOTES

In this issue, we introduce two new features: a digest of the most recent Group Administrative Committee (AdCom) meeting, and the first three of a planned series of AdCom member biographies. Because this issue also contains a Group membership roster, some regular features have been displaced temporarily.



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Boston

Officers for the 1968-69 season include William Gray, RCA, Chairman; Avery Havesh, AVCO, Vice Chairman; Ronald Emero, Raytheon, Secretary; Donald Dawes, Sanders Associates, Treasurer; Irving Bosinoff, MITRE, Program Chairman; Lawrence Rea, Raytheon, Publicity Chairman; Norman Martel, RCA, Arrangements Chairman.

The Chapter has announced a full meeting schedule for the season. Meetings to be held during the balance of 1968 include:

Sep. 10	Computer Aided Circuit Analysis (Co-sponsor: CADAR)	J. Shapiro, Raytheon I. Bosinoff, MITRE
Oct. 17	Systems Effectiveness	A. J. Monroe, TRW Systems
Nov. 26	Reliability of Hybrid Micro-electronic Circuits (Co-sponsor: G-PMP)	To be announced
Dec. 12	Contractual Aspects of Reliability	S. Resnick, USAF, Hanscom Field

The Schedule also includes the Fall Lecture Series (Sep. 25, Oct. 2, 9, 16, 23, 30, Nov. 6, 13, all from 6 to 8 p.m.) to be held at the Raytheon Executive Offices, Jct. Rtes. 2 and 128, Lexington. D. J. Harrahy and R. F. Emero of Raytheon will conduct the lectures on the subject of System Effectiveness Analysis.

Canaveral-Daytona Beach

At the April 4 meeting, John R. Yoder of Barnes Engineering Company discussed Infrared Non-Destructive Testing Techniques. On June 24, Dr. Donald J. Ritchie, Director of Research of the Embry-Riddle Aeronautical Institute, addressed the chapter on "The Russian Space Program". At this meeting, the previously announced slate of nominees was elected.

Connecticut

H. Dagen of ARINC presented a lecture on the "Relationship Between Demonstrated and Operational Reliability" at a chapter meeting on May 15.

Reliability Group Newsletter is published quarterly by the Reliability Group of the Institute of Electrical and Electronics Engineers, Inc. Headquarters Address: 345 East 47th Street, New York, N.Y. 10017. Sent automatically and without additional cost to each member of the Reliability Group.

Second-class postage is pending at New York, N.Y.

Metropolitan New York

Two papers were presented at the May 22 chapter meeting: V. C. Iacono of the U.S. Naval Applied Science Laboratory spoke on a "Maintenance Simulation Model", and J. Reitman of United Aircraft discussed "Computer Simulation in Reliability and Maintainability". At a meeting on June 22, the following chapter officers were elected: J. J. Drostep, Chairman; R. Gauger, Vice Chairman; A. Martin, Secretary-Treasurer; I. Birnbaum, Program Chairman; B. Held, Publicity and Facilities Chairman; R. E. Jack, Long Island Section Liaison.

Mohawk Valley

At the January 24 meeting, P. Gott of Philco-Ford discussed "Quality Defects in Integrated Circuits" and B. Fovel of General Electric spoke on "Automatic Integrated Circuit Testing". On March 26, E. O. Codier of General Electric presented a discussion of "Reliability Growth in Real Life". The May 28 meeting featured A. L. Tamburrino of Rome Air Development Center in a lecture on "Evaluation of Plastic Integrated Circuits".

Montreal

WELCOME ABOARD TO OUR NEWEST CHAPTER! Its officers are David Kiang, Canadian Marconi, Chairman; Len Ruggins, Canadair, Vice Chairman; P. J. Jorgensen, Canadian Marconi, Secretary.

New Jersey Coast

A meeting on May 15 resulted in the organization of a joint G-R -- G-PMP chapter. Officers elected to two-year terms starting July 1 included Bernard J. Meyer, Product Assessment Agency, USA Electronics Command, Chairman; Vincent J. Mancino, RCA Astro-Electronics Division, Vice Chairman; Jack J. Vitola, Wheeck Signals, Secretary-Treasurer.

Maxwell Brown, Maxwell Brown Associates and Vincent J. Kublin and Milton Tenzer of the USA Electronics Command constituted the nominating committee. William J. Fontana, also of the Electronics Command, was the Chapter Organizer.

The meeting, co-sponsored by G-AES, heard R. A. Newell of RCA on the subject of "A Solar Array Battery Power System for Manned Orbiting Space Station".

Philadelphia

The 1967-68 season was completed with a meeting on April 24, during which Dr. J. E. Mendenhall of Consumers Union discussed "How Consumers Union Evaluates Product Quality", and the highly successful first all-day seminar. Approximately 115 participants attended the latter, which was held on May 21. Nine papers were presented, including:

Detection and Correction of Equipment Problems via Analysis of Failures; J. J. Bussolini, Grumman.

Detection and Correction of Material Problems via Analysis of Failures; J. A. Clanton, RCA.

Risk Assessment in Complex Unattended Aerospace Systems; A. M. Smith, General Electric.

Case Histories of Screening Techniques Based on Knowledge of Failure Mechanisms; C. H. Zierdt, Jr., Bell Telephone Labs.

Reliability Through Cause and Effect Study Instead of Random Failure Statistics; S. A. Rosenthal, Kollsman.

Integrated Circuit Failure Analysis Techniques; R. H. Soltau, Philco-Ford.

Failure Analysis as a Microcircuit Production Tool; P. Gott, Philco-Ford.

Integrated Circuit Failure Mechanisms and Their Detection Through Failure Analysis; D. Root and J. Gaffney, Raytheon.

Using the Scanning Electron Microscope for Analyzing Microcircuit Failures; R. Anstead, NASA.

Using Failure Analysis to Predict Reliability; B. Tiger and D. I. Troxel, RCA.

Success of the seminar has led to the decision to repeat in 1969. Copies of this year's proceedings are available (see Publications).

In addition to chapter officers announced in the July Newsletter, the following committee chairmen have been designated: Tom Fagan, Program; J. F. Chalupa, Publicity; George Hunt, Arrangements; R. E. Killion, Symposium; George Ashendorf, Education and Training; Nicholas Salatino, Membership.

The Fall program will include a panel discussion on subcontractor reliability on September 17, a panel on the role of reliability in software on October 16, and a Microelectronics Workshop on November 26. Mr. Fagan (215-962-3491) is the contact for program information.

San Diego

Four meetings have been reported for the 1967-68 season. These included "Failure Rates - MIL-HDBK 217, 217A and 217B", C. M. Ryerson, Hughes, September 18; "Life Cycle Support Costs", A. S. Goldman, GE-TEMPO, October 30; "Mechanical Reliability", R. J. Mulvihill, Planning Research Corporation, November 27; and "An Integrated Information System for R & QA", W. P. Hart, ITT Cannon Electric, February 26.

Washington, D.C.

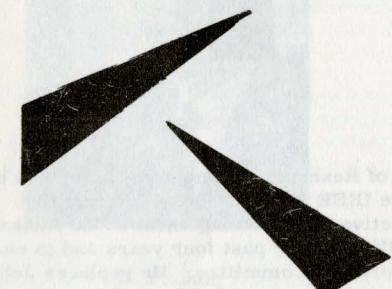
Four meetings have been scheduled for the remainder of 1968 and are to be held at the PEPCO auditorium:

Oct. 16	Communications Satellite Reliability	Bob Strauss, COMSAT
Nov. 12	Computer-Aided Design (Washington Section Meeting, co-sponsored with CADAR)	Herb Wall, IBM
Nov. 20	Joint Meeting with ASQC	
Dec. 11	Math Modeling Workshop	Vic Selman, C&SI

Several Chapter members are working on arrangements for the Reliability Physics Symposium, for which Washington will be the host chapter.



conferences



November 12-14

Automatic Support Systems for Advanced Maintainability, Sheraton-Jefferson Hotel, St. Louis.

November 19-21

Seventh IEEE Photovoltaic Specialists Conference, JPL, Pasadena, California.

December 2-4

1968 Reliability Physics Symposium, Washington, D.C.

December 2-4

Second Conference on Applications of Simulation (SHARE/ACM/IEEE/SCI), Hotel Roosevelt, New York.

1969

January 21-23

1969 ANNUAL SYMPOSIUM ON RELIABILITY, Palmer House, Chicago.

January 28-31

1969 IEEE International Symposium on Information Theory, Nevele Country Club, Ellenville, New York.

February 19-21

1969 IEEE International Solid-State Circuits Conference, Sheraton Hotel, Philadelphia.

March 24-27

1969 IEEE International Convention, New York Hilton Hotel and Coliseum.

April 15-18

1969 Conference on Computer Aided Design, (IEE, IERE, IME, IEEE, University of Southampton), Hampshire, England.

April 30-May 2

1969 Electronic Components Conference (IEEE, EIA). Washington, D.C. Deadline: 500-word summary by November 1 to James A. O'Connell, ITT Headquarters, 320 Park Avenue, New York City, N.Y. 10022

courses

Newsletter policy with respect to short-course announcements, as established by the AdCom, is to provide publication for information only. No endorsement is implied, and no check on course content or instructor qualifications has been accomplished.

University of Arizona

Systems Engineering Institute: October 28-November 1. Five days, \$250 (includes course material, lunches, banquet, parking/campus transportation). Write: Director of Conferences and Institutes, Division of Continuing Education, the University of Arizona, Tucson, Arizona 85721.

University of Wisconsin

Standards Engineering Institute: October 31-November 1. Two days, \$70. Write: Institute Director, 725 Extension Building, The University of Wisconsin, 432 North Lake Street, Madison, Wisconsin 53706

Information Retrieval Workshop: November 11-12. Two days, \$70. Write: as above.

publications

Available from the Order Department, IEEE, 345 East 47th Street, New York, N.Y. 10017: "Sixth Annual Reliability Physics Symposium Proceedings" (\$6.00 to IEEE members, \$8.00 nonmembers). Includes 33 papers, 8 of which were "flash papers" of recent results written a few days before the symposium.

Available from Miss Helen Yonan, IEEE Office, Moore School of Electrical Engineering, University of Pennsylvania, Philadelphia, Pa. 19104: Proceedings of the first all-day seminar on failure analysis, Philadelphia Chapter, G-R (\$5.00). Includes the eight papers identified under Chapter News.

personalia

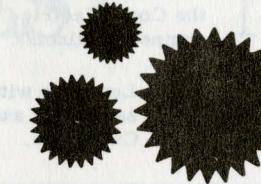
Dr. Ralph A. Evans, of Research Triangle Institute, has been appointed Editor of the IEEE Transactions on Reliability. Dr. Evans has been active in the management of the Annual Symposium on Reliability for the past four years and is currently chairman of the Registration Committee. He replaces John A. Connor, of TRW Systems, who served ably as Editor for the past four years.

John Paulson, Jr., of the Electronic Systems Center, IBM, has been named chairman of the Publicity Committee of the IEEE Reliability Group. Under his leadership, the Binghamton Chapter placed second in the 1967 Reliability Group Chapter Awards.

Robert L. Williams, Westinghouse Electric Corporation, has been appointed Membership Chairman of the IEEE Reliability Group. (See his "Action Item" elsewhere in this issue -- Ed.) Mr. Williams was chairman of the Speakers Committee during the 1967-68 year, and has been succeeded in that position by James H. King, Jr., also of Westinghouse.

In the last issue of the Newsletter, we presented an abstract of the latest report by the Advanced Techniques Committee. We inadvertently failed to mention the names of the committee members, however, and for this we apologize. Ralph Kuehn's hard-working crew included H. Kimel (General Electric), C.R. Knight (ARINC), M. P. Smith (Honeywell), W. T. Sumerlin (McDonnell/Douglas), and M. M. Tall (RCA).

an apology



Meet your AdCom...



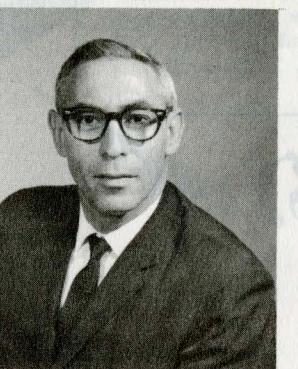
E. F. Jahr

Ed Jahr, Chairman of the Administrative Committee, is a Staff Engineer in Quality Engineering Systems and Data Control at the IBM Electronics Systems Center. He received his BA from Wartburg College, with honors in Physics, and engaged in graduate studies in Education at the University of Colorado and Physics and Electrical Engineering at the University of Kansas.

During World War II, Ed completed radar courses at Princeton and MIT and served as a U.S. Navy Radio/Radar Officer at Guadalcanal and in the Philippine Islands.

He was formerly a high school principal and has been an instructor in Physics, Mathematics, Radar Theory, and research problems in a technical institute, a Signal Corps training school, and a university. Ed also has had experience as a designer and builder of electronics research instruments, and for nine years was engaged in work on various reliability programs with ARINC Research Corporation.

Ed is the author of several papers and reports on reliability problems and has been a member of the Management Committee of the Annual Reliability Symposium for the past ten years, having served as General Chairman in 1964. He is a past chairman of the Binghamton Chapter, a Senior Member of IEEE and a member of Sigma Xi.



L. Schneider

Len Schneider has been Secretary of the Administrative Committee for the past six years and was, until this summer, Editor of the Newsletter. His service to the Group at the national level began twelve years ago with participation in the original IRE-ASQC Reliability Training Committee, in the preparation of the Reliability Training Text, and as a consultant instructor in the first course.

Len is Manager of Minuteman Reliability and Quality Assurance at TRW Systems. He previously held positions as a partner in Reliability Engineering Associates and as project director for the Cook Electric Company. He is a registered professional engineer (Illinois).

Len lives with his wife, Fritz, and such of his three children as are not away at college at the moment, in Palos Verdes, California.



M. J. Smith

Marion Smith, Past Chairman 1964-66, continues to serve as a busy member of the Administrative Committee and is Director of Product Assurance, Honeywell Aerospace Florida Division. He also is a member of the Reliability Committee for the U.S. National Committee to the International Electrotechnical Commission and serves as Honeywell's corporate representative on the AIA Reliability Committee. To round out his schedule, he also serves on the U.S. Air Force Scientific Advisory Board Reliability Committee.

Marion has been Chairman of the Board and General Chairman for the Annual National Symposium on Reliability, Chairman of the Florida West Coast Section of the IRE, and has authored papers on inertial navigation systems, reliability engineering and analysis.

He graduated from Louisiana State University with a BSEE in 1949 and did other undergraduate work at Oklahoma A&M and at Yale University. Marion is continuing his education in Engineering Administration at the University of South Florida. He has three children and lives with his wife, Pat, (who also attended LSU) in Clearwater.



The G-R Administrative Committee met August 20 at Los Angeles. Attending the meeting were Ed Jahr, Len Schneider, Bill Sumerlin, Abe Okun, Paul Gottfried, George Beyer, Jim King, Marion Smith, and John Connor. Leon Podolsky, IEEE Consultant, also sat in on part of the meeting.

ad com call for MEETING DIGEST NOMINATIONS

The business of the meeting included several items of general interest to the G-R membership, such as:

G-R participation in standards activity, concerning Safety as well as Reliability. Joe Naresky of RADC serves as the G-R interface with the IEEE Standards Committee.

G-R interests in CADAR activities, for which a strong link is provided through Clint Purdue in his dual capacities in CADAR and as CARAD Chairman within G-R. (The G-R membership is reminded that free subscription to the CADAR Newsletter is theirs for the asking, upon request to Dick Emberson at IEEE Headquarters.)

The next G-R sponsored national meeting, the Reliability Physics Symposium to be held at the Washington Hilton December 2-4. This will be followed by the National Symposium on Reliability January 21-23 at the Palmer House in Chicago.

Plans for obtaining a second-class mailing permit for the Reliability Newsletter, which will result in reduced postage costs and possible improvement in delivery.

Prospects for the publication of the next issue of the "Speakers Who's Who in Reliability", a joint effort of G-R, the ASQC Electronics Division, and the ASQC Reliability Division, in July 1969. The most recent issue (#6, February 1968), produced under the chairmanship of Bob Williams, has been so successful that Bob was asked to make a presentation concerning it to the August 28 IEEE Chapter Forum. (The list, automatically distributed to local and national IEEE and ASQC officers, is available for use in connection with official activities of these societies and affiliated groups.)

Annually six of the eighteen members of the Administrative Committee of the IEEE Reliability Group are nominated and elected. The Nominating Committee of the AdCom is assembling recommendations for nominees. Your recommendations for Administrative Committee members are hereby solicited in accordance with paragraph 6.1 of the Group Bylaws which are reproduced below. Elections to fill AdCom vacancies will be carried out in accordance with the paragraph 6.2 which is also quoted below.

Send your recommendations for nominees to: M. P. Smith, Honeywell, Inc., 13350 U.S. Highway 19, St. Petersburg, Florida 33733.

Excerpt from IEEE GR Bylaws:

6.1 - A slate of nominees for members-at-large vacancies of the AdCom shall be prepared by the Nominating Committee. Recommendations for such nominees shall be solicited in a letter to the chairmen of all sub-groups and standing committees. In addition, the chairman of the Nominating Committee shall cause to be published and distributed to the entire Group membership a call for nominations; a nominating petition carrying a minimum of 25 names of Group members, excluding students, shall automatically place that nominee on the slate to be presented to the AdCom.

6.2 The election to fill forthcoming vacancies of the AdCom membership-at-large shall be by mail ballot to the hold-over members of AdCom. The deadline for the return of ballots shall be not less than 30 calendar days after the actual date of mailing of the ballots. Election shall be based on the highest number of votes, taken in descending order until all vacancies are filled. Ties shall be broken by the AdCom. The Chairman of the Nominating Committee shall submit the names of such elected members to the Chairman of the Groups Committee and through him to the IEEE Executive Committee.

ACTION ITEM: all g-r members

This issue of the Newsletter, containing a complete listing of our fellow members of the Reliability Group, calls to our attention the need for all of us to get busy and build up its strength and effectiveness.

Each of you, no doubt, will find names of your co-workers in Reliability or Maintainability, or at least some of your acquaintances, conspicuous by their absence. May I urge each of you individually to examine the list critically and further to personally invite and urge those not listed to join with us in our efforts to strengthen the profession. We all benefit by joint action and exchange of ideas through this united Group called Reliability but including a strong and increasing emphasis on Maintainability.

Persons joining the Group and/or IEEE between October 1 and December 31 pay for the year 1969 and receive a bonus of full benefits, including publications, during the remainder of 1968. You can also tell them of the many tangible advantages of membership, such as receiving -- at no extra charge -- the Newsletter, Transactions, and the Proceedings of the National Reliability Symposium.

A coupon is provided herewith. Please pass it along to a prospect.

Bob Williams
Membership Chairman

Mr. Robert L. Williams
Westinghouse Aerospace
P. O. Box 746
Baltimore, Maryland 21203

Please send application blanks and descriptive literature to:

- IEEE Member, interested in joining G-R
- Nonmember, interested in joining IEEE and G-R
- Nonmember, interested in affiliating with G-R

G-R



MEMBERSHIP LISTING

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 P E CURTIS
 D L DAWES
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 W R R DE MIRANDA
 M J DEPOLITO
 M DERANIAN
 F J DOLAN
 C DONOVAN
 J DORFMAN
 E T DOWNING
 L R DOYON
 A C DRISCOLL
 A DUSHMAN
 D J DWYER
 C J DYMEK
 D R EARLES
 D L ECKHARDT
 J EDELMAN
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 T A FROESCHELE
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 L E STAPLES
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 S WEINSTAIN
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 R W CLEMENS
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 G COREN
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 G COSTIDIS
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 F R SANTASIER
 B F SCHADELAUER
 RONALD M SCHOLER
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 LIONEL C SKIPPER
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 G J SMITH
 A W SMOOT
 A SPECTOR
 H W SPENCE
 JOSEPH J STAPLETON

NEW HAMPSHIRE

R H HOLLIS
 P C MUNROE
 E K WIMPY

NEW JERSEY COAST

J BAUGHER
 JOHN P BREICKNER
 R L DEININGER
 W J FONTANA
 L J GITTEEN
 PAUL E GRIFFITH
 S GRUBMAN

JOHN W GRUDL
 G HOELLERICH
 D R HORTBERG
 L E HUNT
 G T LOMAN
 B S LOWING
 V J MANCINO
 F L MARTINSON
 J V MC NULTY
 BERNARD MEYER
 R F ROLLMAN
 WILLIAM SARDI
 O J SCHULTZ
 L E SNAPP
 JULIUS SOLED
 J J SZAFRANSKI

NEW YORK

PAUL R ADAMS
 L C APICELLA
 R W ARCHBALD
 JOHN W ARNOLD
 H ASCHER
 J R BAKER
 CHARLES A BENENSON
 F BERZINS
 G BIGEL
 W E BRAUN
 D M BRENDER
 ARNOLD BROUNSTEIN
 S S BROWN
 R J CANNIZZARO
 H W CHAPMAN
 WILLIAM R CHRISTIAANSE
 FRANCIS S CONBOY
 DOMINIC N COSTANTINO
 M A COTTER
 R DE GENNARO
 ROGER F DWYER
 RONALD ENGLEMAN
 F L ESTERNAUX
 MELVIN S FINKELSTEIN
 JAMES J FOTI
 R J FRANKLIN
 R L GARMAN
 M D GENZER
 L GLEIMER
 A N GOLDSMITH
 RICHARD GOLDSTEIN
 D M GOODMAN
 A C GORSKI
 M GUERIN
 J HANFT
 EDWARD B HORN
 D HOROWITZ
 W A JASSON
 D B KENNEY
 J M KINN JR
 M KLEIN
 T R KOHLER
 JOHN KOREWICK
 JOHN A KRUPPER
 WALTER LANDAUER
 P LAZARUS
 M MANES
 A E MARTIN
 ROSE CAMBRIA MATTHEWS
 G BERRY MC CARTER
 F MC GINNIS
 MARTIN MESSINGER
 R J MOLINELLI
 D J MORRISSEY
 HENRY MOSS
 JAMES J OCONNOR
 H PARRONDO
 E G D PATERSON
 HARRY A PEARSON
 R H PINTELL
 THEODORE POLLOCK
 J J RAFFERTY
 M ROBINSON
 W R RYAN
 M SAPSOWITZ
 A J SCHEIMAN
 S SCHENKERMAN
 J SCOTT

M L SHOOMAN
 R STALEMARK
 NATHAN SUSSMAN
 M B TITLE
 M TRIEB
 C W TUTTLE
 C J VENTIMIGLIA
 VERNON VIOLA
 J S V WALTON
 J E WATKINS
 M S WAXMAN
 GEORGE D WEINSTOCK
 EDWARD WILLETT
 J WINTERS
 J D ZARETZKI
 D C ZELBO

NORTH JERSEY

H A AUGENBLICK
 R A BARKER
 J L BELFI
 DONALD M BELTZ
 F B BERGER
 H BERNSTEIN
 J BLASS
 RICHARD BLUHM
 R J BORRMANN
 EDWARD P BROCKEL
 K G BUCKLIN
 SALVATORE R CALABRO
 D J CARPENTER
 B K CHENG
 S M CHERKASKY
 GILBERT CHERNACK
 J C CLAYTON
 R W COBEAN
 J J CRAWFORD
 E E CRUMP
 C C CULLARI
 C DAVIDSON 3RD
 L M DAVIDSON
 G E DAVISON
 NICHOLAS DE FALCO
 J L DELANY
 DYRCK J DE WITT
 T J DICKERSON
 W G DONALDSON
 WALTER A DUSCHKA
 G H EBEL
 H G ELWELL JR
 E B FERRELL
 ANTHONY J FINOCCHI
 M S FISTAL
 H H GATTER
 WING K GEE
 J H GERTH
 M F GOGGIN
 K GRACE JR
 V D GRAY
 K GREENE
 T J GRUENDEL JR
 RICHARD F HAHN
 W W HEBERLING JR
 H S HERSHKOWITZ
 G L HETZEL
 T A HJORTH
 R M JACORS
 R H KAUFMAN
 R L KELLY
 C C KIRCHENBAUER
 LEON J KOZLOWSKI JR
 EVERETT L LARAGH
 R E LAFFRTY
 DAVID LAPPIN
 A LOBERT
 J B LOME
 G J MARINI
 F MAZZILLI
 BETTY MC VEIGH
 C METELMANN
 HENRY J MILLER
 EDWARD MILTNER
 A S MINDES
 R P MISRA

NEW JERSEY (CONT'D)

ADRIAN G MOONS JR
CARL MOSKOWITZ
W D MOYERS
CONRAD R MULLER
E C NEU
R J NEWMAN
STANLEY S PACKER
G PAGE
F POLIZZI
A G PRANGLEY
HENRY T RAND
F A REINHARDT
A J ROSENTHAL
P L RUSS
E P RUTKA
R L SAMSON
A R SANTOPIETRO
R B SCHWARTZ
SOL M SELTZER
EDWIN A SHELL
W H SKIDMORE
NORMAN SLURZBERG
RONALD J SPEIGHT
M SPINOSA
THEODORE S SPITZ
H A STONE JR
C P THEILLER
V C THOMAS
R S ULLMAN
R H VAIDEN
H N WAGAR
WILLIAM H WANKMULLER
J F WARREN
E A WEIGNER
RICHARD N WENMAN
G L WICKLAND
ROBERT C WINANS
A F V ZAGIER

PRINCETON

R B ALDRICH
HOWARD H BRAUER
WILLIAM D BROOKS
J A RUBBY
M FRIEDMAN
L GOMBFRG
W J KWIATKOWSKI
D A LUPFER
D F METZ
JEROME POTASH
H S REICHARD
D J SHANEFIELD
WILLIAM K SQUIRES
A STERNBERG
R R TRACHTENBERG
M L WADLIN

PROVIDENCE

W DANDRETA
JOHN J DE FRANCO
R P DEMEO
C D FLANAGAN
M F MC KEAG
E P O'CONNELL SR
E E SHELDON
A G ZUSMAN

ROCHESTER

D R BARTHOLOMAY
T F BRANDT
F P BURHAM
DAVID J CLARK
W R COMSTOCK
C R DURGIN
A C GOLDENBERG
D L GRIEGER
J H HAMMOND
W P KARAS

J NORMAN KLUTZ
LESLIE A KRIEGER
H M MALMGREN
IRWIN NATHAN
RAYMOND W NUSS
THOMAS F OLTOPIK
RICHARD F PITTMAN
A S RAMOS
L J SCHNECK
F B SCHOENFELD
W C WIEDEMANN

SCHENECTADY

R M BARNED
H CHESTNUT
R E FENTON
L K KIRCHMAYER
BERND K KNOERR
P J SANTORO
M E SCOVILLE
M B ZUCCHINO

SYRACUSE

W B BAHR
M L BIENVENU
R R CARNEY
C J CLEARY JR
D T DOHERTY
E C ERNST
J J FOLGER
HAROLD L GILMORE
E A HERR
R C HOADLEY
L F LEINWEBER
J NEASE
F A OLSON
A J PEEBLES
J D RODEMS
W J SCHREIER
J R THURELL JR
C S YERIAN

VERMONT

M CREA A BADER
W J DEVER
A M FORSYTHE
ANDREW N MC LAREN
R PENNOYER
DAVID SHAW
A E SMITH

WORCESTER COUNTY

D R PERCIVAL

REGION 2

ALLEGHENY MOUNTAIN

WILLIAM R STOCK
WILLIAM J WINTERS

BALTIMORE

JOHN W ADOLPHSEN
ROBERT J BEHLER
E BRUCE BELL
J L BENNETT
W C BLACKWELL JR
J P BRACH JR
T K BROWN

WM C BULLOCK
A G BUSH JR
ARCHIE L BUSHEY JR
CHARLES V CURTIS
JOHN E DETERMAN
T F DWYER
M K FROME
E GILMAN
S GORMAN
H N HARRIS
J R HECK
RILEY C HORNE JR
FRANK ISBILL
H C JONES
D R KEIDAN
JAMES H KING JR
C R KNIGHT
S W KRUTE
T A KURZMILLER
A L LAMBERT
J I LEVINE
H LIBERMAN
W A MACCREHAN JR
T E MANSFIELD JR
N J MC ATEE
M A MCGREGOR
L G MC PHERSON
ROY W MESSNER
W D PALMER
JOSEPH L PIETROWIAK JR
W B REESE
L L RESSER
B RIEGER
W A SCANGA
E E SCHENEMAN
R H SEIDL
R F SMELTZER
NORMAN E TYSON
J E VICTOR JR
E T WALSH
F A OLSON
A J PEEBLES
J D RODEMS
W J SCHREIER
J R THURELL JR
C S YERIAN

CENTRAL PENNSYLVANIA

A F PIEPER
E W SCHMIDT
ANDREW J VISNOVSKY

CINCINNATI

LEON BASS
F J BRINKMILLER
H M FULDNER
J J GASPAROTTI
D D WILLSON

CLEVELAND

R C CRAFT
A DOBOS
M S HARTLEY
H A KAHL
L M NAGYOSZY-WOLF
C W REASH
F C SILLAG
N SPIRO
C P STOCKER
L R STONE
E E SWANSON JR
J V WERME

COLUMBUS

R H BRIGGS
H R CHOPP
J L EASTERDAY
JAMES W GAY

B W LUTHMAN
P W RENAUT
L H STEMBER JR
R VAN HORN

DAYTON

L D CARLSON
ROBERT B CHAMBERLAIN
P W COUCH
FREDERICK L DIETRICH
W E GOODWIN
J E HANAN
N KIMMEL
T T KWOK
ALBERT A LOSCHIAVO
C E MC LAUGHLIN
GUY A MORGAN
P G NORTHRUP
PATRICK G O'BRIEN
A K PATEL
L PITINSKY
T L REGULINSKI
ADRIAN J ROGERS
RICHARD L ROOTES
N T SIMPOULOS
M STUK
F B STUMP
F R TAYLOR
R E WORTHEY

DELAWARE BAY

R H LEE
C D PALMER

ERIE

C A BURKHARD
N CODA
THOMAS L VENABLE

LEIGH VALLEY

R E BUSHNER
H L COLLINS
H B FROST
K R GEARY
A F KOHL
S J LITRIDES
GEORGE J MEYERS JR
J H MILLER
R J MOORE
R L ODENWELLER
D S PECK

LIMA

J A JENNINGS JR

NORTH CENTRAL OHIO

D W BRYNER
W H LYNN
C G SVALA

PHILADELPHIA

S L ABBOTT
J J ABRAMS
W R ALEXANDER
DR W G AMEY
H G APPEL SR
J L EASTERDAY
C A APRILETTI
G ASHENDORF

PHILADELPHIA (CONT'D)

I L AUERBACH
HARVEY R BARTON JR
J W BEATTY
GORDON H BECKHART
T L BENES
R S BERKOWITZ
J J BOHRER
D C BOWEN
L BROWN
J W BURROWS
S CANALE JR
JOHN B CATALDO
J F CHALUPA
C A CIANFRANI
F R CLARK
L M CLEMENT
W P COLE
G L CONKLIN
J J DAVARO
L A DE ROSA
J A DEVER
H S DODGE
E J EMERY

THOMAS L FAGAN
IRWIN A FEIGENBAUM
M P FEYERHERM
F T FLOOD
L G FREDERICK
A W FRIEND
MORTEN GALE
STEVEN C GARCIA
E E GARFIELD
G Y GILBERT
A GITTELMAN
A B GITTELMAN
J H GOODMAN
H J GRAY
S N GREENBERG
H T GREENWOOD 3RD
J A HAJKO
S HALPERN
C R HEISING
J A HERRMANN
G W HUNT JR
I HYAMS
J R ISKEN
ALBERT E KAPLAN
E D KARMIOL
J H KELLY
J KIMMEL
R KOOPERSTEFIN
N R KORNFIELD
N H KUTNER
C C LAWSON
F J LOCK JR
R D LUCKENRAUGH
J J LUNDON
R F MAGYARICS
ANTHONY J MANNINO
CHARLES B MAYER
V R MONSHAW
M J MOZENTFR
A G NEWNHAM
NICHOLAS Y NIEM
R L NUNNALLY
M M OFLAHERTY
F E OLIVETO
R H OVERDEER
S F PESZKA
M H PLOFKER
F PLUNDER
H PUESCHNER
A L PUGH JR
M RAPHELSON
H E REFSE JR
H REINGOLD
N K ROMANOFSKY
H ROSENTHAL
W J RYAN
L E SABINE
NICHOLAS SALATINO
J J SALERA
S SCHACH
A SCHNIPPER
H E SCHOCK JR

R J SCHULLER
W A SHERIDAN
W T SOUTHWORTH
W T STARR
J O STEPHENS
G E SYKORA
M M TALL
R W TAVOSO
B TIGER
D I TROXEL
W A VISHNER
ALFRED S WALL
A R WARE
K G WEABER
HAROLD M WFINBERG
K WEIR
W T WEIR
RALPH E WEST
E J WESTCOTT
H S WISHENGRA
J J WOJCIECHOWIC
H L WUERFEL
S ZWERLING

PITTSBURGH

B H BEATTIE
T A DALY
FRANCIS E FAIRMAN 3RD
C V FIELDS

R N HARMON
F B HYLAND
MENG M LI
J L MICHAELIS
J H MURPHY
J P OSHEA
A R PARK
W E SHOPSKY
T L STEPHENS

SOUTHERN NEW JERSEY

D A FISHER
C M RUSSELL

SUSQUEHANNA

H F DE FREES
KEMPER M HAMMELL
M M HOLCOMBE
R E MCNICKLE
D E MYERS
W H SIMS JR
E E SRITZER

WASHINGTON

J D AHLGREN
D A ALLEN
U L ALLEN JR
ALLEN V ASTIN
D R AUEN
B L AVERY
C L BAKER
P W BARNHART
R BATEMAN
K R BELFORD
G L BEYER JR
G T BIRD
W B BISHOP
WALLACE W BIRDSEYE
JACK T BLACKWELL
A C BLANKENSHIP
R J BOTEILHO
JAMES E BRITT
FRED A BROOKS JR
WILLIAM C BROSHA
S A BUCKINGHAM
E W BULLINGTON
M H CARL

JOHN F CAVANAUGH
F J CERVENKA
D D CHRISTOFFERSON
D M CLUNIE
B T COLANDENE
JOHN E DAVEAU
A J DELLINGER
H EISNER
W A ELLIS
S B ENSLEY
F E ERDLE
W P ETTER
I J FAIRCHILD JR
H J FOX
M FOX
RICHARD W FRENIER
W F GALLAGHER JR
J R GARAFOLA
V E GARDNER
P C GAUMOND
W R GIRSON
L C GILLS
P GOTTFRIED
J R GOUGE JR
W C GREEN
J WALTER GREER
C C G HAUFFMAN
C D HOCK
L J HOCKING
R O HOLBROOK
JAMES L HOLLIS
J R HOLMES
MILTON W HOROWITZ
A HOTVEDT
WILLIAM J HUCK JR
1ST LT DAVID R HUI
T T JACKSON
J JANSEN
C M JAQUES
ERNEST R JERVIS
A M JOX
MARTIN KATZIN
H J KENNEDY
B KERNE
R C KITCHEN
D C KOCHENDARFER
J KOSTYK
R S KREISBERG
F N LEE
J E LEVY
GEORGE N LEWIS
O I LIKHACHEV
LT COL H E LOGSDON
A LUNCHICK
R MALM
J C MAYCOCK
D F MILESON
R S MORTON
R E MULFORD
J A MURPHY
R T MYERS
ELIDIO J NUCCI
T L PANTZ
A PLAIST
A S POLLACK
H W PRICE JR
H T PRITCHARD
R R PUTTCAMP
T R N RAD
L E RAWLS
J REBAK JR
W M REDLER
OSWALD R REH
J R ROSENBLATT
I J ROSS
J L RYNNING
J SACKS
S SAITO
HENRY SCHAMM
C J SENSALE
GUSTAVE SHAPIRO
A SILINS
R J SKAPURA
LT COL JOHN O SPENCER
JOHN SPINK
R STRAUSS
H W L STREET
S TAUB

A TERRIS
J W THOMAS JR
D M THOMPSON
S W TIMBLIN
J S TOLLIVER
H H VARHUS
E C VESTAL JR
C VIZZINI
N VOGEL
R L VOLLMER
R J WAGNER
R A WAINWRIGHT
DR LEO WALDICK
H WALL
W E WALLACE
D W WEISS
H N ZELLY

WEST VIRGINIA
J D WEST
REGION 3
ATLANTA

PETER E CHESBROUGH
R S DUGGAN JR
W R FARBER
R C HYERS
M D PRINCE
D H SCOTT JR

CANAVERAL
EARLIE H BARBER
T M BARLOW JR
RICHARD A REVERSE
C M BIRD
W J CAHILL
JAMES C DIAL
J E DYKES
J ESTEVES-HERRERA
F A FERNANDEZ
K H FOX
JACK B FREEMAN
J J GRILLO
H S HALL
T W HASSLINGER
E J HEISEL JR
JERRELL HOLLOWAY
F JIMEIAN

J LA CAPRA
J T LITTLEFIELD
D R LOVITT
P H MAXWELL
P R MURPHY

W M PHILLIPS JR
J C ROBERTSON
LEE R WEBSTER
D WRIGHT

CENTRAL NORTH CAROLINA

H E COBB
W G FAUST
D V GRANT JR

CENTRAL VIRGINIA

W P BARTLEY
W O HANSEN

CENTRAL VIRGINIA (CONT'D)

K O LEE
P R MASON JR
EDWARD G MENAKER
H G WIEST

FORT WALTON

SUPHI I OKUR
HAMPTON ROADS

CHARLOTTE
W J FOLEY

DAYTONA

A F H BISCHOFF
W J CAMPBELL
A J HOLSTEAD
D E LANE
J B MILLS
P J MULLIGAN
E P PADGETT JR
B D ROBERTS
A L RUIZ
O F WALKER

EASTERN NORTH CAROLINA

R A EVANS
J D HILL
C A KROHN
JOHN S SHALLCROSS
WILLIAM S THOMPSON
G J WEY

EAST TENNESSEE

C H RUSH JR
EVANSVILLE-OWENSBORO

G P HUBBS
W J RICHERT
H D SAUTER
W A WILLIAMS

FLORIDA WEST COAST

VICTOR K AUBREY
P H BETTS
P F BROWN
G W CARR
J R Dangler
R W EHRRHORN
S W FAUGHT
H L GOLDREICH
RICHARD V HART
R E HENNING
C W Hiers
D R HUME
H N JASPER
W P KOECHEL
R H KUHNAPFEL
T G LACY
G F LAMPKIN
F P SAVALLI
G S SLOUGHTER
M P SMITH
HAROLD Z SNYDER

G E ALLEN JR
HERBERT AUSTIN COOK
L L GORDON
J WALTER KELLER JR
N KREIDER
GAVIN Y WILSON

NASHVILLE

J C NOBLE
W W STIFLER JR

NEW ORLEANS

F S BIRD
G J FOUNDAS
M L RIEMER
ORLANDO
JOHN A BAUER
L R BROWN

D R BUSH
V J GODLEWSKI
J F HORNE
E J LEMANSKI
ROBERT M NORTHRUP

PALM BEACH

R J BRISCOE
F W DAUER

HUNTSVILLE

SOUTH CAROLINA

H T CANNON JR
H V DE MATOS
JEROME H SILVERMAN

WESTERN NORTH CAROLINA

ALFRED B GOUGH
ROBERT L WRAY

WINSTON-SALEM

J W ELLIS
H A MILLER

REGION 4

CEDAR RAPIDS

THOMAS R BRENNOM
R F EASTON
R W HOKE
M C KERBER
W E LOESCHER
D E LOOP
J O NIDAY
A J SCOTT
D P THRAN
R L VANDER HAMM
G WIEGARDT

CENTRAL ILLINOIS

VERNON W BATEMAN
R W BUNNER
HOWARD F CARLTON JR
W C DOWNING JR
K MC GEE
W J POPPELBAUM

CENTRAL INDIANA

H G BEAR
S O BICKEL
H E BRADLEY
HECTOR B CHAO
K W DOVERSBERGER
E A WILDERBRAND
STEPHEN K MC KOON
F W MILES
J H PICKETT
H PYLE
J RAM
G L THOMAS

ILLINOIS VALLEY

D BUERSCHINGER
JAMES E FRASER
G G LINDSTROM

IOWA-ILLINOIS

SERKLAND

CHICAGO

R T ANDERSON
E ARGUDELIS
JAMES E ATKINSON
J W AYERS
J R BELVILLE
C BLAHNA
J H BLEVINS
J E BROCK
R J BRUST
E J CHILIPALA
P E CLAWSON
C H CURREY
J F DE GROOTE
EDWARD C DUMAY
W FLOWER
R J GALITZ
ROD J GARCIA
M E GOLDBERG
R GOLDSTEIN
E M GORE
R A GREGORY
J A HARRINGTON
DAVID P HAYS
R J HERST
G T JACORI
J T JAMES
R E JENSEN
A J KASLUGA
HOWARD KATZ
H S KNOWLES
F A LAKOWSKI
H A LAUFFENBURGER
H E LENSE
W G LESLIE
A LUCK
HENRY A MALEC
H L MARSZAlek
L T MATZEK
H E MAY
J C MEYER
P A MIHALKANIN
E MITTELmann
T R MYERS
GUS B NEILL
DAVID M NELSON
R F NISS
D C OLIVA
G L PICHA
R I POWELL
M D PRESTON
W G QUIST
F D REESE
K E REESE
H L SAYLES
A W SCHLUETER
D O SCHNENNESEN
JOHN J SIADEK
K M SORIA
D R SZUBKA
PHILIP TANGORRA
C W N THOMPSON
J B T TURCZYNSKI
G VLACH
E L WILSON
R H YERKE

FORT WAYNE

D J RANSOM
J H SCHMICKLEY
C B TERRY

ILLINOIS VALLEY

D BUERSCHINGER
JAMES E FRASER
G G LINDSTROM

IOWA-ILLINOIS

SERKLAND

MADISON

R A JOHNSON
R L KRAMER

MILWAUKEE

J A BECKER
H L BOEHLER
J C BOUTON
J J ERB
J H HARRIS
DONALD E KEAST
E KOVACHIK
T P MAC
D MARCINIAK
R C MIERENDORF
A PAALU
RICHARD E RIEBS
H W ROY
R W RYNO
R P SCHMECHEL
B H SCHULTZ
K STEFANCIC
N C STORCK

NEBRASKA

L L SVOBODA

NORTHEAST MICHIGAN

V C BANDURSKI
C G CURRIN
W J MC BRIDE

ROCK RIVER VALLEY

C W ANDERSEN
BARRY DAHLBERG
R J ZIEHLKE

SOUTH BEND

M E BARTZ
A OPPENHEIMER
ROBERT E RAYMOND
R F SCHULTS

WEST MICHIGAN

D M HESLING
L M YIKE

ARKANSAS

R C DUBES
C J GARBE
R W GREENWOOD
P HABOIAN
F W HARE

HAROLD W HARRISON

ROBERT C HOGLE

W S HOWELL

A C KELSELL

J L MC KELVIE

HENRY H MILSON

EDWARD RETKO

A J ROUSSEAU

STANLEY R SCHREINER

C E SCHULTHEISS

DAVID R SKUBIK

K P STINER

J H ST JOHN

L M THALL

N J VEIT

L WILCOX

C T YOUNG

ARKANSAS

J D REID

CENTRAL TEXAS

L S FOUNTAIN

W A HEWGLY

JOHN D OSBORN

H L TAYLOR

V H HAINS

SOUTHERN MINNESOTA

F P KLAUDA

TOLEDO

S T JUTILA
L R KLOPFENSTEIN
JOHN D LIWO

TWIN CITIES

D E ANDERSON

D R BARGEN

F D BARKER

MICHAEL A BERG

A G BEZAT

B B BODENDORF

M L BOOKIN

ARTHUR L CARLSON

E CHISWELL

G G DUFFY

V E ELVERSON

R J EVANS

B W FIELD

W J FIELD

ALLYN J FORSMAN

R D GJERTSON

D A GRITTNER

J C JOSEPH

R R JULKOWSKI

R P KROLL

WILLIAM C LAHTI

J F LINDFORS

A G LINDGREEN

D W LOWRY

H W LUEDTKE

R L MARTIN

W R MC CARTHY

D F MILLER

J E NORDSTROM

THOMAS PANNEK

ROBERT J PECHMANN

F J POTT

A E SCHNEIDER

J SCHROEDER

G L SELLER

W F THISIUS

J M THUIRER

J P VAN OSS

L WERNER

GERALD I WILLIAMS

WEST MICHIGAN

D M HESLING

L M YIKE

EL PASO

J S LAMBERT

A J RUCKS

FORT WORTH

C F BARBER

R E LANIER

W C LIVINGSTON

RAYMOND PARKER

RICHARD L ROA

DEWITT C SEWARD 3RD

HOUSTON

B H BALDRIDGE

DON L CANNON

PAUL E CARROLL

L W ERATH

J L FENTON

WAYNE J FLICKINGER

V H HAINS

SHREVEPORT

P A DAVIS 2ND

JAMES H HARPER

T F HOWIE

WILLIAM KANNE JR

J T MILLER

A B RORSON JR

SOUTH PLAINS

R H SEACAT

TULSA

A M BREIPOHL

J E HAWKINS

L C LAPARTHE

W K RAPP

REGION 6

PORLAND
M D HEIKEN
V S LAVA
S A D MEEK
R E SHOW
J L STOLL
C H MC LEAN
R R SAYLOR
D R SMITH
ALAMOGORDO-HOLLOWAN
C H MC LEAN
R R SAYLOR
D R SMITH
ALBUQUERQUE
P H BIRCHER
A B CHURCH
EDWARD L LANE
ARTHUR C LITTLEFORD
L J PADDISON
C H PURDUE
C R QUALLS
W M SUNDT
H E WALKER
FORT HUACHUCA
MICHAEL BIALKOWSKI
R D LARSON
HAWAII
STEVEN P GOUVETIA
KATSUMI HOSOKAWA
C K KURO
GEORGE TSUCHIDA
IDAHO
M H SAUNDERS
PHOENIX
F A APPLEGATE
P C BOYD JR
M D BRAMAN
G U BRIGGS
M J CALLAHAN
A G COON
NATHAN B CRANE JR
JOHN H DENNY
FRED E DRESTE
WILLIAM T FITCH
M FRANEVSKY
T J GLEICHAU
P H GREER
M C HALLECK
DONALD M HENDERSON
R L JONES
STEVEN KARLIK JR
H P KENYON JR
ALLAN T KNEALE
V I MINKEL
O B MOAN
HAROLD L MOYER
B B NAUSED
D E NOBLE
CLIFFORD C PETERSEN
LOUIS PLOTKIN
ALLAN G RIKER
R E SAMUELSON
D H SCOFIELD
J W THORNHILL
D D WARD JR

RALPH R DIMMICK
W S DRUMMOND
J D DUNNING
ERIC B EDBFRG
JOHN EFSTATHIOU
A P EGGERMAN
H A EIMSTAD JR
W L FINCH
E M FLICK
R A FOLSOM JR
CLARENCE E FRIZZELL
J H GARD
W F GATES
WARREN GELLER
P J GUILLOT
H W HEAD
J D HOFFMAN
M HONDA
S O HOUCK
C M IDANI
I M JACORS
S E JOHNSON
Q H JOY
K O KELLY
V G KIDD
R C KING
T H KING
THOMAS J KING
JAMES G KLUBA
H C KNAUSS
A J KOELLING JR
T O KRUEGER
L O LANE JR
C E LEAKE
R E LEE
W R MALAUN
W MANCUSO
RICHARD C MC COY
H J MC INTRE
R A MILLAR
M R MILLER
T G MOLESKI
R R MULOCK
K B NEAL
L C NEILSON
T J NETOFF
G I OLIVIER
A M OPSAHL
EDWARD L PACK
ANSON G PARISH
E A POLGAR
J H RAU
K A REYNOLDS
ROBERT J ROBERTS JR
L P ROBINSON
K C ROSENBERG
M B RUDIN
W B SANDER
R J SEGERSTROM
L H SLOTE
C K SNYDER
R SPINGARN
R G STEWART
CARLTON W THOMS
D S TOOMR
V J VAN VELZER
F R VAN WAGNER
R E VEHN
R J VIFRAITIS
W H WAHRAHTIG
P A WALLACE
O R WELCH
HAROLD C WERNER
H E WESTGATE
FRANK K B WHEELER
E A WHITEHEAD
S WIESSNER
J L WILLOWS
W L WISE
G W YOUNG

SEATTLE
HERBERT W BETHEL
W P CRANE
R P BIELKA
W E CURRIE
F D ERPS
R E HART

A F HIXENBAUGH
E R KARCHER
AUGUST T KARLSON
L KOSENKRANUS
J W MICKEL
D M MOOSE
L A OLFARY
R E PATRICELLI
P S THOMAS
JAY W WRIGHT

TUCSON
A J GRAVELL
DR DIMITRI KECECIOLU
H KOERNER
SAM S LAM
V M LOCKWOOD
A A ST GERMAIN

UTAH
LTC HAROLD L BEASLEY
E S BOYLE
S R DOUGLAS
RICHARD U EVANS
W G ROBINSON

LOS ANGELES COUNCIL SECTIONS
BUENAVENTURA
F I BIEN
ROY E DEHM
C M DE WITT 3RD
J G FRANCIS
P PERINGER
A R REED
L L SLATTEN

CHINA LAKE
V C BESANCON
ROBERT J LOVE
W A MARSH
B G SLAY JR

FOOTHILL
D P BOE
H W CLARK
M M FALK
D W HALFHILL
CHARLES F HORNE JR
C R HUGHART
DONALD J KERINS
V L LOVITT
R R MOORE
J H NELSON
M A PATTFRSON
M L SANDFL
M G THOMAS
G W WOOD
C W YOUNG

MET. LOS ANGELES
H E ANDERSON
C F DEININGER
G HENSEL
WILLIAM J HODGES
I ISRAELY
MAX M KLEINBERG

MET. LOS ANGELES (CONT'D)

J KUSHNER
D MULLIN
HENRY R NEU
H N PENNYPACKER
D PLUMMER
S N PORTER
W M QUINN
H B WATERMAN
G W YIM
S ZEITLIN
L J ZOTTARELLI

ORANGE COUNTY

M F ADAM
K W ANDERSON
ROBERT E BANNICK
J M BEEKMAN
R B BONNEY
ROY B CARPENTER JR
F CASSETTARI
ROBERT CUTLER
JOHN J DELAVA
P A DIEDERICH
JOHN R DONAN
J J DUFFY
WILLIAM EISNER
A EPP JR
D C FLEMING
A FURSA
SYDNEY GLAZER
R J HAGERTY
R W HARDER
I M HOLLIDAY
N L HUG
K ICHIKAWA
T W JARMIE
G KASOUF
E G KIMME
PAUL B KING
J F KINKEL
W KLEIN
R J KRAMER
STANLEY LAUT
W A LEWIS
C D MARTIN
J D MASON
JAMES L MAYBELL
L B MC CASLIN
H J MC CLINTOCK
C M MILLER
JEAN R MILLER
R T MORRISON
W MORTON
ROBERT J MULLENBACH
J R NORIEGA
E L PETERSON
RALPH RANALLI
R T REEDS
WILLIAM A ROUSEY
W G RUNGAITIS JR
E J SAALFRANK
K N SARGENT
HERBERT S SCHEFFLER
L J SCHNEIDER
BRUCE E SHARP
R C SHAW
J E SWISTOK
A J TOMAC
CHI PEI TUNG
R G TYRRELL
E W UMLAUF
J E VALSTAR
V H VOGEL
R F YODER

R A BELMONT
ROBERT P BOROFKA
T N BOWERS
C W BRANDS
T O BRINTZENHOFF
J E BROWDER
JAMES J BURROWS
J W CALER
E D COCHRAN
M J CONNOLLY
LEO H DE ZUBE
D EDGERTON JR
W H FIDEN
D J FINN
H M GORDY
ZANTINE GREENWOOD
M A GROSSMAN
S J GROSSMAN
H R HAID
P L HILLMAN
S L HIRSCH
S J HORNÝAK
W R HUTCHERSON
HERBERT G JACKS
R H JOE
J H JONES
E A KOHLER
G F KUJAWSKI
W X LAMB
G R LANE
A LEVY
F A MACALUSO
KIRKE W MARSH
L A MATONAK
J C MC ADAM
D R MEYER
C MICHAEL
K F MORICK
MARY F NOLLMAN
D M PAYNE
S PRO
I QUART
SAMUEL M RICE
D R RINGOLD
ALBERT L ROSENBERG JR
D K RURIN
NORMAN A SCHWARTZ
R W SHERMAN
STEPHEN G SOLLOCK
C O STEWART
D SWISHER
G R VAN HOORDE
JOHN VISSER
J M WATSON
E M WEINSTEIN
T C WOODARD
HANCE S WOOLEVER
S ZWASS

SOUTH BAY HARBOR

E L AITON
ROBERT S BABIN
R A BRUCE
R H CARPENTER
R J CARY JR
P S CASTILLO JR
J A CONNOR
E F DERTINGER
R R DYE
F E ENRIGHT
JACK E FORT
W O GEISERT
S D GERBER
J HILMAN
R F CLINE
D C DAVIS
D T DUQUETTE
K C EVANS
W P HART
K C HAWES
R D JABLONSKY
L P JONES
J KLINBERG
WARREN S LINCOLN
H MEYER
J C RADCLIFFE
C J T VAN LEEUWEN
E M WALKEY

SAN GABRIEL VALLEY

WILBERT B BARTEL
C W BOICE JR
D L BRODERICK
D E BROWN
J HILMAN
R F CLINE
D C DAVIS
D T DUQUETTE
K C EVANS
W P HART
K C HAWES
R D JABLONSKY
L P JONES
J KLINBERG
WARREN S LINCOLN
H MEYER
J C RADCLIFFE
C J T VAN LEEUWEN
E M WALKEY

SAN FERNANDO VALLEY

LEO A ARNDT
H J BARR
I BAZOVSKY

SANTA BARBARA

L O CRISS
J L GLASS
C WALTER JOHNSON

C J KAWIECKI
F X REMOND
GARY S SCHOENBACHLER
RICHARD L SHELBY
C N STOLL

SANTA MONICA BAY

A P ALBRECHT
DR E J ALTHAUS
ROBERT ARANY
L A AROIAN
A A AVIZIENIS
J L AYERS
BENJAMIN BARNETT
H BRUCE BATTEY
W M BAUER

D E RECHER
B BERMAN
C R DERNHAM
I DOSHAY
J R FISHER
R H GACA
A L GICHTIN
E J GOZI
R W GRANTHAM
W A HARTMANN JR
B HATHAWAY
C D HENSON
JOHN C KINZEL
M B KLINE
G F LAULE
S N LEHR
D E MC CORMAC
Z MILUNAS
S C MORRISON
GEORGE V NOLDE
W H PENDLETON
V J PETRUSIS
A C REED
R A RODRIGUEZ
S SHOHARA
SAM A SIMICH
G W SWANSON
G S SZEKELY
R C TERZIAN
R A WESTLAND
T O WONDERLY

E WADE
S L WEBSTER
H K WEISS
CHARLES A WILEY
G J WILLIAMS
K L WONG
D J YOUNG

VANDENBERG
J A TRUEMAN
L R WHITE

REGION 7

BAY OF QUINTE
G T DAVIS
G C RORISON
R L SMITH

CANADIAN ATLANTIC
R J HAMILTON
WESLEY D HUTCHINSON
J E TIRBETT

LONDON
H R MC GEE

MONTREAL
J L L BOULET
J A T ROUSFIELD
P DEMERS
R A DINGWALL
L DUMAS
ROBERT P GAGNON
K F GENTNER
G B HENDRICK
PER J JORGENSEN
T D KIANG
J H LEGERE
MARIANNE G MAC DONALD
F MOLLER
W A RAWLINS
R W REED
L F RUGGINS
J M SAUCHUK
I L WAJS
E WALL

NIAGARA INTERNATIONAL

JOHN F MC PHAIL

NORTHERN ALBERTA

G BIDULOCK

OTTAWA

CHARLES J MEDART
D C SCHERING
JAN STOLK
A J VAN DEN MEERSCHE
J C VAN STAVEREN
D H VAN ZUYLEN
C J D M VERHAGEN
H VIGNERON
J VOROBETCHIK
JAMES R WEINER
C M J WILMERING
P ZIJLSTRA

QUEBEC

A L LORTIE
W E SWITZER
K H ZEMENT

REGINA

R BILLINTON
H KALDOR

TORONTO

F J HEATH
W HRYHORIJIW
J A KUSTER
K I LYONS
J MC ATER
JAMES B PUSKAS
J R RIDOUT
YOSHITADA RYUZAKI
D G SANFORD
A SIMONI
S V SOANES
H J SWAIN

VANCOUVER

R AITKEN

WINNIPEG

L A BATEMAN
A A BURROW
W A R JOHNSTON
M P MUSICK

REGION 8

BENELUX

P BOUCHIER
Y BOXMA
G G CANTRAINE
J L DE KERF
MAURICE C P DESIRANT
L ENSING
J W GOOZE-ZIJL
M GROENENBOOM
H H HANNESSEN
Y V HECQ
H H HEEROMA

MIDDLE & SOUTH ITALY
FRANCE
V A ALTOVSKY
JACQUES A AMANN
R L ARNAL
GEORGES ATTALI
J AURICOSTE
J P BARRET
P M BODEZ
ROBERT COHEN
CHARLES A DAVID
M DELATTRE
M S DENOUETTE
J D DESCHAMPS
J DRAPIER
J L DUPREZ
L ENAUD
HERBERT H ERNYEI
J GAGNIERE
P GANDIN
J F GASCHI
PIERRE GENKIN
P A GRIVET
MICHEL KARSKY
E LARIN
J P LABROUSSE
A LAURENS
L J LIROIS
W MAZEL
P P NAMIAN
F F NOUVION
A OUDARD
JEAN C PATIN
J C PELPEL
M J H PONTE
J H ROBIEUX
M TESSIER
F F VALENTIN

NORTH ITALY

M BUNELLI
E FAGNONI
G GOMMELLINI
RENATO KOCH
T LEARDINI
U PIZZARELLI
U TIBERIO

UNITED KINGDON &
REPUBLIC OF IRELAND

M BIAGIONI
LUIGI BONAVOGLIA
F E CAPOCACCIA
G G A COSTAMAGNA
A D DEROSI
G DE VITO
C EGIDI
V FLORIANI
R GALLETTI
ENRICO GIANNINI-MOCHI
O M GUARRACINO
G QUAZZA
ANGELO ROSSI
VLADIMIRO S SABBADINI
P SCHIAFFINO
P SILLANO
A VERGANI
C ZANELLI
A ZANINI

NORWAY

H DAHL
E KULVIK
E MACK
K R MEISINGSET
R E PEDERSEN
K E SURBYE
O J TVEIT

SWEDEN

P J BENGTSSON
O BILLSTROM
E H J BRAUNE
CARL D DAHLMAN
A V EHNBORG
A L ELFVING
S G FAGERLIND
T E FRISK
S G GERTZELL
S G GRANLER
L KARLSTEDT
K KATZEFF
B K J KNUTSSON
T LAURENT
G LINNSTRÖM
L E LOFGREN
A LUNDQVIST
E G MALMLÖW
G A MARKESJO
A J K OLSSON
O PÉRERS
D RAMSKOLD
S SJØGREN
P G SOLDERS
A SUNDQUIST

SWITZERLAND

A E BACHMANN
T CELIO
A DODLER
H A ELSNER
G GUANELLA

A L KLEIN
GUIDO J LANG
P C MAIER
MAX J MILZ
I SCHERRER
M STRUTT
H E THIEMANN
R P WELLINGER
GILBERT J ZINSMEISTER

CHILE

J M BRITO-INFANTE

MEXICO

R FERNANDEZ NINO
EMILIO R GARCIA
J C SEELIGER
J R WOOTEN

PERU

E J BARRAGAN-SCHENONE

PUERTO RICO &
VIRGIN ISLANDS

E PUIGDOLLERS JR

RIO DE JANEIRO

M F LIPPINCOTT

SAO PAULO

Y S LEE
F L SHERMAN

VENEZUELAN

MANUEL FLINT HALPERN
ING A F GUTIERREZ

MISCELLANEOUS

OLE T ANDERSEN
J BLECHA
C L CHRISTENSEN
ANTONI CZECHOWSKI
ERIK ELNEGÅRD
V GOVIADINOV
F W GUNDLACH
KNUD HOLST
H ISAKSSON
F JENSEN
M T JOKINIEMI
GARABED KODJAIAN
J KUBEC
C O LUND
K I MARTJUSHOV
B AAGAARD NIELSEN
M NOVAK
J J PUHJANPALO
OTTO RING
L SZANTO
J VIRANT
J D VOCOLIDES

DAVID R MARSHALL
ARY NOVAES TEIXEIRA

NEW ZEALAND

C G BRICKELL
S WOLKOWICZ

REGION 9

TOKYO

EIZO ABE
OSAMU ABE
MORIO AKIYAMA
TADAHICO AKIYAMA
SABURE AOI
YOSHIMASA AOKI
KIYOSHIKE ECHIKAWA
MASAO FUKATA
KOJI HIROSE
MASAYOSHI HOSHINA
KOICHI HOSOKAWA
MASARU IRUKA
MASAO IDE
YOSHIO IHARA
TOSHIYA INOUE
YASUO ISHIDA
NOBORU IZEKI
T KAWANO
HISAO KIMURA
MATSUMASA KINASE
SHUNKICHI KISAKA
DAIJIRO KOBAYASHI
K KOBAYASHI
H KONDO
SATARO KONNO
TETSUJI KOTANI
TOSHIRO KUMAGAI
GENZABURO KURATSU
K KURODA
MITSUO KUSANO
SHIGEYA KUMARARA
TAKENOBU MATSUMURA
MASAO MATSUO
T MATSUYUKI
FUMIO MINOURA
M MITA
NORITARO NAGATA
M NAKAGAMI
F NAKAHARA
JIRU NAKAMURA
OSAMU NISHINO
H NISHIO
YASUJIRO NIWA
NOBUO NUMASAKI
M NUMOTO
SUKIRO OPATA
NORIOMI OCHIAI
NAOYUKI OGASAWARA
SHINCHIRO OGAWA
T OGAWA
K OHASHI
TAKASHI OHOKA
HIROSHI OHWADANO
MINORU OKADA
HARUKI OKAMOTO
KENZO OKUDA
KEN-ICHI OWAKI
KATSU POKUSHIMA
MASAFUMI SASAKI
TAKAO SATO
R SAWADA
TOSHIRO SAWADA
T SAWAMURA
N SAWAZAKI
TAKEO SEKI
I SOMEYA
CHOSUKE SUGI
IKUO TAKEDA
OKADA TAKEO
IKUO TANAKA
FUSAO TANIGUCHI
MIYAJI TOMOTA
YOSHIOURU URANO
MASARU YAMANO
TAKASHI YAMAZAKI
DAIGORO YASUKAWA
TSUGUO YOSHIDA
TAKEO YOSHINO

REGION 10

OVERSEAS MILITARY

A B ADKINS
F A AUSTIN
THOMAS D FLANNERY
MAJ CORBET L HARRISON
CAPT TERRY M STARK

MISCELLANEOUS

CAPT EDMOND AMOAH
AHMED H ANTAR
L T BURROWS
R J C DAVIES
ANGUS FOWLER
G G HALL
W W HONOR
R S HOPE
MANGHO J KIRPALANI
O MACE
P C MANOHARAN
V S NAZIR AHMED
S C VICHAI
A H WARDALE
P E WESTON