

REPORT OF THE SECRETARY

1951

TO THE BOARD OF DIRECTORS
THE INSTITUTE OF RADIO ENGINEERS

GENTLEMEN:

THE SECRETARY AGAIN SUBMITS THE USUAL ANNUAL REPORT COVERING THE OPERATIONS OF THE INSTITUTE FOR THE YEAR 1951, WHICH PRESENTS INFORMATION CONCERNING MEMBERSHIP, FISCAL STATUS, EDITORIAL ACTIVITIES, TECHNICAL ACTIVITIES, SECTION ACTIVITIES, AND STUDENT BRANCHES.

GROWTH CONTINUES IN EVERY DEPARTMENT. WHILE THE GAIN IN NEW MEMBERS WAS ABOUT 4500, THE NET GAIN WAS SMALL DUE TO AN ABNORMAL SHRINKAGE OF STUDENT MEMBERS. PAGES OF THE PROCEEDINGS, BOTH EDITORIAL AND ADVERTISING, INCREASED APPRECIABLY. THREE NEW SECTIONS BRING THE TOTAL TO 60 NOT COUNTING SUBSECTIONS (SUBSECTIONS TOTAL 14), FOUR NEW STUDENT BRANCHES BRING THE TOTAL TO 109 AND PROFESSIONAL GROUPS HAVE INCREASED BY 6 TO A TOTAL OF 16 EMBRACING AN AGGREGATE MEMBERSHIP OF 13,000.

EDITORIAL ACTIVITIES OF WHICH SPECIAL NOTE SHOULD BE TAKEN INCLUDE THE INNOVATION OF OCCASIONALLY PRODUCING ONE ISSUE DEVOTED TO ONE SUBJECT EXCLUSIVELY, THE INAUGURATION OF PROFESSIONAL GROUP TRANSACTIONS AND THE PUBLICATION OF TUTORIAL PAPERS.

GENERAL ACTIVITY MAY BE VISUALIZED BY NOTING THE NUMBER OF MEETINGS HELD, STATED AS FOLLOWS, APPROXIMATELY;

1. ADMINISTRATIVE 18
2. EDITORIAL 14
3. TECHNICAL COMMITTEES 135

| | |
|--|-----------|
| 4. JOINT MEETINGS (CONFERENCES SYMPOSIA, ETC.) | 37 |
| 5. JOINT TECHNICAL ADVISORY COMMITTEE | 6 |
| 6. MEETINGS (NATIONAL CONVENTION, ETC.) | 12 |
| 7. NATIONAL TELEVISION SYSTEM COMMITTEES OF THE RADIO AND TELEVISION MANUFACTURERS ASSOCIATION | <u>55</u> |
| TOTAL, EXCLUDING SECTION MEETINGS | 277 |
| 8. SECTIONS | 602 |
| 9. SUBSECTIONS | <u>69</u> |
| GRAND TOTAL | 948 |

SPECIAL MENTION IS MADE OF THE SUBSTANTIAL GROWTH OF THE PROFESSIONAL GROUP SYSTEM, THE ACTIVE PARTICIPATION OF GROUPS IN SPONSORING SYMPOSIA, ISSUING TRANSACTIONS AND PROVIDING SPECIALIZED PAPERS FOR THE PROCEEDINGS, WITH THE LIKELIHOOD OF SEVERAL NEW GROUPS BECOMING ESTABLISHED SOON.

THE 1951 NATIONAL CONVENTION CONSTITUTES ANOTHER EXAMPLE OF THE INSTITUTE'S EXPANDING SERVICES TO THE FIELD WHICH IT SERVES. 22,919 PERSONS ATTENDED TO PARTICIPATE IN 43 TECHNICAL SESSIONS WITH 210 PAPERS AND TO SEE 277 EXHIBITS ALL IN EXCESS OF THOSE FOR THE PREVIOUS NATIONAL CONVENTION.

THE SECRETARY NOTES, THEREFORE, THAT THE YEAR JUST CLOSED LEAVES WITH IT A VERY SATISFACTORY RECORD. IT ALSO LEAVES WITH THE MANAGEMENT THE TASK OF CONTINUING THE SEARCH FOR SOLUTIONS TO PROBLEMS INEVITABLY ASSOCIATED WITH GROWTH AMONG WHICH IS THAT OF SPACE FOR HEADQUARTERS' ACTIVITIES, NOW BECOMING INADEQUATE.

RESPECTFULLY SUBMITTED,

HARADEN PRATT,
SECRETARY

FEBRUARY 7, 1952.

MEMBERSHIP

AT THE END OF THE YEAR 1951, THE MEMBERSHIP OF THE INSTITUTE, INCLUDING ALL GRADES, WAS 29,408, AN INCREASE OF 406, OR 1.4% OVER THE PREVIOUS YEAR. THE 406 MEMBER INCREASE IN 1951 WAS LESS THAN 3,332 AND 2,233, THE INCREASES FOR 1949 AND 1950 RESPECTIVELY. THE PERCENTAGE INCREASE WAS 14% IN 1949, AND 8% IN 1950. THE NET INCREASE IN MEMBERSHIP DURING 1951 WAS GREATLY REDUCED BY THE 42% DECREASE IN MEMBERS IN THE STUDENT GRADE. THE MEMBERSHIP TREND FROM 1912 TO DATE IS SHOWN GRAPHICALLY IN FIGURE 2.

ACTUAL MEMBERSHIP FIGURES FOR 1949, 1950 AND 1951 ARE SHOWN IN TABLE 1. OF THE 16,549 NON-VOTING ASSOCIATES, 4,154 HAVE BEEN IN THAT GRADE FOR MORE THAN FIVE YEARS. 3,059 STUDENTS TRANSFERRED TO THE ASSOCIATE GRADE IN 1951, COMPARED TO 1,786 IN 1950, WHICH REFLECTS A SATISFACTORY TREND. THE MEMBERSHIP RATIO OF ASSOCIATES TO HIGHER GRADES IS APPROXIMATELY 2 TO 1.

DETAILED ANALYSES CAN BE FOUND ON THE TABLES LISTED ON THE FOLLOWING PAGE.

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TABLE I - TOTAL MEMBERSHIP DISTRIBUTION BY GRADES

| GRADE | AS OF DEC. 31, 1951 | | AS OF DEC. 31, 1950 | | AS OF DEC. 31, 1949 | |
|---------------|---------------------|------------|---------------------|------------|---------------------|------------|
| | NUMBER | % OF TOTAL | NUMBER | % OF TOTAL | NUMBER | % OF TOTAL |
| FELLOW | 345 | 1.2 | 323 | 1.1 | 284 | 1.1 |
| SENIOR MEMBER | 3,070 | 10.4 | 2,726 | 9.4 | 2,421 | 9.0 |
| MEMBER | 4,043 | 13.7 | 3,803 | 13.1 | 3,559 | 13.3 |
| ASSOCIATE | 17,523*** | 59.6 | 14,590** | 50.3 | 12,309* | 46.0 |
| STUDENT | <u>4,427</u> | 15.1 | <u>7,560</u> | 26.1 | <u>8,196</u> | 30.6 |
| TOTALS | 29,408 | | 29,002 | | 26,769 | |

TABLE II - ANALYSIS OF TOTAL MEMBERSHIP DISTRIBUTION BY GRADES

| | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A(\$15)</u> | <u>A(\$10)</u> | <u>S</u> | |
|-------------------------|-----------|------------|------------|-----------|----------------|----------------|-----------|--------------|
| UNITED STATES | 299 | 2768 | 3591 | 903 | 3744 | 11,340 | 4226 | 26,871 |
| U. S. POSSESSIONS | | 6 | 22 | 9 | 24 | 97 | | 158 |
| U. S. OVERSEAS MILITARY | | <u>8</u> | <u>23</u> | <u>5</u> | <u>14</u> | <u>110</u> | <u>13</u> | <u>173</u> |
| | 299 | 2782 | 3636 | 917 | 3782 | 11,547 | 4239 | 27,202 |
| CANADA | 14 | 95 | 152 | 24 | 150 | 419 | 150 | 1,004 |
| FOREIGN | <u>32</u> | <u>193</u> | <u>255</u> | <u>33</u> | <u>222</u> | <u>429</u> | <u>38</u> | <u>1,202</u> |
| TOTALS | 345 | 3070 | 4043 | 974 | 4154 | 12,395 | 4427 | 29,408 |

TABLE III - FIVE-YEAR ANALYSIS OF U. S. AND FOREIGN MEMBERSHIP

| | <u>1951</u> | <u>1950</u> | <u>1949</u> | <u>1948</u> | <u>1947</u> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| TOTAL | 29,408 | 29,002 | 26,769 | 23,437 | 21,037 |
| U. S. & POSSESSIONS | 27,202 | 26,708 | 24,434 | 21,048 | 18,723 |
| FOREIGN (INCLUDING CANADA) | 2,206 | 2,294 | 2,335 | 2,389 | 2,314 |
| PER CENT FOREIGN | 7.5 | 7.9 | 8.72 | 10.2 | 11.0 |

* INCLUDES 1,260 VOTING ASSOCIATES

** INCLUDES 1,159 VOTING ASSOCIATES

*** INCLUDES 974 VOTING ASSOCIATES

TABLE IV - DISTRIBUTION OF U. S. MEMBERS, 1950 AND 1951
(INCLUDING U. S. POSSESSIONS AND U. S. OVERSEAS MILITARY)

| <u>1951</u> | <u>1950</u> | | <u>GAIN</u> | <u>LOSS</u> |
|-------------|-------------|----------------------|-------------|-------------|
| 58 | 71 | ALABAMA | | 13 |
| 101 | 93 | ARIZONA | 8 | |
| 37 | 60 | ARKANSAS | | 23 |
| 3,304 | 3,012 | CALIFORNIA | 292 | |
| 154 | 168 | COLORADO | | 14 |
| 434 | 413 | CONNECTICUT | 21 | |
| 35 | 33 | DELAWARE | 2 | |
| 694 | 685 | DISTRICT OF COLUMBIA | 9 | |
| 316 | 296 | FLORIDA | 20 | |
| 219 | 245 | GEORGIA | | 26 |
| 26 | 29 | IDAHO | | 3 |
| 1,487 | 1,574 | ILLINOIS | | 87 |
| 441 | 495 | INDIANA | | 54 |
| 251 | 269 | IOWA | | 18 |
| 149 | 152 | KANSAS | | 3 |
| 153 | 195 | KENTUCKY | | 42 |
| 95 | 98 | LOUISIANA | | 3 |
| 41 | 54 | MAINE | | 13 |
| 1,113 | 906 | MARYLAND | 207 | |
| 1,518 | 1,460 | MASSACHUSETTS | 58 | |
| 673 | 706 | MICHIGAN | | 33 |
| 301 | 290 | MINNESOTA | 11 | |
| 64 | 68 | MISSISSIPPI | | 4 |
| 379 | 449 | MISSOURI | | 70 |
| 32 | 33 | MONTANA | | 1 |
| 82 | 103 | NEBRASKA | | 21 |
| 8 | 3 | NEVADA | 5 | |
| 34 | 39 | NEW HAMPSHIRE | | 5 |
| 2,676 | 2,501 | NEW JERSEY | 175 | |
| 272 | 249 | NEW MEXICO | 23 | |
| 5,571 | 5,488 | NEW YORK | 83 | |
| 199 | 202 | NORTH CAROLINA | | 3 |
| 15 | 19 | NORTH DAKOTA | | 4 |
| 1,327 | 1,309 | OHIO | 18 | |
| 193 | 149 | OKLAHOMA | 44 | |
| 167 | 204 | OREGON | | 37 |
| 1,682 | 1,675 | PENNSYLVANIA | 7 | |
| 76 | 78 | RHODE ISLAND | | 2 |
| 66 | 67 | SOUTH CAROLINA | | 1 |
| 44 | 48 | SOUTH DAKOTA | | 4 |
| 111 | 143 | TENNESSEE | | 32 |
| 789 | 770 | TEXAS | 19 | |
| 100 | 108 | UTAH | | 8 |
| 19 | 17 | VERMONT | 2 | |
| 511 | 542 | VIRGINIA | | 31 |
| 488 | 437 | WASHINGTON | 51 | |
| 45 | 53 | WEST VIRGINIA | | 8 |
| 287 | 350 | WISCONSIN | | 63 |
| 34 | 40 | WYOMING | | 6 |

| | <u>1951</u> | <u>1950</u> | <u>NET GAIN</u> |
|-------|-------------|-------------|-----------------|
| TOTAL | 26,871 | 26,448 | 423 |

TABLE IV - DISTRIBUTION OF U. S. MEMBERS, 1950 AND 1951 - CONT'D.
 (INCLUDING U. S. POSSESSIONS AND U. S. OVERSEAS MILITARY)

UNITED STATES POSSESSIONS

| <u>1951</u> | <u>1950</u> | | <u>GAIN</u> | <u>LOSS</u> | |
|-------------|---------------|-----------------------|-------------|---------------|--|
| 36 | 29 | ALASKA | 7 | | |
| 4 | 3 | CANAL ZONE | 1 | | |
| 1 | | CANTON ISLAND | 1 | | |
| 1 | 2 | PANAMA | | 1 | |
| 18 | 16 | PUERTO RICO | 2 | | |
| 97 | 106 | TERRITORIES OF HAWAII | | 9 | |
| <u>1</u> | <u> </u> | VIRGIN ISLANDS | <u>1</u> | <u> </u> | |
| TOTAL 158 | 156 | | 12 | 10 | |

U. S. OVERSEAS MILITARY

| | | | | | |
|-----|-----|-------------------------|----|--|--|
| 173 | 104 | U. S. OVERSEAS MILITARY | 69 | | |
|-----|-----|-------------------------|----|--|--|

TABLE V - DISTRIBUTION OF U. S. MEMBERS BY GRADE AND STATE
AS OF DECEMBER 31, 1951

| <u>STATE</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A(\$15)</u> | <u>A(\$10)</u> | <u>S</u> | <u>TOTALS</u> |
|----------------------|----------|-----------|----------|-----------|----------------|----------------|----------|---------------|
| ALABAMA | | | 2 | | 9 | 17 | 30 | 58 |
| ARIZONA | | 8 | 16 | 1 | 13 | 52 | 11 | 101 |
| ARKANSAS | 1 | 5 | 3 | | | 23 | 5 | 37 |
| CALIFORNIA | 29 | 283 | 430 | 111 | 530 | 1473 | 448 | 3,304 |
| COLORADO | 1 | 9 | 15 | | 30 | 49 | 50 | 154 |
| CONNECTICUT | 6 | 46 | 52 | 10 | 76 | 179 | 65 | 434 |
| DELAWARE | | 3 | 3 | | 3 | 18 | 8 | 35 |
| DISTRICT OF COLUMBIA | 17 | 119 | 113 | 34 | 106 | 242 | 63 | 694 |
| FLORIDA | 1 | 20 | 41 | 16 | 38 | 125 | 75 | 316 |
| GEORGIA | | 14 | 23 | 2 | 28 | 76 | 76 | 219 |
| IDAHO | | | 5 | | 7 | 9 | 5 | 26 |
| ILLINOIS | 9 | 176 | 212 | 66 | 244 | 656 | 124 | 1,487 |
| INDIANA | 3 | 47 | 46 | 10 | 68 | 210 | 57 | 441 |
| IOWA | 1 | 30 | 36 | 4 | 25 | 112 | 43 | 251 |
| KANSAS | | 7 | 21 | 1 | 11 | 80 | 29 | 149 |
| KENTUCKY | | 10 | 18 | 2 | 8 | 55 | 60 | 153 |
| LOUISIANA | 1 | 4 | 9 | 4 | 12 | 33 | 32 | 95 |
| MAINE | 1 | 4 | 2 | 2 | 6 | 11 | 15 | 41 |
| MARYLAND | 7 | 119 | 191 | 40 | 178 | 469 | 109 | 1,113 |
| MASSACHUSETTS | 24 | 127 | 202 | 45 | 214 | 538 | 368 | 1,518 |
| MICHIGAN | 1 | 39 | 71 | 32 | 91 | 278 | 161 | 673 |
| MINNESOTA | | 19 | 34 | 7 | 40 | 129 | 72 | 301 |
| MISSISSIPPI | | 2 | 3 | | 5 | 29 | 25 | 64 |
| MISSOURI | | 31 | 56 | 5 | 40 | 172 | 75 | 379 |
| MONTANA | | | 3 | 1 | 4 | 8 | 16 | 32 |
| NEBRASKA | | 3 | 18 | 3 | 6 | 32 | 20 | 82 |
| NEVADA | | 1 | 3 | 1 | | 3 | | 8 |

TABLE V - DISTRIBUTION OF U. S. MEMBERS BY GRADE AND STATE (CONTINUED)
AS OF DECEMBER 31, 1951

| <u>STATE</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A(\$15)</u> | <u>A(\$10)</u> | <u>S</u> | <u>TOTALS</u> |
|----------------|-------------|--------------|--------------|--------------|----------------|----------------|--------------|---------------|
| NEW HAMPSHIRE | | 5 | 4 | 1 | 5 | 12 | 7 | 34 |
| NEW JERSEY | 72 | 497 | 373 | 144 | 421 | 976 | 193 | 2,676 |
| NEW MEXICO | | 21 | 58 | 2 | 22 | 134 | 35 | 272 |
| NEW YORK | 100 | 618 | 686 | 174 | 739 | 2402 | 852 | 5,571 |
| NORTH CAROLINA | 1 | 12 | 18 | 5 | 20 | 87 | 56 | 199 |
| NORTH DAKOTA | | | 2 | 1 | 2 | 4 | 6 | 15 |
| OHIO | 5 | 109 | 228 | 32 | 169 | 623 | 161 | 1,327 |
| OKLAHOMA | | 9 | 16 | 4 | 28 | 115 | 21 | 193 |
| OREGON | 2 | 8 | 23 | 6 | 25 | 69 | 34 | 167 |
| PENNSYLVANIA | 11 | 187 | 195 | 70 | 196 | 747 | 276 | 1,682 |
| RHODE ISLAND | | 2 | 4 | 2 | 7 | 39 | 22 | 76 |
| SOUTH CAROLINA | | 1 | 11 | 1 | 4 | 39 | 10 | 66 |
| SOUTH DAKOTA | | | 7 | | 1 | 18 | 18 | 44 |
| TENNESSEE | 1 | 8 | 14 | 2 | 20 | 49 | 17 | 111 |
| TEXAS | 2 | 56 | 145 | 22 | 91 | 346 | 127 | 789 |
| UTAH | | 5 | 4 | | 8 | 39 | 44 | 100 |
| VERMONT | | 2 | 1 | 1 | | 10 | 5 | 19 |
| VIRGINIA | 2 | 59 | 82 | 16 | 87 | 203 | 62 | 511 |
| WASHINGTON | 1 | 29 | 53 | 7 | 60 | 211 | 127 | 488 |
| WEST VIRGINIA | | 3 | 2 | 1 | 9 | 17 | 13 | 45 |
| WISCONSIN | | 10 | 32 | 11 | 37 | 114 | 83 | 287 |
| WYOMING | <u> </u> | <u> 1 </u> | <u> 5 </u> | <u> 4 </u> | <u> 1 </u> | <u> 8 </u> | <u> 15 </u> | <u> 34 </u> |
| TOTALS | 299 | 2768 | 3591 | 903 | 3744 | 11,340 | 4226 | 26,871 |

TABLE VI - DISTRIBUTION OF MEMBERSHIP BY REGION, BY SECTION, BY GRADE
AS OF DECEMBER 31, 1951

| <u>REGION</u> | <u>SECTION</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> | <u>S</u> | <u>SECTION TOTAL</u> | <u>REGION TOTAL</u> |
|---------------|---------------------------|----------|-----------|----------|-----------|----------|----------|----------------------|---------------------|
| 1 | BOSTON | 25 | 137 | 204 | 48 | 796 | 403 | 1,613 | 2,125 |
| | CONNECTICUT VALLEY | 6 | 49 | 62 | 14 | 302 | 79 | 512 | |
| 2 | NEW YORK | 54 | 258 | 251 | 83 | 1371 | 480 | 2497 | 6,635 |
| | LONG ISLAND SUBS. | 22 | 178 | 228 | 59 | 983 | 207 | 1677 | |
| | MID-HUDSON SUBS. | 1 | 7 | 17 | 2 | 73 | 11 | 111 | |
| | MONMOUTH SUBS. | 4 | 62 | 63 | 15 | 212 | 16 | 372 | |
| | NORTHERN NEW JERSEY SUBS. | 44 | 308 | 215 | 101 | 879 | 127 | 1,674 | |
| | SCHENECTADY | 7 | 37 | 37 | 8 | 144 | 71 | 304 | |
| 3 | BALTIMORE | 4 | 57 | 90 | 15 | 355 | 66 | 587 | 4,318 |
| | NORTH CAROLINA-VIRGINIA | 1 | 19 | 31 | 8 | 207 | 93 | 359 | |
| | PHILADELPHIA | 11 | 183 | 169 | 71 | 828 | 167 | 1,429 | |
| | LANCASTER SUBS. | | 19 | 15 | 5 | 55 | 7 | 101 | |
| | PRINCETON | 18 | 69 | 36 | 5 | 110 | 34 | 272 | |
| | WASHINGTON | 22 | 233 | 284 | 72 | 828 | 131 | 1,570 | |
| 4 | AKRON | 1 | 5 | 21 | 5 | 112 | 10 | 154 | 3,051 |
| | BUFFALO-NIAGARA | 1 | 17 | 35 | 9 | 171 | 33 | 266 | |
| | CLEVELAND | | 28 | 52 | 7 | 166 | 46 | 299 | |
| | COLUMBUS | | 10 | 14 | 5 | 70 | 23 | 122 | |
| | DETROIT | 1 | 38 | 71 | 31 | 361 | 150 | 652 | |
| | EMPORIUM | 2 | 19 | 35 | 5 | 75 | 22 | 158 | |
| | PITTSBURGH | 4 | 35 | 33 | 10 | 227 | 101 | 410 | |
| | ROCHESTER | 3 | 22 | 21 | 7 | 65 | 11 | 129 | |
| | SYRACUSE | 12 | 91 | 57 | 8 | 271 | 80 | 519 | |
| | BINGHAMTON SUBS. | | 2 | 21 | 3 | 55 | 7 | 88 | |
| | ROME SUBS. | | 10 | 21 | | 58 | 5 | 94 | |

TABLE VI - DISTRIBUTION OF MEMBERSHIP BY REGION, BY SECTION, BY GRADE (CONTINUED)

| <u>REGION</u> | <u>SECTION</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> | <u>S</u> | <u>SECTION TOTAL</u> | <u>REGION TOTAL</u> |
|---------------|----------------------|----------|-----------|----------|-----------|----------|----------|--------------------------|-------------------------|
| 4 | TOLEDO | | 6 | 11 | 2 | 75 | 15 | 109 | 4,407 |
| | WILLIAMSPORT | | 7 | 8 | 1 | 24 | 11 | 51 | |
| 5 | CEDAR RAPIDS | | 26 | 28 | 1 | 110 | 22 | 187 | 4,407 |
| | CHICAGO | 9 | 184 | 207 | 70 | 935 | 126 | 1531 | |
| | CINCINNATI | 3 | 12 | 45 | 9 | 105 | 46 | 220 | |
| | DAYTON | 1 | 49 | 86 | 7 | 270 | 26 | 439 | |
| | DENVER | 1 | 10 | 20 | 4 | 87 | 65 | 187 | |
| | DES MOINES-AMES | 1 | 4 | 9 | 2 | 23 | 21 | 60 | |
| | EVANSVILLE-OWENSBORO | | 10 | 7 | | 42 | 11 | 70 | |
| | FT. WAYNE | 2 | 15 | 11 | 3 | 65 | 6 | 102 | |
| | INDIANAPOLIS | 1 | 19 | 25 | 5 | 119 | 34 | 203 | |
| | KANSAS CITY | 1 | 23 | 49 | 4 | 171 | 63 | 311 | |
| | LOUISVILLE | | 3 | 15 | | 43 | 1 | 62 | |
| | MILWAUKEE | | 10 | 29 | 10 | 133 | 86 | 268 | |
| | OMAHA-LINCOLN | | 3 | 19 | 4 | 43 | 21 | 90 | |
| | ST. LOUIS | | 17 | 39 | 3 | 172 | 65 | 296 | |
| | TWIN CITIES | | 19 | 45 | 9 | 204 | 104 | 381 | |
| 6 | ATLANTA | 1 | 27 | 54 | 6 | 295 | 161 | 544 | 1,902 |
| | BEAUMONT-PT. ARTHUR | | 1 | 11 | 1 | 38 | 1 | 52 | |
| | DALLAS-FT. WORTH | 3 | 35 | 75 | 14 | 256 | 108 | 491 | |
| | HOUSTON | | 17 | 45 | 7 | 101 | 13 | 183 | |
| | MIAMI | 1 | 18 | 40 | 15 | 142 | 72 | 288 | |
| | OKLAHOMA CITY | | 1 | 5 | 2 | 45 | 8 | 61 | |
| | SAN ANTONIO | | 10 | 24 | 3 | 74 | 41 | 152 | |
| | TULSA | | 8 | 11 | 2 | 97 | 13 | 131 | |

TABLE VI - DISTRIBUTION OF MEMBERSHIP BY REGION, BY SECTION, BY GRADE (CONTINUED)

| <u>REGION</u> | <u>SECTION</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> | <u>S</u> | <u>SECTION TOTAL</u> | <u>REGION TOTAL</u> |
|---------------|-----------------|----------|-----------|----------|-----------|-----------|-----------|----------------------|---------------------|
| 7 | HAWAII | | 5 | 7 | 6 | 79 | | 97 | 4,695 |
| | INYOKERN | | 4 | 12 | | 42 | 4 | 62 | |
| | LOS ANGELES | 13 | 165 | 234 | 57 | 1185 | 198 | 1,852 | |
| | NEW MEXICO | | 22 | 59 | 3 | 183 | 36 | 303 | |
| | PHOENIX | | 8 | 16 | 1 | 65 | 10 | 100 | |
| | PORTLAND | 2 | 8 | 23 | 6 | 104 | 34 | 177 | |
| | SACRAMENTO | | 2 | 12 | 6 | 43 | 9 | 72 | |
| | SALT LAKE | | 5 | 9 | | 60 | 49 | 123 | |
| | SAN DIEGO | | 23 | 59 | 10 | 209 | 44 | 345 | |
| | SAN FRANCISCO | 4 | 41 | 76 | 26 | 396 | 119 | 662 | |
| | PALO ALTO SUBS. | 10 | 42 | 50 | 14 | 180 | 76 | 372 | |
| | SEATTLE | 1 | 30 | 58 | 8 | 290 | 143 | 530 | |
| 8 | LONDON | | 4 | 14 | | 48 | 22 | 88 | 997 |
| | MONTREAL | 6 | 27 | 43 | 8 | 133 | 31 | 248 | |
| | OTTAWA | 4 | 13 | 25 | 4 | 82 | 7 | 135 | |
| | TORONTO | 4 | 44 | 60 | 9 | 224 | 52 | 393 | |
| | VANCOUVER | | 7 | 10 | 3 | 82 | 31 | 133 | |
| BUENOS AIRES | ARGENTINA | <u>2</u> | <u>12</u> | <u>5</u> | <u>55</u> | <u>20</u> | <u>94</u> | <u>94</u> | |
| | | 313 | 2889 | 3773 | 941 | 15903 | 4405 | 28,224 | |

1234

GRAND TOTAL 2,206 2,294

TABLE VII - DISTRIBUTION OF FOREIGN MEMBERS - 1950 - 1951

| <u>1951</u> | <u>1950</u> | | <u>1951</u> | <u>1950</u> |
|-------------|-------------|-------------------------|-------------|-------------|
| 5 | 4 | ARABIA | | 1 |
| 94 | 115 | ARGENTINA | 1 | 2 |
| 72 | 75 | AUSTRALIA | 5 | 5 |
| 2 | 2 | BAHAMAS | 16 | 10 |
| 9 | 7 | BELGIUM | 26 | 22 |
| 2 | 2 | BERMUDA | 10 | 3 |
| 1 | | BOLIVIA | | 7 |
| 41 | 36 | BRAZIL | 6 | 6 |
| 1 | 1 | BRITISH GUIANA | 9 | |
| 5 | 9 | BRITISH WEST INDIES | 1 | 1 |
| | 1 | BURMA | 27 | 32 |
| 1004 | 1049 | CANADA | 5 | 2 |
| 2 | 1 | CEYLON | 15 | 12 |
| 7 | 7 | CHILE | 1 | |
| 8 | 8 | CHINA | 2 | 2 |
| 12 | 8 | COLOMBIA | 17 | 18 |
| 1 | 1 | COSTA RICA | 1 | 1 |
| 11 | 17 | CUBA | 11 | 9 |
| 1 | 2 | CYPRUS | 9 | 7 |
| 6 | 8 | CZECHOSLOVAKIA | 5 | 6 |
| 20 | 17 | DENMARK | 9 | 7 |
| 2 | 2 | ECUADOR | 3 | 3 |
| 14 | 12 | EGYPT | | 1 |
| 298 | 320 | ENGLAND | 10 | 11 |
| 1 | 2 | ETHIOPIA | 56 | 59 |
| 1 | 1 | FIJI ISLANDS | 9 | 9 |
| 2 | 1 | FORMOSA | 2 | 9 |
| 47 | 47 | FRANCE | | 2 |
| 6 | 7 | GERMANY | 44 | 35 |
| 7 | 6 | GREECE | 38 | 41 |
| 2 | 2 | GUATEMALA | 2 | 2 |
| 1 | 1 | HONDURAS | 2 | 1 |
| 7 | 8 | HONG KONG | 6 | 4 |
| 1 | 2 | HUNGARY | 5 | 3 |
| | 2 | ICELAND | 13 | 14 |
| 142 | 159 | INDIA | | 1 |
| 3 | 2 | INDONESIA | 2 | 2 |
| | | IRAN | | |
| | | IRAQ | | |
| | | IRELAND | | |
| | | ISRAEL | | |
| | | ITALY | | |
| | | JAPAN | | |
| | | KENYA COLONY | | |
| | | LEBANON | | |
| | | MALAYA | | |
| | | MALTA | | |
| | | MEXICO | | |
| | | MOROCCO | | |
| | | NETHERLANDS | | |
| | | NETHERLANDS WEST INDIES | | |
| | | NEW GUIANA | | |
| | | NEW ZEALAND | | |
| | | NORTH BORNEO | | |
| | | NORWAY | | |
| | | PAKISTAN | | |
| | | PERU | | |
| | | PHILIPPINE ISLANDS | | |
| | | PORTUGAL | | |
| | | RUMANIA | | |
| | | SCOTLAND | | |
| | | SOUTH AFRICA | | |
| | | SPAIN | | |
| | | STRAIT SETTLEMENTS | | |
| | | SUDAN | | |
| | | SWEDEN | | |
| | | SWITZERLAND | | |
| | | SYRIA | | |
| | | THAILAND | | |
| | | TURKEY | | |
| | | URUGUAY | | |
| | | VENEZUELA | | |
| | | VIRGIN ISLANDS | | |
| | | WALES | | |

GRAND TOTAL 1951 1950

2,206 2,294

TABLE VIII - GEOGRAPHICAL AND GRADE BREAKDOWN, CANADA, U. S. POSSESSIONS AND

OVERSEAS MILITARY MEMBERSHIP

AS OF DECEMBER 31, 1951

| COUNTRY | <u>CANADIAN</u> | | | | | | | <u>TOTALS</u> |
|-----------|-----------------|-----------|----------|-----------|------------------------|------------------------|----------|---------------|
| | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> ¹⁵ | <u>A</u> ¹⁰ | <u>S</u> | |
| LONDON | | 4 | 14 | | 15 | 33 | 22 | 88 |
| MONTREAL | 6 | 27 | 43 | 8 | 35 | 98 | 41 | 258 |
| OTTAWA | 4 | 13 | 25 | 4 | 22 | 60 | 7 | 135 |
| TORONTO | 4 | 44 | 60 | 9 | 63 | 161 | 49 | 390 |
| VANCOUVER | | 7 | 10 | 3 | 15 | 67 | 31 | 133 |
| | 14 | 95 | 152 | 24 | 150 | 419 | 150 | 1,004 |

U. S. POSSESSIONS

| COUNTRY | <u>U. S. POSSESSIONS</u> | | | | | | | <u>TOTALS</u> |
|----------------|--------------------------|-----------|----------|-----------|------------------------|------------------------|----------|---------------|
| | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> ¹⁵ | <u>A</u> ¹⁰ | <u>S</u> | |
| ALASKA | | | 7 | 1 | 9 | 19 | | 36 |
| CANAL ZONE | | | 1 | 1 | | 2 | | 4 |
| CANTON ISLAND | | | | | | 1 | | 1 |
| PANAMA | | | | | 1 | | | 1 |
| PUERTO RICO | | 1 | 6 | 1 | 2 | 8 | | 18 |
| HAWAII | | 5 | 7 | 6 | 12 | 67 | | 97 |
| VIRGIN ISLANDS | | | 1 | | | | | 1 |
| | | 6 | 22 | 9 | 24 | 97 | | 158 |

OVERSEAS MILITARY MEMBERSHIP

| COUNTRY | <u>OVERSEAS MILITARY MEMBERSHIP</u> | | | | | | | <u>TOTALS</u> |
|----------------------------|-------------------------------------|-----------|----------|-----------|------------------------|------------------------|----------|---------------|
| | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> ¹⁵ | <u>A</u> ¹⁰ | <u>S</u> | |
| P. O. SAN FRANCISCO CALIF. | | 2 | 7 | 2 | 4 | 52 | 3 | 70 |
| P. O. SEATTLE, WASH. | | 1 | 1 | | 1 | 10 | | 13 |
| P. O. NEW YORK, N. Y. | | 5 | 15 | 3 | 9 | 48 | 9 | 89 |
| P. O. NORFOLK, VA. | | | | | | | 1 | 1 |
| | | 8 | 23 | 5 | 14 | 110 | 13 | 173 |

TABLE IX - DISTRIBUTION OF FOREIGN MEMBERS BY GRADE AND COUNTRY
AS OF DECEMBER 31, 1951

| <u>COUNTRY</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A(\$15)</u> | <u>A(\$10)</u> | <u>S</u> | <u>TOTAL</u> |
|---------------------|----------|-----------|----------|-----------|----------------|----------------|----------|--------------|
| ARABIA | | 1 | | | 2 | 2 | | 5 |
| ARGENTINA | 2 | 12 | 5 | | 22 | 33 | 20 | 94 |
| AUSTRALIA | 3 | 18 | 14 | 7 | 19 | 11 | | 72 |
| BAHAMA ISLANDS | | | 1 | | 1 | | | 2 |
| BELGIUM | | | 3 | 1 | | 5 | | 9 |
| BERMUDA | | 1 | | | 1 | | | 2 |
| BOLIVIA | | 15 | | | 12 | 1 | | 28 |
| BRAZIL | | 4 | 6 | 2 | 7 | 20 | 2 | 41 |
| BRITISH GUIANA | | | 1 | | | | | 1 |
| BRITISH WEST INDIES | | | 3 | | 1 | 1 | | 5 |
| CEYLON | | | 1 | | | 1 | | 2 |
| CHILE | | 3 | 2 | | 3 | 2 | | 7 |
| CHINA | | 2 | 2 | | 1 | 3 | | 8 |
| COLUMBIA | | 1 | 4 | 1 | 1 | 5 | | 12 |
| COSTA RICA | | 1 | | | | | | 1 |
| CUBA | | 1 | 2 | 1 | 4 | 3 | | 11 |
| CYPRUS | | | 1 | | | | | 1 |
| CZECHOSLOVAKIA | | | 2 | | 1 | 3 | | 6 |
| DENMARK | | 1 | 3 | 1 | 2 | 13 | | 20 |
| ECUADOR | | | 1 | | | 1 | | 2 |
| EGYPT | | 3 | 6 | | 2 | 3 | | 14 |
| ENGLAND | 16 | 74 | 61 | 13 | 69 | 64 | 1 | 298 |
| ETHIOPIA | | | | | 1 | | | 1 |
| FIJI ISLANDS | | 1 | | | | | | 1 |
| FORMOSA | | | | | 1 | 1 | | 2 |
| FRANCE | 1 | 16 | 8 | 1 | 10 | 9 | 2 | 47 |

TABLE IX - DISTRIBUTION OF FOREIGN MEMBERS BY GRADE AND COUNTRY (CONTINUED)
AS OF DECEMBER 31, 1951

| <u>COUNTRY</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A(\$15)</u> | <u>A(\$10)</u> | <u>S</u> | <u>TOTAL</u> |
|-------------------------|----------|-----------|----------|-----------|----------------|----------------|----------|--------------|
| GERMANY | 2 | | 1 | | | 3 | | 6 |
| GREECE | | 1 | 3 | | | 3 | | 7 |
| GUATEMALA | | | | | | 2 | | 2 |
| HONDURAS | | | | | | 1 | | 1 |
| HONG KONG | | 1 | 2 | | 2 | 2 | | 7 |
| HUNGARY | | | | | | 1 | | 1 |
| INDIA | 1 | 15 | 45 | | 12 | 68 | 1 | 142 |
| INDONESIA | | 1 | | | 1 | 1 | | 3 |
| IRAQ | | | 1 | | | | | 1 |
| IRELAND | | 1 | | | 2 | 2 | | 5 |
| ISRAEL | | 1 | 4 | | 2 | 8 | 1 | 16 |
| ITALY | | 3 | 1 | | 8 | 13 | 1 | 26 |
| JAPAN | | 1 | | | 1 | 8 | | 10 |
| LEBANON | | 1 | 1 | | 1 | 3 | | 6 |
| MALAYA | | | 7 | | | 2 | | 9 |
| MALTA | | | 1 | | | | | 1 |
| MEXICO | 1 | | 3 | 2 | 2 | 13 | 5 | 27 |
| MOROCCO | | 1 | 3 | | 1 | | | 5 |
| NETHERLANDS | | 3 | 6 | | 3 | 3 | | 15 |
| NETHERLANDS WEST INDIES | | | | | | 1 | | 1 |
| NEW GUINEA | | 1 | | | 1 | | | 2 |
| NEW ZEALAND | | | 5 | 1 | 5 | 6 | | 17 |
| NO. BORNEO | | 1 | | | | | | 1 |
| NORWAY | | 2 | 2 | 1 | | 4 | 2 | 11 |
| PAKISTAN | | 2 | 5 | | | 2 | | 9 |
| PERU | | 1 | | | 2 | 2 | | 5 |

TABLE IX - DISTRIBUTION OF FOREIGN MEMBERS BY GRADE AND COUNTRY (CONTINUED)
AS OF DECEMBER 31, 1951

| <u>COUNTRY</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A(\$15)</u> | <u>A(\$10)</u> | <u>S</u> | <u>TOTAL</u> |
|--------------------|----------|-----------|----------|-----------|----------------|----------------|----------|--------------|
| PHILIPPINES | | | 2 | | 2 | 5 | | 9 |
| PORTUGAL | | 1 | 1 | | | 1 | | 3 |
| SCOTLAND | 1 | | 5 | | | 4 | | 10 |
| SOUTH AFRICA | | 5 | 16 | 1 | 9 | 24 | 1 | 56 |
| SPAIN | | 2 | 4 | | | 2 | 1 | 9 |
| STRAIT SETTLEMENTS | | | | | 1 | 1 | | 2 |
| SWEDEN | 2 | 5 | 5 | | 9 | 23 | | 44 |
| SWITZERLAND | 3 | 5 | 4 | | 3 | 23 | | 38 |
| SYRIA | | | | | | 2 | | 2 |
| THAILAND | | | | | | 2 | | 2 |
| TURKEY | | | | | | 6 | | 6 |
| URUGUAY | | | 1 | 1 | 1 | 2 | | 5 |
| VENEZUELA | | 2 | 1 | | 5 | 4 | 1 | 13 |
| WALES | — | — | — | — | 1 | 1 | — | 2 |
| | 32 | 193 | 255 | 33 | 222 | 429 | 38 | 1,202 |

GRAND TOTAL 1,202

TABLE XI - ANALYSIS OF TRANSFERS, 1951

| | <u>F</u> | <u>SM</u> | <u>M</u> | <u>VA</u> | <u>A</u> | <u>TOTAL</u> |
|-----------------|----------|-----------|----------|-----------|----------|--------------|
| TRANSFERS TO F | 39 | 1 | 1 | | | 41 |
| TRANSFERS TO SM | | 147 | 139 | | 1 | 287 |
| TRANSFERS TO M | | | 252 | 9 | | 261 |
| TRANSFERS TO A | | | | | 3,069 | 3,069 |
| TOTAL | 39 | 148 | 412 | 9 | 3,070 | 3,678 |

TABLE X - MEMBERSHIP CHANGES, BY GRADES, IN 1951

| <u>GAINS</u> | <u>F</u> | <u>SM</u> | <u>M</u> | <u>A</u> | <u>S</u> | <u>TOTAL</u> |
|-------------------|-----------|------------|------------|--------------|--------------|--------------|
| ELECTIONS | | 125 | 288 | 1,635 | 2,450 | 4,498 |
| REINSTATEMENTS | 2 | 27 | 53 | 309 | 51 | 442 |
| TRANSFERS TO | 41 | 307 | 261 | 3,059 | | 3,668 |
| TOTAL GAIN | 43 | 459 | 602 | 5,003 | 2,501 | 8,608 |

LOSSES

| | | | | | | |
|---------------------------|-----------|------------|------------|--------------|--------------|--------------|
| NEW ELECTIONS (UNPAID) | | 7 | 12 | 74 | 5 | 98 |
| TRANSFERS FROM | | 39 | 148 | 412 | 3,079 | 3,678 |
| VOIDED ELECTIONS | | | | 30 | | 30 |
| DEATHS | 5 | 15 | 10 | 30 | 3 | 63 |
| RESIGNATIONS | | 18 | 74 | 440 | 468 | 1,000 |
| DELINQUENTS | 16 | 36 | 118 | 1,084 | 2,079 | 3,333 |
| TOTAL LOSS | 21 | 115 | 362 | 2,070 | 5,634 | 8,202 |

| | | | | | | |
|-----------------|----|-----|-----|-------|--------|-----|
| <u>NET GAIN</u> | 22 | 344 | 240 | 2,933 | -3,133 | 406 |
|-----------------|----|-----|-----|-------|--------|-----|

THE NET GAIN OF 406 SHOWN ABOVE COMPARES WITH 2,233 FOR 1950.

TABLE XI - ANALYSIS OF TRANSFERS, BY GRADES, 1951

| | <u>TRANSFERS FROM</u> | | | | <u>TOTAL</u> |
|-----------------|-----------------------|------------|------------|--------------|--------------|
| | <u>SM</u> | <u>M</u> | <u>A</u> | <u>S</u> | |
| TRANSFERS TO F | 39 | 1 | 1 | - | 41 |
| TRANSFERS TO SM | - | 147 | 159 | 1 | 307 |
| TRANSFERS TO M | - | - | 252 | 9 | 261 |
| TRANSFERS TO A | - | - | - | 3,069 | 3,069 |
| TOTAL | 39 | 148 | 412 | 3,079 | 3,678 |

TABLE XII - ANALYSIS OF HIGHER-GRADE APPLICATIONS FOR 1951

FOLLOWING MEMBERS OF THE INSTITUTE DURING THE YEAR 1951:

APPROVED

REJECTED

ADMISSION APPLICATIONS

SENIOR MEMBER

125

22

MEMBER

288

67

TRANSFER APPLICATIONS

SENIOR MEMBER

307

24

MEMBER

261

38

MEMBERS

ARTHUR A. SESTRAM (A'44, M'49)
 ALFRED J. BREWER (M'46)
 HAROLD N. BRETT (M'44)
 THEODORE A. BRINGLE (M'50)
 J. H. FLEMING (A'39, M'49)

HENRY W. OSTERLIND (M'45)
 PHILIP W. RAYDEN (S'44, M'48)
 JOHN C. SMAY (M'48)
 EMERSON E. THOMAS (M'48)
 ALBERT J. BOGDANOVICH (A'41, M'48)

VOTING ASSOCIATES

RALPH E. ADAMS (A'32, M'39)
 JEROME BURBANK (A'30, M'39)

ARYID P. SOMMERGREN (A'28, M'39)

ASSOCIATES

ANDREW ARUELE (A'46)
 JOHN G. BELL (A'41)
 RICHARD N. CHAMBERS (A'49)
 JESSIE RAYMOND COLLINS (A'40)
 ARTHUR P. COPSON (S'48, A'50)
 JAMES C. DRUMH (A'51)
 BALDO D. ELMER (A'44)
 OSOAR HACHOOGAN (A'45)
 PETER L. HIREBURY (S'43, A'45)
 DONALD W. HARRING (A'45)
 HENRY S. KAMINSKI (A'50)
 THOMAS B. KNUDSEN (A'50)
 HENRY J. LAWTON (A'51)
 FREDERIC F. LEE (A'50)

ALFRED D. LEAH (S'45, A'47)
 RONALD W. S. MARCHINO (A'54)
 ELI OSBOENSKI (S'43, A'40)
 A. V. PLATTNER (A'49)
 CHARLES H. REHNKE (A'40)
 LLOYD O. ROGERS, JR. (A'50)
 COLIN A. ROSS, JR. (A'44)
 ALVIN SACHS (A'45)
 ROGER W. SANDERFORD, JR. (S'42, A'44)
 RALPH E. SMITH, JR. (A'49)
 ERNEST URIBE (A'50)
 OLIVER D. WESTERBERG (S'45)
 JOHN L. WILEY (A'48)

EMERITI

ALLAN BRIGGS (S'48)
 HARVEY B. GLASSER (S'48)

THOMAS J. RYCOFFA (S'50)

IT IS WITH DEEP REGRET THAT THIS OFFICE RECORDS THE DEATH OF THE
FOLLOWING MEMBERS OF THE INSTITUTE DURING THE YEAR 1951:

FELLOWS

JOHN ADRIAN BALCH (M'17, F'40) ROBERT H. MARRIOTT (A'12, M'12, F'15, L'49)
FRANCIS J. BEHR (A'13, M'13, F'20, L'49) CHESTER W. RICE (A'16, M'26, F'28)
EDWARD BENNETT (M'17, F'18)

SENIOR MEMBERS

CYRUS D. BACKUS (A'19, M'26, SM'43) HERMAN T. KOHLHAAS (SM'46)
QUINCY A. BRACKETT (M'41, SM'43) GARRETT W. LEWIS (A'44, SM'50)
VIVIAN M. BROOKER (A'27, M'35, SM'43) FREDERICK P. MORF (SM'47)
LOUIS G. CALDWELL (M'29, SM'43) KERON C. MORRICAL (SM'44)
HARTMAN B. CANON (A'41, M'42, SM'43) EDMUND R. MORTON (SM'50)
P. K. CHATTERJEA (M'41, SM'43) EDWIN L. POWELL (A'14, M'29, SM'43)
WAYNE G. EATON (M'30, SM'43) N. S. SUBBA RAO (SM'45)
JOSEPH C. FERGUSON (A'41, SM'46)

MEMBERS

ARTHUR A. BERTRAM (A'44, M'49) HENRY J. OOSTERLING (M'45)
ALFRED J. BREMMER (M'46) PHILIP M. RAYGER (A'48, M'48)
HAROLD M. BRETT (M'44) JOHN E. SHAW (M'48)
THEODORE A. BRINDLE (M'50) EMERSON W. THOMAS (M'48)
J. W. FLEMING (A'39, M'49) ALBERT J. WOODCOCK (A'41, M'48)

VOTING ASSOCIATES

RALPH E. ADAMS (A'32, VA'39) ARVID P. SUNNERGREN (A'28, VA'39)
JEROME BURBANK (A'30, VA'39)

ASSOCIATES

ANDREW AGUELE (A'46) ALFRED R. LEEK (S'45, A'47)
JOHN C. BELL (A'41) RONALD W. S. MARSANO (A'44)
RICHARD N. CHAMBERS (A'49) ELI OSSOFKY (S'43, A'46)
JESSIE RAYMOND COLLINS (A'40) A. V. PLATTER (A'49)
ARTHUR P. COPSON (S'48, A'50) CHARLES H. REHNKE (A'49)
JAMES C. DRUMM (A'51) LLOYD D. RODGERS, JR. (A'50)
WALDO D. ELMER (A'44) COLIN G. ROSS, JR. (A'41)
OSCAR HACHOOGAN (A'45) ALVIN SACHS (A'45)
PETER L. HARBURY (S'43, A'45) ROGER M. SANDERFORD, JR. (S'42, A'44)
DONALD M. HARRING (A'45) RALPH W. SMITH, JR. (A'49)
HENRY S. KAMINSKI (A'50) ERNEST URIBE (A'50)
THOMAS R. KNUDSEN (A'50) OLIVER D. WESTERBERG (A'45)
HENRY J. LAWTON (A'51) JOHN L. WILEY (A'46)
FREDERIC F. LEE (A'50)

STUDENTS

ALLAN BRIGGS (S'48) THOMAS J. RICOTTA (S'50)
HARVEY B. GLASSER (S'48)

A CONDENSED SUMMARY OF INCOME AND EXPENSES FOR 1951 IS SHOWN IN TABLE XIII, AND A BALANCE SHEET FOR 1951 IS SHOWN IN TABLE XIV.

TABLE XIII - SUMMARY OF INCOME AND EXPENSES, 1951

INCOME

| | |
|-------------------------------------|---------------|
| ADVERTISING | \$345,418.45 |
| MEMBER DUES AND CONVENTION | 495,850.95 |
| SUBSCRIPTIONS | 51,695.11 |
| SALES ITEMS, BINDERS, EMBLEMS, ETC. | 20,463.13 |
| INVESTMENTS INCOME | 13,260.88 |
| MISCELLANEOUS INCOME | <u>683.36</u> |

TOTAL INCOME \$927,371.88

EXPENSES

| | |
|------------------------------------|-------------------|
| PROCEEDINGS EDITORIAL PAGES | \$190,257.31 |
| ADVERTISING PAGES | 188,025.57 |
| DIRECTORY | 67,240.06 |
| SECTION AND STUDENT BRANCH REBATES | 31,643.94 |
| SALES ITEMS | 11,006.97 |
| MISCELLANEOUS PRINTING | 2,185.37 |
| GENERAL OPERATIONS | 204,784.16 |
| CONVENTION COST | <u>127,080.62</u> |

TOTAL EXPENSES \$822,224.00

SURPLUS

\$105,147.88

RESERVE FOR DEPRECIATION

6,925.89

NET SURPLUS \$ 98,221.99

TABLE XIV - BALANCE SHEET - DECEMBER 31, 1951

ASSETS

| | | |
|--------------------------------|------------------|---------------------|
| CASH AND ACCOUNTS RECEIVABLE | \$276,312.09 | |
| INVENTORY | <u>13,352.53</u> | |
| TOTAL CURRENT ASSETS | | \$289,664.62 |
| INVESTMENTS AT COST | 601,013.42 | |
| BUILDING AND LAND AT COST | 356,687.30 | |
| FURNITURE AND FIXTURES AT COST | 85,803.60 | |
| OTHER ASSETS | <u>19,139.20</u> | |
| TOTAL | | <u>1,062,643.52</u> |
| TOTAL ASSETS | | \$1,352,308.14 |

LIABILITIES AND SURPLUS

| | | |
|--------------------------------|-------------------|-------------------|
| ACCOUNTS PAYABLE | \$ 18,718.46 | |
| FEDERAL TAXES ON EMBLEMS, ETC. | <u>91.76</u> | |
| TOTAL CURRENT LIABILITIES | | \$ 18,810.22 |
| *DEFERRED LIABILITIES | | <u>315,896.42</u> |
| TOTAL LIABILITIES | | 334,706.64 |
| RESERVE FOR DEPRECIATION | | 31,348.54 |
| SURPLUS - DONATED | 595,406.43 | |
| SURPLUS - EARNED | <u>390,846.53</u> | |
| TOTAL SURPLUS | | <u>986,252.96</u> |
| TOTAL LIABILITIES AND SURPLUS | | \$1,352,308.14 |

*1952 ITEMS, PROCEEDINGS FOR MEMBERS AND SUBSCRIBERS, ADVERTISING AND CONVENTION SERVICE

EDITORIAL DEPARTMENT

DURING THE YEAR 1951 THERE WERE PUBLISHED IN THE PROCEEDINGS OF THE I.R.E. A TOTAL OF 3,052 PAGES, INCLUDING COVERS, A MARKED INCREASE OVER PREVIOUS YEARS. OF THESE, 1,628 WERE EDITORIAL PAGES AND 1,424 ADVERTISING PAGES. THE NUMBER OF PROCEEDINGS PAGES PUBLISHED IN EACH OF THE LAST FOUR YEARS IS GIVEN IN TABLE 1. THE NUMBER OF EDITORIAL PAGES PUBLISHED EACH YEAR SINCE 1913 IS SHOWN IN FIGURE 1.

TABLE 1 - VOLUME OF PROCEEDINGS PAGES.

| | <u>1951</u> | <u>1950</u> | <u>1949</u> | <u>1948</u> |
|-------------|-------------|-------------|-------------|-------------|
| EDITORIAL | 1,628 | 1,516 | 1,532 | 1,592 |
| ADVERTISING | 1,424 | 1,016 | 872 | 860 |
| TOTAL | 3,052 | 2,532 | 2,404 | 2,452 |

TECHNICAL PAPERS TOTALING 173 WERE PUBLISHED IN 1951, AS AGAINST 186 IN 1950. IN ADDITION, 8 IRE STANDARDS WERE PUBLISHED IN 1951 AS AGAINST 6 IN 1950. AUTHORSHIP OF THESE PAPERS WAS BY 239 INDIVIDUALS OF WHOM 175, OR 73 PER CENT, WERE MEMBERS OF THE INSTITUTE. IN 1950, 182 OF THE 252 AUTHORS, OR 73 PER CENT, WERE MEMBERS.

THE VOLUME OF PAPERS SUBMITTED FOR PUBLICATION CONTINUES AT A HIGH RATE. DURING 1951, 241 PAPERS TOTALING AN ESTIMATED 1,680 PROCEEDINGS PAGES WERE SUBMITTED, OR AN AVERAGE OF 20 PAPERS AND 140 PAGES PER MONTH. DURING 1950, 271 PAPERS OF 1,547 PAGES WERE RECEIVED, OR 23 PAPERS AND 129 PAGES PER MONTH.

THE BACKLOG OF PAPERS ON HAND IN THE EDITORIAL DEPARTMENT AT THE END OF 1951 CONSISTED OF 153 PAPERS TOTALING 704 PROCEEDINGS PAGES, OF WHICH 67 PAPERS OR 303 PAGES HAD BEEN ACCEPTED FOR PUBLICATION, THE REMAINDER BEING UNDER REVIEW. THIS REPRESENTED NO SIGNIFICANT CHANGE OVER

THE BACKLOG TOTAL AT THE END OF 1950 OF 141 PAPERS OR 777 PAGES.

THE YEAR 1951 WAS MARKED BY FOUR IMPORTANT INNOVATIONS IN PUBLICATION POLICIES WHICH WILL SUBSTANTIALLY INCREASE THE EFFECTIVENESS WITH WHICH THE PUBLICATIONS OF THE INSTITUTE FULFILL THE TECHNICAL INFORMATION NEEDS OF THE MEMBERSHIP.

(1) THE IRE PROFESSIONAL GROUPS, WITH THE ASSISTANCE OF THE EDITORIAL DEPARTMENT, INAUGURATED A QUICK, INEXPENSIVE METHOD OF PROVIDING GROUP MEMBERS WITH TECHNICAL PAPERS IN THEIR PARTICULAR FIELDS OF INTEREST BY ISSUING THEIR OWN TECHNICAL PUBLICATIONS, CALLED "TRANSACTIONS", TO THEIR RESPECTIVE MEMBERSHIPS. THE EDITORIAL DEPARTMENT PUBLISHED 6 TRANSACTIONS FOR THE AUDIO GROUP AND 2 FOR THE AIRBORNE ELECTRONICS GROUP.

(2) THE PUBLICATION IN OCTOBER OF THE SPECIAL COLOR-TELEVISION ISSUE OF PROCEEDINGS MARKED THE FIRST ISSUE OF PROCEEDINGS DEVOTED TO ONE SUBJECT. THE 400-PAGE ISSUE WAS THE LARGEST ISSUE OF PROCEEDINGS EVER PUBLISHED.

(3) MANUSCRIPTS OF LENGTHY DESCRIPTIVE OR MATHEMATICAL PAPERS, WHICH CANNOT BE PUBLISHED IN THE PROCEEDINGS IN FULL-LENGTH FORM DUE TO SPACE CONSIDERATIONS, WILL BE DEPOSITED (WITH THE AUTHOR'S CONSENT) WITH THE AMERICAN DOCUMENTATION INSTITUTE IN WASHINGTON, D. C., WHERE MICROFILM OR PHOTOCOPIES MAY BE PURCHASED BY INTERESTED READERS. ABSTRACTS OF THESE PAPERS WILL BE PUBLISHED IN THE PROCEEDINGS ACCOMPANIED IN EACH CASE BY A FOOTNOTE ADVISING READERS OF THE AVAILABILITY AND COSTS OF COPIES OF THE FULL-LENGTH PAPERS.

(4) PUBLICATION OF A SERIES OF VALUABLE AND OUTSTANDING TUTORIAL PAPERS ON A WIDE VARIETY OF TOPICS OF BOTH PRESENT AND HISTORICAL INTEREST WAS BEGUN WITH THE APPEARANCE OF SEVEN SUCH PAPERS DURING 1951, PREPARED BY AUTHORITIES IN THE FIELD. THE TUTORIAL PAPERS SERIES IS SPONSORED BY

THE TUTORIAL PAPERS SUBCOMMITTEE OF THE IRE COMMITTEE ON EDUCATION.

THE EDITORIAL DEPARTMENT CONTINUED TO CO-OPERATE CLOSELY WITH IRE PROFESSIONAL GROUPS ON THE PUBLICATION OF TECHNICAL PAPERS, ABSTRACTS OF PAPERS DELIVERED AT GROUP-SPONSORED CONFERENCES, AND NEWS ITEMS OF INTEREST TO GROUP MEMBERS IN ORDER TO GIVE THIS IMPORTANT INSTITUTE ACTIVITY FULL EXPRESSION IN THE PAGES OF THE PROCEEDINGS. DURING THE YEAR, NINE PAPERS WERE PUBLISHED IN THE PROCEEDINGS WHICH HAD BEEN REFERRED TO AND RECOMMENDED BY PROFESSIONAL GROUPS FOR PUBLICATION.

THE 1951 IRE DIRECTORY WAS THE LARGEST DIRECTORY PUBLISHED TO DATE, CONTAINING 764 PAGES INCLUDING COVERS, OF WHICH 418 WERE MEMBERSHIP LISTINGS AND INFORMATION, 346 WERE ADVERTISEMENTS AND LISTINGS OF MANUFACTURERS AND PRODUCTS. THE DIRECTORY WAS ISSUED IN OCTOBER, 1951.

THE EDITORIAL DEPARTMENT IS DIRECTED BY EDITOR ALFRED N. GOLDSMITH IN MATTERS OF EDITORIAL POLICY, CONTENT, AND FORMAT, AND BY EXECUTIVE SECRETARY GEORGE W. BAILEY IN MATTERS OF FINANCE AND ADMINISTRATION. BOTH FUNCTION THROUGH TECHNICAL EDITOR E. K. GANNETT AND AN EFFECTIVE STAFF. IT HAS BEEN GREATLY ASSISTED BY THE COUNSEL AND CO-OPERATION UNSTINTINGLY GIVEN BY THE MEMBERS OF THE BOARD OF EDITORS, PAPERS REVIEW COMMITTEE, AND THE ADMINISTRATIVE COMMITTEE OF THE BOARD OF EDITORS.

TECHNICAL ACTIVITIES

1951

TECHNICAL COMMITTEES. DURING 1951, TWENTY-THREE IRE TECHNICAL COMMITTEES, WITH THEIR SUBCOMMITTEES, TASK GROUPS AND PLANNING COMMITTEES FOR CONFERENCES OR SYMPOSIA, HELD 114 MEETINGS AT THE INSTITUTE HEADQUARTERS, ONE MEETING AT THE WALDORF-ASTORIA HOTEL DURING THE NATIONAL CONVENTION AND TWENTY MEETINGS AT OTHER POINTS, A GRAND TOTAL OF 135 MEETINGS.

A REPORT ON THE ACTIVITIES OF THE IRE TECHNICAL COMMITTEES AND THEIR SUBCOMMITTEES IS COMPILED BY THE OFFICE OF THE TECHNICAL SECRETARY AND PUBLISHED EACH MONTH IN THE PROCEEDINGS.

THE POLICY OF PUBLISHING STANDARDS IN THE PROCEEDINGS WAS ADOPTED IN LATE 1949. ISSUES OF THE 1951 PROCEEDINGS CONTAINING STANDARDS ARE IDENTIFIED BY A RED BAND ON THE COVER AND SPINE. THIS METHOD OF PUBLICATION IS STILL BEING CARRIED ON AND REPRINTS OF STANDARDS APPEARING IN THE PROCEEDINGS MAY BE PURCHASED FROM HEADQUARTERS FOR A NOMINAL SUM. THE FOLLOWING EIGHT STANDARDS WERE PUBLISHED DURING 1951:

STANDARDS ON CIRCUITS: DEFINITIONS OF TERMS IN NETWORK TOPOLOGY, 1950.

STANDARDS ON TELEVISION: METHODS OF MEASUREMENT OF ELECTRONICALLY REGULATED POWER SUPPLIES, 1950.

STANDARDS ON ELECTRONIC COMPUTERS: DEFINITIONS OF TERMS, 1950.

STANDARDS ON ABBREVIATIONS OF RADIO-ELECTRONIC TERMS, 1951.

STANDARDS ON ELECTROACOUSTICS: DEFINITIONS OF TERMS, 1951.

STANDARDS ON PULSES: DEFINITIONS OF TERMS, PART 1, 1951.

STANDARDS ON RADIO RECEIVERS: OPEN FIELD METHOD OF MEASUREMENT OF SPURIOUS RADIATION FROM FREQUENCY MODULATION AND TELEVISION BROADCAST RECEIVERS, 1951.

STANDARDS ON TRANSDUCERS: DEFINITIONS OF TERMS, 1951.

THE FOLLOWING STANDARDS, PREPARED BY IRE TECHNICAL COMMITTEES, WERE APPROVED BY THE STANDARDS COMMITTEE IN 1951 AND WILL BE PUBLISHED IN FORTHCOMING ISSUES OF THE PROCEEDINGS:

STANDARDS ON GAS-FILLED COUNTER TUBES: DEFINITIONS OF TERMS, 1952.

STANDARDS ON ELECTRON TUBES: METHODS OF TESTING GAS-FILLED RADIATION COUNTER TUBES, 1952.

THE ANNUAL REVIEW COMMITTEE HAS PREPARED ITS SURVEY, THE RADIO PROGRESS REPORT DURING 1951, WHICH WILL APPEAR IN THE PROCEEDINGS WITHIN A SHORT TIME.

THE MASTER INDEX OF TERMS WHICH WAS PREPARED IN 1949 WAS REVISED FEBRUARY 1951 BY THE OFFICE OF THE TECHNICAL SECRETARY AND MADE AVAILABLE TO ALL IRE COMMITTEES AND, UPON REQUEST, TO OTHER SOCIETIES.

APPROVAL WAS SECURED IN APRIL 1951 FOR THE FORMATION OF A NEW TECHNICAL COMMITTEE ON SERVO-SYSTEMS UNDER THE CHAIRMANSHIP OF PROFESSOR W. M. PEASE OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

THE EXECUTIVE COMMITTEE AUTHORIZED THE CHANGE IN THE NAME OF THE MODULATION SYSTEMS COMMITTEE TO THE COMMITTEE ON INFORMATION THEORY AND MODULATION SYSTEMS. THE NAME OF THE ELECTRON TUBES AND SOLID STATE DEVICES COMMITTEE WAS CHANGED TO THE COMMITTEE ON ELECTRON DEVICES. THE COMMITTEE ON MOBILE COMMUNICATIONS WAS RENAMED THE COMMITTEE ON MOBILE COMMUNICATIONS SYSTEMS.

JOINT COMMITTEES:

TWELVE MEETINGS OF COMMITTEES JOINTLY SPONSORED BY IRE AND OTHER OUTSIDE ORGANIZATIONS WERE HELD AT IRE HEADQUARTERS. SECRETARIAL SERVICE WAS PROVIDED FOR SEVERAL OF THESE MEETINGS. DURING THE YEAR 37 CONFERENCES, SYMPOSIA, TECHNICAL SESSIONS AND NATIONAL MEETINGS WERE SPONSORED BY IRE PROFESSIONAL GROUPS, BY TECHNICAL COMMITTEES OR CO-SPONSORED BY IRE AND OTHER ORGANIZATIONS. THE MAJOR PORTION OF THE WORK INVOLVED WAS THE RESPONSIBILITY OF THE OFFICE OF THE TECHNICAL SECRETARY.

THE SECOND JOINT IRE/AIEE/NBS HIGH FREQUENCY MEASUREMENTS SYMPOSIUM, SPONSORED BY THE JOINT IRE/AIEE COMMITTEE ON HIGH FREQUENCY MEASUREMENTS WAS HELD IN WASHINGTON, D. C. ON JANUARY 10, 11, AND 12, 1951. THE CONFERENCE ATTENDANCE OF 590 WAS MOST ENTHUSIASTIC. IT WAS HELD AS A PART OF THE CELEBRATION OF THE SEMICENTENNIAL OF THE NATIONAL BUREAU OF

STANDARDS. THE IRE PROFESSIONAL GROUP ON INSTRUMENTATION ALSO COOPERATED IN THE ORGANIZATION OF THE CONFERENCE.

THE IRE PARTICIPATED FOR THE FIRST TIME IN THE PROGRAM OF THE NATIONAL CONVENTION OF THE INSTITUTE OF AERONAUTICAL SCIENCES IN JANUARY, WHICH WAS HELD AT THE HOTEL ASTOR. THE IRE COOPERATED WITH THE INSTITUTE OF AERONAUTICAL SCIENCES IN SPONSORING A FULL DAY'S TECHNICAL SESSION DEVOTED TO ELECTRONICS IN AVIATION.

AT THE REQUEST OF THE DEPARTMENT OF STATE THE APPOINTMENT OF MR. A. G. JENSEN WAS APPROVED AS CHAIRMAN OF THE NEW UNITED STATES COMMITTEE TO HANDLE QUESTIONS INVOLVED IN THE WORK ASSIGNED TO STUDY GROUP XIV OF THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE. MR. JENSEN'S NOMINATION AS A REPRESENTATIVE FOR THE EXECUTIVE COMMITTEE OF THE UNITED STATES DELEGATION OF THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE WAS ALSO APPROVED BY IRE.

THE NATIONAL ASSOCIATION OF RADIO AND TELEVISION BROADCASTERS DURING 1951 ACCEPTED THE INVITATION TO JOIN THE IRE, RTMA AND SMPTE ON THE STEERING COMMITTEE WHICH WILL BE KNOWN AS THE JOINT COMMITTEE FOR INTER-SOCIETY COORDINATION (JCIC). THIS COMMITTEE WAS FORMERLY KNOWN AS THE IRS STEERING COMMITTEE, ESTABLISHED TO AVOID DUPLICATION OF EFFORT AMONG THE TECHNICAL COMMITTEES OF IRE, RTMA AND SMPTE WORKING IN FIELDS ASSOCIATED WITH TELEVISION.

PROFESSIONAL GROUP SYSTEM.

THERE ARE SIXTEEN PROFESSIONAL GROUPS PRESENTLY ACTIVE IN THE FOLLOWING FIELDS: AIRBORNE ELECTRONICS, ANTENNAS AND PROPAGATION, AUDIO, BROADCAST AND TELEVISION RECEIVERS, BROADCAST AND TRANSMISSION SYSTEMS, CIRCUIT THEORY, ELECTRONIC COMPUTERS, ELECTRON DEVICES, ENGINEERING MANAGEMENT, INFORMATION THEORY, INDUSTRIAL ELECTRONICS, INSTRUMENTATION, NUCLEAR SCIENCE, QUALITY CONTROL, RADIO TELEMETRY AND REMOTE CONTROL AND

VEHICULAR COMMUNICATIONS. THE TOTAL MEMBERSHIP IS IN EXCESS OF 13,000 AND IS INCREASING STEADILY. IT IS ANTICIPATED THAT PENDING PETITIONS TO FORM FIVE NEW IRE PROFESSIONAL GROUPS IN THE FIELDS OF MEDICAL ELECTRONICS, BIOLOGICAL ELECTRONICS, RADIO COMMUNICATIONS, MICROWAVE ELECTRONICS AND BASIC SCIENCES WILL BE APPROVED BY THE EXECUTIVE COMMITTEE. THE GROWTH OF THE PROFESSIONAL GROUP SYSTEM IS EVIDENCED BY THE FACT THAT AT THE 1951 NATIONAL CONVENTION SEVEN GROUPS SPONSORED ELEVEN SYMPOSIA. EACH GROUP NOMINATED A REPRESENTATIVE TO SERVE ON THE TECHNICAL PROGRAM COMMITTEE FOR THE CONVENTION.

IRE SECTIONS ARE CONSTANTLY INFORMED OF THE ACTIVITIES OF THE GROUPS THROUGH THE MEDIA OF NEWSLETTERS, CONFERENCE NOTICES AND MINUTES FROM THE OFFICE OF THE TECHNICAL SECRETARY. STEPS ARE BEING TAKEN IN THE VARIOUS SECTIONS TOWARDS THE STIMULATION OF GROUP ACTIVITIES. AS A RESULT OF SEVERAL GROUP MEMBERSHIP DRIVES, MANY NEW MEMBERS HAVE BEEN ENROLLED IN IRE. DURING THE YEAR A NUMBER OF GROUPS SPONSORED JOINT SYMPOSIA, NATIONAL MEETINGS AND TECHNICAL SESSIONS WITH OTHER PROFESSIONAL SOCIETIES. ALL GROUPS ARE CHARGED WITH THE PROCUREMENT OF PAPERS FOR PUBLICATION IN THE PROCEEDINGS. THE PROFESSIONAL GROUP MANUAL WAS AGAIN REVISED IN 1951.

THE PROFESSIONAL GROUP ON NUCLEAR SCIENCE SPONSORED A VERY SUCCESSFUL ANNUAL SYMPOSIUM AT THE BROOKHAVEN NATIONAL LABORATORY ON DECEMBER 3RD AND 4TH. IT WAS WELL ATTENDED AND ENTHUSIASTICALLY RECEIVED.

THE PROFESSIONAL GROUP ON ELECTRONIC COMPUTERS COOPERATED WITH THE IRE TECHNICAL COMMITTEE ON COMPUTERS TO CO-SPONSOR WITH AIEE AN OUTSTANDINGLY SUCCESSFUL CONFERENCE ON ELECTRONIC COMPUTERS, IN PHILADELPHIA DECEMBER 10TH - 12TH. A TOTAL OF 872 PERSONS ATTENDED THE CONFERENCE.

JOINT TECHNICAL ADVISORY COMMITTEE.

SIX MEETINGS OF JTAC WERE HELD DURING 1951. VOLUME VI, PROCEEDINGS

OF THE JTAC, WAS PUBLISHED. THIS VOLUME INCLUDED SECTION I - OFFICIAL CORRESPONDENCE BETWEEN THE FEDERAL COMMUNICATIONS COMMISSION AND THE JOINT TECHNICAL ADVISORY COMMITTEE (IRE-RTMA) WITH OTHER ITEMS PERTINENT TO THE ACTION OF THE JTAC, AND SECTION II, APPROVED MINUTES OF MEETINGS OF THE JOINT TECHNICAL ADVISORY COMMITTEE (IRE-RTMA), BOTH COVERING THE PERIOD 1 JULY 1949-30 JUNE 1950. VOLUME VII OF THE PROCEEDINGS FOR THE SUBSEQUENT YEAR ENDING JUNE 30, 1951 WAS ALSO AUTHORIZED AND PREPARED. IT WILL BE DISTRIBUTED IN JANUARY 1952. THE PREPARATION OF A PAPER ON THE "CONSERVATION OF THE RADIO SPECTRUM" WAS UNDERTAKEN AND WILL APPEAR AS JTAC VOLUME VIII. THE MEMBERSHIP FOR THE YEAR JULY 1, 1951 TO JUNE 30, 1952 WAS APPOINTED. MR. I. J. KAAR REPLACED MR. JOHN V. L. HOGAN AS CHAIRMAN AND MR. RALPH BOWN WAS ELECTED UNANIMOUSLY AS VICE CHAIRMAN. ON JULY 31, 1951 MR. HARADEN PRATT RESIGNED FROM MEMBERSHIP ON JTAC TO BECOME TELECOMMUNICATIONS ADVISOR TO THE PRESIDENT OF THE UNITED STATES. MR. A. V. LOUGHREN WAS ELECTED UNANIMOUSLY TO REPLACE MR. PRATT.

A SUBCOMMITTEE ON LAND-MOBILE CHANNEL ALLOCATIONS WAS APPOINTED ON OCTOBER 9, 1951 TO ACT AS CONSULTANT TO THE JTAC IN THE PREPARATION OF A REPLY TO THE FCC REGARDING ITS REQUEST FOR INFORMATION ON THE SUBJECT OF CHANNEL ALLOCATIONS FOR COMMUNICATION SERVICES. ONE MEETING OF THIS SUBCOMMITTEE WAS HELD IN 1951 AT WHICH TIME THE PROBLEM WAS OUTLINED AND THE ASSIGNMENT MADE.

NTSC.

IN ADDITION TO IRE COMMITTEE MEETINGS, THE NATIONAL TELEVISION SYSTEM COMMITTEE HELD 55 MEETINGS AT HEADQUARTERS. THE TECHNICAL SECRETARY ACTS AS SECRETARY FOR PANEL 18, WHICH IS THE COORDINATING PANEL FOR THE NATIONAL TELEVISION SYSTEM COMMITTEE. THE OFFICE OF THE TECHNICAL SECRETARY BY REQUEST SEVERAL TIMES PROVIDED SECRETARIAL ASSISTANCE FOR OTHER OF THE NTSC PANELS.

SECTION ACTIVITIES

NUMBER OF MEETINGS

MEMBERSHIP OF SECTIONS

| SECTIONS | NUMBER OF MEETINGS | | | MEMBERSHIP OF SECTIONS | | | | | |
|--|--------------------|------|------|------------------------|-----|------|-----|------|-----|
| | 1951 | 1950 | 1949 | 1951 | % | 1950 | % | 1949 | % |
| WE WERE GLAD TO WELCOME THREE NEW SECTIONS INTO THE INSTITUTE DURING THE PAST YEAR. THEY ARE AS FOLLOWS: | | | | | | | | | |
| ATLANTA | 10 | 10 | 11 | 544 | +12 | 621 | +20 | 777 | +26 |
| BALTIMORE | | | | | | | | | |
| BEAUMONT-PORT-ARTHER | | | | | | | | | |
| BOSTON | | | | | | | | | |
| BUFFALO-NIAGARA | | | | | | | | | |
| CHICAGO | 10 | 7 | 9 | 1501 | +4 | 1530 | +1 | 1587 | +1 |
| CINCINNATI | 10 | 11 | 9 | 220 | +3 | 226 | +14 | 198 | +17 |
| CLEVELAND | 9 | 11 | 11 | 290 | +0 | 310 | +1 | 314 | +18 |
| COLUMBUS | | | | | | | | | |
| DALLAS-FY. NORTH | 15 | 10 | 10 | 491 | +15 | 523 | +13 | 517 | +57 |
| DAYTON | 11 | 9 | 12 | 439 | +7 | 410 | +6 | 377 | +25 |
| DENVER | 7 | 9 | 7 | 187 | +15 | 219 | +12 | 190 | +1 |
| DES MOINES-AMES | 9 | 7 | 7 | 60 | +28 | 80 | +5 | 78 | +17 |
| DETROIT | 10 | 9 | 9 | 652 | +2 | 668 | +2 | 653 | +21 |
| ELPORT OK | 11 | 9 | 9 | 158 | +8 | 146 | +1 | 148 | +10 |
| EVANSVILLE-OSHERBORO | 9 | 8 | - | 70 | +10 | 78 | - | - | - |
| FT. WYNE | 9 | 8 | 5 | 102 | +13 | 90 | +23 | 73 | - |
| HAMILT | 10 | 8 | - | 97 | +9 | 107 | - | - | - |
| HOUSTON | 10 | 10 | 9 | 183 | +15 | 215 | +8 | 234 | +8 |
| INDIANAPOLIS | 7 | 10 | 8 | 208 | +19 | 250 | +8 | 265 | +12 |

OKLAHOMA CITY (JULY) 1951

PHOENIX (JANUARY) 1951

TULSA (MAY) 1951

THE TOTAL NUMBER OF SECTIONS IS NOW 60. REFERENCE TO

TABLE XV WILL SHOW AN INCREASE IN MEMBERSHIP OF 25 SECTIONS.

THE SUBSECTIONS OF SECTIONS NOW TOTAL 14, THE FOLLOWING

BEING FORMED IN 1951:

PALO ALTO (SAN FRANCISCO SECTION) JANUARY, 1951

ROME (SYRACUSE SECTION) MAY, 1951

TABLE XV - SECTION MEETINGS AND MEMBERSHIP
(INCLUDING SUBSECTIONS)

| <u>SECTIONS</u> | <u>NUMBER OF MEETINGS</u> | | | <u>MEMBERSHIP OF SECTIONS</u> | | | | | |
|--------------------------|---------------------------|-------------|-------------|-------------------------------|-----------|-------------|-----------|-------------|-----------|
| | <u>1951</u> | <u>1950</u> | <u>1949</u> | <u>1951</u> | <u>%1</u> | <u>1950</u> | <u>%1</u> | <u>1949</u> | <u>%1</u> |
| AKRON | 9 | 9 | 1 | 154 | +2 | 151 | -4 | 158 | - |
| ATLANTA | 10 | 10 | 11 | 544 | -12 | 621 | -20 | 777 | +26 |
| BALTIMORE | 10 | 10 | 9 | 587 | +25 | 468 | +12 | 417 | +4 |
| BEAUMONT PORT- ARTHUR | 10 | 11 | 11 | 52 | +15 | 45 | +18 | 38 | +27 |
| BOSTON | 18 | 9 | 12 | 1613 | +6 | 1515 | +22 | 1239 | +5 |
| BUENOS AIRES | 4 | 14 | 18 | 94 | -18 | 115 | -18 | 141 | -17 |
| BUFFALO-NIAGARA | 9 | 9 | 9 | 266 | +7 | 249 | +57 | 158 | -1 |
| CEDAR RAPIDS | 10 | 11 | 11 | 187 | +9 | 172 | +4 | 165 | +8 |
| CHICAGO | 10 | 7 | 9 | 1531 | -4 | 1598 | +1 | 1587 | -1 |
| CINCINNATI | 10 | 11 | 9 | 220 | -3 | 226 | +14 | 198 | +17 |
| CLEVELAND | 9 | 11 | 11 | 299 | -6 | 318 | +1 | 314 | -18 |
| COLUMBUS | 10 | 9 | 10 | 122 | +6 | 115 | -3 | 119 | +8 |
| CONN. VALLEY | 10 | 11 | 11 | 512 | +5 | 486 | +9 | 444 | -1 |
| (1) DALLAS-FT. WORTH | 15 | 10 | 10 | 491 | -16 | 583 | +13 | 517 | +57 |
| DAYTON | 11 | 9 | 12 | 439 | +7 | 410 | +9 | 377 | +25 |
| DENVER | 7 | 9 | 7 | 187 | -15 | 219 | +12 | 195 | - |
| DES MOINES-AMES | 9 | 7 | 7 | 60 | -28 | 83 | +6 | 78 | -17 |
| DETROIT | 10 | 9 | 9 | 652 | -2 | 668 | +2 | 653 | +21 |
| EMPORIUM | 11 | 9 | 9 | 158 | +8 | 146 | -1 | 148 | +10 |
| EVANSVILLE- OWENSBORO | 9 | 8 | - | 70 | -10 | 78 | - | - | - |
| FT. WAYNE | 9 | 6 | 5 | 102 | +13 | 90 | +23 | 73 | - |
| HAWAII | 10 | 8 | - | 97 | -9 | 107 | - | - | - |
| HOUSTON | 10 | 10 | 9 | 183 | -15 | 215 | -8 | 234 | +5 |
| INDIANAPOLIS | 7 | 10 | 8 | 203 | -19 | 250 | -6 | 265 | +18 |

TABLE XV - SECTION MEETINGS AND MEMBERSHIP (CONTINUED)
(INCLUDING SUBSECTIONS)

| <u>SECTIONS</u> | <u>NUMBER OF MEETINGS</u> | | | <u>MEMBERSHIP OF SECTIONS</u> | | | | | |
|-----------------------------|---------------------------|-------------|-------------|-------------------------------|----------|-------------|----------|-------------|----------|
| | <u>1951</u> | <u>1950</u> | <u>1949</u> | <u>1951</u> | <u>%</u> | <u>1950</u> | <u>%</u> | <u>1949</u> | <u>%</u> |
| INYOKERN | 2 | 8 | 8 | 62 | +26 | 49 | +29 | 38 | - |
| (2) KANSAS CITY | 8 | 10 | 7 | 311 | -14 | 360 | +2 | 352 | -8 |
| LONDON | 6 | 10 | 9 | 88 | -25 | 117 | +5 | 111 | -3 |
| LOS ANGELES | 16 | 10 | 11 | 1852 | +7 | 1732 | +22 | 1422 | +20 |
| LOUISVILLE | 10 | 9 | 8 | 62 | -55 | 137 | -26 | 186 | +141 |
| MIAMI | 9 | 2 | - | 288 | +12 | 257 | - | - | - |
| MILWAUKEE | 9 | 10 | 19 | 268 | -22 | 345 | -4 | 359 | +36 |
| MONTREAL | 10 | 11 | 9 | 248 | -2 | 252 | +7 | 235 | +7 |
| NEW MEXICO | 10 | 11 | 12 | 303 | +13 | 269 | +13 | 238 | +41 |
| NEW YORK | 36 | 12 | 15 | 6331 | +4 | 6109 | +8 | 5649 | +4 |
| NORTH CAROLINA- VIRGINIA | 7 | 7 | 5 | 359 | -7 | 386 | +4 | 370 | +20 |
| *OKLAHOMA CITY | 2 | - | - | 61 | - | - | - | - | - |
| OMAHA-LINCOLN | 5 | 7 | 6 | 90 | -23 | 117 | +12 | 104 | -7 |
| OTTAWA | 12 | 10 | 10 | 135 | +7 | 126 | +23 | 102 | +13 |
| PHILADELPHIA | 13 | 7 | 6 | 1530 | +9 | 1408 | +15 | 1227 | +21 |
| *PHOENIX | 6 | - | - | 100 | - | - | - | - | - |
| PITTSBURGH | 10 | 9 | 10 | 410 | -5 | 430 | +1 | 425 | +31 |
| PORTLAND | 11 | 13 | 17 | 177 | -15 | 208 | +4 | 200 | +19 |
| PRINCETON | 10 | 7 | 8 | 272 | +2 | 266 | +2 | 260 | +7 |
| ROCHESTER | 4 | 8 | 6 | 129 | -8 | 140 | +18 | 119 | +12 |
| SACRAMENTO | 5 | 4 | 8 | 72 | -8 | 78 | +18 | 66 | +3 |
| ST. LOUIS | 9 | 8 | 6 | 296 | -20 | 371 | -7 | 399 | +35 |
| SALT LAKE | 9 | 6 | 7 | 123 | -5 | 130 | -6 | 139 | +40 |
| SAN ANTONIO | 11 | 10 | 7 | 152 | -3 | 157 | +8 | 145 | -20 |

TABLE XV - SECTION MEETINGS AND MEMBERSHIP (CONTINUED)
(INCLUDING SUBSECTIONS)

| SECTIONS | NUMBER OF MEETINGS | | | MEMBERSHIP OF SECTIONS | | | | | |
|-------------------------------------|--------------------|------|------|------------------------|----------------|--------|----------------|--------|----------------|
| | 1951 | 1950 | 1949 | 1951 | % ¹ | 1950 | % ¹ | 1949 | % ¹ |
| SAN DIEGO | 12 | 12 | 11 | 345 | +32 | 262 | +13 | 231 | +14 |
| SAN FRANCISCO | 18 | 17 | 11 | 1034 | +1 | 1025 | +1 | 1017 | +24 |
| SCHENECTADY | 8 | 6 | - | 304 | -10 | 336 | +21 | 278 | - |
| SEATTLE | 9 | 11 | 10 | 530 | -2 | 542 | +14 | 477 | +28 |
| SYRACUSE | 18 | 8 | 9 | 701 | +22 | 574 | +17 | 489 | +30 |
| TOLEDO | 9 | 10 | 10 | 109 | +1 | 108 | -2 | 110 | +64 |
| TORONTO | 22 | 8 | 5 | 393 | -1 | 398 | -8 | 540 | +19 |
| *TULSA | 5 | - | - | 131 | - | - | - | - | - |
| TWIN CITIES | 9 | 12 | 10 | 381 | -9 | 418 | -4 | 434 | +5 |
| VANCOUVER | 10 | 4 | - | 133 | -15 | 156 | - | - | - |
| WASHINGTON | 10 | 11 | 10 | 1570 | +6 | 1481 | +10 | 1343 | +11 |
| WILLIAMSPORT | 5 | 5 | 5 | 51 | +19 | 43 | -8 | 47 | +27 |
| | 602 | 520 | 483 | 28,224 | +2 | 27,715 | +9 | 25,407 | +15 |
| TOTAL MEMBERSHIP OF INSTITUTE | | | | 29,408 | +1 | 29,002 | +8 | 26,769 | +14 |

¹PERCENTAGE INCREASE OR DECREASE BASED ON PRECEDING YEAR.

*SECTIONS FORMED DURING 1951.

- (1) DECREASE IN MEMBERSHIP DUE TO RELEASE OF TERRITORY TO NEW OKLAHOMA CITY AND TULSA SECTIONS, FORMED IN 1951.
- (2) DECREASE IN MEMBERSHIP DUE TO RELEASE OF TERRITORY TO NEW TULSA SECTION FORMED IN 1951.

TABLE XVI - SUBSECTION MEETINGS

| <u>SUBSECTION</u> | <u>PARENT SECTIONS</u> | <u>NUMBER OF MEETINGS</u> |
|---------------------|------------------------|---------------------------|
| AMARILLO-LUBBOCK | DALLAS-FT. WORTH | 5 |
| BINGHAMTON | SYRACUSE | 7 |
| CENTRE COUNTY | EMPORIUM | 1 |
| HAMILTON | TORONTO | 7 |
| LANCASTER | PHILADELPHIA | 7 |
| LONG ISLAND | NEW YORK | 7 |
| MID-HUDSON | NEW YORK | 7 |
| MONMOUTH | NEW YORK | 6 |
| NORTHERN NEW JERSEY | NEW YORK | 8 |
| PALO ALTO | SAN FRANCISCO | 6 |
| ROME | SYRACUSE | 3 |
| SOUTH BEND | CHICAGO | - |
| URBANA | CHICAGO | - |
| WINNIPEG | TORONTO | <u>5</u> |
| | | 69 |

TABLE XVII - STUDENT BRANCHES, 1951

THE NUMBER OF STUDENT BRANCHES FORMED DURING 1951 WAS 4, ALL OF WHICH OPERATE AS JOINT IRE-AIEE BRANCHES. THE TOTAL NUMBER OF STUDENT BRANCHES IS NOW 109, 66 OF WHICH OPERATE AS JOINT IRE-AIEE BRANCHES.

FOLLOWING IS A LIST OF THE STUDENT BRANCHES:

| <u>SCHOOL</u> | <u>BRANCH</u> | <u>FORMED 1951</u> |
|--|--------------------|--------------------|
| AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS | IRE-AIEE | |
| AKRON, UNIVERSITY OF | IRE-AIEE | |
| ALABAMA POLYTECHNIC INSTITUTE | IRE | |
| ALBERTA, UNIVERSITY OF | IRE | |
| ARIZONA, UNIVERSITY OF | IRE-AIEE | |
| ARKANSAS, UNIVERSITY OF | IRE | |
| BRITISH COLUMBIA, UNIVERSITY OF | IRE-AIEE | |
| BROOKLYN, POLYTECHNIC INSTITUTE OF | IRE (EVENING DIV.) | |
| BROOKLYN, POLYTECHNIC INSTITUTE OF | IRE (DAY DIV.) | |
| BUCKNELL, UNIVERSITY OF | IRE-AIEE | |
| CALIFORNIA INSTITUTE OF TECHNOLOGY | IRE | |
| CALIFORNIA STATE POLYTECHNIC COLLEGE | IRE | |
| CALIFORNIA, UNIVERSITY OF | IRE-AIEE | |
| CARNEGIE INSTITUTE OF TECHNOLOGY | IRE-AIEE | |
| CASE INSTITUTE OF TECHNOLOGY | IRE | |
| CLARKSON COLLEGE OF TECHNOLOGY | IRE | |
| COLORADO, UNIVERSITY OF | IRE-AIEE | |
| COLUMBIA, UNIVERSITY OF | IRE-AIEE | |
| CONNECTICUT, UNIVERSITY OF | IRE-AIEE | |
| COOPER UNION | IRE-AIEE | |
| CORNELL, UNIVERSITY OF | IRE-AIEE | |

STUDENT BRANCHES (CONT'D.)

| <u>SCHOOL</u> | <u>BRANCH</u> | <u>FORMED 1951</u> |
|----------------------------------|---------------|--------------------|
| DAYTON, UNIVERSITY OF | IRE | |
| DELAWARE, UNIVERSITY OF | IRE-AIEE | |
| DENVER, UNIVERSITY OF | IRE-AIEE | |
| DETROIT, UNIVERSITY OF | IRE | |
| DREXEL INSTITUTE OF TECHNOLOGY | IRE-AIEE | |
| FENN COLLEGE | IRE | |
| FLORIDA, UNIVERSITY OF | IRE-AIEE | |
| GEORGE WASHINGTON UNIVERSITY | IRE | |
| GEORGIA INSTITUTE OF TECHNOLOGY | IRE | |
| ILLINOIS INSTITUTE OF TECHNOLOGY | IRE | |
| ILLINOIS, UNIVERSITY OF | IRE-AIEE | |
| IOWA, STATE UNIVERSITY OF | IRE | |
| IOWA STATE COLLEGE | IRE-AIEE | |
| JOHN CARROLL UNIVERSITY | IRE | |
| JOHNS HOPKINS UNIVERSITY | IRE-AIEE | 3/6/51 |
| KANSAS STATE COLLEGE | IRE | |
| KANSAS, UNIVERSITY OF | IRE-AIEE | 3/23/51 |
| KENTUCKY, UNIVERSITY OF | IRE | |
| LAFAYETTE COLLEGE | IRE-AIEE | |
| LEHIGH UNIVERSITY | IRE | |
| LOUISIANA STATE UNIVERSITY | IRE-AIEE | |
| LOUISVILLE, UNIVERSITY | IRE | |
| MAINE, UNIVERSITY OF | IRE | |
| MANHATTAN COLLEGE | IRE | |
| MARQUETTE UNIVERSITY | IRE-AIEE | |
| MARYLAND, UNIVERSITY OF | IRE-AIEE | |

STUDENT BRANCHES (CONT'D.)

| <u>SCHOOL</u> | <u>BRANCH</u> | <u>FORMED 1951</u> |
|---|---------------|--------------------|
| MASSACHUSETTS INSTITUTE OF TECHNOLOGY | IRE-AIEE | |
| MIAMI, UNIVERSITY OF | IRE | |
| MICHIGAN COLLEGE OF MINING AND TECHNOLOGY | IRE-AIEE | |
| MICHIGAN STATE COLLEGE | IRE-AIEE | |
| MICHIGAN, UNIVERSITY OF | IRE-AIEE | |
| MINNESOTA, UNIVERSITY OF | IRE-AIEE | |
| MISSISSIPPI STATE COLLEGE | IRE | |
| MISSOURI SCHOOL OF MINES AND METALLURGY | IRE-AIEE | |
| MISSOURI, UNIVERSITY OF | IRE-AIEE | |
| MONTANA STATE COLLEGE | IRE-AIEE | 7/10/51 |
| NEBRASKA, UNIVERSITY OF | IRE-AIEE | |
| NEWARK COLLEGE OF ENGINEERING | IRE | |
| NEW MEXICO COLLEGE OF AGRICULTURE AND MECHANIC ARTS | IRE-AIEE | |
| NEW MEXICO, UNIVERSITY OF | IRE | |
| NEW YORK, COLLEGE OF THE CITY OF | IRE | |
| NEW YORK UNIVERSITY (DAY DIVISION) | IRE | |
| NEW YORK UNIVERSITY (EVENING DIV.) | IRE-AIEE | |
| NORTH CAROLINA STATE COLLEGE | IRE | |
| NORTH DAKOTA, UNIVERSITY OF | IRE-AIEE | |
| NORTHEASTERN UNIVERSITY | IRE-AIEE | |
| NORTHWESTERN UNIVERSITY | IRE-AIEE | |
| NOTRE DAME, UNIVERSITY OF | IRE-AIEE | |
| OHIO STATE UNIVERSITY | IRE-AIEE | |
| OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE | IRE-AIEE | |

STUDENT BRANCHES (CONT'D.)

| <u>SCHOOL</u> | <u>BRANCH</u> | <u>FORMED 1951</u> |
|--|---------------|--------------------|
| OREGON STATE COLLEGE | IRE | |
| PENNSYLVANIA, UNIVERSITY OF | IRE-AIEE | |
| PENNSYLVANIA STATE COLLEGE, THE | IRE-AIEE | |
| PITTSBURGH, UNIVERSITY OF | IRE | |
| PRATT INSTITUTE | IRE | |
| PRINCETON UNIVERSITY | IRE-AIEE | |
| PURDUE UNIVERSITY | IRE | |
| RENSSELAER POLYTECHNIC INSTITUTE | IRE-AIEE | |
| RHODE ISLAND, UNIVERSITY OF | IRE-AIEE | |
| RUTGERS UNIVERSITY | IRE-AIEE | |
| ST. LOUIS UNIVERSITY | IRE | |
| SAN DIEGO STATE COLLEGE | IRE | |
| SAN JOSE STATE COLLEGE | IRE | |
| SEATTLE UNIVERSITY | IRE | |
| SOUTH CAROLINA, UNIVERSITY OF | IRE-AIEE | |
| SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY | IRE | |
| SOUTHERN CALIFORNIA, UNIVERSITY OF | IRE-AIEE | |
| SOUTHERN METHODIST UNIVERSITY | IRE-AIEE | |
| STANFORD UNIVERSITY | IRE-AIEE | |
| STEVENS INSTITUTE OF TECHNOLOGY | IRE-AIEE | |
| SYRACUSE, UNIVERSITY OF | IRE-AIEE | |
| TENNESSEE, UNIVERSITY OF | IRE | |
| TEXAS, UNIVERSITY OF | IRE-AIEE | |
| TOLEDO, UNIVERSITY OF | IRE-AIEE | |
| TORONTO, UNIVERSITY OF | IRE-AIEE | |
| TUFTS COLLEGE | IRE-AIEE | |

STUDENT BRANCHES (CONT'D.)

| <u>SCHOOL</u> | <u>BRANCH</u> | <u>FORMED 1951</u> |
|---------------------------------|---------------|--------------------|
| TULANE UNIVERSITY | IRE-AIEE | |
| UTAH STATE AGRICULTURAL COLLEGE | IRE | |
| UTAH, UNIVERSITY OF | IRE-AIEE | |
| VILLANOVA COLLEGE | IRE-AIEE | 11/16/51 |
| VIRGINIA POLYTECHNIC INSTITUTE | IRE | |
| VIRGINIA, UNIVERSITY OF | IRE | |
| WASHINGTON, UNIVERSITY OF | IRE-AIEE | |
| WAYNE UNIVERSITY | IRE-AIEE | |
| WISCONSIN, UNIVERSITY OF | IRE | |
| WORCESTER POLYTECHNIC INSTITUTE | IRE-AIEE | |
| WYOMING, UNIVERSITY OF | IRE-AIEE | |
| YALE UNIVERSITY | IRE-AIEE | |

