

HE
370
.075
07
1972

Origin-Destination Studies
Taken at Mackinac Bridge,
Mackinac County for 1967,
1969 and 1970

LIBRARY

LIBRARY
michigan department of
state highways
LANSING

65-9513

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

COMMISSION

Charles H. Hewitt, Chairman
E. V. Erickson, Vice Chairman
Peter B. Fletcher
Claude J. Tobin

J. P. Woodford
Director

Origin-Destination Studies
Taken at Mackinac Bridge,
Mackinac County for 1967,
1969 and 1970

LIBRARY
michigan department of
state highways
LANSING

Prepared by:

NORTHWEST ANALYSIS UNIT
TRANSPORTATION SURVEY AND ANALYSIS SECTION
TRANSPORTATION PLANNING DIVISION

In Cooperation with:

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

COMMISSION:

CHARLES H. HEWITT,
CHAIRMAN

E. V. ERICKSON
VICE CHAIRMAN

PETER B. FLETCHER

CLAUDE J. TOBIN

STATE OF MICHIGAN



WILLIAM G. MILLIKEN, GOVERNOR

DEPARTMENT OF STATE HIGHWAYS

STATE HIGHWAYS BUILDING - POST OFFICE DRAWER K - LANSING, MICHIGAN 48904

December 8, 1972

Mr. Sam F. Cryderman
Engineer of Transportation Planning
Transportation Planning Division

Dear Mr. Cryderman:

We are pleased to present the "Origin-Destination Studies taken at Mackinac Bridge, Mackinac County for 1967, 1969 and 1970".

This document has been prepared from previous studies and past trends.

This material was prepared by Transportation Analysts Phillip Lamb, Dwight Searcy, David Jewison, Student Assistant Irwin Samec and Student Highway Technician Philip Smith. Their Northwest Michigan Analysis Unit Supervisor is Leo Farman.

Sincerely,

A handwritten signature in cursive script that reads "Keith E. Bushnell".

Keith E. Bushnell
Engineer of Transportation
Survey and Analysis Section



TABLE OF CONTENTS

| | Page |
|---|------|
| Documentation | 1 |
| Sat. Aug, 1967-Sat. Aug, 1969 | 3 |
| Sun. Aug, 1967-Sun. Aug, 1969 | 9 |
| Thurs., Aug. 14, 1969 | 15 |
| Fri., Aug. 15, 1969 | 17 |
| Average November Weekday, 1969 | 19 |
| Average February Weekday, 1969 | 21 |
| Average May Weekday, 1970 | 23 |
| Trend of Traffic by Years | 25 |
| Traffic by Days, 1967 | 27 |
| Traffic by Days, 1968 | 28 |
| Traffic by Days, 1969 | 29 |
| Traffic by Days, 1970 | 30 |
| Percentage of Total by Year by Classification Group | 31 |
| Total Vehicles | 32 |
| Classification(1) | 33 |
| Classification(2) | 34 |
| Classification(3) | 35 |
| Interview Form (1967 Study) | 50 |
| Interview Form (1969 and 1970 Study) | 51 |

After the Mackinac Bridge was completed and opened to traffic in November, of 1957, traffic in 1958 increased more than 48 percent over the Ferry traffic of 1957. The annual increase from 1958 to 1969 averaged between 3 and 4 percent. On January 1, 1969 the fares were reduced by 60 percent with a 21 percent increase in traffic for that year.

The graph showing "Trend of Traffic by Years" and the tabulations of "Traffic by Classification Groups" shows the yearly trends before and after the bridge was opened.

Of the total vehicles crossing the bridge between 1960 and 1970, classification group 2 (single unit trucks) increased from 5.6 percent to 10.6 percent, classification group 3 (trailer-combination trucks and buses) decreased from 6.4 percent to 4.6 percent, and classification group 1 (passenger cars, trucks 2-axle 4 tires, and motorcycles) decreased from 88.5 percent to 84.8 percent. The annual increase in total vehicles was from 1,179,083 in 1960 to 1,947,862 in 1970.

Mississippi Valley Multiple Screen Line Study (M.V.M.S.L.) interviews were taken on Saturday, August 11, and Sunday, August 12, 1967; and Saturday, August 16, and Sunday, August 17, 1969. The 1967 study was taken approximately one year and four months before the 60 percent reduction in tolls. The 1969 was taken approximately eight months after the 60 percent reduction in tolls. The 1967 study can be used as

the "before" study and the 1969 study can be used as the "after" study.

During interview operation, vehicles were stopped and the drivers interviewed as to the trip's origin, destination and purpose. All interview information, classified as to vehicle type and direction of travel was recorded by hour periods. Manual vehicle classification counts were maintained for 24-hours. This information provided the basis for expansion of the sample interview data to a full 24-hour representation.

Total vehicles crossing the bridge increased from 12,008 (Sat., Aug. 11, 1967) and 9,353 (Sun., Aug. 12, 1967) to 17,059 (Sat., Aug. 16, 1969) and 14,093 (Sun., Aug. 17, 1969). Of those vehicles with an origin or destination north of the Mackinac Bridge, those vehicles coming from a greater distance than Chippewa and Mackinac Counties increased from 1967 to 1969 but at a smaller rate. The same was true south of the bridge. Cheboygan County trip terminals increased at a greater rate than all counties south of the bridge. The toll rate reduction had a greater effect on those trips with an origin or destination in Chippewa, Mackinac and Cheboygan Counties.

LIBRARY
michigan department of
state highways
LANSING

Mackinac Bridge, Mackinac Co.

Saturday, Aug. 11, 1967

Saturday, Aug. 16, 1969

Trip Terminals North

| | <u>Trips</u> | <u>Percent of Total</u> | <u>Trips</u> | <u>Percent of Total</u> |
|---------------------------------|--------------|---------------------------------|--------------|---------------------------------|
| Chippewa & Mackinac Counties | 4,758 | 39.6 | 7,818 | 45.9 |
| All Other U. P. Co.s | 4,268 | 35.6 | 5,077 | 29.7 |
| All Other (Out-State) | 2,982 | 24.8 | 4,164 | 24.4 |
| Total | 12,008 | 100.0 | 17,059 | 100.0 |

Trip Terminals South

| | | | | |
|-----------------------|--------|-------|--------|-------|
| Wayne Co. | 1,940 | 16.2 | 2,244 | 13.2 |
| Cheboygan Co. | 532 | 4.4 | 1,939 | 11.4 |
| All Other L.P. Co.s | 7,029 | 58.5 | 9,580 | 56.1 |
| All Other (Out-State) | 2,507 | 20.9 | 3,296 | 19.3 |
| Total | 12,008 | 100.0 | 17,059 | 100.0 |

MACKINAC BRIDGE, MACKINAC COUNTY.

| | Sat. | Aug. | Percentage |
|---|-------------|-------------|---------------|
| | <u>1967</u> | <u>1969</u> | <u>Change</u> |
| Total Trips | 12,008 | 17,059 | +42.1 |
| Chippewa Co. Trips | 2,717 | 3,594 | +32.3 |
| Mackinac Co. Trips | 2,041 | 4,224 | +107.0 |
| Cheboygan Co. Trips | 532 | 1,939 | +264.5 |
| Emmet Co. Trips | 331 | 333 | + 0.6 |
| <u>Trips Interchanging Between:</u> | | | |
| Cheboygan Co. and Mackinac Co. | 101 | 611 | +505.0 |
| Cheboygan Co. and Chippewa Co. | 140 | 486 | +247.1 |
| Emmet Co. and Mackinac Co. | 68 | 129 | +89.7 |
| Emmet Co. and Chippewa Co. | 103 | 77 | -33.8 |

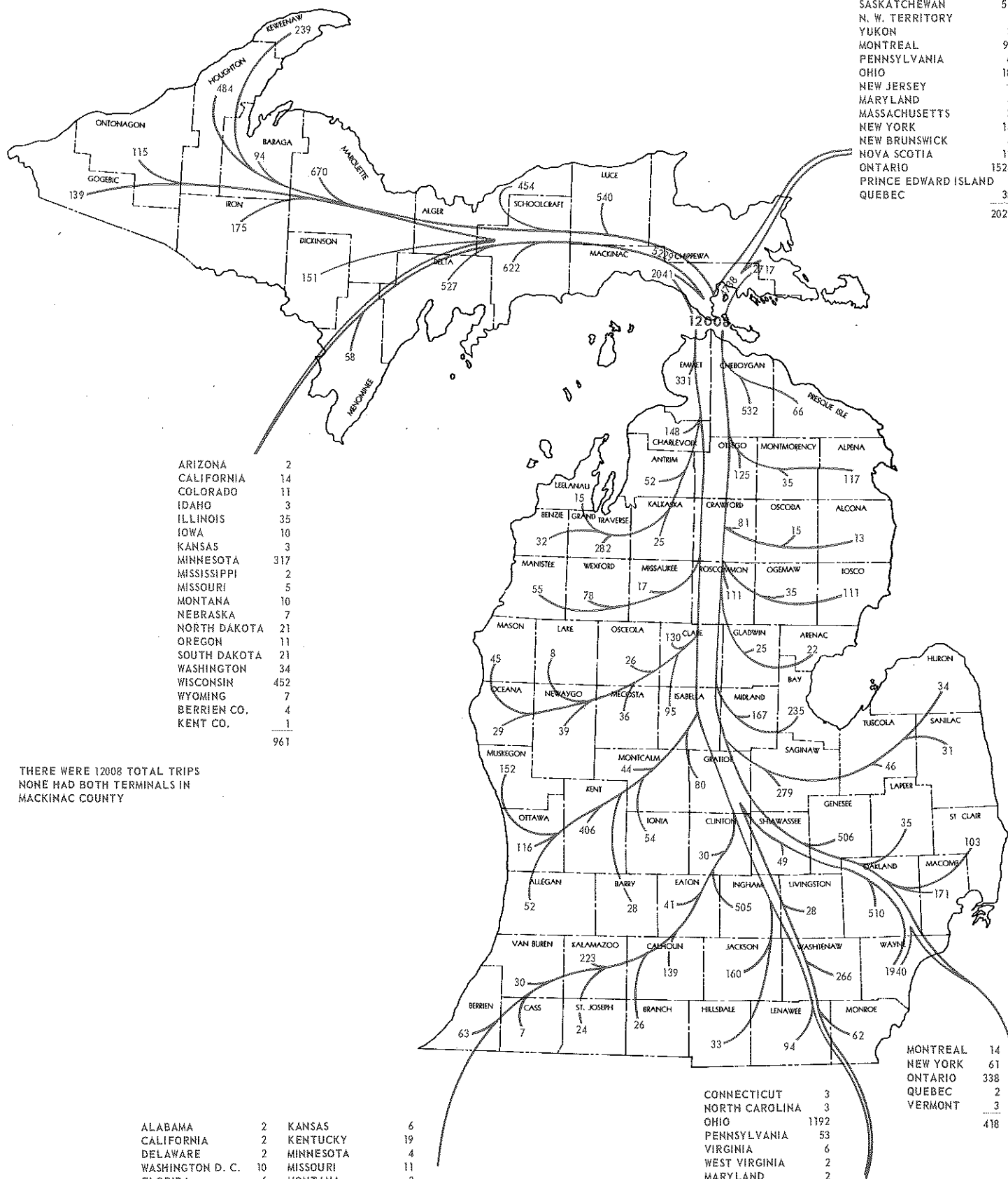
Mackinac Bridge, Mackinac Co.

Date: Saturday, August 11, 1967 M.V.M.S.L. Station No. 4584-05

| TRIP TERMINALS NORTH | | | TRIP TERMINALS SOUTH | | |
|----------------------|-------|------------------|-----------------------|-------|------------------|
| | Trips | Percent of Total | | Trips | Percent of Total |
| 1. Chippewa Co. | 2717 | 22.6 | 1. Wayne Co. | 1940 | 16.2 |
| 2. Mackinac Co. | 2041 | 17.0 | 2. Cheboygan Co. | 532 | 4.4 |
| 3. Marquette Co. | 670 | 5.6 | 3. Oakland Co. | 510 | 4.2 |
| 4. Schoolcraft Co. | 622 | 5.2 | 4. Genesee | 506 | 4.2 |
| 5. Luce Co. | 540 | 4.5 | 5. Ingham Co. | 505 | 4.2 |
| 6. Delta Co. | 527 | 4.4 | 6. Kent Co. | 406 | 3.4 |
| 7. Houghton Co. | 484 | 4.0 | 7. Emmet Co. | 331 | 2.8 |
| 8. Alger Co. | 454 | 3.8 | 8. Grand Traverse Co. | 282 | 2.3 |
| 9. Keweenaw Co. | 239 | 2.0 | 9. Saginaw Co. | 279 | 2.3 |
| 10. Iron Co. | 175 | 1.4 | 10. Washtenaw Co. | 266 | 2.2 |
| 11. Dickinson Co. | 151 | 1.3 | 11. Bay Co. | 235 | 2.0 |
| 12. Gogebic Co. | 139 | 1.1 | 12. Kalamazoo Co. | 223 | 1.9 |
| 13. Ontonagon Co. | 115 | 1.0 | 13. Macomb Co. | 171 | 1.4 |
| 14. Baraga Co. | 94 | .8 | 14. Midland Co. | 167 | 1.4 |
| 15. Menominee Co. | 58 | .5 | 15. Jackson Co. | 160 | 1.3 |
| All Other | 2982 | 24.8 | 16. Muskegon Co. | 152 | 1.3 |
| Total | 12008 | 100.0 | 17. Charlevoix Co. | 148 | 1.2 |
| | | | 18. Calhoun Co. | 139 | 1.2 |
| | | | 19. Clare Co. | 130 | 1.1 |
| | | | All Other Michigan | 2419 | 20.1 |
| | | | All Other | 2507 | 20.9 |
| | | | Total | 12008 | 100.0 |

DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-05 MACKINAC BRIDGE, MACKINAC COUNTY 1967 SUMMER WEEKEND, AUG. 11-13 DAY 1-SATURDAY

| | |
|----------------------|------|
| ALASKA | 7 |
| ALBERTA | 83 |
| BRITISH COLUMBIA | 46 |
| LABRADOR | 1 |
| MANITOBA | 108 |
| SASKATCHEWAN | 51 |
| N. W. TERRITORY | 1 |
| YUKON | 3 |
| MONTREAL | 96 |
| PENNSYLVANIA | 6 |
| OHIO | 18 |
| NEW JERSEY | 1 |
| MARYLAND | 4 |
| MASSACHUSETTS | 3 |
| NEW YORK | 14 |
| NEW BRUNSWICK | 4 |
| NOVA SCOTIA | 12 |
| ONTARIO | 1524 |
| PRINCE EDWARD ISLAND | 1 |
| QUEBEC | 38 |
| | 2021 |



| | |
|--------------|-----|
| ARIZONA | 2 |
| CALIFORNIA | 14 |
| COLORADO | 11 |
| IDAHO | 3 |
| ILLINOIS | 35 |
| IOWA | 10 |
| KANSAS | 3 |
| MINNESOTA | 317 |
| MISSISSIPPI | 2 |
| MISSOURI | 5 |
| MONTANA | 10 |
| NEBRASKA | 7 |
| NORTH DAKOTA | 21 |
| OREGON | 11 |
| SOUTH DAKOTA | 21 |
| WASHINGTON | 34 |
| WISCONSIN | 452 |
| WYOMING | 7 |
| BERRIEN CO. | 4 |
| KENT CO. | 1 |
| | 961 |

THERE WERE 12008 TOTAL TRIPS
NONE HAD BOTH TERMINALS IN
MACKINAC COUNTY

| | | | |
|------------------|-----|--------------|-----|
| ALABAMA | 2 | KANSAS | 6 |
| CALIFORNIA | 2 | KENTUCKY | 19 |
| DELAWARE | 2 | MINNESOTA | 4 |
| WASHINGTON D. C. | 10 | MISSOURI | 11 |
| FLORIDA | 6 | MONTANA | 2 |
| GEORGIA | 4 | NEBRASKA | 4 |
| ILLINOIS | 160 | NORTH DAKOTA | 1 |
| WASHINGTON | 2 | OREGON | 2 |
| INDIANA | 530 | TEXAS | 2 |
| IOWA | 5 | WISCONSIN | 24 |
| | | | 798 |

| | |
|----------------|------|
| CONNECTICUT | 3 |
| NORTH CAROLINA | 3 |
| OHIO | 1192 |
| PENNSYLVANIA | 53 |
| VIRGINIA | 6 |
| WEST VIRGINIA | 2 |
| MARYLAND | 2 |
| MASSACHUSETTS | 15 |
| NEW JERSEY | 8 |
| TENNESSEE | 7 |
| | 1291 |

| | |
|----------|-----|
| MONTREAL | 14 |
| NEW YORK | 61 |
| ONTARIO | 338 |
| QUEBEC | 2 |
| VERMONT | 3 |
| | 418 |

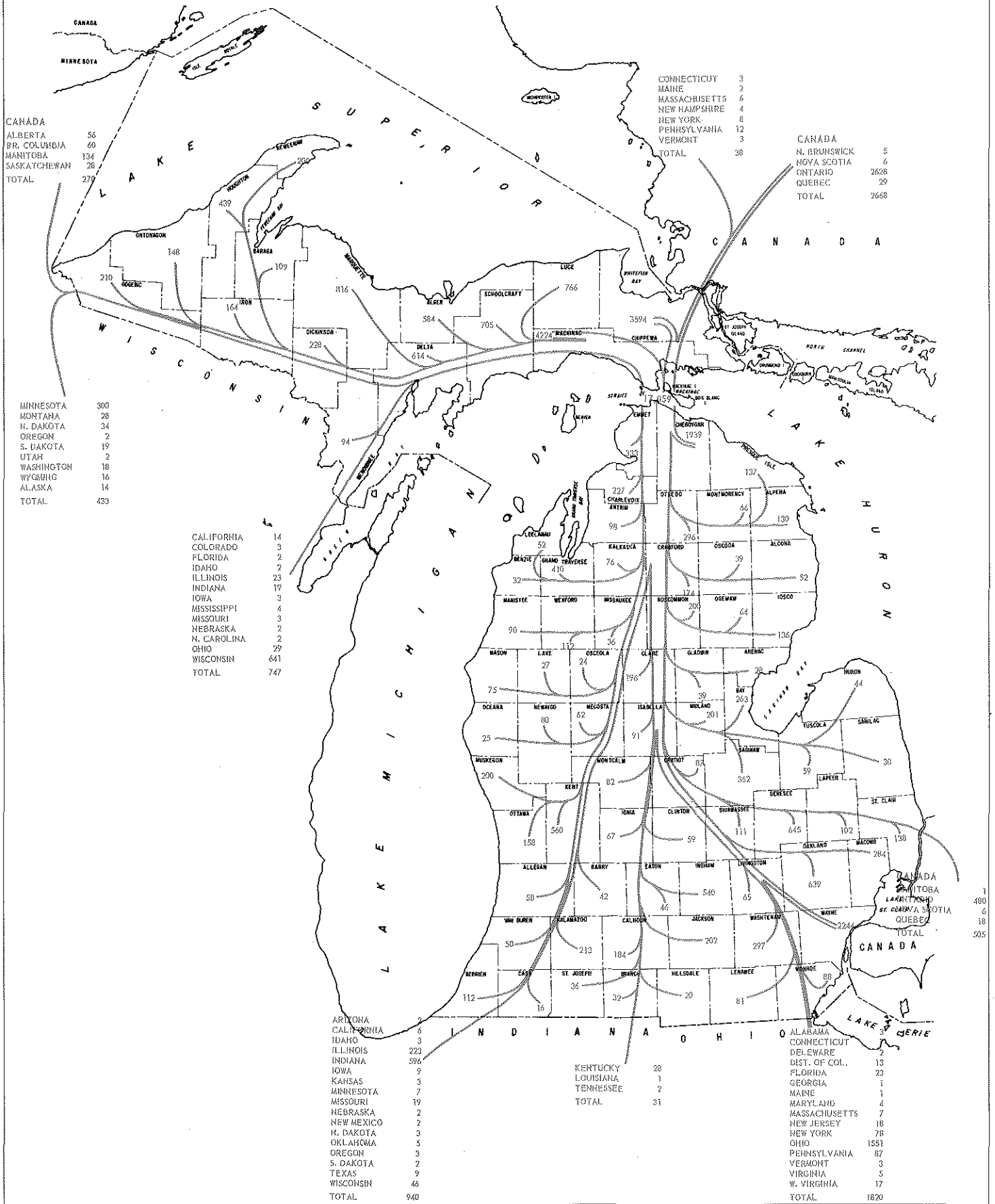
Mackinac Bridge, Mackinac Co.

Date: Saturday, August 16, 1969

M.V.M.S.L. Station No. 4584-06

| TRIP TERMINALS NORTH | | | TRIP TERMINALS SOUTH | | |
|----------------------|-------|------------------------|-----------------------|-------|------------------------|
| | Trips | Percent of Total | | Trips | Percent of Total |
| 1. Mackinac Co. | 4224 | 24.8 | 1. Wayne Co. | 2244 | 13.2 |
| 2. Chippewa Co. | 3594 | 21.1 | 2. Cheboygan Co. | 1939 | 11.4 |
| 3. Marquette Co. | 816 | 4.8 | 3. Genesee Co. | 645 | 3.8 |
| 4. Luce Co. | 766 | 4.5 | 4. Oakland Co. | 639 | 3.7 |
| 5. Schoolcraft Co. | 705 | 4.1 | 5. Kent Co. | 560 | 3.3 |
| 6. Delta Co. | 614 | 3.6 | 6. Ingham Co. | 540 | 3.2 |
| 7. Alger Co. | 584 | 3.4 | 7. Grand Traverse Co. | 410 | 2.4 |
| 8. Houghton Co. | 439 | 2.6 | 8. Saginaw Co. | 362 | 2.1 |
| 9. Dickinson Co. | 228 | 1.3 | 9. Emmet Co. | 333 | 2.0 |
| 10. Gogebic Co. | 210 | 1.2 | 10. Washtenaw Co. | 297 | 1.7 |
| 11. Keweenaw Co. | 200 | 1.2 | 11. Otsego Co. | 296 | 1.7 |
| 12. Iron Co. | 164 | 1.0 | 12. Macomb Co. | 284 | 1.7 |
| 13. Ontonagon Co. | 148 | .9 | 13. Bay Co. | 263 | 1.5 |
| 14. Baraba Co. | 109 | .6 | 14. Charlevoix Co. | 227 | 1.3 |
| 15. Menominee Co. | 94 | .5 | 15. Kalamazoo Co. | 213 | 1.2 |
| All Other | 4164 | 24.4 | 16. Jackson Co. | 202 | 1.2 |
| Total | 17059 | 100.0 | 17. Midland Co. | 201 | 1.2 |
| | | | 18. Muskegon Co. | 200 | 1.2 |
| | | | 19. Roscommon Co. | 200 | 1.2 |
| | | | All Other Michigan | 3708 | 21.7 |
| | | | All Other | 3296 | 19.3 |
| | | | Total | 17059 | 100.0 |

**DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-06
ON MACKINAC BRIDGE, MACKINAC COUNTY
1969 SUMMER WEEKEND - SATURDAY, AUGUST 16
FILE NO. 357-C**



Mackinac Bridge, Mackinac Co.

Sunday, Aug. 12, 1967

Sunday, Aug. 17, 1969

Trip Terminals North

| | <u>Trips</u> | <u>Percent of Total</u> | <u>Trips</u> | <u>Percent of Total</u> |
|---------------------------------|--------------|---------------------------------|--------------|---------------------------------|
| Chippewa & Mackinac Counties | 3,943 | 42.1 | 7,097 | 50.3 |
| All Other U. P. Co.s | 3,337 | 36.1 | 4,261 | 30.3 |
| All Other (Out-State) | 2,037 | 21.8 | 2,735 | 19.4 |
| Total | 9,353 | 100.0 | 14,093 | 100.0 |

Trip Terminals South

| | | | | |
|-----------------------|-------|-------|--------|-------|
| Wayne Co. | 1,600 | 17.1 | 1,650 | 11.7 |
| Cheboygan Co. | 490 | 5.2 | 2,062 | 14.6 |
| All Other L. P. Co.s | 5,891 | 63.0 | 8,663 | 61.5 |
| All Other (Out-State) | 1,372 | 14.7 | 1,718 | 12.2 |
| Total | 9,353 | 100.0 | 14,093 | 100.0 |

MACKINAC BRIDGE, MACKINAC COUNTY

| | <u>1967</u> | Sun. Aug. <u>1969</u> | <u>Percentage Change</u> |
|---|-------------|--------------------------|------------------------------|
| Total Trips | 9,353 | 14,093 | +50.6 |
| Chippewa Co. Trips | 2,611 | 3,202 | +22.6 |
| Mackinac Co. Trips | 1,332 | 3,895 | +192.4 |
| Cheboygan Co. Trips | 490 | 2,062 | +320.8 |
| Emmet Co. Trips | 192 | 480 | +150.0 |
| <u>Trips Interchanging Between:</u> | | | |
| Cheboygan Co. and Mackinac Co. | 79 | 731 | +825.3 |
| Cheboygan Co. and Chippewa Co. | 160 | 503 | +214.4 |
| Emmet Co. and Mackinac Co. | 32 | 170 | +431.1 |
| Emmet Co. and Chippewa Co. | 56 | 130 | +132.1 |

Mackinac Bridge, Mackinac Co.

Date: Sunday, Aug. 12, 1967

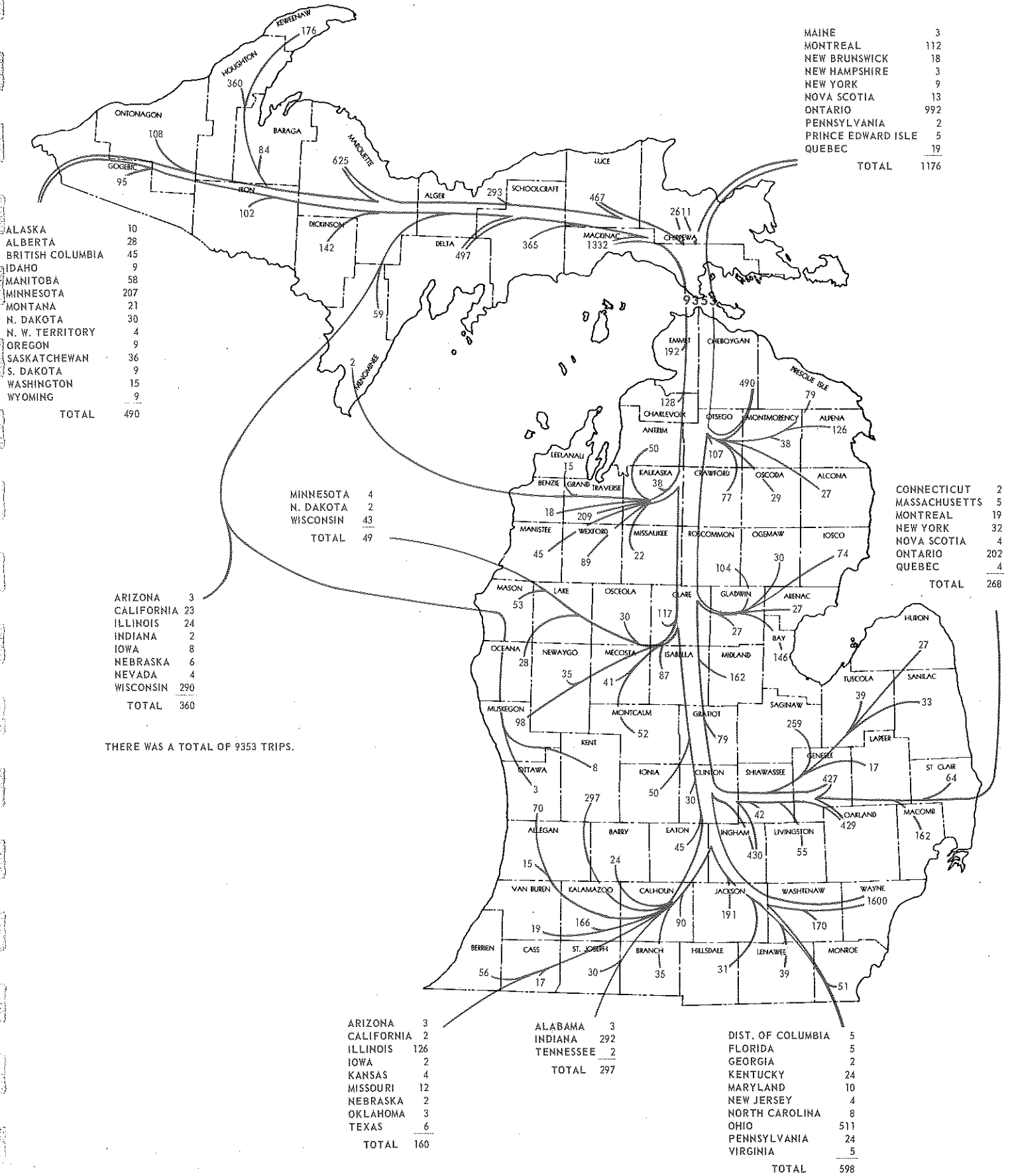
M.V.M.S.L. Station No.

4584-05

| TRIP TERMINALS NORTH | | | TRIP TERMINAL SOUTH | | |
|----------------------|-------|------------------|-----------------------|-------|------------------|
| | Trips | Percent of Total | | Trips | Percent of Total |
| 1. Chippewa Co. | 2611 | 27.9 | 1. Wayne Co. | 1600 | 17.1 |
| 2. Mackinac Co. | 1332 | 14.2 | 2. Cheboygan Co. | 490 | 5.2 |
| 3. Marquette Co. | 625 | 6.7 | 3. Ingham Co. | 430 | 4.6 |
| 4. Delta Co. | 497 | 5.3 | 4. Oakland Co. | 429 | 4.6 |
| 5. Luce Co. | 467 | 5.0 | 5. Genesee Co. | 427 | 4.6 |
| 6. Schoolcraft Co. | 365 | 3.9 | 6. Kent Co. | 296 | 3.2 |
| 7. Houghton Co. | 360 | 3.9 | 7. Saginaw Co. | 259 | 2.8 |
| 8. Alger Co. | 293 | 3.1 | 8. Grand Traverse Co. | 209 | 2.2 |
| 9. Keweenaw Co. | 176 | 1.9 | 9. Emmet Co. | 192 | 2.1 |
| 10. Dickinson Co. | 142 | 1.5 | 10. Jackson Co. | 191 | 2.0 |
| 11. Ontonagon Co. | 108 | 1.2 | 11. Washtenaw Co. | 170 | 1.8 |
| 12. Iron Co. | 102 | 1.1 | 12. Kalamazoo | 166 | 1.8 |
| 13. Gogebic | 95 | 1.0 | 13. Macomb Co. | 162 | 1.7 |
| 14. Baraga Co. | 84 | .9 | 14. Midland Co. | 162 | 1.7 |
| 15. Menominee Co. | 59 | .6 | 15. Bay Co. | 146 | 1.6 |
| All Other | 2037 | 21.8 | 16. Charlevoix Co. | 128 | 1.4 |
| Total | 9353 | 100.0 | 17. Alpena Co. | 126 | 1.3 |
| | | | 18. Clare Co. | 117 | 1.3 |
| | | | 19. Ostego Co. | 107 | 1.1 |
| | | | All Other Michigan | 2174 | 23.2 |
| | | | All Other | 1372 | 14.7 |
| | | | Total | 9353 | 100.0 |

LIBRARY
 michigan department of
 state highways
 LANSING

DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-05 ON MACKINAC BRIDGE, MACKINAC COUNTY 1967 SUMMER WEEKEND, AUG. 11-13 DAY 2-SUNDAY



| | |
|--------------------|-------------|
| MAINE | 3 |
| MONTREAL | 112 |
| NEW BRUNSWICK | 18 |
| NEW HAMPSHIRE | 3 |
| NEW YORK | 9 |
| NOVA SCOTIA | 13 |
| ONTARIO | 992 |
| PENNSYLVANIA | 2 |
| PRINCE EDWARD ISLE | 5 |
| QUEBEC | 19 |
| TOTAL | 1176 |

| | |
|------------------|------------|
| ALASKA | 10 |
| ALBERTA | 28 |
| BRITISH COLUMBIA | 45 |
| IDAHO | 9 |
| MANITOBA | 58 |
| MINNESOTA | 207 |
| MONTANA | 21 |
| N. DAKOTA | 30 |
| N. W. TERRITORY | 4 |
| OREGON | 9 |
| SASKATCHEWAN | 36 |
| S. DAKOTA | 9 |
| WASHINGTON | 15 |
| WYOMING | 9 |
| TOTAL | 490 |

| | |
|--------------|-----------|
| MINNESOTA | 4 |
| N. DAKOTA | 2 |
| WISCONSIN | 43 |
| TOTAL | 49 |

| | |
|--------------|------------|
| ARIZONA | 3 |
| CALIFORNIA | 23 |
| ILLINOIS | 24 |
| INDIANA | 2 |
| IOWA | 8 |
| NEBRASKA | 6 |
| NEVADA | 4 |
| WISCONSIN | 290 |
| TOTAL | 360 |

| | |
|---------------|------------|
| CONNECTICUT | 2 |
| MASSACHUSETTS | 5 |
| MONTREAL | 19 |
| NEW YORK | 32 |
| NOVA SCOTIA | 4 |
| ONTARIO | 202 |
| QUEBEC | 4 |
| TOTAL | 268 |

THERE WAS A TOTAL OF 9353 TRIPS.

| | |
|--------------|------------|
| ARIZONA | 3 |
| CALIFORNIA | 2 |
| ILLINOIS | 126 |
| IOWA | 2 |
| KANSAS | 4 |
| MISSOURI | 12 |
| NEBRASKA | 2 |
| OKLAHOMA | 3 |
| TEXAS | 6 |
| TOTAL | 160 |

| | |
|--------------|------------|
| ALABAMA | 3 |
| INDIANA | 292 |
| TENNESSEE | 2 |
| TOTAL | 297 |

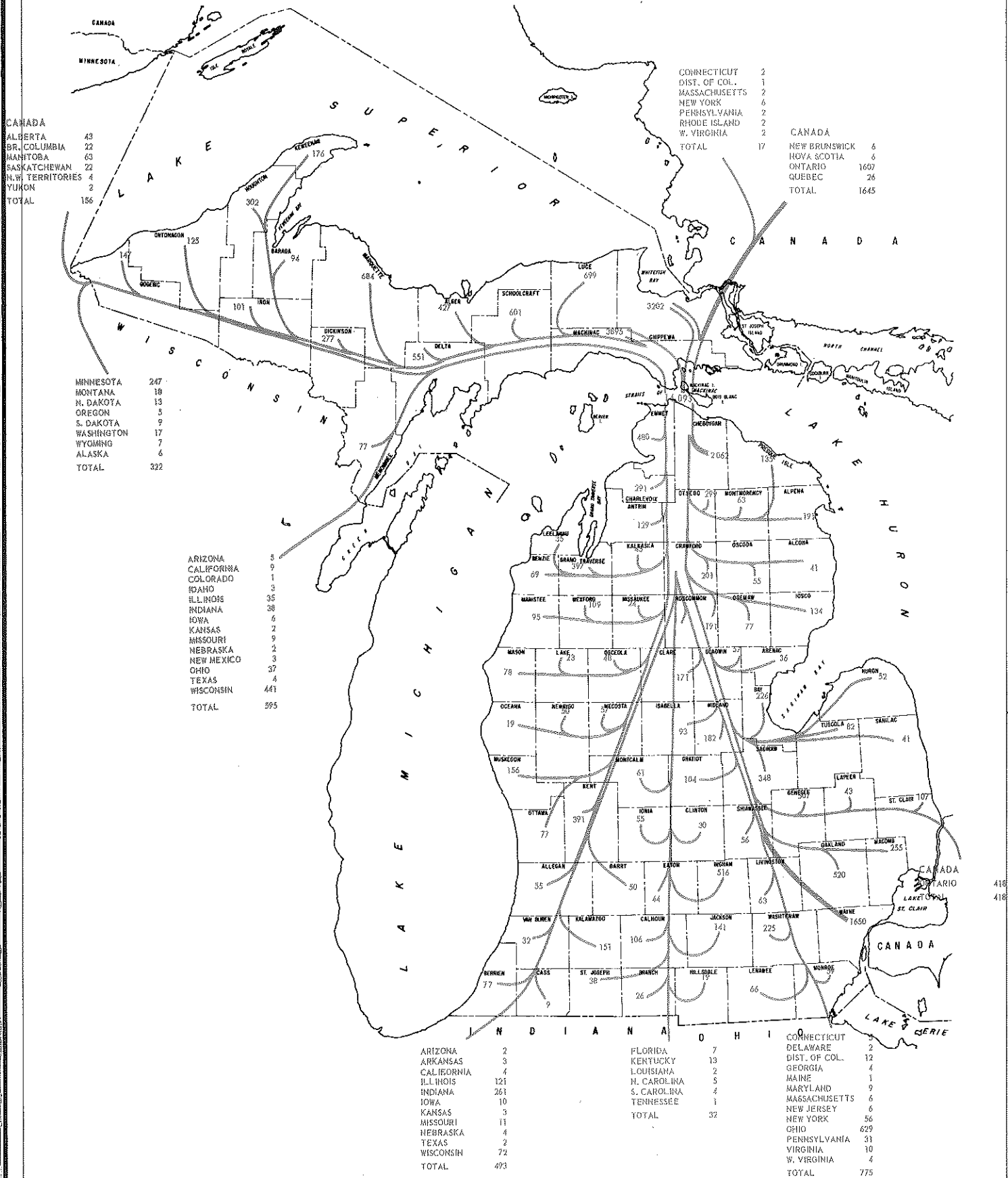
| | |
|-------------------|------------|
| DIST. OF COLUMBIA | 5 |
| FLORIDA | 5 |
| GEORGIA | 2 |
| KENTUCKY | 24 |
| MARYLAND | 10 |
| NEW JERSEY | 4 |
| NORTH CAROLINA | 8 |
| OHIO | 511 |
| PENNSYLVANIA | 24 |
| VIRGINIA | 5 |
| TOTAL | 598 |

Mackinac Bridge, Mackinac Co.

Date: Sunday, August 17, 1969 M.V.M.S.L. Station No. 4584-06

| TRIP TERMINALS NORTH | | | TRIP TERMINALS SOUTH | | |
|----------------------|-------|------------------|-----------------------|-------|------------------|
| | Trips | Percent of Total | | Trips | Percent of Total |
| 1. Mackinac Co. | 3895 | 27.6 | 1. Cheboygan Co. | 2062 | 14.6 |
| 2. Chippewa Co. | 3202 | 22.7 | 2. Wayne Co. | 1650 | 11.7 |
| 3. Luce Co. | 699 | 5.0 | 3. Oakland Co. | 520 | 3.7 |
| 4. Marquette Co. | 684 | 4.9 | 4. Ingham Co. | 516 | 3.7 |
| 5. Schoolcraft Co. | 601 | 4.3 | 5. Genesee Co. | 507 | 3.6 |
| 6. Delta Co. | 551 | 3.9 | 6. Emmet Co. | 480 | 3.4 |
| 7. Alger Co. | 427 | 3.0 | 7. Grand Traverse Co. | 397 | 2.8 |
| 8. Houghton Co. | 302 | 2.1 | 8. Kent Co. | 391 | 2.8 |
| 9. Dickinson Co. | 277 | 2.0 | 9. Saginaw Co. | 348 | 2.5 |
| 10. Keweenaw Co. | 176 | 1.3 | 10. Ostego Co. | 299 | 2.1 |
| 11. Gogebic Co. | 147 | 1.0 | 11. Charlevoix Co. | 291 | 2.1 |
| 12. Ontonagon Co. | 125 | .9 | 12. Macomb Co. | 255 | 1.8 |
| 13. Iron Co. | 101 | .7 | 13. Bay Co. | 226 | 1.6 |
| 14. Baraga Co. | 94 | .7 | 14. Washtenaw Co. | 225 | 1.6 |
| 15. Menominee Co. | 77 | .5 | 15. Crawford Co. | 201 | 1.4 |
| All Other | 2735 | 19.4 | 16. Alpena Co. | 191 | 1.4 |
| Total | 14093 | 100.0 | 17. Roscommon Co. | 191 | 1.3 |
| | | | 18. Midland Co. | 182 | 1.3 |
| | | | 19. Clare Co. | 171 | 1.2 |
| | | | All Other Michigan | 3266 | 23.2 |
| | | | All Other | 1718 | 12.2 |
| | | | Total | 14093 | 100.0 |

**DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-06
ON MACKINAC BRIDGE, MACKINAC COUNTY
1969 SUMMER WEEKEND SUNDAY AUGUST 17
FILE NO. 357-D**



| | |
|------------------|-----|
| CANADA | |
| ALBERTA | 43 |
| BR. COLUMBIA | 22 |
| MANITOBA | 63 |
| SASKATCHEWAN | 22 |
| N.W. TERRITORIES | 4 |
| YUKON | 2 |
| TOTAL | 156 |

| | |
|------------|-----|
| MINNESOTA | 247 |
| MONTANA | 16 |
| N. DAKOTA | 13 |
| OREGON | 3 |
| S. DAKOTA | 9 |
| WASHINGTON | 17 |
| WYOMING | 7 |
| ALASKA | 6 |
| TOTAL | 322 |

| | |
|------------|-----|
| ARIZONA | 3 |
| CALIFORNIA | 9 |
| COLORADO | 1 |
| IDAHO | 3 |
| ILLINOIS | 35 |
| INDIANA | 28 |
| IOWA | 6 |
| KANSAS | 2 |
| MISSOURI | 9 |
| NEBRASKA | 2 |
| NEW MEXICO | 3 |
| OHIO | 32 |
| TEXAS | 4 |
| WISCONSIN | 441 |
| TOTAL | 295 |

| | |
|---------------|------|
| CONNECTICUT | 2 |
| DIST. OF COL. | 1 |
| MASSACHUSETTS | 2 |
| NEW YORK | 6 |
| PENNSYLVANIA | 2 |
| RHODE ISLAND | 2 |
| W. VIRGINIA | 2 |
| TOTAL | 17 |
| CANADA | |
| NEW BRUNSWICK | 6 |
| NOVA SCOTIA | 6 |
| ONTARIO | 1607 |
| QUEBEC | 26 |
| TOTAL | 1645 |

| | |
|------------|-----|
| ARIZONA | 2 |
| ARKANSAS | 3 |
| CALIFORNIA | 4 |
| ILLINOIS | 121 |
| INDIANA | 261 |
| IOWA | 10 |
| KANSAS | 3 |
| MISSOURI | 11 |
| NEBRASKA | 4 |
| TEXAS | 2 |
| WISCONSIN | 72 |
| TOTAL | 493 |

| | |
|-------------|----|
| FLORIDA | 7 |
| KENTUCKY | 13 |
| LOUISIANA | 2 |
| N. CAROLINA | 5 |
| S. CAROLINA | 1 |
| TENNESSEE | 1 |
| TOTAL | 32 |

| | |
|---------------|-----|
| CONNECTICUT | 2 |
| DELAWARE | 2 |
| DIST. OF COL. | 12 |
| GEORGIA | 4 |
| MAINE | 1 |
| MARYLAND | 9 |
| MASSACHUSETTS | 6 |
| NEW JERSEY | 6 |
| NEW YORK | 56 |
| OHIO | 629 |
| PENNSYLVANIA | 31 |
| VIRGINIA | 10 |
| W. VIRGINIA | 4 |
| TOTAL | 775 |

MACKINAC BRIDGE, MACKINAC CO.

Date: Thursday, August 14, 1969

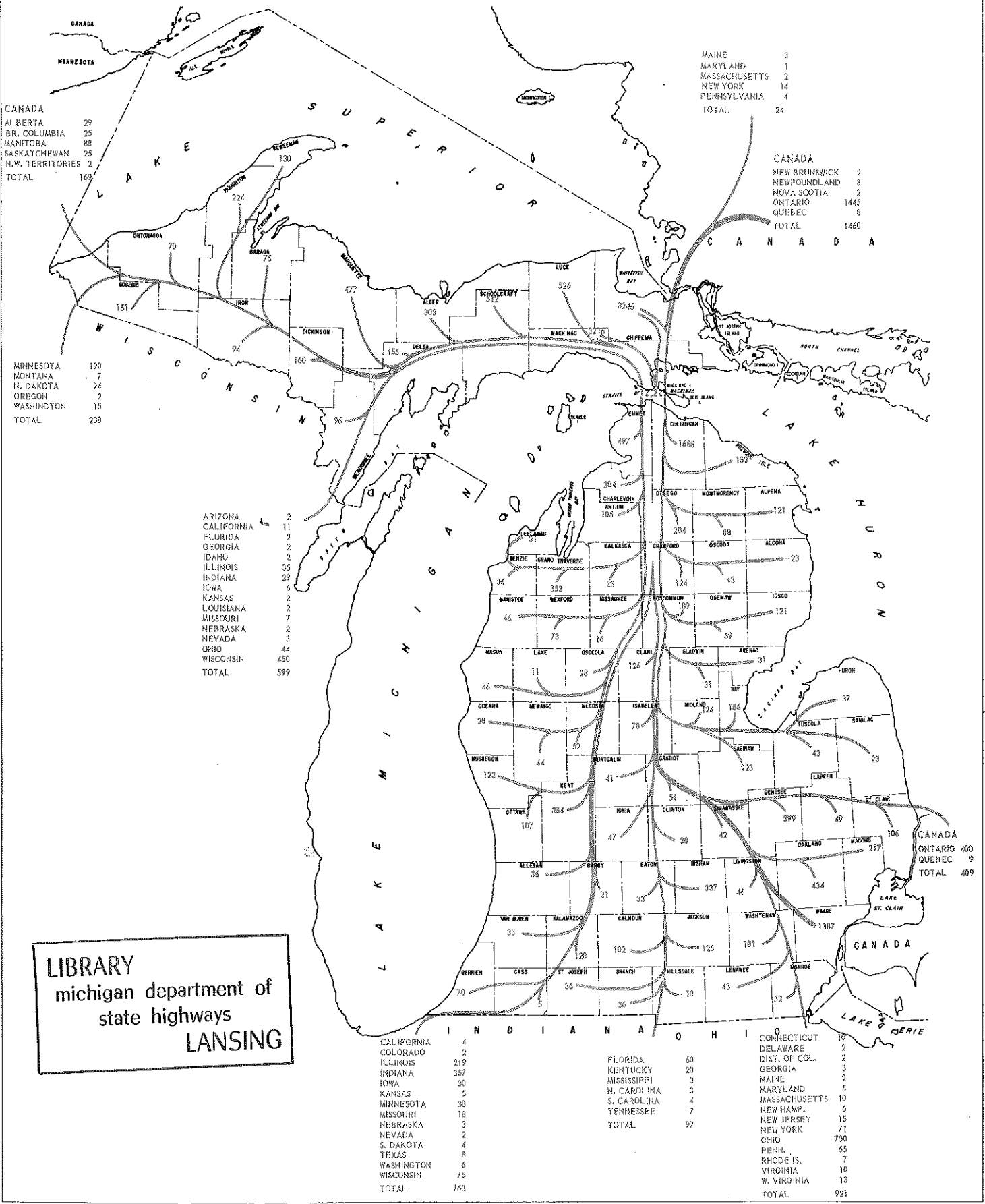
M.V.M.S.L. Station No. 4584-06

| Trip Terminals North | | | Trip Terminals South | | |
|----------------------|-------|------------------|----------------------|-------|------------------|
| COUNTY | TRIPS | Percent of Total | COUNTY | TRIPS | Percent of Total |
| 1. Chippewa | 3246 | 26.6 | 1. Cheboygan | 1688 | 13.8 |
| 2. Mackinac | 3216 | 26.3 | 2. Wayne | 1387 | 11.3 |
| 3. Luce | 526 | 4.3 | 3. Emmet | 497 | 4.1 |
| 4. Schoolcraft | 512 | 4.2 | 4. Oakland | 434 | 3.5 |
| 5. Marquette | 477 | 3.9 | 5. Genesee | 399 | 3.3 |
| 6. Delta | 455 | 3.7 | 6. Kent | 384 | 3.1 |
| 7. Alger | 303 | 2.5 | 7. Grd.Traverse | 353 | 2.9 |
| 8. Houghton | 224 | 1.8 | 8. Ingham | 337 | 2.8 |
| 9. Dickinson | 160 | 1.3 | 9. Saginaw | 223 | 1.8 |
| 10. Gogebic | 151 | 1.2 | 10. Macomb | 217 | 1.8 |
| 11. Keweenaw | 130 | 1.0 | 11. Charlevoix | 204 | 1.7 |
| 12. Menominee | 96 | 0.8 | 12. Otsego | 204 | 1.7 |
| 13. Iron | 94 | 0.8 | 13. Roscommon | 189 | 1.5 |
| 14. Barage | 75 | 0.6 | 14. Washtenaw | 181 | 1.5 |
| 15. Ontonagon | 70 | 0.6 | 15. Bay | 156 | 1.3 |
| All Other | 2490 | 20.4 | All Other Mich. | 3182 | 26.0 |
| Total | 12225 | 100.0 | All Other | 2190 | 17.9 |
| | | | Total | 12225 | 100.0 |

Trips Interchanging Between:

| | |
|--------------------------------|-----|
| Cheboygan Co. and Mackinac Co. | 430 |
| Cheboygan Co. and Chippewa Co. | 465 |
| Emmet Co. and Mackinac Co. | 160 |
| Emmet Co. and Chippewa Co. | 149 |

DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-06
ON MACKINAC BRIDGE, MACKINAC COUNTY
1969 SUMMER WEEKDAY THURSDAY AUGUST 14
FILE NUMBER 357-A



LIBRARY
michigan department of
state highways
LANSING

MACKINAC BRIDGE, MACKINAC CO.

Date: Friday, August 15, 1969

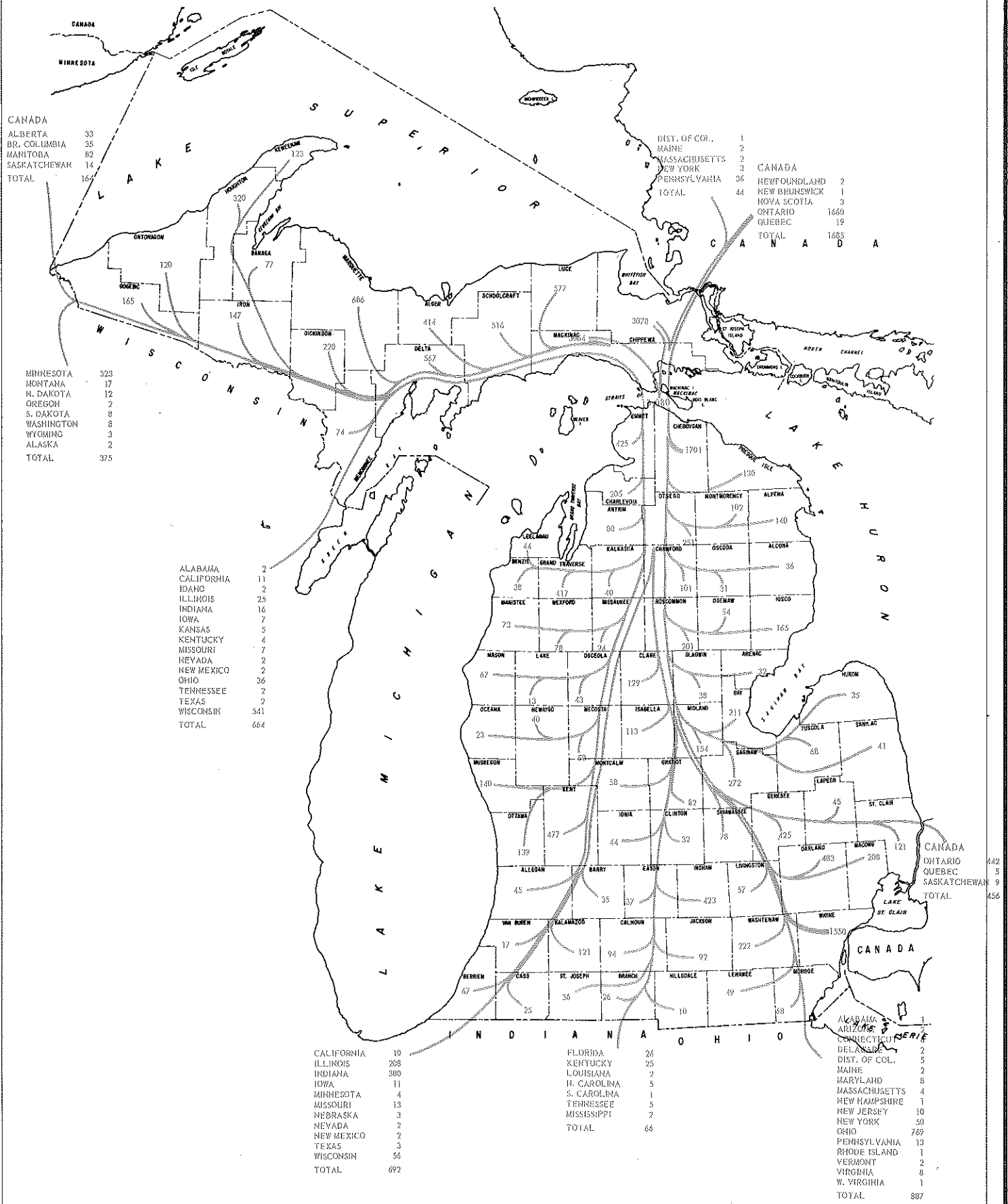
M.V.M.S.L. Station No. 4584-06

| Trip Terminals North | | | Trip Terminals South | | |
|----------------------|-------|------------------|----------------------|-------|------------------|
| COUNTY | Trips | Percent of Total | COUNTY | Trips | Percent of Total |
| 1. Chippewa | 3078 | 23.5 | 1. Cheboygan | 1701 | 13.0 |
| 2. Mackinaw | 3064 | 23.4 | 2. Wayne | 1550 | 11.8 |
| 3. Marquette | 686 | 5.3 | 3. Oakland | 483 | 3.7 |
| 4. Luce | 577 | 4.4 | 4. Kent | 477 | 3.6 |
| 5. Delta | 567 | 4.3 | 5. Emmet | 425 | 3.3 |
| 6. Schoolcraft | 516 | 4.0 | 6. Genesee | 425 | 3.3 |
| 7. Alger | 414 | 3.2 | 7. Ingham | 423 | 3.2 |
| 8. Houghton | 320 | 2.4 | 8. Grd. Traverse | 417 | 3.2 |
| 9. Dickinson | 220 | 1.7 | 9. Saginaw | 272 | 2.1 |
| 10. Gogebic | 165 | 1.3 | 10. Otsego | 251 | 1.9 |
| 11. Iron | 147 | 1.1 | 11. Washtenaw | 222 | 1.7 |
| 12. Keweenaw | 123 | 0.9 | 12. Bay | 211 | 1.6 |
| 13. Ontonagon | 120 | 0.9 | 13. Macomb | 208 | 1.6 |
| 14. Baraga | 77 | 0.6 | 14. Charlevoix | 205 | 1.6 |
| 15. Menominee | 74 | 0.6 | 15. Roscommon | 201 | 1.5 |
| All Other | 2932 | 22.4 | All Other Michigan | 3508 | 26.8 |
| Total | 13080 | 100.0 | All Other | 2101 | 16.1 |
| | | | Total | 13080 | 100.0 |

Trips Interchanging Between:

| | |
|--------------------------------|-----|
| Cheboygan Co. and Mackinac Co. | 513 |
| Cheboygan Co. and Chippewa Co. | 497 |
| Emmet Co. and Mackinac Co. | 141 |
| Emmet Co. and Chippewa Co. | 108 |

DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION NO. 4584-06
 ON MACKINAC BRIDGE, MACKINAC COUNTY
 1969 SUMMER WEEKDAY - FRIDAY, AUGUST 15
 FILE NO. 357-B



MACKINAC BRIDGE, MACKINAC CO.

Date: Average November Weekday, 1969 M.V.M.S.L. Station No. 4584-07

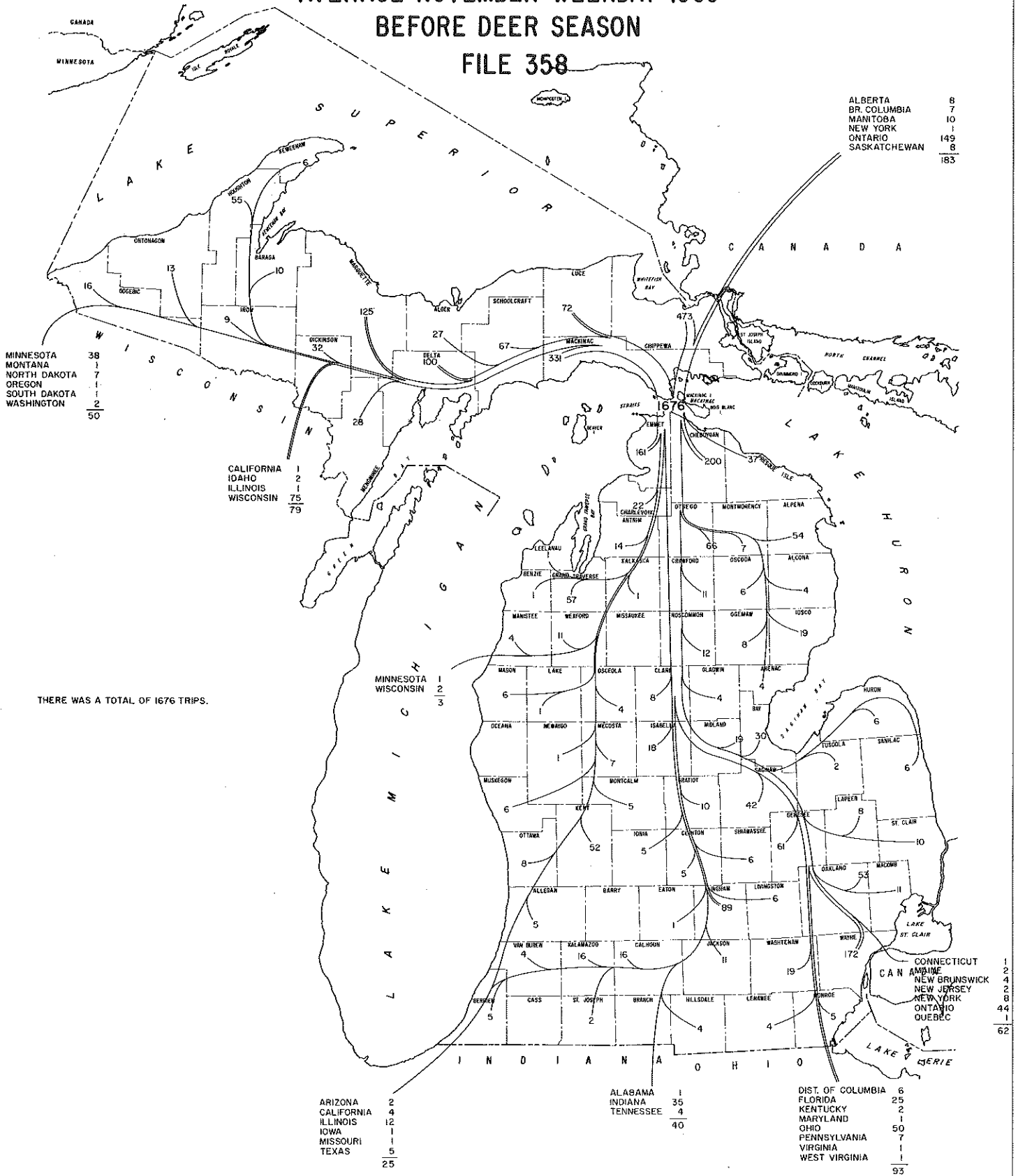
| Trip Terminals North | | | Trip Terminals South | | |
|----------------------|------|------------------|----------------------|------|------------------|
| Trips | | Percent of Total | Trips | | Percent of Total |
| 1. Chippewa Co. | 473 | 28.2 | 1. Cheboygan Co. | 200 | 11.9 |
| 2. Mackinac Co. | 331 | 19.7 | 2. Wayne Co. | 172 | 10.3 |
| 3. Marquette Co. | 125 | 7.5 | 3. Emmet Co. | 161 | 9.6 |
| 4. Delta Co. | 100 | 6.0 | 4. Ingham Co. | 89 | 5.3 |
| 5. Luce Co. | 72 | 4.3 | 5. Otsego Co. | 66 | 3.9 |
| 6. Schoolcraft Co. | 67 | 4.0 | 6. Genesee Co. | 61 | 3.7 |
| 7. Houghton Co. | 55 | 3.3 | 7. Grd.Traverse Co. | 57 | 3.4 |
| 8. Dickinson Co. | 32 | 1.9 | 8. Alpena Co. | 54 | 3.2 |
| 9. Menominee Co. | 28 | 1.7 | 9. Oakland Co. | 53 | 3.2 |
| 10. Alger Co. | 27 | 1.6 | 10. Kent Co. | 52 | 3.1 |
| 11. Gogebic Co. | 16 | .9 | 11. Saginaw Co. | 42 | 2.5 |
| 12. Ontonagon Co. | 13 | .8 | 12. Presque Isle Co. | 37 | 2.2 |
| 13. Baraga Co. | 10 | .6 | 13. Bay Co. | 30 | 1.8 |
| 14. Iron Co. | 9 | .5 | 14. Charlevoix Co. | 22 | 1.3 |
| 15. Keweenaw Co. | 6 | .4 | 15. Washtenaw Co. | 19 | 1.1 |
| ALL OTHER | 312 | 18.6 | ALL OTHER MICHIGAN | 338 | 20.2 |
| TOTAL | 1676 | 100.0 | ALL OTHER | 223 | 13.3 |
| | | | TOTAL | 1676 | 100.0 |

Trips Interchanging Between:

| | |
|--------------------------------|----|
| Cheboygan Co. and Mackinac Co. | 92 |
| Cheboygan Co. and Chippewa Co. | 67 |
| Emmet Co. and Mackinac Co. | 60 |
| Emmet Co. and Chippewa Co. | 60 |

DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-07 ON MACKINAC BRIDGE, MACKINAC COUNTY AVERAGE NOVEMBER WEEKDAY 1969 BEFORE DEER SEASON

FILE 358



MACKINAC BRIDGE, MACKINAC CO.

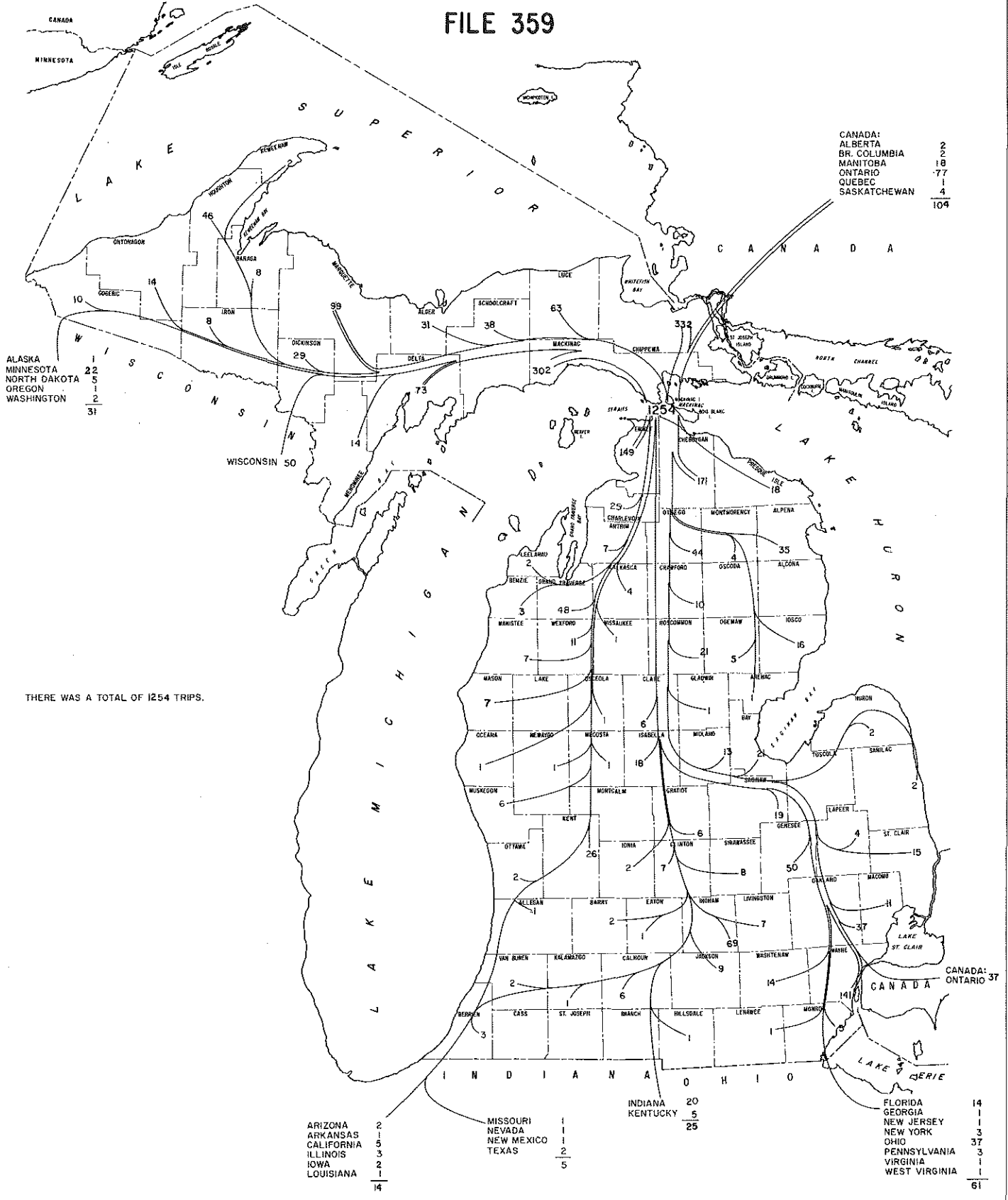
Date: Average February Weekday, 1970 M.V.M.S.L. Station No. 4584-08

| Trip Terminals North | | | Trip Terminals South | | |
|----------------------|------|---------------------------|----------------------|------|---------------------------|
| | | Percent Trips of Total | | | Percent Trips of Total |
| 1. Chippewa Co. | 332 | 26.5 | 1. Cheboygan Co. | 171 | 13.6 |
| 2. Mackinac Co. | 302 | 24.1 | 2. Emmet Co. | 149 | 11.9 |
| 3. Marquette Co. | 99 | 7.9 | 3. Wayne Co. | 141 | 11.2 |
| 4. Delta Co. | 73 | 5.8 | 4. Ingham Co. | 69 | 5.5 |
| 5. Luce Co. | 63 | 5.0 | 5. Genesee Co. | 50 | 4.0 |
| 6. Houghton Co. | 46 | 3.7 | 6. Grd.Traverse Co. | 48 | 3.8 |
| 7. Schoolcraft Co. | 38 | 3.0 | 7. Otsego Co. | 44 | 3.5 |
| 8. Alger Co. | 31 | 2.5 | 8. Oakland Co. | 37 | 3.0 |
| 9. Dickinson Co. | 29 | 2.3 | 9. Alpena Co. | 35 | 2.8 |
| 10. Menominee Co. | 14 | 1.1 | 10. Kent Co. | 26 | 2.1 |
| 11. Ontonagon Co. | 14 | 1.1 | 11. Charlevoix Co. | 25 | 2.0 |
| 12. Gogebic Co. | 10 | .8 | 12. Bay Co. | 21 | 1.7 |
| 13. Baraga Co. | 8 | .6 | 13. Roscommon Co. | 21 | 1.7 |
| 14. Iron Co. | 8 | .6 | 14. Saginaw Co. | 19 | 1.5 |
| 15. Keweenaw Co. | 2 | .2 | 15. Presque Isle Co. | 18 | 1.4 |
| ALL OTHER | 185 | 14.8 | ALL OTHER MICHIGAN | 238 | 19.0 |
| TOTAL | 1254 | 100.0 | ALL OTHER | 142 | 11.3 |
| | | | TOTAL | 1254 | 100.0 |

Trips Interchanging Between:

| | |
|--------------------------------|----|
| Cheboygan Co. and Mackinac Co. | 77 |
| Cheboygan Co. and Chippewa Co. | 46 |
| Emmet Co. and Mackinac Co. | 78 |
| Emmet Co. and Chippewa Co. | 46 |

DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-08 ON MACKINAC BRIDGE, MACKINAC COUNTY AVERAGE FEBRUARY WEEKDAY 1970 FILE 359



Mackinac Bridge, Mackinac Co.

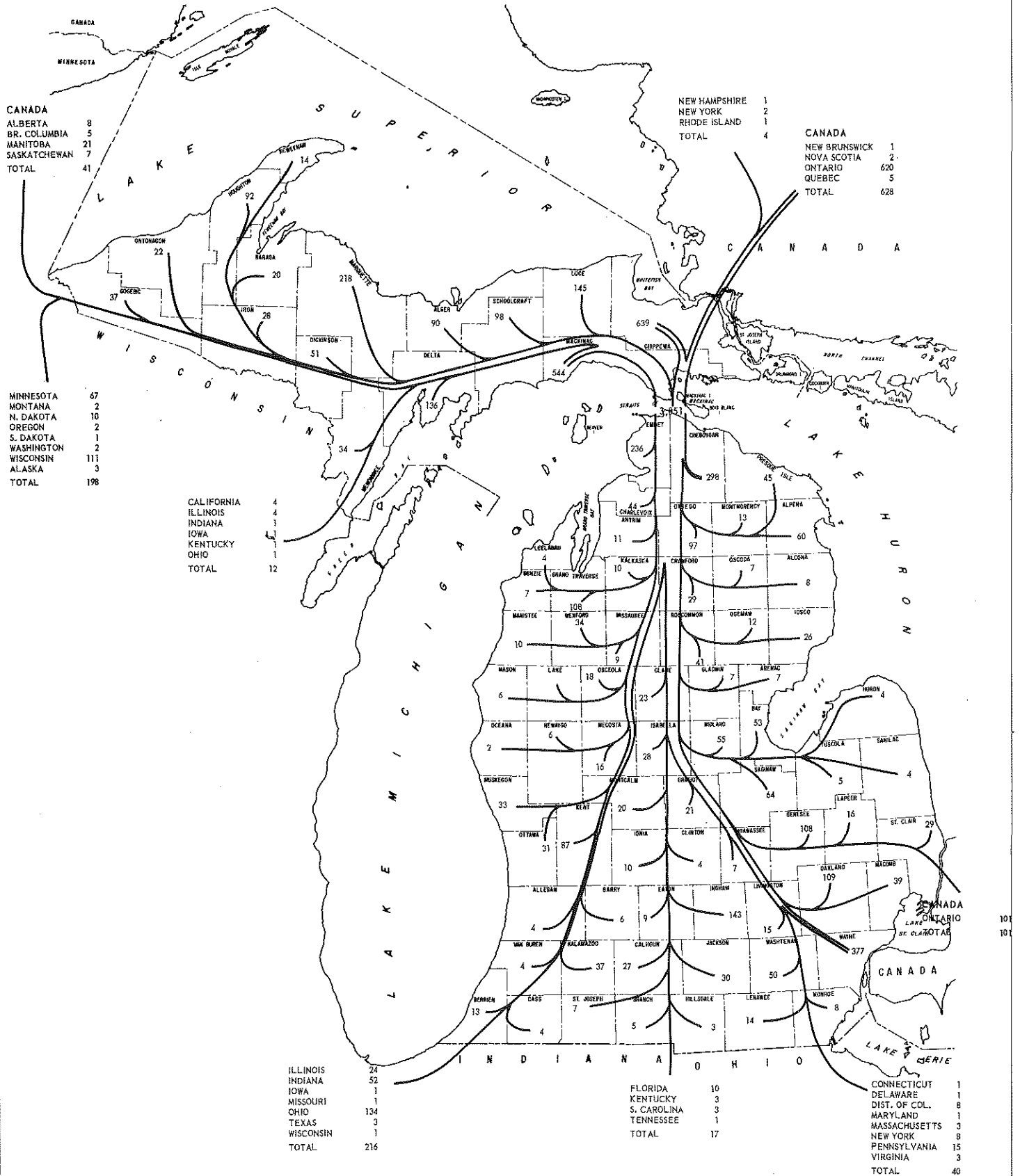
Date: Average May Weekday, 1970 M.V.M.S.L. Station No. 4584-09

| Trip Terminals North | | | | Trip Terminals South | | | |
|----------------------|-----------------|-------|---------------------|----------------------|--------------------|-------|---------------------|
| | | Trips | Percent of Total | | | Trips | Percent of Total |
| 1. | Chippewa Co. | 639 | 20.9 | 1. | Wayne Co. | 377 | 12.4 |
| 2. | Mackinac Co. | 544 | 17.8 | 2. | Cheboygan Co. | 298 | 9.8 |
| 3. | Marquette Co. | 218 | 7.1 | 3. | Emmet Co. | 236 | 7.7 |
| 4. | Luce Co. | 145 | 4.8 | 4. | Ingham Co. | 143 | 4.7 |
| 5. | Delta Co. | 136 | 4.5 | 5. | Oakland Co. | 109 | 3.6 |
| 6. | Schoolcraft Co. | 98 | 3.2 | 6. | Genesee Co. | 108 | 3.5 |
| 7. | Houghton Co. | 92 | 3.0 | 7. | Grd. Traverse Co. | 108 | 3.5 |
| 8. | Alger Co. | 90 | 3.0 | 8. | Otsego Co. | 97 | 3.2 |
| 9. | Dickinson Co. | 51 | 1.7 | 9. | Kent Co. | 87 | 2.8 |
| 10. | Gogebic Co. | 37 | 1.2 | 10. | Saginaw Co. | 64 | 2.1 |
| 11. | Menominee Co. | 34 | 1.1 | 11. | Alpena Co. | 60 | 2.0 |
| 12. | Iron Co. | 28 | .9 | 12. | Midland Co. | 55 | 1.8 |
| 13. | Ontonagon Co. | 22 | .7 | 13. | Bay Co. | 53 | 1.7 |
| 14. | Baraga Co. | 20 | .7 | 14. | Washtenaw Co. | 50 | 1.6 |
| 15. | Keweenaw Co. | 14 | .5 | 15. | Presque Isle Co. | 45 | 1.5 |
| | All Other | 883 | 28.9 | | All Other Michigan | 787 | 25.8 |
| | Total | 3051 | 100.0 | | All Other | 374 | 12.3 |
| | | | | | Total | 3051 | 100.0 |

Trips Interchanging Between:

| | |
|--------------------------------|-----|
| Cheboygan Co. and Mackinac Co. | 101 |
| Cheboygan Co. and Chippewa Co. | 93 |
| Emmet Co. and Mackinac Co. | 102 |
| Emmet Co. and Chippewa Co. | 79 |

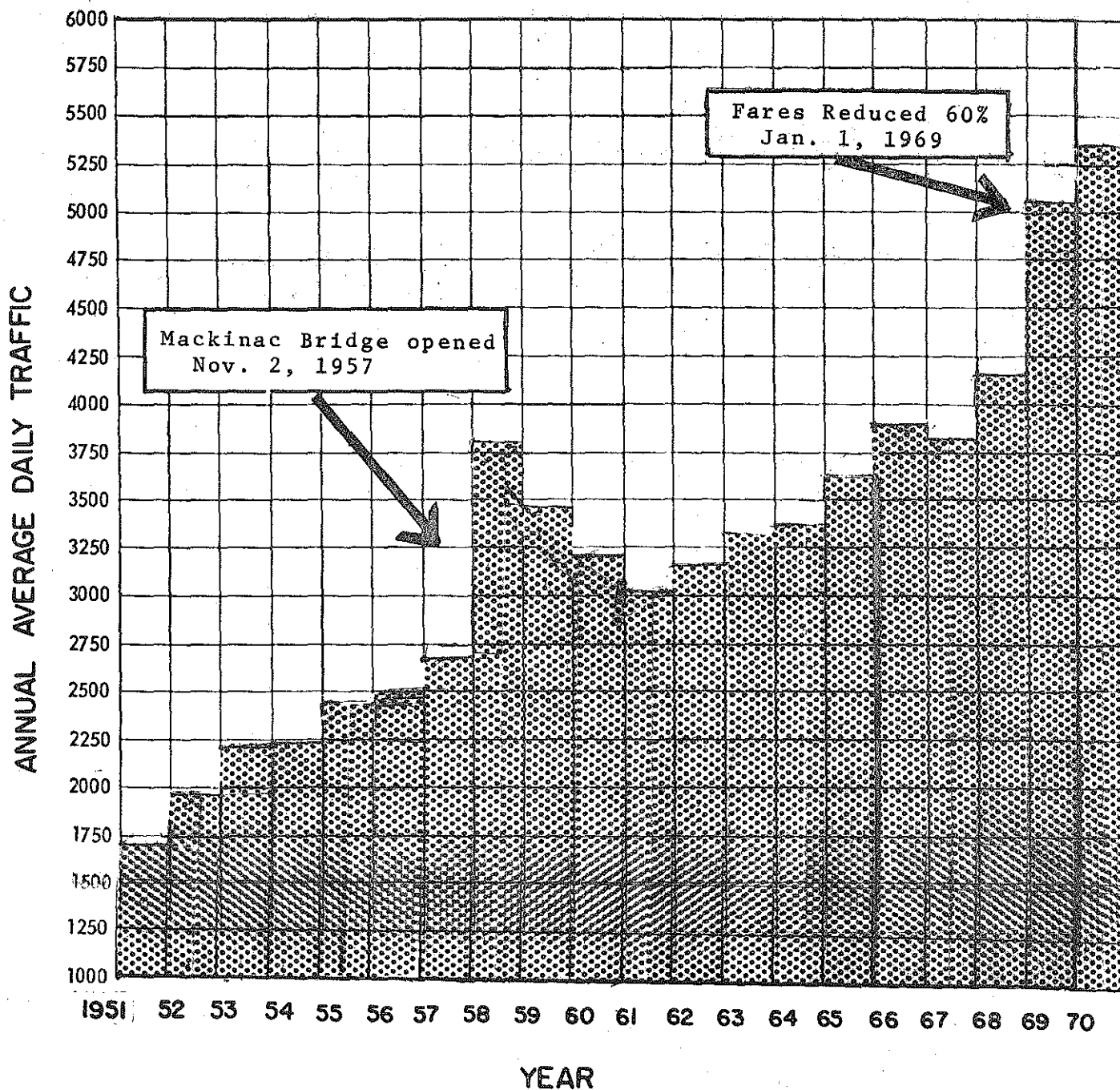
**DISTRIBUTION OF TRUNKLINE TRAFFIC PASSING THROUGH M.V.M.S.L. STATION 4584-09
ON MACKINAC BRIDGE, MACKINAC COUNTY
1970 MAY WEEKDAY
FILE NO. 560**



TREND OF TRAFFIC BY YEARS

MACKINAC BRIDGE, MACKINAC COUNTY

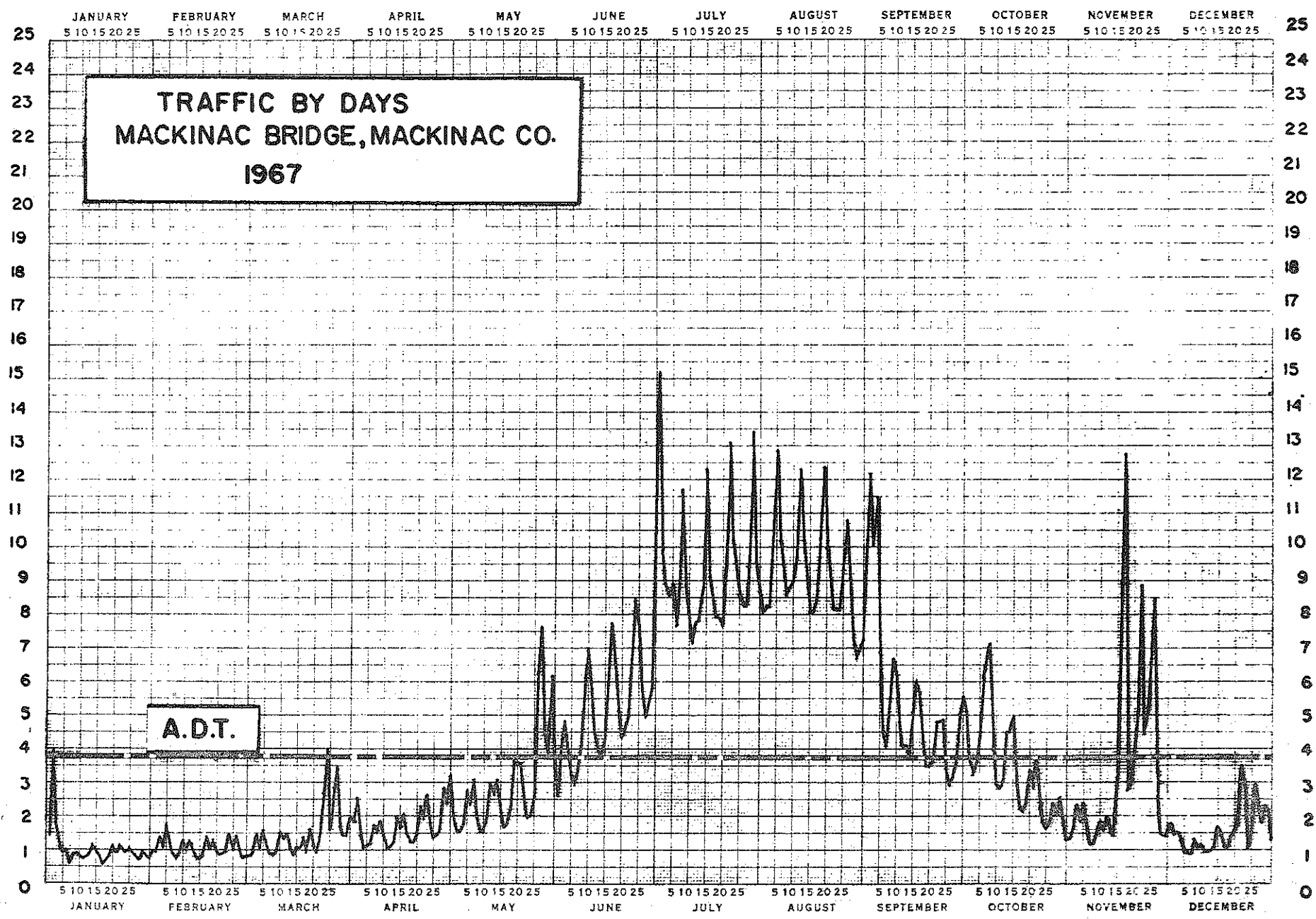
1951 — 1970



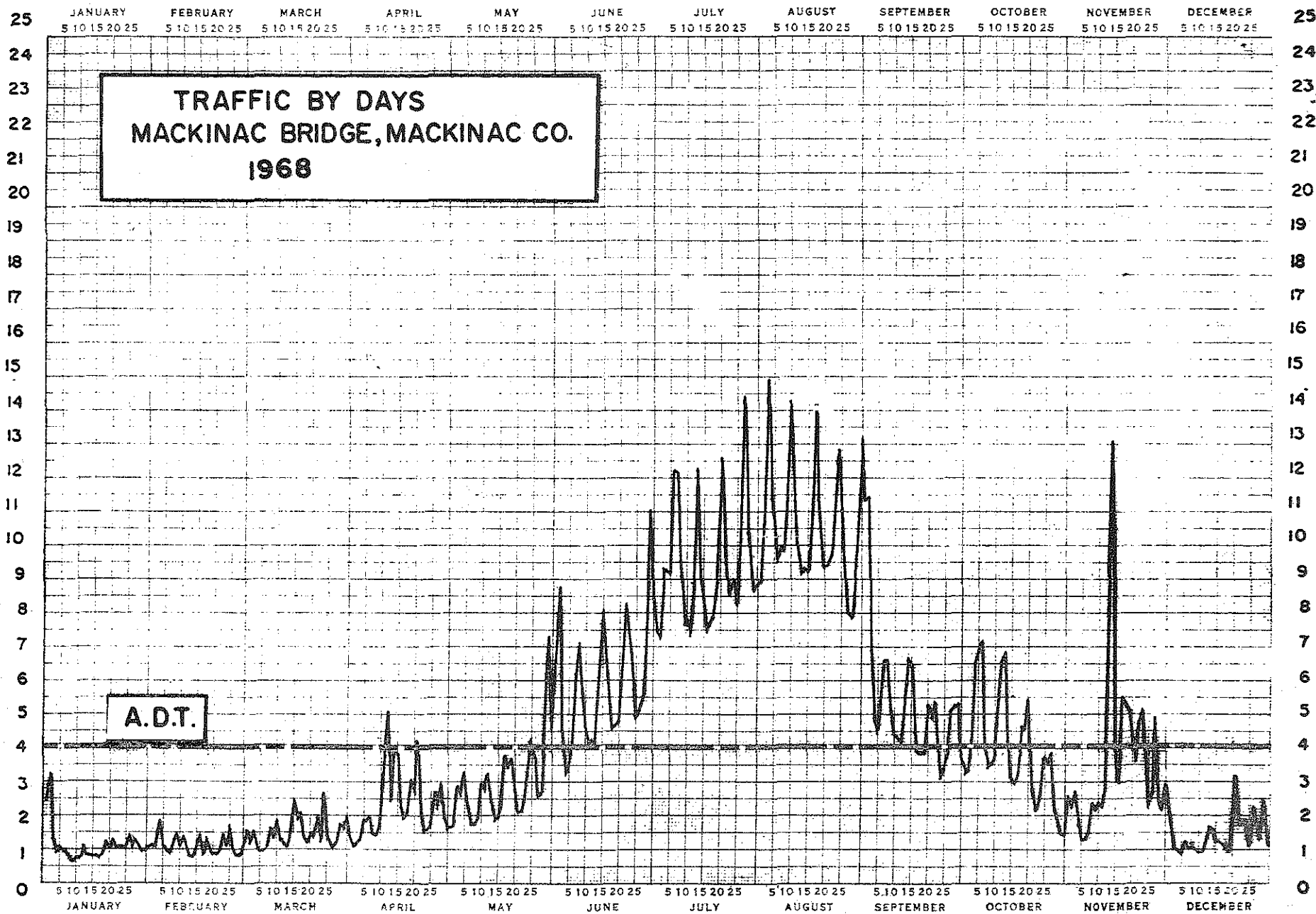
Tend of Traffic on Route I-75, State Ferry and Mackinac Bridge,
Machinac County.

| <u>YEAR</u> | <u>ADT</u> | <u>PERCENT OF YEARLY INCREASE</u> |
|-------------|------------|---|
| 1951 | 1,719 | |
| 1952 | 1,987 | 15.6 |
| 1953 | 2,225 | 12.0 |
| 1954 | 2,244 | 0.9 |
| 1955 | 2,389 | 6.5 |
| 1956 | 2,411 | 0.9 |
| 1957 | 2,571 | 6.6 (Mackinac Bridge opened Nov. 2, 1957) |
| 1958 | 3,809 | 48.2 |
| 1959 | 3,413 | -10.4 |
| 1960 | 3,212 | -5.9 |
| 1961 | 3,010 | -6.3 |
| 1962 | 3,133 | 4.1 |
| 1963 | 3,284 | 4.8 |
| 1964 | 3,421 | 4.2 |
| 1965 | 3,641 | 6.4 |
| 1966 | 3,883 | 6.6 |
| 1967 | 3,835 | -1.2 |
| 1968 | 4,119 | 7.4 |
| 1969 | 5,032 | 22.2 (Fares reduced 60 percent Jan. 1, 1969) |
| 1970 | 5,339 | 6.1 |

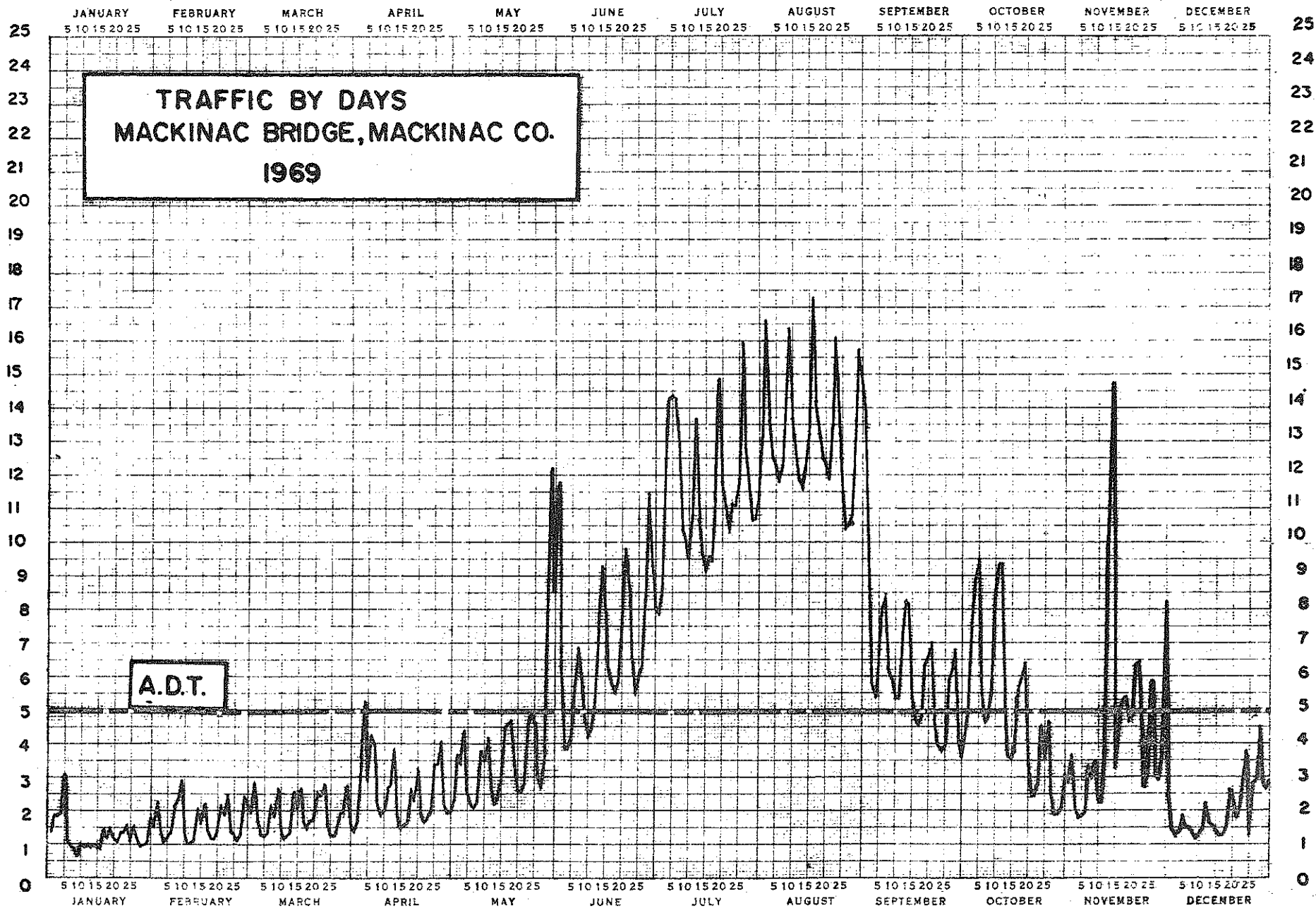
NUMBER OF VEHICLES IN THOUSANDS



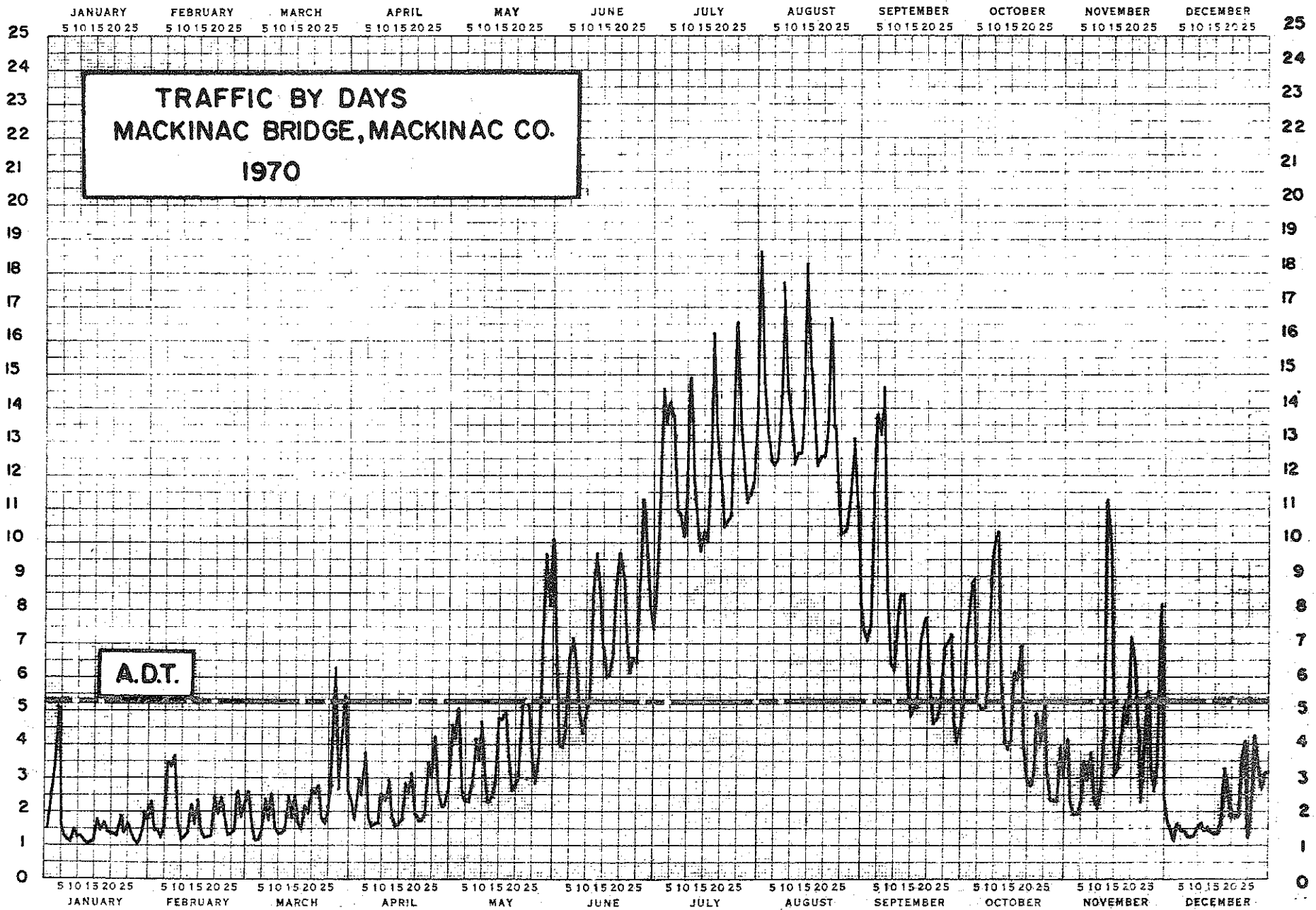
NUMBER OF VEHICLES IN THOUSANDS



NUMBER OF VEHICLES IN THOUSANDS



NUMBER OF VEHICLES IN THOUSANDS



Mackinac Bridge, Mackinac Co.

Percentage of Total by Year by Classification Group

| | <u>% CLASS. 1</u> | <u>% CLASS. 2</u> | <u>% CLASS. 3</u> |
|------------------|-------------------|-------------------|-------------------|
| 1957 (Nov.-Dec.) | 88.7 | 4.7 | 6.6 |
| 1958 | 91.2 | 3.9 | 4.9 |
| 1959 | 88.9 | 4.7 | 6.4 |
| 1960 | 88.5 | 5.1 | 6.4 |
| 1961 | 87.5 | 5.9 | 6.6 |
| 1962 | 87.8 | 6.2 | 6.0 |
| 1963 | 87.8 | 6.8 | 5.4 |
| 1964 | 87.7 | 7.2 | 5.1 |
| 1965 | 87.3 | 7.7 | 5.0 |
| 1966 | 86.8 | 8.4 | 4.8 |
| 1967 | 85.9 | 9.2 | 4.9 |
| 1968 | 85.5 | 9.6 | 4.9 |
| 1969 | 85.0 | 10.2 | 4.8 |
| 1970 | 84.8 | 10.6 | 4.6 |

CLASSIFICATION
(1)

Car
Truck 2 Axles 4 Tires
Motorcycle

(2)

Car with Trailer or Coach
3 Axles
4 Axles

(3)

Truck
2 Axles 6 Tires
3 Axle Single Unit
Truck Combination
3 Axles
4 Axles
5 Axles
More than 5 Axles
Bus

Mackinac Bridge, Mackinac Co.

TOTAL VEHICLES

% OF YEARLY INCREASE

| | | |
|------------------|-----------|-------|
| 1957 (Nov.-Dec.) | 140,518 | |
| 1958 | 1,390,390 | |
| 1959 | 1,245,887 | -11.6 |
| 1960 | 1,179,083 | -5.7 |
| 1961 | 1,098,828 | -7.3 |
| 1962 | 1,143,201 | 4.0 |
| 1963 | 1,198,566 | 4.8 |
| 1964 | 1,251,643 | 4.4 |
| 1965 | 1,328,641 | 6.2 |
| 1966 | 1,418,202 | 6.7 |
| 1967 | 1,400,292 | -1.3 |
| 1968 | 1,506,789 | 7.6 |
| 1969 | 1,836,383 | 21.9 |
| 1970 | 1,947,862 | 6.1 |

Mackinac Bridge, Mackinac Co.

CLASSIFICATION (1)

| | <u>SUBTOTALS</u> | <u>% OF YEARLY INCREASE</u> |
|------------------|------------------|-----------------------------|
| 1957 (Nov.-Dec.) | 124,581 | |
| 1958 | 1,267,412 | |
| 1959 | 1,108,109 | -14.4 |
| 1960 | 1,042,825 | -6.3 |
| 1961 | 961,049 | -8.5 |
| 1962 | 1,003,231 | 4.4 |
| 1963 | 1,052,794 | 4.9 |
| 1964 | 1,097,929 | 4.3 |
| 1965 | 1,159,925 | 5.6 |
| 1966 | 1,231,001 | 6.1 |
| 1967 | 1,203,411 | -2.3 |
| 1968 | 1,288,039 | 7.0 |
| 1969 | 1,561,772 | 21.3 |
| 1970 | 1,651,684 | 5.8 |

CLASSIFICATION
(1)

Car

Truck 2 Axles 4 Tires

Motorcycle

Mackinac Bridge, Mackinac Co.

CLASSIFICATION (2)

| | <u>SUBTOTALS</u> | <u>% OF YEARLY INCREASE</u> |
|------------------|------------------|-----------------------------|
| 1957 (Nov.-Dec.) | 6,670 | |
| 1958 | 54,561 | |
| 1959 | 58,907 | 8.0 |
| 1960 | 60,365 | 2.5 |
| 1961 | 64,575 | 7.0 |
| 1962 | 71,880 | 11.3 |
| 1963 | 81,893 | 13.9 |
| 1964 | 90,314 | 10.3 |
| 1965 | 102,698 | 13.7 |
| 1966 | 119,804 | 16.7 |
| 1967 | 129,136 | 7.8 |
| 1968 | 145,442 | 12.6 |
| 1969 | 187,264 | 28.8 |
| 1970 | 207,063 | 10.8 |

CLASSIFICATION
(2)

Car with Trailer or Coach

3 Axles

4 Axles

Mackinac Bridge, Mackinac Co.

CLASSIFICATION (3)

| | <u>SUBTOTALS</u> | <u>% OF YEARLY INCREASE</u> |
|------------------|------------------|-----------------------------|
| 1957 (Nov.-Dec.) | 9,267 | |
| 1958 | 68,417 | |
| 1959 | 78,871 | 15.3 |
| 1960 | 75,893 | -3.9 |
| 1961 | 73,204 | -3.7 |
| 1962 | 68,090 | -7.5 |
| 1963 | 63,879 | -6.6 |
| 1964 | 63,400 | -0.8 |
| 1965 | 66,018 | 4.1 |
| 1966 | 67,397 | 2.1 |
| 1967 | 67,745 | 0.5 |
| 1968 | 73,308 | 8.2 |
| 1969 | 87,347 | 19.2 |
| 1970 | 89,115 | 2.0 |

CLASSIFICATION
(3)

Truck

2 Axles 6 Tires

3 Axle Single Unit

Truck Combination

3 Axles

4 Axles

5 Axles

More than 5 Axles

Bus

Mackinac Bridge Authority

Year: 1957 (Nov.-Dec.)

CLASSIFICATION
(1)

| | | |
|-----------------------|---------|-------|
| Car | 117,152 | |
| Truck 2 Axles 4 Tires | 7,421 | |
| Motorcycle | 8 | |
| Total | 124,581 | 88.7% |

(2)

| | | |
|---------------------------|-------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 6,448 | |
| 4 Axles | 222 | |
| Total | 6,670 | 4.7% |

(3)

| | | |
|--------------------|---------|--------|
| Truck | | |
| 2 Axles 6 Tires | 2,426 | |
| 3 Axle Single Unit | 146 | |
| Truck Combination | | |
| 3 Axles | 2,845 | |
| 4 Axles | 1,851 | |
| 5 Axles | 507 | |
| More than 5 Axles | 410 | |
| Bus | 1,082 | |
| Total | 9,267 | 6.6% |
| Total Vehicles | 140,518 | 100.0% |

LIBRARY
michigan department of
state highways
LANSING

Mackinac Bridge Authority

Year: 1958

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,240,824 | |
| Truck 2 Axles 4 Tires | 25,202 | |
| Motorcycle | 1,386 | |
| Total | 1,267,412 | 91.2% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 52,886 | |
| 4 Axles | 1,675 | |
| Total | 54,561 | 3.9% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 14,859 | |
| 3 Axle Single Unit | 1,438 | |
| Truck Combination | | |
| 3 Axles | 16,024 | |
| 4 Axles | 19,555 | |
| 5 Axles | 7,487 | |
| More than 5 Axles | 3,410 | |
| Bus | 5,644 | |
| Total | 68,417 | 4.9% |
| Total Vehicles | 1,390,390 | 100.0% |

Mackinac Bridge Authority

Year: 1959

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,079,743 | |
| Truck 2 Axles 4 Tires | 27,328 | |
| Motorcycle | 1,038 | |
| Total | 1,108,109 | 88.9% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 57,107 | |
| 4 Axles | 1,800 | |
| Total | 58,907 | 4.7% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 15,221 | |
| 3 Axle Single Unit | 1,522 | |
| Truck Combination | | |
| 3 Axles | 18,281 | |
| 4 Axles | 20,651 | |
| 5 Axles | 12,752 | |
| More than 5 Axles | 5,149 | |
| Bus | 5,295 | |
| Total | 78,871 | 6.4% |
| Total Vehicles | 1,245,887 | 100.0% |

Mackinac Bridge Authority

Year: 1960

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,010,828 | |
| Truck 2 Axles 4 Tires | 31,151 | |
| Motorcycle | 846 | |
| Total | 1,042,825 | 88.5% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 58,560 | |
| 4 Axles | 1,805 | |
| Total | 60,365 | 5.1% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 15,069 | |
| 3 Axle Single Unit | 1,842 | |
| Truck Combination | | |
| 3 Axles | 16,756 | |
| 4 Axles | 16,892 | |
| 5 Axles | 14,638 | |
| More than 5 Axles | 5,510 | |
| Bus | 5,186 | |
| Total | 75,893 | 6.4% |
| Total Vehicles | 1,179,083 | 100.0% |

Mackinac Bridge Authority

Year: 1961

CLASSIFICATION
(1)

| | | |
|-----------------------|---------|-------|
| Car | 928,351 | |
| Truck 2 Axles 4 Tires | 31,934 | |
| Motorcycle | 764 | |
| Total | 961,049 | 87.5% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 62,675 | |
| 4 Axles | 1,900 | |
| Total | 64,575 | 5.9% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 14,595 | |
| 3 Axle Single Unit | 1,625 | |
| Truck Combination | | |
| 3 Axles | 13,811 | |
| 4 Axles | 16,614 | |
| 5 Axles | 14,576 | |
| More than 5 Axles | 7,066 | |
| Bus | 4,917 | |
| Total | 73,204 | 6.6% |
| Total Vehicles | 1,098,828 | 100.0% |

Mackinac Bridge Authority

Year: 1962

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 966,877 | |
| Truck 2 Axles 4 Tires | 35,595 | |
| Motorcycle | 759 | |
| Total | 1,003,231 | 87.8% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 69,506 | |
| 4 Axles | 2,374 | |
| Total | 71,880 | 6.2% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 14,322 | |
| 3 Axle Single Unit | 2,505 | |
| Truck Combination | | |
| 3 Axles | 10,822 | |
| 4 Axles | 15,434 | |
| 5 Axles | 14,404 | |
| More than 5 Axles | 5,298 | |
| Bus | 5,305 | |
| Total | 68,090 | 6.0% |
| Total Vehicles | 1,143,201 | 100.0% |

Mackinac Bridge Authority

Year: 1963

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,011,733 | |
| Truck 2 Axles 4 Tires | 40,294 | |
| Motorcycle | 767 | |
| Total | 1,052,794 | 87.8% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 78,971 | |
| 4 Axles | 2,922 | |
| Total | 81,893 | 6.8% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 13,785 | |
| 3 Axle Single Unit | 2,265 | |
| Truck Combination | | |
| 3 Axles | 9,677 | |
| 4 Axles | 13,791 | |
| 5 Axles | 14,472 | |
| More than 5 Axles | 5,393 | |
| Bus | 4,496 | |
| Total | 63,879 | 5.4% |
| Total Vehicles | 1,198,566 | 100.0% |

Mackinac Bridge Authority

Year: 1964

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,049,993 | |
| Truck 2 Axles 4 Tires | 47,019 | |
| Motorcycle | 917 | |
| Total | 1,097,929 | 87.7% |

(2)

| | | |
|---------------------------|--------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 87,343 | |
| 4 Axles | 2,971 | |
| Total | 90,314 | 7.2% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 13,797 | |
| 3 Axle Single Unit | 1,828 | |
| Truck Combination | | |
| 3 Axles | 9,060 | |
| 4 Axles | 13,528 | |
| 5 Axles | 15,116 | |
| More than 5 Axles | 5,082 | |
| Bus | 4,989 | |
| Total | 63,400 | 5.1% |
| Total Vehicles | 1,251,643 | 100.0% |

Mackinac Bridge Authority

Year: 1965

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,098,968 | |
| Truck 2 Axles 4 Tires | 59,645 | |
| Motorcycle | 1,312 | |
| Total | 1,159,925 | 87.3% |

(2)

| | | |
|---------------------------|---------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 98,806 | |
| 4 Axles | 3,892 | |
| Total | 102,698 | 7.7% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 14,909 | |
| 3 Axle Single Unit | 1,815 | |
| Truck Combination | | |
| 3 Axles | 9,278 | |
| 4 Axles | 11,362 | |
| 5 Axles | 17,607 | |
| More than 5 Axles | 6,403 | |
| Bus | 4,644 | |
| Total | 66,018 | 5.0% |
| Total Vehicles | 1,328,641 | 100.0% |

Mackinac Bridge Authority

Year: 1966

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,155,132 | |
| Truck 2 Axles 4 Tires | 73,904 | |
| Motorcycle | 1,965 | |
| Total | 1,231,001 | 86.8% |

(2)

| | | |
|---------------------------|---------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 114,323 | |
| 4 Axles | 5,481 | |
| Total | 119,804 | 8.4% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 14,694 | |
| 3 Axle Single Unit | 1,961 | |
| Truck Combination | | |
| 3 Axles | 8,520 | |
| 4 Axles | 11,182 | |
| 5 Axles | 20,619 | |
| More than 5 Axles | 5,465 | |
| Bus | 4,956 | |
| Total | 67,397 | 4.8% |
| Total Vehicles | 1,418,202 | 100.0% |

Mackinac Bridge Authority

Year: 1967

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,117,155 | |
| Truck 2 Axles 4 Tires | 84,352 | |
| Motorcycle | 1,904 | |
| Total | 1,203,411 | 85.9% |

(2)

| | | |
|---------------------------|---------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 123,216 | |
| 4 Axles | 5,920 | |
| Total | 129,136 | 9.2% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 14,377 | |
| 3 Axle Single Unit | 1,959 | |
| Truck Combination | | |
| 3 Axles | 7,598 | |
| 4 Axles | 10,818 | |
| 5 Axles | 21,175 | |
| More than 5 Axles | 6,642 | |
| Bus | 5,176 | |
| Total | 67,745 | 4.9% |
| Total Vehicles | 1,400,292 | 100.0% |

Mackinac Bridge Authority

Year: 1968

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,181,536 | |
| Truck 2 Axles 4 Tires | 104,206 | |
| Motorcycle | 2,297 | |
| Total | 1,288,039 | 85.5% |

(2)

| | | |
|---------------------------|---------|------|
| Car with Trailer or Coach | | |
| 3 Axles | 137,510 | |
| 4 Axles | 7,932 | |
| Total | 145,442 | 9.6% |

(3)

| | | |
|--------------------|-----------|--------|
| Truck | | |
| 2 Axles 6 Tires | 15,247 | |
| 3 Axle Single Unit | 1,977 | |
| Truck Combination | | |
| 3 Axles | 7,683 | |
| 4 Axles | 10,230 | |
| 5 Axles | 24,670 | |
| More than 5 Axles | 8,163 | |
| Bus | 5,338 | |
| Total | 73,308 | 4.9% |
| Total Vehicles | 1,506,789 | 100.0% |

Mackinac Bridge Authority

Year: 1969

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,422,887 | |
| Truck 2 Axles 4 Tires | 135,340 | |
| Motorcycle | 3,545 | |
| Total | 1,561,772 | 85.0% |

(2)

Car with Trailer or Coach

| | | |
|---------|---------|-------|
| 3 Axles | 174,180 | |
| 4 Axles | 13,084 | |
| Total | 187,264 | 10.2% |

(3)

Truck

| | | |
|--------------------|--------|--|
| 2 Axles 6 Tires | 18,335 | |
| 3 Axle Single Unit | 2,160 | |

Truck Combination

| | | |
|-------------------|--------|--|
| 3 Axles | 6,451 | |
| 4 Axles | 11,218 | |
| 5 Axles | 33,889 | |
| More than 5 Axles | 9,517 | |

| | | |
|-----|-------|--|
| Bus | 5,777 | |
|-----|-------|--|

| | | |
|-------|--------|------|
| Total | 87,347 | 4.8% |
|-------|--------|------|

| | | |
|----------------|-----------|--------|
| Total Vehicles | 1,836,383 | 100.0% |
|----------------|-----------|--------|

Mackinac Bridge Authority

Year: 1970

CLASSIFICATION
(1)

| | | |
|-----------------------|-----------|-------|
| Car | 1,489,135 | |
| Truck 2 Axles 4 Tires | 155,190 | |
| Motorcycle | 7,359 | |
| Total | 1,651,684 | 84.8% |

(2)

Car with Trailer or Coach

| | | |
|---------|---------|-------|
| 3 Axles | 191,154 | |
| 4 Axles | 15,909 | |
| Total | 207,063 | 10.6% |

(3)

Truck

| | | |
|--------------------|--------|--|
| 2 Axles 6 Tires | 19,120 | |
| 3 Axle Single Unit | 2,148 | |

Truck Combination

| | | |
|-------------------|--------|--|
| 3 Axles | 6,033 | |
| 4 Axles | 11,452 | |
| 5 Axles | 32,471 | |
| More than 5 Axles | 11,953 | |

| | | |
|-----|-------|--|
| Bus | 5,938 | |
|-----|-------|--|

| | | |
|-------|--------|------|
| Total | 89,115 | 4.6% |
|-------|--------|------|

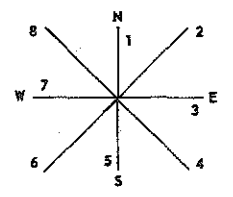
| | | |
|----------------|-----------|--------|
| Total Vehicles | 1,947,862 | 100.0% |
|----------------|-----------|--------|

STATE 2 1 YEAR 5 SCREEN LINE 6 7 8 9
3 4

STATION NO. 10 11 DIRECTION 12

HR 13 14
55 56

EXPANSION FACTOR 24 HR 57 58
55 56



STATE OF MICHIGAN
 DEPARTMENT OF STATE HIGHWAYS
 TRAFFIC DIVISION

Form MVC 1574
 (Rev. 5/63)

SHEET _____ OF _____

LOCATION _____

DAY _____ DATE _____ 19 _____

| REGISTRATION | VEHICLE TYPE | NO. IN VEH. | ORIGIN WHERE DID THIS TRIP BEGIN? | | DESTINATION WHERE WILL THIS TRIP END? | | TRIP PURPOSE | WHERE IS VEHICLE GARAGED? | | | CONTROL POINT, AZIMUTH | REMARKS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--------------|-------------|-----------------------------------|-------|---------------------------------------|-------|--------------|---------------------------|-------|----|------------------------|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | City or Village | State | City or Village | State | | O | other | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 63 |

50

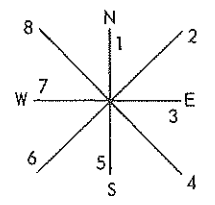
- | | |
|----------------------------|----------------------|
| 1-1 Pass. Car Local | 4-5 TT-ST-TR 5 Axles |
| 1-2 Pass. Car Other | 4-6 TT-ST-TR 6 Axles |
| 1-3 Pass. Car Out-of-State | and etc. |
| 2-1 S.U. Truck Single rear | 5-4 TK-TR 4 Axles |
| 2-2 S.U. Truck Dual rear | 5-5 TK-TR 5 Axles |
| 2-3 S.U. Truck 3 Axles | and etc. |
| 3-3 TT-ST 3 Axles | 6-2 Reg. Bus 2 Axles |
| 3-4 TT-ST 4 Axles | 6-3 Reg. Bus 3 Axles |
| and etc. | 6-4 School Bus |

Recorder _____

- 1 Work
- 2 Pers. Business
- 3 Shopping
- 4 Vacation
- 5 Other Soc. or Rec.
- 6 All Other

At Origin
 At Destination
 Specify Other

STATE 21 YEAR 5 SCREEN LINE 4584
 STATION NO. 08 DIRECTION 1
 HOUR PERIOD BEGINNING _____ AM _____ PM
 EXPANSION FACTOR HR _____ 24 HR _____



STATE MICHIGAN
 DEPARTMENT OF STATE HIGHWAYS
MACKINAC BRIDGE O - D STUDY
 Form MYC - 1574 B (Rev. 1/70)
 LOCATION Mackinac Bridge Toll Plaza
 DAY _____ DATE _____ 1970

SHEET _____ OF _____

BRIDGE CROSSING
 Yes 1 - 0
 No 2 - 0
 # of times in 1969
 Once 1 - 1
 Eight times 1 - 8
 Nine or over 1 - 9

| REGISTRATION | VEHICLE TYPE | NO. IN VEH. | ORIGIN WHERE DID THIS TRIP START? City or Village State | DESTINATION WHERE WILL THIS TRIP END? City or Village State | TRIP PURPOSE | HOME ADDRESS | CONTROL POINT AZIMUTH | WHERE WILL YOU STAY TONIGHT | BRIDGE | ROUTE OF APPROACH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--------------|-------------|---|---|--------------|--------------|-----------------------|-----------------------------|--------|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 |

| | | | | | | | |
|----------------------|-----------|---------------------|----------------------------|----------|---|--|--|
| PASSENGER CAR | WITH BOAT | HOUSE OR CAMPER TR. | HOUSE OR CAMPER TR. w/BOAT | BOAT TR. | 3-2 S.U. Truck 3 Axles 3-3 TT-ST 3 Axles 3-4 TT-ST 4 Axles etc. | 4-5 TT-ST-TR 5 Axles 4-6 TT-ST-TR 6 Axles etc. 5-4 TT-ST 4 Axles 5-5 TK-TR 5 Axles etc. | 6-2 Reg. Bus 2 Axles 6-3 Reg. Bus 3 Axles 6-4 School Bus |
| Local 1-1 1-4 | 1-1 1-4 | 1-7 | 7-1 | 7-4 | | | |
| Other, Mich. 1-2 1-5 | 1-2 1-5 | 1-8 | 7-2 | 7-5 | | | |
| Out of State 1-3 1-6 | 1-3 1-6 | 1-9 | 7-3 | 7-6 | | | |
| Single Truck | | | | | HOUSE CAR | HOUSE w/BOAT | HOUSE CAR PULLING BOAT TR. |
| Single Rear 2-1 2-5 | 2-1 2-5 | 2-9 | 8-1 | 8-3 | 2-3 | 2-7 | 8-5 |
| Dual Rear 2-2 2-6 | 2-2 2-6 | 2-0 | 8-2 | 8-4 | 2-4 | 2-8 | 8-6 |

- 1 Work
- 2 Pers. Business
- 3 Shopping
- 4 Vacation
- 5 Other Soc. or Rec.
- 6 All Other

DAY OF TRAVEL
 1 Sun. 4 Wed.
 2 Mon. 5 Thur.
 3 Tue. 6 Fri.
 7 Sat.

Recorder _____