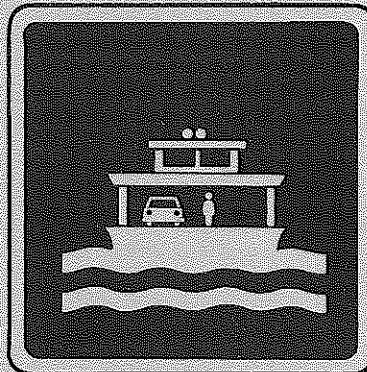
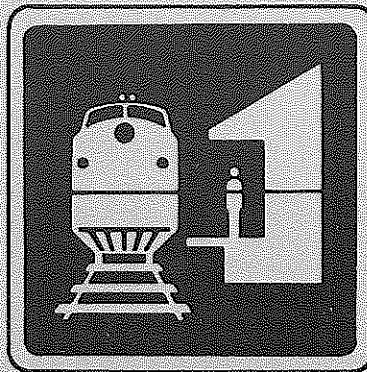


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PUBLIC TRANSPORTATION IN MICHIGAN

1988 MICHIGAN AIR CARRIER AIRPORT OPERATIONS

August, 1989



PASSENGER TRANSPORTATION PLANNING SECTION
MICHIGAN DEPARTMENT OF TRANSPORTATION

MICHIGAN DEPARTMENT OF TRANSPORTATION

1988 MICHIGAN AIR CARRIER AIRPORT OPERATIONS

August, 1989

Bureau of Transportation Planning
Systems Planning Division
Passenger Planning Section
Aviation Planning Unit

This report represents the findings and/or professional opinions of the Michigan Department of Transportation staff and is not an official opinion of the Michigan State Transportation Commission.

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ACKNOWLEDGEMENTS

This document was prepared by the staff of the Aviation Planning Unit of the Passenger Transportation Planning Section. The major staff contributor was Marty Lontz. Appreciation is extended to the airport managers and their staff for their assistance in providing the data and answering inquiries.

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Attention: Air Carrier Airport Statistics



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Aviation Planning Unit (APU) of the Bureau of Transportation Planning maintains historical information on passengers and air carried mail and cargo at Michigan airports with scheduled passenger service. Data is provided by airport management and compiled by APU. This information is used both to measure aviation activity and to justify projects for state and federal programs. They are also provided to other governmental agencies, private industry, the news media and the general public.

The following are the major findings identified in this report:

Scheduled Air Passenger Service

- During 1988, scheduled air passenger services were provided at 25 Michigan airports. From February through May, service was provided at Cadillac, Wexford County Airport. In September, service was initiated at Drummond Island Airport. Mackinac Island, which initiated service in 1982, is the only seasonally operated facility. Mackinac Island Airport normally has service from May through October.
- In 1988, Michigan, with 22,798,965 total passengers, experienced a 2.9 percent increase over the previous year. Exclusive of Detroit Metro Airport, the state experienced 3,654,716 total passengers, an increase of 13.1 percent over 1987. In 1988 Detroit Metro accounted for 84.0 percent of total passengers in Michigan.
- The top ranked airport in the state is Detroit, Metropolitan Wayne County Airport. In 1988, this facility handled 19,144,249 total passengers, a 1.1 percent increase over the previous year. This surpasses the previous all time record established in 1987 and represents the fifth year in a row that Metro Airport has a new record.
- The second ranked airport in the state is Grand Rapids, Kent County International Airport. In 1988, this facility handled 1,314,846 total passengers, a 1.8 percent decrease from the previous year. This is the first year in the last six in which Kent County Airport has not set a new record.
- The top five airports in the state were, in order of total passengers: Detroit Metro; Grand Rapids, Kent County International; Saginaw, Tri-City International; Kalamazoo County and Lansing, Capital City Airports.
- The largest growth in total passengers in 1988 occurred at Detroit City Airport. This facility handled 282,486 total passengers, an eight fold increase over the previous year. This large increase was due to the startup of jet service by Southwest Airlines in July.
- Michigan has experienced growth in total passengers in each of the last five years. The 1988 level of total passengers is 62.4 percent above the 1984 level. It is 78.0 percent above the 1978 level, the last year of government regulation of routes and fares.
- Five year upward trends have been recorded at Detroit Metro and Kalamazoo County Airports. A downward trend of five years duration has been recorded at Jackson. Several Michigan airports with downward trends of two or more years experienced a reversal of this trend. These facilities were: Detroit City; Escanaba, Delta County; Flint, Bishop; Houghton/Hancock, Houghton County

Memorial and Iron Mountain, Ford Airports. Mackinac Island Airport reversed a four year downward trend.

- In 1988 the seven airports in Michigan's upper peninsula accounted for 0.7 percent of the state's total passengers. The upper peninsula airports accounted for 154,044 total passengers, an increase of 17.9 percent over 1987. The upper peninsula airports experienced a decline in total passengers from 1984 through 1987. The 1988 reversal of this trend places these facilities at 85.0 percent of their 1984 level.

Air Service Supply

- As of December 31, 1988, Michigan was served by 30 carriers operated by 34 airlines. Though this was a net loss of four carriers, due to contract marketing agreements there were actually more airlines operating in the state.
- According to the 1988 survey, nonstop weekly arrivals at Michigan air carrier airports totaled 4,643, down 1.3 percent from the previous year. Of these arrivals, 71.8 percent were from hub airports. The high level of flights to hub airports, with their greater number of service options, shows that, statewide, there is a high level of air service choice in flying to Michigan.
- Michigan had nonstop scheduled service from 96 origins in 87 cities. This is a net increase of three origins and four cities over the previous year. The cities gained and lost did not significantly alter the overall air service pattern for the state.
- Statewide in 1988 there were 475,230 weekly arriving seats, an increase of 1.1 percent over the previous year. Of these seats, 90.9 percent were by jet, 3.8 percent were by pressurized propeller and 5.3 percent were by nonpressurized propeller aircraft.
- As of December 31, 1988, Michigan with the exception of Detroit Metro was served by 22 carriers operated by 23 airlines. This was a net increase of four carriers over the previous year.
- If Detroit Metro is excluded from the 1988 survey, there were 1,722 nonstop weekly arrivals, up 9.0 percent from the previous year. Of these arrivals, 65.3 percent were from hub airports. The high percentage of flights to hub airports shows that there is a high level of air service choice in flying to Michigan airports even when not using Detroit Metro.
- Michigan airports exclusive of Detroit Metro had nonstop service from 40 origins in 37 cities. This is a net increase of five origins and five cities over the previous year.
- Michigan airports exclusive of Detroit Metro had 99,401 weekly arriving seats, an increase of 14.4 percent over the previous year. Of the weekly arriving seats, 67.5 percent were by jet, 11.8 percent were by pressurized propeller and 20.7 percent were by nonpressurized propeller aircraft.
- As of December 31, 1988, the upper peninsula airports were served by five carriers operated by four airlines. This was a net decrease of one carrier and airline from the previous year.
- At the upper peninsula airports there were 236 nonstop weekly arrivals, up 6.3 percent over the previous year. Of these arrivals, 24.2 percent were from hub airports. The percentage of nonstop flights to hub airports is very small and indicates a low level of air service choice when flying to the upper peninsula.

- The upper peninsula airports had nonstop service from 12 cities. This is a net decrease of three cities (20.0 percent) from the previous year. Though individual routings to some upper peninsula communities changed dramatically, only the loss of service to Lansing seems to have been significant. Upper peninsula airports continue to have service (though in some cases not nonstop) from at least one of the major hub cities of Chicago, IL, Detroit or Minneapolis/St. Paul, MN.
- The upper peninsula airports had 7,181 weekly arriving seats, a decrease of 6.7 percent from the previous year. Of these seats, 39.8 percent were by pressurized propeller and 60.2 percent were by nonpressurized propeller aircraft. Most of the reduction in seats was in the less popular nonpressurized propeller aircraft category.
- The continued lack of jet service in the upper peninsula has been pinpointed by some groups as a major contributing factor in declining passenger levels. However, if this year's increase in passenger levels is an indication, other factors are more important than jet service to potential passengers in upper peninsula communities. Despite this years increase in passengers, there does not appear to be any single market in the upper peninsula capable of supporting jet service.
- In 1988, Michigan with 502,727,052 pounds (251,364 tons) of total air carried cargo, express and package freight, experienced an 18.7 percent increase over the previous year.
- In 1988, Detroit, Willow Run Airport was the top ranked facility in terms of cargo. Willow Run accounted for 230,850,775 pounds of total air carried cargo, express and package freight; 45.9 percent of the statewide total. This represented an 8.1 percent increase for this facility.
- In 1988, Detroit, Metropolitan Wayne County Airport was the second ranked facility in terms of cargo. Metro Airport accounted for 222,889,879 pounds of total air carried cargo, express and package freight; 44.3 percent of the statewide total. This represented a 21.7 percent increase for this facility.
- Many airport managers of airports served exclusively by commuter type aircraft have noted declines in air cargo levels over the past few years. This is generally explainable by the lack of "belly" cargo space on the smaller regional equipment. Many managers stipulated that some of the small package freight has been shifted to specialty cargo carriers. This is especially true at airports where feeder services operate for the larger overnight delivery services such as Federal Express and United Parcel Service.

Air Cargo, Express & Package Freight

- During 1988, air cargo levels were reported at 23 Michigan airports. No cargo was reported at Cadillac, Wexford County Airport; Drummond Island Airport; Mackinac Island Airport or Menominee/Marinette, Twin County Airport. Only cargo figures were reported at Detroit, Willow Run Airport.

Air Carried Mail

- During 1988, air carried mail levels were reported at 17 Michigan airports. Three Michigan airports are used as U.S. Postal Service regional mail centers. These facilities are Metropolitan Wayne County, Kent County International and Capital City

Michigan Air Carrier Airport Statistics

Airports in Detroit, Grand Rapids and Lansing respectively.

- In 1988, Michigan with 166,910,286 pounds (83,455 tons) of total air carried mail, experienced a 4.2 percent increase over the previous year.

- Air carried mail can be an important component of the service provided by many airports. Even so, the decisions that are made concerning what levels occur at a facility are under the control of the U.S. Postal service, not the state or airport management.



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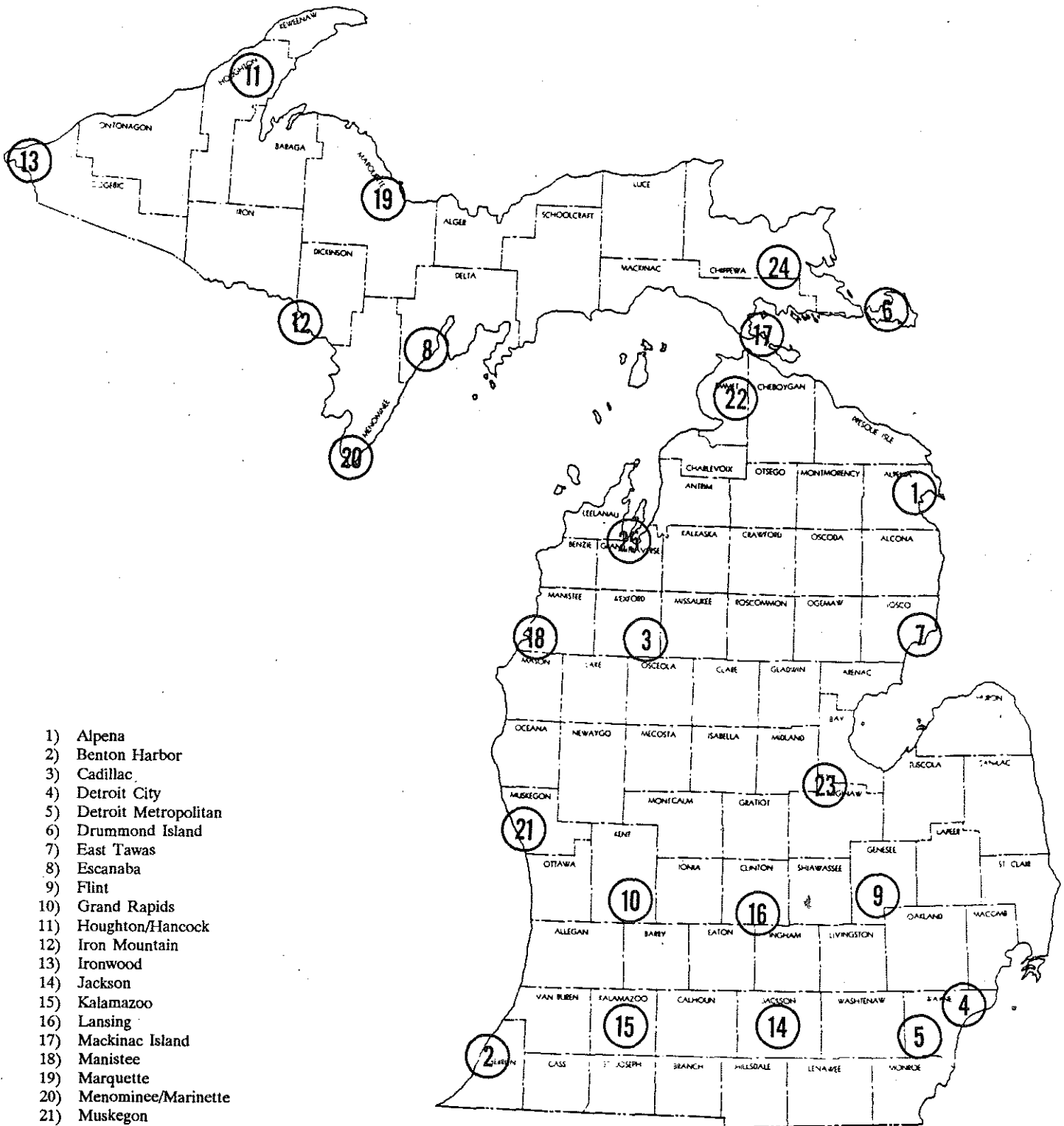
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**Section I:
SCHEDULED AIR CARRIER PASSENGERS**

Exhibit 1
 MICHIGAN AIRPORTS WITH SCHEDULED AIR PASSENGER SERVICE
 1988



- 1) Alpena
- 2) Benton Harbor
- 3) Cadillac
- 4) Detroit City
- 5) Detroit Metropolitan
- 6) Drummond Island
- 7) East Tawas
- 8) Escanaba
- 9) Flint
- 10) Grand Rapids
- 11) Houghton/Hancock
- 12) Iron Mountain
- 13) Ironwood
- 14) Jackson
- 15) Kalamazoo
- 16) Lansing
- 17) Mackinac Island
- 18) Manistee
- 19) Marquette
- 20) Menominee/Marinette
- 21) Muskegon
- 22) Pellston
- 23) Saginaw
- 24) Sault Ste. Marie
- 25) Traverse City

SCHEDULED AIR CARRIER PASSENGERS

Introduction

Monitoring of historical, scheduled air passenger levels is conducted by the Michigan Department of Transportation (MDOT), Bureau of Transportation Planning, Aviation Planning Unit. These specific statistics, trends and graphics are important to:

- 1) Airports: The ability to not only know passenger levels at their own airport but also other, similar airports throughout the state, allows a measure of relative performance to be derived. It is also very useful in the local master planning process and allows decisions to be based on sound historical and comparative information.
- 2) Airlines: When studying a possible market in the deregulated environment, it is helpful to know the historical passenger levels. The information provided by historical traffic levels can be used in conjunction with the air service supply levels to make this possible.
- 3) State of Michigan: Ready access to specific, historical air passenger levels is important in state system and project planning. These figures are also used when justifying projects for state and federal programs.
- 4) The Public, News Media and Others: Passenger air service, particularly in the deregulated environment, is often a confusing subject for nonaviation people. The quick access to historical information allows media personnel to report air service issues from a well documented base. It also allows the general public to judge the validity of what they might see in the news.

The information in this report covers total

passenger levels over the past ten years. Monthly figures are available in graphic form for the past five years and specifically for the year 1987. Comparisons of airports by their relative ranking in total passengers is given for the past five years and by the percentage of statewide total passengers for 1988.

Method Of Measurement

The information in this report is derived from data submitted monthly by those airports with scheduled air carrier service. To be identified as having scheduled air carrier service, a facility must show scheduled passenger service by at least one flight on at least five different days each week. Scheduled flights are those having a published or printed, person portable form. Airports submit data using MDOT Form Q1609 (R6/86), Airline Monthly Traffic Report.

Only passengers travelling on scheduled air services are counted. Passengers on nonscheduled services (known as Supplementary Passengers) are not included in this report.

The basic units of passenger counting are the enplaned and deplaned passenger. An enplaned passenger, or enplanement, is one who boards a flight (ie., outbound). A deplaned passenger, or deplanement, is one who disembarks from a flight (ie., inbound).

The basic unit of reporting is Total Passengers. Total passenger counts are equal to the sum of enplanements and deplanements. This report documents total passengers as well as the breakdown between enplanements and deplanements. This is due to Federal Aviation Administration (FAA)

Michigan Air Carrier Airport Statistics

use of the enplanement as a counting figure. However, due to the uses this information is put to in Michigan, the total passenger figure is more important to MDOT.

Comparative Groups

Due to the effect of averaging, it is often improper to make comparisons between individual airports and a statewide average. This is particularly true when one considers that 84.0 percent of Michigan's total passengers in 1988 were handled by Detroit, Metropolitan Airport. As such, when reporting air service statistics and trends, this analysis will use comparative groups, consisting of airports with a degree of geographic, funding or statistical commonality, to give a further breakdown of the reported figures. The groups which will be used are:

- 1) Statewide: All 25 scheduled, passenger air carrier airports are used.
- 2) Statewide Excluding Detroit Metro: All of the airports in the state with the exception of Detroit, Metropolitan Wayne County Airport. A total of 24 facilities.
- 3) Top Five Airports: The five airports with the highest annual total passenger levels in 1988. These are, in order of total passengers: Detroit Metropolitan Wayne County Airport; Grand Rapids, Kent County Airport; Saginaw, Tri-City International Airport; Kalamazoo County Airport and Lansing, Capital City Airport.
- 4) Upper Peninsula Airports: Those airports located in Michigan's Upper Peninsula. These seven facilities are: Escanaba, Delta County Airport; Houghton/Hancock, Houghton County Memorial Airport; Iron Mountain, Ford Airport; Ironwood, Gogebic County Airport; Marquette County Airport; Menominee/ Marinette, Twin County

Airport and Sault Ste. Marie, Chippewa County Airport.

- 5) Essential Air Service Airports: Those four facilities receiving standard subsidy monies under the Essential Air Service program. Airports receiving service continuance subsidies are not included. These facilities are: Jackson County, Reynolds Field; Manistee County, Blacker Airport; Menominee/ Marinette, Twin County Airport and Sault Ste. Marie, Chippewa County Airport.

Air Service Statistics & Trends

Commercial Service Airport Locations

During 1988, scheduled air passenger services were provided at 25 Michigan airports. Exhibit 1 identifies those airports with scheduled air carrier passenger service (henceforth referred to as service) during the reporting period.

From February through May, service was provided at Cadillac, Wexford County Airport. In September, service was initiated at Drummond Island Airport. Mackinac Island, which initiated service in 1982, is the only seasonally operated facility. Mackinac Island Airport normally has service from May through October.

Airport Total Passenger Levels

Exhibit 2 shows the total passenger levels at the 25 airports with scheduled air passenger service. Michigan airports portray the broad range of passenger levels possible at airports, from the seasonal service levels of Mackinac Island Airport (1,040 total passengers) to the large, hub facility at Detroit, Metropolitan Wayne County Airport (19,144,249 total passengers). East Tawas (with 527 total

passengers) and Jackson (with 746 total passengers) represent two different types of small airport with year round service. Jackson maintained service despite low passenger levels due to receipt of a subsidy under the Essential Air Service program. East Tawas maintained service to hub points with no subsidy. Regardless of total passenger levels, it must be recognized that these airports all serve different needs and markets. Thus smaller airports with lower passenger levels can be providing a useful and appropriate service.

1987-1988 Total Passenger Comparison

Overall, Michigan experienced a 2.9 percent increase in total passengers over the previous year. Total passenger levels increased at 16 of the 25 airports. The most significant increase occurred at Detroit City Airport where introduction of jet air carrier service took the total passenger figure in 1988 to nearly nine times the 1987 level. Total passengers decreased at six facilities. The greatest decrease was 18.6 percent at Reynolds Field in Jackson. Due to either being a new service or experiencing their first full year of service, percentage changes were not computed for three locations.

Statewide exclusive of Detroit Metro, Michigan experienced a 13.1 percent increase over the previous year. Total passenger levels increased at 15 airports, decreased at six facilities and, due to a new service or experiencing their first full year of service, were not computed for three locations. Statewide passenger level increases have historically been driven by increases at Detroit Metro. In 1988, however, Metro accounted for only 10.4 percent of the increase of 472,246 total passengers in the state.

The top five airports experienced a 0.8

percent increase over the previous year. Total passenger levels increased at four of five airports, the exception being Kent County International Airport in Grand Rapids. The largest percentage increase occurred at Capital City Airport in Lansing which rose 22.6 percent above the 1987 level.

The upper peninsula airports experienced a 17.9 percent increase over the previous year. Total passenger levels increased at six of seven airports, the exception being Gogebic County Airport at Ironwood. The largest percentage increase occurred at Twin County Airport in Menominee which rose 59.3 percent above the 1987 level. A strong gain of 26.9 percent also occurred at Marquette County Airport.

The essential air service airports experienced a 23.8 percent increase over the previous year. Total passenger levels increased at three of the four airports, the exception being the only lower peninsula facility, Reynolds Field in Jackson.

1987 Monthly Total Passengers

Exhibit 3 shows the 1987 monthly enplaned, deplaned and total passenger figures. Overall, Michigan experienced a lower level of total passengers than in the previous year from January through May. From June through December each month was a five year high in total passengers. Many of the individual airports experienced this pattern of lower levels in the first half of the year followed by surging passenger figures in the second half. With the exception of the slight slump in the first five months of 1988, monthly total passenger figures have gone up steadily over the last five years. These increases do not appear to have significantly altered the seasonal distribution.

Excluding Detroit Metro from statewide

Michigan Air Carrier Airport Statistics

totals does not change the basic trend. This group also experienced a slight slump in total passengers from the previous year from January through May. The surge of passengers in the remaining months pushed total passenger levels to five year highs. Fluctuations in the monthly totals over the last five years do not appear to have significantly altered the seasonal distribution.

As a group, the top five airports experienced the slight slump in passenger levels from February through May and also in July. The remaining months were five year highs.

As a group, upper peninsula airports experienced five year lows in January and February. The remaining months experienced higher passenger levels than in the previous year. The upper peninsula airports appear to have been immune to the pattern of early slump and late surge.

As a group, essential air service airports, receiving subsidy monies experienced passenger levels lower than the previous year only in April and June. Five year highs were experienced in February and March and from July through December. Though not experiencing the early month slump in total passengers, this group was affected by the surge in passengers during the second half of the year.

1984-1988 Five Year Trends

Exhibit 4 shows enplaned, deplaned and total passengers and the percent change in total passengers over the last five years. Michigan has experienced growth in total passengers in each of the last five years. The current level of 22,798,965 total passengers is 62.4 percent above the 1984 level. It is 78.0 percent above the 1978 level, the last year of government regulation of routes and fares. Five year upward trends have been recorded

at Detroit Metro and Kalamazoo County Airports. A downward trend of five years duration has been recorded at Jackson. Several Michigan airports with downward trends of two or more years experienced a reversal of this trend. These facilities were: Detroit City; Escanaba, Delta County; Flint, Bishop; Houghton/ Hancock, Houghton County Memorial and Iron Mountain, Ford Airports. Mackinac Island Airport reversed a four year downward trend.

Excluding Detroit Metro, Michigan has experienced growth in total passengers in each of the last five years. The current level of 3,654,716 total passengers is 33.2 percent above the 1984 level.

The top five airports have experienced growth in total passengers in each of the last five years. The current level of 21,807,311 total passengers is 64.7 percent above the 1984 level.

The upper peninsula airports experienced a decline in total passengers from 1984 through 1987. The 1988 reversal of this trend places these facilities at 85.0 percent of their 1984 level.

The essential air service airports experienced a decline in total passengers from 1984 through 1986. Since then there has been a growth in total passengers. This reversal places these facilities 21.2 percent above their 1984 level.

Relative Rank

Exhibit 5 shows the relative rank of airports in terms of total passengers over the past five years. Not unexpectedly, Detroit, Metropolitan Wayne County Airport (19,144,249 total passengers, 84.0 percent of statewide total passengers) ranked first and Grand Rapids, Kent County International

Airport (1,314,846 total passengers, 5.8 percent of statewide total passengers) ranked second.

Detroit City Airport (282,486 total passengers, 1.2 percent of statewide total passengers) ranked sixth. Due to only six months of a new service, however, the figure for this facility is misleading. If the figure for City airport is annualized, it would make city airport the third largest in the state with nearly 500,000 passengers.

It is interesting to note that despite seasonal or new service, two airports ranked higher in total passengers than Reynolds Field in Jackson. Mackinac Island Airport maintains scheduled service only from May through October. Drummond Island Airport commenced service in September.

Individual Airport Informational Summaries

Section V of this report contains informational summaries of the individual airports and the comparative groups. Graphic and tabular presentation of the material will allow quick reference to statistics monitored by the Michigan Department of Transportation.

Summary

A common perception of total passenger levels in Michigan is that large airports are continually expanding while small airports are continually shrinking. This perception is not necessarily correct for Michigan air passenger levels any more. Of the top five airports in the state, one experienced a decrease in total passengers. And of the essential air service airports (historically ranking in the bottom third of facilities) three locations posted significant increases. At least during 1988,

the perception also appears to be incorrect for the upper peninsula airports where only one location experienced a decrease in total passengers.

The slowing of growth at Detroit Metro Airport and the decrease experienced by Kent County International Airport in Grand Rapids also seems to contradict the "rich get richer" perception. A part of the slowing of growth at Metro Airport may be attributable to the alternative service provided at Detroit City Airport. Assuming the new passengers at City Airport had used Metro Airport, the growth rate would have been 0.4 percent higher. Similarly, increasing passenger levels at Bishop Airport in Flint, Tri-City Airport in Saginaw and Capital City Airport in Lansing may reflect a choice by passengers to use a more conveniently located facility as service there improves. A form of negative evidence for this supposition is the continuing downward trend at Jackson. These facilities have a traditionally high "leakage" of passengers to Detroit Metro Airport.

Service level improvements (see Section II, Air Service Supply) tended to correspond with increases in passenger levels. This points to noneconomic factors as being a major determinant in total passenger levels.

The ability to create geographic and/or economic niches for a facility allows an airport to provide better service to it's market. Detroit, City Airport provided an excellent example of this in 1988. Service to the "downtown" airports previously served was supplemented by service to new hubs of interest to business travellers. Service to the central business district airports is not available from Detroit Metro Airport, meaning that certain types of passengers will prefer to use the City Airport facility. Additionally, the proximity of City Airport to Detroit's downtown area often makes it a more convenient choice.

Exhibit 2
**TOTAL PASSENGERS AT MICHIGAN AIRPORTS
 WITH SCHEDULED AIR PASSENER SERVICE
 1988**

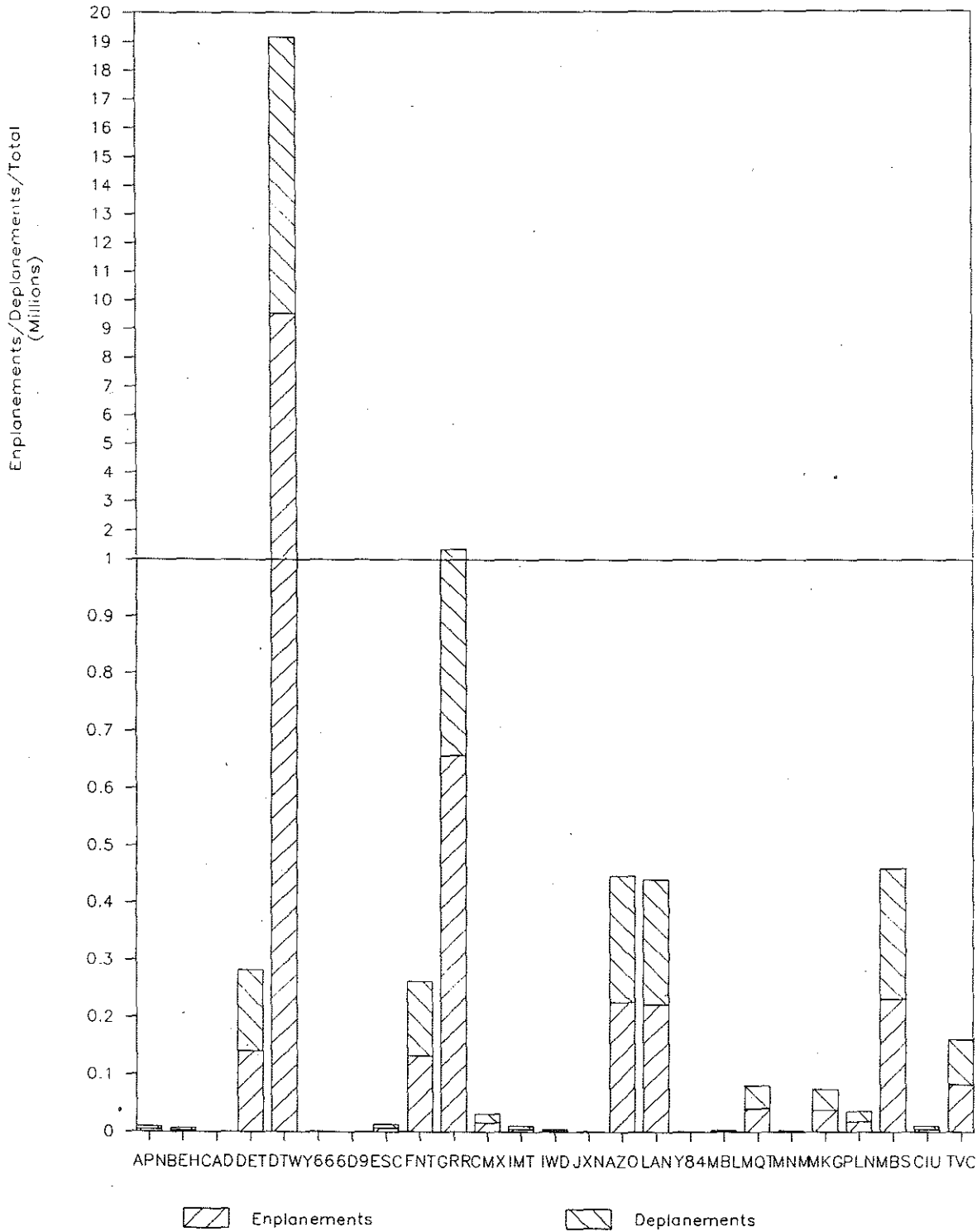


Exhibit 3
**ENPLANED, DEPLANED & TOTAL PASSENGER LEVELS
 AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
 1988 Monthly History**

Airport	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Alpena County Regional Airport													
Enplaned	314	314	346	351	344	380	420	418	420	389	328	352	4,376
Deplaned	308	308	352	310	363	415	438	408	423	371	307	318	4,321
Total	622	622	698	661	707	795	858	826	843	760	635	670	8,697
Benton Harbor, Twin Cities Ross Field Airport													
Enplaned	149	146	224	190	259	303	348	404	300	312	266	303	3,204
Deplaned	155	170	253	200	271	325	372	373	348	318	288	271	3,344
Total	304	316	477	390	530	628	720	777	648	630	554	574	6,548
Cadillac, Wexford County Airport													
Enplaned	---	1	80	88	39	---	---	---	---	---	---	---	208
Deplaned	---	1	61	83	42	---	---	---	---	---	---	---	187
Total	---	2	141	171	81	---	---	---	---	---	---	---	395
Detroit City Airport													
Enplaned	889	889	750	265	712	1,090	18,549	26,172	23,702	22,019	23,783	22,432	141,252
Deplaned	858	912	1,159	248	744	1,158	18,131	26,518	23,187	21,725	24,068	22,526	141,234
Total	1,747	1,801	1,909	513	1,456	2,248	36,680	52,690	46,889	43,744	47,851	44,958	282,486
Detroit Metropolitan Wayne County Airport													
Enplaned	644,215	707,789	881,295	782,266	786,273	847,279	847,686	924,834	764,023	805,353	770,685	757,570	9,519,268
Deplaned	679,700	713,091	881,793	843,497	807,966	838,912	857,048	920,375	764,764	807,755	770,237	739,843	9,624,981
Total	1,323,915	1,420,880	1,763,088	1,625,763	1,594,239	1,686,191	1,704,734	1,845,209	1,528,787	1,613,108	1,540,922	1,497,413	19,144,249
Drummond Island Airport													
Enplaned	---	---	---	---	---	---	---	---	53	172	126	85	436
Deplaned	---	---	---	---	---	---	---	---	103	124	198	130	555
Total	---	---	---	---	---	---	---	---	156	296	324	215	991
East Tawas, Iosco County Airport													
Enplaned	0	0	90	36	84	0	7	17	0	18	19	9	280
Deplaned	0	0	90	31	58	0	11	12	0	10	17	18	247
Total	0	0	180	67	142	0	18	29	0	28	36	27	527
Escanaba, Delta County Airport													
Enplaned	387	430	712	457	515	624	719	770	596	635	489	471	6,805
Deplaned	327	391	677	507	482	636	599	813	573	505	462	530	6,502
Total	714	821	1,389	964	997	1,260	1,318	1,583	1,169	1,140	951	1,001	13,307
Flint, Bishop Airport													
Enplaned	8,805	9,812	10,965	10,496	10,118	10,553	10,491	11,398	11,291	13,409	12,673	11,785	131,796
Deplaned	8,092	9,273	10,626	11,031	10,522	10,421	10,504	11,163	10,668	13,148	12,426	11,942	129,816
Total	16,897	19,085	21,591	21,527	20,640	20,974	20,995	22,561	21,959	26,557	25,099	23,727	261,612
Grand Rapids, Kent County International Airport													
Enplaned	48,732	53,154	62,196	54,276	51,313	54,575	54,326	61,938	51,830	55,042	53,783	55,980	657,145
Deplaned	47,496	50,086	60,166	58,202	54,612	58,070	56,189	61,345	51,516	54,382	52,980	52,657	657,701
Total	96,228	103,240	122,362	112,478	105,925	112,645	110,515	123,283	103,346	109,424	106,763	108,637	1,314,846
Houghton/Hancock, Houghton County Memorial Airport													
Enplaned	1,128	1,208	1,299	1,263	1,261	1,237	1,504	1,743	1,200	1,501	1,235	1,218	15,797
Deplaned	985	1,008	1,352	1,296	1,244	1,409	1,591	1,591	1,122	1,405	1,151	1,334	15,488
Total	2,113	2,216	2,651	2,559	2,505	2,646	3,095	3,334	2,322	2,906	2,386	2,552	31,285
Iron Mountain, Ford Airport													
Enplaned	247	237	311	312	384	454	450	522	455	487	564	622	5,045
Deplaned	236	294	361	358	437	466	431	470	480	475	545	634	5,187
Total	483	531	672	670	821	920	881	992	935	962	1,109	1,256	10,232

Michigan Air Carrier Airport Statistics

Exhibit 3 (cont.)
ENPLANED, DEPLANED & TOTAL PASSENGER LEVELS
AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
 1988 Monthly History

Airport	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Ironwood, Gogebic County Airport													
Enplaned	225	170	223		182	174	171	196	175	231	173	241	2,363
Deplaned	223	167	180	202	200	160	175	180	155	205	167	236	2,271
Total	448	337	403	425	382	334	346	376	330	436	340	477	4,634
Jackson County, Reynolds Field													
Enplaned	31	18	11	21	32	36	31	33	48	24	28	27	340
Deplaned	19	18	22	27	35	52	38	41	52	41	36	25	406
Total	50	36	33	48	67	88	69	74	100	65	64	52	746
Kalamazoo County Airport													
Enplaned	16,028	16,883	19,985	18,223	18,657	20,324	18,030	20,754	18,638	19,729	19,172	19,281	225,704
Deplaned	15,145	16,302	19,844	18,490	19,494	19,657	18,096	20,091	17,516	19,339	19,090	19,110	222,174
Total	31,173	33,185	39,829	36,713	38,151	39,981	36,126	40,845	36,154	39,068	38,262	38,391	447,878
Lansing, Capital City Airport													
Enplaned	14,813	16,507	19,612	17,669	17,411	18,162	16,604	19,210	18,108	22,094	20,333	21,128	221,651
Deplaned	15,396	14,843	19,021	18,607	18,010	17,634	16,747	18,508	18,581	21,498	20,367	19,438	218,650
Total	30,209	31,350	38,633	36,276	35,421	35,796	33,351	37,718	36,689	43,592	40,700	40,566	440,301
Mackinac Island Airport													
Enplaned	---	---	---	---	12	94	212	127	69	6	---	---	520
Deplaned	---	---	---	---	12	94	212	127	69	6	---	---	520
Total	---	---	---	---	24	188	424	254	138	12	---	---	1,040
Manistee County, Blacker Airport													
Enplaned	72	116	97	102	99	130	240	350	232	228	161	204	2,031
Deplaned	56	92	98	99	98	112	240	252	193	218	171	194	1,823
Total	128	208	195	201	197	242	480	602	425	446	332	398	3,854
Marquette County Airport													
Enplaned	2,754	3,197	3,454	3,501	3,393	3,531	4,271	4,334	3,055	3,124	3,077	3,287	40,978
Deplaned	2,493	2,837	3,505	3,702	3,466	3,699	4,067	4,094	3,065	3,053	2,935	2,636	39,552
Total	5,247	6,034	6,959	7,203	6,859	7,230	8,338	8,428	6,120	6,177	6,012	5,923	80,530
Menominee/Marinette, Twin County Airport													
Enplaned	104	118	135	116	107	144	180	194	192	235	175	175	1,875
Deplaned	82	100	132	112	110	130	171	174	163	228	177	178	1,757
Total	186	218	267	228	217	274	351	368	355	463	352	353	3,632
Muskegon County Airport													
Enplaned	2,952	3,366	3,468	2,984	2,967	3,098	3,656	3,984	3,062	2,902	2,478	2,524	37,441
Deplaned	2,614	2,746	3,512	3,147	3,084	3,288	3,548	3,854	2,898	2,902	2,342	2,682	36,617
Total	5,566	6,112	6,980	6,131	6,051	6,386	7,204	7,838	5,960	5,804	4,820	5,206	74,058
Pellston, Emmet County Airport													
Enplaned	635	567	659	567	874	1,764	3,826	4,362	2,417	1,033	704	629	18,037
Deplaned	570	546	637	639	1,002	2,158	3,864	4,083	2,219	953	683	693	18,047
Total	1,205	1,113	1,296	1,206	1,876	3,922	7,690	8,445	4,636	1,986	1,387	1,322	36,084
Saginaw, Tri-City International Airport													
Enplaned	15,856	17,458	20,466	17,936	19,349	19,065	21,174	19,497	22,689	20,607	20,056		231,995
Deplaned	14,383	16,065	19,581	18,815	17,975	19,267	18,482	20,042	17,648	24,586	21,265	19,933	228,042
Total	30,239	33,523	40,047	36,657	35,911	38,616	37,547	41,216	37,145	47,275	41,872	39,989	460,037
Sault Ste. Marie, Chippewa County International Airport													
Enplaned	251	330	435	326	424	429	620	725	483	451	324	365	5,163
Deplaned	329	358	431	337	396	476	701	663	490	427	312	341	5,261
Total	580	688	866	663	820	905	1,321	1,388	973	878	636	706	10,424

Exhibit 3 (cont.)
**ENPLANED, DEPLANED & TOTAL PASSENGER LEVELS
 AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
 1988 Monthly History**

Airport	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Traverse City, Cherry Capital Airport													
Enplaned	4,558	4,871	5,389	4,437	5,934	7,783	11,163	13,639	7,990	6,761	4,838	4,647	82,010
Deplaned	4,230	4,461	5,240	5,119	6,153	9,006	11,287	11,433	7,779	5,652	4,542	3,660	78,562
Total	8,788	9,332	10,629	9,556	12,087	16,789	22,450	25,072	15,769	12,413	9,380	8,307	160,572
Michigan Scheduled Air Carrier Airports													
Enplaned	763,145	837,581	1,032,202	915,990	919,330	991,513	1,012,569	1,117,298	927,836	978,844	936,021	923,391	11,355,720
Deplaned	793,697	834,069	1,029,093	985,080	946,776	987,545	1,022,942	1,106,610	924,012	979,326	934,766	899,329	11,443,245
Total	1,556,842	1,671,650	2,061,295	1,901,070	1,866,106	1,979,058	2,035,511	2,223,908	1,851,848	1,958,170	1,870,787	1,822,720	22,798,965
Michigan Scheduled Air Carrier Airports Excluding Detroit Metro													
Enplaned	118,930	129,792	150,907	133,724	133,057	144,234	164,883	192,464	163,813	173,491	165,336	165,821	1,836,452
Deplaned	113,997	120,978	147,300	141,583	138,810	148,633	165,894	186,235	159,248	171,571	164,529	159,486	1,818,264
Total	232,927	250,770	298,207	275,307	271,867	292,867	330,777	378,699	323,061	345,062	329,865	325,307	3,654,716
Top Five Airports In Terms of Total Passengers													
Enplaned	739,644	811,791	1,003,554	890,276	891,590	959,689	955,711	1,047,910	872,096	924,907	884,580	874,015	10,855,763
Deplaned	772,120	810,387	1,000,405	957,611	918,057	953,540	966,562	1,040,361	870,025	927,560	883,939	850,981	10,951,548
Total	1,511,764	1,622,178	2,003,959	1,847,887	1,809,647	1,913,229	1,922,273	2,088,271	1,742,121	1,852,467	1,768,519	1,724,996	21,807,311
Upper Peninsula Airports													
Enplaned	5,096	5,690	6,569	6,177	6,266	6,593	7,915	8,484	6,156	6,664	6,037	6,379	78,026
Deplaned	4,675	5,155	6,638	6,535	6,335	6,976	7,735	7,985	6,048	6,298	5,749	5,889	76,018
Total	9,771	10,845	13,207	12,712	12,611	13,569	15,650	16,469	12,204	12,962	11,786	12,268	154,044
Essential Air Service Airports													
Enplaned	458	582	678	565	662	739	1,071	1,302	955	938	688	771	9,409
Deplaned	486	568	683	575	639	770	1,150	1,130	898	914	696	738	9,247
Total	944	1,150	1,361	1,140	1,301	1,509	2,221	2,432	1,853	1,852	1,384	1,509	18,656

Exhibit 4
**DEPLANED, ENPLANED & TOTAL PASSENGER LEVELS
 AT MICHIGAN SCHEDULED AIR CARRIER AIRPORTS**
 Five Year History 1984 - 1988

City	Passengers			Percent Change
	Year	Enplaned	Deplaned	
<u>Alpena, Phelps Collins Airport</u>				
1984	4,375	4,196	8,571	5.0%
1985	4,985	5,008	9,993	16.6%
1986	4,879	5,169	10,048	0.6%
1987	4,754	4,688	9,442	-6.0%
1988	4,376	4,321	8,697	-7.9%
<u>Battle Creek, W.K.Kellogg Regional Airport</u>				
1984	18,940	18,791	37,731	2.2%
1985	17,112	16,255	33,367	-11.6%
1986	9,311	8,531	17,842	-46.5%
1987	5,009	4,649	9,658	-45.9%
1988	Service terminated in 1987.			
<u>Benton Harbor, Twin Cities Ross Field</u>				
1984	13,749	13,068	26,817	21.2%
1985	11,536	11,255	22,791	-15.0%
1986	8,128	7,410	15,538	-31.8%
1987	3,882	3,926	7,808	-49.7%
1988	3,204	3,344	6,548	-11.9%
<u>Cadillac, Wexford County Airport</u>				
1984	-----	-----	-----	
1985	-----	-----	-----	
1986	Service initiated in February, 1988.			
1987	Service terminated in May, 1988.			
1988	208	187	395	n/c
<u>Detroit, City Airport</u>				
1984	22,354	21,286	43,640	-5.0%
1985	23,306	22,352	45,658	4.6%
1986	19,317	20,097	39,414	-13.7%
1987	16,062	16,385	32,447	-17.7%
1988	141,252	141,234	282,486	770.6%
<u>Detroit, Metropolitan Wayne County Airport</u>				
1984	5,643,208	5,654,617	11,297,825	23.8%
1985	7,585,820	7,517,719	15,103,539	33.7%
1986	8,648,347	8,423,383	17,071,730	13.0%
1987	9,574,493	9,520,816	19,095,309	11.9%
1988	9,519,268	9,624,981	19,144,249	1.1%
<u>Drummond Island Airport</u>				
1984	-----	-----	-----	
1985	-----	-----	-----	
1986	-----	-----	-----	
1987	Service initiated in 1988.			
1988	436	555	991	n/c
<u>East Tawas, Iosco County Airport</u>				
1984	-----	-----	-----	
1985	-----	-----	-----	
1986	Service initiated in 1987.			
1987	13	13	26	n/a
1988	280	247	527	n/c

City	Passengers			Percent Change
	Year	Enplaned	Deplaned	
<u>Escanaba, Delta County Airport</u>				
1984	15,459	15,160	30,619	0.0%
1985	10,865	10,577	21,442	-30.0%
1986	7,725	7,836	15,561	-27.4%
1987	6,140	5,841	11,981	-23.0%
1988	6,805	6,502	13,307	11.1%
<u>Flint, Bishop Airport</u>				
1984	118,257	115,163	233,420	38.4%
1985	134,588	132,891	267,479	14.6%
1986	131,210	128,715	259,925	-2.8%
1987	112,555	110,388	222,943	-14.2%
1988	131,796	129,816	261,612	17.3%
<u>Grand Rapids, Kent County Intl. Airport</u>				
1984	520,686	519,085	1,039,771	5.5%
1985	595,605	599,636	1,195,241	15.0%
1986	617,461	626,168	1,243,629	4.0%
1987	673,736	665,230	1,338,966	7.7%
1988	657,145	657,701	1,314,846	-1.8%
<u>Houghton/Hancock, Houghton Co. Mem. Airport</u>				
1984	19,644	20,002	39,646	-4.0%
1985	21,167	20,448	41,615	5.0%
1986	16,674	16,026	32,700	-21.4%
1987	15,417	14,311	29,728	-9.1%
1988	15,797	15,488	31,285	5.2%
<u>Iron Mountain, Ford Airport</u>				
1984	10,845	10,718	21,563	2.7%
1985	8,683	8,713	17,396	-19.3%
1986	5,583	5,488	11,071	-36.4%
1987	4,289	4,427	8,716	-21.3%
1988	5,045	5,187	10,232	17.4%
<u>Ironwood, Gogebic County Airport</u>				
1984	3,079	3,026	6,105	-40.7%
1985	2,996	2,893	5,889	-3.5%
1986	3,873	3,663	7,536	28.0%
1987	2,807	2,558	5,365	-28.8%
1988	2,363	2,271	4,634	-13.6%
<u>Jackson, County Reynolds Field</u>				
1984	1,103	1,342	2,445	-18.9%
1985	1,029	1,021	2,050	-16.2%
1986	608	570	1,178	-42.5%
1987	488	429	917	-22.2%
1988	340	406	746	-18.6%
<u>Kalamazoo, County Airport</u>				
1984	124,684	124,975	249,659	20.5%
1985	168,065	172,828	340,893	36.5%
1986	197,277	199,533	396,810	16.4%
1987	208,822	205,840	414,662	4.5%
1988	225,704	222,174	447,878	8.0%

Exhibit 4 (cont.)
**DEPLANED, ENPLANED & TOTAL PASSENGER LEVELS
 AT MICHIGAN SCHEDULED AIR CARRIER AIRPORTS**
 Five Year History 1984 - 1988

City Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
Lansing, Capital City Airport				
1984	163,569	170,235	333,804	-4.7%
1985	172,966	171,033	343,999	3.1%
1986	193,007	189,256	382,263	11.1%
1987	180,653	178,395	359,048	-6.1%
1988	221,651	218,650	440,301	22.6%
Mackinac Island, Airport				
1984	783	630	1,413	-19.3%
1985	720	582	1,302	-7.9%
1986	339	320	659	-49.4%
1987	278	246	524	-20.5%
1988	520	520	1,040	98.5%
Manistee, County Blacker Airport				
1984	890	834	1,724	3.5%
1985	97	72	169	-90.2%
1986	672	672	1,344	695.3%
1987	1,419	1,314	2,733	103.3%
1988	2,031	1,823	3,854	41.0%
Marquette, County Airport				
1984	35,898	36,258	72,156	9.7%
1985	38,171	37,039	75,210	4.2%
1986	35,085	34,847	69,932	-7.0%
1987	32,196	31,282	63,478	-9.2%
1988	40,978	39,552	80,530	26.9%
Menominee/Marinette Twin County Airport				
1984	1,571	1,615	3,186	0.5%
1985	1,056	1,062	2,118	-33.5%
1986	641	667	1,308	-38.2%
1987	1,158	1,122	2,280	74.3%
1988	1,875	1,757	3,632	59.3%
Muskegon, County Airport				
1984	43,986	43,802	87,788	-1.5%
1985	44,468	42,314	86,782	-1.1%
1986	48,751	46,921	95,672	10.2%
1987	38,773	38,737	77,510	-19.0%
1988	37,441	36,617	74,058	-4.5%
Pellston, Emmet County Airport				
1984	20,706	20,833	41,539	4.1%
1985	14,740	15,681	30,421	-26.8%
1986	17,645	16,700	34,345	12.9%
1987	17,936	18,508	36,444	6.1%
1988	18,037	18,047	36,084	2.5%
Saginaw, Tri-City International Airport				
1984	159,014	158,621	317,635	-0.8%
1985	191,981	188,739	380,720	19.9%
1986	206,131	199,250	405,381	6.5%
1987	220,788	215,286	436,074	7.6%
1988	231,995	228,042	460,037	5.5%

City Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
Sault Ste. Marie, Chippewa Co. Intl. Airport				
1984	4,195	3,849	8,044	-17.5%
1985	5,017	5,060	10,077	25.3%
1986	4,971	5,222	10,193	1.2%
1987	4,624	4,521	9,145	-10.3%
1988	5,163	5,261	10,424	14.0%
Traverse City, Cherry Capital Airport				
1984	67,295	68,828	136,123	-2.1%
1985	74,540	75,458	149,998	10.2%
1986	83,710	81,037	164,747	9.8%
1987	75,721	75,794	151,515	-8.0%
1988	82,010	78,562	160,572	6.0%
Statewide Totals				
1984	7,014,290	7,026,934	14,041,224	19.7%
1985	9,129,513	9,058,636	18,188,149	29.5%
1986	10,261,345	10,027,481	20,288,826	11.5%
1987	11,202,013	11,124,706	22,326,719	10.0%
1988	11,355,720	11,443,245	22,798,965	2.9%
Statewide Excluding Detroit Metro				
1984	1,371,082	1,372,317	2,743,399	5.4%
1985	1,543,693	1,540,917	3,084,610	12.4%
1986	1,612,998	1,604,098	3,217,096	4.3%
1987	1,627,520	1,603,890	3,231,410	0.4%
1988	1,836,452	1,818,264	3,654,716	13.1%
Top Five Airports				
1984	6,611,161	6,627,533	13,238,694	20.4%
1985	8,714,437	8,649,955	17,364,392	31.2%
1986	9,862,223	9,637,590	19,499,813	12.3%
1987	10,858,492	10,785,567	21,644,059	11.0%
1988	10,855,763	10,951,548	21,807,311	0.8%
Upper Peninsula Airports				
1984	90,691	90,628	181,319	-0.3%
1985	87,955	85,792	173,747	-4.2%
1986	74,552	73,749	148,301	-14.6%
1987	66,631	64,062	130,693	-11.9%
1988	78,026	76,018	154,044	17.9%
Essential Air Service Airports				
1984	7,759	7,640	15,399	-12.5%
1985	7,199	7,215	14,414	-6.4%
1986	6,892	7,131	14,023	-2.7%
1987	7,689	7,386	15,075	7.5%
1988	9,406	9,247	18,656	23.8%

Exhibit 5
**RELATIVE RANK OF MICHIGAN SCHEDULED AIR CARRIER
 AIRPORT BY TOTAL PASSENGERS**
 Five Year History 1984-1988

City	1988		1987		1986		1985		1984	
	Total Passengers	Rank	Total Passengers	Rank	Total Passengers	Rank	Total Passengers	Rank	Total Passengers	Rank
Alpena	8,697	16	8,697	16	9,442	18	10,048	18	9,993	17
Battle Creek	No Service		9,658	14	17,842	13	33,367	12	37,731	13
Benton Harbor	6,548	17	7,808	18	15,538	15	22,791	14	26,817	15
Cadillac	395	25	No Service		No Service		No Service		No Service	
Detroit City	282,486	6	32,447	11	39,414	10	45,658	10	43,640	10
Detroit Metro	19,144,249	1	19,095,309	1	17,071,730	1	15,103,539	1	11,297,825	1
Drummond Island	991	22	No Service		No Service		No Service		No Service	
East Tawas	527	24	26	24	No Service		No Service		No Service	
Escanaba	13,307	13	11,981	13	15,561	14	21,442	15	30,619	14
Flint	261,612	7	222,943	6	259,925	6	267,479	6	233,420	6
Grand Rapids	1,314,846	2	1,338,966	2	1,243,629	2	1,195,241	2	1,039,771	2
Houghton/Hancock	31,285	12	29,728	12	32,700	12	41,615	11	39,646	12
Iron Mountain	10,232	15	8,716	17	11,071	16	17,396	16	21,563	16
Ironwood	4,634	18	5,365	19	7,536	19	5,889	19	6,105	19
Jackson	746	23	917	22	1,178	22	2,050	21	2,445	21
Kalamazoo	447,878	4	414,662	4	396,810	4	340,893	5	249,659	5
Lansing	440,301	5	359,048	5	382,263	5	343,999	4	333,804	3
Mackinac Island	1,040	21	524	23	659	23	1,302	22	1,413	23
Manistee	3,854	19	2,733	20	1,344	20	169	23	1,724	22
Marquette	80,530	9	63,478	9	69,932	9	75,210	9	72,156	9
Menominee/Marinette	3,632	20	2,280	21	1,308	21	2,118	20	3,186	20
Muskegon	74,058	10	77,510	8	95,672	8	86,782	8	87,788	8
Pellston	36,084	11	36,444	10	34,345	11	30,421	13	41,539	11
Saginaw	460,037	3	436,074	3	405,381	3	380,720	3	317,635	4
Sault Ste. Marie	10,424	14	9,145	15	10,193	17	10,077	17	8,044	18
Traverse City	160,572	8	151,515	7	164,747	7	149,998	7	136,123	7



**Section II:
SCHEDULED AIR SERVICE SUPPLY**

SCHEDULED AIR SERVICE SUPPLY

Introduction

Monitoring of historical air service supply levels is conducted by the Michigan Department of Transportation (MDOT), Bureau of Transportation Planning, Aviation Planning Unit. These specific statistics, trends and graphics are important to:

- 1) Airports: The ability to not only know service levels at their own airport but also other, similar airports throughout the state, allows a measure of relative performance to be derived. It is also very useful in the local master planning process and allows decisions to be based on sound historical and comparative information.
- 2) Airlines: When studying a possible market in the deregulated environment, it is helpful to know the historical service levels. The information provided by historical supplied service levels can be used in conjunction with the air service supply levels to make this possible.
- 3) State of Michigan: Ready access to specific, historical service level information is important in state system and project planning. These figures are also used when justifying projects for state and federal programs.
- 4) The Public, News Media and Others: Passenger service supply, particularly in the deregulated environment, is often a confusing subject for nonaviation people. The quick access to historical information allows media personnel to report air service issues from a well documented base. It also allows the general public to judge the validity of what they might see in the news.

The information in this report is based upon data collected since 1986. As time goes on,

the base of information will become larger.

Air Service Supply Issues

The supply of air service is subject to a number of forces outside the control of the individual airports being served. It is necessary that these forces be understood.

Deregulation & Essential Air Service

In 1978, Congress passed the Airline Deregulation Act. The purpose of this act is:

"... to encourage, develop, and attain an air transportation system which relies on competitive market forces to determine the quality, variety and price of air services, and for other purposes. ¹"

Through this act, air carriers were allowed to enter, exit and change equipment and service levels in markets in their efforts to make a profit through the provision of air service.

In an environment such as this, there was never any doubt that carriers would flock to serve markets with large passenger potentials. Profitability in the high density markets was reasonably certain. The problem was the smaller markets where major and national operators of jets would be unable to maintain service while making a profit.

Under section 419 of the Airline Deregulation Act of 1978, certain air service markets are designated as requiring nonstop or one stop air service to a designated hub airport, but being currently unable to support a profitable service. These essential service points require a replacement carrier to be designated prior to discontinuance of service.

To cover losses from services, federal monies are available to carriers who would operate in these markets. These monies were termed Essential Air Service subsidies.

Four Michigan air markets currently receive standard subsidization under this program. They are Jackson, Manistee, Menominee and Sault Ste. Marie. Three markets currently receive service continuance subsidies. These differ from the standard subsidies in that they are paid to carriers wishing to terminate service at Essential Air Service cities not receiving standard subsidies. Markets where continuance subsidies are paid are Alpena, Iron Mountain and Ironwood. The two types of subsidies are paid at different rates. The markets are shown in Exhibit 6 along with the dollar values of their subsidies.

October, 1988, Congress has renewed the program for an additional ten years. Problems with funding of this extension have yet to be solved. Part of this resolution may be the elimination of some cities from the essential service list. Changes in the eligibility of Michigan facilities currently receiving subsidies is possible.

Airline Contract Marketing Agreements

Deregulation of the airline industry allowed air carriers to enter and leave markets virtually at will. Due to the inefficiency and the lack of profitability in operating larger jet aircraft in smaller demand markets, many major airlines exercised this right and ceased service to smaller communities. This left an empty niche in the air service market which has been filled by smaller, regional/commuter airlines. A problem arises in that passengers generally perceive service by regional airlines to be inferior to service by major/national carriers. To combat some of the perceived and real disadvantages, both classes of airline have sought mutually advantageous agreements which effectively link smaller regional carriers to larger national airlines.

This technique is known as a contract marketing or code sharing agreement. It consists of a sharing of the airline designator code (the unique two character code assigned to each airline). This agreement makes the regional carrier the contract carrier, and the major airline the contracting carrier. To differentiate between the two corporate entities, an asterisk is added to the two character code for the contract carrier. In this way the larger airline gains a passenger feeder system which can operate profitably in the smaller markets, and the smaller airline gains the advantages of through ticketing, baggage checking and passenger access to destinations outside it's normal markets. Perhaps even more important is the access

Exhibit 6
1988 ESSENTIAL AIR SERVICE
SUBSIDIES & SERVICE

Community	Weekly Arrivals	Subsidy Level
Alpena	59	\$ 121,159
Iron Mountain	34	\$ 182,799
Ironwood	12	\$ 182,799
<i>Jackson</i>	12	\$ 321,657
<i>Manistee</i>	12	\$ 268,414
<i>Menominee</i>	44	\$ 403,409
<i>Sault Ste. Marie</i>	12	\$ 121,159
TOTAL	185	\$ 1,601,394

Notes: Cities receiving standard service subsidies are shown in *italics*. Those receiving service continuance subsidies are in regular type. Due to rounding, Total subsidy does not equal the sum of the individual subsidies.

Source: U.S. Dept. of Transportation, Office of Aviation Analysis and MDOT, Bureau of Transportation Planning, Aviation Planning Unit.

Though originally scheduled to expire in

to busy markets through the use of the contracting carrier's hub facilities.

Exhibit 7
MICHIGAN CODE SHARING
CARRIERS

Contracting Carrier	Contracted Airline
Air Canada [AC*]	Air Ontario [GX]
Delta Connection [DL*]	Comair, Inc. [OH]
The Midway Connection [ML*]	Fisher Bros. Aviation [GP]
The Midway Connection [ML*]	Iowa Airways, Inc. [JT]
Northwest Airlink	Express Airlines I [9E]
Northwest Airlink	Mesaba Aviation [XJ]
Northwest Airlink	Simmons Airlines [MQ]
Piedmont Commuter System [PI*]	Jetstream Intl. Airlines [TF]
United Express [UA*]	Air Wisconsin [ZW]

Source: MDOT, Bureau of Transportation Planning, Aviation Planning Unit.

Mergers & Concentration

Overall, the deregulated environment led to competition by carriers in lucrative and potentially lucrative markets and resulted in lower costs to consumers. The airlines involved in this competition, however, lost revenue due to their inability to maintain higher profit margins in the face of price competition. Thus a natural business decision has been to combine two or more carriers which provide similar services to the same destination into one carrier. This allows the combined entity to better compete with other carriers and to provide better service in given markets.

With major and national carriers, this creates a problem. The process of mergers, coupled with the extreme difficulty in entering the major and national markets, means that there is a gradually diminishing number of competing carriers in the market and thus an increasing concentration of service. Exhibit 8 shows the merger history of the major and national carriers serving Michigan since 1983.

In 1983 there were 18 major/national carriers serving Michigan, most of them at Detroit, Metro Airport. At the end of 1988, there were 10 companies serving Michigan. Much of this decrease is due to the absorption of airlines unable to make a profit in the deregulated environment (eg. Frontier). Part of it, however, is due to expediency of operations and the potential for increased profitability (eg. USAir/Piedmont).

The effects of this concentration on Michigan do not appear to have been detrimental. As much of Michigan's air service supply is geared to transporting passengers to the hubs of Chicago, O'Hare, Detroit, Metropolitan and Minneapolis/St.Paul airports, the service is provided by the smaller regional/commuter airlines. As entry into this level of the airline industry is relatively inexpensive, the number of airlines is not decreasing.

Method Of Measurement

The information in this section of the report is derived from data published as of December 31, 1988 in the **Official Airline Guide** (usually issued in mid-December of the subject year). A weekly "snapshot" is taken of service at this time to allow comparisons to be made over time. Though this does not give a consistent monitoring over all time, it represents the best compromise of information availability and time required to compile it. The raw data used for analysis is presented in Appendix A: Nonstop Scheduled Air Carrier Arrivals at Michigan Air Carrier Airports. Explanations of the codes used in this section can be found in Appendix B: FAA Air Carrier Airport Codes; Appendix C: Airline Codes; Appendix D: Equipment Codes and Appendix E: Frequency Codes. As examples of the following measures, we will be using the Appendix A listing for Jackson County,

Reynolds Field.

The basic unit of air service supply measurement is the arrival. An arrival is counted when an aircraft is scheduled to make a revenue landing at an airport. For example Simmons Airlines (NW*) operates flight number NW*2760 from Detroit Metropolitan Wayne County Airport (DTW) to Jackson County, Reynolds Field (JXN) every day except Sunday (X7). Thus, each day except Sunday, one arrival is counted.

The basic unit of reporting air service supply levels is total weekly arrivals (or just weekly arrivals). This statistic represents the number of nonstop arrivals at a given airport over the entire week. This figure has been found to give the least biased comparison of supply levels at the broad range of airport sizes found in Michigan. The weekly arrivals figure is equal to the sum of arrivals at a given airport over the course of the sample week. In the above example, there are two flights (NW*2760 and NW*2762) each of which operates six days a week (X7 and X6). Each of these two flights account for six arrivals per week making a sum of 12 total weekly arrivals at Jackson.

In general, passenger preferences as to type of aircraft assigned to a service will vary. The most common division used to make comparisons in service uses the three categories of jet, pressurized propeller and nonpressurized propeller aircraft. The unit used to measure the levels of service provided in terms of these divisions is the weekly arriving seat available. This statistic represents the number of passengers which can obtain service in the subject market on a given category of aircraft. To obtain this figure, a factor representing a median capacity in a given aircraft type is applied to each arrival of that type of equipment. These individual numbers are then summed in each of the three categories. The median

numbers of seats used for the individual equipment types are shown in Appendix D: Equipment Codes. These figures do not represent individual airline cabin layouts. In the Jackson example, the only category of aircraft represented is the nonpressurized propeller (SH6). The weekly arriving seats available is equal to the listed capacity of 36 seats, times 12 weekly arrivals, for a total of 432.

Another important measure of air service supply is the number of serving carriers. This statistic represents the variety of services available to a given customer in the subject market as a whole. It does not, however, break down into the number of carriers in individual city pair markets. For the purposes of this report, a carrier is an individual business entity which operates a service. A carrier may or may not operate it's own equipment. Conversely, an airline must operate it's own equipment. This is a necessary distinction in light of the airline contract marketing agreements now being made by the various airlines. In the Jackson example, there is only one carrier, Northwest Airlink (NW*) serving the facility (Northwest Airlink is a carrier contracted for by Northwest Airlines, Inc. and operated by Simmons Airlines).

The final measure of air service supply used by this report is the number of nonstop origins. This statistic represents the variety of nonstop city pair markets available to a given customer. A nonstop origin is an airport from which a passenger can arrive at the subject facility without an intermediate stop. In the Jackson example, there is only one nonstop origin available; Detroit Metro Airport.

It is important to know what options are available to a passenger in arriving at a Michigan air carrier airport. Generally, there are a greater number of these options at

larger "hub" airports. The FAA has four classifications of hub cities. As of December 31, 1987 (the most recent date available) they were designated as nonhub (fewer than 213,408 enplanements), small (213,408 to 1,067,040 enplanements), medium (1,067,040 to 4,268,160 enplanements) and large (4,268,160 or more enplanements) hubs ². Therefore, a good indicator of the degree to which options are available is the number of arrivals from large and medium hubs. For the purposes of this report, a hub will be defined as an airport which individually meets the criteria of FAA large and medium hub communities, ie. 1,067,040 or more enplanements.

Comparative Groups

Due to the effect of averaging, it is often improper to make comparisons between individual airports and a statewide average. This is particularly true when one considers that 62.9 percent of Michigan's total weekly arrivals are at Detroit, Metropolitan Airport. As such, when reporting air service statistics and trends, this analysis will use comparative groups, consisting of airports with a degree of geographic, funding or statistical commonality, to give a further breakdown of the reported figures. The groups which will be used are:

- 1) Statewide: All 25 scheduled, passenger air carrier airports are used.
- 2) Statewide Excluding Detroit Metro: All of the airports in the state with the exception of Detroit, Metropolitan Wayne County Airport. A total of 24 facilities.
- 3) Top Five Airports: The five airports with the highest annual total passenger levels in 1988. These are, in order of total passengers: Detroit Metropolitan Wayne County Airport; Grand Rapids, Kent County Airport; Saginaw, Tri-City

International Airport; Kalamazoo County Airport and Lansing, Capital City Airport.

- 4) Upper Peninsula Airports: Those airports located in Michigan's Upper Peninsula. These seven facilities are: Escanaba, Delta County Airport; Houghton/Hancock, Houghton County Memorial Airport; Iron Mountain, Ford Airport; Ironwood, Gogebic County Airport; Marquette County Airport; Menominee/ Marinette, Twin County Airport and Sault Ste. Marie, Chippewa County Airport.
- 5) Essential Air Service Airports: Those four facilities receiving standard subsidy monies under the Essential Air Service program. Airports receiving service continuance subsidies are not included. These facilities are: Jackson County, Reynolds Field; Manistee County, Blacker Airport; Menominee/ Marinette, Twin County Airport and Sault Ste. Marie, Chippewa County Airport.

Air Service Supply Analysis

Scheduled Arrivals

Statewide nonstop weekly arrivals at Michigan air carrier airports totaled 4,643, down 29 arrivals (1.3 percent) from the previous year. Of these arrivals, 3,335 (71.8 percent) were from hub airports. The decrease in weekly arrivals is not a significant drop and does not appear to have adversely affected total passenger levels to any great extent. The high level of flights to hub airports, with their greater number of service options, shows that, statewide, there is a high level of air service choice in flying to Michigan.

Statewide excluding Detroit Metro there were 1,722 nonstop weekly arrivals, up 142

arrivals (9.0 percent) from the previous year. Of these arrivals, 1,124 (65.3 percent) were from hub airports. The increase in weekly arrivals corresponds to higher passenger levels at many of the airports in this group. This increase in the number of weekly arrivals may be a reflection of airline attempts to fit the service to the market. The high percentage of flights to hub airports shows that there is a high level of air service choice in flying to Michigan airports even when not using Detroit Metro.

At the top five airports there were 3,819 nonstop weekly arrivals, down 166 arrivals (4.2 percent) from the previous year. Of these arrivals, 3,819 (77.9 percent) were from hub airports. The decrease in weekly arrivals is not a significant drop and does not appear to have adversely affected total passenger levels to any great extent. This is generally attributable to the use of fewer, higher capacity aircraft by the airlines serving these markets. The high level of flights to hub airports, with their greater number of service options, shows that there is a high level of air service choice in flying to the top five airports.

At the upper peninsula airports there were 236 nonstop weekly arrivals, up 14 arrivals (6.3 percent) over the previous year. Of these arrivals, 57 (24.2 percent) were from hub airports. The increase in the number of arrivals reflects a minor restructuring taking place in service to the upper peninsula and is not significant. The percentage of nonstop flights to hub airports is very small and indicates a low level of air service choice when flying to the upper peninsula. However, many of these services are "same plane" services to hub airports so this may be somewhat misleading.

At the essential air service airports there were 80 nonstop weekly arrivals, up ten arrivals (14.3 percent) from the previous

year. Of these arrivals, 34 (42.5 percent) were from hub airports. The increase in the number of weekly arrivals is welcome though not significant. The increase in the number of weekly arrivals may be a reflection of airline attempts to find a profitable fit for the service in the market. The small percentage of flights to hub airports shows that there is a low level of air service choice when flying to the essential air service airports.

Nonstop Origins

In 1988, Michigan had nonstop service from 96 origins in 87 cities. This is a net increase of three origins (3.2 percent) and four cities over the previous year. The cities gained and lost did not significantly alter the overall air service pattern for the state.

Exclusive of Detroit Metro in 1988, Michigan had nonstop service from 40 origins in 37 cities. This is a net increase of five origins (14.3 percent) and five cities over the previous year. The increase in origins for this group appears to be due to attempts by the carriers to find more efficient or profitable city pair routes.

In 1988, the top five airports in Michigan had nonstop service from 80 origins in 73 cities. This is a net increase of one origin (1.3 percent) and one city over the previous year. The cities gained and lost did not significantly alter the overall air service pattern for this group.

In 1988, Michigan's upper peninsula airports had nonstop service from 12 origins in 12 cities. This is a net decrease of three origins (20.0 percent) and three cities from the previous year. Though individual routings to some upper peninsula communities changed dramatically, only the loss of service to Lansing seems to have been significant. Upper peninsula airports still continue to

have service (though in some cases not nonstop) from at least one of the major hub cities of Chicago, IL, Detroit or Minneapolis/St. Paul, MN.

In 1988, Michigan's essential air service airports with standard subsidies had nonstop service from six origins in six cities. This is a net increase of one origin (20.0 percent) and one city over the previous year. The negligible change at these facilities reflects the lack of incentive under the Essential Air Service program, to provide more than rudimentary service to these markets.

Available Seats & Equipment Types

Statewide in 1988 there were 475,230 weekly arriving seats, an increase of 5,019 (1.1 percent) over the previous year. Of these seats, 431,943 (90.9 percent) were by jet, 18,118 (3.8 percent) were by pressurized propeller and 25,169 (5.3 percent) were by nonpressurized propeller aircraft. The change in weekly arriving seats was not distributed evenly among the equipment types. The largest drop occurred in the pressurized propeller seats which decreased by 13,147 (42.1 percent).

Statewide excluding Detroit, Metro, there were 99,401 weekly arriving seats, an increase of 12,497 (14.4 percent) over the previous year. Of the weekly arriving seats, 67,123 (67.5 percent) were by jet, 11,739 (11.8 percent) were by pressurized propeller and 20,539 (20.7 percent) were by nonpressurized propeller aircraft. The change in weekly arriving seats was not distributed evenly among the equipment types. The number of nonpressurized propeller seats did not change significantly. A shift occurred at some of the facilities in this group from pressurized propeller aircraft to jets.

The top five airports had 444,181 weekly

arriving seats, a decrease of 569 (0.1 percent) from the previous year. Of these seats, 420,851 (94.7 percent) were by jet, 12,244 (2.8 percent) were by pressurized propeller and 11,086 (2.5 percent) were by nonpressurized propeller aircraft. The lack of significant change in this group hides the fact that a decrease of 7,478 seats at Detroit Metro was offset by additional seats at Grand Rapids, Lansing and Saginaw. These changes reflected service restructuring by carriers at these facilities to serve previously unserved markets.

The upper peninsula airports had 7,181 weekly arriving seats, a decrease of 517 (6.7 percent) from the previous year. Of these seats, 2,857 (39.8 percent) were by pressurized propeller and 4,324 (60.2 percent) were by nonpressurized propeller aircraft. There was no significant change in the percentage of seats provided by equipment type though most of the reduction was in the less popular nonpressurized propeller aircraft category. The continued lack of jet service has been pinpointed by some groups as a contributing factor in declining passenger levels. However, if this year's increase in passenger levels is an indication, other factors are more important than jet service to potential passengers in upper peninsula communities. Despite this year's increase in passengers, there does not appear to be any single market in the upper peninsula capable of supporting jet service.

The essential service airports had 1,825 weekly arriving seats, an increase of 593 (48.1 percent) over the previous year. Of these seats, 741 (40.6 percent) were by pressurized propeller and 1,084 (59.4 percent) were by nonpressurized propeller aircraft. Previously, these airports received service by the minimum number of seats required, in the least desirable category of aircraft. Only the introduction of pressurized aircraft at Menominee on some of the flights keeps this

from still being true. Service levels are not surprising considering the structure of the subsidy which enables these services to exist.

Carrier Shares

As of December 31, 1988, Michigan was served by 30 carriers operated by 34 airlines. Though this was a net loss of four carriers, due to contract marketing agreements there were actually more airlines operating in the state. In terms of arrivals provided, the top three carriers were Northwest Airlines (40.4 percent), Northwest Airlink (10.0 percent) and American Eagle (6.1 percent). The top three carriers provided 56.5 percent of the scheduled arrivals at Michigan; down from 62.9 percent the previous year. Though at first this percentage seems high, the large number of carriers in the state as a whole means that competition is present. This statement, however, speaks to the state as a whole; not to specific city pairs.

As of December 31, 1988, Michigan, with the exception of Detroit Metro was served by 22 carriers operated by 23 airlines. This was a net increase of four carriers over the previous year. In terms of arrivals provided, the top three carriers were American Eagle (16.4 percent), Northwest Airlink (14.8 percent), and Northwest Airlines (12.2 percent). The top three carriers provided 43.4 percent of the scheduled arrivals at airports in this group; down from 58.1 percent the previous year. Two points should be made concerning the carrier shares in this group. First is the difference in the number of airlines serving Michigan as a whole and Michigan without Detroit, Metro. This indicates a lesser level of competition outside the Wayne County hub. It should also be noted that seven of the top ten carriers in this group are smaller, regional carriers and five of these share codes with major carriers.

As of December 31, 1988, the top five airports in terms of total passengers, were served by 25 carriers operated by 28 airlines. Though there was no net change in the number of carriers, due to contract marketing agreements there was a net increase of four airlines serving this group. In terms of arrivals provided, the top three carriers were Northwest Airlines (49.1 percent), Northwest Airlink (6.2 percent) and United Airlines (4.5 percent). Statistically, the top five airports are served by a broad range of carriers. What does not show up in these figures is the tendency of each of these carriers to serve a given city pair market almost to the exclusion of other carriers. This can be seen particularly with contract carriers feeding a major carrier at a hub. Also notable in this comparison is the fact that one airline and its feeder service, Northwest Airlines and Northwest Airlink, provide over half (55.3 percent) of the scheduled arrivals at the top five Michigan air carrier airports.

As of December 31, 1988, the upper peninsula airports were served by five carriers operated by four airlines. This was a net decrease of one carrier and one airline from 1987. In terms of arrivals provided, the top three carriers were Northwest Airlink (43.6 percent), Great Lakes Aviation (36.0 percent) and American Eagle (17.4 percent). These three carriers provide 97.0 percent of the scheduled arrivals at upper peninsula airports. This figure, and the fact that all of the airports in this group have service by only one airline (though perhaps as multiple carriers), points out a lack of competition in this group. It should be noted, however, that the levels of passengers generated by upper peninsula communities may be insufficient to support service by more than one airline.

As of December 31, 1988, the essential air service airports were served by 3 carriers operated by 3 airlines. This was a net decrease of one carrier from 1987. In terms

of arrivals provided, Great Lakes Aviation is the largest (63.8 percent) with Northwest Airlink operated by Simmons Airlines the second (30.0 percent). Overall share in this group is of little or no consequence due to the size of the group. It is not surprising that there is little or no competition in these markets as they are currently too small to share between carriers and the nature of the subsidy received at these facilities tends to preclude effective competition.

Individual Airport Informational Summaries

Section V of this report contains informational summaries of the individual airports and the comparative groups. Graphic and tabular presentation of the material will allow quick reference to statistics monitored by the Michigan Department of Transportation.

Summary

If all Michigan air carrier airports are considered as a group, the supply of air service is excellent. There are numerous carriers competing in the market, arrivals are frequent with a high percentage being from hub airports and the mixture of equipment favors the more popular jet service. However, due to the dominance of Detroit, Metropolitan and the other top five airports, this is somewhat overstated.

Without Metro Airport, the state shows a relatively high percentage of service by the less popular nonpressurized aircraft and fewer airlines competing in the market. Though the percentage of service from hub airports remains relatively high, there is a drop in the overall public perception of the quality of air service supplied in Michigan exclusive of Detroit, Metropolitan.

The worst service is given, not surprisingly, to the essential air service airports receiving standard subsidy monies. These markets have little or no competition, lower frequencies of arrival with a low percentage of frequencies being from hub airports (though all receive at worst same plane service to a hub) and a high percentage of service by nonpressurized propeller aircraft.

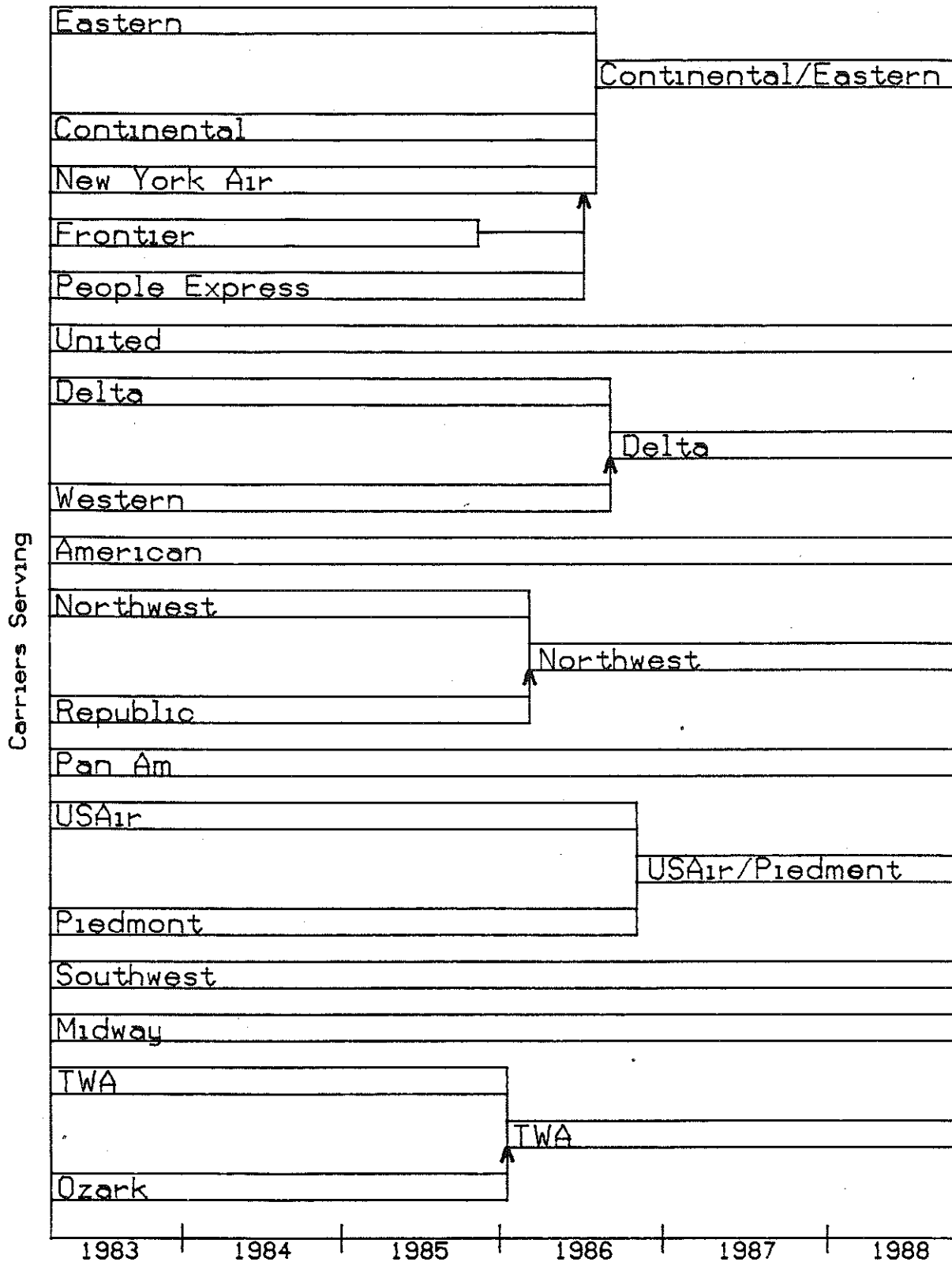
It should be realized that the carriers will continue to control the levels of air service provided to Michigan air carrier airports. This is what deregulation is all about. If a market fails to provide a carrier with sufficient load factors to produce a profit, the carrier has the right to drop that service. To keep passengers from using airports other than their local facility, it is necessary to make it more attractive to fly from the local airport than to fly from an alternate site. It should be realized that it is not always going to be possible to do this. However, state efforts in this area are underway.

Fly From Nearby is a marketing aid program which helps airports to promote their local services and the advantages of using the local facility. **Access Michigan** (a pilot program) is an effort to show airlines that types of service not currently offered at Michigan airports can be profitable. Efforts of these types will probably continue to be supported by the state.

Notes

1. Public Law 95-504, The Airline Deregulation Act of 1978 as passed by the 95th Congress.
2. Airport Activity Statistics of Certificated Route Air Carriers for the 12 months ending December 31, 1987, Federal Aviation Administration Research and Special Programs Administration.

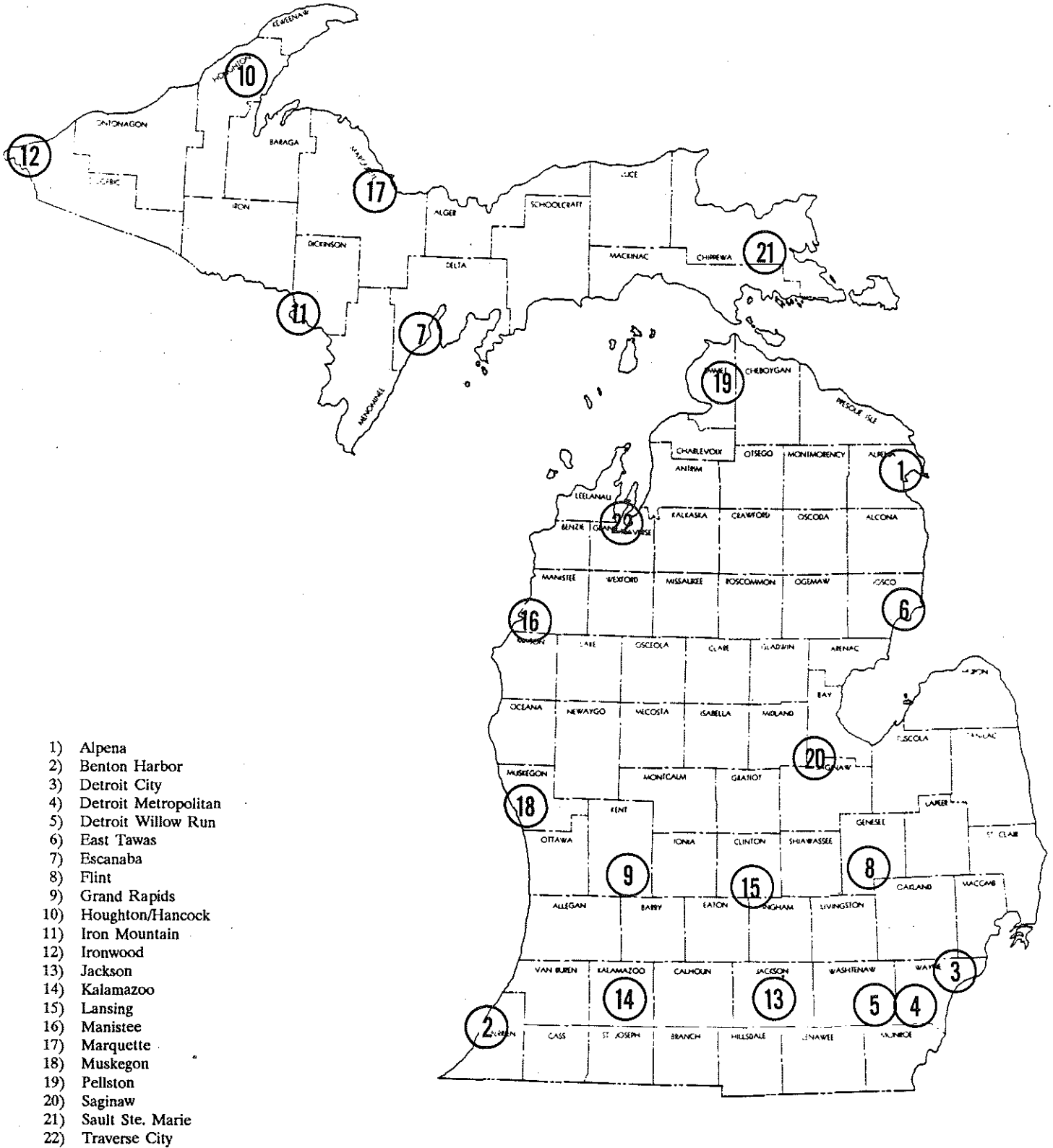
Exhibit 8
 MERGER HISTORY OF MAJOR & NATIONAL AIR CARRIERS
 SERVING MICHIGAN SCHEDULED AIR CARRIER AIRPORTS
 1983 - 1988





**Section III:
AIR CARRIED CARGO, EXPRESS &
PACKAGE FREIGHT**

Exhibit 9
**MICHIGAN AIRPORTS REPORTING AIR CARGO, EXPRESS
 & PACKAGE FREIGHT
 1988**



AIR CARRIED CARGO, EXPRESS & PACKAGE FREIGHT

Introduction

Historical air cargo levels are monitored by the Michigan Department of Transportation (MDOT), Bureau of Transportation Planning, Aviation Planning Unit. These specific statistics and trends are important to:

- 1) Airports: The ability to not only know cargo levels at their own airport but also other similar airports throughout the state, allows a measure of relative performance to be derived. It is also very useful in the local master planning process and allows decisions to be based on sound historical and comparative information.
- 2) State of Michigan: Ready access to specific, historical air cargo levels is important in state system and project planning. These figures are also used to justify projects for state and federal programs.
- 3) The Public, News Media and Others: Air cargo service, particularly in the deregulated environment, is often a confusing subject for nonaviation people. The quick access to historical information allows media personnel to report air service issues from a well documented base. It also allows the general public to judge the validity of what they might see in the news.

The information in this report covers total air cargo levels over the past ten years. Monthly figures and comparison to other air cargo facilities are available for 1988.

Method Of Measurement

The information in this report is derived from data submitted monthly by those

airports with scheduled air carrier service. To be identified as having scheduled air carrier service, a facility must show scheduled passenger service by at least one flight on at least five different days. Scheduled flights are those having a published/printed, person portable form. Due to high levels of scheduled cargo service, Detroit, Willow Run Airport is also included in this report. The exception to the normal rule was felt justified due to the large amounts of freight handled at this all cargo facility. All cargo at scheduled air carrier airports and Willow Run is counted. This includes shipments by express and package freight services. Airports submit data using MDOT Form Q1609(R6/86), Airline Monthly Traffic Report.

The basic units of counting for air cargo are the enplaned and deplaned pound of freight. Enplaned cargo is that which is loaded aboard an outbound flight. Deplaned cargo is that which is unloaded from an inbound flight.

The basic unit of reporting is pounds of Total Cargo. Total Cargo counts are equal to the sum of enplaned cargo and deplaned cargo. This report documents total cargo as well as the breakdown between enplaned and deplaned cargo.

Comparative Groups

Exhibits 11 and 12 show the significance of Detroit Metropolitan Wayne County Airport and Detroit, Willow Run Airport to air cargo levels. Over the past ten years, these two airports have individually been greater than the sum of all other airports in the state. Of the total cargo at scheduled air carrier airports, 90.2 percent used Metro or Willow

Run Airports in 1988. To help put the other facilities in perspective with each other, this analysis will use two comparative groups. The groups which will be used are:

- 1) Statewide: The 22 scheduled, passenger air carrier airports reporting any level of air cargo and Detroit, Willow Run Airport are used. A total of 23 facilities.
- 2) Statewide Excluding Detroit Metro & Detroit, Willow Run: All of the airports in the state with the exception of Detroit, Metropolitan Wayne County Airport and Detroit, Willow Run Airport. A total of 21 facilities.

Air Cargo Statistics & Trends

Many airport managers of airports served exclusively by commuter type aircraft have noted declines in air cargo levels over the past few years. This is generally explainable by the lack of "belly" cargo space on the smaller regional equipment. Many managers stipulated that some of the small package freight has been shifted to specialty cargo carriers. This is especially true at airports where feeder services operate for the larger overnight delivery services such as Federal Express and United Parcel Service.

Cargo Service Airport Locations

During 1988, air cargo levels were reported at 23 Michigan airports. No cargo was reported at Cadillac, Wexford County Airport; Drummond Island Airport; Mackinac Island Airport or Menominee/Marinette, Twin County Airport. Only cargo figures were reported at Detroit, Willow Run Airport.

Airport Total Cargo Levels

Exhibit 10 shows the total air cargo levels at the 23 airports at which cargo is currently monitored. Michigan airports portray the broad range of total cargo levels possible at airports from the small, irregular package freight amount at Manistee (103 pounds) to the large, regular industrial parts levels at Detroit, Willow Run Airport (230,850,775 pounds). However, it must be recognized that these airports all serve different needs and markets, thus smaller airports with lower cargo levels can be providing a useful and appropriate service.

Exhibit 13 shows the total air cargo levels for the state over the past ten years. In this period, Michigan has shown variation generally linked to nonaviation economic factors. Despite a strong economy, this did not hold true in 1987. In 1988, however, air cargo rebounded with an 18.7 percent gain. The total cargo level of 502,727,052 pounds is the fourth highest post deregulation air carried cargo level.

1986-1987 Total Cargo Comparison

Exhibit 15 shows comparative changes in total cargo levels at the 23 monitored airports since the previous year. Overall, Michigan experienced a 18.7 percent increase in total cargo over the previous year. Total cargo levels increased at ten airports, decreased at 12 facilities and, due to null levels of cargo during the previous year, one could not be calculated.

Statewide except Detroit, Metro and Detroit, Willow Run, Michigan experienced a 83.4 percent increase over the previous year. Total cargo levels increased at eight airports, decreased at 12 facilities and, due to null levels of cargo during the previous year, one

could not be calculated.

Large increases occurred at several facilities across the state. This was tied to the expansion of services by some of the express package services such as Airborne Express, Federal Express and United Parcel Service. The pattern of services by these carriers is to choose a "minihub" where a jet can conveniently service the main forwarding point. Smaller aircraft bring parcels from other "feeder" airports to this minihub for consolidation. Thus, expansion of services to the consolidation points, can trickle down to the feeder points.

1987 Monthly Total Cargo

Exhibit 16 shows the 1988 monthly enplaned, deplaned and total cargo figures. Monthly variation of cargo figures does not tend to follow a "seasonal" variation in the normal sense of the term. Most facilities will vary

according to levels of activity at industries in their service area. Some facilities also experience higher levels during the Christmas season.

Summary

Air cargo levels tend to be driven by economic factors outside the control of airport management. An upward trend is usually found in times of economic expansion. Thus, in light of the slight growth in the state economy, it is not surprising that statewide total cargo levels increased.

As the overnight package freight business continues to expand, fluctuations in route structure are inevitable. Michigan experienced this in the movement of United Parcel Service from Grand Rapids to Lansing in 1987. The erratic cargo levels caused by these fluctuations must be understood when analyzing cargo trends. In the deregulated environment, forecasting of cargo levels is increasingly difficult.

Exhibit 10
 TOTAL AIR CARGO, EXPRESS & PACKAGE FREIGHT
 AT MICHIGAN SCHEDULED AIR CARRIER AIRPORTS
 1988

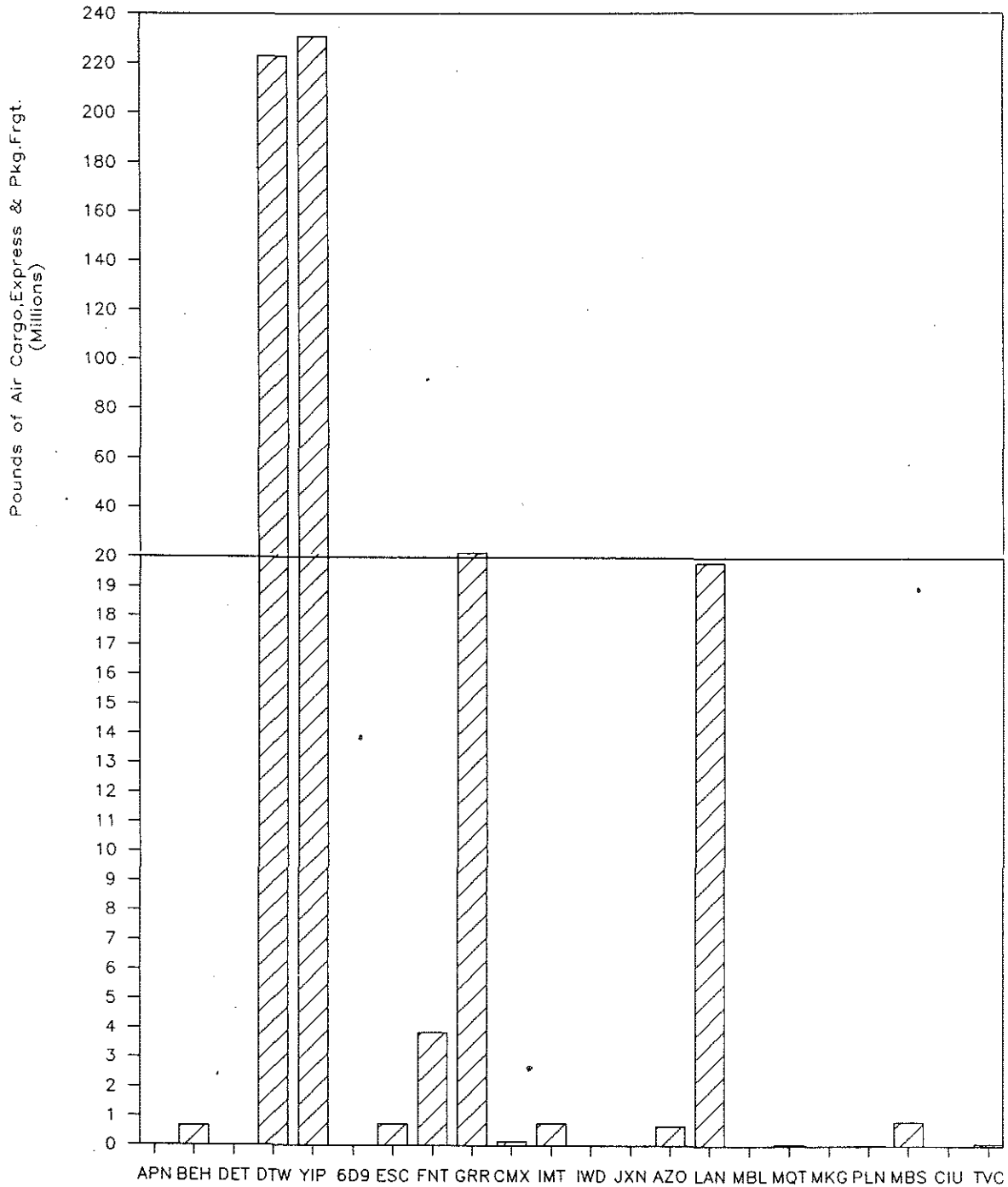


Exhibit 11
1979-1988 ANNUAL TOTAL AIR CARGO COMPARISON

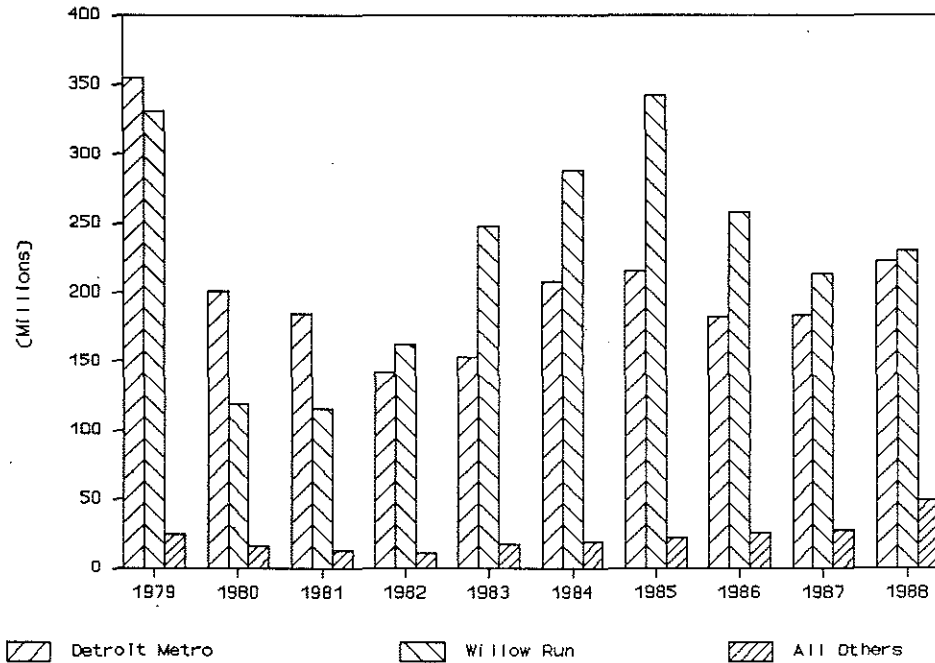


Exhibit 12
1988 AIR CARGO TONNAGE COMPARISON

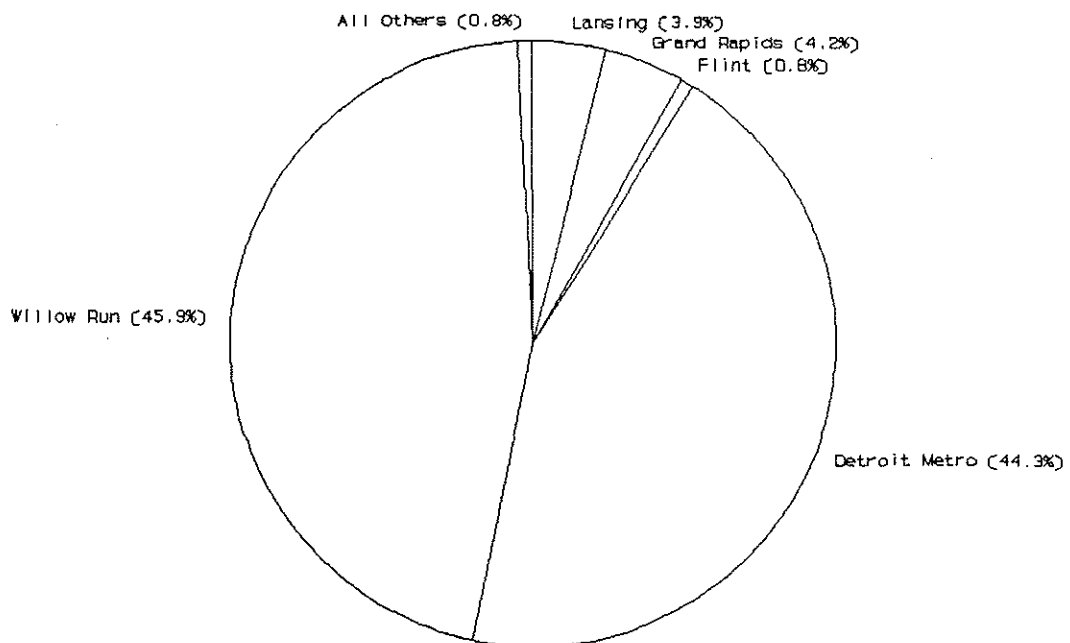


Exhibit 13
1979-1988 STATEWIDE ANNUAL TOTAL CARGO

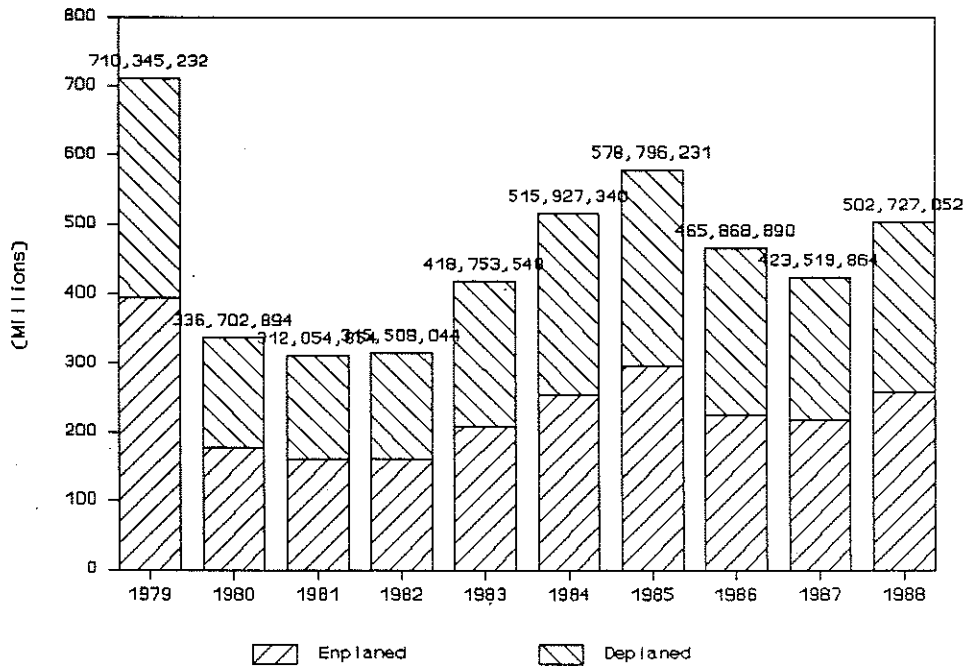


Exhibit 14
1979-1988 STATEWIDE (EXCLUDING DTW & YIP) ANNUAL TOTAL CARGO

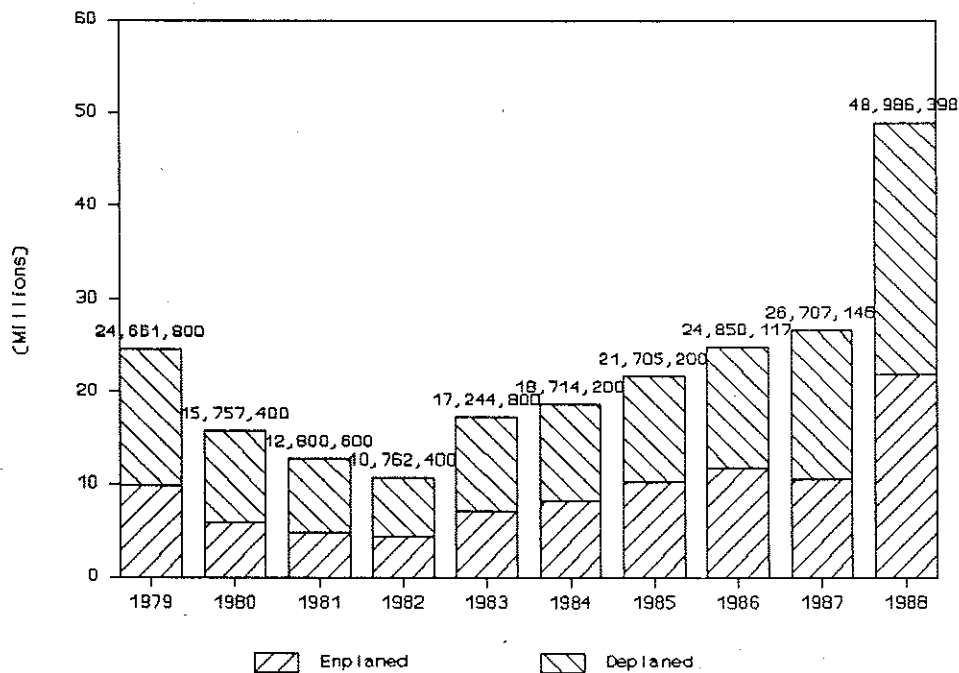


Exhibit 15
**ENPLANED, DEPLANED AND TOTAL CARGO LEVELS
 AT MICHIGAN SCHEDULED AIR PASSENGER AIRPORTS**
 1987-1988 Comparison
 (Figures in Pounds)

Airport	Enplaned Cargo		Percent Change	Deplaned Cargo		Percent Change	Total Cargo		Percent Change
	1987	1988		1987	1988		1987	1988	
Alpena	59,280	3,820	-93.6%	65,109	3,845	-94.1%	124,389	7,665	-93.8%
Benton Harbor	2,996	280,890	9275.5%	7,469	380,658	4996.5%	10,465	661,548	6221.5%
Detroit City	9,874	5,147	-47.9%	15,803	7,550	-52.2%	25,677	12,697	-50.6%
Detroit Metro	94,174,544	108,908,952	15.6%	89,010,125	113,980,927	28.1%	183,184,669	222,889,879	21.7%
Detroit Willow Run	113,867,492	127,708,874	12.2%	99,760,557	103,141,901	3.4%	213,628,049	230,850,775	-8.1%
East Tawas	0	2,800	n/c	0	0	0.0%	0	2,800	n/c
Escanaba	216,022	338,738	56.8%	475,923	406,016	-14.7%	691,945	744,754	7.6%
Flint	68,814	1,839,098	2572.6%	291,576	2,018,827	592.4%	360,390	3,857,925	970.5%
Grand Rapids	754,650	9,150,830	1112.6%	2,582,801	12,149,142	370.4%	3,337,451	21,299,972	538.2%
Houghton/Hancock	22,215	83,468	275.7%	17,104	59,847	249.9%	39,319	143,315	264.5%
Iron Mountain	223,393	250,303	12.0%	471,345	497,995	5.7%	694,738	748,298	7.7%
Ironwood	916	1,530	67.0%	4,353	3,630	-16.6%	5,269	5,160	-2.1%
Jackson	409	485	18.6%	1,229	909	-26.0%	1,638	1,394	-14.9%
Kalamazoo	198,797	194,153	-2.3%	456,571	479,324	5.0%	655,368	673,477	2.8%
Lansing	8,269,344	9,428,448	14.0%	8,952,378	10,395,923	16.1%	17,221,722	19,824,371	15.1%
Manistee	87	101	16.1%	386	2	-99.5%	473	103	-78.2%
Marquette	34,706	29,073	-16.2%	115,857	40,697	-64.9%	150,563	69,770	-53.7%
Menominee/Marinette	4	0	-100.0%	60	0	-100.0%	64	0	-100.0%
Muskegon	14,176	2,809	-80.2%	18,000	10,768	-40.2%	32,176	13,577	-57.8%
Pellston	6,266	7,731	23.4%	19,580	16,246	-17.0%	25,846	23,977	-7.2%
Saginaw	318,823	238,495	-25.2%	1,732,767	566,107	-67.3%	2,051,590	804,602	-60.8%
Sault Ste. Marie	5,560	2,373	-57.3%	13,799	13,700	-0.7%	19,359	16,073	-17.0%
Traverse City	411,294	25,374	-93.8%	717,611	49,546	-93.1%	1,128,905	74,920	-93.4%
Statewide	218,669,790	258,503,492	18.2%	204,850,074	244,223,560	19.2%	423,519,864	502,727,052	18.7%
Statewide Excluding Metro & Willow Run	10,627,754	21,885,666	105.9%	16,079,392	27,100,732	68.5%	26,707,146	48,986,398	83.4%

n/c: Not calculatable

Exhibit 16

**ENPLANED, DEPLANED & TOTAL CARGO LEVELS
AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
1988 Monthly History**

<u>Airport</u>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tot.
<u>Alpena County Regional Airport</u>													
Enp.	209	281	83	42	262	50	159	246	300	659	1,177	352	3,820
Dep.	511	511	482	410	158	275	210	200	211	132	454	291	3,845
Tot.	720	792	565	452	420	325	369	446	511	791	1,631	643	7,665
<u>Benton Harbor, Twin Cities Ross Field Airport</u>													
Enp.	27,321	27,158	28,178	29,086	19,869	19,030	18,980	19,422	18,940	23,153	18,853	30,900	280,890
Dep.	52,012	21,689	28,336	29,529	26,249	33,024	33,455	33,590	34,190	28,795	30,497	56,292	380,658
Tot.	25,333	48,847	56,514	58,615	46,118	52,054	52,435	53,012	53,130	51,948	49,350	87,192	661,548
<u>Detroit City Airport</u>													
Enp.	255	577	1,363	8	641	219	210	663	616	236	267	92	5,147
Dep.	639	693	783	1,432	357	336	1,322	467	1,070	302	151	236	7,550
Tot.	894	1,360	2,795	365	977	1,541	677	1,118	1,686	538	418	328	12,697
<u>Detroit Metropolitan Wayne County Airport</u>													
Enp.	7,283,436	7,344,934	8,060,646	8,167,795	9,462,160	11,129,637	8,448,979	8,248,568	9,653,214	11,193,319	10,003,267	9,912,997	108,908,952
Dep.	7,335,190	8,278,386	8,559,403	8,532,709	9,375,282	10,756,514	8,264,904	9,153,736	9,617,666	12,220,439	11,272,174	10,614,174	113,980,927
Tot.	4,618,626	15,623,320	16,620,049	16,700,504	18,837,442	21,886,151	16,713,883	17,402,304	19,270,880	23,413,758	21,275,441	20,527,521	222,889,879
<u>Detroit, Willow Run Airport</u>													
Enp.	8,502,547	8,527,762	9,916,143	8,450,803	10,242,720	15,132,340	10,967,082	10,322,880	12,338,077	13,318,403	10,315,301	9,674,816	127,708,874
Dep.	7,965,732	7,413,014	8,998,262	8,177,198	7,926,751	9,440,380	8,131,659	8,250,957	9,935,867	9,754,946	8,950,294	8,196,841	103,141,901
Tot.	16,468,279	15,940,776	18,914,405	16,628,001	18,169,471	24,572,720	19,098,741	18,573,837	22,273,944	23,073,349	19,265,595	17,871,657	230,850,775
<u>East Tawas, Iosco County Airport</u>													
Enp.	0	0	1,000	0	0	0	0	0	0	1,800	0	0	2,800
Dep.	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot.	0	0	1,000	0	0	0	0	0	0	1,800	0	0	2,800
<u>Escanaba, Delta County Airport</u>													
Enp.	21,367	20,734	24,885	22,642	28,828	23,355	31,086	30,196	32,929	29,951	29,813	42,952	338,738
Dep.	29,892	28,490	33,672	28,187	27,829	30,174	35,968	34,172	41,645	39,235	31,319	45,433	406,016
Tot.	51,259	49,224	58,557	50,829	56,657	53,529	67,054	64,368	74,574	69,186	61,132	88,385	744,754
<u>Flint, Bishop Airport</u>													
Enp.	34,757	61,026	69,375	97,021	100,934	74,474	78,450	131,139	234,225	267,035	473,612	217,050	1,839,098
Dep.	49,690	85,675	80,828	122,960	123,525	85,407	81,565	136,872	241,985	288,209	490,702	231,409	2,018,827
Tot.	84,447	146,701	150,203	219,981	224,459	159,881	160,015	268,011	476,210	555,244	964,314	448,459	3,857,925
<u>Grand Rapids, Kent County International Airport</u>													
Enp.	671,170	656,183	751,706	780,597	779,034	754,123	667,169	721,543	761,064	867,226	809,669	931,346	9,150,830
Dep.	1,124,886	885,481	918,605	1,034,787	962,286	941,790	971,228	1,040,619	1,098,578	1,082,781	988,845	1,099,256	12,149,142
Tot.	1,796,056	1,541,664	1,670,311	1,815,384	1,741,320	1,695,913	1,638,397	1,762,162	1,859,642	1,950,007	1,798,514	2,030,602	21,299,972
<u>Houghton/Hancock, Houghton County Memorial Airport</u>													
Enp.	3,281	1,451	1,037	1,278	11,244	9,573	11,032	11,200	10,165	7,210	8,650	7,347	83,468
Dep.	2,154	1,642	1,468	1,065	6,591	8,186	6,676	5,757	6,426	5,504	7,465	6,895	59,847
Tot.	5,435	3,093	2,523	2,343	17,835	17,759	17,708	16,957	16,591	12,714	16,115	14,242	143,315
<u>Iron Mountain, Ford Airport</u>													
Enp.	20,069	16,963	17,637	16,218	17,433	22,880	41,782	25,680	21,281	22,264	16,825	11,271	250,303
Dep.	41,087	42,788	43,715	42,263	46,693	51,784	23,581	46,186	47,980	49,017	32,894	30,007	497,995
Tot.	61,156	59,751	61,352	58,481	64,126	74,664	65,363	71,866	69,261	71,281	49,719	41,278	748,298
<u>Ironwood, Gogebic County Airport</u>													
Enp.	208	1,120	0	49	2	0	0	0	0	145	6	0	1,530
Dep.	454	100	389	68	1,199	52	38	241	189	250	530	120	3,630
Tot.	622	1,220	389	117	1,201	52	38	241	189	395	536	120	5,160
Enp.: Enplanements	Dep.: Deplanements						Tot.: Total						

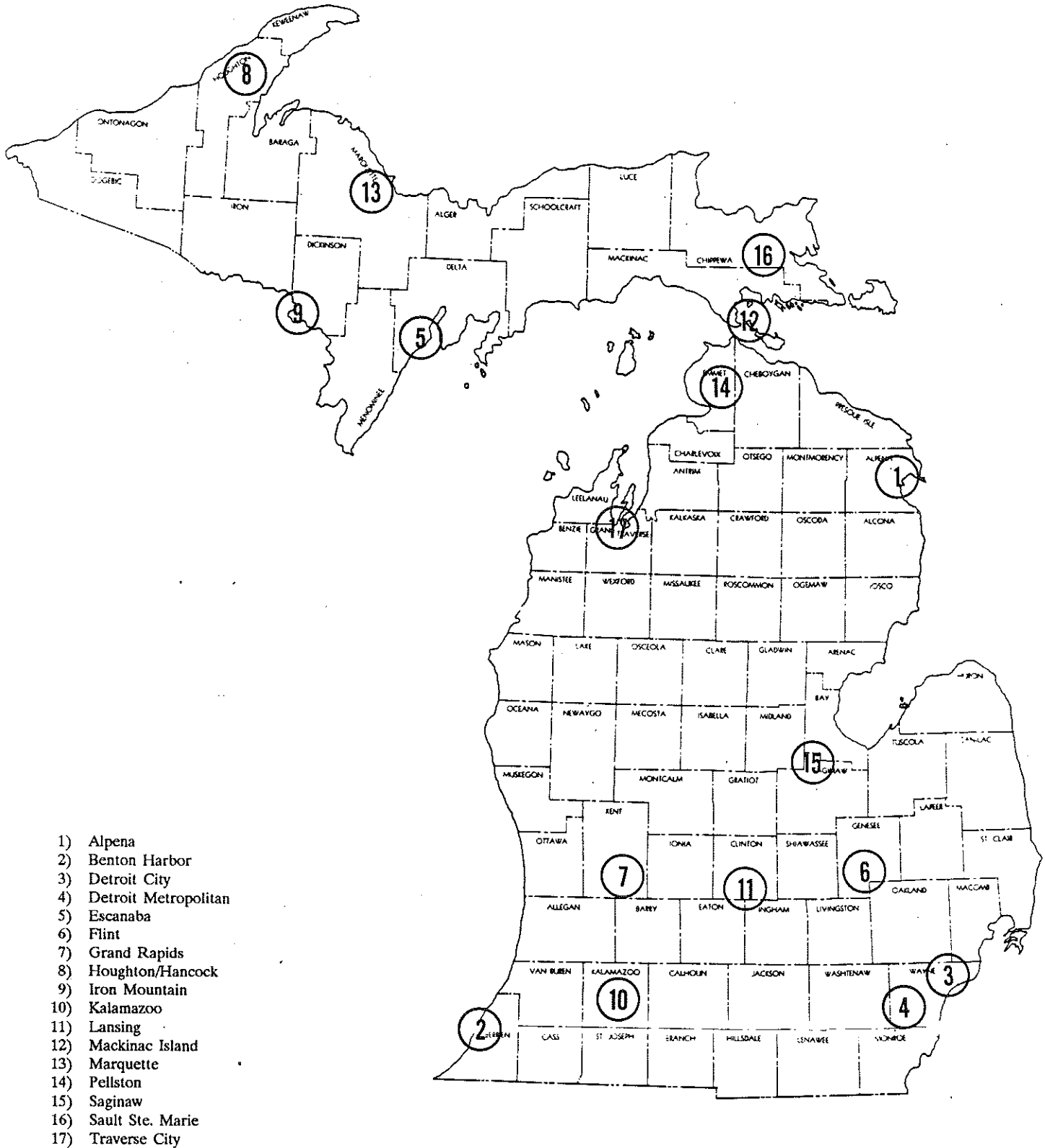
Exhibit 16 (cont.)
ENPLANED, DEPLANED & TOTAL CARGO LEVELS
AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
 1988 Monthly History

Airport	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Tot.
Jackson County, Reynolds Field													
Enp.	0	0	0	0	0	100	0	140	0	245	0	0	485
Dep.	4	34	7	120	315	94	187	0	6	142	0	0	909
Tot.	4	34	7	120	315	194	187	140	6	387	0	0	1,394
Kalamazoo County Airport													
Enp.	13,803	12,229	15,654	16,751	12,994	14,367	16,225	18,405	20,123	23,265	23,196	7,141	194,153
Dep.	39,242	49,984	49,431	31,141	34,868	40,657	30,023	42,105	47,083	45,476	46,293	23,021	479,324
Tot.	53,045	62,213	65,085	47,892	47,862	55,024	46,248	60,510	67,206	68,741	69,489	30,162	673,477
Lansing, Capital City Airport													
Enp.	660,916	698,488	786,126	687,964	751,579	803,864	746,853	787,630	876,279	830,230	907,235	891,284	9,428,448
Dep.	714,304	696,196	832,158	744,760	813,956	913,679	853,719	946,227	990,473	941,800	954,472	994,179	10,395,923
Tot.	1,375,220	1,394,684	1,618,284	1,432,724	1,565,535	1,717,543	1,600,572	1,733,857	1,866,752	1,772,030	1,861,707	1,885,463	19,824,371
Manistee County, Blacker Airport													
Enp.	0	50	0	0	0	0	0	0	51	0	0	0	101
Dep.	0	0	0	1	0	0	0	0	1	0	0	0	2
Tot.	0	50	0	1	0	0	0	0	52	0	0	0	103
Marquette County Airport													
Enp.	1,616	3,272	2,377	894	4,277	2,024	3,360	2,575	2,265	2,491	1,431	2,491	29,073
Dep.	2,627	2,542	3,808	3,555	3,229	3,308	3,077	4,204	4,190	3,593	3,127	3,437	40,697
Tot.	4,243	5,814	6,185	4,449	7,506	5,332	6,437	6,779	6,455	6,084	4,558	5,928	69,770
Muskegon County Airport													
Enp.	181	68	367	220	372	351	319	460	358	5	20	88	2,809
Dep.	574	88	1,062	2,225	392	1,237	1,649	1,267	1,079	401	49	745	10,768
Tot.	755	156	1,429	2,445	764	1,588	1,968	1,727	1,437	406	69	833	13,577
Pellston, Emmet County Airport													
Enp.	578	241	655	1,032	357	777	1,014	1,121	1,062	174	269	451	7,731
Dep.	574	88	1,062	2,225	392	1,237	1,649	1,267	1,079	401	49	745	10,768
Tot.	755	156	1,429	2,445	764	1,588	1,968	1,727	1,437	406	69	833	13,577
Saginaw, Tri-City International Airport													
Enp.	24,196	19,627	22,910	16,636	25,073	18,892	17,676	18,452	20,437	20,187	16,983	17,426	238,495
Dep.	44,079	44,053	53,854	47,435	47,097	51,870	42,338	48,167	50,855	52,553	46,698	37,108	566,107
Tot.	68,275	63,680	76,764	64,071	72,170	70,762	60,014	66,619	71,292	72,740	63,681	54,534	804,602
Sault Ste. Marie, Chippewa County International Airport													
Enp.	57	106	482	123	379	424	111	425	85	87	46	48	2,373
Dep.	1,244	1,127	409	1,140	1,159	1,093	2,152	1,438	985	1,975	265	713	13,700
Tot.	1,301	1,233	891	1,263	1,538	1,517	2,263	1,863	1,070	2,062	311	761	16,073
Traverse City, Cherry Capital Airport													
Enp.	1,174	1,160	2,866	2,471	2,466	1,608	3,104	1,918	1,945	2,069	956	3,637	25,374
Dep.	5,185	3,812	4,258	4,513	4,495	4,921	6,057	3,969	2,931	3,140	2,391	3,874	49,546
Tot.	6,359	4,972	7,124	6,984	6,961	6,529	9,161	5,887	4,876	5,209	3,347	7,511	74,920
Michigan Scheduled Air Carrier Airports													
Enp.	17,267,141	17,393,430	19,703,490	18,291,630	21,460,624	28,008,088	21,053,591	20,342,663	23,993,416	26,610,154	22,627,576	21,751,689	258,503,492
Dep.	17,382,869	17,556,934	19,612,500	18,805,327	19,404,584	22,368,096	18,492,919	19,752,206	22,124,147	24,518,924	22,860,136	21,344,918	244,223,560
Tot.	34,650,010	34,950,364	39,315,990	37,096,957	40,865,208	50,376,184	39,546,510	40,094,869	46,117,563	51,129,078	45,487,712	43,096,607	502,727,052
Michigan Scheduled Air Carrier Airports Excluding Detroit Metro & Detroit, Willow Run													
Enp.	1,481,158	1,520,734	1,726,701	1,673,032	1,755,744	1,746,111	1,637,530	1,771,215	2,002,125	2,098,432	2,309,008	2,163,876	21,885,666
Dep.	2,081,947	1,865,534	2,054,835	2,095,420	2,102,551	2,171,202	2,096,356	2,347,513	2,570,614	2,543,539	2,637,668	2,533,553	27,100,732
Tot.	3,563,105	3,386,268	3,781,536	3,768,452	3,858,295	3,917,313	3,733,886	4,118,728	4,572,739	4,641,971	4,946,676	4,697,429	48,986,398
Enp.: Enplanements												Dep.: Deplanements	Tot.: Total



**Section IV:
AIR CARRIED MAIL**

Exhibit 17
 MICHIGAN AIRPORTS REPORTING AIR CARRIED MAIL
 1988



AIR CARRIED MAIL

Introduction

Historical air carried mail levels are monitored by the Michigan Department of Transportation (MDOT), Bureau of Transportation Planning, Aviation Planning Unit. These specific statistics and trends are important to:

- 1) Airports: The ability to not only know air carried mail levels at their own airport but also other similar airports throughout the state, allows a measure of relative performance to be derived. It is also very useful in the local master planning process and allows decisions to be based on sound historical and comparative information.
- 2) State of Michigan: Ready access to specific, historical air carried mail levels is important in state system and project planning.

The information in this report covers total air carried mail levels over the past ten years. Monthly figures and comparison to other facilities are available for 1988.

Information on air carried mail levels can only be reported, not truly analyzed. Decisions as to the use of certain facilities for shipping U.S. Mails are unilaterally made by the postal service. As such, any analysis or forecasts could be rendered inaccurate or incorrect by a decision which is not within the realm of this report.

Method Of Measurement

The information in this report is derived from data submitted monthly by those airports with scheduled air carrier service.

To be identified as having scheduled air carrier service, a facility must show scheduled passenger service by at least one flight on at least five different days. Scheduled flights are those having a published/printed, person portable form. Airports submit data using MDOT Form Q1609(R6/86), Airline Monthly Traffic Report.

The basic unit of counting for air carried mail is the enplaned or deplaned pound of mail. Enplaned mail is that which is loaded aboard an outbound flight. Deplaned mail is that which is unloaded from an inbound flight.

The basic unit of reporting is Total Mail. Total mail is equal to the sum of enplaned mail and deplaned mail. This report documents total mail as well as the breakdown between enplaned and deplaned mail.

While Exhibit 18 shows the significance of Detroit, Metropolitan Wayne County Airport to air carried mail levels, it is not necessary to use comparative groups to allow a perspective on the other facilities.

Air Carried Mail Statistics

Commercial Service Airport Locations

During 1988, air carried mail levels were reported at 17 Michigan airports. Three Michigan airports are used as U.S. Postal Service regional mail centers. These facilities are Metropolitan Wayne County, Kent County International and Capital City Airports in Detroit, Grand Rapids and Lansing respectively.

Airport Total Mail Levels

Exhibit 19 shows the total air carried mail levels at the 17 scheduled air service airports reporting mail figures. Exhibit 20 shows the total air carried mail levels over the past ten years. The level of total air carried mail is at the highest point in ten years.

1986-1987 Air Carried Mail Comparison

Exhibit 22 shows comparative changes in total mail levels at the 17 airports reporting air mail since the previous year. Overall, Michigan experienced a 4.2 percent increase in total mail over the previous year. Total mail levels increased at three airports, decreased at eleven and, due to a lack of reported mail levels in 1987, were not calculatable at three facilities.

1987 Monthly Total Mail

Exhibit 21 shows the 1988 monthly enplaned, deplaned and total mail figures. As would be expected, the highest levels of air carried mail occur near the Christmas holidays.

Summary

Air carried mail is an important component of the service provided by many airports. Even so, the decisions that are made concerning what levels occur at a facility are not something which airport management has control of. Decisions concerning airport development to serve air carried mail must be coordinated with U.S. Postal Service authorities.

Exhibit 18
1988 AIR CARRIED MAIL AIRPORT COMPARISON

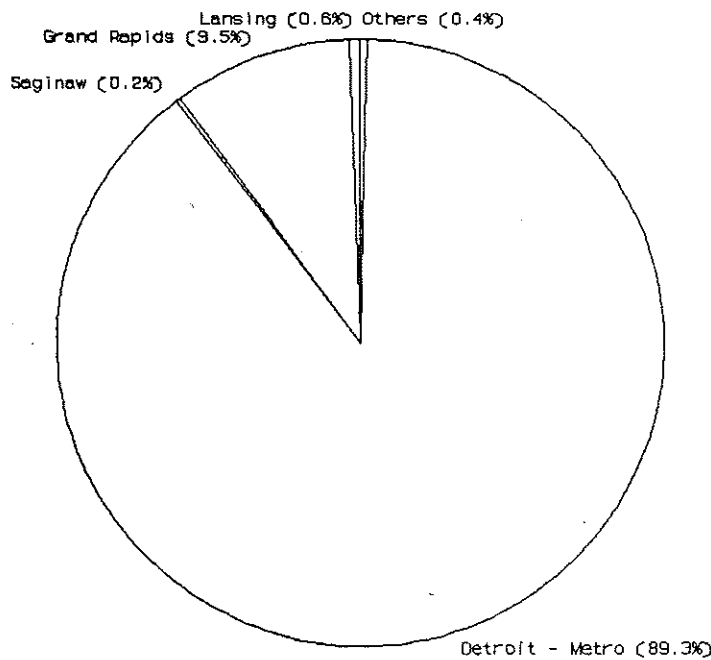


Exhibit 19
TOTAL AIR CARRIED MAIL
AT MICHIGAN SCHEDULED AIR CARRIER AIRPORTS
1988

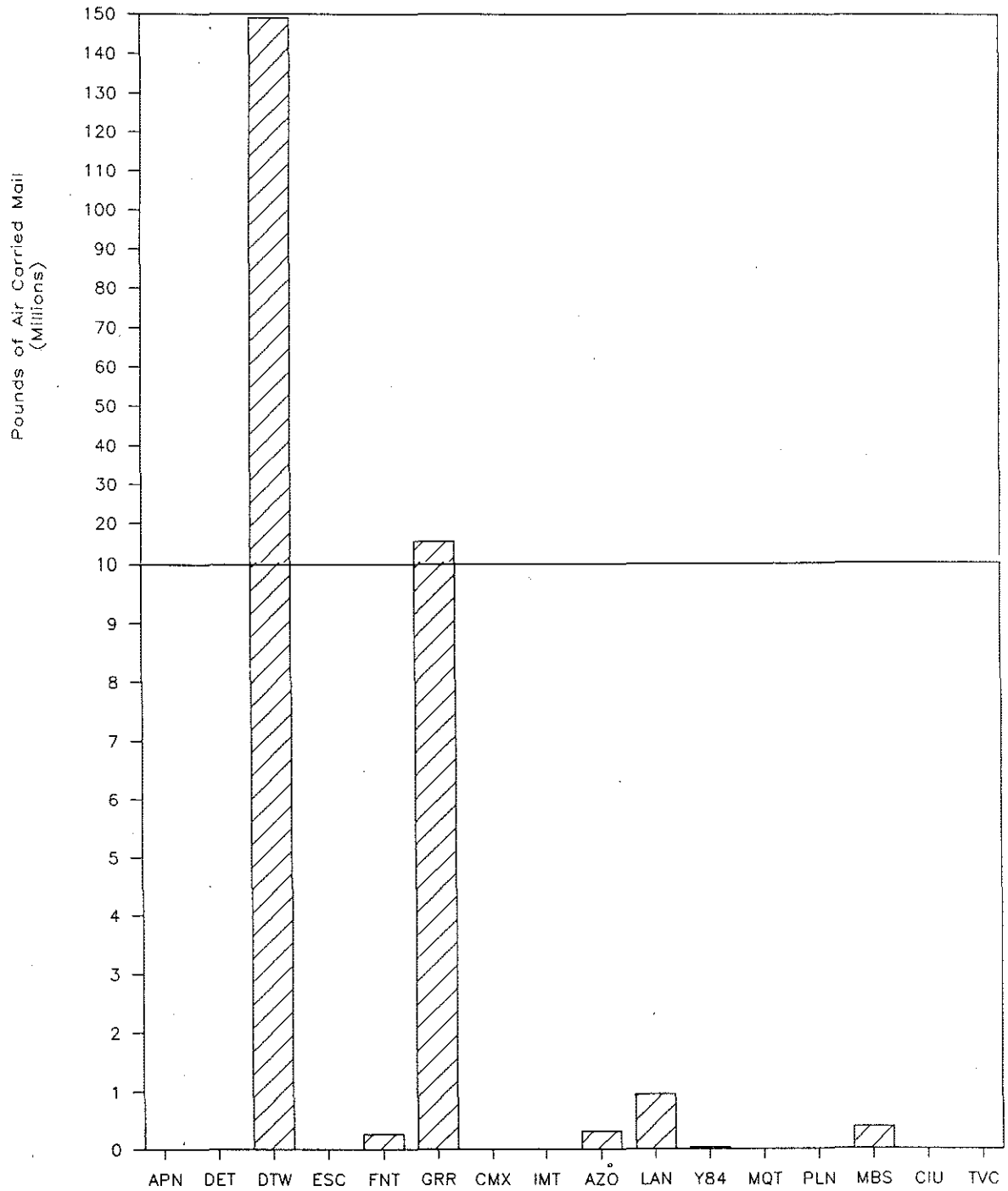


Exhibit 20
1979-1988 STATEWIDE ANNUAL TOTAL AIR CARRIED MAIL

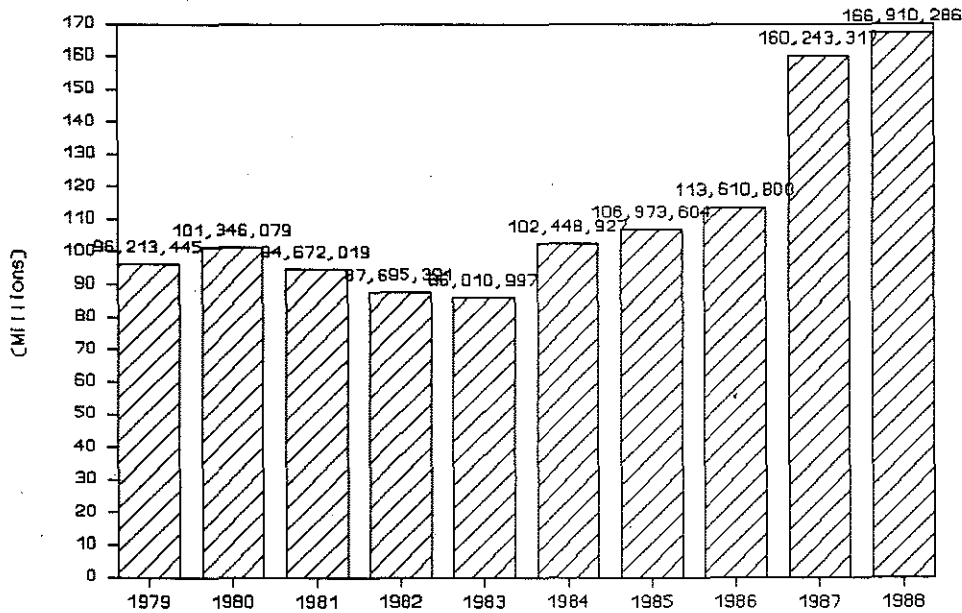


Exhibit 21
ENPLANED, DEPLANED & TOTAL AIR CARRIED MAIL LEVELS
AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
1988 Monthly History
(Figures in Pounds)

Airport	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Alpena County Regional Airport													
Enp.	72	72	0	0	0	0	0	0	0	10	0	3	157
Dep.	0	0	128	118	29	18	5	6	4	0	10	0	318
Tot.	72	72	128	118	29	18	5	6	4	10	10	3	475
Detroit City Airport													
Enp.	0	0	0	3	0	0	0	26	0	0	0	0	29
Dep.	0	0	0	9	0	0	0	27	0	0	0	0	36
Tot.	0	0	0	12	0	0	0	53	0	0	0	0	65
Detroit Metropolitan Wayne County Airport													
Enp.	6,369,457	6,037,506	6,863,023	6,132,504	5,542,341	5,539,525	5,584,697	5,875,642	5,766,745	5,991,537	6,144,915	9,054,384	74,902,276
Dep.	6,335,542	5,720,635	6,577,431	6,011,898	5,772,164	5,607,200	5,416,501	5,834,581	5,716,757	6,416,254	6,136,948	8,614,789	74,160,700
Tot.	12,704,999	11,758,141	13,440,454	12,144,402	11,314,505	11,146,725	11,001,198	11,710,223	11,483,502	12,407,791	12,281,863	17,669,173	149,062,976
Escanaba, Delta County Airport													
Enp.	769	675	267	244	239	201	234	252	245	217	304	395	4,042
Dep.	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot.	769	675	267	244	239	201	234	252	245	217	304	395	4,042

Exhibit 21 (cont.)
ENPLANED, DEPLANED & TOTAL AIR CARRIED MAIL LEVELS
AT MICHIGAN AIRPORTS WITH SCHEDULED AIR CARRIER SERVICE
 1988 Monthly History
 (Figures in Pounds)

Airport	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Flint, Bishop Airport													
Enp.	34,036	29,097	15,941	13,362	6,847	13,102	16,517	13,669	13,016	13,314	16,198	56,580	241,679
Dep.	1,825	1,074	944	707	1,394	914	951	574	3,012	1,878	993	669	14,935
Tot.	35,861	30,171	16,885	14,069	8,241	14,016	17,468	14,243	16,028	15,192	17,191	57,249	256,614
Grand Rapids, Kent County International Airport													
Enp.	307,350	268,928	300,520	260,674	233,345	237,791	247,201	288,022	276,399	287,107	291,672	478,684	3,477,693
Dep.	1,013,781	1,017,182	1,157,597	1,047,842	1,002,823	1,048,216	955,594	1,016,420	956,687	1,015,759	784,575	1,387,756	12,404,232
Tot.	1,321,131	1,286,110	1,458,117	1,308,516	1,236,168	1,286,007	1,292,795	1,304,442	1,233,086	1,302,866	1,076,247	1,866,440	15,881,925
Houghton/Hancock, Houghton County Memorial Airport													
Enp.	68	130	108	164	139	159	108	125	122	100	72	56	1,351
Dep.	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot.	68	130	108	164	139	159	108	125	122	100	72	56	1,351
Iron Mountain, Ford Airport													
Enp.	0	2,308	715	232	216	163	54	164	181	266	134	210	4,643
Dep.	39	21	0	0	0	11	2	0	0	0	61	126	260
Tot.	39	2,329	715	232	216	174	56	164	181	266	195	336	4,903
Kalamazoo County Airport													
Enp.	30,950	29,059	40,642	36,722	20,588	16,630	10,109	5,754	7,666	20,152	7,638	30,821	256,731
Dep.	4,521	2,886	5,463	3,502	6,654	3,607	3,081	3,812	4,589	3,641	4,373	4,837	50,966
Tot.	35,471	31,945	46,105	40,224	27,242	20,237	13,190	9,566	12,255	23,793	12,011	35,658	307,697
Lansing, Capital City Airport													
Enp.	66,940	80,630	83,671	68,984	59,893	61,254	60,864	57,440	72,990	76,132	75,434	136,853	901,085
Dep.	3,734	4,188	4,615	3,745	4,756	4,728	3,595	4,211	4,406	3,901	5,262	9,300	56,441
Tot.	70,674	84,818	88,286	72,729	64,649	65,982	64,459	61,651	77,396	80,033	80,696	146,153	957,526
Mackinac Island Airport													
Enp.	4,500	4,500	4,500	4,500	0	0	0	0	0	0	0	0	18,000
Dep.	4,500	4,500	4,500	4,500	0	0	0	0	0	0	0	0	18,000
Tot.	9,000	9,000	9,000	9,000	0	0	0	0	0	0	0	0	36,000
Marquette County Airport													
Enp.	113	472	482	513	540	373	631	465	298	1,624	508	626	6,645
Dep.	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot.	113	472	482	513	540	373	631	465	298	1,624	508	626	6,645
Pellston, Emmet County Airport													
Enp.	26	0	0	86	0	0	0	52	28	316	0	0	508
Dep.	0	0	17	269	15	17	10	300	192	213	12	12	1,057
Tot.	26	0	17	355	15	17	10	352	220	529	12	12	1,565
Saginaw, Tri-City International Airport													
Enp.	28,382	24,442	30,906	20,119	19,537	20,830	20,830	21,732	20,008	25,731	27,966	76,581	337,064
Dep.	2,075	2,855	3,474	2,424	2,260	6,242	3,123	5,299	2,455	4,000	4,074	3,347	41,628
Tot.	30,457	27,297	34,380	22,543	21,797	27,072	23,953	27,031	22,463	29,731	32,040	79,928	387,692
Sault Ste. Marie, Chippewa County International Airport													
Enp.	74	106	174	229	582	379	281	143	214	130	159	116	2,587
Dep.	297	129	225	166	257	235	100	102	84	53	73	80	1,801
Tot.	371	235	399	395	839	614	381	245	298	183	232	196	4,388
Traverse City, Cherry Capital Airport													
Enp.	162	207	340	530	143	54	195	101	78	405	223	397	2,835
Dep.	150	175	275	235	98	97	252	79	67	287	396	476	2,587
Tot.	312	382	615	765	241	151	447	180	145	692	619	873	5,422
Michigan Scheduled Air Carrier Airports													
Enp.	6,842,899	6,478,132	7,341,289	6,538,866	5,884,410	5,890,461	5,941,721	6,263,587	6,157,990	6,417,041	6,565,223	9,835,706	80,157,325
Dep.	7,366,464	6,753,645	7,754,669	7,075,415	6,790,450	6,671,285	6,832,214	6,865,411	6,688,253	7,445,986	6,936,777	10,021,392	86,752,961
Tot.	14,209,363	13,231,777	15,095,958	13,614,281	12,674,860	12,561,746	12,324,935	13,128,998	12,846,243	13,863,027	13,502,000	19,857,098	166,910,286

Exhibit 22
**ENPLANED, DEPLANED AND TOTAL AIR CARRIED MAIL LEVELS
 AT MICHIGAN SCHEDULED AIR PASSENGER AIRPORTS**
 1987-1988 Comparison
 (Figures in Pounds)

Airport	Enplaned Mail		Percent Change	Deplaned Mail		Percent Change	Total Mail		Percent Change
	1987	1988		1987	1988		1987	1988	
Alpena	801	157	-80.4%	683	318	-53.4%	1,484	475	-68.0%
Benton Harbor	232	0	-100.0%	0	0	0.0%	232	0	-100.0%
Detroit - City	0	29	n/c	0	36	n/c	0	65	n/c
Detroit - Metro	74,811,983	74,902,276	0.1%	68,018,230	74,160,700	9.0%	142,830,213	149,062,976	4.4%
Escanaba	13,279	4,042	-69.6%	0	0	n/c	13,279	4,042	-69.6%
Flint	721,088	241,679	-66.5%	16,130	14,935	-7.4%	737,218	256,614	-65.2%
Grand Rapids	3,050,014	3,477,693	14.0%	11,866,405	12,404,232	4.5%	14,916,419	15,881,925	6.5%
Houghton/Hancock	1,441	1,351	-6.2%	0	0	0.0%	1,441	1,351	-6.2%
Iron Mountain	21,191	4,643	-78.1%	792	260	-67.2%	21,983	4,903	-77.7%
Kalamazoo	375,463	256,731	-31.6%	61,018	50,966	-16.5%	436,481	307,697	-29.5%
Lansing	790,568	901,085	14.0%	53,466	56,441	5.6%	844,034	957,526	13.4%
Mackinac Island	0	18,000	n/c	0	18,000	n/c	0	36,000	n/c
Marquette	0	6,645	n/c	0	0	0.0%	0	6,645	n/c
Pellston	1,488	508	-65.9%	1,772	1,057	-40.3%	3,260	1,565	-52.0%
Saginaw	343,201	337,064	-1.8%	81,853	41,628	-49.1%	425,054	378,692	-10.9%
Sault Ste. Marie	3,295	2,587	-21.5%	2,634	1,801	-31.6%	5,929	4,388	-26.0%
Traverse City	2,575	2,835	10.1%	3,715	2,587	-30.4%	6,290	5,422	-13.8%
Statewide	80,136,619	80,157,325	0.0%	80,106,698	86,752,961	8.3%	160,243,317	166,910,286	4.2%
Statewide Excluding Detroit Metro	5,324,636	5,255,049	-1.3%	12,088,468	12,592,261	4.2%	17,413,104	17,847,310	2.5%

n/c: Not calculatable



**Section V:
AIRPORT INFORMATIONAL SUMMARIES**

AIRPORT INFORMATIONAL SUMMARIES

Introduction

This section is intended to provide easy access to various useful statistical information on each Michigan airport with scheduled air carrier service. It is provided in a form which allows the user to remove the information for an individual airport for easy reference.

Each Michigan airport which had scheduled air passenger service in 1988 is individually presented in this section with the exception of Cadillac, Wexford County Airport (see below). Additionally, the comparative groups defined in previous sections are presented. These are:

- 1) Statewide: All 25 scheduled, passenger air carrier airports are used.
- 2) Statewide Excluding Detroit Metro: All of the airports in the state with the exception of Detroit, Metropolitan Wayne County Airport. A total of 24 facilities.
- 3) The Top Five: The five airports with the highest annual total passenger levels in 1987. These are, in order of total passengers, Detroit, Metropolitan Wayne County Airport, Grand Rapids, Kent County Airport, Saginaw, Tri-City International Airport, Kalamazoo, County Airport and Lansing, Capital City Airport.
- 4) Upper Peninsula Airports: Those airports located in Michigan's Upper Peninsula. These seven facilities are Escanaba, Delta County Airport, Houghton/Hancock, Houghton County Memorial Airport, Iron Mountain, Ford Airport, Ironwood, Gogebic County Airport, Marquette, County Airport, Menominee/Marinette, Twin County Airport and Sault Ste. Marie, Chippewa

County Airport.

- 5) Essential Air Service Airports: Those four facilities receiving monies under the Essential Air Service standard subsidy program. Airports receiving service continuance subsidies are not included. Those facilities are Jackson, County Reynolds Field, Manistee, County Blacker Airport, Menominee/Marinette, Twin County Airport and Sault Ste. Marie, Chippewa County Airport.

Cadillac, Wexford County Airport

Wexford County Airport had single carrier service from February through May of 1988. The service carried 395 total passengers in nonpressurized aircraft. Though the service was apparently profitable, the carrier chose to utilize the equipment on other routes.

Information Displayed

Information is included in the areas listed below. Should a graphic representation of the information be appropriate, it is included. Abbreviations used in the tables are listed in the appendicies. The items listed in the airport summaries are:

- Airport Location and Layout
- Annual Total Passengers-10 Year History
- Monthly Total Passengers-5 Year History
- Passenger Level Comparison
- Scheduled Air Carrier Service Levels
- Changes in Service Level
- Percentage Arrivals by Carrier
- Percentage Arrivals by Aircraft Type
- Nonstop Arrivals From Hubs/Nonhubs

Michigan Scheduled Air Carrier Airports

Passengers Carried

Michigan, with 22,798,965 total passengers, experienced a 2.9 percent increase in 1988 over the previous year. This surpasses the previous all time record set in 1987, and represents the fifth year in a row in which Michigan has set a new record. Historically, the state has enjoyed a growth in total passengers since the ten year low experienced in 1982. In 1978, the last year of government regulation of routes and fares, Michigan scheduled air carrier airports handled 12,805,271 total passengers. The 1988 figure exceeds this by 74.4 percent. Though monthly figures were lower than their 1987 levels from January through May, the remaining months were five year highs. It should be noted that Detroit, Metropolitan Wayne County Airport represents 84.0 percent of these statewide figures.

ANNUAL PASSENGERS

Year	Passengers			Percent Change
	Enplaned	Deplaned	Total	
1984	7,014,290	7,026,934	14,041,224	19.7%
1985	9,129,513	9,058,636	18,188,149	29.5%
1986	10,261,345	10,027,481	20,288,826	11.5%
1987	11,202,013	11,124,706	22,326,719	10.0%
1988	11,355,720	11,443,245	22,798,965	2.9%

Service Supplied

As of December 31, 1988, Michigan was served by 30 carriers operated by 34 airlines. Though this was a net loss of four carriers, due to contract marketing agreements there were actually more airlines operating in the state. Michigan had nonstop service from 96 airports in 87 cities, a net increase of three origins and four cities over the previous year. There were 4,643 weekly arrivals, down 59 from 1987. Of the weekly arrivals, 3,335 (71.8 percent) were from hub airports. Of the 475,230 weekly arriving seats, 431,943 (90.9 percent) were by jet, 18,118 (3.8 percent) were by pressurized propeller and 25,169 (5.3 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	35	89	2,824	821	1,430	5,075
1987	34	93	2,841	805	1,056	4,702
1988	30	96	3,081	607	955	4,643

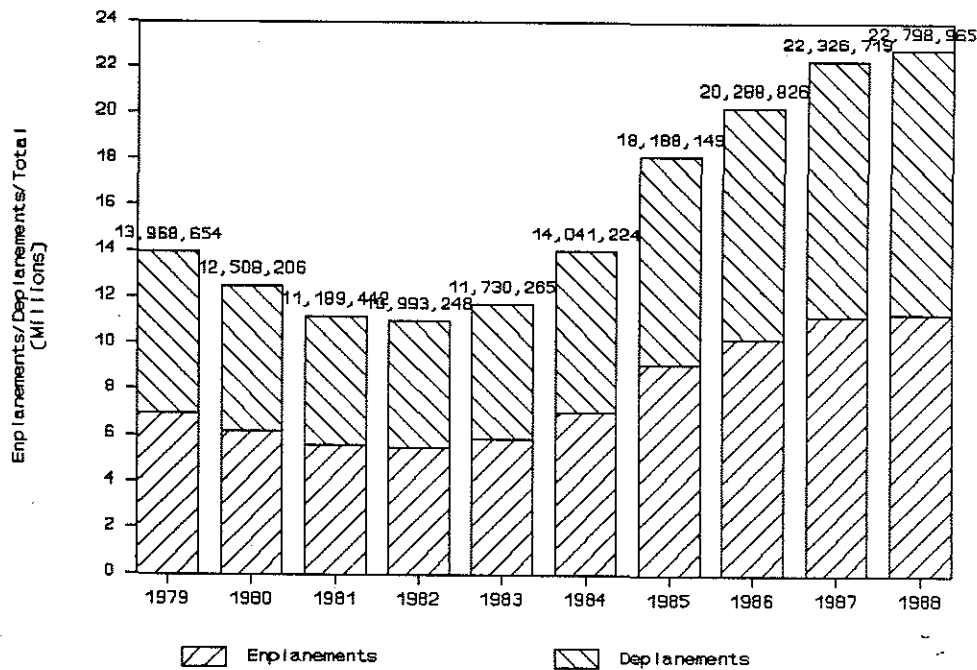
WEEKLY ARRIVING SEATS

As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	411,860	31,686	38,678	482,224
1987	406,415	31,265	32,531	470,211
1988	431,943	18,118	25,169	475,230

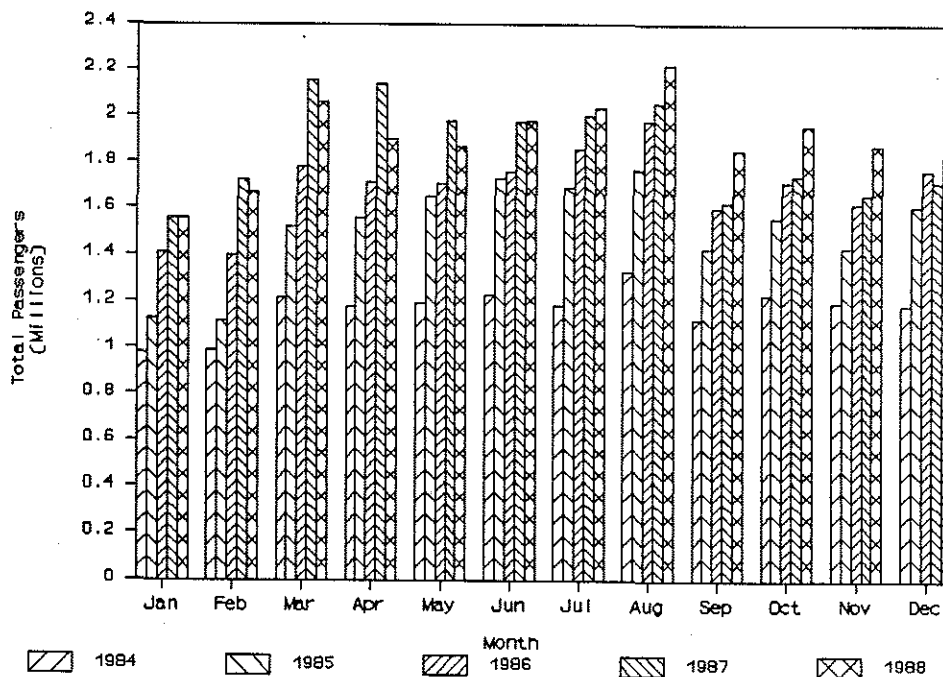
1979 - 1988 ANNUAL TOTAL PASSENGERS

Michigan Scheduled Air Carrier Airports

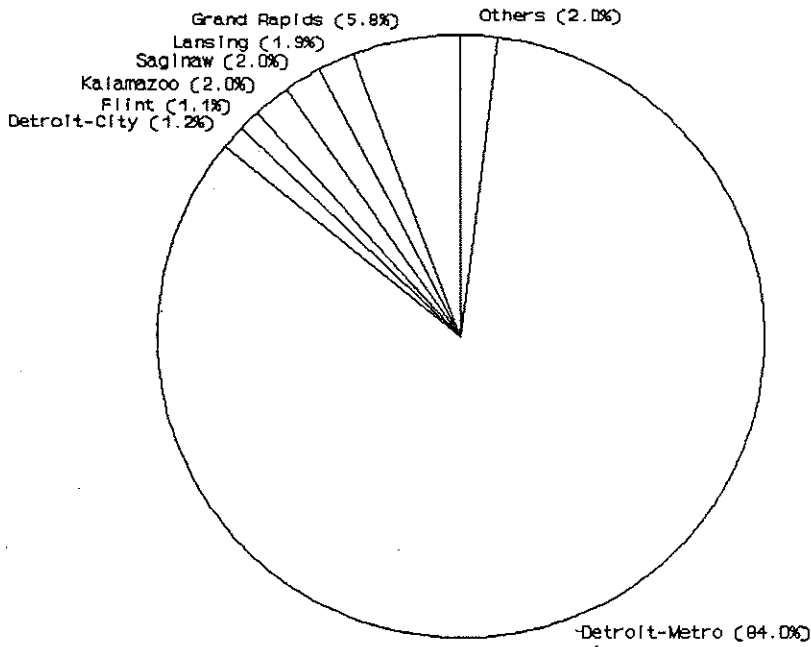


1984 - 1988 MONTHLY TOTAL PASSENGERS

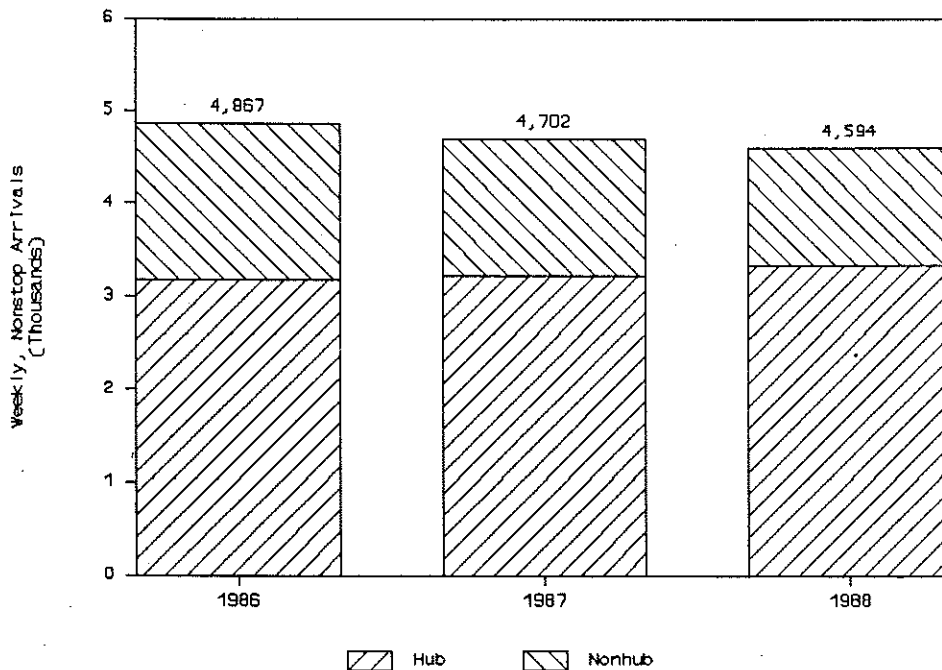
Michigan Scheduled Air Carrier Airports



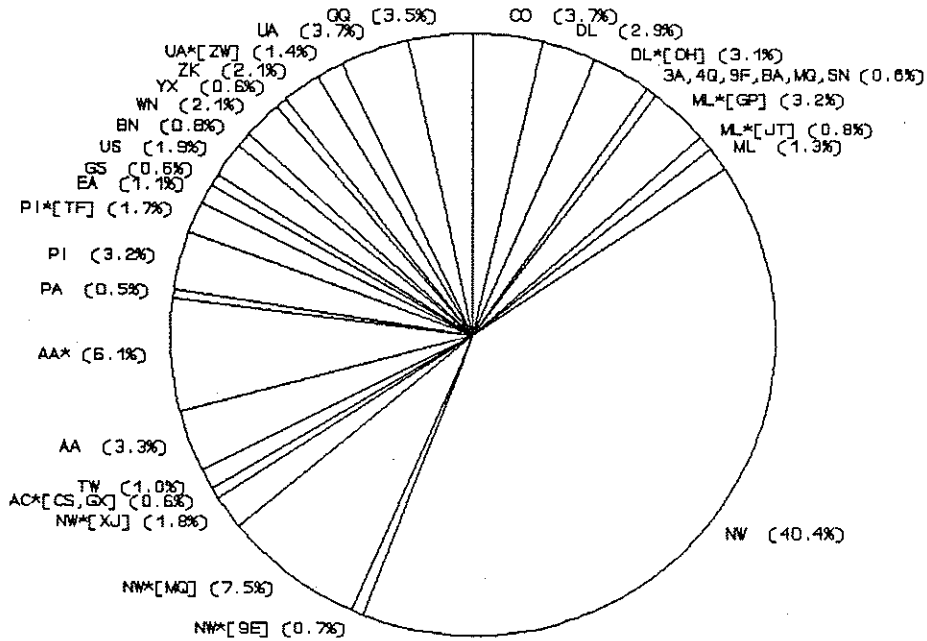
1988 PASSENGER LEVEL COMPARISON
Michigan Scheduled Air Carrier Airports



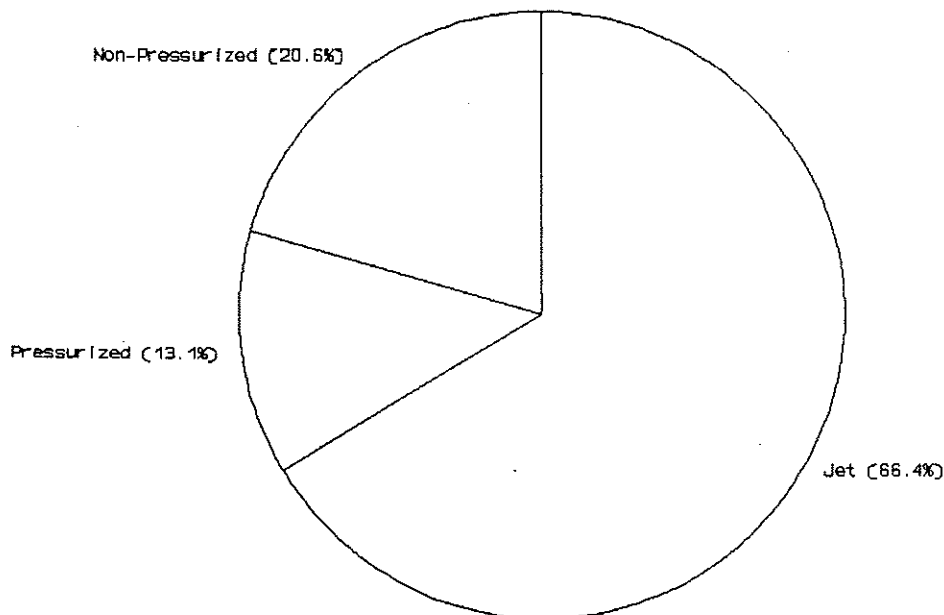
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Michigan Scheduled Air Carrier Airports



1988 PERCENTAGE ARRIVALS BY CARRIER
Michigan Scheduled Air Carrier Airports



1988 PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Michigan Scheduled Air Carrier Airports



Michigan Scheduled Air Carrier Airports Excluding Detroit Metro

Passengers Carried

Due to the degree to which Metro Airport affects state statistical totals, it may be helpful to make comparisons of other airports based on figures which exclude that facility from the total. Michigan, exclusive of Detroit Metro Airport, had 3,654,716 total passengers, a 13.1 percent increase in 1988 over the previous year. This increase places this group above the levels experienced prior to deregulation. Historically, the state exclusive of Detroit Metro has enjoyed a growth in total passengers since the ten year low experienced in 1982. Monthly figures were lower than their 1987 levels from January through May, but were higher in the remaining seven months.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	1,371,082	1,372,317	2,743,399	5.4%
1985	1,543,693	1,540,917	3,084,610	12.4%
1986	1,612,998	1,604,098	3,217,096	4.3%
1987	1,627,520	1,603,890	3,231,410	0.4%
1988	1,836,452	1,818,264	3,654,716	13.1%

Service Supplied

As of December 31, 1988, Michigan, with the exception of Detroit Metro was served by 22 carriers operated by 23 airlines. This was a

net increase of four carriers over the previous year. Michigan airports except Detroit Metro had nonstop service from 40 airports in 37 cities. This is a net increase of five origins in five cities over 1988. There were 1,722 weekly arrivals, up 142 from 1987. Of the weekly arrivals, 1,124 (65.3 percent) were from hub airports. Of the 99,401 weekly arriving seats, 67,123 (67.5 percent) were by jet, 11,739 (11.8 percent) were by pressurized propeller and 20,539 (20.7 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

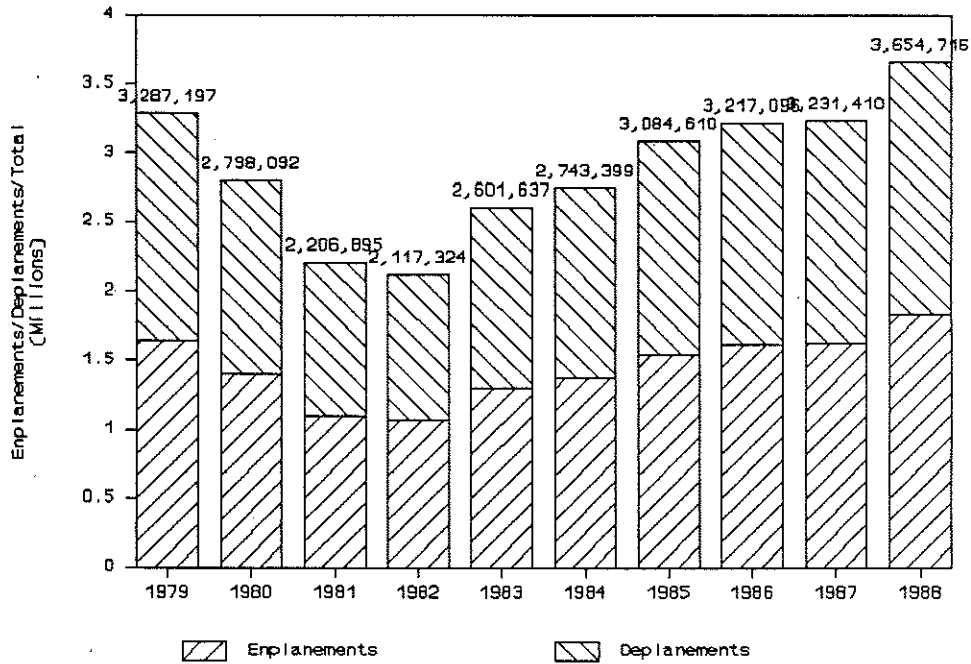
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	17	35	403	510	808	1,721
1987	18	35	376	505	699	1,580
1988	22	40	536	387	799	1,722

WEEKLY ARRIVING SEATS

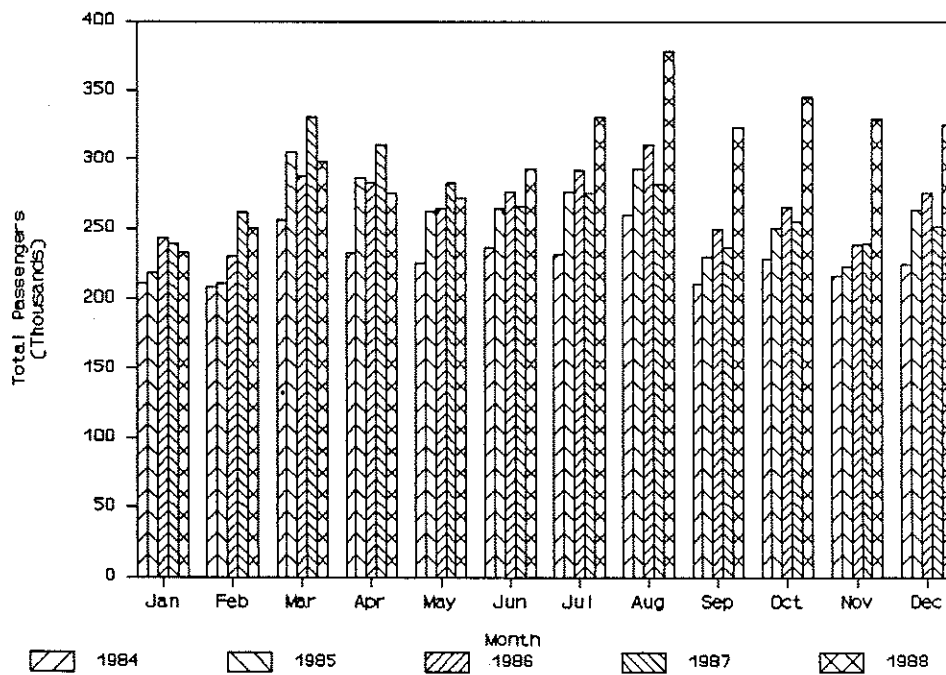
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	50,969	18,591	22,462	92,022
1987	47,317	19,278	20,309	86,904
1988	67,123	11,739	20,539	99,401

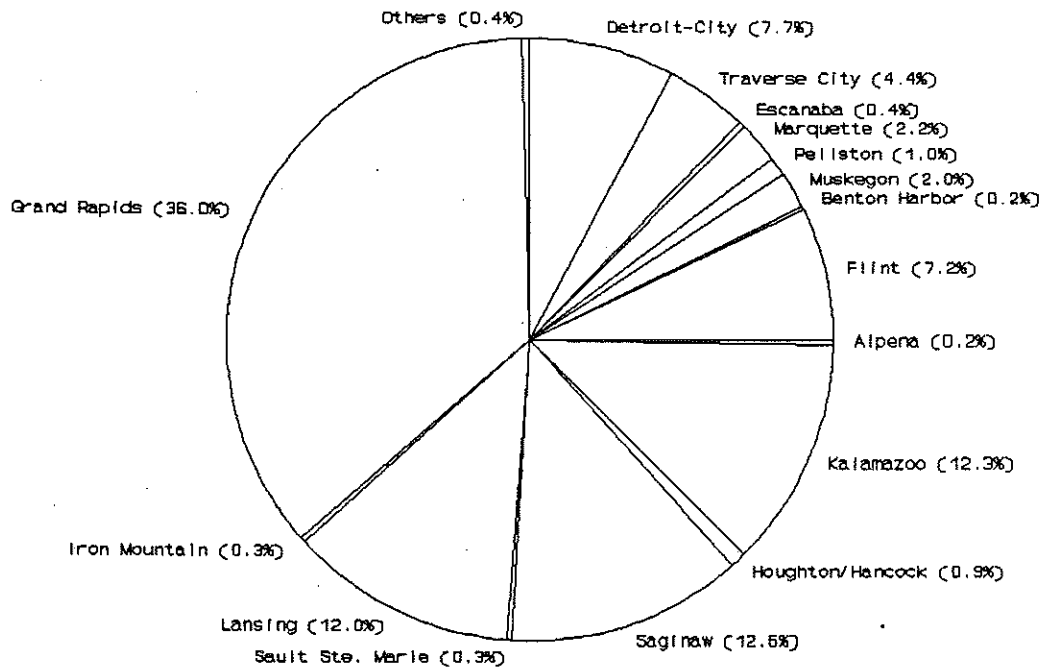
1979 - 1988 ANNUAL TOTAL PASSENGERS
Michigan Scheduled Air Carrier Airports Excluding Detroit Metro



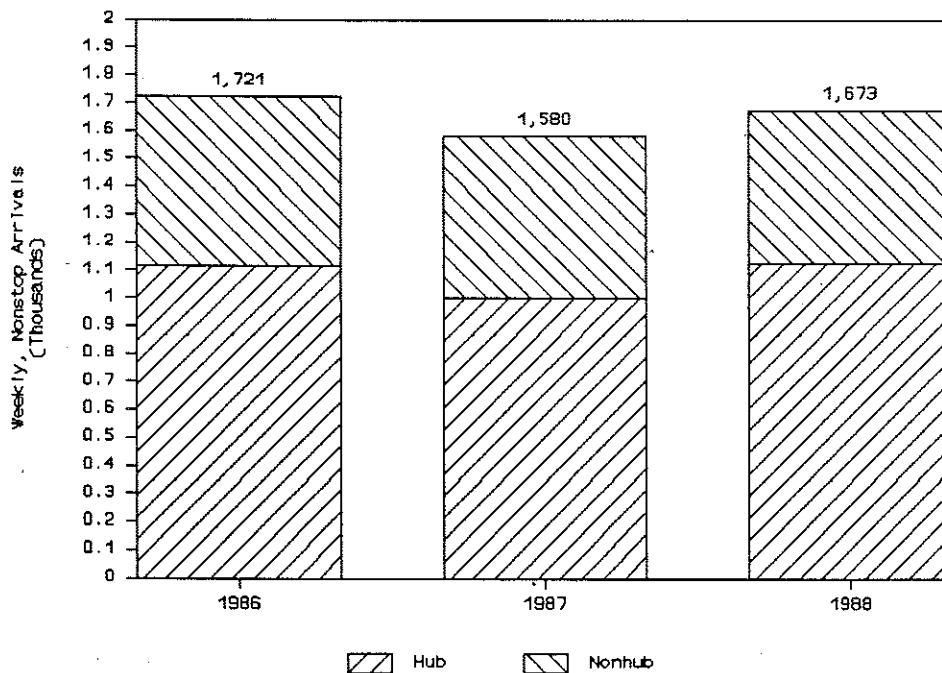
1984 - 1988 MONTHLY TOTAL PASSENGERS
Michigan Scheduled Air Carrier Airports Excluding Detroit Metro



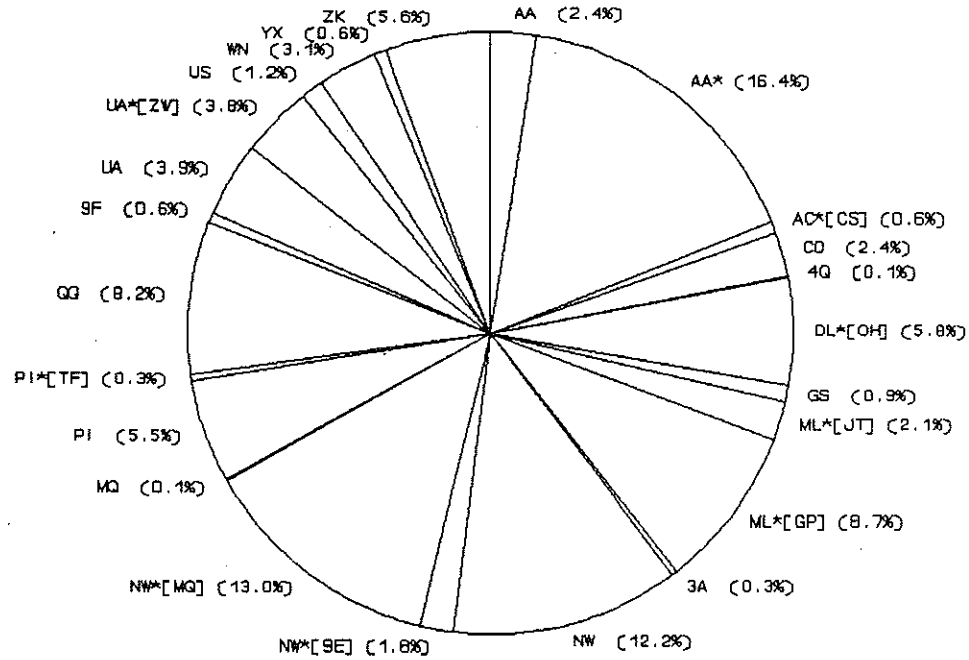
1988 PASSENGER LEVEL COMPARISON Michigan Scheduled Air Carrier Airports Excluding Detroit Metro



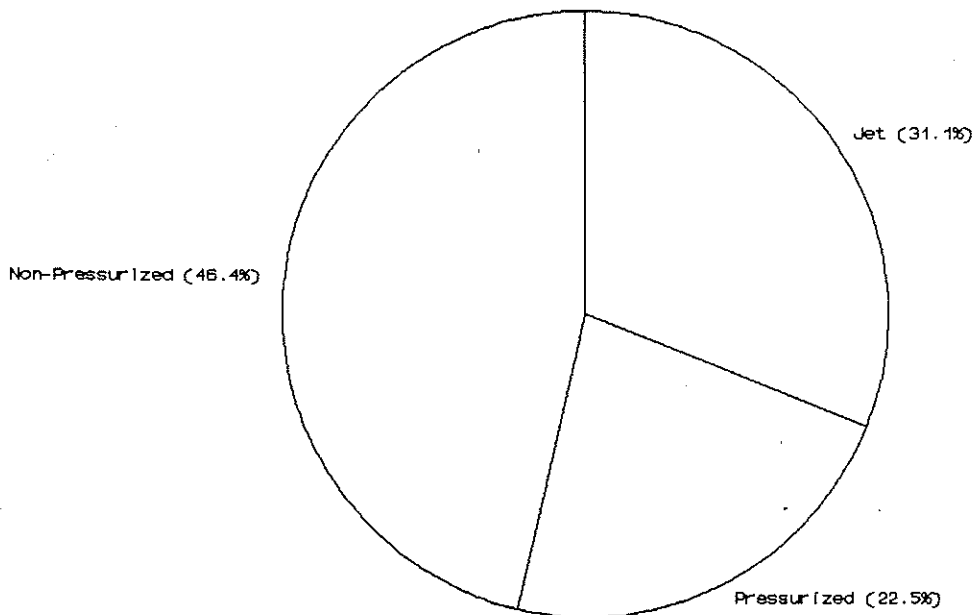
NONSTOP ARRIVALS FROM HUBS/NONHUBS Michigan Scheduled Air Carrier Airports Excluding Detroit Metro



1988 PERCENTAGE ARRIVALS BY CARRIER
Michigan Scheduled Air Carrier Airports Excluding Detroit Metro



1988 PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Michigan Scheduled Air Carrier Airports Excluding Detroit Metro



Top Five Airports In Terms of Total Passengers

Passengers Carried

The top five airports in the state were, in order of total passengers: Detroit Metropolitan Wayne County Airport; Grand Rapids, Kent County International Airport; Saginaw, Tri-City International Airport; Kalamazoo County Airport and Lansing, Capital City Airport. For the past ten years, these airports have been the top five airports in the state. In 1988, this group of airports accounted for 95.7 percent of Michigan's total passengers. The decrease in the percentage of Michigan passengers handled by the top five facilities shows increased dependence by travelers on their local facilities. The top five airports accounted for 21,807,311 total passengers, a 0.8 percent increase in 1988 over the previous year. Historically, this group has enjoyed a growth in total passengers since the ten year low experienced in 1982. Monthly figures were lower than their 1987 levels from February through May and in July. The remaining months were five year highs. It should be noted that Detroit, Metro airport represents 87.8 percent of the values of the top five airports.

ANNUAL PASSENGERS

Year	Passengers			Percent Change
	Enplaned	Deplaned	Total	
1984	6,611,161	6,627,533	13,238,694	20.4%
1985	8,714,437	8,649,955	17,364,392	31.2%
1986	9,862,223	9,637,590	19,499,813	12.3%
1987	10,858,492	10,785,567	21,644,059	11.0%
1988	10,855,763	10,951,548	21,807,311	0.8%

Service Supplied

As of December 31, 1988, the top five airports in terms of total passengers, were served by 25 carriers operated by 28 airlines. Though there was no net change in the number of carriers, due to contract marketing agreements there was a net increase of four airlines serving this group. The top five airports had nonstop service from 80 airports in 73 cities, a net gain of one origin and one city over the previous year. There were 3,819 weekly arrivals, down 166 from 1987. Of the weekly arrivals, 2,975 (77.9 percent) were from hub airports. Of the 444,181 weekly arriving seats, 420,851 (94.7 percent) were by jet, 12,244 (2.8 percent) were by pressurized propeller and 11,086 (2.5 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

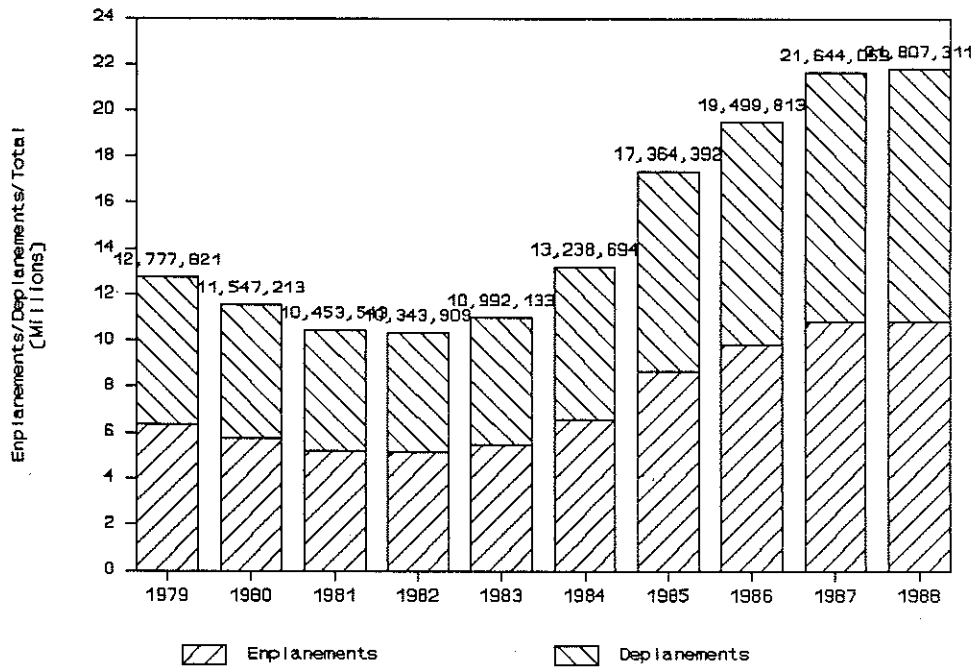
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	28	79	2,803	604	862	4,269
1987	25	79	2,820	605	560	3,985
1988	25	80	2,993	409	417	3,819

WEEKLY ARRIVING SEATS

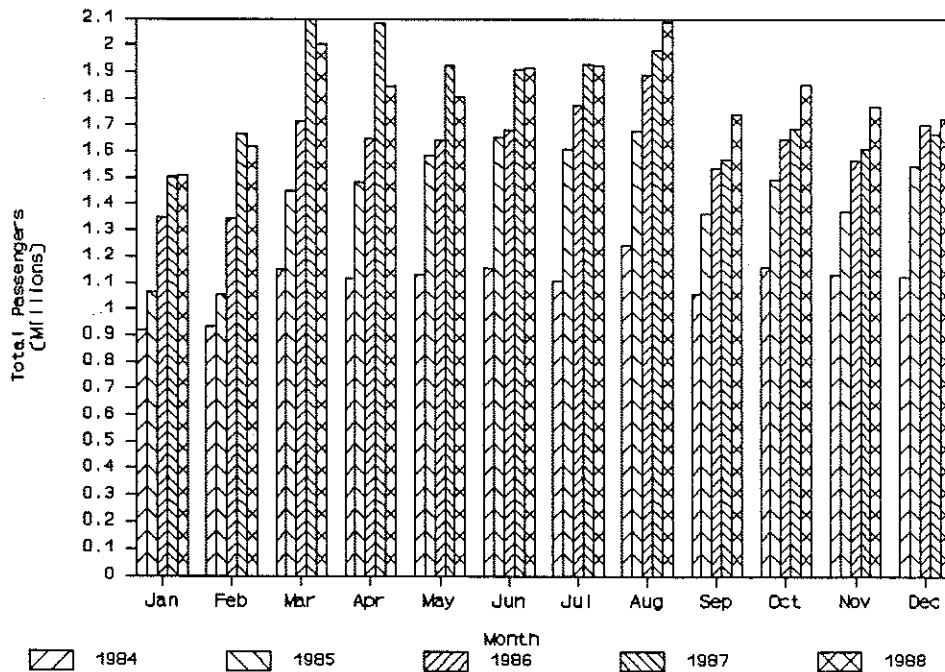
As of December 31

Year	Weekly Arriving Seats			
	Jet	Pressurized	Nonpress.	Total
1986	409,074	22,776	23,741	455,591
1987	403,741	22,125	18,884	444,750
1988	420,851	12,244	11,086	444,181

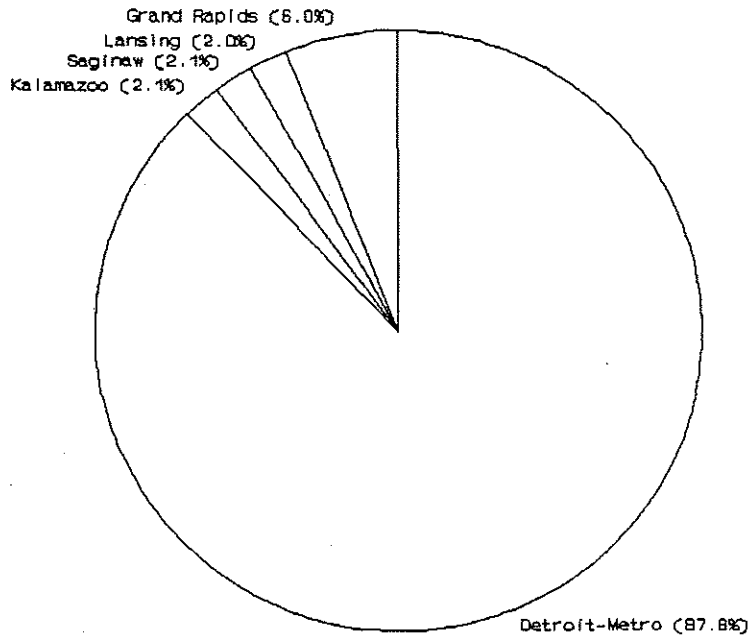
1979 - 1988 ANNUAL TOTAL PASSENGERS Top Five Airports In Terms of Total Passengers



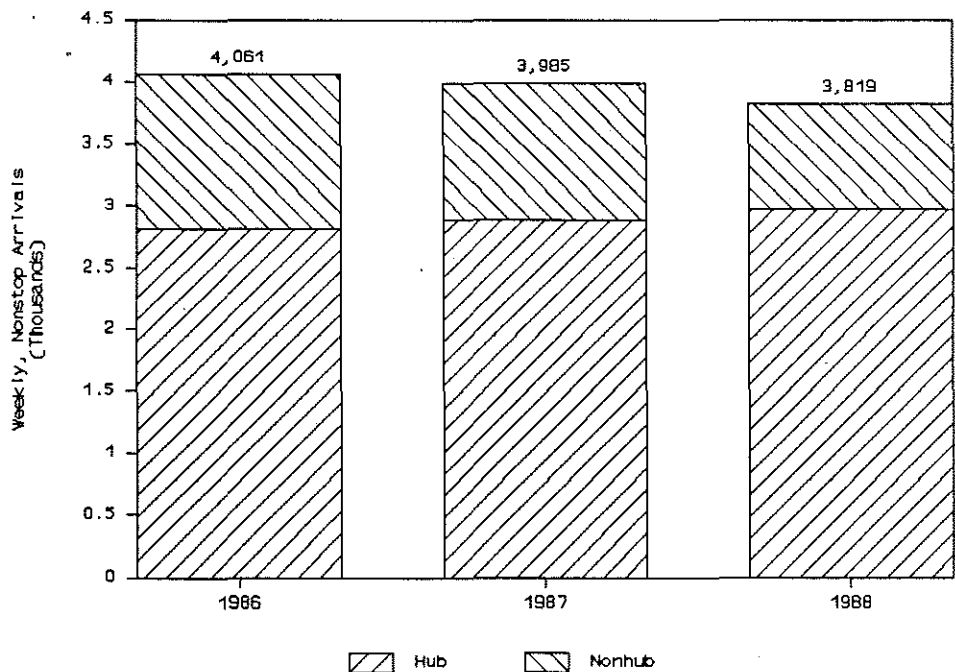
1984 - 1988 MONTHLY TOTAL PASSENGERS Top Five Airports In Terms of Total Passengers



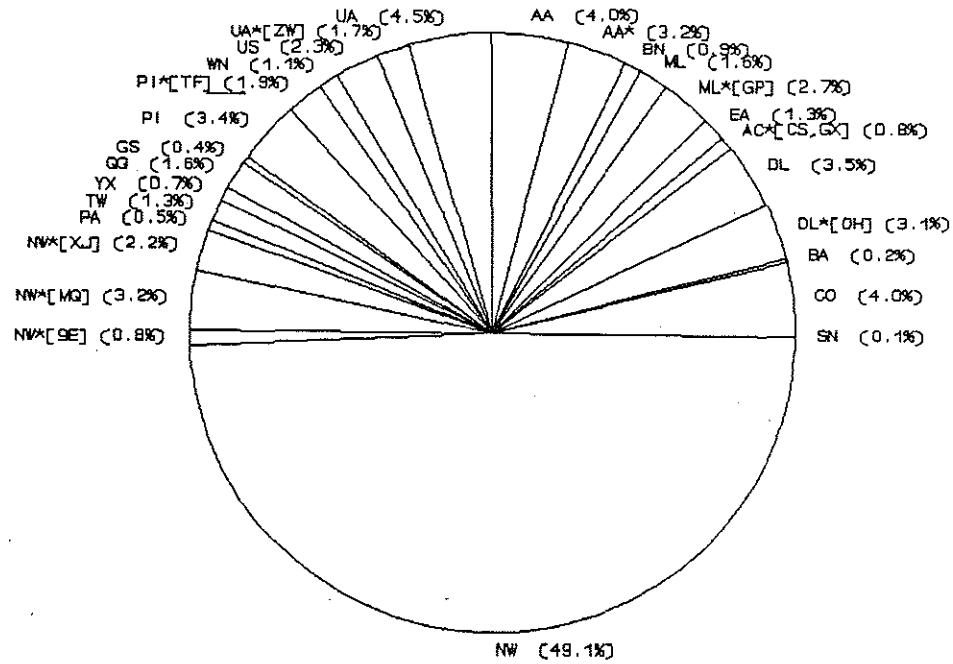
1988 PASSENGER LEVEL COMPARISON Top Five Airports In Terms of Total Passengers



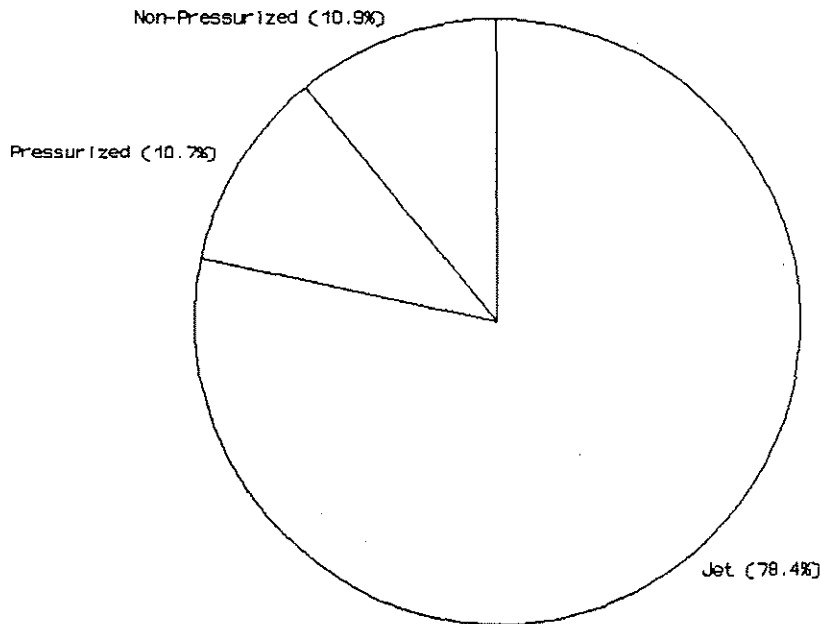
NONSTOP ARRIVALS FROM HUBS/NONHUBS Top Five Airports In Terms of Total Passengers



1988 PERCENTAGE ARRIVALS BY CARRIER
 Top Five Airports In Terms of Total Passengers



1988 PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
 Top Five Airports In Terms of Total Passengers



Upper Peninsula Airports

Passengers Carried

The seven airports in Michigan's upper peninsula are: Escanaba, Delta County Airport; Houghton/Hancock, Houghton County Memorial Airport; Iron Mountain, Ford Airport; Ironwood, Gogebic County Airport; Marquette County Airport; Menominee/Marinette, Twin County Airport and Sault Ste. Marie, Chippewa County International Airport. In 1987, this group of airports accounted for 0.7 percent of Michigan's total passengers. The upper peninsula airports accounted for 154,044 total passengers, a 17.9 percent increase in 1988 over the previous year. Historically, this group experienced a decline in total passengers between 1983 and 1987. Overall, this group is currently at a level roughly half that of 1978, the last year of government regulation of routes and fares. Though the monthly figures for January and February were five year lows, the remaining months experienced higher levels than in the previous year.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	90,691	90,628	181,319	-0.3%
1985	87,955	85,792	173,747	-4.2%
1986	74,552	73,749	148,301	-14.6%
1987	66,631	64,062	130,693	-11.9%
1988	78,026	76,018	154,044	17.9%

Service Supplied

As of December 31, 1988, the upper peninsula airports were served by 5 carriers operated by 4 airlines. This was a net decrease of one carrier and one airline from 1987 serving this group of facilities. The upper peninsula airports had nonstop service from 12 cities, down three from the previous year. There were 236 weekly arrivals, up 14 over 1987. Of the weekly arrivals, 57 (24.2 percent) were from hub airports. Of the 7,181 weekly arriving seats, 2,857 (39.8 percent) were by pressurized propeller and 4,324 (60.2 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

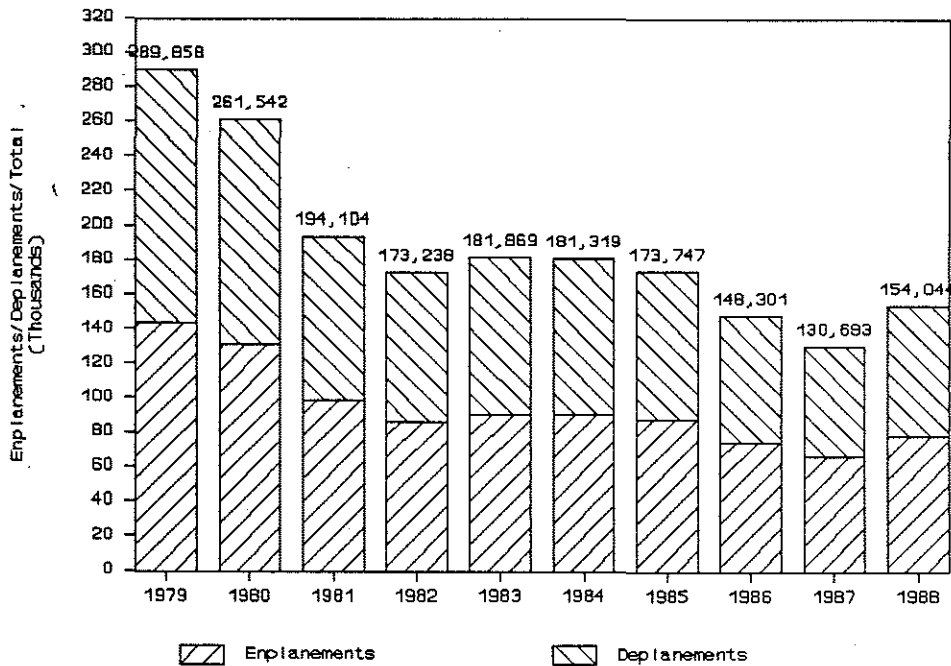
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	6	14	0	68	138	206
1987	6	15	0	63	159	222
1988	5	12	0	112	124	236

WEEKLY ARRIVING SEATS

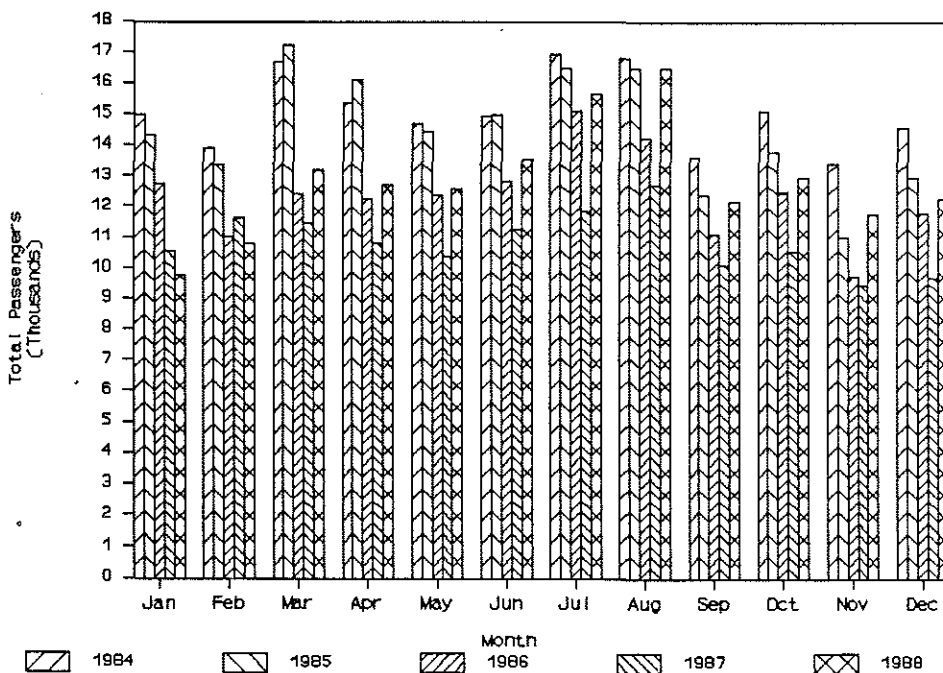
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	3,128	3,833	6,961
1987	0	2,898	4,800	7,698
1988	0	2,857	4,324	7,181

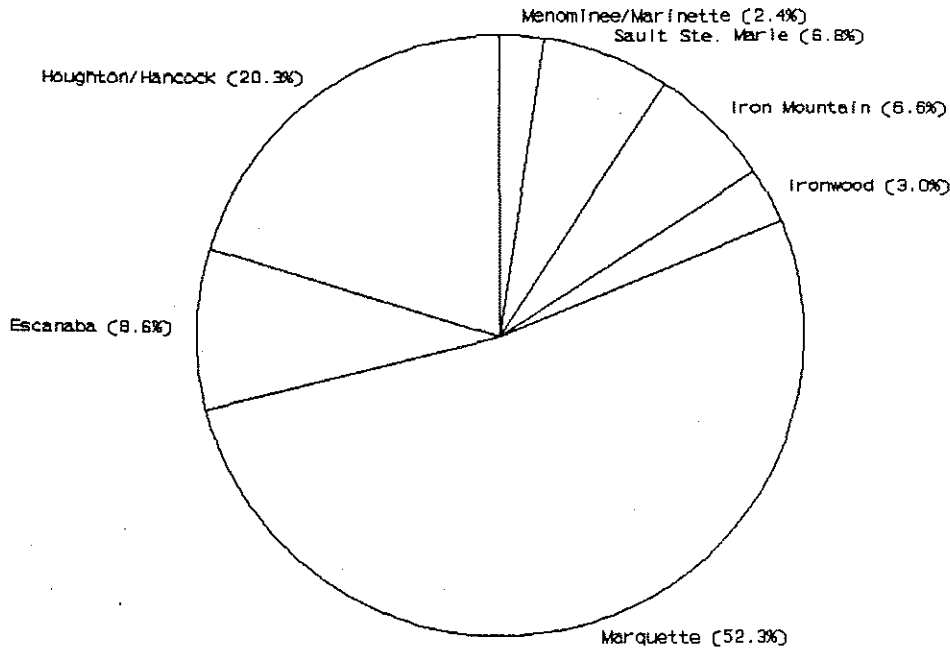
1979 - 1988 ANNUAL TOTAL PASSENGERS Upper Peninsula Airports



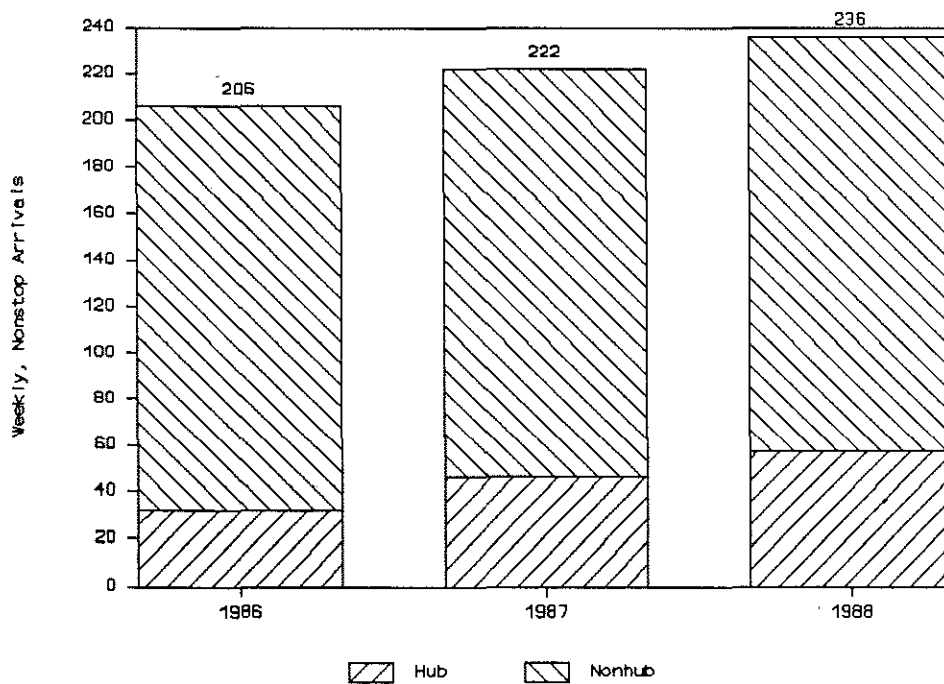
1984 - 1988 MONTHLY TOTAL PASSENGERS Upper Peninsula Airports



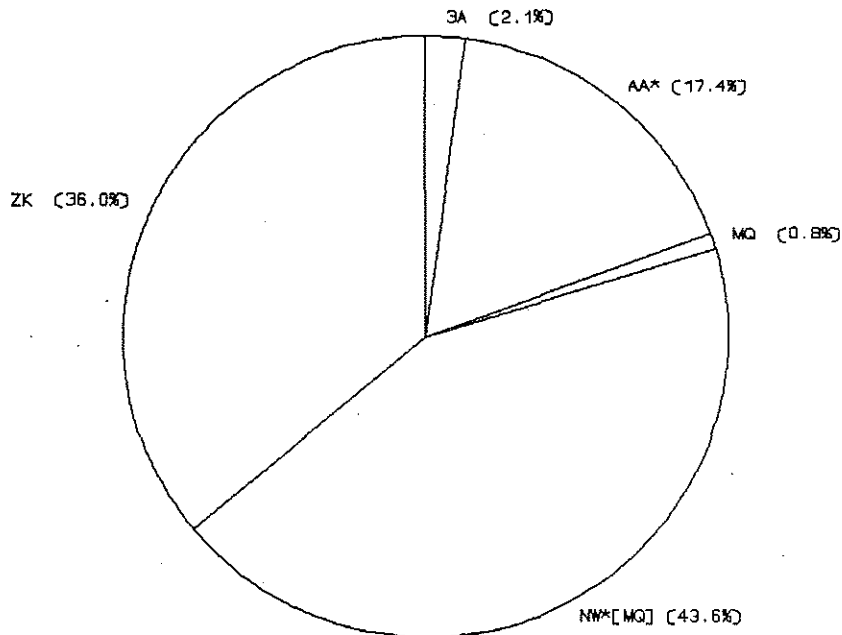
1988 PASSENGER LEVEL COMPARISON Upper Peninsula Airports



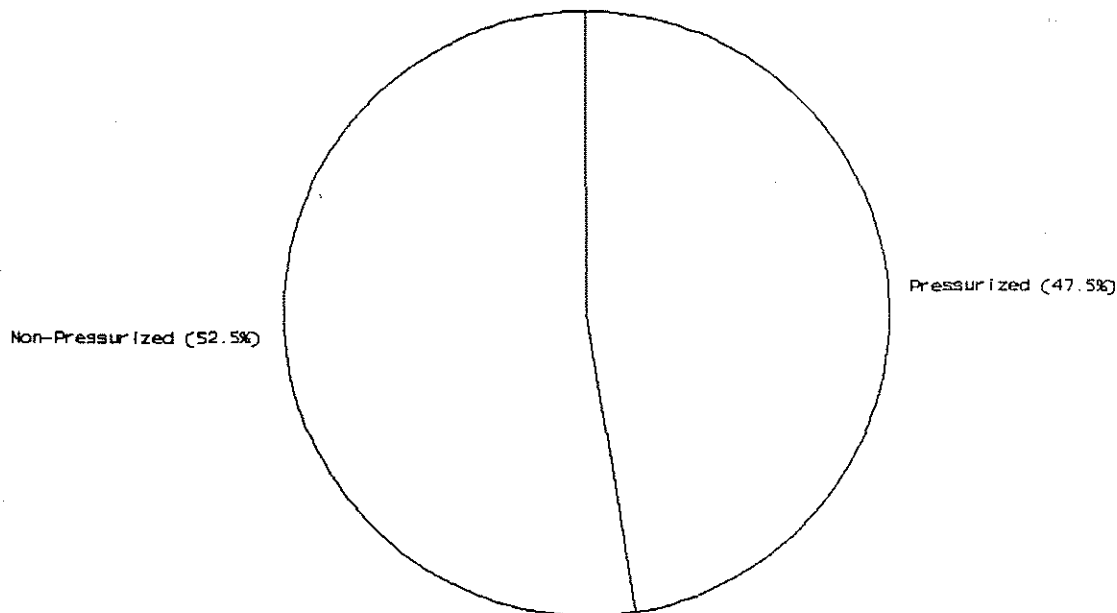
NONSTOP ARRIVALS FROM HUBS/NONHUBS Upper Peninsula Airports



1988 PERCENTAGE ARRIVALS BY CARRIER
Upper Peninsula Airports



1988 PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Upper Peninsula Airports



Essential Air Service Airports Receiving Standard Subsidies

Passengers Carried

The four airports receiving essential air service subsidies are: Jackson, County Reynolds Field; Manistee, County Blacker Airport; Menominee-Marquette, Twin County Airport and Sault Ste. Marie, Chippewa County Airport. In 1988, this group of airports accounted for 0.1 percent of Michigan's total passengers. The subsidized airports accounted for 18,656 total passengers, a 23.8 percent increase in 1988 over the previous year. This represents the second year of increasing passenger levels for this group. Historically, prior to the increase in 1987, this group had experienced a decline in total passengers since 1978.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	7,759	7,640	15,399	-12.5%
1985	7,199	7,215	14,414	-6.4%
1986	6,892	7,131	14,023	-2.7%
1987	7,689	7,386	15,075	7.5%
1988	9,406	9,247	18,656	23.8%

Service Supplied

As of December 31, 1988, the essential air service airports were served by 3 carriers operated by 3 airlines. This was a net decrease of one carrier from 1987 serving this group of facilities. The essential air service airports had nonstop service from six cities, a net increase of one over the previous year. There were 80 weekly arrivals, up ten over 1987. Of the weekly arrivals, 24 (42.5 percent) were from hub airports. Of the 1,825 weekly arriving seats, 741 (40.6 percent) were by pressurized propeller and 1,084 (59.4 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

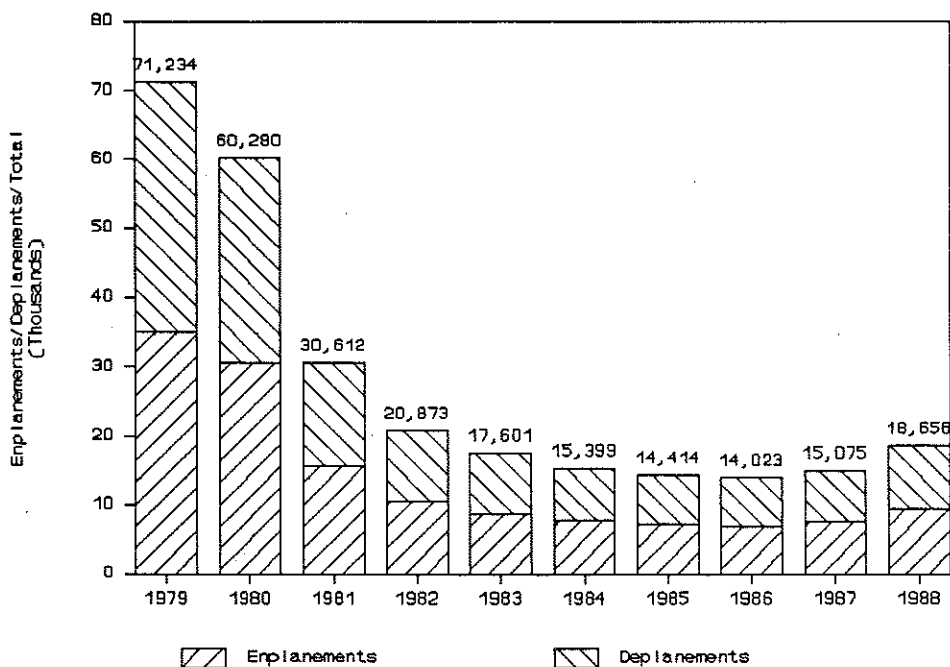
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	4	5	0	0	72	72
1987	4	5	0	0	70	70
1988	3	6	0	39	41	80

WEEKLY ARRIVING SEATS

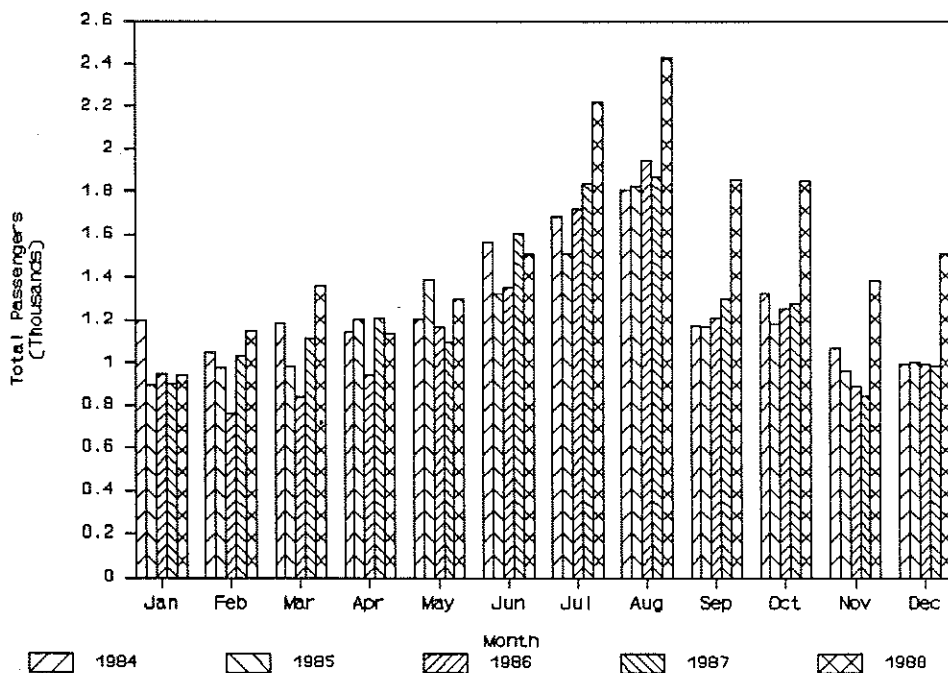
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	917	917
1987	0	0	1,232	1,232
1988	0	741	1,084	1,825

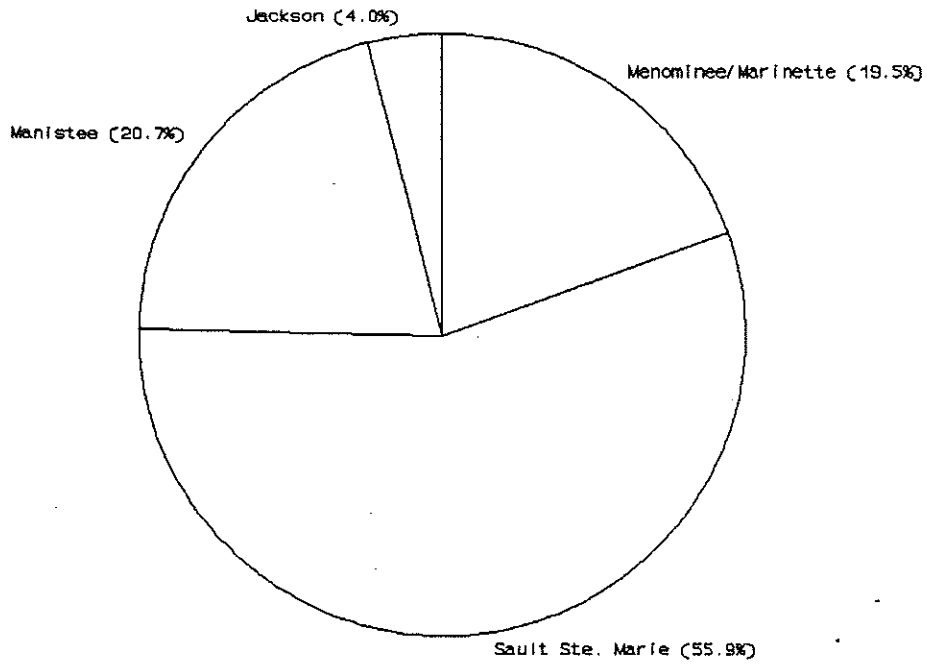
1979 - 1988 ANNUAL TOTAL PASSENGERS Essential Air Service Airports



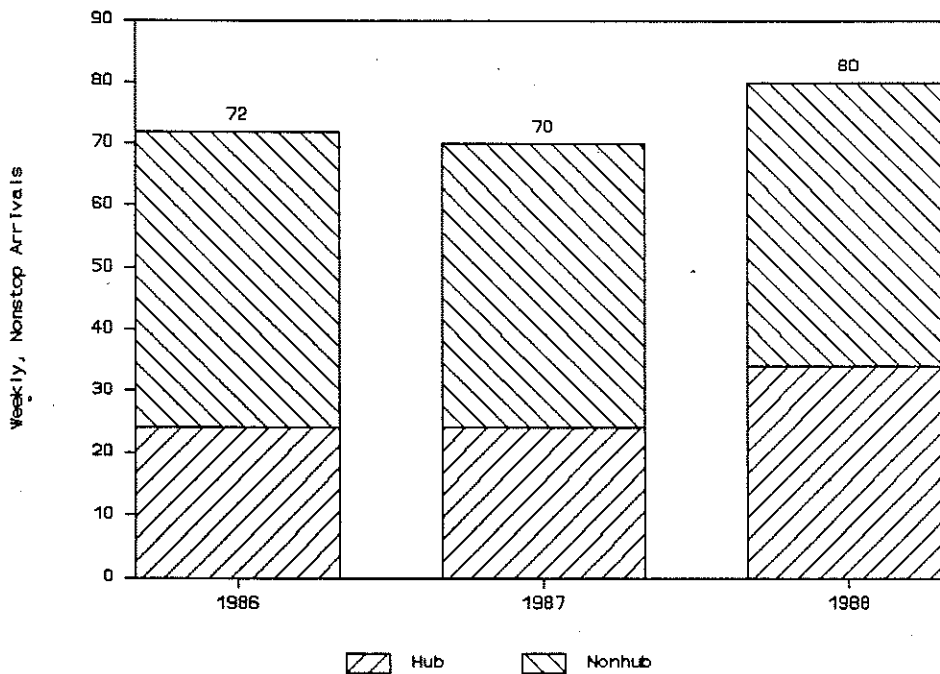
1984 - 1988 MONTHLY TOTAL PASSENGERS Essential Air Service Airports



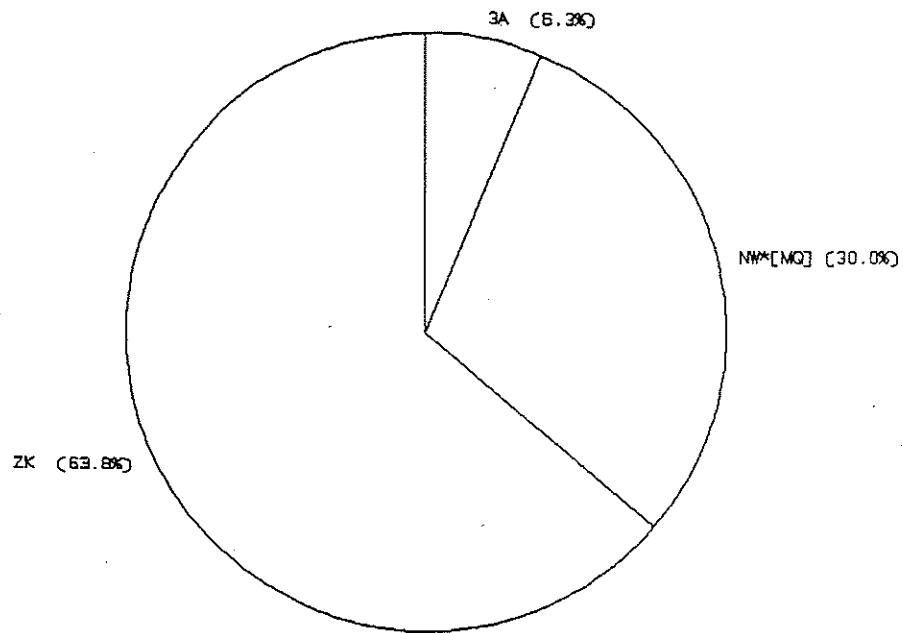
1988 PASSENGER LEVEL COMPARISON
Essential Air Service Airports



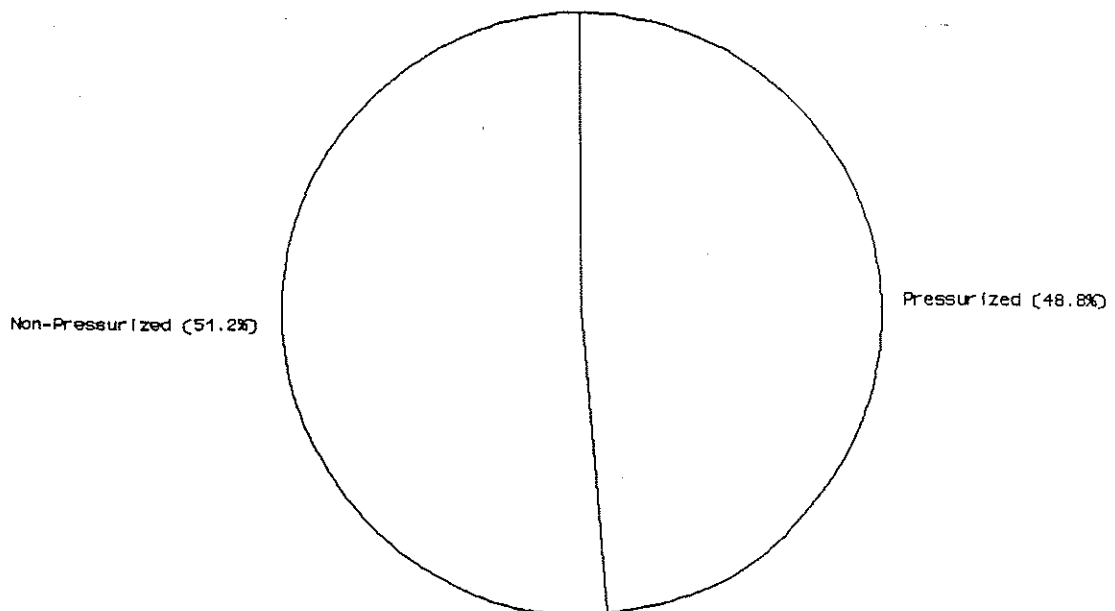
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Essential Air Service Airports



1988 PERCENTAGE ARRIVALS BY CARRIER
Essential Air Service Airports



1988 PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Essential Air Service Airports



Alpena County Regional Airport

Passengers Carried

Alpena County Regional Airport (previously Phelps Collins Airport), with 8,697 total passengers, experienced a 7.9 percent decrease in 1988 from the previous year. This is the second year of decline in a row. However, the levels are still above the slow years following the ten year low experienced in 1982. Monthly figures were lower than their 1987 levels from January through July. The remaining months were higher than in 1987. Alpena County Regional Airport ranked sixteenth in the state in total passengers with less than 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	4,375	4,196	8,571	5.0%
1985	4,985	5,008	9,993	16.6%
1986	4,879	5,169	10,048	0.6%
1987	4,754	4,688	9,442	-6.0%
1988	4,376	4,321	8,697	-7.9%

Service Supplied

As of December 31, 1987, Alpena was served by two airlines. Between survey dates

Michigan Airways (now Drummond Island Airlines) commenced service in the market. Alpena County Regional Airport continued to have nonstop service from Detroit Metro and Sault Ste. Marie as in the previous year. Additional service was added to Drummond Island, East Tawas and Saginaw for a total of five cities served nonstop. There were 59 weekly arrivals, up by 35 from 1986. Eleven weekly arrivals (18.6 percent) were from a hub airport, a decrease of only one arrival. Of the 1,080 weekly arriving seats, all were in nonpressurized propeller aircraft.

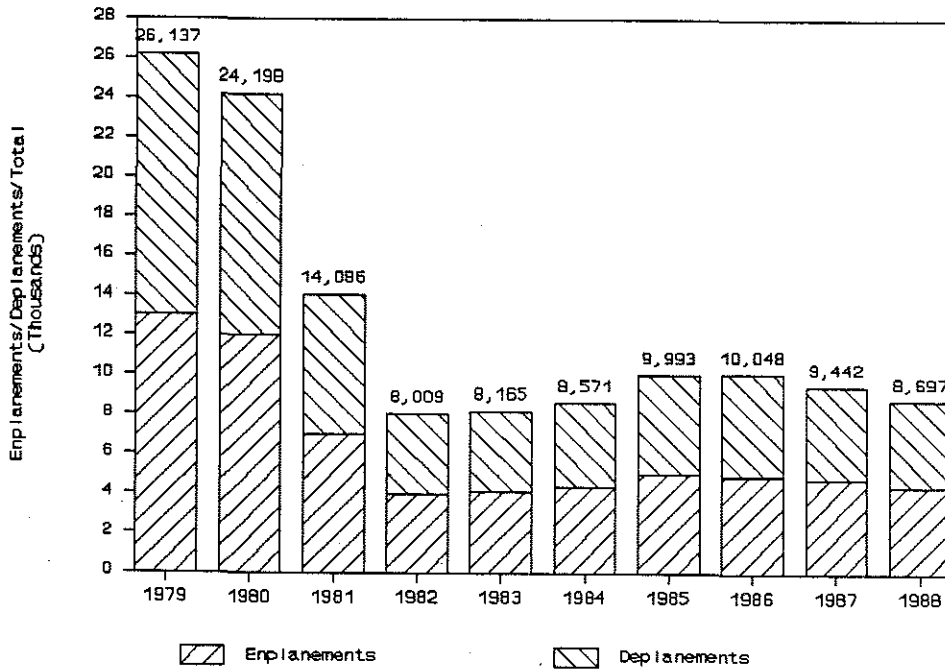
WEEKLY ARRIVALS As of December 31

Year	Carriers		Weekly Arrivals			
	Serving	Origins	Jet	Press	Non	Total
1986	1	2	0	0	38	38
1987	1	2	0	0	24	24
1988	2	5	0	0	59	59

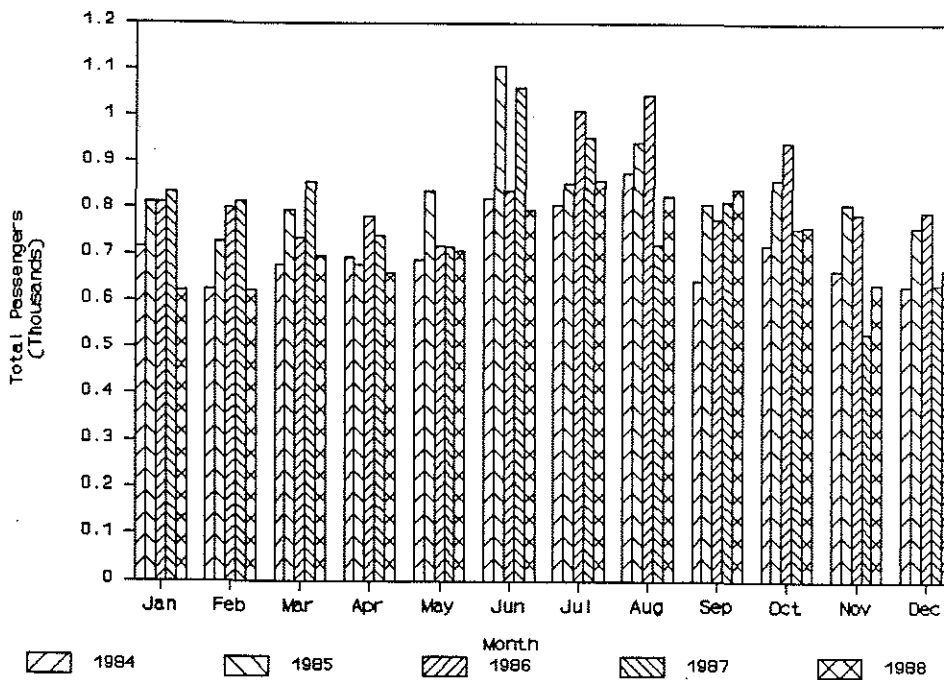
WEEKLY ARRIVING SEATS As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	722	722
1987	0	0	864	864
1988	0	0	1,080	1,080

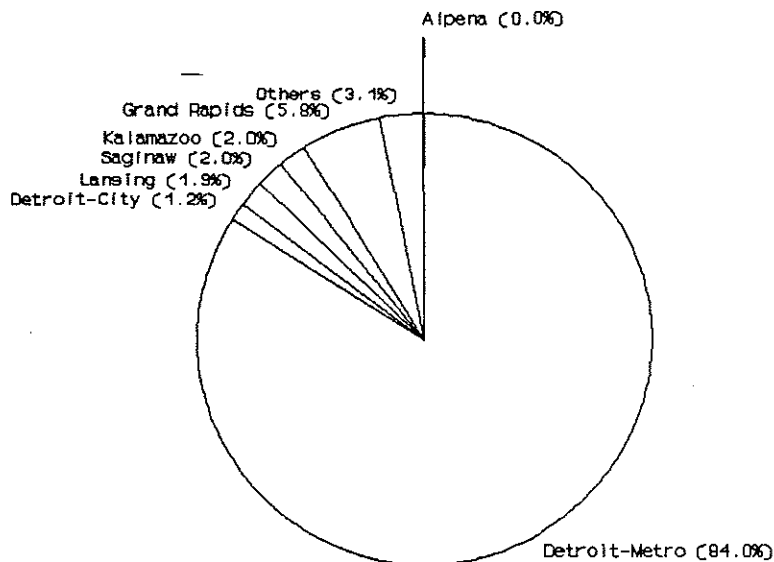
1979 - 1988 ANNUAL TOTAL PASSENGERS
Alpena County Regional Airport



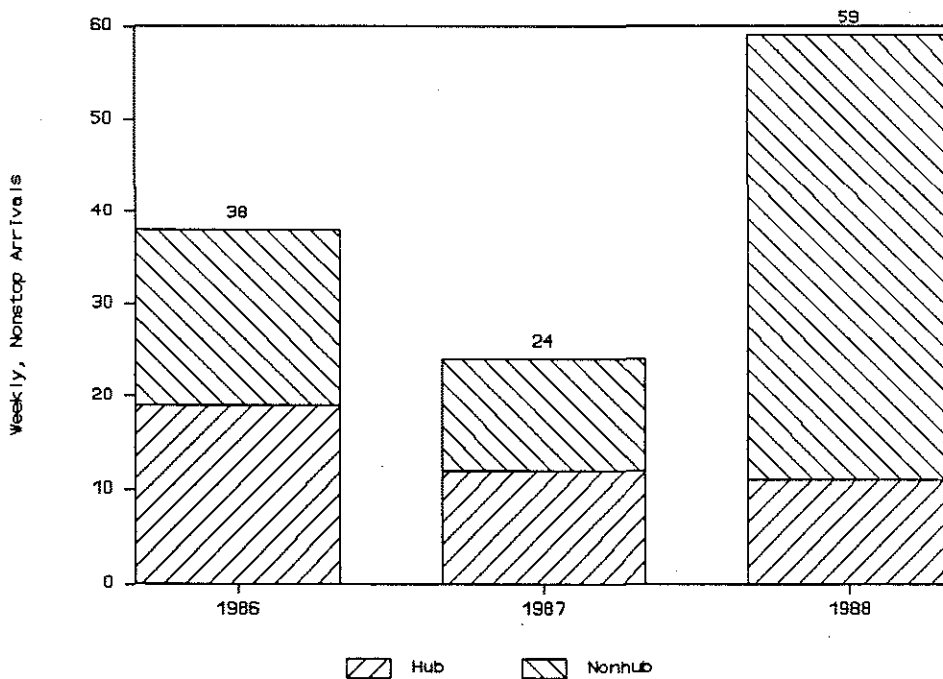
1984 - 1988 MONTHLY TOTAL PASSENGERS
Alpena County Regional Airport



1988 PASSENGER LEVEL COMPARISON Alpena County Regional Airport



NONSTOP ARRIVALS FROM HUBS/NONHUBS Alpena County Regional Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Alpena County Regional Airport
As of December 31, 1988

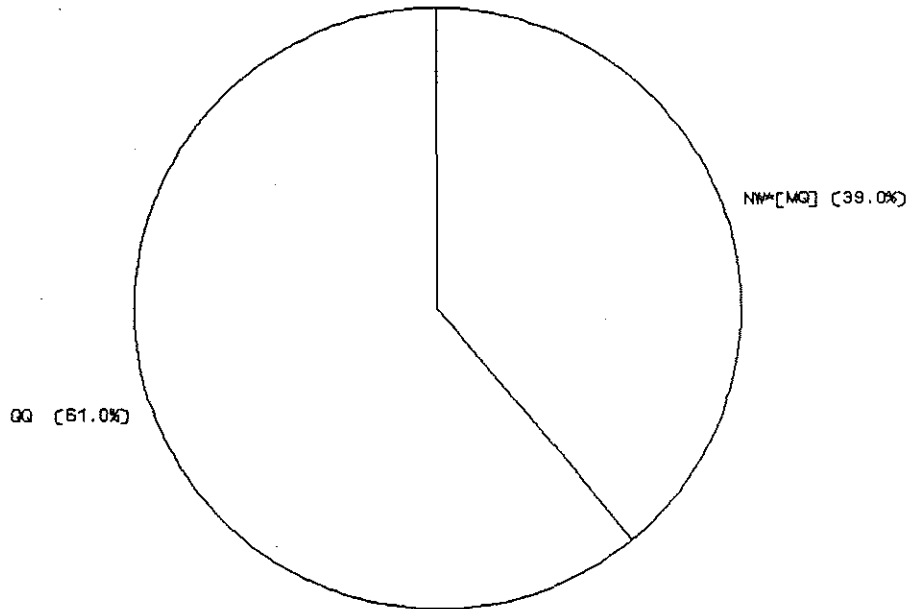


Discontinued Since 1987

Flown in 1987

New Since 1987

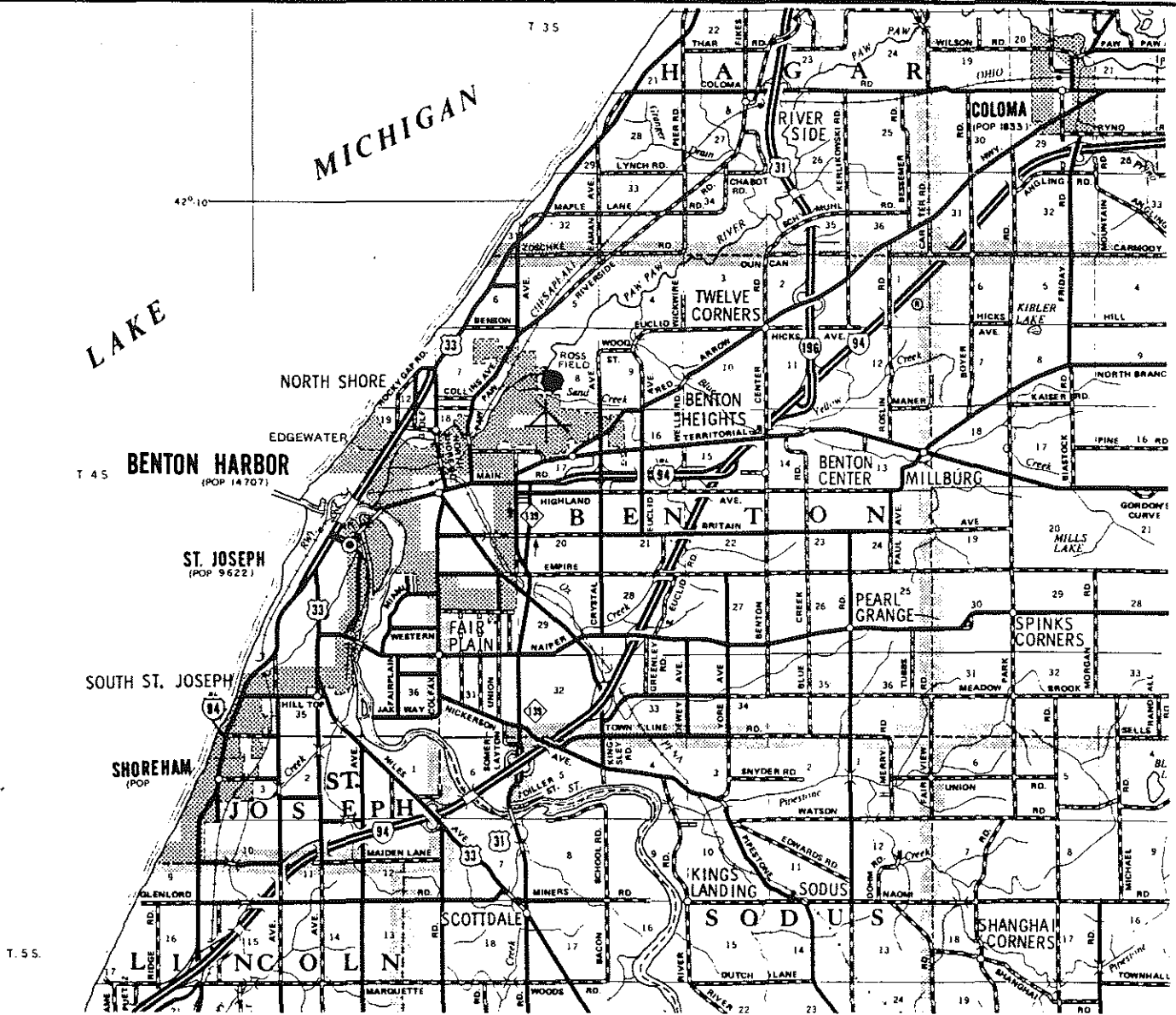
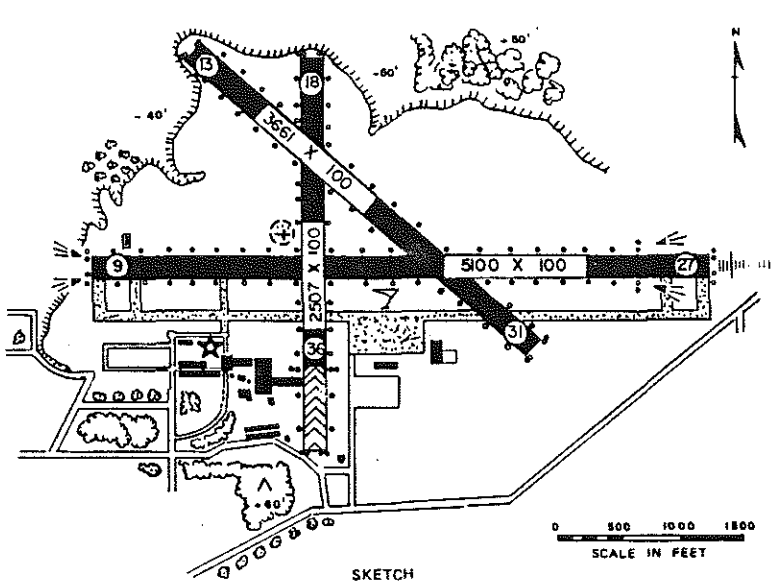
PERCENTAGE ARRIVALS BY CARRIER
Alpena County Regional Airport



CITY PAIR SERVICE SUMMARIES
Alpena County Regional Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Weekly		Weekly Arr. Seats Available			
		Capacity	Arrivals	Jet	Pres.	Npres.	Total
Alpena, MI [APN]							
Detroit, MI [DTW]							
Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	11	0	0	396	396
Michigan Airways, Inc. [QQ]	PAG	7	12	0	0	84	84
Drummond Island [Y66]							
Michigan Airways, Inc. [QQ]	PAG	7	12	0	0	84	84
East Tawas, MI [6D9]							
Michigan Airways, Inc. [QQ]	PAG	7	7	0	0	49	49
Saginaw, MI [MBS]							
Michigan Airways, Inc. [QQ]	PAG	7	5	0	0	35	35
Sault Ste. Marie, MI [CIU]							
Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	12	0	0	432	432
Total			59	0	0	1,080	1,080

Benton Harbor, Twin Cities Ross Field Airport



Benton Harbor, Twin Cities Ross Field Airport

Passengers Carried

Benton Harbor, with 6,548 total passengers, experienced an 11.9 percent decrease in 1988 from the previous year. Historically, Ross Field has experienced a decline in total passengers since 1984. Monthly figures were five year lows from January through July. In the remaining months passenger levels exceeded the 1987 levels. Benton Harbor ranked seventeenth in the state in total passengers with less than 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	13,749	13,068	26,817	21.2%
1985	11,536	11,255	22,791	-15.0%
1986	8,128	7,410	15,538	-31.8%
1987	3,882	3,926	7,808	-49.7%
1988	3,204	3,344	6,548	-11.9%

Service Supplied

As of December 31, 1987, Benton Harbor was

served by one airline. No change in carriers took place between survey dates. Ross Field continues to have nonstop service from Chicago Midway Airport and Elkhart, IN. There were 36 weekly arrivals, up four over 1987. Eighteen weekly arrivals (50.0 percent) were from a hub airport. Of the 684 weekly arriving seats, all were in nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

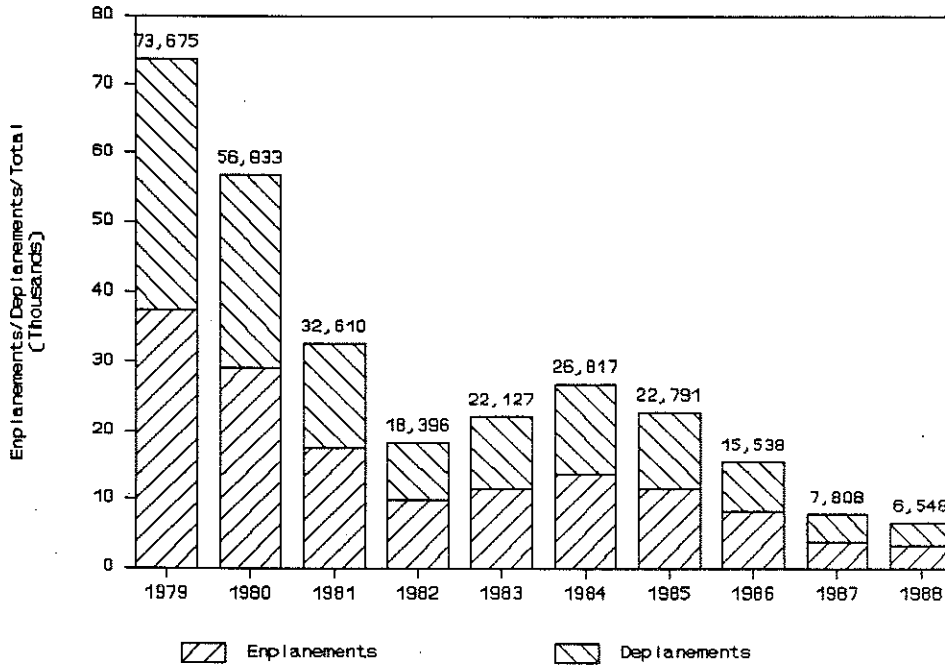
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	2	0	28	0	28
1987	1	2	0	0	32	32
1988	1	2	0	0	36	36

WEEKLY ARRIVING SEATS

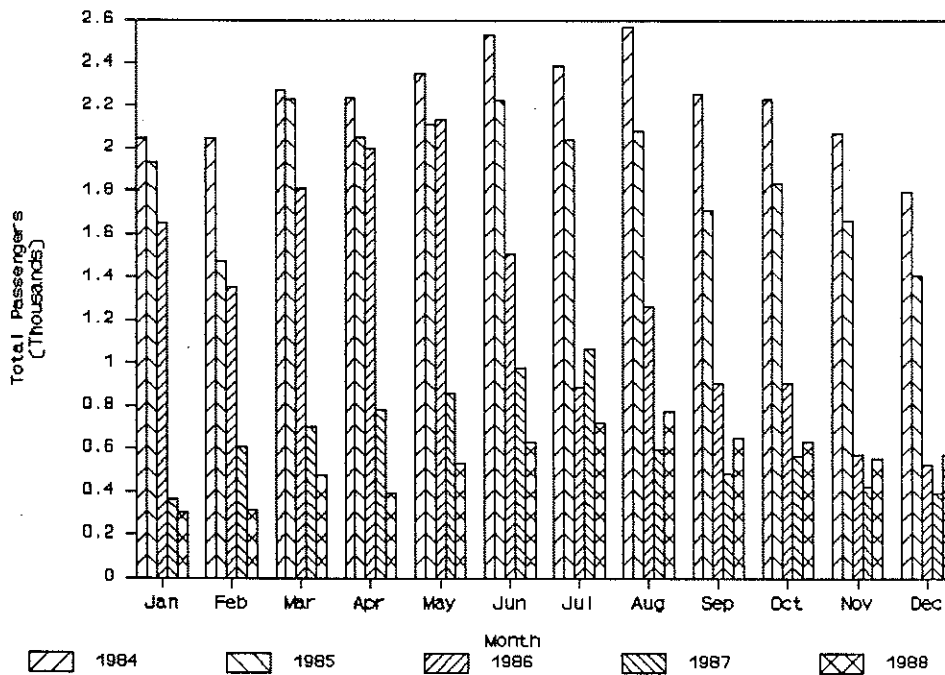
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	1,344	0	1,344
1987	0	0	608	608
1988	0	0	684	684

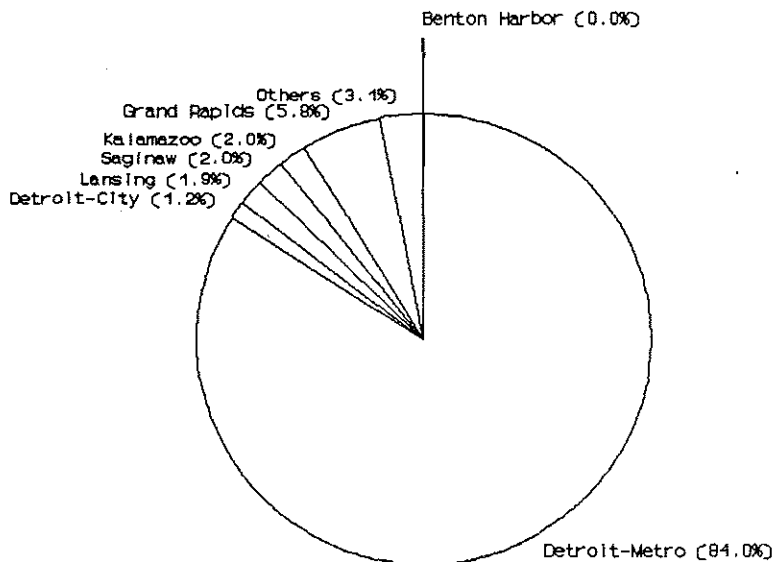
1979 - 1988 ANNUAL TOTAL PASSENGERS
Benton Harbor, Twin Cities Ross Field Airport



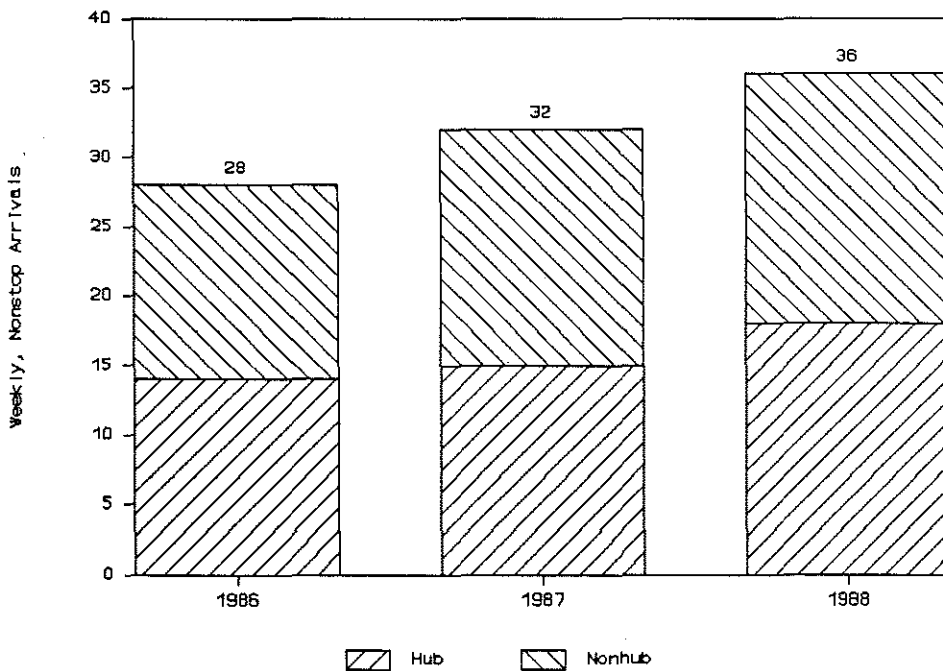
1984 - 1988 MONTHLY TOTAL PASSENGERS
Benton Harbor, Twin Cities Ross Field Airport



1988 PASSENGER LEVEL COMPARISON Benton Harbor, Twin Cities Ross Field Airport

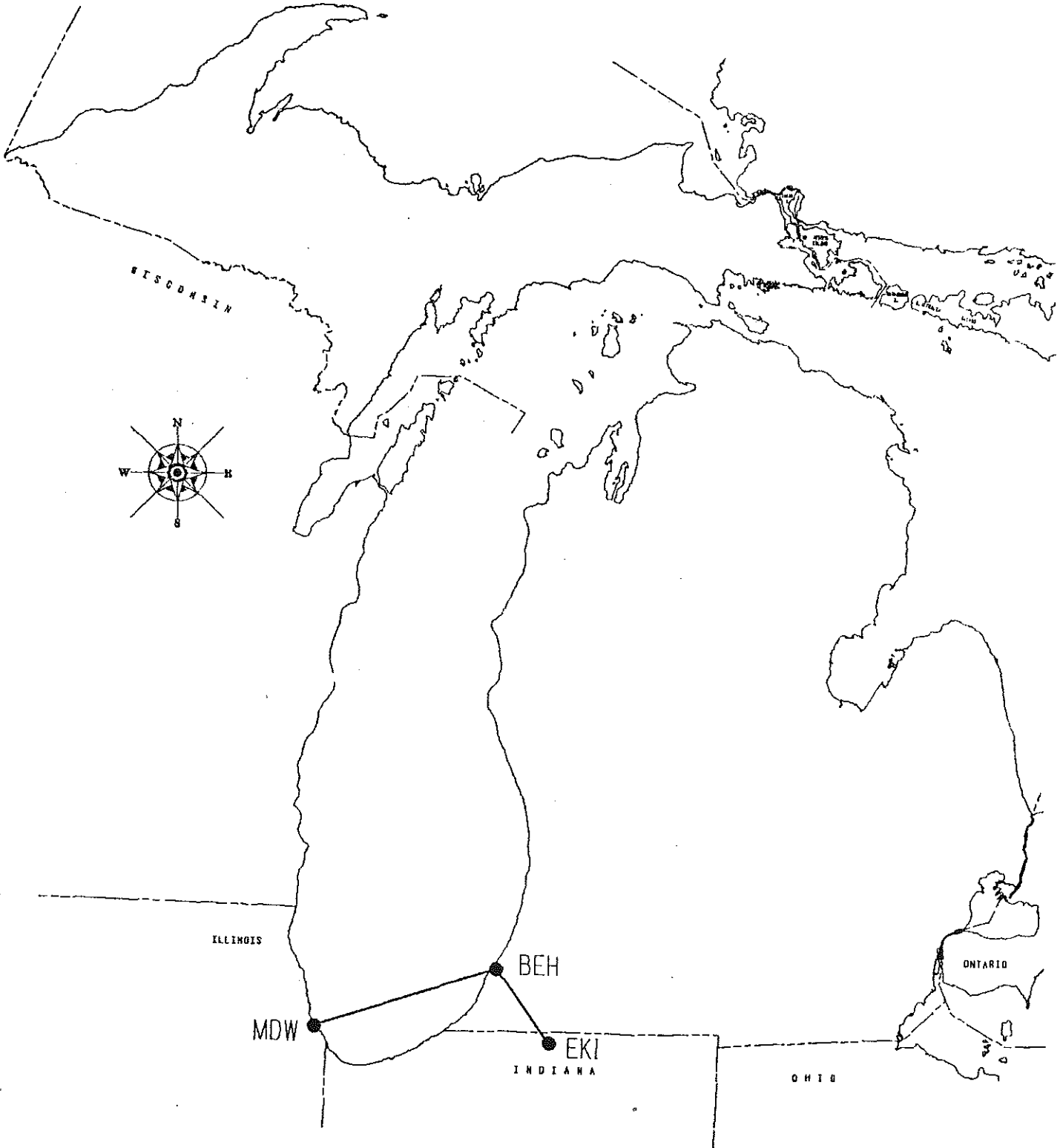


NONSTOP ARRIVALS FROM HUBS/NONHUBS Benton Harbor, Twin Cities Ross Field Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Benton Harbor, Twin Cities Ross Field Airport
As of December 31, 1988



Discontinued Since 1987

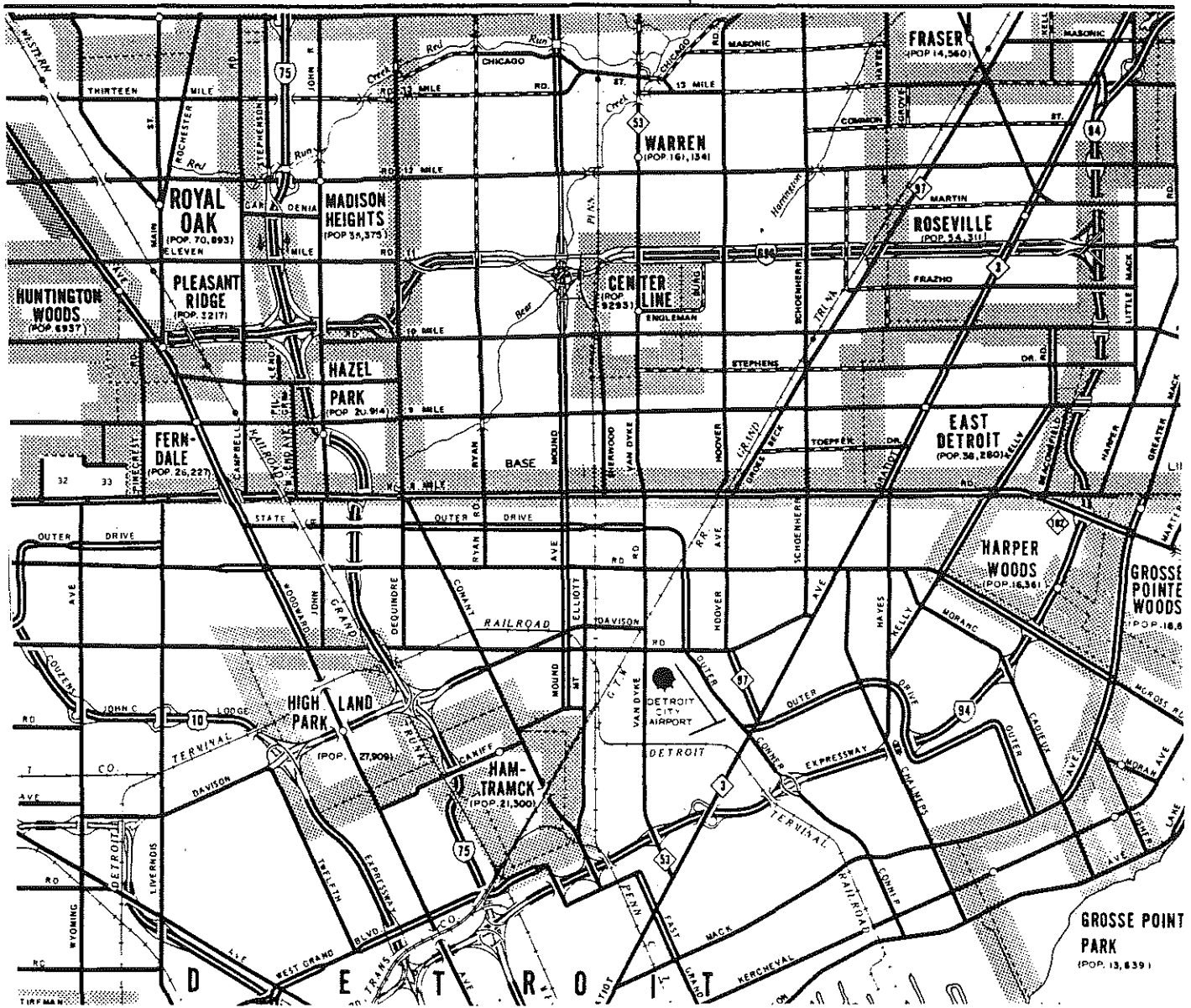
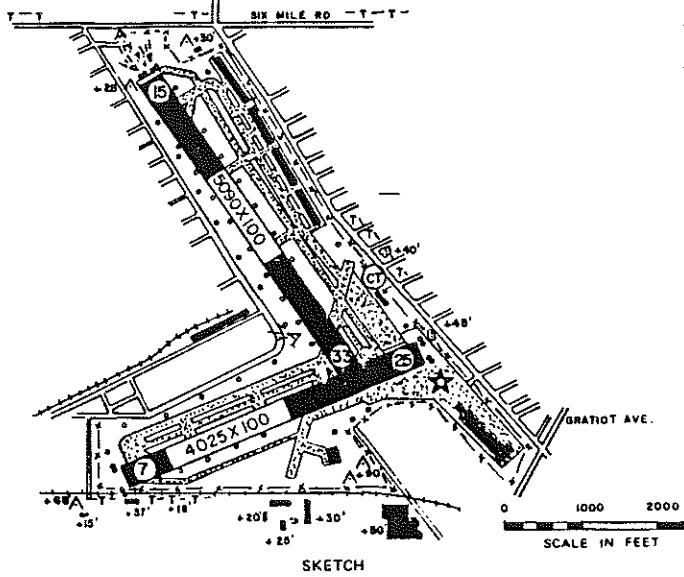
Flown in 1987

New Since 1987

CITY PAIR SERVICE SUMMARIES
 Benton Harbor, Twin Cities Ross Field Airport
 As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	<u>Weekly Arr. Seats Available</u>			Total	
					Jet	Pres.	Npres.		
Benton Harbor, MI [BEH]									
Chicago, IL [MDW]									
		Midway Connection (Iowa Airways, Inc.) [ML*]	EMB	19	18	0	0	342	342
Elkhart, IN [EKI]									
		Midway Connection (Iowa Airways, Inc.) [ML*]	EMB	19	18	0	0	342	342
Total				36	0	0	684	684	

Detroit City Airport



Detroit City Airport

Passengers Carried

Detroit City Airport, with 282,486 total passengers, experienced a 770.6 percent increase in 1988 over the previous year. Except in 1985, City Airport had experienced a steady decline in total passengers since 1979. The tremendous turnaround is mainly due to the commencement of jet air carrier service at the facility by Southwest Airlines. Monthly figures were five year lows from January through June. After the startup of service by Southwest in July, the remaining months were five year highs. Detroit City Airport ranked sixth in the state in total passengers with 1.2 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	22,354	21,286	43,640	-5.0%
1985	23,306	22,352	45,658	4.6%
1986	19,317	20,097	39,414	-13.7%
1987	16,062	16,385	32,447	-17.7%
1988	141,252	141,234	282,486	770.6%

Service Supplied

As of December 31, 1988, Detroit, City was served by four airlines. Between survey dates, the facility lost service by City Express but

gained service by Southwest Airlines. City Airport had nonstop service from six cities. Between the survey dates, service was lost from Toronto, ONT. However, service was gained to Chicago, IL (Midway Airport), Nashville, TN and St. Louis, MO resulting in a net increase of two origins over the previous year. There were 104 weekly arrivals, up 55 from 1986. Of the weekly arrivals, 54 (51.9 percent) were from a hub airport and all were from origins outside Michigan. Of the 7,628 weekly arriving seats, 6,748 (88.5 percent) were by jet, 475 (6.2 percent) were by pressurized propeller and 405 (5.3 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

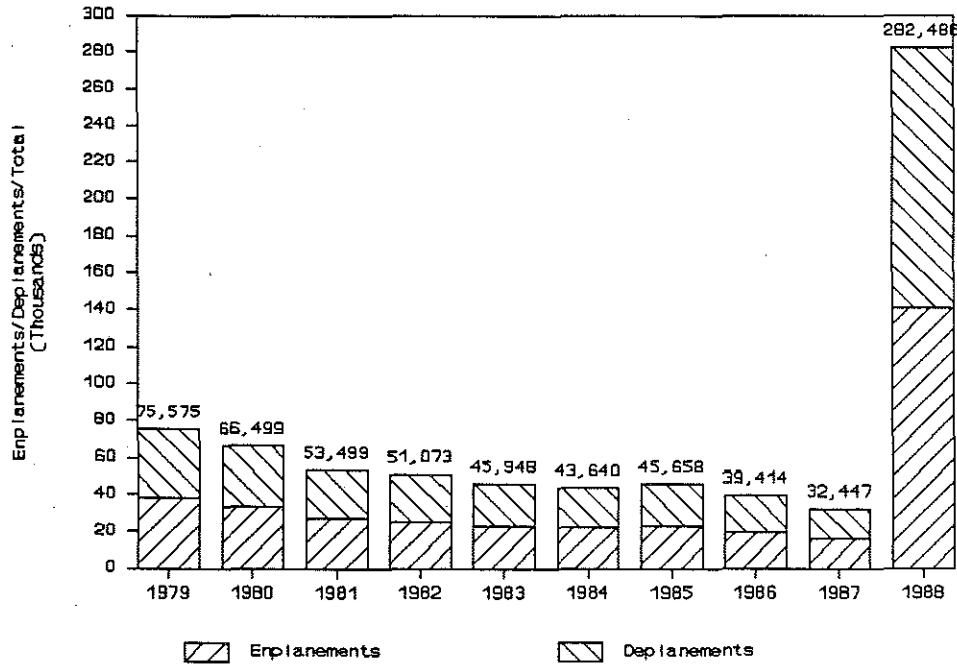
Year	Carriers		Weekly Arrivals			
	Serving	Origins	Jet	Press	Non	Total
1986	3	3	0	10	65	75
1987	4	4	0	5	44	49
1988	4	6	54	25	25	104

WEEKLY ARRIVING SEATS

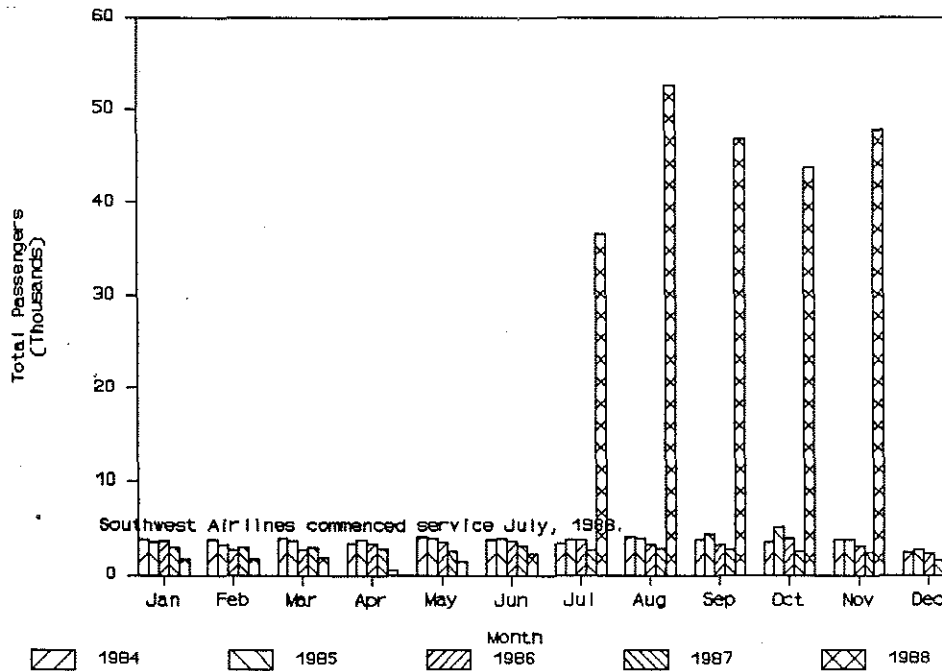
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	340	850	1,190
1987	0	170	781	951
1988	6,748	475	405	7,628

1979 - 1988 ANNUAL TOTAL PASSENGERS
Detroit City Airport

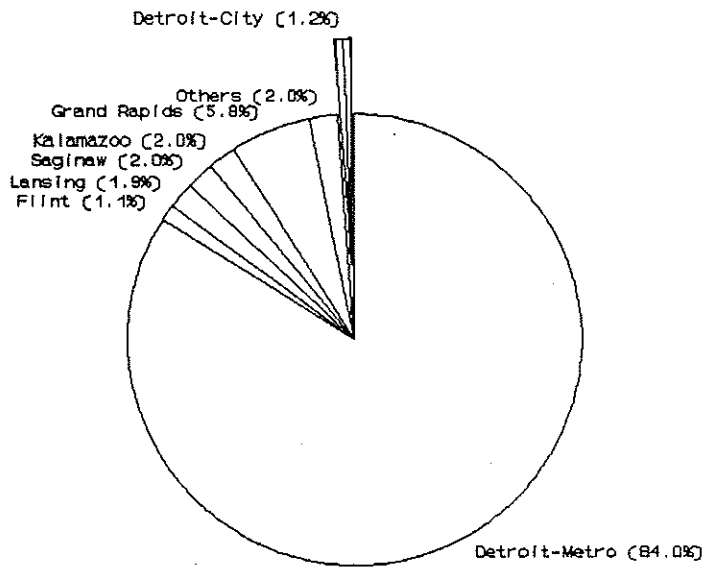


1984 - 1988 MONTHLY TOTAL PASSENGERS
Detroit City Airport



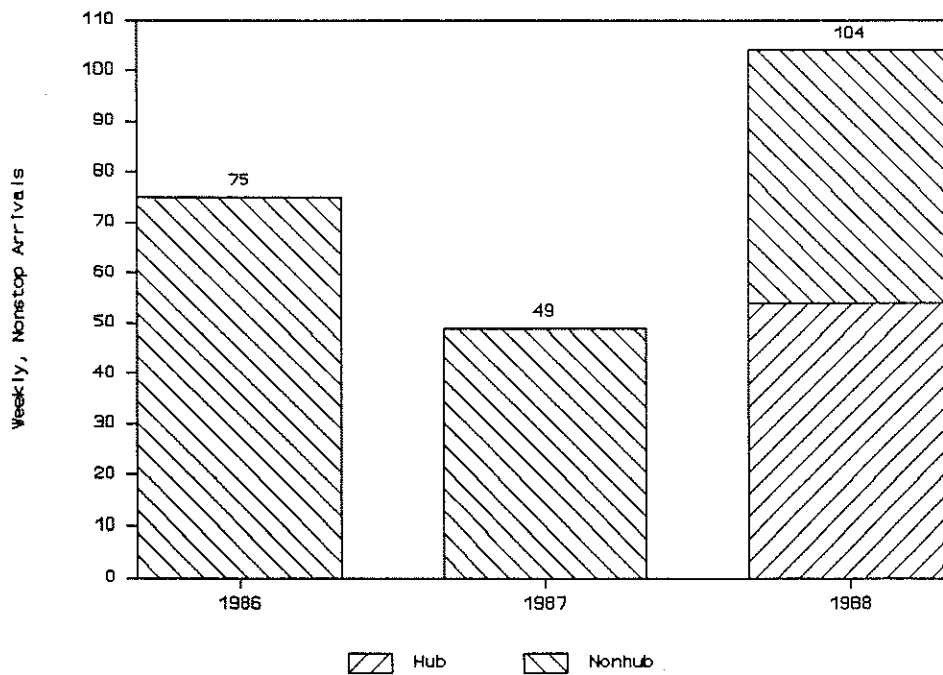
1988 PASSENGER LEVEL COMPARISON

Detroit City Airport



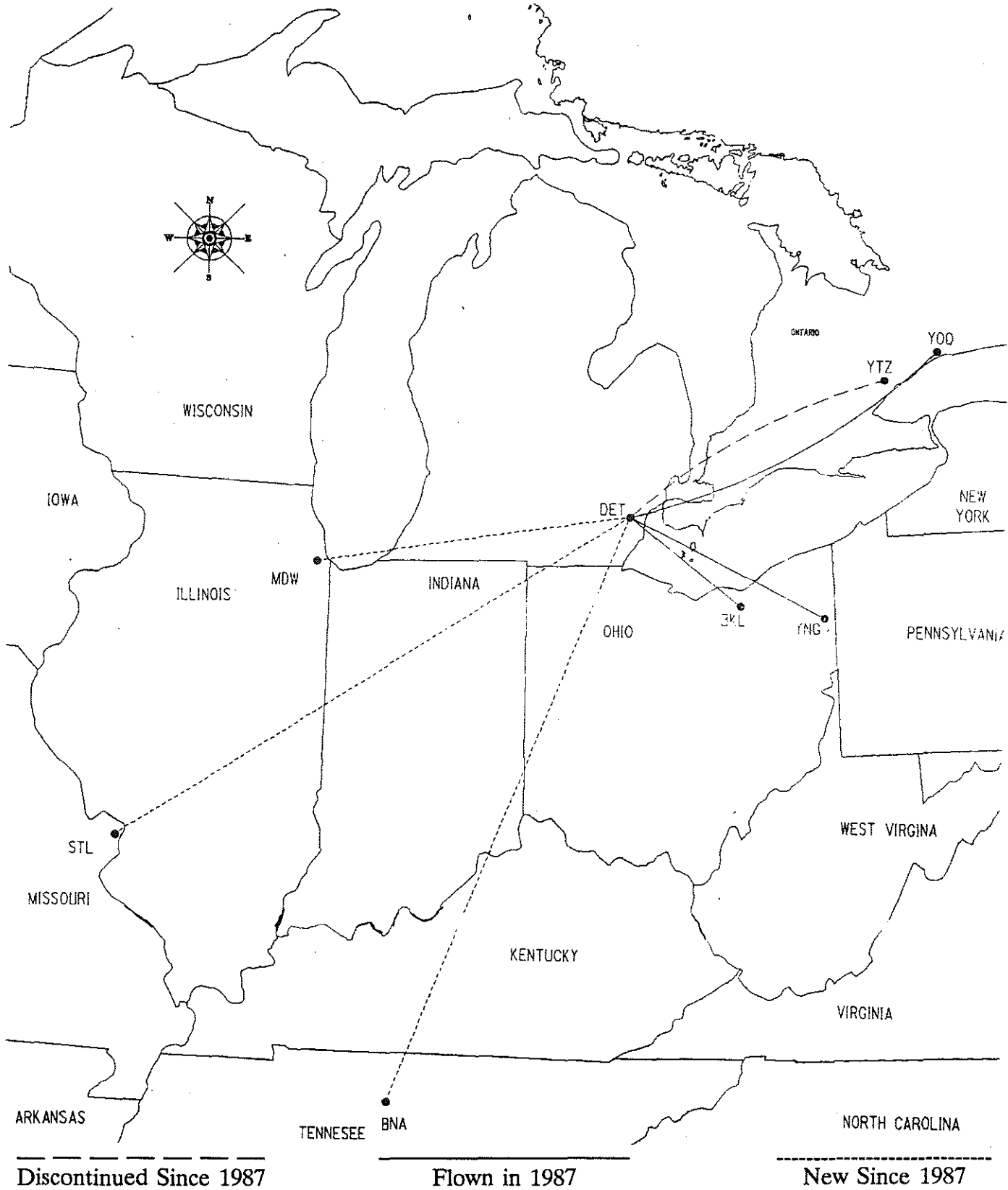
NONSTOP ARRIVALS FROM HUBS/NONHUBS

Detroit City Airport

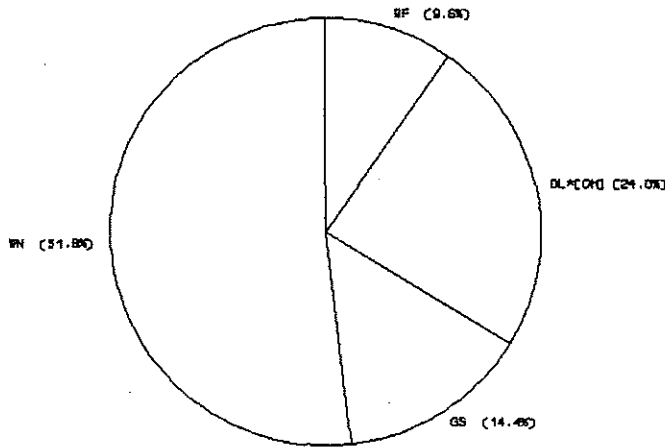


ORIGINS OF SCHEDULED NONSTOP ARRIVALS

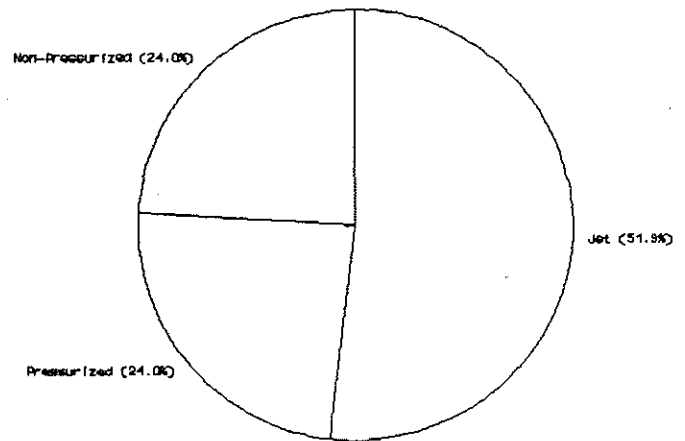
Detroit City Airport
As of December 31, 1988



PERCENTAGE ARRIVALS
BY CARRIER
Detroit City Airport



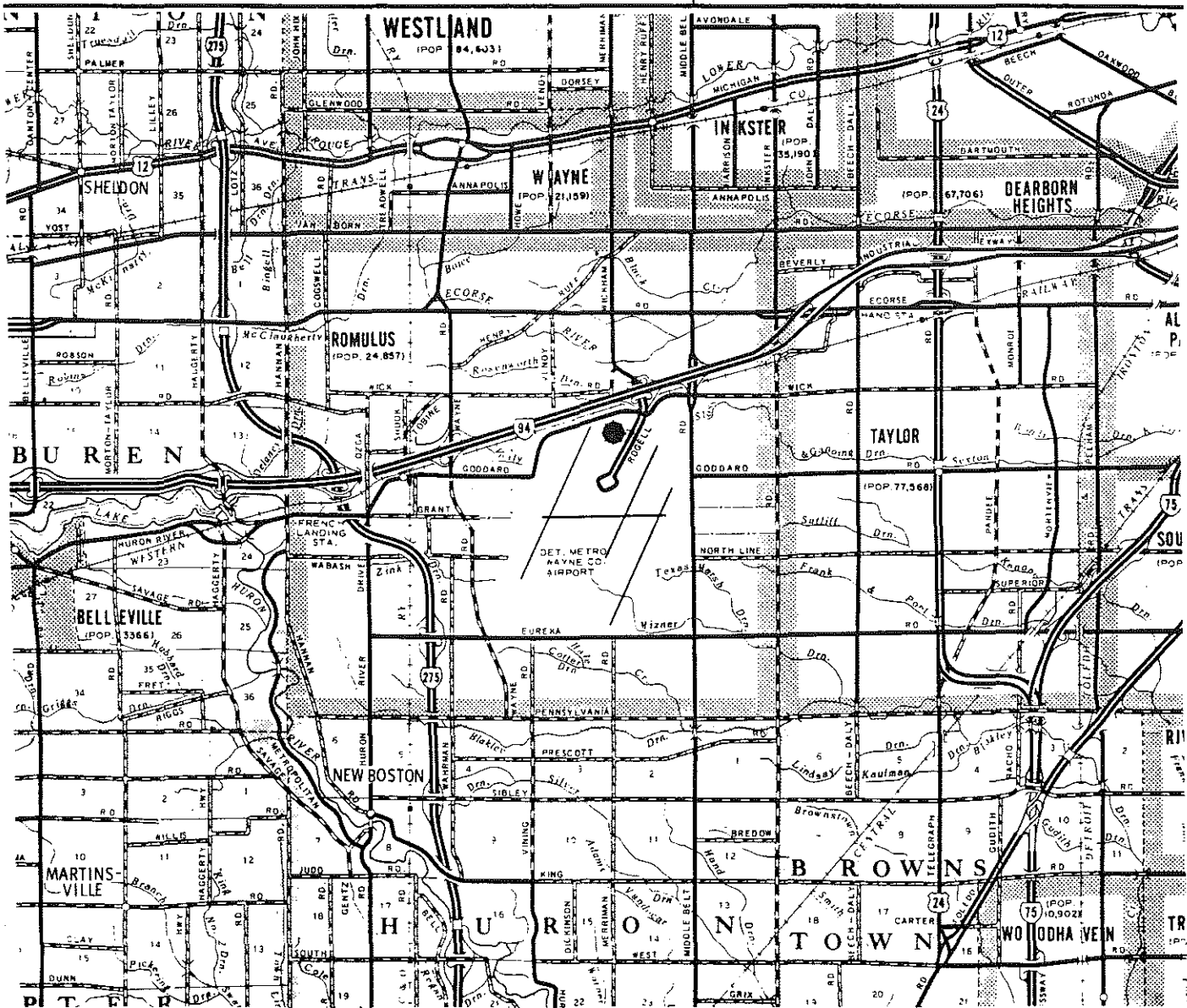
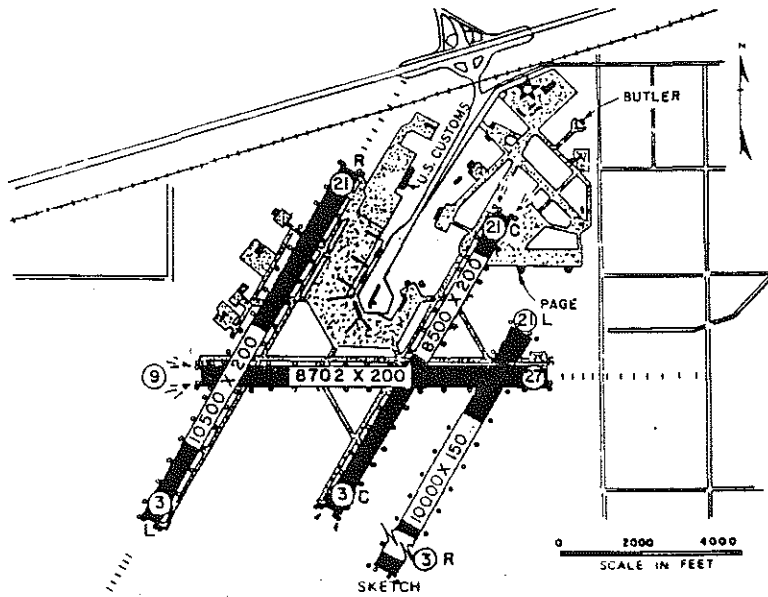
PERCENTAGE ARRIVALS BY
AIRCRAFT TYPE
Detroit City Airport



CITY PAIR SERVICE SUMMARIES
Detroit City Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly		Weekly Arr. Seats Available			Total
		Capacity	Arrivals	Jet	Pres.	Npres.	
Detroit, MI [DET]							
Chicago, IL [MDW]							
Southwest Airlines [WN]	733	138	5	690	0	0	690
Southwest Airlines [WN]	73S	122	27	3,294	0	0	3,294
Cleveland, OH [BKL]							
Delta Connection.(Comair, Inc.) [DL*]	SWM	19	25	0	475	0	475
Nashville, TN [BNA]							
Southwest Airlines [WN]	73S	122	10	1,220	0	0	1,220
Oshawa, ONT [YOO]							
Skycraft Air Transport, Inc. [9F]	SH3	30	10	0	0	300	300
St. Louis, MO [STL]							
Southwest Airlines [WN]	733	138	5	690	0	0	690
Southwest Airlines [WN]	73S	122	7	854	0	0	854
Youngstown, OH [YNG]							
BAS Airlines [GS]	PAG	7	15	0	0	105	105
Total			104	6,748	475	405	7,628

Detroit Metropolitan Wayne County Airport



Detroit Metropolitan Wayne County Airport

Passengers Carried

Metropolitan Wayne County Airport, with 19,144,249 total passengers, experienced a 1.1 percent increase in 1988 over the previous year. This surpasses the previous all time record set in 1987, and represents the fifth year in a row in which Metro Airport has set a new record. Historically, Metro Airport has enjoyed a growth in total passengers since the ten year low experienced in 1982. Monthly figures were lower than in 1987 from February through July. However, the remaining months were five year highs. Detroit, Metropolitan Airport ranked first in the state in total passengers with 84.0 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	5,643,208	5,654,617	11,297,825	23.8%
1985	7,585,820	7,517,719	15,103,539	33.7%
1986	8,648,347	8,423,383	17,071,730	13.0%
1987	9,574,493	9,520,816	19,095,309	11.9%
1988	9,519,268	9,624,981	19,144,249	1.1%

Service Supplied

As of December 31, 1987, Detroit, Metro was served by 22 carriers operated by 23 airlines. Between survey dates, the facility lost service by Continental Express (Britt-North). During the same time, service was gained by Midwest Express Airlines, Inc. and Mesaba Aviation became an operator of some Northwest Airlink routes resulting in a net

gain of one airline and one carrier from the year before. Air Canada changed it's contract operator from Commuter Express to Air Ontario, Inc. Metro Airport had non-stop service from 79 airports in 74 cities, a net increase of one origin over the previous year. Service was lost from Appleton, WI, Cedar Rapids, IA, East Tawas, Muskegon, Peoria, IL and Stevens Point/Wausau, WI. Service was gained from Harrisburg, PA, London, ONT, New Orleans, LA, Norfolk/Virginia Beach/Williamsburg, VA, Portland, OR, Sarasota/Bradenton, FL, Worcester, MA. There were 2,921 weekly arrivals, down by 201 from 1986. Of the weekly arrivals, 2,211 (75.7 percent) were from hub airports. Of the 375,829 weekly arriving seats, 364,820 (97.0 percent) were by jet, 6,379 (1.7 percent) were by pressurized propeller and 4,630 (1.3 percent) were by nonpressurized propeller aircraft.

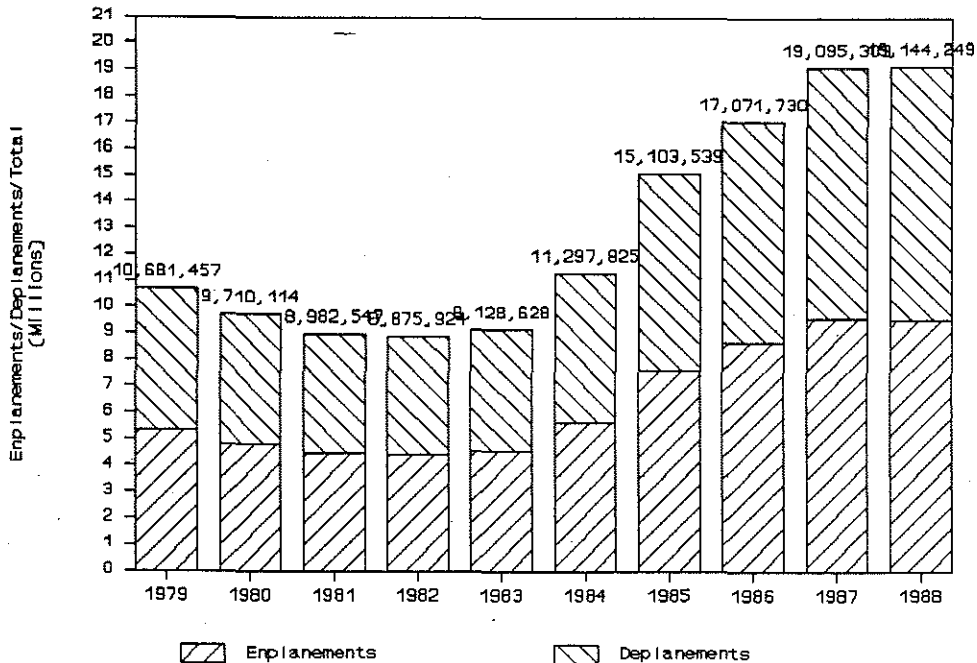
WEEKLY ARRIVALS As of December 31

Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	24	74	2,421	311	622	3,354
1987	21	78	2,465	300	357	3,122
1988	22	79	2,545	220	156	2,921

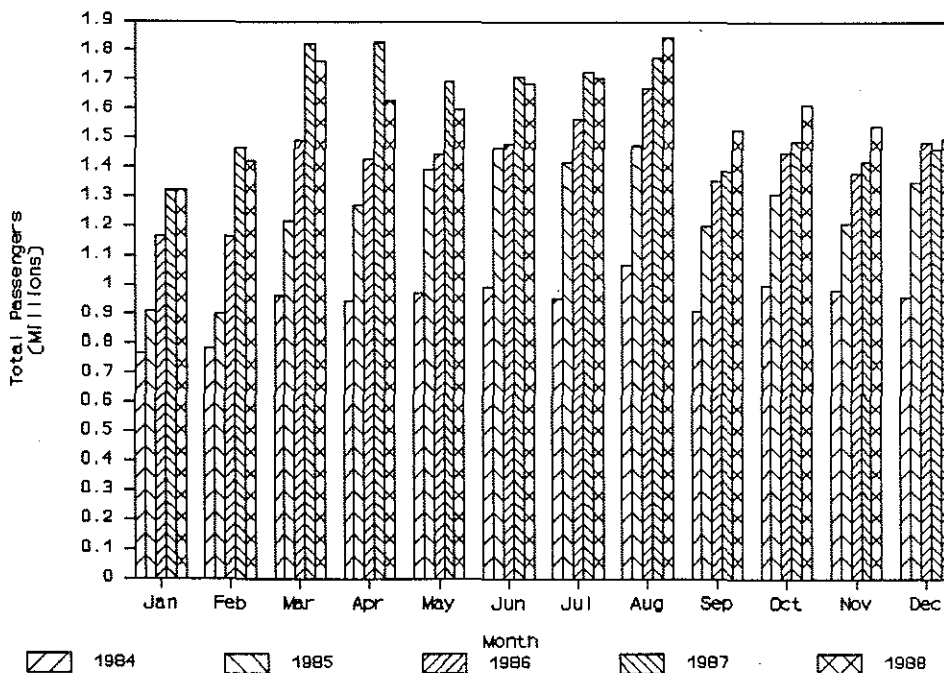
WEEKLY ARRIVING SEATS As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	360,891	13,095	16,216	390,202
1987	359,098	11,987	12,222	383,307
1988	364,820	6,379	4,630	375,829

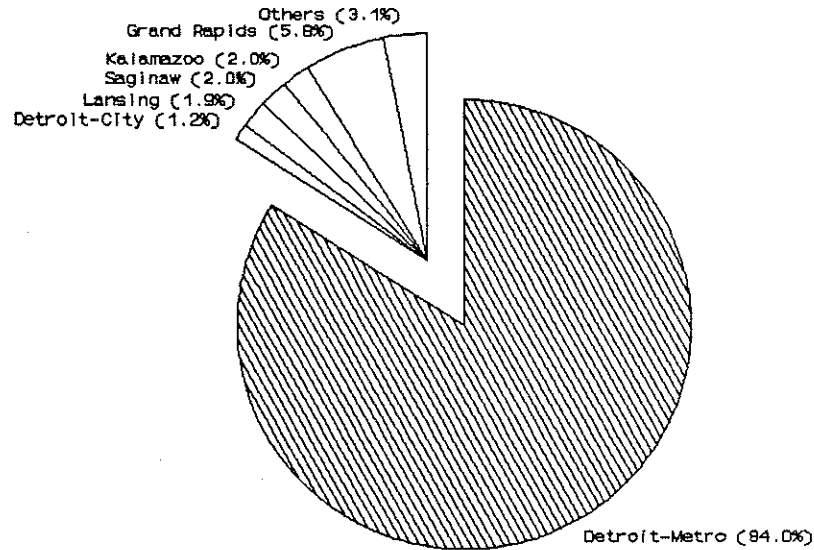
1979 - 1988 ANNUAL TOTAL PASSENGERS Detroit Metropolitan Wayne County Airport



1984 - 1988 MONTHLY TOTAL PASSENGERS Detroit Metropolitan Wayne County Airport



1988 PASSENGER LEVEL COMPARISON Detroit Metropolitan Wayne County Airport

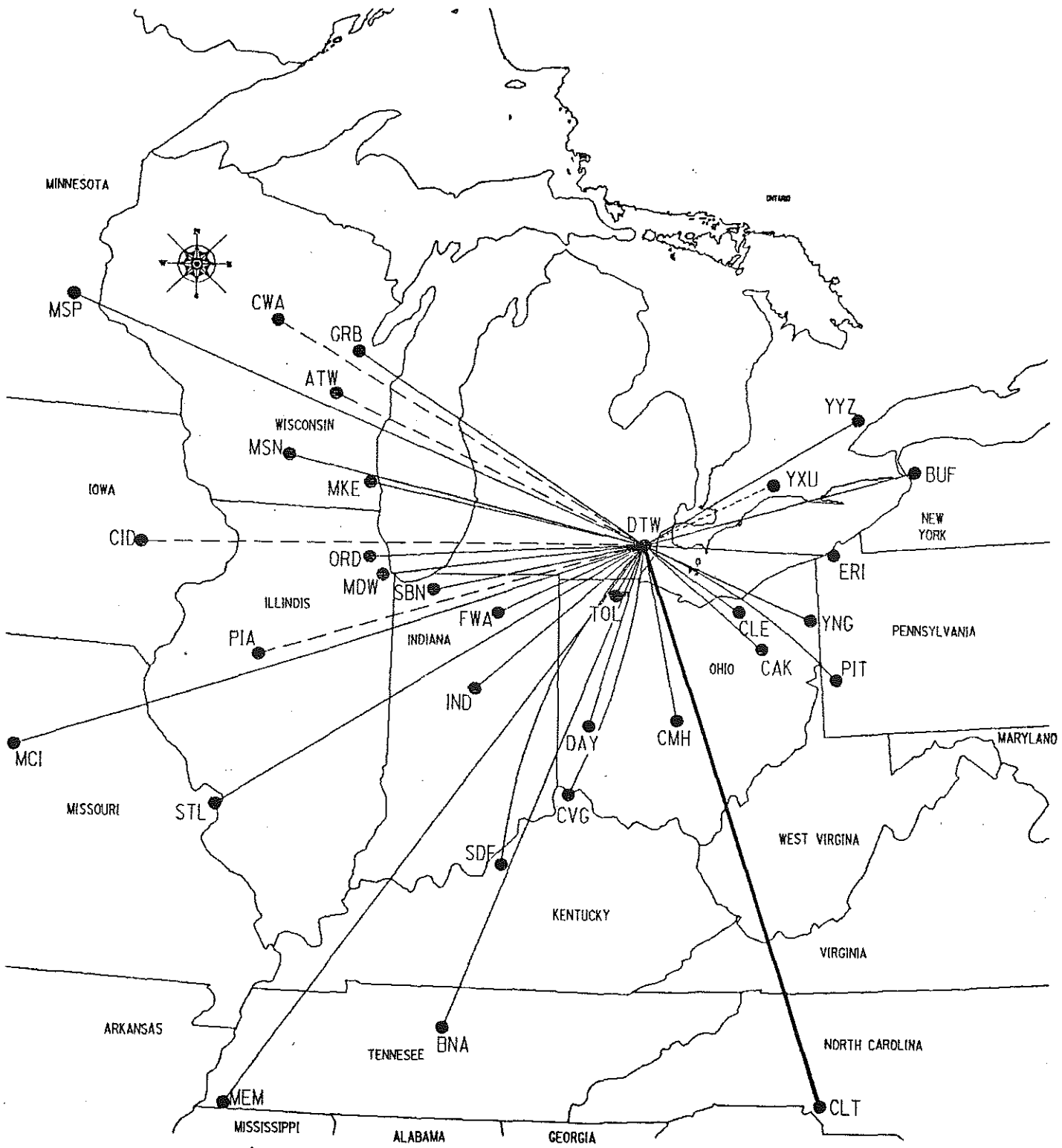


CITY PAIR SERVICE SUMMARIES Detroit Metropolitan Wayne County Airport As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp.	Weekly Capacity	Arrivals	Weekly Arr. Seats Available			
						Jet	Pres.	Npres.	Total
Detroit, MI [DTW]									
Akron/Canton, OH [CAK]									
		Northwest Airlink (Mesaba Aviation) [NW*]	F27	48	14	0	672	0	672
Albany, NY [ALB]									
		Northwest Airlines, Inc. [NW]	D95	139	14	1,946	0	0	1,946
		Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Allentown, PA [ABE]									
		Northwest Airlines, Inc. [NW]	DC9	90	14	1,260	0	0	1,260
		Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Alpena, MI [APN]									
		Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	12	0	0	432	432
Atlanta, GA [ATL]									
		Delta Airlines, Inc. [DL]	72S	145	7	1,015	0	0	1,015
		Delta Airlines, Inc. [DL]	757	201	14	2,814	0	0	2,814
		Delta Airlines, Inc. [DL]	767	250	7	1,750	0	0	1,750
		Delta Airlines, Inc. [DL]	M80	154	7	1,078	0	0	1,078

ORIGINS OF SCHEDULED INTERSTATE NONSTOP ARRIVALS

Detroit Metropolitan Wayne County Airport
 (Inset of Map on Following Page)
 As of December 31, 1988



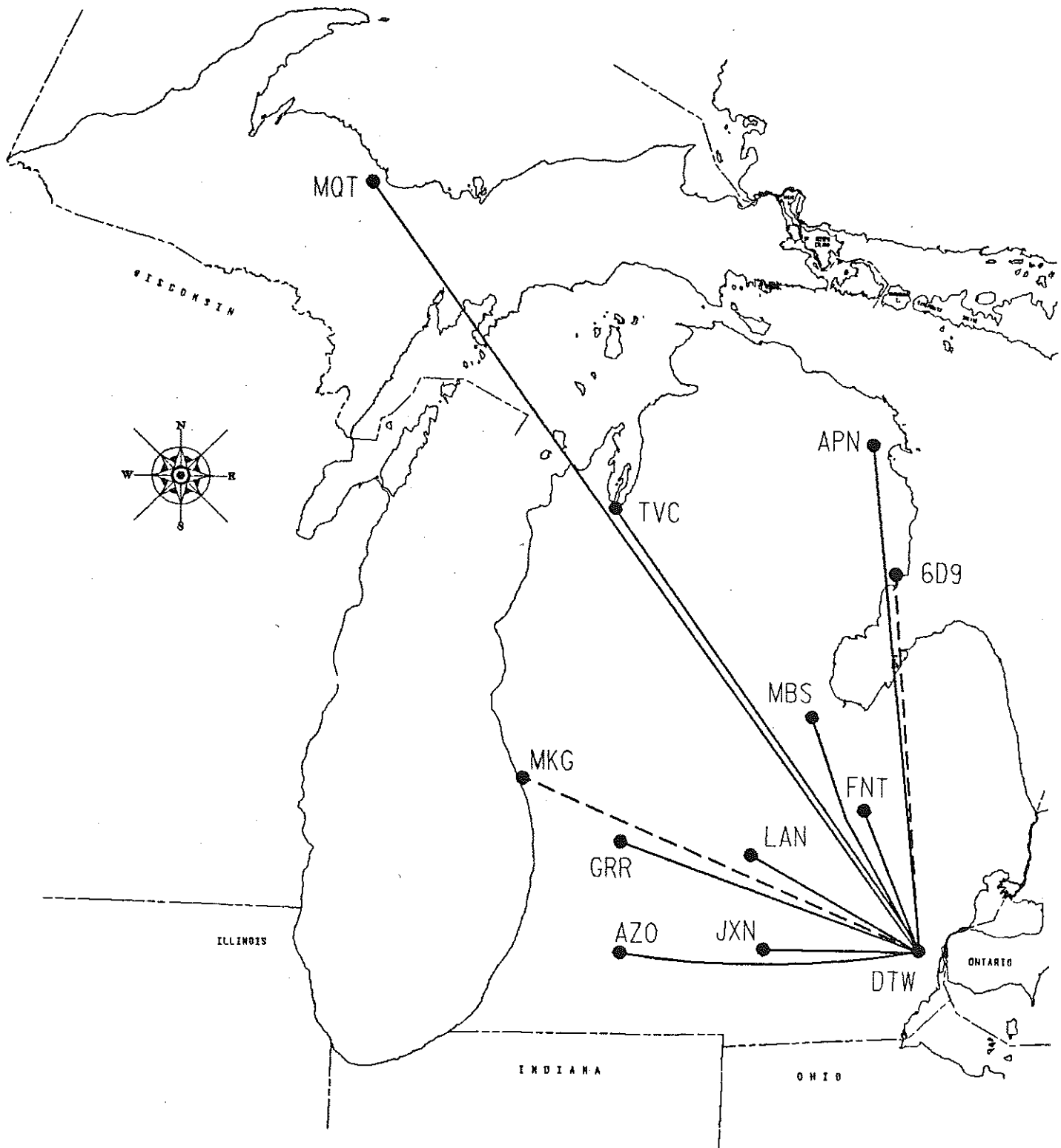
 Discontinued Since 1987

 Flown in 1987

 New Since 1987

ORIGINS OF SCHEDULED INTRASTATE NONSTOP ARRIVALS

Detroit Metropolitan Wayne County Airport
As of December 31, 1988



Discontinued Since 1987

Flown in 1987

New Since 1987

CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available			
				Jet	Pres.	Npres.	Total
Detroit, MI [DTW] (cont.)							
Atlanta, GA [ATL] (cont.)							
Eastern Airlines, Inc. [EA]	D95	139	28	3,892	0	0	3,892
Eastern Airlines, Inc. [EA]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	DC9	90	14	1,260	0	0	1,260
Baltimore, MD/Washington, DC [BWI]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	D9S	139	21	2,919	0	0	2,919
Piedmont Aviation, Inc. [PI]	72S	145	7	1,015	0	0	1,015
Piedmont Aviation, Inc. [PI]	733	138	14	1,932	0	0	1,932
Piedmont Aviation, Inc. [PI]	F28	60	6	360	0	0	360
Boston, MA [BOS]							
Northwest Airlines, Inc. [NW]	727	100	1	100	0	0	100
Northwest Airlines, Inc. [NW]	72S	145	13	1,885	0	0	1,885
Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	1,407
Northwest Airlines, Inc. [NW]	D10	288	21	6,048	0	0	6,048
Northwest Airlines, Inc. [NW]	D9S	125	6	750	0	0	750
Buffalo, NY [BUF]							
Continental Airlines, Inc. [CO]	M80	154	7	1,078	0	0	1,078
Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	2,030
Northwest Airlines, Inc. [NW]	D9S	139	14	1,946	0	0	1,946
Charlotte, NC [CLT]							
Piedmont Aviation, Inc. [PI]	733	138	12	1,656	0	0	1,656
Piedmont Aviation, Inc. [PI]	734	159	14	2,226	0	0	2,226
Chicago, IL [MDW]							
Midway Airlines, Inc. [ML]	73S	122	6	732	0	0	732
Midway Airlines, Inc. [ML]	D9S	125	40	5,000	0	0	5,000
Midway Airlines, Inc. [ML]	DC9	90	14	1,260	0	0	1,260
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Southwest Airlines [WN]	733	138	11	1,518	0	0	1,518
Southwest Airlines [WN]	73S	122	19	2,318	0	0	2,318
Southwest Airlines [WN]	DC9	90	6	540	0	0	540
Chicago, IL [ORD]							
American Airlines, Inc. [AA]	72S	145	21	3,045	0	0	3,045
American Airlines, Inc. [AA]	D10	288	21	6,048	0	0	6,048
Northwest Airlines, Inc. [NW]	72S	145	31	4,495	0	0	4,495
Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	1,407
Northwest Airlines, Inc. [NW]	D9S	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
United Airlines, Inc. [UA]	72S	145	14	2,030	0	0	2,030
United Airlines, Inc. [UA]	73S	122	7	854	0	0	854
United Airlines, Inc. [UA]	D10	288	21	6,048	0	0	6,048
Cincinnati, OH [CVG]							
Delta Airlines, Inc. [DL]	72S	145	21	3,045	0	0	3,045
Delta Airlines, Inc. [DL]	M80	154	7	1,078	0	0	1,078

Michigan Air Carrier Airport Statistics

CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Weekly		Weekly Arr. Seats Available			
		Capacity	Arrivals	Jet	Pres.	Npres.	Total
Detroit, MI [DTW] (cont.)							
Cincinnati, OH [CVG] (cont.)							
Delta Connection (Comair, Inc.) [DL*]	SF3	34	28	0	952	0	952
Delta Connection (Comair, Inc.) [DL*]	SWM	19	6	0	114	0	114
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
Cleveland, OH [CLE]							
Continental Airlines, Inc. [CO]	733	138	7	966	0	0	966
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	1,890
Northwest Airlink (Mesaba Aviation) [NW*]	F27	48	12	0	576	0	576
Northwest Airlink (Mesaba Aviation) [NW*]	SWM	19	18	0	342	0	342
Columbus, OH [CMH]							
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
Piedmont Commuter System [PI*]	J31	18	6	0	108	0	108
Dallas/Ft. Worth, TX [DFW]							
American Airlines, Inc. [AA]	72S	145	7	1,015	0	0	1,015
American Airlines, Inc. [AA]	767	250	7	1,750	0	0	1,750
American Airlines, Inc. [AA]	D10	288	14	4,032	0	0	4,032
Delta Airlines, Inc. [DL]	72S	145	7	1,015	0	0	1,015
Delta Airlines, Inc. [DL]	73S	122	7	854	0	0	854
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Dayton, OH [DAY]							
Northwest Airlink (Mesaba Aviation) [NW*]	F27	48	13	0	624	0	624
Northwest Airlink (Mesaba Aviation) [NW*]	SWM	19	7	0	133	0	133
Piedmont Commuter System [PI*]	J31	18	68	0	1,224	0	1,224
Denver, CO [DEN]							
Continental Airlines, Inc. [CO]	M80	154	21	3,234	0	0	3,234
United Airlines, Inc. [UA]	72S	145	28	4,060	0	0	4,060
Erie, PA [ERI]							
Northwest Airlink (Mesaba Aviation) [NW*]	F27	48	13	0	624	0	624
Northwest Airlink (Mesaba Aviation) [NW*]	SWM	19	7	0	133	0	133
Flint, MI [FNT]							
Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	31	0	0	1,116	1,116
Ft. Lauderdale, FL [FLL]							
Delta Airlines, Inc. [DL]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Ft. Myers, FL [RSW]							
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Ft. Wayne, IN [FWA]							
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	2,625

CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly		Weekly Arr. Seats Available			
			Arrivals		Jet	Pres.	Npres.	Total
Detroit, MI [DTW] (cont.)								
Ft. Wayne, IN [FWA]								
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	0	630
Grand Rapids, MI [GRR]								
Northwest Airlines, Inc. [NW]	727	100	7	700	0	0	0	700
Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	0	2,030
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	0	875
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	0	630
Green Bay, WI [GRB]								
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	0	1,750
Harrisburg, PA [HAR]								
Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	0	1,890
Hartford, CT/Springfield, MA [BDL]								
Continental Airlines, Inc. [CO]	73S	122	7	854	0	0	0	854
Northwest Airlines, Inc. [NW]	72S	145	21	3,045	0	0	0	3,045
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	0	1,750
United Airlines, Inc. [UA]	D8S	259	7	1,813	0	0	0	1,813
Houston, TX [HOU]								
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	0	2,625
Houston, TX [IAH]								
Continental Airlines, Inc. [CO]	72S	145	7	1,015	0	0	0	1,015
Continental Airlines, Inc. [CO]	D9S	125	6	750	0	0	0	750
Continental Airlines, Inc. [CO]	M80	154	8	1,232	0	0	0	1,232
Indianapolis, IN [IND]								
Delta Airlines, Inc. [DL]	72S	145	13	1,885	0	0	0	1,885
Delta Airlines, Inc. [DL]	D9S	125	8	1,000	0	0	0	1,000
Delta Airlines, Inc. [DL]	M80	154	7	1,078	0	0	0	1,078
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	0	1,015
Northwest Airlines, Inc. [NW]	D95	139	13	1,807	0	0	0	1,807
Northwest Airlines, Inc. [NW]	DC9	90	14	1,260	0	0	0	1,260
Northwest Airlines, Inc. [NW]	M80	154	7	1,078	0	0	0	1,078
Jackson, MI [JXN]								
Northwest Airlin (Simmons Airlines) [NW*]	SH6	36	12	0	0	0	432	432
Kalamazoo, MI [AZO]								
Northwest Airlines, Inc. [NW]	DC9	90	28	2,520	0	0	0	2,520
Kansas City, MO [MCI]								
Braniff, Inc. [BN]	72S	145	21	3,045	0	0	0	3,045
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	0	1,750
Lansing, MI [LAN]								
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	0	875
Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	0	1,890

CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport

As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available	Jet	Pres.	Npres.	Total
Detroit, MI [DTW] (cont.)										
Las Vegas, NV [LAS]		Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	0	2,030
London, ONT [YXU]		Air Canada (Air Ontario, Inc.) [AC*]	DH8	34	18	0	612	0	0	612
London, UK [LHR]		Pan American World Airways, Inc. [PA]	310	225	7	1,575	0	0	0	1,575
Los Angeles, CA [LAX]		Northwest Airlines, Inc. [NW]	757	201	14	2,814	0	0	0	2,814
		Northwest Airlines, Inc. [NW]	D10	288	7	2,016	0	0	0	2,016
Louisville, KY [SDF]		Delta Connection (Comair, Inc.) [DL*]	SF3	34	5	0	170	0	0	170
		Delta Connection (Comair, Inc.) [DL*]	SWM	19	5	0	95	0	0	95
		Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	0	1,750
		Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	0	630
Madison, WI [MSN]		Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	0	2,030
		Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	0	973
Marquette, MI [MQT]		Northwest Airlin (Simmons Airlines) [NW*]	SH6	36	21	0	0	756	0	756
Memphis, TN [MEM]		Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	0	1,015
		Northwest Airlines, Inc. [NW]	757	201	21	4,221	0	0	0	4,221
Miami, FL [MIA]		Delta Airlines, Inc. [DL]	757	201	1	201	0	0	0	201
		Eastern Airlines, Inc. [EA]	72S	145	7	1,015	0	0	0	1,015
		Northwest Airlines, Inc. [NW]	D95	139	1	139	0	0	0	139
		Northwest Airlines, Inc. [NW]	D9S	125	13	1,625	0	0	0	1,625
Milwaukee, WI [MKE]		Midwest Express Airlines, Inc. [YX]	DC9	90	16	1,440	0	0	0	1,440
		Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	0	2,030
		Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	0	1,407
		Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	0	973
		Northwest Airlines, Inc. [NW]	D9S	125	20	2,500	0	0	0	2,500
		Trans World Airlines, Inc. [TW]	72S	145	7	1,015	0	0	0	1,015
Minneapolis/St.Paul, MN [MSP]		Northwest Airlines, Inc. [NW]	727	100	14	1,400	0	0	0	1,400
		Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	0	1,015
		Northwest Airlines, Inc. [NW]	747	452	7	3,164	0	0	0	3,164
		Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	0	1,407
		Northwest Airlines, Inc. [NW]	D10	288	14	4,032	0	0	0	4,032
		Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	0	875
		Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	0	630
		Northwest Airlines, Inc. [NW]	M80	154	7	1,078	0	0	0	1,078

CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport

As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly		Weekly Arr. Seats Available			
		Capacity	Arrivals	Jet	Pres.	Npres.	Total
Detroit, MI [DTW] (cont.)							
Montreal, QUE [YMX]							
British Airways [BA]	L10	325	7	2,275	0	0	2,275
Sabena Belgian World Airlines [SN]	727	100	2	200	0	0	200
Montreal, QUE [YUL]							
Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	2,625
Nashville, TN [BNA]							
American Airlines, Inc. [AA]	72S	145	7	1,015	0	0	1,015
American Airlines, Inc. [AA]	M80	154	14	2,156	0	0	2,156
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	2,625
New Orleans, LA [MSY]							
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
New York, NY [JFK]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Pan American World Airways, Inc. [PA]	72S	145	14	2,030	0	0	2,030
Trans World Airlines, Inc. [TW]	72S	145	7	1,015	0	0	1,015
New York, NY [LGA]							
Northwest Airlines, Inc. [NW]	727	100	7	700	0	0	700
Northwest Airlines, Inc. [NW]	72S	145	35	5,075	0	0	5,075
Northwest Airlines, Inc. [NW]	757	201	14	2,814	0	0	2,814
Northwest Airlines, Inc. [NW]	D9S	125	20	2,500	0	0	2,500
New York, NY/Newark, NJ [EWR]							
Continental Airlines, Inc. [CO]	727	100	7	700	0	0	700
Continental Airlines, Inc. [CO]	737	120	20	2,400	0	0	2,400
Continental Airlines, Inc. [CO]	73S	122	20	2,440	0	0	2,440
Continental Airlines, Inc. [CO]	D9S	125	14	1,750	0	0	1,750
Continental Airlines, Inc. [CO]	M80	154	7	1,078	0	0	1,078
Northwest Airlines, Inc. [NW]	72S	145	21	3,045	0	0	3,045
Northwest Airlines, Inc. [NW]	757	201	14	2,814	0	0	2,814
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
New York/White Plains, NY [HPN]							
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	2,625
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
Norfolk/Va.Beach/Wmsburg, VA [ORF]							
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
Orlando, FL [MCO]							
Braniff, Inc. [BN]	72S	145	7	1,015	0	0	1,015
Braniff, Inc. [BN]	73S	122	7	854	0	0	854
Delta Airlines, Inc. [DL]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	D9S	139	14	1,946	0	0	1,946
Philadelphia, PA [PHL]							
Northwest Airlines, Inc. [NW]	72S	145	21	3,045	0	0	3,045

Michigan Air Carrier Airport Statistics

CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available Jet	Pres.	Npres.	Total
Detroit, MI [DTW] (cont.)							
Philadelphia, PA [PHL] (cont.)							
Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	1,407
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Northwest Airlines, Inc. [NW]	DC9	90	14	1,260	0	0	1,260
USAir [US]	73S	122	7	854	0	0	854
USAir [US]	B11	76	6	456	0	0	456
USAir [US]	D9S	125	7	875	0	0	875
Phoenix, AZ [PHX]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	1,407
Southwest Airlines [WN]	733	138	6	828	0	0	828
Pittsburgh, PA [PIT]							
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	1,890
USAir [US]	733	138	6	828	0	0	828
USAir [US]	B11	76	14	1,064	0	0	1,064
USAir [US]	D9S	125	28	3,500	0	0	3,500
Portland, OR [PDX]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Providence, RI [PBD]							
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	2,625
Raleigh/Durham, NC [RDU]							
American Airlines, Inc. [AA]	72S	145	21	3,045	0	0	3,045
Rochester, NY [ROC]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
Saginaw, MI [MBS]							
Michigan Airways, Inc. [QQ]	PAG	7	19	0	0	133	133
Northwest Airlines, Inc. [NW]	72S	145	21	3,045	0	0	3,045
Northwest Airlines, Inc. [NW]	D9S	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
San Diego, CA [SAN]							
Northwest Airlines, Inc. [NW]	727	100	14	1,400	0	0	1,400
San Francisco/Oakland, CA [SFO]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	757	201	14	2,814	0	0	2,814
Northwest Airlines, Inc. [NW]	D10	288	7	2,016	0	0	2,016
United Airlines, Inc. [UA]	D8S	259	7	1,813	0	0	1,813
Sarasota/Bradenton, FL [SRQ]							
Northwest Airlines, Inc. [NW]	D9S	139	7	973	0	0	973
Seattle/Tacoma, WA [SEA]							
Northwest Airlines, Inc. [NW]	757	201	14	2,814	0	0	2,814

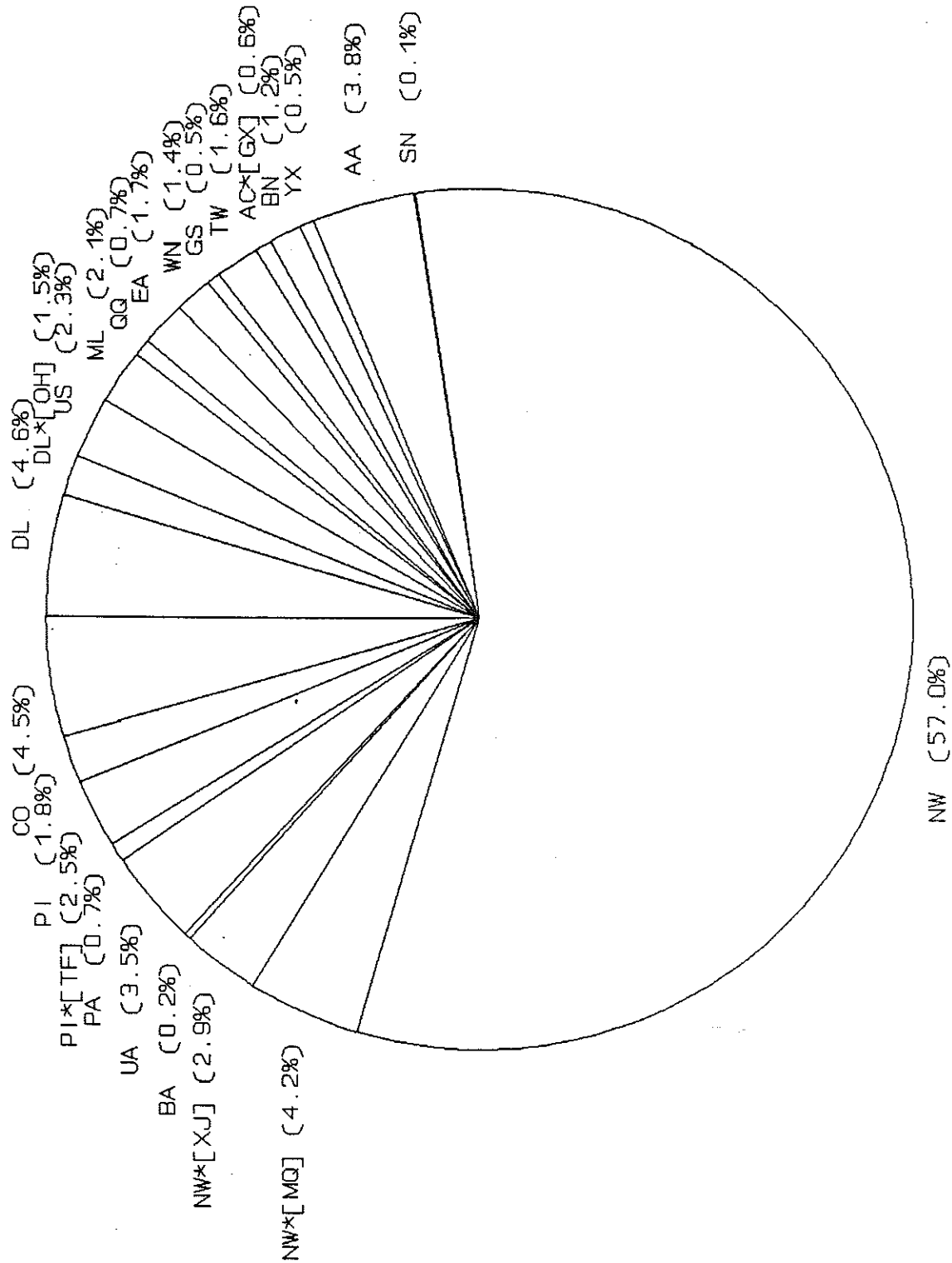
CITY PAIR SERVICE SUMMARIES

Detroit Metropolitan Wayne County Airport
As of December 31, 1988

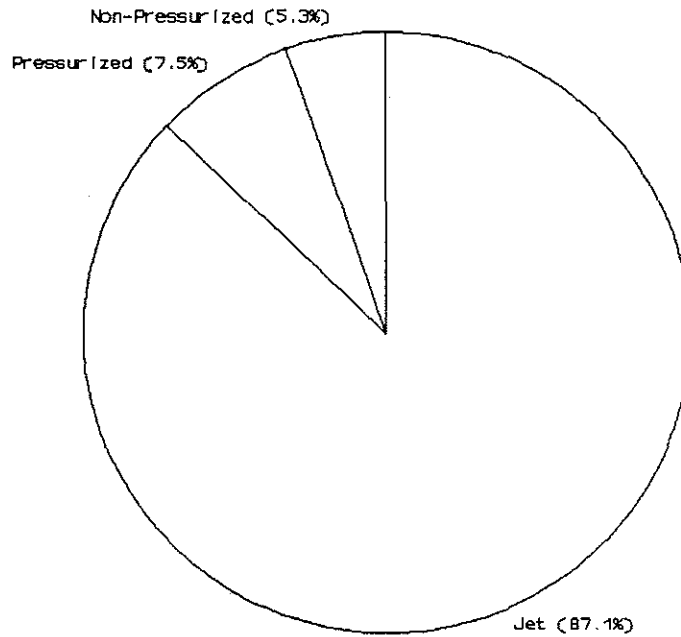
Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available			Total
				Jet	Pres.	Npres.	
Detroit, MI [DTW] (cont.)							
South Bend, IN [SBN]							
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	1,890
St. Louis, MO [STL]							
Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	2,030
Northwest Airlines, Inc. [NW]	D9S	125	13	1,625	0	0	1,625
Trans World Airlines, Inc. [TW]	72S	145	7	1,015	0	0	1,015
Trans World Airlines, Inc. [TW]	D9S	125	20	2,500	0	0	2,500
Trans World Airlines, Inc. [TW]	M80	154	7	1,078	0	0	1,078
Syracuse, NY [SYR]							
Northwest Airlines, Inc. [NW]	D9S	139	7	973	0	0	973
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
Tampa/St. Petersburg, FL [TPA]							
Delta Airlines, Inc. [DL]	757	201	7	1,407	0	0	1,407
Northwest Airlines, Inc. [NW]	72S	145	14	2,030	0	0	2,030
Northwest Airlines, Inc. [NW]	D9S	139	7	973	0	0	973
Tokyo, JPN [NRT]							
Northwest Airlines, Inc. [NW]	747	452	7	3,164	0	0	3,164
Toledo, OH [TOL]							
Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	19	0	0	684	684
Toronto, ONT [YYZ]							
Northwest Airlines, Inc. [NW]	72S	145	28	4,060	0	0	4,060
Northwest Airlines, Inc. [NW]	757	201	7	1,407	0	0	1,407
Traverse City, MI [TVC]							
Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	27	0	0	972	972
Washington, DC [DCA]							
Northwest Airlines, Inc. [NW]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	757	201	28	5,628	0	0	5,628
Northwest Airlines, Inc. [NW]	D9S	139	14	1,946	0	0	1,946
Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
Washington, DC [IAD]							
Northwest Airlines, Inc. [NW]	D9S	125	21	2,625	0	0	2,625
Northwest Airlines, Inc. [NW]	DC9	90	7	630	0	0	630
United Airlines, Inc. [UA]	73S	122	19	2,318	0	0	2,318
West Palm Beach, FL [PBI]							
Delta Airlines, Inc. [DL]	72S	145	7	1,015	0	0	1,015
Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Worcester, MA [ORH]							
Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	1,890
Youngstown, OH [YNG]							
BAS Airlines [GS]	PAG	7	15	0	0	105	105
Total			2,921	364,820	6,379	4,630	375,829

PERCENTAGE ARRIVALS BY CARRIER

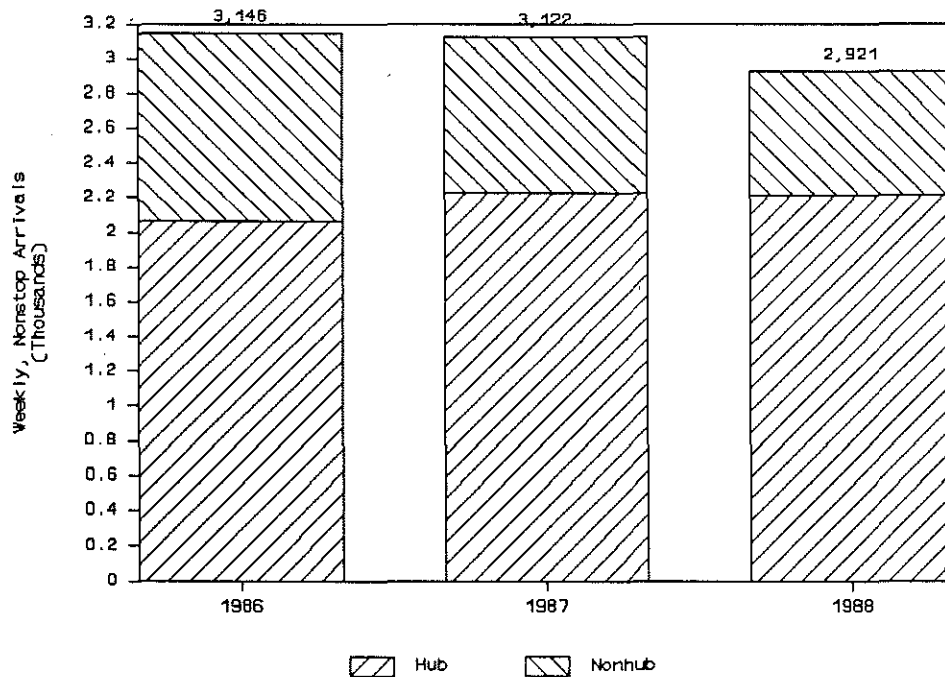
Detroit Metropolitan Wayne County Airport



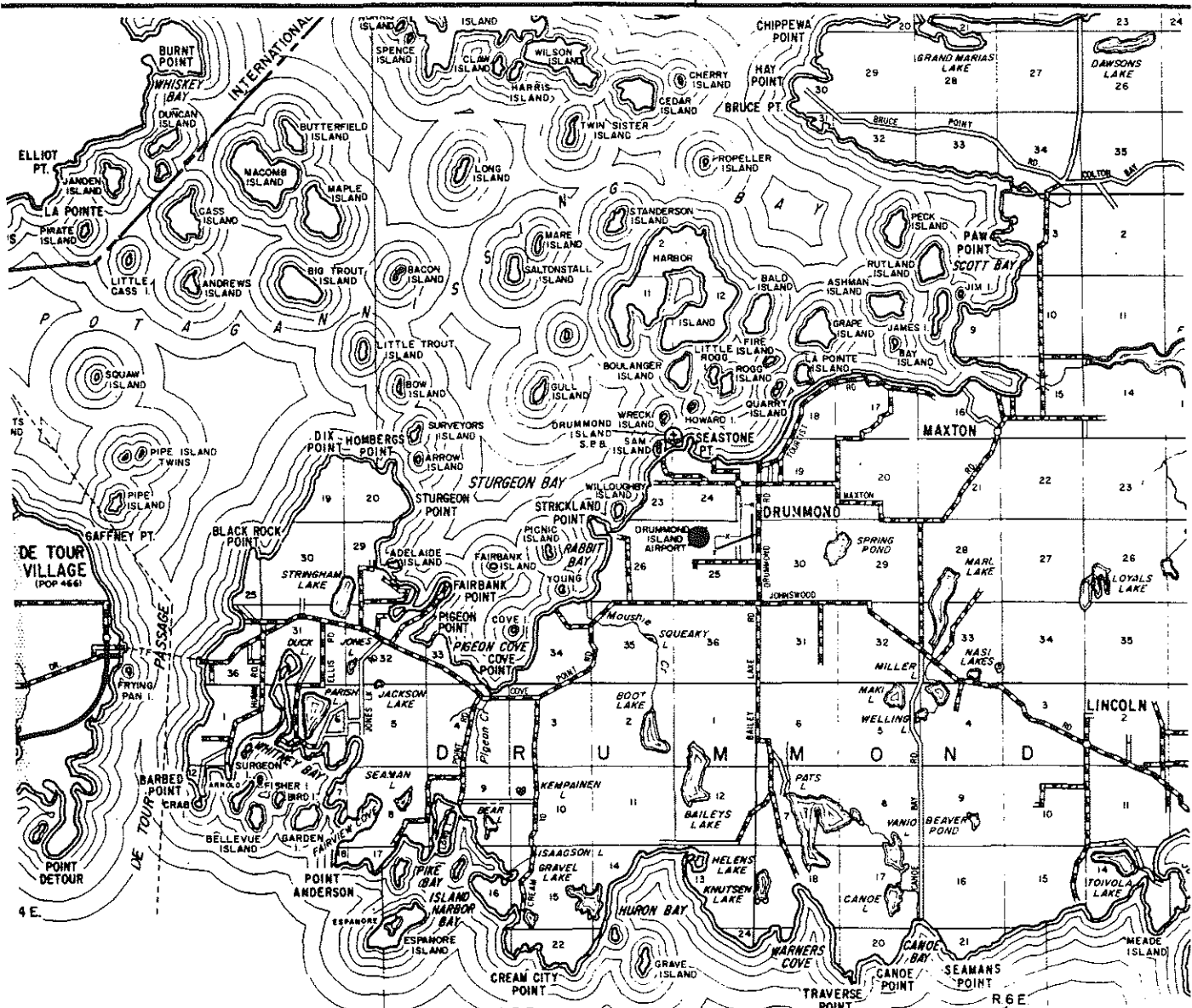
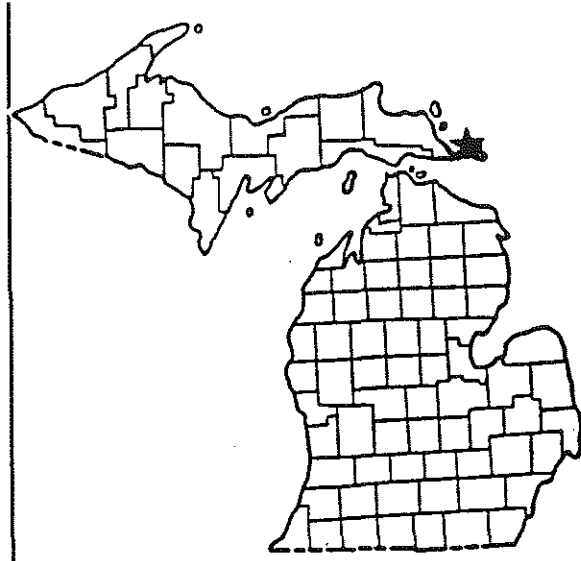
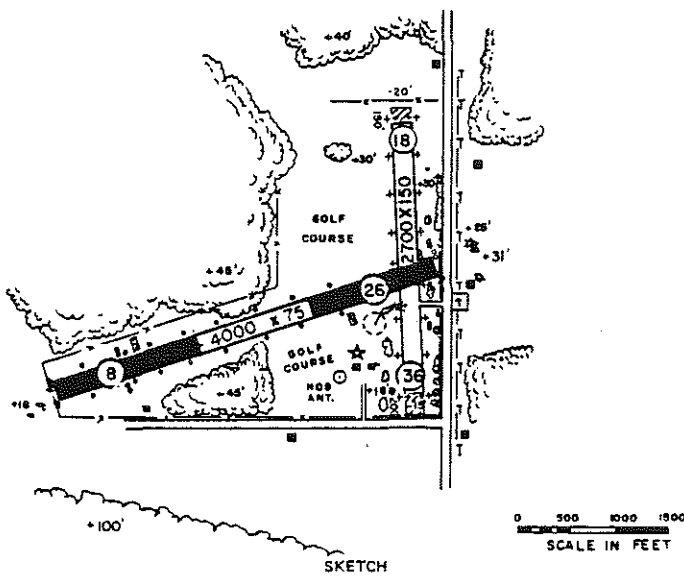
PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
 Detroit Metropolitan Wayne County Airport



NONSTOP ARRIVALS FROM HUBS/NONHUBS
 Detroit Metropolitan Wayne County Airport



Drummond Island Airport



Drummond Island Airport

Passengers Carried

Drummond Island commenced service as a scheduled air carrier facility in September, 1988. During the four months of service, the airport handled 991 total passengers. Drummond Island ranked twenty second in the state in total passengers with less than 0.1 percent of the statewide total. Had the facility operated for the full year it can be assumed that it would have handled about 3,000 total passengers ranking it twenty first in the state.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1987	Service commenced in September, 1988.			
1988	436	555	991	n/c

Service Supplied

As of December 31, 1987, Drummond Island was served by one airline. The facility has service only from Alpena, MI, a nonhub. There were 12 weekly arrivals. Of the 84 weekly arriving seats, all were in nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

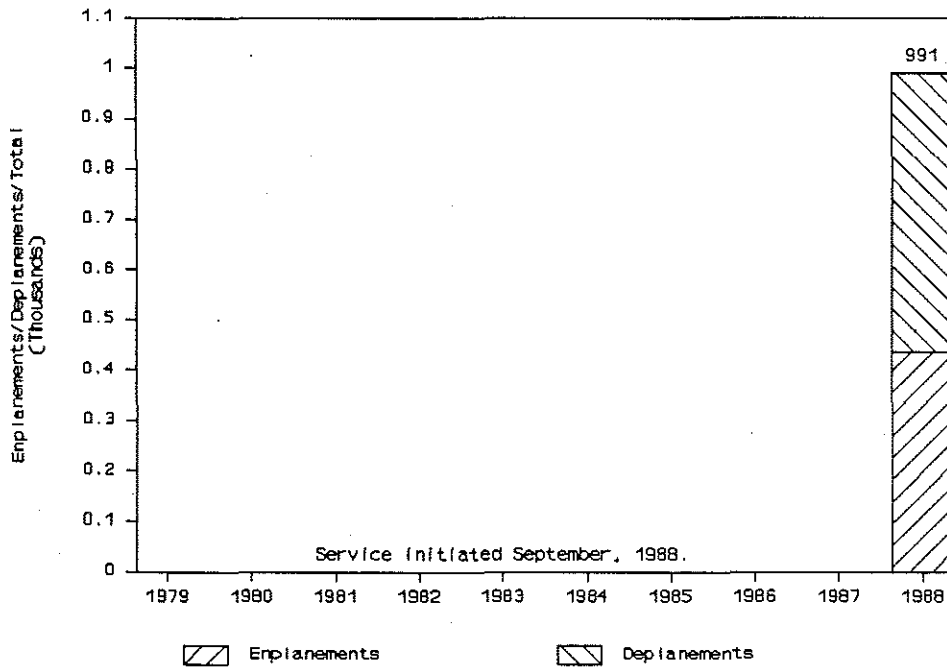
Year	Carriers		Weekly Arrivals			Total
	Serving	Origins	Jet	Press	Non	
1987	Service commenced in September, 1988.					
1988	1	1	0	0	12	12

WEEKLY ARRIVING SEATS

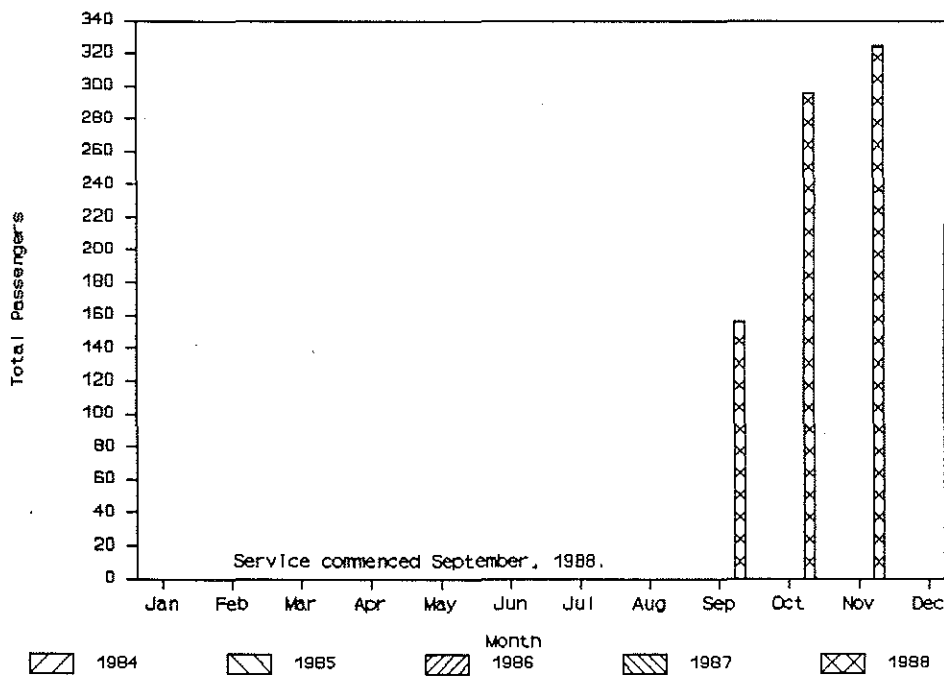
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1987	Service commenced in September, 1988.			
1988	0	0	84	84

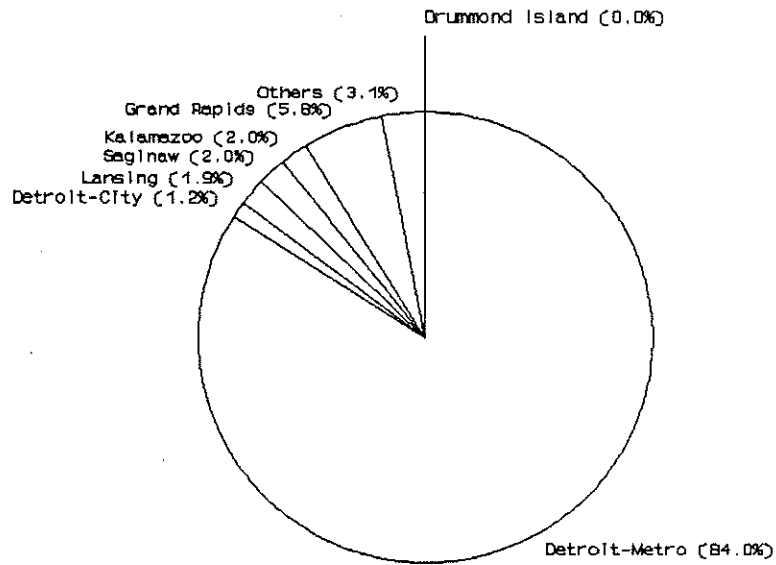
1979 - 1988 ANNUAL TOTAL PASSENGERS Drummond Island Airport



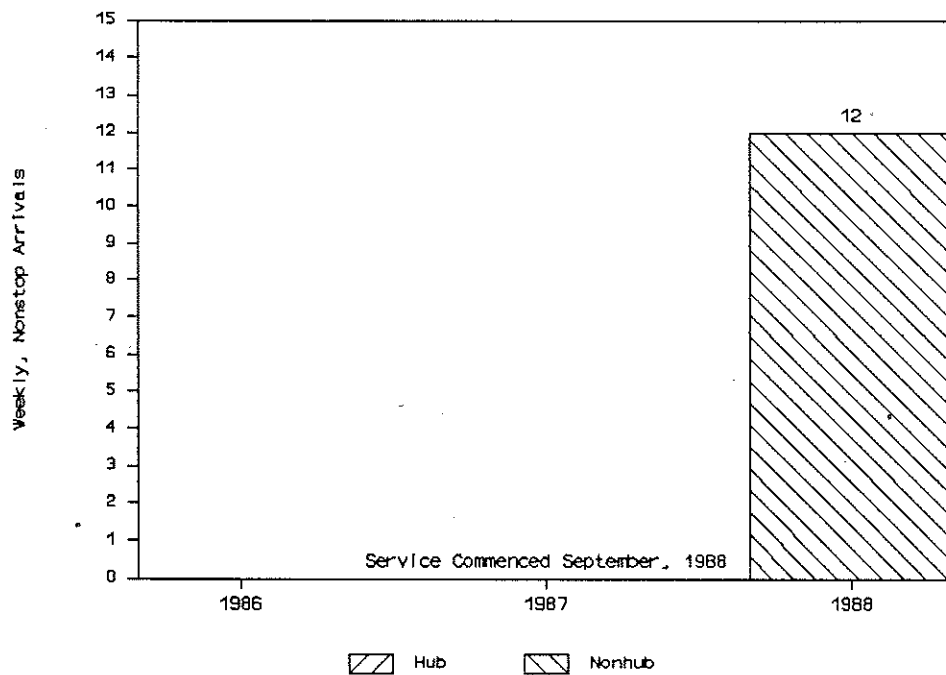
1984 - 1988 MONTHLY TOTAL PASSENGERS Drummond Island Airport



1988 PASSENGER LEVEL COMPARISON Drummond Island Airport



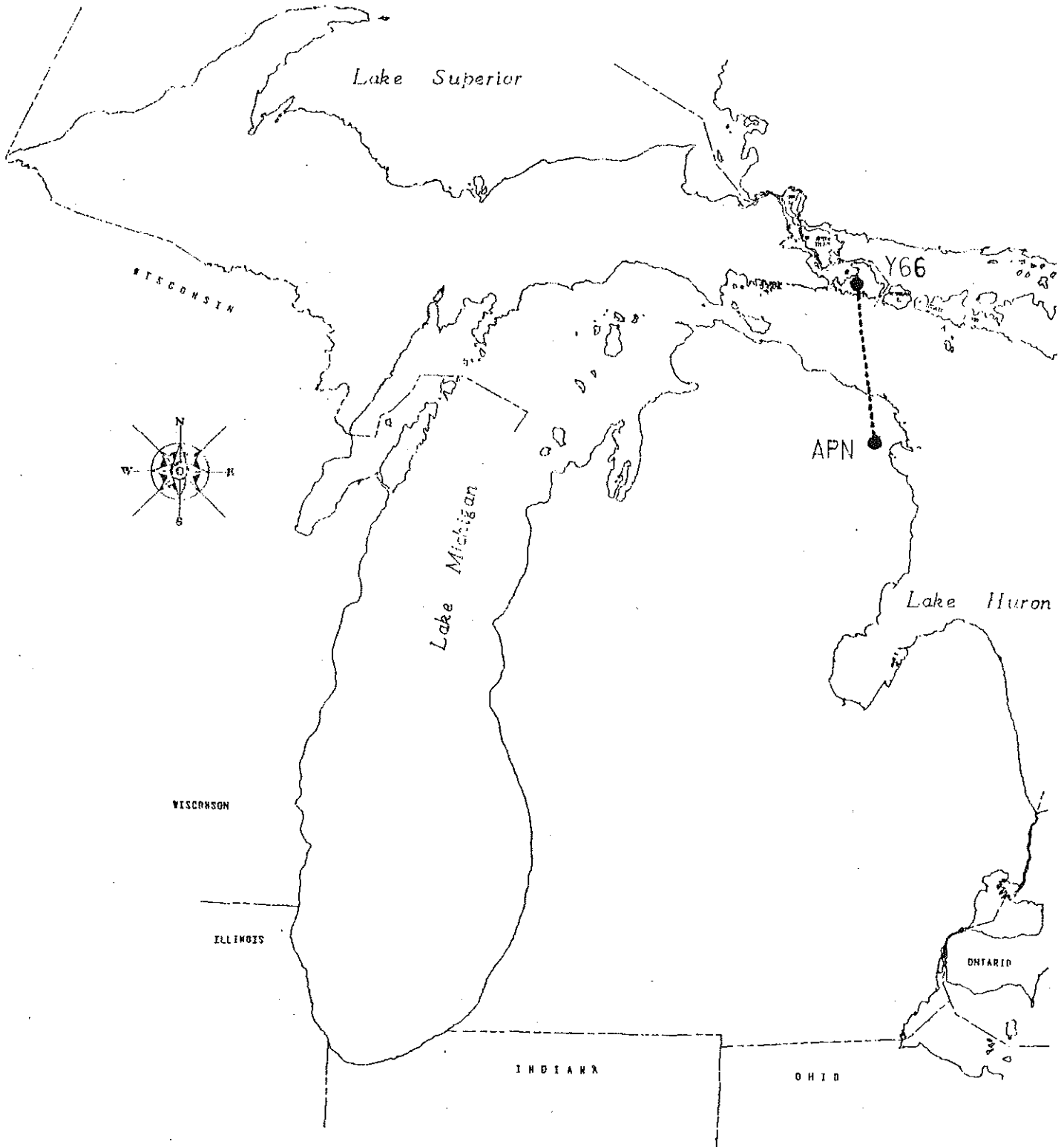
NONSTOP ARRIVALS FROM HUBS/NONHUBS Drummond Island Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Drummond Island Airport

As of December 31, 1988



Discontinued Since 1987

Flown in 1987

New Since 1987

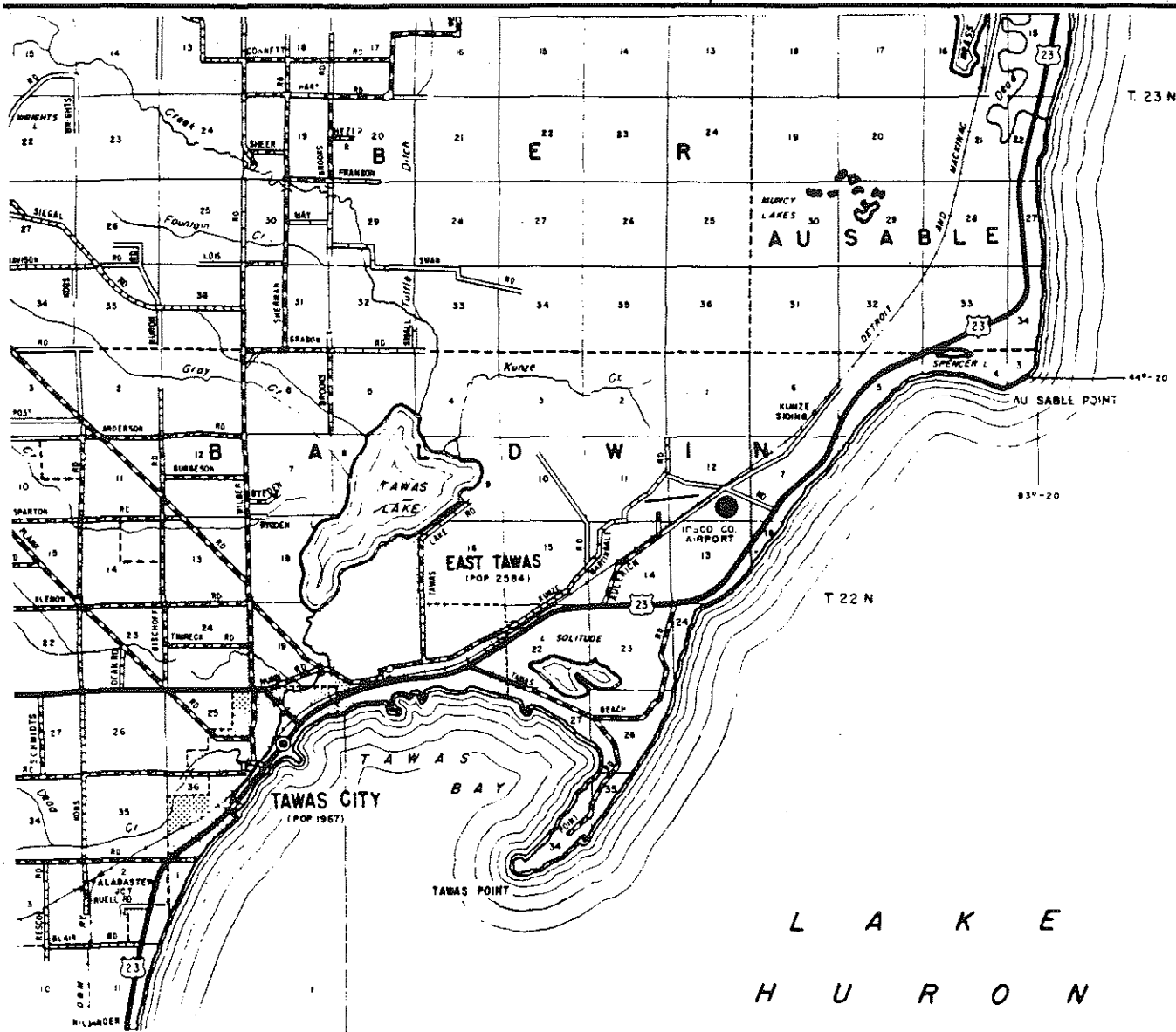
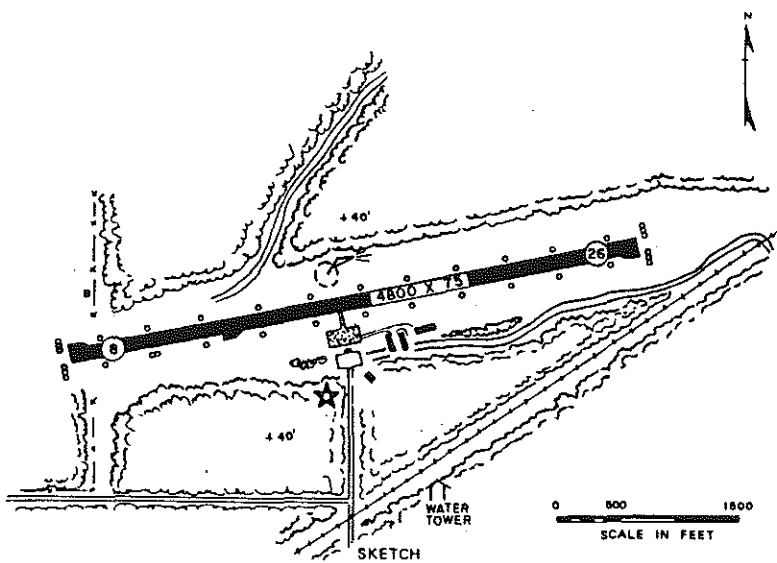
CITY PAIR SERVICE SUMMARIES

Drummond Island Airport

As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available			Total	
			Jet	Pres.	Npres.		
Drummond Island, MI [Y66] Alpena, MI [APN] Michigan Airways, Inc. [QQ]	PAG	7	12	0	0	84	84
	Total		12	0	0	84	84

East Tawas, Iosco County Airport



East Tawas, Iosco County Airport

Passengers Carried

Iosco County Airport, with 527 total passengers, experienced a 1,926.9 percent increase in 1988 over the previous year. This increase is misleading since East Tawas only had scheduled air carrier service for one month in 1987. If the 1987 figure were to be annualized, Iosco County Airport experienced a 68.9 percent increase in total passengers. Iosco County Airport ranked twenty-fourth in the state in total passengers with less than 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1986	Service commenced in December, 1987.			
1987	13	13	26	n/c
1988	280	247	527	note

Note: Percent change of 1,926.9% is not relevant because the 1987 figure represents only one month of service. If 1987 is annualized, the percent change is 68.9%.

Service Supplied

As of December 31, 1988, East Tawas was

served by one airline. No change in carriers took place between survey dates. The facility lost nonstop service to Detroit Metro but gained service to Saginaw and Alpena for a net increase of one origin. There were 16 weekly arrivals, down five from 1987. None of the weekly arrivals were from a hub airport. Of the 112 weekly arriving seats, all were by nonpressurized propeller aircraft.

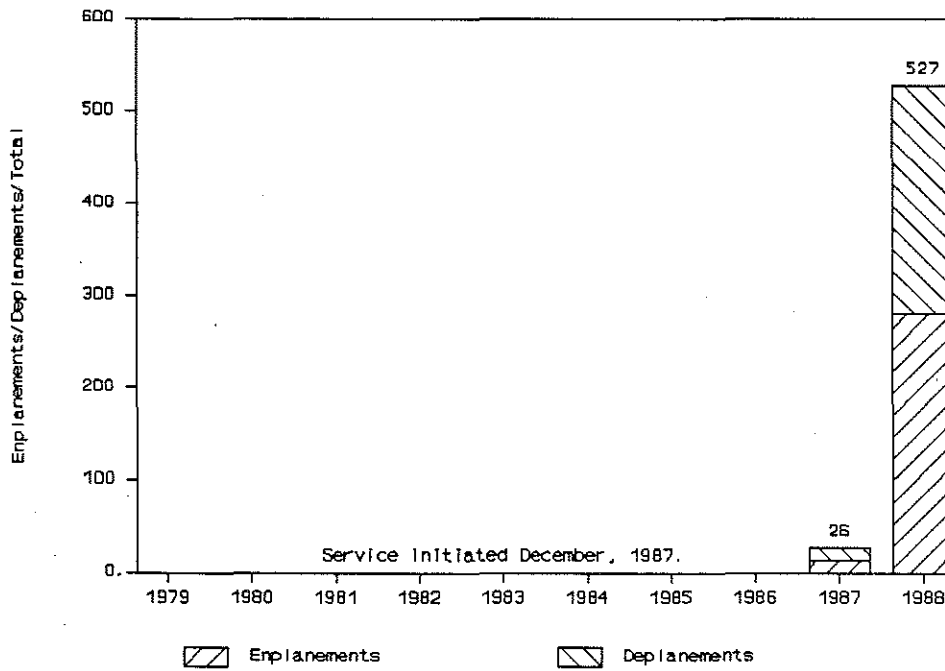
WEEKLY ARRIVALS As of December 31

Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	Service commenced in December, 1987.					
1987	1	1	0	0	21	21
1988	1	2	0	0	16	16

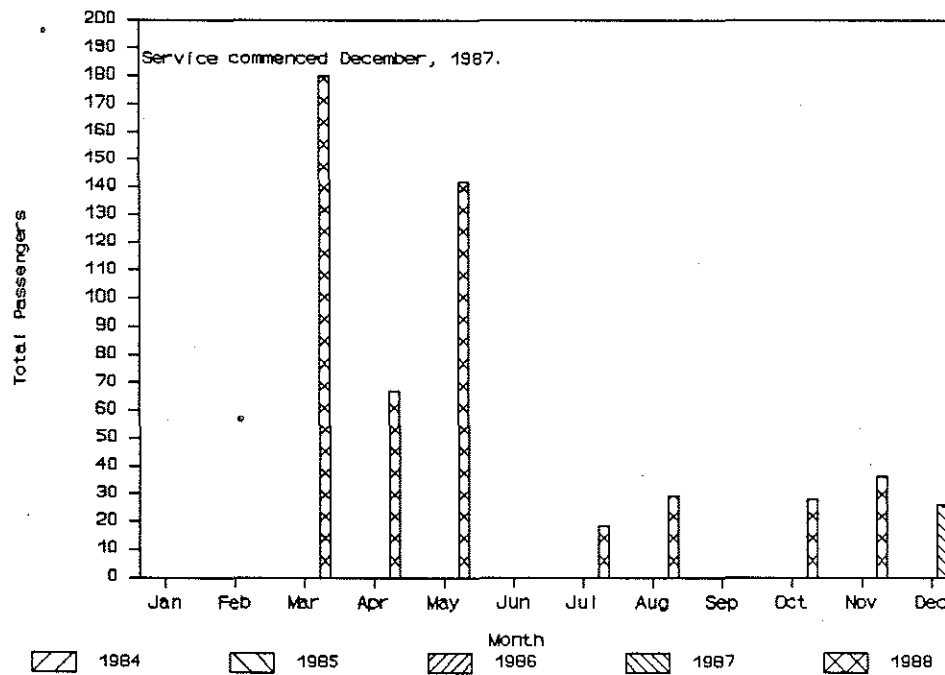
WEEKLY ARRIVING SEATS As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	Service commenced in December, 1987.			
1987	0	0	126	126
1988	0	0	112	112

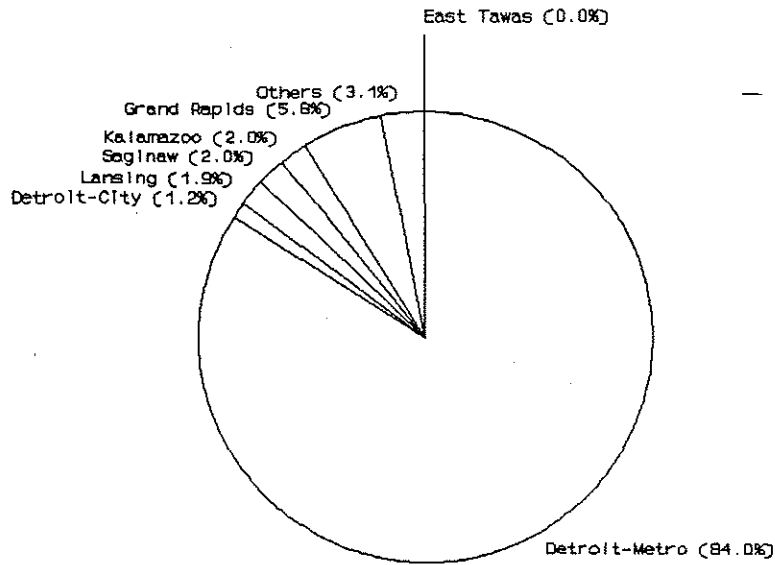
1979 - 1988 ANNUAL TOTAL PASSENGERS East Tawas, Iosco County Airport



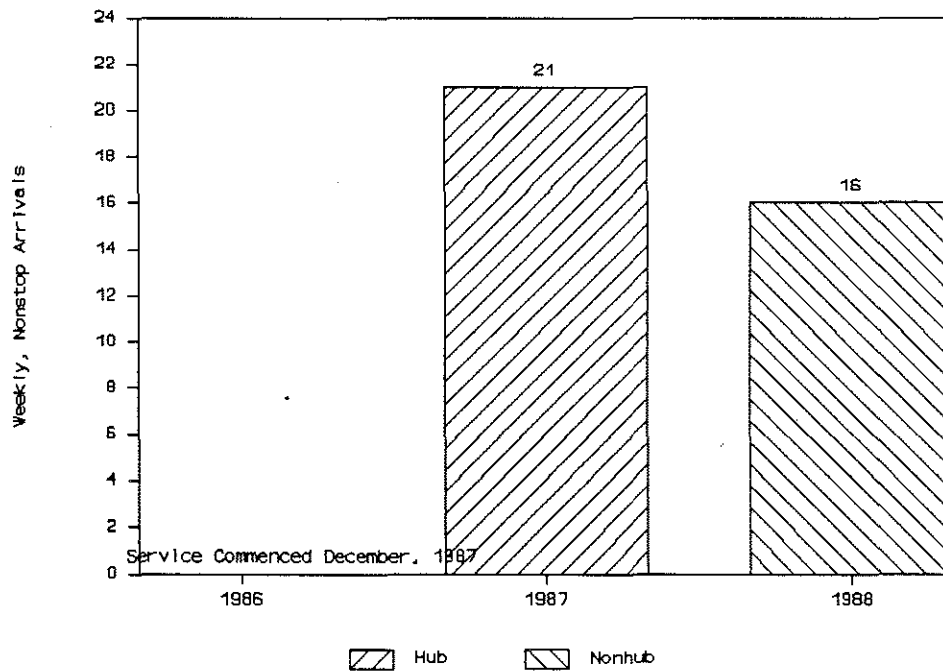
1984 - 1988 MONTHLY TOTAL PASSENGERS East Tawas, Iosco County Airport



1988 PASSENGER LEVEL COMPARISON East Tawas, Iosco County Airport



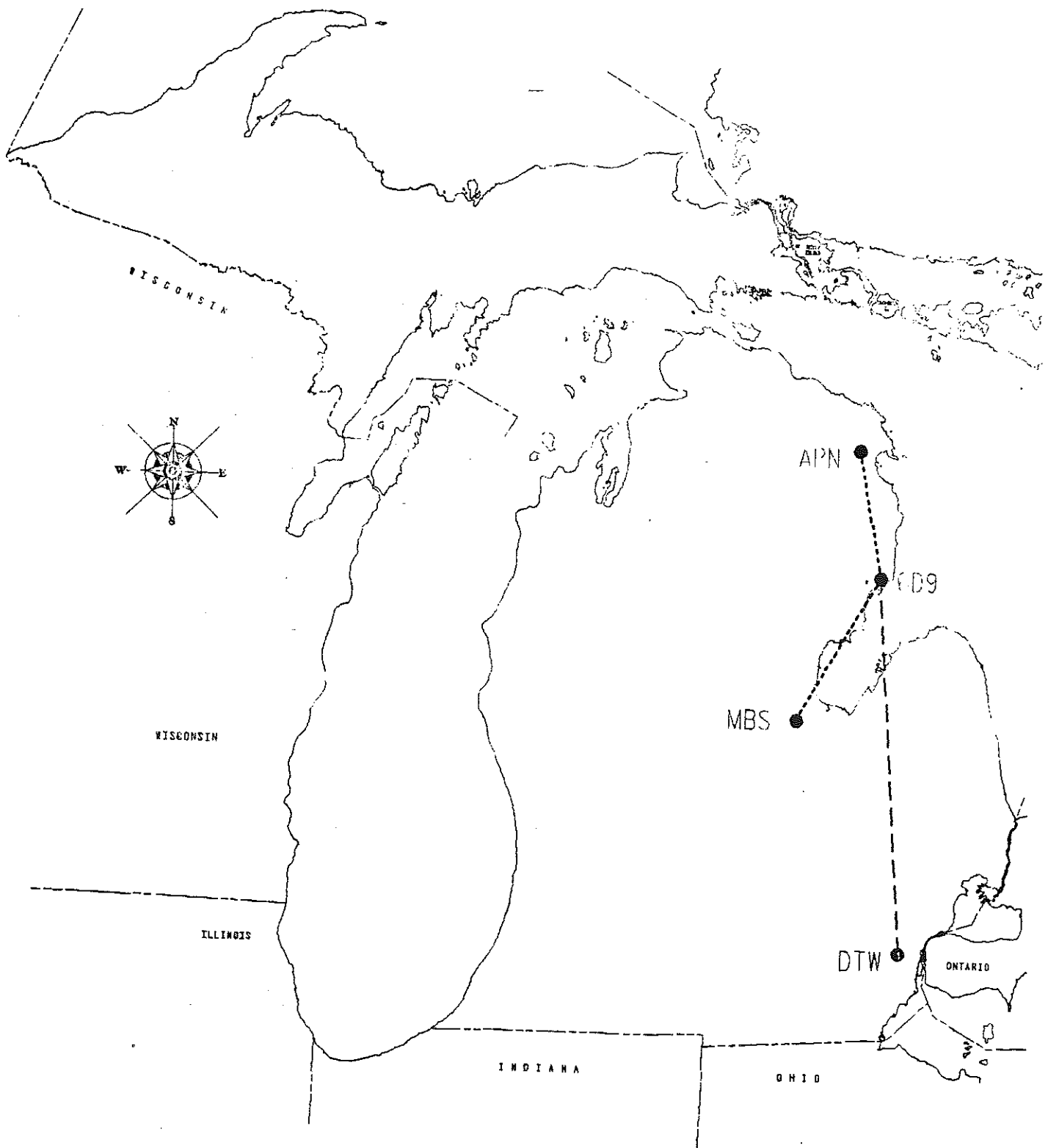
NONSTOP ARRIVALS FROM HUBS/NONHUBS East Tawas, Iosco County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

East Tawas, Iosco County Airport

As of December 31, 1988



Discontinued Since 1987

Flown in 1987

New Since 1987

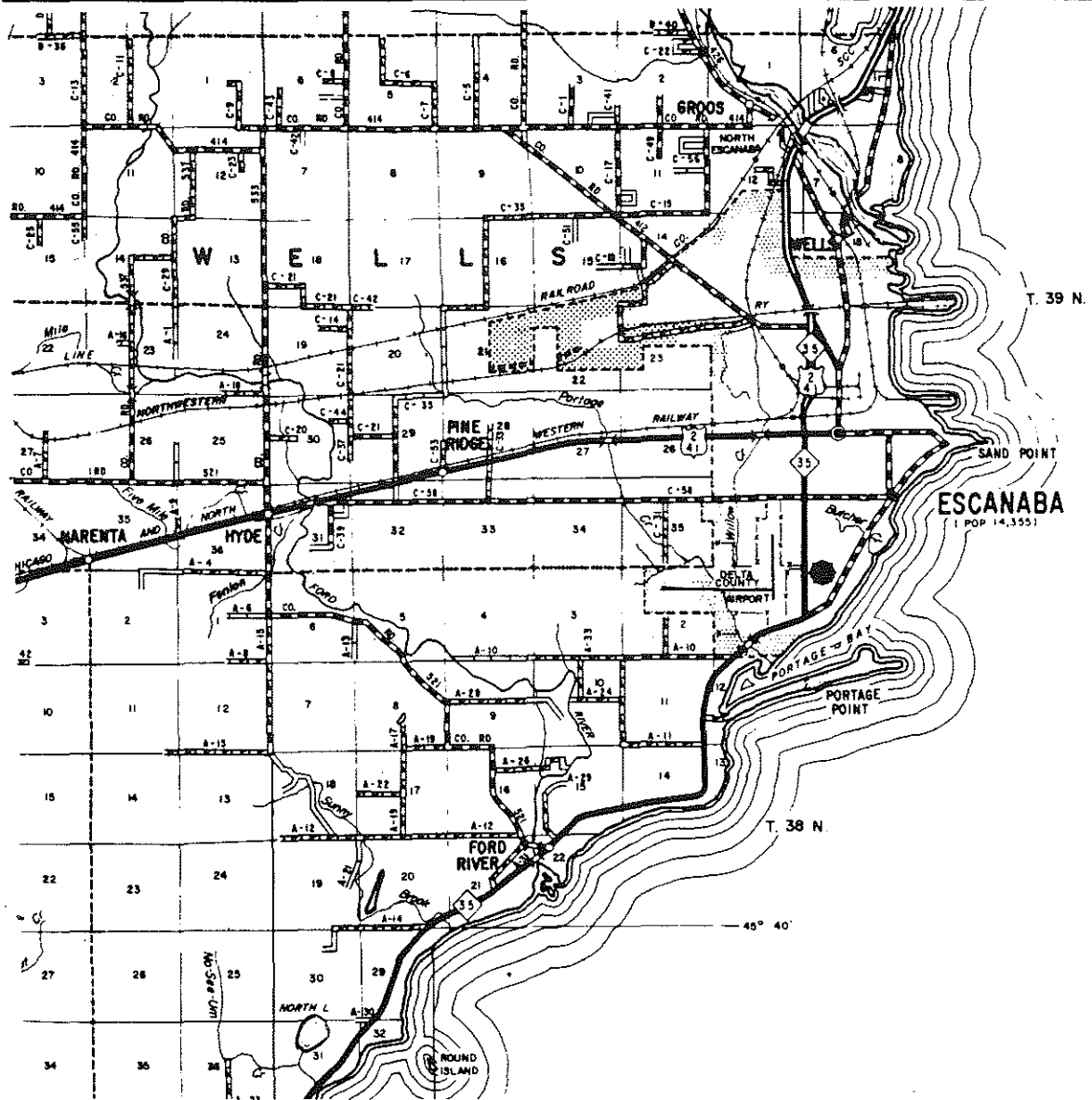
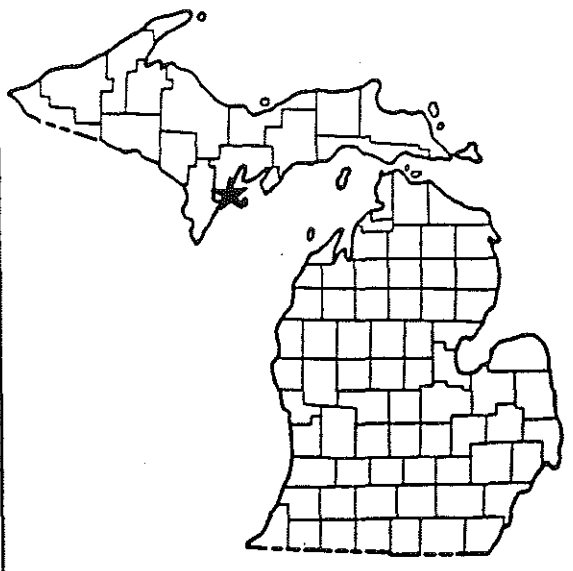
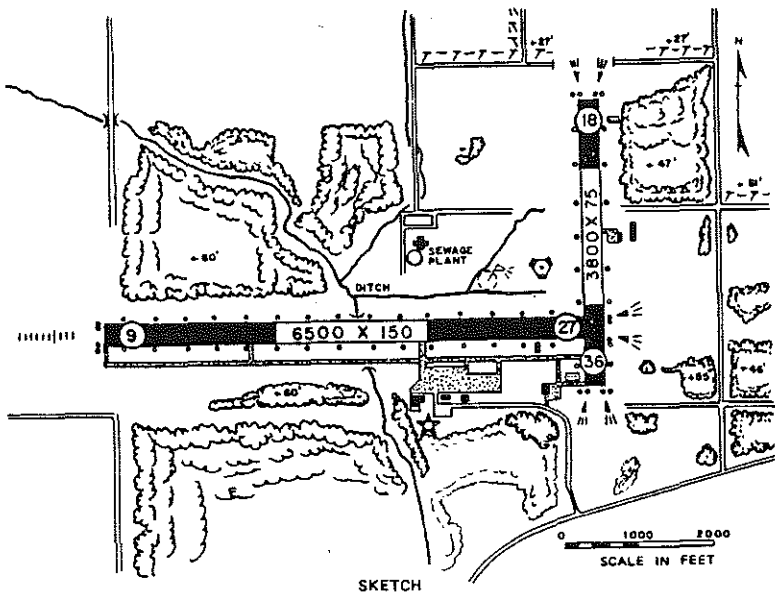
CITY PAIR SERVICE SUMMARIES

East Tawas, Iosco County Airport

As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available				
			Jet	Pres.	Npres.	Total	
East Tawas, MI [6D9]							
Alpena, MI [APN]							
Michigan Airways, Inc. [QQ]	PAG	7	2	0	0	14	14
Saginaw, MI [MBS]							
Michigan Airways, Inc. [QQ]	PAG	7	14	0	0	98	98
Total			16	0	0	112	112

Escanaba, Delta County Airport



Escanaba, Delta County Airport

Passengers Carried

Escanaba, with 13,307 total passengers, experienced an 11.1 percent increase in 1988 over the previous year. Historically, Delta County Airport had experienced a decline in total passengers between 1982 and 1987. Monthly figures were five year lows in January, February and May, but greater than their 1987 levels during the remaining months. Escanaba ranked thirteenth in the state in total passengers with 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	15,459	15,160	30,619	0.0%
1985	10,865	10,577	21,442	-30.0%
1986	7,725	7,836	15,561	-27.4%
1987	6,140	5,841	11,981	-23.0%
1988	6,805	6,502	13,307	11.1%

Service Supplied

As of December 31, 1988, Escanaba was

served by one airline. No change in carriers took place between survey dates. Delta County Airport maintained nonstop service from one city as in the previous year. However, service from Green Bay, WI was replaced with service from Stevens Point/Wausau, WI. There were 14 weekly arrivals, up one from 1987. None of the weekly arrivals were from a hub airport. Of the 504 weekly arriving seats, all were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

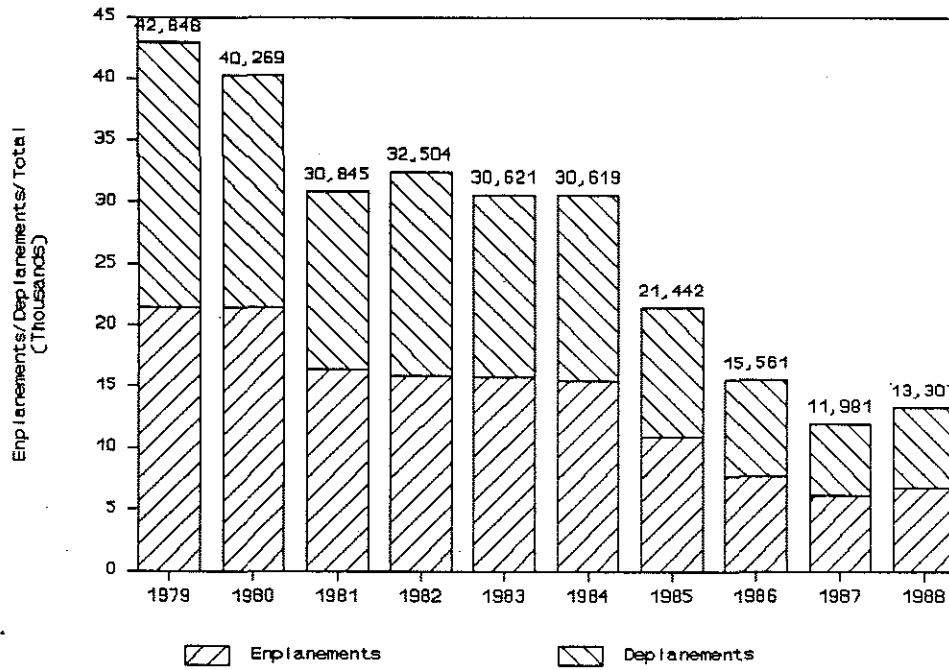
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	2	0	2	12	14
1987	1	1	0	1	12	13
1988	1	1	0	0	14	14

WEEKLY ARRIVING SEATS

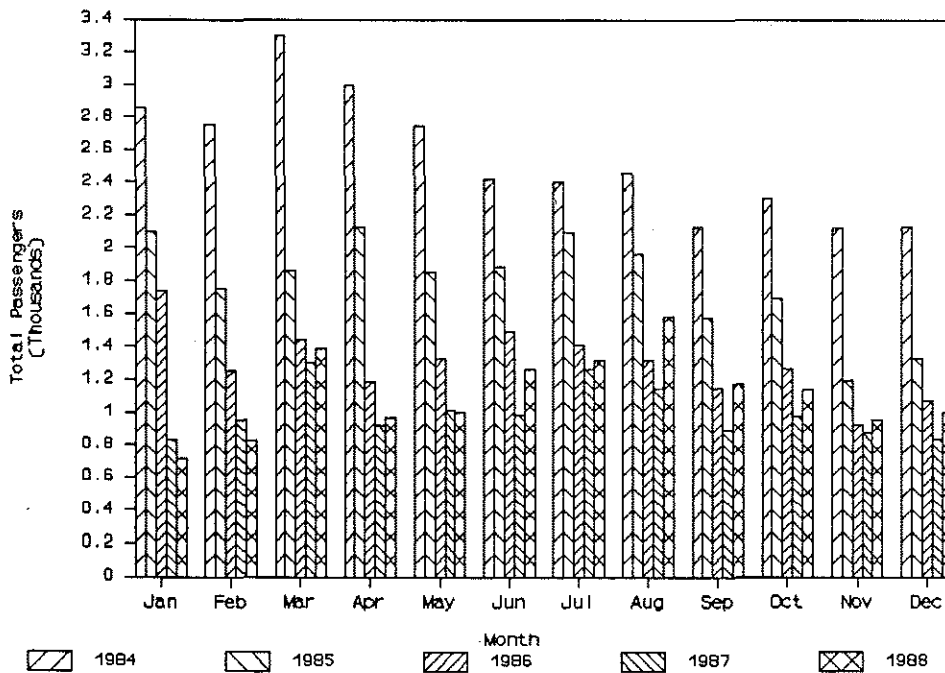
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	92	432	524
1987	0	46	432	478
1988	0	0	504	504

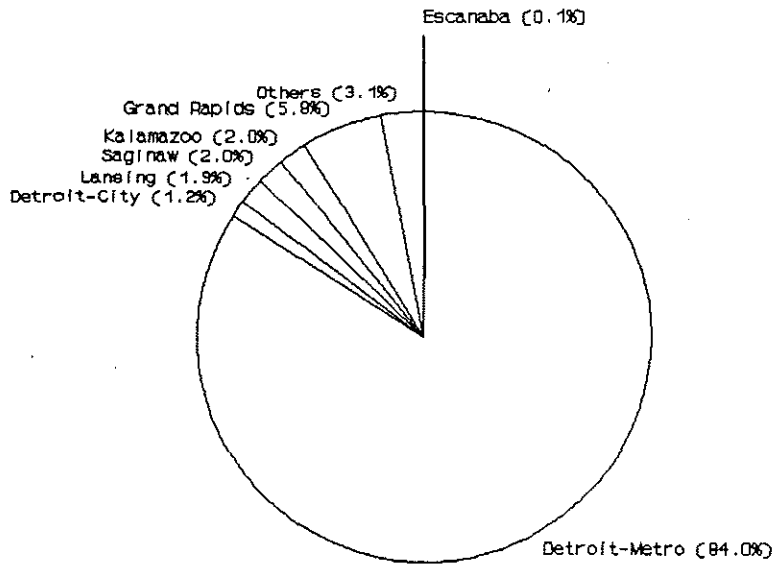
1979 - 1988 ANNUAL TOTAL PASSENGERS
Escanaba, Delta County Airport



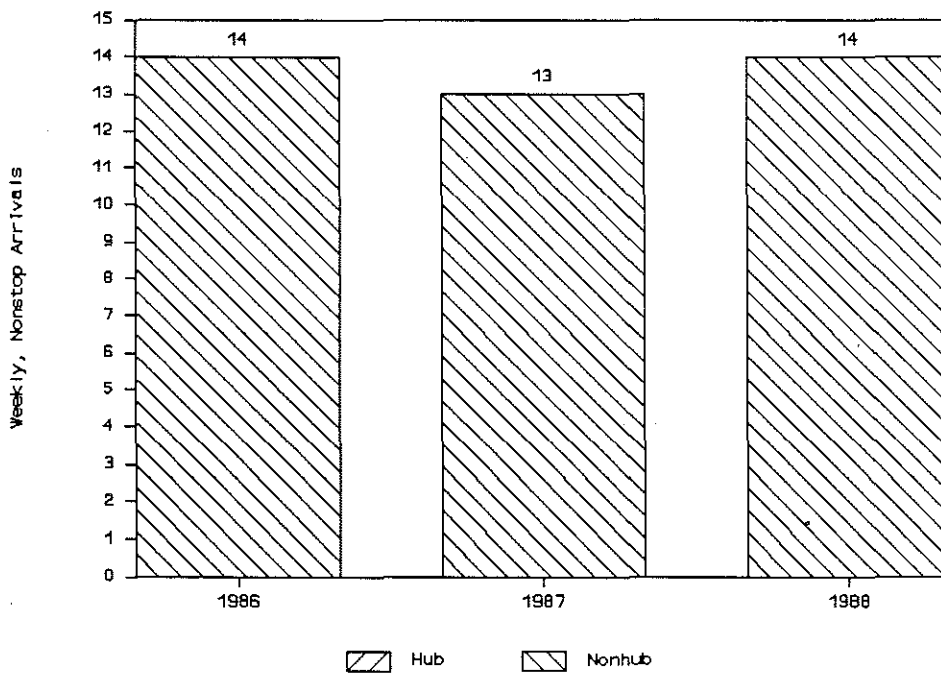
1984 - 1988 MONTHLY TOTAL PASSENGERS
Escanaba, Delta County Airport



1988 PASSENGER LEVEL COMPARISON Escanaba, Delta County Airport



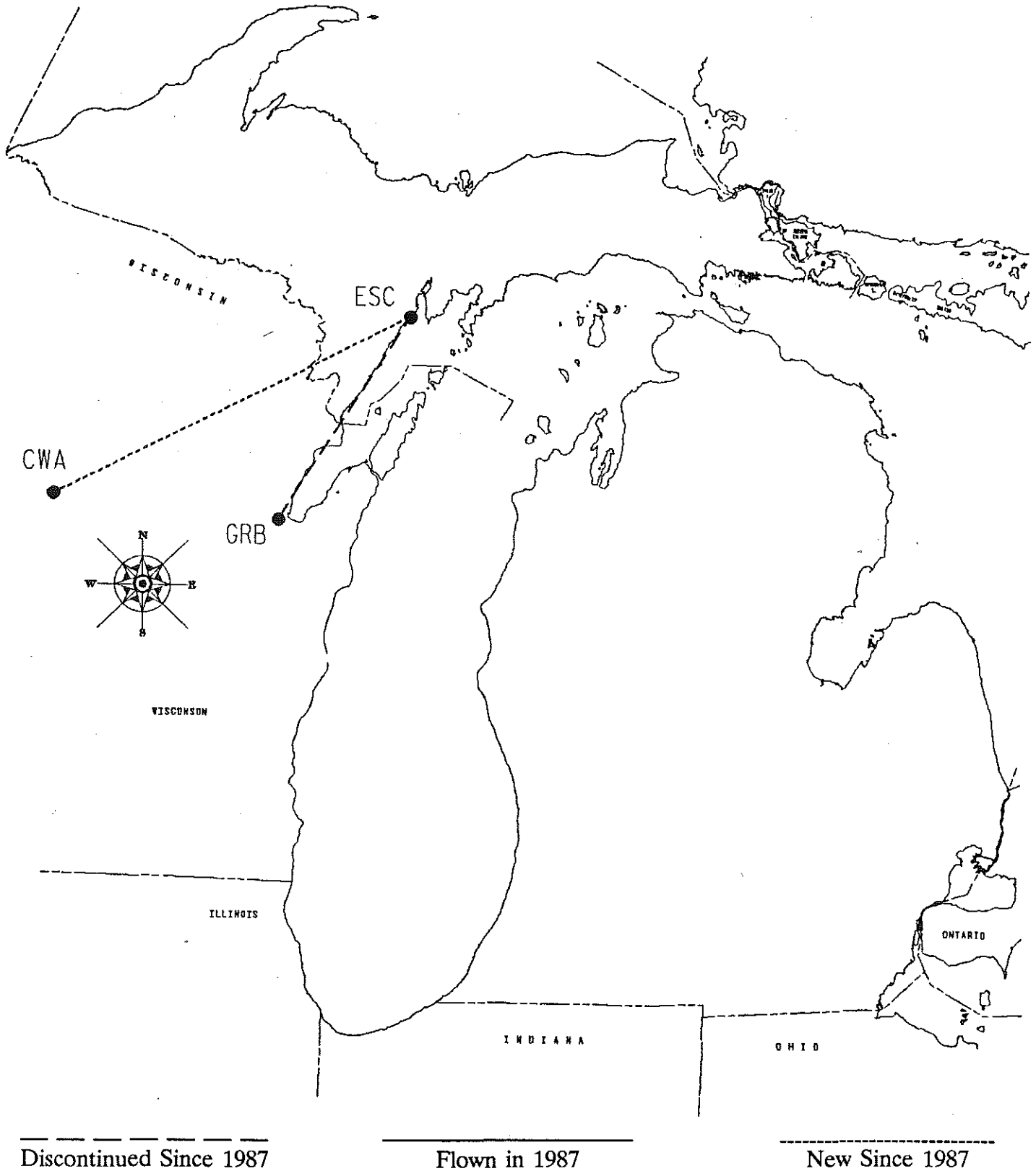
NONSTOP ARRIVALS FROM HUBS/NONHUBS Escanaba, Delta County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Escanaba, Delta County Airport

As of December 31, 1988

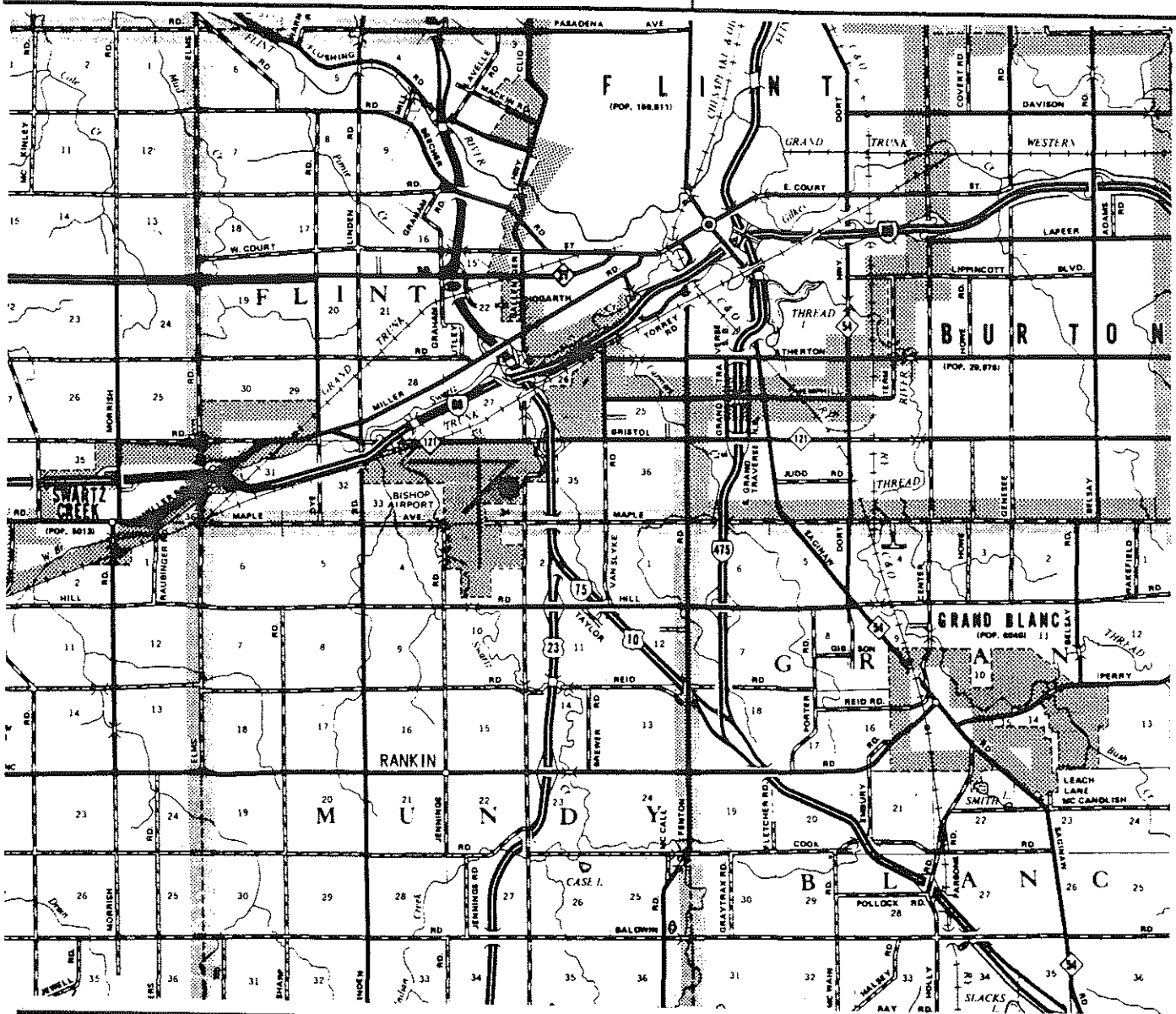
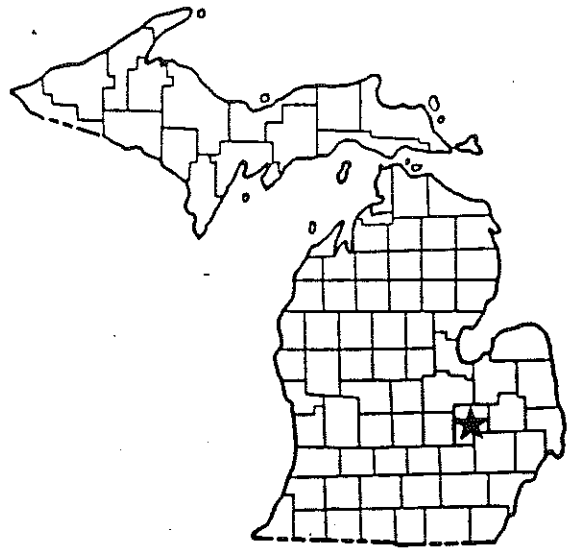
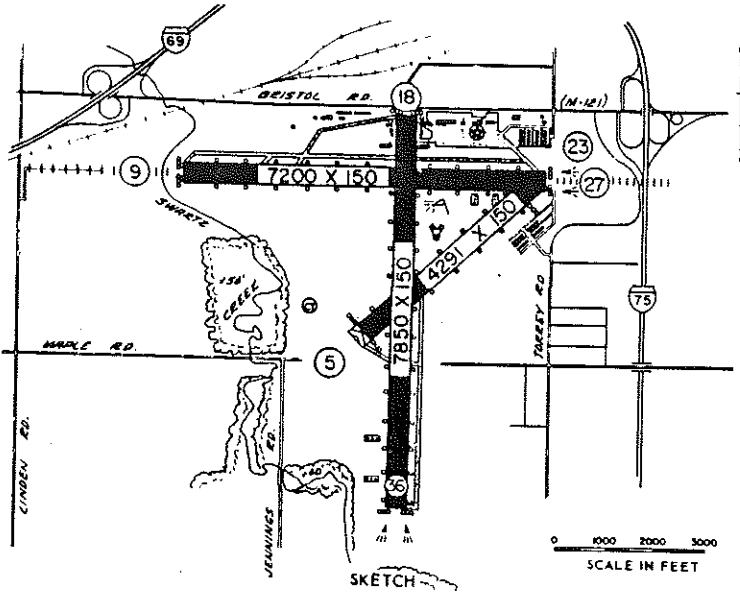


CITY PAIR SERVICE SUMMARIES

Escanaba, Delta County Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	Weekly Arr. Jet	Weekly Arr. Pres.	Weekly Arr. Npres.	Seats Available Total
Escanaba, MI [ESC]	Stevens Point/Wausau, WI [CWA]	American Eagle [AA*]	SH6	36	14	0	0	504
				Total	14	0	0	504

Flint, Bishop Airport



Flint, Bishop Airport

Passengers Carried

Bishop Airport, with 261,612 total passengers, experienced a 17.3 percent increase in 1988 over the previous year. Historically, Bishop Airport enjoyed a growth in total passengers between 1982 and 1985 and declines in 1986 and 1987. Monthly figures exceeded their 1987 levels in all months except January and February. Five year monthly highs were experienced from September through December. Bishop Airport ranked seventh in the state in total passengers with 1.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	118,257	115,163	233,420	38.4%
1985	134,588	132,891	267,479	14.6%
1986	131,210	128,715	259,925	-2.8%
1987	112,555	110,388	222,943	-14.2%
1988	131,796	129,816	261,612	17.3%

Service Supplied

As of December 31, 1988, Flint was served by five airlines. Between survey dates, the facility gained service by Continental Airlines and Piedmont Commuter System (Jetstream

International Airlines) a net gain of two airlines. Bishop Airport had nonstop service from six cities. Between survey dates service was lost from Kalamazoo. However, service was gained from Cleveland, OH, Muskegon and Saginaw for a net gain of two nonstop origins over the previous year. There were 105 weekly arrivals, up 6 from 1987. Seventy-seven of the weekly arrivals (73.3 percent) were from hub airports. Of the 6,756 weekly arriving seats, 4,344 (64.3 percent) were by jet, 288 (4.3 percent) were by pressurized propeller and 2,124 (31.4 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

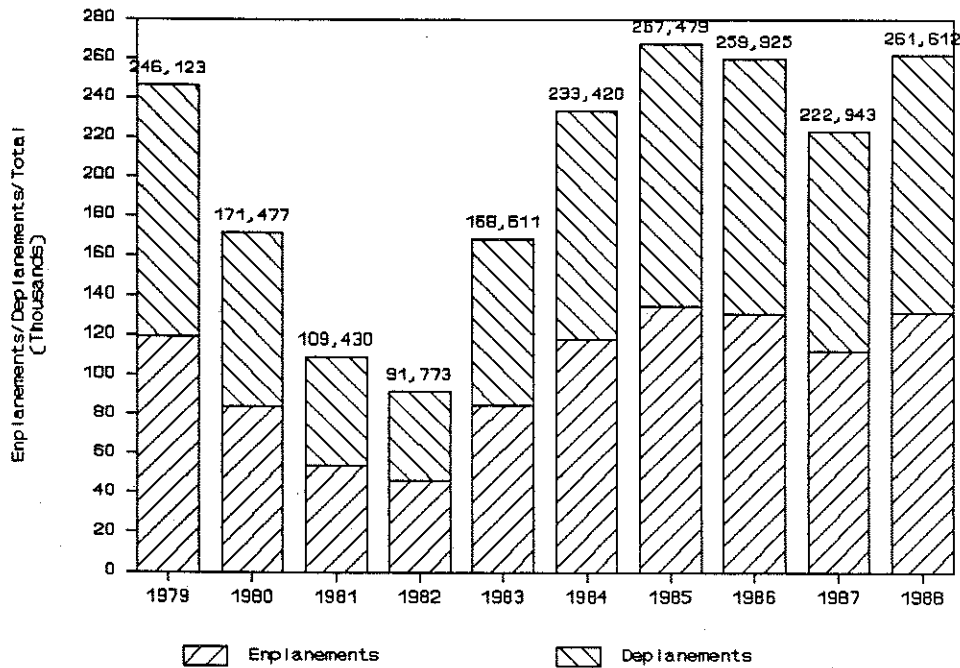
Year	Carriers		Weekly Arrivals			
	Serving	Origins	Jet	Press	Non	Total
1986	5	8	21	24	135	180
1987	3	4	21	0	78	99
1988	5	6	34	12	59	105

WEEKLY ARRIVING SEATS

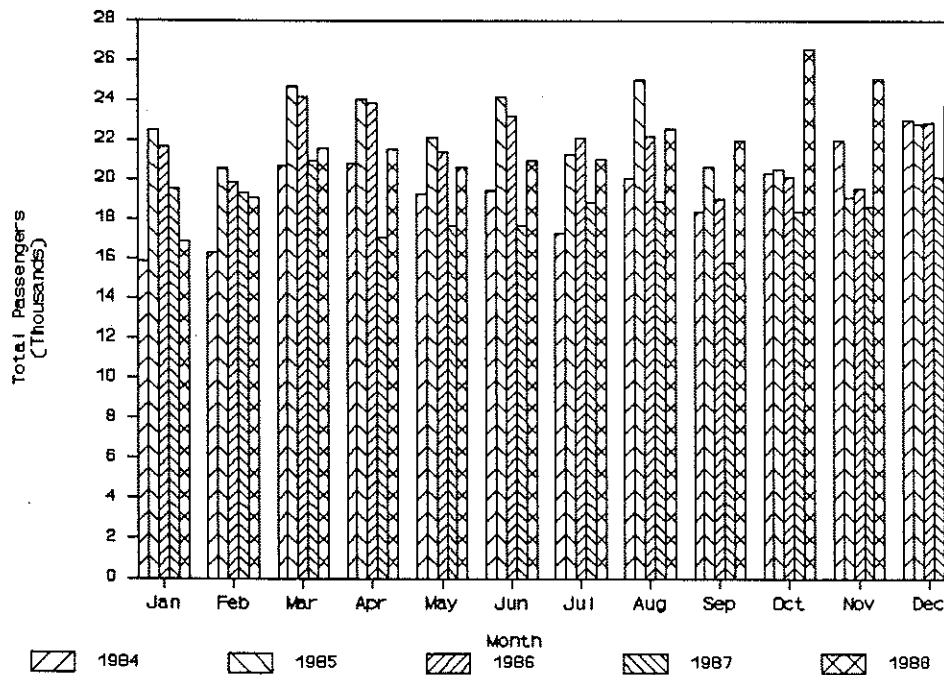
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	2,786	456	3,907	7,149
1987	2,674	0	2,808	5,482
1988	4,344	288	2,124	6,756

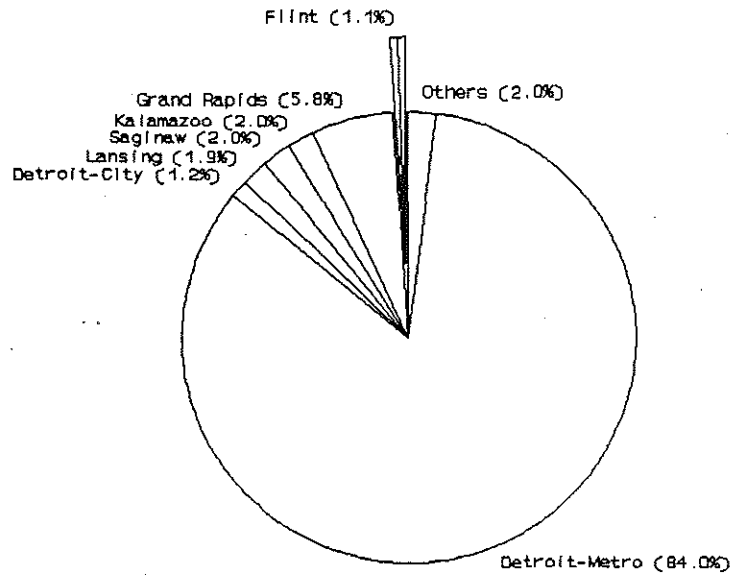
1979 - 1988 ANNUAL TOTAL PASSENGERS Flint, Bishop Airport



1984 - 1988 MONTHLY TOTAL PASSENGERS Flint, Bishop Airport

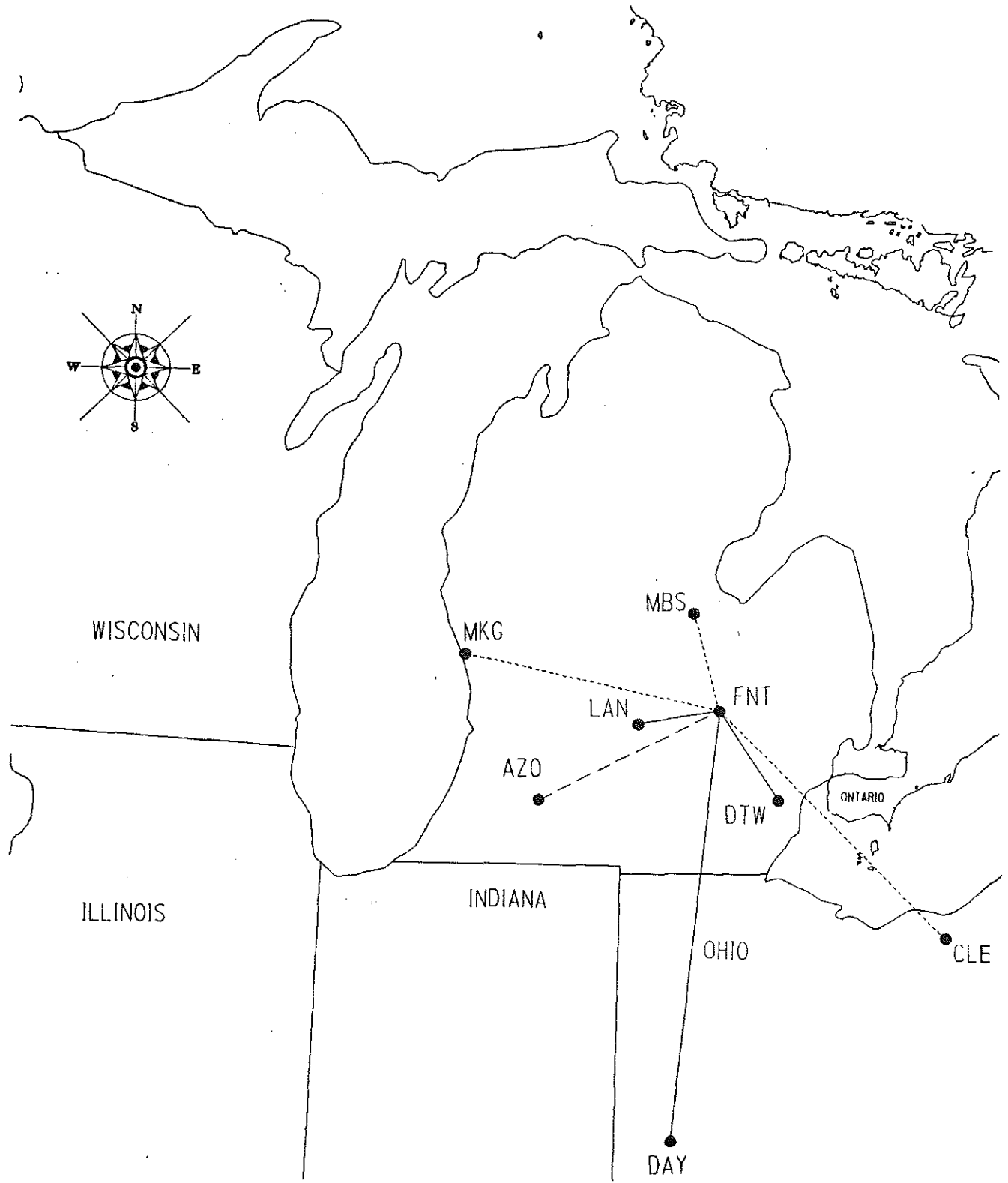


1988 PASSENGER LEVEL COMPARISON Flint, Bishop Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Flint, Bishop Airport
As of December 31, 1988



Discontinued Since 1987

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Flown in 1987

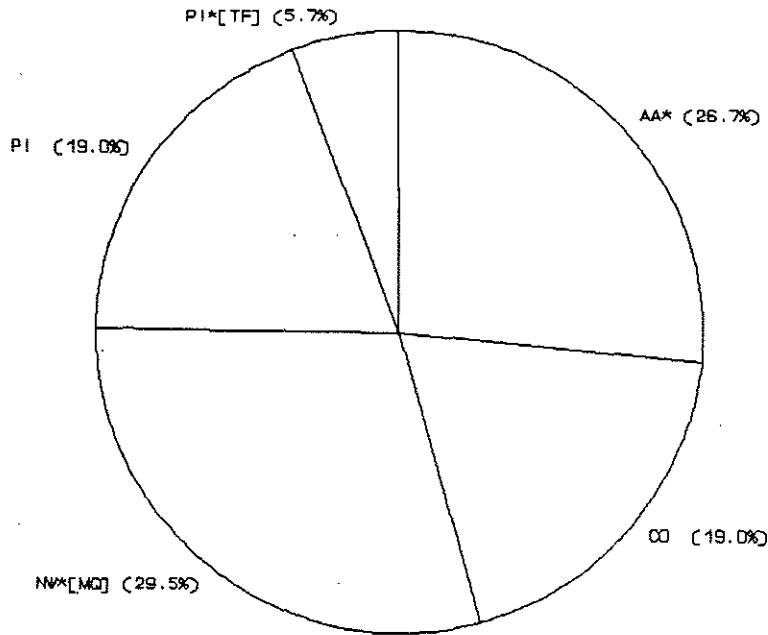
New Since 1987

CITY PAIR SERVICE SUMMARIES

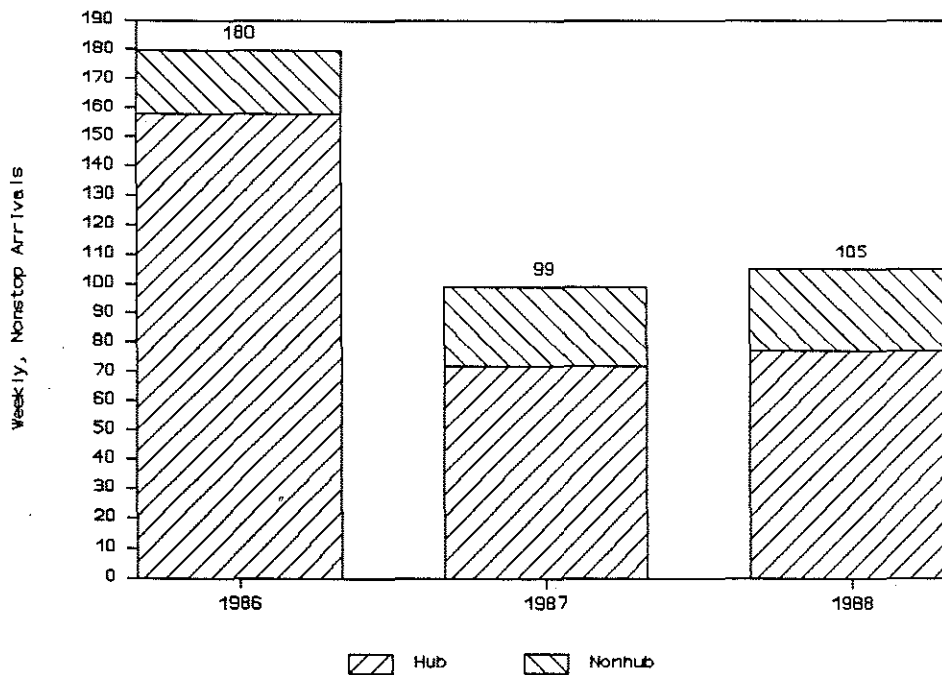
Flint, Bishop Airport
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available			Total
				Jet	Pres.	Npres.	
Flint, MI [FNT]							
Cleveland, OH [CLE]							
Continental Airlines, Inc. [CO]	737	120	14	1,680	0	0	1,680
Continental Airlines, Inc. [CO]	EM2	30	6	0	180	0	180
Dayton, OH [DAY]							
Piedmont Aviation, Inc. [PI]	733	138	14	1,932	0	0	1,932
Piedmont Aviation, Inc. [PI]	73S	122	6	732	0	0	732
Piedmont Commuter System [PI*]	J31	18	6	0	108	0	108
Detroit, MI [DTW]							
Northwest Airlin (Simmons Airlines) [NW*]	SH6	36	31	0	0	1,116	1,116
Lansing, MI [LAN]							
American Eagle [AA*]	SH6	36	14	0	0	504	504
Muskegon, MI [MKG]							
American Eagle [AA*]	SH6	36	7	0	0	252	252
Saginaw, MI [MBS]							
American Eagle [AA*]	SH6	36	7	0	0	252	252
Total			105	4,344	288	2,124	6,756

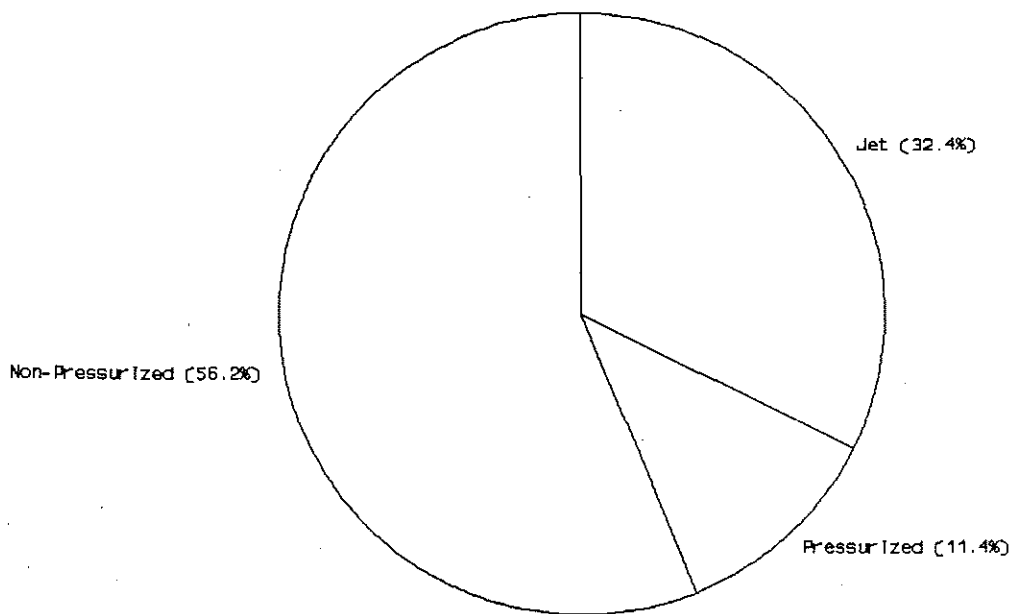
PERCENTAGE ARRIVALS BY CARRIER
Flint, Bishop Airport



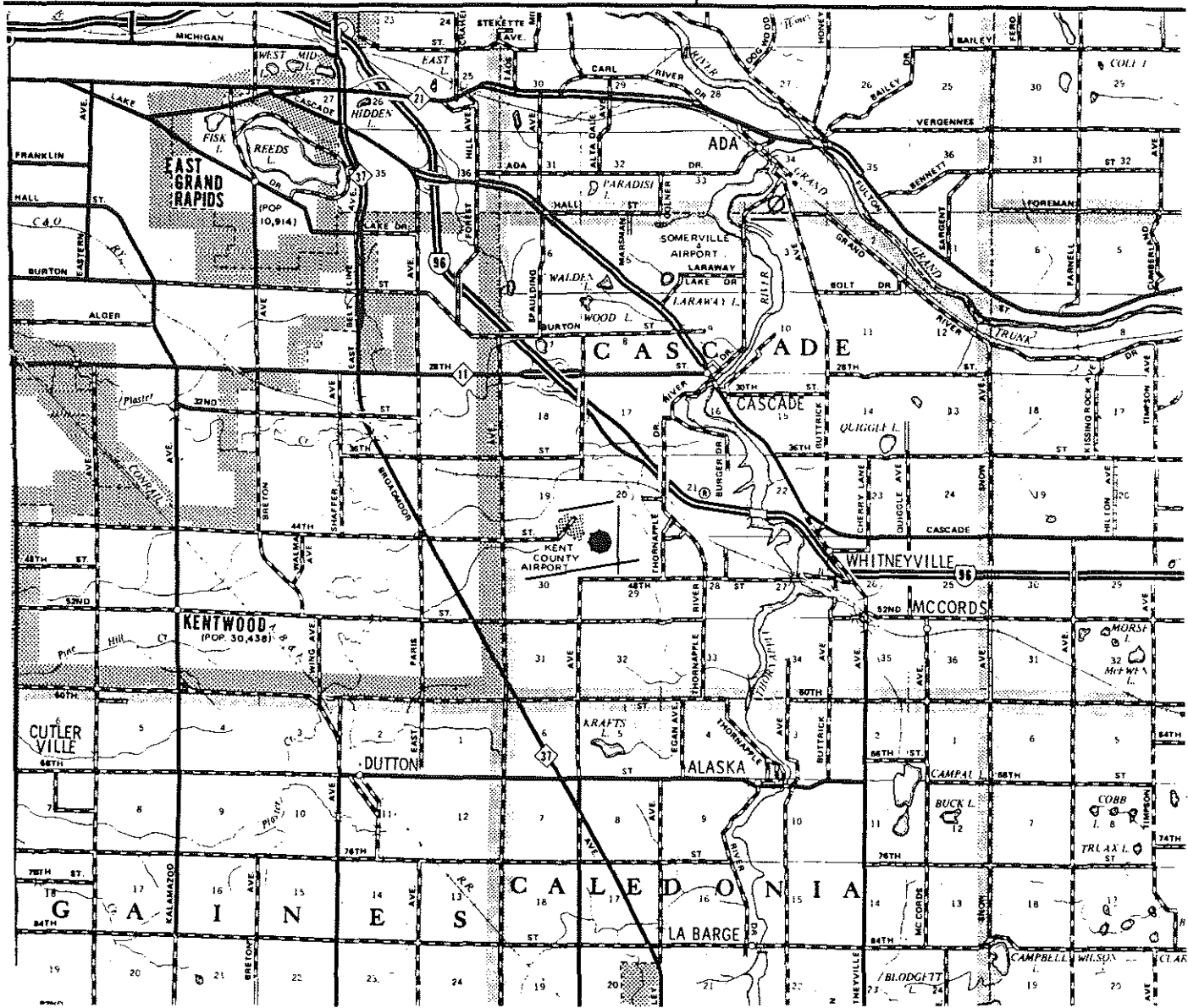
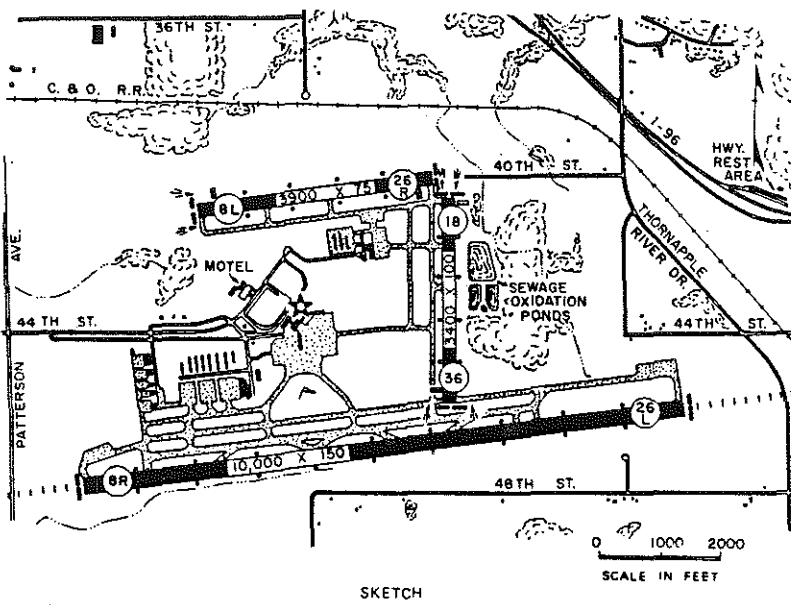
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Flint, Bishop Airport



PERCENTAGE ARRIVALS BY AIRCRAFT TYPE Flint, Bishop Airport



Grand Rapids, Kent County International Airport



Grand Rapids, Kent County Interational Airport

Passengers Carried

Kent County International Airport, with 1,314,846 total passengers, experienced a 1.8 percent decrease in 1988 from the previous year. Prior to this year Grand Rapids had enjoyed a growth in total passengers since 1981 and had experienced five straight record years. Monthly figures were five year highs in January, June and August through November. December was higher than its 1987 value. Kent County Airport ranked second in the state in total passengers with 5.8 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	520,686	519,085	1,039,771	5.5%
1985	595,605	599,636	1,195,241	15.0%
1986	617,461	626,168	1,243,629	4.0%
1987	673,736	665,230	1,338,966	7.7%
1988	657,145	657,701	1,314,846	-1.8%

Service Supplied

As of December 31, 1988, Grand Rapids was served by ten airlines. Between survey dates, the facility lost service by Air Canada (Commuter Express). However service was gained by Midwest Express Airlines, the net

result being no change in the number of carriers from the year before. Kent County Airport had nonstop service from 13 airports in 12 cities, a net decrease of one from the previous year. Service was lost from Kalamazoo, Lansing, Saginaw and Toronto, ONT. Service was gained from Cleveland, OH, Madison, WI and Memphis, TN. There were 333 weekly arrivals, down five from 1987. Of the weekly arrivals, 313 (94.0 percent) were from hub airports. Of the 29,828 weekly arriving seats, 27,080 (90.8 percent) were by jet, 1,558 (5.2 percent) were by pressurized propeller and 1,190 (4.0 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

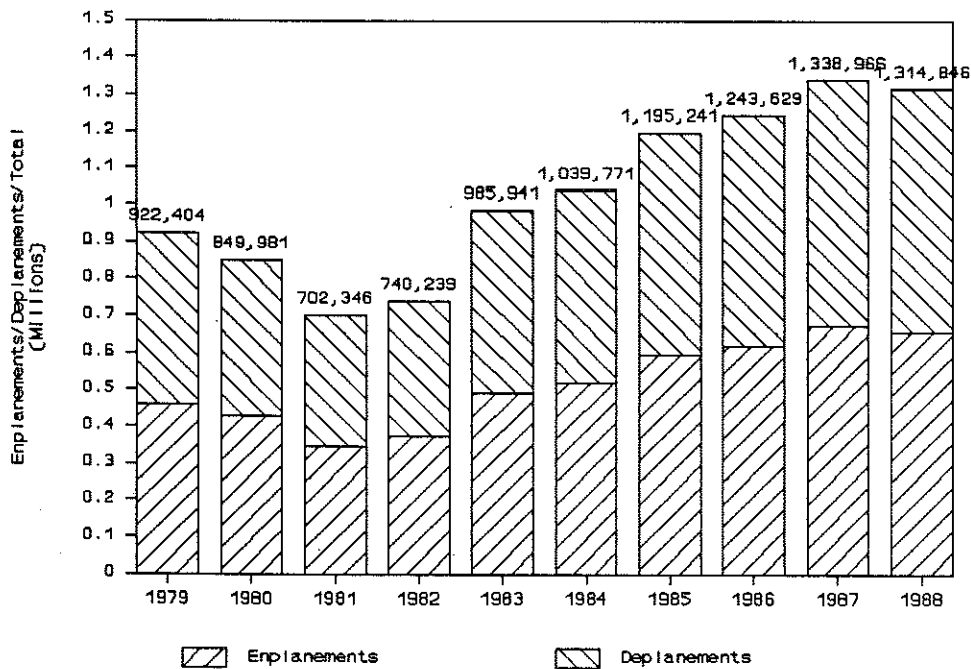
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	11	15	216	157	41	414
1987	10	14	179	100	59	338
1988	10	13	211	71	51	333

WEEKLY ARRIVING SEATS

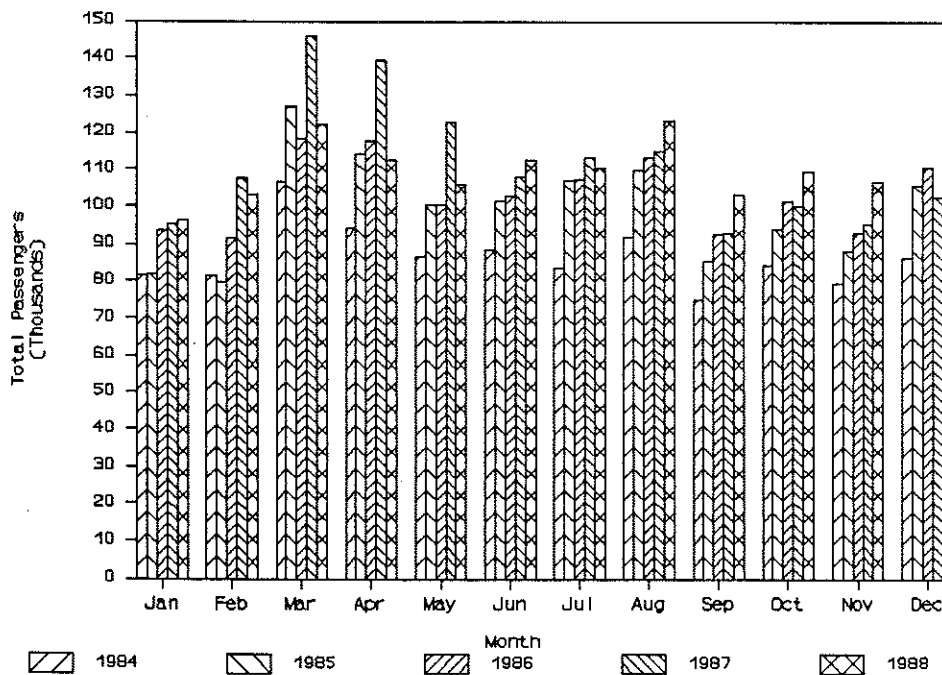
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	27,574	3,732	1,306	32,612
1987	24,181	2,468	1,478	28,127
1988	27,080	1,558	1,190	29,828

1979 - 1988 ANNUAL TOTAL PASSENGERS Grand Rapids, Kent County International Airport

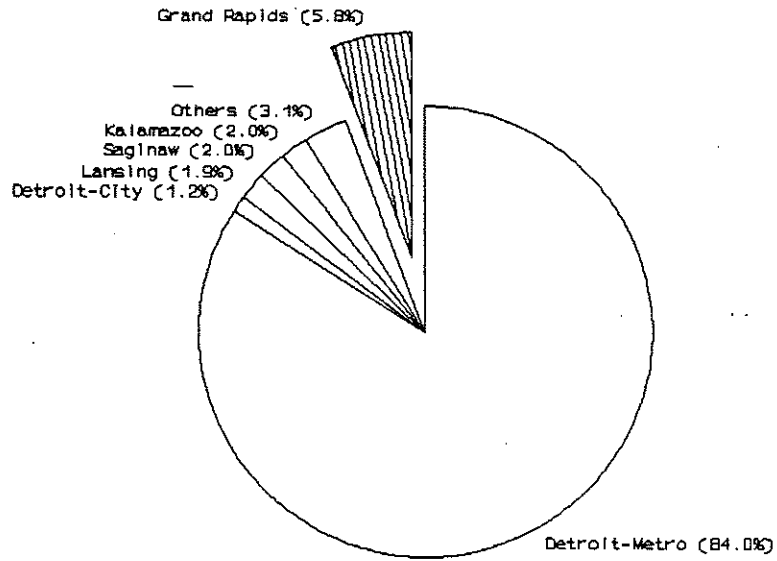


1984 - 1988 MONTHLY TOTAL PASSENGERS Grand Rapids, Kent County International Airport



1988 PASSENGER LEVEL COMPARISON

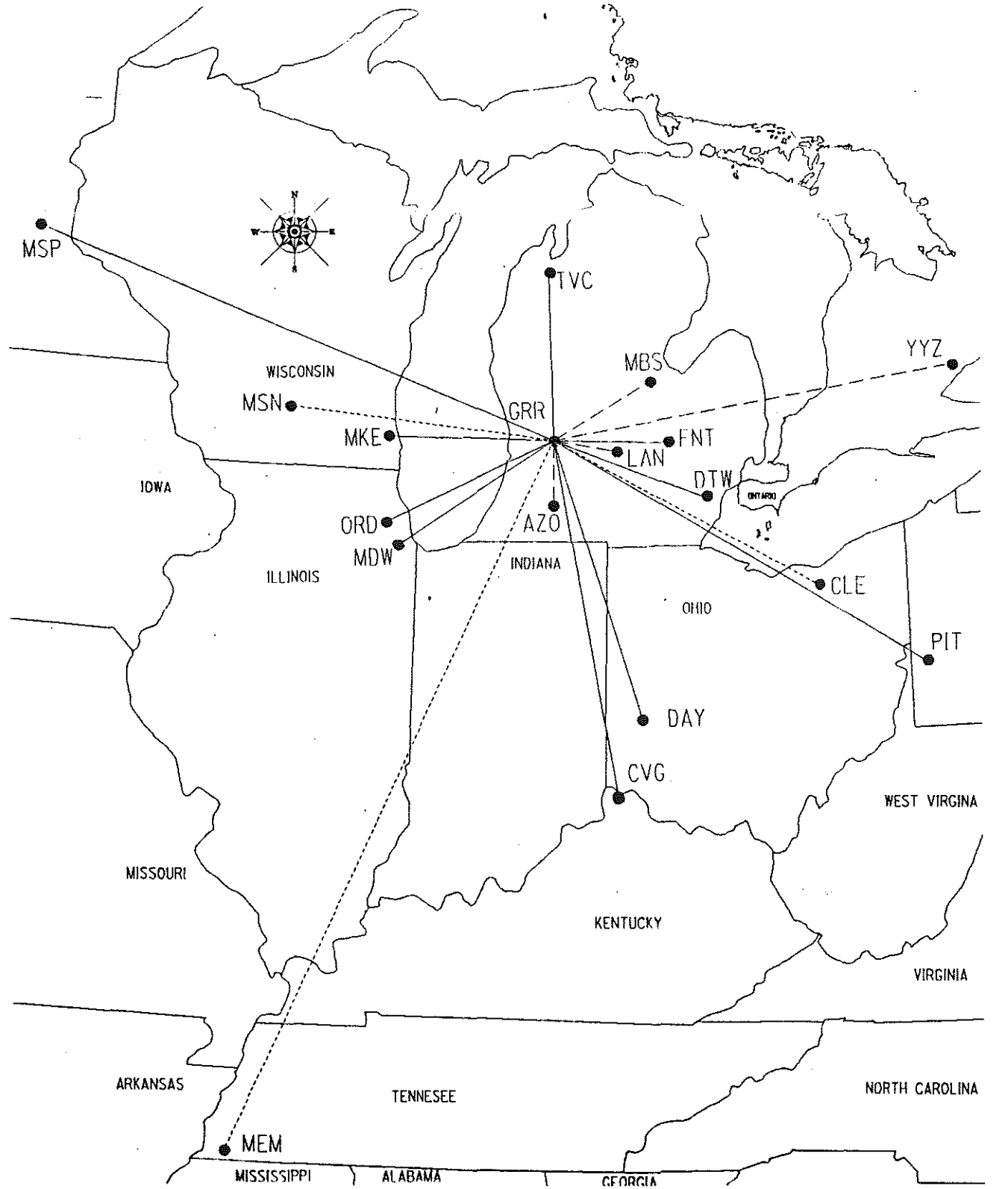
Grand Rapids, Kent County International Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Grand Rapids, Kent County International Airport

As of December 31, 1988



Discontinued Since 1987

Flown in 1987

New Since 1987

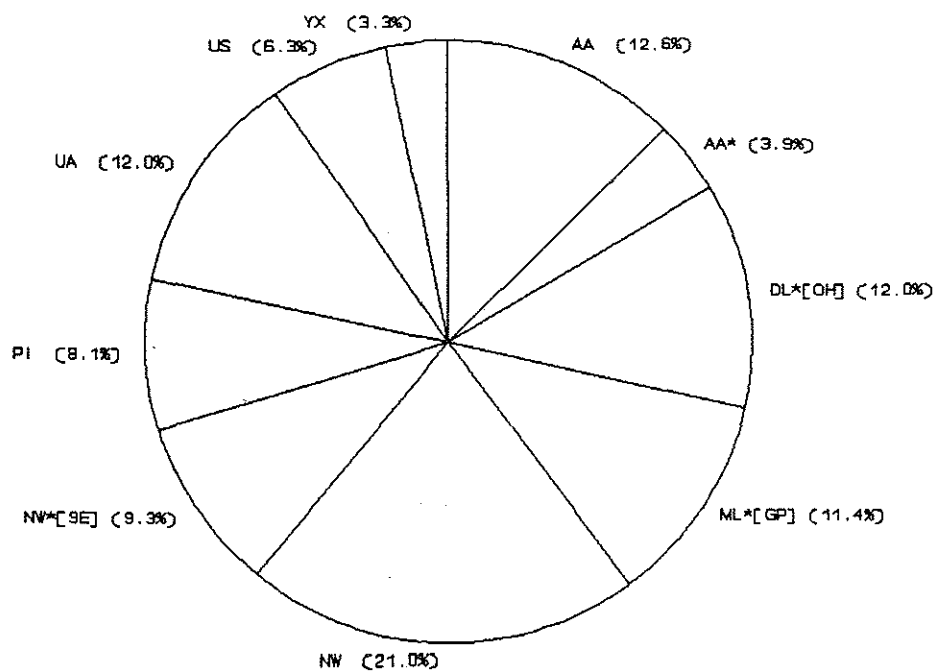
CITY PAIR SERVICE SUMMARIES

Grand Rapids, Kent County International Airport

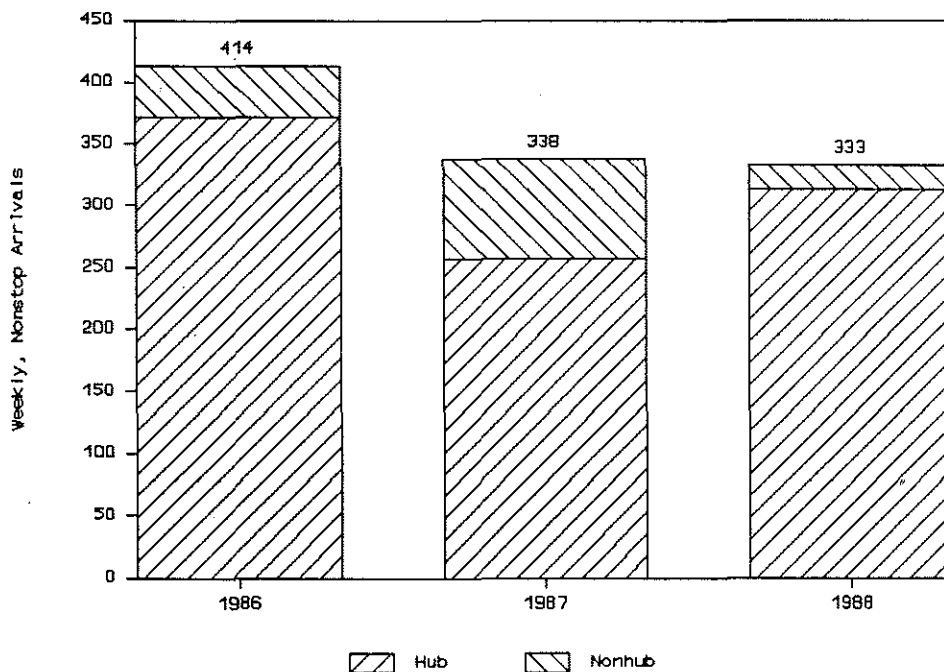
As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly		Weekly Arr. Seats Available			
			Arrivals	Equip.	Jet	Pres.	Npres.	Total
Grand Rapids, MI [GRR]								
Chicago, IL [MDW]								
Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*] DO8	19	32	0	0	608	608		
Chicago, IL [ORD]								
American Airlines, Inc. [AA] 72S	145	21	3,045	0	0	3,045		
American Airlines, Inc. [AA] 73S	122	7	854	0	0	854		
American Airlines, Inc. [AA] M80	154	14	2,156	0	0	2,156		
American Eagle [AA*] SH6	36	6	0	0	216	216		
United Airlines, Inc. [UA] 727	100	7	700	0	0	700		
United Airlines, Inc. [UA] 72S	145	14	2,030	0	0	2,030		
United Airlines, Inc. [UA] 733	138	13	1,794	0	0	1,794		
United Airlines, Inc. [UA] 73S	122	6	732	0	0	732		
Cincinnati, OH [CVG]								
Delta Connection (Comair, Inc.) [DL*] SF3	34	6	0	204	0	204		
Delta Connection (Comair, Inc.) [DL*] SWM	19	24	0	456	0	456		
Cleveland, OH [CLE]								
Delta Connection (Comair, Inc.) [DL*] SF3	34	5	0	170	0	170		
Dayton, OH [DAY]								
Piedmont Aviation, Inc. [PI] 72S	145	14	2,030	0	0	2,030		
Piedmont Aviation, Inc. [PI] 733	138	13	1,794	0	0	1,794		
Detroit, MI [DTW]								
Northwest Airlines, Inc. [NW] 727	100	7	700	0	0	700		
Northwest Airlines, Inc. [NW] 72S	145	14	2,030	0	0	2,030		
Northwest Airlines, Inc. [NW] D95	139	7	973	0	0	973		
Northwest Airlines, Inc. [NW] D9S	125	7	875	0	0	875		
Northwest Airlines, Inc. [NW] DC9	90	7	630	0	0	630		
Flint, MI [FNT]								
American Eagle [AA*] SH6	36	7	0	0	252	252		
Madison, WI [MSN]								
Northwest Airlines, Inc. [NW] D9S	125	7	875	0	0	875		
Memphis, TN [MEM]								
Northwest Airlines, Inc. [NW] D9S	125	7	875	0	0	875		
Milwaukee, WI [MKE]								
Delta Connection (Comair, Inc.) [DL*] SF3	34	5	0	170	0	170		
Midwest Express Airlines, Inc. [YX] DC9	90	11	990	0	0	990		
Northwest Airlink (Express Airlines I) [NW*] J31	18	31	0	558	0	558		
Minneapolis/St.Paul, MN [MSP]								
Northwest Airlines, Inc. [NW] 727	100	7	700	0	0	700		
Northwest Airlines, Inc. [NW] 72S	145	7	1,015	0	0	1,015		
Pittsburgh, PA [PIT]								
USAir [US] D9S	125	14	1,750	0	0	1,750		
USAir [US] B11	76	7	532	0	0	532		
Traverse City, MI [TVC]								
Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*] DO8	19	6	0	0	114	114		
Total		333	27,080	1,558	1,190	29,828		

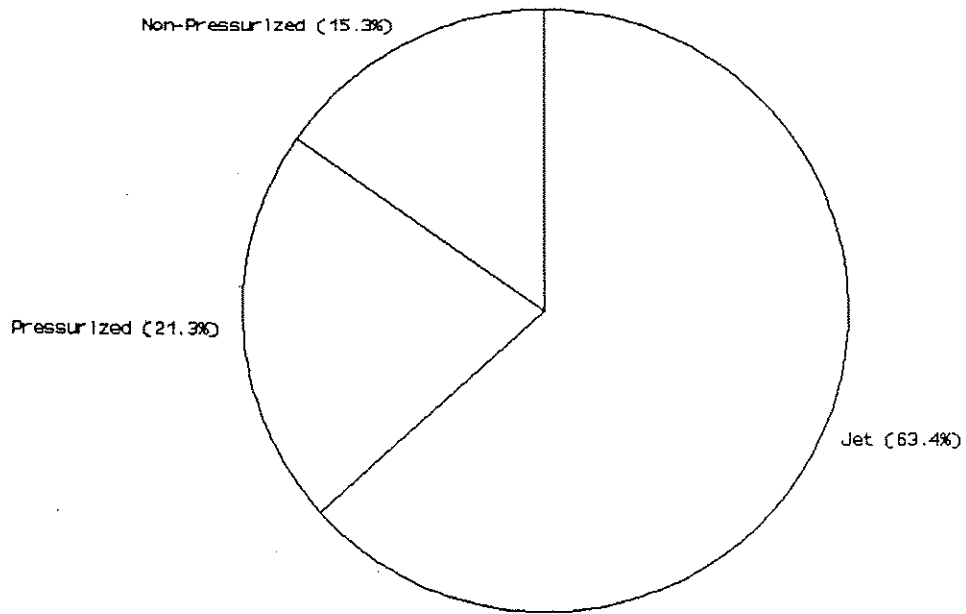
PERCENTAGE ARRIVALS BY CARRIER
Grand Rapids, Kent County International Airport



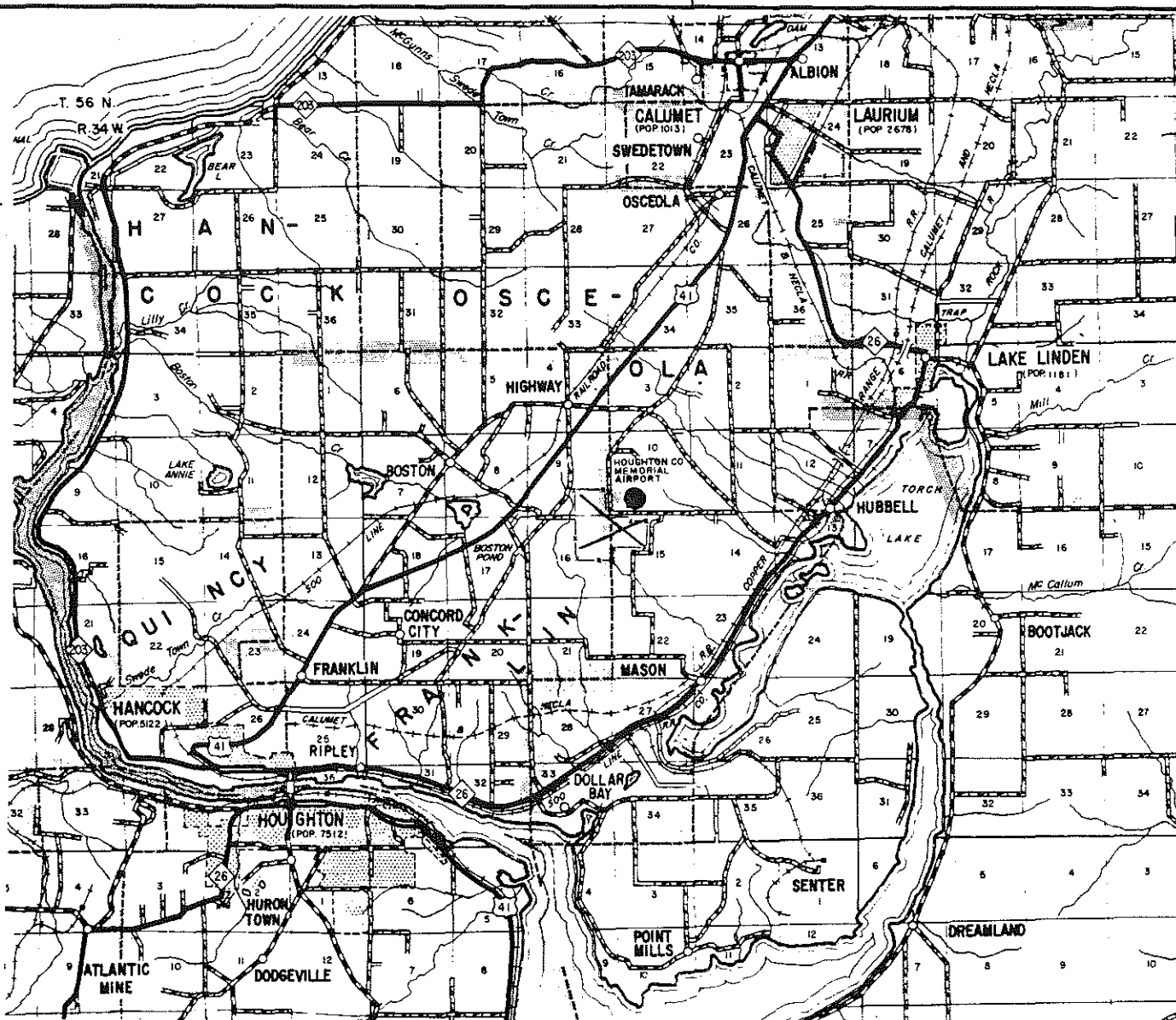
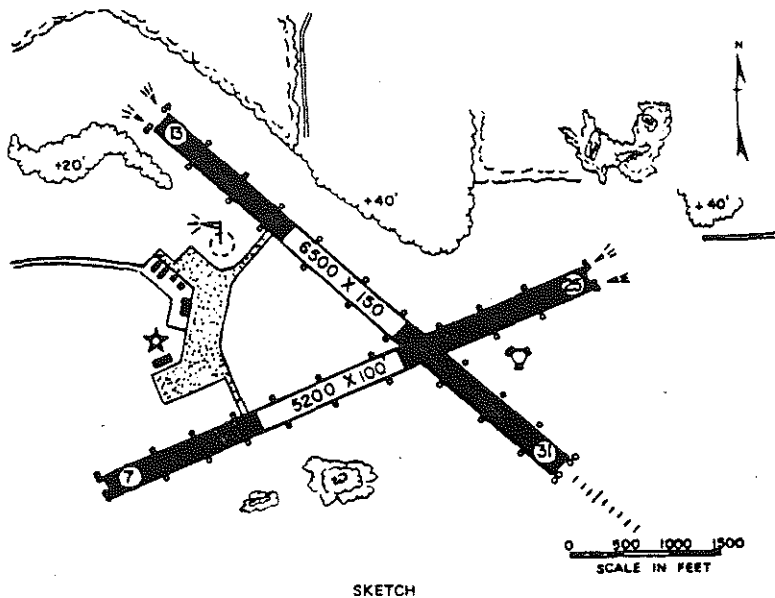
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Grand Rapids, Kent County International Airport



PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Grand Rapids, Kent County International Airport



Houghton/Hancock, Houghton County Memorial Airport



Houghton/Hancock, Houghton County Memorial Airport

Passengers Carried

Houghton County Memorial Airport, with 31,285 total passengers, experienced a 5.2 percent increase in 1988 over the previous year. Historically, this facility had enjoyed relative passenger level stability from 1981 through 1985. This was followed by declining passenger levels in 1986 and 1987. Monthly figures exceeded their 1987 levels in all months except January, February, April and November. Houghton/Hancock ranked twelfth in the state in total passengers with 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	19,644	20,002	39,646	-4.0%
1985	21,167	20,448	41,615	5.0%
1986	16,674	16,026	32,700	-21.4%
1987	15,417	14,311	29,728	-9.1%
1988	15,797	15,488	31,285	5.2%

Service Supplied

As of December 31, 1987, Houghton/Hancock was served by two carriers operated by one airline. No change in carriers took

place between survey dates. Between the survey dates Houghton County Airport lost nonstop service from Ironwood. This left service from only two cities, Marquette and Minneapolis/St. Paul, MN. There were 43 weekly arrivals, no change from 1987. Fourteen of the weekly arrivals (32.6 percent) were from a hub airport. All of the 1,548 weekly arriving seats were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

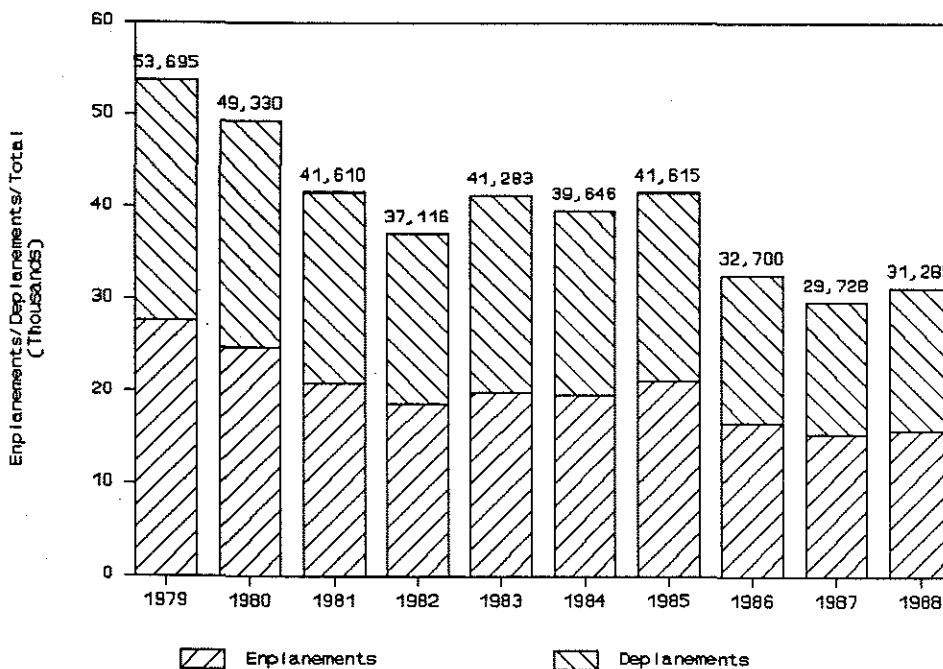
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	2	3	0	25	17	42
1987	2	3	0	14	29	43
1988	2	2	0	0	43	43

WEEKLY ARRIVING SEATS

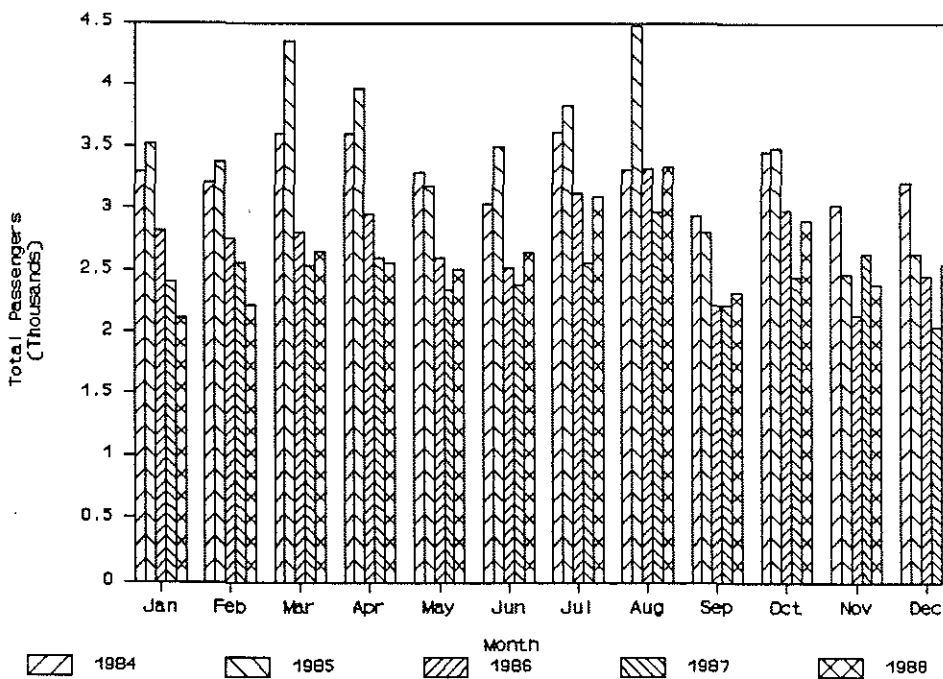
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	1,150	612	1,762
1987	0	644	1,044	1,688
1988	0	0	1,548	1,548

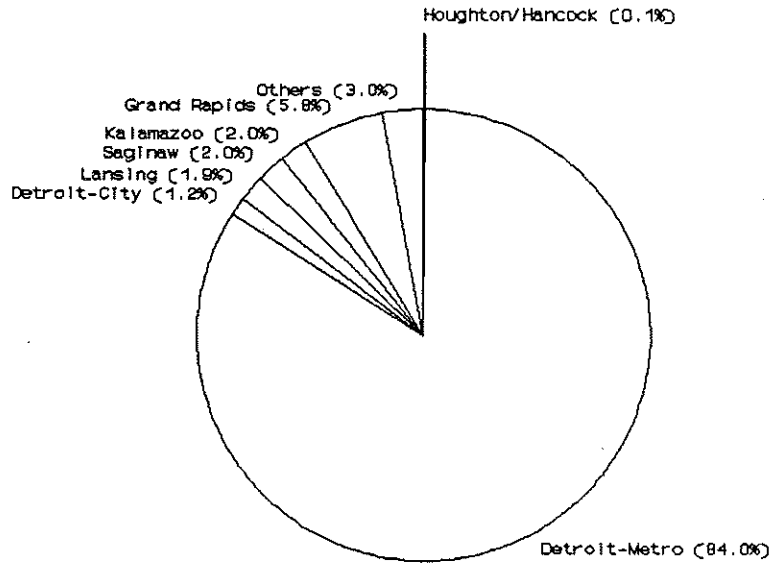
1979 - 1988 ANNUAL TOTAL PASSENGERS Houghton/Hancock, Houghton County Memorial Airport



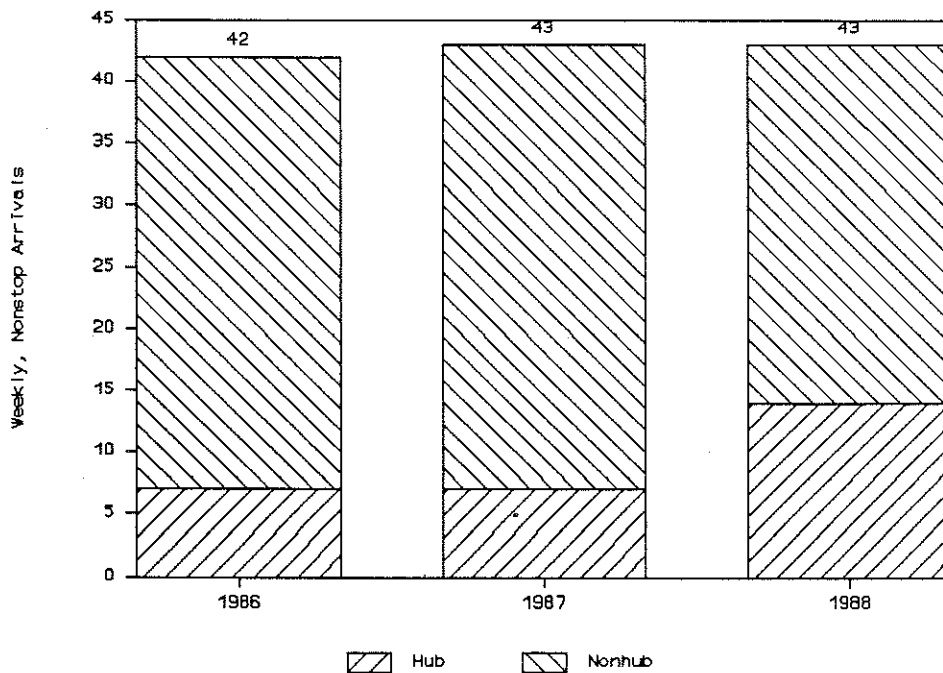
1984 - 1988 MONTHLY TOTAL PASSENGERS Houghton/Hancock, Houghton County Memorial Airport



1988 PASSENGER LEVEL COMPARISON Houghton/Hancock, Houghton County Memorial Airport



NONSTOP ARRIVALS FROM HUBS/NONHUBS Houghton/Hancock, Houghton County Memorial Airport



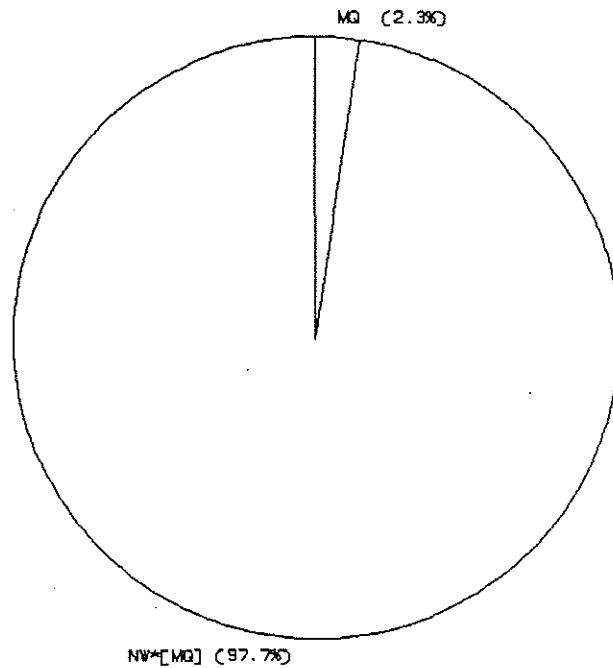
ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Houghton/Hancock, Houghton County Memorial Airport

As of December 31, 1988



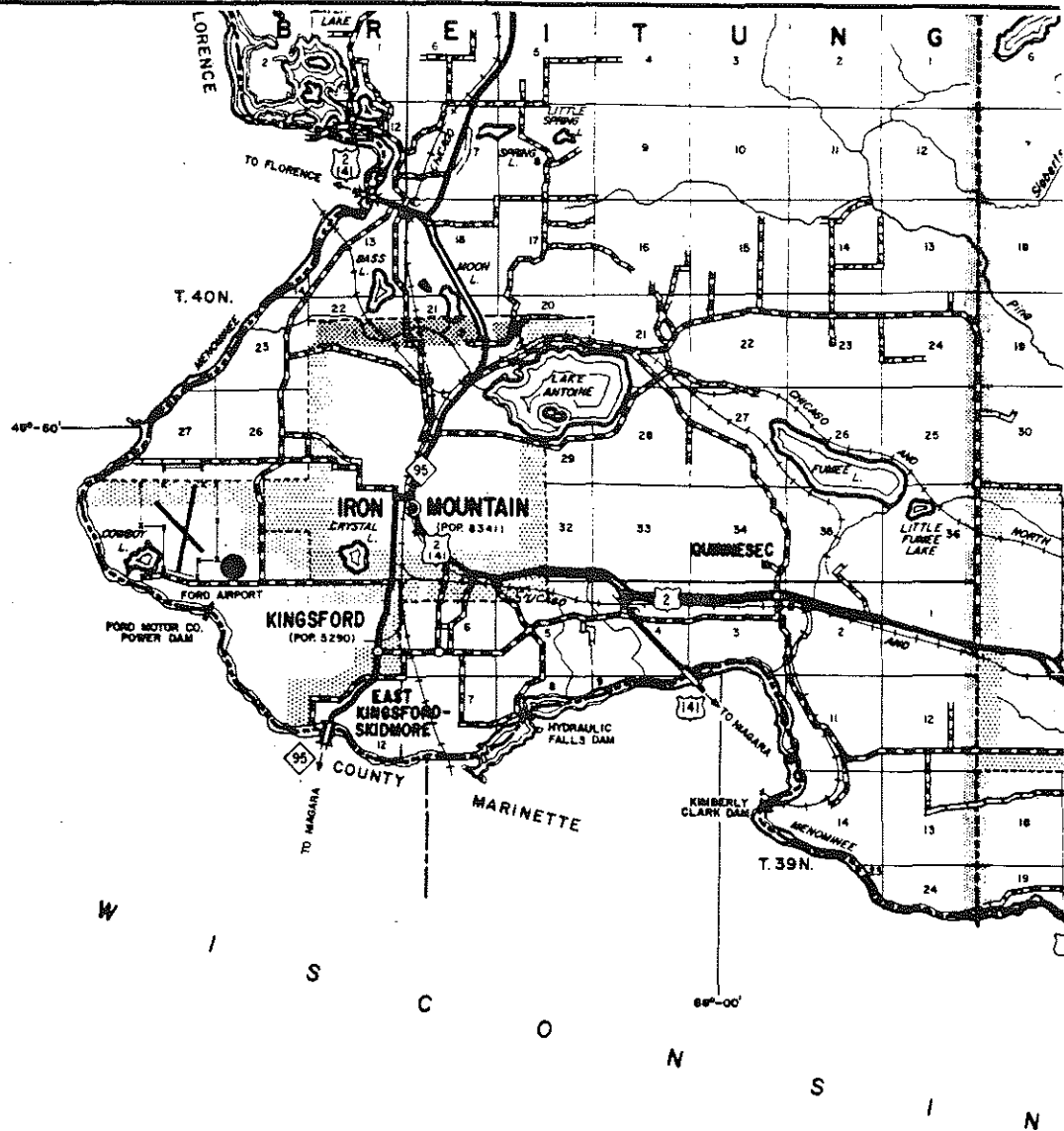
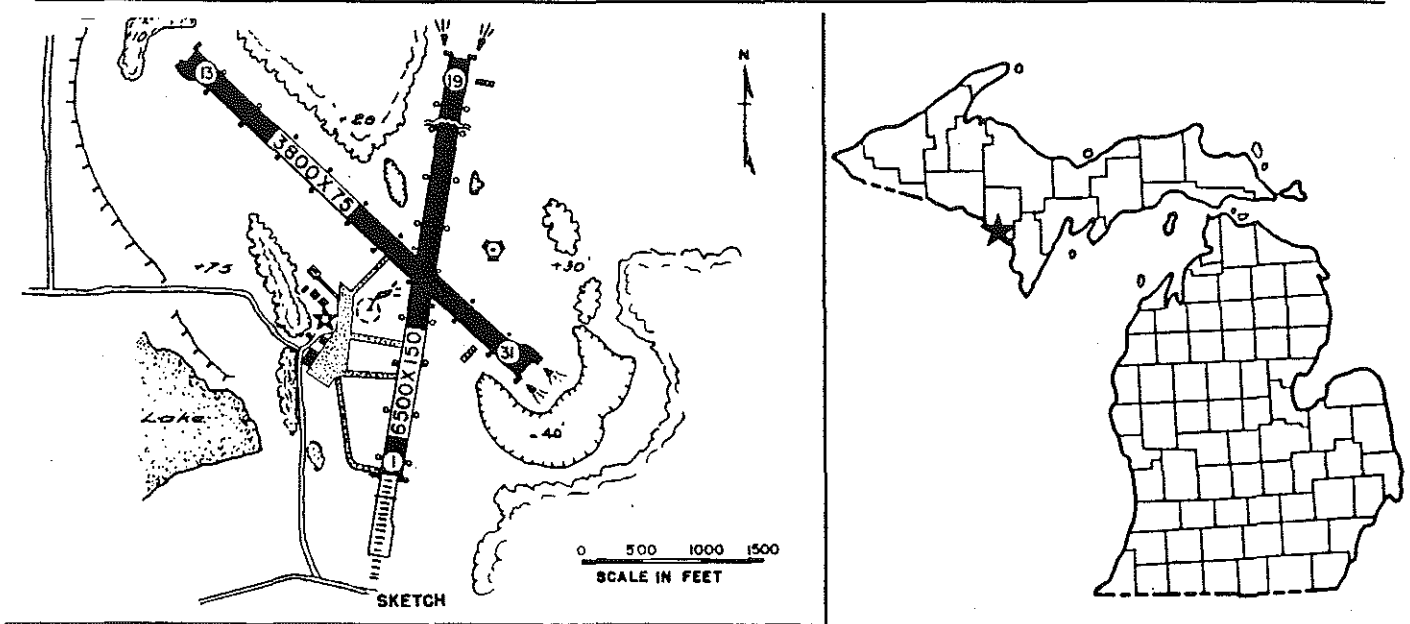
PERCENTAGE ARRIVALS BY CARRIER
 Houghton/Hancock, Houghton County Memorial Airport



CITY PAIR SERVICE SUMMARIES
 Houghton/Hancock, Houghton County Memorial Airport
 As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available				
						Jet	Pres.	Npres.	Total	
Houghton/Hancock, MI [CMX]										
Marquette, MI [MQT]										
		Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	28	0	0	1,008	1,008	
		Simmons Airlines [MQ]	SH6	36	1	0	0	36	36	
Minneapolis/St.Paul, MN [MSP]										
		Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	14	0	0	504	504	
					Total	43	0	0	1,548	1,548

Iron Mountain, Ford Airport



Iron Mountain, Ford Airport

Passengers Carried

Ford Airport, with 10,232 total passengers, experienced a 17.4 percent increase in 1988 over the previous year. Historically, Iron Mountain experienced a decline in total passengers since from 1984 to 1987. Monthly figures exceeded their 1987 levels in May and June and from August through December. The remaining months were five year lows. Iron Mountain ranked fifteenth in the state in total passengers with less than 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	10,845	10,718	21,563	2.7%
1985	8,683	8,713	17,396	-19.3%
1986	5,583	5,488	11,071	-36.4%
1987	4,289	4,427	8,716	-21.3%
1988	5,045	5,187	10,232	17.4%

Service Supplied

As of December 31, 1988, Iron Mountain was served by one airline. A change in carriers

took place between survey dates with Great Lakes Aviation replacing American Eagle (Simmons Airlines). Ford Airport had nonstop service from two cities. Service from Marquette and Stevens Point/Wausau, WI was replaced by service from Ironwood and Menominee. There were 34 weekly arrivals, up 15 from 1987. None of the weekly arrivals were from a hub airport. All of the 646 weekly arriving seats were by pressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

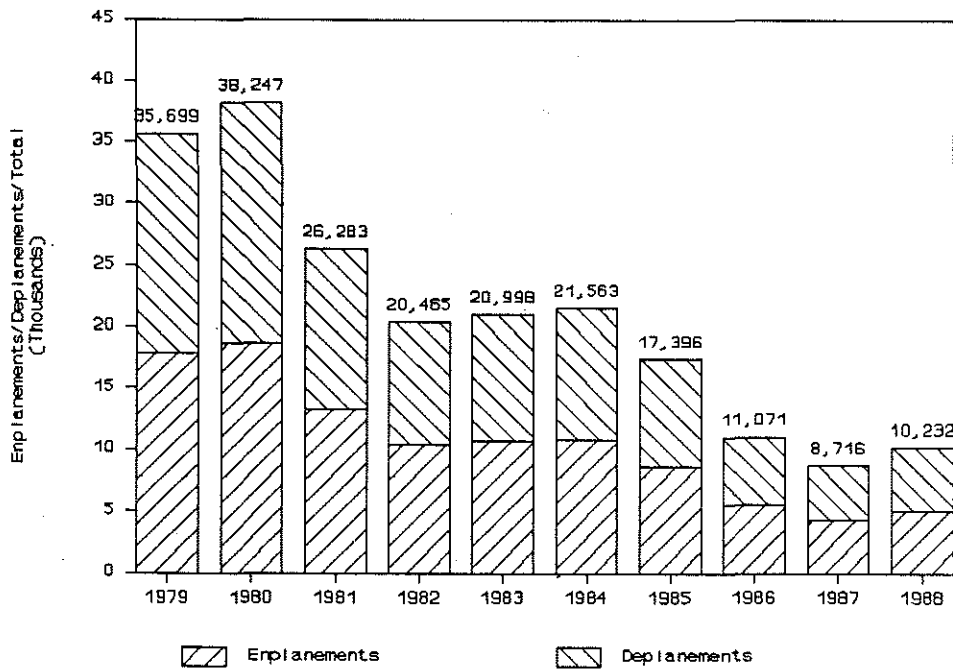
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	1	0	0	13	13
1987	1	2	0	0	19	19
1988	1	2	0	34	0	34

WEEKLY ARRIVING SEATS

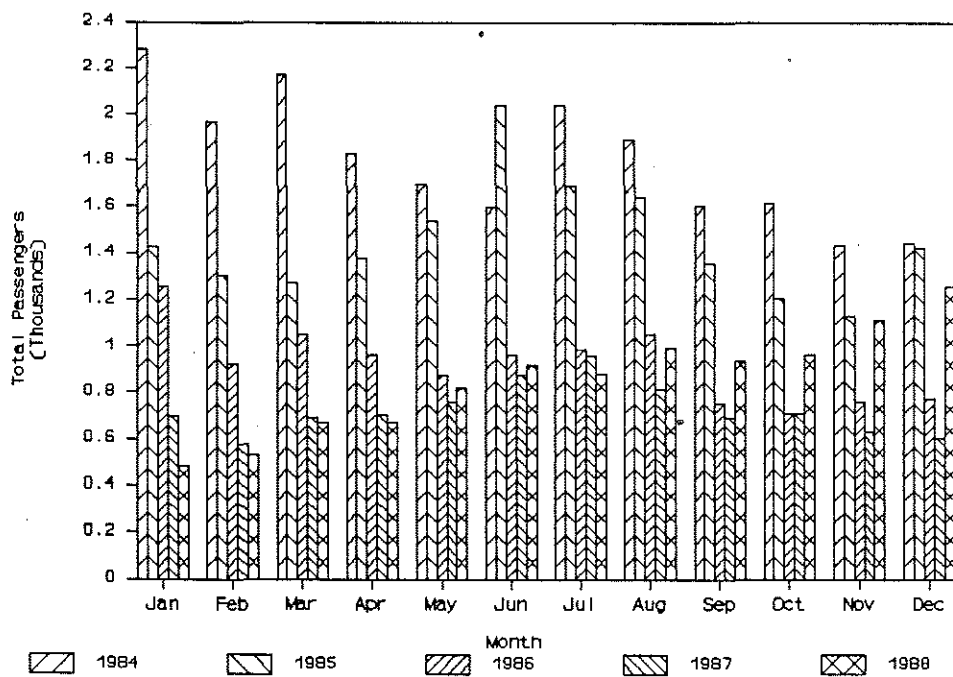
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	468	468
1987	0	0	684	684
1988	0	646	0	646

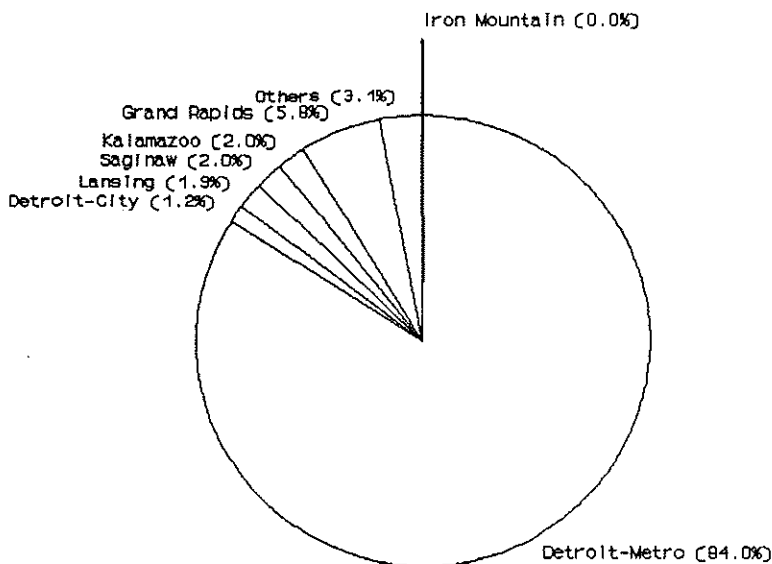
1979 - 1988 ANNUAL TOTAL PASSENGERS Iron Mountain, Ford Airport



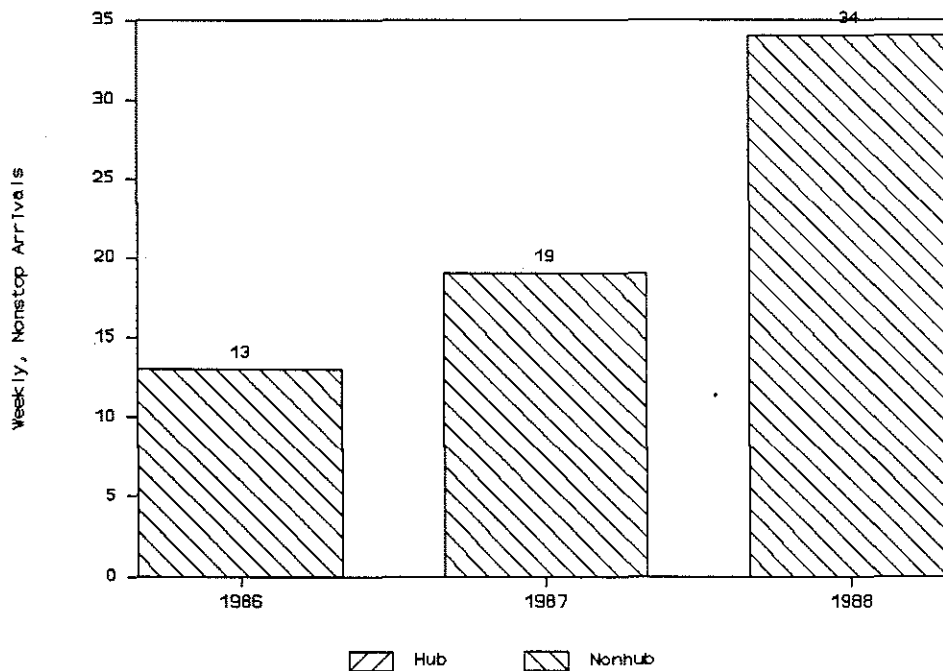
1984 - 1988 MONTHLY TOTAL PASSENGERS Iron Mountain, Ford Airport



1988 PASSENGER LEVEL COMPARISON Iron Mountain, Ford Airport

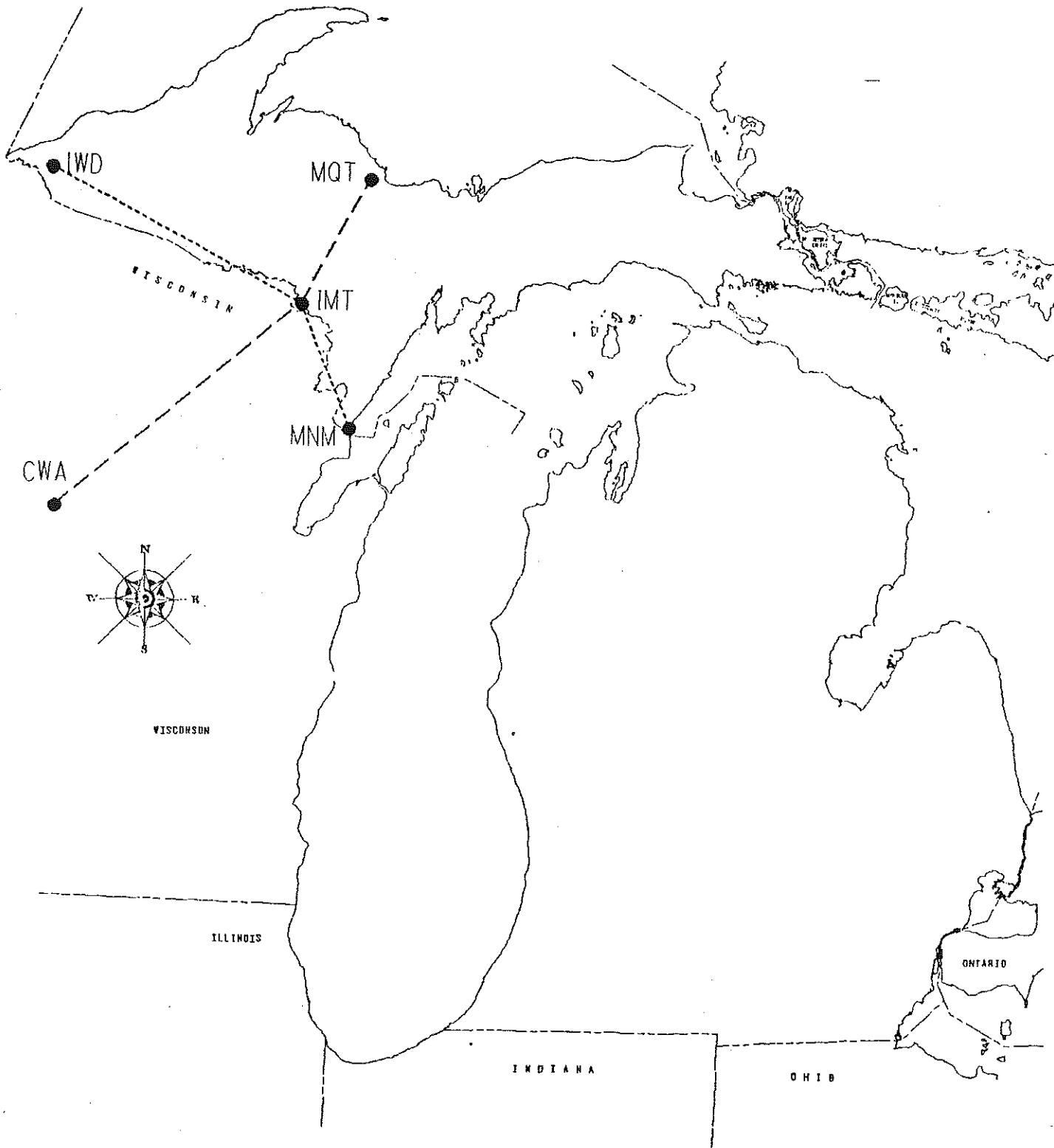


NONSTOP ARRIVALS FROM HUBS/NONHUBS Iron Mountain, Ford Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Iron Mountain, Ford Airport
As of December 31, 1988



Discontinued Since 1987

—————
Flown in 1987

New Since 1987

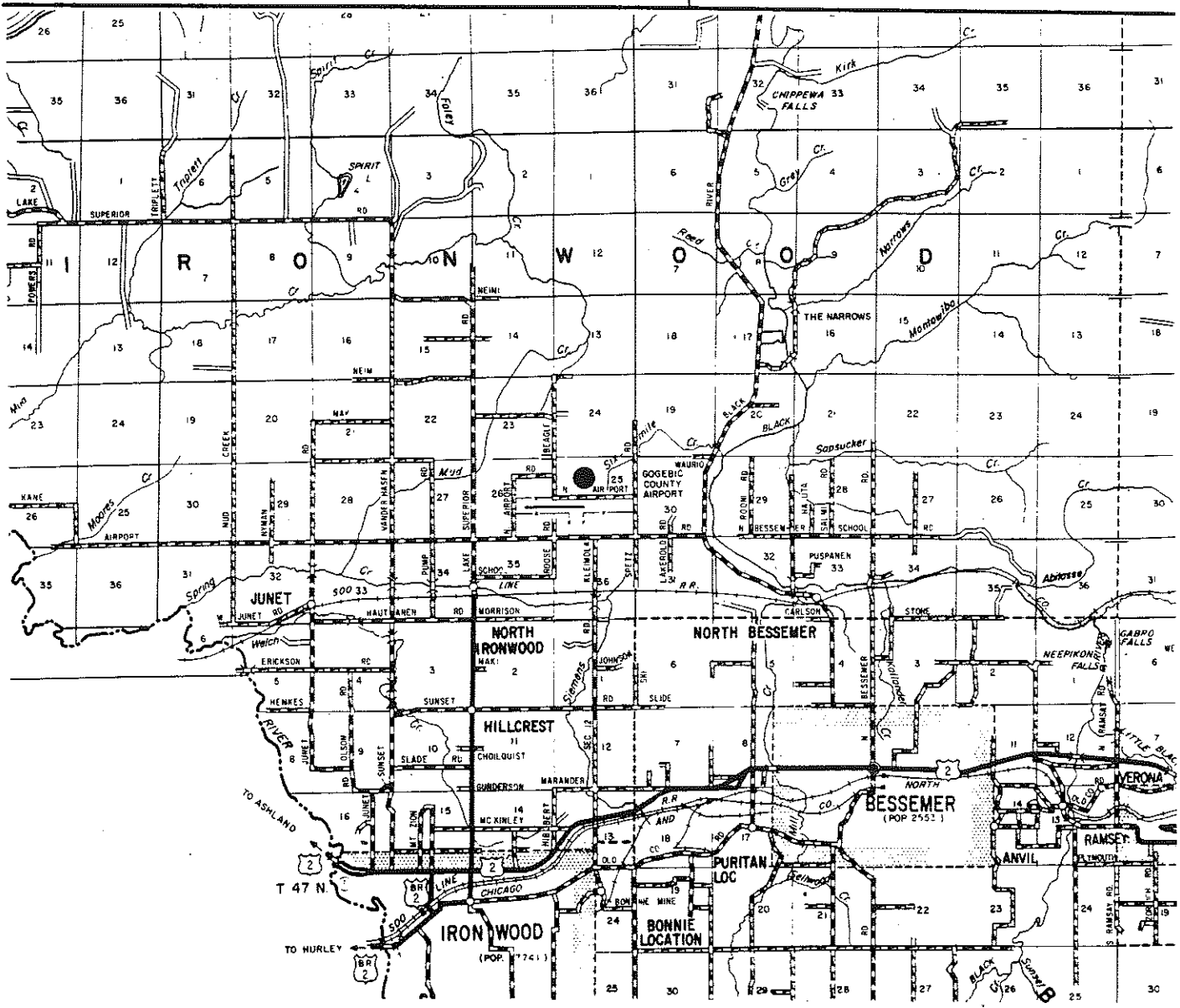
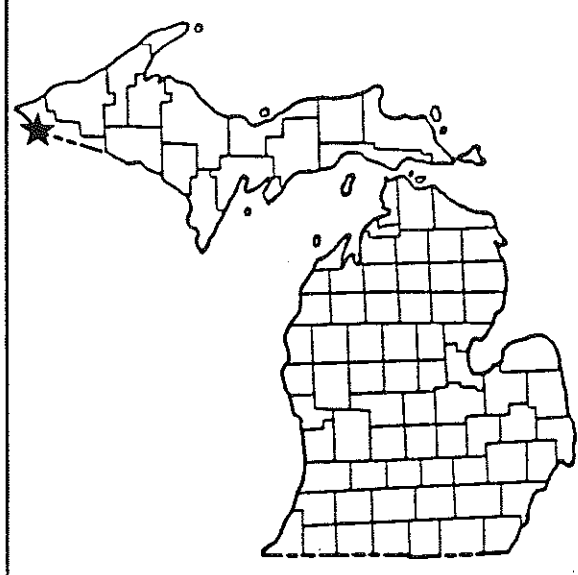
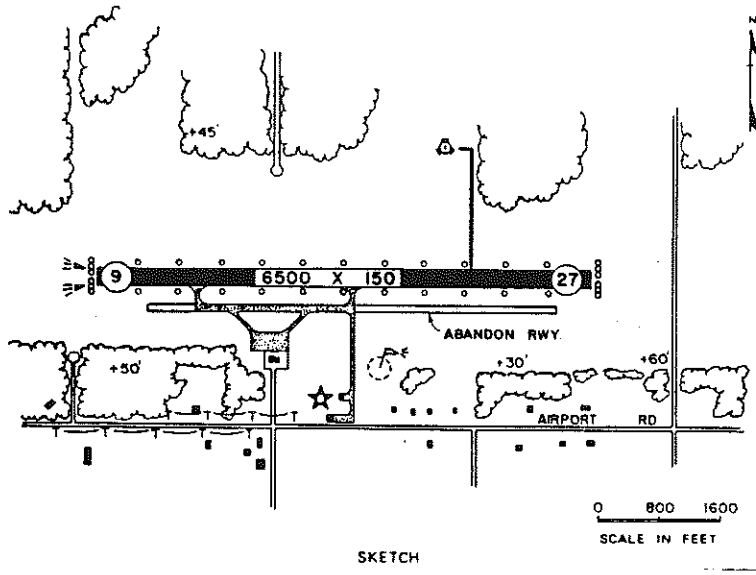
CITY PAIR SERVICE SUMMARIES

Iron Mountain, Ford Airport

As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	<u>Weekly Arr. Seats Available</u>				
					Jet	Pres.	Npres.	Total	
Iron Mountain, MI [IMT]									
Ironwood, MI [IWD]									
Great Lakes Aviation, Ltd. [ZK]			BE1	19	12	0	228	0	228
Menominee, MI/Marinette, WI [MNM]									
Great Lakes Aviation, Ltd. [ZK]			BE1	19	22	0	418	0	418
Total					34	0	646	0	646

Ironwood, Gogebic County Airport



Ironwood, Gogebic County Airport

Passengers Carried

Gogebic County Airport, with 4,634 total passengers, experienced a 13.6 percent decrease in 1988 from the previous year. Historically, Ironwood has experienced an overall decrease since 1979, the only year of increase being 1986. Monthly figures were five year lows from January through March and May through September. Monthly figures were higher than their 1987 levels from October through December. Ironwood ranked eighteenth in the state in total passengers with less than 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	3,079	3,026	6,105	-40.7%
1985	2,996	2,893	5,889	-3.5%
1986	3,873	3,663	7,536	28.0%
1987	2,807	2,558	5,365	-28.8%
1988	2,363	2,271	4,634	-13.6%

Service Supplied

As of December 31, 1988, Iron Mountain was

served by one airline. A change in carriers took place between survey dates with Great Lakes Aviation replacing Northwest Airlink (Simmons Airlines). Gogebic County Airport had nonstop service from one city. Service from Houghton/Hancock and Minneapolis/St. Paul, MN. was replaced by service from Iron Mountain. There were 12 weekly arrivals, down eight from 1987. None of the weekly arrivals were from a hub airport. All of the 228 weekly arriving seats were by pressurized propeller aircraft.

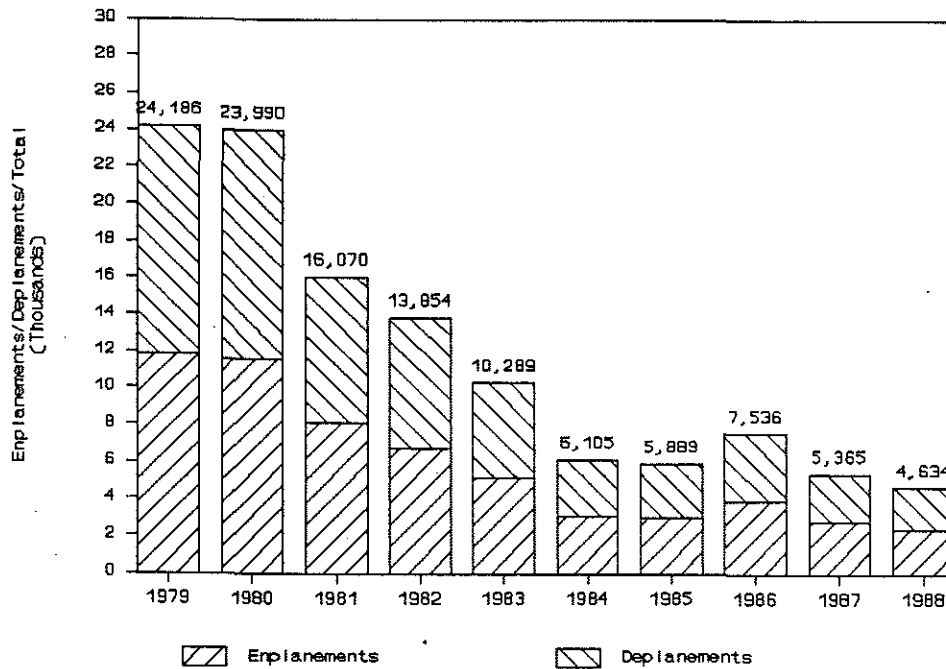
WEEKLY ARRIVALS As of December 31

Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	2	0	0	14	14
1987	1	2	0	0	20	20
1988	1	1	0	12	0	12

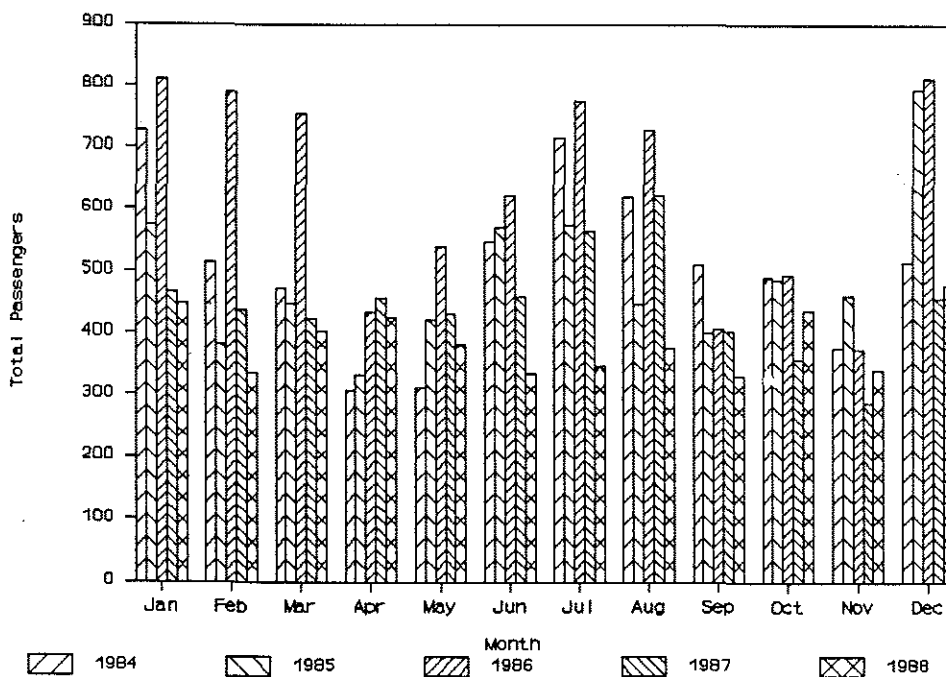
WEEKLY ARRIVING SEATS As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	504	504
1987	0	0	720	720
1988	0	228	0	228

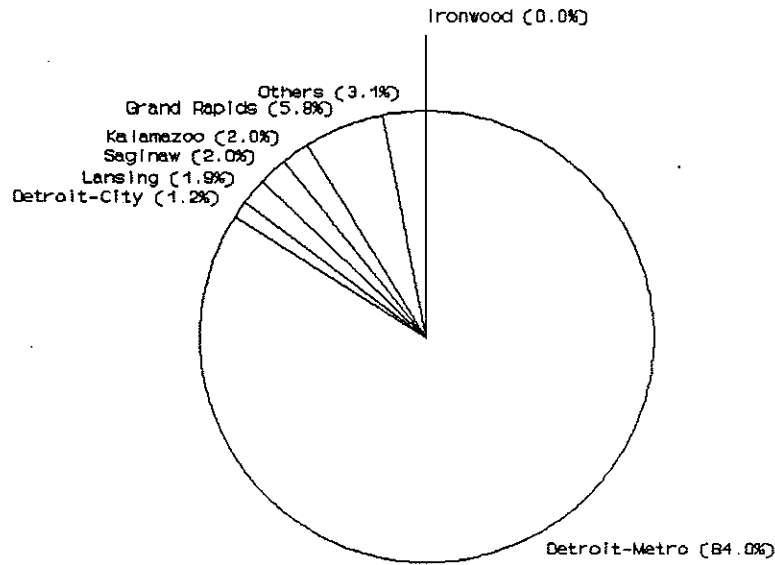
1979 - 1988 ANNUAL TOTAL PASSENGERS Ironwood, Gogebic County Airport



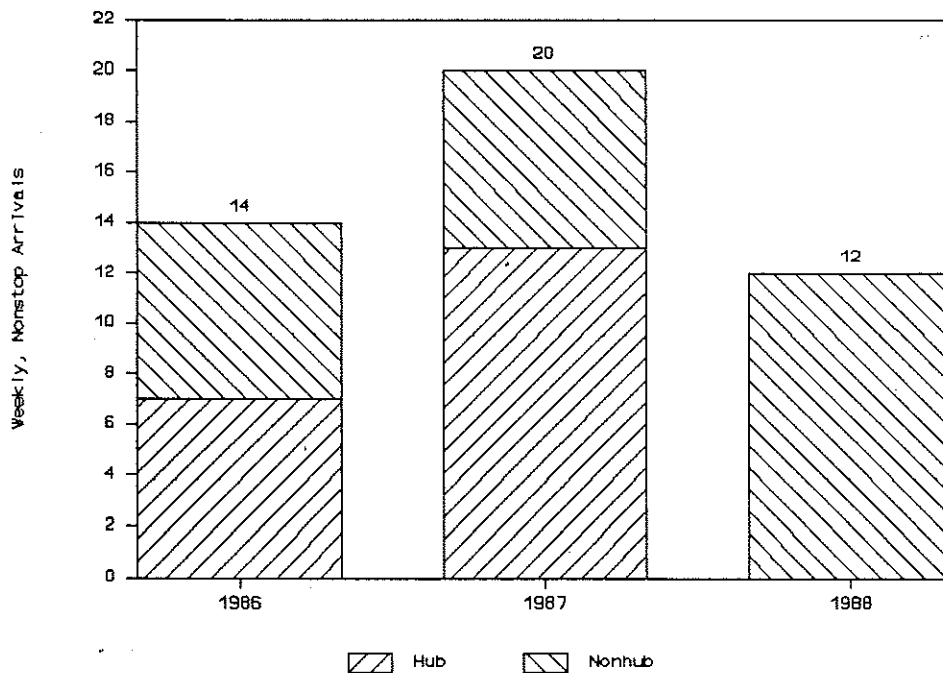
1984 - 1988 MONTHLY TOTAL PASSENGERS Ironwood, Gogebic County Airport



1988 PASSENGER LEVEL COMPARISON Ironwood, Gogebic County Airport



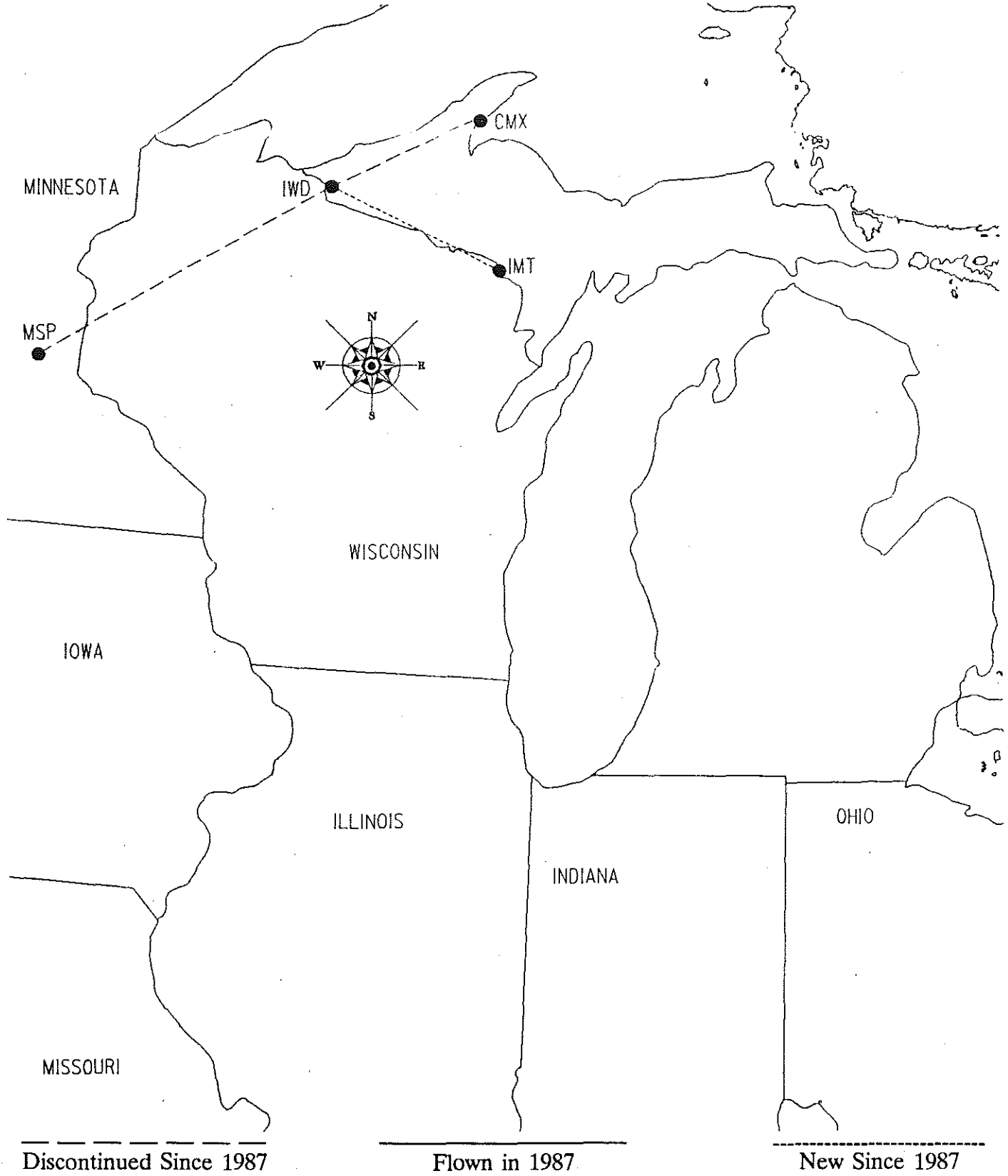
NONSTOP ARRIVALS FROM HUBS/NONHUBS Ironwood, Gogebic County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Ironwood, Gogebic County Airport

As of December 31, 1988



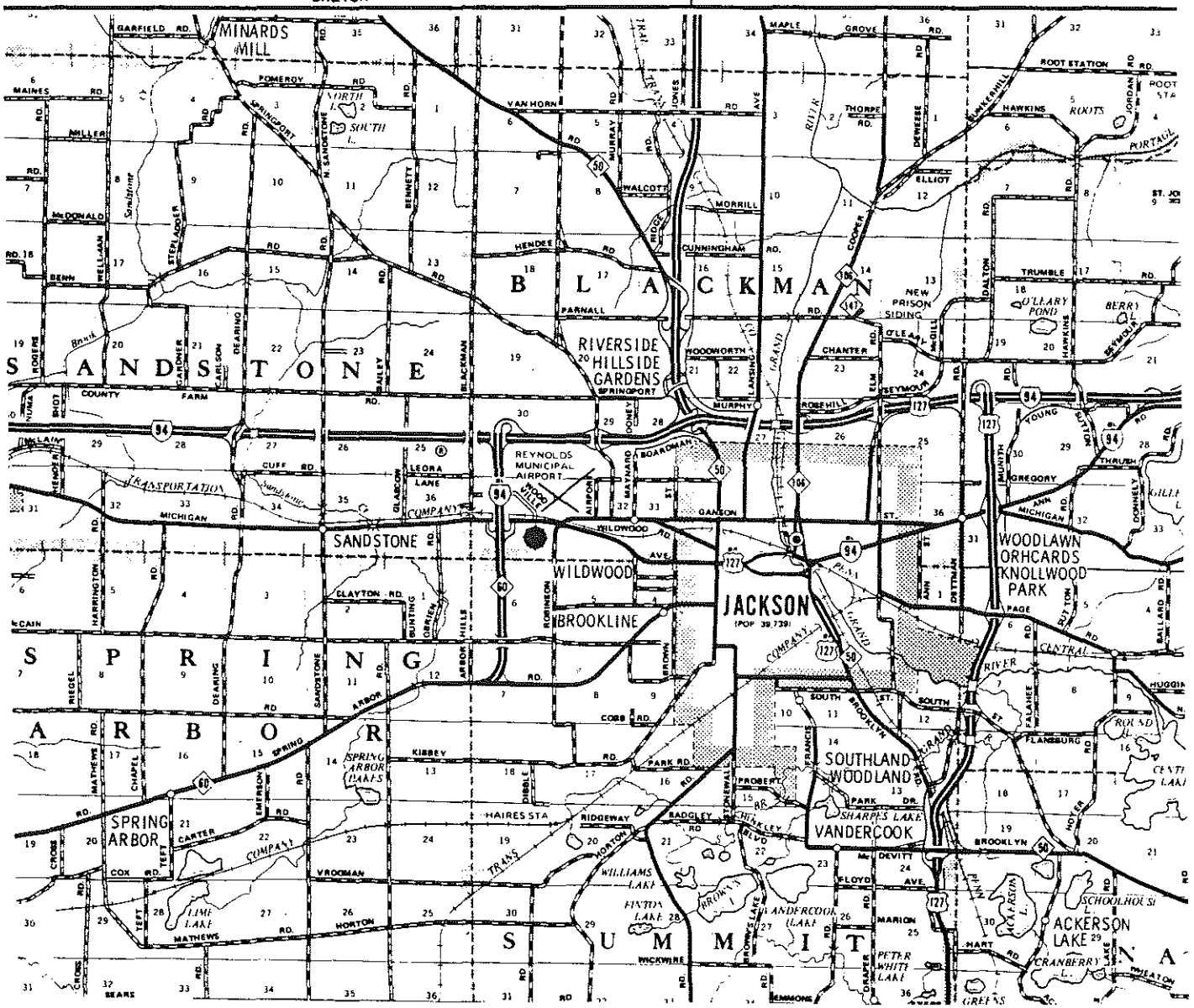
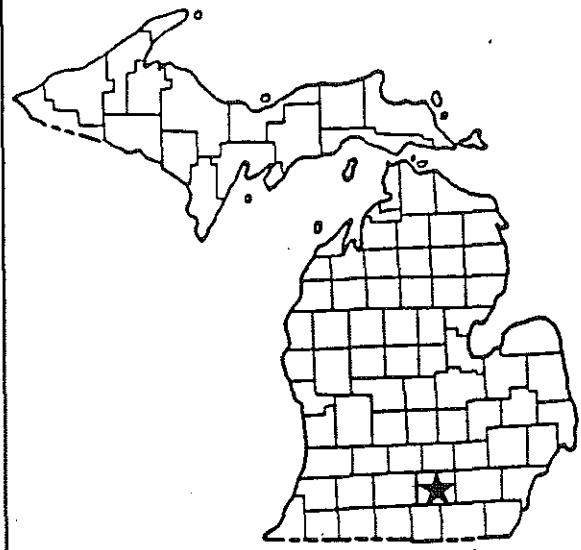
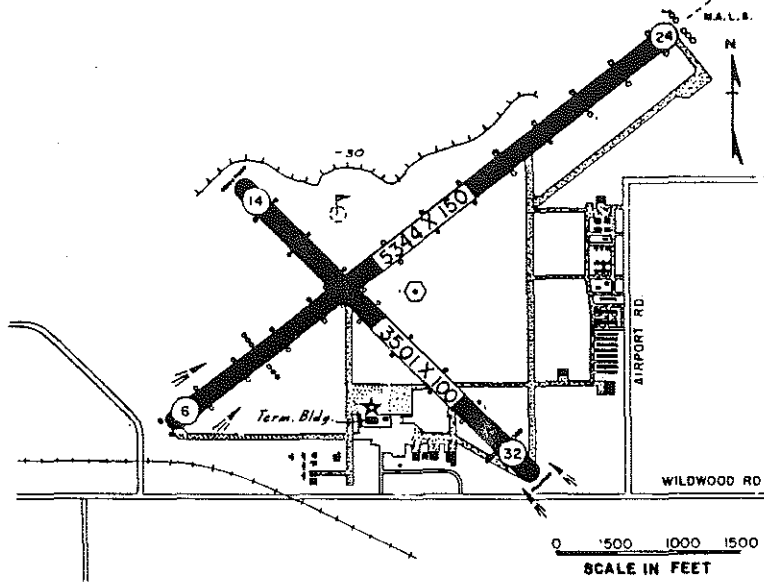
CITY PAIR SERVICE SUMMARIES

Ironwood, Gogebic County Airport

As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available				
					Jet	Pres.	Npres. Total		
Ironwood, MI [IWD]	Iron Mountain, MI [IMT]	Great Lakes Aviation, Ltd. [ZK]	BE1	19	12	0	228	0	228
			Total		12	0	228	0	228

Jackson County, Reynolds Field



Jackson County, Reynolds Field

Passengers Carried

Reynolds Field, with 746 total passengers, experienced an 18.6 percent decrease in 1988 from the previous year. Historically, Jackson has experienced declining total passenger levels every year since 1978. Monthly figures were five year lows from January through June and in August and October. In the remaining months, the monthly figures were higher in 1988 than in 1987. Jackson ranked twenty-third in the state in total passengers with less than 0.1 percent of the statewide total. Jackson is one of four Michigan cities receiving federal monies under the Essential Air Service (EAS) subsidy program.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	1,103	1,342	2,445	-18.9%
1985	1,029	1,021	2,050	-16.2%
1986	608	570	1,178	-42.5%
1987	488	429	917	-22.2%
1988	340	406	746	-18.6%

Service Supplied

As of December 31, 1987, Jackson was served by one airline. No change in carriers took place between survey dates. Jackson County Airport had nonstop service from Detroit Metropolitan Airport, it's designated EAS hub facility. There were 12 weekly arrivals, the same as in 1986. All of the 432 weekly arriving seats were in nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

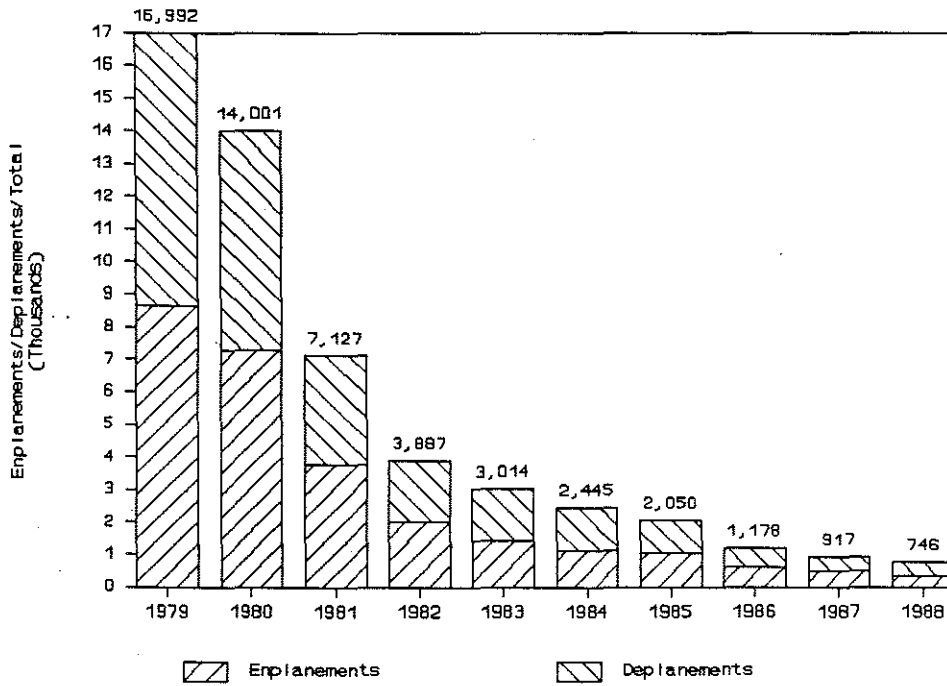
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	1	0	0	12	12
1987	1	1	0	0	12	12
1988	1	1	0	0	12	12

WEEKLY ARRIVING SEATS

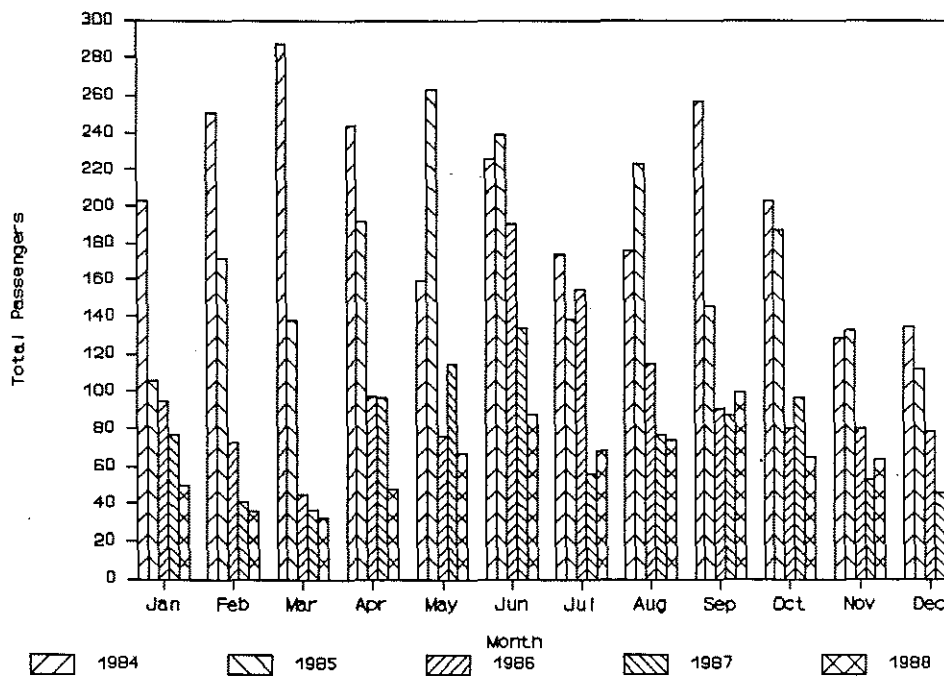
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	228	228
1987	0	0	432	432
1988	0	0	432	432

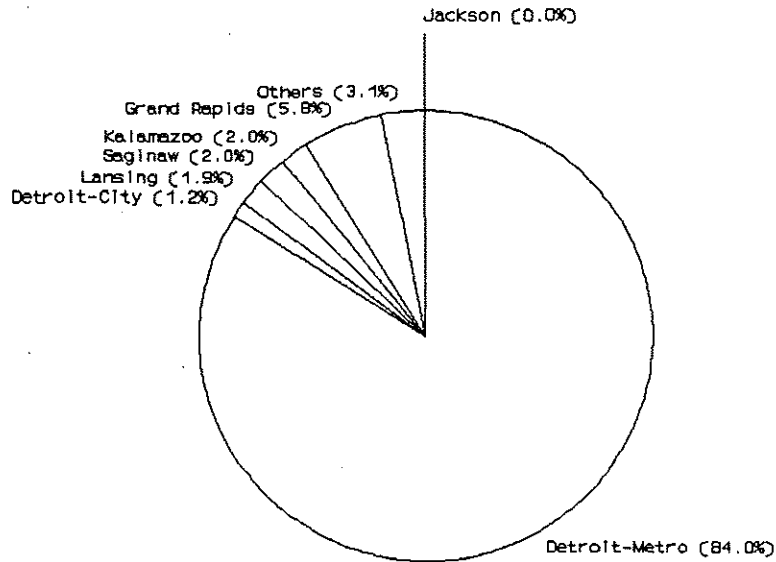
1979 - 1988 ANNUAL TOTAL PASSENGERS Jackson County, Reynolds Field



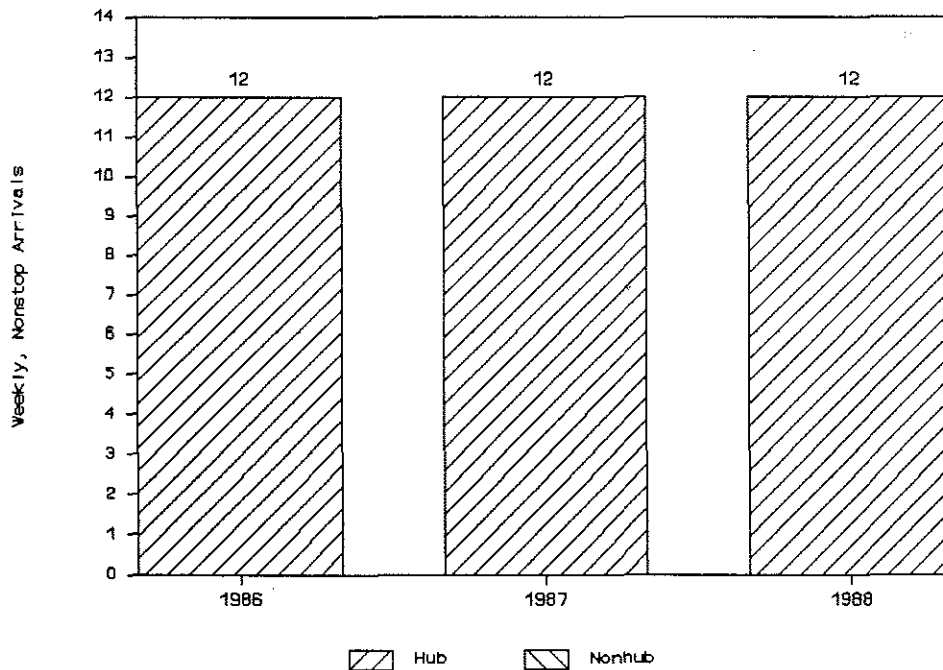
1984 - 1988 MONTHLY TOTAL PASSENGERS Jackson County, Reynolds Field



1988 PASSENGER LEVEL COMPARISON Jackson County, Reynolds Field



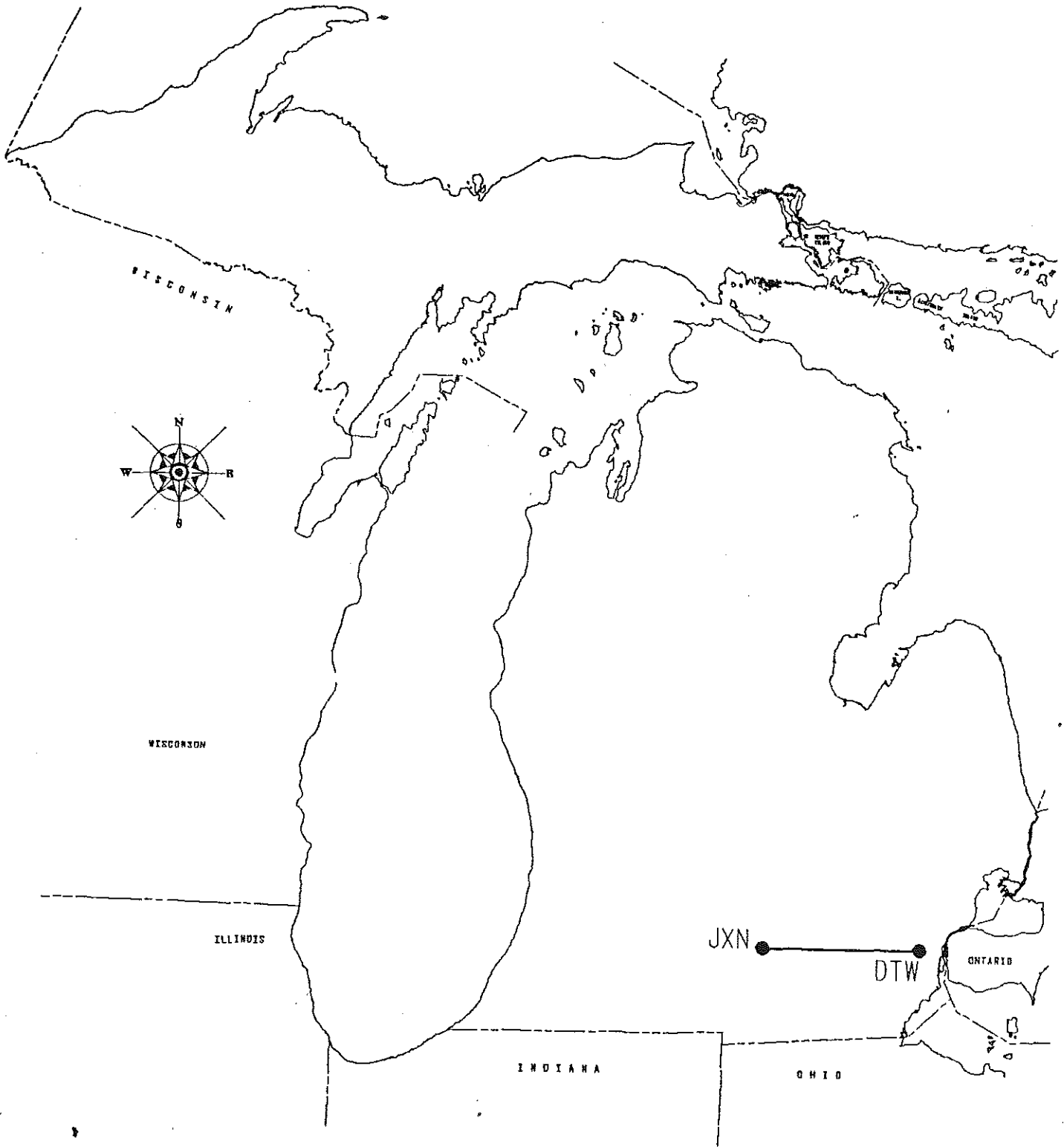
NONSTOP ARRIVALS FROM HUBS/NONHUBS Jackson County, Reynolds Field



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Jackson County, Reynolds Field

As of December 31, 1988



Discontinued Since 1987

Flown in 1987

New Since 1987

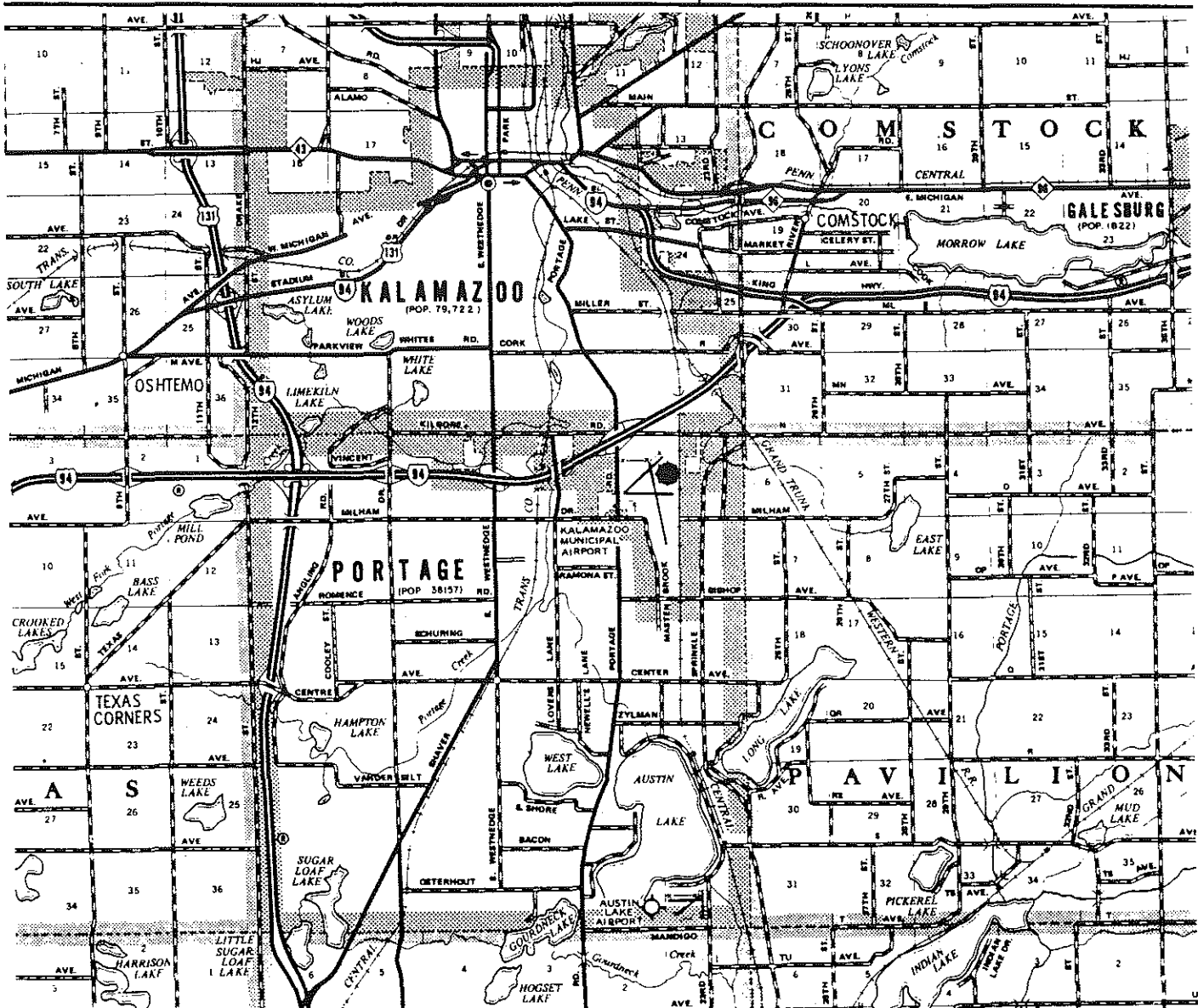
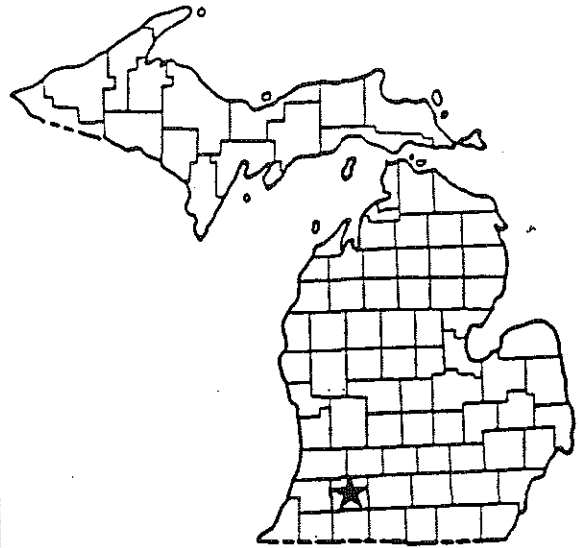
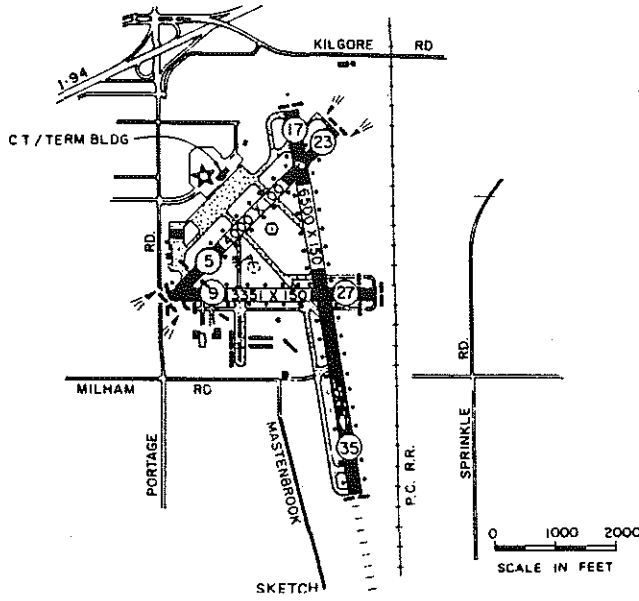
CITY PAIR SERVICE SUMMARIES

Jackson County, Reynolds Field

As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available			
					Jet	Pres.	Npres.	Total
Jackson, MI [JXN]	Detroit, MI [DTW]	Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	12	0	0	432
			Total		12	0	0	432

Kalamazoo County Airport



Kalamazoo County Airport

Passengers Carried

Kalamazoo County Airport, with 447,878 total passengers, experienced an 8.0 percent increase in 1988 over the previous year. This surpasses the previous record set in 1987 and represents the fourth year in a row in which Kalamazoo has set a new record. Historically, Kalamazoo has enjoyed a growth in total passengers since 1982. Monthly total passenger figures were five year highs in January and February and from May through December. In March and April the 1988 monthly figures were only surpassed by the 1987 values. Kalamazoo ranked fourth in the state in total passengers with 2.0 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	124,684	124,975	249,659	20.5%
1985	168,065	172,828	340,893	36.5%
1986	197,277	199,533	396,810	16.4%
1987	208,822	205,840	414,662	4.5%
1988	225,704	222,174	447,878	8.0%

Service Supplied

As of December 31, 1988, Kalamazoo was served by six airlines. Between survey dates, the facility gained service by The Midway Connection (Fisher Bros. Aviation). However, Northwest Airlines took over the flights from Detroit formerly flown by Northwest Airlink (Simmons Airlines) thus

there was no net gain in carriers. Kalamazoo County Airport had nonstop service from nine origins in eight cities, an increase of one origin point from 1987. Service from Grand Rapids was discontinued and replaced by flights from Chicago, IL Midway Airport and Saginaw. There were 214 weekly arrivals, down 8 from the previous year. Of the weekly arrivals, 180 (84.1 percent) were from hub airports. Of the 13,731 weekly arriving seats, 9,426 (68.7 percent) were by jet, 2,202 (16.0 percent) were by pressurized propeller and 2,103 (15.3 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

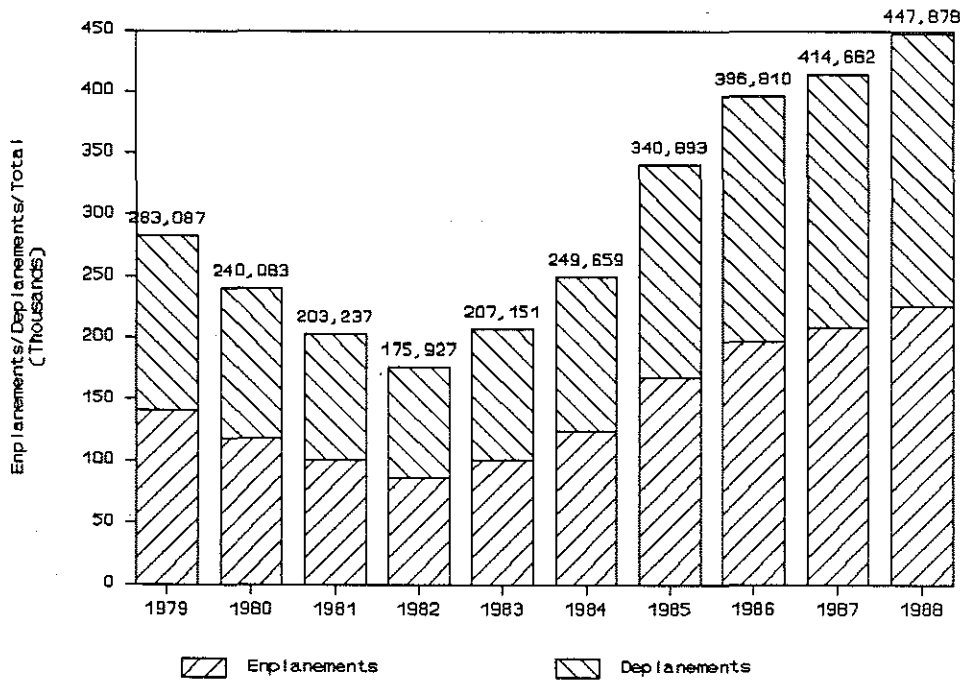
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	4	6	47	55	33	135
1987	6	8	82	88	52	222
1988	6	9	83	57	74	214

WEEKLY ARRIVING SEATS

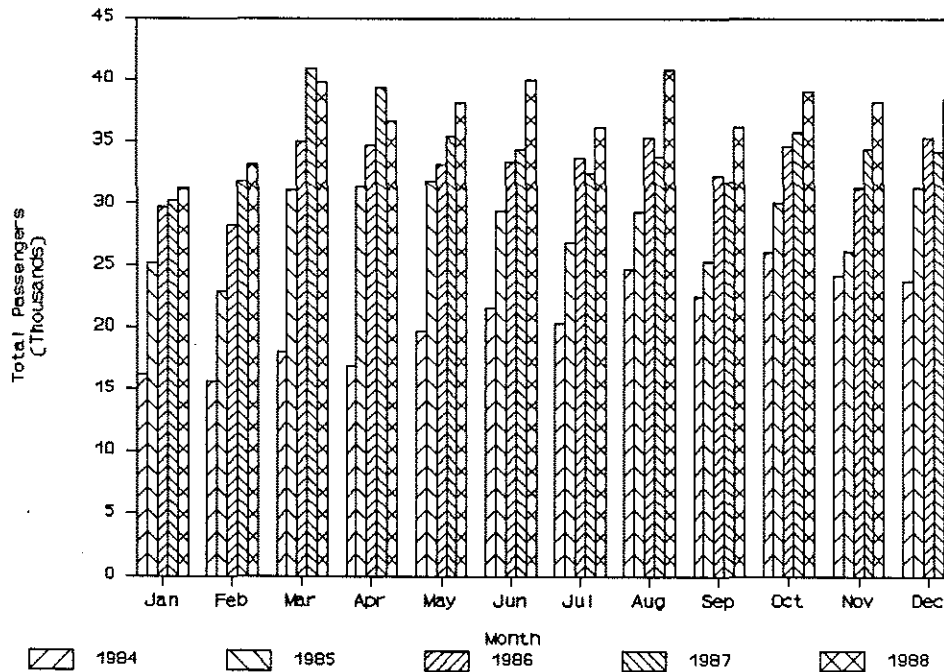
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	5,993	2,588	1,188	9,769
1987	8,842	3,151	1,872	13,865
1988	9,426	2,202	2,103	13,731

1979 - 1988 ANNUAL TOTAL PASSENGERS Kalamazoo County Airport

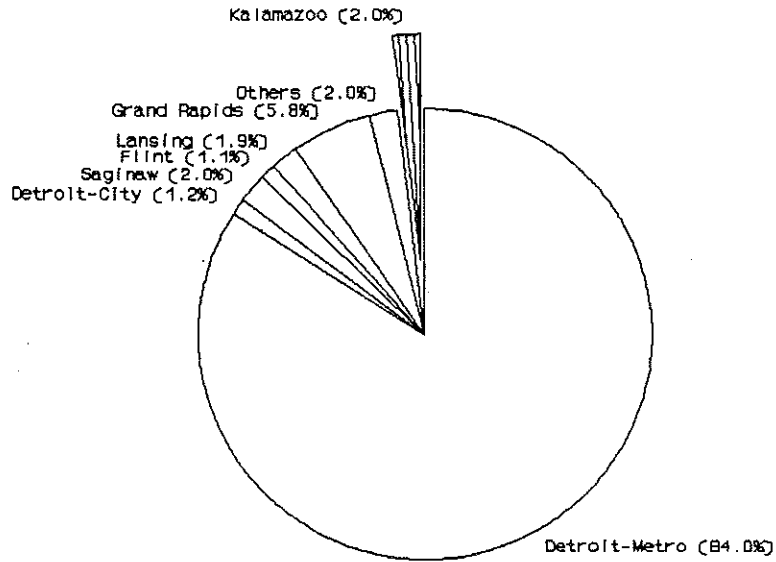


1984 - 1988 MONTHLY TOTAL PASSENGERS Kalamazoo County Airport



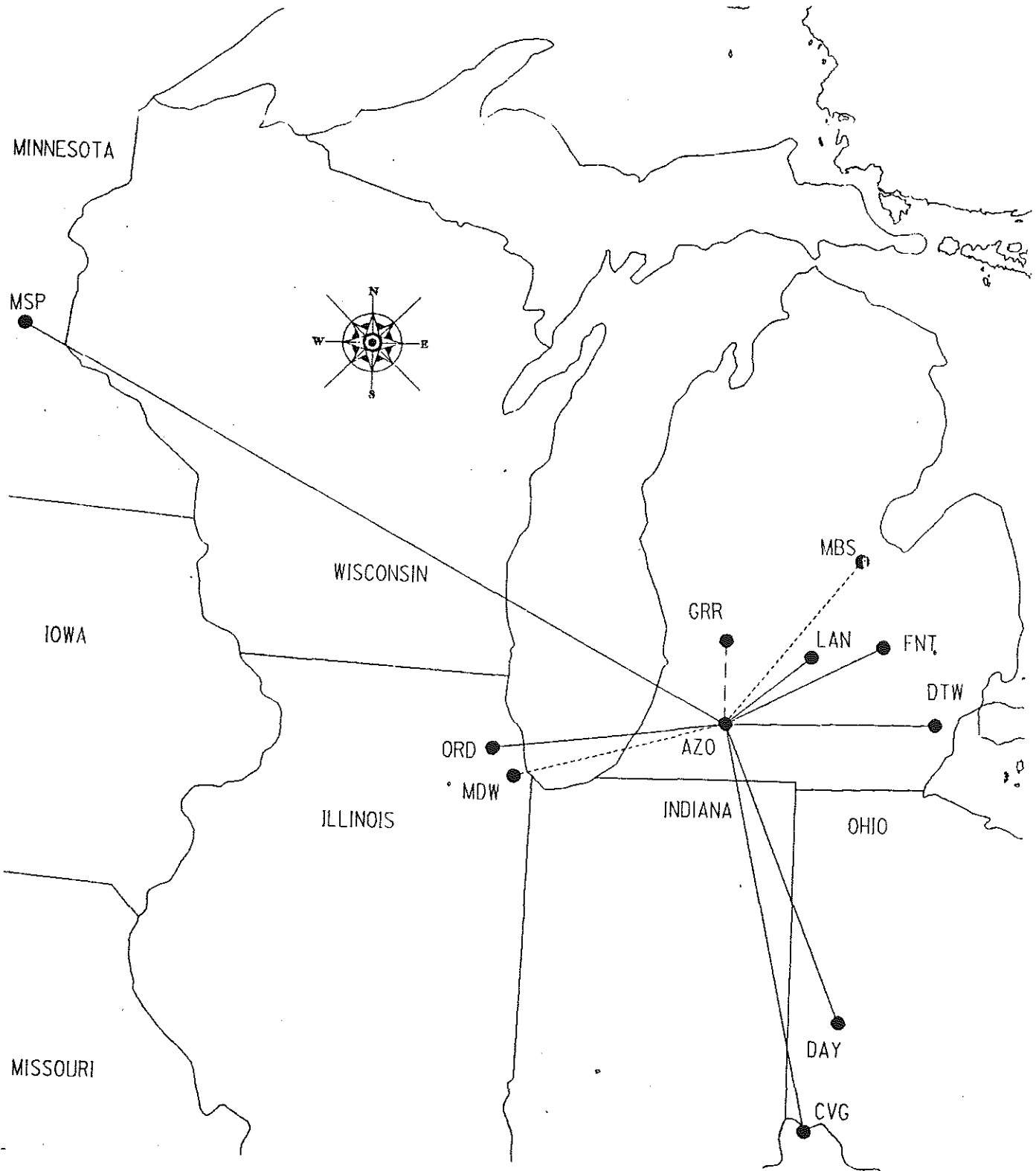
1988 PASSENGER LEVEL COMPARISON

Kalamazoo County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Kalamazoo County Airport
As of December 31, 1988



Discontinued Since 1987

Flown in 1987

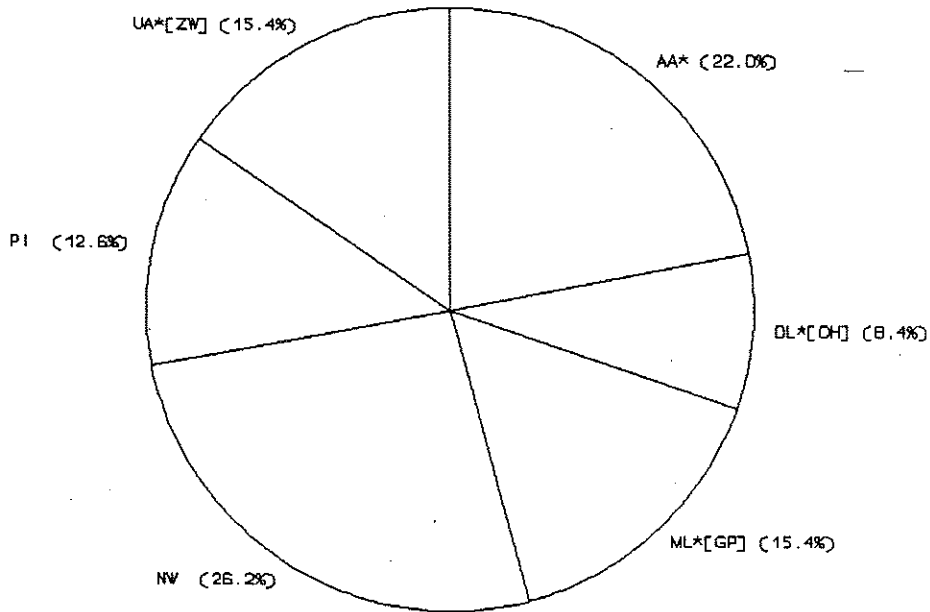
New Since 1987

CITY PAIR SERVICE SUMMARIES

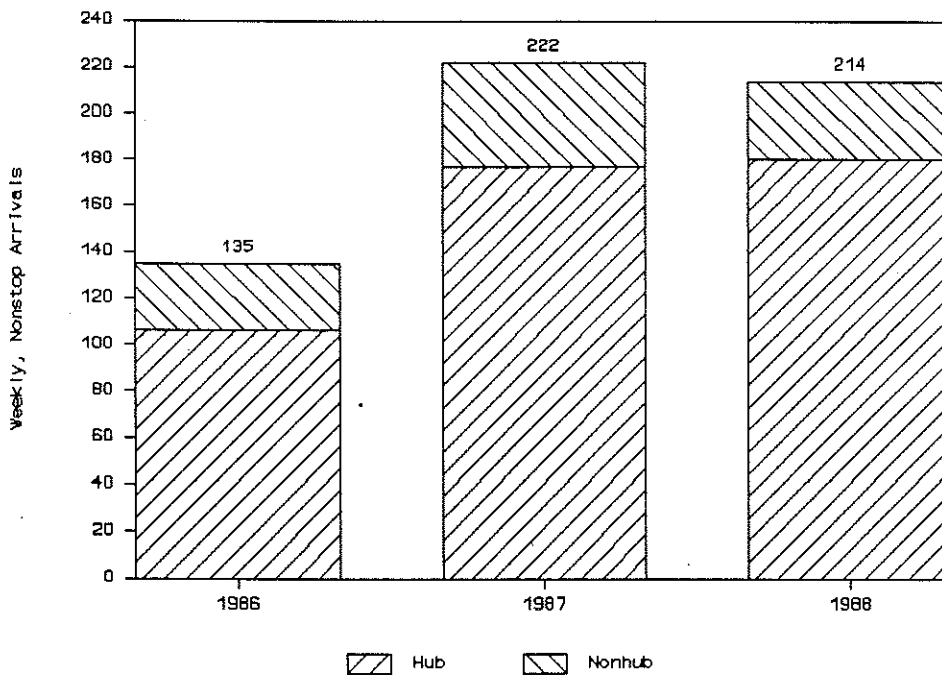
Kalamazoo County Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	<u>Weekly Arr. Seats Available</u>				
					Jet	Pres.	Npres.	Total	
Kalamazoo, MI [AZO]									
Chicago, IL [MDW]									
		Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*] DO8		19	33	0	0	627	627
Chicago, IL [ORD]									
		American Eagle [AA*]	ATR	46	6	0	276	0	276
		American Eagle [AA*]	SH6	36	26	0	0	936	936
		United Express [UA*]	F27	48	33	0	1,584	0	1,584
Cincinnati, OH [CVG]									
		Delta Connection (Comair, Inc.) [DL*]	SWM	19	6	0	114	0	114
Dayton, OH [DAY]									
		Delta Connection (Comair, Inc.) [DL*]	SWM	19	7	0	133	0	133
		Piedmont Aviation, Inc. [PI]	733	138	7	966	0	0	966
		Piedmont Aviation, Inc. [PI]	73S	122	20	2,440	0	0	2,440
Detroit, MI [DTW]									
		Northwest Airlines, Inc. [NW]	DC9	90	28	2,520	0	0	2,520
Flint, MI [FNT]									
		American Eagle [AA*]	SH6	36	2	0	0	72	72
Lansing, MI [LAN]									
		American Eagle [AA*]	SH6	36	6	0	0	216	216
		Delta Connection (Comair, Inc.) [DL*]	SWM	19	5	0	95	0	95
		Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Minneapolis/St.Paul, MN [MSP]									
		Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Saginaw, MI [MBS]									
		American Eagle [AA*]	SH6	36	7	0	0	252	252
Total					214	9,426	2,202	2,103	13,731

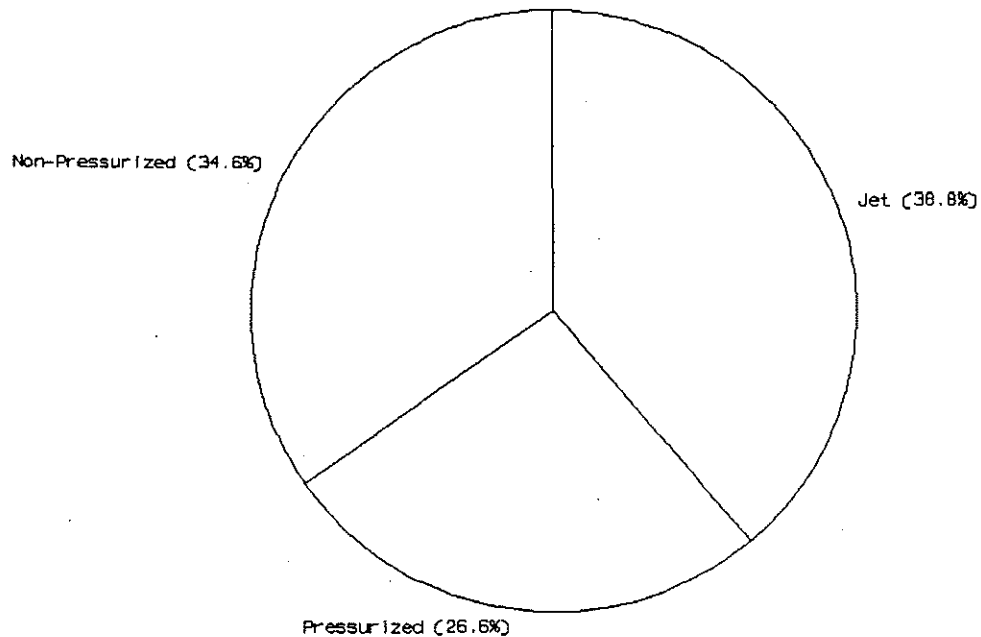
PERCENTAGE ARRIVALS BY CARRIER
Kalamazoo County Airport



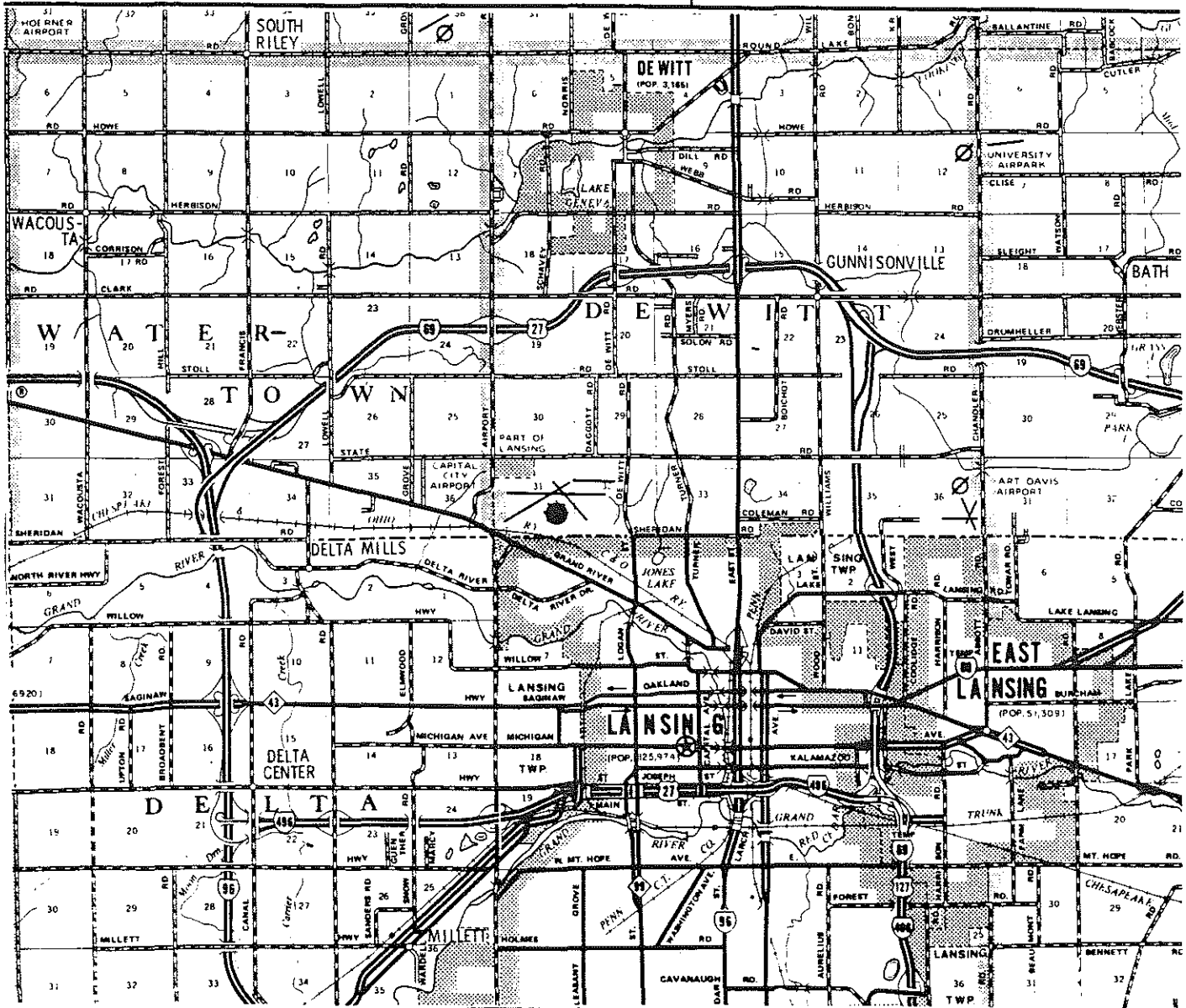
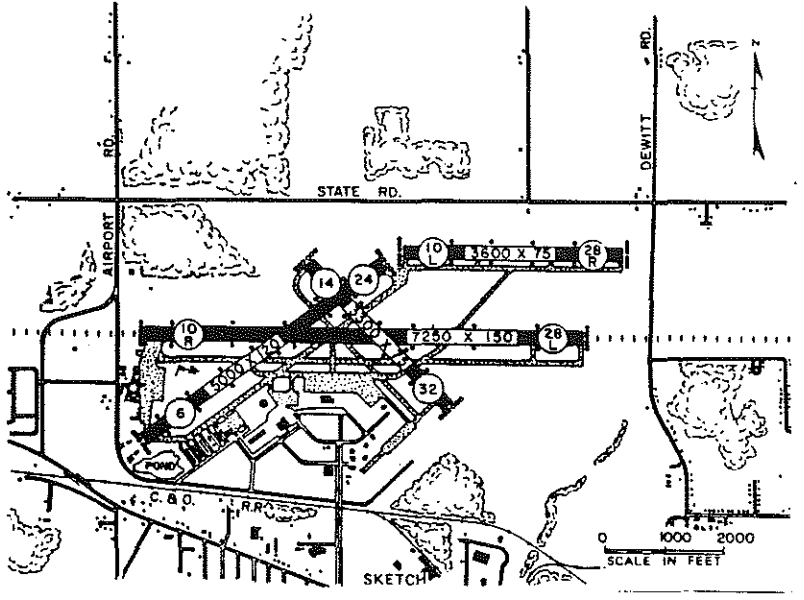
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Kalamazoo County Airport



PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Kalamazoo County Airport



Lansing, Capital City Airport



Lansing, Capital City Airport

Passengers Carried

Capital City Airport, with 440,301 total passengers, experienced a 22.6 percent increase in 1988 over the previous year. This increase brings Lansing very close to pre-deregulation total passenger levels. Monthly figures were five year highs in all months except January which was exceeded by the 1987 level. Lansing ranked fifth in the state in total passengers with 1.9 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers			Percent Change
	Enplaned	Deplaned	Total	
1984	163,569	170,235	333,804	-4.7%
1985	172,966	171,033	343,999	3.1%
1986	193,007	189,256	382,263	11.1%
1987	180,653	178,395	359,048	-6.1%
1988	221,651	218,650	440,301	22.6%

Service Supplied

As of December 31, 1988, Lansing was served by seven airlines. Between survey dates, the facility saw the service by Northwest AirlinK (Simmons Airlines) replaced by flights by the parent airline. During the same period service was gained by Continental Airlines and

The Midway Connection (Fisher Bros. Aviation). Capital City Airport had nonstop service from ten origins in nine cities, a net increase of 2 origin points. Service was discontinued from Marquette but started from Chicago, IL Midway Airport, Cleveland, OH and Flint. There were 208 weekly arrivals, up two from 1987. Of the weekly arrivals, 172 (82.7 percent) were from hub airports. Of the 14,032 weekly arriving seats 10,005 (71.3 percent) were by jet, 1,907 (13.6 percent) were by pressurized propeller and 2,120 (15.1 percent) were by nonpressurized propeller aircraft.

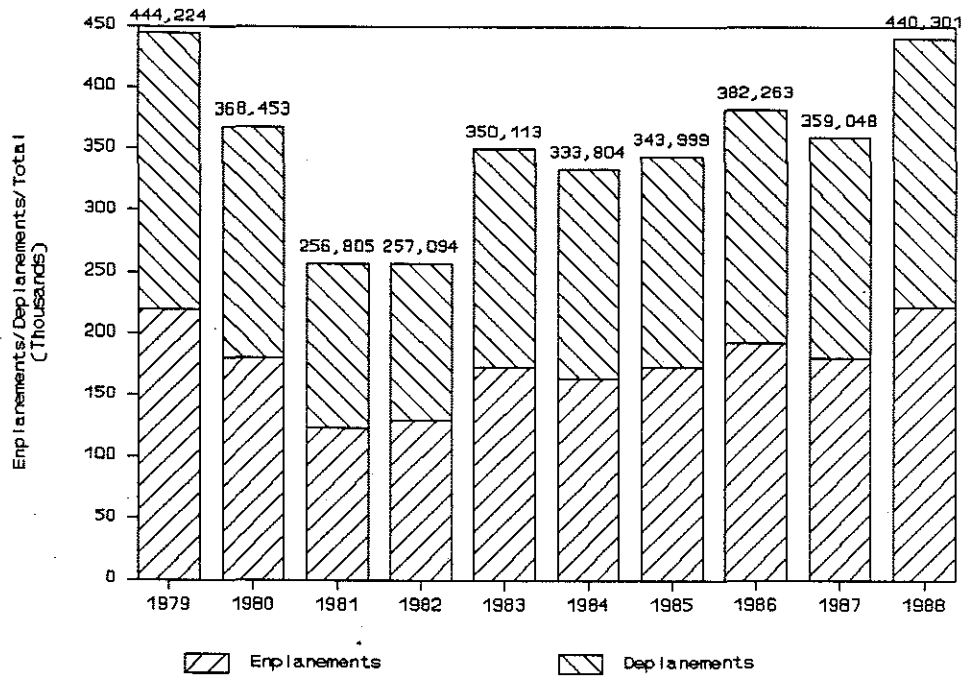
WEEKLY ARRIVALS As of December 31

Year	Carriers		Weekly Arrivals			
	Serving	Origins	Jet	Press	Non	Total
1986	6	9	49	67	126	242
1987	6	8	35	99	72	206
1988	7	10	84	50	74	208

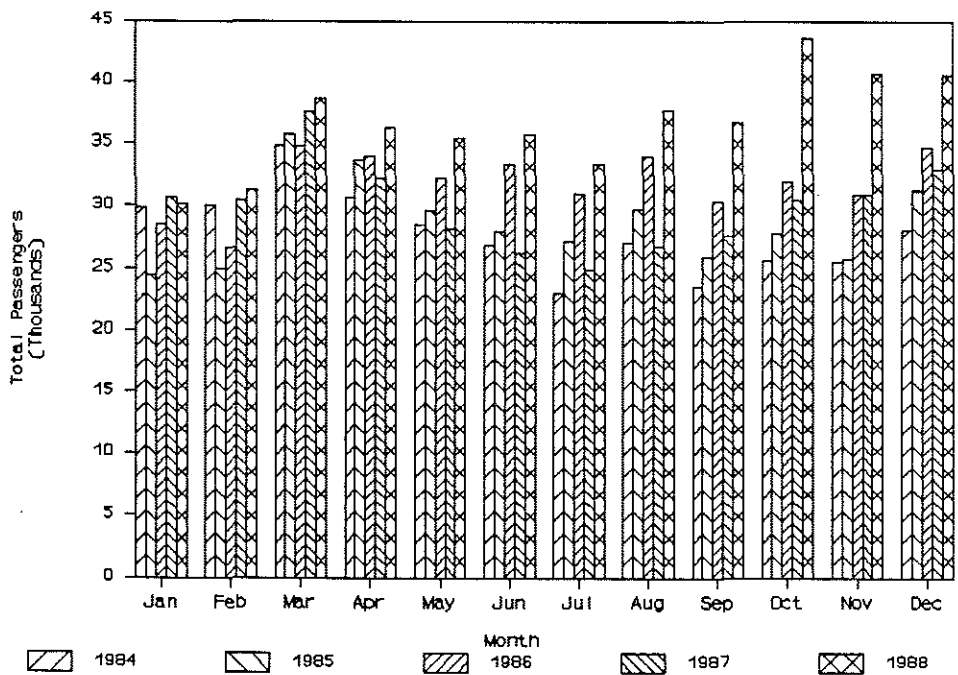
WEEKLY ARRIVING SEATS As of December 31

Year	Weekly Arriving Seats			
	Jet	Pressurized	Nonpress.	Total
1986	6,468	2,689	3,829	12,986
1987	4,062	3,974	2,592	10,628
1988	10,005	1,907	2,120	14,032

1979 - 1988 ANNUAL TOTAL PASSENGERS Lansing, Capital City Airport

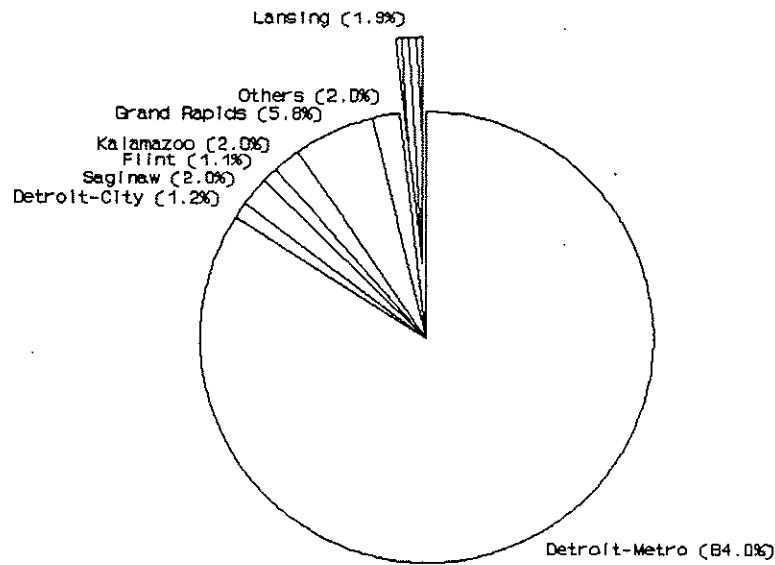


1984 - 1988 MONTHLY TOTAL PASSENGERS Lansing, Capital City Airport



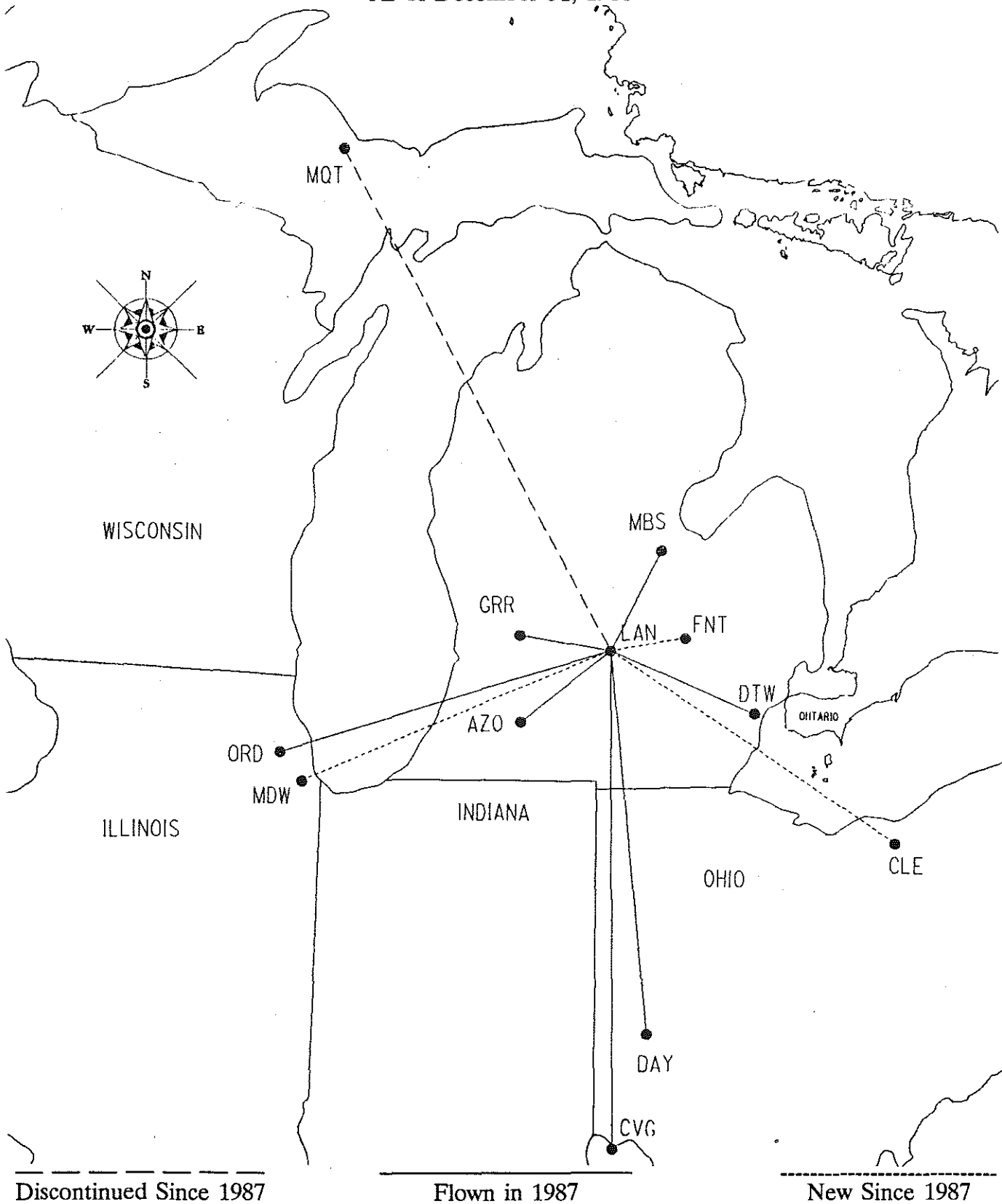
1988 PASSENGER LEVEL COMPARISON

Lansing, Capital City Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Lansing, Capital City Airport
As of December 31, 1988

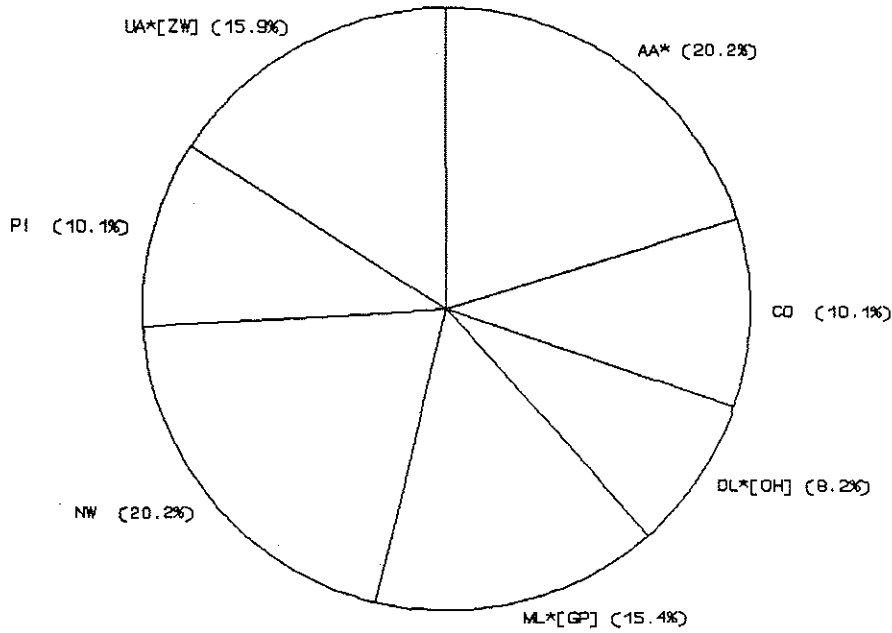


CITY PAIR SERVICE SUMMARIES

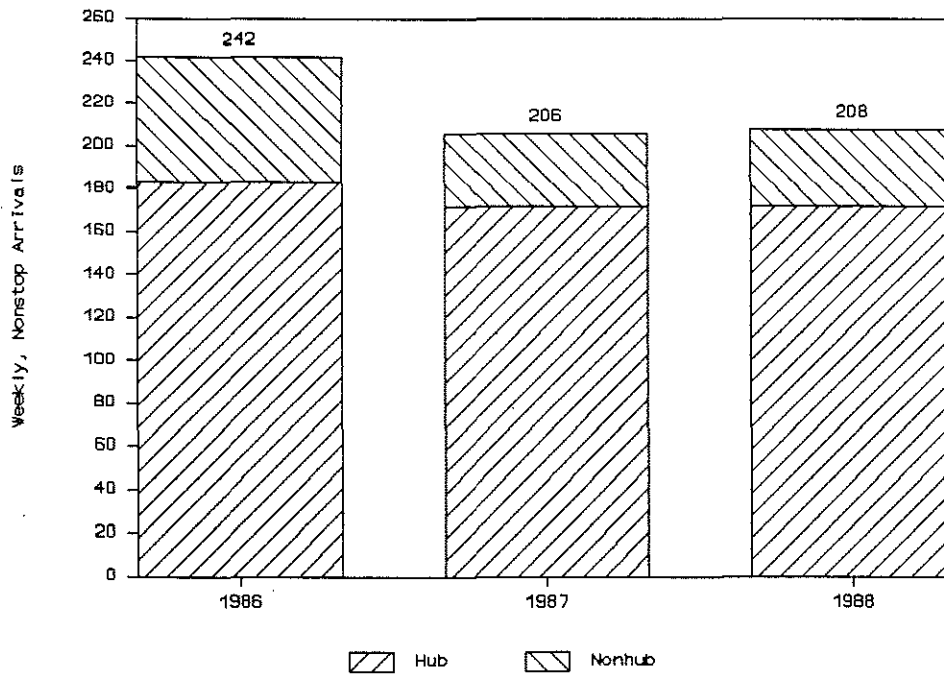
Lansing, Capital City Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	<u>Weekly Arr. Seats Available</u>			
						Jet	Pres.	Npres.	Total
Lansing, MI [LAN]									
Chicago, IL [MDW]									
		Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*]	DO8	19	32	0	0	608	608
Chicago, IL [ORD]									
		American Eagle [AA*]	SH6	36	21	0	0	756	756
		United Express [UA*]	F27	48	33	0	1,584	0	1,584
Cincinnati, OH [CVG]									
		Delta Connection (Comair, Inc.) [DL*]	SWM	19	17	0	323	0	323
Cleveland, OH [CLE]									
		Continental Airlines, Inc. [CO]	737	120	7	840	0	0	840
		Continental Airlines, Inc. [CO]	D9S	125	14	1,750	0	0	1,750
Dayton, OH [DAY]									
		Piedmont Aviation, Inc. [PI]	72S	145	14	2,030	0	0	2,030
		Piedmont Aviation, Inc. [PI]	73S	122	6	732	0	0	732
Detroit, MI [DTW]									
		Northwest Airlines, Inc. [NW]	D9S	125	7	875	0	0	875
		Northwest Airlines, Inc. [NW]	DC9	90	21	1,890	0	0	1,890
Flint, MI [FNT]									
		American Eagle [AA*]	SH6	36	14	0	0	504	504
Grand Rapids, MI [GRR]									
		Piedmont Aviation, Inc. [PI]	733	138	1	138	0	0	138
Kalamazoo, MI [AZO]									
		American Eagle [AA*]	SH6	36	6	0	0	216	216
		Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
Saginaw, MI [MBS]									
		American Eagle [AA*]	SH6	36	1	0	0	36	36
Total					208	10,005	1,907	2,120	14,032

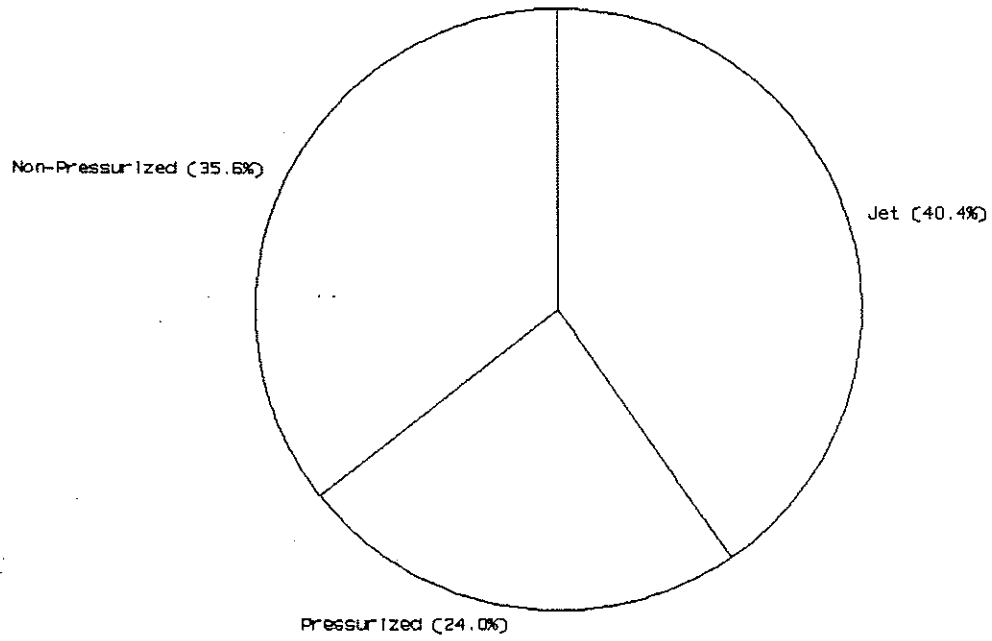
PERCENTAGE ARRIVALS BY CARRIER
Lansing, Capital City Airport



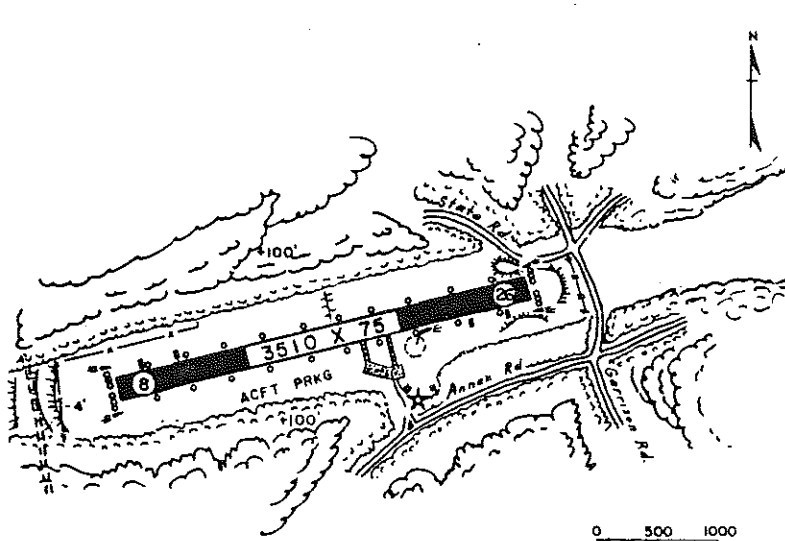
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Lansing, Capital City Airport



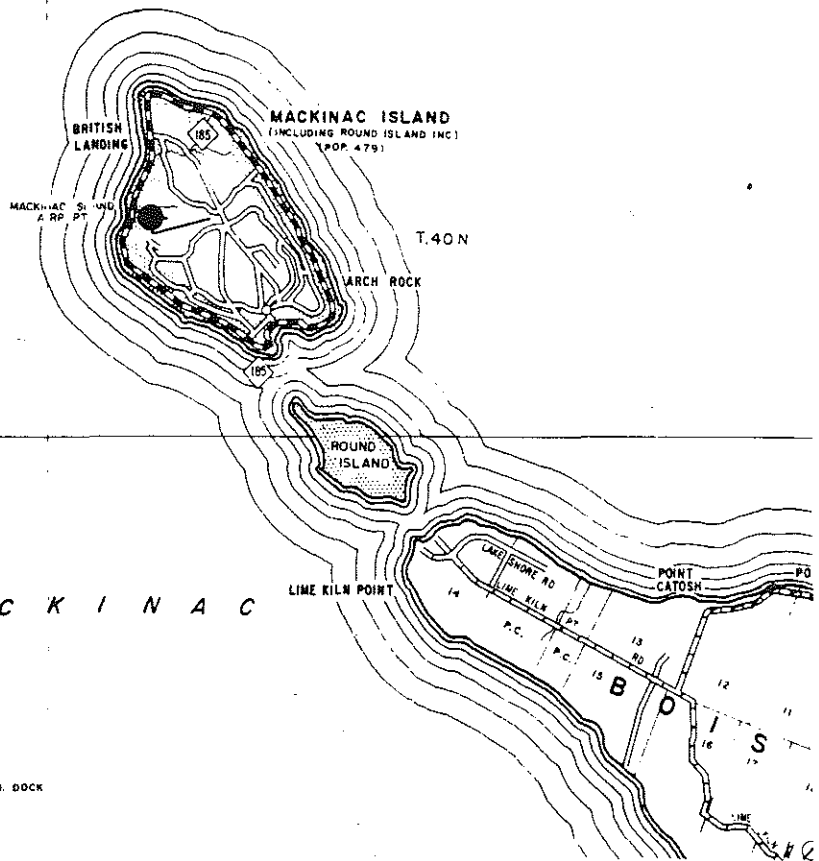
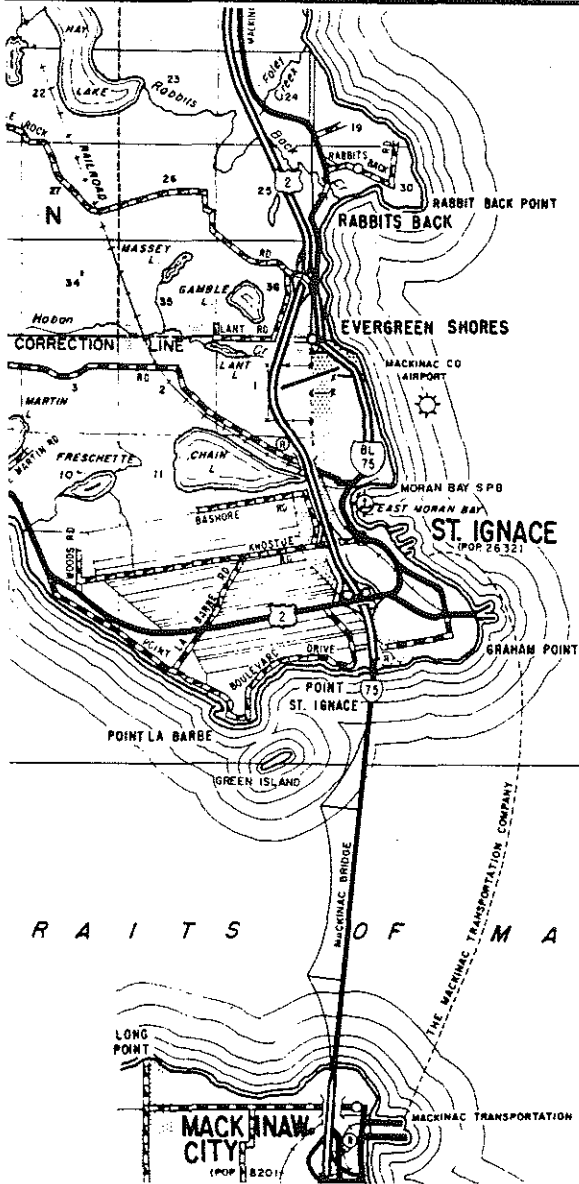
PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Lansing, Capital City Airport



Mackinac Island Airport



SKETCH



Mackinac Island Airport

Passengers Carried

Mackinac Island with 1,040 total passengers, experienced a 98.5 percent increase in 1988 over the previous year. Historically, Mackinac Island had experienced declining total passenger levels since the 1982 startup of scheduled service. Scheduled service to this location is seasonal, generally operating from May through September or October depending on passenger demand. Monthly figures were higher than their 1987 levels from May through September. October was exceeded only by the 1987 figure. Mackinac Island ranked twenty-first in the state in total passengers with less than 0.1 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	783	630	1,413	-19.3%
1985	720	582	1,302	-7.9%
1986	339	320	659	-49.4%
1987	278	246	524	-20.5%
1988	520	520	1,040	98.5%

Service Supplied

Flight schedules at Mackinac Island Airport are surveyed on July 1 each year due to the

seasonal nature of the service. As of July 1, 1988, Mackinac Island was served by one airline. No change in carriers took place between survey dates. Mackinac Island Airport had nonstop service from one nonhub city, a decrease of one from the previous year. The cessation of service from Traverse City, MI accounted for the decrease. There were 49 weekly arrivals, up two from 1987. All of the 343 weekly arriving seats were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of July 1

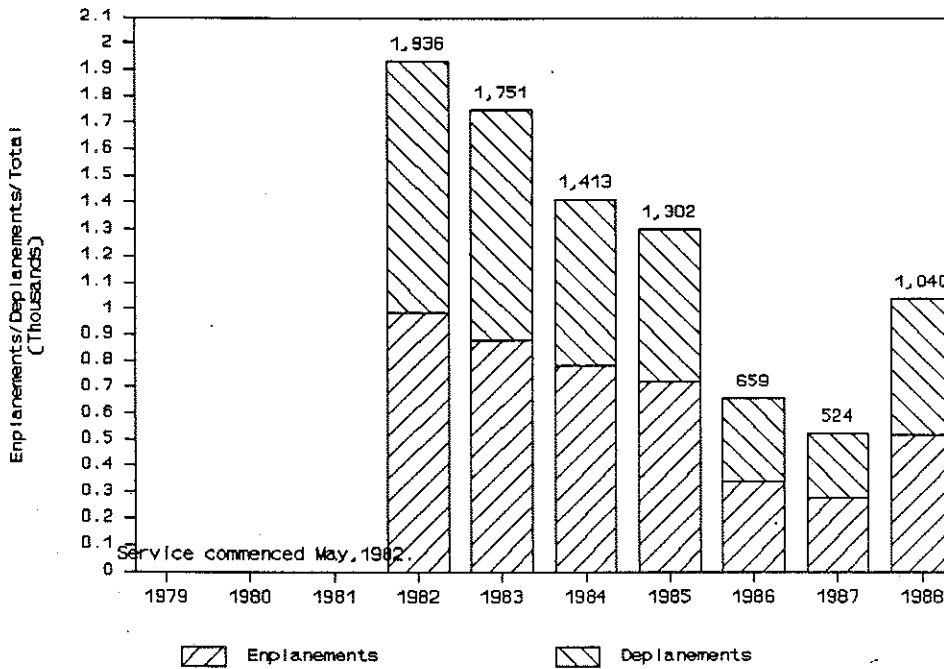
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	1	0	0	18	18
1987	1	2	0	0	47	47
1988	1	1	0	0	49	49

WEEKLY ARRIVING SEATS

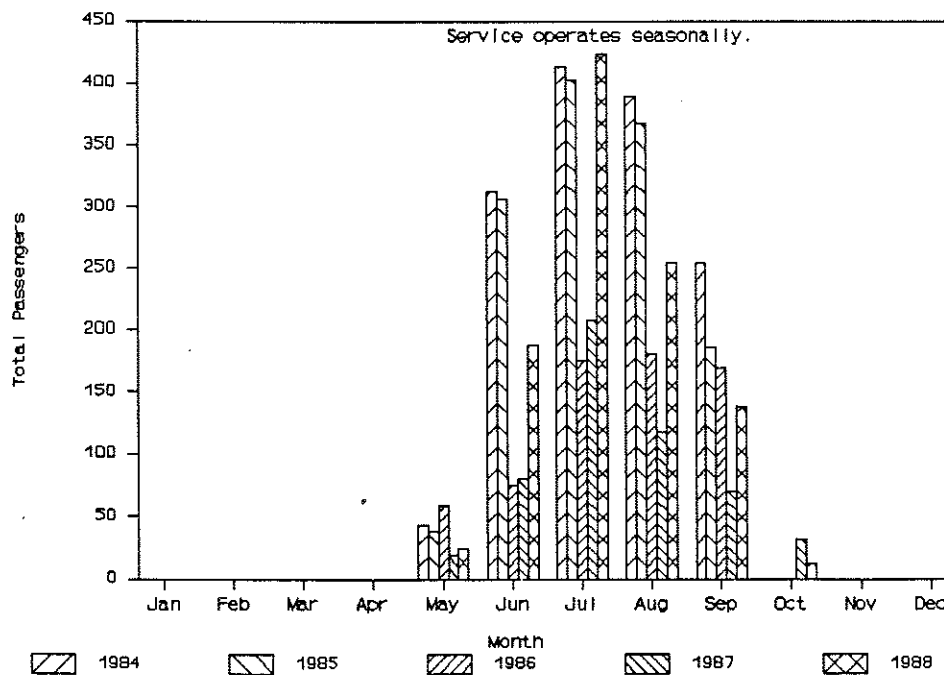
As of July 1

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	108	108
1987	0	0	282	282
1988	0	0	343	343

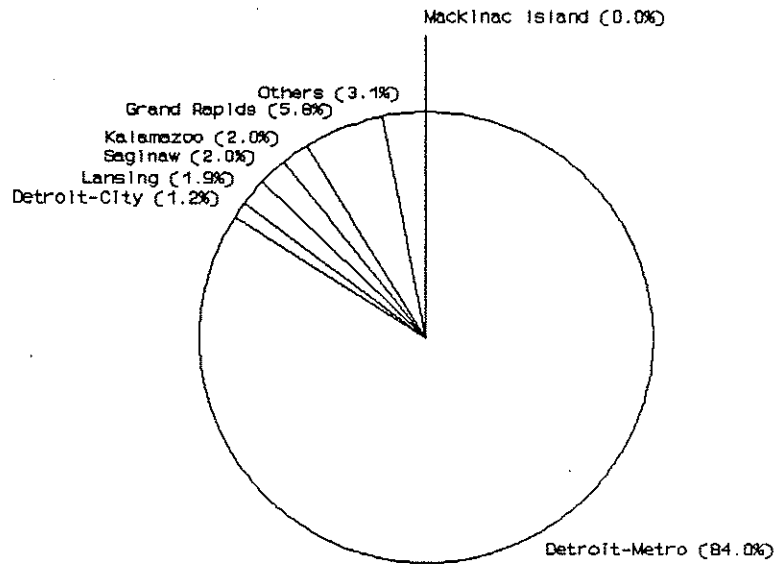
1979 - 1988 ANNUAL TOTAL PASSENGERS Mackinac Island Airport



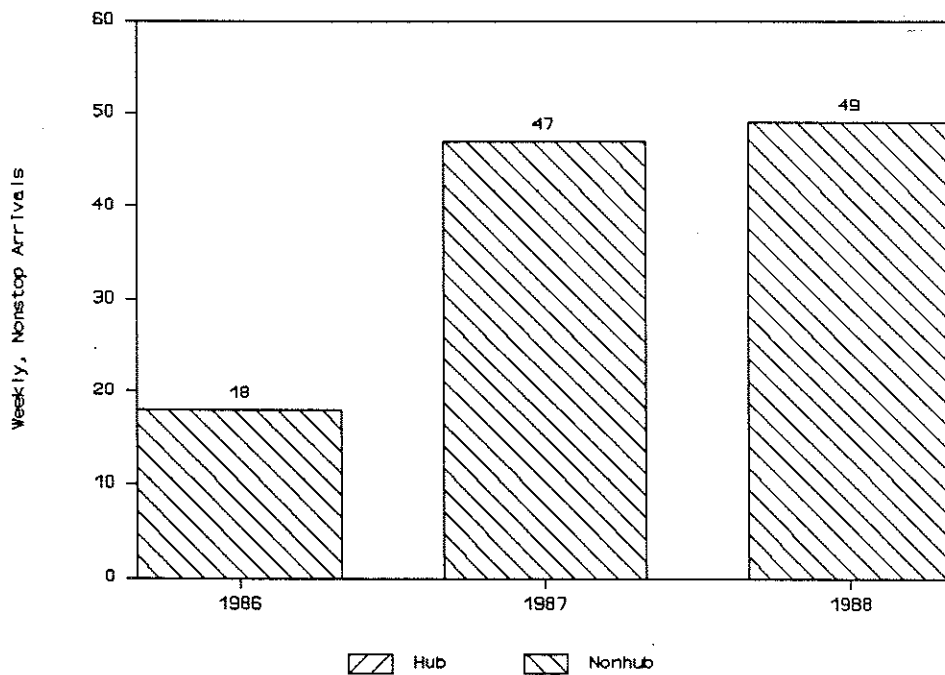
1984 - 1988 MONTHLY TOTAL PASSENGERS Mackinac Island Airport



1988 PASSENGER LEVEL COMPARISON Mackinac Island Airport



NONSTOP ARRIVALS FROM HUBS/NONHUBS Mackinac Island Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Mackinac Island Airport
As of December 31, 1988



Discontinued Since 1987

Flown in 1987

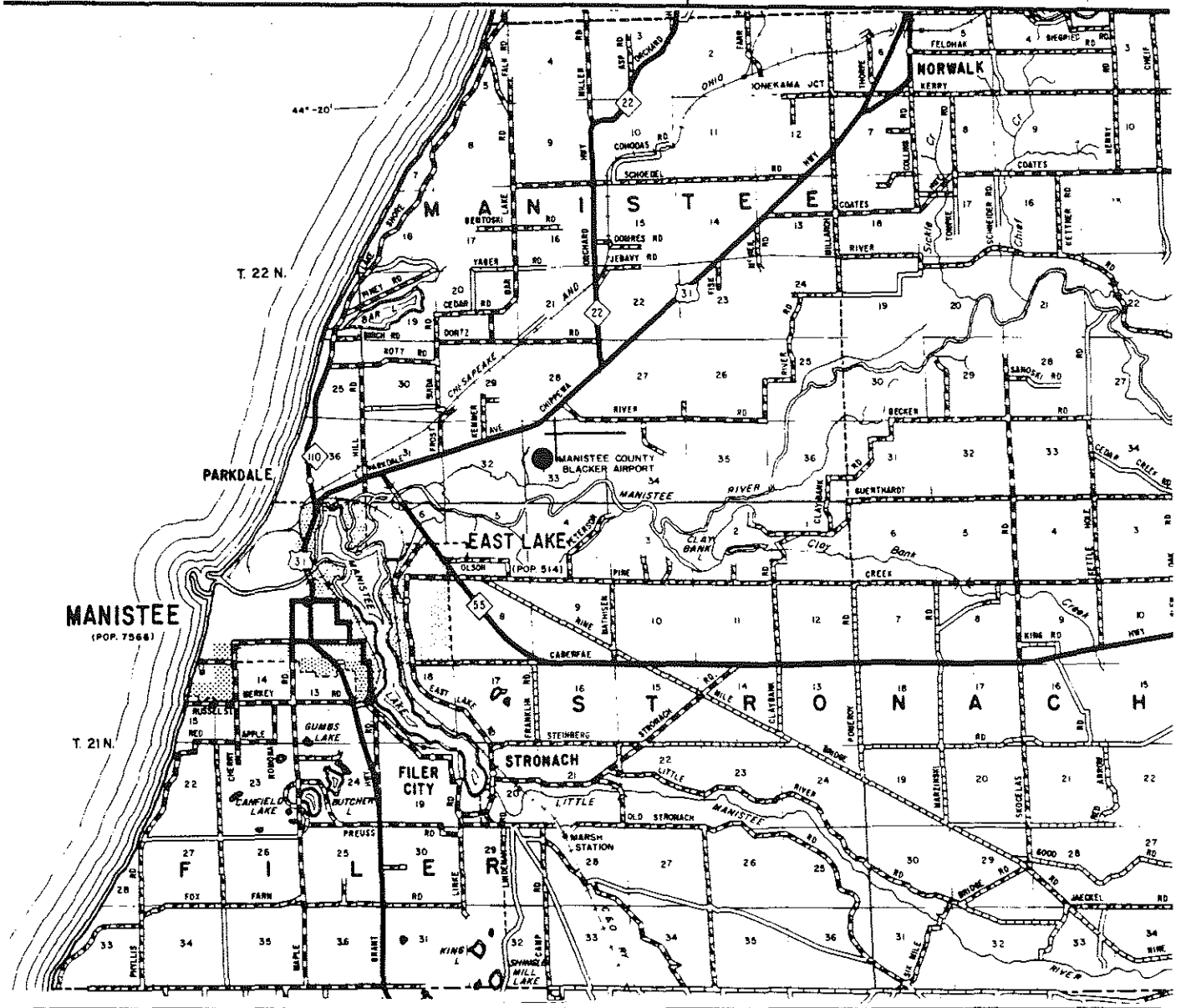
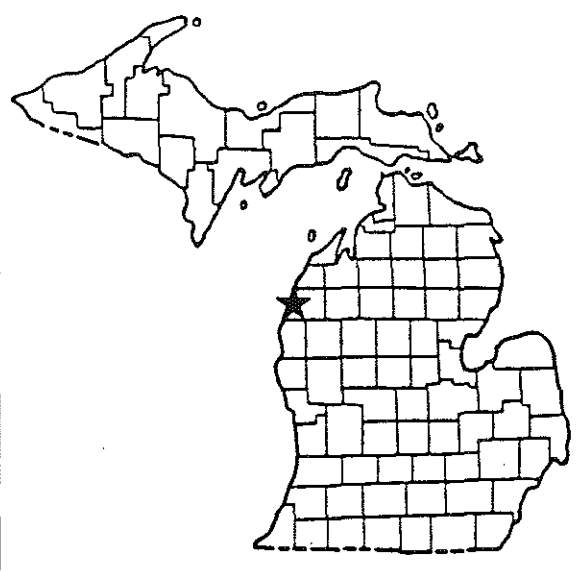
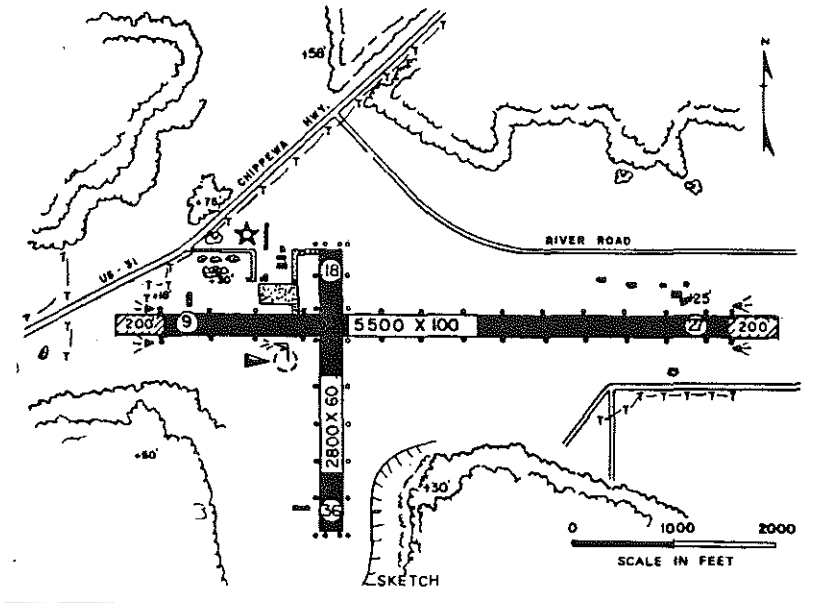
New Since 1987

CITY PAIR SERVICE SUMMARIES

Mackinac Island Airport
 As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available			Total
			Jet	Pres.	Npres.	
Mackinac Island, MI [Y84] Pellston, MI [PLN] Michigan Airways, Inc. [QQ]	PAG	7	49	0	0	343
	Total		49	0	0	343

Manistee, Blacker Airport



Manistee, Blacker Airport

Passengers Carried

Blacker Airport, with 3,854 total passengers, experienced a 41.0 percent increase in 1988 over the previous year. Historically, Manistee has enjoyed a growth in total passengers since the renewal of service in October of 1985. The 1988 figure represents the highest passenger level at the facility since 1980. Monthly figures were five year highs in all months except April through June. These months were exceeded by their 1987 figures. Manistee ranked nineteenth in the state in total passengers with less than 0.1 percent of the statewide total. Manistee is one of four Michigan cities receiving federal monies under the Essential Air Service subsidy program.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	890	834	1,724	3.5%
1985	97	72	169	-90.2%
1986	672	672	1,344	695.3%
1987	1,419	1,314	2,733	103.3%
1988	2,031	1,823	3,854	41.0%

Service Supplied

As of December 31, 1988, Manistee was

served by one airline. Between the survey dates Great Lakes Aviation acquired Alliance Airlines thus causing a change of airlines. Blacker Airport had nonstop service from the same city as in the previous year. There were 12 weekly arrivals, a decrease of one from 1987. None of the weekly arrivals were from hub airports. All of the 180 weekly arriving seats were in nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of July 1

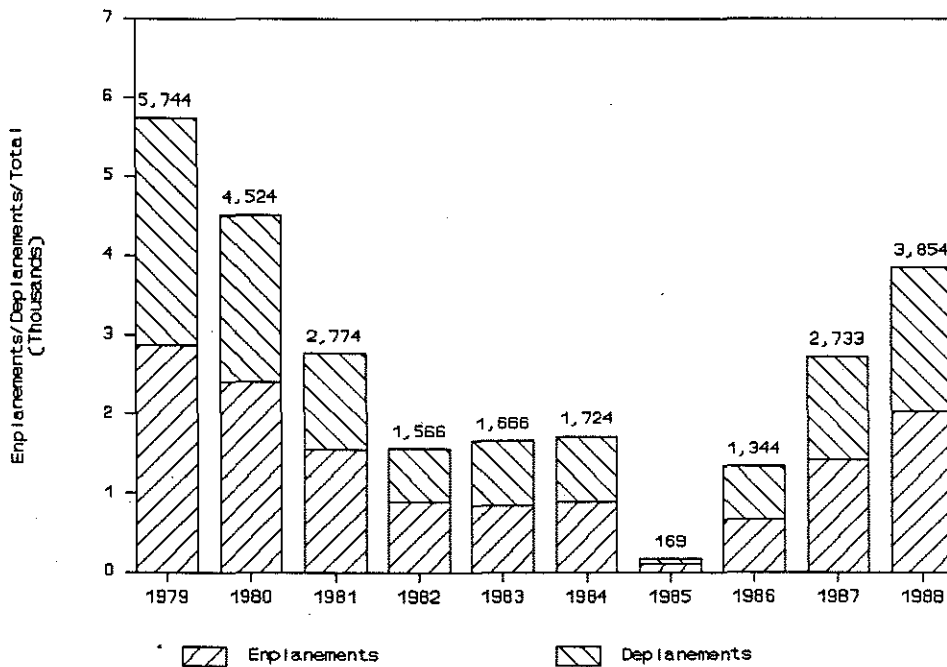
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	1	1	0	0	12	12
1987	1	1	0	0	13	13
1988	1	1	0	0	12	12

WEEKLY ARRIVING SEATS

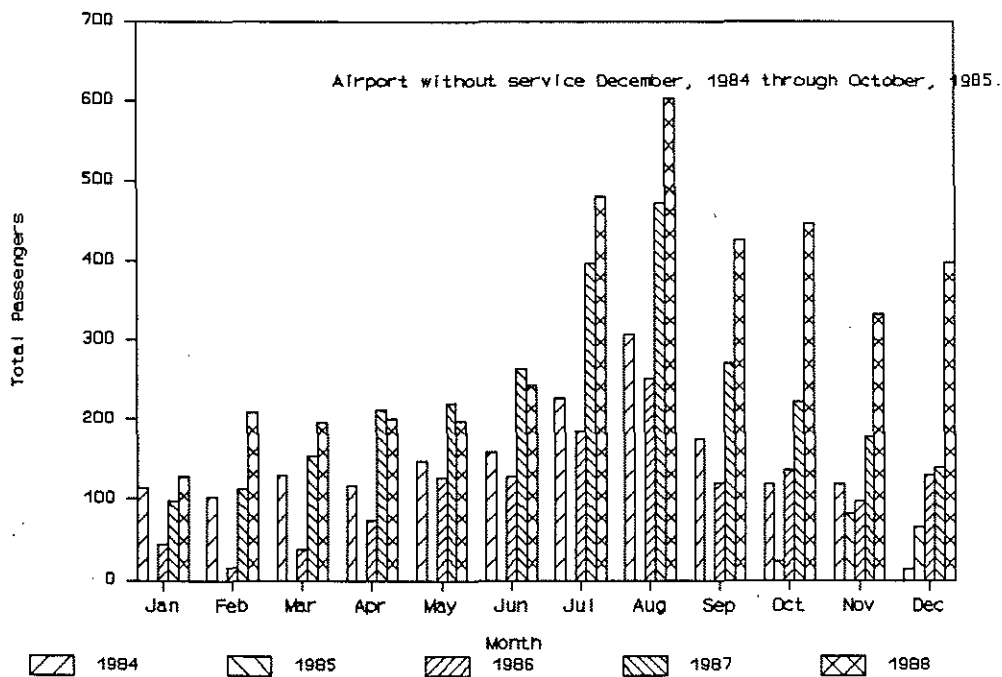
As of July 1

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	96	96
1987	0	0	104	104
1988	0	0	180	180

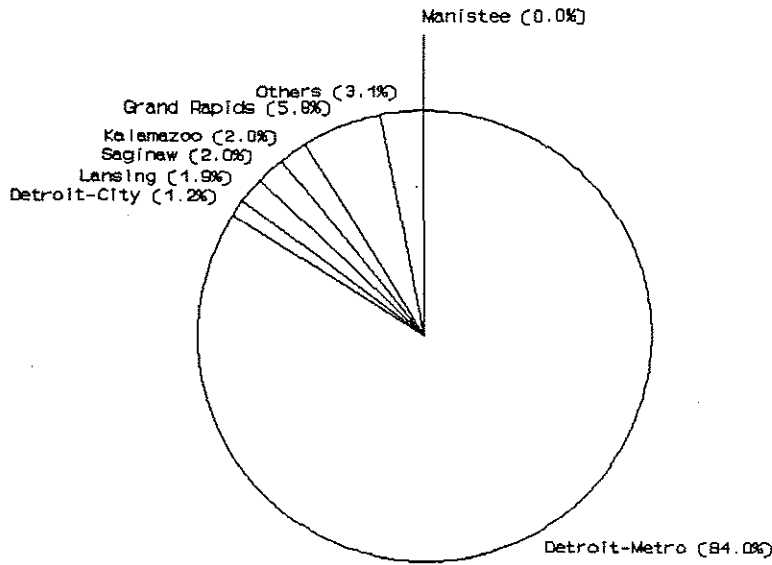
1979 - 1988 ANNUAL TOTAL PASSENGERS Manistee, Blacker Airport



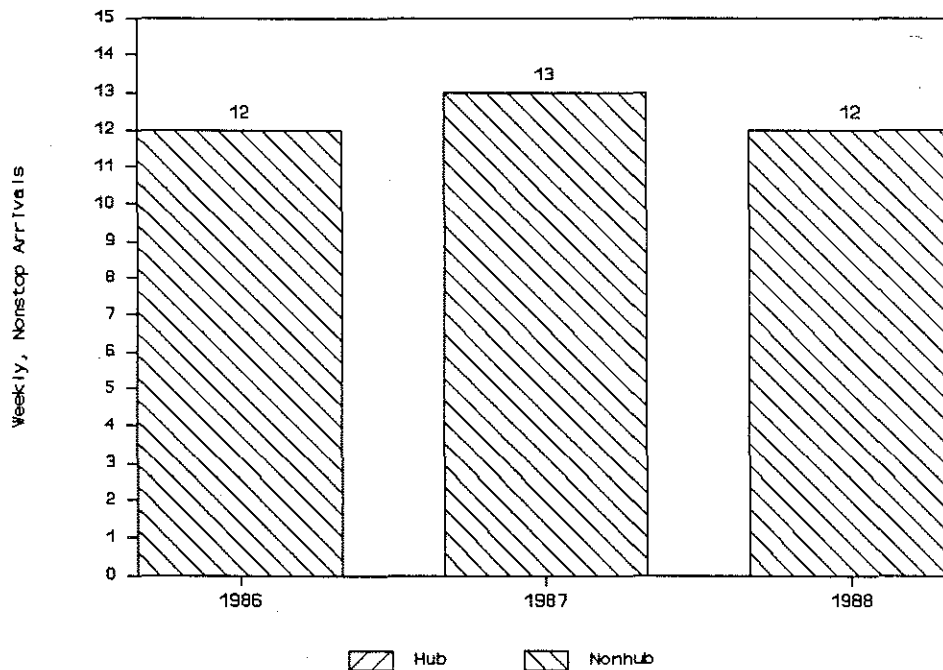
1984 - 1988 MONTHLY TOTAL PASSENGERS Manistee, Blacker Airport



1988 PASSENGER LEVEL COMPARISON Manistee, Blacker Airport

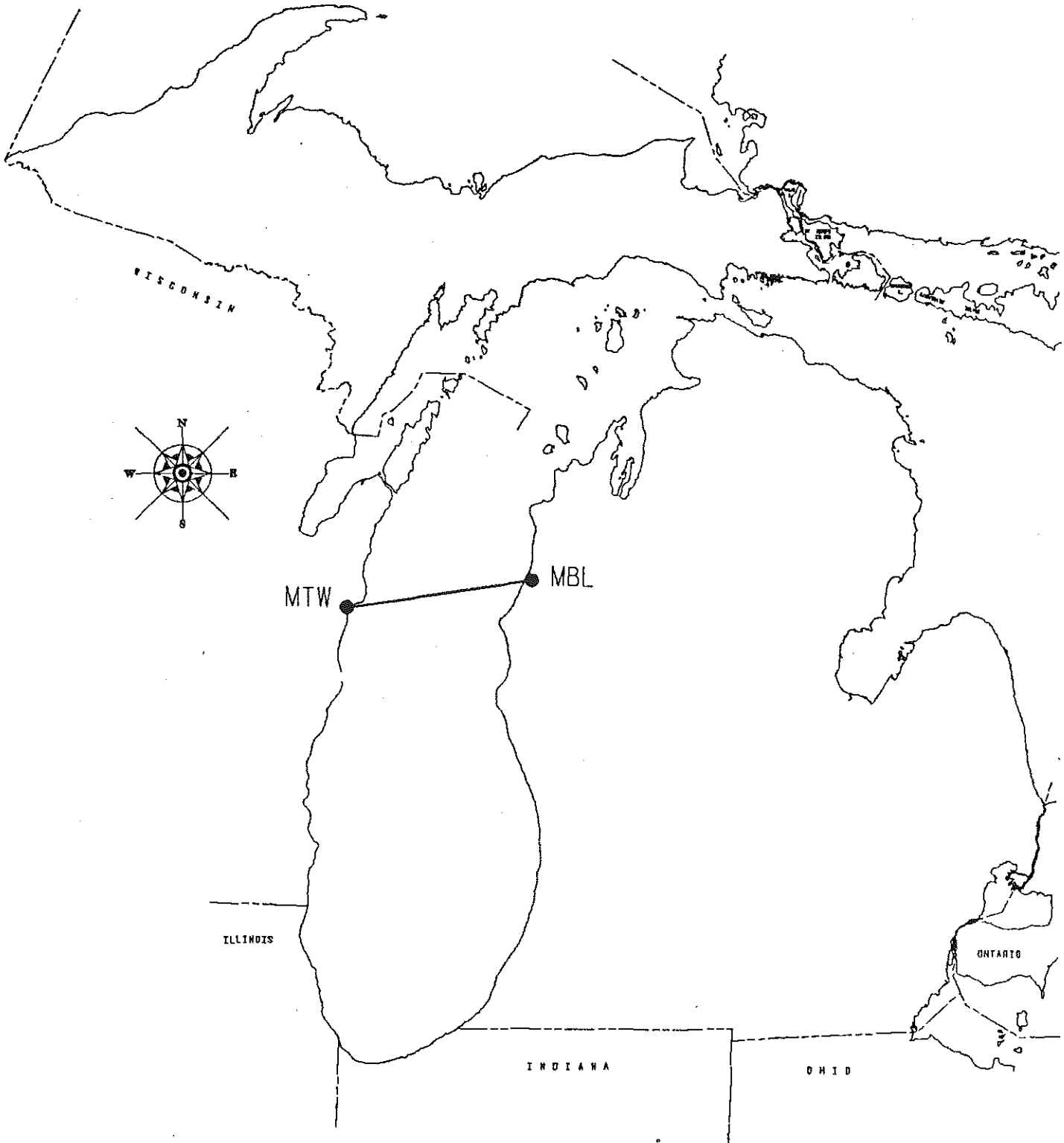


NONSTOP ARRIVALS FROM HUBS/NONHUBS Manistee, Blacker Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Manistee, Blacker Airport
As of December 31, 1988



Discontinued Since 1987

Flown in 1987

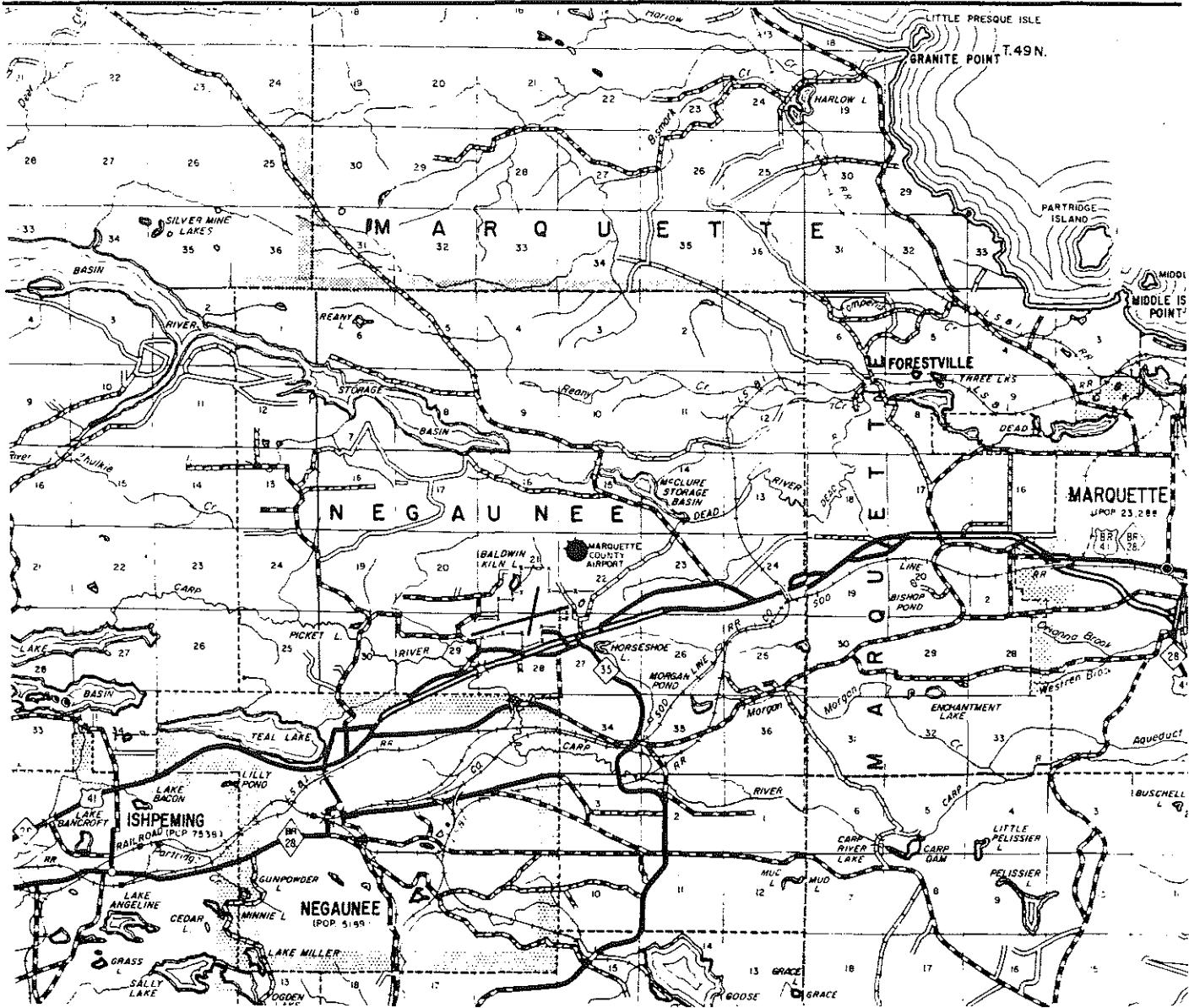
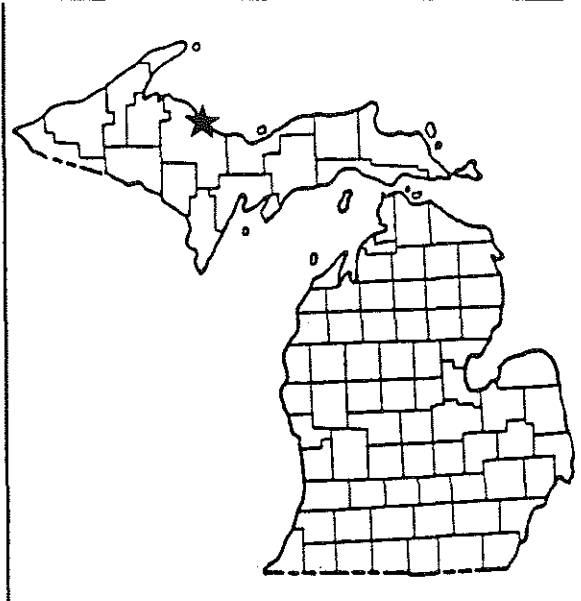
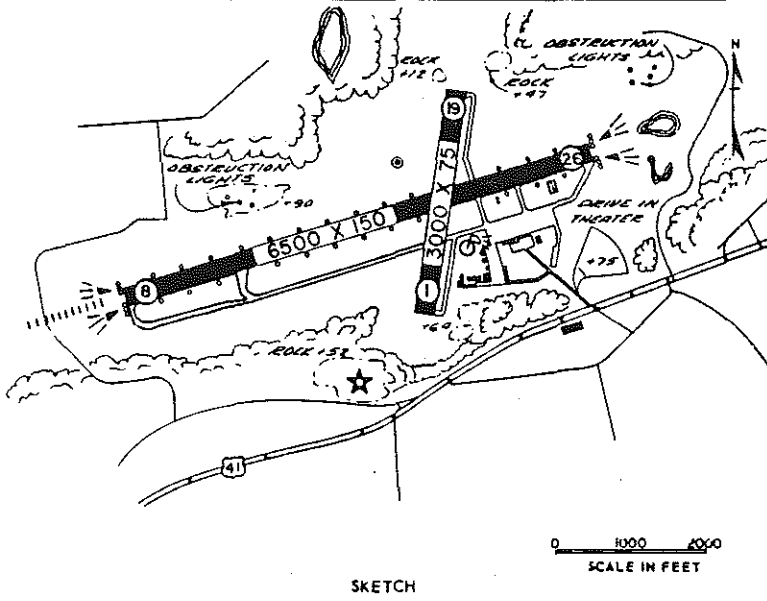
New Since 1987

CITY PAIR SERVICE SUMMARIES

Manistee, Blacker Airport
 As of December 31, 1988

Destination [Airport Code] Origin [Airport Code] Carrier (Operator) [Carrier Code]	Eqp.Capacity	Weekly Arrivals	Weekly Arr. Seats Available				
			Jet	Pres.	Npres.	Total	
Manistee, MI [MBL] Manitowoc, WI [MTW] Great Lakes Aviation, Ltd. [ZK]	BE9	15	12	0	0	180	180
	Total		12	0	0	180	180

Marquette County Airport



Marquette County Airport

Passengers Carried

Marquette County Airport, with 80,530 total passengers, experienced a 26.9 percent increase in 1988 over the previous year. Historically, Marquette experienced a decline in total passengers in 1986 and 1987. The 1988 total passenger level is the highest since 1979. Monthly figures exceeded 1987 levels from March through December. Five year monthly highs were recorded from May through September and in November. Marquette ranked ninth in the state in total passengers with 0.4 percent of the statewide total. Marquette is the busiest airport in the upper peninsula, accounting for 52.3 percent of all total passengers in this group.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	35,898	36,258	72,156	9.7%
1985	38,171	37,039	75,210	4.2%
1986	35,085	34,847	69,932	-7.0%
1987	32,196	31,282	63,478	-9.2%
1988	40,978	39,552	80,530	26.9%

Service Supplied

As of December 31, 1988, Marquette was served by three carriers operated by one airline. No change in carriers took place between survey dates. Marquette County Airport had nonstop service from three cities; down from seven the previous year. The elimination of service from Escanaba, Iron Mountain, Lansing and Traverse City accounted for the decreased number of origins. There were 77 weekly arrivals, down five from 1987. Twenty-one weekly arrivals (27.3 percent) were from a hub airport. Of the 3,042 weekly arriving seats, 1,242 (40.8 percent) were by pressurized propeller and 1,800 (59.2 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

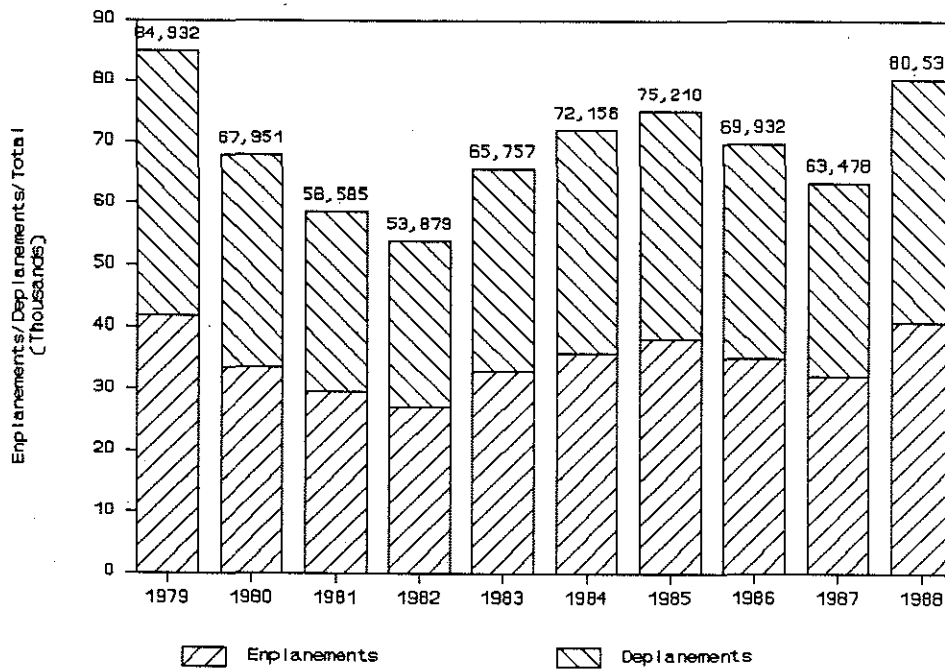
Year	Carriers		Weekly Arrivals			
	Serving	Origins	Jet	Press	Non	Total
1986	3	7	0	41	34	75
1987	3	7	0	48	34	82
1988	3	3	0	27	50	77

WEEKLY ARRIVING SEATS

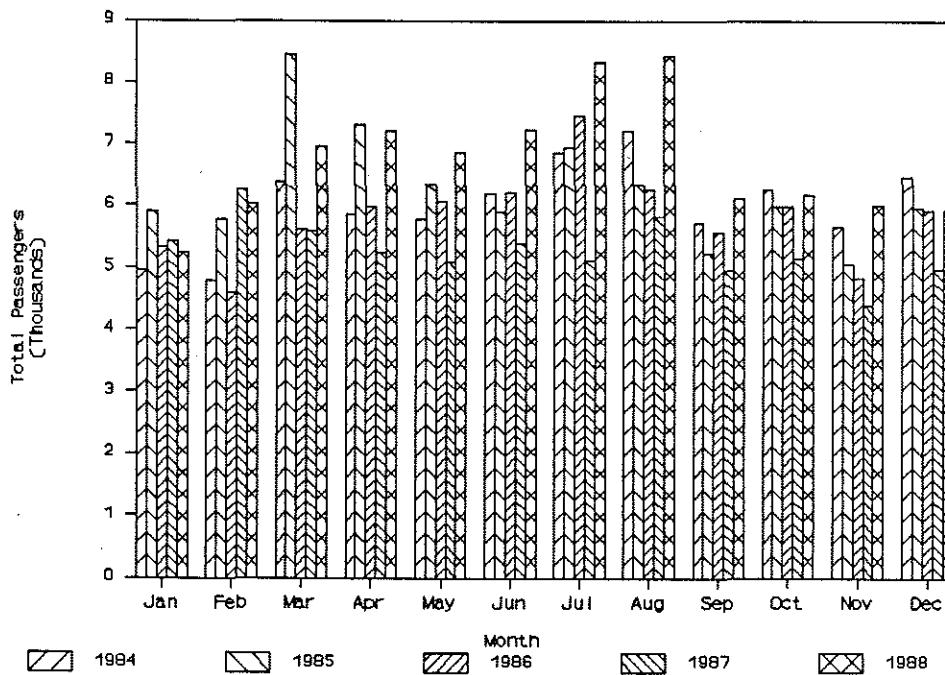
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	1,886	1,224	3,110
1987	0	2,208	1,224	3,432
1988	0	1,242	1,800	3,042

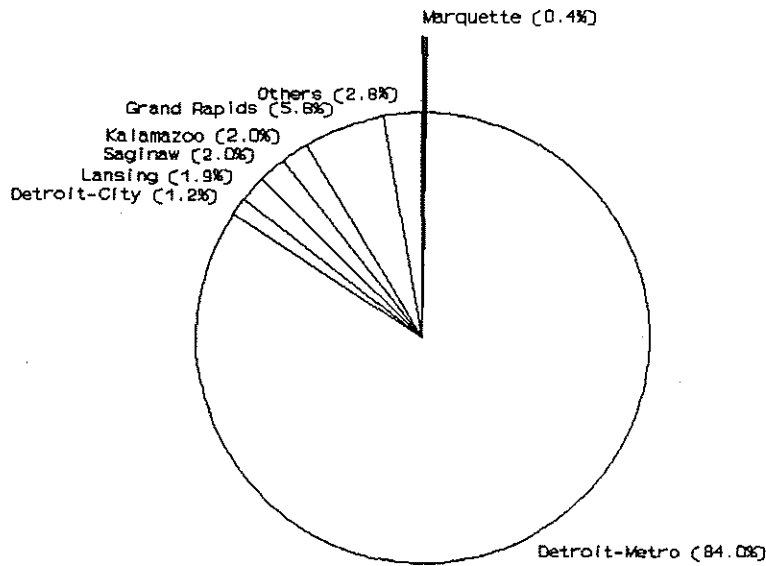
1979 - 1988 ANNUAL TOTAL PASSENGERS Marquette County Airport



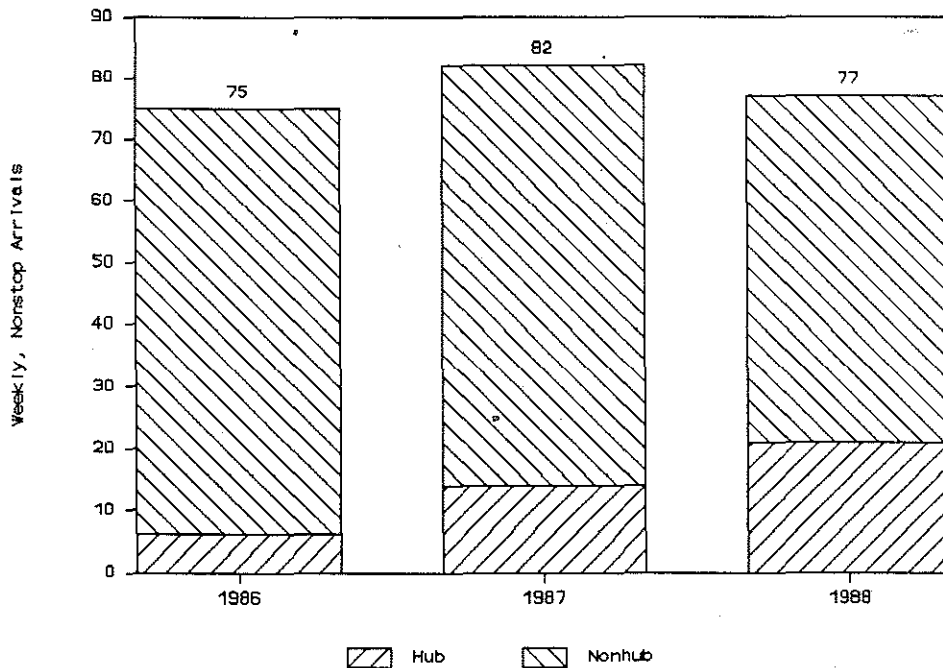
1984 - 1988 MONTHLY TOTAL PASSENGERS Marquette County Airport



1988 PASSENGER LEVEL COMPARISON Marquette County Airport



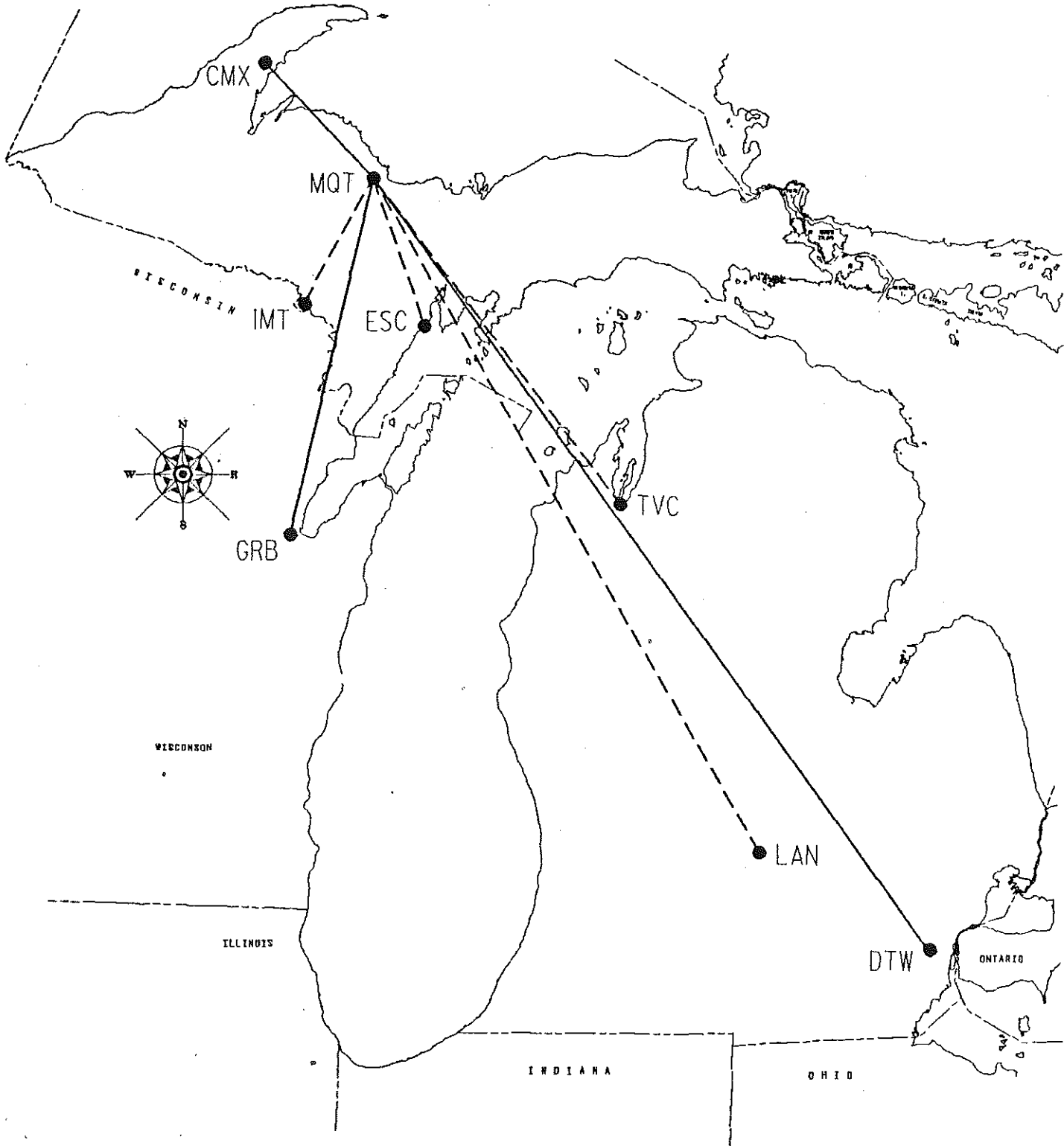
NONSTOP ARRIVALS FROM HUBS/NONHUBS Marquette County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Marquette County Airport

As of December 31, 1988

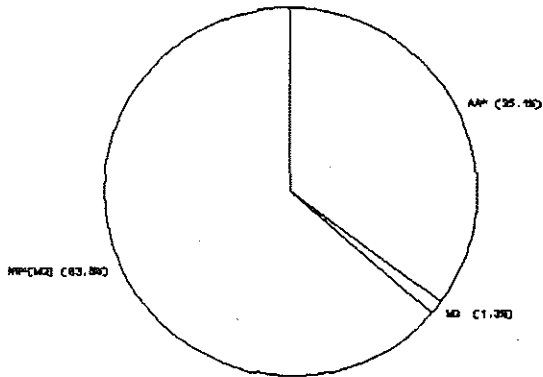


Discontinued Since 1987

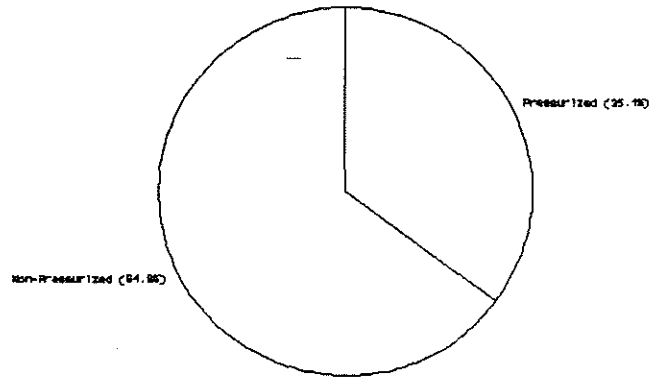
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Flown in 1987

New Since 1987

**PERCENTAGE ARRIVALS
BY CARRIER**
Marquette County Airport



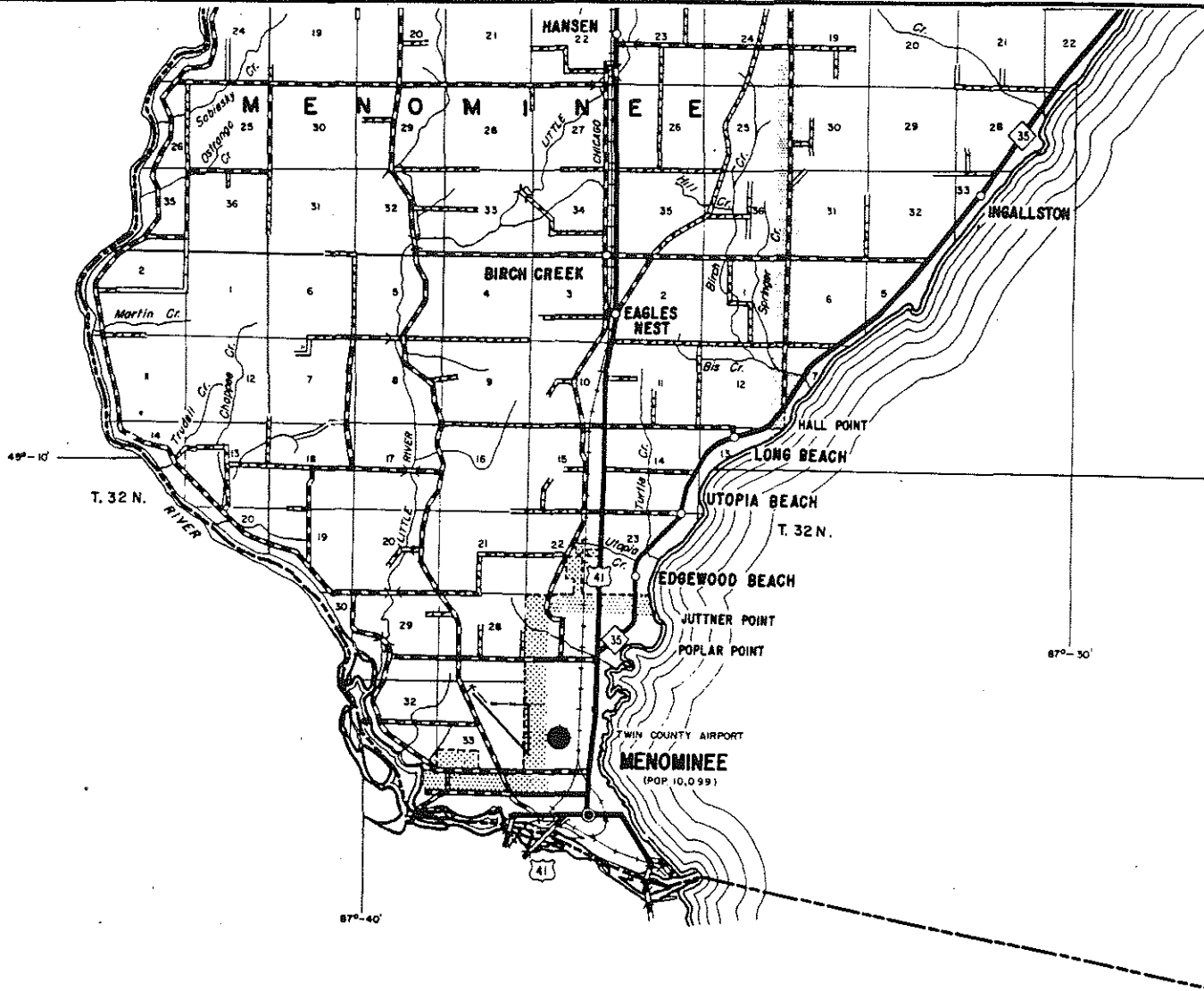
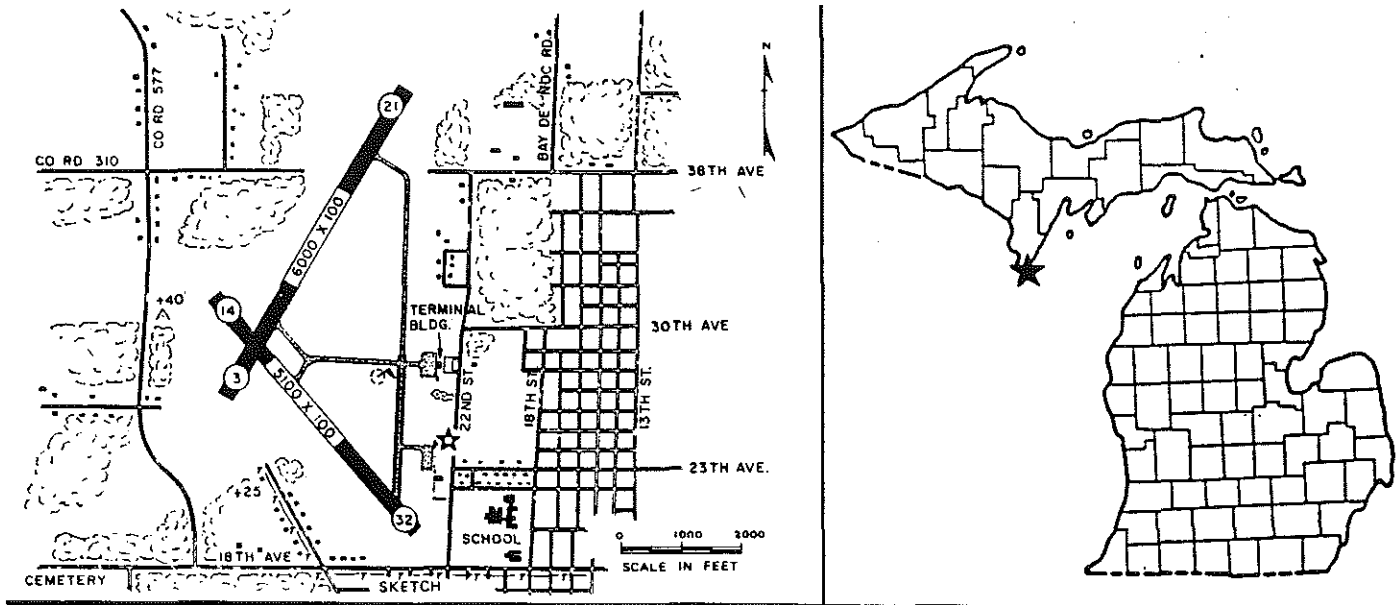
**PERCENTAGE ARRIVALS BY
AIRCRAFT TYPE**
Marquette County Airport



CITY PAIR SERVICE SUMMARIES
Marquette County Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp.	Capacity	Weekly Arrivals	Weekly Arr. Seats Available			
						Jet	Pres.	Npres.	Total
Marquette, MI [MQT]	Detroit, MI [DTW]	Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	21	0	0	756	756
	Green Bay, WI [GRB]	American Eagle [AA*]	ATR	46	27	0	1,242	0	1,242
	Houghton/Hancock, MI [CMX]	Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	28	0	0	1,008	1,008
		Simmons Airlines [MQ]	SH6	36	1	0	0	36	36
Total					77	0	1,242	1,800	3,042

Menominee/Marinette, Twin County Airport



Menominee/Marinette, Twin County Airport

Passengers Carried

Twin County Airport, with 3,632 total passengers, experienced a 59.3 percent increase in 1988 over the previous year. Historically, Menominee experienced a decline in total passengers in the period 1978 through 1986. Monthly figures in 1988 were higher than in 1987 in every month. Five year highs occurred in February and March and from September through December. Menominee ranked twentieth in the state in total passengers with less than 0.1 percent of the statewide total. Menominee is one of four Michigan cities receiving federal monies under the Essential Air Service subsidy program.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	1,571	1,615	3,186	0.5%
1985	1,056	1,062	2,118	-33.5%
1986	641	667	1,308	-38.2%
1987	1,158	1,122	2,280	74.3%
1988	1,875	1,757	3,632	59.3%

Service Supplied

As of December 31, 1988, Menominee

showed service listings by two carriers: Alliance Airlines and Great Lakes Aviation. Between the survey dates Great Lakes Aviation acquired Alliance Airlines. As such the two carriers are operated by the same airline. Twin County Airport had nonstop service from three cities. Service from Iron Mountain replaced that from Manitowoc, WI. There were 44 weekly arrivals, an increase of eleven over 1987. Twenty-two of the weekly arrivals were from a hub airport. Of the 781 weekly arriving seats, 741 (94.9 percent) were by pressurized propeller and 40 (5.1 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

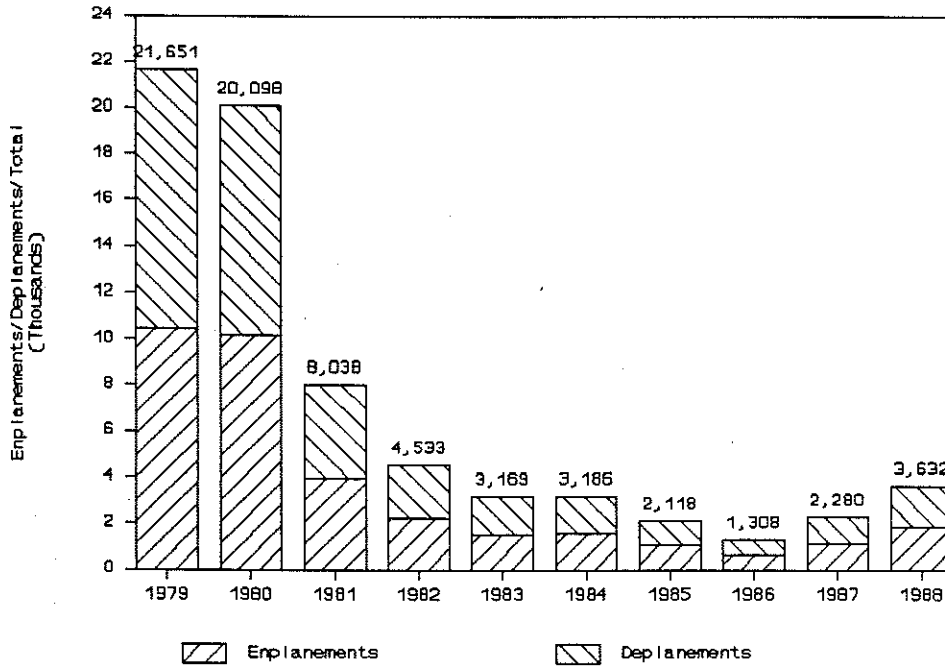
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	2	2	0	0	29	29
1987	3	3	0	0	33	33
1988	2	3	0	39	5	44

WEEKLY ARRIVING SEATS

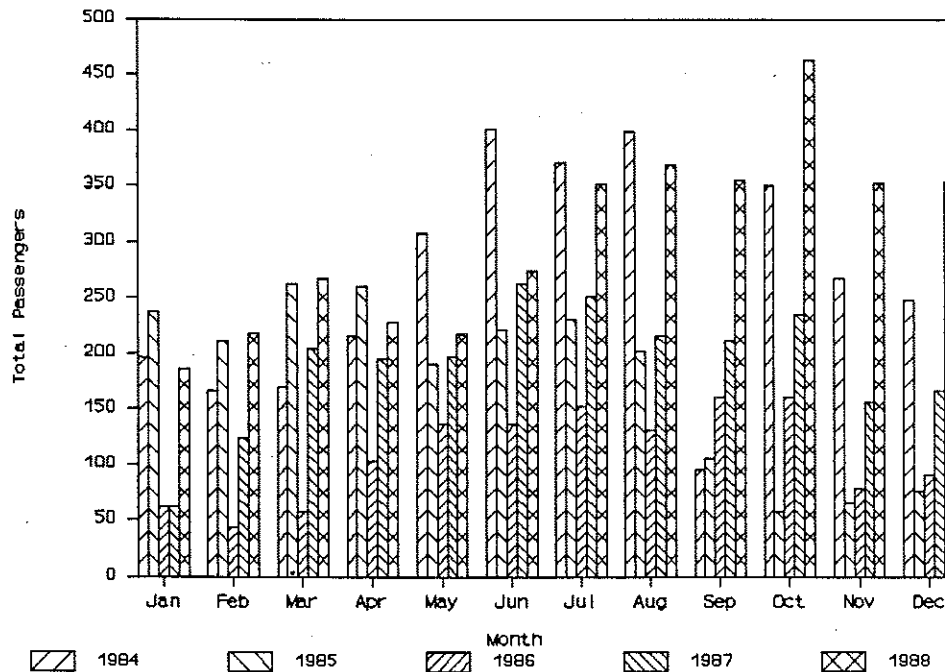
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	232	232
1987	0	0	264	264
1988	0	741	40	781

1979 - 1988 ANNUAL TOTAL PASSENGERS
Menominee/Marinette, Twin County Airport

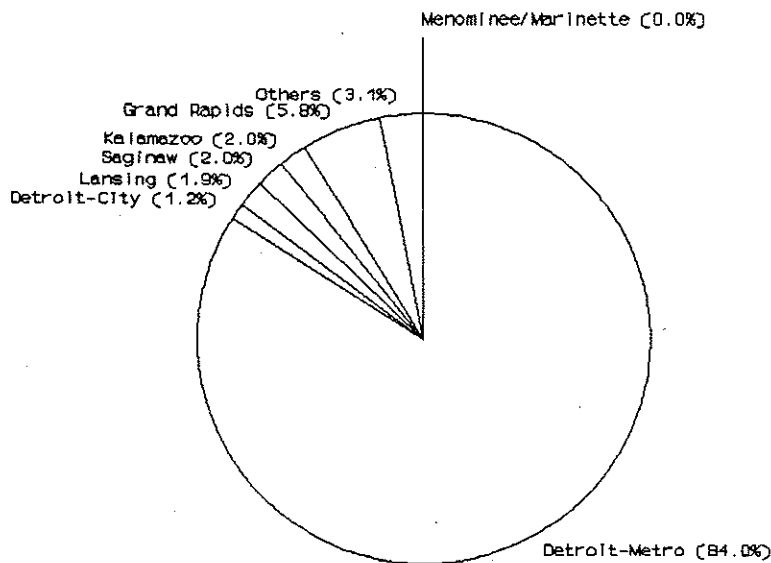


1984 - 1988 MONTHLY TOTAL PASSENGERS
Menominee/Marinette, Twin County Airport



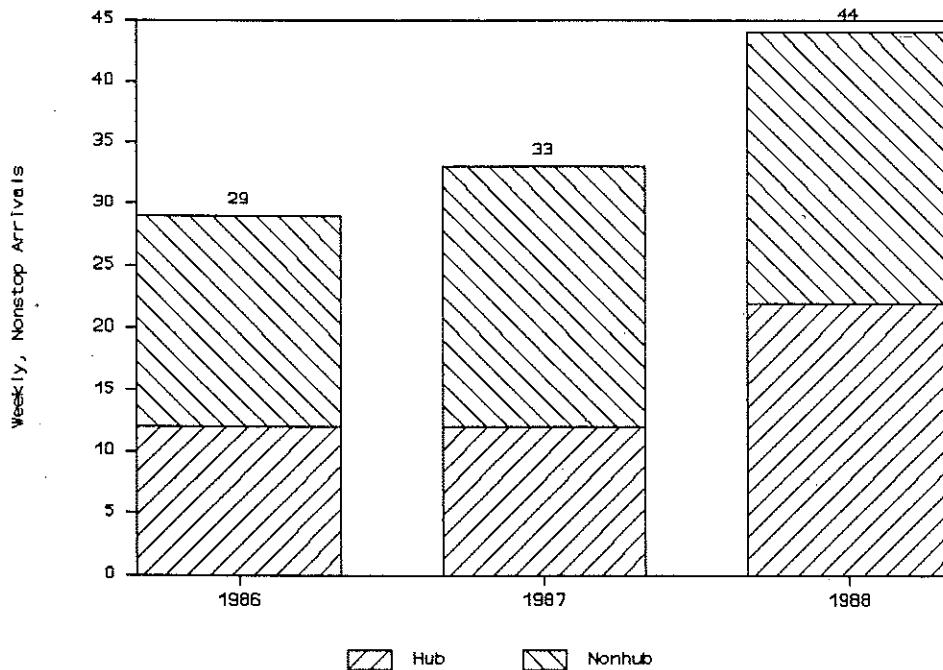
1988 PASSENGER LEVEL COMPARISON

Menominee/Marinette, Twin County Airport



NONSTOP ARRIVALS FROM HUBS/NONHUBS

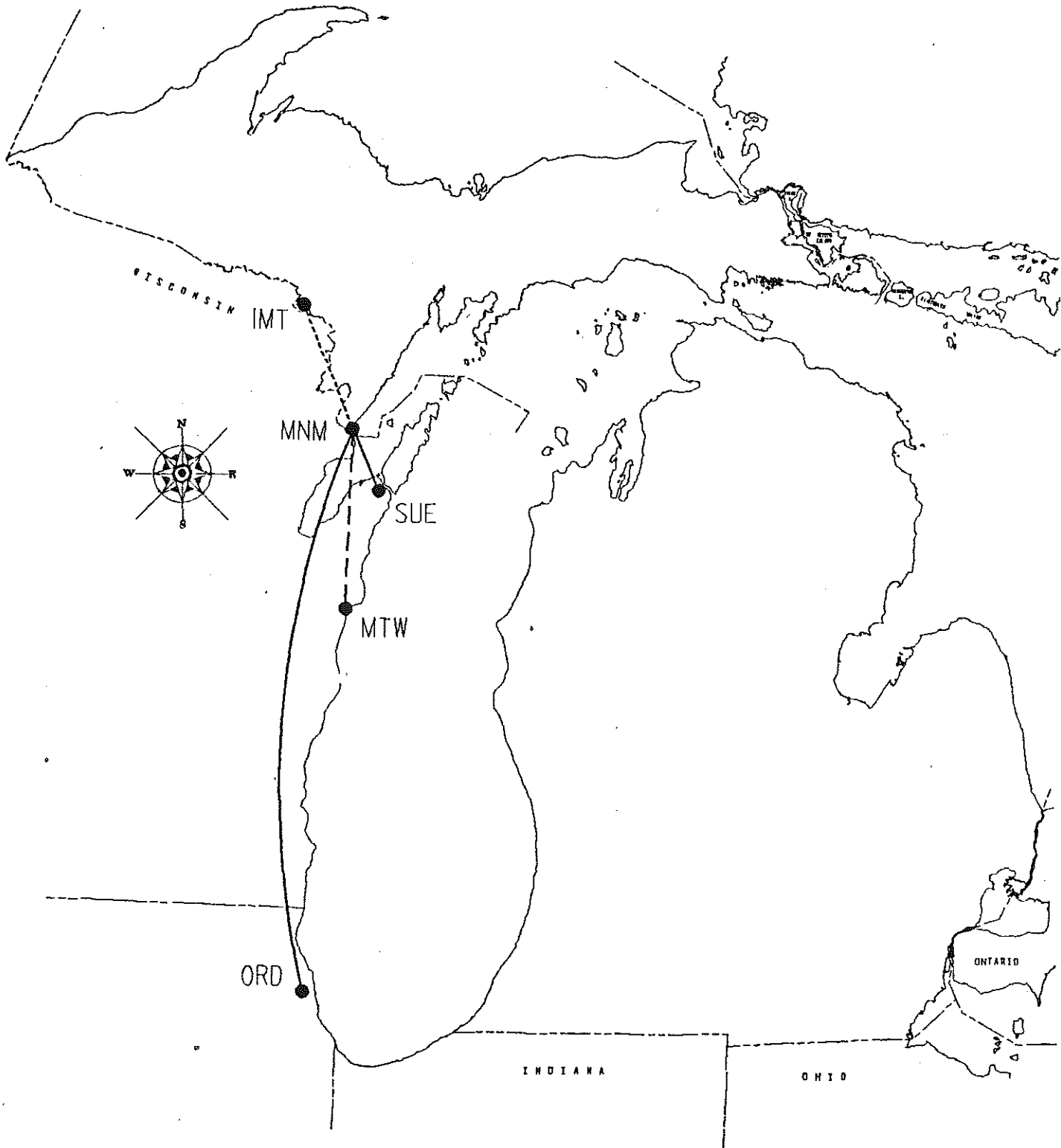
Menominee/Marinette, Twin County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Menominee/Marinette, Twin County Airport

As of December 31, 1988



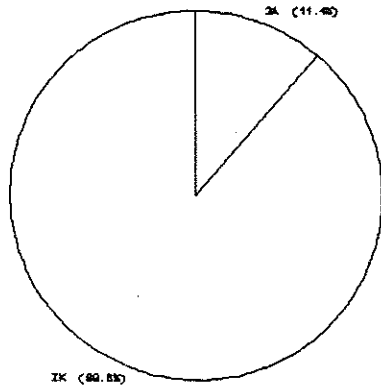
Discontinued Since 1987

Flown in 1987

New Since 1987

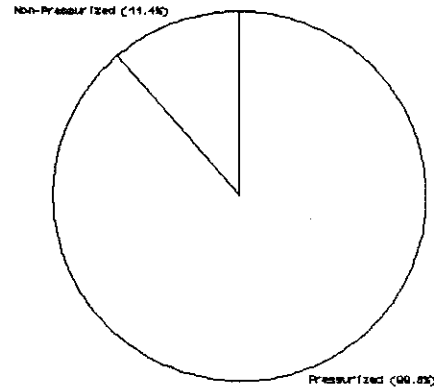
PERCENTAGE ARRIVALS
BY CARRIER

Menominee/Marinette, Twin County Airport



PERCENTAGE ARRIVALS BY
AIRCRAFT TYPE

Menominee/Marinette, Twin County Airport

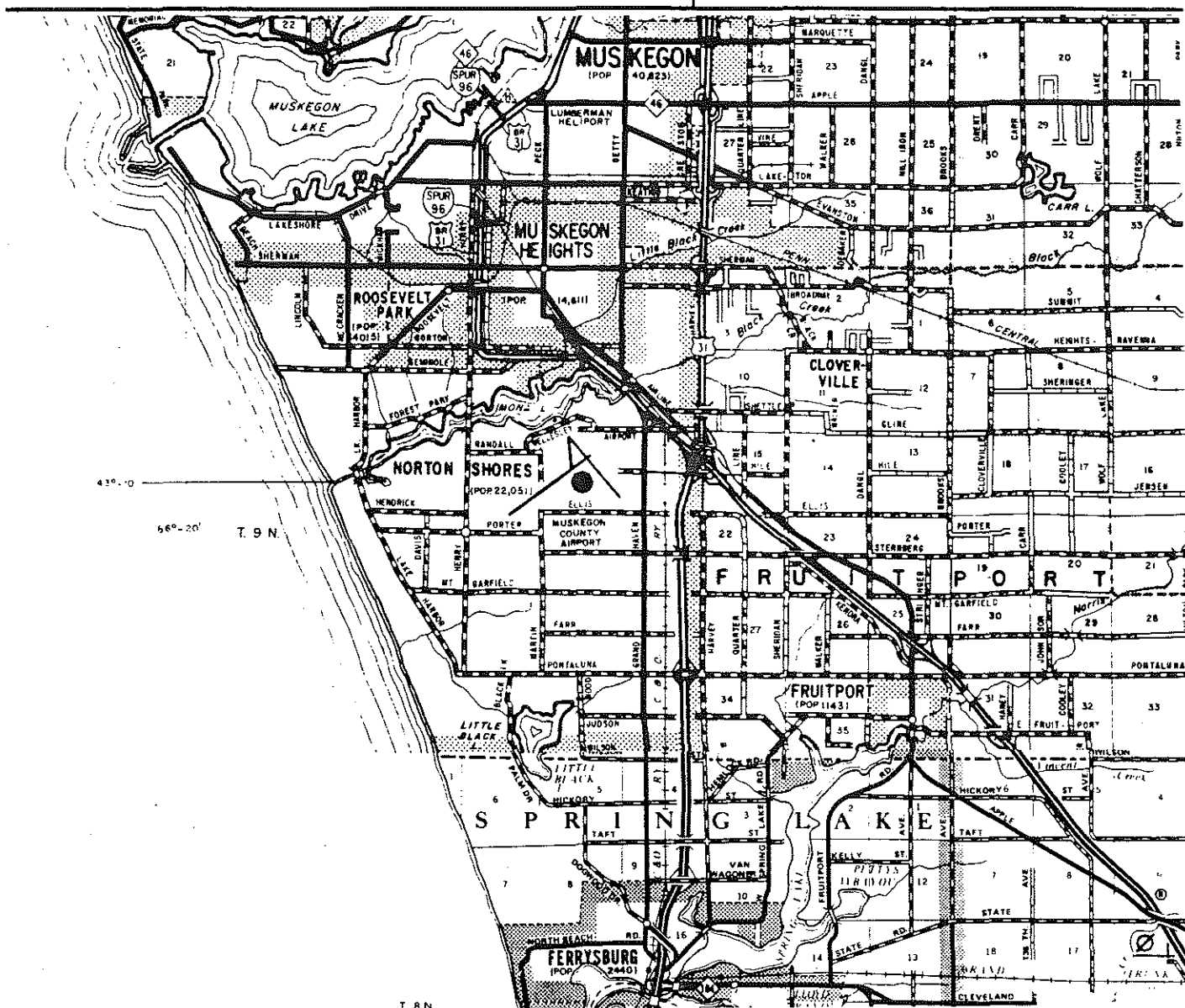
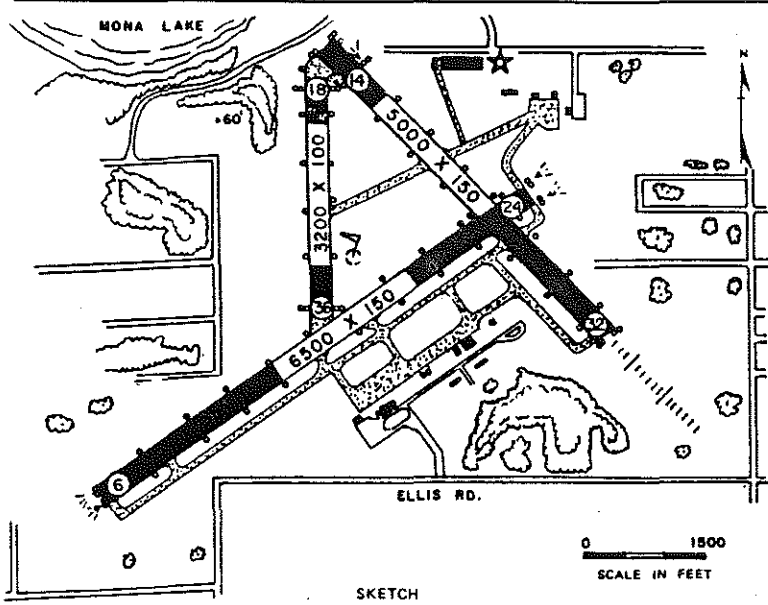


CITY PAIR SERVICE SUMMARIES

Menominee/Marinette, Twin County Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Eqp.	Weekly	Weekly Arr. Seats Available				
			Capacity	Arrivals	Jet	Pres.	Npres.	Total	
Menominee, MI/Marinette, WI [MNM]									
Chicago, IL [ORD]									
		Great Lakes Aviation, Ltd. [ZK]	BE1	19	22	0	418	0	418
Iron Mountain, MI [IMT]									
		Great Lakes Aviation, Ltd. [ZK]	BE1	19	17	0	323	0	323
Sturgeon Bay, WI [SUE]									
		Alliance Airlines [3A]	CNA	8	5	0	0	40	40
Total				44	44	0	741	40	781

Muskegon County Airport



Muskegon County Airport

Passengers Carried

Muskegon County Airport, with 74,058 total passengers, experienced a 4.5 percent decrease in 1988 from the previous year. Historically, Muskegon has experienced declines in total passengers in every year since 1978 except 1986. Monthly figures were lower than in 1987 in all months except August and September. Muskegon ranked tenth in the state in total passengers with 0.3 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers			Percent Change
	Enplaned	Deplaned	Total	
1984	43,986	43,802	87,788	-1.5%
1985	44,468	42,314	86,782	-1.1%
1986	48,751	46,921	95,672	10.2%
1987	38,773	38,737	77,510	-19.0%
1988	37,441	36,617	74,058	-4.5%

Service Supplied

As of December 31, 1988, Muskegon was served by two airlines. The decrease of one carrier from the previous year was due to

termination of service by Northwest Airlinck (Simmons Airlines). Between the survey dates Muskegon County Airport lost nonstop service from Detroit Metro and Traverse City. This leaves service from the two Chicago, IL hub airports. There were 68 weekly arrivals, down 31 from 1986. All of the 1,887 weekly arriving seats were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

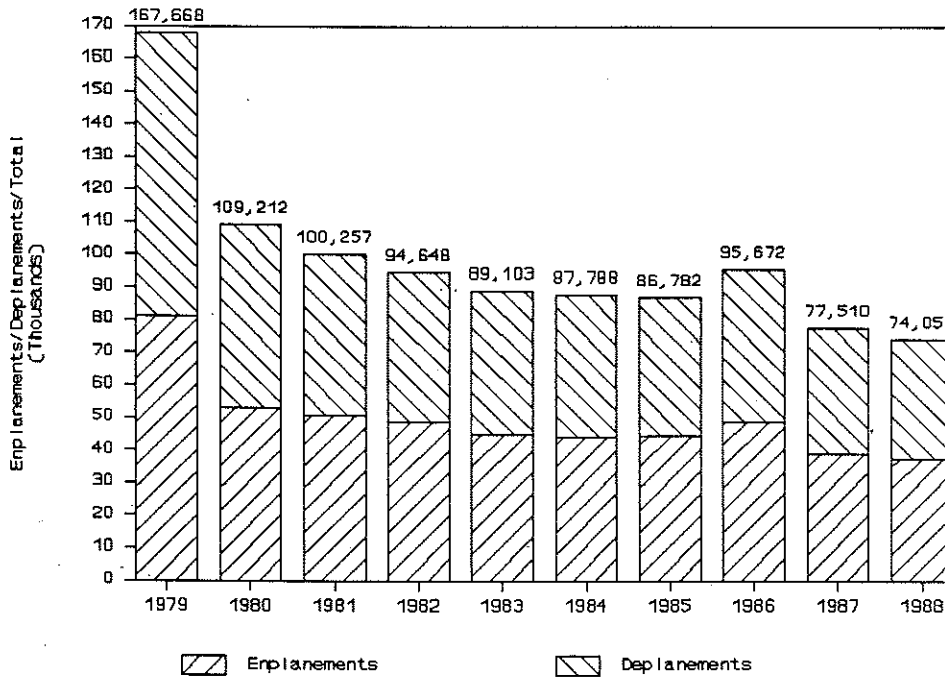
Year	Carriers Serving	Origins	Weekly Arrivals			
			Jet	Press	Non	Total
1986	2	3	0	38	25	63
1987	3	4	0	14	85	99
1988	2	2	0	0	68	68

WEEKLY ARRIVING SEATS

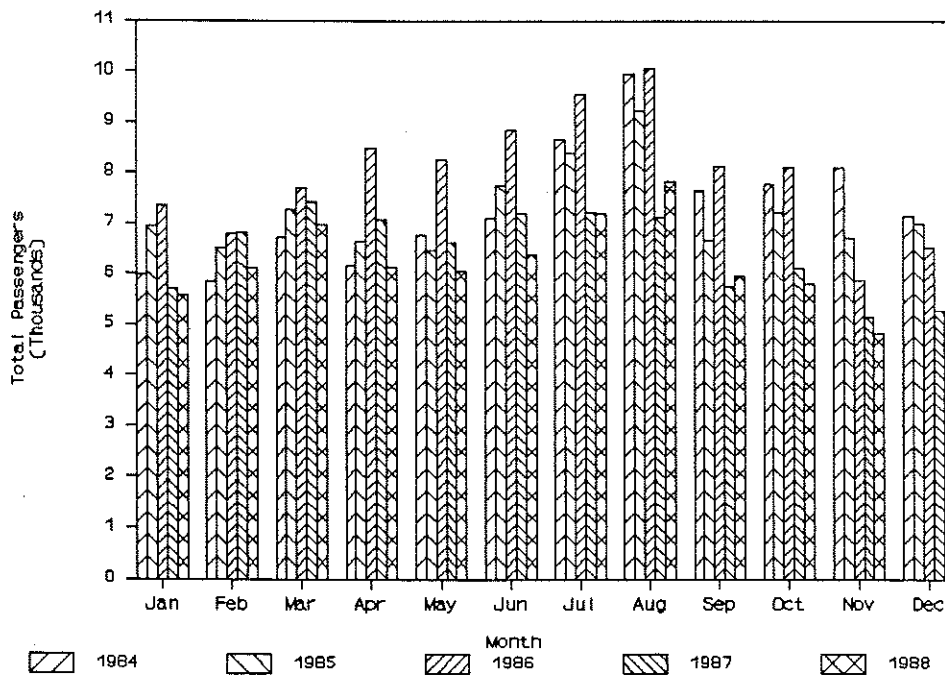
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	1,824	475	2,299
1987	0	644	2,516	3,160
1988	0	0	1,887	1,887

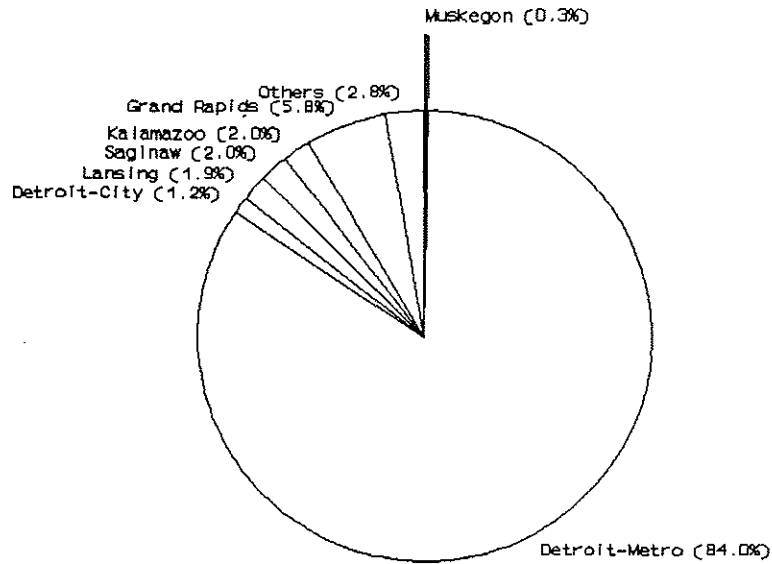
1979 - 1988 ANNUAL TOTAL PASSENGERS Muskegon County Airport



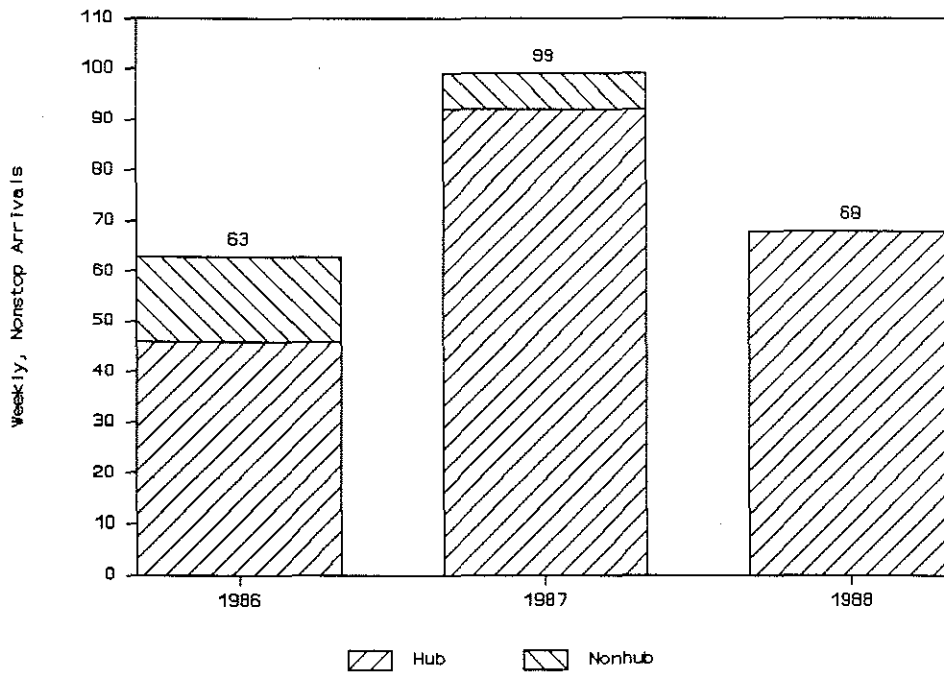
1984 - 1988 MONTHLY TOTAL PASSENGERS Muskegon County Airport



1988 PASSENGER LEVEL COMPARISON Muskegon County Airport

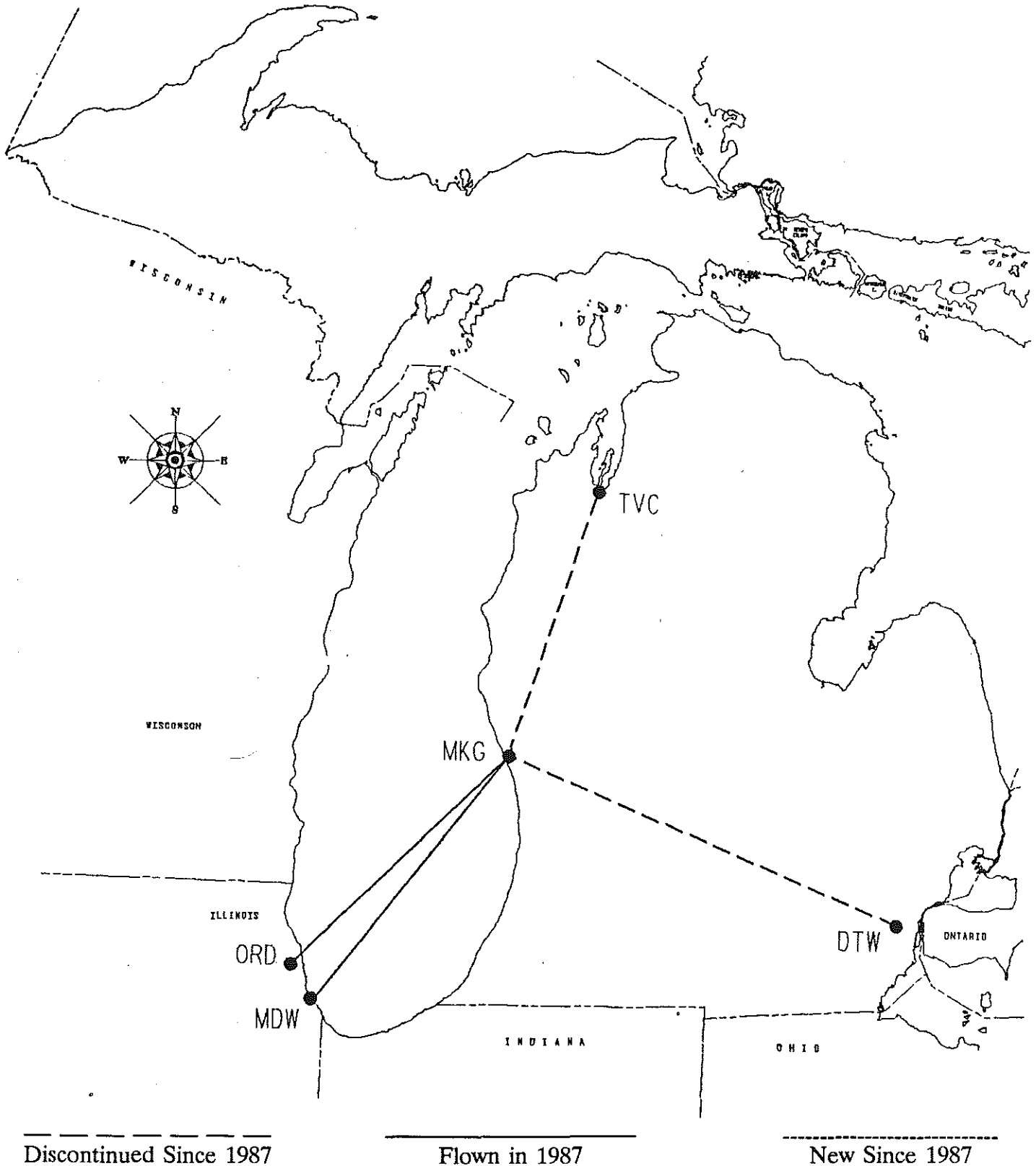


NONSTOP ARRIVALS FROM HUBS/NONHUBS Muskegon County Airport

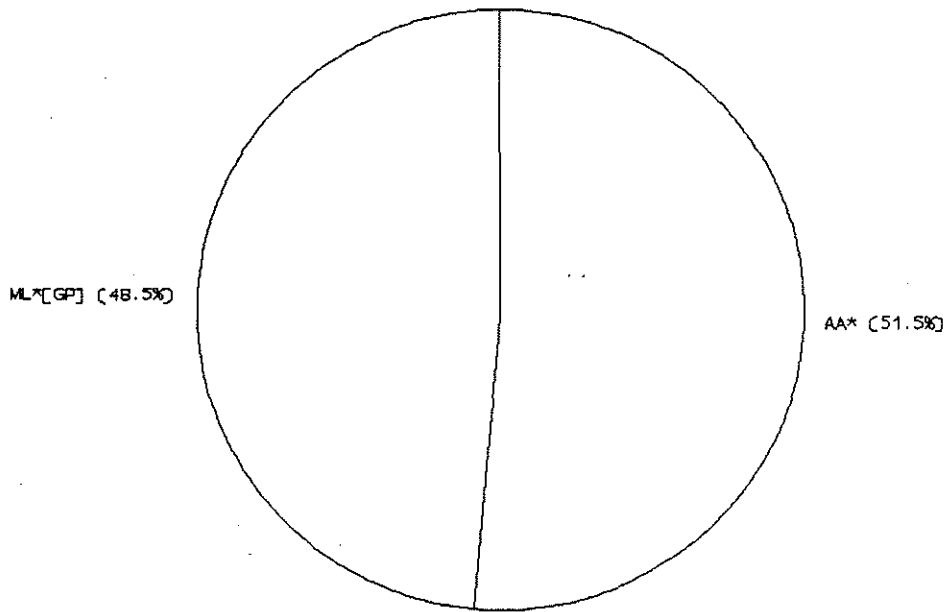


ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Muskegon County Airport
As of December 31, 1988



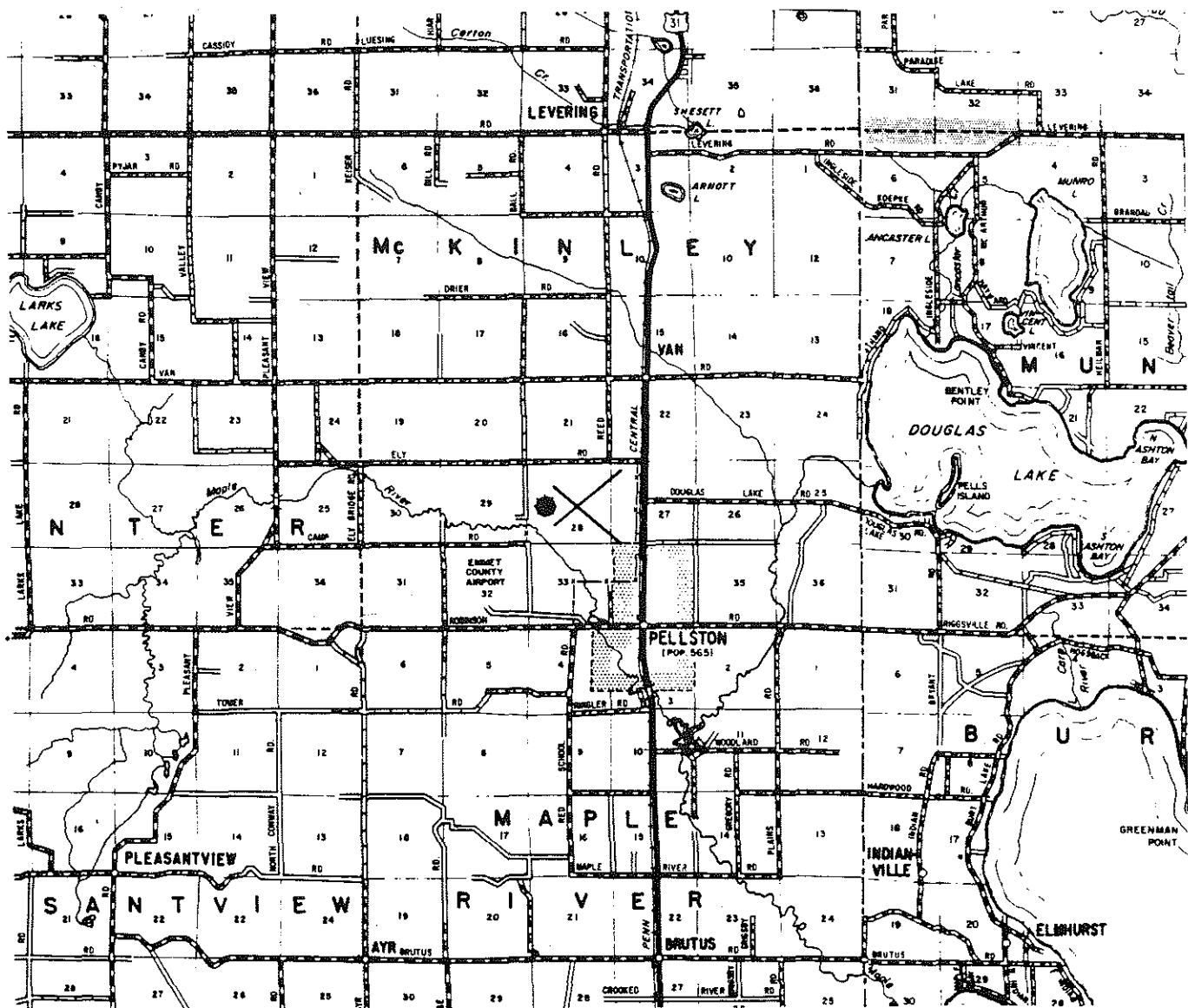
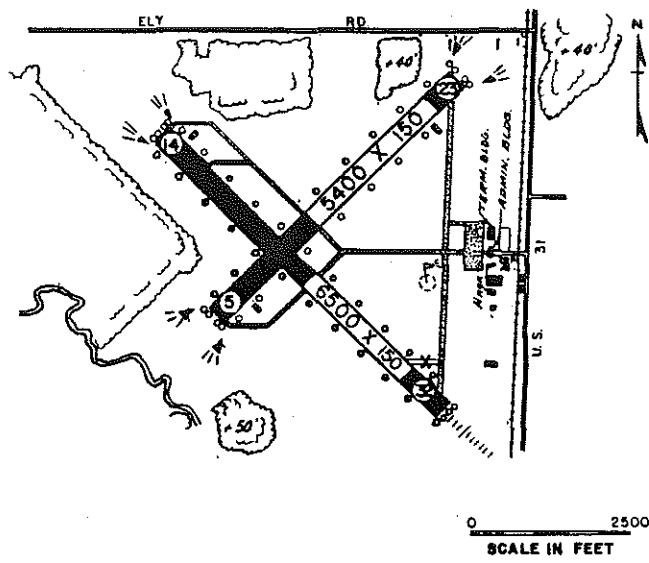
PERCENTAGE ARRIVALS BY CARRIER
Muskegon County Airport



CITY PAIR SERVICE SUMMARIES
Muskegon County Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available				
					Jet	Pres.	Npres.	Total	
Muskegon, MI [MKG]	Chicago, IL [MDW]	Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*] DO8	19	33	0	0	627	627	
	Chicago, IL [ORD]	American Eagle [AA*]	SH6	36	35	0	0	1,260	1,260
				Total	68	0	0	1,887	1,887

Pellston, Emmet County Airport



Pellston, Emmet County Airport

Passengers Carried

Emmet County Airport, with 36,084 total passengers, experienced a 1.0 percent decrease in 1988 from the previous year. Historically, Pellston has had relatively unstable passenger levels with fluctuations in the range of 30,000 to 42,000 total passengers since 1981. Monthly passenger figures were higher than 1987 levels from June through September and in November and December. Pellston ranked eleventh in the state in total passengers with 0.2 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	20,706	20,833	41,539	4.1%
1985	14,740	15,681	30,421	-26.8%
1986	17,645	16,700	34,345	12.9%
1987	17,936	18,508	36,444	6.1%
1988	18,037	18,047	36,084	-1.0%

Service Supplied

As of December 31, 1988, Pellston was served by three carriers operated by two airlines (one of which operated only during the summer season and thus does not appear in the statistics). No change in carriers took

place between survey dates. Emmet County Airport had nonstop service from the same two cities as in the previous year (one origin is only served in the summer season). There were 28 weekly arrivals, up one from 1987. None of the weekly arrivals were from hub airports. Of the 1,148 weekly arriving seats 644 (56.1 percent) were by pressurized propeller and 504 (43.9 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

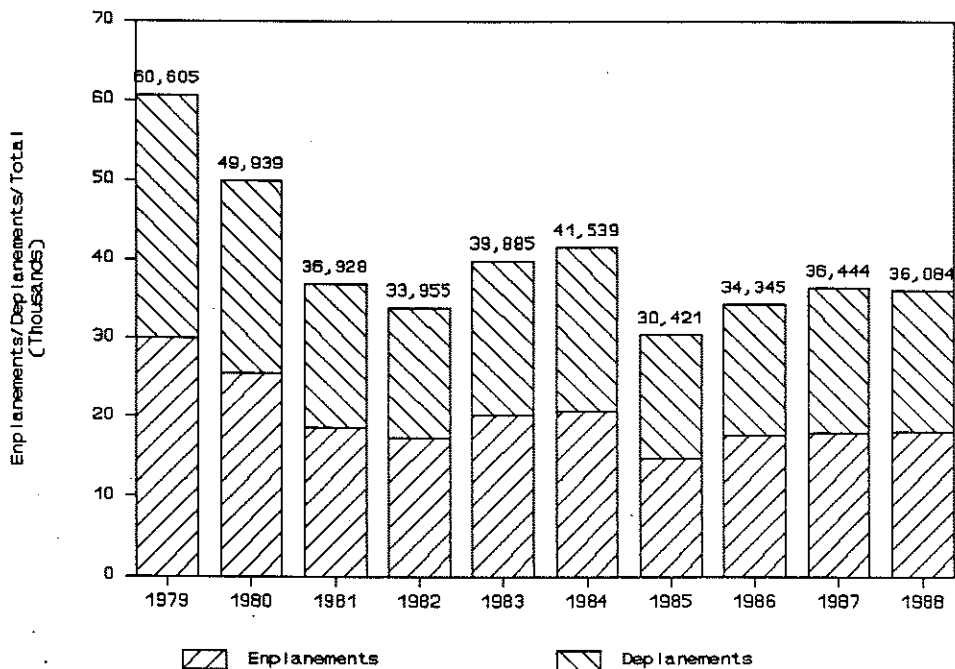
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	3	2	0	0	33	33
1987	3	2	0	25	2	27
1988	2	1	0	14	14	28

WEEKLY ARRIVING SEATS

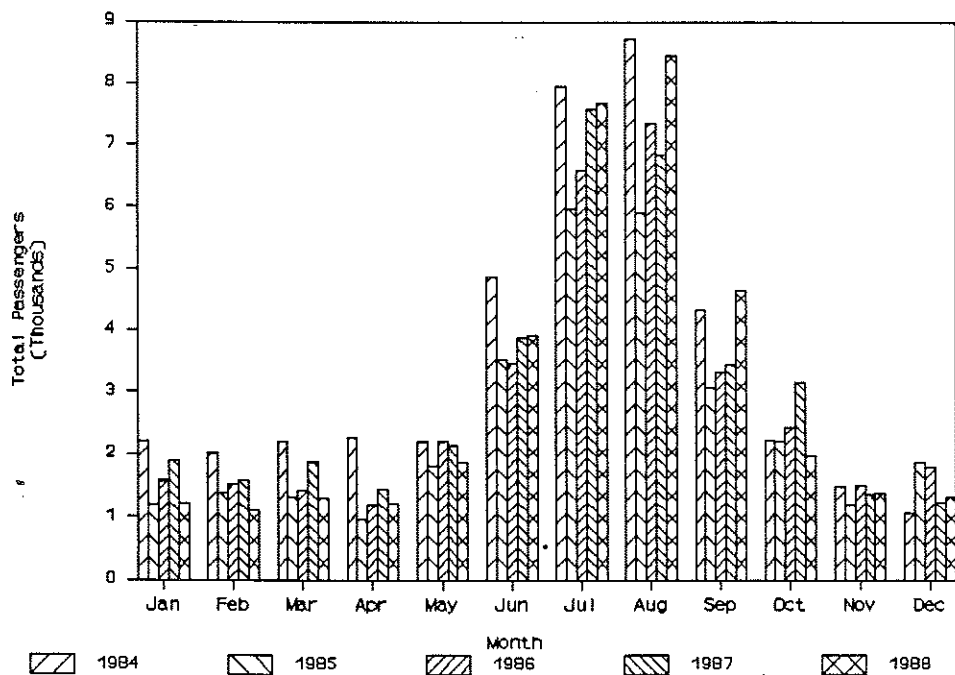
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	1,188	1,188
1987	0	1,150	72	1,222
1988	0	644	504	1,148

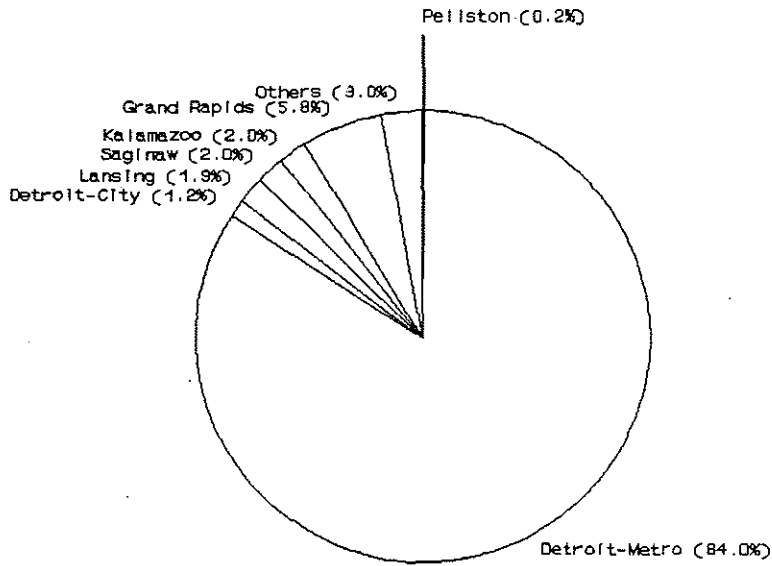
1979 - 1988 ANNUAL TOTAL PASSENGERS Pellston, Emmet County Airport



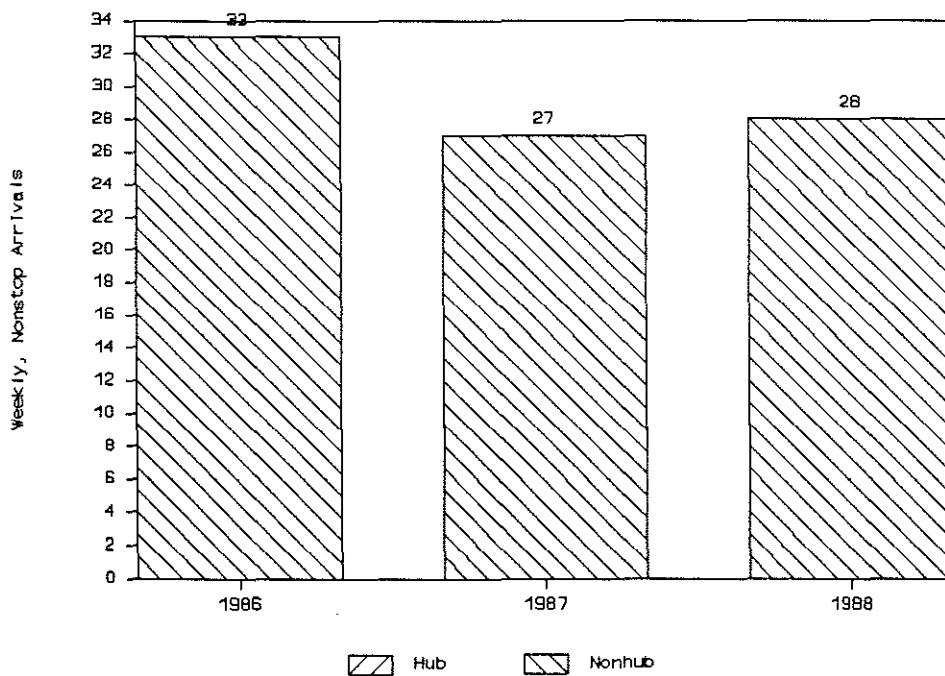
1984 - 1988 MONTHLY TOTAL PASSENGERS Pellston, Emmet County Airport



1988 PASSENGER LEVEL COMPARISON Pellston, Emmet County Airport

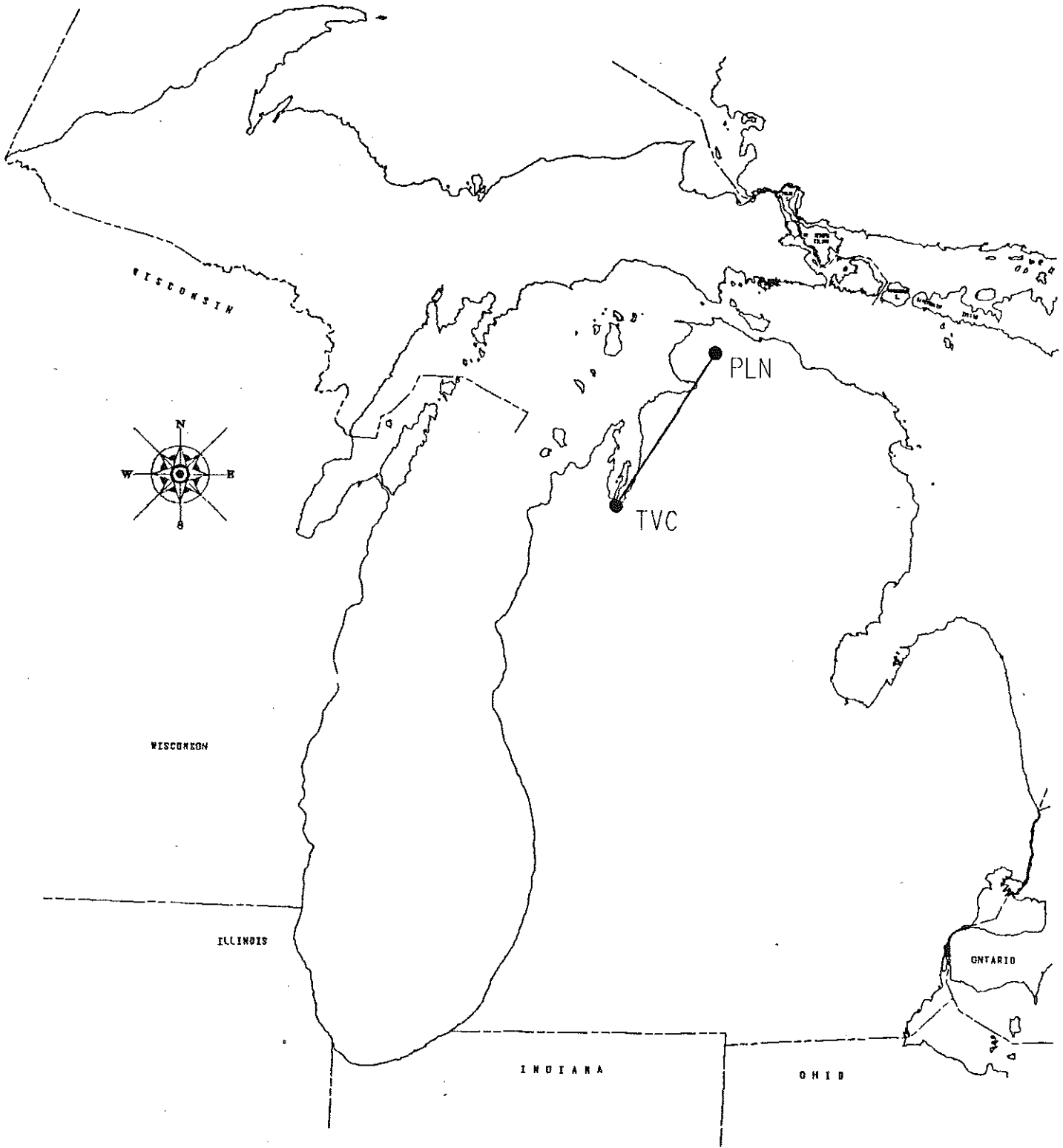


NONSTOP ARRIVALS FROM HUBS/NONHUBS Pellston, Emmet County Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Pellston, Emmet County Airport
As of December 31, 1988



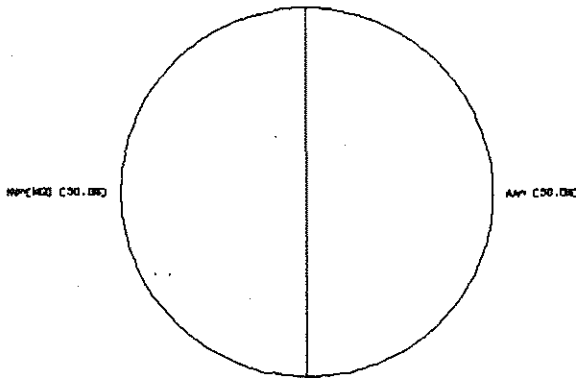
Discontinued Since 1987

Flown in 1987

New Since 1987

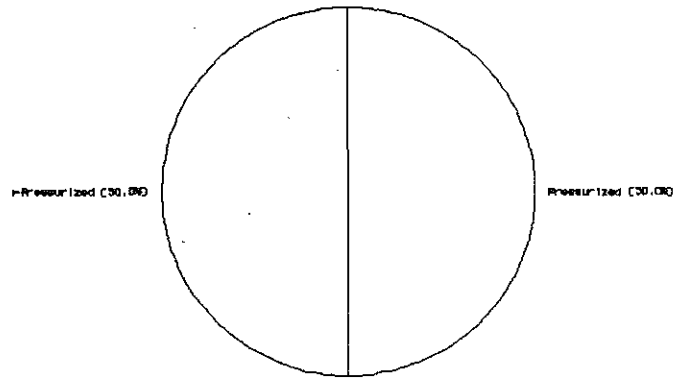
PERCENTAGE ARRIVALS
BY CARRIER

Pellston, Emmet County Airport



PERCENTAGE ARRIVALS BY
AIRCRAFT TYPE

Pellston, Emmet County Airport



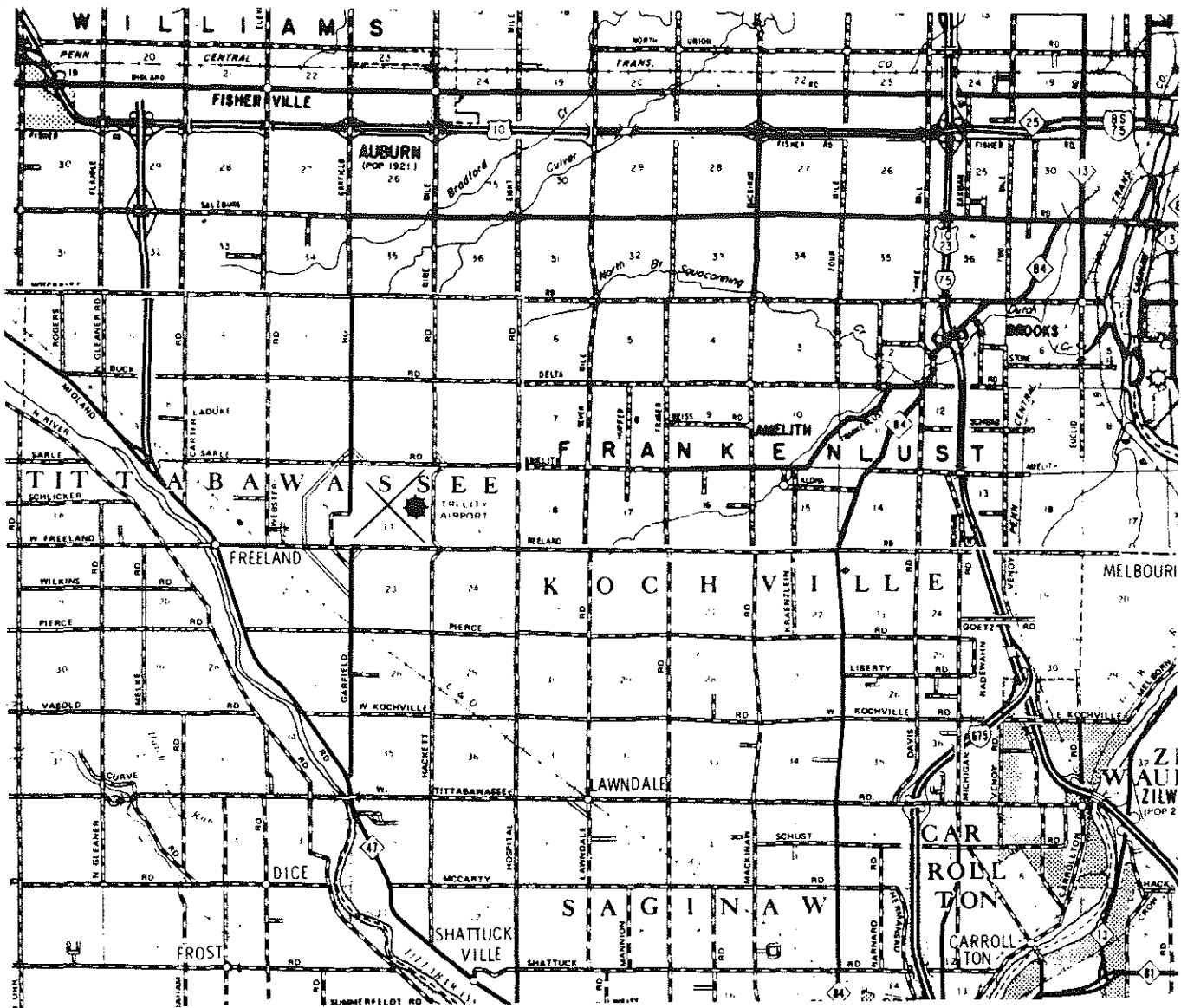
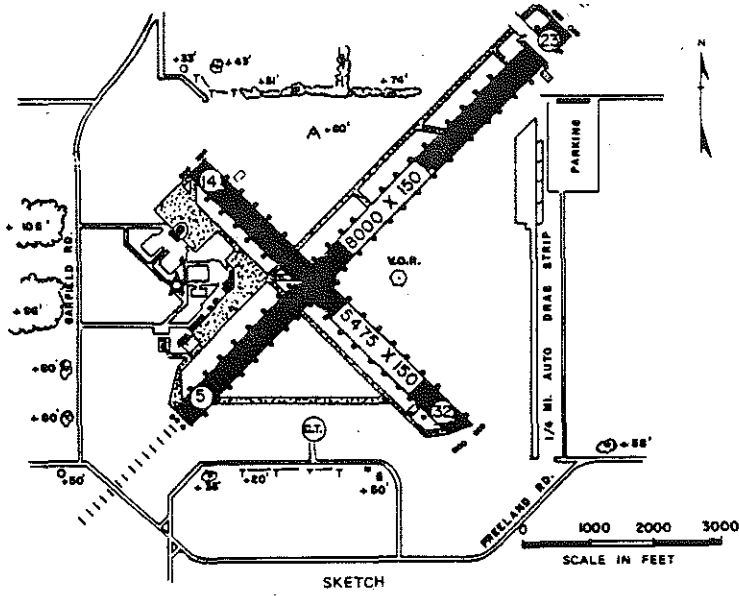
CITY PAIR SERVICE SUMMARIES

Pellston, Emmet County Airport

As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available				
					Jet	Pres.	Npres.	Total	
Pellston, MI [PLN]	Traverse City, MI [TVC]	American Eagle [AA*]	ATR	46	14	0	644	0	644
		Northwest Airlink (Simmons Airlines) [NW*]	SH6	36	14	0	0	504	504
				Total	28	0	644	504	1,148

Saginaw, Tri-City International Airport



Saginaw, Tri-City International Airport

Passengers Carried

Tri-City International Airport, with 460,037 total passengers, experienced a 5.5 percent increase in 1988 over the previous year. Historically, Saginaw has enjoyed a growth in total passengers since 1982 with the exception of a slight drop in 1984. Total passengers for this facility are at their highest post regulation level. Though the 1988 monthly passenger figures were lower than the previous years figures from January through May, the remaining months were five year highs. Saginaw ranked third in the state in total passengers with 2.0 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	159,014	158,621	317,635	-0.8%
1985	191,981	188,739	380,720	19.9%
1986	206,131	199,250	405,381	6.5%
1987	220,788	215,286	436,074	7.6%
1988	231,995	228,042	460,037	5.5%

Service Supplied

As of December 31, 1988, Saginaw was served by five airlines. Between the survey dates, service by Michigan Airways (now

Drummond Island Air) replaced service by Northwest AirlinK (Simmons Airlines). Tri-City Airport had nonstop service from seven cities. Service was lost from Grand Rapids and gained from Alpena, East Tawas and Kalamazoo; a net gain of two origins. There were 143 weekly arrivals, up 46 from 1987. Of the weekly arrivals, 99 (69.2 percent) were from a hub airport. Of the 10,761 weekly arriving seats, 9,520 (88.5 percent) were by jet, 198 (1.8 percent) were by pressurized propeller and 1,043 (9.7 percent) were by nonpressurized propeller aircraft.

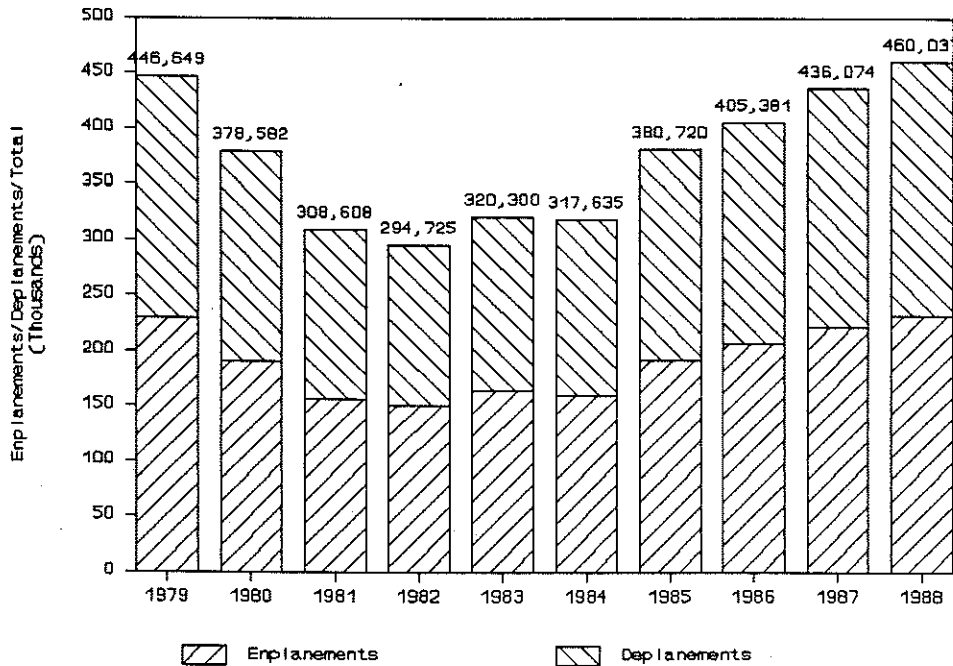
WEEKLY ARRIVALS As of December 31

Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	4	6	70	14	40	124
1987	5	5	59	18	20	97
1988	5	7	70	11	62	143

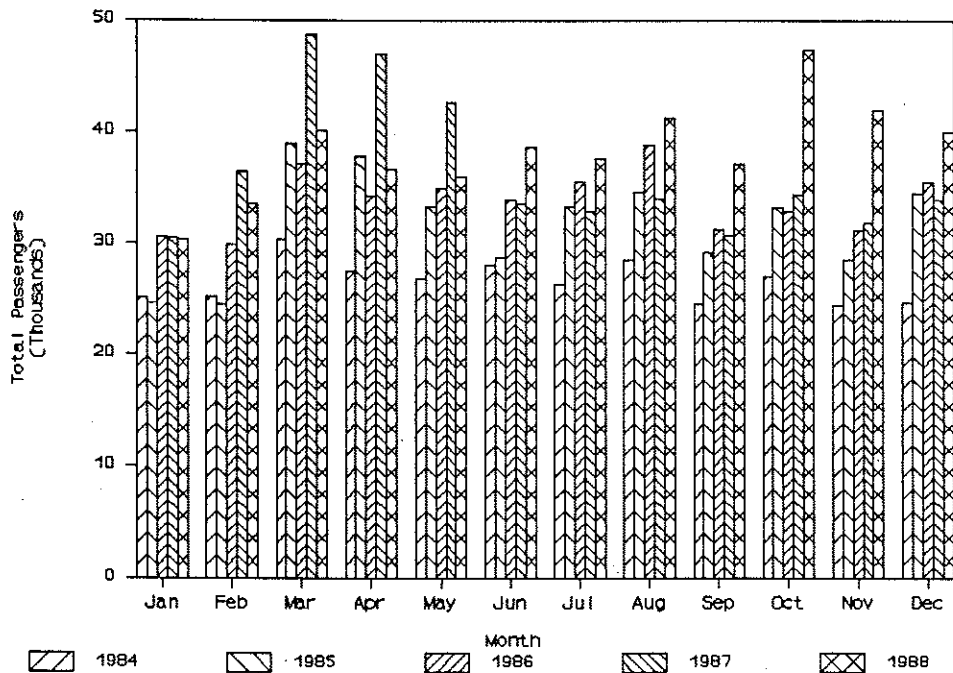
WEEKLY ARRIVING SEATS As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	8,148	672	1,202	10,022
1987	7,558	545	720	8,823
1988	9,520	198	1,043	10,761

1979 - 1988 ANNUAL TOTAL PASSENGERS
Saginaw, Tri-City International Airport

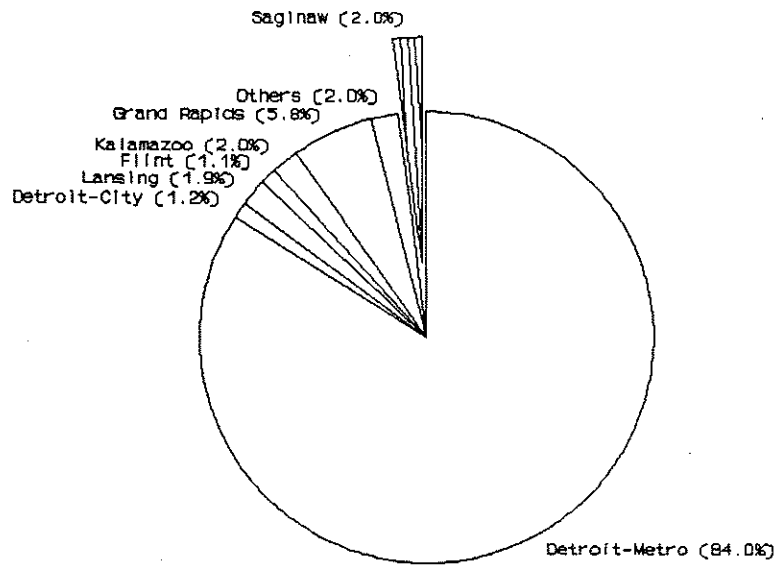


1984 - 1988 MONTHLY TOTAL PASSENGERS
Saginaw, Tri-City International Airport



1988 PASSENGER LEVEL COMPARISON

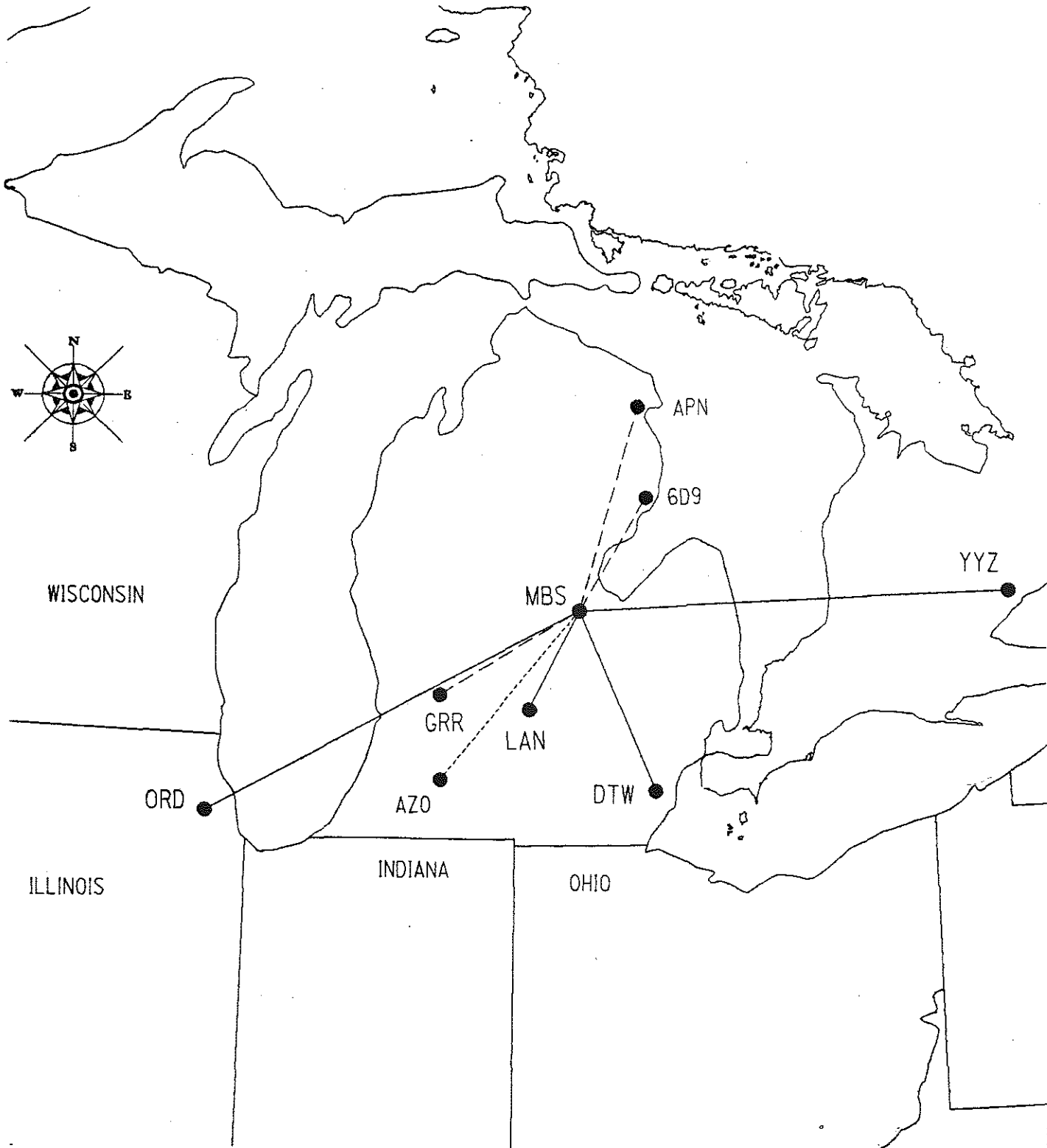
Saginaw, Tri-City International Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Saginaw, Tri-City International Airport

As of December 31, 1988



Discontinued Since 1987

Flown in 1987

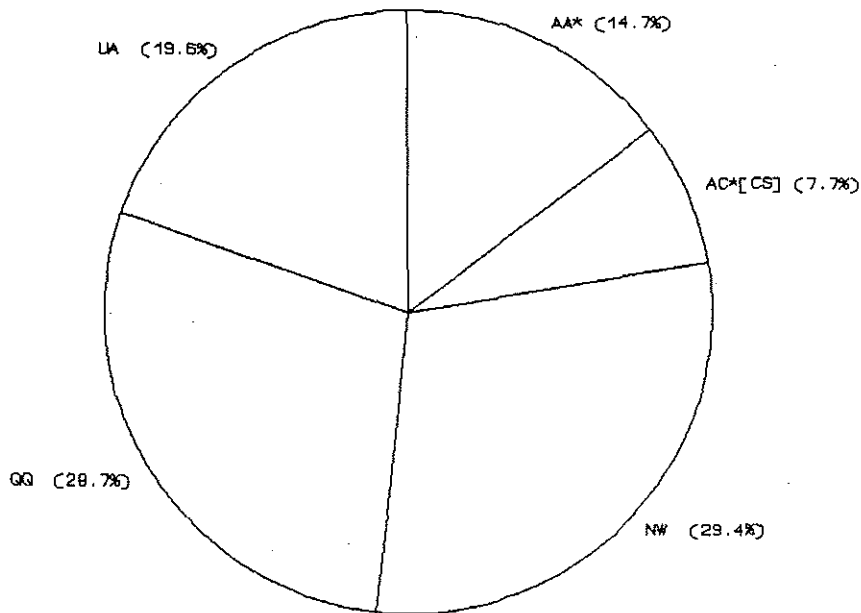
New Since 1987

CITY PAIR SERVICE SUMMARIES

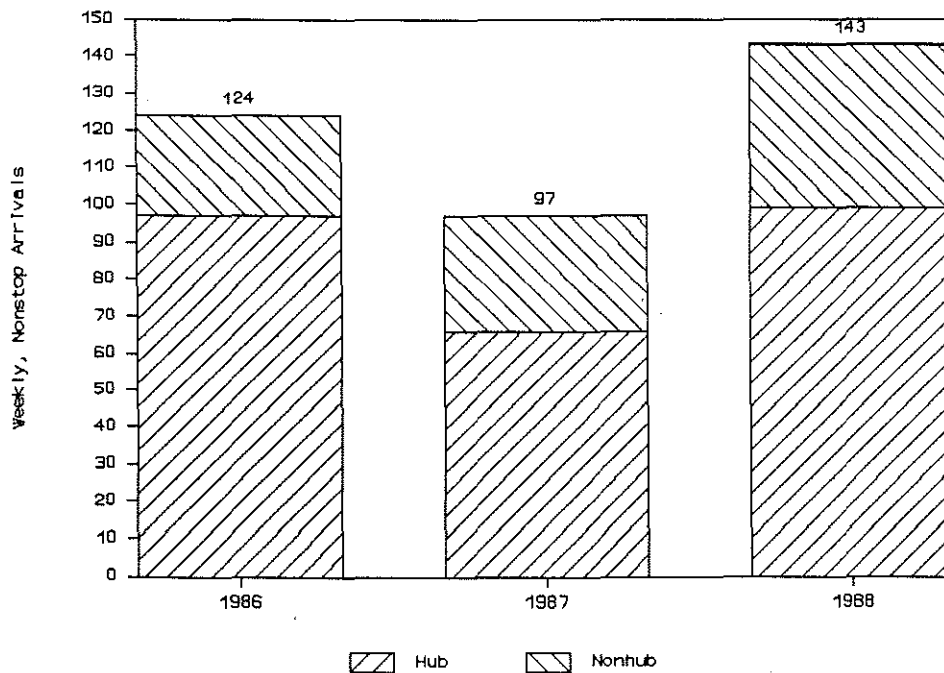
Saginaw, Tri-City International Airport
As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	<u>Weekly Arr. Seats Available</u>			Total	
					Jet	Pres.	Npres.	Total	
Saginaw, MI [MBS]									
Alpena, MI [APN]									
		Michigan Airways, Inc. [QQ]	PAG	7	10	0	0	70	70
Chicago, IL [ORD]									
		American Eagle [AA*]	SH6	36	7	0	0	252	252
		United Airlines, Inc. [UA]	733	138	21	2,898	0	0	2,898
		United Airlines, Inc. [UA]	73S	122	7	854	0	0	854
Detroit, MI [DTW]									
		Michigan Airways, Inc. [QQ]	PAG	7	22	0	0	154	154
		Northwest Airlines, Inc. [NW]	72S	145	21	3,045	0	0	3,045
		Northwest Airlines, Inc. [NW]	D95	139	7	973	0	0	973
		Northwest Airlines, Inc. [NW]	D9S	125	14	1,750	0	0	1,750
East Tawas, MI [6D9]									
		Michigan Airways, Inc. [QQ]	PAG	7	9	0	0	63	63
Kalamazoo, MI [AZO]									
		American Eagle [AA*]	SH6	36	7	0	0	252	252
Lansing, MI [LAN]									
		American Eagle [AA*]	SH6	36	7	0	0	252	252
Toronto, ONT [YYZ]									
		Air Canada (Air Ontario, Inc.) [AC*]	J31	18	11	0	198	0	198
Total					143	9,520	198	1,043	10,761

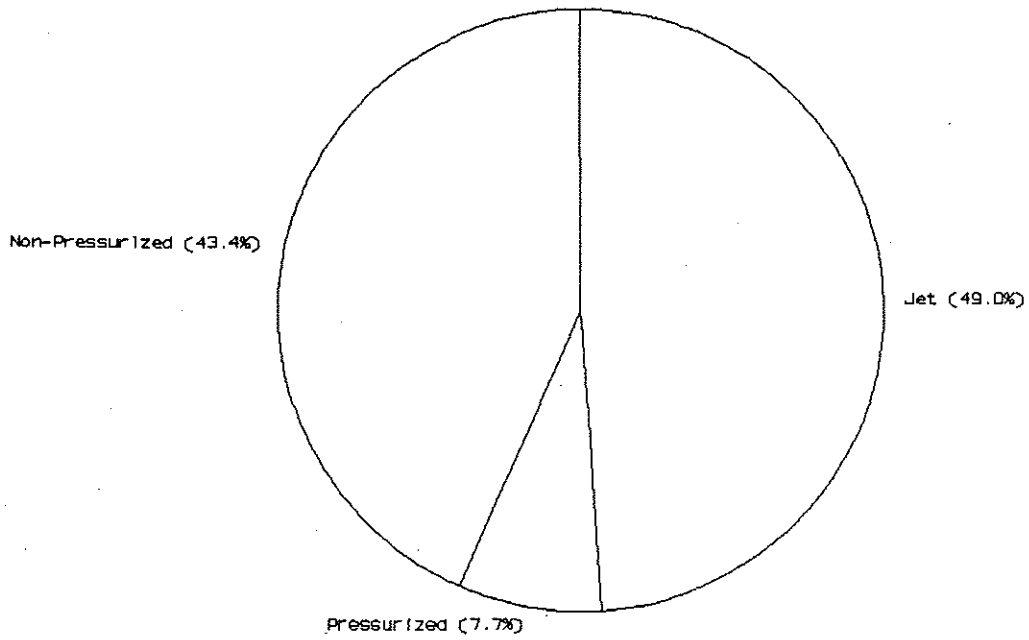
PERCENTAGE ARRIVALS BY CARRIER
Saginaw, Tri-City International Airport



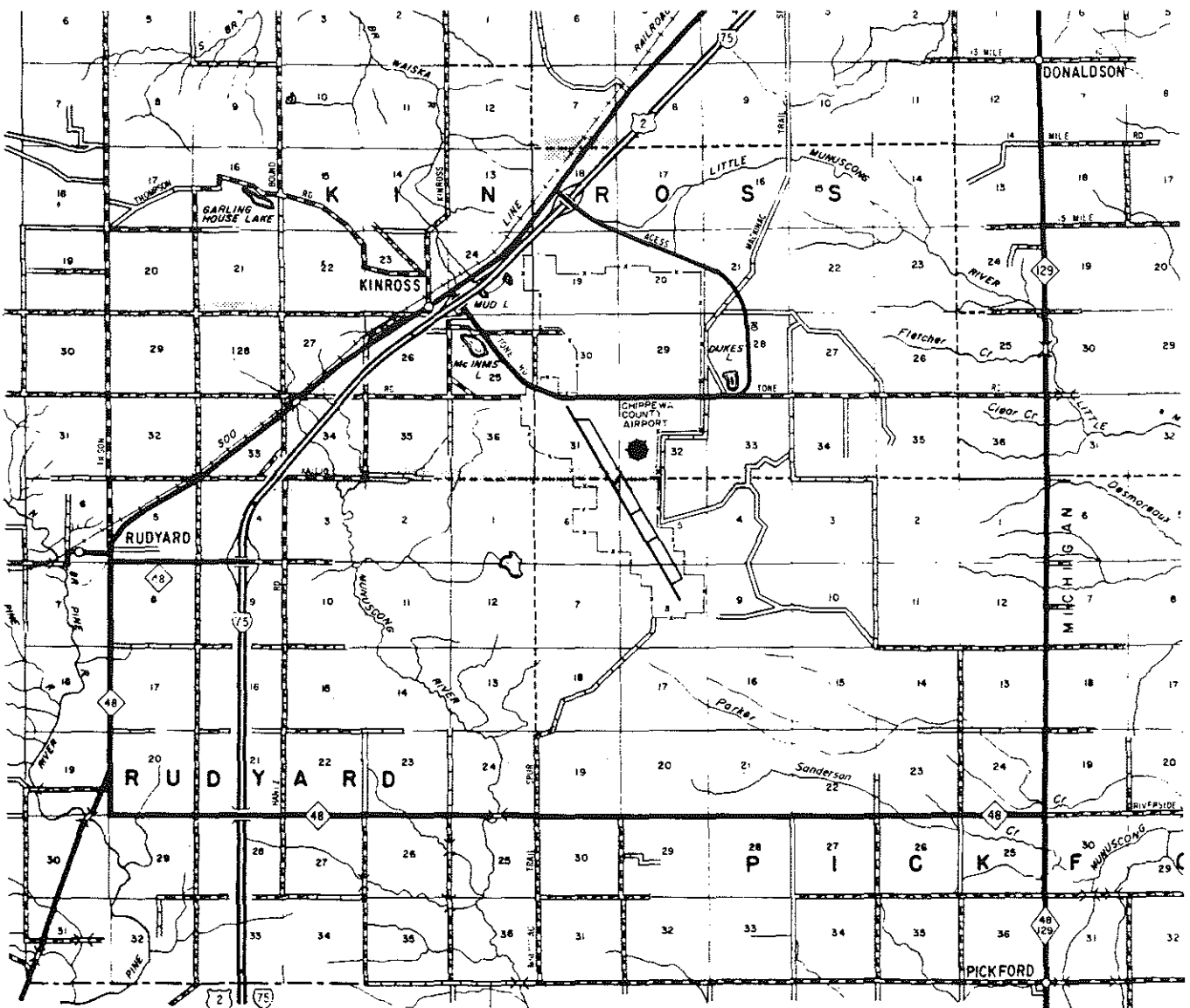
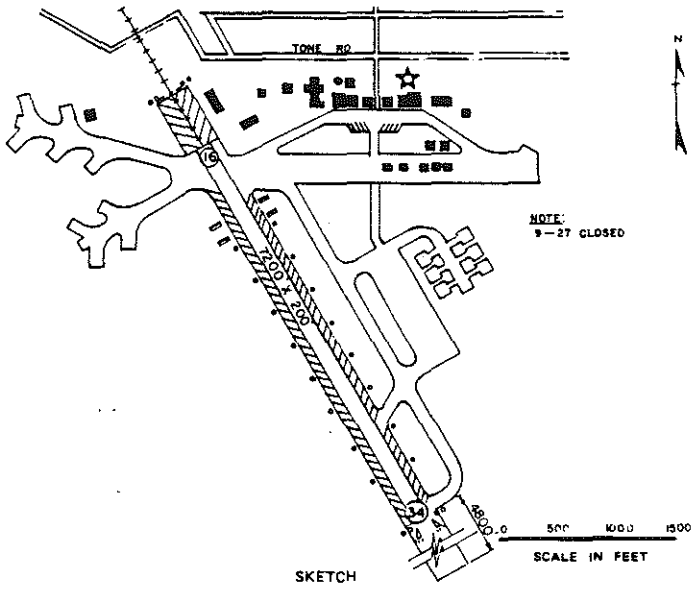
NONSTOP ARRIVALS FROM HUBS/NONHUBS
Saginaw, Tri-City International Airport



PERCENTAGE ARRIVALS BY AIRCRAFT TYPE
Saginaw, Tri-City International Airport



Sault Ste. Marie, Chippewa County International Airport



Sault Ste. Marie, Chippewa County International Airport

Passengers Carried

Chippewa County International Airport, with 10,424 total passengers, experienced a 14.0 percent increase in 1988 over the previous year. Historically, Sault Ste. Marie has exhibited relative stability in total passengers since 1982, the level remaining between 8,000 and 11,000. Monthly passenger figures were higher than in 1987 in March and May and from July through December. March, July and September were five year highs. Sault Ste. Marie ranked fourteenth in the state in total passengers with less than 0.1 percent of the statewide total. Sault Ste. Marie is one of four Michigan cities receiving federal monies under the Essential Air Service subsidy program.

ANNUAL PASSENGERS

Year	Passengers		Total	Percent Change
	Enplaned	Deplaned		
1984	4,195	3,849	8,044	-17.5%
1985	5,017	5,060	10,077	25.3%
1986	4,971	5,222	10,193	1.2%
1987	4,624	4,521	9,145	-10.3%
1988	5,163	5,261	10,424	14.0%

Service Supplied

As of December 31, 1988, Sault Ste. Marie was served by one airline. No change in carriers took place between survey dates. Chippewa County Airport had nonstop service from the same nonhub city as the previous year. There were 12 weekly arrivals, the same as in the previous year. All of the 432 weekly arriving seats were in nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of July 1

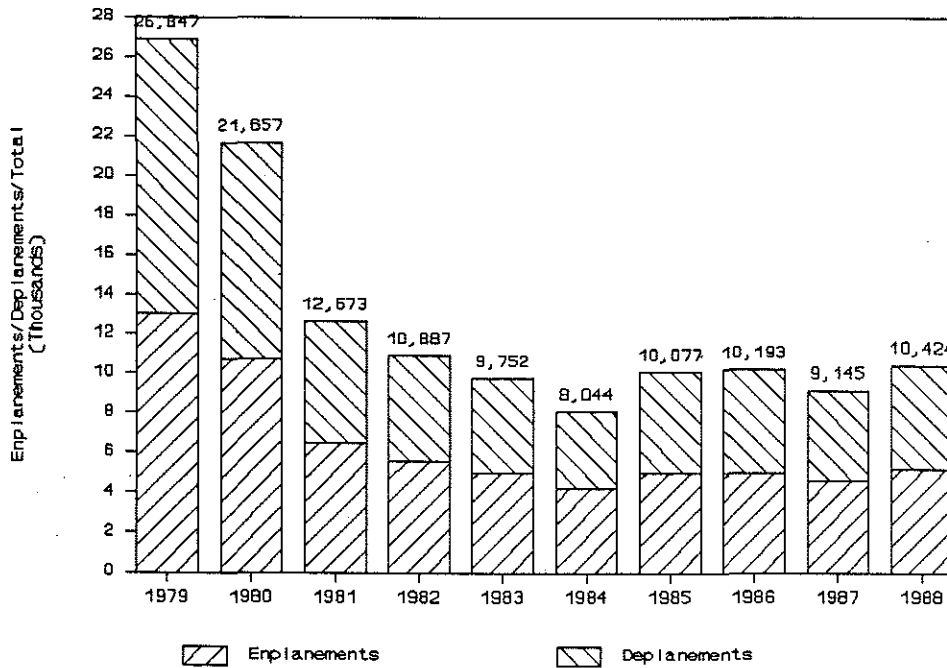
Year	Carriers		Weekly Arrivals			
	Serving	Origins	Jet	Press	Non	Total
1986	1	1	0	0	19	19
1987	1	1	0	0	12	12
1988	1	1	0	0	12	12

WEEKLY ARRIVING SEATS

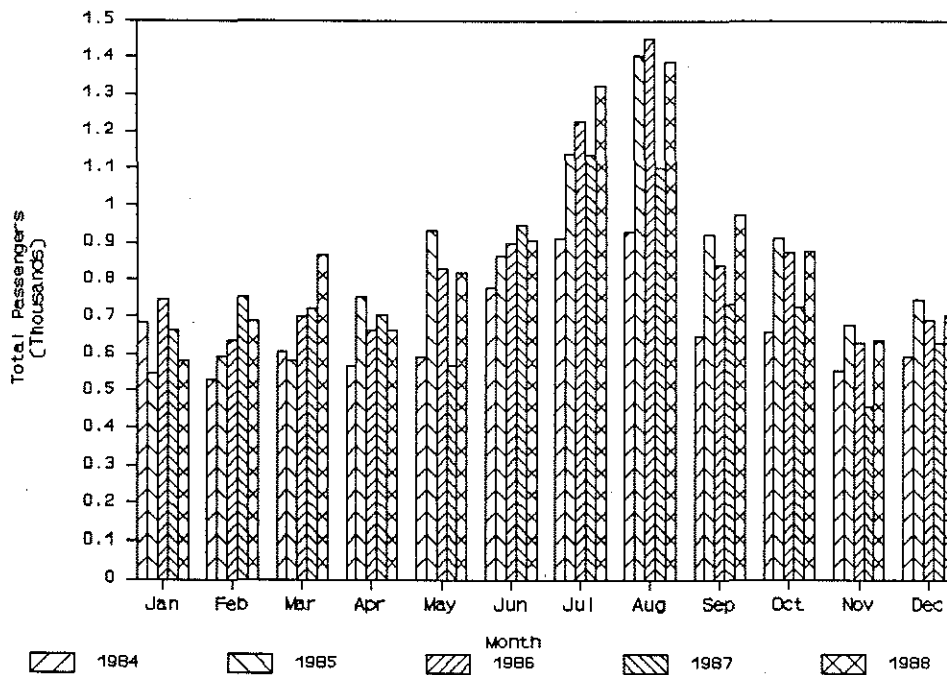
As of July 1

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	0	361	361
1987	0	0	432	432
1988	0	0	432	432

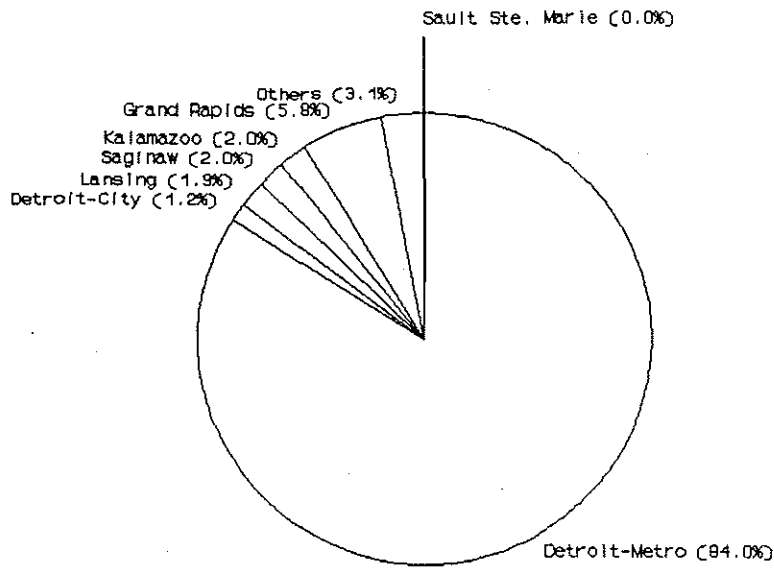
1979 - 1988 ANNUAL TOTAL PASSENGERS
Sault Ste. Marie, Chippewa County International Airport



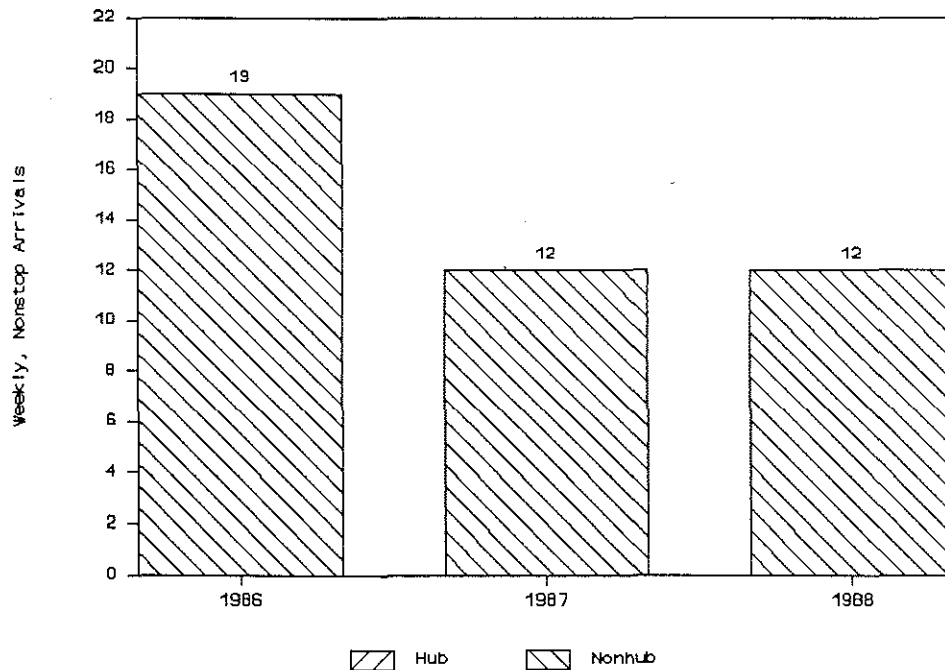
1984 - 1988 MONTHLY TOTAL PASSENGERS
Sault Ste. Marie, Chippewa County International Airport



1988 PASSENGER LEVEL COMPARISON Sault Ste. Marie, Chippewa County International Airport



NONSTOP ARRIVALS FROM HUBS/NONHUBS Sault Ste. Marie, Chippewa County International Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Sault Ste. Marie, Chippewa County International Airport

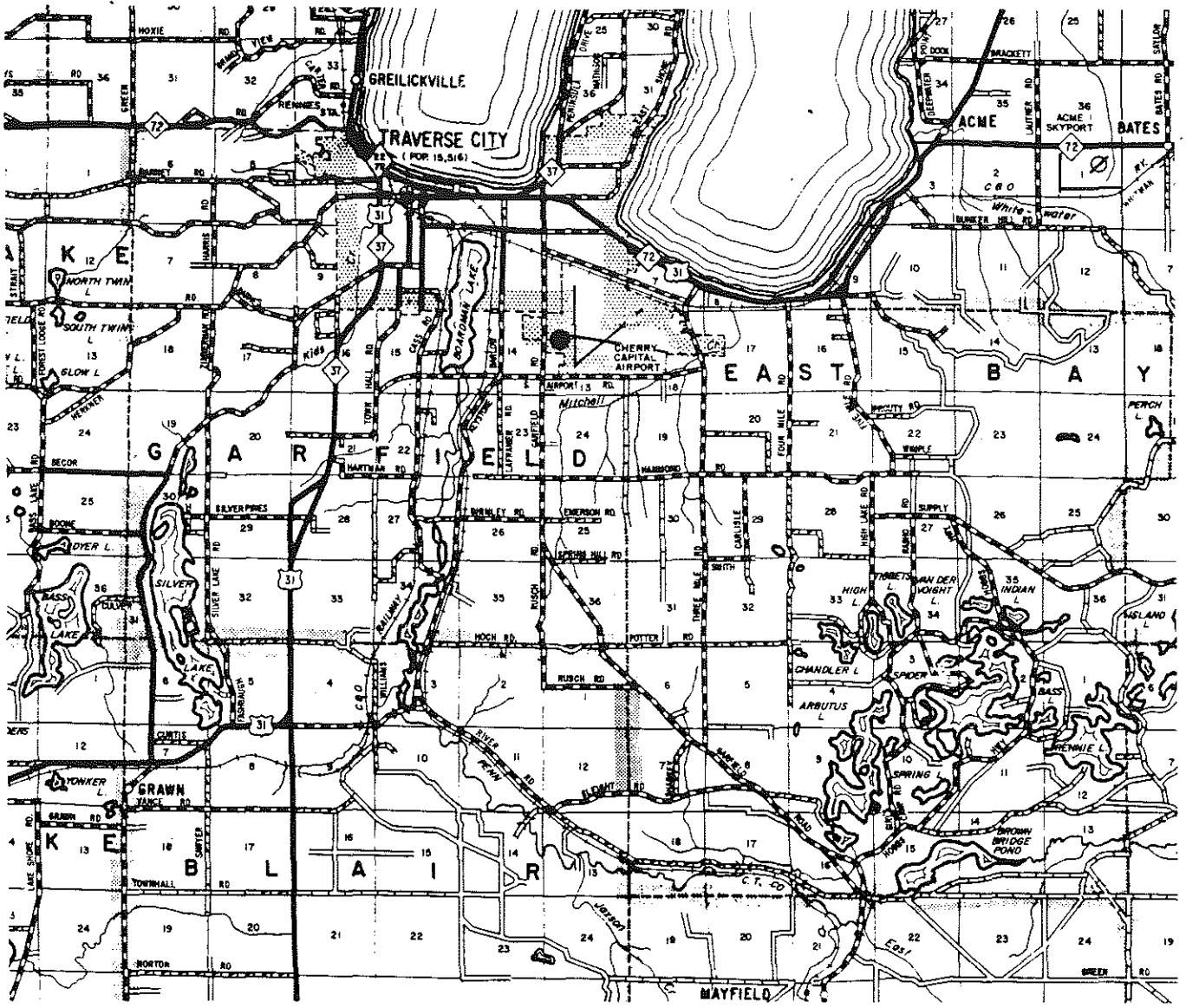
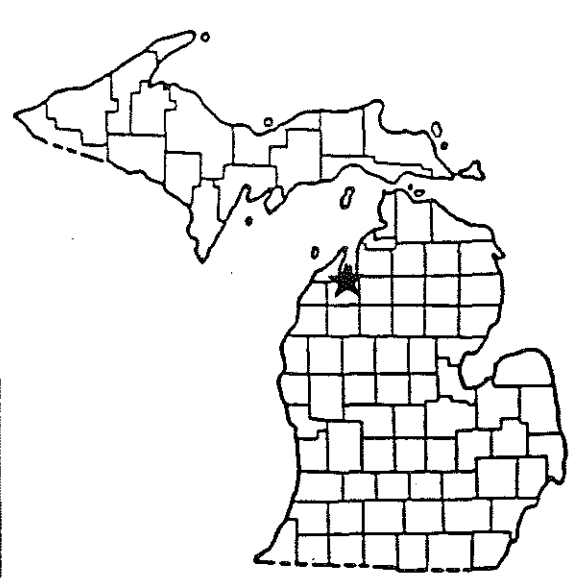
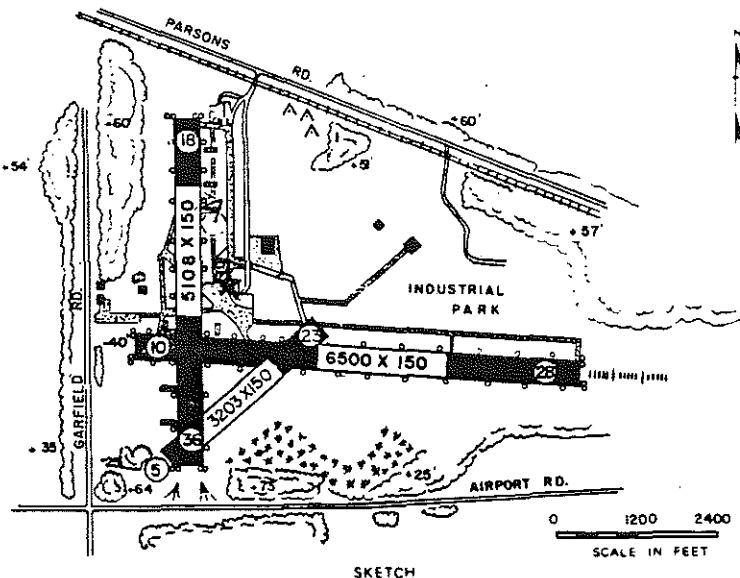
As of December 31, 1988



CITY PAIR SERVICE SUMMARIES
 Sault Ste. Marie, Chippewa County International Airport
 As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	<u>Weekly Arr. Seats Available</u>				
					Jet	Pres.	Npres.	Total	
Sault Ste. Marie, MI [CIU]									
Alpena, MI [APN]									
Northwest Airlink (Simmons Airlines) [NW*]			SH6	36	12	0	0	432	432
			Total		12	0	0	432	432

Traverse City, Cherry Capital Airport



Traverse City, Cherry Capital Airport

Passengers Carried

Cherry Capital Airport, with 160,572 total passengers, experienced a 6.0 percent increase in 1988 over the previous year. Historically, Traverse City has enjoyed a somewhat sporadic growth in total passengers since the ten year low experienced in 1982. Monthly passenger figures were higher than their corresponding 1987 values in all months except January, February, April and December. Traverse City ranked eighth in the state in total passengers with 0.7 percent of the statewide total.

ANNUAL PASSENGERS

Year	Passengers			Percent Change
	Enplaned	Deplaned	Total	
1984	67,295	68,828	136,123	-2.1%
1985	74,540	75,458	149,998	10.2%
1986	83,710	81,037	164,747	9.8%
1987	75,721	75,794	151,515	-8.0%
1988	82,010	78,562	160,572	6.0%

Service Supplied

As of December 31, 1988, Traverse City was served by four carriers operated by three

airlines. No change in carriers took place between survey dates. Cherry Capital Airport had nonstop service from six airports in four cities. Service was lost from Marquette and Muskegon resulting in a net loss of two origins from the previous year. There were 99 weekly arrivals, down 20 from 1987. Of the weekly arrivals, 63 (63.6 percent) were from a hub airport. Of the 3,618 weekly arriving seats, 1,610 (44.5 percent) were by pressurized propeller and 2,008 (55.5 percent) were by nonpressurized propeller aircraft.

WEEKLY ARRIVALS

As of December 31

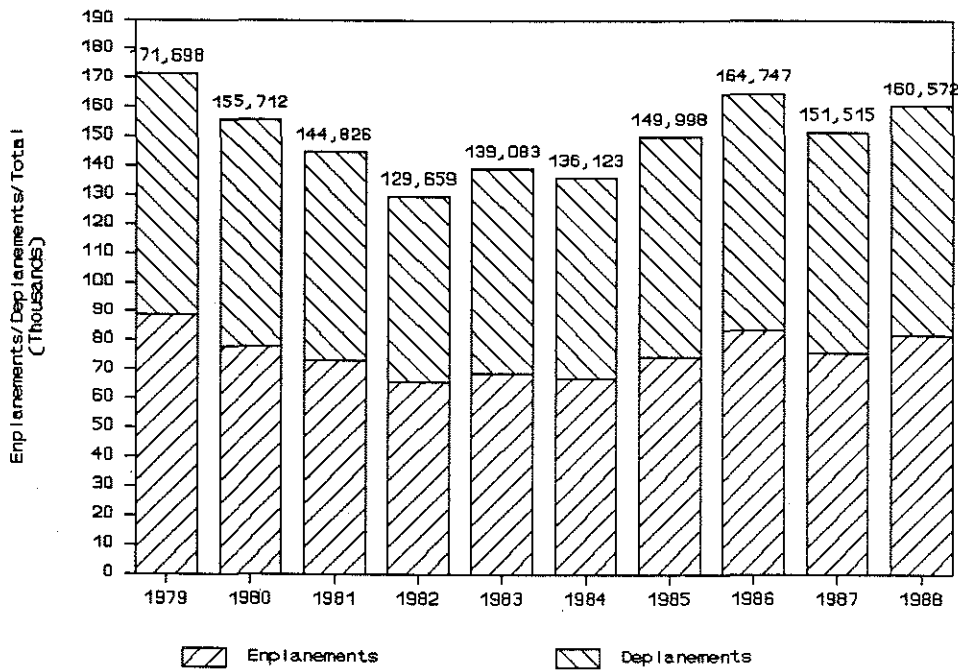
Year	Carriers Serving	Origins	Weekly Arrivals			Total
			Jet	Press	Non	
1986	5	8	0	35	110	145
1987	4	8	0	93	26	119
1988	4	6	0	35	64	99

WEEKLY ARRIVING SEATS

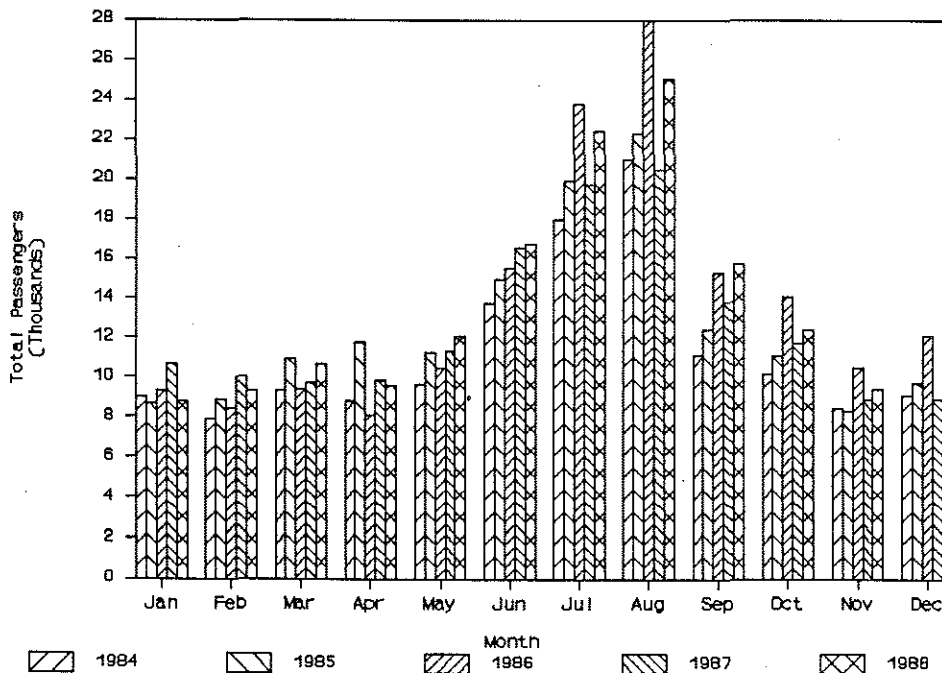
As of December 31

Year	Weekly Arriving Seats			Total
	Jet	Pressurized	Nonpress.	
1986	0	1,146	3,638	4,784
1987	0	4,278	536	4,814
1988	0	1,610	2,008	3,618

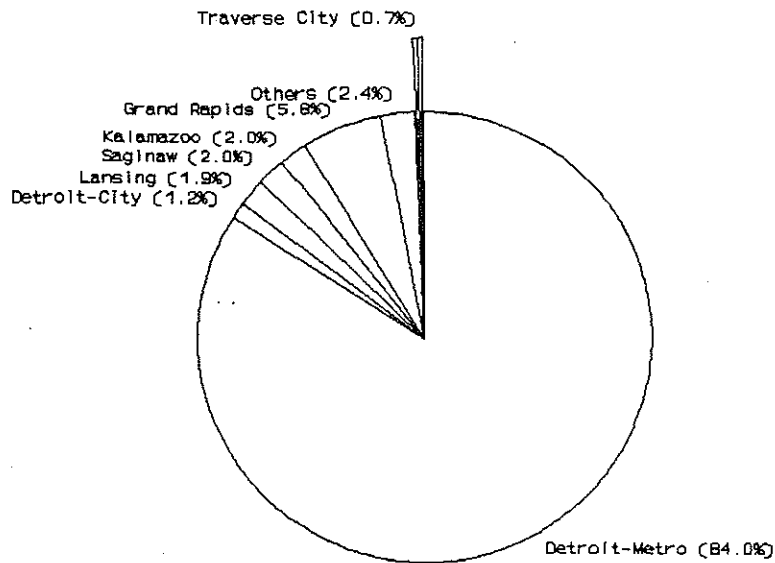
1979 - 1988 ANNUAL TOTAL PASSENGERS Traverse City, Cherry Capital Airport



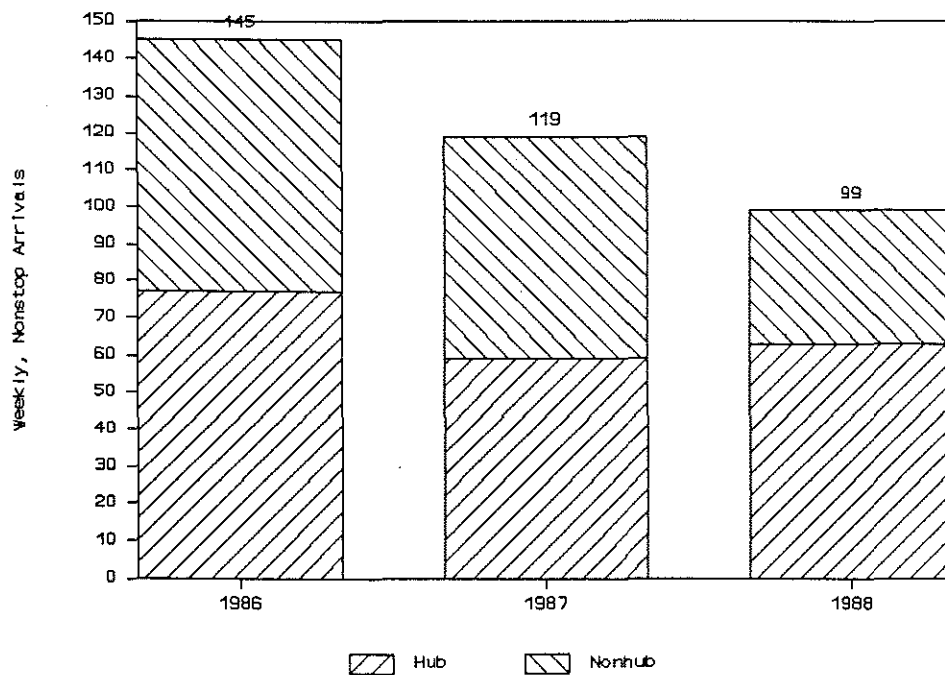
1984 - 1988 MONTHLY TOTAL PASSENGERS Traverse City, Cherry Capital Airport



1988 PASSENGER LEVEL COMPARISON Traverse City, Cherry Capital Airport

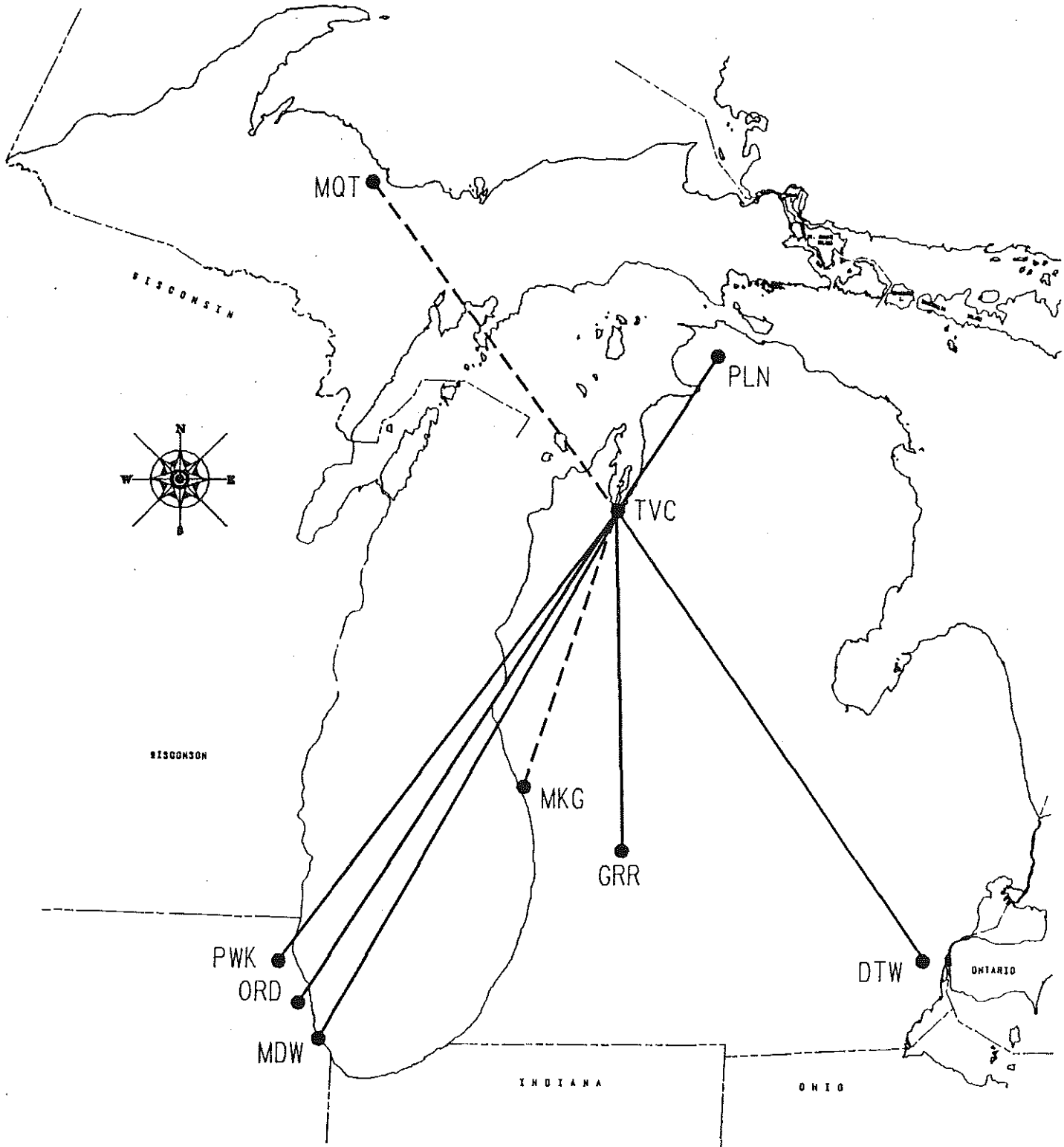


NONSTOP ARRIVALS FROM HUBS/NONHUBS Traverse City, Cherry Capital Airport



ORIGINS OF SCHEDULED NONSTOP ARRIVALS

Traverse City, Cherry Capital Airport
As of December 31, 1988



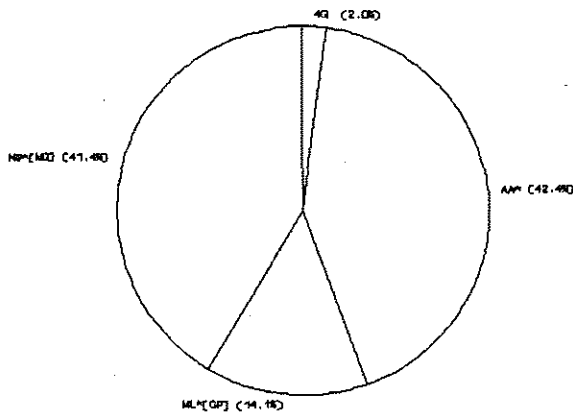
Discontinued Since 1987

Flown in 1987

New Since 1987

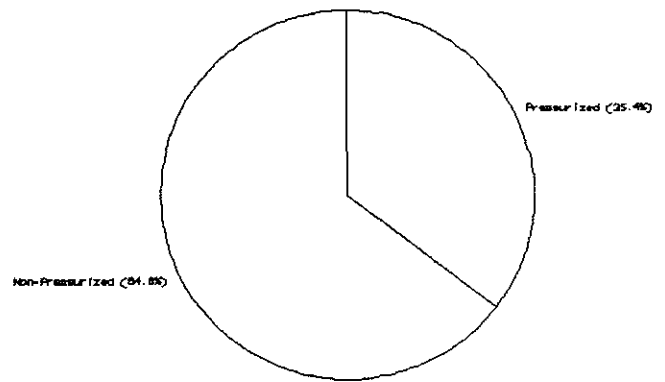
PERCENTAGE ARRIVALS
BY CARRIER

Traverse City, Cherry Capital Airport



PERCENTAGE ARRIVALS BY
AIRCRAFT TYPE

Traverse City, Cherry Capital Airport



CITY PAIR SERVICE SUMMARIES

Traverse City, Cherry Capital Airport

As of December 31, 1988

Destination [Airport Code]	Origin [Airport Code]	Carrier (Operator) [Carrier Code]	Weekly Eqp. Capacity	Weekly Arrivals	Weekly Arr. Seats Available			Total	
					Jet	Pres.	Npres.		
Traverse City, MI [TVC]									
Chicago, IL [MDW]									
		Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*] DO8	19	8	0	0	152	152	
Chicago, IL [ORD]									
		American Eagle [AA*] ATR	46	21	0	966	0	966	
		American Eagle [AA*] SH6	36	7	0	0	252	252	
Chicago, IL [PWK]									
		Trans North Aviation, Ltd. [4Q] PAG	7	2	0	0	14	14	
Detroit, MI [DTW]									
		Northwest Airlink (Simmons Airlines) [NW*] SH6	36	27	0	0	972	972	
Grand Rapids, MI [GRR]									
		Midway Connection (Fisher Bros.Avtn.,Inc.) [ML*] DO8	19	6	0	0	114	114	
Pellston, MI [PLN]									
		American Eagle [AA*] ATR	46	14	0	644	0	644	
		Northwest Airlink (Simmons Airlines) [NW*] SH6	36	14	0	0	504	504	
				Total	99	0	1,610	2,008	3,618



**Appendix A:
NONSTOP SCHEDULED AIR CARRIER ARRIVALS AT
MICHIGAN AIRPORTS WITH SCHEDULED
AIR CARRIER SERVICE**

Appendix A: Nonstop Scheduled Air Carrier Arrivals At Michigan Air Carrier Airports

The data provided in this appendix is derived from the **Official Airline Guide**, December 15, 1988 edition. The data is for scheduled airlines at Michigan scheduled air carrier airports as of December 31, 1988 ¹.

This data is presented in alphabetical order and is delineated, respectively by:

- 1) Destination airport
- 2) Origin airport
- 3) Departure time

The data for each entry includes:

- 1) Destination city and it's FAA airport code
- 2) Origin city and it's FAA airport code
- 3) Frequency of the flight
- 4) Departure time
- 5) Arrival time
- 6) Airline flight number
- 7) Equipment used

Explanations of the codes used in these entries can be found in later appendices.

¹ Data for Mackinac Island Airport is from the Official Airline Guide of July 1, 1987 and is accurate as of July 1, 1988. This is due to the seasonal nature of service at this location.

Michigan Air Carrier Airport Statistics

SCHEDULED AIR CARRIER ARRIVALS

Nonstop To Michigan Air Carrier Airports

As of December 31, 1988

Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
<u>Alpena, Phelps Collins Airport</u>								
Alpena, MI	[APN]	-Detroit, MI	[DTW]	X67	0950	1100	NW*2731	SH6
Alpena, MI	[APN]	-Detroit, MI	[DTW]	X6	2030	2140	NW*2768	SH6
Alpena, MI	[APN]	-Drummond Island, MI	[Y66]	135	1310	1350	QQ 403	PAG
Alpena, MI	[APN]	-Drummond Island, MI	[Y66]	24	1520	1600	QQ 409	PAG
Alpena, MI	[APN]	-Drummond Island, MI	[Y66]	67	1520	1600	QQ 413	PAG
Alpena, MI	[APN]	-Drummond Island, MI	[Y66]	135	1930	2010	QQ 405	PAG
Alpena, MI	[APN]	-Drummond Island, MI	[Y66]	24	2125	2200	QQ 411	PAG
Alpena, MI	[APN]	-East Tawas, MI	[6D9]	2467	1350	1405	QQ 408	PAG
Alpena, MI	[APN]	-East Tawas, MI	[6D9]	135	1815	1835	QQ 404	PAG
Alpena, MI	[APN]	-Saginaw, MI	[MBS]	135	1100	1145	QQ 402	PAG
Alpena, MI	[APN]	-Saginaw, MI	[MBS]	24	1930	2015	QQ 410	PAG
Alpena, MI	[APN]	-Sault Ste. Marie, MI	[CIU]	X7	0630	0710	NW*2740	SH6
Alpena, MI	[APN]	-Sault Ste. Marie, MI	[CIU]	X6	1215	1255	NW*2732	SH6

Benton Harbor, Twin Cities Ross Field

Benton Harbor, MI	[BEH]	-Chicago, IL	[MDW]	6	1105	1235	ML*4241	EMB
Benton Harbor, MI	[BEH]	-Chicago, IL	[MDW]	X67	1220	1350	ML*4243	EMB
Benton Harbor, MI	[BEH]	-Chicago, IL	[MDW]	X67	1710	1840	ML*4245	EMB
Benton Harbor, MI	[BEH]	-Chicago, IL	[MDW]	7	1710	1840	ML*4246	EMB
Benton Harbor, MI	[BEH]	-Chicago, IL	[MDW]	X6	2000	2130	ML*4247	EMB
Benton Harbor, MI	[BEH]	-Elkhart, IN	[EKI]	X67	0720	0740	ML*4241	EMB
Benton Harbor, MI	[BEH]	-Elkhart, IN	[EKI]	X67	1025	1045	ML*4242	EMB
Benton Harbor, MI	[BEH]	-Elkhart, IN	[EKI]	7	1300	1320	ML*4244	EMB
Benton Harbor, MI	[BEH]	-Elkhart, IN	[EKI]	X67	1700	1720	ML*4244	EMB
Benton Harbor, MI	[BEH]	-Elkhart, IN	[EKI]	7	1700	1720	ML*4245	EMB
Benton Harbor, MI	[BEH]	-Elkhart, IN	[EKI]	6	1900	1920	ML*4242	EMB

Detroit, City Airport

Detroit, MI	[DET]	-Chicago, IL	[MDW]	1234	0920	1120	WN 512	73S
Detroit, MI	[DET]	-Chicago, IL	[MDW]	123	1120	1320	WN 548	73S
Detroit, MI	[DET]	-Chicago, IL	[MDW]	X67	1310	1510	WN 515	733
Detroit, MI	[DET]	-Chicago, IL	[MDW]	X6	1600	1800	WN 414	73S
Detroit, MI	[DET]	-Chicago, IL	[MDW]	6	1710	1910	WN 352	73S
Detroit, MI	[DET]	-Chicago, IL	[MDW]	X6	1710	1910	WN 352	73S
Detroit, MI	[DET]	-Chicago, IL	[MDW]	1237	2040	2240	WN 993	73S
Detroit, MI	[DET]	-Chicago, IL	[MDW]	123	2130	2330	WN 899	73S
Detroit, MI	[DET]	-Cleveland, OH	[BKL]	X67	0700	0735	DL*3257	SWM
Detroit, MI	[DET]	-Cleveland, OH	[BKL]	X67	0840	0915	DL*3163	SWM
Detroit, MI	[DET]	-Cleveland, OH	[BKL]	X67	1320	1400	DL*3222	SWM
Detroit, MI	[DET]	-Cleveland, OH	[BKL]	X67	1520	1555	DL*3224	SWM
Detroit, MI	[DET]	-Cleveland, OH	[BKL]	X67	1705	1745	DL*3226	SWM
Detroit, MI	[DET]	-Nashville, TN	[BNA]	6	0930	1150	WN 214	73S
Detroit, MI	[DET]	-Nashville, TN	[BNA]	123	0930	1150	WN 514	73S
Detroit, MI	[DET]	-Nashville, TN	[BNA]	X6	1840	2100	WN 667	73S
Detroit, MI	[DET]	-Oshawa, ONT	[YOO]	X67	0650	0800	9F 521	SH3
Detroit, MI	[DET]	-Oshawa, ONT	[YOO]	X67	1540	1655	9F 531	SH3
Detroit, MI	[DET]	-St. Louis, MO	[STL]	1236	0755	1015	WN 672	73S
Detroit, MI	[DET]	-St. Louis, MO	[STL]	7	1435	1655	WN 619	733
Detroit, MI	[DET]	-St. Louis, MO	[STL]	123	1435	1655	WN 619	73S
Detroit, MI	[DET]	-St. Louis, MO	[STL]	1237	2000	2220	WN 658	733
Detroit, MI	[DET]	-Youngstown, OH	[YNG]	X67	0700	0755	GS 800	PAG
Detroit, MI	[DET]	-Youngstown, OH	[YNG]	X67	0925	1020	GS 802	PAG
Detroit, MI	[DET]	-Youngstown, OH	[YNG]	X67	1615	1710	GS 806	PAG

Detroit, Metropolitan Wayne County Airport

Detroit, MI	[DTW]	-Akron/Canton, OH	[CAK]	D	1100	1200	NW*3033	F27
Detroit, MI	[DTW]	-Akron/Canton, OH	[CAK]	D	1750	1850	NW*3037	F27
Detroit, MI	[DTW]	-Albany, NY	[ALB]	D	0705	0840	NW 279	D9S
Detroit, MI	[DTW]	-Albany, NY	[ALB]	D	1040	1215	NW 395	D9S

SCHEDULED AIR CARRIER ARRIVALS

Nonstop To Michigan Air Carrier Airports

As of December 31, 1988

Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)								
Detroit, MI	[DTW]	- Albany, NY	[ALB]	D	1455	1639	NW 897	D9S
Detroit, MI	[DTW]	- Albany, NY	[ALB]	D	1800	1935	NW 465	D9S
Detroit, MI	[DTW]	- Allentown, PA	[ABE]	D	0730	0855	NW 547	D9S
Detroit, MI	[DTW]	- Allentown, PA	[ABE]	6	1505	1636	NW 1447	DC9
Detroit, MI	[DTW]	- Allentown, PA	[ABE]	X6	1505	1636	NW 1447	DC9
Detroit, MI	[DTW]	- Allentown, PA	[ABE]	D	1800	1926	NW 1449	DC9
Detroit, MI	[DTW]	- Alpena, MI	[APN]	X7	0725	0835	NW*2740	SH6
Detroit, MI	[DTW]	- Alpena, MI	[APN]	X6	1310	1420	NW*2732	SH6
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	0710	0855	NW 492	DC9
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	0827	1010	DL 534	M80
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	0920	1102	EA 676	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1040	1225	NW 494	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1225	1412	EA 728	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1331	1515	DL 476	757
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1427	1613	EA 672	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	X6	1440	1630	NW 496	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	6	1440	1630	NW 496	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1610	1756	EA 762	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1701	1850	DL 350	767
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1745	1941	EA 760	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1835	2025	NW 498	DC9
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	1945	2134	EA 682	D9S
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	2039	2220	DL 148	757
Detroit, MI	[DTW]	- Atlanta, GA	[ATL]	D	2336	0110	DL 988	72S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	7	0710	0835	NW 1137	D9S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	X7	0710	0835	NW 1137	D9S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	D	0800	0930	PI 1126	733
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	D	1050	1220	NW 1139	D9S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	D	1216	1341	PI 1564	733
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	6	1455	1630	NW 1141	D9S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	X6	1455	1630	NW 1141	D9S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	X6	1740	1909	PI 1876	F28
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	D	1805	1935	NW 1143	72S
Detroit, MI	[DTW]	- Baltimore, MD/Washington, DC	[BWI]	D	2051	2216	PI 1108	72S
Detroit, MI	[DTW]	- Boston, MA	[BOS]	D	0645	0845	NW 579	757
Detroit, MI	[DTW]	- Boston, MA	[BOS]	X7	0925	1123	NW 383	72S
Detroit, MI	[DTW]	- Boston, MA	[BOS]	D	1000	1202	NW 747	D10
Detroit, MI	[DTW]	- Boston, MA	[BOS]	X7	1210	1417	NW 387	D9S
Detroit, MI	[DTW]	- Boston, MA	[BOS]	7	1210	1417	NW 387	727
Detroit, MI	[DTW]	- Boston, MA	[BOS]	D	1430	1630	NW 337	D10
Detroit, MI	[DTW]	- Boston, MA	[BOS]	6	1705	1903	NW 49	D10
Detroit, MI	[DTW]	- Boston, MA	[BOS]	X6	1705	1903	NW 49	D10
Detroit, MI	[DTW]	- Boston, MA	[BOS]	D	2000	2158	NW 393	72S
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	7	0725	0838	NW 423	72S
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	X7	0725	0838	NW 423	72S
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	D	0845	0948	CO 1217	M80
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	D	1110	1216	NW 1119	72S
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	6	1530	1640	NW 318	D9S
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	X6	1530	1640	NW 318	D9S
Detroit, MI	[DTW]	- Buffalo, NY	[BUF]	D	1810	1913	NW 425	D9S
Detroit, MI	[DTW]	- Charlotte, NC	[CLT]	D	0904	1039	PI 1438	733
Detroit, MI	[DTW]	- Charlotte, NC	[CLT]	X67	1223	1358	PI 1117	733
Detroit, MI	[DTW]	- Charlotte, NC	[CLT]	D	1625	1800	PI 1252	734
Detroit, MI	[DTW]	- Charlotte, NC	[CLT]	D	1929	2104	PI 1462	734
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	123	0645	0835	WN 547	733
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	X7	0700	0900	ML 302	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	0900	1100	ML 132	DC9
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	0905	1113	NW 495	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	1000	1200	ML 304	DC9
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	156	1020	1210	WN 761	733
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	6	1120	1310	WN 390	73S

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)								
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	123	1120	1310	WN 536	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	1200	1400	ML 318	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	6	1340	1530	WN 392	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	1400	1600	ML 106	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	1420	1610	WN 922	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	1500	1700	ML 308	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	6	1600	1750	WN 314	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	X6	1600	1750	WN 314	DC9
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	D	1700	1900	ML 310	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	17	1740	1930	WN 545	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	X6	1900	2100	ML 320	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	123	1925	2115	WN 648	73S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	X6	2000	2200	ML 130	D9S
Detroit, MI	[DTW]	- Chicago, IL	[MDW]	X6	2145	2335	WN 518	73S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	0545	0750	NW 160	D9S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	0650	0906	AA 72	D10
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	456	0650	0854	NW 162	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	0650	0854	UA 500	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	6	0750	1000	NW 164	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	X6	0750	1000	NW 164	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	0825	1031	UA 684	D10
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	0953	1204	AA 274	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1030	1232	NW 168	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1115	1321	NW 470	D9S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1140	1344	UA 590	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1305	1511	NW 440	D9S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1312	1524	AA 626	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1405	1614	UA 226	D10
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1455	1700	NW 472	757
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1602	1816	AA 608	D10
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	X6	1700	1910	NW 136	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	6	1700	1910	NW 136	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1700	1911	UA 232	D10
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1720	1934	AA 248	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	1825	2040	NW 474	72S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	6	1955	2204	UA 502	73S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	X6	1955	2204	UA 502	73S
Detroit, MI	[DTW]	- Chicago, IL	[ORD]	D	2026	2242	AA 212	D10
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	0650	0748	NW 394	D9S
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	0702	0755	DL 550	72S
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X67	0801	0910	DL*3077	SF3
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	1015	1113	NW 1138	D9S
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	1048	1145	DL 690	72S
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X67	1226	1336	DL*3170	SWM
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X6	1425	1524	NW 316	D9S
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	6	1425	1524	NW 316	D9S
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	1435	1530	DL 685	M80
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X6	1530	1640	DL*3146	SF3
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X6	1721	1835	DL*3018	SF3
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	6	1721	1835	DL*3294	SWM
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X6	1841	1951	DL*3104	SF3
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	X67	1935	2045	DL*3121	SF3
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	1940	2045	NW 1460	DC9
Detroit, MI	[DTW]	- Cincinnati, OH	[CVG]	D	2030	2135	DL 246	72S
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	6	0800	0853	NW 639	D9S
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	7	0800	0853	NW 639	D9S
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	X67	0800	0853	NW 639	D9S
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	X67	0840	0930	NW*3001	SWM
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	X67	1015	1105	NW*3009	F27
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	D	1115	1205	NW*3015	SWM

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)								
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	D	1135	1220	NW 341	DC9
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	D	1415	1505	NW*3003	F27
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	D	1550	1640	NW 814	DC9
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	X6	1815	1905	NW*3007	SWM
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	D	1900	1953	CO 937	733
Detroit, MI	[DTW]	- Cleveland, OH	[CLE]	D	1935	2028	NW 489	DC9
Detroit, MI	[DTW]	- Columbus, OH	[CMH]	D	0700	0746	NW 1136	D9S
Detroit, MI	[DTW]	- Columbus, OH	[CMH]	D	1010	1100	NW 326	D9S
Detroit, MI	[DTW]	- Columbus, OH	[CMH]	6	1430	1520	NW 1148	D9S
Detroit, MI	[DTW]	- Columbus, OH	[CMH]	X6	1430	1520	NW 1148	D9S
Detroit, MI	[DTW]	- Columbus, OH	[CMH]	X6	1840	2110	PI*4018	J31
Detroit, MI	[DTW]	- Columbus, OH	[CMH]	D	1950	2045	NW 1466	DC9
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	0745	1109	NW 690	D9S
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	0830	1159	AA 198	767
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	0950	1320	DL 722	73S
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	1155	1522	NW 692	D9S
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	1258	1634	AA 1132	D10
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	1657	2015	DL 1914	72S
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	1710	2038	NW 694	D9S
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	1720	2047	AA 414	72S
Detroit, MI	[DTW]	- Dallas/Ft. Worth, TX	[DFW]	D	2002	2330	AA 158	D10
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X67	0625	0720	PI*4081	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X7	0750	0900	NW*3051	F27
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X7	0815	0915	PI*4050	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	0910	1005	PI*4082	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X67	1050	1150	PI*4083	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	1100	1210	NW*3059	SWM
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	1155	1255	PI*4027	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	1355	1455	PI*4052	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	1410	1520	NW*3055	F27
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X67	1500	1600	PI*4084	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X6	1630	1730	PI*4024	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	1715	1815	PI*4025	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	X6	2010	2110	PI*4018	J31
Detroit, MI	[DTW]	- Dayton, OH	[DAY]	D	2210	2310	PI*4055	J31
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1027	1503	UA 680	72S
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1027	1503	UA 680	72S
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1100	1555	CO 1704	M80
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1320	1803	CO 1236	M80
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1504	1937	UA 374	72S
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1600	2052	CO 1212	M80
Detroit, MI	[DTW]	- Denver, CO	[DEN]	D	1844	2317	UA 720	72S
Detroit, MI	[DTW]	- Erie, PA	[ERI]	X7	0725	0830	NW*3043	F27
Detroit, MI	[DTW]	- Erie, PA	[ERI]	D	1515	1625	NW*3047	SWM
Detroit, MI	[DTW]	- Erie, PA	[ERI]	D	1810	1920	NW*3045	F27
Detroit, MI	[DTW]	- Flint, MI	[FNT]	X7	0700	0735	NW*2767	SH6
Detroit, MI	[DTW]	- Flint, MI	[FNT]	D	1045	1120	NW*2815	SH6
Detroit, MI	[DTW]	- Flint, MI	[FNT]	X6	1550	1625	NW*2716	SH6
Detroit, MI	[DTW]	- Flint, MI	[FNT]	X6	1815	1850	NW*2704	SH6
Detroit, MI	[DTW]	- Flint, MI	[FNT]	X6	1845	1920	NW*2772	SH6
Detroit, MI	[DTW]	- Ft. Lauderdale, FL	[FLL]	D	1229	1517	DL 215	72S
Detroit, MI	[DTW]	- Ft. Lauderdale, FL	[FLL]	D	1400	1650	NW 245	D9S
Detroit, MI	[DTW]	- Ft. Myers, FL	[RSW]	D	0930	1213	NW 1109	D9S
Detroit, MI	[DTW]	- Ft. Myers, FL	[RSW]	D	1242	1525	NW 1111	D9S
Detroit, MI	[DTW]	- Ft. Wayne, IN	[FWA]	5	0700	0744	NW 1100	D9S
Detroit, MI	[DTW]	- Ft. Wayne, IN	[FWA]	X5	0700	0744	NW 1100	D9S
Detroit, MI	[DTW]	- Ft. Wayne, IN	[FWA]	D	1042	1125	NW 278	D9S
Detroit, MI	[DTW]	- Ft. Wayne, IN	[FWA]	D	1430	1514	NW 1458	DC9
Detroit, MI	[DTW]	- Ft. Wayne, IN	[FWA]	D	1840	1929	NW 1126	D9S
Detroit, MI	[DTW]	- Grand Rapids, MI	[GRR]	D	0700	0742	NW 1120	72S

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Flight Time Number	Eqp
<u>Detroit Metropolitan Wayne County Airport (cont.)</u>							
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	567	0800	0850 NW 873	DC9
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	1234	0800	0850 NW 873	DC9
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	D	1040	1125 NW 362	D9S
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	D	1425	1510 NW 1186	72S
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	6	1600	1650 NW 287	727
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	X6	1600	1650 NW 287	727
Detroit, MI	[DTW]	-Grand Rapids, MI	[GRR]	D	1945	2032 NW 268	D9S
Detroit, MI	[DTW]	-Green Bay, WI	[GRB]	D	0920	1119 NW 1146	D9S
Detroit, MI	[DTW]	-Green Bay, WI	[GRB]	6	1324	1525 NW 1104	D9S
Detroit, MI	[DTW]	-Green Bay, WI	[GRB]	X6	1324	1525 NW 1104	D9S
Detroit, MI	[DTW]	-Green Bay, WI	[GRB]	D	1825	2033 NW 794	D9S
Detroit, MI	[DTW]	-Harrisburg, PA	[HAR]	X7	0720	0843 NW 1463	DC9
Detroit, MI	[DTW]	-Harrisburg, PA	[HAR]	7	0720	0843 NW 1463	DC9
Detroit, MI	[DTW]	-Harrisburg, PA	[HAR]	D	1515	1640 NW 1465	DC9
Detroit, MI	[DTW]	-Harrisburg, PA	[HAR]	D	1810	1925 NW 1467	DC9
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	D	0650	0844 UA 171	D8S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	D	0700	0846 NW 1047	72S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	D	1035	1220 NW 693	D9S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	D	1330	1659 CO 795	73S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	D	1445	1640 NW 1193	72S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	X6	1725	1913 NW 1187	D9S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	6	1725	1913 NW 1187	D9S
Detroit, MI	[DTW]	-Hartford, CT/Springfield, MA	[BDL]	D	1855	2043 NW 1189	72S
Detroit, MI	[DTW]	-Houston, TX	[HOU]	X7	0735	1105 NW 270	D9S
Detroit, MI	[DTW]	-Houston, TX	[HOU]	7	0735	1105 NW 270	D9S
Detroit, MI	[DTW]	-Houston, TX	[HOU]	D	1155	1523 NW 272	D9S
Detroit, MI	[DTW]	-Houston, TX	[HOU]	D	1655	2034 NW 274	D9S
Detroit, MI	[DTW]	-Houston, TX	[IAH]	6	0805	1141 CO 1080	M80
Detroit, MI	[DTW]	-Houston, TX	[IAH]	X6	0805	1141 CO 1080	D9S
Detroit, MI	[DTW]	-Houston, TX	[IAH]	D	1335	1715 CO 938	M80
Detroit, MI	[DTW]	-Houston, TX	[IAH]	D	1925	2303 CO 468	72S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	0700	0750 NW 1000	DC9
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	0735	0825 DL 654	M80
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	X7	0815	0915 NW 1002	72S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	7	1000	1100 NW 1102	72S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	X7	1000	1100 NW 1102	D9S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	1425	1521 NW 1006	DC9
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	6	1515	1605 DL 664	D9S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	X6	1515	1605 DL 664	72S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	1805	1904 NW 1008	D9S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	1905	1956 DL 484	D9S
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	1940	2041 NW 240	M80
Detroit, MI	[DTW]	-Indianapolis, IN	[IND]	D	2345	0034 DL 1792	72S
Detroit, MI	[DTW]	-Jackson, MI	[JXN]	X7	0845	0915 NW*2761	SH6
Detroit, MI	[DTW]	-Jackson, MI	[JXN]	X6	2000	2030 NW*2763	SH6
Detroit, MI	[DTW]	-Kalamazoo, MI	[AZO]	D	0700	0737 NW 276	DC9
Detroit, MI	[DTW]	-Kalamazoo, MI	[AZO]	D	1045	1122 NW 1440	DC9
Detroit, MI	[DTW]	-Kalamazoo, MI	[AZO]	D	1425	1503 NW 388	DC9
Detroit, MI	[DTW]	-Kalamazoo, MI	[AZO]	D	1845	1925 NW 359	DC9
Detroit, MI	[DTW]	-Kansas City, MO	[MCI]	D	0820	1059 BN 692	72S
Detroit, MI	[DTW]	-Kansas City, MO	[MCI]	D	0820	1059 NW 638	D9S
Detroit, MI	[DTW]	-Kansas City, MO	[MCI]	D	1235	1518 BN 640	D9S
Detroit, MI	[DTW]	-Kansas City, MO	[MCI]	D	1300	1539 NW 522	72S
Detroit, MI	[DTW]	-Kansas City, MO	[MCI]	D	1755	2038 BN 500	72S
Detroit, MI	[DTW]	-Kansas City, MO	[MCI]	D	1805	2050 NW 642	D9S
Detroit, MI	[DTW]	-Lansing, MI	[LAN]	D	0700	0735 NW 493	D9S
Detroit, MI	[DTW]	-Lansing, MI	[LAN]	D	1040	1115 NW 1444	DC9
Detroit, MI	[DTW]	-Lansing, MI	[LAN]	D	1425	1459 NW 499	DC9
Detroit, MI	[DTW]	-Lansing, MI	[LAN]	D	1845	1921 NW 497	DC9
Detroit, MI	[DTW]	-Las Vegas, NV	[LAS]	D	0810	1455 NW 1190	72S

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)								
Detroit, MI	[DTW]	-Las Vegas, NV	[LAS]	D	1140	2045	NW 1192	72S
Detroit, MI	[DTW]	-London, ONT	[YXU]	X7	1000	1045	AC*1299	DH8
Detroit, MI	[DTW]	-London, ONT	[YXU]	X6	1500	1545	AC*1301	DH8
Detroit, MI	[DTW]	-London, ONT	[YXU]	X6	1950	2035	AC*1305	DH8
Detroit, MI	[DTW]	-London, UK	[LHR]	D	1315	1640	PA 55	310
Detroit, MI	[DTW]	-Los Angeles, CA	[LAX]	D	0005	0720	NW 330	757
Detroit, MI	[DTW]	-Los Angeles, CA	[LAX]	D	0740	1450	NW 332	D10
Detroit, MI	[DTW]	-Los Angeles, CA	[LAX]	D	1600	2315	NW 336	757
Detroit, MI	[DTW]	-Louisville, KY	[SDF]	D	0640	0747	NW 448	D9S
Detroit, MI	[DTW]	-Louisville, KY	[SDF]	X67	1110	1235	DL*3140	SF3
Detroit, MI	[DTW]	-Louisville, KY	[SDF]	6	1410	1524	NW 260	DC9
Detroit, MI	[DTW]	-Louisville, KY	[SDF]	X6	1410	1524	NW 260	DC9
Detroit, MI	[DTW]	-Louisville, KY	[SDF]	X67	1535	1655	DL*3177	SWM
Detroit, MI	[DTW]	-Louisville, KY	[SDF]	D	1930	2042	NW 538	D9S
Detroit, MI	[DTW]	-Madison, WI	[MSN]	D	0855	1059	NW 1182	72S
Detroit, MI	[DTW]	-Madison, WI	[MSN]	6	1300	1511	NW 318	72S
Detroit, MI	[DTW]	-Madison, WI	[MSN]	X6	1300	1511	NW 318	72S
Detroit, MI	[DTW]	-Madison, WI	[MSN]	D	1825	2035	NW 1106	D9S
Detroit, MI	[DTW]	-Marquette, MI	[MQT]	D	0640	0850	NW*2801	SH6
Detroit, MI	[DTW]	-Marquette, MI	[MQT]	D	1315	1530	NW*2755	SH6
Detroit, MI	[DTW]	-Marquette, MI	[MQT]	D	1435	1634	NW*2751	SH6
Detroit, MI	[DTW]	-Memphis, TN	[MEM]	7	0840	1125	NW 290	757
Detroit, MI	[DTW]	-Memphis, TN	[MEM]	X7	0840	1125	NW 290	757
Detroit, MI	[DTW]	-Memphis, TN	[MEM]	D	1225	1514	NW 292	757
Detroit, MI	[DTW]	-Memphis, TN	[MEM]	D	1610	1859	NW 294	757
Detroit, MI	[DTW]	-Memphis, TN	[MEM]	6	2010	2254	NW 296	72S
Detroit, MI	[DTW]	-Memphis, TN	[MEM]	X6	2010	2254	NW 296	72S
Detroit, MI	[DTW]	-Miami, FL	[MIA]	X5	0815	1110	NW 994	D9S
Detroit, MI	[DTW]	-Miami, FL	[MIA]	5	0815	1110	NW 994	D9S
Detroit, MI	[DTW]	-Miami, FL	[MIA]	6	1320	1613	DL 552	757
Detroit, MI	[DTW]	-Miami, FL	[MIA]	D	1735	2030	NW 998	D9S
Detroit, MI	[DTW]	-Miami, FL	[MIA]	D	1915	2203	EA 52	72S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	D	0550	0750	NW 420	757
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	X67	0700	0900	YX 250	DC9
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	D	0925	1125	NW 202	72S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	D	1240	1435	NW 424	D9S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	D	1250	1445	TW 766	72S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	X67	1250	1450	YX 254	DC9
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	D	1310	1513	NW 426	D9S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	D	1440	1645	NW 932	72S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	X6	1600	1800	YX 307	DC9
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	X6	1620	1820	NW 534	D9S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	X6	1830	2035	NW 1454	D9S
Detroit, MI	[DTW]	-Milwaukee, WI	[MKE]	6	1830	2035	NW 1454	D9S
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	67	0615	0850	NW 740	727
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	X67	0615	0850	NW 740	727
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	X6	0805	1039	NW 742	747
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	6	0805	1039	NW 742	747
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	D	0840	1113	NW 744	757
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	D	1045	1315	NW 746	D9S
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	D	1245	1525	NW 748	D10
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	D	1415	1650	NW 750	M80
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	D	1645	1920	NW 752	727
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	6	1750	2038	NW 754	D10
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	X6	1750	2038	NW 754	D10
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	D	1905	2137	NW 756	DC9
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	X7	2100	2327	NW 758	72S
Detroit, MI	[DTW]	-Minneapolis/St.Paul, MN	[MSP]	7	2100	2327	NW 758	72S
Detroit, MI	[DTW]	-Montreal, QUE	[YMX]	D	1415	1555	BA 095	L10
Detroit, MI	[DTW]	-Montreal, QUE	[YMX]	57	1425	1600	SN 555	727

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)								
Detroit, MI	[DTW]	-Montreal, QUE	[YUL]	D	0700	0850	NW 1101	D9S
Detroit, MI	[DTW]	-Montreal, QUE	[YUL]	D	1035	1220	NW 1103	D9S
Detroit, MI	[DTW]	-Montreal, QUE	[YUL]	D	1450	1639	NW 1105	D9S
Detroit, MI	[DTW]	-Montreal, QUE	[YUL]	D	1850	2035	NW 1107	D9S
Detroit, MI	[DTW]	-Nashville, TN	[BNA]	D	0830	1057	AA 1212	M80
Detroit, MI	[DTW]	-Nashville, TN	[BNA]	D	0835	1101	NW 736	D9S
Detroit, MI	[DTW]	-Nashville, TN	[BNA]	D	1245	1510	NW 530	D9S
Detroit, MI	[DTW]	-Nashville, TN	[BNA]	D	1340	1616	AA 914	M80
Detroit, MI	[DTW]	-Nashville, TN	[BNA]	D	1755	2020	NW 650	D9S
Detroit, MI	[DTW]	-Nashville, TN	[BNA]	D	1855	2124	AA 1068	72S
Detroit, MI	[DTW]	-New Orleans, LA	[MSY]	D	0755	1112	NW 1462	DC9
Detroit, MI	[DTW]	-New York, NY	[JFK]	D	1725	1920	NW 39	72S
Detroit, MI	[DTW]	-New York, NY	[JFK]	D	1745	1943	PA 563	72S
Detroit, MI	[DTW]	-New York, NY	[JFK]	1	1750	1952	TW 769	72S
Detroit, MI	[DTW]	-New York, NY	[JFK]	X1	1750	1952	TW 769	72S
Detroit, MI	[DTW]	-New York, NY	[JFK]	D	2220	0018	PA 226	72S
Detroit, MI	[DTW]	-New York, NY	[LGA]	7	0659	0849	NW 247	757
Detroit, MI	[DTW]	-New York, NY	[LGA]	X7	0659	0849	NW 247	757
Detroit, MI	[DTW]	-New York, NY	[LGA]	X7	0759	0954	NW 745	D9S
Detroit, MI	[DTW]	-New York, NY	[LGA]	X7	0930	1120	NW 480	72S
Detroit, MI	[DTW]	-New York, NY	[LGA]	7	0930	1120	NW 480	72S
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1038	1225	NW 527	72S
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1130	1315	NW 529	727
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1435	1631	NW 251	72S
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1435	1631	NW 531	72S
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1645	1837	NW 533	D9S
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1730	1925	NW 535	757
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	1840	2039	NW 537	D9S
Detroit, MI	[DTW]	-New York, NY	[LGA]	D	2005	2152	NW 539	72S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	X7	0700	0851	CO 789	73S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	X7	0700	0843	NW 1191	757
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	7	0700	0843	NW 1191	757
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	0835	1024	CO 769	737
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	0925	1110	NW 363	72S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1025	1207	CO 447	D9S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1035	1220	NW 365	72S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1135	1221	CO 680	D9S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1230	1415	NW 367	D9S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1335	1514	CO 799	73S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1455	1648	NW 369	72S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1505	1659	CO 795	73S
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1720	1911	CO 805	737
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1740	1925	NW 371	757
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	1825	2017	CO 635	M80
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	X6	2000	2150	CO 289	737
Detroit, MI	[DTW]	-New York, NY/Newark, NJ	[EWR]	D	2115	2257	CO 1788	727
Detroit, MI	[DTW]	-New York/White Plains, NY	[HPN]	D	0705	0848	NW 1145	D9S
Detroit, MI	[DTW]	-New York/White Plains, NY	[HPN]	D	1029	1209	NW 1147	DC9
Detroit, MI	[DTW]	-New York/White Plains, NY	[HPN]	D	1429	1612	NW 1149	D9S
Detroit, MI	[DTW]	-New York/White Plains, NY	[HPN]	57	1800	1940	NW 1151	D9S
Detroit, MI	[DTW]	-New York/White Plains, NY	[HPN]	X57	1800	1940	NW 1151	D9S
Detroit, MI	[DTW]	-Norfolk/Va.Beach/Wmsburg, VA	[ORF]	7	0700	0844	NW 1451	D9S
Detroit, MI	[DTW]	-Norfolk/Va.Beach/Wmsburg, VA	[ORF]	X7	0700	0844	NW 1451	D9S
Detroit, MI	[DTW]	-Norfolk/Va.Beach/Wmsburg, VA	[ORF]	D	1455	1640	NW 1453	D9S
Detroit, MI	[DTW]	-Norfolk/Va.Beach/Wmsburg, VA	[ORF]	6	1800	1940	NW 1455	DC9
Detroit, MI	[DTW]	-Norfolk/Va.Beach/Wmsburg, VA	[ORF]	X6	1800	1940	NW 1455	DC9
Detroit, MI	[DTW]	-Orlando, FL	[MCO]	D	0935	1218	NW 475	D9S
Detroit, MI	[DTW]	-Orlando, FL	[MCO]	5	1220	1458	NW 439	D9S
Detroit, MI	[DTW]	-Orlando, FL	[MCO]	X5	1220	1458	NW 439	D9S
Detroit, MI	[DTW]	-Orlando, FL	[MCO]	D	1345	1623	NW 441	72S

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)								
Detroit, MI	[DTW]	- Orlando, FL	[MCO]	D	1415	1652	BN 374	72S
Detroit, MI	[DTW]	- Orlando, FL	[MCO]	D	1915	2157	BN 378	73S
Detroit, MI	[DTW]	- Orlando, FL	[MCO]	D	1924	2155	DL 368	72S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	0700	0840	NW 201	72S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	0915	1042	NW 199	DC9
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	X7	0935	1112	US 491	B11
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	7	0935	1112	US 491	D9S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	1036	1219	NW 203	72S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	1200	1332	NW 205	DC9
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	1450	1635	NW 207	72S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	X6	1730	1900	US 641	D9S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	1735	1915	NW 339	757
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	D	1940	2111	US 58	73S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	X7	1955	2135	NW 211	D9S
Detroit, MI	[DTW]	- Philadelphia, PA	[PHL]	7	1955	2135	NW 211	D9S
Detroit, MI	[DTW]	- Phoenix, AZ	[PHX]	D	0915	1450	NW 246	72S
Detroit, MI	[DTW]	- Phoenix, AZ	[PHX]	X6	1300	1845	WN 924	733
Detroit, MI	[DTW]	- Phoenix, AZ	[PHX]	D	1505	2040	NW 250	757
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	0740	0847	NW 1108	D9S
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	0845	0942	US 545	B11
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	1120	1219	NW 1445	DC9
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	1315	1410	US 467	D9S
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	1430	1525	US 739	D9S
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	1525	1637	NW 321	DC9
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	X6	1655	1750	US 234	D9S
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	6	1750	1845	US 223	D9S
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	X6	1750	1845	US 223	733
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	1810	1907	NW 1011	DC9
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	2035	2132	US 169	B11
Detroit, MI	[DTW]	- Pittsburgh, PA	[PIT]	D	2145	2240	US 110	D9S
Detroit, MI	[DTW]	- Portland, OR	[PDX]	D	1320	2025	NW 96	72S
Detroit, MI	[DTW]	- Providence, RI	[PVD]	7	0700	0855	NW 691	D9S
Detroit, MI	[DTW]	- Providence, RI	[PVD]	X7	0700	0855	NW 691	D9S
Detroit, MI	[DTW]	- Providence, RI	[PVD]	D	1440	1640	NW 641	D9S
Detroit, MI	[DTW]	- Providence, RI	[PVD]	7	1850	2044	NW 427	D9S
Detroit, MI	[DTW]	- Providence, RI	[PVD]	X7	1850	2044	NW 427	D9S
Detroit, MI	[DTW]	- Raleigh/Durham, NC	[RDU]	D	1015	1201	AA 1010	72S
Detroit, MI	[DTW]	- Raleigh/Durham, NC	[RDU]	D	1415	1600	AA 1340	72S
Detroit, MI	[DTW]	- Raleigh/Durham, NC	[RDU]	D	2050	2238	AA 956	72S
Detroit, MI	[DTW]	- Rochester, NY	[ROC]	D	0730	0847	NW 1003	72S
Detroit, MI	[DTW]	- Rochester, NY	[ROC]	D	1110	1220	NW 281	DC9
Detroit, MI	[DTW]	- Rochester, NY	[ROC]	D	1525	1640	NW 695	D9S
Detroit, MI	[DTW]	- Rochester, NY	[ROC]	D	1810	2119	NW 249	D9S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	D	0700	0737	NW 364	72S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	D	0800	0838	NW 271	D9S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	135	0900	0945	QQ 401	PAG
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	D	1045	1124	NW 366	72S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	2467	1045	1115	QQ 407	PAG
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	D	1435	1516	NW 416	72S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	135	1505	1550	QQ 403	PAG
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	D	1605	1640	NW 275	D9S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	67	1715	1800	QQ 413	PAG
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	24	1725	1810	QQ 409	PAG
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	D	1845	1920	NW 447	D9S
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	135	2125	2205	QQ 405	PAG
Detroit, MI	[DTW]	- Saginaw, MI	[MBS]	24	2255	2340	QQ 411	PAG
Detroit, MI	[DTW]	- San Diego, CA	[SAN]	D	0800	1505	NW 286	727
Detroit, MI	[DTW]	- San Diego, CA	[SAN]	D	1320	2025	NW 288	727
Detroit, MI	[DTW]	- San Francisco/Oakland, CA	[SFO]	D	0020	0745	NW 82	757
Detroit, MI	[DTW]	- San Francisco/Oakland, CA	[SFO]	D	0725	1450	NW 340	D10

Michigan Air Carrier Airport Statistics

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Flight Time Number	Eqp
Detroit Metropolitan Wayne County Airport (cont.)							
Detroit, MI	[DTW]	- San Francisco/Oakland, CA	[SFO]	D	1205	1920 NW 342	72S
Detroit, MI	[DTW]	- San Francisco/Oakland, CA	[SFO]	D	1235	1958 UA 758	D8S
Detroit, MI	[DTW]	- San Francisco/Oakland, CA	[SFO]	D	1305	2028 NW 344	757
Detroit, MI	[DTW]	- Sarasota/Bradenton, FL	[SRQ]	D	1225	1505 NW 1133	D9S
Detroit, MI	[DTW]	- Seattle/Tacoma, WA	[SEA]	D	0750	1457 NW 578	757
Detroit, MI	[DTW]	- Seattle/Tacoma, WA	[SEA]	D	1315	2023 NW 580	757
Detroit, MI	[DTW]	- South Bend, IN	[SBN]	D	0700	0749 NW 1480	DC9
Detroit, MI	[DTW]	- South Bend, IN	[SBN]	D	1039	1125 NW 1450	D9S
Detroit, MI	[DTW]	- South Bend, IN	[SBN]	D	1420	1508 NW 1452	DC9
Detroit, MI	[DTW]	- South Bend, IN	[SBN]	D	1835	1924 NW 1486	DC9
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	X7	0600	0820 NW 458	72S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	X7	0744	1008 TW 432	D9S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	7	0830	1055 NW 460	72S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	X7	0830	1055 NW 460	D9S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	D	1051	1320 TW 648	D9S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	D	1230	1450 NW 544	72S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	D	1341	1611 TW 224	M80
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	D	1748	2022 TW 220	D9S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	D	1825	2050 NW 464	D9S
Detroit, MI	[DTW]	- St. Louis, MO	[STL]	D	2035	2305 TW 320	72S
Detroit, MI	[DTW]	- Syracuse, NY	[SYR]	D	0715	0837 NW 995	D9S
Detroit, MI	[DTW]	- Syracuse, NY	[SYR]	D	1044	1212 NW 1483	DC9
Detroit, MI	[DTW]	- Syracuse, NY	[SYR]	D	1505	1636 NW 953	D9S
Detroit, MI	[DTW]	- Syracuse, NY	[SYR]	D	1805	1925 NW 643	D9S
Detroit, MI	[DTW]	- Tampa/St. Petersburg, FL	[TPA]	X5	0840	1112 NW 479	72S
Detroit, MI	[DTW]	- Tampa/St. Petersburg, FL	[TPA]	5	0840	1112 NW 479	72S
Detroit, MI	[DTW]	- Tampa/St. Petersburg, FL	[TPA]	X5	1220	1453 NW 481	D9S
Detroit, MI	[DTW]	- Tampa/St. Petersburg, FL	[TPA]	5	1220	1453 NW 481	D9S
Detroit, MI	[DTW]	- Tampa/St. Petersburg, FL	[TPA]	D	1350	1625 NW 483	72S
Detroit, MI	[DTW]	- Tampa/St. Petersburg, FL	[TPA]	D	1910	2137 DL 206	757
Detroit, MI	[DTW]	- Tokyo, JPN	[NRT]	D	1550	1425 NW 12	747
Detroit, MI	[DTW]	- Toledo, OH	[TOL]	X7	0810	0845 NW*2830	SH6
Detroit, MI	[DTW]	- Toledo, OH	[TOL]	D	1045	1120 NW*2832	SH6
Detroit, MI	[DTW]	- Toledo, OH	[TOL]	X6	1840	1915 NW*2838	SH6
Detroit, MI	[DTW]	- Toronto, ONT	[YYZ]	D	0715	0840 NW 97	72S
Detroit, MI	[DTW]	- Toronto, ONT	[YYZ]	D	1055	1201 NW 343	757
Detroit, MI	[DTW]	- Toronto, ONT	[YYZ]	D	1350	1452 NW 415	72S
Detroit, MI	[DTW]	- Toronto, ONT	[YYZ]	D	1535	1640 NW 417	72S
Detroit, MI	[DTW]	- Toronto, ONT	[YYZ]	D	1820	1923 NW 419	72S
Detroit, MI	[DTW]	- Traverse City, MI	[TVC]	D	0720	0840 NW*2860	SH6
Detroit, MI	[DTW]	- Traverse City, MI	[TVC]	D	1315	1435 NW*2871	SH6
Detroit, MI	[DTW]	- Traverse City, MI	[TVC]	D	1455	1615 NW*2747	SH6
Detroit, MI	[DTW]	- Traverse City, MI	[TVC]	X6	1750	1850 NW*2819	SH6
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	0710	0840 NW 81	757
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	0930	1100 NW 438	72S
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	1045	1211 NW 11	757
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	1205	1328 NW 749	D9S
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	1455	1634 NW 345	757
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	1515	1640 NW 237	D9S
Detroit, MI	[DTW]	- Washington, DC	[DCA]	X6	1730	1906 NW 239	757
Detroit, MI	[DTW]	- Washington, DC	[DCA]	6	1730	1906 NW 239	757
Detroit, MI	[DTW]	- Washington, DC	[DCA]	D	2000	2135 NW 243	D9S
Detroit, MI	[DTW]	- Washington, DC	[DCA]	X7	0725	0850 NW 1441	DC9
Detroit, MI	[DTW]	- Washington, DC	[IAD]	7	0725	0850 NW 1441	DC9
Detroit, MI	[DTW]	- Washington, DC	[IAD]	X7	0940	1108 UA 1069	73S
Detroit, MI	[DTW]	- Washington, DC	[IAD]	D	1055	1220 NW 273	D9S
Detroit, MI	[DTW]	- Washington, DC	[IAD]	D	1605	1733 UA 1405	73S
Detroit, MI	[DTW]	- Washington, DC	[IAD]	D	1715	1839 NW 485	D9S
Detroit, MI	[DTW]	- Washington, DC	[IAD]	D	1929	2055 NW 175	D9S
Detroit, MI	[DTW]	- Washington, DC	[IAD]	X6	2135	2303 UA 1106	73S

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
<u>Detroit Metropolitan Wayne County Airport (cont.)</u>								
Detroit, MI	[DTW]	- West Palm Beach, FL	[PBI]	D	0920	1210	NW 889	D9S
Detroit, MI	[DTW]	- West Palm Beach, FL	[PBI]	D	1205	1455	NW 891	D9S
Detroit, MI	[DTW]	- West Palm Beach, FL	[PBI]	D	1735	2135	DL 246	72S
Detroit, MI	[DTW]	- Worcester, MA	[ORH]	7	0700	0852	NW 1457	DC9
Detroit, MI	[DTW]	- Worcester, MA	[ORH]	X7	0700	0852	NW 1457	DC9
Detroit, MI	[DTW]	- Worcester, MA	[ORH]	D	1455	1647	NW 1459	DC9
Detroit, MI	[DTW]	- Worcester, MA	[ORH]	D	1803	1950	NW 1461	DC9
Detroit, MI	[DTW]	- Youngstown, OH	[YNG]	X67	0710	0810	GS 200	PAG
Detroit, MI	[DTW]	- Youngstown, OH	[YNG]	X67	1400	1500	GS 204	PAG
Detroit, MI	[DTW]	- Youngstown, OH	[YNG]	X67	1640	1740	GS 206	PAG
<u>Drummond Island Airport</u>								
Drummond Island, MI	[Y66]	- Alpena, MI	[APN]	135	1200	1240	QQ 402	PAG
Drummond Island, MI	[Y66]	- Alpena, MI	[APN]	2467	1415	1455	QQ 408	PAG
Drummond Island, MI	[Y66]	- Alpena, MI	[APN]	135	1845	1915	QQ 404	PAG
Drummond Island, MI	[Y66]	- Alpena, MI	[APN]	24	2030	2110	QQ 410	PAG
<u>East Tawas, Iosco County Airport</u>								
East Tawas, MI	[6D9]	- Alpena, MI	[APN]	24	1615	1635	QQ 409	PAG
East Tawas, MI	[6D9]	- Saginaw, MI	[MBS]	35	1240	1300	QQ 412	PAG
East Tawas, MI	[6D9]	- Saginaw, MI	[MBS]	2467	1315	1340	QQ 408	PAG
East Tawas, MI	[6D9]	- Saginaw, MI	[MBS]	135	1730	1800	QQ 404	PAG
East Tawas, MI	[6D9]	- Saginaw, MI	[MBS]	67	1915	2000	QQ 414	PAG
East Tawas, MI	[6D9]	- Saginaw, MI	[MBS]	135	2320	2355	QQ 406	PAG
<u>Escanaba, Delta County Airport</u>								
Escanaba, MI	[ESC]	- Stevens Point/Wausau, WI	[CWA]	D	1455	1650	AA*4325	SH6
Escanaba, MI	[ESC]	- Stevens Point/Wausau, WI	[CWA]	D	2150	2345	AA*4297	SH6
<u>Flint, Bishop Airport</u>								
Flint, MI	[FNT]	- Cleveland, OH	[CLE]	D	0910	0958	CO 1173	737
Flint, MI	[FNT]	- Cleveland, OH	[CLE]	X6	1545	1635	CO 4411	EM2
Flint, MI	[FNT]	- Cleveland, OH	[CLE]	D	1845	1941	CO 275	737
Flint, MI	[FNT]	- Dayton, OH	[DAY]	X6	0925	1040	PI*4068	J31
Flint, MI	[FNT]	- Dayton, OH	[DAY]	D	1345	1434	PI 1583	733
Flint, MI	[FNT]	- Dayton, OH	[DAY]	X6	1721	1810	PI 1265	73S
Flint, MI	[FNT]	- Dayton, OH	[DAY]	D	2209	2258	PI 1575	733
Flint, MI	[FNT]	- Detroit, MI	[DTW]	X7	0940	1015	NW*2814	SH6
Flint, MI	[FNT]	- Detroit, MI	[DTW]	X6	1500	1535	NW*2711	SH6
Flint, MI	[FNT]	- Detroit, MI	[DTW]	X6	1600	1635	NW*2703	SH6
Flint, MI	[FNT]	- Detroit, MI	[DTW]	D	1735	1810	NW*2764	SH6
Flint, MI	[FNT]	- Detroit, MI	[DTW]	X6	2140	2215	NW*2766	SH6
Flint, MI	[FNT]	- Lansing, MI	[LAN]	D	1550	1615	AA*4153	SH6
Flint, MI	[FNT]	- Lansing, MI	[LAN]	D	2234	2259	AA*4188	SH6
Flint, MI	[FNT]	- Muskegon, MI	[MKG]	D	2100	2150	AA*4192	SH6
Flint, MI	[FNT]	- Saginaw, MI	[MBS]	D	0625	0650	AA*4148	SH6
<u>Grand Rapids, Kent County International Airport</u>								
Grand Rapids, MI	[GRR]	- Chicago, IL	[MDW]	X7	0838	1033	ML*1859	DO8
Grand Rapids, MI	[GRR]	- Chicago, IL	[MDW]	D	1140	1335	ML*1802	DO8
Grand Rapids, MI	[GRR]	- Chicago, IL	[MDW]	D	1405	1600	ML*1618	DO8
Grand Rapids, MI	[GRR]	- Chicago, IL	[MDW]	X6	1630	1825	ML*1737	DO8
Grand Rapids, MI	[GRR]	- Chicago, IL	[MDW]	X6	1935	2130	ML*1710	DO8
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	X7	0644	0844	UA 562	733
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	0650	0840	AA 1236	72S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	X6	0950	1136	UA 698	73S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	0956	1147	AA 1386	M80

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
<u>Grand Rapids, Kent County International Airport (cont.)</u>								
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	1135	1321	UA 288	727
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	1313	1503	AA 808	72S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	1514	1659	UA 262	72S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	1524	1718	AA 428	73S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	1744	1935	UA 870	733
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	1835	2025	AA 523	M80
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	X6	2010	2210	AA*4298	SH6
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	D	2045	2236	UA 856	72S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	6	2140	2331	AA 259	72S
Grand Rapids, MI	[GRR]	- Chicago, IL	[ORD]	X6	2140	2331	AA 476	72S
Grand Rapids, MI	[GRR]	- Cincinnati, OH	[CVG]	D	1035	1150	DL*3273	SWM
Grand Rapids, MI	[GRR]	- Cincinnati, OH	[CVG]	X67	1246	1359	DL*3217	SWM
Grand Rapids, MI	[GRR]	- Cincinnati, OH	[CVG]	X6	1440	1555	DL*3244	SWM
Grand Rapids, MI	[GRR]	- Cincinnati, OH	[CVG]	X6	1846	1959	DL*3201	SWM
Grand Rapids, MI	[GRR]	- Cincinnati, OH	[CVG]	X6	2040	2155	DL*3016	SF3
Grand Rapids, MI	[GRR]	- Cleveland, OH	[CLE]	X67	0920	1025	DL*3055	SF3
Grand Rapids, MI	[GRR]	- Dayton, OH	[DAY]	X7	0915	1000	PI 1507	733
Grand Rapids, MI	[GRR]	- Dayton, OH	[DAY]	D	1345	1434	PI 1115	72S
Grand Rapids, MI	[GRR]	- Dayton, OH	[DAY]	D	1722	1811	PI 1630	733
Grand Rapids, MI	[GRR]	- Dayton, OH	[DAY]	D	2210	2259	PI 1166	72S
Grand Rapids, MI	[GRR]	- Detroit, MI	[DTW]	D	0925	1008	NW 1137	D9S
Grand Rapids, MI	[GRR]	- Detroit, MI	[DTW]	D	1300	1344	NW 203	72S
Grand Rapids, MI	[GRR]	- Detroit, MI	[DTW]	D	1600	1645	NW 286	727
Grand Rapids, MI	[GRR]	- Detroit, MI	[DTW]	D	1720	1805	NW 496	D9S
Grand Rapids, MI	[GRR]	- Detroit, MI	[DTW]	D	2020	2105	NW 1143	72S
Grand Rapids, MI	[GRR]	- Detroit, MI	[DTW]	D	2140	2225	NW 489	DC9
Grand Rapids, MI	[GRR]	- Flint, MI	[FNT]	D	0945	1025	AA*4175	SH6
Grand Rapids, MI	[GRR]	- Madison, WI	[MSN]	D	0930	1110	NW 658	D9S
Grand Rapids, MI	[GRR]	- Memphis, TN	[MEM]	D	1615	1900	NW 268	D9S
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X7	0700	0845	NW*2651	J31
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X67	0750	0940	DL*3059	SF3
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X7	0815	0956	NW*2675	J31
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	D	1315	1456	NW*2669	J31
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X67	1330	1505	YX 305	DC9
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X6	1615	1756	NW*2673	J31
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X6	1815	1956	NW*2681	J31
Grand Rapids, MI	[GRR]	- Milwaukee, WI	[MKE]	X6	2100	2235	YX 528	DC9
Grand Rapids, MI	[GRR]	- Minneapolis/St.Paul, MN	[MSP]	D	1310	1520	NW 287	727
Grand Rapids, MI	[GRR]	- Minneapolis/St.Paul, MN	[MSP]	6	1735	1949	NW 718	72S
Grand Rapids, MI	[GRR]	- Minneapolis/St.Paul, MN	[MSP]	X6	1735	1949	NW 718	72S
Grand Rapids, MI	[GRR]	- Pittsburgh, PA	[PIT]	D	0945	1051	US 267	D9S
Grand Rapids, MI	[GRR]	- Pittsburgh, PA	[PIT]	D	1655	1805	US 496	B11
Grand Rapids, MI	[GRR]	- Pittsburgh, PA	[PIT]	D	2025	2131	US 17	D9S
Grand Rapids, MI	[GRR]	- Traverse City, MI	[TVC]	X7	0638	0723	ML*1627	DO8
<u>Houghton/Hancock, Houghton County Memorial Airport</u>								
Houghton/Hancock, MI	[CMX]	- Marquette, MI	[MQT]	6	0645	0710	MQ 750	SH6
Houghton/Hancock, MI	[CMX]	- Marquette, MI	[MQT]	D	0705	0730	NW*2750	SH6
Houghton/Hancock, MI	[CMX]	- Marquette, MI	[MQT]	D	1150	1215	NW*2804	SH6
Houghton/Hancock, MI	[CMX]	- Marquette, MI	[MQT]	D	1530	1555	NW*2753	SH6
Houghton/Hancock, MI	[CMX]	- Marquette, MI	[MQT]	6	1955	2020	NW*2701	SH6
Houghton/Hancock, MI	[CMX]	- Marquette, MI	[MQT]	X6	2250	2315	NW*2706	SH6
Houghton/Hancock, MI	[CMX]	- Minneapolis/St.Paul, MN	[MSP]	D	1100	1335	NW*2751	SH6
Houghton/Hancock, MI	[CMX]	- Minneapolis/St.Paul, MN	[MSP]	D	1745	2020	NW*2756	SH6
<u>Iron Mountain, Ford Airport</u>								
Iron Mountain, MI	[IMT]	- Ironwood, MI	[IWD]	X67	0600	0630	ZK 36	BE1
Iron Mountain, MI	[IMT]	- Ironwood, MI	[IWD]	6	0935	1005	ZK 34	BE1
Iron Mountain, MI	[IMT]	- Ironwood, MI	[IWD]	X7	1500	1530	ZK 38	BE1
Iron Mountain, MI	[IMT]	- Menominee, MI	[MNM]	X67	0920	0940	ZK 37	BE1

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Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
<u>Iron Mountain, Ford Airport (cont.)</u>								
Iron Mountain, MI	[IMT]	-Menominee, MI	[MNM]	X7	1335	1355	ZK 33	BE1
Iron Mountain, MI	[IMT]	-Menominee, MI	[MNM]	X7	1815	1835	ZK 39	BE1
Iron Mountain, MI	[IMT]	-Menominee, MI	[MNM]	X67	2130	2150	ZK 31	BE1
<u>Ironwood, Gogebic County Airport</u>								
Ironwood, MI	[IWD]	-Iron Mountain, MI	[IMT]	X7	1405	1435	ZK 33	BE1
Ironwood, MI	[IWD]	-Iron Mountain, MI	[IMT]	6	1845	1915	ZK 39	BE1
Ironwood, MI	[IWD]	-Iron Mountain, MI	[IMT]	X67	2200	2230	ZK 31	BE1
<u>Jackson County, Reynolds Field</u>								
Jackson, MI	[JXN]	-Detroit, MI	[DTW]	X7	0800	0830	NW*2760	SH6
Jackson, MI	[JXN]	-Detroit, MI	[DTW]	X6	1915	1945	NW*2762	SH6
<u>Kalamazoo County Airport</u>								
Kalamazoo, MI	[AZO]	-Chicago, IL	[MDW]	X7	0825	1015	ML*1722	DO8
Kalamazoo, MI	[AZO]	-Chicago, IL	[MDW]	D	1145	1335	ML*1724	DO8
Kalamazoo, MI	[AZO]	-Chicago, IL	[MDW]	D	1405	1555	ML*1726	DO8
Kalamazoo, MI	[AZO]	-Chicago, IL	[MDW]	D	1635	1825	ML*1728	DO8
Kalamazoo, MI	[AZO]	-Chicago, IL	[MDW]	X6	1953	2143	ML*1734	DO8
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	X7	0700	0855	AA*4198	SH6
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	X67	0714	0854	UA*2712	F27
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	D	0955	1150	AA*4182	SH6
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	D	1000	1140	UA*2714	F27
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	D	1244	1424	UA*2716	F27
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	D	1350	1530	UA*2718	F27
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	X6	1544	1734	AA*4193	ATR
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	D	1735	1935	AA*4154	SH6
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	X6	2012	2212	AA*4215	SH6
Kalamazoo, MI	[AZO]	-Chicago, IL	[ORD]	D	2015	2155	UA*2724	F27
Kalamazoo, MI	[AZO]	-Cincinnati, OH	[CVG]	X6	2035	2145	DL*3202	SWM
Kalamazoo, MI	[AZO]	-Dayton, OH	[DAY]	X7	0916	1000	PI 1411	73S
Kalamazoo, MI	[AZO]	-Dayton, OH	[DAY]	D	1348	1432	PI 1656	73S
Kalamazoo, MI	[AZO]	-Dayton, OH	[DAY]	D	1525	1625	DL*3183	SWM
Kalamazoo, MI	[AZO]	-Dayton, OH	[DAY]	D	1724	1808	PI 1485	73S
Kalamazoo, MI	[AZO]	-Dayton, OH	[DAY]	D	2214	2258	PI 1567	733
Kalamazoo, MI	[AZO]	-Detroit, MI	[DTW]	D	0935	1015	NW 1441	DC9
Kalamazoo, MI	[AZO]	-Detroit, MI	[DTW]	D	1305	1345	NW 341	DC9
Kalamazoo, MI	[AZO]	-Detroit, MI	[DTW]	D	1725	1805	NW 321	DC9
Kalamazoo, MI	[AZO]	-Detroit, MI	[DTW]	D	2005	2045	NW 1467	DC9
Kalamazoo, MI	[AZO]	-Flint, MI	[FNT]	7	0705	0745	AA*4216	SH6
Kalamazoo, MI	[AZO]	-Flint, MI	[FNT]	7	0940	1025	AA*4231	SH6
Kalamazoo, MI	[AZO]	-Lansing, MI	[LAN]	D	0715	0740	NW 583	D9S
Kalamazoo, MI	[AZO]	-Lansing, MI	[LAN]	X7	1005	1035	AA*4231	SH6
Kalamazoo, MI	[AZO]	-Lansing, MI	[LAN]	X67	1155	1220	DL*3209	SWM
Kalamazoo, MI	[AZO]	-Lansing, MI	[LAN]	D	1640	1705	NW 1033	D9S
Kalamazoo, MI	[AZO]	-Minneapolis/St.Paul, MN	[MSP]	D	1305	1518	NW 1032	D9S
Kalamazoo, MI	[AZO]	-Minneapolis/St.Paul, MN	[MSP]	6	1730	1946	NW 708	D9S
Kalamazoo, MI	[AZO]	-Minneapolis/St.Paul, MN	[MSP]	X6	1730	1946	NW 708	D9S
Kalamazoo, MI	[AZO]	-Saginaw, MI	[MBS]	D	1310	1355	AA*4183	SH6
<u>Lansing, Capital City Airport</u>								
Lansing, MI	[LAN]	-Chicago, IL	[MDW]	X7	0835	1045	ML*1920	DO8
Lansing, MI	[LAN]	-Chicago, IL	[MDW]	D	1135	1345	ML*1922	DO8
Lansing, MI	[LAN]	-Chicago, IL	[MDW]	D	1430	1640	ML*1924	DO8
Lansing, MI	[LAN]	-Chicago, IL	[MDW]	X6	1600	1810	ML*1926	DO8
Lansing, MI	[LAN]	-Chicago, IL	[MDW]	X6	1950	2200	ML*1926	DO8
Lansing, MI	[LAN]	-Chicago, IL	[ORD]	X67	0650	0850	UA*2780	F27
Lansing, MI	[LAN]	-Chicago, IL	[ORD]	D	0944	1144	UA*2784	F27

SCHEDULED AIR CARRIER ARRIVALS

Nonstop To Michigan Air Carrier Airports

As of December 31, 1988

Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
<u>Lansing, Capital City Airport (cont.)</u>								
Lansing, MI	[LAN]	- Chicago, IL	[ORD]	D	1125	1325	UA*2786	F27
Lansing, MI	[LAN]	- Chicago, IL	[ORD]	D	1325	1535	AA*4153	SH6
Lansing, MI	[LAN]	- Chicago, IL	[ORD]	D	1535	1735	UA*2788	F27
Lansing, MI	[LAN]	- Chicago, IL	[ORD]	D	1720	1930	AA*4276	SH6
Lansing, MI	[LAN]	- Chicago, IL	[ORD]	D	1950	2150	UA*2792	F27
Lansing, MI	[LAN]	- Chicago, IL	[ORD]	D	2014	2219	AA*4188	SH6
Lansing, MI	[LAN]	- Cincinnati, OH	[CVG]	X67	1030	1140	DL*3209	SWM
Lansing, MI	[LAN]	- Cincinnati, OH	[CVG]	X6	1431	1545	DL*3323	SWM
Lansing, MI	[LAN]	- Cincinnati, OH	[CVG]	X6	2040	2155	DL*3229	SWM
Lansing, MI	[LAN]	- Cleveland, OH	[CLE]	D	0910	0955	CO 263	737
Lansing, MI	[LAN]	- Cleveland, OH	[CLE]	D	1555	1648	CO 514	D9S
Lansing, MI	[LAN]	- Cleveland, OH	[CLE]	D	1845	1936	CO 299	D9S
Lansing, MI	[LAN]	- Dayton, OH	[DAY]	X7	0916	1000	PI 1255	73S
Lansing, MI	[LAN]	- Dayton, OH	[DAY]	D	1346	1433	PI 1033	72S
Lansing, MI	[LAN]	- Dayton, OH	[DAY]	D	2213	2257	PI 1031	72S
Lansing, MI	[LAN]	- Detroit, MI	[DTW]	6	0935	1006	NW 492	DC9
Lansing, MI	[LAN]	- Detroit, MI	[DTW]	X6	0935	1006	NW 492	DC9
Lansing, MI	[LAN]	- Detroit, MI	[DTW]	D	1305	1337	NW 1445	DC9
Lansing, MI	[LAN]	- Detroit, MI	[DTW]	D	1730	1802	NW 1447	DC9
Lansing, MI	[LAN]	- Detroit, MI	[DTW]	D	2020	2054	NW 1151	D9S
Lansing, MI	[LAN]	- Flint, MI	[FNT]	D	0715	0740	AA*4169	SH6
Lansing, MI	[LAN]	- Flint, MI	[FNT]	D	1655	1720	AA*4152	SH6
Lansing, MI	[LAN]	- Grand Rapids, MI	[GRR]	7	0940	1008	PI 1521	733
Lansing, MI	[LAN]	- Kalamazoo, MI	[AZO]	X7	0910	0940	AA*4198	SH6
Lansing, MI	[LAN]	- Kalamazoo, MI	[AZO]	D	1540	1604	NW 1032	D9S
Lansing, MI	[LAN]	- Kalamazoo, MI	[AZO]	D	2006	2030	NW 708	D9S
Lansing, MI	[LAN]	- Saginaw, MI	[MBS]	7	0950	1020	AA*4140	SH6

Mackinac Island Airport

Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	0900	0920	QQ 090	PAGA
Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	1100	1120	QQ 110	PAGA
Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	1300	1320	QQ 130	PAGA
Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	1500	1520	QQ 150	PAGA
Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	1600	1620	QQ 160	PAGA
Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	1800	1820	QQ 180	PAGA
Mackinac Island, MI	[Y84]	- Pellston, MI	[PLN]	D	2100	2120	QQ 210	PAGA

Manistee County, Blacker Airport

Manistee, MI	[MBL]	- Manistowoc, WI	[MTW]	X67	1105	1235	ZK 41	BE9
Manistee, MI	[MBL]	- Manistowoc, WI	[MTW]	6	1410	1540	ZK 45	BE9
Manistee, MI	[MBL]	- Manistowoc, WI	[MTW]	7	1810	1940	ZK 147	BE9
Manistee, MI	[MBL]	- Manistowoc, WI	[MTW]	X67	2100	2230	ZK 47	BE9

Marquette County Airport

Marquette, MI	[MQT]	- Detroit, MI	[DTW]	D	0925	1135	NW*2804	SH6
Marquette, MI	[MQT]	- Detroit, MI	[DTW]	D	1300	1510	NW*2753	SH6
Marquette, MI	[MQT]	- Detroit, MI	[DTW]	6	1730	1940	NW*2701	SH6
Marquette, MI	[MQT]	- Detroit, MI	[DTW]	X6	2035	2235	NW*2706	SH6
Marquette, MI	[MQT]	- Green Bay, WI	[GRB]	D	1015	1205	AA*4225	ATR
Marquette, MI	[MQT]	- Green Bay, WI	[GRB]	D	1440	1630	AA*4232	ATR
Marquette, MI	[MQT]	- Green Bay, WI	[GRB]	D	2015	2200	AA*4229	ATR
Marquette, MI	[MQT]	- Green Bay, WI	[GRB]	X6	2140	2330	AA*4227	ATR
Marquette, MI	[MQT]	- Houghton/Hancock, MI	[CMX]	D	0600	0625	NW*2801	SH6
Marquette, MI	[MQT]	- Houghton/Hancock, MI	[CMX]	6	1205	1230	MQ 751	SH6
Marquette, MI	[MQT]	- Houghton/Hancock, MI	[CMX]	D	1235	1300	NW*2755	SH6
Marquette, MI	[MQT]	- Houghton/Hancock, MI	[CMX]	D	1350	1415	NW*2751	SH6
Marquette, MI	[MQT]	- Houghton/Hancock, MI	[CMX]	D	2035	2110	NW*2756	SH6

A) Due to the seasonal nature of service, July 1, 1988 has been used as the survey date

SCHEDULED AIR CARRIER ARRIVALS

Nonstop To Michigan Air Carrier Airports

As of December 31, 1988

Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
Menominee/Marinette, Twin County Airport								
Menominee, MI	[MNM]	- Chicago, IL	[ORD]	X67	0814	0914	ZK 37	BE1
Menominee, MI	[MNM]	- Chicago, IL	[ORD]	X7	1225	1325	ZK 33	BE1
Menominee, MI	[MNM]	- Chicago, IL	[ORD]	X7	1705	1805	ZK 39	BE1
Menominee, MI	[MNM]	- Chicago, IL	[ORD]	X67	2020	2120	ZK 31	BE1
Menominee, MI	[MNM]	- Iron Mountain, MI	[IMT]	X67	0640	0700	ZK 36	BE1
Menominee, MI	[MNM]	- Iron Mountain, MI	[IMT]	X67	1015	1035	ZK 32	BE1
Menominee, MI	[MNM]	- Iron Mountain, MI	[IMT]	6	1015	1035	ZK 34	BE1
Menominee, MI	[MNM]	- Iron Mountain, MI	[IMT]	X7	1540	1600	ZK 38	BE1
Menominee, MI	[MNM]	- Sturgeon Bay, WI	[SUE]	X67	0615	0630	3A 136	CNA
Muskegon County Airport								
Muskegon, MI	[MKG]	- Chicago, IL	[MDW]	X7	0840	1030	ML*1748	DO8
Muskegon, MI	[MKG]	- Chicago, IL	[MDW]	D	1137	1327	ML*1744	DO8
Muskegon, MI	[MKG]	- Chicago, IL	[MDW]	D	1357	1547	ML*1746	DO8
Muskegon, MI	[MKG]	- Chicago, IL	[MDW]	D	1610	1800	ML*1650	DO8
Muskegon, MI	[MKG]	- Chicago, IL	[MDW]	X6	1952	2142	ML*1640	DO8
Muskegon, MI	[MKG]	- Chicago, IL	[ORD]	D	0840	1035	AA*4271	SH6
Muskegon, MI	[MKG]	- Chicago, IL	[ORD]	D	1120	1320	AA*4223	SH6
Muskegon, MI	[MKG]	- Chicago, IL	[ORD]	D	1340	1540	AA*4170	SH6
Muskegon, MI	[MKG]	- Chicago, IL	[ORD]	D	1845	2045	AA*4192	SH6
Muskegon, MI	[MKG]	- Chicago, IL	[ORD]	D	2015	2215	AA*4256	SH6
Pellston, Emmet County Airport								
Pellston, MI	[PLN]	- Traverse City, MI	[TVC]	D	1125	1155	NW*2870	SH6
Pellston, MI	[PLN]	- Traverse City, MI	[TVC]	D	1220	1250	AA*4190	ATR
Pellston, MI	[PLN]	- Traverse City, MI	[TVC]	6	1730	1800	NW*2858	SH6
Pellston, MI	[PLN]	- Traverse City, MI	[TVC]	X6	2210	2240	NW*2864	SH6
Pellston, MI	[PLN]	- Traverse City, MI	[TVC]	D	2245	2315	AA*4165	ATR
Saginaw, Tri-City International Airport								
Saginaw, MI	[MBS]	- Alpena, MI	[APN]	135	1405	1450	QQ 403	PAG
Saginaw, MI	[MBS]	- Alpena, MI	[APN]	67	1615	1700	QQ 413	PAG
Saginaw, MI	[MBS]	- Alpena, MI	[APN]	135	2025	2110	QQ 405	PAG
Saginaw, MI	[MBS]	- Alpena, MI	[APN]	24	2210	2245	QQ 411	PAG
Saginaw, MI	[MBS]	- Chicago, IL	[ORD]	D	0855	1049	UA 547	73S
Saginaw, MI	[MBS]	- Chicago, IL	[ORD]	D	1150	1348	UA 607	733
Saginaw, MI	[MBS]	- Chicago, IL	[ORD]	D	1350	1545	UA 460	733
Saginaw, MI	[MBS]	- Chicago, IL	[ORD]	D	1555	1810	AA*4148	SH6
Saginaw, MI	[MBS]	- Chicago, IL	[ORD]	D	2045	2244	UA 924	733
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	D	0930	1009	NW 423	72S
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	135	1000	1045	QQ 402	PAG
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	D	1155	1234	NW 270	D9S
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	2467	1215	1300	QQ 408	PAG
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	D	1315	1355	NW 168	72S
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	135	1630	1715	QQ 404	PAG
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	D	1725	1804	NW 897	D9S
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	X67	1815	1900	QQ 414	PAG
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	24	1830	1915	QQ 410	PAG
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	D	2005	2045	NW 136	72S
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	D	2140	2220	NW 274	D9S
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	135	2220	2305	QQ 406	PAG
Saginaw, MI	[MBS]	- Detroit, MI	[DTW]	24	2355	0030	QQ 412	PAG
Saginaw, MI	[MBS]	- East Tawas, MI	[6D9]	135	0800	0845	QQ 401	PAG
Saginaw, MI	[MBS]	- East Tawas, MI	[6D9]	2467	1000	1030	QQ 407	PAG
Saginaw, MI	[MBS]	- East Tawas, MI	[6D9]	24	1650	1710	QQ 409	PAG
Saginaw, MI	[MBS]	- Kalamazoo, MI	[AZO]	D	1205	1245	AA*4182	SH6
Saginaw, MI	[MBS]	- Lansing, MI	[LAN]	D	1945	2015	AA*4276	SH6
Saginaw, MI	[MBS]	- Toronto, ONT	[YYZ]	X67	0930	1040	AC*1131	J31
Saginaw, MI	[MBS]	- Toronto, ONT	[YYZ]	X6	1920	2050	AC*1133	J31

Michigan Air Carrier Airport Statistics

SCHEDULED AIR CARRIER ARRIVALS

Nonstop To Michigan Air Carrier Airports

As of December 31, 1988

Destination	[Des] Codes	Origin	[Ori] Codes	Freq.	Dep. Time	Arr. Time	Flight Number	Eqp
<u>Sault Ste. Marie, Chippewa County International Airport</u>								
Sault Ste. Marie, MI	[CIU]	- Alpena, MI	[APN]	X67	1115	1155	NW*2731	SH6
Sault Ste. Marie, MI	[CIU]	- Alpena, MI	[APN]	6	1735	1815	NW*2768	SH6
Sault Ste. Marie, MI	[CIU]	- Alpena, MI	[APN]	X6	2155	2035	NW*2768	SH6
<u>Traverse City, Cherry Capital Airport</u>								
Traverse City, MI	[TVC]	- Chicago, IL	[MDW]	D	1335	1550	ML*1620	DO8
Traverse City, MI	[TVC]	- Chicago, IL	[MDW]	6	1600	1815	ML*1630	DO8
Traverse City, MI	[TVC]	- Chicago, IL	[ORD]	D	0950	1205	AA*4190	ATR
Traverse City, MI	[TVC]	- Chicago, IL	[ORD]	D	1314	1534	AA*4212	SH6
Traverse City, MI	[TVC]	- Chicago, IL	[ORD]	D	1615	1830	AA*4159	ATR
Traverse City, MI	[TVC]	- Chicago, IL	[ORD]	D	2015	2230	AA*4165	ATR
Traverse City, MI	[TVC]	- Chicago, IL	[PWK]	5	1200	1430	4Q 200	PAG
Traverse City, MI	[TVC]	- Chicago, IL	[PWK]	7	1930	2200	4Q 300	PAG
Traverse City, MI	[TVC]	- Detroit, MI	[DTW]	D	0950	1110	NW*2870	SH6
Traverse City, MI	[TVC]	- Detroit, MI	[DTW]	D	1300	1420	NW*2746	SH6
Traverse City, MI	[TVC]	- Detroit, MI	[DTW]	D	1555	1715	NW*2858	SH6
Traverse City, MI	[TVC]	- Detroit, MI	[DTW]	X6	2035	2155	NW*2864	SH6
Traverse City, MI	[TVC]	- Grand Rapids, MI	[GRR]	X6	2145	2230	ML*1710	DO8
Traverse City, MI	[TVC]	- Pellston, MI	[PLN]	D	0635	0705	NW*2860	SH6
Traverse City, MI	[TVC]	- Pellston, MI	[PLN]	D	0645	0715	AA*4207	ATR
Traverse City, MI	[TVC]	- Pellston, MI	[PLN]	D	1230	1300	NW*2871	SH6
Traverse City, MI	[TVC]	- Pellston, MI	[PLN]	D	1310	1340	AA*4191	ATR



**Appendix B:
FAA AIR CARRIER AIRPORT CODES**

Appendix B: FAA Air Carrier Airport Codes

The data provided in this appendix is derived from the Official Airline Guide, December 15, 1988 edition. The data is for the origins of scheduled flights to Michigan scheduled air carrier airports as of December 31, 1988 ².

This data is presented in alphabetical order in two ways. These are by:

- 1) Origin code
- 2) Origin airport

The data for each entry includes:

- 1) FAA airport code of the origin
- 2) Origin city/airport

In the case where there are two airports serving the same community, the name of the airport has been listed after the city name.

In the chapter entitled Scheduled Air Carrier Service Supply, the individual airport service maps show routes which were discontinued between the surveys taken in 1987 and 1988. There are five origins no longer sending scheduled flights to Michigan but whose codes are used in these maps. These cities and their codes are:

[ATW]	Appleton, WI
[BTL]	Battle Creek, MI
[CID]	Cedar Rapids, IA
[PIA]	Peoria, IL
[YTZ]	Toronto, Island Airport, ONT

² Data for Mackinac Island Airport is from the Official Airline Guide of July 1, 1987 and is accurate as of July 1, 1987. This is due to the seasonal nature of service at this location.

FAA AIRPORT DESIGNATION CODES

Alphabetical by Origins of Nonstop Flights to Michigan Air Carrier Airports

As of: December 31, 1988

Designation	Origin Community/Airport
[CAK]	Akron/Canton, OH
[ALB]	Albany, NY
[ABE]	Allentown, PA
[APN]	Alpena, MI
[ATL]	Atlanta, GA
[BWI]	Baltimore, MD/Washington, DC International Airport
[BEH]	Benton Harbor, MI
[BOS]	Boston, MA
[BUF]	Buffalo, NY
[CLT]	Charlotte, NC
[MDW]	Chicago, Midway Airport, IL
[ORD]	Chicago, O'Hare Airport, IL
[PWK]	Chicago, Palwaukee Airport, IL
[CVG]	Cincinnati, OH
[BKL]	Cleveland, Burke Lakefront Airport, OH
[CLE]	Cleveland, Hopkins International Airport, OH
[CMH]	Columbus, OH
[DFW]	Dallas/Ft. Worth, TX
[DAY]	Dayton, OH
[DEN]	Denver, CO
[DET]	Detroit, City Airport
[DTW]	Detroit, Metropolitan Airport, MI
[YIP]	Detroit, Willow Run Airport
[Y66]	Drummond Island, MI
[6D9]	East Tawas, MI
[EKI]	Elkhart, IN
[ERI]	Erie, PA
[ESC]	Escanaba, MI
[FNT]	Flint, MI
[FLL]	Ft. Lauderdale, FL
[RSW]	Ft. Myers, FL
[FWA]	Ft. Wayne, IN
[GRR]	Grand Rapids, MI
[GRB]	Green Bay, WI
[HAR]	Harrisburg, PA
[BDL]	Hartford, CT/Springfield, MA
[CMX]	Houghton/Hancock, MI
[IAH]	Houston, Intercontinental Airport, TX
[HOU]	Houston, William P. Hobby Airport, TX
[IND]	Indianapolis, IN
[IMT]	Iron Mountain, MI
[IWD]	Ironwood, MI
[JXN]	Jackson, MI
[AZO]	Kalamazoo, MI
[MCI]	Kansas City, MO
[LAN]	Lansing, MI
[LAS]	Las Vegas, NV
[YXU]	London, ONT
[LHR]	London, UK
[LAX]	Los Angeles, CA
[SDF]	Louisville, KY

cont.

FAA AIRPORT DESIGNATION CODES

Alphabetical by Origins of Nonstop Flights to Michigan Air Carrier Airports

As of: December 31, 1988

Designation	Origin Community/Airport
[Y84]	Mackinac Island, MI
[MSN]	Madison, WI
[MBL]	Manistee, MI
[MTW]	Manitowoc, WI
[MQT]	Marquette, MI
[MEM]	Memphis, TN
[MNM]	Menominee, MI
[MIA]	Miami, FL
[MKE]	Milwaukee, WI
[MSP]	Minneapolis/St. Paul, MN
[YUL]	Montreal, International Airport, QUE
[YMX]	Montreal, Mirabel Airport, QUE
[MKG]	Muskegon, MI
[BNA]	Nashville, TN
[MSY]	New Orleans, LA
[JFK]	New York, John F. Kennedy Airport, NY
[LGA]	New York, La Guardia Airport, NY
[EWR]	New York/Newark International Airport, NJ
[HPN]	New York/White Plains, NY
[ORF]	Norfolk/Virginia Beach/Williamsburg, VA
[MCO]	Orlando, FL
[YOO]	Oshawa, ONT
[PLN]	Pellston, MI
[PHL]	Philadelphia, PA
[PHX]	Phoenix, AZ
[PIT]	Pittsburgh, PA
[PDX]	Portland, OR
[PVD]	Providence, RI
[RDU]	Raleigh/Durham, NC
[ROC]	Rochester, NY
[MBS]	Saginaw, MI
[SAN]	San Diego, CA
[SFO]	San Francisco/Oakland, CA
[SRQ]	Sarasota/Bradenton, FL
[CIU]	Sault Ste. Marie, MI
[SEA]	Seattle/Tacoma, WA
[SBN]	South Bend, IN
[CWA]	Stevens Point/Wausau, WI
[SUE]	Sturgeon Bay, WI
[STL]	St. Louis, MO
[SYR]	Syracuse, NY
[TPA]	Tampa/St. Petersburg, FL
[NRT]	Tokyo, JPN
[TOL]	Toledo, OH
[YYZ]	Toronto, International Airport, ONT
[TVC]	Traverse City, MI
[IAD]	Washington, Dulles International Airport, DC
[DCA]	Washington, National Airport, DC
[PBI]	West Palm Beach, FL
[ORH]	Worcester, MA
[YNG]	Youngstown, OH

FAA AIRPORT DESIGNATION CODES

Alphabetical by Origin Code of Nonstop Flights to Michigan Air Carrier Airports
As of: December 31, 1988

Designation	Origin Community/Airport
[6D9]	East Tawas, MI
[ABE]	Allentown, PA
[ALB]	Albany, NY
[APN]	Alpena, MI
[ATL]	Atlanta, GA
[AZO]	Kalamazoo, MI
[BDL]	Hartford, CT/Springfield, MA
[BEH]	Benton Harbor, MI
[BKL]	Cleveland, Burke Lakefront Airport, OH
[BNA]	Nashville, TN
[BOS]	Boston, MA
[BUF]	Buffalo, NY
[BWI]	Baltimore, MD/Washington, DC International Airport
[CAK]	Akron/Canton, OH
[CIU]	Sault Ste. Marie, MI
[CLE]	Cleveland, Hopkins International Airport, OH
[CLT]	Charlotte, NC
[CMH]	Columbus, OH
[CMX]	Houghton/Hancock, MI
[CVG]	Cincinnati, OH
[CWA]	Stevens Point/Wausau, WI
[DAY]	Dayton, OH
[DCA]	Washington, National Airport, DC
[DEN]	Denver, CO
[DET]	Detroit, City Airport
[DFW]	Dallas/Ft. Worth, TX
[DTW]	Detroit, Metropolitan Airport, MI
[EKI]	Elkhart, IN
[ERI]	Erie, PA
[ESC]	Escanaba, MI
[EWR]	New York/Newark International Airport, NJ
[FLL]	Ft. Lauderdale, FL
[FNT]	Flint, MI
[FWA]	Ft. Wayne, IN
[GRB]	Green Bay, WI
[GRR]	Grand Rapids, MI
[HAR]	Harrisburg, PA
[HOU]	Houston, William P. Hobby Airport, TX
[HPN]	New York/White Plains, NY
[IAD]	Washington, Dulles International Airport, DC
[IAH]	Houston, Intercontinental Airport, TX
[IMT]	Iron Mountain, MI
[IND]	Indianapolis, IN
[IWD]	Ironwood, MI
[JFK]	New York, John F. Kennedy Airport, NY
[JXN]	Jackson, MI
[LAN]	Lansing, MI
[LAS]	Las Vegas, NV
[LAX]	Los Angeles, CA
[LGA]	New York, La Guardia Airport, NY
[LHR]	London, UK

cont.

FAA AIRPORT DESIGNATION CODES

Alphabetical by Origin Code of Nonstop Flights to Michigan Air Carrier Airports
As of: December 31, 1988

Designation	Origin Community/Airport
[MBL]	Manistee, MI
[MBS]	Saginaw, MI
[MCI]	Kansas City, MO
[MCO]	Orlando, FL
[MDW]	Chicago, Midway Airport, IL
[MEM]	Memphis, TN
[MIA]	Miami, FL
[MKE]	Milwaukee, WI
[MKG]	Muskegon, MI
[MNM]	Menominee, MI
[MQT]	Marquette, MI
[MSN]	Madison, WI
[MSP]	Minneapolis/St. Paul, MN
[MSY]	New Orleans, LA
[MTW]	Manitowoc, WI
[NRT]	Tokyo, JPN
[ORD]	Chicago, O'Hare Airport, IL
[ORF]	Norfolk/Virginia Beach/Williamsburg, VA
[ORH]	Worcester, MA
[PBI]	West Palm Beach, FL
[PDX]	Portland, OR
[PHL]	Philadelphia, PA
[PHX]	Phoenix, AZ
[PIT]	Pittsburgh, PA
[PLN]	Pellston, MI
[PVD]	Providence, RI
[PWK]	Chicago, Palwaukee Airport, IL
[RDU]	Raleigh/Durham, NC
[ROC]	Rochester, NY
[RSW]	Ft. Myers, FL
[SAN]	San Diego, CA
[SBN]	South Bend, IN
[SDF]	Louisville, KY
[SEA]	Seattle/Tacoma, WA
[SFO]	San Francisco/Oakland, CA
[SRQ]	Sarasota/Bradenton, FL
[STL]	St. Louis, MO
[SUE]	Sturgeon Bay, WI
[SYR]	Syracuse, NY
[TOL]	Toledo, OH
[TPA]	Tampa/St. Petersburg, FL
[TVC]	Traverse City, MI
[Y66]	Drummond Island, MI
[Y84]	Mackinac Island, MI
[YIP]	Detroit, Willow Run Airport
[YMX]	Montreal, Mirabel Airport, QUE
[YNG]	Youngstown, OH
[YOO]	Oshawa, ONT
[YUL]	Montreal, International Airport, QUE
[YXU]	London, ONT
[YYZ]	Toronto, International Airport, ONT



**Appendix C:
AIRLINE CODES**

Appendix C: Airline Codes

The data provided in this appendix is derived from the **Official Airline Guide**, December 15, 1988 edition. The data is for scheduled air carriers serving Michigan scheduled air carrier airports as of December 31, 1988 ³.

This data is presented in alphabetical order in two ways. These are by:

- 1) Carrier name
- 2) Carrier code

The data for each entry includes:

- 1) Carrier's FAA code
- 2) Carriers name
- 3) Airline operating the service (If contracted)
- 4) Which flight numbers of the named carrier are operated by the listed contract carrier in Michigan

³ Data for Mackinac Island Airport is from the Official Airline Guide of July 1, 1987 and is accurate as of July 1, 1987. This is due to the seasonal nature of service at this location.

SCHEDULED AIR CARRIERS
 Serving Michigan Air Carrier Airports
 (Listing in Alphabetic Order by Carrier)
 As of: December 31, 1987

Carrier Code	Carrier Name	Contract Carrier	Flight Numbers
AC*	Air Canada	GX	All
GX	Air Ontario		
ZW	Air Wisconsin		
3A	Alliance Airlines		
AA	American Airlines, Inc.		
AA*	American Eagle	MQ	All
GS	BAS Airlines		
BN	Braniff, Inc.		
BA	British Airways		
OH	Comair, Inc.		
CO	Continental Airlines, Inc.		
DL	Delta Airlines, Inc.		
DL*	Delta Connection	OH	All
EA	Eastern Airlines, Inc.		
9E	Express Airlines I		
GP	Fisher Bros. Aviation, Inc.		
ZK	Great Lakes Aviation, Ltd.		
JT	Iowa Airways, Inc.		
TF	Jetstream International Airlines		
XJ	Mesaba Aviation		
QQ	Michigan Airways, Inc.		
ML	Midway Airlines, Inc.		
ML*	The Midway Connection	GP	1600-1900
ML*	The Midway Connection	JT	4200-4500
YX	Midwest Express Airlines, Inc.		
NW	Northwest Airlines, Inc.		
NW*	Northwest Airlinck	9E	2300-2699
NW*	Northwest Airlinck	MQ	2700-2899
NW*	Northwest Airlinck	XJ	3800-3999
PA	Pan American World Airways, Inc.		
PI	Piedmont Aviation, Inc.		
PI*	Piedmont Commuter System	TF	All
SN	Sabena Belgian World Airlines		
MQ	Simmons Airlines		
9F	Skycraft Air Transport, Inc.		
WN	Southwest Airlines		
4Q	Trans North Aviation, Ltd.		
TW	Trans World Airlines, Inc.		
UA	United Airlines, Inc.		
UA*	United Express	ZW	All
US	USAir		

Note: Flight numbers with a designation of "All" refer to all flights to Michigan destinations, not to all nationwide destinations. USAir changed designations in 1988 to "US". Previously the carrier was coded as "AL"

SCHEDULED AIR CARRIERS
 Serving Michigan Air Carrier Airports
 (Listing in Alphabetic Order by Carrier Code)
 As of: December 31, 1987

Carrier Code	Carrier Name	Contract Carrier	Flight Numbers
3A	Alliance Airlines		
4Q	Trans North Aviation, Ltd.		
9E	Express Airlines I		
9F	Skycraft Air Transport, Inc.		
AA	American Airlines, Inc.		
AA*	American Eagle		
AC*	Air Canada	GX	All
BA	British Airways		
BN	Braniff, Inc.		
CO	Continental Airlines, Inc.		
DL	Delta Airlines, Inc.		
DL*	Delta Connection	OH	All
EA	Eastern Airlines, Inc.		
GP	Fisher Bros. Aviation, Inc.		
GS	BAS Airlines		
GX	Air Ontario, Inc.		
JT	Iowa Airways, Inc.		
ML	Midway Airlines, Inc.		
ML*	The Midway Connection	GP	1600-1900
ML*	The Midway Connection	JT	4200-4500
MQ	Simmons Airlines		
NW	Northwest Airlines, Inc.		
NW*	Northwest Airlinck	9E	2300-2699
NW*	Northwest Airlinck	MQ	2700-2899
NW*	Northwest Airlinck	XJ	3800-3999
OH	Comair, Inc.		
PA	Pan American World Airways, Inc.		
PI	Piedmont Aviation, Inc.		
PI*	Piedmont Commuter System	TF	All
QQ	Michigan Airways, Inc.		
SN	Sabena Belgian World Airlines		
TF	Jetstream International Airlines		
TW	Trans World Airlines, Inc.		
UA	United Airlines, Inc.		
UA*	United Express	ZW	All
US	USAir		
WN	Southwest Airlines		
XJ	Mesaba Aviation		
YX	Midwest Express Airlines, Inc.		
ZK	Great Lakes Aviation, Ltd.		
ZW	Air Wisconsin		

Note: Flight numbers with a designation of "All" refer to all flights to Michigan destinations, not to all nationwide destinations. USAir changed designations in 1988 to "US". Previously the carrier was coded as "AL"



**Appendix D:
EQUIPMENT CODES**

Appendix D: Equipment Codes

The data provided in this appendix is derived from the **Official Airline Guide**, December 15, 1988 edition. The data is for the equipment used by scheduled airlines serving Michigan scheduled air carrier airports as of December 31, 1988 ⁴.

This data is presented in alphabetical order in two ways. These are by:

- 1) Aircraft Manufacturer and Model
- 2) Equipment Code

The data for each entry includes:

- 1) Equipment code
- 2) Manufacturer name
- 3) Model of aircraft
- 4) Aircraft name (if any)
- 5) Median capacity
- 6) Classification by jet, pressurized propeller or non-pressurized propeller

The median number of seats is not related to any changes in cabin configuration which an airline may chose to use. It is the median of the maximum and minimum capacities for the model of aircraft.

⁴ Data for Mackinac Island Airport is from the Official Airline Guide of July 1, 1988 and is accurate as of July 1, 1988. This is due to the seasonal nature of service at this location.

AIRCRAFT LISTING

Aircraft Used by Scheduled Carriers Serving Michigan Air Carrier Airports
(Listing in Alphabetic Order by Manufacturer and Model)

As of: December 31, 1988

Equipment		Aircraft			
Codes	Manufacturer	Model	Name	Capacity	Notes
310	Aerospatiale	310	Airbus	225	Jet
ATR	Aerospatiale	ATR42		46	Pressurized
BE1	Beechcraft	1900		19	Pressurized
BE9	Beechcraft	C99	Commuter	15	Non-Pressurized
727	Boeing	727-100		100	Jet
72S	Boeing	727-200		145	Jet
737	Boeing	737		120	Jet
73S	Boeing	737-200		122	Jet
733	Boeing	737-300		138	Jet
734	Boeing	737-400		159	Jet
747	Boeing	747		452	Jet
757	Boeing	757		201	Jet
767	Boeing	767		250	Jet
B11	British Aerospace	BAC 111	One-Eleven	76	Jet
J31	British Aerospace	J31	Jetstream 31	18	Pressurized
CNA	Cessna	404	Titan	8	Non-Pressurized
DH8	DeHavilland of Canada	DHC8	Dash 8	34	Pressurized
DO8	Dornier	228		19	Non-Pressurized
EMB	Embraer	EMB 110	Bandeirante	19	Non-Pressurized
EM2	Embraer	EMB 120	Brasilia	30	Pressurized
SWM	Fairchild-Swearingen		Metroliner	19	Pressurized
F27	Fokker-VFW-Fairchild	F27	Friendship	48	Pressurized
F28	Fokker	F28	Fellowship	60	Jet
L10	Lockheed	L1011	Tristar	325	Jet
D10	McDonnell Douglas	DC10		288	Jet
D8S	McDonnell Douglas	DC8	Stretched	259	Jet
DC9	McDonnell Douglas	DC9		90	Jet
D9S	McDonnell Douglas	DC9	Stretched	125	Jet
D95	McDonnell Douglas	DC9-50	Stretched	139	Jet
M80	McDonnell Douglas	DC9-80	Super 80	154	Jet
PAG	Piper (All Series)				See Below
---	Piper		Navajo	6	Non-Pressurized
---	Piper		Aztec	8	Non-Pressurized
SF3	Saab-Fairchild	340		34	Pressurized
SH3	Short Brothers	330		30	Non-Pressurized
SH6	Short Brothers	360		36	Non-Pressurized

Note: Capacity is a median number of seats which can be configured in the aircraft. This is the number used in all Available Seat calculations. The Official Airline Guide does not differentiate between different models of Piper aircraft in scheduled air carrier service. In Michigan, the aircraft in question will be either the Navajo (PAN) or the Aztec (PAZ).

AIRCRAFT LISTING

Aircraft Used by Scheduled Carriers Serving Michigan Air Carrier Airports
(Listing in Alphabetic Order by Equipment Code)

As of: December 31, 1988

Equipment Codes	Manufacturer	Model	Aircraft Name	Capacity	Notes
310	Aerospatiale	310	Airbus	225	Jet
727	Boeing	727-100		100	Jet
72S	Boeing	727-200		145	Jet
733	Boeing	737-300		138	Jet
734	Boeing	737-400		159	Jet
737	Boeing	737		120	Jet
73S	Boeing	737-200		122	Jet
747	Boeing	747		452	Jet
757	Boeing	757		201	Jet
767	Boeing	767		250	Jet
ATR	Aerospatiale	ATR42		46	Pressurized
B11	British Aerospace	BAC 111	One-Eleven	76	Jet
BE1	Beechcraft	1900		19	Pressurized
BE9	Beechcraft	C99	Commuter	15	Non-Pressurized
CNA	Cessna	404	Titan	8	Non-Pressurized
D10	McDonnell Douglas	DC10		288	Jet
D8S	McDonnell Douglas	DC8	Stretched	259	Jet
D95	McDonnell Douglas	DC9-50	Stretched	139	Jet
D9S	McDonnell Douglas	DC9	Stretched	125	Jet
DC9	McDonnell Douglas	DC9		90	Jet
DH8	DeHavilland of Canada	DHC8	Dash 8	34	Pressurized
DO8	Dornier	228		19	Non-Pressurized
EM2	Embraer	EMB 120	Brasilia	30	Pressurized
EMB	Embraer	EMB 110	Bandeirante	19	Non-Pressurized
F27	Fokker-VFW-Fairchild	F27	Friendship	48	Pressurized
F28	Fokker	F28	Fellowship	60	Jet
J31	British Aerospace	J31	Jetstream 31	18	Pressurized
L10	Lockheed	L1011	Tristar	325	Jet
M80	McDonnell Douglas	DC9-80	Super 80	154	Jet
PAG	Piper (All Series)				See Below
---	Piper		Aztec	8	Non-Pressurized
---	Piper		Navajo	6	Non-Pressurized
SF3	Saab-Fairchild	340		34	Pressurized
SH3	Short Brothers	330		30	Non-Pressurized
SH6	Short Brothers	360		36	Non-Pressurized
SWM	Fairchild-Swearingen		Metroliner	19	Pressurized

Note: Capacity is a median number of seats which can be configured in the aircraft. This is the number used in all Available Seat calculations. The **Official Airline Guide** does not differentiate between different models of Piper aircraft in scheduled air carrier service. In Michigan, the aircraft in question will be either the Navajo (PAN) or the Aztec (PAZ).



**Appendix E:
FREQUENCY CODES**

Appendix E: Frequency Codes

The data provided in this appendix is derived from the Official Airline Guide, December 15, 1988 edition.

<u>Code</u>	<u>Meaning</u>
D	Daily
X	Except
1	Monday
2	Tuesday
3	Wednesday
4	Thursday
5	Friday
6	Saturday
7	Sunday



Appendix F:
AIRPORT LOCATION & LAYOUT MAPS KEY

Appendix F: Airport Location & Layout Maps Key

This key to features is for use with the airport location and layout maps found in Section V: Airport Informational Summaries. The data provided in airport location and layout maps section is derived from a variety of MDOT sources. The airport layout diagram is from the 1988 **Michigan Airport Directory** published by the Bureau of Aeronautics. The state airport location map is a product of the Bureau of Transportation Planning, Aviation Planning Unit. The detail maps were prepared by the Bureau of Administration, Mapping Unit in cooperation with the U.S. Department of Transportation, Federal Highway Administration.

The maps included in Section V: Airport Informational Summaries represent Michigan scheduled air carrier passenger airports which had service during 1988. Also included is Detroit Willow Run Airport because of it's importance as a scheduled cargo facility.

AIRPORT LOCATION & FEATURES KEY

PLAN SYMBOLS

	Obstruction 1000 feet and higher		R.E.I.L.
	Obstruction below 1000 feet		R.A.L.L.
	Pole line		V.A.S.I.
	High tension wire		Segmented circle
	Lines burned		Relocated threshold Usable as taxiway
	Airport beacon		Under construction
	Helipad		Turf/Hard surface area, taxiway or other area not used for landings or take-off
	Tetrahedron, Tee, Windssock, Lighted		Hard surface runway, total length and heading.
	Bridge		Hard surface runway with unproved stepdown (total and length)
	Fence		M.A.C. marsh no dis- placement
	Railroad		Non-Standard runway markers, i.e. trees, benches, drums, etc.
	Highway		Displaced threshold lighted/unlighted
	Shall		Lighted runway (no displacement)
	Marsh		A.L.S. (approach light system)
	Water area		
	Dam		
	River or stream		
	Trees, stumps or brush		
	Evergreen		
	Elevation (A.S.L.) of obstruction		
	V.O.R.T.A.C./V.G.R.		



★ Subject Airport

LEGEND

ROADS		HIGHWAY BRIDGES (20 TO 200 FT. LENGTH)	
UNIMPROVED ROAD		GENERAL DRAWBRIDGE	
GRADED AND DRAINED ROAD		(200 FT. LENGTH OR OVER)	
SOIL SURFACED ROAD		GENERAL DRAWBRIDGE	
GRAVEL OR SIMILAR ROAD		SUSPENSION	
BITUMINOUS SURFACED ROAD		ARCH	
PAVED ROAD		TRUSS OR GIRDER	
DIVIDED HIGHWAY		HIGHWAY GRADE SEPARATION	
DIVIDED HIGHWAY WITH FRONTAGE ROAD		INTERCHANGE SHOWING RAMPS	
ROAD SYSTEM DESIGNATION		DRAINAGE	
INTERSTATE HIGHWAY		NARROW STREAM	
UNITED STATES HIGHWAY		WIDE STREAM (OVER 250 FT)	
STATE HIGHWAY		NAVIGATION	
BUSINESS LOOP	BL	FREE FERRY	
BUSINESS ROUTE	BR	TOLL FERRY	
BUSINESS SPUR	BS	DAMS	
AIRPORTS (WITH FIELD LIMITS AND RUNWAYS)		DAM WITH ROAD	
MILITARY FIELD (SOME FACILITIES AVAILABLE)		DAM WITHOUT ROAD	
AIRPORT, COMPLETE FACILITIES (COMMERCIAL OR MUNICIPAL)		BOUNDARIES	
AIRFIELD, LIMITED FACILITIES		NATIONAL BOUNDARY	
LANDING AREA OR STRIP (INCLUDING PRIVATE AIRFIELDS)		STATE BOUNDARY	
RAILROADS		COUNTY BOUNDARY	
RAILROAD (ANY NUMBER TRACKS) USED BY SINGLE OPERATING COMPANY		CIVIL TOWNSHIP BOUNDARY	
RAILROAD (ANY NUMBER TRACKS) USED BY MORE THAN ONE OPERATING COMPANY ON SAME OR ADJACENT RIGHTS OF WAY (NOT TRACKAGE RIGHTS)		CONGRESSIONAL (U.S. LAND)	
RAILROAD STATION		TOWNSHIP BOUNDARY	
RAILROAD ABOVE ROAD		SECTION LINE	
RAILROAD BELOW ROAD		CITY AND VILLAGE	
RAILROAD TUNNEL		STATE CAPITAL	
		COUNTY SEAT	
		UNINCORPORATED COMMUNITIES	
		INCORPORATED CITY OR VILLAGE	





GLOSSARY

GLOSSARY

Airline: A business entity providing air transportation service through the operation of aircraft which are owned, leased or otherwise designated as assets to the firm. Business entities which do not operate their own aircraft, but only contract the services of another airline are termed "carriers".

Airline Designator Code: The unique two character code assigned to each airline for scheduling, ticketing and reporting purposes. Generally will be suffixed with an asterisks when denoting service by a contracted carrier under a contract marketing agreement.

Belly Cargo: Common name for cargo carried in scheduled passenger aircraft.

Cabotage: Flights made by foreign carriers which stop at multiple United States cities, but may not carry passengers between domestic points. These are ticketed as nonstop international flights regardless of the number of domestic stops.

Carrier: Either an airline or a business entity providing air transportation service through contract with an airline.

Code Sharing Agreement: Common name for a contract marketing agreement.

Commuter Aircraft: Common name for smaller aircraft used by regional and commuter carriers. Generally seats fewer than 60 persons.

Commuter Airline: Common name for an airline whose annual gross revenues do not exceed \$75 million.

Computer Reservation System: A service subscribed to by travel agents and airlines. The system consists of stored airline schedule

information which can be accessed by subscribers. It is used for booking of flights and issuance of tickets. Commonly abbreviated as CRS.

Contract Marketing Agreement: A business technique consisting of a sharing of the airline designator code (the unique two character code assigned to each airline). This agreement makes the regional carrier the contract carrier, and the major airline the contracting carrier. To differentiate between the two corporate entities, an asterisk is added to the two character code for the contract carrier. This effectively gives the larger airline a passenger feeder system which can operate profitably in the smaller markets, and the smaller airline the advantages of through ticketing, baggage checking and passenger access to destinations outside it's normal markets. Perhaps even more important is the access to busy markets through the use of the slots of the contracting carrier.

Deplane: The act of disembarking or being off loaded from an aircraft.

Deplanement: A passenger who has disembarked from an aircraft.

Enplane: The act of embarking or being loaded on to an aircraft.

Enplanement: A passenger who has embarked on an aircraft.

Essential Air Service: Under Section 419 of the Airline Deregulation Act of 1978, certain air service markets are designated as requiring nonstop or one stop air service to a designated hub airport, but being currently unable to support a profitable service. These essential service points require a replacement

carrier to be designated prior to discontinuance of service. To cover losses from services, federal monies are available to carriers who would operate in these markets. These monies are termed Essential Air Service (EAS) subsidies. Two types of subsidies exist. The standard subsidization is given to certain EAS locations where no airline can currently profitably serve the facility. Continuance subsidies are paid at other EAS airports when the serving carrier petitions to discontinue service.

Hub Airport: For the purposes of this report, a hub airport is defined as an airport which individually meets the criteria of FAA large and medium hub communities. The FAA has four classifications of hub cities. As of December 31, 1986 (the most recent Airport Activity Statistics of Certificated Route Air Carriers report available) they were designated as nonhub (fewer than 200,004 enplanements), small (200,004 to 1,000,020 enplanements), medium (1,000,020 to 4,000,080 enplanements) and large (4,000,080 or more enplanements) hub.

Jet Aircraft: An aircraft propelled by either turbojet or turbofan engines. Commercial jet aircraft are always pressurized.

Leakage: Common term used to denote a loss of potential local passengers to an alternate facility.

Major Airline: An airline whose annual gross revenues exceed \$1 billion.

Minihub: Common term applied by airlines to central transfer points on their route systems where passenger levels do not require the use of large jet aircraft. Minihubs will generally feed passengers into large transfer points which do use large jet aircraft.

National Airline: An airline whose annual

gross revenues exceed \$75 million but do not exceed \$1 billion.

Nonpressurized: An aircraft lacking equipment for maintaining a constant atmospheric pressure in the cabin for passenger comfort.

Pressurized: An aircraft with equipment for maintaining a constant atmospheric pressure in the cabin for passenger comfort.

Propeller Aircraft: An aircraft deriving propulsion from various types of engines turning an airscrew.

Regional Airline: An airline whose annual gross revenues do not exceed \$75 million.

Slots: Common name for the right of a carrier to land at an airport during specified times of the day. The imposition of a slot system is necessary at large airports to prevent aircraft from overloading the available capacity. Some airports divide slots available into categories based on the size of the aircraft.

Stretched: Common name for an aircraft model which is derived from and increases the capacity of a certain base aircraft. An example of this would be the McDonnell Douglas DC-9 (capacity 90 passengers) and its derivatives the DC-9 Stretched (125 passengers), DC-9-50 (139 passengers) and DC-9-80 (154 passengers).

Through Baggage/Fares/Ticketing: Procedures which allow a passenger to access the services of multiple airlines by the purchase of the services of one airline. This is particularly useful for regional carriers with contract marketing agreements as it allows them to negate some of the negative perceptions of smaller air carriers.