

TL
726.3
.I8
A47
1982

AUG 19 1983

STATE LIBRARY OF IOWA
Historical Building
DES MOINES, IOWA 50319

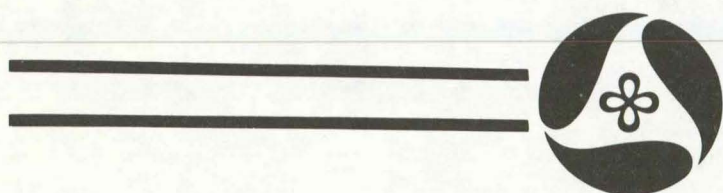
1982

Airport Operations Survey

1982 Airport Operations Survey

Published March 1983

Office of Transportation Inventory
Telephone: 515-239-1289



**Iowa Department
of Transportation**

TABLE OF CONTENTS

Preface 1

Survey Procedure

 General. 2

 Based Aircraft 4

 Flight Operations. 4

 Summary. 6

Municipal Airport Survey Data

 Albia. 9

 Bloomfield 15

 Boone. 21

 Centerville. 27

 Chariton 33

 Clinton. 39

 Davenport. 45

 Fairfield. 51

 Ft. Madison. 57

 Iowa City. 63

 Keokuk 69

 Knoxville. 75

 Mt. Pleasant 81

 Muscatine. 87

 Newton 93

 Oskaloosa. 99

 Ottumwa. 105

 Pella. 111

 Tipton 117

 Washington 123

Glossary. 129

References. 130

Survey Forms. 131

PREFACE

The Iowa Department of Transportation is responsible for intermodal transportation planning. Airport planning is an important consideration in the development of intermodal transportation facilities. An essential part of airport planning is aircraft operations.

Primary sources for aircraft operations include the Federal Aviation Administration (FAA) for airports that have control towers, estimates from managers at airports that do not have control towers and from manual observation of aircraft operations at airports. This report addresses the latter of these primary sources.

Following creation of the Iowa Department of Transportation in 1974, the Department entered into a contract with the Engineering Research Institute (ERI), Iowa State University, for a 1976 update of the Iowa State Airport System Plan.⁽¹⁾ In 1975, ERI conducted manual observation counts of aircraft usage at 15 airports throughout Iowa. The Iowa Department of Transportation conducted counts at ten of these airports in 1976.

In 1977, the Department initiated a longer term airport survey program to establish a data base on flight operations and airport usage. This data base would be used in the establishment of a model to predict flight operations for airports throughout Iowa. The survey program covered a minimum period of three years from 1977 through 1979. A maximum of 20 weeks were allotted each year for field survey work. In 1980, the Department in cooperation with the Federal Aviation Administration of the United States Department of Transportation conducted surveys at 17 airports. The results of all airport surveys taken since 1976 have been published and are available from the Office of Transportation Inventory, Iowa Department of Transportation, Ames, Iowa, 50010.

In 1982, 19 airports were surveyed in southeast Iowa along with the Boone Airport in central Iowa. This report presents the information gathered in 1982.

SURVEY PROCEDURE

General

This report presents the data gathered at 20 municipal airports during the summer of 1982. The purpose of these surveys was to gather data pertaining to the number and type of flight operations and based aircraft at each airport. Flight operations were observed and recorded from 6:00 a.m. to 10:00 p.m. for seven consecutive days at each airport with one exception. Flight operations at the Muscatine Airport were observed from 6:00 a.m. to 2:00 p.m. for three days and from 2:00 p.m. to 10:00 p.m. for four days.

Currently, 79 airports comprise the Iowa Aviation System Plan.⁽²⁾ These airports, shown in Figure A, are classified into four categories according to present usage and aircraft weight handling capabilities. Included in the State Aviation System Plan are four general transport, sixteen basic transport, thirty-three general utility, and twenty-seven basic utility airports.

All airports surveyed in 1982 are included in the current Aviation System Plan. The location and classification of these airports are shown in Figure B. Airports with control towers are not included in airport operations surveys because adequate flight operations data are available from control tower records.

The following information was obtained by manual observation, supplemented by personal interviews when required:

1. Based Aircraft
 - a. Class
 - b. Seating Capacity
 - c. Primary usage (Business or Pleasure)
2. Flight Operations
 - a. Date and Time of Day
 - b. Class of Aircraft
 - c. Aircraft passenger capacity and number of passengers
 - d. Type of operation
 - e. Origin or destination by city and state for itinerant flights
3. General Weather Conditions - Weather conditions are noted only when they appear to have influenced flight operations.

FIGURE A
1982 IOWA STATE SYSTEM AIRPORTS

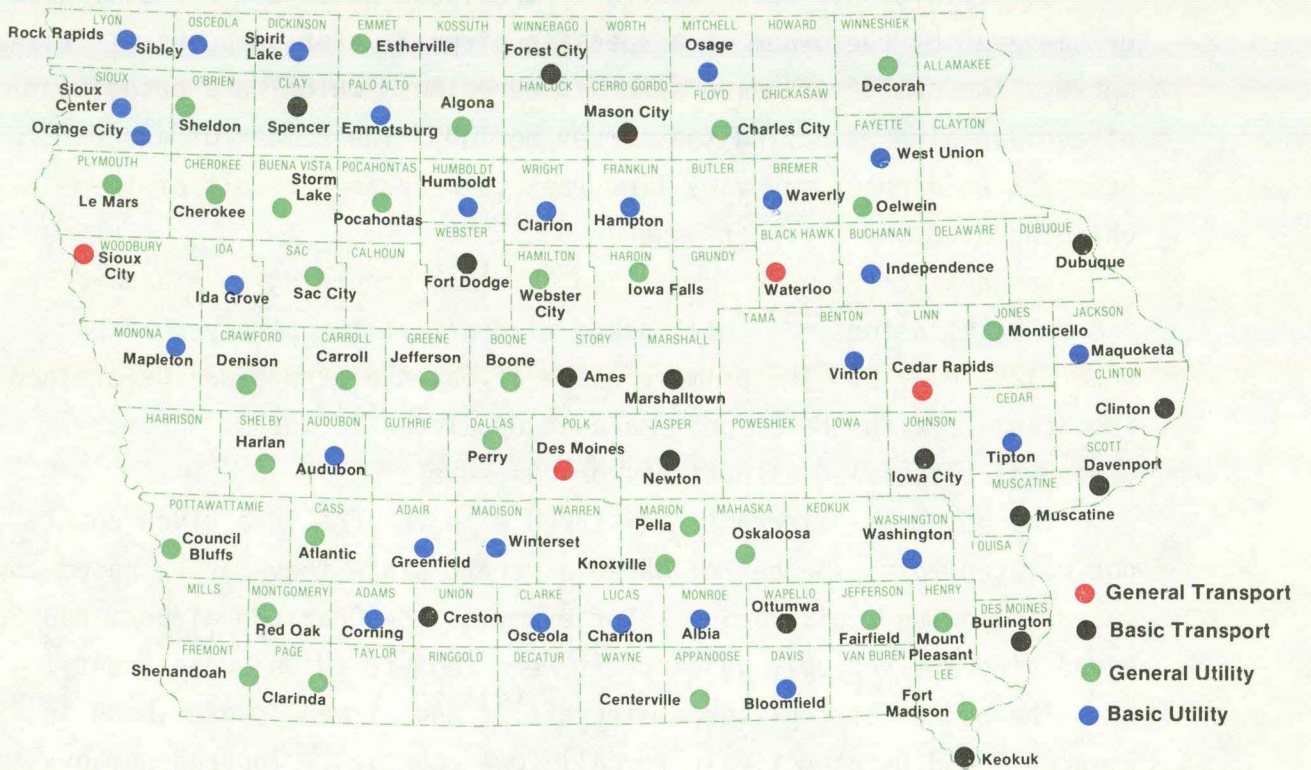
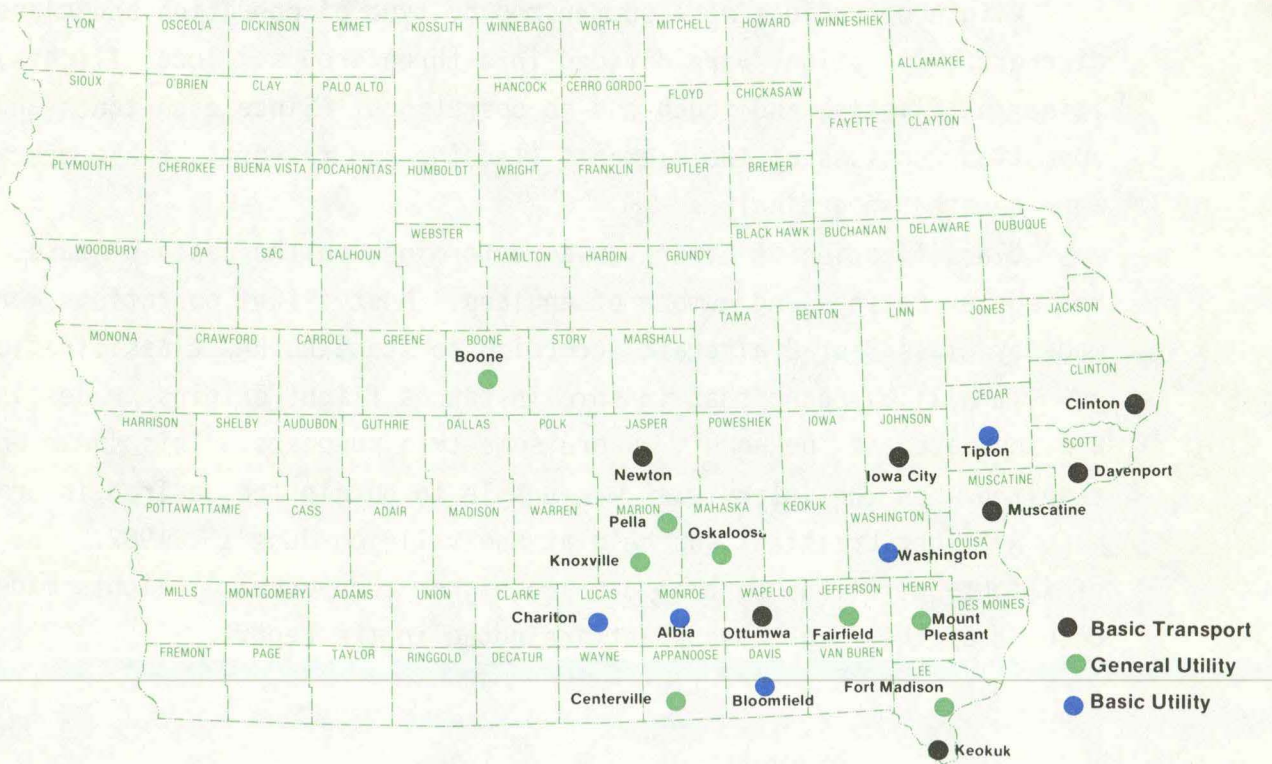


FIGURE B
AIRPORTS SURVEYED IN 1982



Based Aircraft

By definition, "based aircraft" are those which are normally kept or hangared by the owner at a specific airport. For purposes of this survey, the number of based aircraft were those which were being kept at a given airport during the survey period. The number of aircraft based at an airport may vary from week to week as a result of the changing needs of aircraft owners.

Based aircraft were summarized by class according to standard FAA classifications.⁽³⁾ Most based aircraft at the surveyed airports were Class D or E. The primary usage of based aircraft was determined from contact with the airport manager or aircraft owners. Primary usage was classified as business or pleasure.

The number of aircraft registered with the FAA in a given county is not related to the number of based aircraft since they may be based anywhere following registration. For example, the Chariton Airport had 33 based aircraft and only 14 aircraft were registered in Lucas County.

The number of registered aircraft⁽⁴⁾ and airmen⁽⁵⁾ are shown in Figures C and D respectively for all Iowa counties. The red numbers in Figures C and D denote registered aircraft/airmen for the primary counties served by the airports surveyed in 1982.

Flight Operations

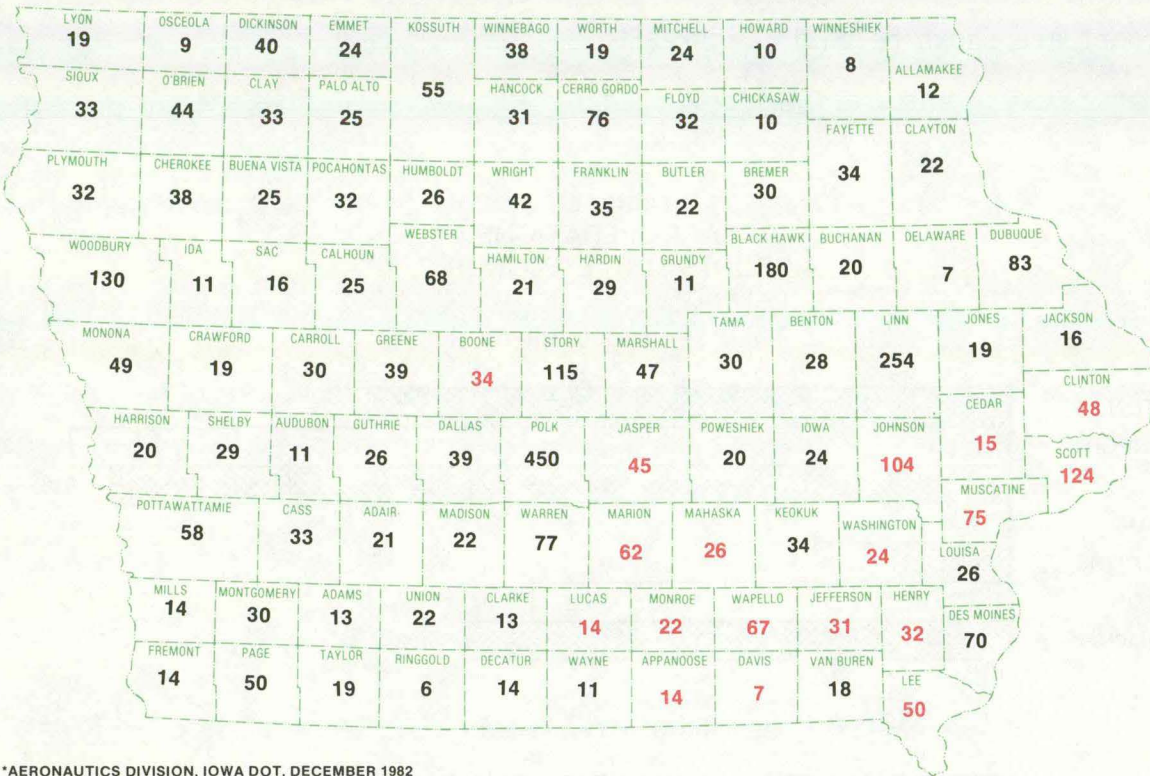
Flight operations were summarized by type of operation and class of aircraft. Operations were divided into three groups: local flights, itinerant flights, and touch-and-go operations. Since each touch-and-go operation consists of two elements (landing and takeoff), these operations were counted accordingly.

Classification of aircraft was determined on the basis of make, model, horsepower ratings and number of engines. Most flight operations were made by Class D or E aircraft according to standard FAA classification.⁽³⁾

It will be noted that in some instances flight origins or destinations are indicated as "unknown", as are some trip purposes. This "unknown" data resulted when the interviewer was unable to obtain the desired information.

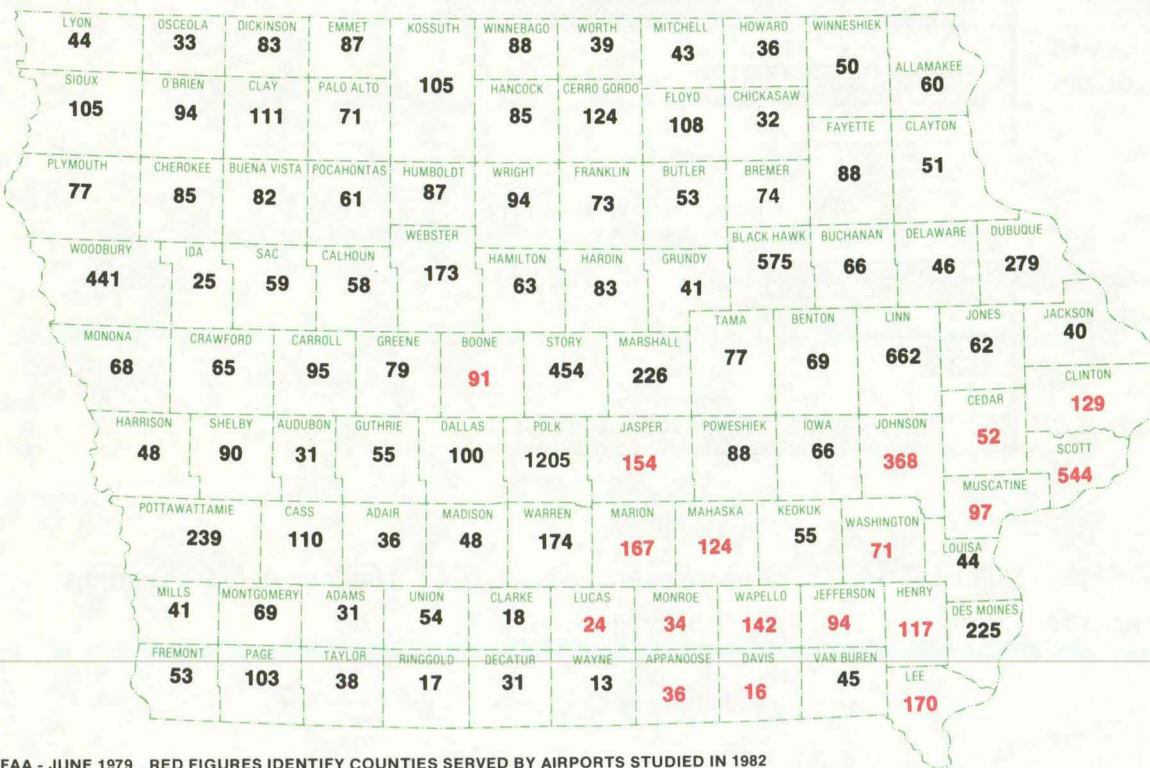
A flight breakfast was held at Knoxville on June 13, 1982. The number of flight operations on that day are higher than usual. Flights made because of the flight breakfast are noted in the report.

FIGURE C
REGISTERED AIRCRAFT BY COUNTY*



*AERONAUTICS DIVISION, IOWA DOT, DECEMBER 1982
RED FIGURES IDENTIFY COUNTIES SERVED BY AIRPORTS STUDIED IN 1982

FIGURE D
REGISTERED AIRMEN BY COUNTY*

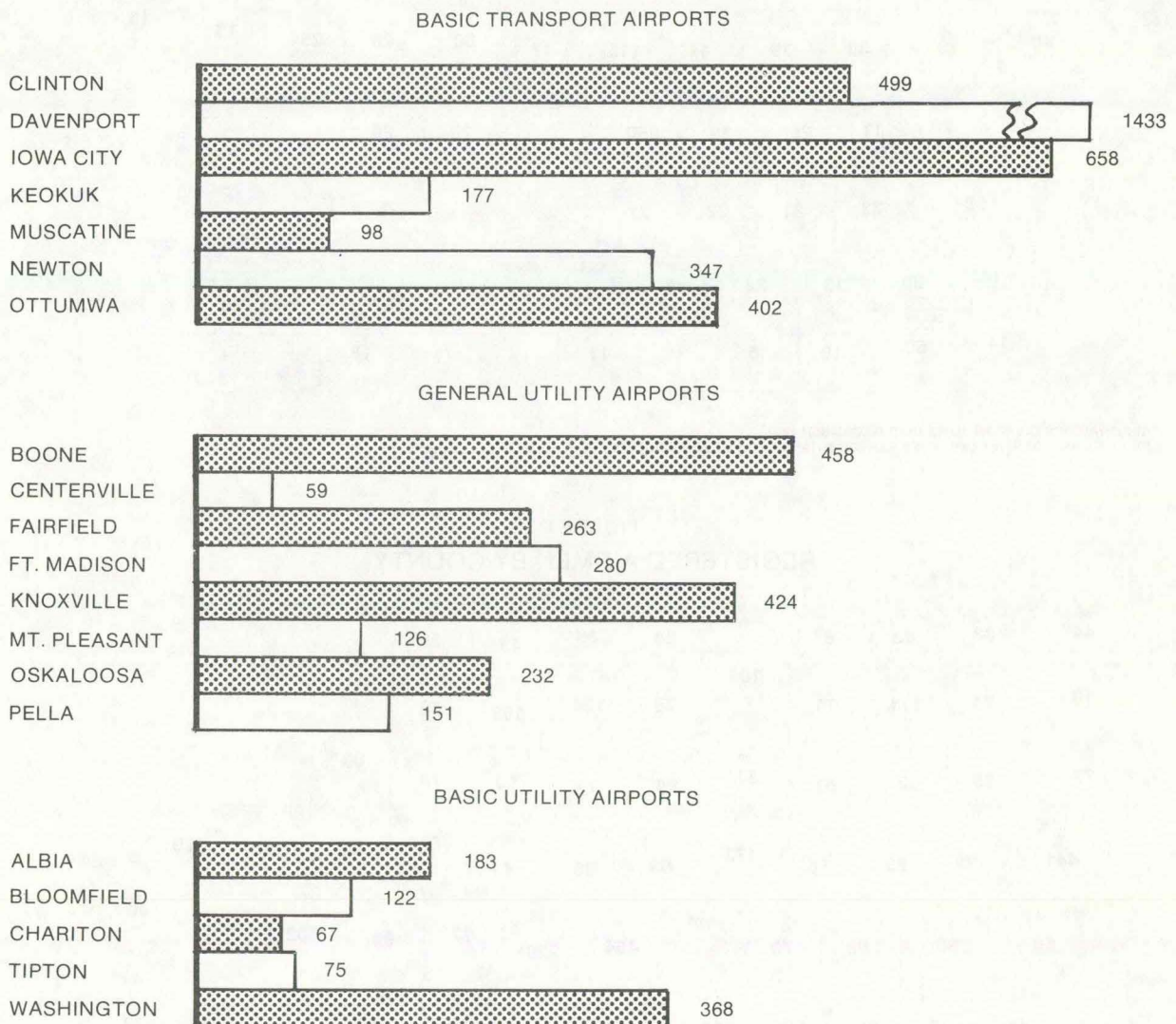


*FAA - JUNE 1979 RED FIGURES IDENTIFY COUNTIES SERVED BY AIRPORTS STUDIED IN 1982

Summary

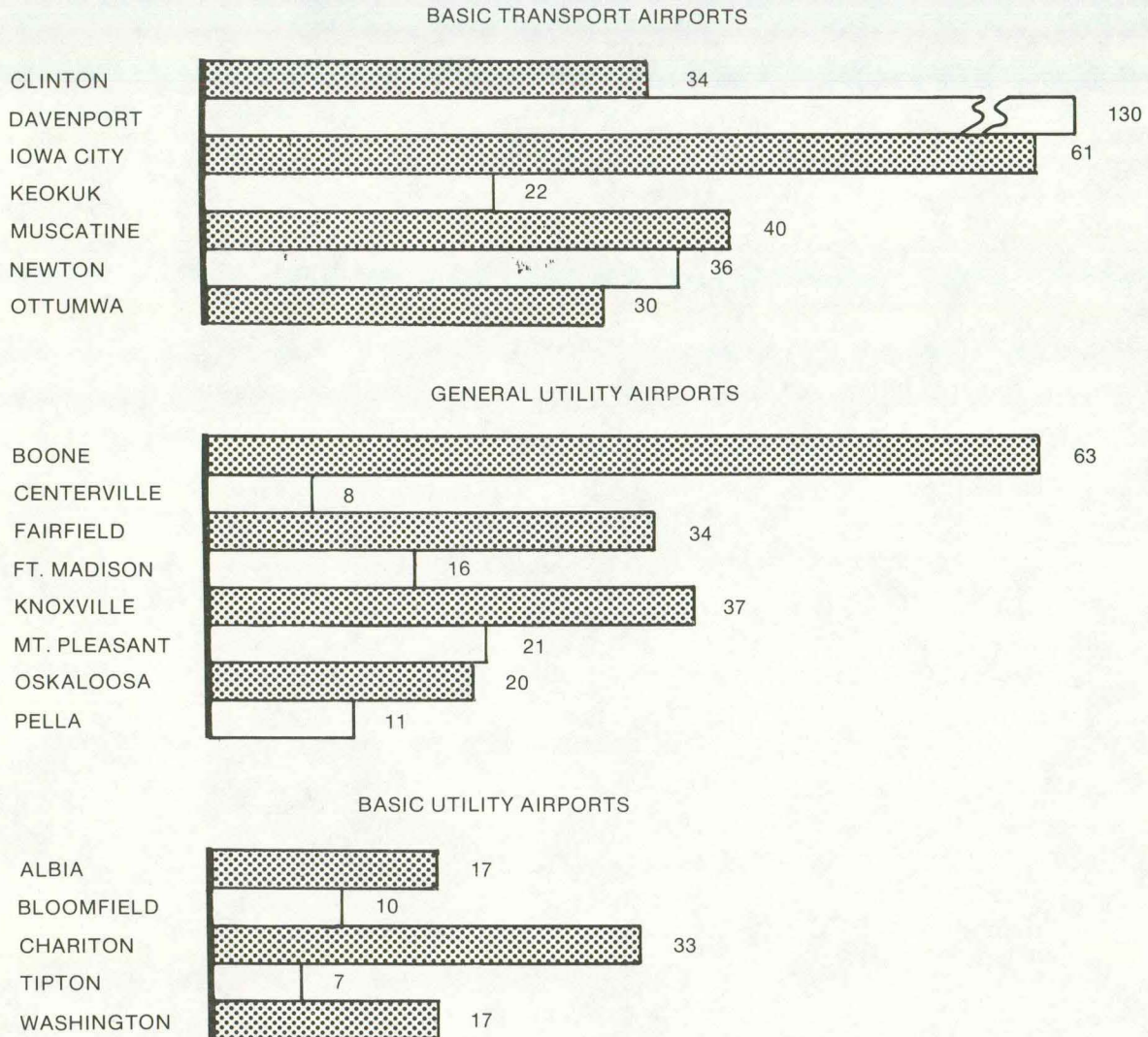
The total number and type of flight operations observed at each airport are shown below in Figure E.

FIGURE E
AIRCRAFT OPERATIONS AT
AIRPORTS SURVEYED IN 1982



Based aircraft which were present at each of the surveyed airports during the survey period are shown in Figure F.

FIGURE F
 NUMBER OF BASED AIRCRAFT
 AT AIRPORTS SURVEYED IN 1982



The field data summarized in this report has not been adjusted in any manner.

Detailed information for each of the airports surveyed in 1982 is provided in the charts and tables on the following pages.

ALBIA MUNICIPAL AIRPORT

Albia is located in southeast Iowa approximately 21 miles west of Ottumwa on U.S. 34. The municipal airport is located four miles southeast of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Albia.	4,184
Monroe County.	9,209

Iowa Airport System Classification: Basic Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Monroe County (1982): 22

Registered Airmen⁽⁵⁾ in Monroe County (1979); 34

Runways:⁽⁷⁾ One; elevation: 963 feet

Runway 13/31, asphalt, 2,500 feet long, 50 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 17

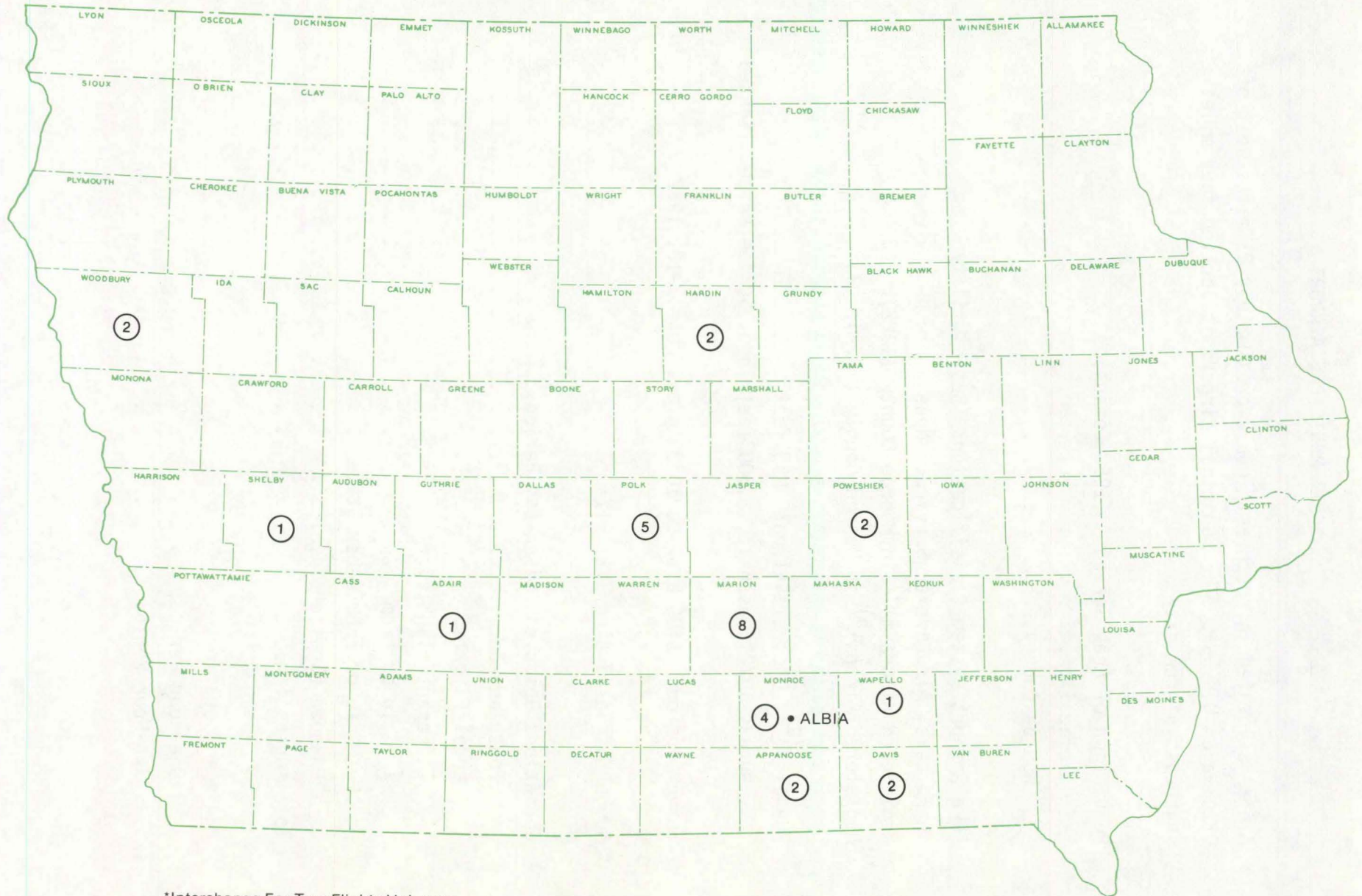
Operations Observed (Seven-Day Period):

Touch-and-Go	88
Local Flights.	55
Itinerant Flights:	
To or From Iowa	30
To or From Other States	8
Unknown Locations.	2
Total Operations.	183

Maximum Operations:

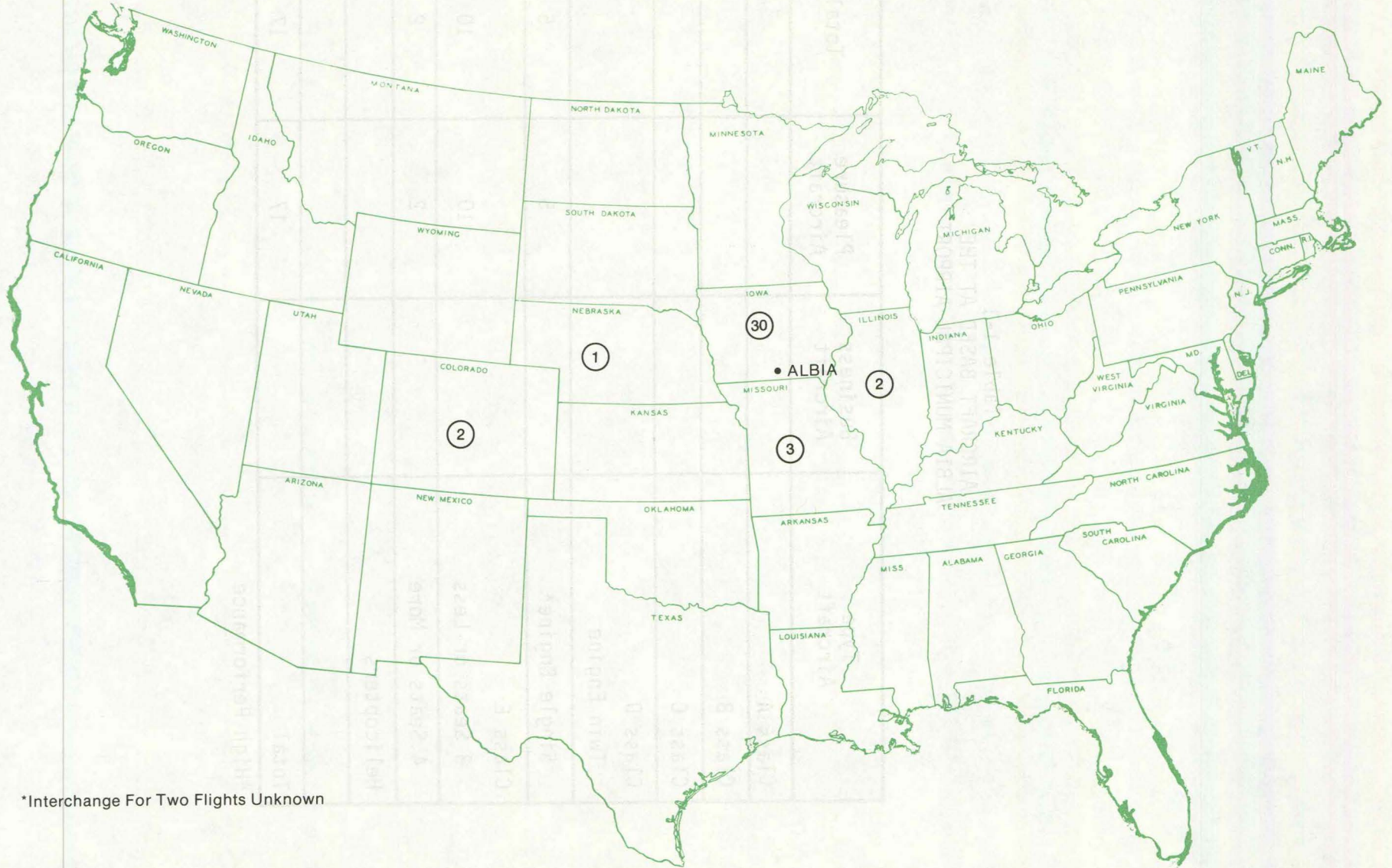
One-Hour Period.	18
Two-Hour Period.	25

FIGURE 1-1
 ITINERANT FLIGHT INTERCHANGE*
 ALBIA AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Two Flights Unknown

FIGURE 1-2
ITINERANT FLIGHT INTERCHANGE*
ALBIA AND STATES
JUNE 7-13, 1982



*Interchange For Two Flights Unknown

Table 1-1
 AIRCRAFT BASED AT THE
 ALBIA MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D Twin Engine			
Single Engine*		5	5
Class E 3 Seats or Less		10	10
4 Seats or More		2	2
Helicopters			
Total		17	17

*High Performance

Table 1-2
AIRCRAFT OPERATIONS
ALBIA MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	52	26	16	42	94
Monday	4	6	3	9	13
Tuesday			4	4	4
Wednesday		2	3	5	5
Thursday	4	11	3	14	18
Friday			4	4	4
Saturday	28	10	7	17	45
Total	88	55	40	95	183
Average Day	12	8	6	14	26

Table 1-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	18	25
Monday	5	6
Tuesday	2	3
Wednesday	3	3
Thursday	5	5
Friday	2	3
Saturday	14	17
Highest Period	18	25

Table 1-4
CLASSIFICATION OF FLIGHTS
TO OR FROM ALBIA

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	88	48.09	144	1.64
	Business				
	Pleasure	2	1.09	2	1.00
	Training	21	11.47	34	1.62
	Unknown	32	17.49	42	1.31
Iowa	Business				
	Pleasure				
	Training	1	0.55	2	2.00
	Unknown	29	15.85	45	1.55
Out of Iowa	Business				
	Pleasure				
	Training				
	Unknown	8	4.37	17	2.13
Unknown Locations		2	1.09	2	1.00
Total Operations		183	100.00	288	1.57

Table 1-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
ALBIA MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	18	9.84
E	165	90.16
Helicopter		
Special		
All	183	100.00

BLOOMFIELD MUNICIPAL AIRPORT

Bloomfield is located in southeastern Iowa on U.S. 63 approximately 20 miles south of Ottumwa. The municipal airport is one and one-half miles southwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Bloomfield.	2,849
Davis County.	9,104

Iowa Airport System Classification: Basic Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Davis County (1982): 7

Registered Airmen⁽⁵⁾ in Davis County (1979): 16

Runways:⁽⁷⁾ One; elevation: 850 feet

Runway 18/36, concrete, 3,400 feet long, 50 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 10

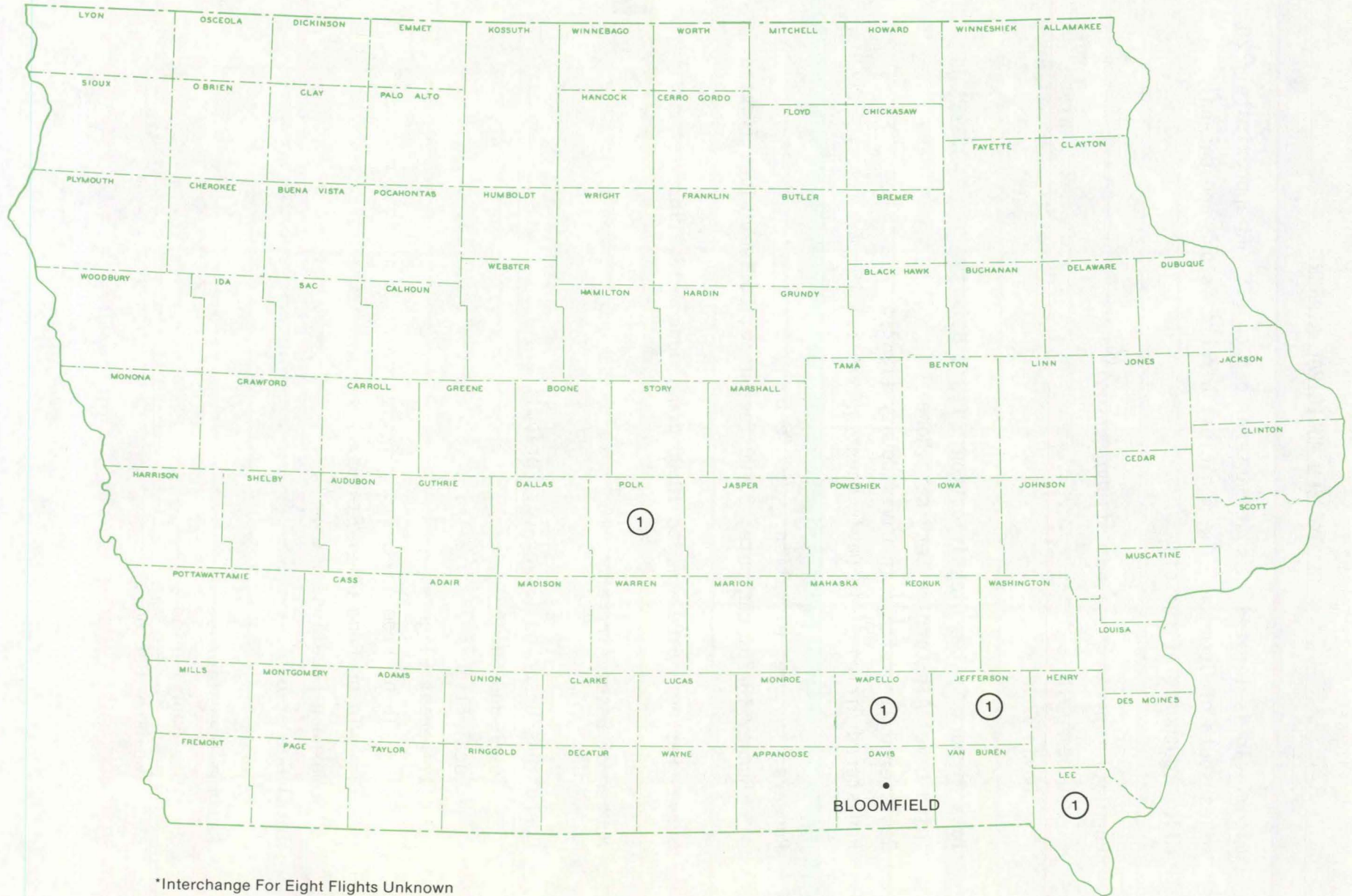
Operations Observed (Seven-Day Period):

Touch-and-Go.	32
Local Flights	71
Itinerant Flights:	
To or From Iowa.	4
To or From Other States.	7
Unknown Locations	8
Total Operations	122

Maximum Operations:

One-Hour Period	12
Two-Hour Period	13

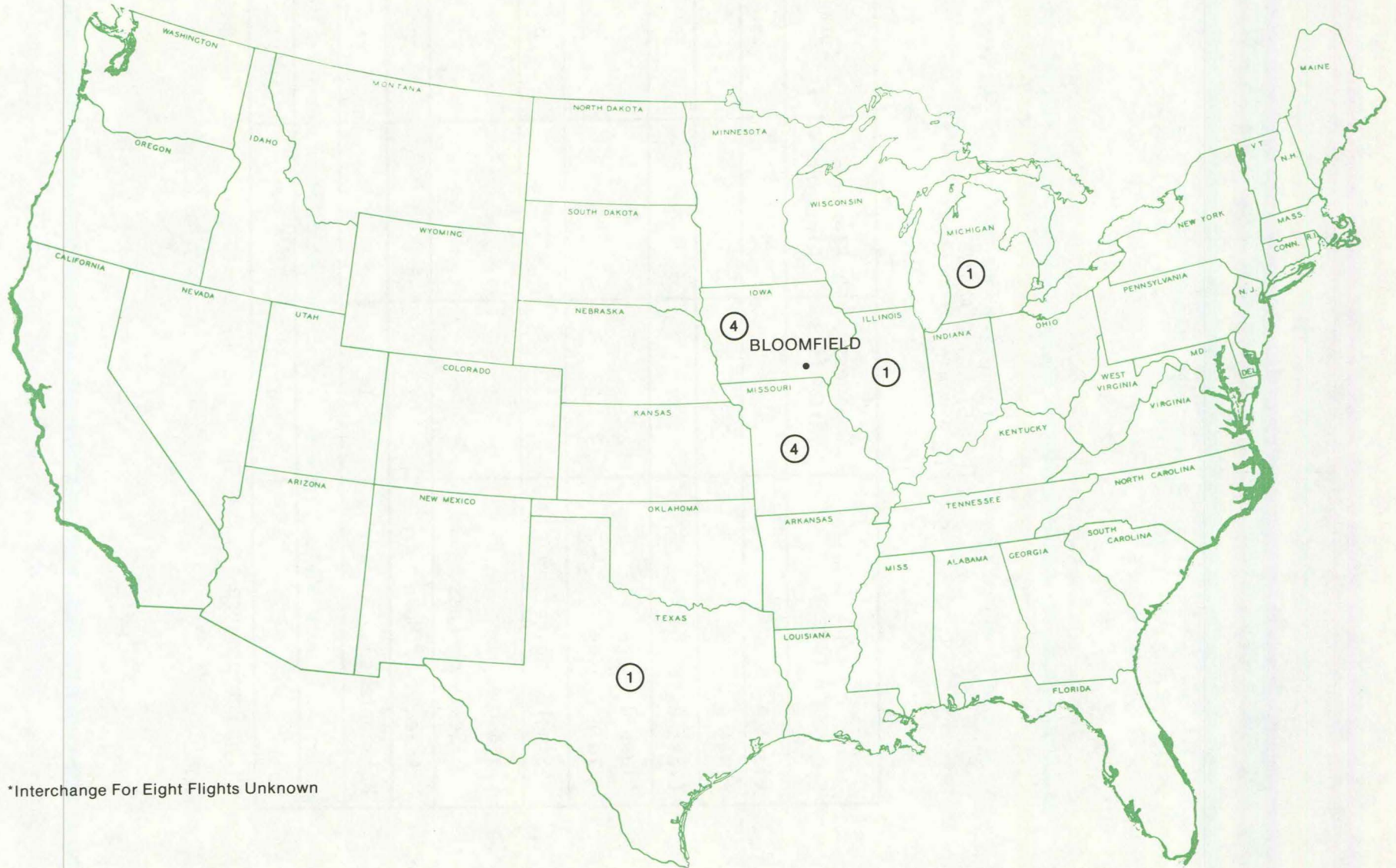
FIGURE 2-1
 ITINERANT FLIGHT INTERCHANGE*
 BLOOMFIELD AND IOWA COUNTIES
 JUNE 7-13, 1982



-16-

*Interchange For Eight Flights Unknown

FIGURE 2-2
ITINERANT FLIGHT INTERCHANGE*
BLOOMFIELD AND STATES
JUNE 7-13, 1982



*Interchange For Eight Flights Unknown

Table 2-1
AIRCRAFT BASED AT THE
BLOOMFIELD MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	2		2
Single Engine*	2		2
Class E			
3 Seats or Less		3	3
4 Seats or More	1	1	2
Helicopters	1		1
Total	6	4	10

*High Performance

Table 2-2
AIRCRAFT OPERATIONS
BLOOMFIELD MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	14	13	6	19	33
Monday	2	14	2	16	18
Tuesday		6	2	8	8
Wednesday					0
Thursday	8	7	2	9	17
Friday	6	21	6	27	33
Saturday	2	10	1	11	13
Total	32	71	19	90	122
Average Day	5	10	3	13	18

Table 2-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	12	13
Monday	5	9
Tuesday	2	4
Wednesday	0	0
Thursday	8	10
Friday	7	13
Saturday	3	4
Highest Period	12	13

Table 2-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM BLOOMFIELD

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	32	26.23	38	1.19
	Business	53	43.44	53	1.00
	Pleasure	7	5.74	13	1.86
	Training				
	Unknown	11	9.02	17	1.55
Iowa	Business	3	2.46	8	2.67
	Pleasure				
	Training				
	Unknown	1	0.82	1	1.00
Out of Iowa	Business	4	3.28	9	2.25
	Pleasure				
	Training				
	Unknown	3	2.46	7	2.33
Unknown Locations		8	6.55	18	2.25
Total Operations		122	100.00	164	1.34

Table 2-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 BLOOMFIELD MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	45	36.89
E	54	44.26
Helicopter	23	18.85
Special		
All	122	100.00

BOONE MUNICIPAL AIRPORT

Boone is located in central Iowa on U.S. 30 approximately 45 miles northwest of Des Moines. The municipal airport is one-half mile southeast of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Boone.	12,602
Boone County	26,184
Story County	72,326

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Boone County (1982): 34

Registered Airmen⁽⁵⁾ in Boone County (1979): 91

Runways:⁽⁷⁾ Two; elevation: 1,147 feet

Runway 14/32, asphalt, 3,000 feet long, 75 feet wide, lighted

Runway 02/20, turf, 3,400 feet long, 300 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 21-27, 1982

Number of Based Aircraft: 63, including 15 military aircraft

Operations Observed (Seven-Day Period):

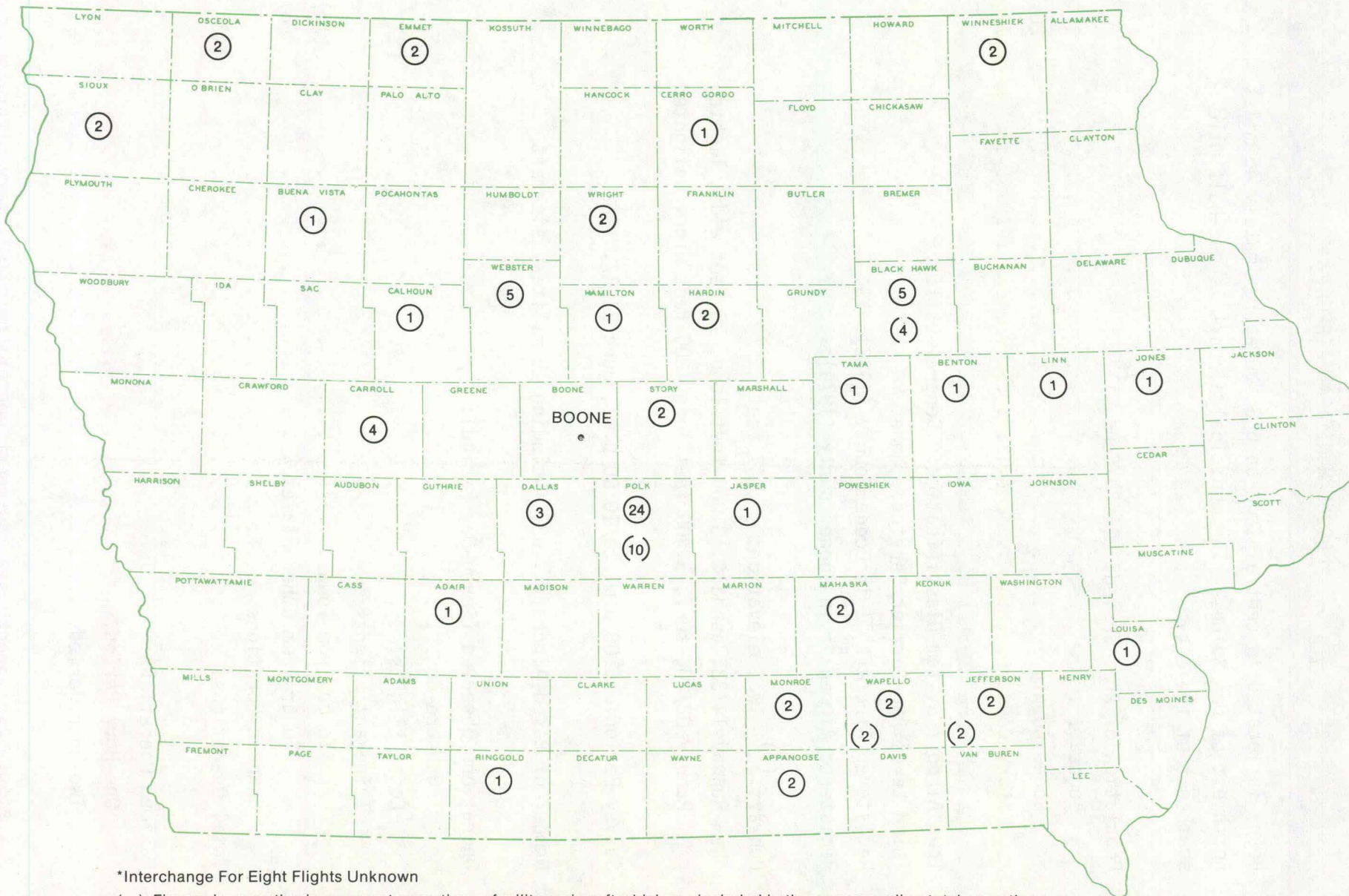
Touch-and-Go	124
Local Flights.	(22) 214
Itinerant Flights:	
To or From Iowa	(18) 77
To or From Other States	(8) 35
Unknown Locations.	8
Total Operations.	(48) 458

Maximum Operations:

One-Hour Period.	38
Two-Hour Period.	64

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

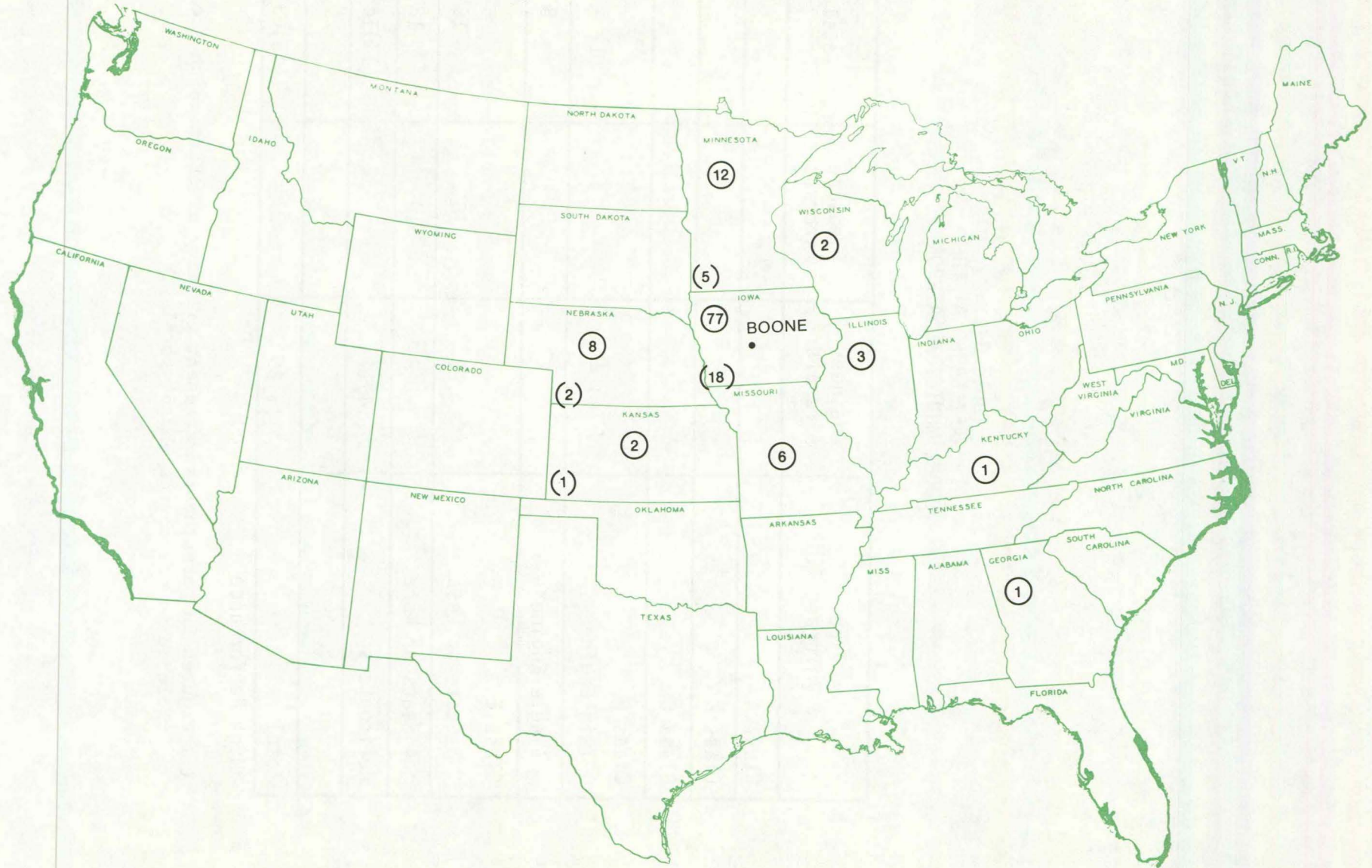
FIGURE 3-1
 ITINERANT FLIGHT INTERCHANGE*
 BOONE AND IOWA COUNTIES
 JUNE 21-27, 1982



*Interchange For Eight Flights Unknown

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

FIGURE 3-2
 ITINERANT FLIGHT INTERCHANGE*
 BOONE AND STATES
 JUNE 21-27, 1982



*Interchange For Eight Flights Unknown

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

Table 3-1
 AIRCRAFT BASED AT THE
 BOONE MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	(1) 4		(1) 4
Single Engine*	7	1	8
Class E			
3 Seats or Less	3	16	19
4 Seats or More	8	10	18
Helicopters	(14)14		(14)14
Total	(15)36	27	(15)63

*High Performance

() Figures in parenthesis represent military aircraft which are included in the corresponding totals.

Table 3-2
AIRCRAFT OPERATIONS
BOONE MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	14	41	11	52	66
Monday	70	31	(4) 22	(4) 53	(4) 123
Tuesday	20	44	(6) 32	(6) 76	(6) 96
Wednesday	8	(18) 38	(8) 19	(26) 57	(26) 65
Thursday	2	(2) 46	(2) 15	(4) 61	(4) 63
Friday		(2) 8	(2) 14	(4) 22	(4) 22
Saturday	10	6	(4) 7	(4) 13	(4) 23
Total	124	(22) 214	(26) 120	(48) 334	(48) 458
Average Day	18	31	17	48	66

Table 3-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	16	22
Monday	38	64
Tuesday	17	30
Wednesday	(7) 21	(9) 26
Thursday	14	(1) 23
Friday	5	9
Saturday	10	11
Highest Period	38	64

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

Table 3-4
CLASSIFICATION OF FLIGHTS
TO OR FROM BOONE

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	124	27.07	203	1.64
	Business	13	2.84	26	2.00
	Pleasure	54	11.79	83	1.54
	Training	(22)147	32.10	(63)298	2.03
	Unknown				
Iowa	Business	(18) 60	13.10	(71)145	2.42
	Pleasure	11	2.40	25	2.27
	Training	6	1.31	9	1.50
	Unknown				
Out of Iowa	Business	(8) 32	6.98	(18) 79	2.47
	Pleasure	3	0.66	9	3.00
	Training				
	Unknown				
Unknown Locations		8	1.75	20	2.50
Total Operations		(48)458	100.00	(152)897	1.96

Table 3-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
BOONE MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	6	1.31
D	(6) 66	14.41
E	344	75.11
Helicopter	(42) 42	9.17
Special		
All	(48)458	100.00

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

CENTERVILLE MUNICIPAL AIRPORT

Centerville is located in southeast Iowa at the intersection of Iowa Highways 2 and 5 approximately 87 miles from Des Moines. The municipal airport is four miles southwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Centerville.	6,558
Appanoose County	15,511

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Appanoose County (1982): 14

Registered Airmen⁽⁵⁾ in Appanoose County (1979): 36

Runways:⁽⁷⁾ Three; elevation: 1,023 feet

Runway 15/33, asphalt, 3,500 feet long, 50 feet wide, lighted

Runway 08/26, turf, 2,640 feet long, 200 feet wide, unlighted

Runway 17/35, paved/shale, 2,640 feet long, 30 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 8

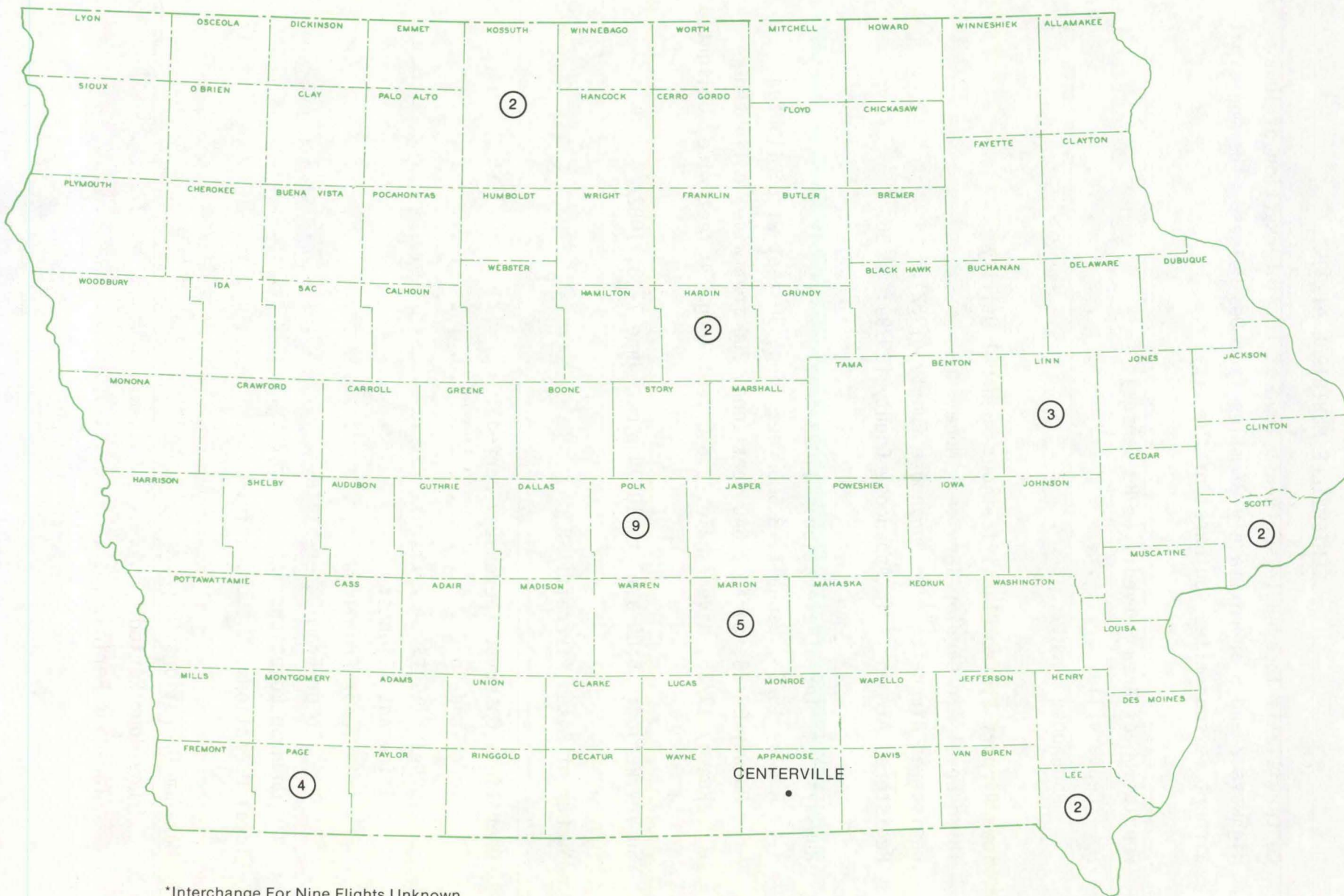
Operations Observed (Seven-Day Period):

Touch-and-Go	2
Local Flights.	8
Itinerant Flights:	
To or From Iowa	29
To or From Other States	11
Unknown Locations.	9
Total Operations.	59

Maximum Operations:

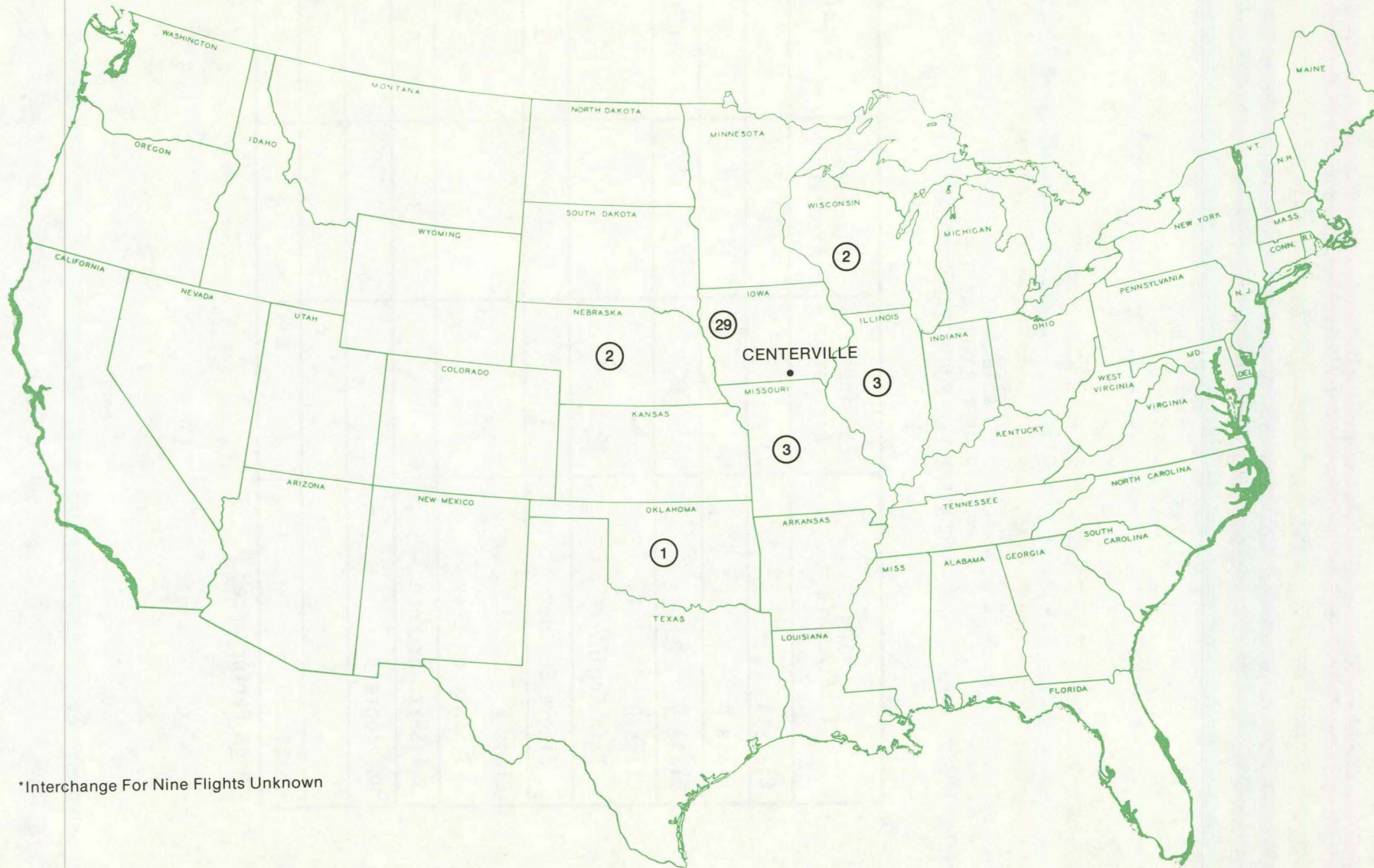
One-Hour Period.	5
Two-Hour Period.	6

FIGURE 4-1
 ITINERANT FLIGHT INTERCHANGE*
 CENTERVILLE AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Nine Flights Unknown

FIGURE 4-2
ITINERANT FLIGHT INTERCHANGE*
CENTERVILLE AND STATES
JUNE 7-13, 1982



*Interchange For Nine Flights Unknown

Table 4-1
 AIRCRAFT BASED AT THE
 CENTERVILLE MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C	1		1
Class D Twin Engine			
Single Engine*		3	3
Class E 3 Seats or Less			
4 Seats or More	1	3	4
Helicopters			
Total	2	6	8

*High Performance

Table 4-2
AIRPORT OPERATIONS
CENTERVILLE MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday		2	10	12	12
Monday			4	4	4
Tuesday			9	9	9
Wednesday			3	3	3
Thursday	2	4	11	15	17
Friday			8	8	8
Saturday		2	4	6	6
Total	2	8	49	57	59
Average Day		1	7	8	8

Table 4-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	3	4
Monday	2	2
Tuesday	2	3
Wednesday	1	1
Thursday	5	6
Friday	4	5
Saturday	2	3
Highest Period	5	6

Table 4-4
CLASSIFICATION OF FLIGHTS
TO OR FROM CENTERVILLE

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	2	3.39	4	2.00
	Business				
	Pleasure	6	10.17	16	2.67
	Training				
	Unknown	2	3.39	4	2.00
Iowa	Business	5	8.48	9	1.80
	Pleasure	5	8.48	14	2.80
	Training				
	Unknown	19	32.20	43	2.26
Out of Iowa	Business	2	3.39	8	4.00
	Pleasure	2	3.39	5	2.50
	Training				
	Unknown	7	11.86	20	2.86
Unknown Locations		9	15.25	27	3.00
Total Operations		59	100.00	150	2.54

Table 4-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
CENTERVILLE MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	8	13.56
D	9	15.25
E	42	71.19
Helicopter		
Special		
All	59	100.00

CHARITON MUNICIPAL AIRPORT

Chariton is located in southeast Iowa at the intersection of U.S. 34 and Iowa 14 approximately 53 miles southeast of Des Moines. The municipal airport is three miles west of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Chariton.	4,987
Lucas County.	10,313

Iowa Airport System Classification: Basic Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Lucas County (1982): 14

Registered Airmen⁽⁵⁾ in Lucas County (1979): 24

Runways:⁽⁷⁾ One; elevation: 1,050 feet

Runway 17/35, asphalt, 2,800 feet long, 60 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 33

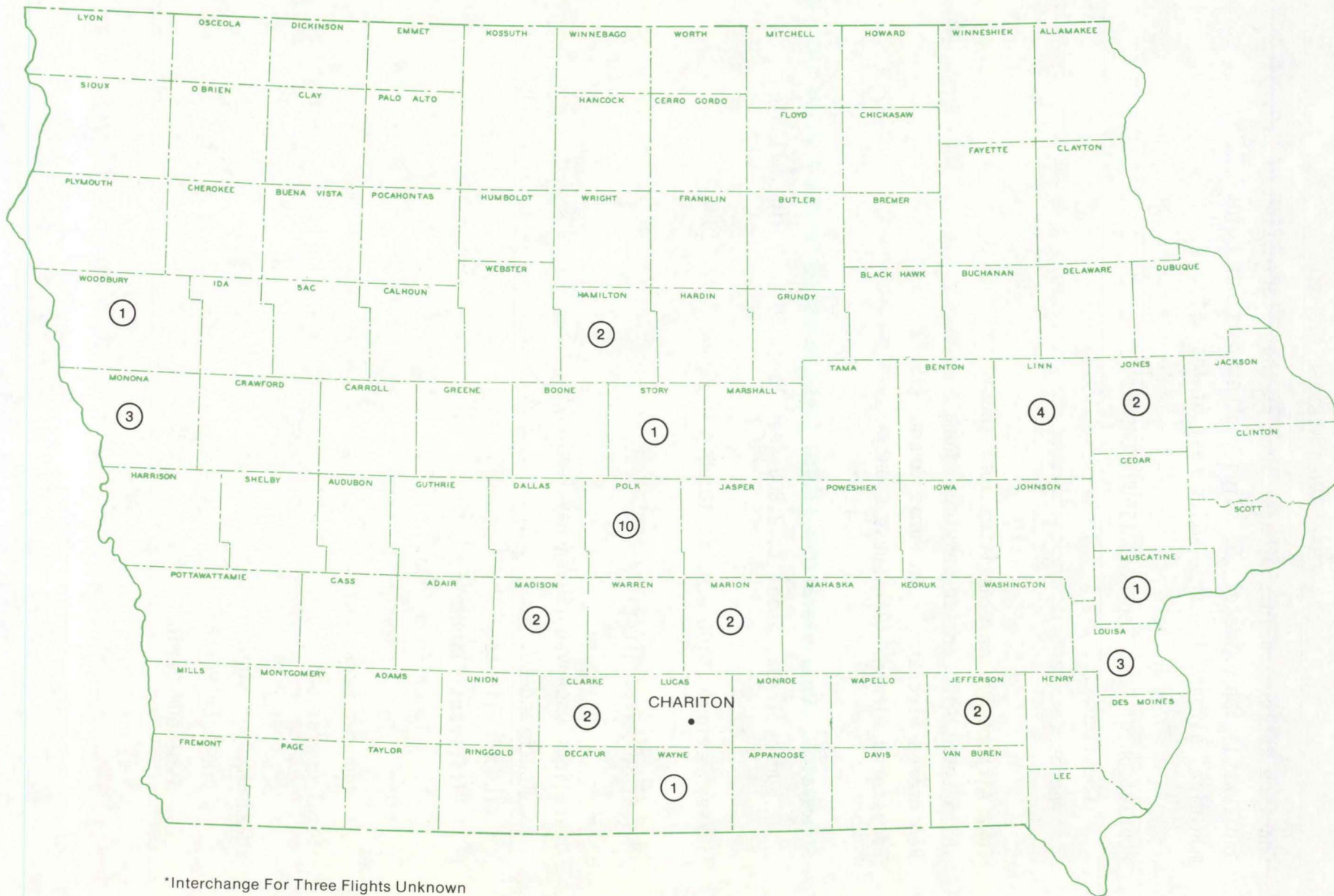
Operations Observed (Seven-Day Period):

Touch-and-Go.	10
Local Flights	6
Itinerant Flights:	
To or From Iowa.	36
To or From Other States.	12
Unknown Locations	3
Total Operations	67

Maximum Operations:

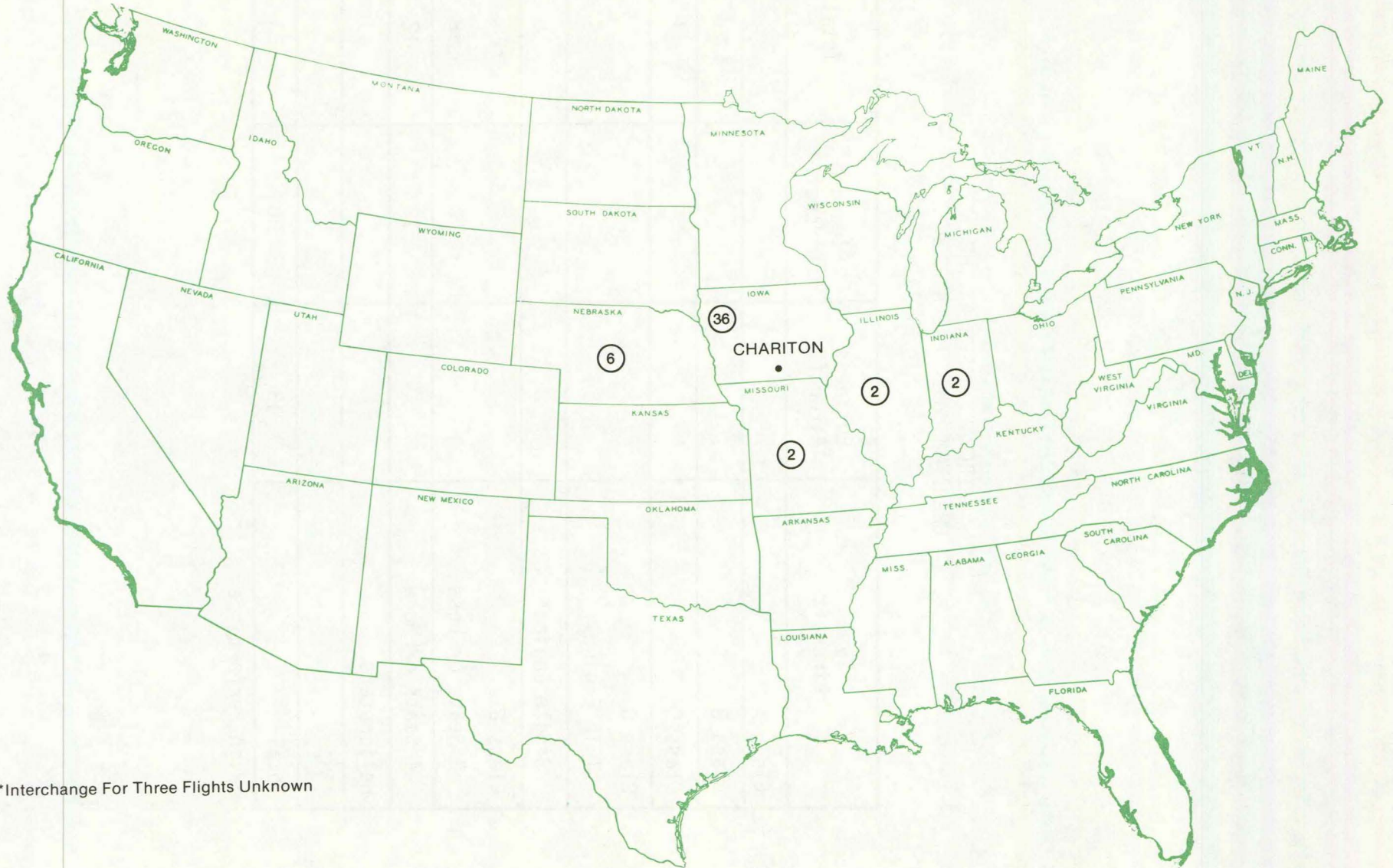
One-Hour Period	13
Two-Hour Period	14

FIGURE 5-1
 ITINERANT FLIGHT INTERCHANGE*
 CHARITON AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Three Flights Unknown

FIGURE 5-2
ITINERANT FLIGHT INTERCHANGE*
CHARITON AND STATES
JUNE 7-13, 1982



*Interchange For Three Flights Unknown

Table 5-1
 AIRCRAFT BASED AT THE
 CHARITON MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	5		5
Single Engine*	8		8
Class E			
3 Seats or Less		8	8
4 Seats or More		12	12
Helicopters			
Total	13	20	33

*High Performance

Table 5-2
AIRPORT OPERATIONS
CHARITON MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	10	4	4	8	18
Monday			7	7	7
Tuesday			5	5	5
Wednesday			6	6	6
Thursday			10	10	10
Friday			16	16	16
Saturday		2	3	5	5
Total	10	6	51	57	67
Average Day	1	1	7	8	9

Table 5-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	13	14
Monday	2	3
Tuesday	1	2
Wednesday	2	4
Thursday	3	5
Friday	4	8
Saturday	2	2
Highest Period	13	14

Table 5-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM CHARITON

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	10	14.92	10	1.00
	Business				
	Pleasure	2	2.99	2	1.00
	Training	4	5.97	4	1.00
	Unknown				
Iowa	Business	7	10.45	11	1.57
	Pleasure	3	4.47	3	1.00
	Training	2	2.99	4	2.00
	Unknown	24	35.82	46	1.92
Out of Iowa	Business	2	2.99	8	4.00
	Pleasure	2	2.99	5	2.50
	Training				
	Unknown	8	11.94	16	2.00
Unknown Locations		3	4.47	6	2.00
Total Operations		67	100.00	115	1.72

Table 5-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 CHARITON MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	28	41.79
E	39	58.21
Helicopter		
Special		
All	67	100.00

CLINTON MUNICIPAL AIRPORT

Clinton is located on the Mississippi River 25 miles north of Interstate 80. The municipal airport is located seven miles southwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Clinton	32,828
Camanche	4,725
Clinton County	57,122

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: Yes

Registered Aircraft⁽⁴⁾ in Clinton County (1982): 48

Registered Airmen⁽⁵⁾ in Clinton County (1979): 129

Runways:⁽⁷⁾ Two; elevation: 707 feet

Runway 03/21, asphalt, 5,200 feet long, 100 feet wide, lighted

Runway 14/32, concrete, 3,700 feet long, 100 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 34

Operations Observed (Seven-Day Period):

Touch-and-Go	214
Local Flights.	75
Itinerant Flights:	
To or From Iowa	(33) 57
To or From Other States	(33) 89
Unknown Locations.	64
Total Operations.	(66) 499

Maximum Operations:

One-Hour Period.	30
Two-Hour Period.	44

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

FIGURE 6-1
 ITINERANT FLIGHT INTERCHANGE*
 CLINTON AND IOWA COUNTIES
 JUNE 7-13, 1982

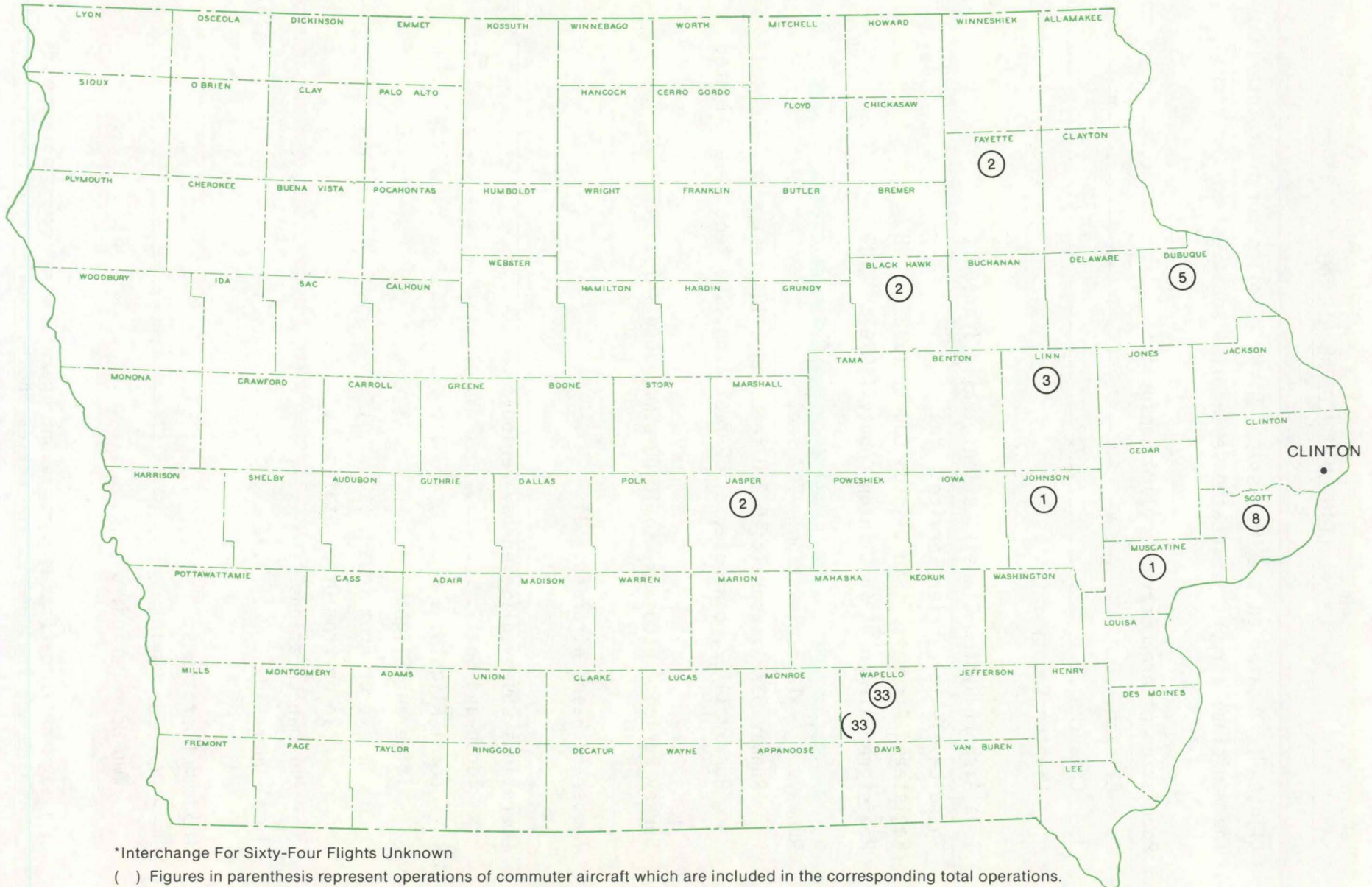
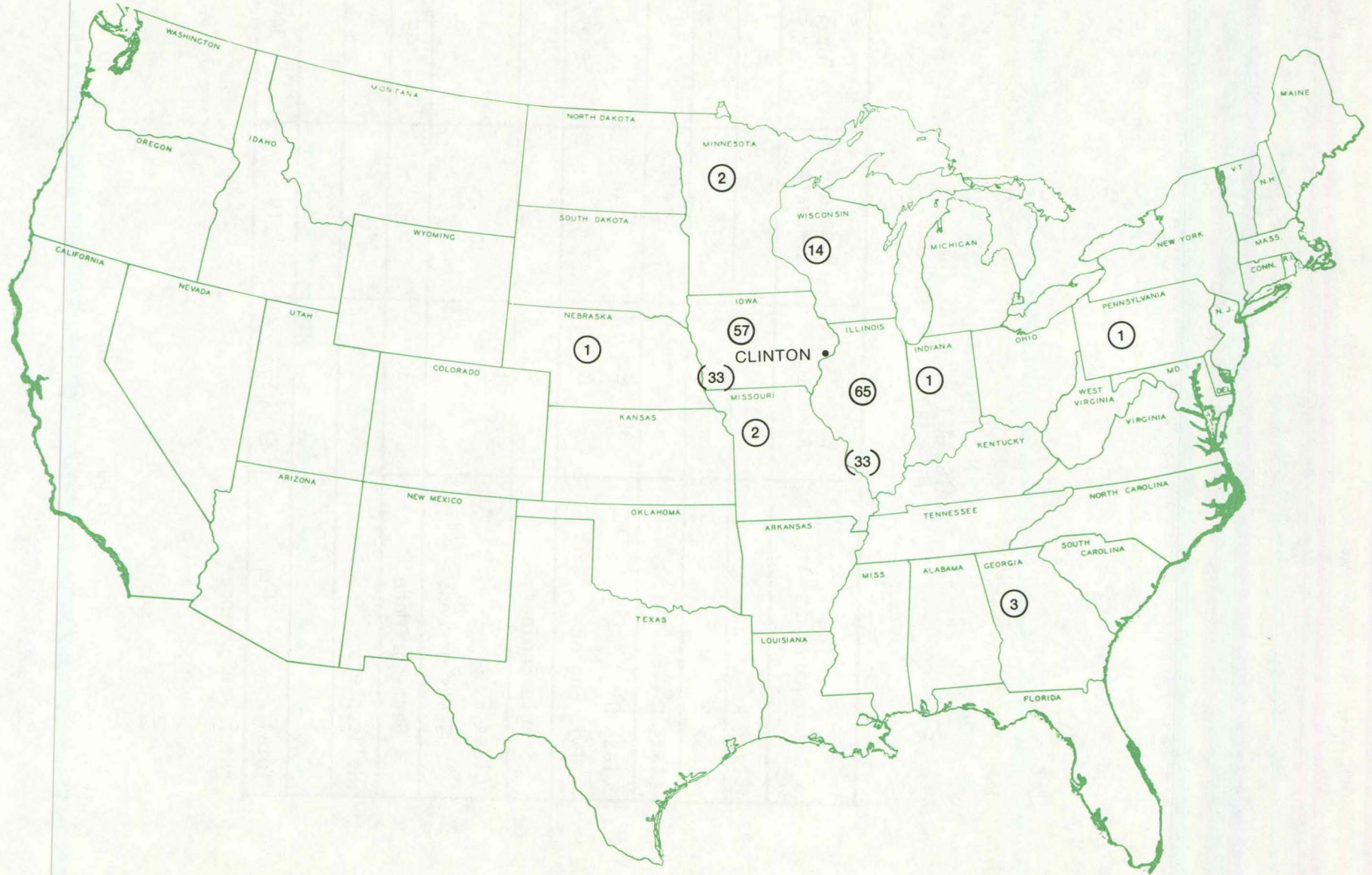


FIGURE 6-2
 ITINERANT FLIGHT INTERCHANGE*
 CLINTON AND STATES
 JUNE 7-13, 1982



-41-

*Interchange For Sixty-Four Flights Unknown

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

Table 6-1
 AIRCRAFT BASED AT THE
 CLINTON MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	8		8
Single Engine*	4	6	10
Class E			
3 Seats or Less		7	7
4 Seats or More	3	6	9
Helicopters			
Total	15	19	34

*High Performance

Table 6-2
AIRPORT OPERATIONS
CLINTON MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	14	12	(4) 27	(4) 39	(4) 53
Monday	36	7	(12) 24	(12) 31	(12) 67
Tuesday	2	5	(12) 37	(12) 42	(12) 44
Wednesday	56	8	(12) 36	(12) 44	(12) 100
Thursday	22	16	(12) 33	(12) 49	(12) 71
Friday	42	12	(12) 38	(12) 50	(12) 92
Saturday	42	15	(2) 15	(2) 30	(2) 72
Total	214	75	(66) 210	(66) 285	(66) 499
Average Day	30	11	30	41	71

Table 6-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	17	27
Monday	21	35
Tuesday	(2) 7	(4) 13
Wednesday	30	(2) 44
Thursday	30	(2) 36
Friday	(2) 24	(2) 34
Saturday	18	27
Highest Period	30	44

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

Table 6-4
CLASSIFICATION OF FLIGHTS
TO OR FROM CLINTON

Flight Classification		Number Of Flights	Perecent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	214	42.89	314	1.47
	Business	5	1.00	11	2.20
	Pleasure				
	Training	54	10.82	87	1.61
	Unknown	16	3.21	26	1.63
Iowa	Business	(33) 35	7.01	(146) 165	4.71
	Pleasure				
	Training	1	.20	1	1.00
	Unknown	21	4.21	38	1.81
Out of Iowa	Business	(33) 55	11.02	(192) 256	4.65
	Pleasure				
	Training	1	.20	2	2.00
	Unknown	33	6.61	56	1.70
Unknown Locations		64	12.83	109	1.70
Total Operations		(66) 499	100.00	(338) 1065	2.13

Table 6-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
CLINTON MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	(36) 42	8.42
D	(30) 122	24.45
E	330	66.13
Helicopter	5	1.00
Special		
All	(66) 499	100.00

() Figures in parenthesis indicate commuter flights which are included in the corresponding totals.

DAVENPORT MUNICIPAL AIRPORT

Davenport is located in eastern Iowa on the Mississippi River and is part of the Quad City area which includes Bettendorf, Iowa and Rock Island/Moline, Illinois. The municipal airport is six miles north of the city.

Population of Area Served in Iowa: (1980 Census)⁽⁶⁾

Davenport.	103,264
Bettendorf	27,381
Riverdale.	462
Panorama Park.	145
Scott County	160,022

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: None

Registered Aircraft ⁽⁴⁾ in Scott County (1982): 124

Registered Airmen ⁽⁵⁾ in Scott County (1979): 544

Runways: ⁽⁷⁾ Two; elevation: 753 feet

Runway 15/33, concrete, 4,800 feet long, 100 feet wide, lighted

Runway 03/21, concrete, 4,000 feet long, 100 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 130, including 22 military aircraft

Operations Observed (Seven-Day Period):

Touch-and-Go	(264) 880
Local Flights.	(26) 333
Itinerant Flights	
To or From Iowa	(26) 38
To or From Other States	[4](2) 21
Unknown Locations.	161
Total Operations.	[4](318) 1,433

Maximum Operations:

One-Hour Period.	67
Two-Hour Period.	130

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

FIGURE 7-1
 ITINERANT FLIGHT INTERCHANGE*
 DAVENPORT AND IOWA COUNTIES
 JUNE 7-13, 1982

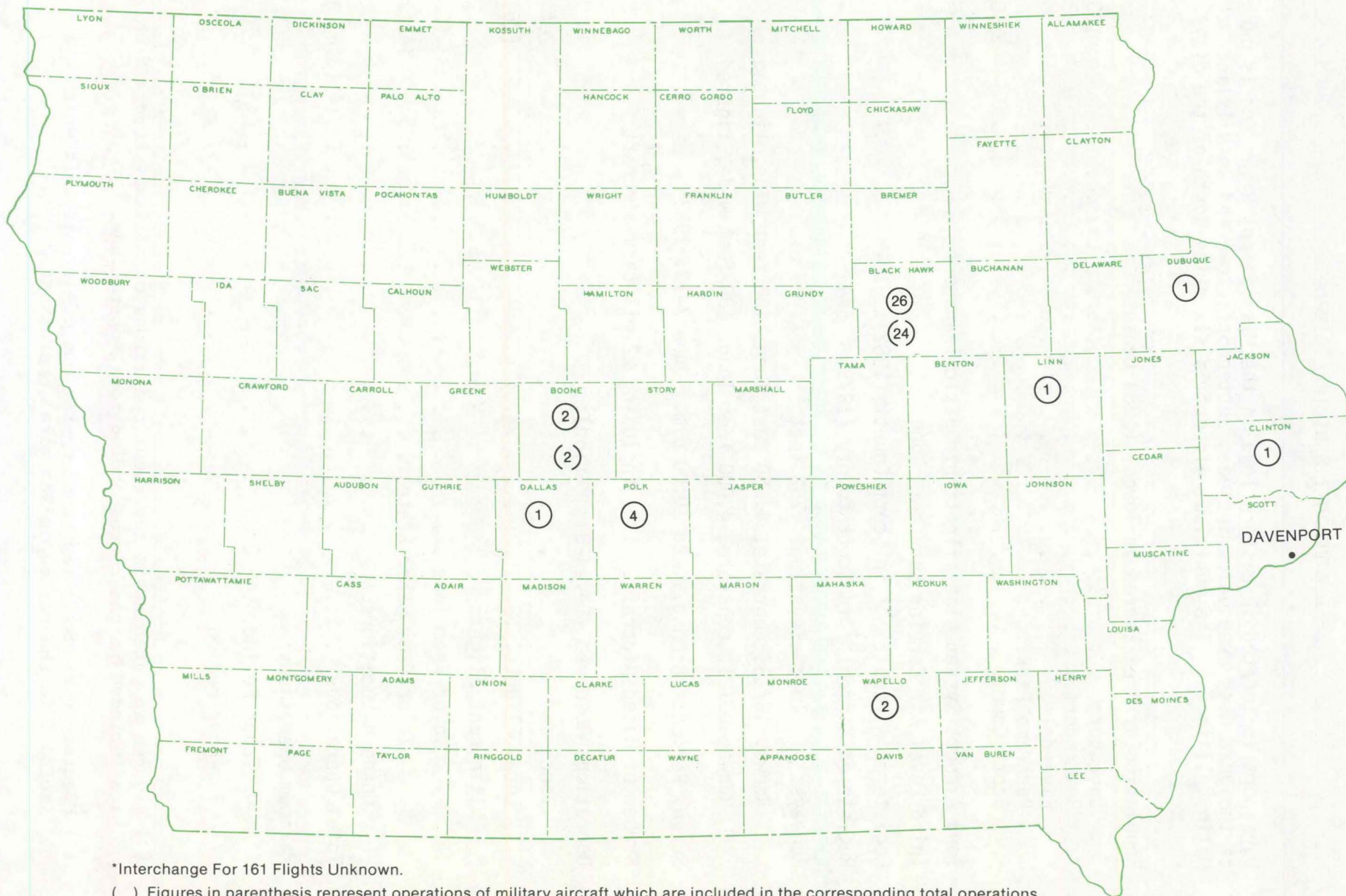
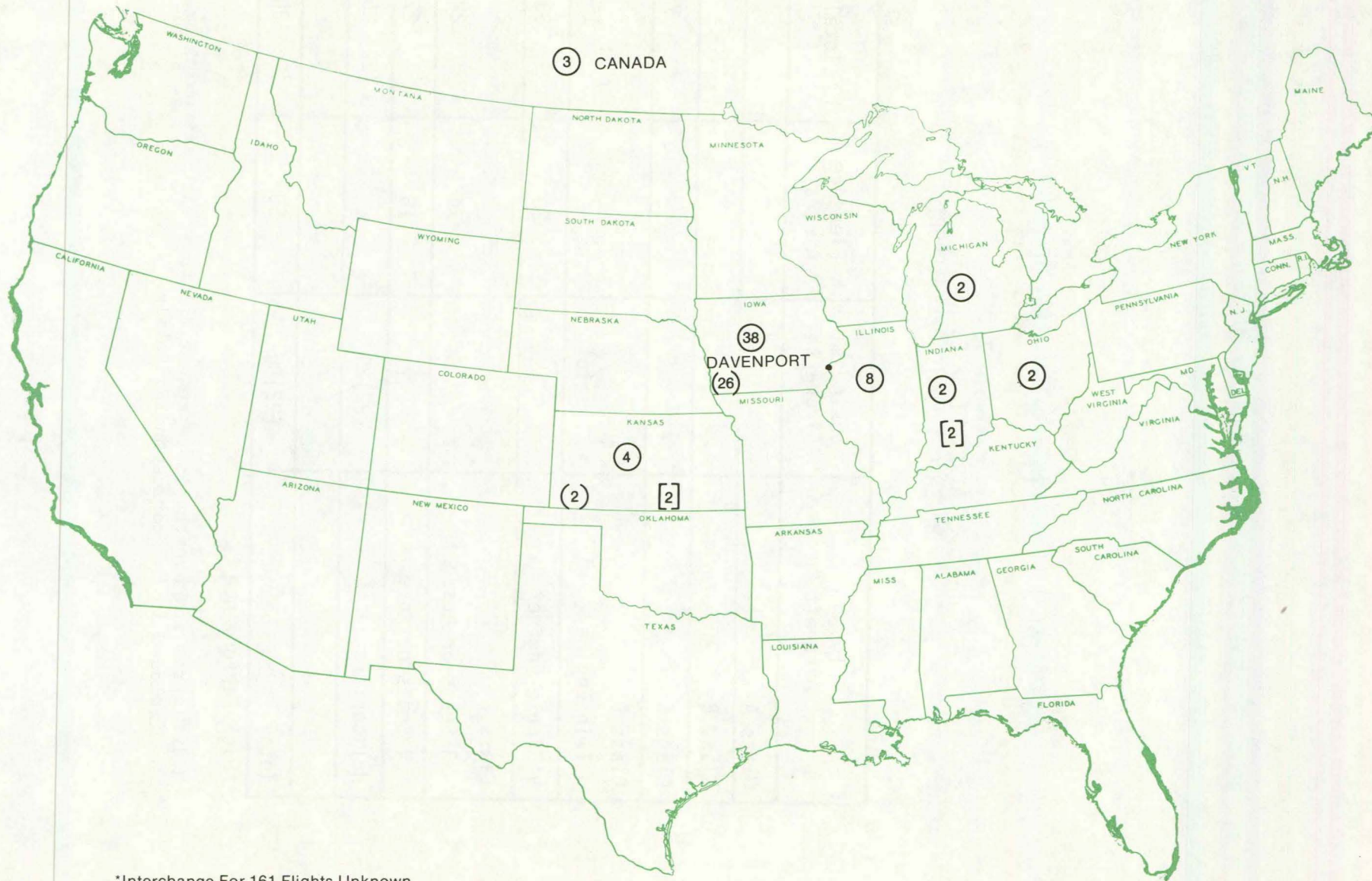


FIGURE 7-2
 ITINERANT FLIGHT INTERCHANGE*
 DAVENPORT AND STATES
 JUNE 7-13, 1982



*Interchange For 161 Flights Unknown.

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding totals.

Table 7-1
 AIRCRAFT BASED AT THE
 DAVENPORT MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C	7		7
Class D			
Twin Engine	16		16
Single Engine*	13	20	33
Class E			
3 Seats or Less	8	14	22
4 Seats or More	11	16	27
Helicopters	(22)25		(22) 25
Total	(22)80	50	(22)130

*High Performance

() Figures in parenthesis represent military aircraft which are included in the corresponding totals.

Table 7-2
AIRPORT OPERATIONS
DAVENPORT MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	174	61	25	86	260
Monday	(20)106	(2) 51	31	(2) 82	(22) 188
Tuesday	(42) 98	(2) 44	31	(2) 75	(44) 173
Wednesday	(64) 86	(6) 26	2 29	[2](8) 55	[2](72) 141
Thursday	(36) 78	(2) 26	[2](1) 35	[2](3) 61	[2](39) 139
Friday	(44)116	(8) 49	21	(8) 70	(52) 186
Saturday	(58)222	(6) 76	(25) 48	(31)124	(89) 346
Total	(264)880	(26)333	[4](28)220	[4](54)553	[4](318)1433
Average Day	126	47	32	79	205

Table 7-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	66	99
Monday	37	58
Tuesday	(44)56	(44) 67
Wednesday	(34)40	(34) 48
Thursday	[1](38)52	[1](38) 54
Friday	(26)32	(46) 52
Saturday	67	(22)130
Highest Period	67	130

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

Table 7-4
CLASSIFICATION OF FLIGHTS
TO OR FROM DAVENPORT

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	(264) 880	61.41	(588)1734	1.97
	Business				
	Pleasure	14	.98	28	2.00
	Training	(26) 249	17.38	(77) 486	1.96
	Unknown	70	4.88	141	2.01
Iowa	Business	6	.42	19	3.17
	Pleasure				
	Training	(26) 26	1.81	(92) 102	3.92
	Unknown	6	.42	25	4.17
Out of Iowa	Business	[4] 19	1.33	[34] 79	4.16
	Pleasure				
	Training	(2) 2	.14	(12) 16	8.00
	Unknown				
Unknown Locations		161	11.23	346	2.15
Total Operations		[4](318)1433	100.00	[34](769)2976	2.08

Table 7-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
DAVENPORT MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	[4] 16	1.12
D	241	16.82
E	823	57.43
Helicopter	(318) 353	24.63
Special		
All	[4](318)1433	100.00

() Figures in parenthesis represent operations of military aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

FAIRFIELD MUNICIPAL AIRPORT

Fairfield is located in southeastern Iowa approximately 25 miles east of Ottumwa on U.S. 34. The municipal airport is two miles north of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Fairfield.	9,428
Jefferson County	16,316

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Jefferson County (1982): 31

Registered Airmen⁽⁵⁾ in Jefferson County (1979): 94

Runways:⁽⁷⁾ Two; elevation: 797 feet

Runway 17/35, asphalt, 4,000 feet long, 60 feet wide, lighted

Runway 08/26, turf, 2,800 feet long, 150 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 34

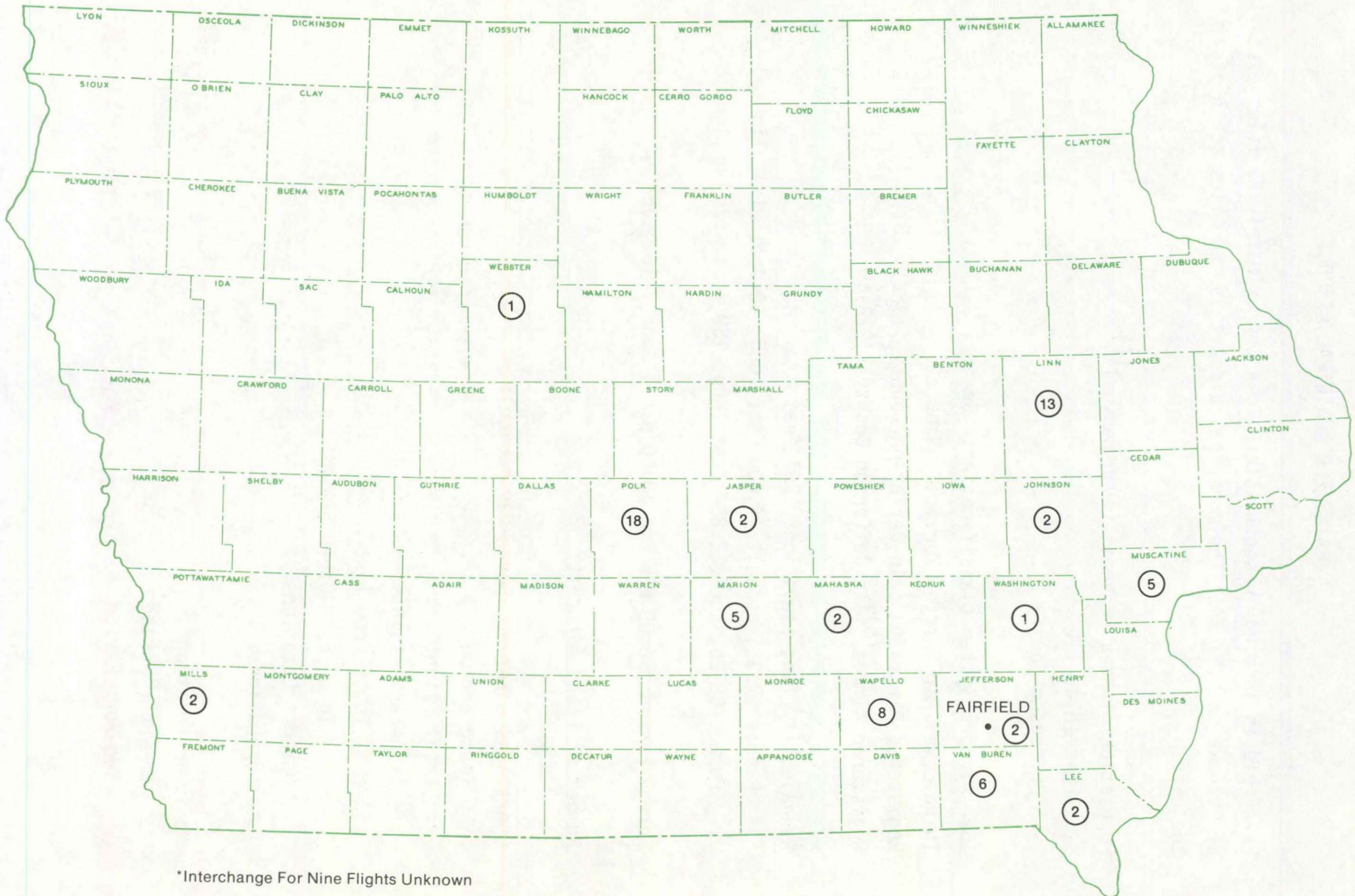
Operations Observed (Seven-Day Period):

Touch-and-Go	94
Local Flights.	59
Itinerant Flights:	
To or From Iowa	69
To or From Other States	32
Unknown Locations.	9
Total Operations.	263

Maximum Operations:

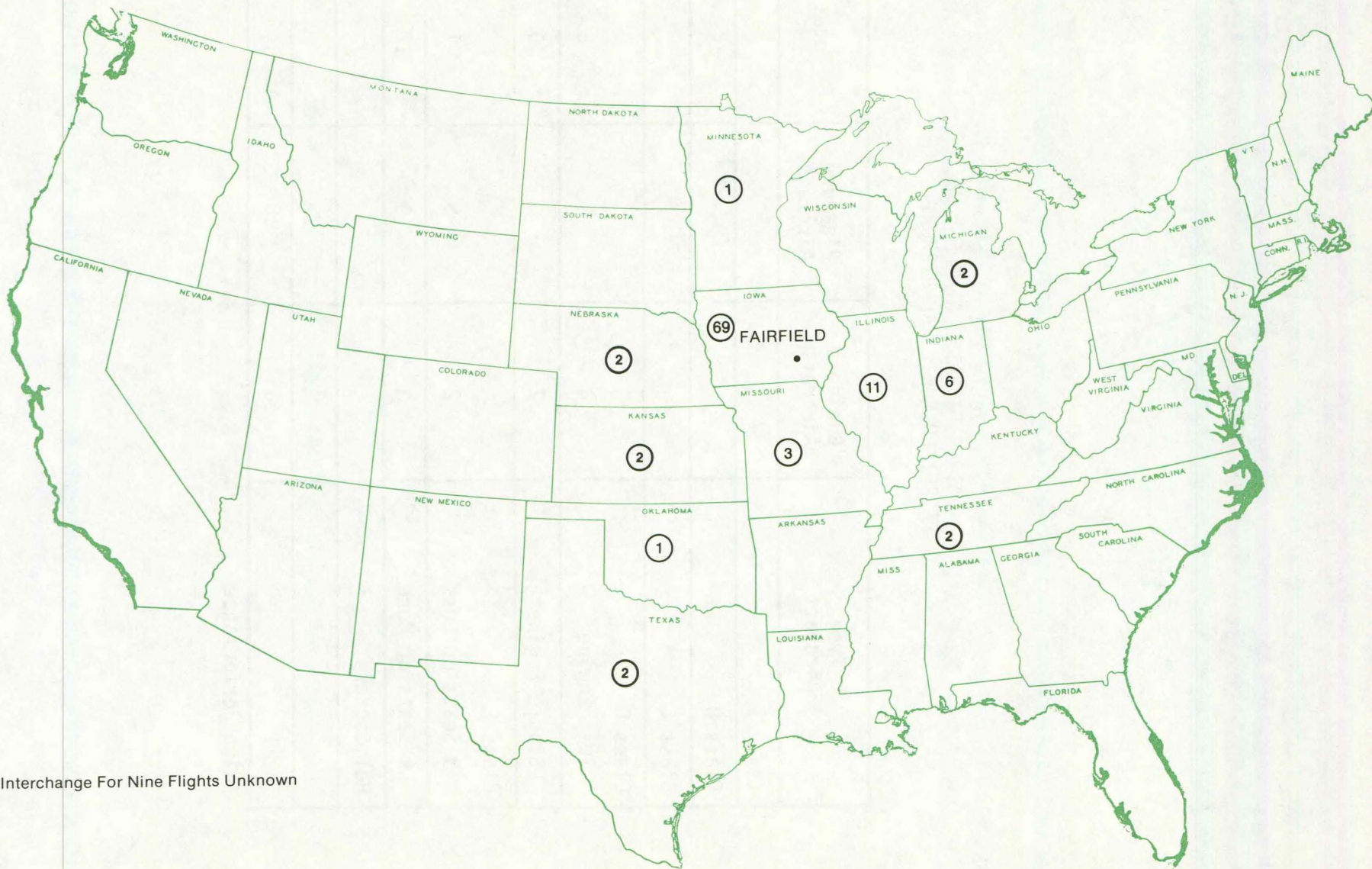
One-Hour Period.	20
Two-Hour Period.	37

FIGURE 8-1
 ITINERANT FLIGHT INTERCHANGE*
 FAIRFIELD AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Nine Flights Unknown

FIGURE 8-2
ITINERANT FLIGHT INTERCHANGE*
FAIRFIELD AND STATES
JUNE 7-13, 1982



*Interchange For Nine Flights Unknown

Table 8-1
AIRCRAFT BASED AT THE
FAIRFIELD MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	4	1	5
Single Engine*	7	3	10
Class E			
3 Seats or Less	2	5	7
4 Seats or More	3	9	12
Helicopters			
Total	16	18	34

*High Performance

Table 8-2
AIRPORT OPERATIONS
FAIRFIELD MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	22	18	20	38	60
Monday	2	8	9	17	19
Tuesday	2		14	14	16
Wednesday	2	3	7	10	12
Thursday	28	14	21	35	63
Friday	14	6	20	26	40
Saturday	24	10	19	29	53
Total	94	59	110	169	263
Average Day	14	8	16	24	38

Table 8-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	15	24
Monday	3	4
Tuesday	4	8
Wednesday	3	4
Thursday	20	37
Friday	15	20
Saturday	16	31
Highest Period	20	37

Table 8-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM FAIRFIELD

Flight Classification		Number Of Flights	Perecent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	94	35.74	140	1.49
	Business	6	2.28	16	2.67
	Pleasure	2	0.76	6	3.00
	Training	18	6.84	28	1.56
	Unknown	33	12.55	66	2.00
Iowa	Business	27	10.27	61	2.26
	Pleasure				
	Training	6	2.28	8	1.33
	Unknown	36	13.69	85	2.36
Out of Iowa	Business	8	3.04	13	1.63
	Pleasure	1	0.38	2	2.00
	Training				
	Unknown	23	8.75	64	2.78
Unknown Locations		9	3.42	17	1.89
Total Operations		263	100.00	506	1.92

Table 8-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 FAIRFIELD MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	53	20.15
E	210	79.85
Helicopter		
Special		
All	263	100.00

FORT MADISON MUNICIPAL AIRPORT

Located on the Mississippi River in extreme southeast Iowa, Fort Madison is 162 miles from the state capitol. The municipal airport is two miles north of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Fort Madison.	13,520
Lee County.	43,106

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Lee County (1982): 50

Registered Airmen⁽⁵⁾ in Lee County (1979): 170

Runways:⁽⁷⁾ two; elevation 724 feet

Runway 16/34, asphalt, 4,000 feet long, 75 feet wide, lighted

Runway 08/26, turf, 1,850 feet long, 200 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 16

Operations Observed (Seven-Day Period):

Touch-and-Go.	142
Local Flights	58
Itinerant Flights:	
To or From Iowa.	43
To or From Other States.	37
Total Operations	280

Maximum Operations:

One-Hour Period	26
Two-Hour Period	43

FIGURE 9-1
 ITINERANT FLIGHT INTERCHANGE
 FORT MADISON AND IOWA COUNTIES
 JUNE 7-13, 1982

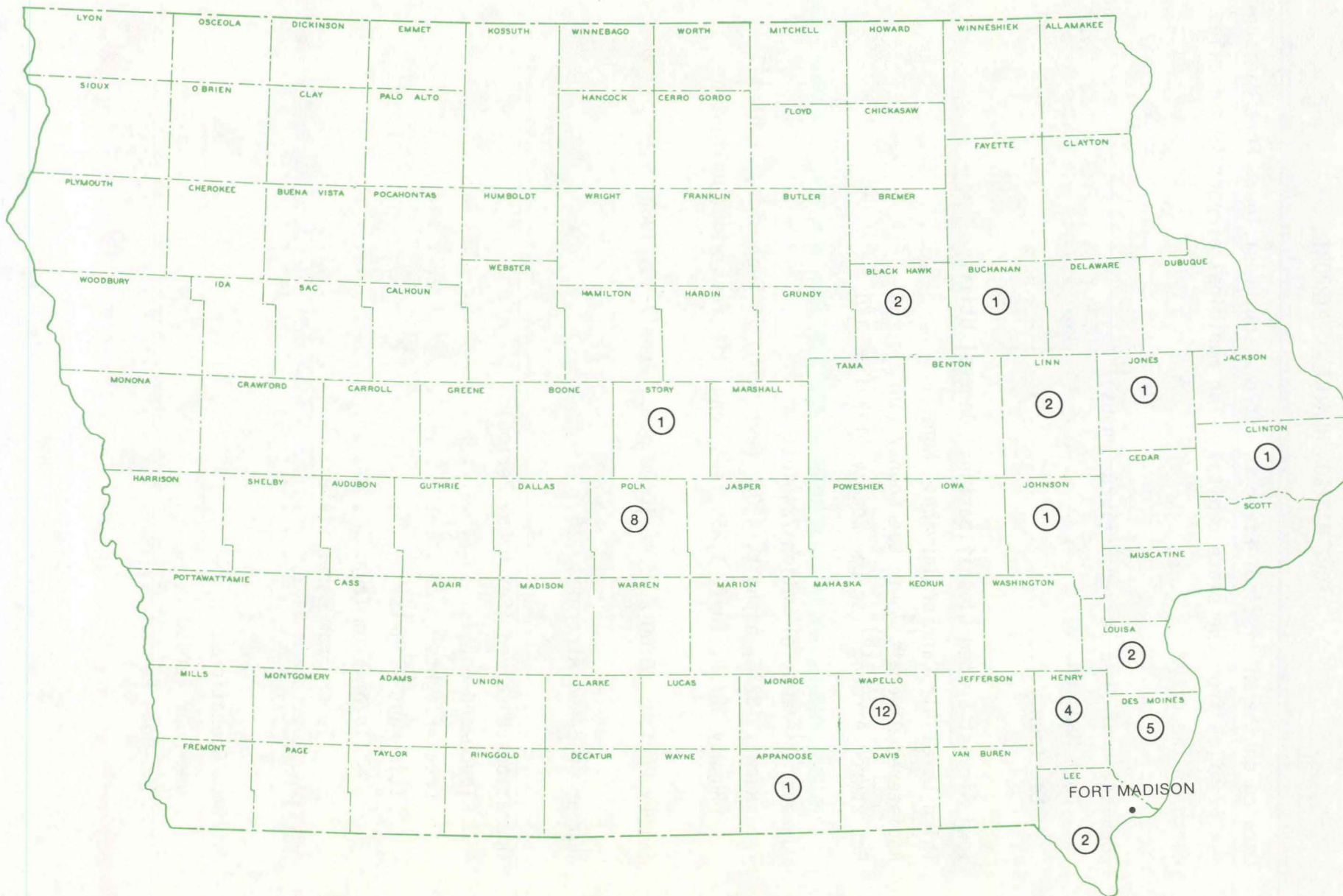


FIGURE 9-2
ITINERANT FLIGHT INTERCHANGE
FORT MADISON AND STATES
JUNE 7-13, 1982

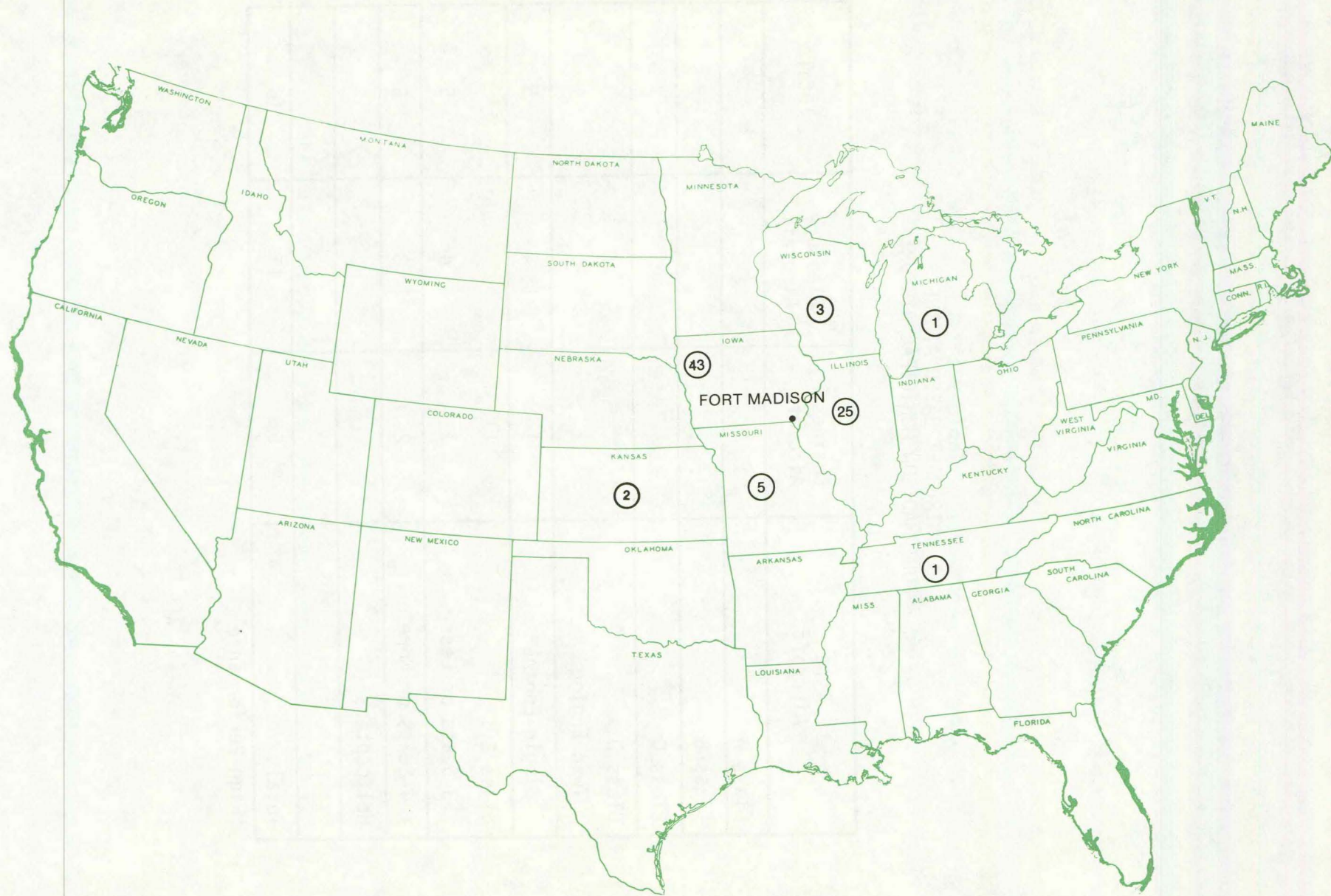


Table 9-1
 AIRCRAFT BASED AT THE
 FORT MADISON MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	1		1
Single Engine*	1	4	5
Class E			
3 Seats or Less	1	4	5
4 Seats or More	2	3	5
Helicopters			
Total	5	11	16

*High Performance

Table 9-2
AIRPORT OPERATIONS
FORT MADISON MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	8	10	13	23	31
Monday	26	5	5	10	36
Tuesday		2	7	9	9
Wednesday			2	2	2
Thursday	74	15	24	39	113
Friday	2	6	11	17	19
Saturday	32	20	18	38	70
Total	142	58	80	138	280
Average Day	20	8	12	20	40

Table 9-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	6	11
Monday	15	26
Tuesday	3	4
Wednesday	2	2
Thursday	23	43
Friday	7	9
Saturday	26	34
Highest Period	26	43

Table 9-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM FORT MADISON

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	142	50.71	208	1.46
	Business	4	1.43	12	3.00
	Pleasure				
	Training	49	17.50	85	1.73
	Unknown	5	1.79	11	2.20
Iowa	Business	26	9.29	62	2.38
	Pleasure	1	.36	2	2.00
	Training				
	Unknown	16	5.71	30	1.88
Out of Iowa	Business	11	3.93	29	2.64
	Pleasure	1	.36	2	2.00
	Training	2	.71	2	1.00
	Unknown	23	8.21	51	2.22
Unknown Locations					
Total Operations		280	100.00	494	1.76

Table 9-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 FORT MADISON MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	4	1.43
D	45	16.07
E	227	81.07
Helicopter		
Special	4	1.43
All	280	100.00

IOWA CITY MUNICIPAL AIRPORT

Iowa City is located in eastern Iowa on Interstate 80 approximately 112 miles east of Des Moines. The municipal airport is one-half mile southwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Iowa City	50,508
Coralville	7,687
University Heights	1,069
Johnson County	81,717

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Johnson County (1982): 104

Registered Airmen⁽⁵⁾ in Johnson County (1979): 368

Runways:⁽⁷⁾ Three; elevation 661 feet

Runway 06/24, concrete, 3,998 feet long, 150 feet wide, lighted

Runway 12/30, concrete, 3,900 feet long, 150 feet wide, lighted

Runway 17/35, concrete, 4,299 feet long, 150 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 61

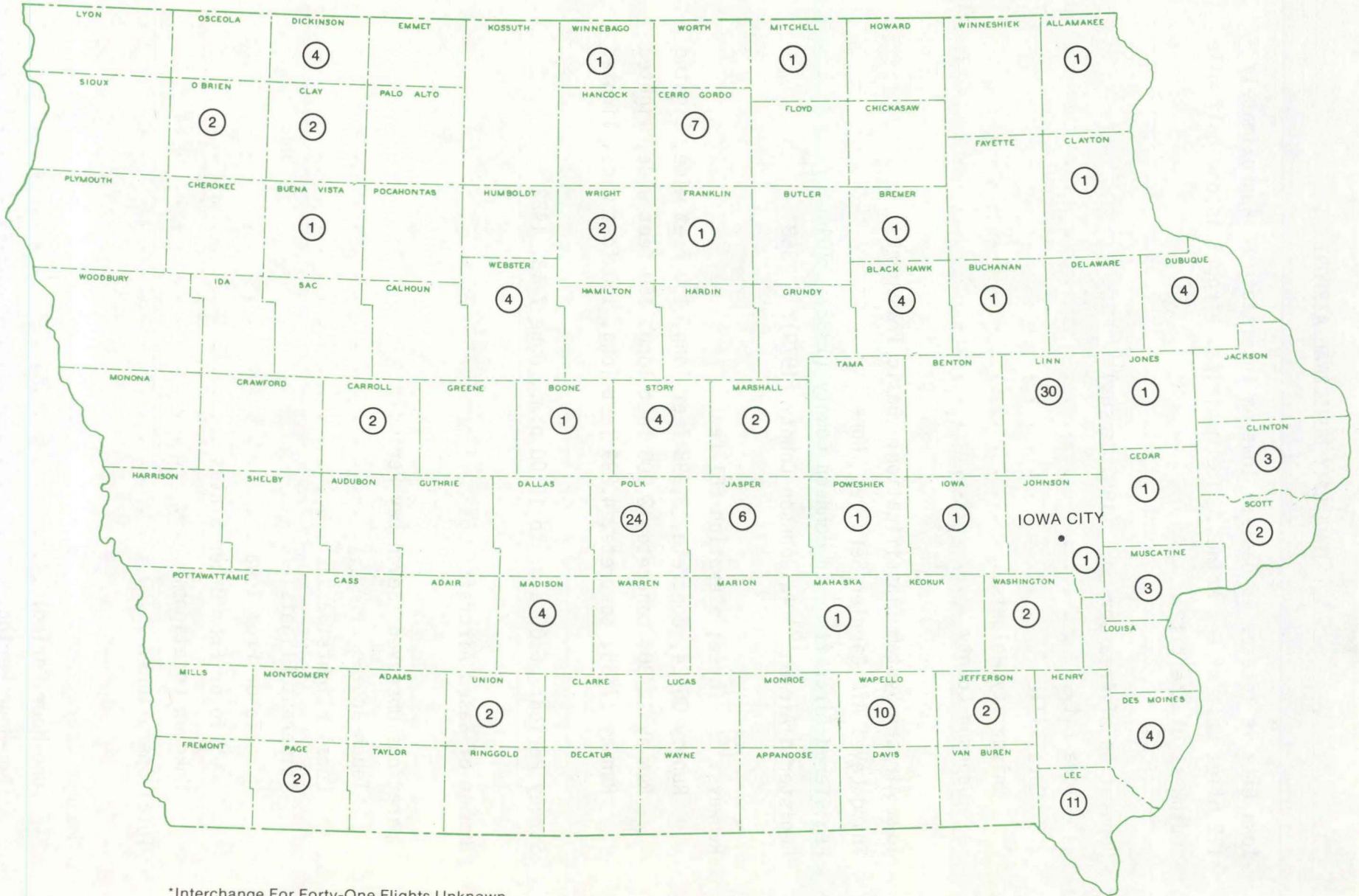
Operations Observed (Seven-Day Period):

Touch-and-Go	134
Local Flights	202
Itinerant Flights:	
To or From Iowa	157
To or From Other States	124
Unknown Locations	41
Total Operations	658

Maximum Operations:

One-Hour Period	22
Two-Hour Period	37

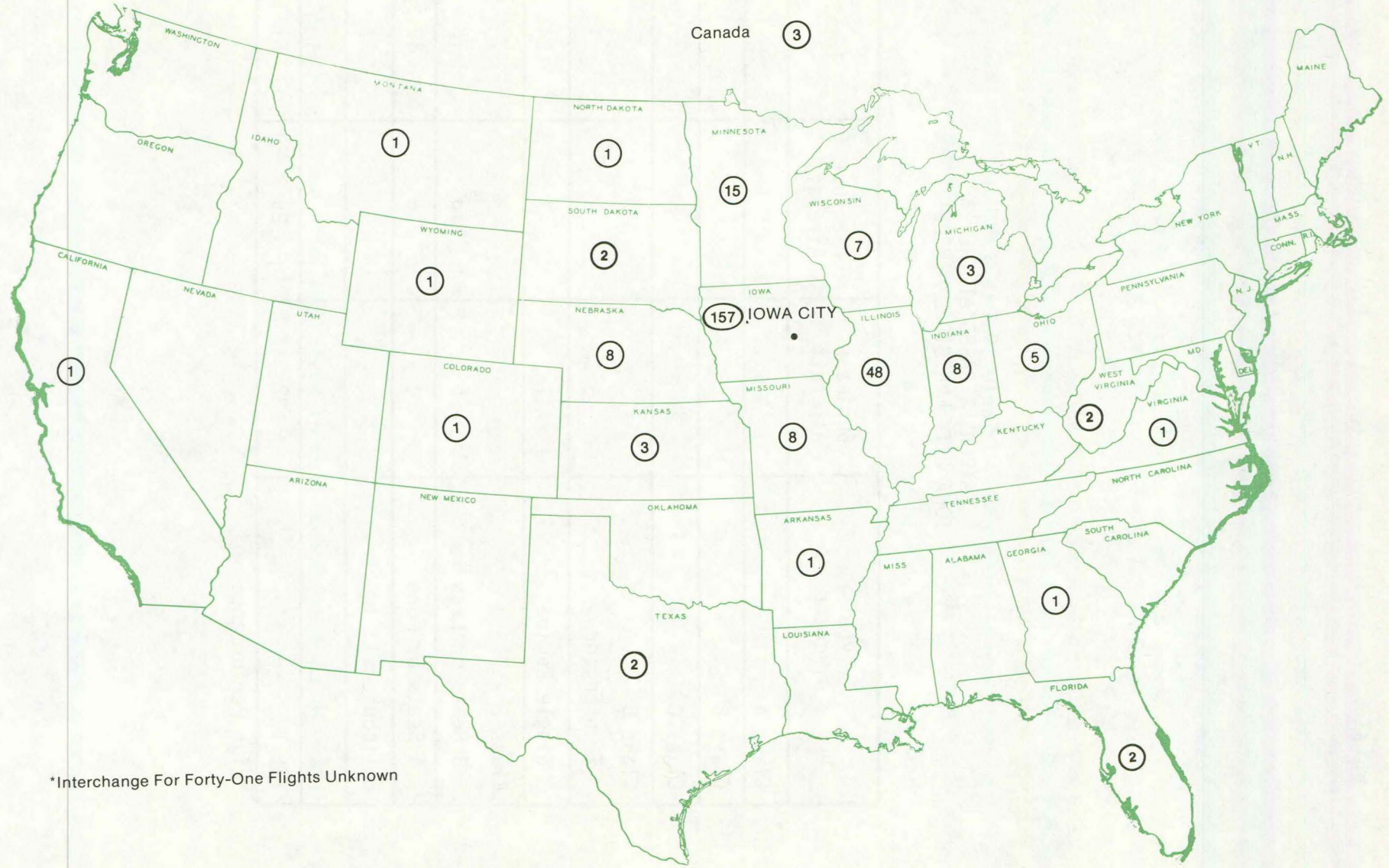
FIGURE 10-1
 ITINERANT FLIGHT INTERCHANGE*
 IOWA CITY AND IOWA COUNTIES
 JUNE 7-13, 1982



-64-

*Interchange For Forty-One Flights Unknown

FIGURE 10-2
 ITINERANT FLIGHT INTERCHANGE*
 IOWA CITY AND STATES
 JUNE 7-13, 1982



*Interchange For Forty-One Flights Unknown

Table 10-1
 AIRCRAFT BASED AT THE
 IOWA CITY MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	6	1	7
Single Engine*	17	7	24
Class E			
3 Seats or Less	5	13	18
4 Seats or More	4	8	12
Helicopters			
Total	32	29	61

*High Performance

Table 10-2
AIRPORT OPERATIONS
IOWA CITY MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	6	46	74	120	126
Monday	10	32	31	63	73
Tuesday	22	15	25	40	62
Wednesday	18	19	37	56	74
Thursday	30	28	62	90	120
Friday	26	40	57	97	123
Saturday	22	22	36	58	80
Total	134	202	322	524	658
Average Day	19	29	46	75	94

Table 10-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	22	37
Monday	18	23
Tuesday	19	33
Wednesday	10	16
Thursday	19	29
Friday	16	27
Saturday	18	27
Highest Period	22	37

Table 10-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM IOWA CITY

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	134	20.37	262	1.96
	Business	5	0.76	8	1.60
	Pleasure	51	7.75	113	2.22
	Training	139	21.12	267	1.92
	Unknown	7	1.06	9	1.29
Iowa	Business	54	8.21	138	2.56
	Pleasure	6	0.91	12	2.00
	Training	7	1.06	11	1.57
	Unknown	90	13.68	197	2.19
Out of Iowa	Business	56	8.51	151	2.70
	Pleasure	10	1.52	28	2.80
	Training				
	Unknown	58	8.82	140	2.41
Unknown Locations		41	6.23	102	2.49
Total Operations		658	100.00	1438	2.19

Table 10-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 IOWA CITY MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	16	2.43
D	219	33.28
E	421	63.98
Helicopter	2	0.31
Special		
All	658	100.00

KEOKUK MUNICIPAL AIRPORT

Keokuk is located at the extreme southeastern tip of Iowa on U.S. 61 and 218. The municipal airport is five miles north-northwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Keokuk.	13,536
Lee County.	43,106

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Lee County (1982): 50

Registered Airmen⁽⁵⁾ in Lee County (1979): 170

Runways:⁽⁷⁾ One; elevation 671 feet

Runway 13/31, concrete, 3,800 feet long, 100 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 22

Operations Observed (Seven-Day Period):

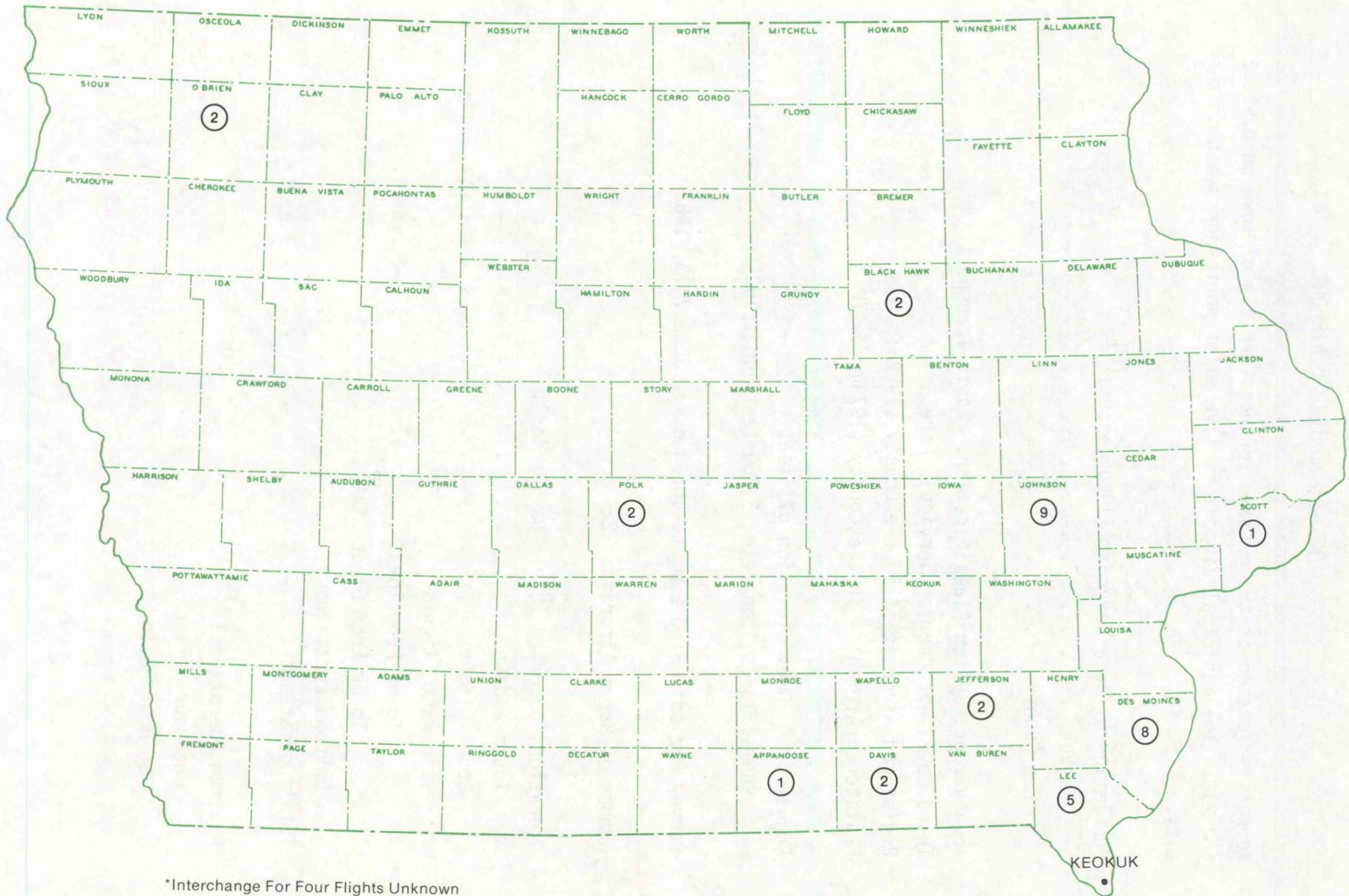
Touch-and-Go.	42
Local Flights	19
Itinerant Flights:	
To or From Iowa.	34
To or From Other States.	78
Unknown Locations	4
Total Operations	177

Maximum Operations:

One-Hour Period	11
Two-Hour Period	19

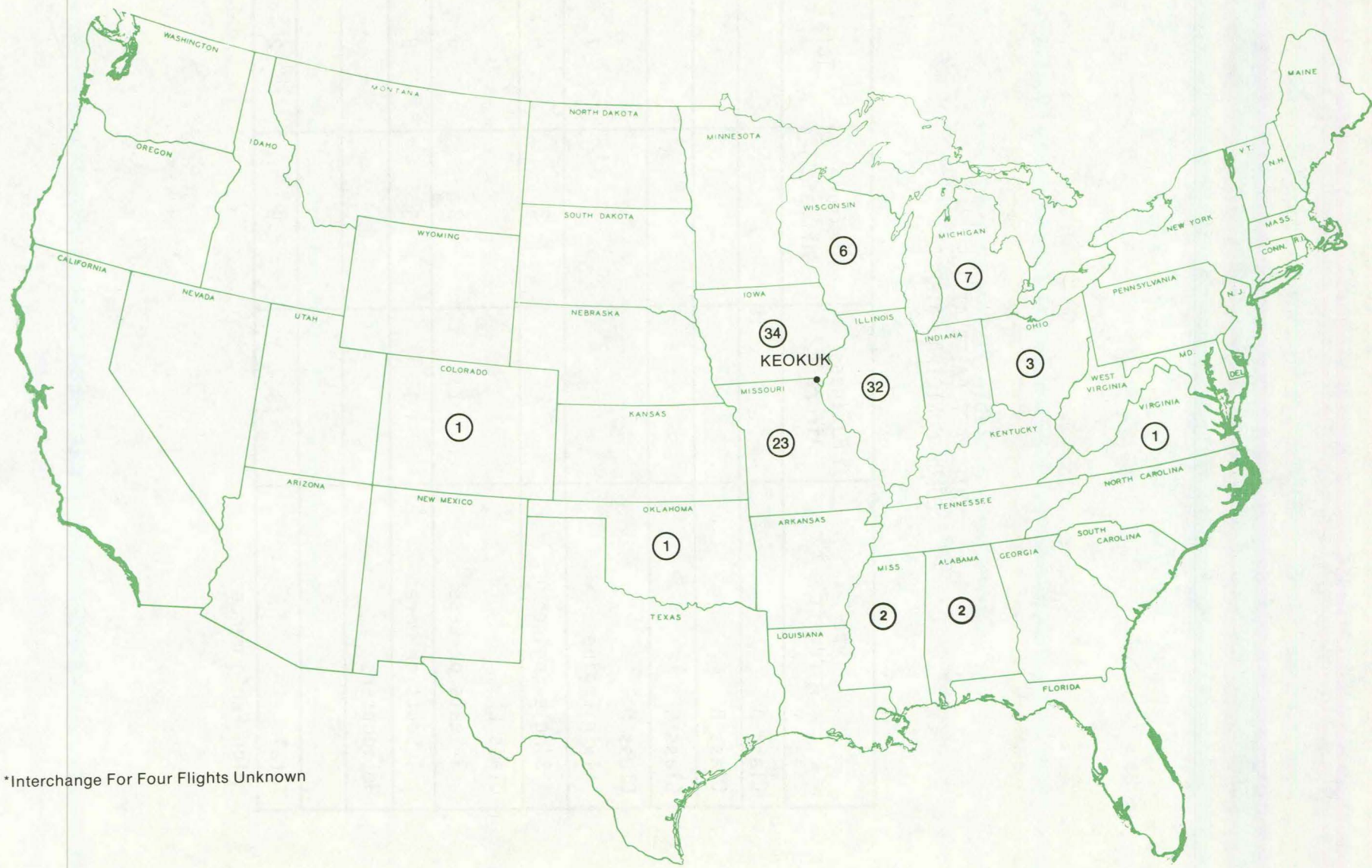
FIGURE 11-1
 ITINERANT FLIGHT INTERCHANGE*
 KEOKUK AND IOWA COUNTIES
 JUNE 7-13, 1982

-70-



*Interchange For Four Flights Unknown

FIGURE 11-2
 ITINERANT FLIGHT INTERCHANGE*
 KEOKUK AND STATES
 JUNE 7-13, 1982



*Interchange For Four Flights Unknown

Table 11-1
 AIRCRAFT BASED AT THE
 KEOKUK MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	7		7
Single Engine*	2	2	4
Class E			
3 Seats or Less	1	2	3
4 Seats or More	3	5	8
Helicopters			
Total	13	9	22

*High Performance

Table 11-2
AIRPORT OPERATIONS
KEOKUK MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday		2	18	20	20
Monday	4	4	11	15	19
Tuesday			9	9	9
Wednesday			17	17	17
Thursday			25	25	25
Friday	6	2	26	28	34
Saturday	32	11	10	21	53
Total	42	19	116	135	177
Average Day	6	3	16	19	25

Table 11-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	3	6
Monday	5	9
Tuesday	3	3
Wednesday	3	5
Thursday	4	6
Friday	7	9
Saturday	11	19
Highest Period	11	19

Table 11-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM KEOKUK

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	42	23.73	68	1.62
	Business				
	Pleasure				
	Training	15	8.47	22	1.47
	Unknown	4	2.26	6	1.50
Iowa	Business	22	12.43	40	1.82
	Pleasure				
	Training				
	Unknown	12	6.78	24	2.00
Out of Iowa	Business	44	24.86	127	2.89
	Pleasure				
	Training	2	1.13	2	1.00
	Unknown	32	18.08	60	1.88
Unknown Locations		4	2.26	11	2.75
Total Operations		177	100.00	360	2.03

Table 11-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 KEOKUK MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	10	5.65
D	77	43.50
E	90	50.85
Helicopter		
Special		
All	177	100.00

KNOXVILLE MUNICIPAL AIRPORT

Knoxville is located in southern Iowa approximately 37 miles southeast of Des Moines on Iowa Highways 5, 14, and 92. The municipal airport is one mile south of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Knoxville.	8,143
Marion County.	29,669

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Marion County (1982): 62

Registered Airmen⁽⁵⁾ in Marion County (1979): 167

Runways:⁽⁷⁾ One; elevation: 927 feet

Runway 15/33, concrete, 3,000 feet long, 75 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 37

Operations Observed (Seven-Day Period):

Touch-and-Go	32
Local Flights.	(37) 134
Itinerant Flights:	
To or From Iowa	[2](152) 212
To or From Other States	(17) 35
Unknown Locations.	(5) 11
Total Operations.	[2](211) 424

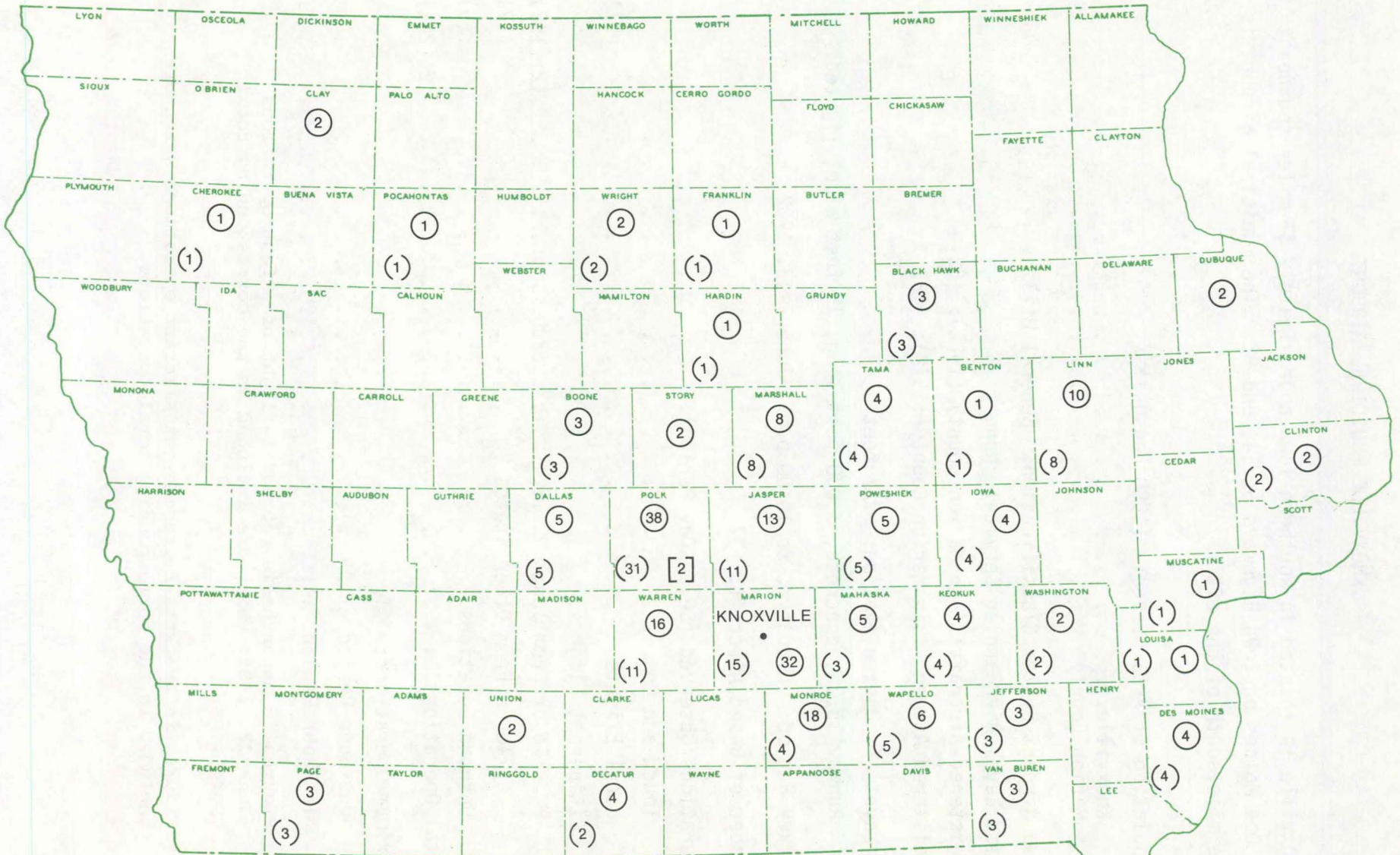
Maximum Operations:

One-Hour Period.	44
Two-Hour Period.	82

() Figures in parenthesis represent flight breakfast operations (June 13, 1982) which are included in the corresponding total operations.

[] Figures in brackets represent jet aircraft operations which are included in the corresponding total operations.

FIGURE 12-1
 ITINERANT FLIGHT INTERCHANGE*
 KNOXVILLE AND IOWA COUNTIES
 JUNE 7-13, 1982



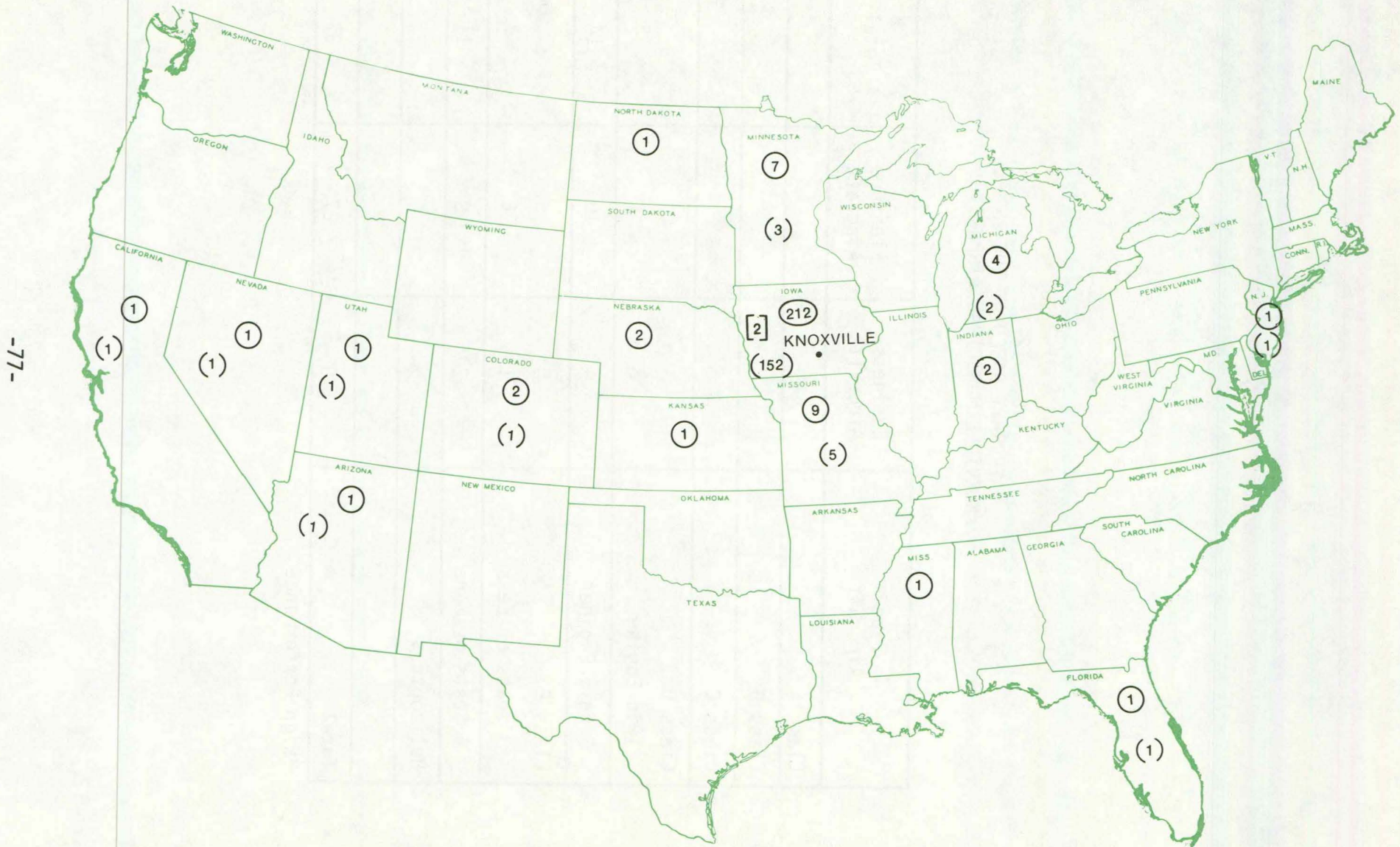
-76-

*Interchange For Eleven Flights Unknown, Five of Which Are For the Flight Breakfast (June 13, 1982)

() Figures in parenthesis represent flight breakfast operations which are included in the corresponding total operations.

[] Figures in brackets represent jet aircraft operations which are included in the corresponding total operations

FIGURE 12-2
 ITINERANT FLIGHT INTERCHANGE*
 KNOXVILLE AND STATES
 JUNE 7-13, 1982



*Interchange For Eleven Flights Unknown, Five of Which Are For the Flight Breakfast (June 13, 1982)

() Figures in parenthesis represent flight breakfast operations which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations

Table 12-1
 AIRCRAFT BASED AT THE
 KNOXVILLE MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D Twin Engine	3	2	5
Single Engine*	4	10	14
Class E 3 Seats or Less	1	6	7
4 Seats or More	2	9	11
Helicopters			
Total	10	27	37

*High Performance

Table 12-2
AIRPORT OPERATIONS
KNOXVILLE MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	6	(37) 50	[2] (174) 174	[2] (211) 224	[2] (211) 230
Monday	16	9	15	24	40
Tuesday		6	3	9	9
Wednesday		2	9	11	11
Thursday	4	21	19	40	44
Friday	4	22	13	35	39
Saturday	2	24	25	49	51
Total	32	(37) 134	[2] (174) 258	[2] (211) 392	[2] (211) 424
Average Day	5	19	37	56	61

Table 12-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	[1] (44) 44	[1] (82) 82
Monday	9	16
Tuesday	3	7
Wednesday	2	4
Thursday	8	10
Friday	14	17
Saturday	13	22
Highest Period	44	82

() Figures in parenthesis represent flight breakfast operations which are included in the corresponding total operations.

[] Figures in brackets represent jet aircraft operations which are included in the corresponding total operations.

Table 12-4
CLASSIFICATION OF FLIGHTS
TO OR FROM KNOXVILLE

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	32	7.55	58	1.81
	Business	7	1.65	27	3.86
	Pleasure	(37) 45	10.62	(121) 131	2.91
	Training	70	16.51	111	1.59
	Unknown	12	2.83	26	2.17
Iowa	Business	17	4.01	23	1.44
	Pleasure	[2] (152) 155	36.56	[8] (348) 352	2.70
	Training	2	0.47	3	1.50
	Unknown	38	8.96	66	1.74
Out of Iowa	Business	5	1.18	18	3.60
	Pleasure	(17) 19	4.48	(45) 51	2.68
	Training				
	Unknown	11	2.59	33	2.75
Unknown Locations		(5) 11	2.59	(12) 21	1.91
Total Operations		[2] (211) 424	100.00	[8] (526) 920	2.17

Table 12-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
KNOXVILLE MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	[2] (2) 2	0.47
D	(67) 143	33.73
E	(139) 275	64.86
Helicopter	(3) 3	0.71
Special	1	0.23
All	[2] (211) 424	100.00

() Figures in parenthesis represent flight breakfast operations which are included in the corresponding total operations.

[] Figures in brackets represent jet aircraft operations which are included in the corresponding total operations.

MOUNT PLEASANT MUNICIPAL AIRPORT

Mount Pleasant is located in southeast Iowa at the intersection of U.S. Highway 34 and 218. The municipal airport is located three miles southeast of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Mount Pleasant.	7,322
Henry County.	18,890

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Henry County (1982): 32

Registered Airmen⁽⁵⁾ in Henry County (1979): 117

Runways:⁽⁷⁾ Two; elevation: 734 feet

Runway 15/33, asphalt, 3,000 feet long, 50 feet wide, lighted

Runway 03/21, turf, 2,000 feet long, 150 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 21

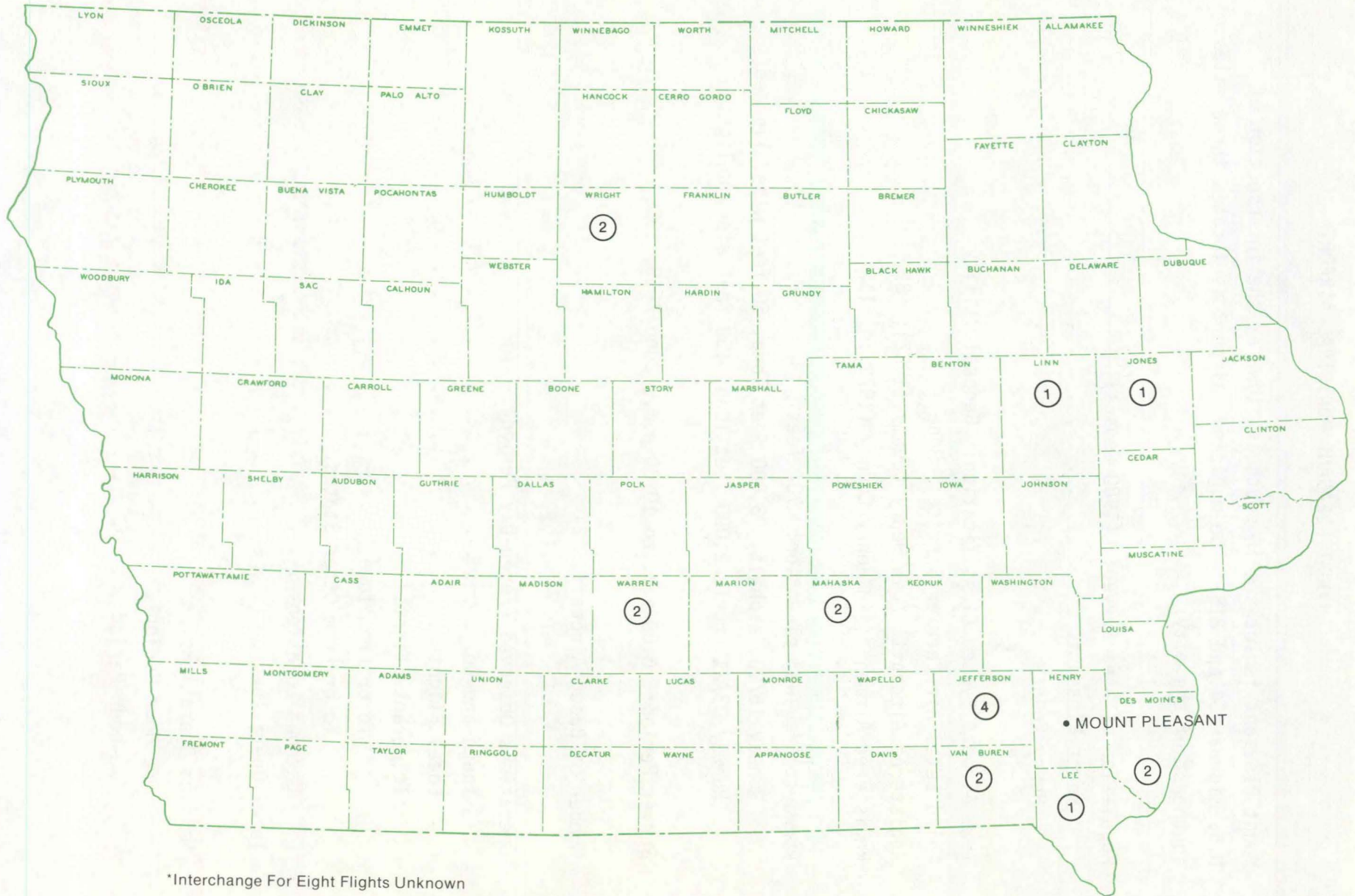
Operations Observed (Seven-Day Period):

Touch-and-Go.	12
Local Flights	62
Itinerant Flights:	
To or From Iowa.	17
To or From Other States.	27
Unknown Locations	8
Total Operations	126

Maximum Operations:

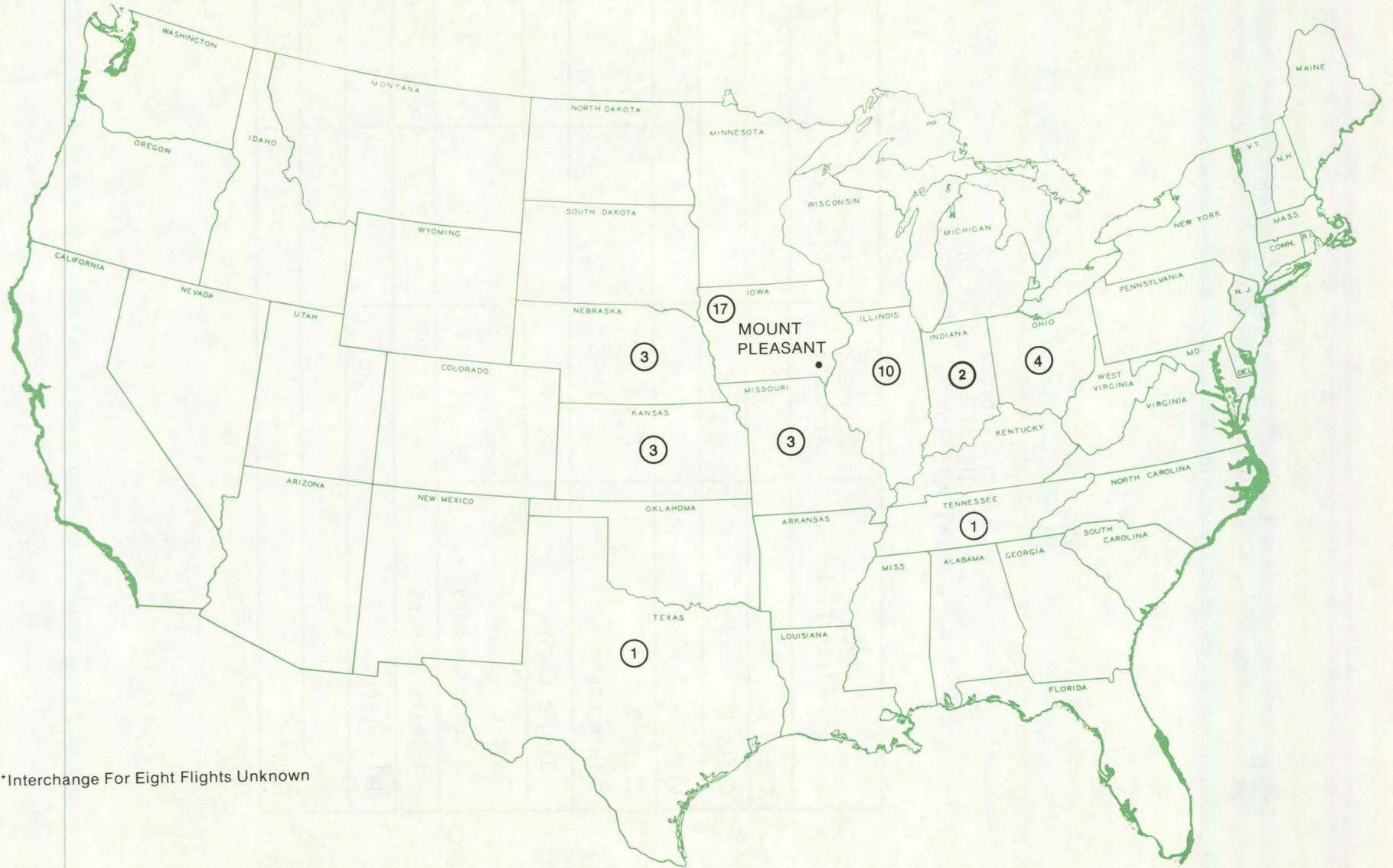
One-Hour Period	10
Two-Hour Period	15

FIGURE 13-1
 ITINERANT FLIGHT INTERCHANGE*
 MOUNT PLEASANT AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Eight Flights Unknown

FIGURE 13-2
ITINERANT FLIGHT INTERCHANGE*
MOUNT PLEASANT AND STATES
JUNE 7-13, 1982



*Interchange For Eight Flights Unknown

Table 13-1
 AIRCRAFT BASED AT THE
 MOUNT PLEASANT MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	1		1
Single Engine*	4	3	7
Class E			
3 Seats or Less	1	3	4
4 Seats or More	2	7	9
Helicopters			
Total	8	13	21

*High Performance

Table 13-2
AIRPORT OPERATIONS
MOUNT PLEASANT MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	2	6	6	12	14
Monday		4	10	14	14
Tuesday		4	4	8	8
Wednesday		8	6	14	14
Thursday	2	13	6	19	21
Friday		8	11	19	19
Saturday	8	19	9	28	36
Total	12	62	52	114	126
Average Day	2	9	7	16	18

Table 13-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	3	4
Monday	3	4
Tuesday	2	3
Wednesday	3	4
Thursday	7	9
Friday	5	6
Saturday	10	15
Highest Period	10	15

Table 13-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM MOUNT PLEASANT

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	12	9.52	24	2.00
	Business	31	24.60	35	1.13
	Pleasure	6	4.76	12	2.00
	Training	8	6.35	16	2.00
	Unknown	17	13.49	39	2.29
Iowa	Business	2	1.59	2	1.00
	Pleasure				
	Training				
	Unknown	15	11.91	27	1.80
Out of Iowa	Business	6	4.76	7	1.17
	Pleasure				
	Training				
	Unknown	21	16.67	46	2.19
Unknown Locations		8	6.35	15	1.88
Total Operations		126	100.00	223	1.77

Table 13-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 MOUNT PLEASANT MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	60	47.62
E	66	52.38
Helicopter		
Special		
All	126	100.00

MUSCATINE MUNICIPAL AIRPORT

Located on the Mississippi River in southeast Iowa, Muscatine is approximately 32 miles southwest of Davenport. The municipal airport is six miles southwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Muscatine.	23,467
Muscatine County	40,436

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Muscatine County (1982): 75

Registered Airmen⁽⁵⁾ in Muscatine County (1979): 97

Runways:⁽⁷⁾ Two; elevation: 546

Runway 05/23, asphalt, 4,700 feet long, 100 feet wide, lighted

Runway 12/30, asphalt, 2,700 feet long, 55 feet wide, lighted

Survey Period: 6:00 a.m. to 2:00 p.m., June 11-13, 1982

2:00 p.m. to 10:00 p.m., June 7-10, 1982

Number of Based Aircraft: 40, including one jet aircraft

Operations Observed (Seven-Day Period):

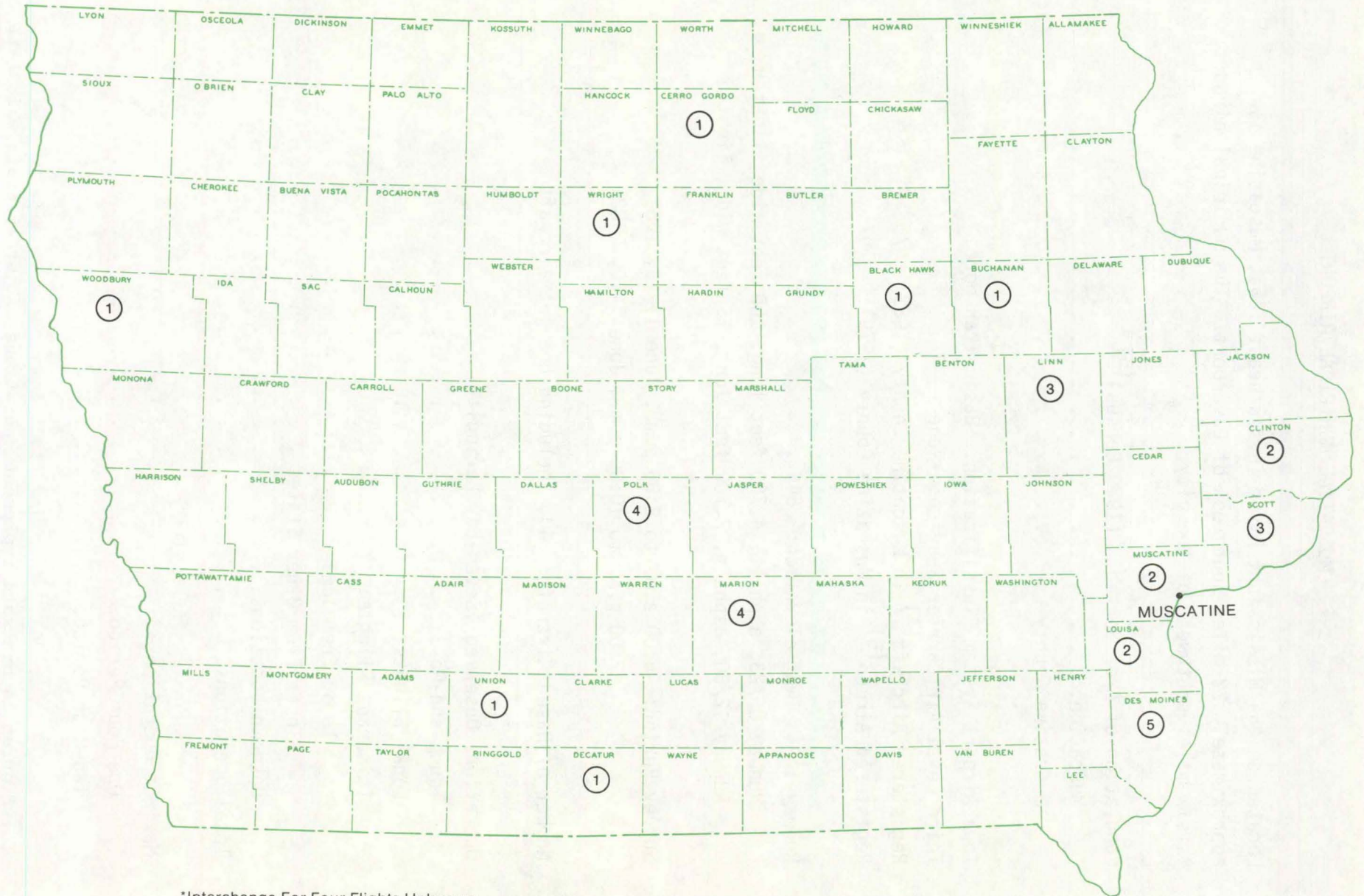
Touch-and-Go	6
Local Flights.	30
Itinerant Flights:	
To or From Iowa	32
To or From Other States	[3] 26
Unknown Locations.	4
Total Operations.	[3] 98

Maximum Operations:

One-Hour Period.	9
Two-Hour Period.	16

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

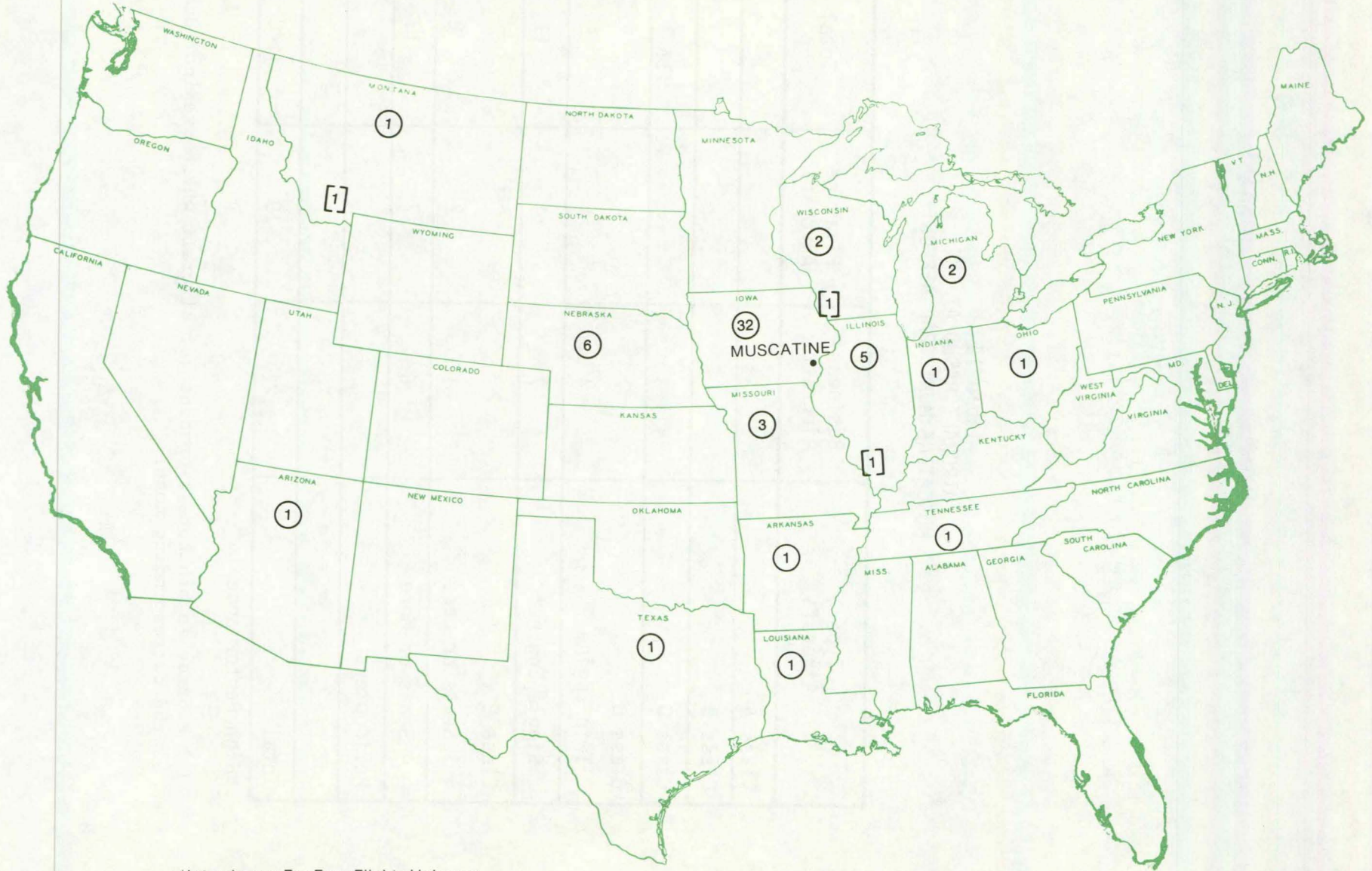
FIGURE 14-1
 ITINERANT FLIGHT INTERCHANGE*
 MUSCATINE AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Four Flights Unknown

FIGURE 14-2
 ITINERANT FLIGHT INTERCHANGE*
 MUSCATINE AND STATES
 JUNE 7-13, 1982

-89-



*Interchange For Four Flights Unknown

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding totals.

Table 14-1
AIRCRAFT BASED AT THE
MUSCATINE MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C	[1] 3		[1] 3
Class D			
Twin Engine	4	1	5
Single Engine*	7	4	11
Class E			
3 Seats or Less	1	7	8
4 Seats or More	6	7	13
Helicopters			
Total	[1]21	19	[1]40

*High Performance

[] Figures in brackets represent jet aircraft which are included in the corresponding total.

TABLE 14-2
AIRCRAFT OPERATIONS
MUSCATINE MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	4	11	[1]10	[1]21	[1]25
Monday		6	12	18	18
Tuesday		2	[1] 4	[1] 6	[1] 6
Wednesday		2	2	4	4
Thursday	2	5	[1]19	[1]24	[1]26
Friday			8	8	8
Saturday		4	7	11	11
Total	6	30	[3]62	[3]92	[3]98
Average Day	1	4	9	13	14

Table 14-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	9	16
Monday	5	8
Tuesday	4	5
Wednesday	2	3
Thursday	9	11
Friday	2	3
Saturday	5	7
Highest Period	9	16

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

Table 14-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM MUSCATINE

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	6	6.12	10	1.67
	Business	7	7.14	10	1.43
	Pleasure	19	19.39	34	1.79
	Training	4	4.08	4	1.00
	Unknown				
Iowa	Business	23	23.47	58	2.52
	Pleasure	8	8.17	13	1.63
	Training				
	Unknown	1	1.02	1	1.00
Out of Iowa	Business	[3]26	26.53	[12] 82	3.15
	Pleasure				
	Training				
	Unknown				
Unknown Locations		4	4.08	8	2.00
Total Operations		[3]98	100.00	[12]220	2.24

Table 14-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 MUSCATINE MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	[3]16	16.33
D	27	27.55
E	55	56.12
Helicopter		
Special		
All	[3]98	100.00

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

NEWTON MUNICIPAL AIRPORT

Located on Interstate 80, thirty miles east of Des Moines, Newton is the county seat of Jasper County. The municipal airport is two miles southeast of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Newton.	15,292
Lambs Grove	228
Jasper County	36,425

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Jasper County (1982): 45

Registered Airmen⁽⁵⁾ in Jasper County (1979): 154

Runways:⁽⁷⁾ Two; elevation 953 feet

Runway 13/31, asphalt, 4,100 feet long, 100 feet wide, lighted

Runway 06/24, turf, 2,000 feet long, 250 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 36

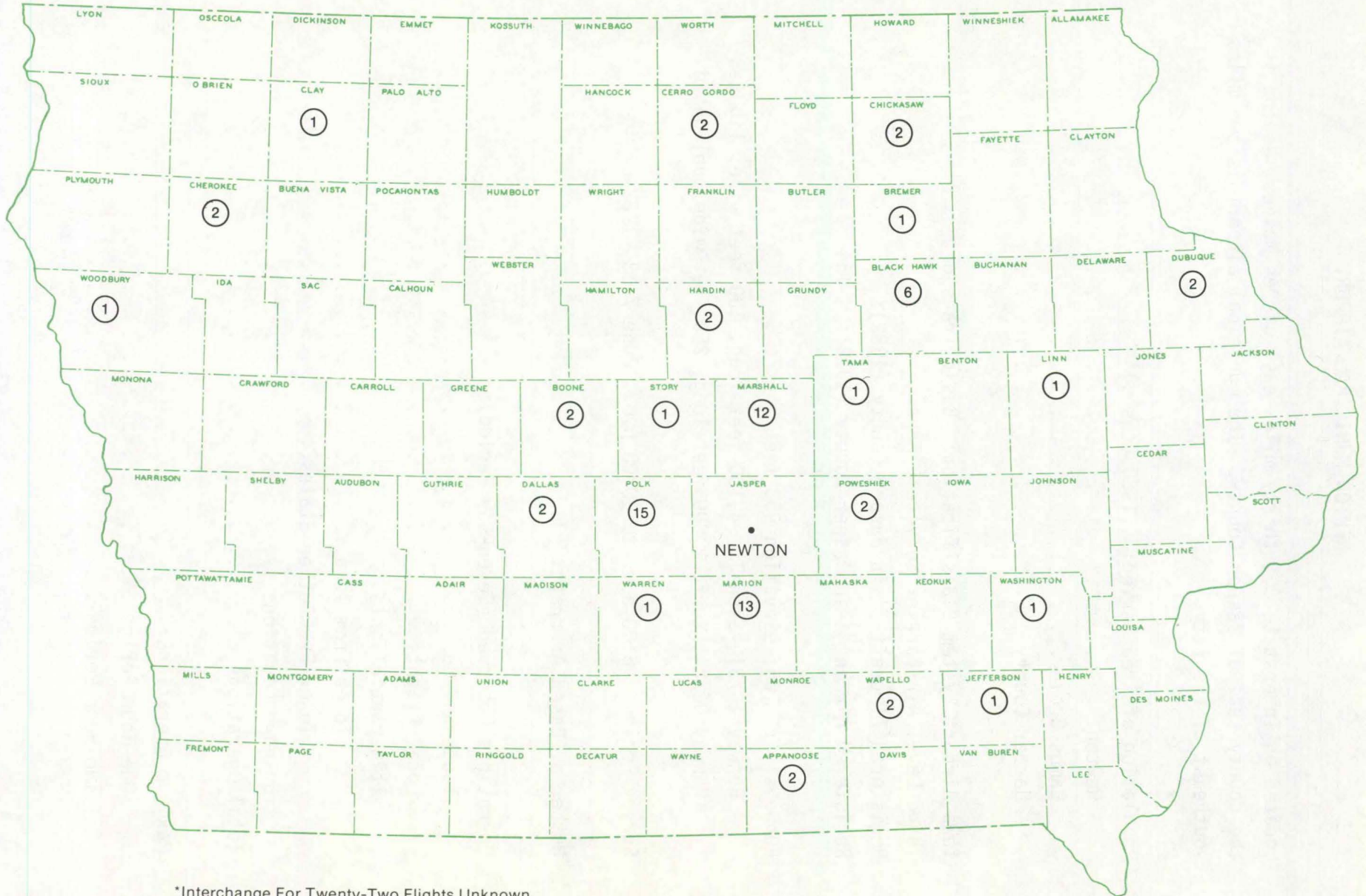
Operations Observed (Seven-Day Period):

Touch-and-Go.	145
Local Flights	63
Itinerant Flights:	
To or From Iowa.	75
To or From Other States.	42
Unknown Locations	22
Total Operations	347

Maximum Operations:

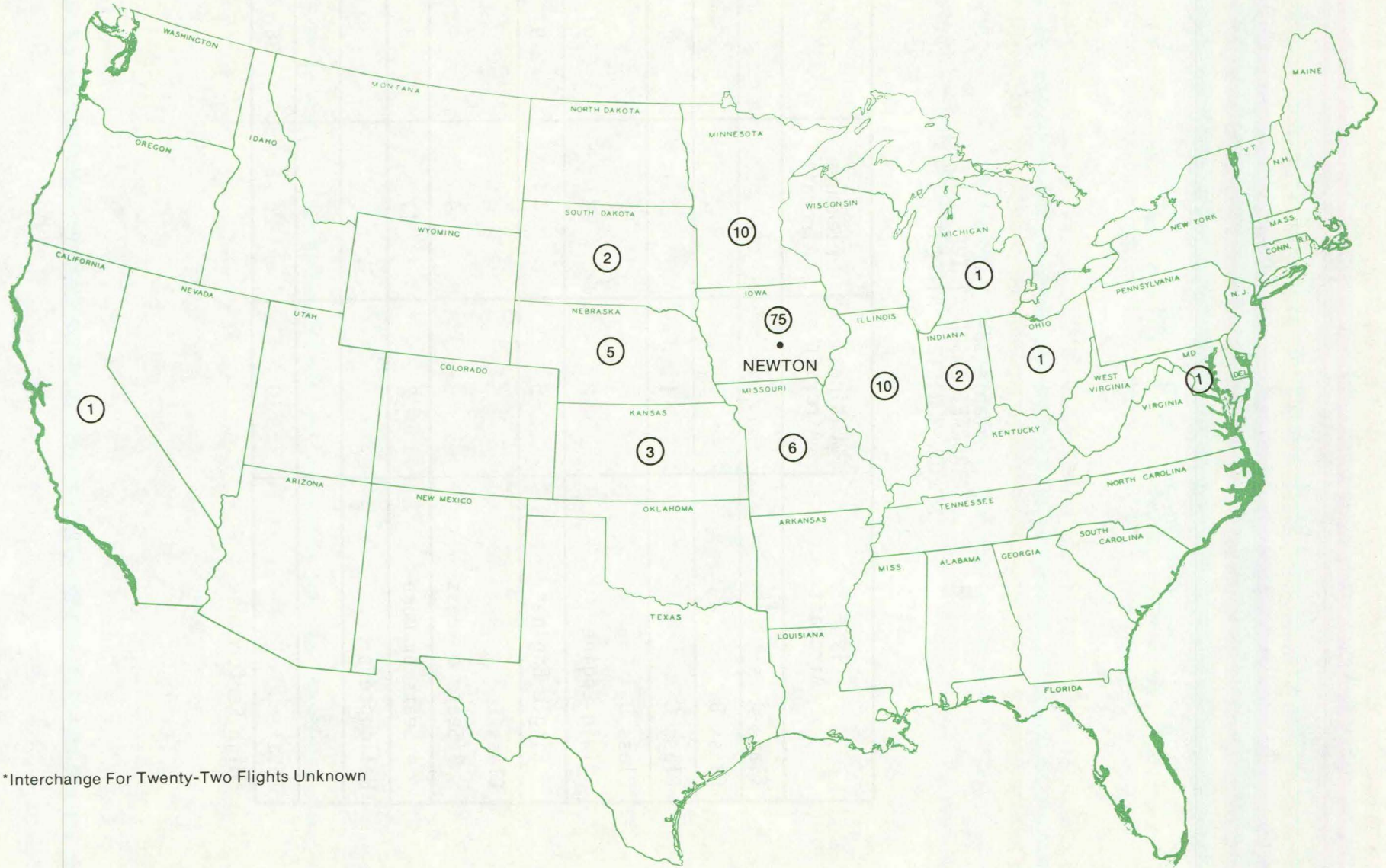
One-Hour Period	43
Two-Hour Period	61

FIGURE 15-1
 ITINERANT FLIGHT INTERCHANGE*
 NEWTON AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For Twenty-Two Flights Unknown

FIGURE 15-2
ITINERANT FLIGHT INTERCHANGE*
NEWTON AND STATES
JUNE 7-13, 1982



*Interchange For Twenty-Two Flights Unknown

Table 15-1
 AIRCRAFT BASED AT THE
 NEWTON MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C	1		1
Class D			
Twin Engine	2	7	9
Single Engine*	5	4	9
Class E			
3 Seats or Less		4	4
4 Seats or More	2	11	13
Helicopters			
Total	10	26	36

*High Performance

Table 15-2
AIRPORT OPERATIONS
NEWTON MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	2	7	22	29	31
Monday	28	15	10	25	53
Tuesday		1	15	16	16
Wednesday	12		17	17	29
Thursday	23	11	41	52	75
Friday	64	10	24	34	98
Saturday	16	19	10	29	45
Total	145	63	139	202	347
Average Day	21	9	20	29	50

TABLE 15-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	9	14
Monday	15	23
Tuesday	4	6
Wednesday	8	8
Thursday	15	19
Friday	43	61
Saturday	9	13
Highest Period	43	61

Table 15-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM NEWTON

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	145	41.79	251	1.73
	Business	5	1.44	11	2.20
	Pleasure	22	6.34	46	2.09
	Training	36	10.38	62	1.72
	Unknown				
Iowa	Business	46	13.26	84	1.83
	Pleasure	22	6.34	42	1.91
	Training	6	1.73	14	2.33
	Unknown	1	0.28	2	2.00
Out of Iowa	Business	28	8.07	68	2.43
	Pleasure	13	3.75	24	1.85
	Training				
	Unknown	1	0.28	1	1.00
Unknown Locations		22	6.34	56	2.55
Total Operations		347	100.00	661	1.90

Table 15-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 NEWTON MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	18	5.19
D	74	21.32
E	255	73.49
Helicopter		
Special		
All	347	100.00

OSKALOOSA MUNICIPAL AIRPORT

Oskaloosa is 58 miles southeast of Des Moines on U.S. Highway 63, Iowa 92 and Iowa 163. The municipal airport is ten miles southeast of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Oskaloosa.	10,989
University Park.	645
Mahaska County	22,867

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Mahaska County (1982): 26

Registered Airmen⁽⁵⁾ in Mahaska County (1979): 124

Runways:⁽⁷⁾ Two; elevation: 842 feet

Runway 13/31, asphalt, 3,500 feet long, 75 feet wide, lighted

Runway 04/22, concrete, 2,000 feet long, 200 feet wide, unlighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 20

Operations Observed (Seven-Day Period):

Touch-and-Go	104
Local Flights.	44
Itinerant Flights:	
To or From Iowa	63
To or From Other States	21
Total Operations.	232

Maximum Operations:

One-Hour Period.	22
Two-Hour Period.	28

FIGURE 16-1
 ITINERANT FLIGHT INTERCHANGE
 OSKALOOSA AND IOWA COUNTIES
 JUNE 7-13, 1982

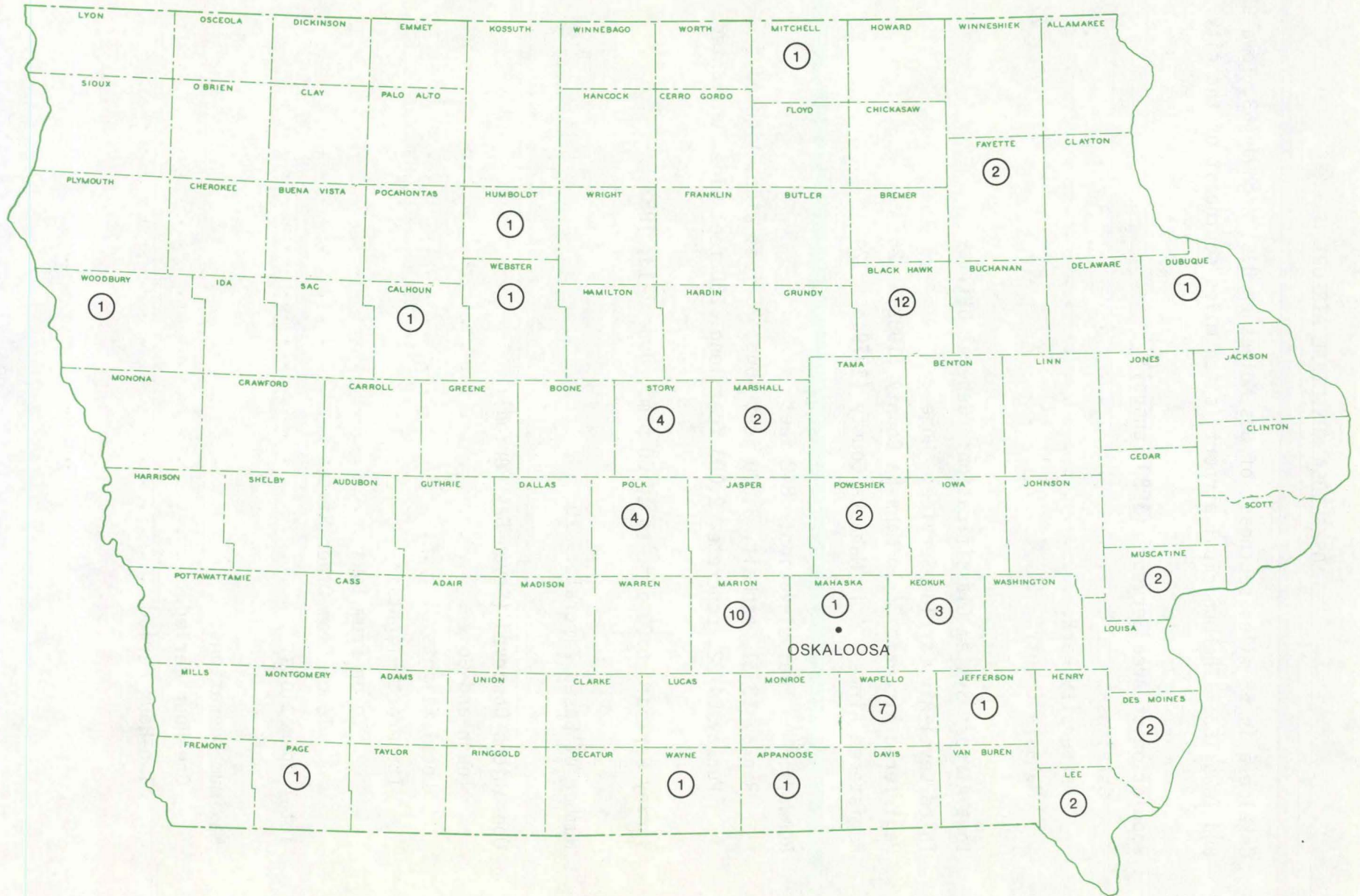


FIGURE 16-2
ITINERANT FLIGHT INTERCHANGE*
OSKALOOSA AND IOWA COUNTIES
JUNE 7-13, 1982

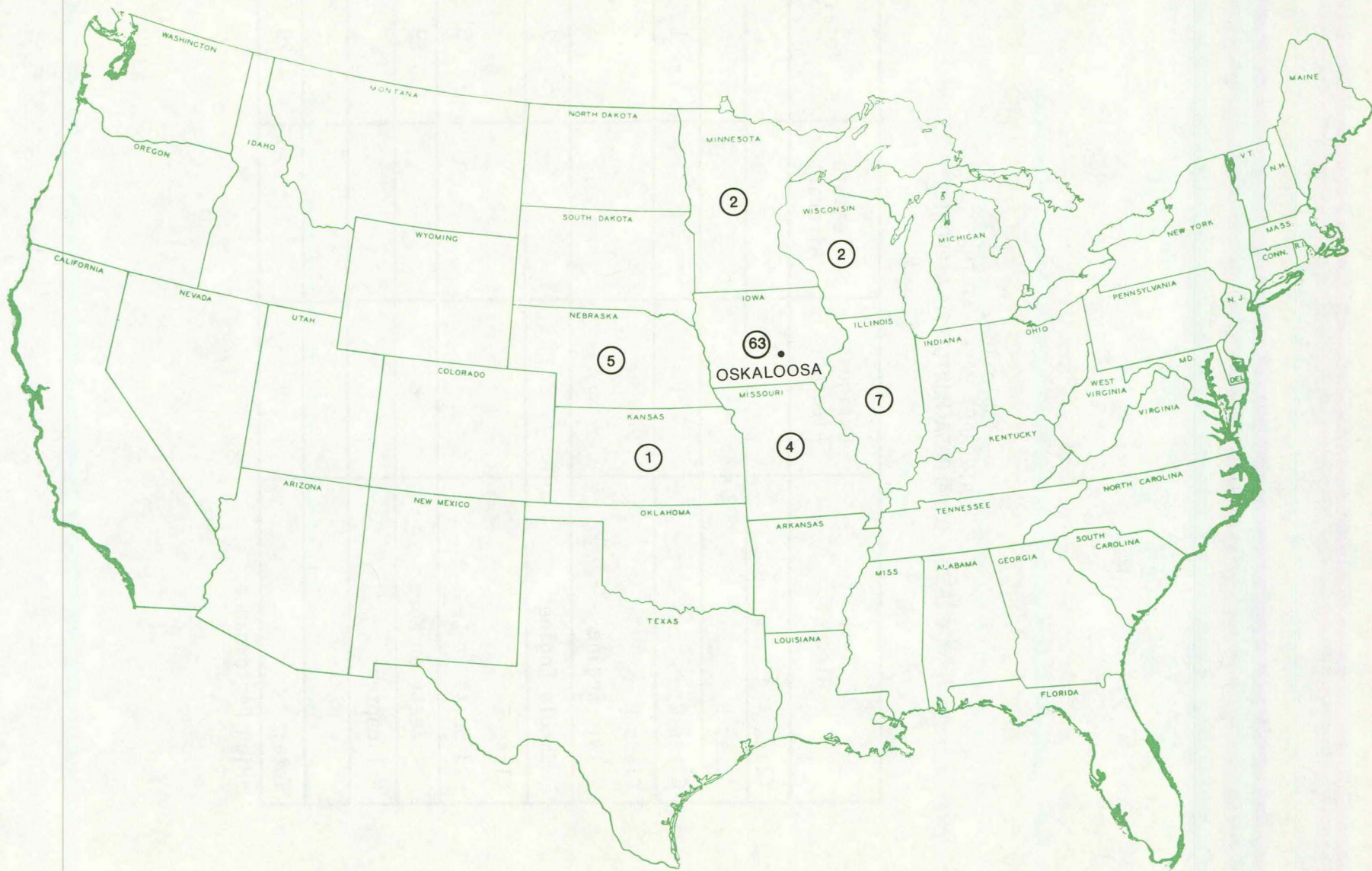


Table 16-1
 AIRCRAFT BASED AT THE
 OSKALOOSA MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C	1		1
Class D			
Twin Engine	3		3
Single Engine*	2		2
Class E			
3 Seats or Less	1	4	5
4 Seats or More	2	7	9
Helicopters			
Total	9	11	20

*High Performance

TABLE 16-2
AIRCRAFT OPERATIONS
OSKALOOSA MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	12	6	33	39	51
Monday		2	14	16	16
Tuesday	14	2	13	15	29
Wednesday	8	8	4	12	20
Thursday	16	4	6	10	26
Friday	14	6	9	15	29
Saturday	40	16	5	21	61
Total	104	44	84	128	232
Average Day	15	6	12	18	33

TABLE 16-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	16	20
Monday	6	6
Tuesday	15	18
Wednesday	11	12
Thursday	16	17
Friday	17	18
Saturday	22	28
Highest Period	22	28

Table 16-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM OSKALOOSA

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	104	44.83	150	1.44
	Business	2	0.86	2	1.00
	Pleasure	10	4.31	16	1.60
	Training	32	13.79	52	1.63
	Unknown				
Iowa	Business	29	12.50	46	1.59
	Pleasure	32	13.79	59	1.84
	Training	1	0.43	2	2.00
	Unknown	1	0.43	1	1.00
Out of Iowa	Business	19	8.20	52	2.74
	Pleasure	2	0.86	2	1.00
	Training				
	Unknown				
Unknown Locations					
Total Operations		232	100.00	382	1.65

Table 16-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 OSKALOOSA MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	4	1.72
D	34	14.66
E	193	83.19
Helicopter		
Gyro Copter Special	1	0.43
All	232	100.00

OTTUMWA INDUSTRIAL AIRPORT

Located in Wapello County, Ottumwa is 83 miles southeast of Des Moines.
 The Ottumwa airport is located six miles northwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Ottumwa.	27,381
Wapello County	40,241

Iowa Airport System Classification: Basic Transport

Third Level Air Carrier Service: Yes

Registered Aircraft⁽⁴⁾ in Wapello County (1982): 67

Registered Airmen⁽⁵⁾ in Wapello County (1979): 142

Runways:⁽⁷⁾ Two; elevation: 845 feet

Runway 13/31, asphalt, 6,500 feet long, 150 feet wide, lighted

Runway 04/22, concrete, 5,177 feet long, 200 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 30

Operations Observed (Seven-Day Period):

Touch-and-Go	96
Local Flights.	53
Itinerant Flights:	
To or From Iowa	[1] (54) 154
To or From Other States	[3] 86
Unknown Flights.	13
Total Operations.	[4] (54) 402

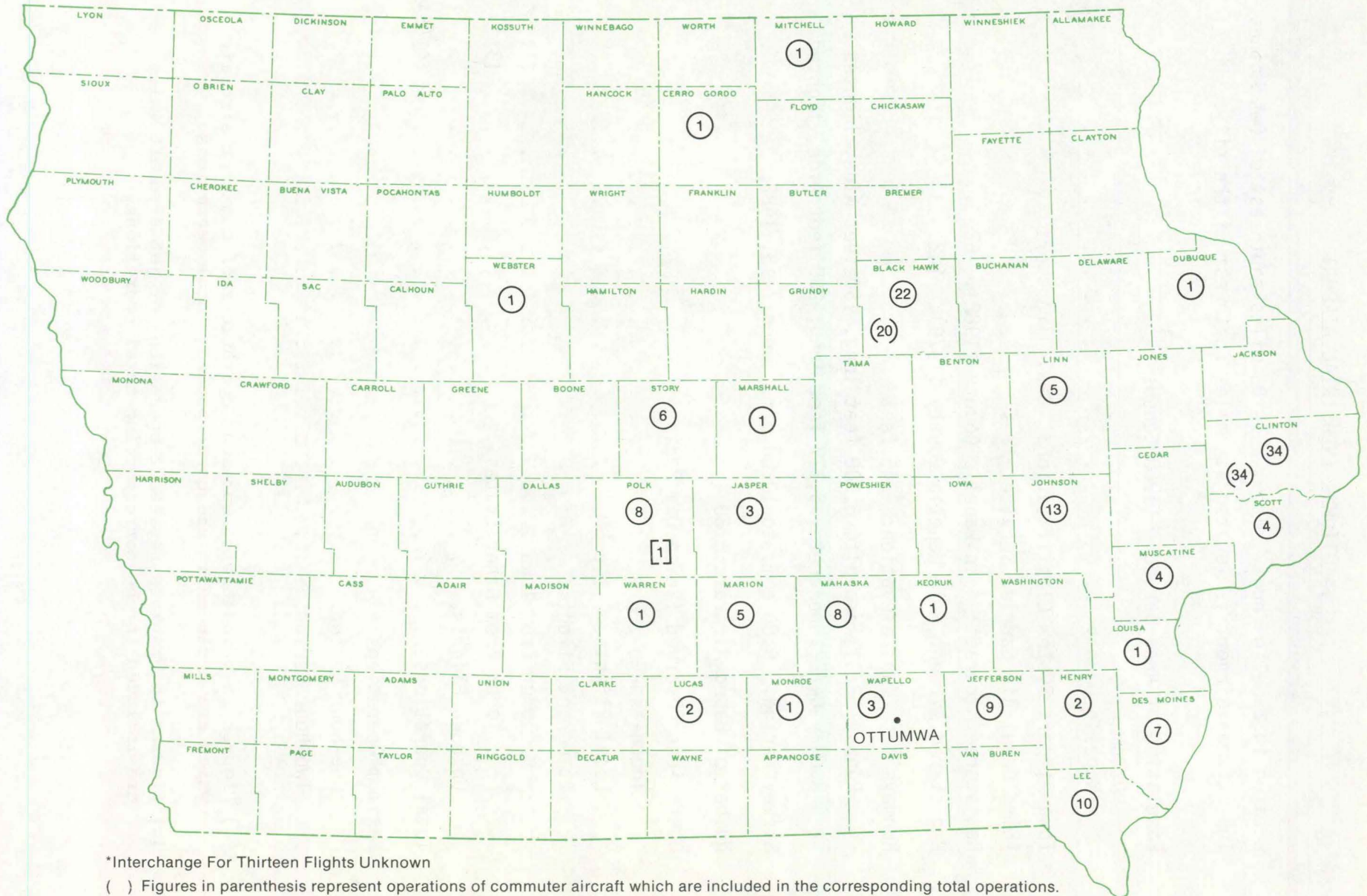
Maximum Operations:

One-Hour Period.	21
Two-Hour Period.	33

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

FIGURE 17-1
 ITINERANT FLIGHT INTERCHANGE*
 OTTUMWA INDUSTRIAL AIRPORT AND IOWA COUNTIES
 JUNE 7-13, 1982

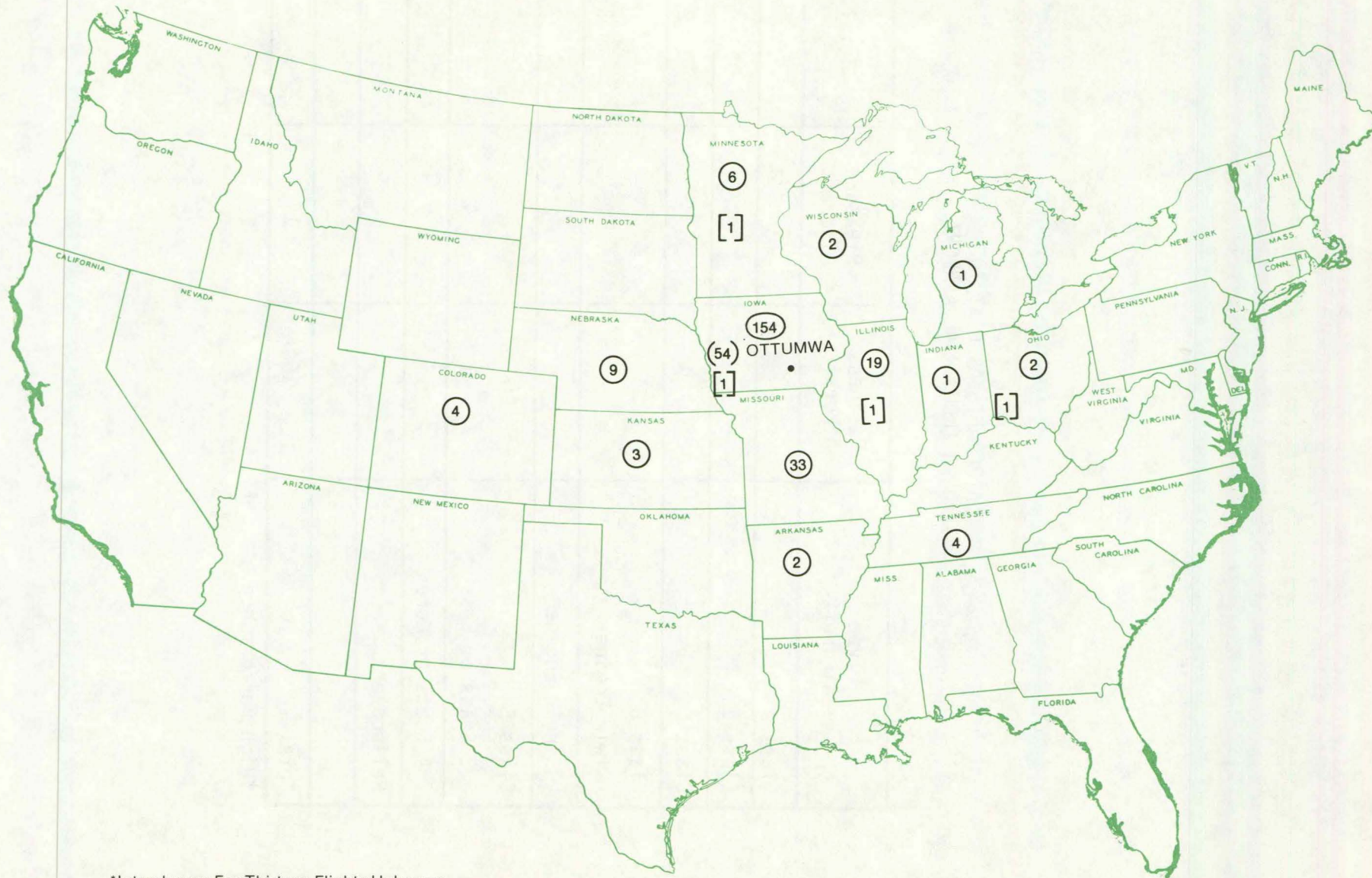


-106-

*Interchange For Thirteen Flights Unknown

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

FIGURE 17-2
 ITINERANT FLIGHT INTERCHANGE*
 OTTUMWA INDUSTRIAL AIRPORT AND STATES
 JUNE 7-13, 1982



*Interchange For Thirteen Flights Unknown

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations

Table 17-1
 AIRCRAFT BASED AT THE
 OTTUMWA INDUSTRIAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C	2		2
Class D			
Twin Engine	7	1	8
Single Engine*	5	2	7
Class E			
3 Seats or Less	1	4	5
4 Seats or More	1	7	8
Helicopters			
Total	16	14	30

*High Performance

Table 17-2
AIRPORT OPERATIONS
OTTUMWA INDUSTRIAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	2	6	(2) 28	(2) 34	(2) 36
Monday	24	8	(10) 41	(10) 49	(10) 73
Tuesday	16	7	[2](10) 28	[2](10) 35	[2](10) 51
Wednesday	14	4	(10) 42	(10) 46	(10) 60
Thursday	32	18	(10) 43	(10) 61	(10) 93
Friday	2	2	[2](10) 32	[2](10) 34	[2](10) 36
Saturday	6	8	(2) 39	(2) 47	(2) 53
Total	96	53	[4](54)253	[4](54)306	[4](54)402
Average Day	14	8	36	44	58

Table 17-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	(1) 8	(1)11
Monday	(2)20	(2)29
Tuesday	[1](2)15	[1](2)24
Wednesday	(2) 7	(2)12
Thursday	(1)21	(1)33
Friday	(2) 4	(2) 8
Saturday	12	23
Highest Period	21	33

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

Table 17-4
CLASSIFICATION OF FLIGHTS
TO OR FROM OTTUMWA

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	96	23.88	164	1.71
	Business				
	Pleasure	9	2.24	21	2.33
	Training	36	8.95	59	1.64
	Unknown	8	1.99	10	1.25
Iowa	Business	[1] (54) 116	28.86	[5] (243) 387	3.34
	Pleasure	10	2.49	24	2.40
	Training	8	1.99	13	1.63
	Unknown	20	4.98	29	1.45
Out of Iowa	Business	[3] 71	17.66	[19] 197	2.77
	Pleasure	8	1.99	21	2.63
	Training	2	0.50	2	1.00
	Unknown	5	1.24	12	2.40
Unknown Locations		13	3.23	26	2.00
Total Operations		[4] (54) 402	100.00	[24] (243) 965	2.40

Table 17-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
OTTUMWA INDUSTRIAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C	[4] (29) 48	11.94
D	(25) 145	36.07
E	205	51.00
Helicopter	4	0.99
Special		
All	[4] (54) 402	100.00

() Figures in parenthesis represent operations of commuter aircraft which are included in the corresponding total operations.

[] Figures in brackets represent operations of jet aircraft which are included in the corresponding total operations.

PELLA MUNICIPAL AIRPORT

Located in Marion County near the Red Rock Reservoir, Pella is approximately 39 miles southeast of Des Moines. The municipal airport is one mile west of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Pella.	8,349
Marion County.	29,669

Iowa Airport System Classification: General Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Marion County (1982): 62

Registered Airmen⁽⁵⁾ in Marion County (1979): 167

Runways:⁽⁷⁾ One; elevation: 880 feet

Runway 16/34, concrete, 2,800 feet long, 50 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 11

Operations Observed (Seven-Day Period):

Touch-and-Go	22
Local Flights.	53
Itinerant Flights:	
To or From Iowa	59
To or From Other States	16
Unknown Locations.	1
Total Operations.	151

Maximum Operations:

One-Hour Period.	18
Two-Hour Period.	29

FIGURE 18-1
 ITINERANT FLIGHT INTERCHANGE*
 PELLA AND IOWA COUNTIES
 JUNE 7-13, 1982

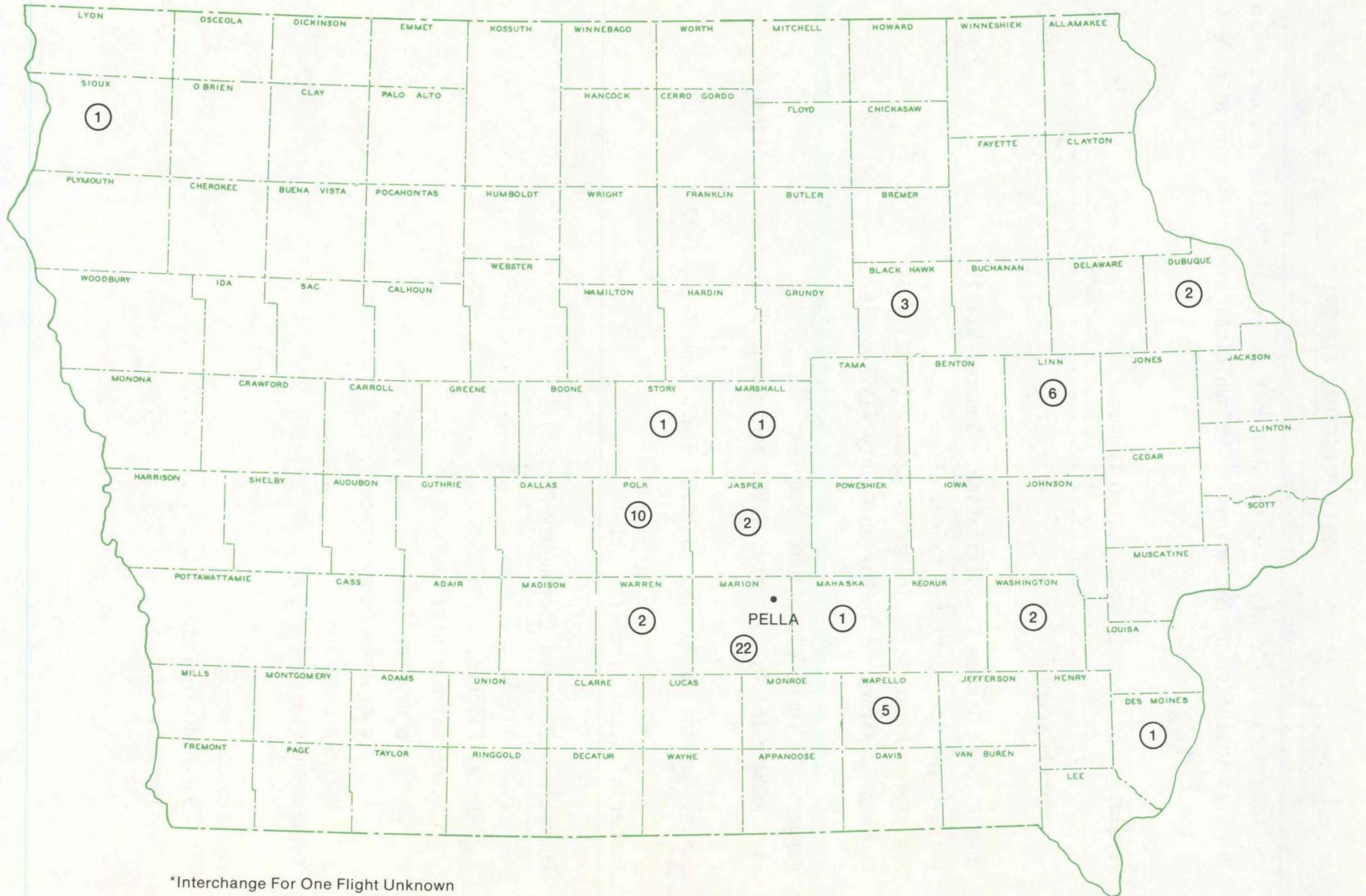
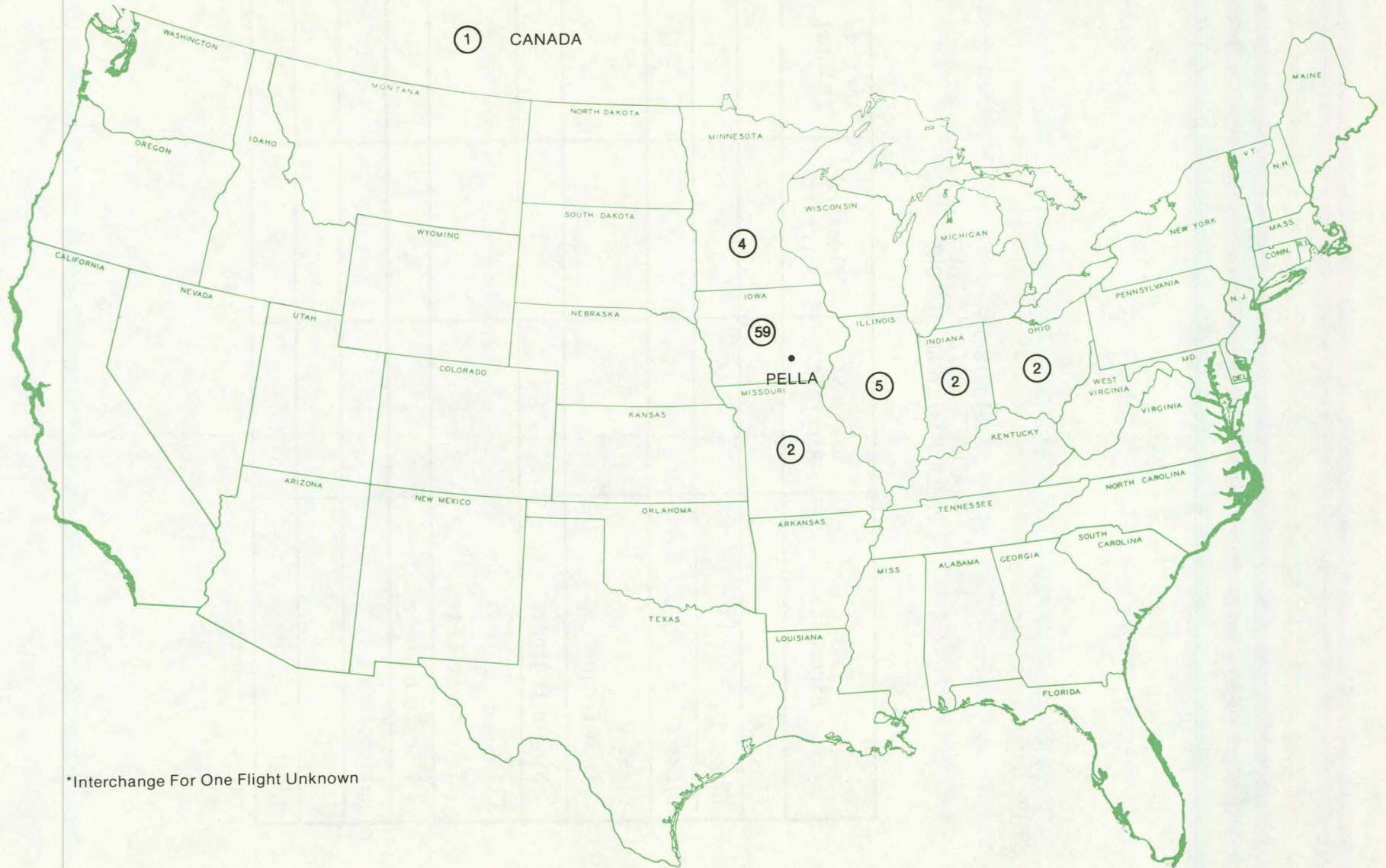


FIGURE 18-2
ITINERANT FLIGHT INTERCHANGE*
PELLA AND STATES
JUNE 7-13, 1982



*Interchange For One Flight Unknown

Table 18-1
 AIRCRAFT BASED AT THE
 PELLA MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine			
Single Engine*	3	1	4
Class E			
3 Seats or Less	1		1
4 Seats or More	1	4	5
Helicopters	1		1
Total	6	5	11

*High Performance

Table 18-2
AIRCRAFT OPERATIONS
PELLA MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	2	3	20	23	25
Monday			7	7	7
Tuesday	2	6	5	11	13
Wednesday			6	6	6
Thursday	16	30	10	40	56
Friday		12	12	24	24
Saturday	2	2	16	18	20
Total	22	53	76	129	151
Average Day	3	8	11	19	22

TABLE 18-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	9	9
Monday	3	5
Tuesday	7	8
Wednesday	2	3
Thursday	18	29
Friday	6	7
Saturday	4	5
Highest Period	18	29

Table 18-4
CLASSIFICATION OF FLIGHTS
TO AND FROM PELLA

Flight Classification		Number Of Flights	Perecent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	22	14.57	52	2.36
	Business				
	Pleasure	21	13.91	48	2.29
	Training	32	21.19	64	2.00
	Unknown				
Iowa	Business	32	21.19	42	1.31
	Pleasure	21	13.91	50	2.38
	Training	2	1.32	5	2.50
	Unknown	4	2.65	4	1.00
Out of Iowa	Business	14	9.28	40	2.86
	Pleasure	2	1.32	8	4.00
	Training				
	Unknown				
Unknown Locations		1	0.66	1	1.00
Total Operations		151	100.00	314	2.08

Table 18-5
DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
PELLA MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	47	31.13
E	75	49.67
Helicopter	29	19.20
Special		
All	151	100.00

TIPTON MUNICIPAL AIRPORT

Located in Cedar County in eastern Iowa, Tipton is nine miles north of Interstate 80 on Iowa 38. The municipal airport is one and one-half miles southwest of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Tipton.	3,055
Cedar County.	18,635

Iowa Airport System Classification: Basic Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Cedar County (1982): 15

Registered Airmen⁽⁵⁾ in Cedar County (1979): 52

Runways:⁽⁷⁾ One; elevation; 840 feet

Runway 11/29, concrete, 3,000 feet long, 60 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 7

Operations Observed (Seven-Day Period):

Touch-and-Go.	30
Local Flights	24
Itinerant Flights:	
To or From Iowa.	13
To or From Other States.	8
Total Operations	75

Maximum Operations:

One-Hour Period	13
Two-Hour Period	13

FIGURE 19-1
ITINERANT FLIGHT INTERCHANGE
TIPTON AND IOWA COUNTIES
JUNE 7-13, 1982

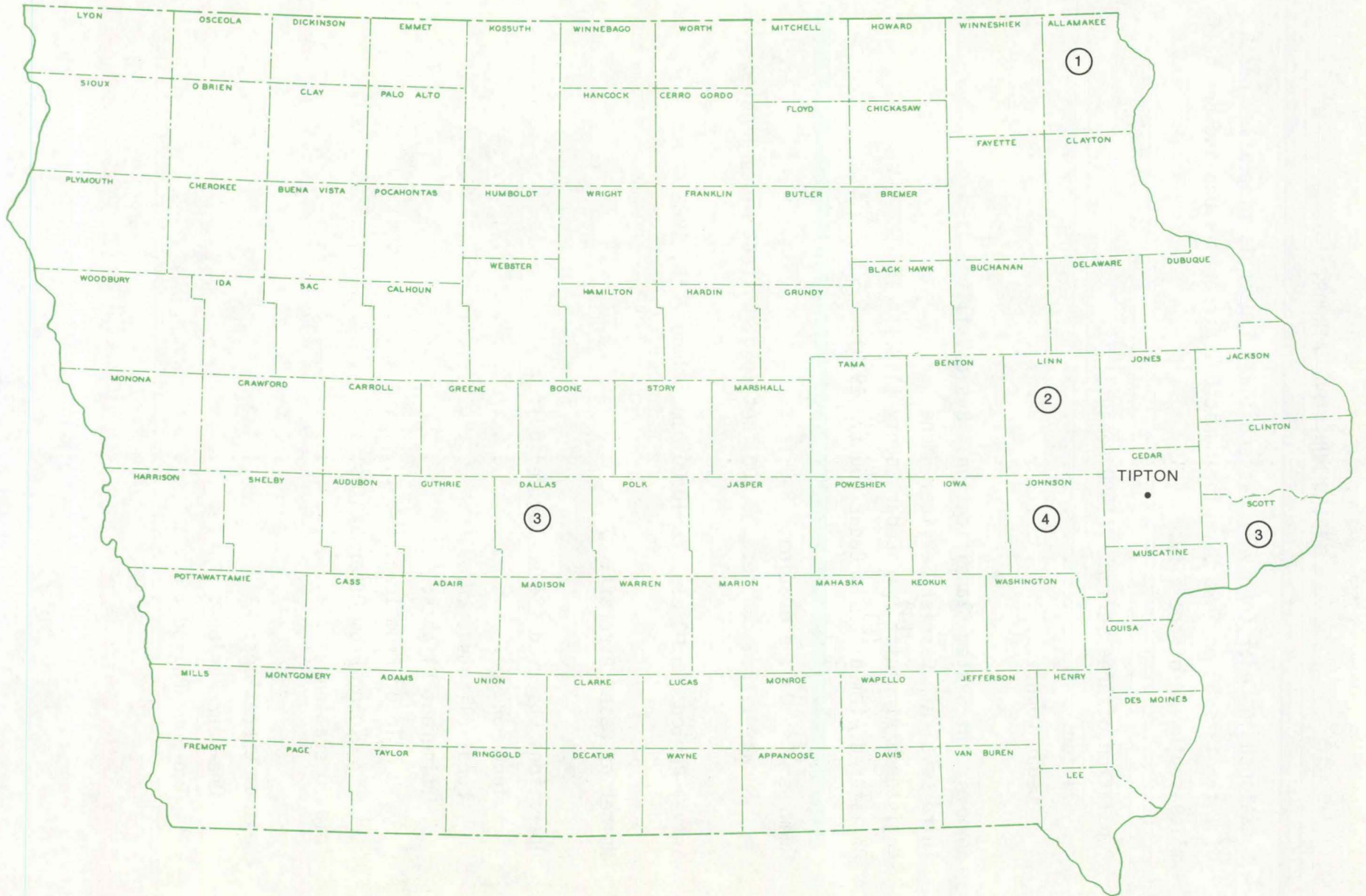


FIGURE 19-2
ITINERANT FLIGHT INTERCHANGE
TIPTON AND STATES
JUNE 7-13, 1982

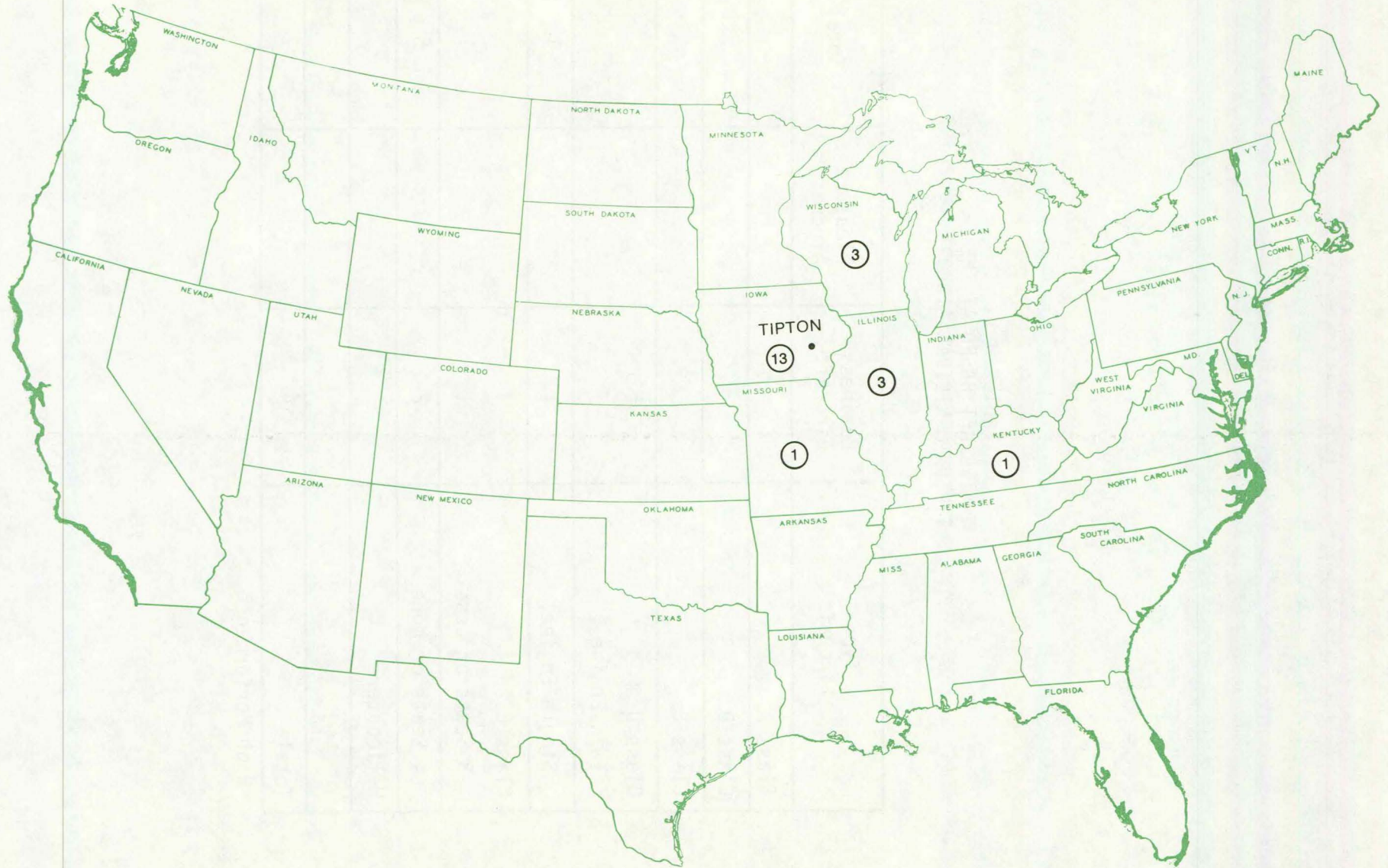


Table 19-1
 AIRCRAFT BASED AT THE
 TIPTON MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D Twin Engine			
Single Engine*	1		1
Class E 3 Seats or Less	1		1
4 Seats or More	2	3	5
Helicopters			
Total	4	3	7

*High Performance

Table 19-2
 AIRCRAFT OPERATIONS
 TIPTON MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	10	10	6	16	26
Monday			5	5	5
Tuesday			2	2	2
Wednesday	2	4	2	6	8
Thursday	6	4	2	6	12
Friday		2	2	4	4
Saturday	12	4	2	6	18
Total	30	24	21	45	75
Average Day	4	3	3	6	10

Table 19-3
 MAXIMUM OPERATIONS
 FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	7	10
Monday	2	3
Tuesday	2	2
Wednesday	5	8
Thursday	7	8
Friday	2	2
Saturday	13	13
Highest Period	13	13

Table 19-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM TIPTON

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	30	40.00	50	1.67
	Business				
	Pleasure	13	17.33	42	3.23
	Training	11	14.66	19	1.73
	Unknown				
Iowa	Business	5	6.67	11	2.20
	Pleasure	8	10.67	17	2.13
	Training				
	Unknown				
Out of Iowa	Business	5	6.67	15	3.00
	Pleasure	2	2.67	4	2.00
	Training	1	1.33	1	1.00
	Unknown				
Unknown Locations					
Total Operations		75	100.00	159	2.12

Table 19-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 TIPTON MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	4	5.33
E	69	92.00
Helicopter	2	2.67
Special		
All	75	100.00

WASHINGTON MUNICIPAL AIRPORT

Washington is located in southeast Iowa approximately 31 miles south of Iowa City. The municipal airport is one and one-half miles southeast of the city.

Population of Area Served: (1980 Census)⁽⁶⁾

Washington.	6,584
Washington County	20,141

Iowa Airport System Classification: Basic Utility

Third Level Air Carrier Service: None

Registered Aircraft⁽⁴⁾ in Washington County (1982): 24

Registered Airmen⁽⁵⁾ in Washington County (1979): 71

Runways:⁽⁷⁾ One; elevation: 770 feet

Runway 13/31, concrete, 3,400 feet long, 50 feet wide, lighted

Survey Period: 6:00 a.m. to 10:00 p.m., June 7-13, 1982

Number of Based Aircraft: 17

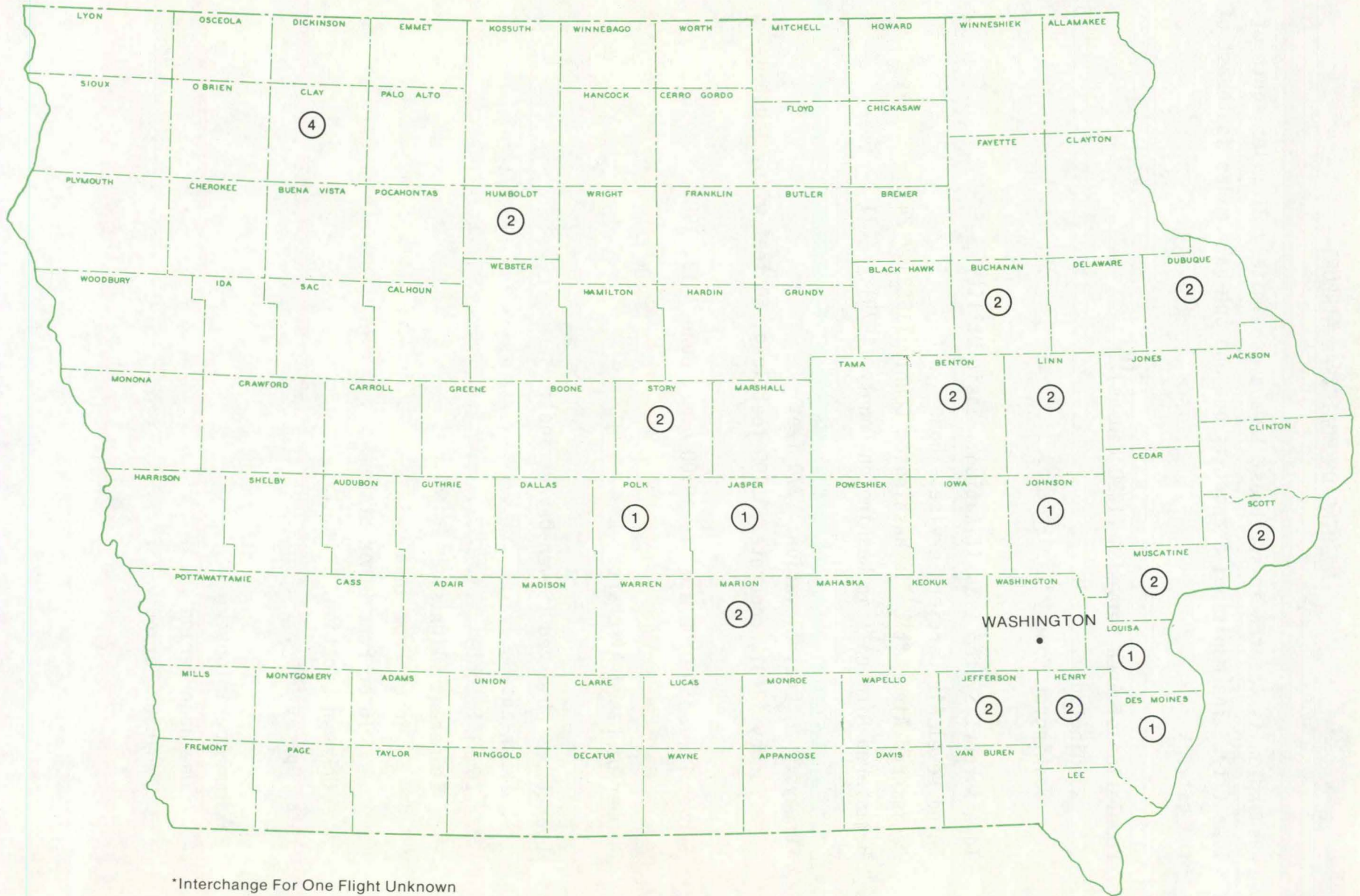
Operations Observed (Seven-Day Period):

Touch-and-Go.	108
Local Flights	214
Itinerant Flights:	
To or From Iowa.	31
To or From Other States.	14
Unknown Location.	1
Total Operations	368

Maximum Operations:

One-Hour Period	27
Two-Hour Period	32

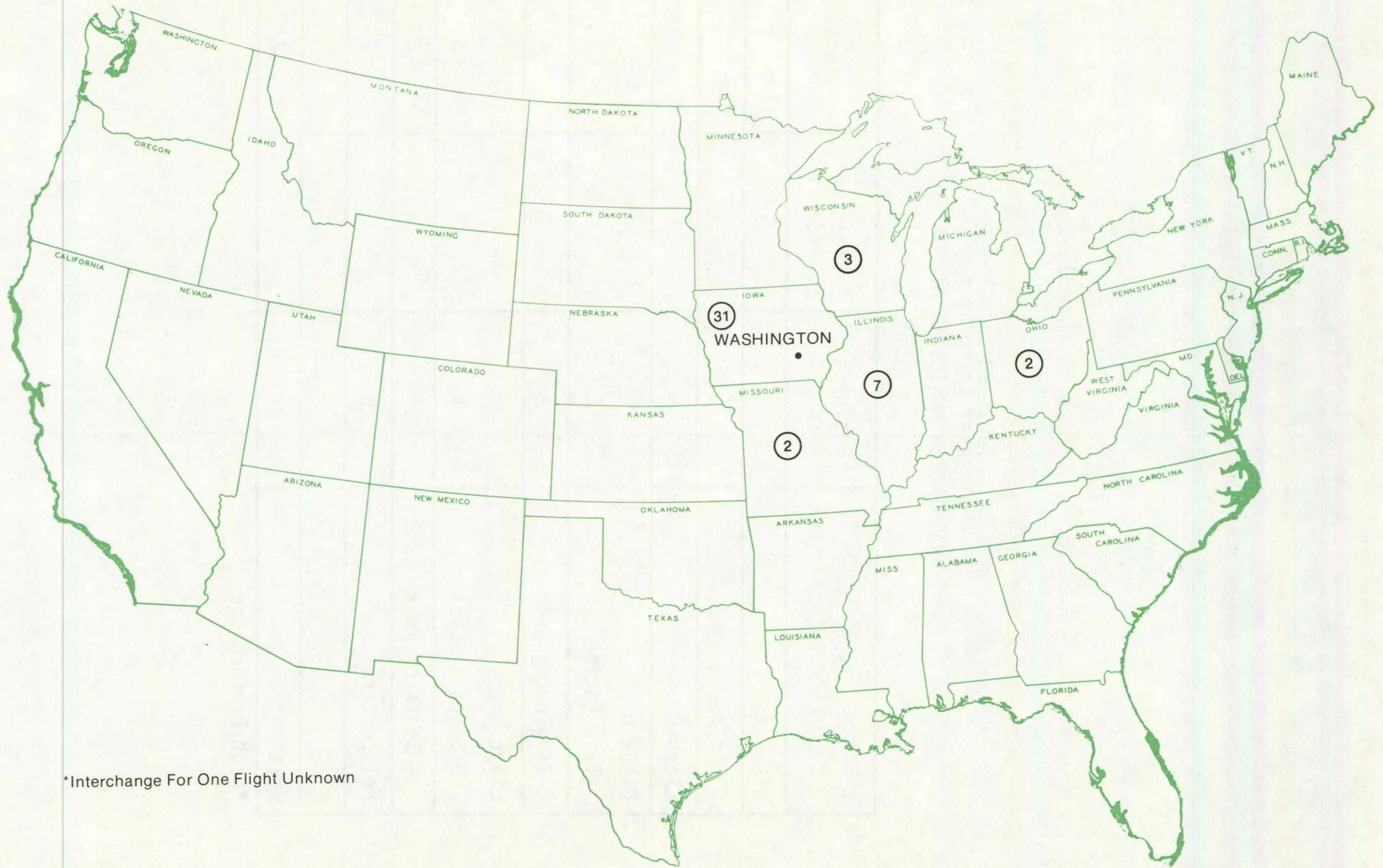
FIGURE 20-1
 ITINERANT FLIGHT INTERCHANGE*
 WASHINGTON AND IOWA COUNTIES
 JUNE 7-13, 1982



*Interchange For One Flight Unknown

FIGURE 20-2
ITINERANT FLIGHT INTERCHANGE*
WASHINGTON AND STATES
JUNE 7-13, 1982

-125-



*Interchange For One Flight Unknown

Table 20-1
 AIRCRAFT BASED AT THE
 WASHINGTON MUNICIPAL AIRPORT

Type Aircraft	Business Aircraft	Pleasure Aircraft	Total
Class A			
Class B			
Class C			
Class D			
Twin Engine	2		2
Single Engine*	2	2	4
Class E			
3 Seats or Less	1	4	5
4 Seats or More		4	4
Helicopters	2		2
Total	7	10	17

*High Performance

Table 20-2
AIRCRAFT OPERATIONS
WASHINGTON MUNICIPAL AIRPORT

Day of Week	Type of Operation				
	Touch & Go	Landings & Take-Offs			All Operations
		Local	Itinerant	Total	
Sunday	10	34	13	47	57
Monday	14	22	4	26	40
Tuesday	20	24	12	36	56
Wednesday	10	16	2	18	28
Thursday	10	41	10	51	61
Friday	20	48	2	50	70
Saturday	24	29	3	32	56
Total	108	214	46	260	368
Average Day	16	31	6	37	53

Table 20-3
MAXIMUM OPERATIONS
FOR 1 AND 2 HOUR PERIODS

Day of Week	1-Hour Period	2-Hour Period
Sunday	14	20
Monday	8	13
Tuesday	27	32
Wednesday	11	16
Thursday	18	24
Friday	14	15
Saturday	13	16
Highest Period	27	32

Table 20-4
 CLASSIFICATION OF FLIGHTS
 TO OR FROM WASHINGTON

Flight Classification		Number Of Flights	Percent of Total Operations	Passengers	
				Total	Average Per Flight
Local	Touch-and-Go	108	29.35	214	1.98
	Business	13	3.53	26	2.00
	Pleasure	57	15.49	124	2.18
	Training	142	38.59	253	1.78
	Unknown	2	0.54	2	1.00
Iowa	Business	20	5.44	35	1.75
	Pleasure	9	2.45	22	2.44
	Training	2	0.54	4	2.00
	Unknown				
Out of Iowa	Business	8	2.17	21	2.63
	Pleasure	6	1.63	13	2.17
	Training				
	Unknown				
Unknown Locations		1	0.27	1	1.00
Total Operations		368	100.00	715	1.94

Table 20-5
 DISTRIBUTION OF OPERATIONS BY CLASS OF AIRCRAFT
 WASHINGTON MUNICIPAL AIRPORT

Aircraft Class	Number of Operations	Percent of Operations
A		
B		
C		
D	49	13.32
E	301	81.79
Helicopter	18	4.89
Special		
All	368	100.00

GLOSSARY

Aircraft Class⁽³⁾ - A system of dividing aircraft into different groups based primarily on size. For this survey, the classes are:

- Class A - Heavy four-engine jets
- Class B - Smaller jets in excess of 25,000 pounds and piston or turboprop aircraft having a weight of 36,000 pounds or more
- Class C - Heavy twins and small executive jets in excess of 8,000 pounds
- Class D - Light twins and high-performance singles (200 HP or more)
- Class E - All other single-engine aircraft
- Helicopter - All types
- Special - Autogyro, sailplane, balloons, etc.

Aircraft Operations:

Local Operations - Aircraft departures or arrivals with both trip origin and destination at the airport surveyed.

Itinerant Operations - All arrivals and departures of aircraft other than local or touch-and-go operations.

Touch-and Go Operations - Aircraft which land and take off in a continuous straight-ahead operation, normally used during training flights.

Total Operations - The total operations performed at an airport including local, touch-and-go, and itinerant operations.

Airport Classification:

General Transport - Airports able to accommodate all aircraft weighing 150,000 pounds or less and major airline turbojet aircraft.

Basic Transport - Airports able to accommodate all aircraft weighing 60,000 pounds or less and commuter airline aircraft.

General Utility - Airports able to accommodate all aircraft weighing 12,500 pounds or less including air taxi aircraft.

Basic Utility - Airports able to accommodate 95 percent of all aircraft weighing 12,500 pounds or less.

Third Level Air Carrier Service - Service provided by commuter airlines rather than by regularly scheduled certificated air carrier.

REFERENCES

1. Iowa State University, Iowa State Airport System Plan, 1976 Update, Final Report, Engineering Research Institute, Ames, Iowa: 1976.
2. Planning and Research Division, 1982 Iowa Aviation System Plan, Iowa Department of Transportation, Ames, Iowa: 1982.
3. Federal Aviation Administration, "Advisory Circular 150/5060-1A", U.S. Department of Transportation, Government Printing Office, Washington, D.C.: July 8, 1968.*
4. Iowa Department of Transportation, Aeronautics Division, Des Moines, Iowa: December 1982.
5. Federal Aviation Administration, Registered Airmen - Computer Listing. (Not published), Regional Office, Oklahoma City, Oklahoma: June 1979.
6. Bureau of the Census, 1980 Census of Population and Housing, PHC80-P-17, U.S. Department of Commerce, Government Printing Office, Washington, D.C.: 1981.
7. Iowa Department of Transportation, Office of Advance Planning. Field sheets (Not Published) for 1982 Iowa Airport Sufficiency Ratings: 1982.

*See Glossary for Aircraft Class description.

IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION INVENTORY
AMES, IOWA 50010
AIRCRAFT OPERATIONS

Airport Name _____ City _____

Survey Date _____ Surveyor _____

Time	License No.	Aircraft		Passengers		Operations			Trip Type		Trip Origin or Destination
		Type	Class	Capacity	# Aboard	T.O.	Land	T&G	Comm.	Non Comm	
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										
	N										

PLANNING AND RESEARCH DIVISION
OFFICE OF TRANSPORTATION INVENTORY

DATE _____

DAILY REPORT OF WEATHER CONDITIONS IN THE
VICINITY OF THE _____ AIRPORT

TIME	WEATHER **	WIND SPEED & DIRECTION	TEMP.	VISIBILITY (DISTANCE)
6 a.m.		MPH DIR	°F	MILES
2 p.m.		MPH DIR	°F	MILES
10 p.m.		MPH DIR	°F	MILES

** REPORT "WEATHER" AS CLEAR, PARTLY CLOUDY, CLOUDY, RAIN, SHOWERS, MIST, FOG, ETC...

STATE LIBRARY OF IOWA



3 1723 02050 5780