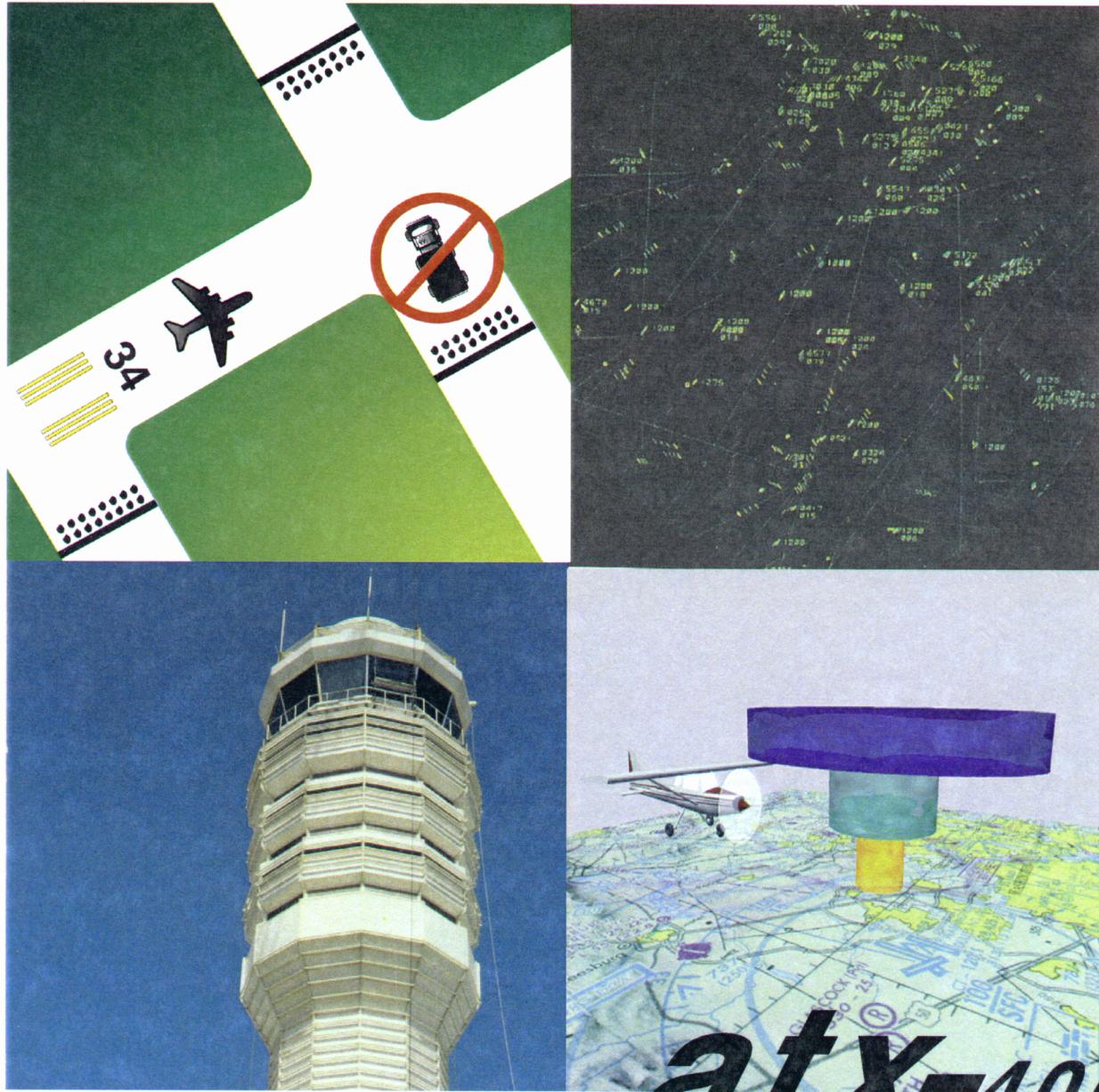




U.S. Department  
of Transportation

Federal Aviation  
Administration

# Aviation Safety Statistical Handbook



**atx-400**

**planning • information • analysis**

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Volume 8 No. 2

Air Traffic Resource Management Program  
Planning, Information and Analysis

## **AVIATION SAFETY STATISTICAL HANDBOOK**

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## **EXECUTIVE SUMMARY**

## **EXECUTIVE SUMMARY**

This report presents in tabular and graphical format monthly aviation safety statistical information for national airspace incidents and aircraft accidents. Data are presented for near midair collisions (NMACs), operational errors (OEs), operational deviations (ODs), pilot deviations (PDs), vehicle/pedestrian deviations (VPDs), surface incidents (SI's), runway incursions, flight assists, and aircraft accidents. Comparing January through February 1999 with January through February 2000, all airspace incidents have shown an increase, with the exception of NMACs, which have decreased. Accident counts for January through February 2000 showed a decrease, as well.

### **NEAR MIDAIR COLLISIONS**

For January through February 2000, the number of pilot-reported near midair collisions decreased 24 percent from 37 to 28, compared to January through February 1999 (see Graph on Page ES-3). Over this period, the number of NMACs reported by air carriers (Part 121 and Part 135) decreased from 14 to 9 and General Aviation (GA) increased from 10 to 13. NMACs where one aircraft was flying IFR and the other was flying VFR decreased from 18 in 1999 to 13 for the same period in 2000. Those where both aircraft were flying VFR decreased from 13 to 10; and those where both aircraft were flying IFR decreased from 6 to 5. Only two NMACs reported thus far during 2000 was judged to represent a critical hazard.

### **OPERATIONAL ERRORS/DEVIATIONS**

Operational errors increased 21 percent from 128 to 155 during January through February 2000 compared to the same period in 1999. En route operational errors for this period increased 39 percent from 75 to 104, while errors at terminals decreased 4 percent from 53 to 51. For the 12-month period ending February 2000, the top air route traffic control centers, based on operational errors per 100,000 operations, had error rates ranging from 2.94 for Washington Center to 1.43 for the Memphis Center. TRACON operational errors varied from 1.40 for New York to .71 for Falmouth TRACON.

Operational deviations for January through February 2000 increased 39 percent from 38 to 53 compared to January through February 1999.

### **PILOT DEVIATIONS**

Reports of pilot deviations for January through February 2000 increased 27 percent from 222 to 218, compared to January through February 1999. Over this period, air deviations increased from 147 to 156, while surface deviations increased from 65 to 103. The number of Class B airspace violations increased 86 percent from 14 to 26.

## **VEHICLE/PEDESTRIAN DEVIATIONS**

Total vehicle/pedestrian deviations during January through February 2000 increased to 81 from 39 for the same period in 1999. Merrill Field Airport recorded a total of 25 VPD's for the 12 months ending February 2000, which is up compared to the number recorded for the preceding 12 months. Jeffco Airport in Colorado also recorded a significant increase in VPD's over the last 12 months, from 1 to 24.

## **SURFACE INCIDENTS**

The number of SI's for January through February 2000 increased 58 percent from 119 to 188 compared to the same period in 1999. Surface OE's declined 38 percent, from 16 to 10 and PD SI's rose 58 percent, from 60 to 95. Operational deviation SI's declined 50 percent, from 4 to 2.

The number of runway incursions for January through February 2000 decreased 8 percent, from 50 to 46, compared to January through February 1999.

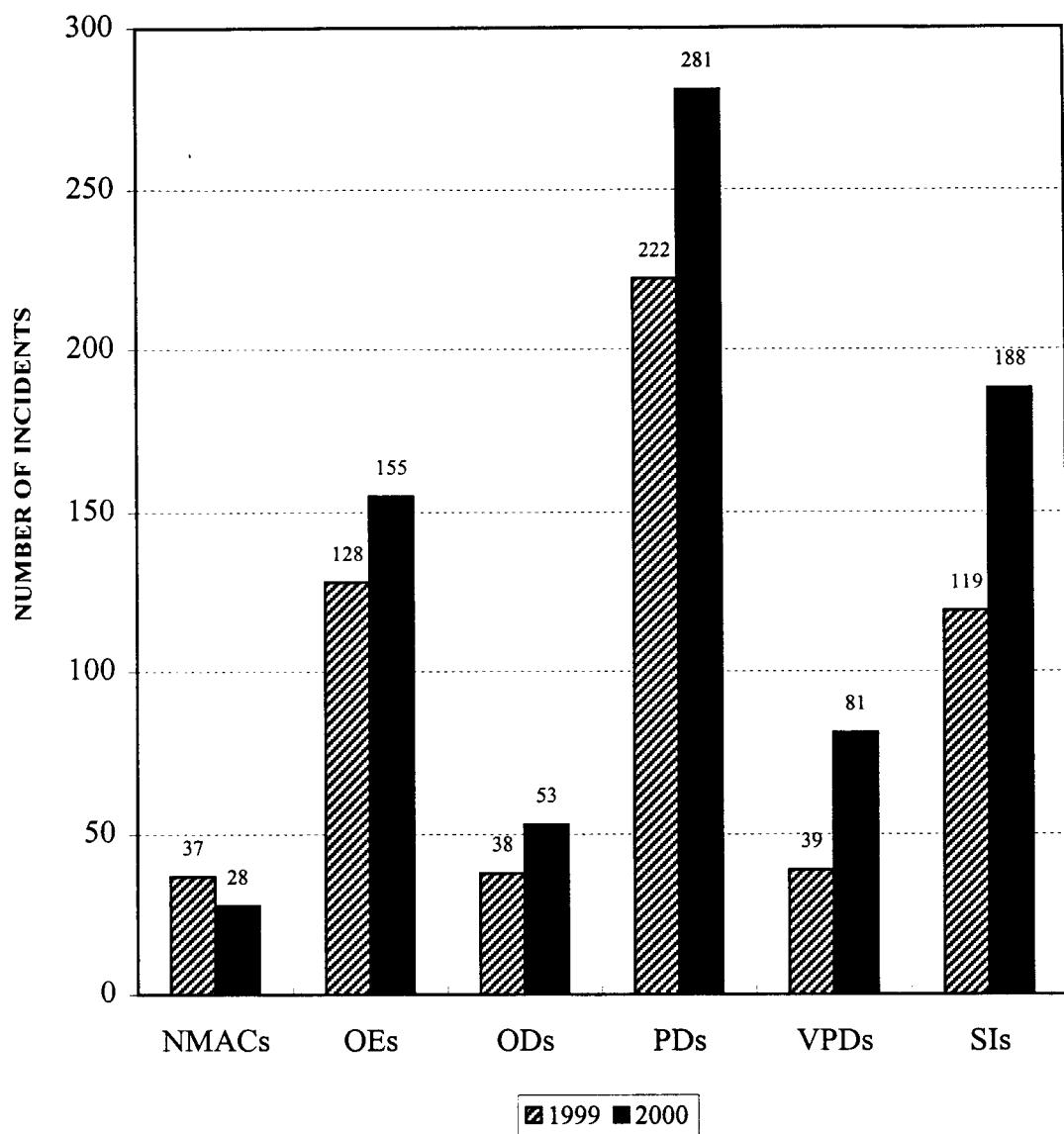
## **FLIGHT ASSISTS**

Flight assists for January through February 2000 increased 48 percent from 52 to 77, compared to January through February 1999. Over 90 percent of the flight assists handled in January through 2000 were for general aviation aircraft. A 12-month comparison of flight assists by facility showed that New York TRACON topped the list with 20 assists.

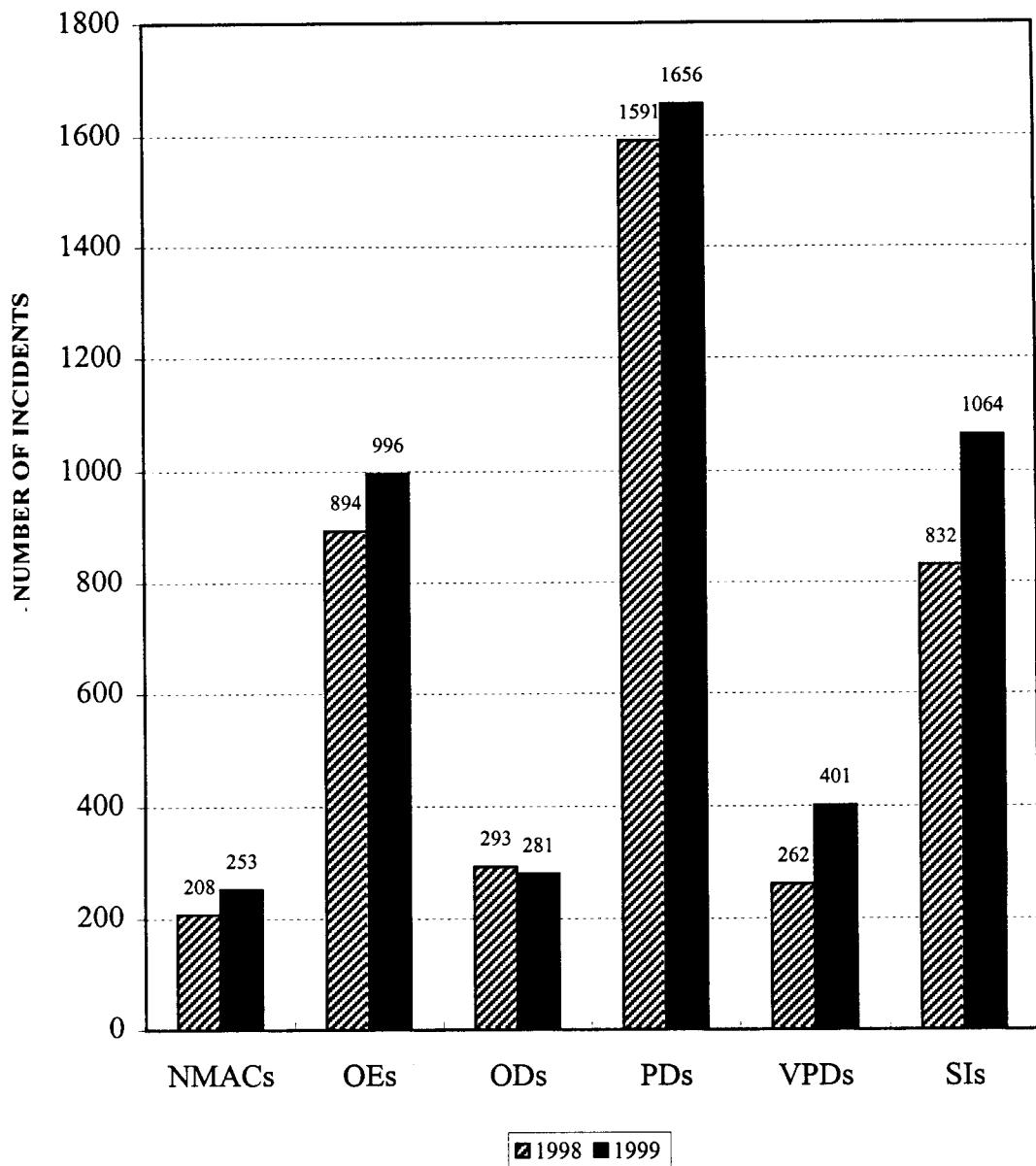
## **ACCIDENT DATA**

Total system accidents decreased 8 percent from 212 during January through February 1999 to 195 for the January through February 2000. About 92 percent of 2000 accidents occurred in the General Aviation segment (179), which dropped 6 percent from 190 in January through February 1999. There were 6 large air carrier accidents in January 2000 compared to 9 in January through February 1999. The number of accidents per 100,000 flight hours (accident rate) for the total system decreased almost 12 percent from 4.84 to 4.28. The number of fatal accidents increased 15 percent from 33 to 38. The corresponding fatal accident rate for the total system increased from 0.75 to 0.84. The total system fatalities increased from 60 to 156.

**NATIONAL AIRSPACE INCIDENTS  
JANUARY - FEBRUARY  
1999 versus 2000**



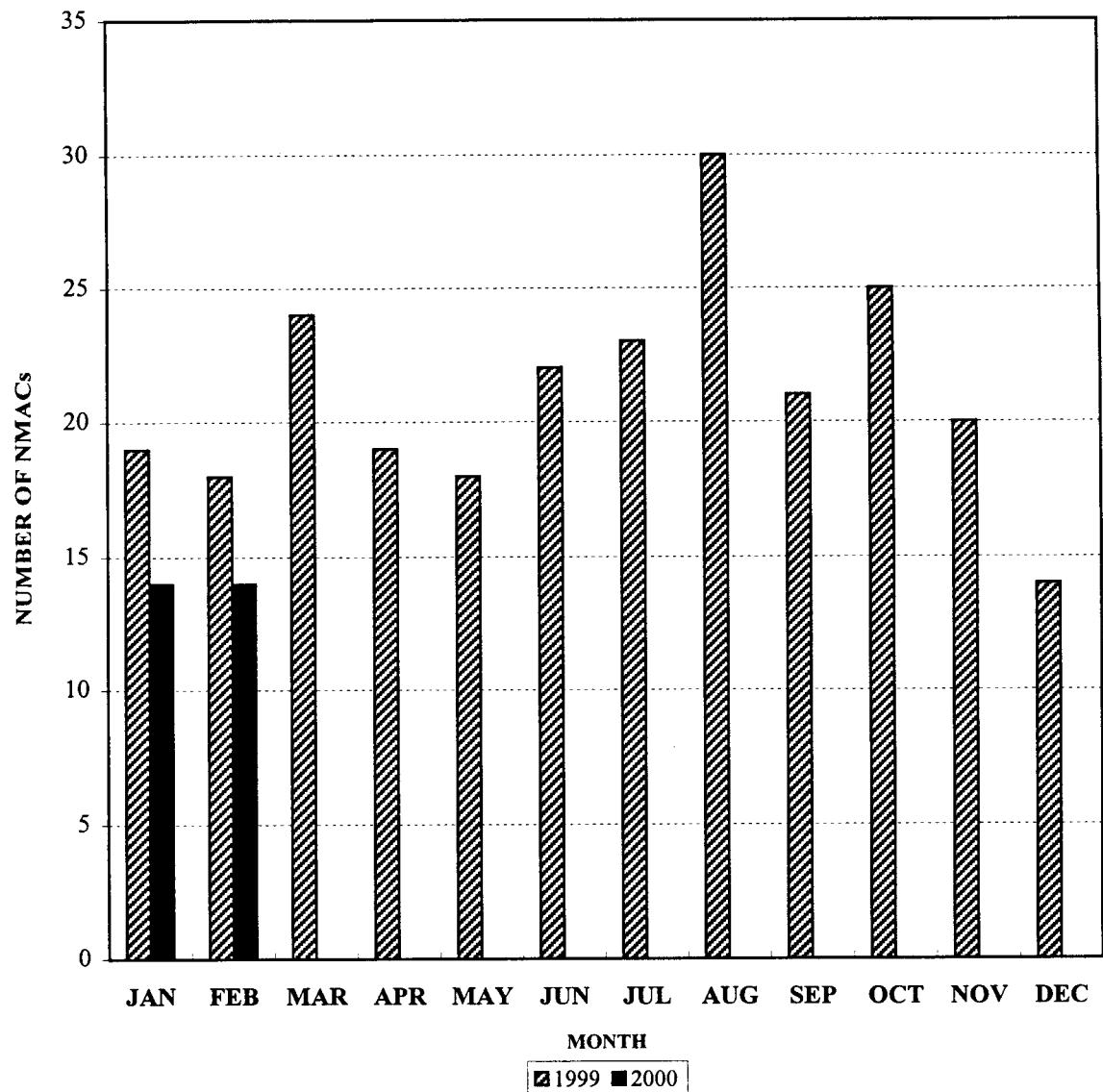
## NATIONAL AIRSPACE INCIDENTS CALENDAR YEARS 1998 and 1999



## **NEAR MIDAIR COLLISIONS\***

\*The reporting of a **Near Midair Collision** is voluntary and depends in part on the individual's perception of a situation. A report does not necessarily involve the violation of regulations or an error by air traffic controllers, nor does it necessarily represent an unsafe condition. Significant factors influencing the submission of a report may include the proximity of the aircraft involved, the element of surprise in the encounter, or the heightened alertness of the flight crew to the possibility of a Near Midair Collision because of the publicity surrounding a near, or actual, midair collision. Some Near Midair Collisions, including those which may involve unsafe conditions, may not be reported. Some reasons are the failure to see the other aircraft or to perceive accurately the distance from another aircraft due to restricted visibility or the relative angle of approach. Others are the fear of penalty, or lack of awareness of the NMAC reporting system. **Data are preliminary and subject to change.**

**PILOT-REPORTED NEAR MIDAIR COLLISIONS  
BY MONTH  
1999 - FEBRUARY 2000**

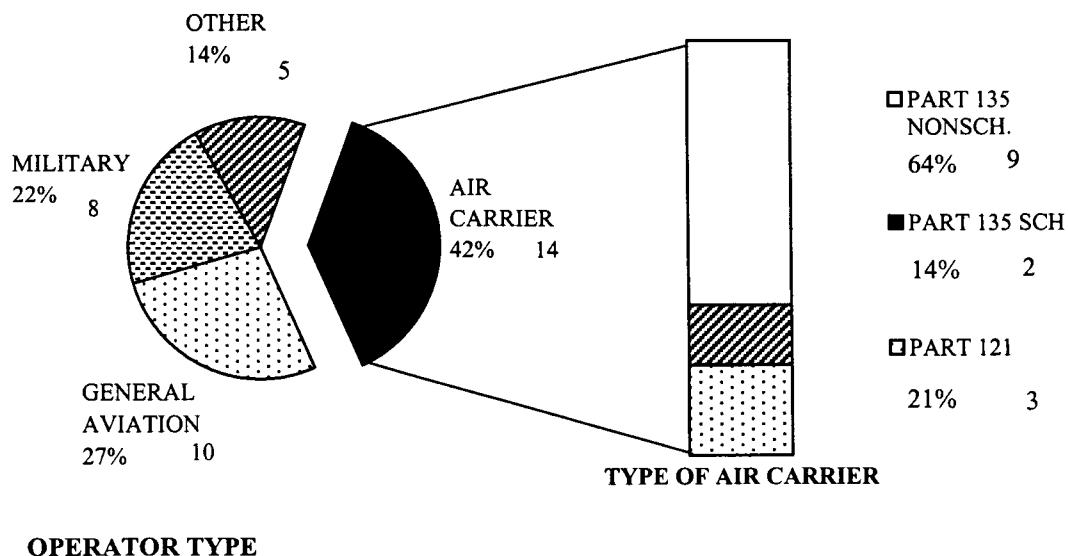


1999	19	18	24	19	18	22	23	30	21	25	20	14
2000	14	14										

# PILOT-REPORTED NEAR MIDAIR COLLISIONS BY REPORTING OPERATOR TYPE

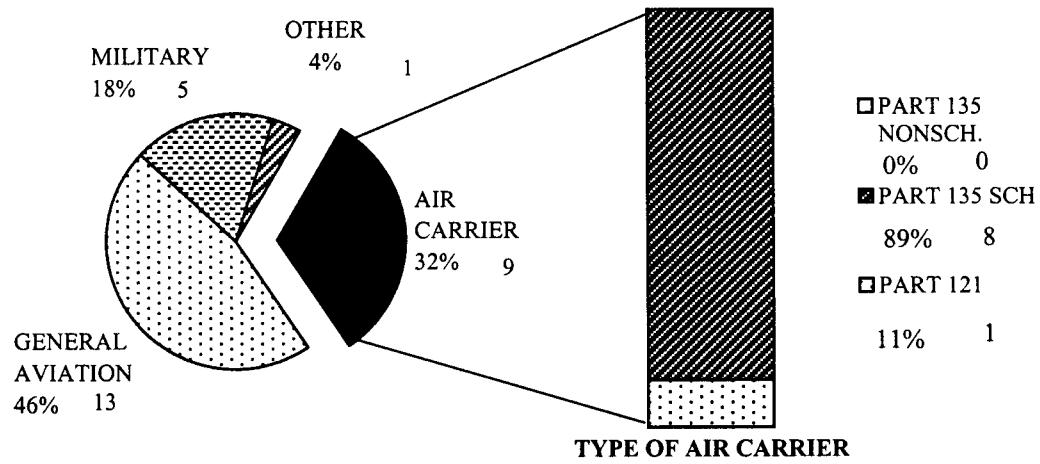
## 1999 versus 2000

JANUARY - FEBRUARY 1999



**OPERATOR TYPE**

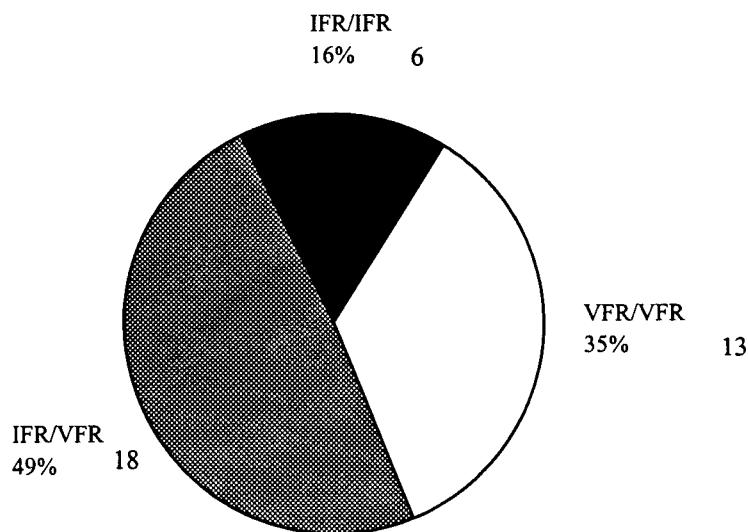
JANUARY - FEBRUARY 2000



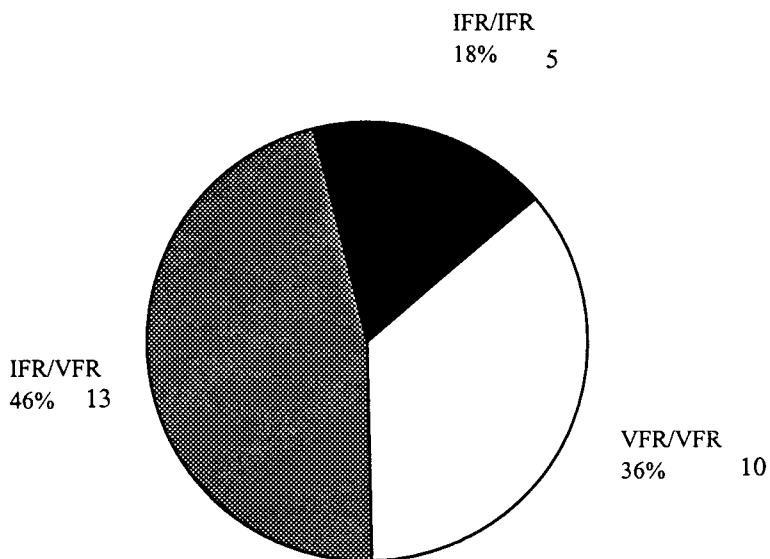
**OPERATOR TYPE**

## **PILOT-REPORTED NEAR MIDAIR COLLISIONS 1999 versus 2000**

### **JANUARY - FEBRUARY 1999**



### **JANUARY - FEBRUARY 2000**



**PILOT-REPORTED NEAR MIDAIR COLLISIONS  
BY DEGREE OF HAZARD AND MONTH  
1999 - FEBRUARY 2000**

1999

MONTH	DEGREE OF HAZARD				TOTAL
	CRITICAL	POTENTIAL	NO HAZARD	NOT REPORTED	
JAN	3	7	2	7	19
FEB	2	9	3	4	18
MAR	4	5	8	7	24
APR	0	12	4	3	19
MAY	2	3	8	5	18
JUN	2	8	6	6	22
JUL	1	11	8	3	23
AUG	1	12	7	10	30
SEP	2	7	0	12	21
OCT	2	9	6	8	25
NOV	2	10	1	7	20
DEC	3	4	2	5	14
TOTAL	24	97	55	77	253

2000

MONTH	DEGREE OF HAZARD				TOTAL
	CRITICAL	POTENTIAL	NO HAZARD	NOT REPORTED	
JAN	1	8	2	3	14
FEB	1	3	0	10	14
MAR					
APR					
MAY					
JUN					
JUL					
AUG					
SEP					
OCT					
NOV					
DEC					
TOTAL	2	11	2	13	28

**PILOT-REPORTED NEAR MIDAIR COLLISIONS  
BY REGION AND MONTH  
1999 - FEBRUARY 2000**

1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	1	2	1	0	1	3	6	5	19
FEB	1	1	2	1	1	1	3	3	5	18
MAR	0	2	3	3	0	4	0	1	11	24
APR	1	1	1	4	0	1	4	1	6	19
MAY	0	0	2	3	1	1	1	4	6	18
JUN	1	1	3	2	0	2	4	2	7	22
JUL	2	2	2	3	1	5	1	1	6	23
AUG	2	1	5	5	1	4	4	5	3	30
SEP	0	2	3	2	2	2	3	4	3	21
OCT	0	1	6	1	0	1	3	3	10	25
NOV	0	1	4	1	0	0	4	3	7	20
DEC	2	1	1	2	0	0	4	2	2	14
TOTAL	9	14	34	28	6	22	34	35	71	253

2000

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	1	2	1	0	2	2	2	4	14
FEB	0	1	0	1	0	2	4	2	4	14
MAR										
APR										
MAY										
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	0	2	2	2	0	4	6	4	8	28

**PILOT-REPORTED NEAR MIDAIR COLLISIONS BY STATE AND TERRITORY**  
**1999 versus 2000**

STATE	JAN-FEB		STATE	JAN-FEB	
	1999	2000		1999	2000
Alabama	1	0	Montana	0	0
Alaska	1	0	Nebraska	0	0
Arizona	2	4	Nevada	0	0
Arkansas	0	0	New Hampshire	0	0
Atlantic Ocean	1	0	New Jersey	0	0
Bahamas*	0	0	New Mexico	1	0
California	7	3	New York	0	0
Colorado	0	1	North Carolina	0	1
Connecticut	1	0	North Dakota	2	0
Delaware	0	0	Ohio	0	0
District of Columbia	0	0	Oklahoma	2	1
Florida	2	5	Oregon	1	1
Georgia	2	0	Pennsylvania	1	2
Guam*	0	0	Puerto Rico*	0	0
Hawaii	1	1	Rhode Island	0	0
Idaho	0	0	South Carolina	0	0
Illinois	1	0	South Dakota	0	0
Indiana	0	1	Tennessee	0	0
Iowa	1	0	Texas	4	3
Kansas	2	0	Utah	0	1
Kentucky	1	0	Vermont	0	0
Louisiana	0	1	Virgin Islands*	0	0
Maine	0	0	Virginia	1	0
Maryland	1	0	Wake Island*	0	0
Massachusetts	0	0	Washington	1	1
Michigan	0	0	West Virginia	0	0
Minnesota	0	0	Wisconsin	0	1
Mississippi	0	0	Wyoming	0	0
Missouri	0	1			

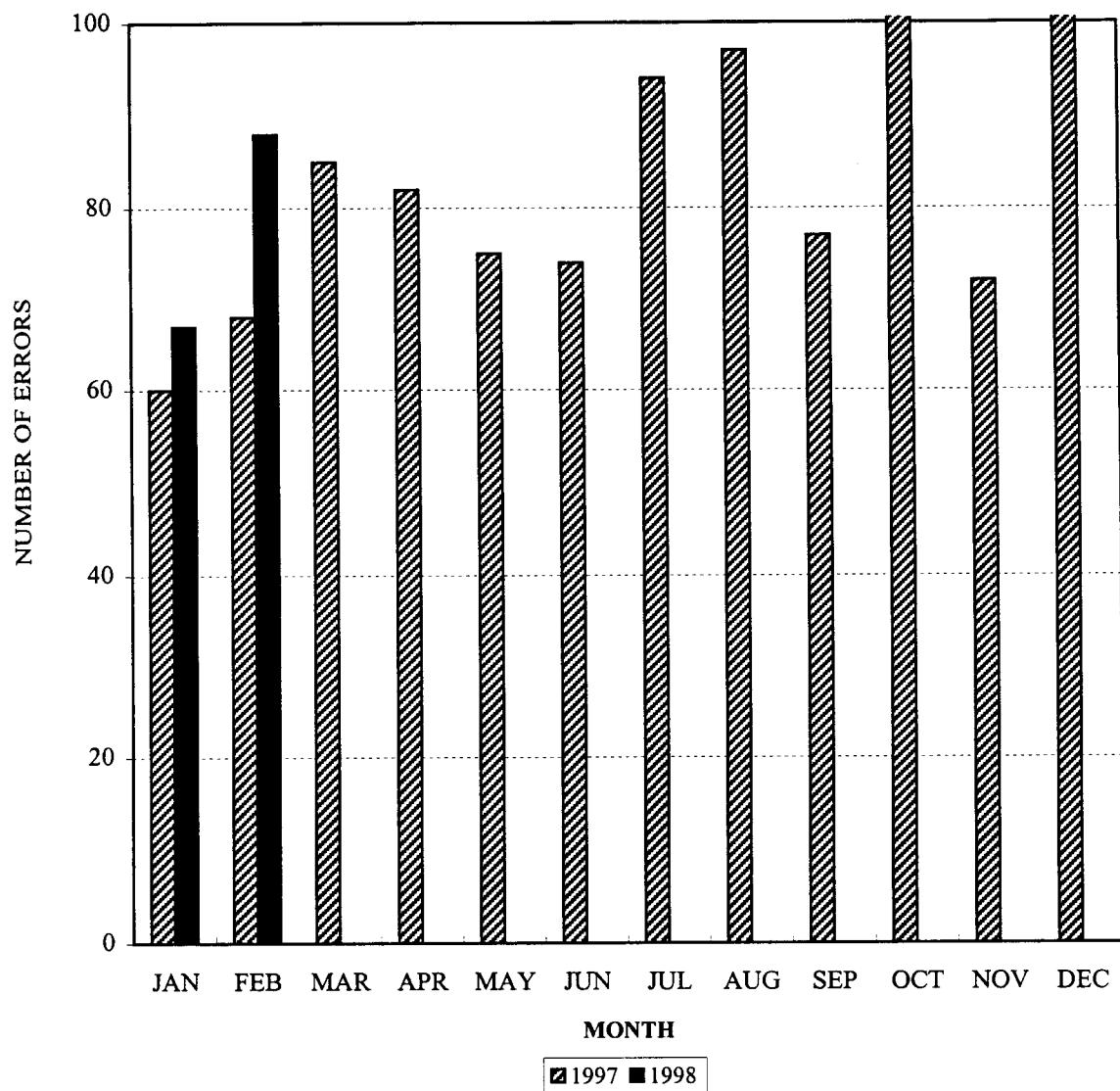
\*U.S. Controlled Airspace

TOTAL                  37                  28

## **OPERATIONAL ERRORS/DEVIATIONS\***

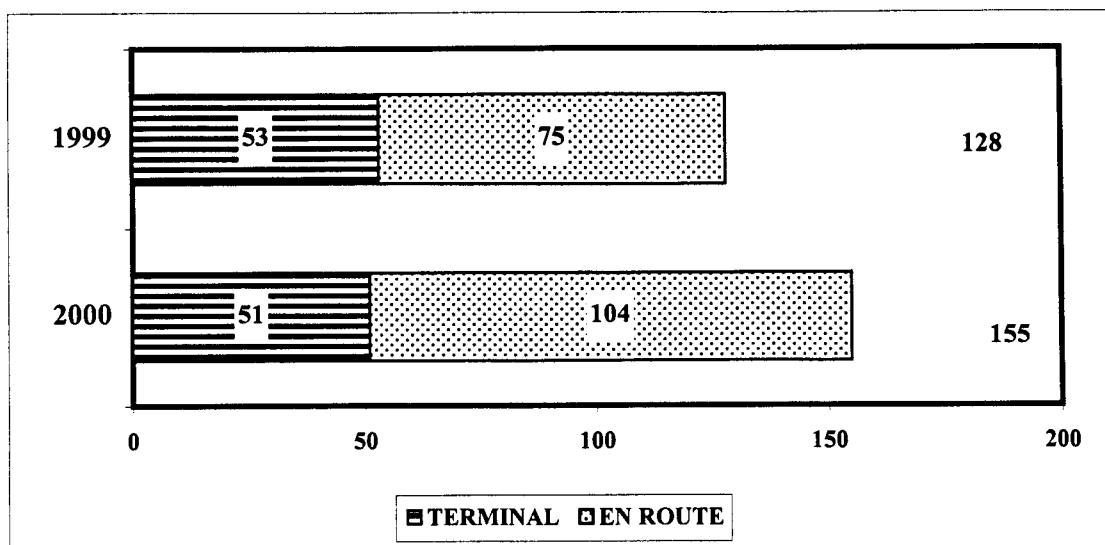
\*The use of absolute numbers of **Operational Errors/Deviations** as an indication of the performance of the air traffic control system can be misleading because of the apparent relationship between Operational Errors/Deviations and traffic activity. An increase or decrease in the error/deviation count may merely reflect a corresponding rise or fall in the number of aircraft using the national airspace over a given period.  
**Data are preliminary and subject to change.**

**OPERATIONAL ERRORS  
BY MONTH  
1999 - February 2000**



1999	60	68	85	82	75	74	94	97	77	104	72	108
2000	67	88										

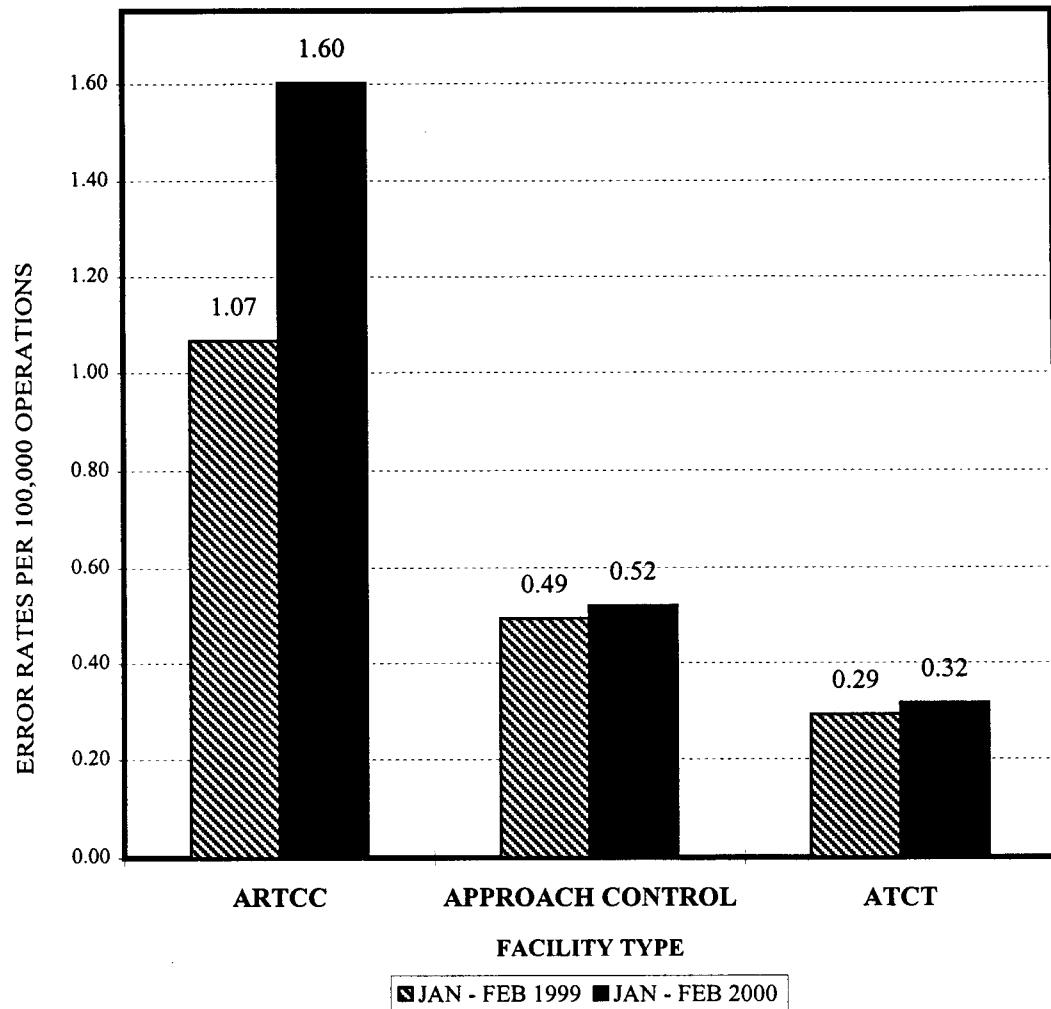
## OPERATIONAL ERRORS JANUARY-FEBRUARY 1999 versus 2000



MONTH	TYPE OF OPERATIONAL ERRORS JAN-FEB 1999				TYPE OF OPERATIONAL ERRORS JAN-FEB 2000			
	TERMINAL	EN ROUTE	FSS	TOTAL	TERMINAL	EN ROUTE	FSS	TOTAL
JAN	29	31	0	60	21	46	0	67
FEB	24	44	0	68	30	58	0	88
MAR								
APR								
MAY								
JUN								
JUL								
AUG								
SEP								
OCT								
NOV								
DEC								
<b>TOTAL</b>	<b>53</b>	<b>75</b>	<b>0</b>	<b>128</b>	<b>51</b>	<b>104</b>	<b>0</b>	<b>155</b>

Note: In graphic overview FSSs are included in Terminals.

## **OPERATIONAL ERROR RATES BY FACILITY TYPE 1999 versus 2000**

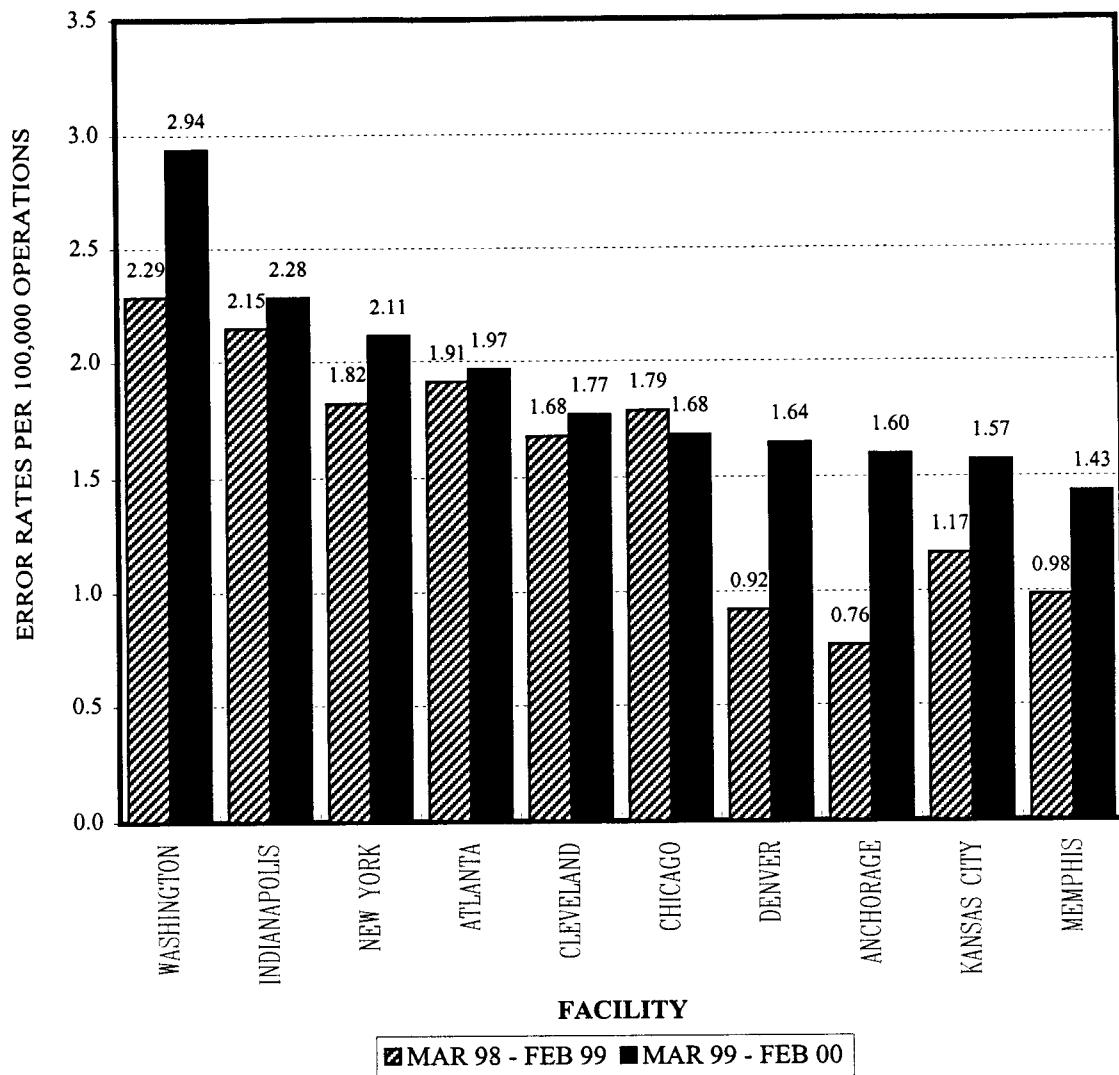


Actual Error Data thru 02/29/2000

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

# OPERATIONAL ERROR RATES TOP ARTCCs (2000 RANKING) 12 MONTH COMPARISON

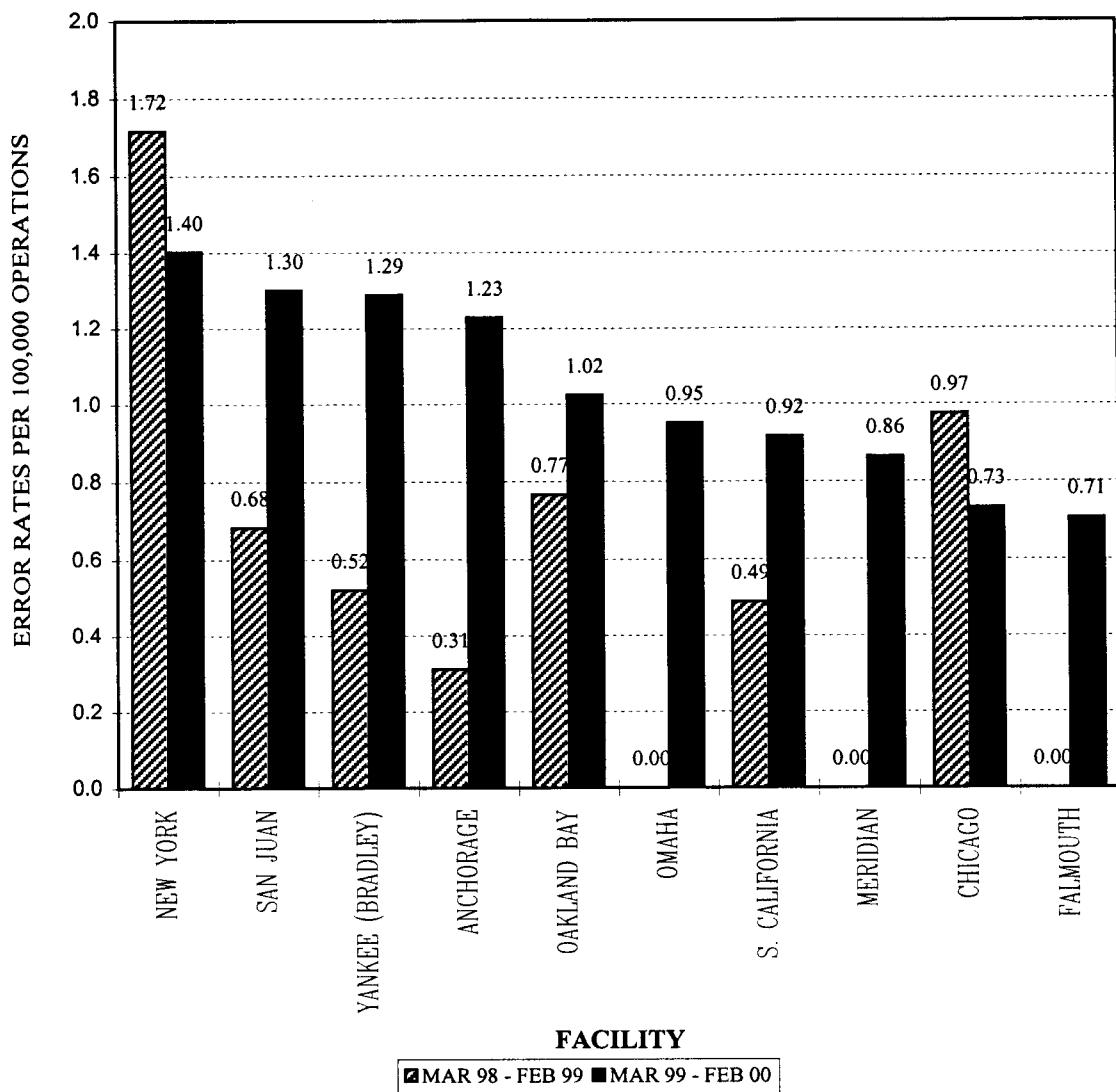


Actual Error Data thru 02/29/2000

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

**OPERATIONAL ERROR RATES  
TOP TRACONs (2000 RANKING)  
12 MONTH COMPARISION**



Actual Error Data thru 02/29/2000

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

CERAPS are included in TRACONS

**OPERATIONAL ERRORS  
BY REGION BY MONTH  
1999 - FEBRUARY 2000**

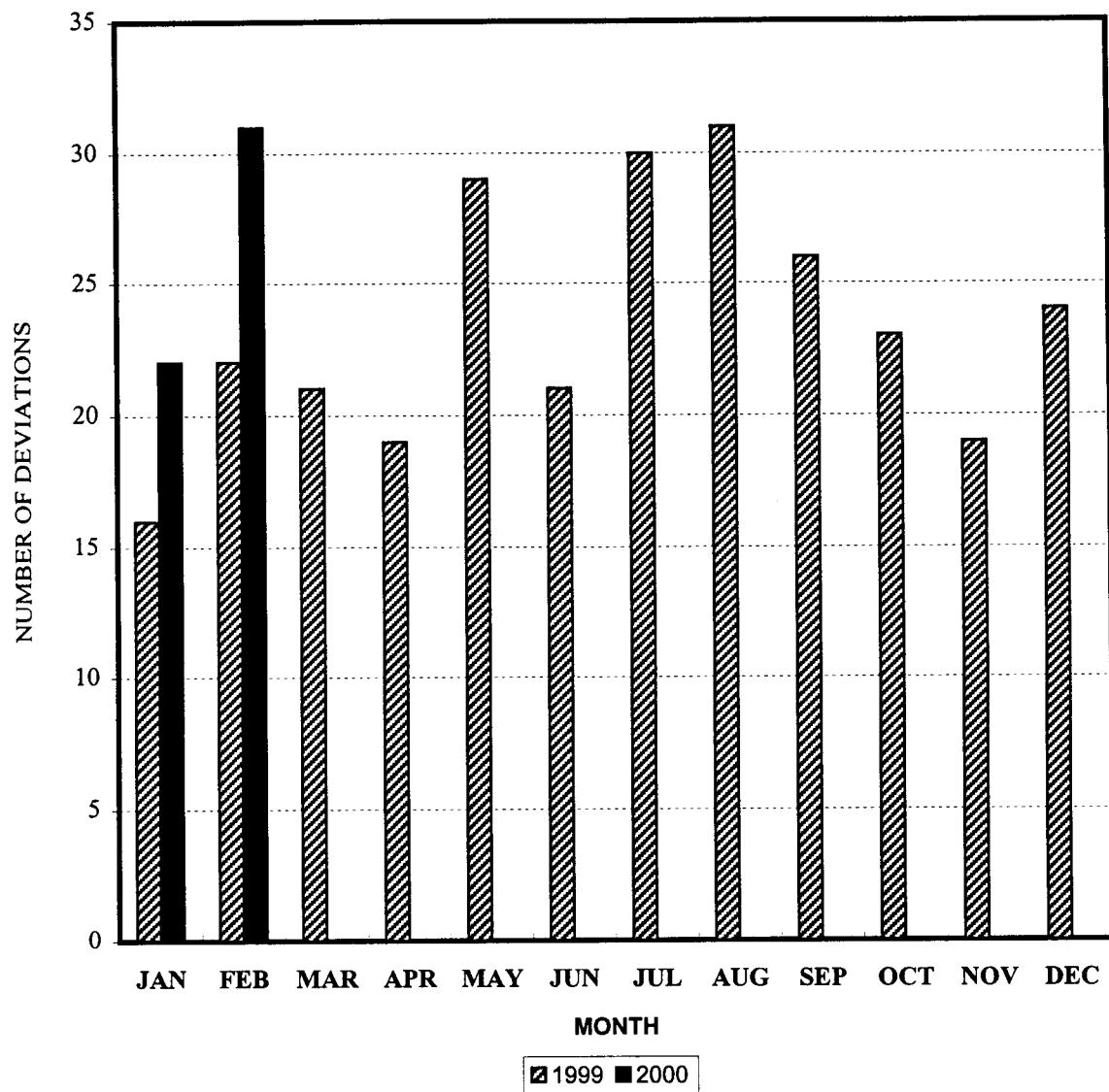
1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	3	15	13	1	3	14	5	6	60
FEB	1	1	15	21	0	3	19	4	4	68
MAR	3	2	16	15	4	5	19	9	12	85
APR	0	5	15	21	0	6	22	8	5	82
MAY	0	6	17	18	2	4	11	11	6	75
JUN	0	6	17	14	3	4	11	9	10	74
JUL	5	3	21	16	5	7	21	10	6	94
AUG	5	5	31	24	3	5	12	5	7	97
SEP	0	4	22	23	2	2	8	9	7	77
OCT	1	3	21	29	6	4	19	10	11	104
NOV	0	2	14	20	2	4	14	6	10	72
DEC	2	3	19	22	3	8	27	8	16	108
TOTAL	17	43	223	236	31	55	197	94	100	996

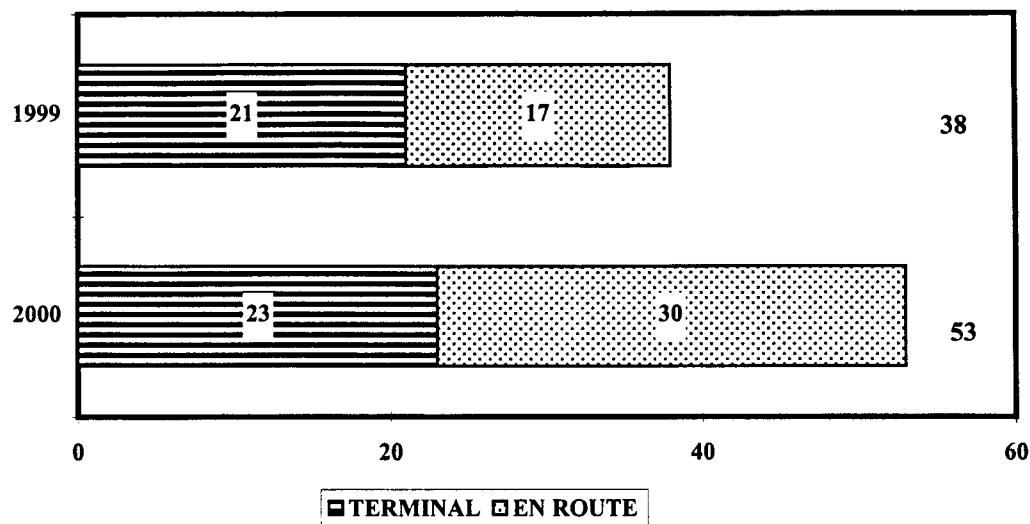
2000

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	4	13	18	0	4	10	9	9	67
FEB	0	6	23	19	2	4	15	12	7	88
MAR										
APR										
MAY										
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	0	10	36	37	2	8	25	21	16	155

**OPERATIONAL DEVIATIONS  
BY MONTH  
1999 - FEBRUARY 2000**



**OPERATIONAL DEVIATIONS**  
**JANUARY-FEBRUARY**  
**1999 versus 2000**



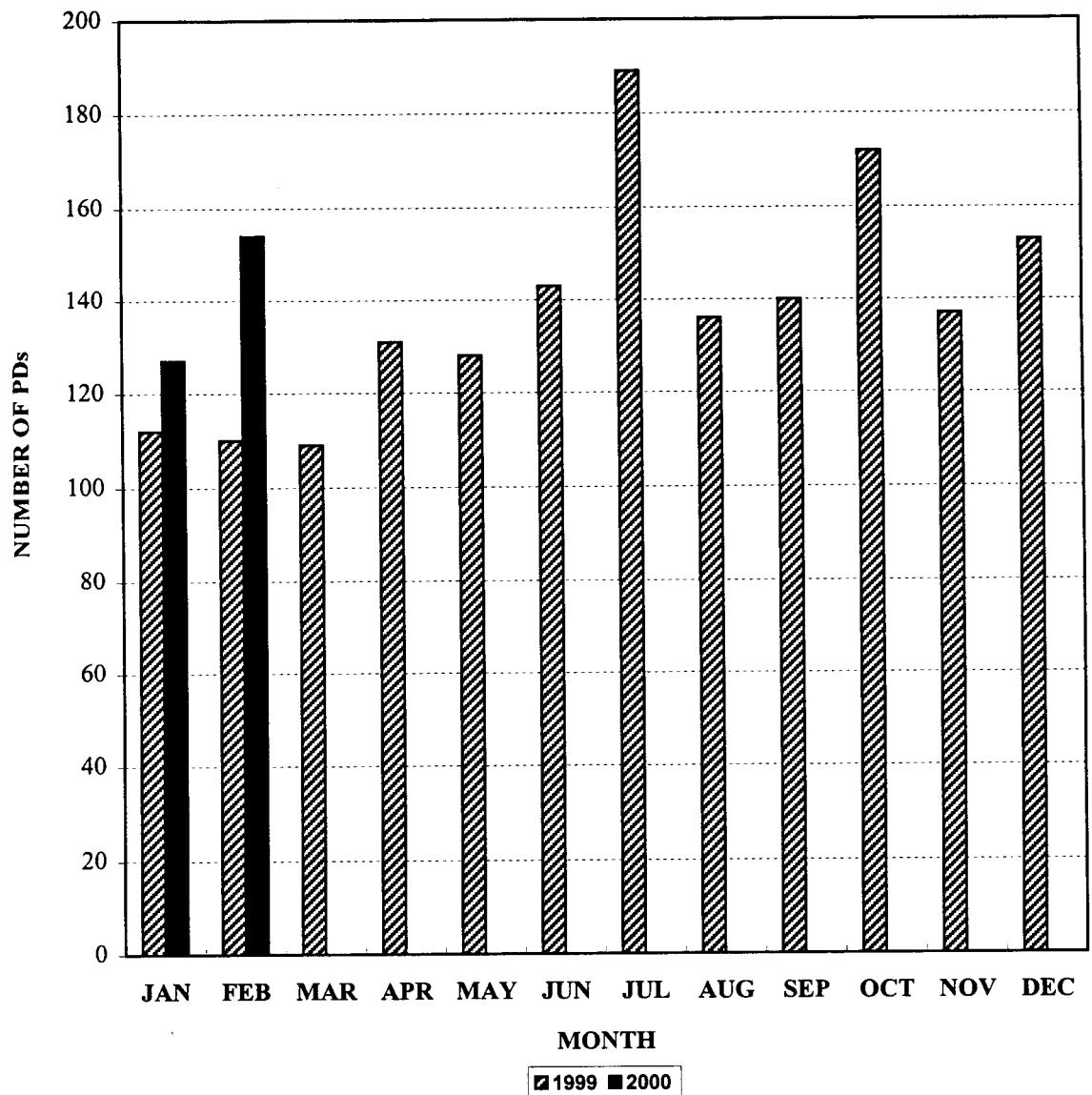
MONTH	TYPE OF OPERATIONAL DEVIATIONS JAN-FEB 1999				TYPE OF OPERATIONAL DEVIATIONS JAN-FEB 2000			
	TERMINAL	EN ROUTE	FSS	TOTAL	TERMINAL	EN ROUTE	FSS	TOTAL
JAN	8	7	1	16	13	9	0	22
FEB	12	10	0	22	10	21	0	31
MAR								
APR								
MAY								
JUN								
JUL								
AUG								
SEP								
OCT								
NOV								
DEC								
<b>TOTAL</b>	<b>20</b>	<b>17</b>	<b>1</b>	<b>38</b>	<b>23</b>	<b>30</b>	<b>0</b>	<b>53</b>

Note: In graphic overview FSSs are included in Terminals.

## **PILOT DEVIATIONS\***

\*While the **Pilot Deviation** data are considered useful in identifying possible trends associated with Pilot Deviation occurrences, there are certain limitations which should be considered when using the data presented in this report. The information in the database reflects a mix of preliminary and final reports. Thus, the data presented are subject to minor changes as all reports become final. Pilot Deviations monthly totals require at least 90 days to stabilize completely due to reporting procedures, volume, and workload; therefore, care should be exercised in making statistical comparisons for the most recent 90-day period. **Data are preliminary and subject to change.**

**PILOT DEVIATIONS  
BY MONTH  
1999 - FEBRUARY 2000**

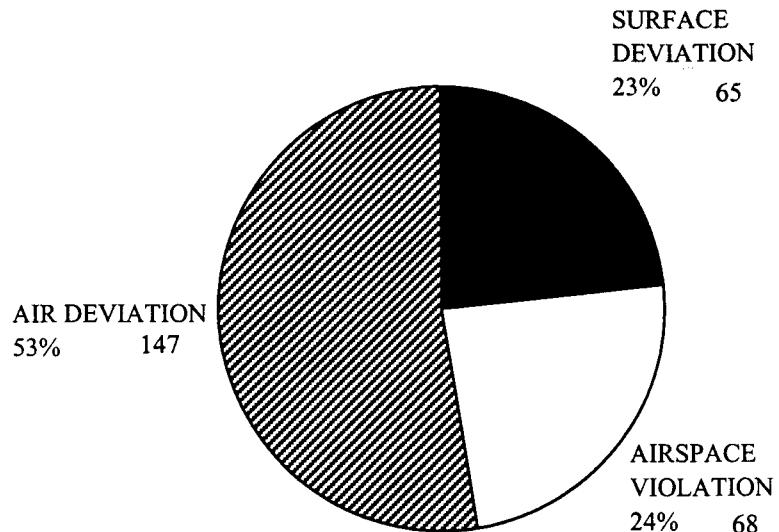


1999	112	110	109	131	128	143	189	136	140	172	133	153
2000	127	154										

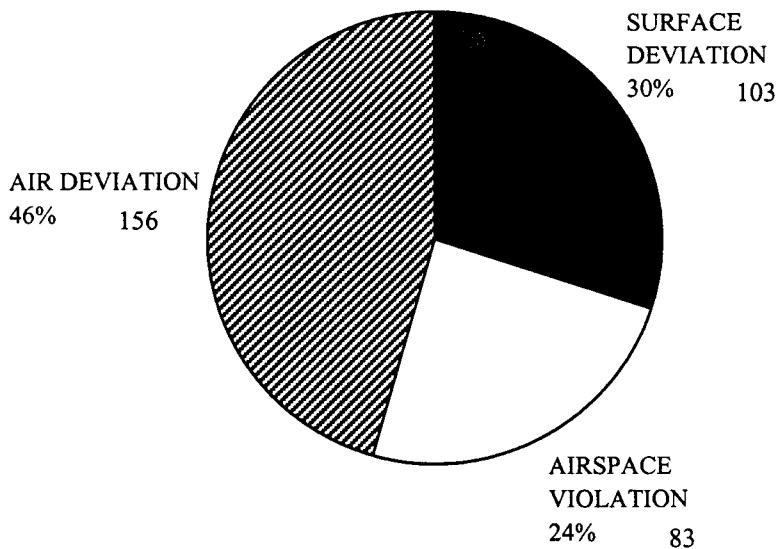
# PILOT DEVIATIONS BY DEVIATION TYPE

## 1999 versus 2000

### JANUARY - FEBRUARY 1999

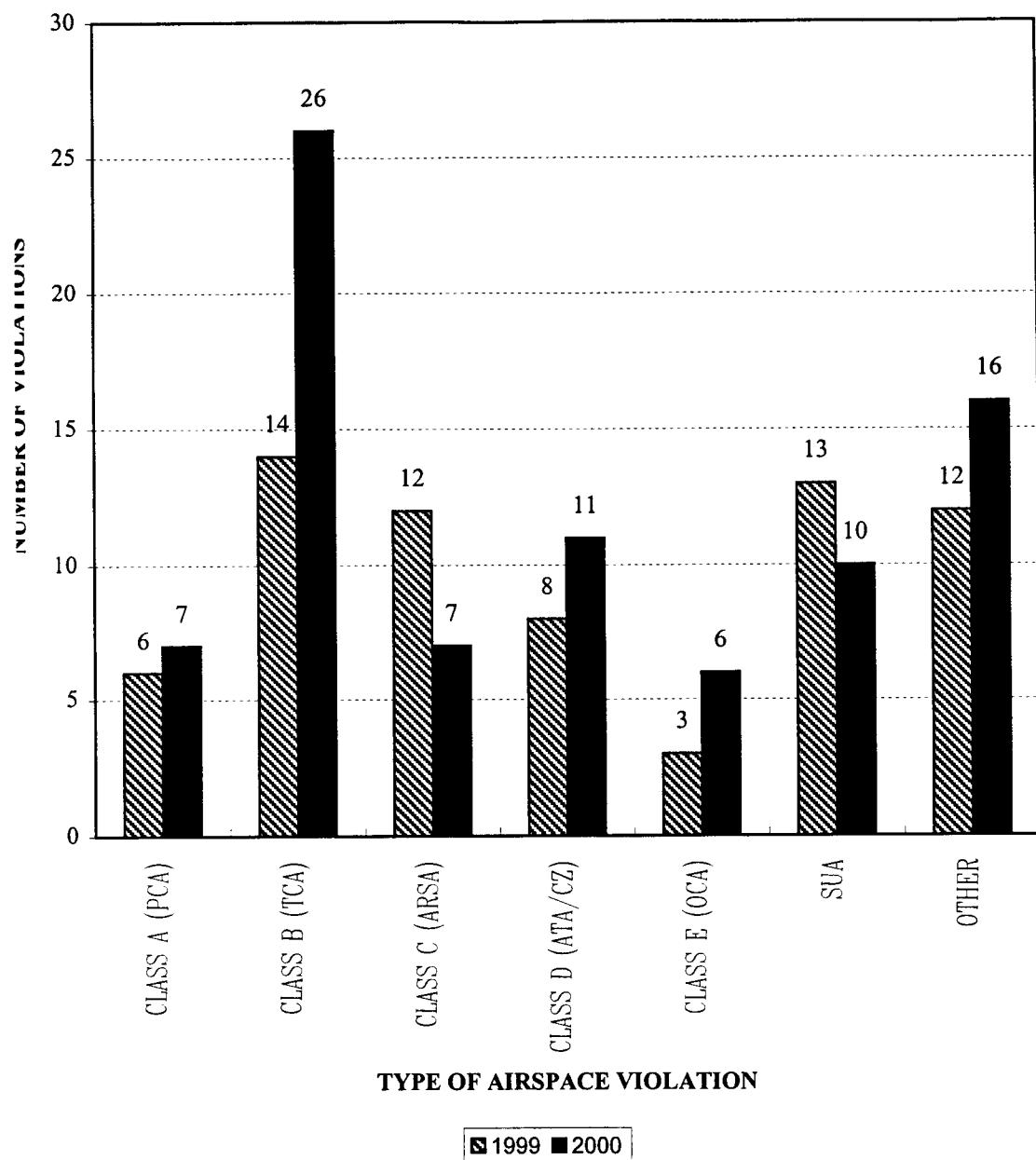


### JANUARY - FEBRUARY 2000



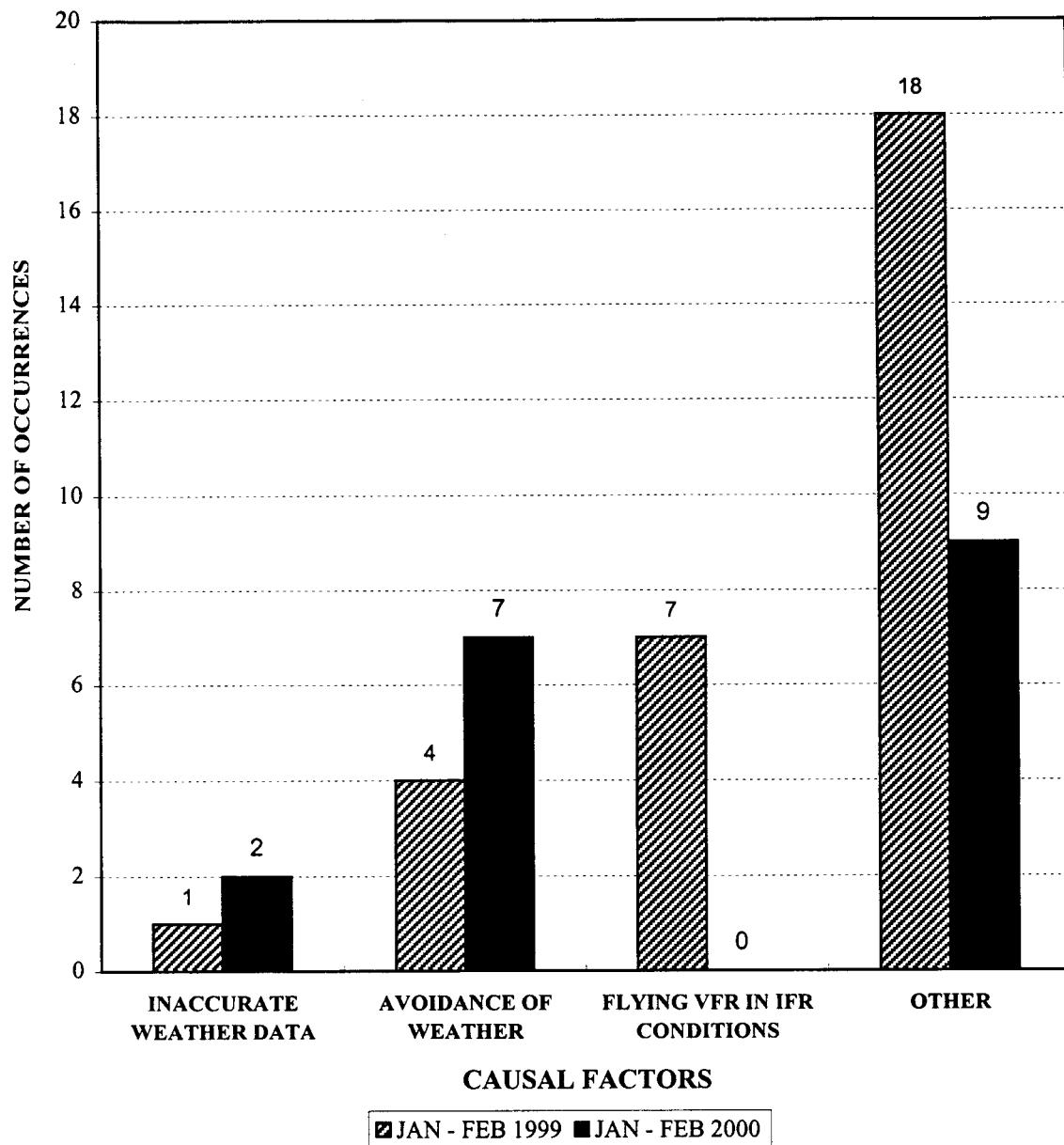
NOTE: The total number of deviations exceeds the number of reports. One report may involve multiple deviations, including both air and surface deviations on the same report.

**PILOT DEVIATIONS  
BY TYPE OF AIRSPACE VIOLATION  
JANUARY - FEBRUARY  
1999 versus 2000**

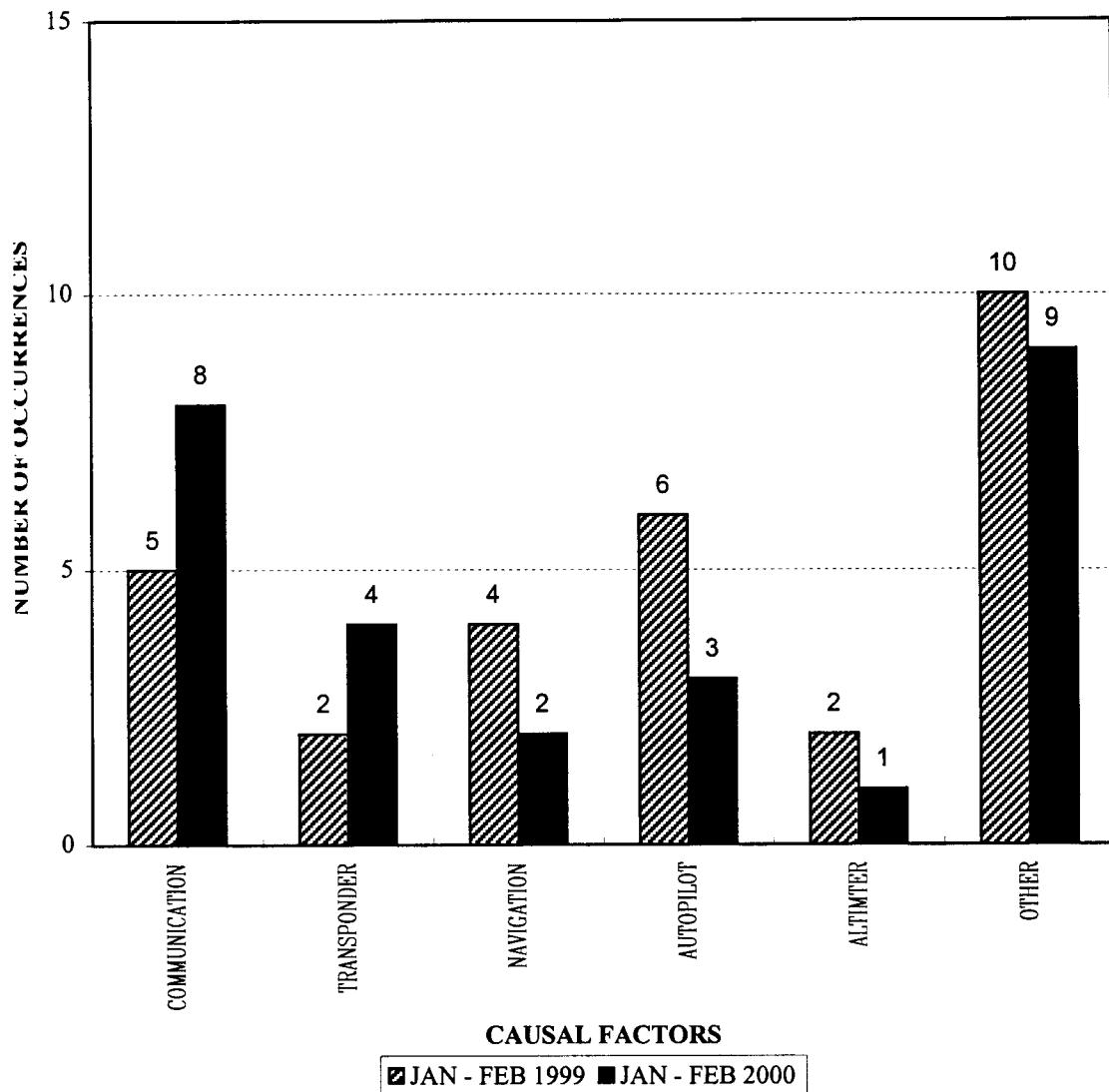


OTHER also includes Unknown.

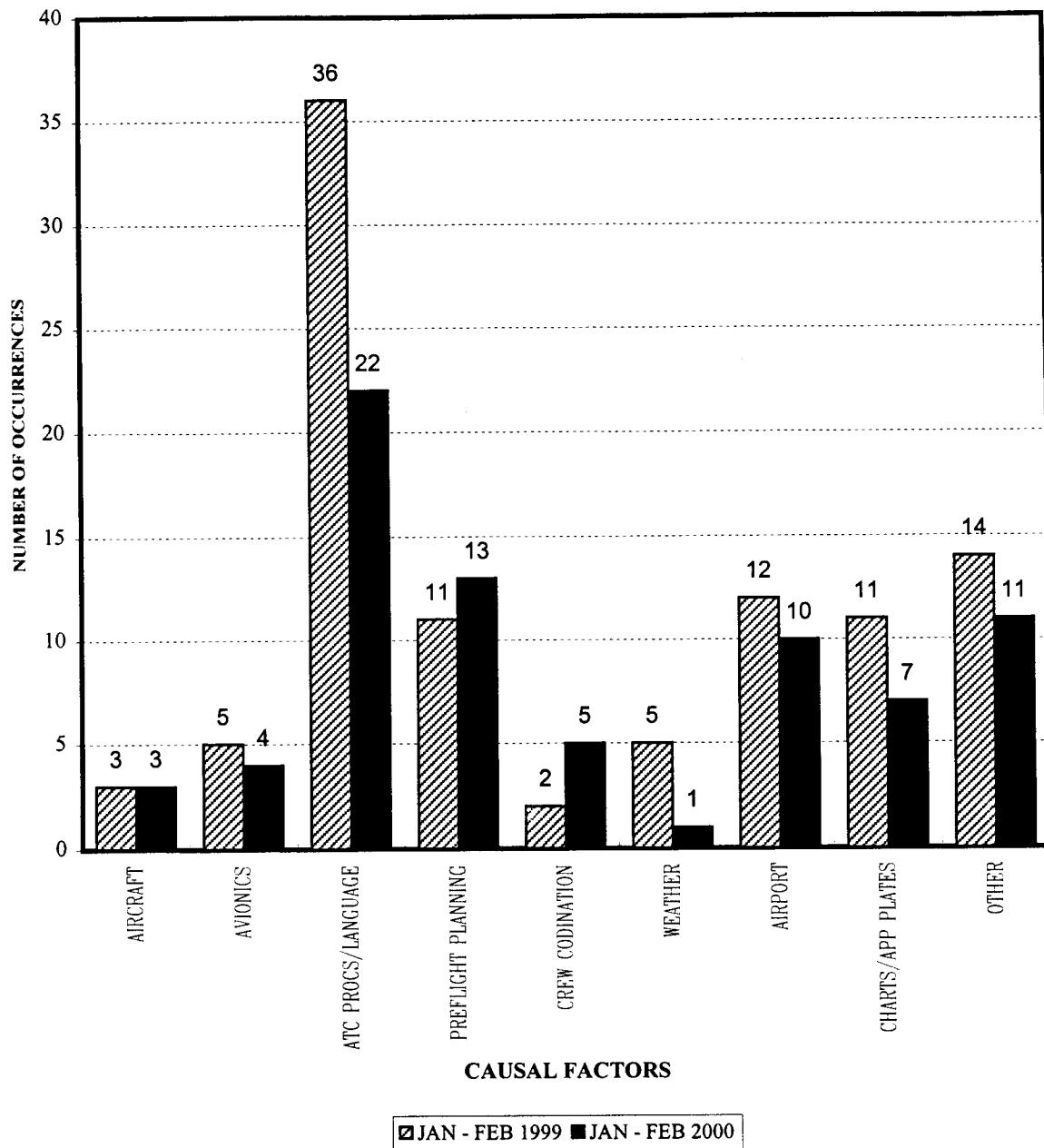
**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**WEATHER**  
**1999 versus 2000**



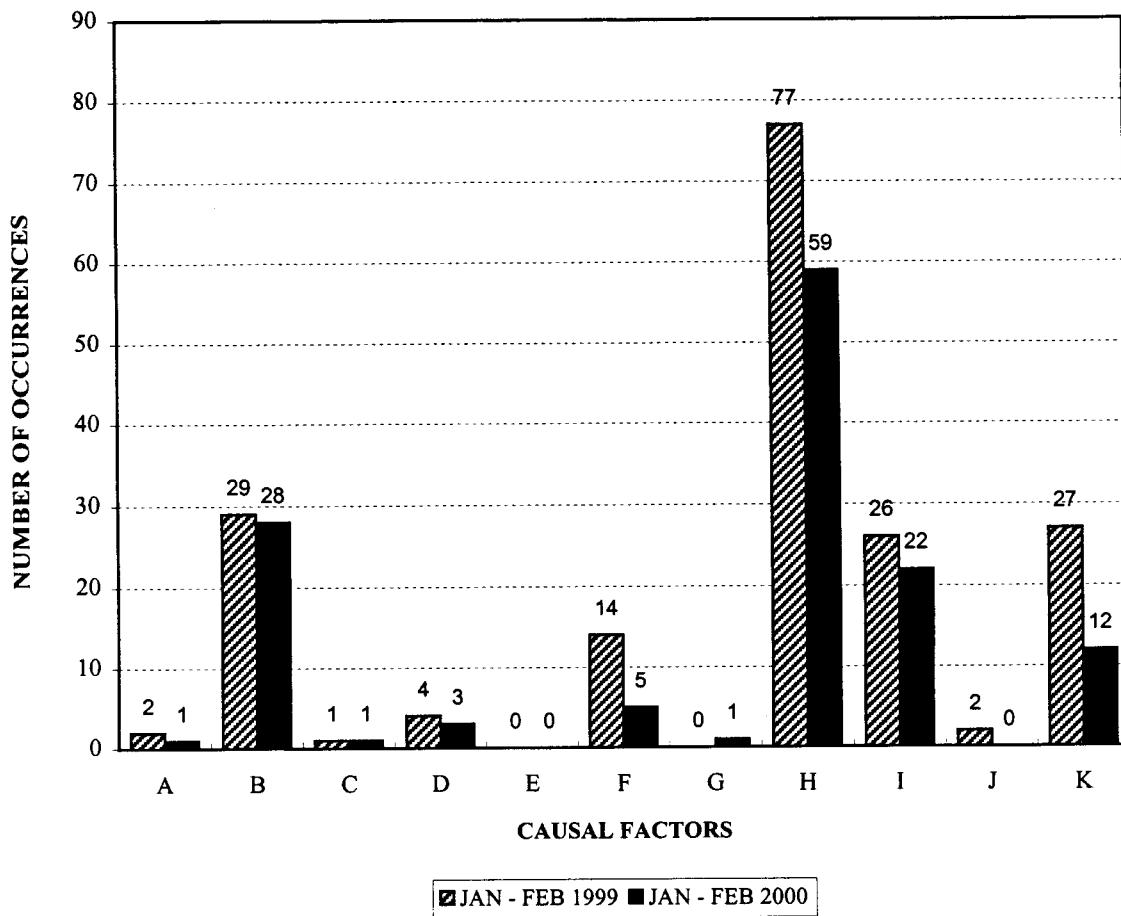
**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**AIRCRAFT EQUIPMENT MALFUNCTION**  
**1999 versus 2000**



**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**PILOT'S KNOWLEDGE/EXPERIENCE**  
**1999 versus 2000**



**PILOT DEVIATIONS CAUSAL FACTORS**  
**OPERATIONAL**  
**1999 versus 2000**



- A. Overworked
- B. Distracted
- C. Fatigued
- D. Not Actively Scanning
- E. Unable to Locate Traffic, Even With Traffic Advisory
- F. Disoriented or Lost
- G. Sick
- H. Not Following ATC Instructions
- I. Operating in Class A, B, C, or D Without Required Communication or Authorization
- J. Operating With Transponder Off
- K. Other

**PILOT DEVIATIONS  
BY REGION BY MONTH  
1999 - FEBRUARY 2000**

1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	1	3	16	19	1	14	25	12	21	112
FEB	1	11	10	12	1	5	30	18	22	110
MAR	3	3	15	23	2	5	22	10	26	109
APR	5	3	16	18	3	9	44	10	23	131
MAY	2	7	18	20	3	8	24	12	34	128
JUN	2	3	30	25	5	10	24	14	30	143
JUL	1	4	26	34	14	16	43	15	36	189
AUG	4	6	21	26	4	9	26	9	31	136
SEP	2	7	16	20	2	9	35	8	41	140
OCT	1	10	35	21	2	20	24	21	38	172
NOV	2	9	19	24	4	10	29	11	25	133
DEC	1	8	24	12	5	11	35	16	41	153
TOTAL	25	74	246	254	46	126	361	156	368	1656

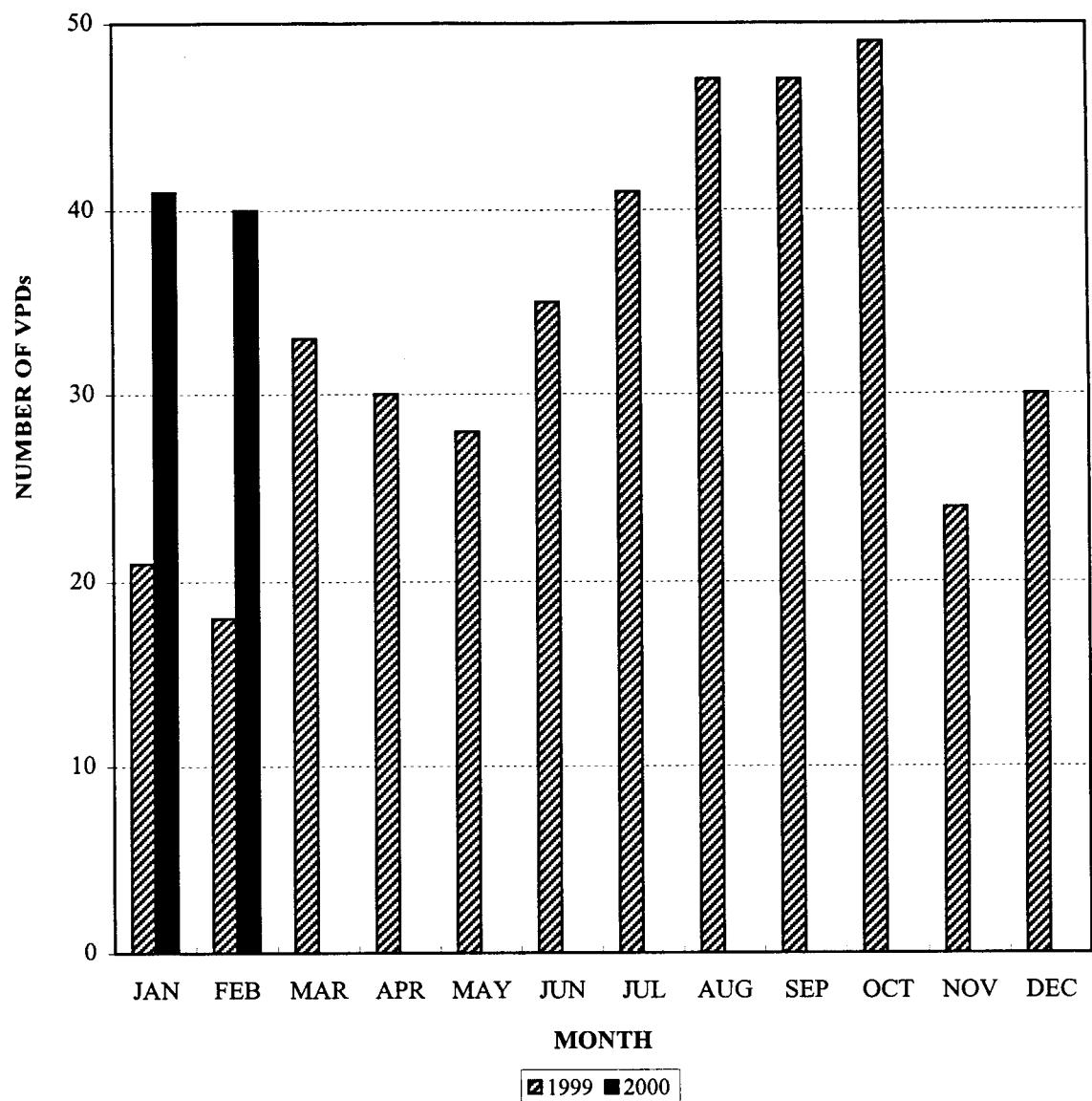
2000

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	2	5	16	20	4	4	22	19	35	127
FEB	5	4	24	18	2	5	39	20	37	154
MAR										
APR										
MAY										
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	7	9	40	38	6	9	61	39	72	281

## **VEHICLE/PEDESTRIAN DEVIATIONS\***

**\*Vehicle/Pedestrian Deviations** May require at least 90 days to stabilize; therefore, care should be exercised in making statistical comparisons for the most recent 90-day period. **Data are preliminary and subject to change.**

**VEHICLE/PEDESTRIAN DEVIATIONS  
BY MONTH  
1999 - FEBRUARY 2000**



**AIRPORTS WITH MOST VEHICLE/PEDESTRIAN DEVIATIONS  
12 MONTH COMPARISON (2000 RANKING)**

<b>AIRPORT</b>	<b>ID</b>	<b>MAR 98- FEB 99</b>	<b>MAR 99- FEB 00</b>
Merrill Field Arpt, AK	MRI	14	25
Jeffco Arpt, CO	BJC	1	24
Ft. Lauderdale Executive Arpt, FL	FXE	12	15
Montgomery Field Arpt, CA	MYF	5	13
Andrews AFB, MD	ADW	3	12
Ann Arbor Muni Arpt, MI	ARB	0	10
David Wayne Hooks Memorial Arpt, TX	DWH	0	10
San Francisco Intl, CA	SFO	1	9
Santa Monica Muni Arpt, CA	SMO	1	9
Richard Lloyd Jones Jr. Arpt, OK	RVS	4	8
Luis Munoz Marin Intl, PR	SJU	7	8
Anoka County-Blaine Arpt (Janes Field), MN	ANE	2	7
Birmingham Arpt, AL	BHM	2	6
Minneapolis-St. Paul Intl/World Chamberlain Arpt, MN	MSP	0	6
Willow Run Arpt, MI	YIP	6	6
Hector Intl, ND	FAR	3	5
Lake Hood SPB, AK	LHD	0	5
Reno/Tahoe Intl, NV	RNO	1	5
Albert Whitted Arpt, FL	SPG	0	5

**VEHICLE/PEDSTRIAN DEVIATIONS**  
**BY REGION AND MONTH**  
**1999 - FEBRUARY 2000**

1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	2	3	5	0	0	8	1	2	21
FEB	0	1	2	4	0	0	5	2	4	18
MAR	2	0	2	12	1	7	7	0	2	33
APR	4	2	4	4	0	3	6	1	6	30
MAY	4	1	6	6	1	3	3	1	3	28
JUN	2	0	9	10	1	2	3	5	3	35
JUL	6	3	2	8	4	3	8	5	2	41
AUG	4	5	5	7	0	7	8	3	8	47
SEP	4	1	7	7	2	1	10	5	10	47
OCT	4	0	8	6	0	6	10	2	13	49
NOV	1	0	1	2	0	3	9	1	5	22
DEC	1	3	2	5	2	5	3	3	6	30
TOTAL	32	18	51	76	11	40	80	29	64	401

2000

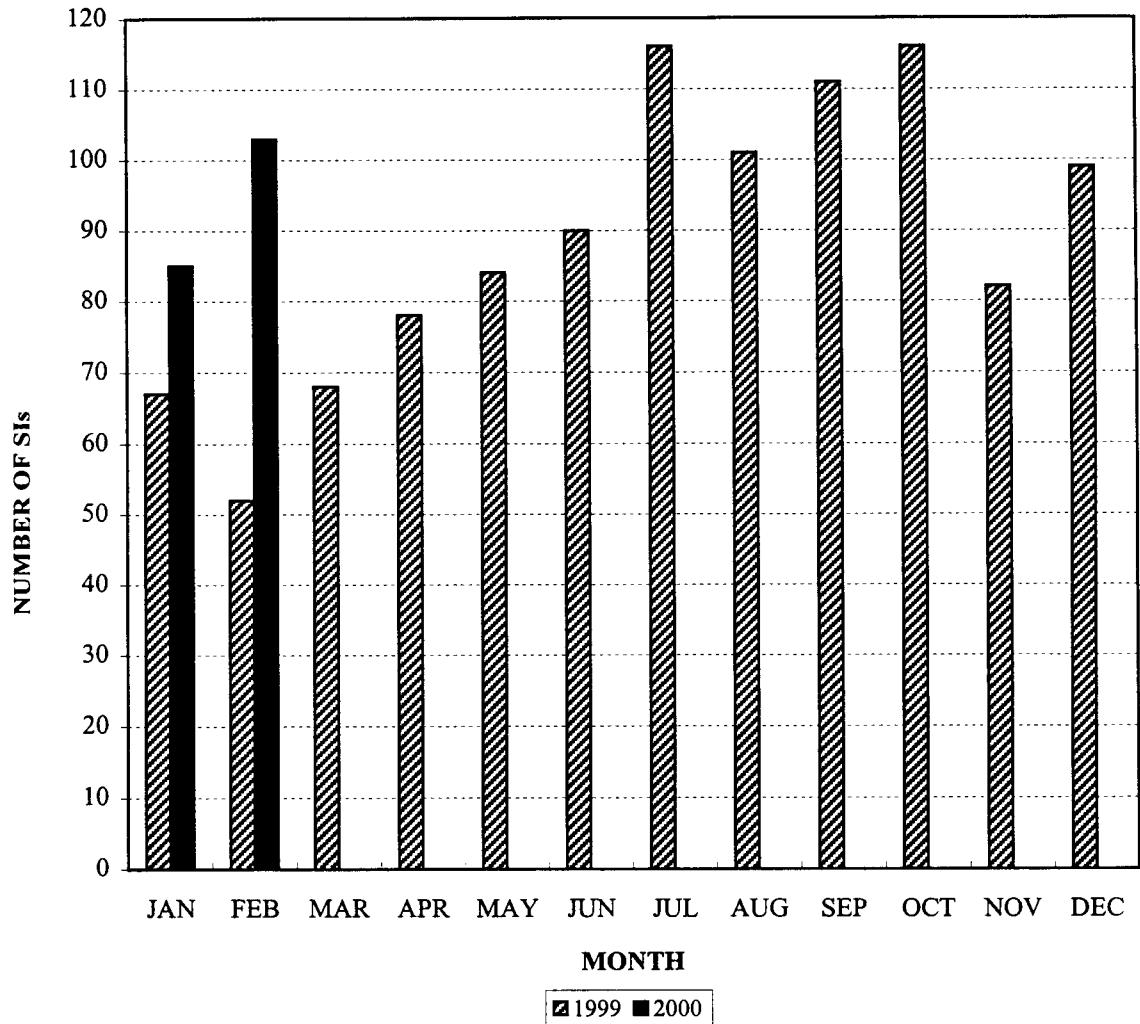
MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	3	2	5	6	0	2	6	6	11	41
FEB	2	0	0	7	2	6	12	4	7	40
MAR										
APR										
MAY										
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	5	2	5	13	2	8	18	10	18	81

## **SURFACE INCIDENTS\***

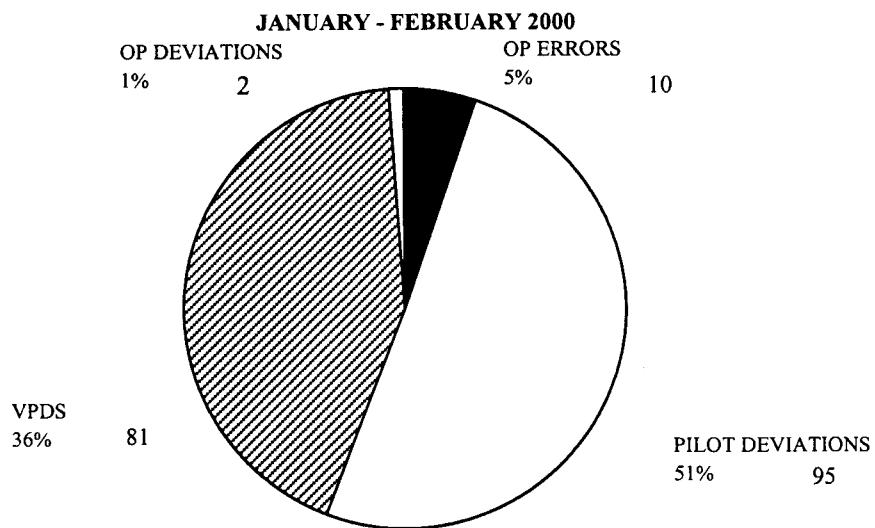
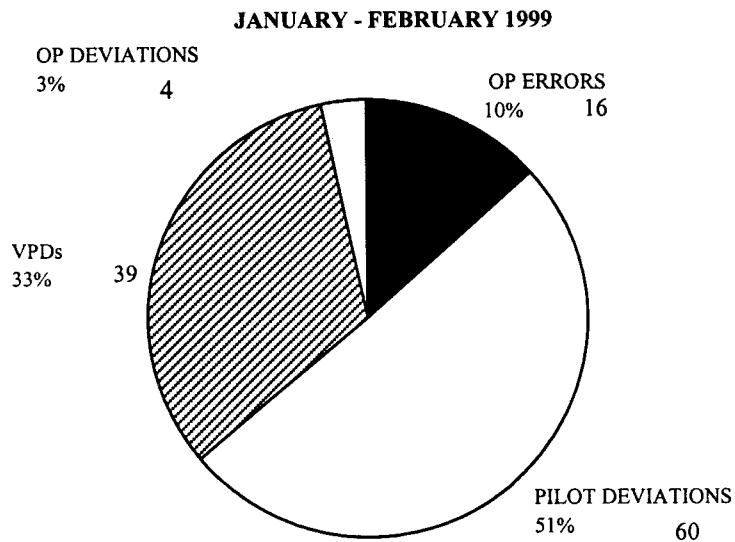
**\*Surface Incidents** may require 90 days to stabilize; therefore, care should be exercised in making statistical comparisons for the most recent 90-day period.

**Data are preliminary and subject to change.**

**SURFACE INCIDENTS  
BY MONTH  
1999 - FEBRUARY 2000**



## SURFACE INCIDENTS BY TYPE



Multiple Deviations can originate from a surface incidents. Consequently, duplicate counts may exist  
VPDs: Vehicle/Pedestrian Deviations

**SURFACE INCIDENTS**  
**TOP AIRPORT (2000 RANKING)**  
**12 MONTH COMPARISON**

AIRPORT	MAR 98 - FEB 99	MAR 99 - FEB 00
Reno/Tahoe Intl, NV	5	36
Merrill Field Arpt, AK	17	27
Montgomery Field Arpt, CA	12	25
Jeffco Arpt, CO	2	25
San Francisco Intl, CA	9	22
Ft. Lauderdale Executive Arpt, FL	16	21
John Wayne-Orange County Arpt, CA	7	21
Long Beach/Daugherty Field Arpt, CA	22	17
Luis Munoz Marin Intl, PR	8	17
Los Angeles Intl, CA	20	15
David Wayne Hooks Memorial Arpt, TX	0	14
Mnpls-St. Paul Intl/World Chamberlain Arpt, MN	2	13
Theodore Francis Green State Arpt, RI	1	13
Lambert-St. Louis Intl, MO	19	12
Phoenix Sky Harbor Intl, AZ	14	12
San Jose Intl, CA	8	12
Andrews AFB, MD	6	12
Ann Arbor Muni Arpt, MI	0	12
Richard Lloyd Jones Jr. Arpt, OK	8	11
Flying Cloud Arpt, MN	6	11
San Antonio Intl, TX	5	11
Raleigh-Durham Intl, NC	5	10
Greater Rochester Intl, NY	2	10
Santa Monica Muni Arpt, CA	1	10
Cleveland-Hopkins Intl, OH	11	9
Centennial Arpt, CO	5	9
Hector Intl, ND	4	9
Palm Springs Intl, CA	0	9
Dallas-Ft. Worth Intl, TX	4	8
Santa Barbara Muni Arpt, CA	4	8
The William B Hartsfield Atlanta Intl, GA	4	8
Chino Arpt, CA	0	8

SURFACE INCIDENTS BY AIRPORT (CONT)

12 MONTH COMPARISON

MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000

\*CAUTION: A surface incident may have multiple causal factors and result in multiple reports

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*		RATE		
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Abilene Regional Apt, TX	4	0	0	0	0	0	4	0	8	0	9.617	0.000	
Adams Field Apt, AR	4	2	0	1	0	0	1	0	5	3	2.899	1.672	
Addison Apt, TX	3	1	2	0	0	0	1	1	6	2	3.338	1.191	
Akron-Canton Regional Apt, OH	0	1	0	0	0	0	0	1	0	2	0.000	0.777	
Albany Intl, NY	1	2	0	0	0	0	0	1	1	3	0.695	1.937	
Albert Whited Apt, FL	0	2	0	0	0	0	0	0	5	0	7.000	4.090	
Albuquerque Intl, NM	0	2	0	0	0	0	0	1	0	3	0.000	1.320	
Alexandria Int'l Apt, LA	0	1	0	0	0	0	0	0	0	1	N/A	2.729	
Allegheny County Apt, PA	0	1	0	0	0	0	7	3	7	4	5.362	3.083	
Allen AAF, AK	0	1	0	0	0	0	0	0	0	1	N/A	N/A	
Almarillo Intl, TX	0	0	0	0	0	0	0	0	2	0	0.000	0.820	
Anchorage Intl, AK	0	6	2	0	1	0	5	1	8	7	2.608	2.322	
Andrews AFB, MD	1	0	2	0	0	0	3	12	6	12	4.879	10.240	
Ann Arbor Muni Apt, MI	0	2	0	0	0	0	0	10	0	12	0.000	6.806	
Anniston Metro Apt, AL	1	0	0	0	1	0	0	0	2	0	N/A	N/A	
Anoka County-Blaine Apt (Janes Field), MN	0	0	0	0	0	0	2	7	2	7	1.344	3.776	
Aspen-Pitkin County/Sardy Field Apt, CO	1	0	0	0	0	0	0	0	1	0	2.222	0.000	
Augusta Rgnl at Bush Field Apt, GA	0	1	0	0	0	0	0	0	1	0	0.000	3.903	
Aurora Muni Apt, IL	1	0	0	0	0	0	0	1	2	2	1.585	1.676	
Austin Straubel Intl, WI	0	1	0	0	0	0	0	0	0	1	0.000	1.266	
Austin-Bergstrom Int'l Apt, TX	1	0	1	0	0	0	0	0	2	0	1.088	0.000	
Baltimore-Washington Int'l, MD	2	2	2	0	0	0	0	0	1	4	3	1.356	0.980
Bangor Intl, ME	0	0	1	0	0	0	0	1	1	2	1.987	1.001	
Barkley Regional Apt, KY	0	1	0	0	0	0	0	0	1	0	2.000	6.217	
Barnstable Muni-Boardman/Polando Field Apt, MA	1	0	0	0	0	0	0	0	1	0	0.723	0.000	
Baton Rouge Metro, Ryan Field Apt, LA	0	0	0	0	0	0	0	1	1	1	0.706	0.675	
Bellingham Intl, WA	0	0	0	0	0	0	0	1	0	0	1.409	0.000	
Beverly Muni Apt, MA	0	0	0	0	0	0	0	1	0	1	1.139	0.000	
Birmingham Apt, AL	3	0	0	0	0	0	0	0	2	6	3.244	3.179	
Bishop Int'l, MI	0	0	0	0	*	0	0	0	1	0	0.000	0.681	
Blue Grass Apt, KY	0	0	0	1	0	0	0	0	0	1	0.000	0.969	
Boeing Field/King County Intl, WA	2	2	1	1	1	0	3	0	7	3	2.098	0.850	

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT (CON'T)

12 MONTH COMPARISON

MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000

\*CAUTION: A surface incident may have multiple causal factors and result in multiple reports

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*		RATE		
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Boise Air Terminal/Gowen Field Apt, ID	3	6	0	1	0	0	0	0	3	7	1.731	3.898	
Boston TRACON, MA	0	1	0	0	0	0	0	0	1	N/A	N/A		
Bowman Field Apt, KY	0	1	0	0	0	0	0	2	0	3	0.000	2.056	
Brackett Field Apt, CA	0	4	0	0	0	0	0	0	0	4	0.000	1.607	
Bradley Intl, CT	1	0	0	0	0	0	1	0	2	0	1.102	0.000	
Brown Field Muni Apt, CA	0	1	0	0	0	0	0	0	0	1	0.000	0.967	
Brunswick NAS, ME	1	1	0	0	0	0	0	0	1	1	N/A	N/A	
Buchanan Field Apt, CA	0	5	1	0	0	0	0	1	1	6	0.453	2.140	
Buffalo Niagara Intl, NY	0	1	0	0	0	0	0	4	0	5	0.000	3.166	
Burbank-Glendale-Pasadena Apt, CA	1	0	2	2	0	0	1	0	4	2	2.199	1.117	
Burlington Intl, VT	0	0	1	0	0	0	0	0	1	0	0.844	0.000	
Camarillo Apt, CA	0	0	0	0	0	0	0	0	1	0	N/A	N/A	
Capital Apt, IL	0	4	0	2	0	0	0	0	0	6	0.000	6.593	
Capital City Apt, MI	0	0	0	0	1	0	0	0	1	0	0.837	0.000	
Centennial Apt, CO	4	3	0	2	0	0	1	4	5	9	1.105	1.811	
Central Illinois Rgnl Apt, IL	2	3	0	1	0	0	0	0	2	4	2.847	5.949	
Chandler Muni, AZ	0	0	0	0	0	0	0	0	2	0	N/A	N/A	
Charleston AFB/Intl, SC	4	3	2	0	0	0	1	2	7	5	6.313	3.466	
Charlotte/Douglas Intl, NC	7	3	2	0	0	0	0	1	9	4	1.979	0.659	
Cherry Capital Apt, MI	1	1	0	0	0	0	0	0	1	1	0.775	0.785	
Chicago Midway Apt, IL	0	4	4	0	1	1	1	1	6	6	2.148	2.045	
Chicago O'hare Intl, IL	2	4	3	0	0	0	0	0	3	5	7	0.559	
Chicago TRACON, IL	1	0	0	0	0	0	0	0	0	1	0	N/A	
Chico Muni Apt, CA	1	1	0	0	0	0	0	0	0	1	1	2.341	
Chino Apt, CA	0	4	0	2	0	0	0	2	0	8	0.000	4.555	
Cincinnati Muni/Lunken Field Apt, OH	0	1	1	1	0	0	0	0	3	1	4	0.521	
Cincinnati/Northern Kentucky Intl, OH	1	1	0	0	0	0	0	0	1	11	9	3.575	
City of Colorado Springs Muni Apt, CO	0	1	1	0	0	0	0	0	0	1	0.000	0.816	
Cleveland-Hopkins Intl, OH	9	8	1	0	0	0	0	1	1	1	1	0.894	
Cobb County-Mc Collum Field, GA	1	0	0	0	0	0	0	0	0	2	0.450	0.432	
Columbia Metro Apt, SC	1	0	0	0	0	0	0	0	1	0	0.864	0.000	
Columbia Regional Apt, MO	0	0	0	1	0	0	0	0	1	0	2.000	4.913	
Columbus Metro Apt, GA	0	0	0	0	0	0	0	0	1	0	1.000	1.444	
Craig Muni Apt, FL	1	1	1	0	0	0	0	0	0	2	1	1.431	0.715

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT (CONT)

12 MONTH COMPARISON

MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000

\*CAUTION: A surface incident may have multiple causal factors and result in multiple reports

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*	RATE
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00		
Crystal Apt, MN	6	2	0	0	0	0	7	4	13	6
Cyril E. King Apt, VI	2	1	0	1	0	0	2	1	4	3
Dallas Love Field Apt, TX	5	1	1	0	0	0	2	0	8	1
Dallas-Ft. Worth Intl, TX	1	5	3	3	0	0	0	0	4	8
Danbury Muni Apt, CT	0	2	0	0	0	0	2	0	2	2
Dane County Regional-Truax Field Apt, WI	1	0	0	0	0	0	0	0	1	0
David Wayne Hooks Memorial Apt, TX	0	4	0	0	0	0	0	0	10	0
Daytona Beach Intl Apt, FL	4	5	1	0	0	0	0	0	5	5
Decatur Apt, IL	0	1	0	0	0	0	0	0	0	1
DeKalb-Peachtree Apt, GA	2	1	1	1	0	0	3	2	6	4
Denver Intl, CO	2	2	0	0	0	0	0	0	3	2
Denver Center, CO	0	1	0	0	0	0	0	0	0	1
Des Moines Intl, IA	2	2	0	0	0	0	0	0	1	2
Detroit Metro Wayne County Apt, MI	3	0	3	1	0	0	2	1	8	2
Duluth Intl, MN	0	1	0	0	0	0	3	4	3	5
Dupage Apt, IL	2	4	1	0	0	0	2	0	5	4
Des Moines Intl, IA	1	0	0	1	0	0	0	0	1	3
Dutchess County Apt, NY	0	0	0	0	0	0	0	0	0	0
Eagle County Regional Apt, CO	6	0	0	0	0	0	0	0	6	0
El Monte Apt, CA	0	0	0	0	0	0	0	0	0	0
El Paso Intl, TX	1	2	0	0	0	0	0	0	2	0
Elko Muni-J.C. Harris Field Apt, NV	1	0	0	0	0	0	0	0	1	0
Elmira/Corning Regional Apt, NY	0	0	0	0	0	0	0	0	0	0
Eppley Airfield Apt, NE	1	2	0	1	0	0	0	2	1	5
Eric Intl, PA	0	0	0	0	0	0	0	1	0	0
Ernest A. Love Field Apt, AZ	0	1	1	0	0	0	0	2	1	3
Essex County Apt, NJ	0	1	0	0	0	0	1	0	1	1
Fairbanks Intl, AK	0	2	0	0	0	0	0	0	3	0
Falcon Field Apt, AZ	1	2	0	0	1	0	4	2	6	4
Fanning Field Apt, ID	0	1	0	0	0	0	0	1	0	2
Felts Field Apt, WA	0	1	0	0	0	0	0	0	0	1
Flagstaff Pulliam Apt, AZ	1	0	0	0	0	0	0	0	1	0
Flying Cloud Apt, MN	5	6	0	1	0	0	1	4	6	11

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT (CON'T)

12 MONTH COMPARISON

MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000

\*CAUTION: A surface incident may have multiple causal factors and result in multiple reports

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN		TOTAL*		RATE 98 - 99 99 - 00
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Fort Wayne Intl, IN	0	0	0	1	0	0	0	0	0	1	0.000
Fort Worth Meacham Arpt, TX	0	0	0	0	0	0	4	4	4	4	0.863
Forth Worth Alliance Arpt, TX	3	0	0	0	0	0	0	0	3	0	1.254
Four Corners Regional Arpt, NM	0	1	0	1	0	0	0	0	0	2	0.000
Fresno Yosemite Intl Arpt, CA	3	4	0	0	0	0	0	0	3	4	1.905
Ft. Lauderdale Executive Arpt, FL	4	6	0	0	0	0	12	15	16	21	6.493
Ft. Lauderdale/Hollywood Intl, FL	0	3	0	1	0	0	0	0	0	4	1.496
Fullerton Muni Arpt, CA	1	2	0	0	0	0	1	2	2	4	2.116
Fulton County Arpt-Brown Field Arpt, GA	1	2	0	0	0	0	0	1	1	3	0.923
Gainesville Regional Arpt, FL	0	0	0	0	0	0	1	0	1	0	1.272
General Edward Lawrence Logan Intl, MA	3	2	0	2	0	0	1	2	4	6	0.779
General Mitchell Intl, WI	6	3	1	1	0	0	3	3	10	7	4.576
George Bush Intercontinental Arpt, TX	0	0	1	0	0	0	0	1	1	1	0.221
Gillespie Field Arpt, CA	0	1	0	0	0	0	0	0	3	0	4.000
Grand Forks Intl, ND	1	1	0	0	0	0	1	0	0	1	0.446
Grand Prairie Muni Arpt, TX	3	0	0	0	0	0	0	0	0	3	0.3467
Grant County Arpt, WA	0	0	0	1	0	0	1	2	1	3	0.755
Greater Kankakee Arpt, IL	0	0	0	0	0	0	0	0	1	0	1.486
Greater Peoria Regional Arpt, IL	1	0	0	0	0	0	0	0	1	2	0.891
Greater Pittsburgh Intl, PA	2	1	3	1	0	0	0	0	5	2	1.119
Greater Rochester Intl, NY	2	4	0	3	0	0	0	3	2	10	1.060
Greater Rockford Arpt, IL	2	3	0	0	0	0	2	4	4	7	3.639
Greenville-Spartanburg Intl Arpt, SC	2	0	0	0	0	0	0	0	2	0	3.328
Gregg County Arpt, TX	2	5	1	0	0	0	0	0	1	3	6
Groton-New London Arpt, CT	0	0	0	0	0	0	1	1	1	1	1.420
Gulfport-Biloxi Regional Arpt, MS	2	1	0	0	0	0	0	4	0	6	1.092
Gwinnett County - Briscoe Field, GA	2	1	0	0	0	0	0	0	2	1	1.828
Hagerstown Rgnl-Richard A Henson Field Arpt, MD	4	0	0	0	0	0	0	0	4	0	6.851
Hartford-Brainard Arpt, CT	0	0	0	0	0	0	0	1	0	1	0.000
Hawkins Field Arpt, MS	0	0	0	0	0	0	0	1	0	1	1.903
Hector Intl, ND	1	3	0	1	0	0	3	5	4	9	4.380
Honolulu Intl, HI	1	3	0	1	0	0	4	0	5	4	1.469
Houston TRACON, TX	0	0	0	1	0	0	0	0	0	1	1.129
Huntsville Intl/Carl T. Jones Field Arpt, AL	1	2	0	0	0	0	2	3	3	5	3.044
											5.097

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**SURFACE INCIDENTS BY AIRPORT (CONT')**

**12 MONTH COMPARISON**

**MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000**

**\*CAUTION: A surface incident may have multiple causal factors and result in multiple reports**

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*		RATE		
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Igor I. Sikorsky Memorial Apt, CT	0	1	0	0	0	0	0	0	0	1	0.000	1.053	
Indianapolis Intl, IN	4	2	1	1	0	0	2	1	7	4	2.871	1.574	
Jack Northrop Field-Hawthorne Muni Apt, CA	0	2	0	0	0	0	0	3	0	5	0.000	5.266	
Jackson County-Reynolds Field Apt, MI	0	0	0	1	0	0	0	1	0	2	0.000	2.853	
Jackson Intl, MS	0	0	0	0	0	0	0	1	2	1	0.890	0.984	
Jacksonville Intl, FL	1	1	0	0	0	0	0	2	1	3	2	1.897	0.622
James M. Cox Dayton Intl, OH	0	3	1	0	0	0	1	2	2	5	1.298	2.604	
Jeffco Apt, CO	1	1	0	0	0	0	0	1	24	2	25	1.249	11.264
Joe Foss Field Apt, SD	0	0	0	0	0	0	0	0	0	0	0	1.999	0.000
John F. Kennedy Intl, NY	3	2	0	2	0	0	0	2	3	5	7	1.413	1.680
John Wayne-Orange County Apt, CA	6	17	1	1	0	0	0	0	3	7	21	1.652	4.396
Joplin Regional Apt, MO	1	0	0	0	0	0	0	0	0	1	0	2.526	0.000
Kahului Apt, HI	0	1	0	0	0	0	0	2	0	2	1	1.083	0.538
Kalamazoo/Battle Creek Intl, MI	1	0	0	0	0	0	0	0	0	1	0	1.994	0.000
Kansas City Center, MO	1	0	0	0	0	0	0	0	0	1	0	N/A	N/A
Kansas City Downtown Apt, MO	1	0	0	0	0	0	0	0	0	2	0	1.403	0.000
Kansas City Intl, MO	1	0	0	0	0	0	0	0	2	1	2	0.449	0.456
Kenai Muni Apt, AK	1	1	0	1	0	0	0	0	0	1	0	1.273	0.000
Kenosha Rgnl Airport, WI	1	0	0	0	0	0	0	0	0	1	0	0.000	0.705
Key West Intl, FL	3	0	0	0	0	0	0	0	0	3	0	2.465	0.000
Kissimmee Muni Apt, FL	1	1	0	0	0	0	0	0	0	1	1	1.360	2.897
Kodiak Apt, AK	0	0	0	0	0	0	0	0	0	0	2	0.814	0.842
La Guardia Apt, NY	1	0	2	0	0	0	0	1	2	4	2	1.108	0.271
Lake Hood SPB, AK	0	0	0	0	0	0	0	0	0	5	0	N/A	N/A
Lakefront Apt, LA	2	2	0	0	0	0	0	0	1	2	3	1.138	1.630
Lakeland Linder Regional Apt, FL	1	5	0	0	0	0	0	2	1	7	0	4.487	2.823
Lambert-St. Louis Intl, MO	8	6	3	2	0	0	6	4	19	12	3.803	2.206	
Lancaster Apt, PA	2	1	0	0	0	0	0	0	0	2	1	1.825	0.942
Laredo Intl, TX	0	0	0	0	0	0	0	1	0	1	0	1.376	0.000
Laughlin/Bullhead Intl Apt, AZ	1	0	0	0	0	0	0	0	0	1	0	N/A	0.000
Laurence G. Hanscom Field Apt, MA	1	1	1	2	1	0	0	1	0	4	3	2.186	1.546
Lawrence Muni Apt, MA	0	2	0	0	0	0	0	0	0	0	2	0.000	2.134

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Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT (CON'T)

12 MONTH COMPARISON

MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000  
*\*CAUTION: A surface incident may have multiple causal factors and result in multiple reports*

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*		RATE	
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
Lehigh Valley Intl, PA	1	0	0	1	0	0	0	0	1	1	0.658	0.664
Lincoln Muni Apt, NE	4	5	1	1	0	0	1	1	6	7	4.862	5.561
Long Beach/Daugherty Field Apt, CA	13	16	0	1	2	0	7	0	22	17	4.553	3.441
Long Island Mac Arthur Apt, NY	0	1	0	0	0	0	0	0	0	1	0.000	0.488
Los Angeles Intl, CA	16	12	2	1	1	0	1	2	20	15	2.613	1.686
Louisville Int-Standiford Field Apt, KY	0	1	0	0	0	0	2	0	2	1	1.166	0.556
Lovell Field Apt, TN	1	0	0	0	0	0	1	0	2	0	2.067	0.000
Lubbock Intl, TX	0	0	0	0	0	0	0	1	0	1	0.000	0.844
Luis Munoz Marin Intl, PR	1	8	0	1	0	0	7	8	8	17	3.962	6.416
Mahlon Sweet Field Apt, OR	2	5	0	0	0	0	0	0	2	5	1.840	4.222
Manassas Rgnl/Harry P. Davis Field Apt, VA	0	2	0	0	0	0	1	1	1	3	0.789	2.441
Manchester Apt, NH	0	1	0	0	1	0	1	2	2	2	1.791	1.814
Mansfield Lahm Muni Apt, OH	0	0	0	0	0	0	0	1	0	1	0.000	1.764
Marthas Vineyard Apt, MA	0	1	0	0	0	0	0	0	0	1	0.000	1.533
Mc Carran Intl, NV	8	5	1	0	0	0	0	0	9	5	1.876	0.921
Mc Ghee Tyson Apt, TN	4	2	0	0	0	0	0	0	4	2	2.743	1.359
Mc Kellar-Sipes Regional Apt, TN	0	1	0	0	0	0	0	0	0	1	0.000	3.660
Mc Kinney Muni Apt, TX	0	1	0	0	0	0	0	0	0	1	0.000	0.941
McNary Field Apt, OR	0	1	0	0	0	0	0	1	0	2	0.000	3.704
Meadows Field Apt, CA	0	0	1	0	0	0	0	1	0	2	0	1.202
Melbourne Regional Apt, FL	2	1	0	0	0	0	0	0	2	1	1.446	0.623
Memphis Center, TN	0	0	0	1	0	0	0	0	0	1	N/A	N/A
Memphis Intl, TN	1	2	2	0	0	0	0	0	3	2	0.827	0.534
Merrill C. Meigs Apt, IL	0	1	0	0	0	0	0	0	0	1	0.000	2.480
Merrill Field Apt, AK	2	2	0	0	1	0	0	2	1	4	0.197	0.382
Metropolitan Oakland Intl, CA	1	1	0	1	0	0	0	0	3	2	0.374	0.764
Miami Intl, FL	1	1	1	0	0	0	0	1	2	1	3.190	3.522
Michiana Rgnl Transportation Ctr Apt, IN	0	0	0	1	0	0	1	2	1	3	2.801	0.000
Mid Delta Rgnl, MS	1	0	0	0	0	0	0	0	1	0	2.801	0.000
Middle Georgia Regional Apt, GA	1	1	0	0	0	0	0	1	1	2	5.631	5.840
Midland Intl, TX	1	0	0	0	0	0	0	0	1	0	1.063	0.000
Millville Muni Apt, NJ	1	0	0	1	0	0	0	0	0	1	N/A	N/A

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Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT (CON'T)

12 MONTH COMPARISON

MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000

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AIRPORT	PILOT DEVIATIONS	SURFACE ERRORS	SURFACE DEVIATIONS	VEHICLE PEDESTRIAN DEVIATIONS	TOTAL*	RATE		
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
Minneapolis Center, MN	1	0	0	1	0	0	2	0
Minneapolis-St. Paul Intl/World Chamberlain Apt, M	0	6	2	1	0	0	2	13
Missoula Intl, MT	1	0	0	0	0	0	1	0
Mobile Downtown, AL	1	0	0	0	0	0	1	0
Mobile Regional Apt, AL	0	0	0	0	0	0	2	0
Monroe Regional Apt, LA	3	2	0	0	0	2	0	5
Montgomery Peninsula Apt, CA	0	1	1	0	0	0	0	1
Montgomery Field Apt, CA	5	11	1	0	1	5	13	12
Montgomery Rgnl (Dannelly Field) Apt, AL	0	1	0	0	0	1	0	1
Morristown Muni Apt, NJ	2	0	0	0	0	0	2	0
Muskegon County Apt, MI	1	0	0	0	0	0	1	0
Myrtle Beach Intl, SC	1	2	0	0	0	0	1	1
Napa County Apt, CA	0	5	0	0	0	0	1	0
Naples Muni Apt, FL	1	3	0	0	0	2	0	3
Nashville Intl, TN	1	6	1	0	0	0	0	2
Natrona County Intl, WY	0	0	0	0	0	0	1	0
New Castle County Apt, DE	0	1	0	0	0	0	0	1
New Hanover Intl, NC	3	3	1	0	0	0	4	3
New Orleans Intl/Moisant Field Apt, LA	0	1	0	0	0	0	0	1
New York TRACON, NY	0	1	0	0	0	0	0	1
Newark Intl, NJ	6	2	1	2	0	0	3	10
Niagara Falls Intl, NY	0	0	0	0	0	0	2	0
Norfolk Intl, VA	0	1	0	0	0	0	0	1
North Las Vegas Apt, NV	6	6	0	0	0	0	7	6
North Perry Apt, FL	2	0	0	0	0	0	2	0
Northeast Philadelphia Apt, PA	0	0	0	0	0	0	1	0
Norwood Memorial Apt, MA	1	1	0	0	0	0	1	0
Oakland County Intl Apt, MI	2	0	0	0	0	0	2	0
Oakland TRACON, CA	0	0	0	0	1	0	0	1
Ogden-Hinckley Apt, UT	1	0	0	0	0	0	1	0
Ontario Intl, CA	0	0	2	0	0	1	2	3
Opa Locka Apt, FL	2	0	0	0	0	0	2	2
Orlando Executive Apt, FL	1	1	0	0	0	0	3	2

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**SURFACE INCIDENTS BY AIRPORT (CON'T)**

**12 MONTH COMPARISON**

**MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000**

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AIRPORT	PILOT DEVIATIONS	SURFACE ERRORS	SURFACE DEVIATIONS	VEHICLE PEDESTRIAN	TOTAL*	RATE		
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
Orlando Intl, FL	0	1	0	0	2	1	2	0.548
Orlando Sanford Apt, FL	7	2	0	1	3	2	10	2.626
Outagamie County Rgnl Apt, WI	0	0	1	2	0	0	1	1.597
Page Field Apt, FL	1	1	0	0	2	1	3	3.561
Palm Beach Intl, FL	9	6	1	1	0	0	10	5.149
Palm Springs Intl, CA	0	8	0	1	0	0	0	0.000
Palo Alto of Santa Clara County Apt, CA	0	0	0	0	1	2	1	0.511
Palwaukee Muni Apt, IL	5	0	0	0	2	0	7	3.764
Panama City-Bay County Intl Apt, FL	2	0	0	0	0	0	1	2.980
Pensacola Regional Apt, FL	0	0	1	0	0	0	1	0.785
Philadelphia Intl, PA	3	1	2	0	0	1	2	3.127
Phoenix Sky Harbor Intl, AZ	11	10	0	1	0	0	14	12
Phoenix TRACON, AZ	0	0	0	1	0	0	1	N/A
Phoenix-Deer Valley Muni Apt, AZ	4	5	1	0	0	1	6	2.083
Piedmont Triad Intl, NC	1	0	0	0	0	0	1	4
Port Columbus Intl, OH	0	2	0	0	0	0	0	0.000
Portland Intl Jetport Apt, ME	1	1	0	0	0	0	3	1
Portland Intl, OR	0	2	0	0	0	1	1	3.036
Portland-Hillsboro Apt, OR	2	1	0	0	0	1	0	1.318
Portland-Tualatin Apt, OR	0	2	0	0	0	0	2	0.675
Purdue University Apt, IN	1	1	0	0	0	0	0	0.564
Quincy Muni Baldwin Field Apt, IL	1	9	0	1	0	0	5	10
Raleigh-Durham Intl, NC	0	1	0	0	0	0	1	1
Ralph Wien Memorial Apt, AK	0	1	0	0	0	0	1	N/A
Reading Regional/Carl A. Spaatz Field Apt, PA	0	1	0	2	0	1	4	1
Redding Muni Apt, CA	1	0	0	0	0	0	4	0
Reid-Hillview of Santa Clara County Apt, CA	0	1	0	0	0	0	0	1
Reno/Tahoe Intl, NV	3	30	0	0	1	1	5	36
Renon Muni Apt, WA	0	0	0	0	0	2	1	2.030
Republic Apt, NY	0	5	0	1	0	0	2	6
Richard Lloyd Jones Jr. Apt, OK	4	2	0	1	0	0	8	11
Richmond Intl, VA	4	5	0	0	1	1	6	4.365
Riverside Muni Apt, CA	1	0	0	0	2	0	3	0

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**MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000**

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AIRPORT	PILOT DEVIATIONS	SURFACE ERRORS	SURFACE DEVIATIONS	VEHICLE PEDESTRIAN DEVIATIONS	TOTAL*	RATE		
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
Roanoke Regional/Woodburn Field Apt, VA	8	3	0	0	1	1	9	5
Rochester Intl Apt, MN	0	1	1	0	0	1	2	1
Rock County Apt, WI	0	2	1	0	0	0	1	2
Ronald Reagan Washington National Apt, DC	3	1	0	1	0	0	3	3
Roswell Industrial Air Center Apt, NM	0	1	0	0	0	0	0	1
Salinas Muni Apt, CA	0	0	0	0	0	0	1	0
Salt Lake City Intl, UT	1	3	0	2	0	2	1	0
Salt Lake City TRACON, UT	0	1	0	0	0	0	0	0
San Antonio Intl, TX	5	9	0	0	0	0	2	5
San Diego Intl-Lindbergh Field Apt, CA	0	3	0	1	0	2	1	0
San Francisco Intl, CA	6	7	2	3	0	3	1	9
San Jose Intl, CA	5	9	1	1	1	2	1	0
Santa Barbara Muni Apt, CA	2	6	1	1	0	0	1	1
Santa Monica Muni Apt, CA	0	1	0	0	0	1	9	1
Sarasota-Bradenton Intl Apt, FL	0	1	0	0	0	0	0	0
Savannah Intl, GA	2	0	1	0	0	0	3	1
Scottsdale Apt, AZ	0	0	0	0	0	2	0	0
Seattle-Tacoma Intl, WA	2	4	2	0	0	0	3	4
Sioux Gateway Apt, IA	0	0	0	0	0	1	0	1
Smyrna Apt, TN	1	0	0	0	0	0	0	1
Snohomish County (Payne Field) Apt, WA	2	0	0	0	0	0	1	2
Southeast Texas Rgnl, TX	0	1	0	0	0	1	0	1
Southwest Florida Intl Apt, FL	0	1	0	0	0	0	0	0
Spirit Of St. Louis Apt, MO	0	2	0	0	0	0	1	0
Spokane Intl, WA	0	1	0	0	0	0	0	1
Springfield-Branson Rgnl Apt, MO	2	1	0	0	0	0	2	1
St. Louis Downtown-Parks Apt, IL	1	1	0	0	0	1	3	2
St. Lucie County Intl, FL	1	2	0	0	0	0	0	1
St. Paul Downtown Holman Field Apt, MN	0	0	0	0	0	2	1	2
St. Petersburg/Clearwater Intl, FL	0	1	0	0	0	0	0	1
Stewart Intl, NY	0	1	1	0	0	0	2	1
Syracuse Hancock Intl, NY	3	1	1	0	0	0	2	1

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AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*		RATE 98 - 99 99 - 00
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Tallahassee Rgnl Apt, FL	0	2	0	0	0	0	0	0	0	2	0.000
Tampa Intl, FL	1	3	0	0	0	1	2	2	5	0.773	1.808
Terre Haute Intl, IN	0	3	0	0	0	0	1	0	4	0.000	6.607
Teterboro Apt, NJ	1	2	2	0	0	0	4	3	6	1.305	2.064
The Eastern Iowa Apt, IA	1	0	0	1	0	0	2	1	3	2	3.600
The William B Hartsfield Atlanta Intl, GA	1	3	2	2	0	0	1	3	4	8	0.466
Theodore Francis Green State Apt, RI	0	10	1	0	0	0	0	3	1	13	0.642
Toledo Express Apt, OH	0	2	0	0	0	0	2	0	2	2	1.852
Tompkins County Apt, NY	0	0	0	0	0	0	0	2	0	2	0.000
Trenton Mercer Apt, NJ	1	0	0	0	0	0	0	0	1	0	0.785
Tri-Cities Apt, WA	4	1	0	1	0	0	0	0	4	2	4.465
Tri-City Rgnl Apt, TN	0	0	0	0	0	0	3	0	3	0	3.433
Tucson Intl, AZ	2	0	0	0	0	0	0	1	2	1	0.733
Tulsa Intl, OK	2	1	0	0	0	0	1	1	3	2	1.438
Tuscaloosa Muni Apt, AL	0	0	0	0	0	0	0	1	0	1	0.000
Tweed-New Haven Apt, CT	0	1	0	0	0	0	0	0	0	1	0.000
University Of Illinois-Willard Apt, IL	1	0	0	0	0	0	0	0	1	0	0.723
Unknown/Facility Not Reported	1	15	0	1	0	0	0	7	1	21	0.000
Valdosta Rgnl Apt, GA	0	1	0	0	0	0	0	0	0	1	0.178
Van Nuys Apt, CA	1	0	0	0	0	0	0	1	1	1	N/A
Vandenberg AFB, CA	2	0	0	0	0	0	0	0	2	0	0.947
Vero Beach Muni Apt, FL	1	1	0	0	0	0	1	1	2	2	0.742
W K Kellogg Apt, MI	0	0	0	0	0	0	0	1	0	1	0.000
Washington Dulles Intl, DC	2	5	1	0	0	0	0	0	3	5	0.000
Waterloo Muni Apt, IA	0	2	0	0	0	0	0	1	0	3	1.013
Westchester County Apt, NY	0	3	0	0	0	0	2	0	2	3	1.596
Whiteman Apt, CA	0	0	0	0	0	0	2	0	2	0	1.423
Wichita Mid-Continent, KS	3	1	0	0	0	0	0	0	1	3	2.130
Wiley Post Apt, OK	2	0	0	0	0	0	0	1	2	1	0.000
Will Rogers World Apt, OK	0	3	0	1	0	0	0	1	0	5	0.777
William P. Hobby Apt, TX	2	2	0	1	0	0	0	0	2	3	5.977
Willow Run Apt, MI	2	0	1	0	2	0	6	6	11	6	0.000

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MARCH 1998 - FEBRUARY 1999 versus MARCH 1999 - FEBRUARY 2000

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AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATIONS		TOTAL*		RATE	
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
Wittman Regional Arpt, WI	0	2	0	0	0	0	0	1	0	3	0.000	2.648
Wood County/Gill Robb Wilson Field Arpt, WV	0	0	0	0	0	0	1	0	1	0	1.781	0.000
Yakima Air Terminal/Mcallister Field Arpt, WA	0	0	1	0	0	0	0	0	1	0	0.488	0.000
Youngstown Muni Arpt, OH	0	0	1	0	0	0	1	2	2	2	3.513	1.817
Zarperini Field Arpt, CA	0	1	0	0	0	0	0	0	0	1	0.000	0.472
Total	440	584	99	87	24	17	266	445	829	1133	1.282	1.693

Actual Activity Data thru 12/31/1999

Forecast Activity Data 01/01/2000 - 02/29/2000

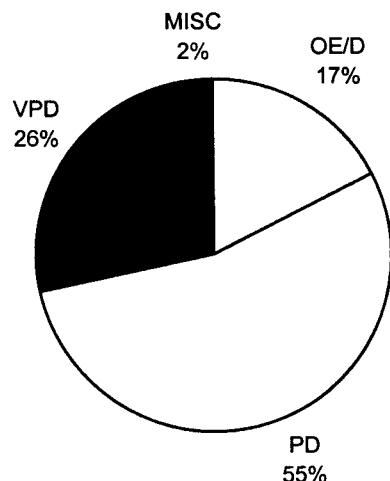
Rates per 100,000 Operations

## Runway Incursions by Type and Month

### 1999 through February 2000

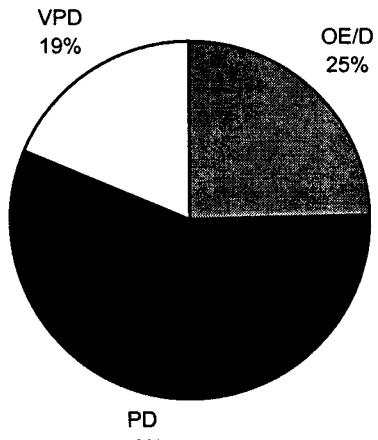
**Runway Incursions by Month - 2000**

MONTH	Incident Type				TOTAL
	OE/D	PD	VPD	MISC	
January	2	15	5	1	23
February	6	10	7	0	23
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
<b>TOTAL</b>	<b>8</b>	<b>25</b>	<b>12</b>	<b>1</b>	<b>46</b>



**Runway Incursions by Month - 1999**

Month	Incident Type			Total
	OE/D	PD	VPD	
January	7	17	4	28
February	8	9	5	22
March	3	8	6	17
April	4	15	3	22
May	8	18	3	29
June	7	13	9	29
July	7	23	9	39
August	7	13	3	23
September	8	17	7	32
October	7	13	4	24
November	8	14	3	25
December	6	22	4	32
<b>Totals</b>	<b>80</b>	<b>182</b>	<b>60</b>	<b>322</b>



Runway incursion data is based on preliminary reports and is subject to change following a final investigation.

Source: Runway Safety Program Office, ATP-20

**RUNWAY INCURSIONS**  
**BY TYPE AND RATE**  
**1999 - February 2000**  
 (Operations in Millions)

**January - February 2000**

Region	OE	PD	VPD	MISC	TOTAL	OPERATIONS	RATE
AAL	0	0	0	0	0	0.11	0.00
ACE	1	1	1	0	3	0.38	7.89
AEA	1	2	2	0	5	1.26	3.97
AGL	2	4	4	1	11	1.36	8.09
ANE	0	1	1	0	2	0.39	5.13
ANM	1	1	0	0	2	0.79	2.53
ASO	1	5	3	0	9	2.22	4.05
ASW	1	2	0	0	3	1.27	2.36
AWP	1	9	1	0	11	2.37	4.64
Total	8	25	12	1	46	10.15	4.53

**January - December 1999**

Region	OE	PD	VPD	TOTAL	OPERATIONS	RATE
AAL	0	1	1	2	1.05	1.9
ACE	4	9	3	16	2.69	5.95
AEA	12	14	6	32	8.84	3.62
AGL	17	27	12	56	10.33	5.42
ANE	4	7	4	15	2.99	5.02
ANM	7	14	2	23	5.81	3.96
ASO	15	37	10	62	13.79	4.5
ASW	4	20	8	32	8.07	3.97
AWP	17	53	14	84	15.18	5.53
Total	80	182	60	322	68.75	4.68

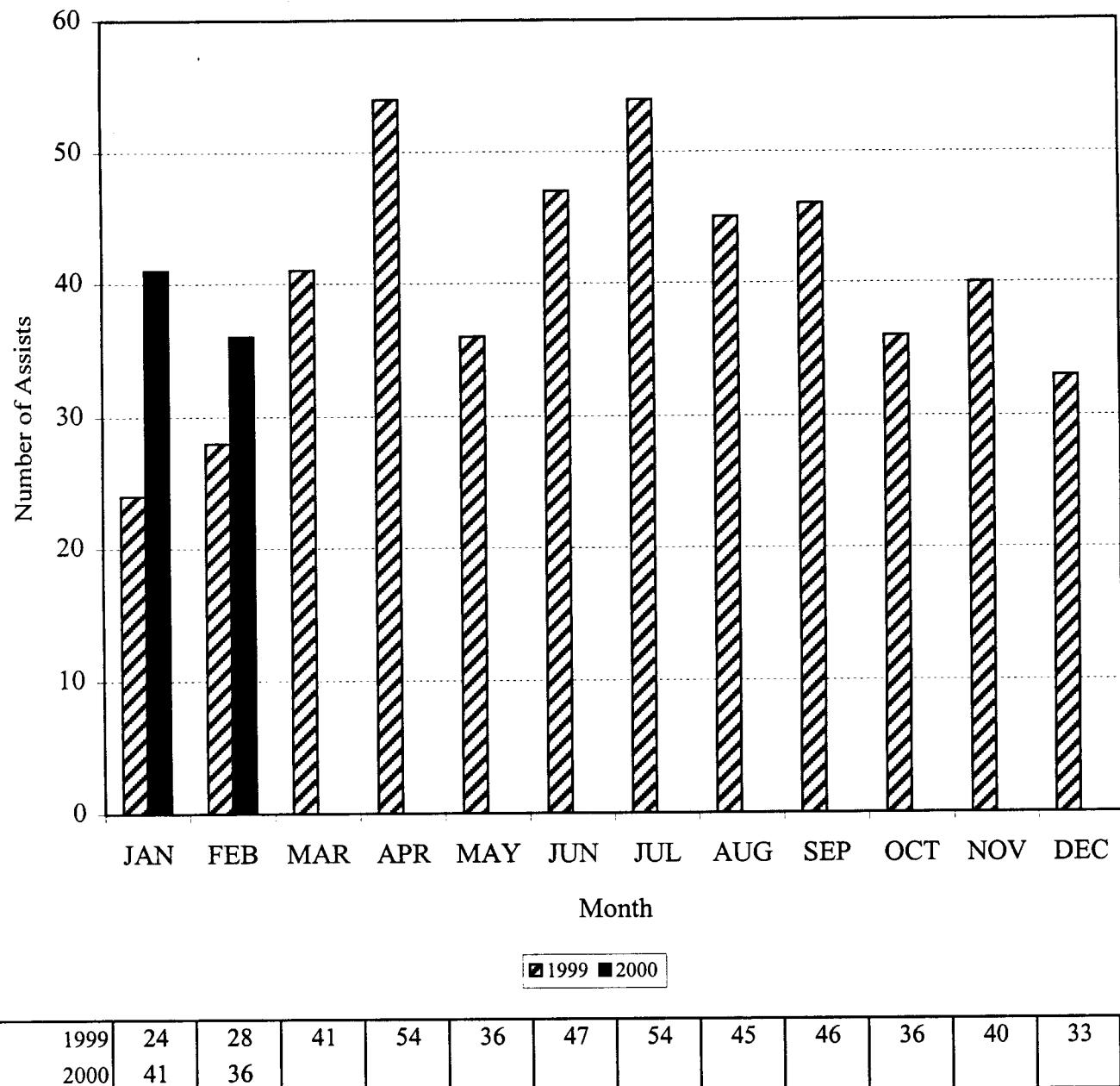
Runway incursion data is based on preliminary reports and is subject to change following a final investigation.  
 Source: Runway Safety Program Office, ATP-20

## **FLIGHT ASSISTS\***

\*Flight Assists may require 90 days to stabilize; therefore, care should be exercised in making statistical comparisons for the most recent 90-day period.  
**Data are preliminary and subject to change.**

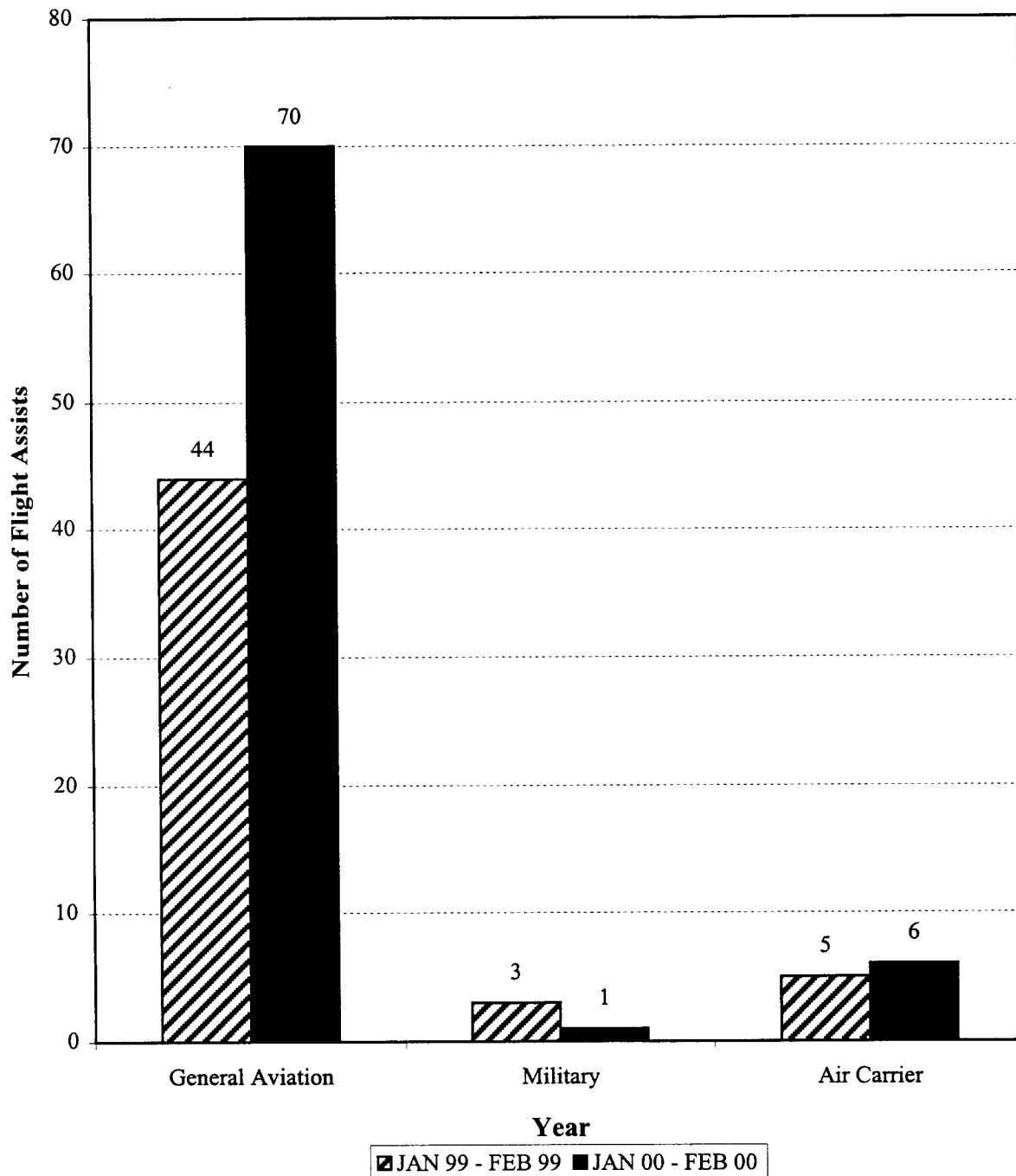
## Flight Assists by Month

1999 versus 2000



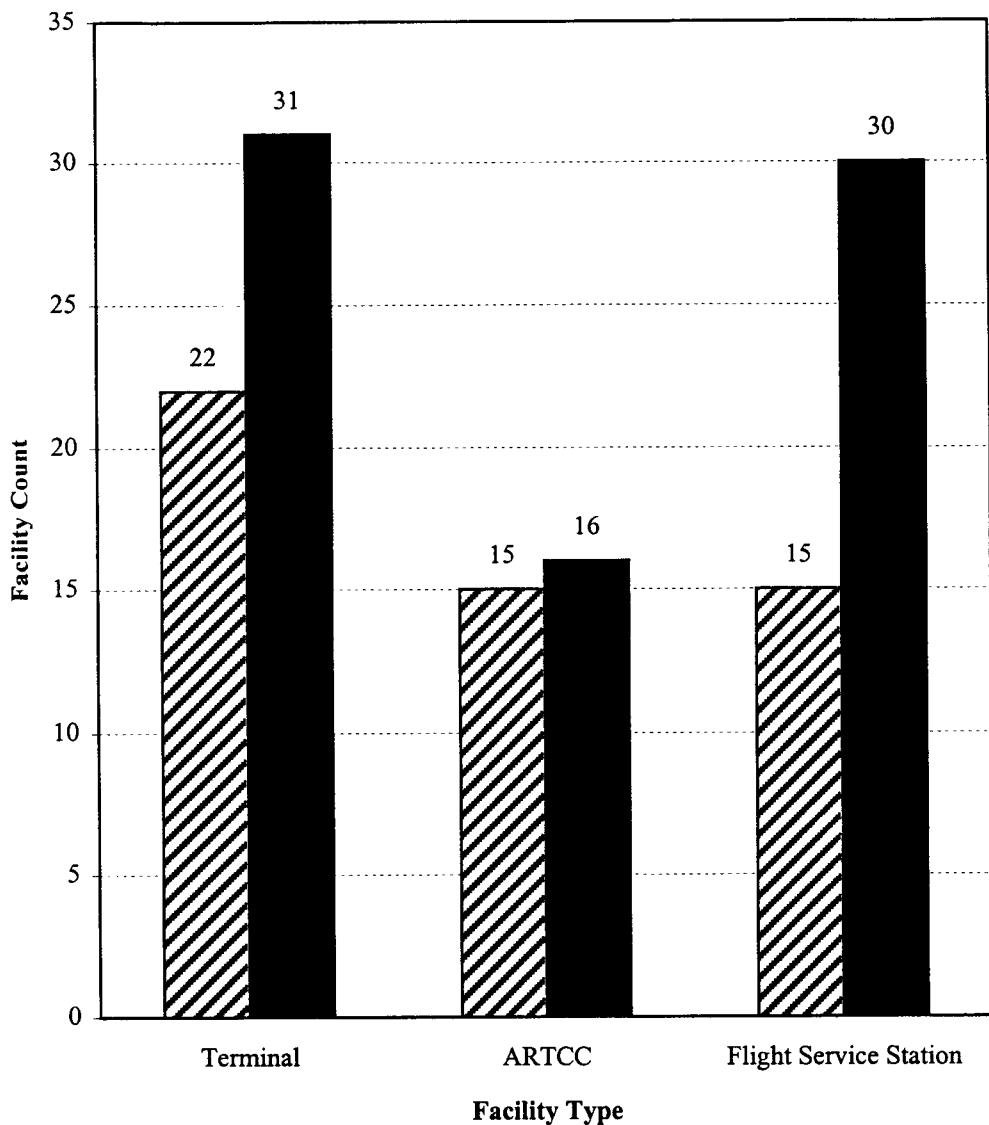
## Flight Assists By Operator Type

1999 versus 2000



## **Flight Assists by Facility Type**

**1999 versus 2000**



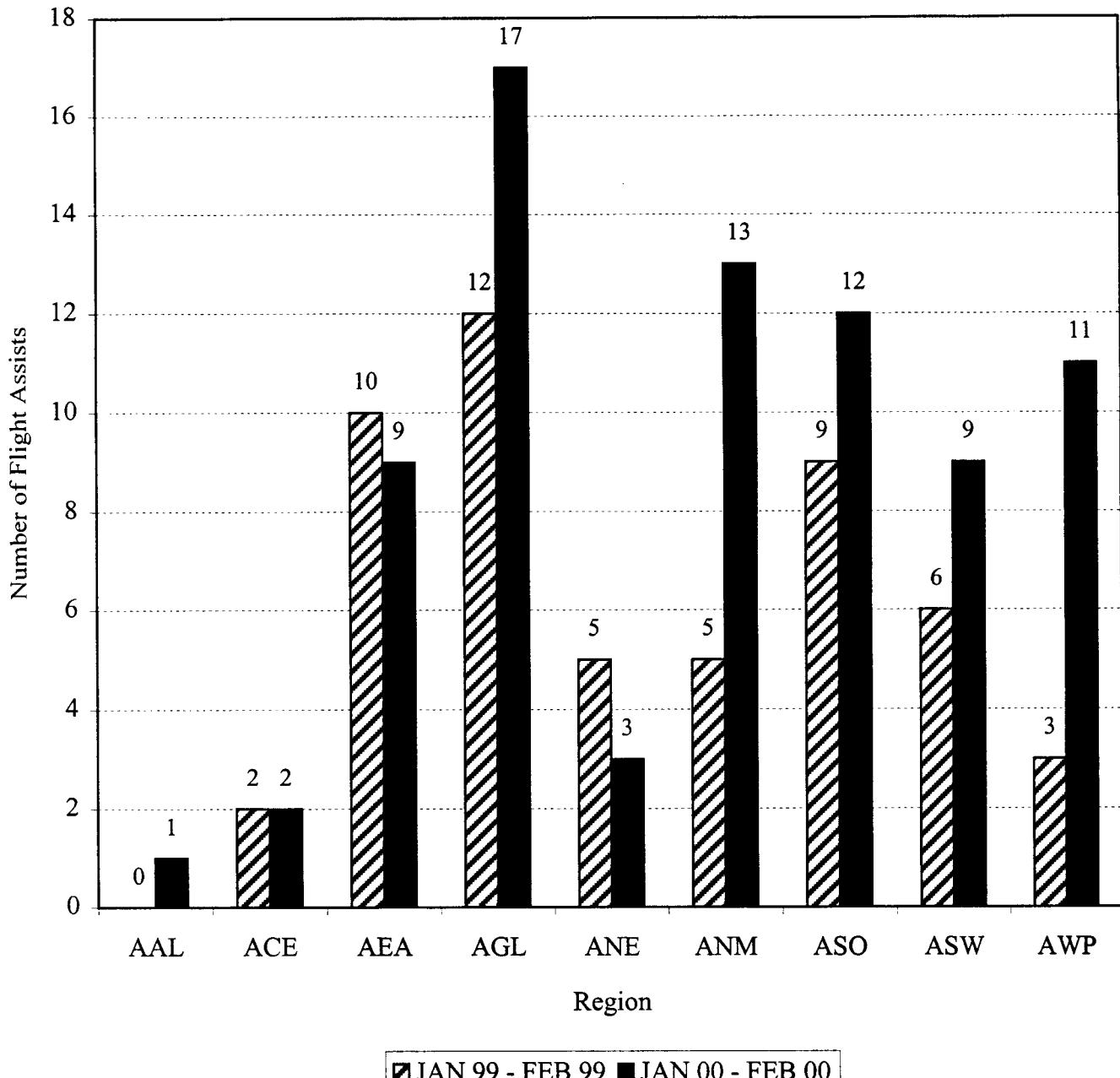
JAN 99 - FEB 99    JAN 00 - FEB 00

**Flight Assists by Facility**  
**12 Month Comparison (2000 Ranking)**

Facility Name	ID	MAR 98 - FEB 99	MAR 99 - FEB 00
New York TRACON, NY	N90	20	20
Montgomery County Arpt, TX	CXO	13	19
Ernest A. Love Field Arpt, AZ	PRC	10	16
Fort Worth Meacham Arpt, TX	FTW	18	13
Atlanta Center, GA	ZTL	23	11
Denver Intl, CO	DEN	7	10
Seattle Center, WA	ZSE	9	9
Los Angeles Center, CA	ZLA	3	9
Fort Worth Center, TX	ZFW	5	9
Manchester Arpt, NH	MHT	7	9
Austin Straubel Intl, WI	GRB	6	9
Houston Center, TX	ZHU	4	8
Albuquerque Center, NM	ZAB	6	8
Seattle-Tacoma Intl, WA	SEA	2	8
Riverside Muni Arpt, CA	RAL	3	8
Greater Kankakee Arpt, IL	IKK	4	8
Altoona-Blair County Arpt, PA	AOO	5	8
Cleveland Center, OH	ZOB	4	7
New York Center, NY	ZNY	2	7
Minneapolis Center, MN	ZMP	5	6
Princeton Muni Arpt, MN	PNM	8	6
St. Petersburg/Clearwater Intl, FL	PIE	1	6
Wichita Mid-Continent, KS	ICT	3	6
Bradley Intl, CT	BDL	1	6
Oakland Center, CA	ZOA	8	5
Southern California TRACON, CA	SCT	8	5
Greater Pittsburgh Intl, PA	PIT	0	5
Mc Alester Regional Arpt, OK	MLC	9	5
Macon RAPCON, GA	M87	0	5
Kenai Muni Arpt, AK	ENA	4	5
Danbury Muni Arpt, CT	DXR	5	5
Nashville Intl, TN	BNA	0	5
Anniston Metro Arpt, AL	ANB	0	5

## Flight Assists By Region

1999 versus 2000

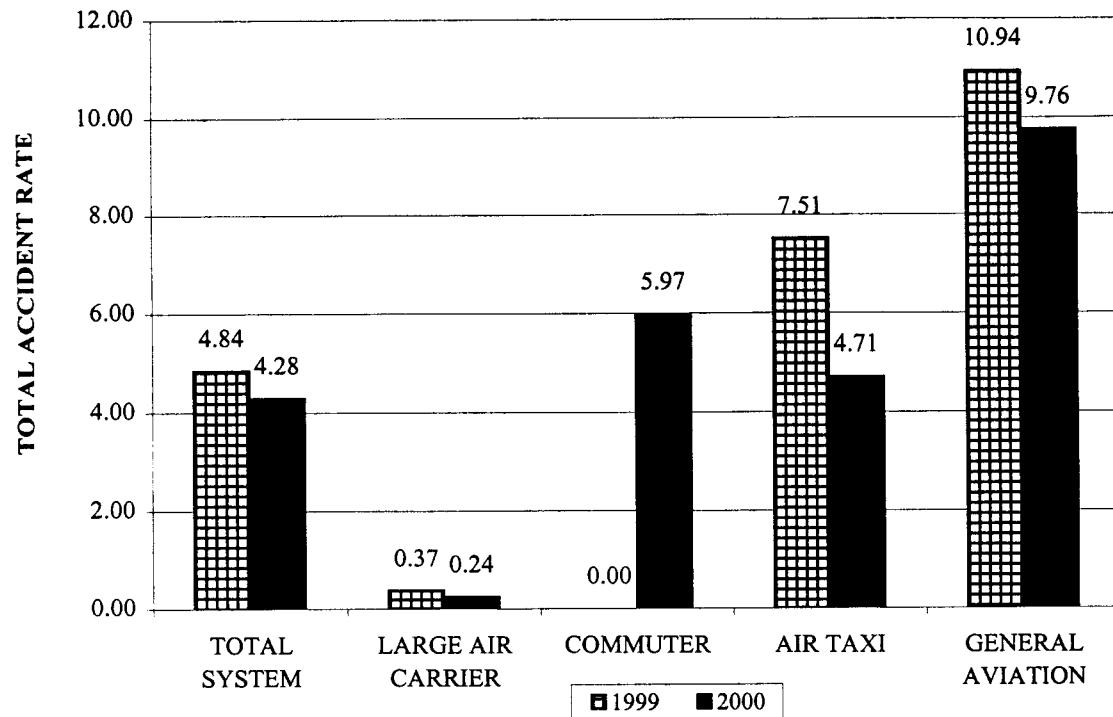


## **ACCIDENT DATA\***

**\*An aircraft accident** is defined by the National Transportation Safety Board as "an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage."

**Data are preliminary and subject to change.**

**TOTAL SYSTEM ACCIDENT DATA BY SEGMENT**  
**JANUARY - FEBRUARY**  
**1999 versus 2000**



SEGMENT	JAN - FEB		ACCIDENTS			ACCIDENT RATE	
	YEAR	HOURS FLOWN*	TOTAL	FATAL	FATALITIES	TOTAL	FATAL
Total	1999	4,381,000	212	33	60	4.84	0.75
System	2000	4,550,816	195	38	156	4.28	0.84
Large Air	1999	2,449,000	9	0	0	0.37	0.00
Carrier	2000	2,508,595	6	1	88	0.24	0.04
Commuter	1999	23,000	0	0	0	0.00	0.00
	2000	16,755	1	0	0	5.97	0.00
Air Taxi	1999	173,000	13	0	0	7.51	0.00
	2000	191,244	9	2	2	4.71	1.05
General	1999	1,736,000	190	33	60	10.94	1.90
Aviation	2000	1,834,222	179	35	66	9.76	1.91

Note: Individual counts may not add to the total because of aircraft involved in midair and ground collisions

\* 2000 Hours Flown are estimated.

**TOTAL SYSTEM ACCIDENT DATA BY SEGMENT**  
**1994 through 1999**

Segment	YEAR	FLIGHT HOURS	TOTAL	ACCIDENTS		ACCIDENT RATE	
				FATAL	FATALITIES	TOTAL	FATAL
Large Air Carrier	1994	13,124,315	23	4	239	0.17	0.03
	1995	13,505,257	36	3	168	0.27	0.02
	1996	13,746,112	38	5	380	0.28	0.04
	1997	15,838,109	49	4	8	0.31	0.03
	1998	165,846,063	50	1	1	0.30	0.01
	1999P	17,428,000	52	2	12	0.30	0.01
Commuter	1994	2,784,129	10	3	25	0.36	0.11
	1995	2,627,866	12	2	9	0.46	0.08
	1996	2,756,755	11	1	14	0.40	0.04
	1997	982,764	16	5	46	1.63	0.06
	1998	513,353	8	0	0	1.56	0.04
	1999P	269,000	13	5	12	4.83	1.86
Air Taxi	1994	1,854,000	85	26	63	4.58	1.40
	1995	1,707,000	75	24	52	4.39	1.41
	1996	2,029,000	90	29	63	4.44	1.43
	1997	2,250,000	82	15	39	3.64	0.67
	1998	2,538,000	77	18	48	3.03	0.71
	1999P	2,809,000	76	12	38	2.71	0.43
General Aviation	1994	22,235,000	1994	403	725	8.96	1.80
	1995	24,906,000	2053	412	734	8.23	1.64
	1996	24,881,000	1908	360	632	7.67	1.45
	1997	25,464,000	1858	363	643	7.28	1.39
	1998	26,796,000	1909	365	623	7.12	1.36
	1999P	27,080,000	1908	342	628	7.05	1.26

Data Source: NTSB

Rates are per 100,000 hours flown

Suicide/Sabotage cases are included in "Accidents" and "Fatalities" but not in "Accident Rates"

P - Preliminary Data

Effective March 20, 1997, aircraft with 10 or more seats must conduct scheduled passenger operations under 14 CFR 121

## **ACRONYM/ABBREVIATION LIST**

## ***ACRONYM/ABBREVIATION LIST***

<i>A/C</i>	<i>Air Carrier</i>
<i>AAL</i>	<i>Alaskan Region</i>
<i>ACE</i>	<i>Central Region</i>
<i>ACT</i>	<i>Approach Control Tower</i>
<i>AEA</i>	<i>Eastern Region</i>
<i>AGL</i>	<i>Great Lakes Region</i>
<i>ANE</i>	<i>New England Region</i>
<i>ANM</i>	<i>Northwest Mountain Region</i>
<i>APP</i>	<i>Approach</i>
<i>ARSA</i>	<i>Airport Radar Service Area</i>
<i>ARTCC</i>	<i>Air Route Traffic Control Center</i>
<i>ASO</i>	<i>Southern Region</i>
<i>ASW</i>	<i>Southwest Region</i>
<i>ATA</i>	<i>Airport Traffic Area</i>
<i>ATC</i>	<i>Air Traffic Control</i>
<i>ATCT</i>	<i>Airport Traffic Control Tower</i>
<i>AWP</i>	<i>Western Pacific Region</i>
<i>CZ</i>	<i>Control Zone</i>
<i>FSS</i>	<i>Flight Service Station</i>
<i>IFR</i>	<i>Instrument Flight Rules</i>
<i>N/A</i>	<i>Not Applicable or Not Available</i>
<i>NMAC</i>	<i>Near Midair-Collision</i>
<i>NONSCH</i>	<i>Nonscheduled</i>
<i>NTSB</i>	<i>National Transportation Safety Board</i>
<i>OCA</i>	<i>Other Controlled Airspace</i>
<i>OD</i>	<i>Operational Deviation</i>
<i>OE</i>	<i>Operational Error</i>
<i>OP</i>	<i>Operational</i>
<i>PCA</i>	<i>Positive Control Area</i>
<i>PD</i>	<i>Pilot Deviation</i>
<i>PROCS</i>	<i>Procedures</i>
<i>SCH</i>	<i>Scheduled</i>
<i>SUA</i>	<i>Special Use Airspace</i>
<i>TCA</i>	<i>Terminal Control Area</i>
<i>TRACON</i>	<i>Terminal Radar Approach Control</i>
<i>VFR</i>	<i>Visual Flight Rules</i>
<i>VPD</i>	<i>Vehicle/Pedestrian Deviation</i>

## **GLOSSARY**

## **GLOSSARY**

### **Accident**

*An “aircraft accident” is defined by the National Transportation Safety Board as “an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.”*

### **Air Carrier**

*Any air operator operating under FAR Parts 121, 127, or 135.*

### **Air Route Traffic Control Center (ARTCC)**

*A facility established to provide air traffic control service to aircraft operating on an IFR flight plan within controlled airspace and principally during the enroute phase of flight. When equipment capabilities and controller workload permit, certain advisory/assistance service may be provided to VFR aircraft.*

### **Air Taxi**

*A class of air carriers, operating pursuant to FAR Part 135, engaged in the nonscheduled air transportation of persons, property, or mail for compensation or hire in aircraft with 30 or less passenger seats and a payload capacity of 7,500 pounds or less. They do not hold certificates of public convenience and necessity and do not hold specific route authority.*

### **Airport Operations**

*The number of arrivals and departures from the airport at which the airport traffic control tower is located. There are two types of operations: local and itinerant.*

### **Commuter**

*An FAR Part 135 operator who carries passengers on at least five round trips per week or at least one route between two or more points according to its published flight schedule that specifies the times, days of the week, and places between which those flights are performed.*

### **Flight Assist**

*An event in which an air traffic control specialist provides verbal information or guidance to an aircraft pilot in a potentially dangerous flight situation.*

### **General Aviation**

*That portion of civil aviation which encompasses all facets of aviation except air carriers.*

***Large Air Carrier***

*Scheduled and nonscheduled aircraft operating under FAR Parts 121 or 127.  
(Note: Part 129 operations [foreign air carriers] are not included in the NTSB  
accident database, nor are hour and departure data available for these air  
carriers.)*

***Near Midair Collision***

*An incident associated with the operation of an aircraft in which a possibility of collision occurs as a result of proximity of less than 500 feet to another aircraft, or a report is received from a pilot or flight crew member stating that a collision hazard existed between two or more aircraft.*

**Degree of Hazard**

*Critical: A situation in which collision avoidance was due to chance rather than an act on the part of the pilot. Less than 100 feet of aircraft separation would be considered critical.*

*Potential: An incident which would probably have resulted in a collision if no action had been taken by either pilot. Closest proximity of less than 500 feet would usually be required in this case.*

*No Hazard: A situation in which direction and altitude would have made a midair collision improbable regardless of evasive action taken.*

***Open “Near Midair Collisions”***

*Final investigation still underway.*

***Operational Deviation***

*An occurrence where applicable separation minima as referenced in the operational error definition below were maintained but (1) less than the applicable separation minima existed between an aircraft and protected airspace without prior approval (2) an aircraft penetrated airspace that was delegated to another position of operation or another facility without prior coordination and approval, (3) an aircraft penetrated airspace that was delegated to another position of operation or another facility at an altitude or route contrary to the altitude or route requested and approved in direct coordination or as specified in a Letter of Agreement, pre-coordination or internal procedure, or (4) an aircraft, vehicle, equipment, or personnel encroached upon a landing area that was delegated to another position of operation without prior coordination and approval.*

## ***Operational Error***

*An occurrence attributable to an element of the air traffic control system in which:*

- 1. Less than the applicable separation minima results between two or more aircraft, or between an aircraft and terrain or obstacles (e.g., operations below minimum vectoring altitude (MVA); equipment/personnel on runways), as required by FAA Order 7110.65 or other national directive; or*
- 2. An aircraft lands or departs on a runway closed to aircraft operations after receiving air traffic authorization.*

## ***Pilot Deviation***

*The actions of a pilot that result in the violation of a Federal Aviation Regulation or a North American Aerospace Defense Command (NORAD) Air Defense Identification Zone (ADIZ) tolerance.*

### ***Pilot Deviation Air Deviation Types***

*ATC Altitude Clearance Deviation  
ATC Course Clearance Deviation  
Airspeed Violation  
Flying VFR When IFR Required  
Pilot Unqualified for Aircraft or Conditions  
Required Aircraft Equipment Not Operating  
Careless or Reckless Aircraft Operating  
Unauthorized Low Level Flying  
Missed Compulsory Reporting Point  
Noncompliance with Other Regulations*

### ***Pilot Deviation Airspace Violation Types***

*Class A (formerly Positive Control Area (PCA))  
Class B (formerly Terminal Control Area (TCA))  
Class C (formerly Airport Radar Service Area (ARSA))  
Class D (formerly Airport Traffic Area (ATA) and Control Zone (CZ))  
Class E (formerly General Controlled Airspace)  
Class G (formerly Uncontrolled Airspace)  
Special Use Airspace  
Unknown  
Other*

### **Pilot Deviation Surface Deviation Types**

- Takeoff Without Clearance*
- Takeoff on Wrong Runway or Taxiway*
- Landing Without Clearance*
- Landing or Takeoff Below Weather Minimums*
- Landing on Wrong Runway, Airport, or Taxiway*
- Entered Taxiway or Runway Without Clearance*
- Careless or Reckless Aircraft Operation*
- Other*

### **Runway Incursion**

*Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in loss of separation with an aircraft taking off, intending to take off, landing, or intending to land.*  
*Please see next page for definition details.*

### **Surface Incident**

*Any event where unauthorized or unapproved movement occurs within the movement area or an occurrence in the movement area associated with the operation of an aircraft that affects or could affect the safety of flight. Surface incidents result from pilot deviations, operational errors, vehicle pedestrian deviations, or operational deviations*

### **Terminal Radar Approach Control (TRACON)**

*A Federal Aviation Administration (FAA) air traffic control facility using radar and air/ground communications to provide approach control services to aircraft arriving, departing, or transiting the airspace controlled by the facility. Service may be provided to both civil and military airports. A TRACON is similar to a RAPCON (USAF), a RATCF (USN), and an ARAC (Army).*

### **Vehicle/Pedestrian Deviation**

*An entry or movement on an airport movement area by a vehicle operator or pedestrian that has not been authorized by air traffic control (includes aircraft operated by a non-pilot).*

## **RUNWAY INCURSION DEFINITIONS**

*This section includes two groups of definitions. The first group includes terms that have been subject to some confusion and misunderstandings in the past; the second set is comprised of definitions tailored specifically to runway incursion analysis.*

### **Runway Incursion (FAA Order 8020.11A, Ch.1 Par 5)**

*Any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation\* with an aircraft taking off, intending to take off, landing, or intending to land.*

*\*A loss of separation means that aircraft involved in the incident were closer than allowed by air traffic requirements.*

*Runway Incursions are classified into four categories:*

**Pilot Deviations (PD)** - action of a pilot that results in violation of a Federal Aviation Regulation.

**Operational Errors (OE)** - an occurrence attributable to an element of the ATC system which results in:

- 1) less than the applicable separation minima between two or more aircraft, or between an aircraft and terrain or obstacles, as required by FAA Order 7110.65, Air Traffic Control, and supplemental instructions. Obstacles include vehicles/equipment/personnel on runways; or
- 2) an aircraft landing or departing on a runway closed to aircraft operations after receiving air traffic authorization.

### **Operational Deviations (OD) (FAA Order 7210.3)**

*Controlled occurrences where applicable separation minima, as referenced in the definition of operational error (see above) are maintained, but 1) less than the applicable separation minima existed between an aircraft and protected airspace without prior approval, or 2) an aircraft penetrated airspace that was delegated to another position of operation or another facility without prior coordination and approval.*

**Vehicle/Pedestrian Deviations (VPD)** - vehicle or pedestrian incursions resulting from a vehicle operator, non-pilot operator of an aircraft, or pedestrian who deviates onto the movement area (including the runway) without ATC authorization.

*It should be noted that not all events that fall into these categories are counted as runway incursions. While these four categories all represent surface incidents, they are considered runway incursions only when a collision hazard or loss of separation occurs.*