



U.S. Department  
of Transportation

Federal Aviation  
Administration

# Aviation Safety Statistical Handbook



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*planning • information • analysis*

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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 (SIs), runway incursions, flight assists, and aircraft accidents. Comparing January through May 1999 with January through May 2000, all airspace incidents have shown an increase, with the exception of NMACs, which remained the same. Accident counts for January through May 2000 show a decrease.

### **NEAR MIDAIR COLLISIONS**

For January through May 2000, the number of pilot-reported near midair collisions remained at 98, compared to January through May 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 39 to 26 and General Aviation (GA) increased from 32 to 43. NMACs where one aircraft was flying IFR and the other was flying VFR remained at 51. Those where both aircraft were flying VFR increased from 34 to 37; and those where both aircraft were flying IFR decreased from 13 to 10. Eight NMACs reported thus far during 2000 were judged to represent a critical hazard.

### **OPERATIONAL ERRORS/DEVIATIONS**

Operational errors increased 25 percent from 371 to 463 during January through May 2000 compared to the same period in 1999. En route operational errors for this period increased 30 percent from 227 to 294, while errors at terminals increased 17 percent from 144 to 169. For the 12-month period ending May 2000, the top air route traffic control centers, based on operational errors per 100,000 operations, had error rates ranging from 3.24 for Washington Center to 1.47 for the Kansas City Center. TRACON operational errors varied from 1.55 for New York to .70 for Falmouth TRACON.

Operational deviations for January through May 2000 increased 71 percent from 107 to 183 compared to January through May 1999.

### **PILOT DEVIATIONS**

Reports of pilot deviations for January through May 2000 increased 41 percent from 588 to 831, compared to January through May 1999. Over this period, air deviations increased from 413 to 549, while surface deviations increased from 165 to 273. The number of Class B airspace violations increased 69 percent from 45 to 76.

### **VEHICLE/PEDESTRIAN DEVIATIONS**

Total vehicle/pedestrian deviations during January through May 2000 increased to 213 from 130 for the same period in 1999. Merrill Field Airport recorded a total of 22 VPD's for the 12 months ending May 2000, which is up compared to the number recorded for the preceding 12 months. Jeffco Airport in Colorado and Montgomery Field in California also recorded significant increases in VPD's over the last 12 months.

### **SURFACE INCIDENTS**

The number of SI's for January through May 2000 increased 56 percent from 349 to 544 compared to the same period in 1999. Surface OE's increased 9 percent, from 35 to 38 and PD SI's rose 61 percent, from 175 to 282. Operational deviation SI's increased 22 percent, from 9 to 11.

The number of runway incursions for January through May 2000 increased 29 percent, from 118 to 152, compared to January through May 1999.

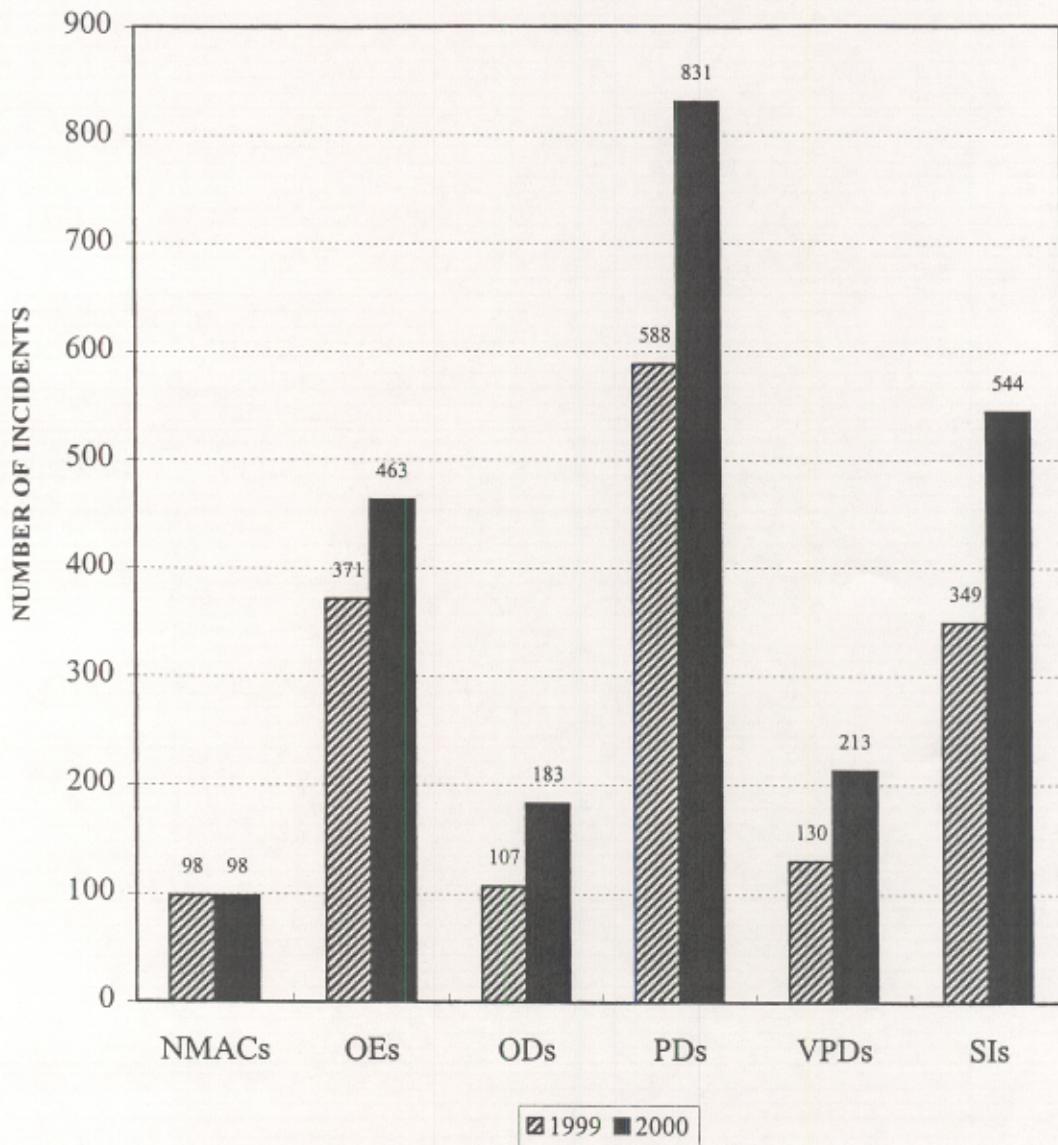
### **FLIGHT ASSISTS**

Flight assists for January through May 2000 increased 13 percent from 184 to 207 compared to January through May 1999. Ninety-four percent of the flight assists handled in January through May 2000 were for general aviation aircraft. A 12-month comparison of flight assists by facility showed that New York TRACON and Fort Worth Meacham Airport topped the list with 21 assists each.

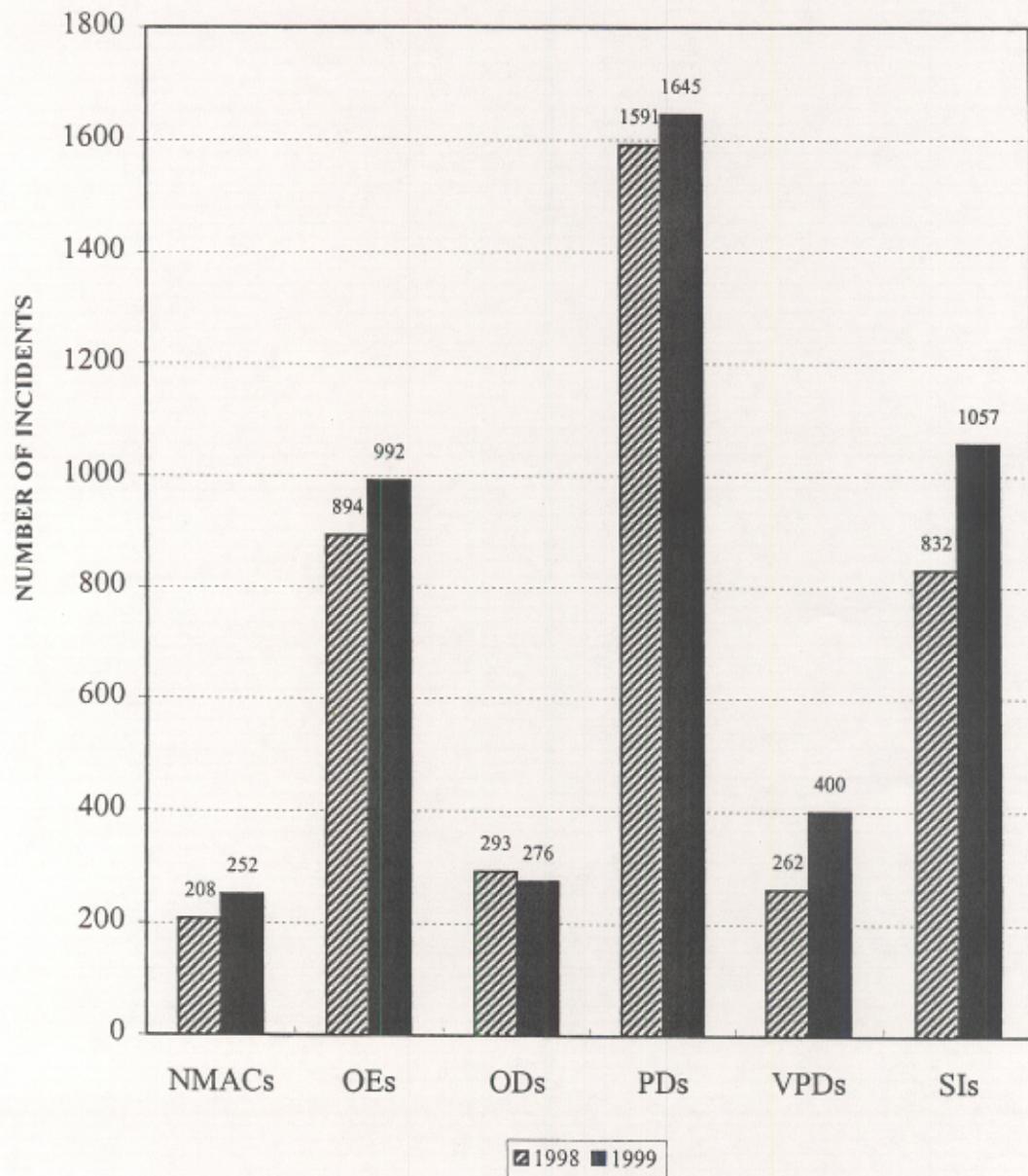
### **ACCIDENT DATA**

Total system accidents decreased 3 percent from 729 during January through May 1999 to 709 for the January through May 2000. About 91 percent of 2000 accidents occurred in the General Aviation segment (648), which decreased 4 percent from 677 in January through May 1999. There were 25 large air carrier accidents in January through May 2000 compared to 19 in January through May 1999. The number of fatal accidents decreased 2 percent from 126 to 123. The total system fatalities increased from 222 to 336 during this period.

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



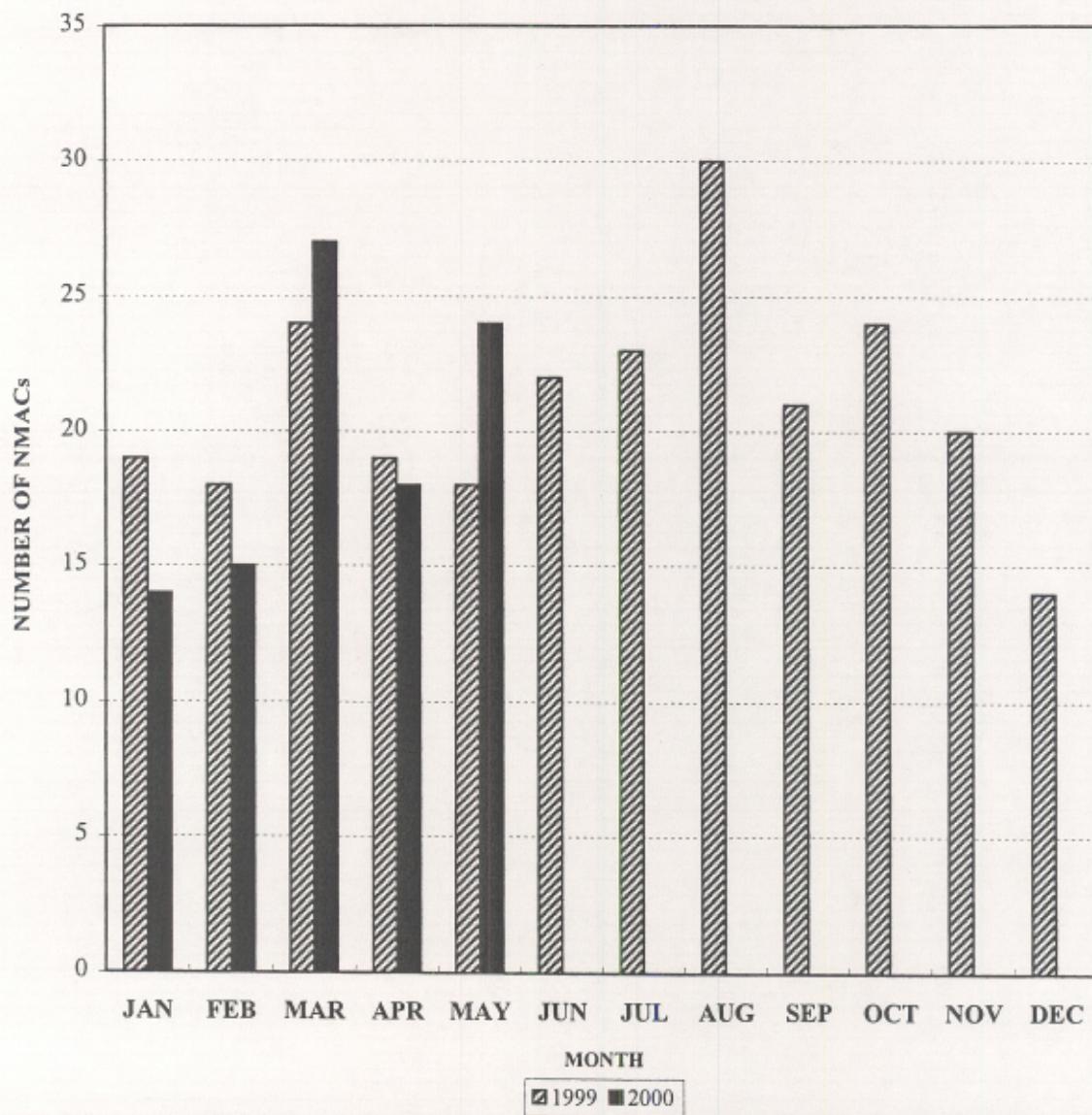
## NATIONAL AIRSPACE INCIDENTS CALENDAR YEARS 1998 and 1999



## **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 - MAY 2000**

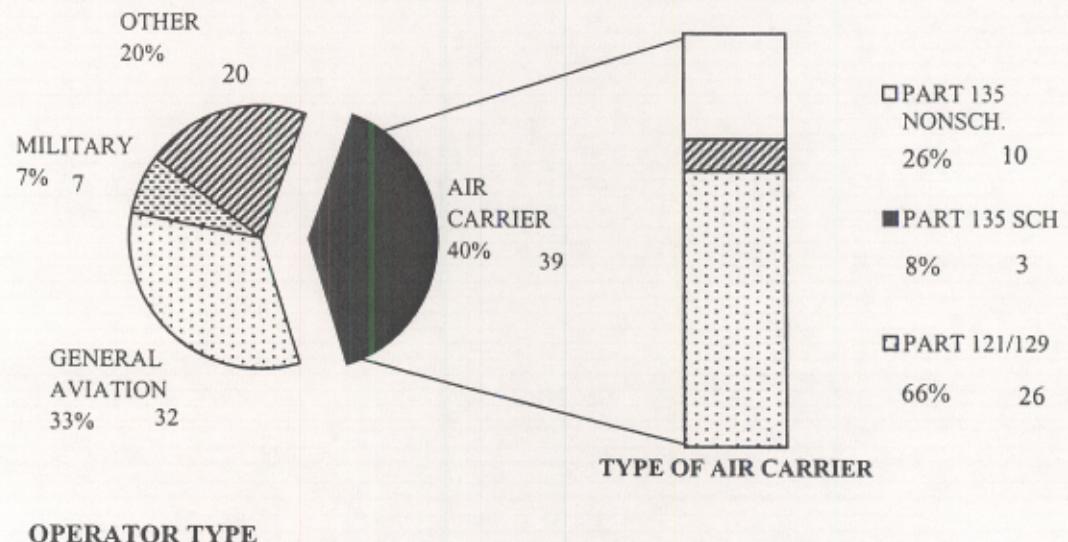


1999	19	18	24	19	18	22	23	30	21	24	20	14
2000	14	15	27	18	24							

# PILOT-REPORTED NEAR MIDAIR COLLISIONS BY REPORTING OPERATOR TYPE

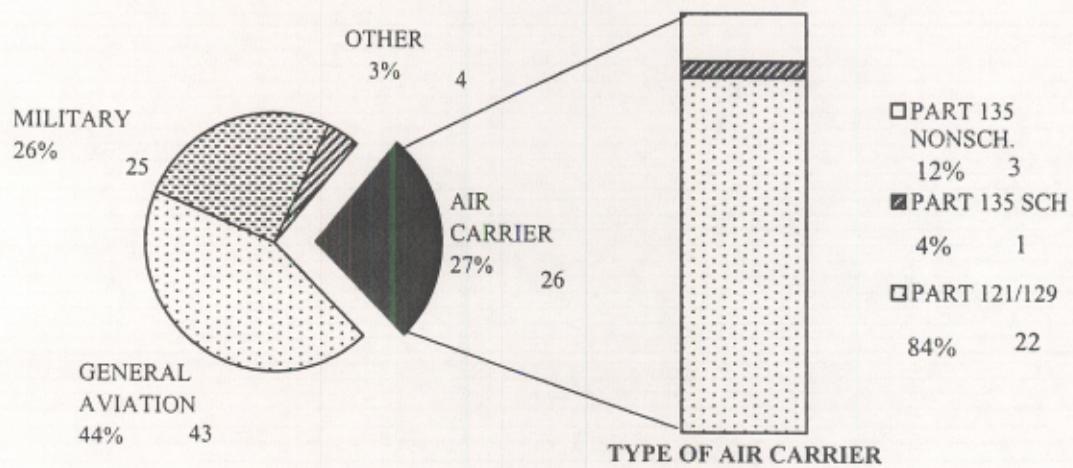
1999 versus 2000

JANUARY - MAY 1999



OPERATOR TYPE

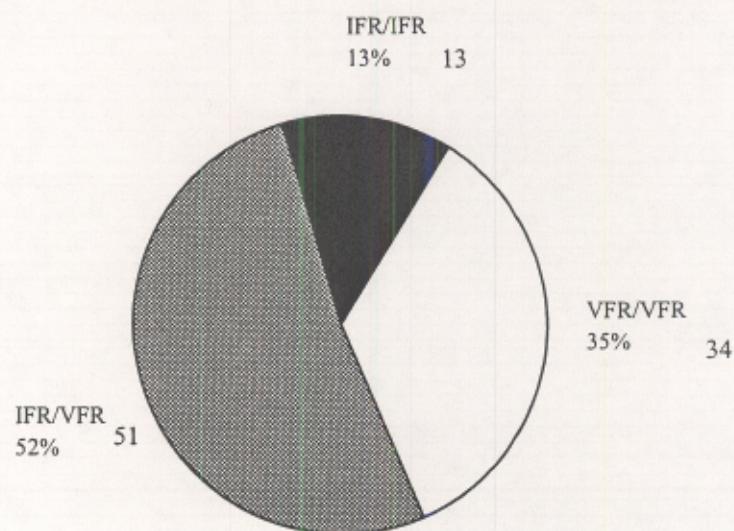
JANUARY - MAY 2000



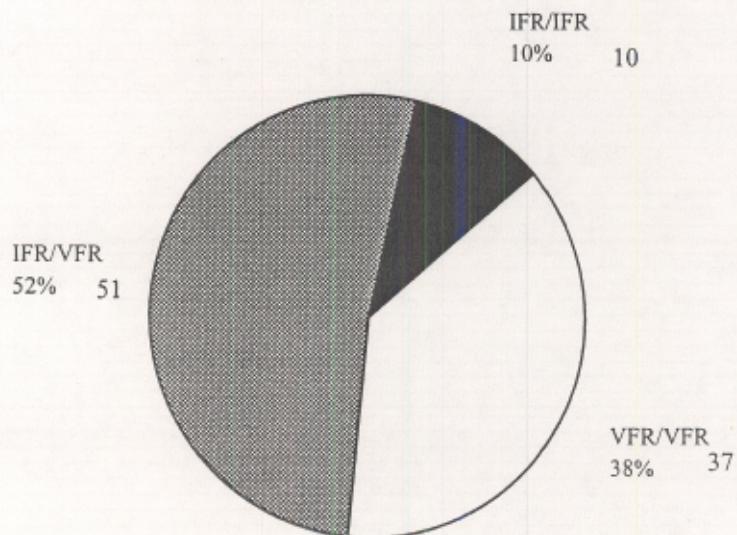
OPERATOR TYPE

## PILOT-REPORTED NEAR MIDAIR COLLISIONS 1999 versus 2000

JANUARY - MAY 1999



JANUARY - MAY 2000



**PILOT-REPORTED NEAR MIDAIR COLLISIONS  
BY DEGREE OF HAZARD AND MONTH  
1999 - MAY 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	9	6	5	22
JUL	1	12	8	2	23
AUG	2	12	7	9	30
SEP	2	8	0	11	21
OCT	2	9	6	7	24
NOV	2	11	1	6	20
DEC	3	6	2	3	14
<b>TOTAL</b>	<b>25</b>	<b>103</b>	<b>55</b>	<b>69</b>	<b>252</b>

2000

MONTH	DEGREE OF HAZARD				TOTAL
	Critical	Potential	No Hazard	Not Reported	
JAN	2	8	3	1	14
FEB	1	7	0	7	15
MAR	2	11	5	9	27
APR	1	3	3	11	18
MAY	2	8	1	13	24
JUN					
JUL					
AUG					
SEP					
OCT					
NOV					
DEC					
<b>TOTAL</b>	<b>8</b>	<b>37</b>	<b>12</b>	<b>41</b>	<b>98</b>

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

MONTH	1999									TOTAL
	REGION									
	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	2	3	10	24
NOV	0	1	4	1	0	0	4	3	7	20
DEC	2	2	1	1	0	0	4	2	2	14
TOTAL	9	15	34	27	6	22	33	35	71	252

MONTH	2000									TOTAL
	REGION									
	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	5	15
MAR	2	1	2	1	1	1	8	2	9	27
APR	0	1	0	0	0	1	4	3	9	18
MAY	0	0	2	0	2	2	5	4	9	24
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	2	4	6	3	3	8	23	13	36	98

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

STATE	JAN-MAY		STATE	JAN-MAY	
	1999	2000		1999	2000
Alabama	1	0	Montana	1	0
Alaska	2	2	Nebraska	0	0
Arizona	9	11	Nevada	1	5
Arkansas	0	0	New Hampshire	1	0
Atlantic Ocean	1	0	New Jersey	1	1
Bahamas*	0	0	New Mexico	1	1
California	18	18	New York	1	0
Colorado	1	1	North Carolina	0	3
Connecticut	1	0	North Dakota	5	0
Delaware	0	1	Ohio	1	0
District of Columbia	0	0	Oklahoma	2	2
Florida	5	15	Oregon	1	1
Georgia	2	1	Pennsylvania	2	3
Guam*	0	0	Puerto Rico*	0	1
Hawaii	4	2	Rhode Island	0	0
Idaho	1	0	South Carolina	0	1
Illinois	3	1	South Dakota	0	0
Indiana	1	1	Tennessee	0	1
Iowa	4	0	Texas	9	9
Kansas	3	2	Utah	1	3
Kentucky	3	0	Vermont	0	0
Louisiana	0	2	Virgin Islands*	0	0
Maine	0	0	Virginia	2	1
Maryland	2	0	Wake Island*	0	0
Massachusetts	0	3	Washington	2	3
Michigan	0	0	West Virginia	1	0
Minnesota	2	0	Wisconsin	1	1
Mississippi	1	1	Wyoming	1	0
Missouri	0	1			

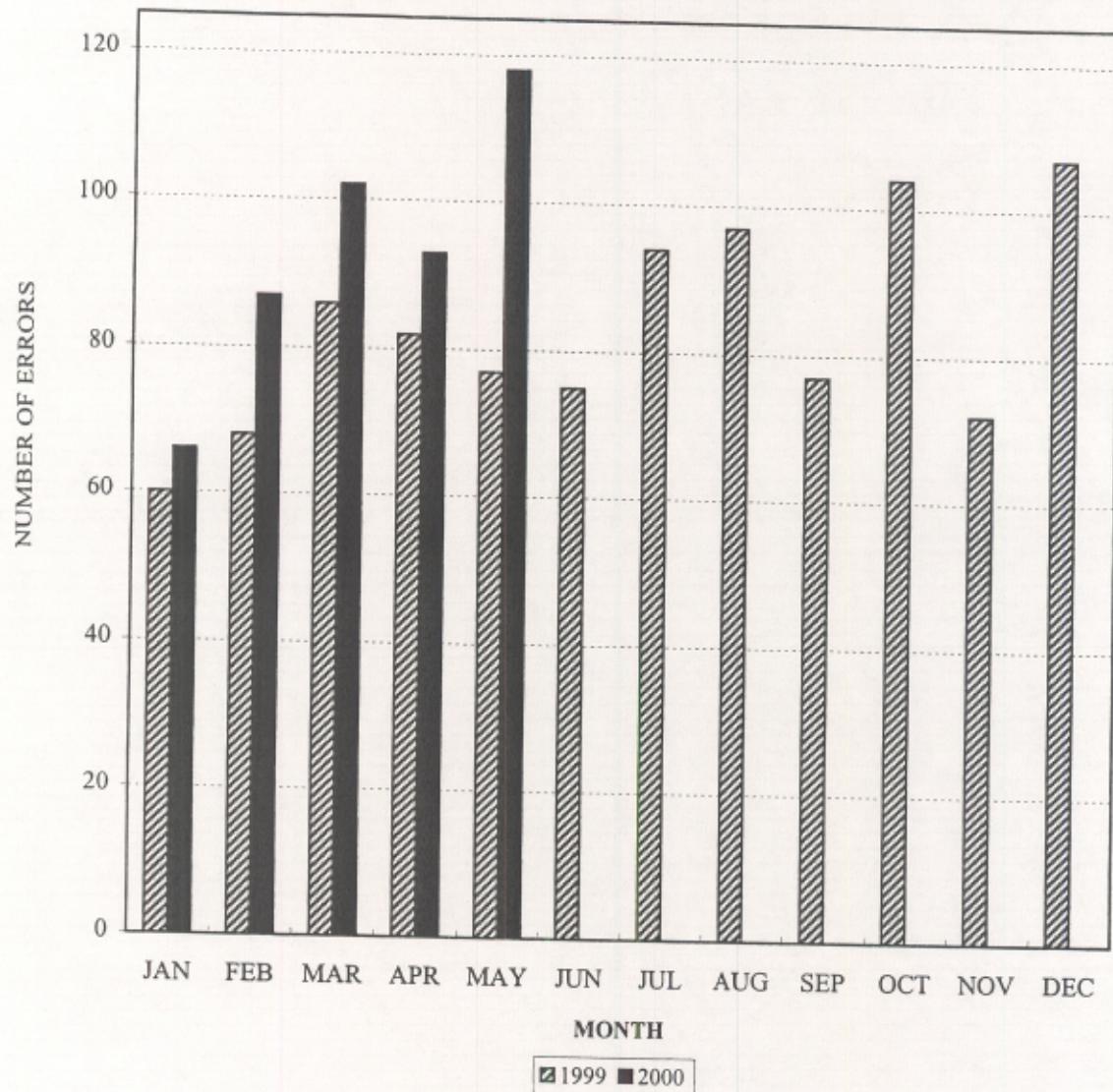
\*U.S. Controlled Airspace

TOTAL 98 98

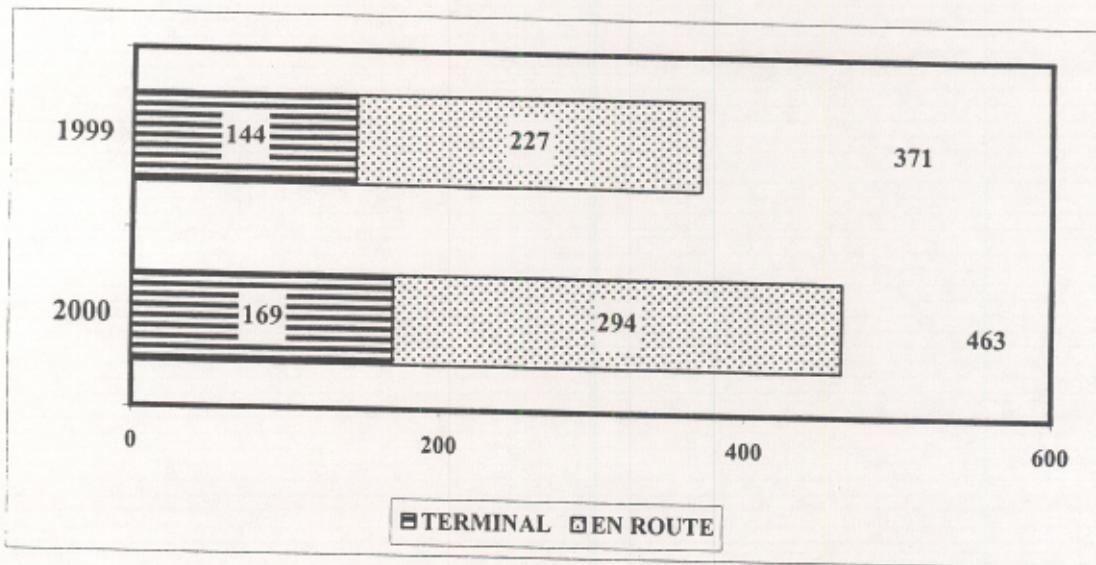
## **OPERATIONAL ERRORS/DEVIATIONS\***

\*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 - May 2000**



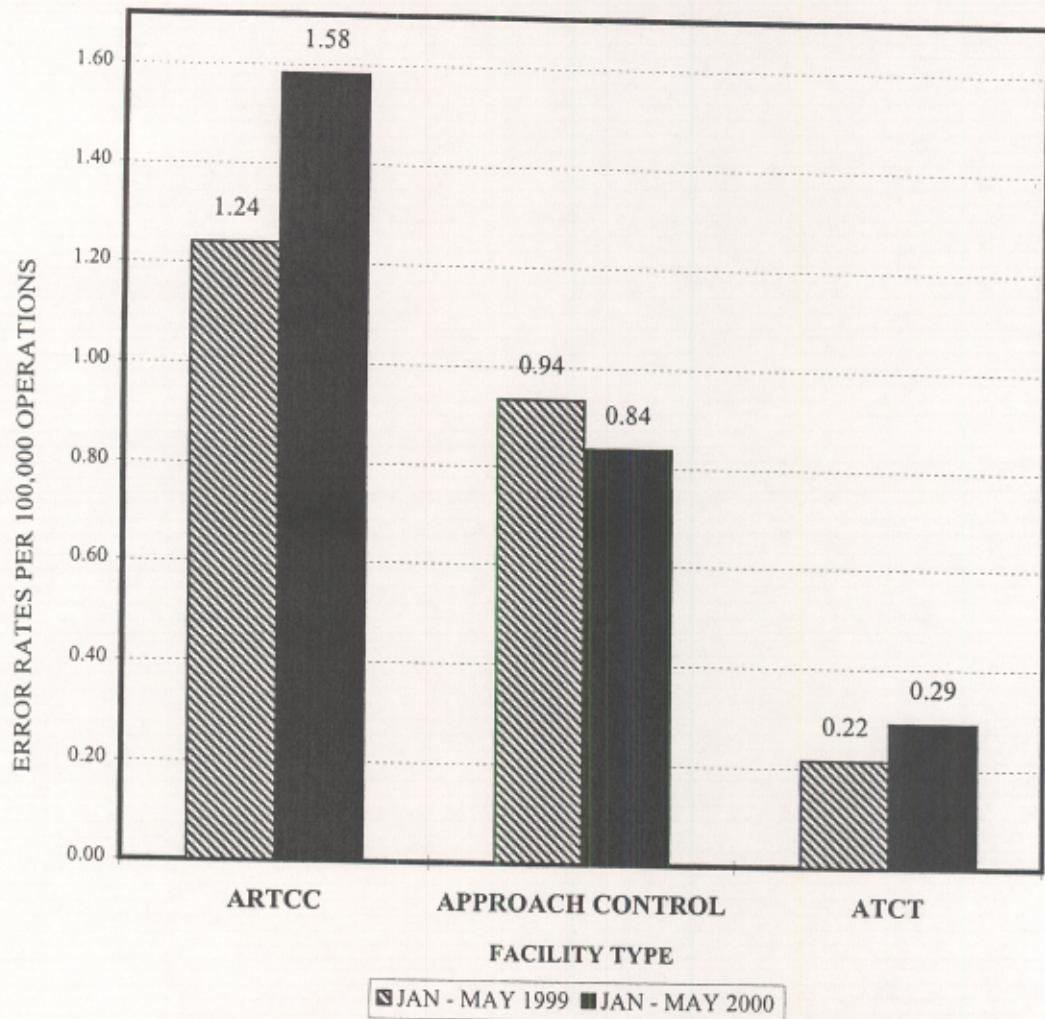
**OPERATIONAL ERRORS**  
**JANUARY-MAY**  
**1999 versus 2000**



MONTH	TYPE OF OPERATIONAL ERRORS JAN-MAY 1999				TYPE OF OPERATIONAL ERRORS JAN-MAY 2000			
	TERMINAL	EN ROUTE	FSS	TOTAL	TERMINAL	EN ROUTE	FSS	TOTAL
JAN	29	31	0	60	19	46	0	65
FEB	24	44	0	68	29	56	0	85
MAR	31	54	1	86	43	59	0	102
APR	28	53	0	81	35	58	0	93
MAY	31	45	0	76	43	75	0	118
JUN								
JUL								
AUG								
SEP								
OCT								
NOV								
DEC								
<b>TOTAL</b>	<b>143</b>	<b>227</b>	<b>1</b>	<b>371</b>	<b>169</b>	<b>294</b>	<b>0</b>	<b>463</b>

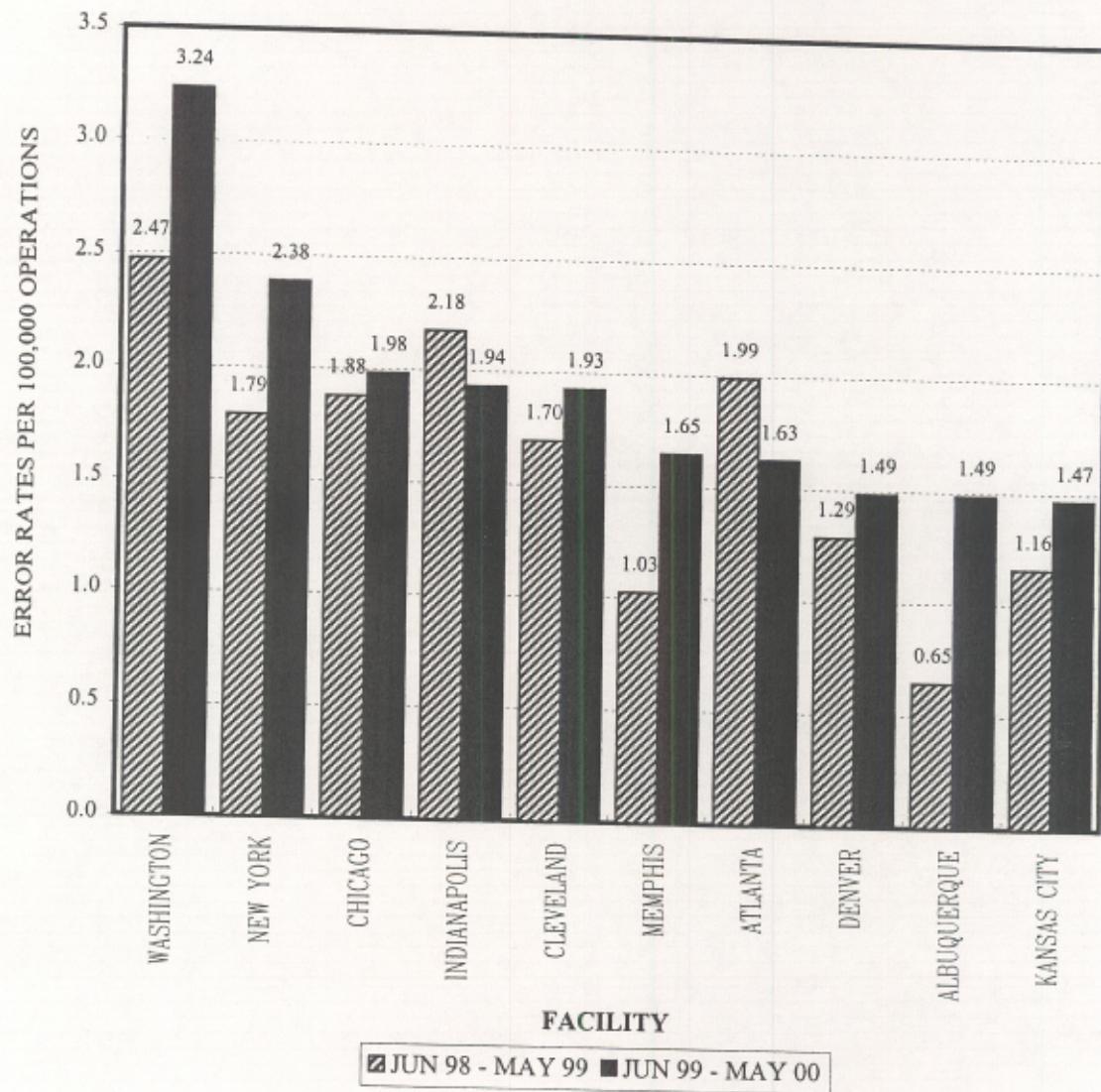
Note: In graphic overview FSSs are included in Terminals.

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



Actual Error Data thru 05/31/2000  
Actual Activity Data thru 03/31/2000  
Forecast Activity Data 04/01/2000 - 05/31/2000

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

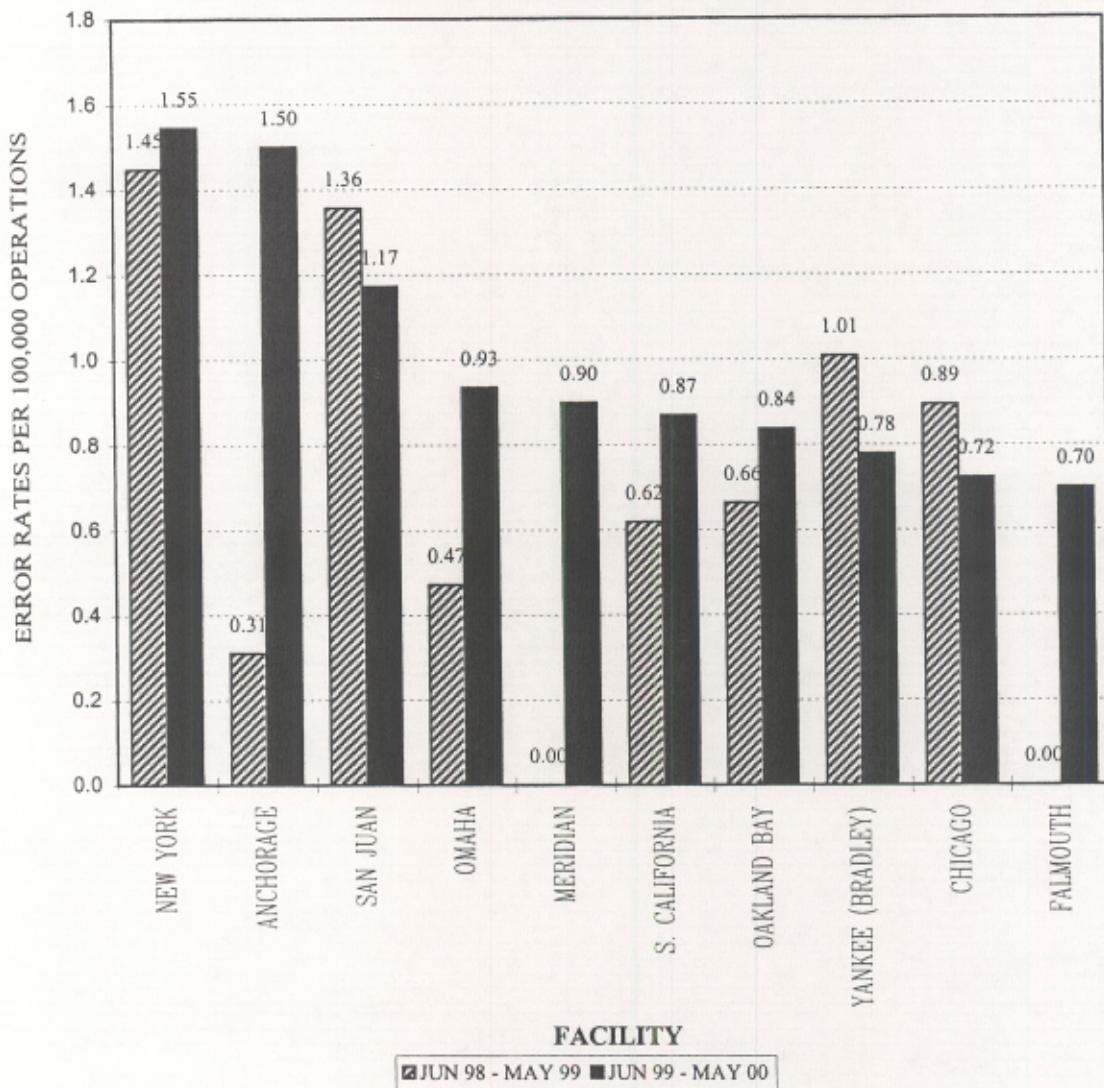


Actual Error Data thru 05/31/2000

Actual Activity Data thru 03/31/2000

Forecast Activity Data 04/01/2000 - 05/31/2000

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



Actual Error Data thru 05/31/2000  
 Actual Activity Data thru 03/31/2000  
 Forecast Activity Data 04/01/2000 - 05/31/2000  
 CERAPS are included in TRACONS

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

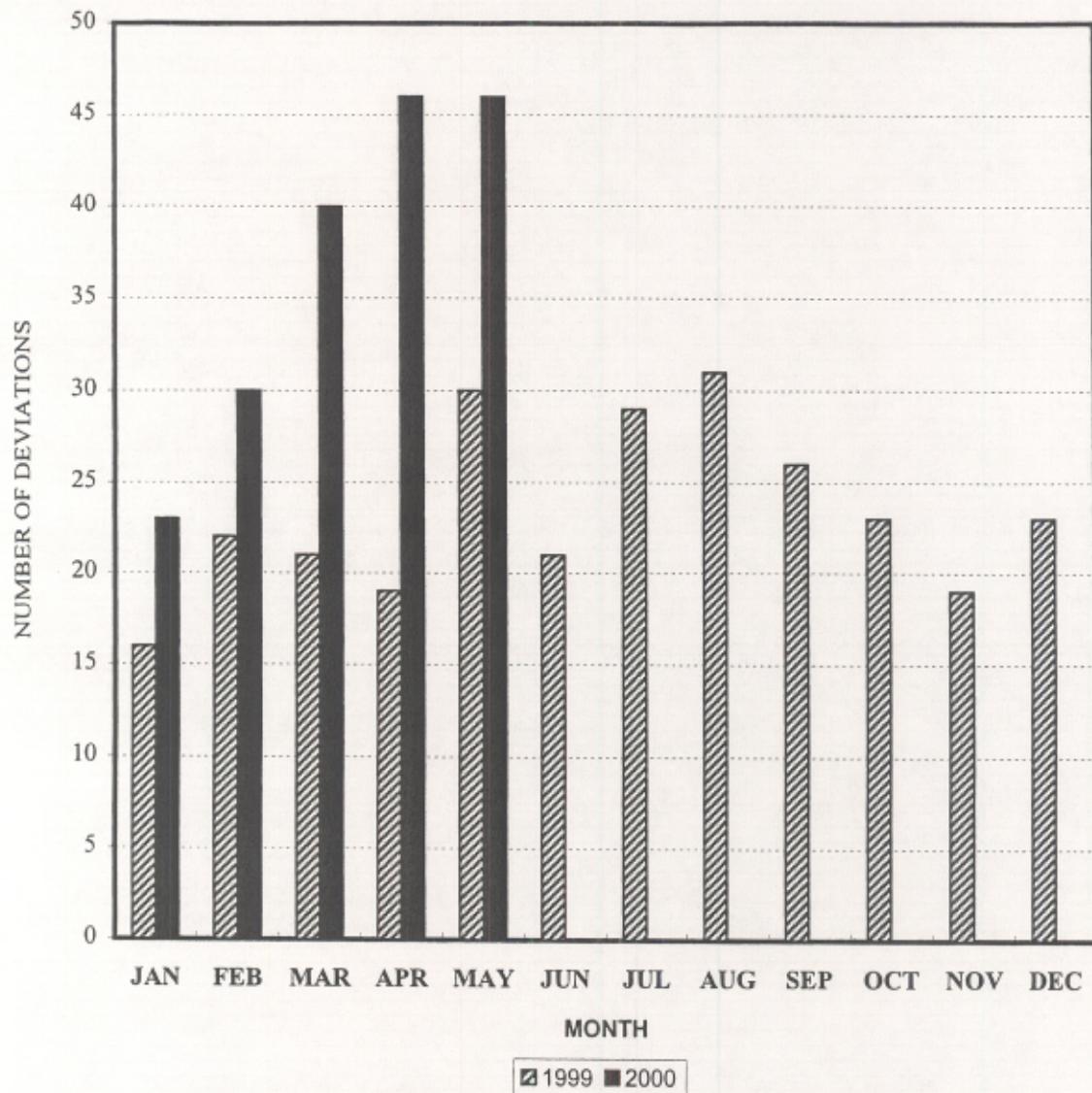
1999

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	14	21	0	3	19	4	5	68
MAR	3	2	16	15	4	5	19	9	13	86
APR	0	5	15	21	0	6	21	8	5	81
MAY	0	6	16	18	2	4	11	11	8	76
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	3	14	6	9	70
DEC	2	3	18	22	3	8	26	8	15	105
TOTAL	17	43	220	236	31	54	195	94	102	992

2000

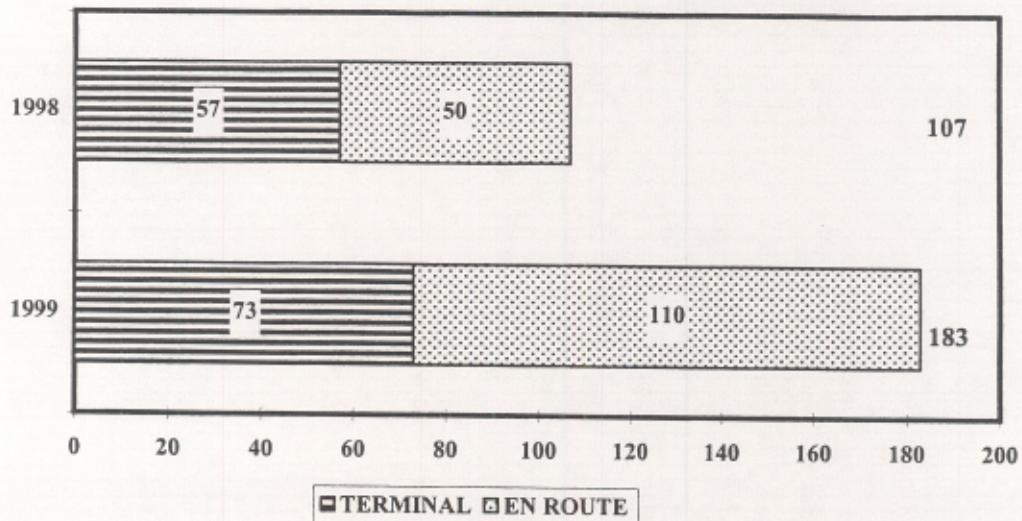
MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	4	13	18	0	4	10	9	7	65
FEB	0	6	22	19	2	4	14	11	7	85
MAR	1	2	15	21	1	6	34	8	14	102
APR	0	6	25	14	1	4	21	10	12	93
MAY	2	5	37	26	5	8	13	11	11	118
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	3	23	112	98	9	26	92	49	51	463

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



1999	15	23	21	19	29	21	27	31	26	23	18	23
2000	22	29	40	46	46							

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



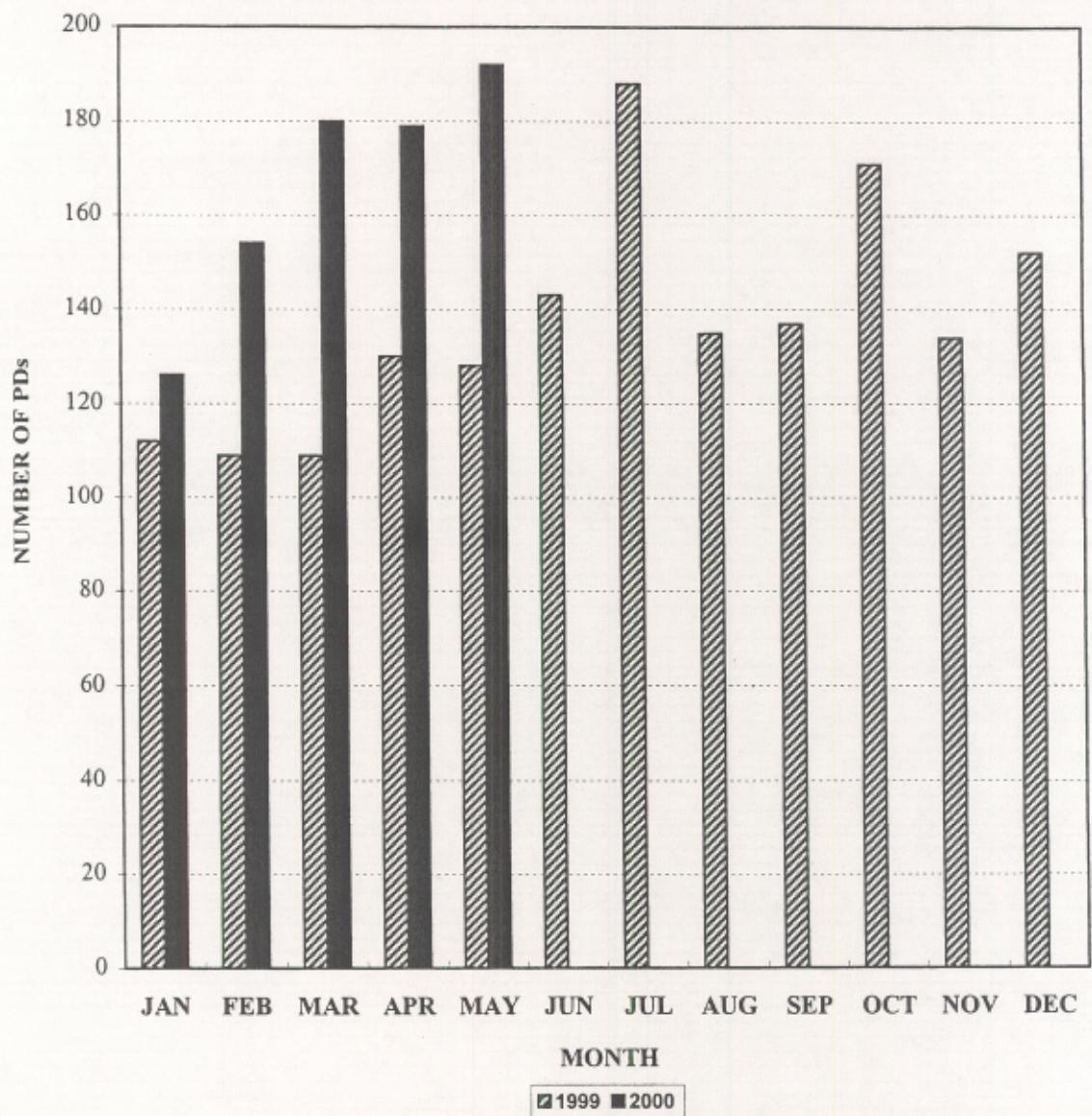
MONTH	TYPE OF OPERATIONAL DEVIATIONS JAN-MAY 1999				TYPE OF OPERATIONAL DEVIATIONS JAN-MAY 2000			
	TERMINAL	EN ROUTE	FSS	TOTAL	TERMINAL	EN ROUTE	FSS	TOTAL
JAN	7	7	1	15	13	9	0	22
FEB	13	10	0	23	9	20	0	29
MAR	11	8	2	21	13	24	3	40
APR	9	10	0	19	16	30	0	46
MAY	14	15	0	29	19	27	0	46
JUN								
JUL								
AUG								
SEP								
OCT								
NOV								
DEC								
<b>TOTAL</b>	<b>54</b>	<b>50</b>	<b>3</b>	<b>107</b>	<b>70</b>	<b>110</b>	<b>3</b>	<b>183</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.**

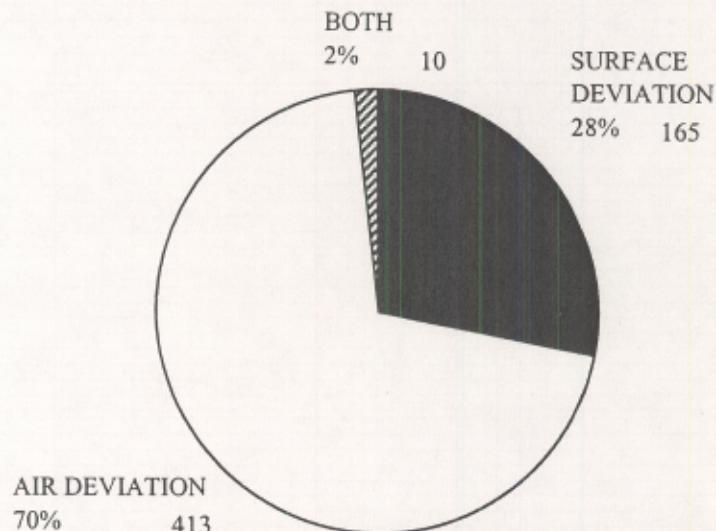
**PILOT DEVIATIONS  
BY MONTH  
1999 - MAY 2000**



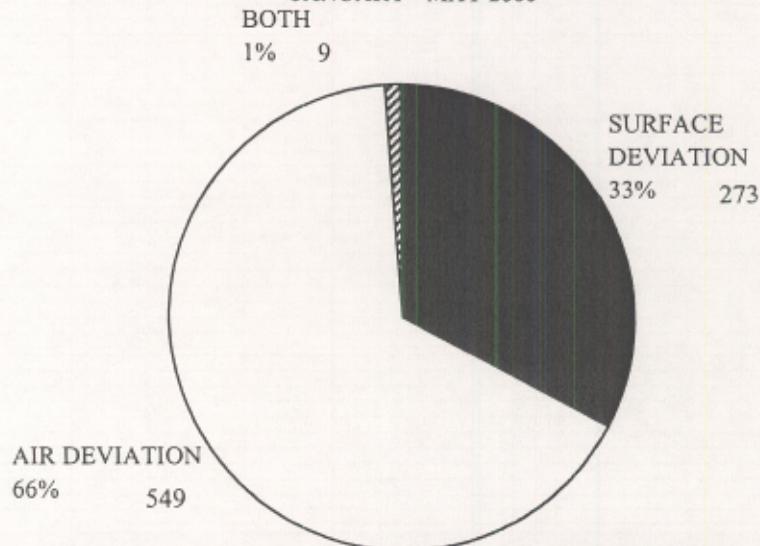
1999	112	109	109	130	128	143	188	135	137	171	131	152
2000	126	154	180	179	192							

# PILOT DEVIATIONS BY DEVIATION TYPE 1999 versus 2000

JANUARY - MAY 1999

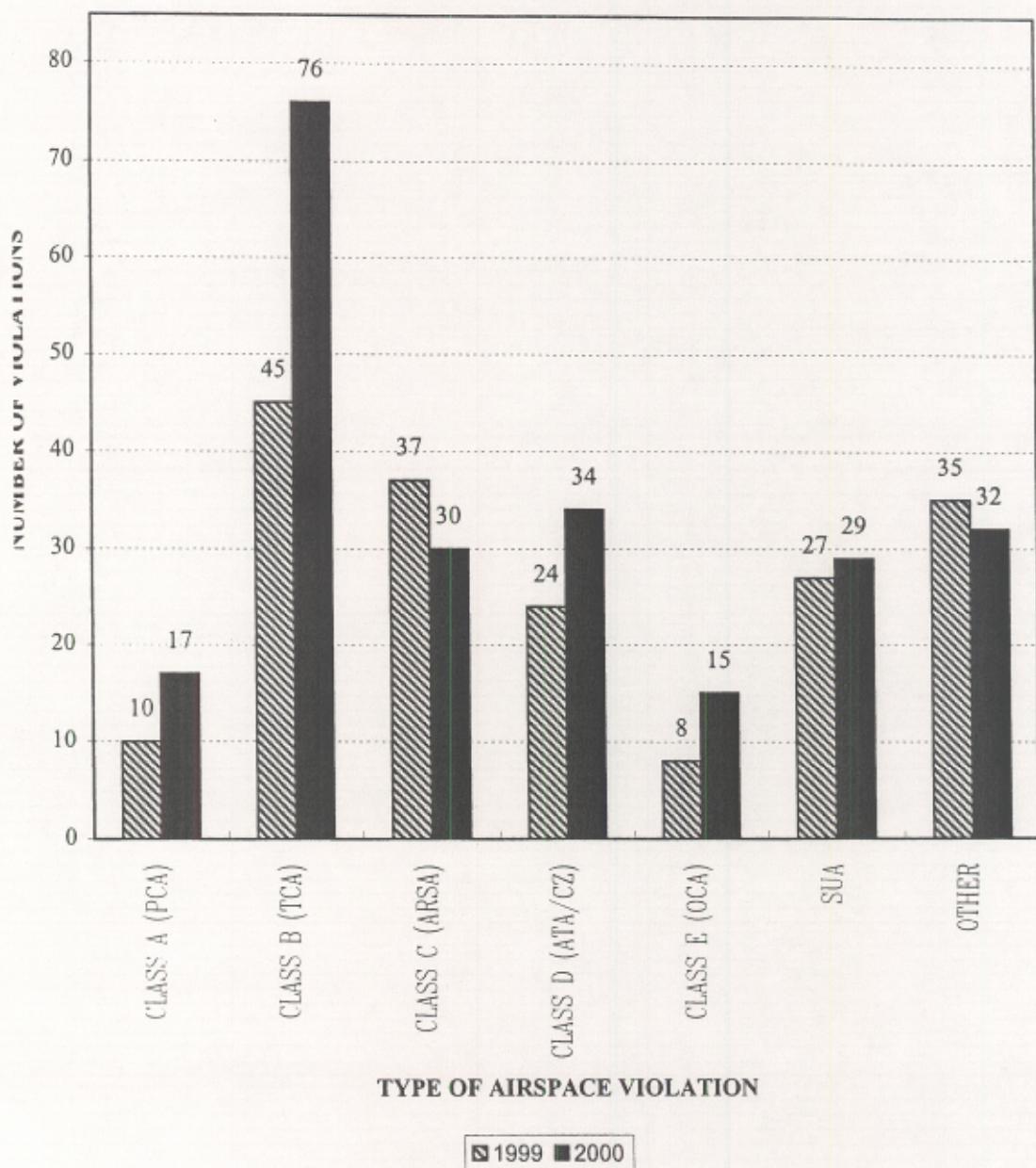


JANUARY - MAY 2000



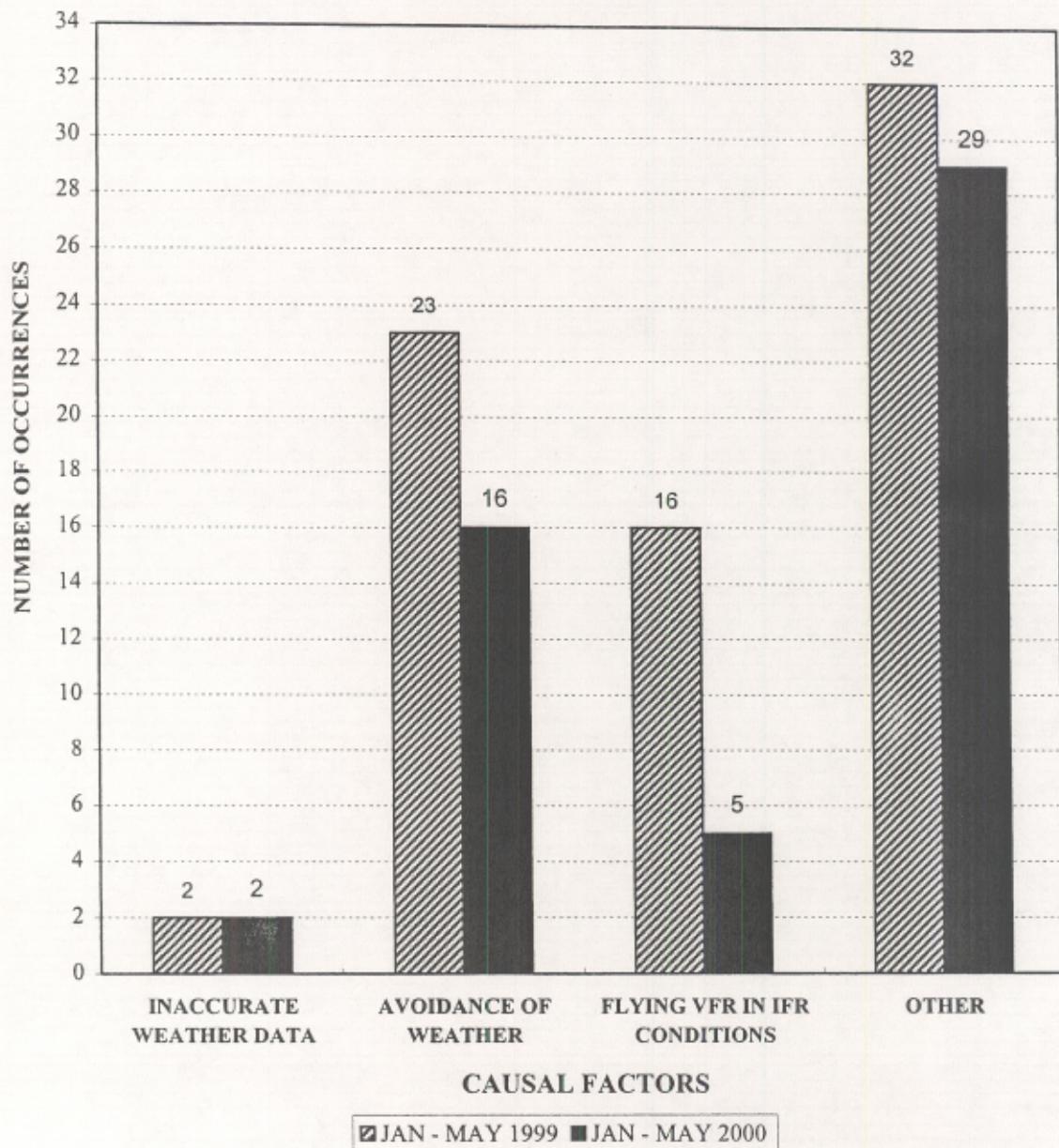
NOTE: The total number of deviations exceeds the number of reports. One report may involve multiple deviations, including both air and surface deviations on the same report.

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

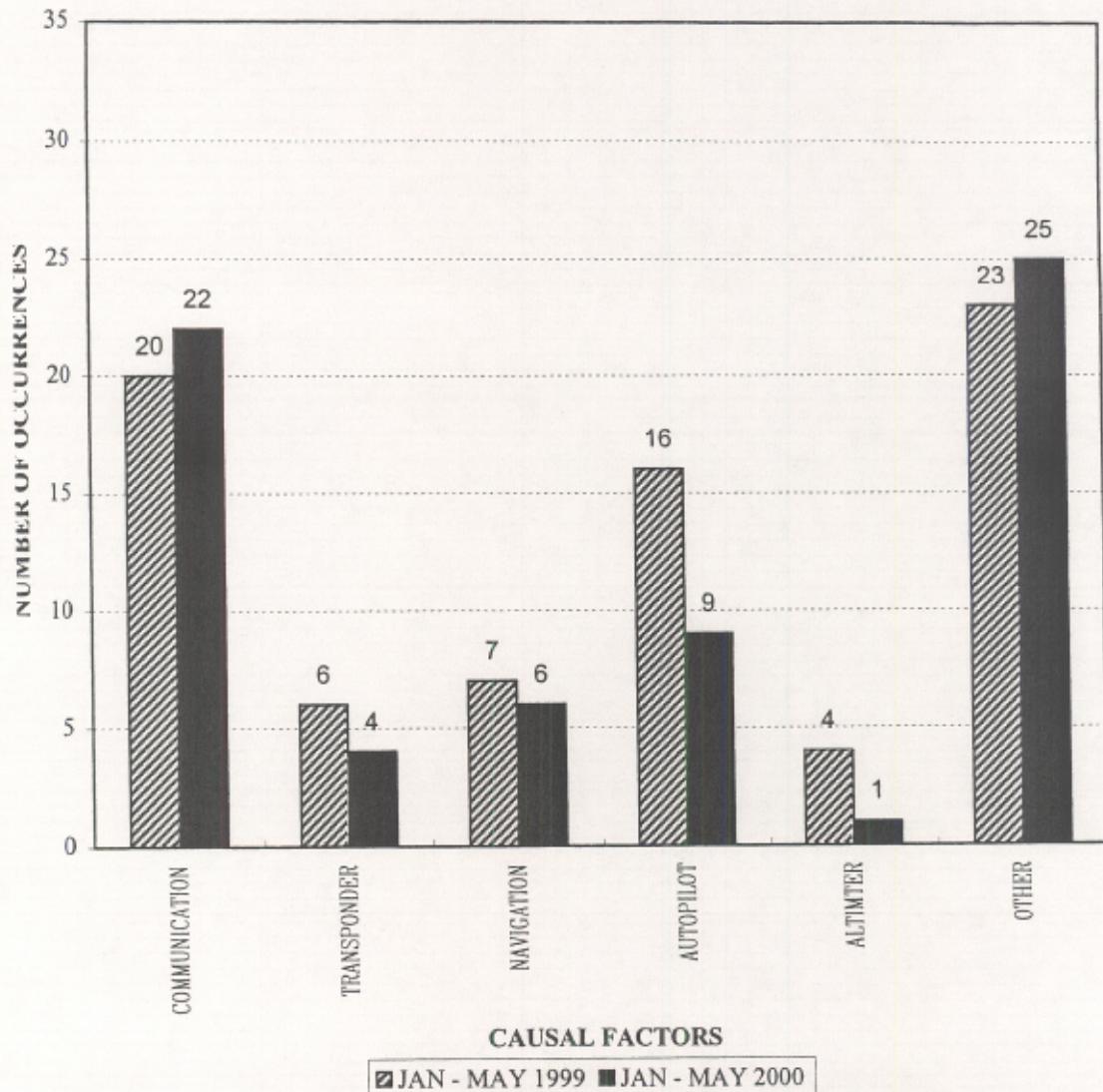


OTHER also includes Unknown.

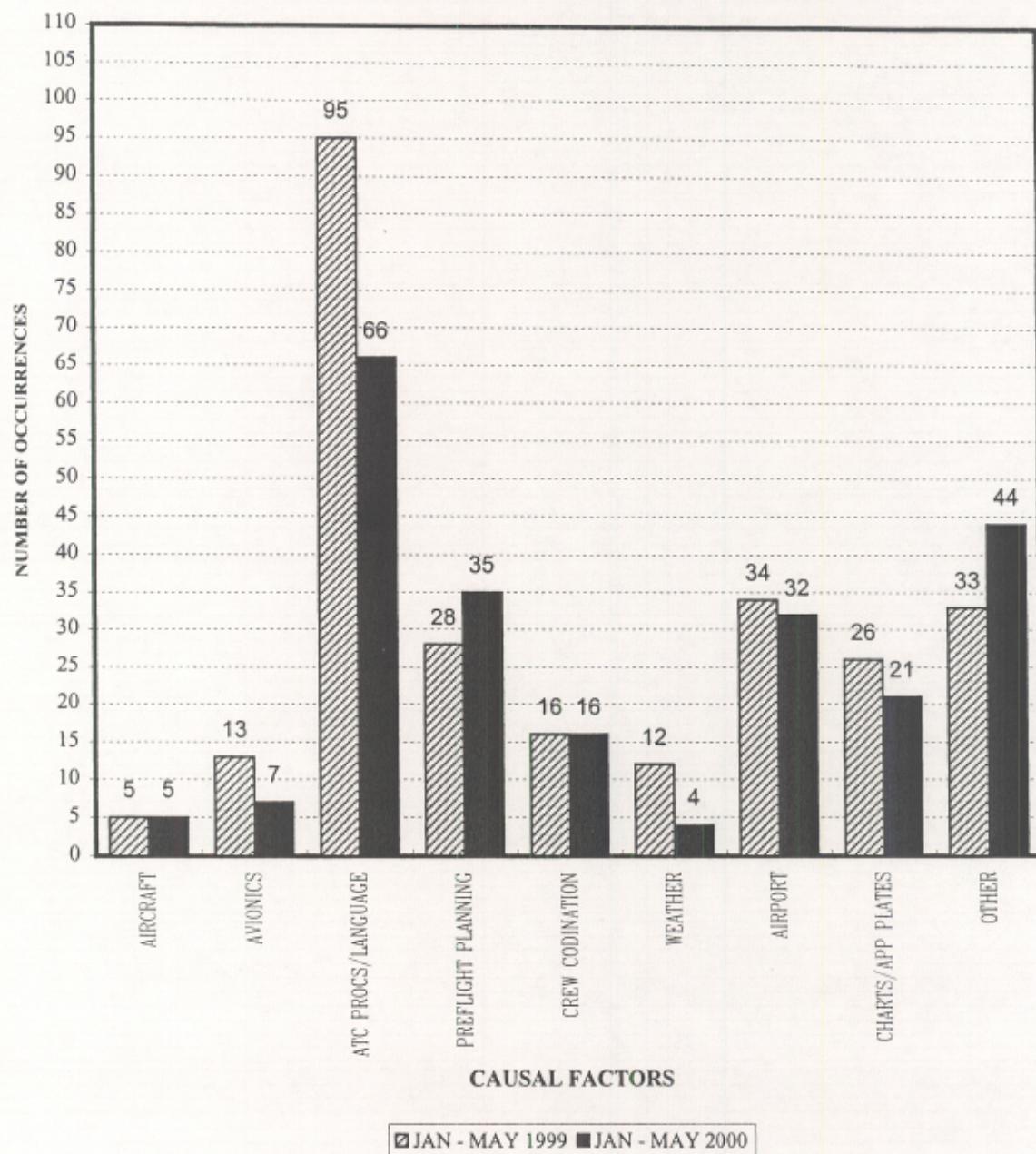
**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**WEATHER**  
**1999 versus 2000**



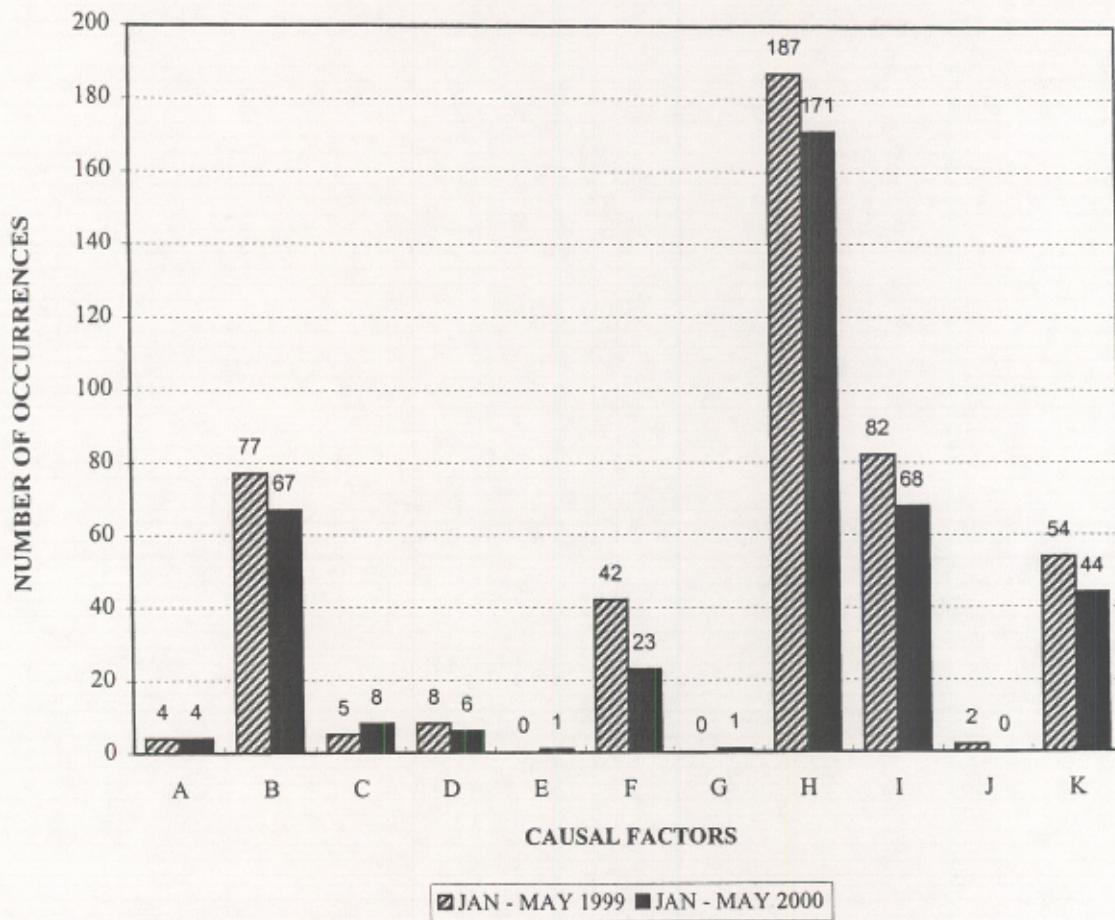
**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**AIRCRAFT EQUIPMENT MALFUNCTION**  
**1999 versus 2000**



**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 - MAY 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	29	18	22	109
MAR	3	3	15	23	2	5	22	10	26	109
APR	5	3	16	18	3	9	43	10	23	130
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	42	15	36	188
AUG	3	6	21	28	4	9	24	9	31	135
SEP	1	6	16	20	2	9	34	8	41	137
OCT	1	10	35	21	2	19	24	21	38	171
NOV	2	9	19	22	4	10	30	11	24	131
DEC	1	8	23	12	5	11	35	16	41	152
TOTAL	23	73	245	254	46	125	356	156	367	1645

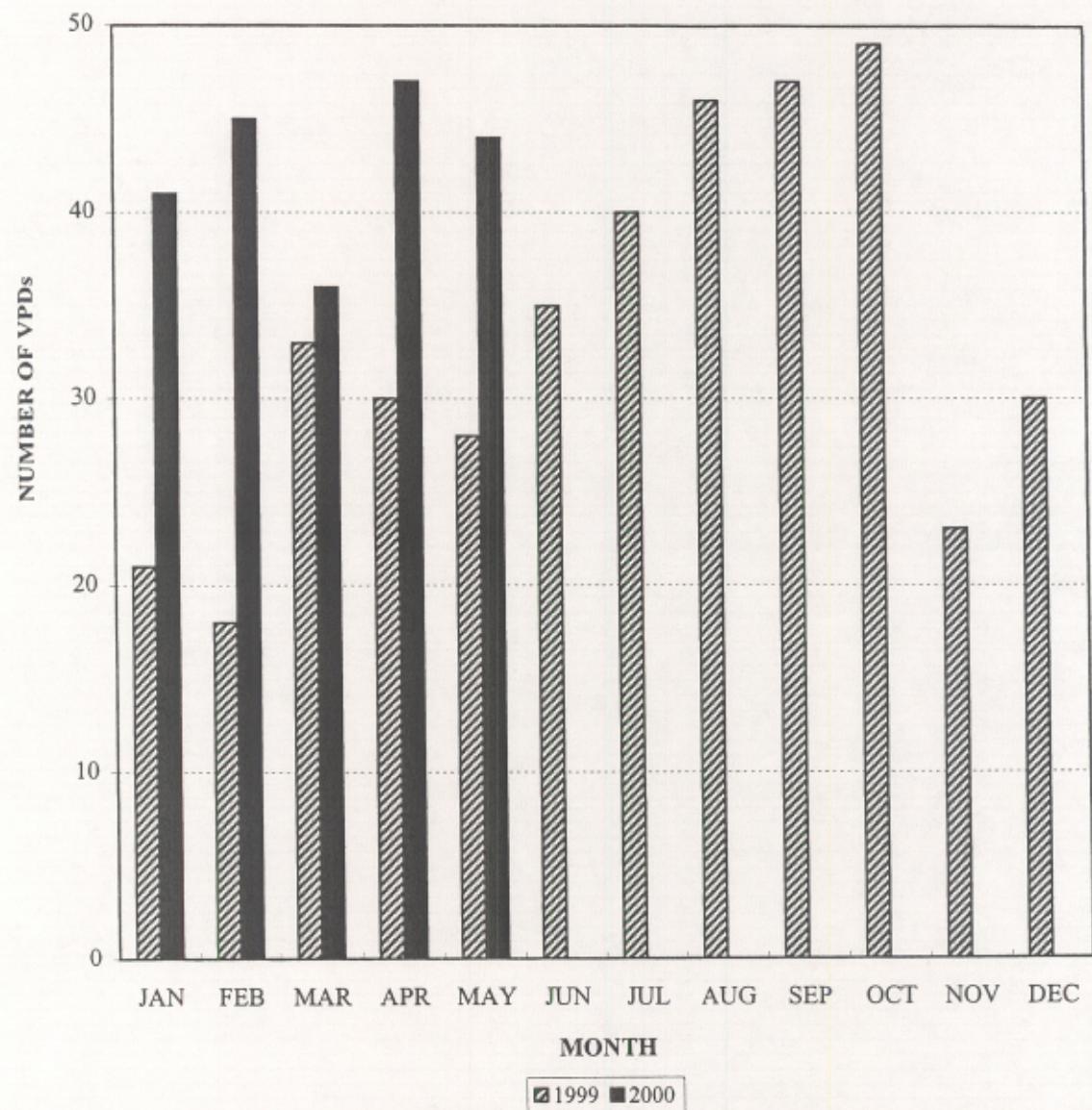
2000

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	2	5	17	19	4	3	22	19	35	126
FEB	4	4	25	19	2	4	38	20	38	154
MAR	5	7	28	18	6	15	37	20	44	180
APR	5	10	28	28	4	10	22	21	51	179
MAY	0	10	21	26	7	19	38	22	49	192
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	16	36	119	110	23	51	157	102	217	831

## **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 - MAY 2000**



1999	21	18	33	30	28	35	40	46	47	49	23	30
2000	41	45	36	47	44							

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

Airport	ID	JUNE 98 - MAY 99	JUNE 99 - MAY 00
Merrill Field Arpt, AK	MRI	19	22
Jeffco Arpt, CO	BJC	8	20
Ft. Lauderdale Executive Arpt, FL	FXE	11	17
Montgomery Field Arpt, CA	MYF	6	16
Andrews AFB, MD	ADW	8	11
Richard Lloyd Jones Jr. Arpt, OK	RVS	4	11
David Wayne Hooks Memorial Arpt, TX	DWH	1	11
Ann Arbor Muni Arpt, MI	ARB	1	10
Santa Monica Muni Arpt, CA	SMO	1	10
Luis Munoz Marin Intl, PR	SJU	5	8
San Francisco Intl, CA	SFO	4	8
Mnpls-St. Paul Intl/World Chamberlain Arpt, MN	MSP	0	7
Greater Rockford Arpt, IL	RFD	1	6
Albert Whitted Arpt, FL	SPG	0	6
Falcon Field Arpt, AZ	FFZ	4	5
Anoka County-Blaine Arpt (Janes Field), MN	ANE	3	5
Birmingham Arpt, AL	BHM	3	5
Centennial Arpt, CO	APA	1	5
Gillespie Field Arpt, CA	SEE	1	5
Lake Hood SPB, AK	LHD	1	5

**VEHICLE/PEDSTRIAN DEVIATIONS**  
**BY REGION AND MONTH**  
**1999 - MAY 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	4	2	40
AUG	4	5	4	7	0	7	8	3	8	46
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	3	0	3	9	1	5	23
DEC	1	3	2	5	2	5	3	3	6	30
TOTAL	32	18	50	77	11	40	80	28	64	400

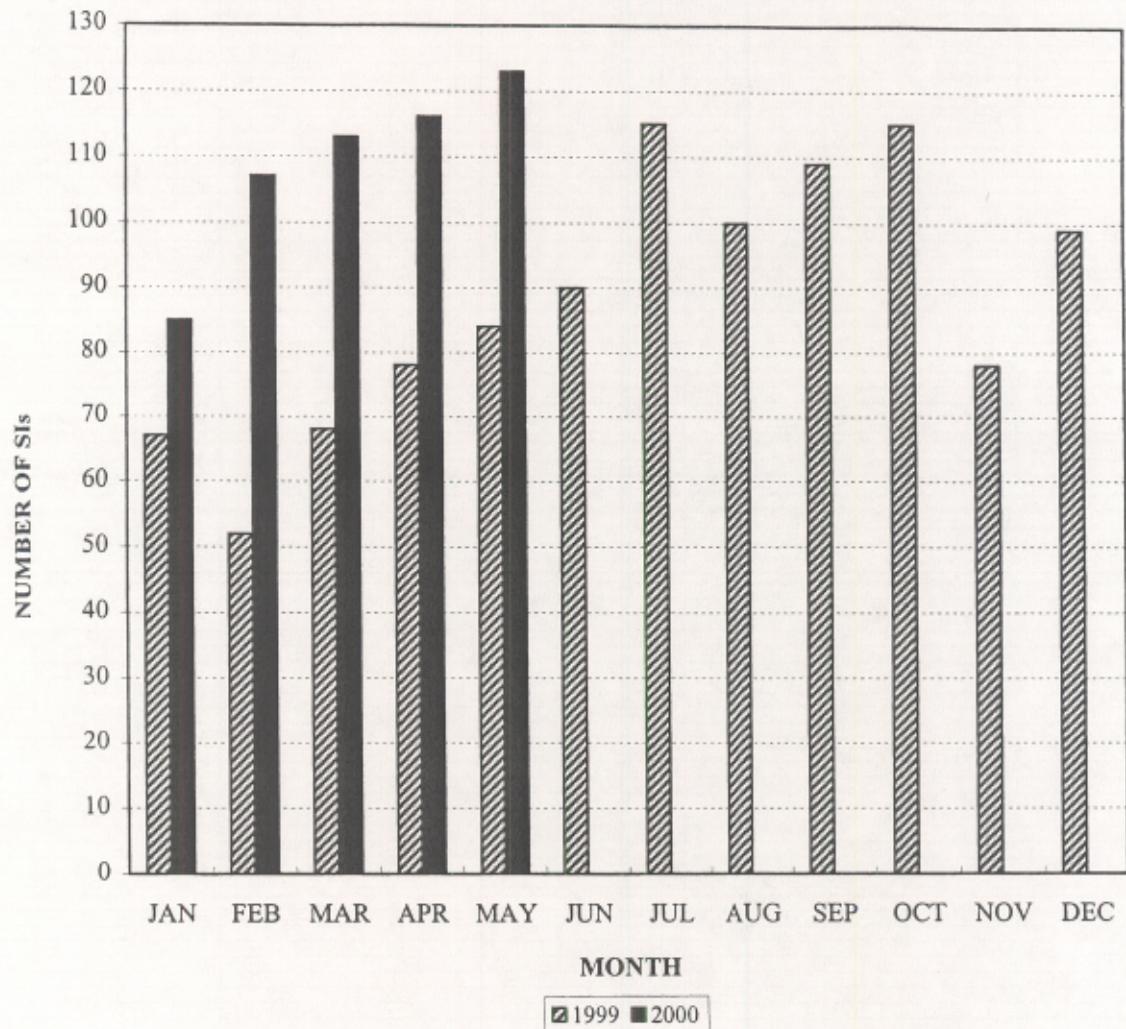
2000

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	2	7	2	6	13	6	7	45
MAR	3	0	4	4	0	2	9	5	9	36
APR	2	1	2	5	1	5	6	8	16	46
MAY	5	0	5	6	1	4	8	3	13	45
JUN										
JUL										
AUG										
SEP										
OCT										
NOV										
DEC										
TOTAL	15	3	18	28	4	19	42	28	56	213

## **SURFACE INCIDENTS\***

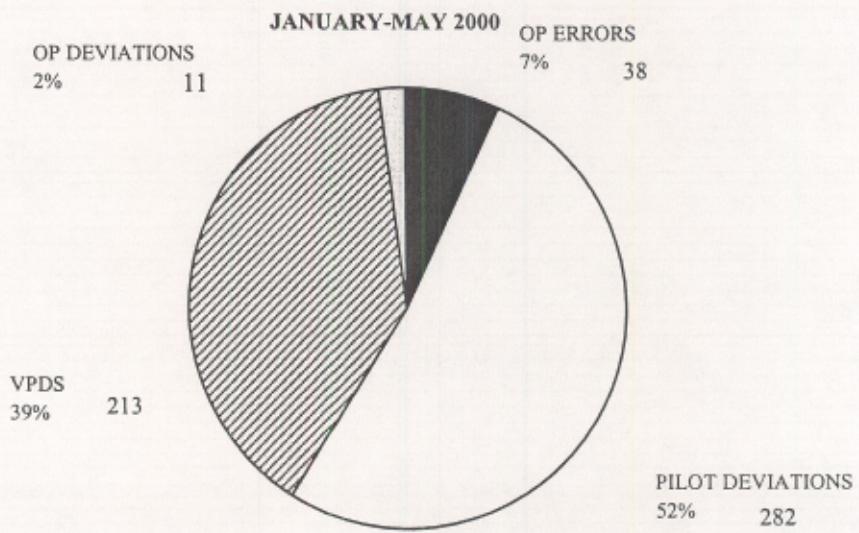
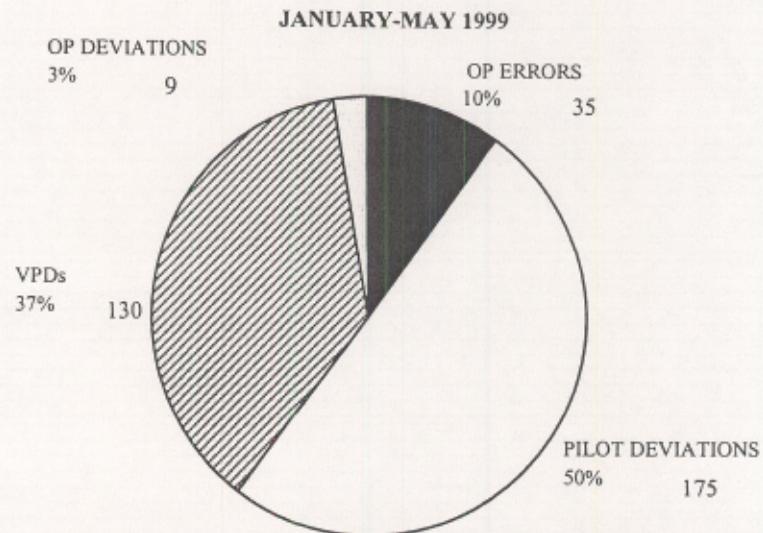
\*Surface Incidents may require 90 days to stabilize; therefore, care should be exercised in making statistical comparisons for the most recent 90-day period.  
Data are preliminary and subject to change.

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



1999	67	52	68	78	84	90	115	101	110	115	78	99
2000	85	107	112	116	124							

## SURFACE INCIDENTS BY TYPE



Mutiple 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	ID	JUN 98 - MAY 99	JUN 99 - MAY 00
Reno/Tahoe Intl, NV	RNO	12	31
Montgomery Field Arpt, CA	MYF	15	28
Ft. Lauderdale Executive Arpt, FL	FXE	16	25
Merrill Field Arpt, AK	MRI	22	24
Jeffco Arpt, CO	BJC	9	24
John Wayne-Orange County Arpt, CA	SNA	8	24
Los Angeles Intl, CA	LAX	18	22
Long Beach/Daugherty Field Arpt, CA	LGB	17	22
North Las Vegas Arpt, NV	VGT	5	20
San Francisco Intl, CA	SFO	14	19
San Jose Intl, CA	SJC	8	16
Luis Munoz Marin Intl, PR	SJU	8	15
David Wayne Hooks Memorial Arpt, TX	DWH	2	15
Mnpls-St. Paul Intl/World Chamberlain Arpt, MN	MSP	2	15
Theodore Francis Green State Arpt, RI	PVD	1	15
Phoenix Sky Harbor Intl, AZ	PHX	13	14
Richard Lloyd Jones Jr. Arpt, OK	RVS	8	13
Greater Rochester Intl, NY	ROC	2	13
Andrews AFB, MD	ADW	11	12
Lambert-St. Louis Intl, MO	STL	17	11
San Antonio Intl, TX	SAT	7	11
Centennial Arpt, CO	APA	5	11
Raleigh-Durham Intl, NC	RDU	5	11
Ann Arbor Muni Arpt, MI	ARB	2	11
Santa Monica Muni Arpt, CA	SMO	1	11
Chino Arpt, CA	CNO	0	11
Anchorage Intl, AK	ANC	7	10
Palm Springs Intl, CA	PSP	1	10

SURFACE INCIDENTS BY AIRPORT  
12 MONTH COMPARISON

JUNE 1998 - MAY 1999 versus JUNE 1999 - MAY 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	
Abilene Regional Apt, TX	3	1	0	0	0	0	4	1	7	2	8.616
Adams Field Apt, AR	2	2	0	1	0	0	0	0	2	3	2.136
Addison Apt, TX	3	1	2	0	0	0	1	1	6	2	3.393
Akron-Canton Regional Apt, OH	0	1	0	0	0	0	0	1	0	2	0.000
Albany Intl, NY	2	1	0	0	0	0	0	1	2	2	1.343
Albert Whited Apt, FL	0	2	0	0	0	0	0	6	0	8	0.000
Albuquerque Intl, NM	1	1	0	1	0	0	0	1	1	3	0.437
Alexandria Intl Apt, LA	0	1	0	0	0	0	0	0	0	1	0.000
Allegheny County Apt, PA	0	1	0	0	0	0	8	3	8	4	6.467
Allen AAF, AK	0	1	0	0	0	0	0	0	0	1	N/A
Amarillo Intl, TX	0	1	0	0	0	0	0	2	0	3	2.464
Anchorage Intl, AK	1	6	1	0	1	1	4	3	7	10	2.279
Andrews AFB, MD	1	1	2	0	0	0	8	11	11	12	9.795
Ann Arbor Muni Apt, MI	1	1	0	0	0	0	1	10	2	11	1.517
Anniston Metro Apt, AL	1	0	0	0	1	0	0	0	2	0	N/A
Anoka County-Blaine Apt (James Field), MN	0	0	0	0	0	0	3	5	3	5	2.058
Aspen-Pitkin County/Sardy Field Apt, CO	1	0	0	0	0	0	0	0	1	0	2.261
Atlanta Center, GA	0	0	0	0	0	0	0	1	0	1	N/A
Augusta Regn at Bush Field Apt, GA	0	1	0	0	0	0	0	1	0	2	3.844
Aurora Muni Apt, IL	1	0	0	0	0	0	1	3	2	3	1.612
Austin Straubel Intl, WI	0	1	0	0	0	0	0	0	0	1	0.000
Austin-Bergstrom Intl Apt, TX	1	0	1	0	0	0	0	0	2	0	1.118
Baltimore-Washington Intl, MD	3	3	2	1	0	0	0	1	5	5	1.648
Bangor Intl, ME	0	0	0	0	0	0	2	0	2	0	1.939
Barkley Regional Apt, KY	0	1	0	0	0	0	0	2	0	3	0.000
Barnstable Muni-Boardman/Polando Field Apt, MA	0	0	0	0	0	0	0	1	0	1	0.733
Baton Rouge Metro, Ryan Field Apt, LA	0	0	0	0	0	0	1	1	1	1	0.691
Bellingham Intl, WA	0	0	0	0	0	0	0	1	0	1	1.324
Bethel Apt, AK	0	0	0	0	0	0	0	1	0	1	0.000
Beverly Muni Apt, MA	0	0	0	0	0	0	1	0	1	0	1.101
Birmingham Apt, AL	2	0	0	0	0	0	3	5	5	5	3.211
Bishop Int'l, NH	0	0	0	0	0	0	0	1	0	1	0.000

Actual Activity Data thru 03/31/2000

Forecast Activity Data 04/01/2000 - 05/31/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT

12 MONTH COMPARISON

JUNE 1998 - MAY 1999 versus JUNE 1999 - MAY 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	
Blue Grass Apt, KY	0	0	0	1	0	0	0	0	0	1	0.000
Boeing Field/King County Intl, WA	2	1	1	2	0	0	2	0	5	3	1.546
Boise Air Terminal/Gowen Field Apt, ID	2	5	0	1	0	0	0	0	2	6	1.143
Boston TRACON, MA	0	1	0	0	0	0	0	0	0	1	N/A
Bowman Field Apt, KY	0	1	0	0	0	0	0	2	0	3	0.000
Brackett Field Apt, CA	2	4	0	0	0	0	0	1	2	5	0.843
Bradley Intl, CT	0	2	0	0	0	0	1	0	1	2	0.535
Brown Field Muni Apt, CA	0	1	0	0	0	0	0	0	0	1	0.000
Brunswick NAS, ME	1	1	0	0	0	0	0	0	1	1	N/A
Buchanan Field Apt, CA	1	5	1	0	0	0	0	2	2	7	0.898
Buffalo Niagara Intl, NY	1	0	0	0	0	0	2	2	3	2	1.905
Burbank-Glendale-Pasadena Apt, CA	1	0	2	3	0	0	1	0	4	3	2.193
Burlington Intl, VT	0	0	1	0	0	0	0	1	1	1	0.821
Camarillo Apt, CA	0	1	0	0	0	0	0	0	0	4	0.000
Capital Apt, IL	1	3	1	1	0	0	0	0	2	4	2.058
Capital City Apt, MI	0	0	0	0	1	0	0	0	1	0	0.819
Cecil Field Apt,	0	0	0	0	0	0	0	1	0	1	N/A
Centennial Apt, CO	4	4	0	2	0	0	1	5	5	11	1.146
Central Illinois Rgnl Apt, IL	2	2	1	0	0	0	0	0	3	2	4.564
Chandler Muni, AZ	0	0	0	0	0	0	0	2	0	2	0.000
Charleston AFB/Intl, SC	1	3	2	0	0	0	3	0	6	3	4.911
Charlotte/Douglas Intl, NC	6	4	2	0	0	0	0	1	8	5	1.767
Cherry Capital Apt, MI	1	1	0	0	0	0	0	0	1	1	0.786
Chicago Midway Apt, IL	1	4	4	1	1	1	1	2	7	8	2.464
Chicago Ohare Intl, IL	4	2	3	1	0	0	3	3	10	6	1.112
Chicago TRACON, IL	1	0	0	0	0	0	0	0	1	0	N/A
Chico Muni Apt, CA	1	1	0	0	0	0	0	0	1	1	2.316
Chino Apt, CA	0	5	0	2	0	0	0	4	0	11	0.000
Cincinnati Muni/Lunken Field Apt, OH	0	1	0	0	0	0	0	0	0	1	0.794
Cincinnati/Northern Kentucky Intl, OH	1	3	1	1	0	0	0	1	2	5	0.443
City of Colorado Springs Muni Apt, CO	1	0	1	0	0	0	0	3	2	3	1.025
Cleveland Center, OH	0	0	0	1	0	0	0	0	0	1	N/A

Actual Activity Data thru 03/31/2000

Forecast Activity Data 04/01/2000 - 05/31/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT

12 MONTH COMPARISON

JUNE 1998 - MAY 1999 versus JUNE 1999 - MAY 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	
Cleveland-Hopkins Intl, OH	10	6	1	0	0	0	1	1	12	7	3.863	2.137	
Cobb County-Mc Collum Field, GA	1	0	0	0	0	0	0	0	1	0	0.878	0.000	
Columbia Metro Arpt, SC	1	0	0	0	0	0	0	0	1	0	0.808	0.000	
Columbia Regional Arpt, MO	0	0	1	0	0	0	0	1	0	2	0.000	4.911	
Columbus Metro Arpt, GA	0	0	0	0	0	0	0	1	0	1	0.000	1.495	
Craig Muni Arpt, FL	1	2	0	0	0	0	0	0	1	2	0.706	1.485	
Crystal Arpt, MN	4	4	0	0	0	0	8	3	12	7	6.412	3.778	
Cyril E. King Arpt, VI	2	0	0	1	0	0	2	2	4	3	3.622	3.231	
Dallas Love Field Arpt, TX	5	1	1	0	0	1	0	2	6	4	2.484	1.598	
Dallas-Ft. Worth Intl, TX	4	4	3	4	0	0	0	0	7	8	0.789	0.912	
Danbury Muni Arpt, CT	2	0	0	0	0	0	0	0	4	0	3.323	0.000	
Dane County Regional-Truax Field Arpt, WI	1	0	0	0	0	0	0	0	1	0	0.706	0.000	
David Wayne Hooks Memorial Arpt, TX	1	4	0	0	0	0	0	0	11	2	15	0.755	
Daytona Beach Intl Arpt, FL	6	3	1	0	0	0	0	0	0	7	3	2.011	0.859
Deadhorse Arpt, AK	0	0	0	0	0	0	1	0	0	0	1	N/A	N/A
Decatur Arpt, IL	0	1	0	0	0	0	0	0	0	0	1	0.000	1.850
Dekalb-Peachtree Arpt, GA	2	1	1	1	0	0	0	3	2	6	4	2.542	1.728
Denver Center, CO	0	1	0	0	0	0	0	0	0	0	1	N/A	N/A
Denver Intl, CO	2	2	0	1	0	0	0	0	3	2	6	0.415	1.186
Des Moines Intl, IA	2	3	0	0	0	0	0	0	1	2	4	1.439	2.978
Detroit Metro Wayne County Arpt, MI	2	0	2	1	0	0	0	2	0	6	1	1.111	0.178
Duluth Intl, MN	0	1	0	0	0	0	0	3	3	4	4.556	6.366	
Dupage Arpt, IL	1	4	1	0	0	0	0	2	0	4	4	1.833	1.956
Dutchess County Arpt, NY	0	0	0	1	0	0	0	0	2	0	3	0.000	2.229
Eagle County Regional Arpt, CO	6	1	0	0	0	0	0	0	0	6	1	19.527	2.978
El Monte Arpt, CA	0	1	0	0	0	0	0	0	3	0	4	0.000	2.430
El Paso Intl, TX	1	2	0	0	0	0	0	0	0	1	2	0.697	1.379
Elko Muni-J.C. Harris Field Arpt, NV	1	0	0	0	0	0	0	0	0	1	0	3.716	0.000
Elmira/Corning Regional Arpt, NY	0	0	0	1	0	0	0	0	2	0	2	0.000	3.001
Eppley Airfield Arpt, NE	1	3	0	0	0	0	0	1	1	2	5	1.104	2.639
Erie Intl, PA	0	0	0	0	0	0	0	1	0	1	0	1.710	0.000
Ernest A. Love Field Arpt, AZ	0	2	0	0	0	0	0	0	2	0	4	0.000	1.217

SURFACE INCIDENTS BY AIRPORT  
12 MONTH COMPARISON

JUNE 1998 - MAY 1999 versus JUNE 1999 - MAY 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	
Essex County Apt, NJ	0	1	0	0	0	0	1	0	1	1	0.406	0.466	
Evansville Regional Apt, IN	0	3	0	0	0	0	0	1	0	4	0.000	4.319	
Fairbanks Intl, AK	0	4	0	0	0	0	0	4	0	8	0.000	5.991	
Falcon Field Apt, AZ	1	2	0	0	1	0	4	5	6	7	2.485	2.668	
Fanning Field Apt, ID	0	1	0	0	0	0	0	1	0	2	0.000	3.964	
Felts Field Apt, WA	0	1	0	0	0	0	0	0	0	1	0.000	1.338	
Flagstaff Pulliam Apt, AZ	1	0	0	0	0	0	0	0	1	0	2.097	0.000	
Flying Cloud Apt, MN	5	4	1	0	0	0	4	1	10	5	4.956	2.418	
Fort Wayne Intl, IN	0	0	0	1	0	0	0	0	0	1	0.000	0.817	
Fort Worth Meacham Apt, TX	0	0	0	0	0	0	3	4	3	4	0.821	1.213	
Forth Worth Alliance Apt, TX	2	0	0	0	0	0	0	0	2	0	1.010	0.000	
Four Corners Regional Apt, NM	1	0	0	1	0	0	0	0	1	1	0.886	0.880	
Fresno Yosemite Intl Apt, CA	2	3	0	1	0	0	0	0	0	2	4	1.086	1.405
Ft. Lauderdale Executive Apt, FL	5	8	0	0	0	0	11	17	16	25	6.362	9.958	
Ft. Lauderdale/Hollywood Intl, FL	2	1	0	2	0	0	0	0	2	3	0.746	1.074	
Fullerton Muni Apt, CA	1	2	0	0	0	0	2	1	3	3	3.236	3.053	
Fulton County Apt-Brown Field Apt, GA	0	2	0	0	0	0	0	0	3	0	5	0.000	4.252
Gainesville Regional Apt, FL	0	0	0	0	0	0	1	0	1	0	1.266	0.000	
General Edward Lawrence Logan Intl, MA	3	4	1	3	0	0	1	2	5	9	0.980	1.779	
General Mitchell Intl, WI	5	4	2	0	0	0	4	2	11	6	5.015	2.659	
George Bush Intercontinental Apt, TX	0	0	0	0	0	0	0	2	0	2	0.000	0.432	
Gillespie Field Apt, CA	0	3	0	0	0	0	1	5	1	8	0.452	0.485	
Grand Forks Intl, ND	1	2	0	0	0	0	0	0	1	3	0.452	1.338	
Grand Prairie Muni Apt, TX	1	0	0	0	0	0	0	0	1	0	1.162	0.000	
Grant County Apt, WA	0	0	1	0	0	0	0	2	2	3	2.325	1.516	
Greater Kankakee Apt, IL	0	0	0	0	0	0	0	1	0	1	N/A	N/A	
Greater Peoria Regional Apt, IL	1	0	0	0	0	0	0	0	1	0	1.059	0.000	
Greater Pittsburgh Intl, PA	1	1	4	0	0	0	0	0	5	1	1.128	0.225	
Greater Rochester Intl, NY	2	7	0	3	0	0	0	0	3	2	13	1.051	6.937
Greater Rockford Apt, IL	3	2	0	0	0	0	1	6	4	8	3.673	6.911	
Greenville-Spartanburg Intl Apt, SC	1	0	0	0	0	0	0	0	1	0	1.658	0.000	
Gregg County Apt, TX	1	5	0	0	0	0	0	0	1	6	0.992	6.388	

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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	
Groton-New London Apt, CT	0	0	0	0	0	0	1	1	1	1	1.341
Gulfport-Biloxi Regional Apt, MS	2	2	0	0	0	0	2	0	4	2	3.802
Gwinnett County - Briscoe Field, GA	2	1	0	0	0	0	0	0	2	1	1.744
Hagerstown Rgnl-Richard A Henson Field Apt, MD	4	1	0	0	0	0	0	1	4	2	1.761
Hartford-Brainard Apt, CT	0	0	0	0	0	0	0	1	0	1	0.000
Hawkins Field Apt, MS	0	0	0	0	0	0	1	0	1	0	2.177
Hayward Executive Apt, CA	0	2	0	0	0	0	0	0	0	2	0.000
Hector Intl, ND	2	2	0	1	0	0	6	2	8	5	8.654
Honolulu Intl, HI	2	1	0	1	0	0	4	0	6	2	5.306
Houston Center, TX	0	1	0	0	0	0	0	0	0	1	N/A
Houston TRACON, TX	0	0	1	0	0	0	0	0	0	1	N/A
Huntsville Intl/Carl T. Jones Field Apt, AL	2	1	0	0	0	0	3	3	5	4	4.189
Igor I. Sikorsky Memorial Apt, CT	1	0	0	0	0	0	0	0	1	0	1.009
Indianapolis Int'l, IN	4	1	1	1	0	0	1	4	1	6	1.147
Jack Northrop Fld-Hawthorne Muni Apt, CA	0	2	0	0	0	0	0	1	0	2	0.000
Jackson County-Reynolds Field Apt, MI	0	0	1	0	0	0	0	1	0	2	2.818
Jackson Intl, MS	0	0	0	0	0	0	1	2	1	2	0.889
Jacksonville Intl, FL	1	1	0	0	0	0	2	2	3	3	1.825
James M. Cox Dayton Intl, OH	0	3	1	0	0	0	1	1	2	4	1.306
Jeffco Apt, CO	1	4	0	0	0	0	8	20	9	24	5.507
Joe Foss Field Apt, SD	0	0	0	0	0	0	1	2	1	2	0.944
John F. Kennedy Intl, NY	3	2	0	2	0	0	0	3	3	7	0.850
John Wayne-Orange County Apt, CA	7	20	0	2	0	0	1	2	8	24	1.872
Joplin Regional Apt, MO	1	0	0	0	0	0	0	0	1	0	2.482
Kahului Apt, HI	1	1	0	0	0	0	0	1	0	1	N/A
Kalamazoo/Battle Creek Intl, MI	1	0	0	0	0	0	0	0	0	1	2.263
Kaltag Apt, AK	0	0	0	0	0	0	0	0	1	0	N/A
Kankakee Regional Apt, IL	0	0	0	0	0	0	0	0	1	0	N/A
Kansas City Center, MO	1	0	0	0	0	0	0	0	1	0	N/A
Kansas City Downtown Apt, MO	0	2	0	0	0	0	1	0	1	2	0.689
Kansas City Intl, MO	1	0	0	0	0	0	0	3	1	3	0.462

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	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Kenai Muni Aptl, AK	1	1	0	1	0	0	0	0	1	2	1.401
Kent County Intl, MI	0	0	0	1	0	0	0	0	1	0	0.000
Key West Intl, FL	2	0	0	0	0	0	0	0	2	0	1.550
Kissimmee Muni Apt, FL	0	2	0	0	0	0	0	0	0	2	0.000
Kodiak Apt, AK	0	0	0	0	0	0	0	2	0	2	0.000
La Guardia Aptl, NY	1	0	2	0	0	0	1	3	4	3	1.099
Lake Hood SPB, AK	0	0	0	0	0	0	1	5	1	5	N/A
Lakefront Aptl, LA	3	3	0	0	0	0	0	3	3	6	1.671
Lakeland Linder Regional Aptl, FL	1	5	0	0	0	0	1	2	2	7	0.903
Lambert-St. Louis Intl, MO	7	6	2	1	2	0	6	4	17	11	3.381
Lancaster Aptl, PA	2	1	0	0	0	0	0	0	0	2	1
Laughlin/Bullhead Intl Aptl, AZ	1	0	0	0	0	0	0	0	1	0	11.705
Laurence G. Hanscom Field Aptl, MA	1	2	2	1	1	0	0	0	4	3	2.111
Lawrence Muni Aptl, MA	0	2	0	0	0	0	0	0	0	2	0.000
Lawton-Fort Sill Rgnl Aptl, OK	0	1	0	0	0	0	0	0	0	1	0
Lehigh Valley Intl, PA	1	0	0	1	0	0	0	0	0	1	0.654
Lincoln Muni Aptl, NE	0	6	0	1	0	0	1	0	1	7	0.805
Livermore Muni Aptl, CA	0	0	0	0	0	0	0	1	0	1	0.000
Long Beach/Daugherty Field Aptl, CA	14	18	0	1	1	2	2	2	17	22	3.396
Long Island Mac Arthur Aptl, NY	1	1	0	1	0	0	0	0	1	2	0.474
Los Angeles Intl, CA	15	18	2	1	0	0	1	3	18	22	2.364
Louisville Int-Standiford Field Aptl, KY	0	1	0	0	0	0	2	0	2	1	1.158
Lovell Field Aptl, TN	1	0	0	0	0	0	1	0	2	0	1.995
Lubbock Intl, TX	0	0	0	0	0	0	0	1	0	1	0.000
Luis Munoz Marin Intl, PR	3	6	0	1	0	0	5	8	8	15	3.849
Mahlon Sweet Field Aptl, OR	2	5	0	0	0	0	0	0	2	5	1.799
Manassas Rgnl/Harry P. Davis Field Aptl, VA	0	3	0	0	0	0	1	1	1	4	0.786
Manchester Aptl, NH	0	1	0	0	0	0	1	2	2	3	1.730
Mansfield Lahm Muni Aptl, OH	0	0	0	0	0	0	0	1	0	1	0.000
Marthas Vineyard Aptl, MA	0	1	0	0	0	0	0	0	0	1	1.538
Mc Carran Intl, NV	8	1	1	1	0	0	0	0	9	2	1.805
Mc Ghee Tyson Aptl, TN	3	2	0	0	0	0	0	1	3	3	2.024
									2.096		

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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	
Mc Kellar-Sipes Regional Apt, TN	0	2	0	0	0	0	0	0	0	2	0.000 6.810
Mc Kinney Muni Apt, TX	0	1	0	0	0	0	0	0	0	1	0.000 0.794
McNary Field Apt, OR	0	1	0	0	0	0	0	1	0	2	0.000 3.776
Meadows Field Apt, CA	0	0	0	0	0	0	0	1	0	1	0.557 0.000
Melbourne Regional Apt, FL	2	1	0	1	0	0	0	0	2	2	1.418 1.147
Memphis Center, TN	0	0	1	0	0	0	0	0	1	0	N/A N/A
Memphis Intl, TN	1	2	1	0	0	0	0	0	0	2	2 0.552 0.534
Merrill C. Meigs Apt, IL	0	1	0	0	0	0	0	0	0	1	0.000 2.351
Merrill Field Apt, AK	2	2	0	0	1	0	19	22	22	24	10.695 12.018
Metropolitan Oakland Intl, CA	1	0	1	0	0	0	0	0	2	2	0.393 0.382
Miami Intl, FL	1	2	0	0	0	0	0	1	2	2	4 0.376 0.768
Michiana Rgnl Transportation Ctr Apt, IN	0	0	1	0	0	0	0	2	1	3	1 3.454 1.205
Mid Delta Rgnl, MS	1	0	0	0	0	0	0	0	0	1	0 2.785 0.000
Middle Georgia Regional Apt, GA	1	0	0	0	0	0	0	0	0	1	0 1.092 0.000
Midland Intl, TX	1	0	0	0	0	0	0	0	0	0	N/A N/A
Millville Muni Apt, NJ	0	1	0	0	0	0	0	0	0	2	0 2.785 0.000
Minneapolis Center, MN	1	0	0	1	0	0	0	1	2	2	N/A N/A
Mpls-St. Paul Intl/World Chamberlain Apt, MN	0	7	2	1	0	0	0	0	1	2	15 0.411 2.924
Missoula Intl, MT	1	0	0	0	0	0	0	0	1	0	1.782 0.000
Mobile Downtown, AL	1	0	0	0	0	0	0	0	1	0	1.104 0.000
Mobile Regional Apt, AL	0	0	0	0	0	0	0	0	2	0	0.000 1.375
Monroe Regional Apt, LA	1	3	0	0	0	0	1	2	2	5	3.255 7.709
Monterey Peninsula Apt, CA	0	1	1	0	0	1	0	0	1	2	0.977 1.844
Montgomery Field Apt, CA	7	12	0	0	2	0	6	16	15	28	5.489 10.188
Montgomery Rgnl (Dannelly Field) Apt, AL	0	2	0	0	0	0	1	0	1	2	1.034 1.788
Morristown Muni Apt, NJ	1	0	0	0	0	0	0	0	1	0	0.384 0.000
Myrtle Beach Intl, SC	1	2	0	0	0	0	0	0	1	3	1.383 4.156
Napa County Apt, CA	1	4	0	0	0	0	0	0	1	1	5 0.604 3.050
Naples Muni Apt, FL	3	1	0	0	0	0	2	1	5	2 4.092 1.827	
Nashville Intl, TN	2	6	0	0	0	0	0	3	2	9 0.853 3.576	
Natrona County Intl, WY	0	0	0	0	0	0	0	1	0	1	0.000 2.130
New Castle County Apt, DE	1	0	0	0	0	0	0	0	1	0	0.684 0.000

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	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
New Hanover Intl, NC	2	3	0	0	0	0	0	2	2	5	2,804	6,078
New Orleans Int/Moisant Field Arpt, LA	0	2	0	0	0	0	0	0	0	2	0,000	1,207
New York TRACON, NY	0	1	0	0	0	0	0	0	0	1	N/A	N/A
Newark Intl, NJ	4	2	1	2	0	0	2	3	7	7	1,515	1,514
Newport News/Williamsburg Intl, VA	0	1	0	0	0	0	0	0	0	1	0,000	0,507
Niagara Falls Intl, NY	0	0	0	0	0	0	0	1	0	1	2,004	0,000
Norfolk Intl, VA	0	1	0	0	0	0	0	0	0	1	0,000	0,784
North Las Vegas Arpt, NV	5	18	0	0	0	0	2	0	0	5	20	1,963
North Perry Arpt, FL	1	0	0	0	0	0	0	0	0	1	0	0,595
Northeast Philadelphia Arpt, PA	0	0	0	0	0	0	0	1	0	1	0	0,485
Norwood Memorial Arpt, MA	1	1	0	0	0	0	0	0	0	1	1	0,928
Oakland County Intl Arpt, MI	2	0	0	0	0	0	0	0	0	2	0	0,616
Ontario Intl, CA	0	0	2	1	0	0	2	1	4	2	2,598	1,272
Opa Locka Arpt, FL	2	0	0	0	0	0	2	0	4	0	3,430	0,000
Orlando Executive Arpt, FL	1	2	1	0	0	0	1	2	3	4	1,422	1,730
Orlando Intl, FL	0	1	0	0	0	0	2	1	2	2	0,547	0,547
Orlando Sanford Arpt, FL	6	2	0	2	0	0	1	3	7	7	1,861	2,037
Outagamie County Rgnl Arpt, WI	0	0	2	1	0	0	0	0	2	1	3,243	1,544
Page Field Arpt, FL	2	0	0	0	0	0	2	1	4	1	4,343	1,063
Palm Beach Intl, FL	7	4	1	1	0	0	0	0	8	5	4,096	2,404
Palm Springs Intl, CA	1	9	0	1	0	0	0	0	1	10	1,035	9,852
Palmdale Prodn Flt/Test Instn Arpt, CA	0	0	0	0	0	0	0	1	0	1	0,000	1,837
Palo Alto of Santa Clara County Arpt, CA	0	0	0	0	0	0	1	3	1	3	0,497	1,477
Palmwaukee Muni Arpt, IL	4	0	0	1	0	0	2	0	6	1	3,385	0,529
Panama City-Bay County Intl Arpt, FL	2	0	0	0	0	0	0	1	2	1	2,154	1,076
Pensacola Regional Arpt, FL	0	2	1	0	0	0	0	0	1	2	0,783	1,686
Philadelphia Intl, PA	2	2	2	1	0	0	2	1	6	4	1,256	0,842
Phoenix Goodyear Arpt, AZ	0	0	0	0	0	0	0	0	4	0	3,470	0,000
Phoenix Sky Harbor Intl, AZ	12	11	0	1	0	0	1	2	13	14	2,398	2,353
Phoenix TRACON, AZ	0	0	0	0	1	0	0	0	1	0	N/A	N/A
Phoenix-Deer Valley Muni Arpt, AZ	2	7	1	0	0	0	0	2	3	9	1,045	3,096
Piedmont Triad Intl, NC	1	0	0	0	0	0	0	4	1	4	0,756	2,916

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	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Port Columbus Intl, OH	0	2	0	0	0	0	0	0	0	2	0.000
Portland Intl Jetport Arpt, ME	1	1	0	0	0	0	1	2	2	3	1.582
Portland Intl, OR	1	2	0	0	0	0	0	1	1	3	0.305
Portland-Hillsboro Arpt, OR	2	1	0	0	0	0	1	0	3	1	1.292
Portland-Toutdale Arpt, OR	0	4	0	0	0	0	2	2	2	6	2.617
Pueblo Memorial Arpt, CO	0	0	0	0	0	0	0	1	0	1	0.000
Purdue University Arpt, IN	0	2	0	0	0	0	0	0	0	2	0.000
Quad-City Arpt Intl, IL	0	1	0	0	0	0	0	0	0	1	0.000
Quincy Muni Baldwin Field Arpt, IL	1	0	0	0	0	0	0	0	1	0	N/A
Raleigh-Durham Intl, NC	2	9	0	2	0	0	3	0	5	11	1.826
Ralph Wien Memorial Arpt, AK	0	1	0	0	1	0	0	0	1	1	N/A
Reading Regional/Carl A. Spaatz Field Arpt, PA	0	1	1	0	0	0	0	4	1	6	0.733
Redding Muni Arpt, CA	1	0	0	0	0	0	3	0	4	0	4.988
Reid-Hillview of Santa Clara County Arpt, CA	0	1	0	0	0	0	0	0	0	1	0.000
Reno/Tahoe Intl, NV	9	26	0	0	1	1	2	4	12	31	7.715
Renion Muni Arpt, WA	0	0	0	0	0	0	3	1	3	1	2.956
Republic Arpt, NY	0	6	0	0	0	0	1	0	1	6	0.400
Richard Lloyd Jones Jr. Arpt, OK	4	1	0	1	0	0	4	11	8	13	2.996
Richmond Intl, VA	5	4	0	0	1	0	1	1	7	5	5.256
Riverside Muni Arpt, CA	1	0	0	0	0	0	2	0	3	0	4.142
Roanoke Regional/Woodrum Field Arpt, VA	5	3	0	0	0	1	1	1	6	5	5.444
Robins AFB, GA	0	2	0	0	0	0	0	0	0	2	N/A
Rochester Intl Arpt, MN	0	3	1	0	0	0	0	1	0	2	2.735
Rock County Arpt, WI	0	1	1	0	0	0	1	0	0	2	2.469
Ronald Reagan Washington National Arpt, DC	4	1	0	1	0	0	0	1	0	5	1.282
Roswell Industrial Air Center Arpt, NM	0	1	0	0	0	0	0	0	0	1	3.457
Salinas Muni Arpt, CA	0	0	0	0	0	0	3	0	3	0	3.485
Salt Lake City Intl, UT	0	4	0	2	0	0	1	0	3	6	0.814
Salt Lake City TRACON, UT	0	1	0	0	0	0	0	0	0	1	N/A
San Antonio Intl, TX	6	10	0	0	0	0	1	1	7	11	2.719
San Carlos Arpt, CA	0	0	0	0	0	0	2	0	2	0	1.169
San Diego Intl-Lindbergh Field Arpt, CA	1	2	1	0	0	2	1	0	3	4	1.347

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	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
San Francisco Intl, CA	9	5	1	3	0	3	4	8	14	19	3.237	4.267
San Jose Intl, CA	5	13	1	2	1	1	0	0	8	16	2.664	5.327
Santa Barbara Muni Apt, CA	2	7	1	1	0	0	1	1	4	9	2.416	5.546
Santa Monica Muni Apt, CA	0	1	0	0	0	0	1	10	1	11	0.448	5.104
Sarasota-Bradenton Intl Apt, FL	0	4	0	1	0	0	0	0	0	5	0.000	2.705
Savannah Intl, GA	2	0	1	0	0	0	3	1	6	1	5.530	0.929
Scottsdale Apt, AZ	0	0	0	0	0	2	0	0	1	2	1	0.894
Seattle-Tacoma Intl, WA	2	5	2	0	0	0	0	4	4	9	0.945	2.082
Sioux Gateway Apt, IA	0	0	0	0	0	0	1	0	0	2	0.000	4.389
Smyrna Apt, TN	1	0	0	0	0	0	0	0	0	1	0	1.443
Snohomish County (Payne Field) Apt, WA	0	0	0	0	0	0	0	0	1	0	1	0.000
Sonoma County Apt, CA	0	0	0	0	0	0	0	0	2	0	2	0.000
Southeast Texas Rgnl, TX	1	0	0	0	0	0	0	1	0	2	0	3.998
Southwest Florida Intl Apt, FL	0	2	0	0	0	0	0	0	1	0	3	0.000
Spirit Of St. Louis Apt, MO	1	3	0	0	0	0	0	0	2	1	5	0.476
Spokane Intl, WA	0	2	0	0	0	0	0	0	0	0	2	0.000
Springfield-Branson Rgnl Apt, MO	2	1	0	0	0	0	0	0	0	0	2	0.840
St. Louis Downtown-Parks Apt, IL	2	1	0	0	0	0	0	2	2	4	3	2.447
St. Lucie County Intl, FL	1	3	0	0	0	0	0	0	0	1	3	0.658
St. Paul Downtown Holman Field Apt, MN	0	0	0	0	0	0	2	3	2	3	1.216	1.908
St. Petersburg/Clearwater Intl, FL	1	0	0	0	0	0	0	0	0	1	0	0.448
Stewart Intl, NY	1	1	0	0	0	0	0	0	0	1	1	0.625
Syracuse Hancock Intl, NY	3	1	1	0	0	0	0	2	1	6	3	3.916
Tallahassee Rgnl Apt, FL	0	2	0	0	0	0	0	0	0	0	2	0.000
Tampa Intl, FL	1	3	0	0	0	0	0	2	1	3	4	1.119
Terre Haute Intl, IN	0	3	0	0	0	0	0	1	0	1	3	1.762
Teterboro Apt, NJ	1	2	1	1	0	0	1	3	3	6	1.245	2.424
The Eastern Iowa Apt, IA	1	0	0	1	0	0	0	2	0	3	1	3.558
The William B Hartsfield Atlanta Intl, GA	1	3	3	2	0	0	2	2	6	7	0.686	0.771
Theodore Francis Green State Apt, RI	0	11	1	0	0	0	1	0	3	1	15	0.636
Toledo Express Apt, OH	1	1	0	0	0	0	0	2	0	3	1	2.754
Tompkins County Apt, NY	0	0	0	0	0	0	0	0	2	0	2	0.000

Actual Activity Data thru 03/31/2000

Forecast Activity Data 04/01/2000 - 05/31/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT

12 MONTH COMPARISON

JUNE 1998 - MAY 1999 versus JUNE 1999 - MAY 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
Trenton Mercer Apt, NJ	1	0	0	0	0	0	0	0	1	0	0.709	0.000
Tri-Cities Apt, WA	2	2	1	0	0	0	0	0	3	2	3.274	2.171
Tri-City Rgnl Apt, TN	0	0	0	0	0	0	3	0	3	0	3.217	0.000
Tri-State/Milton J. Ferguson Field Apt, WV	0	1	0	0	0	0	0	0	0	1	0.000	1.710
Tucson Intl, AZ	2	1	0	0	0	0	0	1	2	2	0.712	0.743
Tulsa Intl, OK	2	2	0	0	0	0	1	1	3	3	1.465	1.502
Tuscaloosa Muni Apt, AL	0	1	0	0	0	0	0	1	0	2	0.000	3.344
Tweed-New Haven Apt, CT	1	0	0	0	0	0	0	0	1	0	1.609	0.000
Tyler Pounds Field Apt, TX	0	0	0	0	0	0	0	1	0	1	N/A	N/A
University Of Illinois-Willard Apt, IL	-1	0	0	0	0	0	0	0	1	0	0.719	0.000
Unknown/Not Reported	0	0	0	0	0	0	0	2	0	2	N/A	N/A
Valdosta Rgnl Apt, GA	0	1	0	0	0	0	0	0	0	1	0.000	1.812
Van Nuys Apt, CA	-1	0	0	0	0	0	0	1	1	1	0.175	0.172
Vandenberg AFB, CA	2	0	0	0	0	0	0	0	2	0	N/A	N/A
Vero Beach Muni Apt, FL	1	-1	0	0	0	0	1	0	2	1	0.916	0.477
W K Kellogg Apt, MI	0	0	0	0	0	0	0	2	0	2	0.000	1.951
Waco Regional Apt, TX	0	1	0	0	0	0	0	0	0	1	0.000	1.618
Walla Walla Regional Apt, WA	0	1	0	0	0	0	0	0	0	1	0.000	2.325
Washington Dulles Intl, DC	2	3	1	0	0	0	0	0	3	3	0.700	0.615
Waterloo Muni Apt, IA	0	2	0	0	0	0	0	1	0	3	0.000	5.621
Waukegan Rgnl Apt, IL	0	2	0	0	0	0	0	0	0	2	0.000	2.042
Westchester County Apt, NY	0	3	0	0	0	0	1	0	1	3	0.474	1.370
Wheeling Ohio County Apt, WV	0	1	0	0	0	0	0	0	0	1	0.000	2.373
Whiteman Apt, CA	0	0	0	0	0	0	0	1	0	0	0.739	0.000
Wichita Mid-Continent, KS	3	0	0	0	0	0	0	0	1	3	1.403	0.457
Wiley Post Apt, OK	2	0	0	0	0	0	0	0	3	2	2.150	2.975
Wilkes-Barre/Scranton Intl, PA	0	0	0	0	0	0	0	1	0	1	0.000	0.855
Will Rogers World Apt, OK	0	3	0	1	0	0	0	0	0	4	0.000	2.426
William P. Hobby Apt, TX	2	3	1	0	0	0	0	1	3	4	1.165	1.542
Willow Run Apt, MI	3	2	1	0	2	0	7	4	13	6	7.174	3.864
Wittman Regional Apt, WI	0	2	0	0	0	0	1	0	3	0	0.000	2.568
Worcester Muni Apt, MA	0	1	0	0	0	0	0	0	0	1	0.000	2.012

Actual Activity Data thru 03/31/2000

Forecast Activity Data 04/01/2000 - 05/31/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT  
12 MONTH COMPARISON

JUNE 1998 - MAY 1999 versus JUNE 1999 - MAY 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
Yakima Air Terminal/McAllister Field Apt, WA	0	2	0	0	0	0	0	0	0	0	0.000	3.127
Youngstown Muni Apt, OH	0	3	1	0	0	1	2	1	3	5	2.979	6.361
Zamparini Field Apt, CA	0	1	0	0	0	0	0	0	0	1	0.000	0.533
Total	448	648	99	94	2.5	20	298	482	874	1244	1.598	2.278

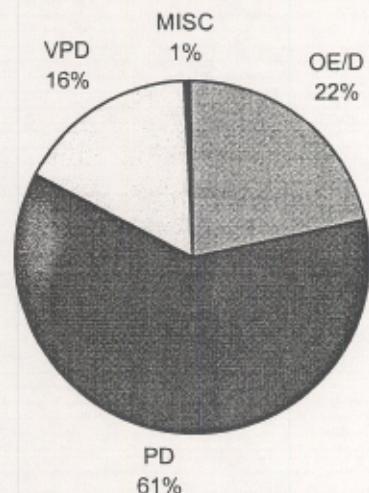
Actual Activity Data thru 03/31/2000  
Forecast Activity Data 04/01/2000 - 05/31/2000  
Rates per 100,000 Operations

## Runway Incursions by Type and Month

### 1999 through May 2000

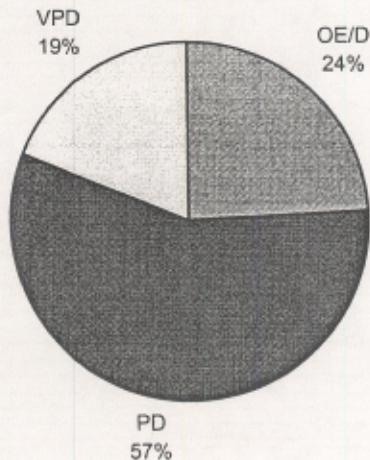
**Runway Incursions by Month - 2000**

MONTH	Incident Type				TOTAL
	OE/D	PD	VPD	MISC	
January	2	15	5	1	23
February	5	12	7	0	24
March	11	22	3	0	36
April	7	20	6	0	33
May	8	24	4	0	36
June					
July					
August					
September					
October					
November					
December					
<b>TOTAL</b>	<b>33</b>	<b>93</b>	<b>25</b>	<b>1</b>	<b>152</b>



**Runway Incursions by Month - 1999**

Month	Incident Type				Total
	OE/D	PD	VPD	Total	
January	8	17	4	29	
February	7	9	5	21	
March	3	8	6	17	
April	4	15	3	22	
May	8	18	3	29	
June	7	12	9	28	
July	7	23	9	39	
August	7	13	3	23	
September	8	17	8	33	
October	7	13	4	24	
November	7	15	3	25	
December	5	22	4	31	
<b>Totals</b>	<b>78</b>	<b>182</b>	<b>61</b>	<b>321</b>	



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

## RUNWAY INCURSIONS

### BY TYPE AND RATE

**Jan - May 2000**

(Operations in Millions)

**January - May 2000**

Region	OE	PD	VPD	MISC	TOTAL	OPERATIONS	RATE
AAL	0	1	1	0	2	0.39	5.13
ACE	1	4	1	0	6	1.08	5.56
AEA	4	7	3	0	14	3.57	3.92
AGL	6	9	6	1	22	4.05	5.43
ANE	2	7	1	0	10	1.14	8.77
ANM	3	9	1	0	13	2.29	5.68
ASO	7	14	6	0	27	6.02	4.49
ASW	3	12	1	0	16	3.31	4.83
AWP	7	30	5	0	42	6.35	6.61
Total	33	93	25	1	152	28.20	5.39

**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	16	27	13	56	10.33	5.42
ANE	4	7	4	15	2.99	5.02
ANM	7	14	2	23	5.81	3.96
ASO	14	37	10	61	13.79	4.42
ASW	6	20	8	34	8.07	4.21
AWP	15	53	14	82	15.18	5.4
Total	78	182	61	321	68.75	4.67

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

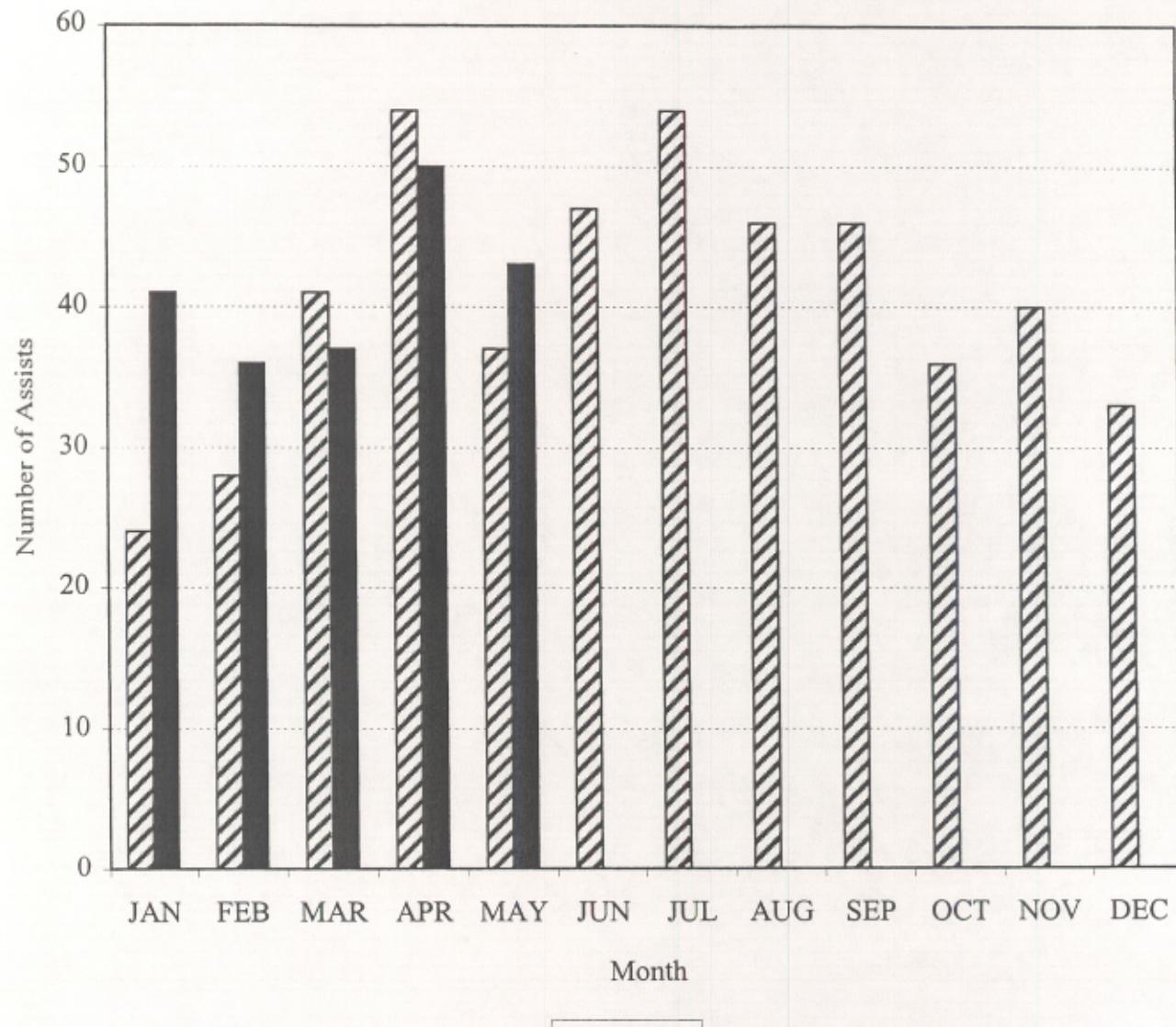
Source: Runway Safety Program Office, ATS-20

## **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.**

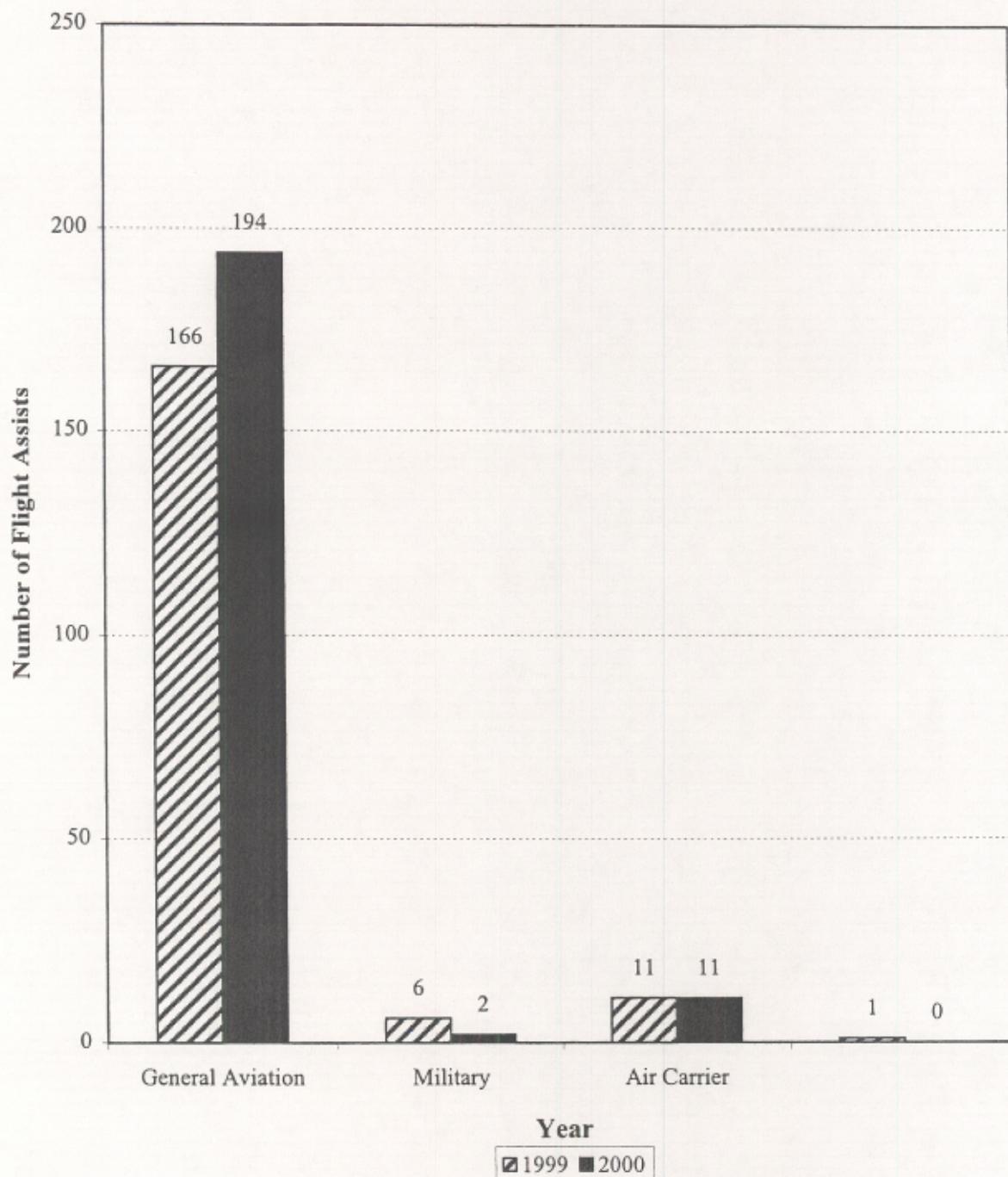
## Flight Assists by Month

1999 - May 2000



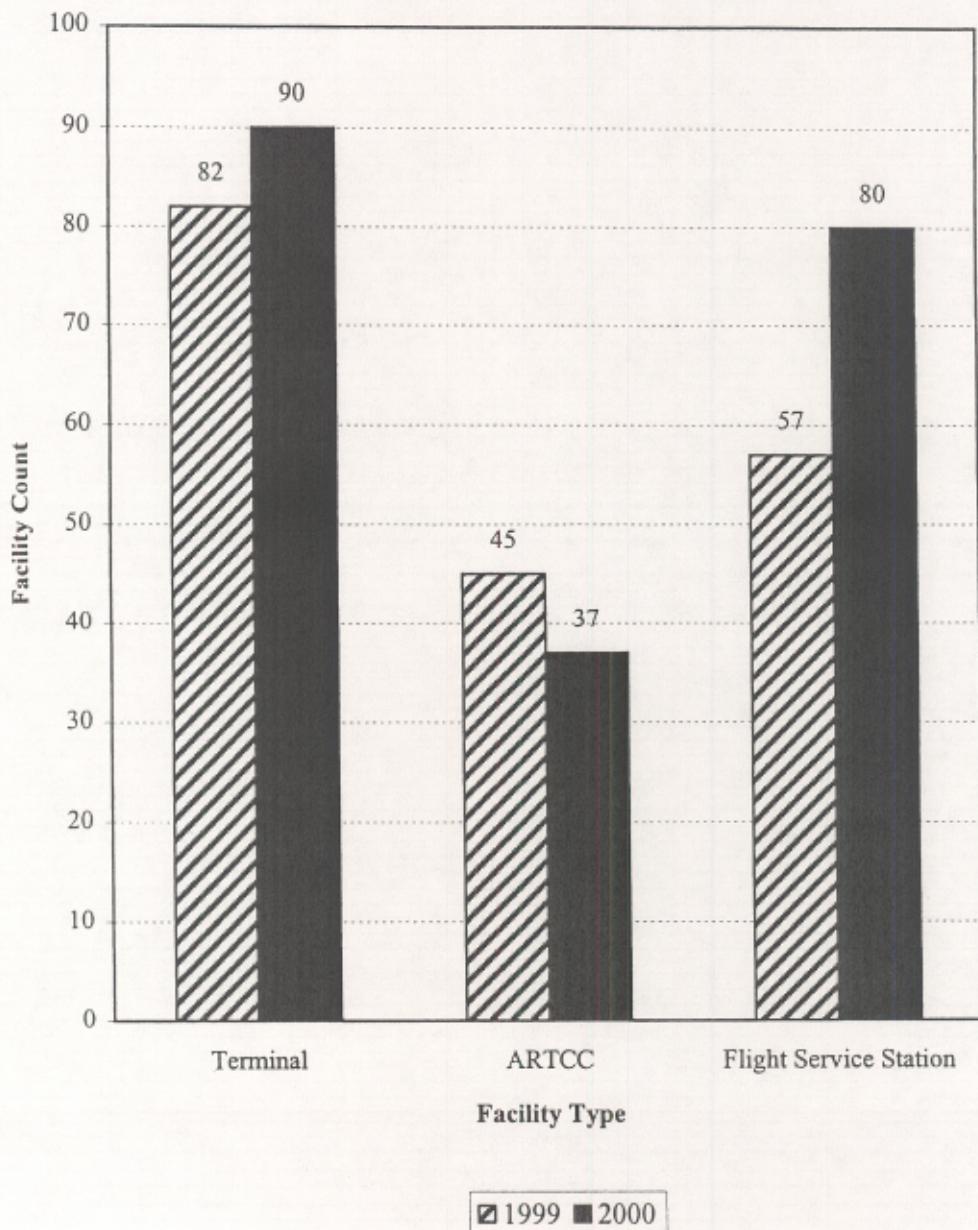
## Flight Assists By Operator Type

1999 - May 2000



## Flight Assists by Facility Type

1999 - May 2000

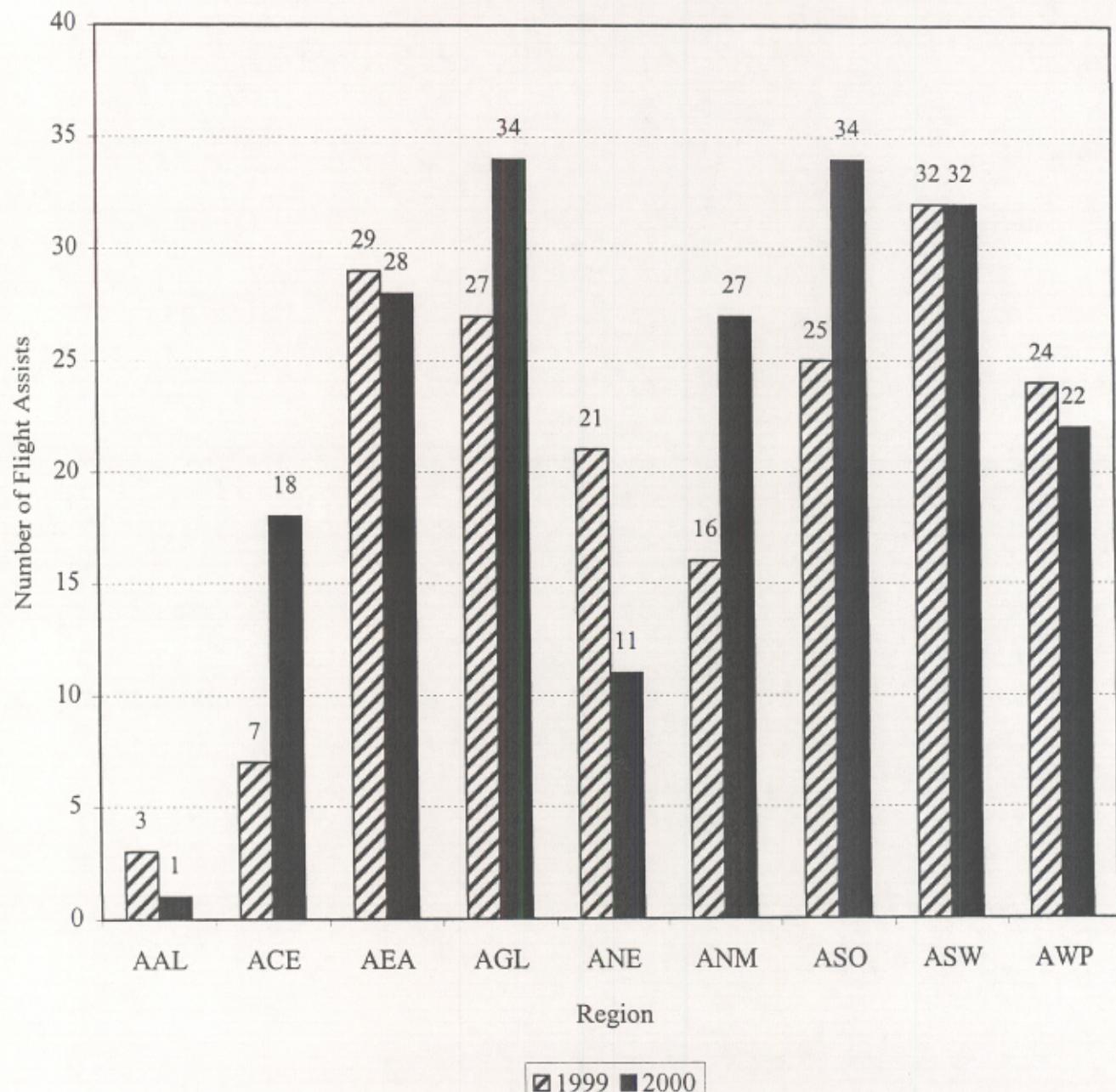


**Flight Assists by Facility**  
**12 Month Comparison (2000 Ranking)**

Facility Name	ID	JUNE 1998 - MAY 1999	JUNE 1999 - MAY 2000
New York TRACON, NY	N90	18	21
Fort Worth Meacham Arpt, TX	FTW	14	21
Montgomery County Arpt, TX	CXO	15	16
Ernest A. Love Field Arpt, AZ	PRC	14	13
Denver Intl, CO	DEN	8	13
Atlanta Center, GA	ZTL	18	12
Seattle Center, WA	ZSE	8	11
Houston Center, TX	ZHU	6	9
Austin Straubel Intl, WI	GRB	4	9
Los Angeles Center, CA	ZLA	4	8
Princeton Muni Arpt, MN	PNM	4	8
Cleveland Center, OH	ZOB	4	8
Mc Alester Regional Arpt, OK	MLC	8	7
Columbia Regional Arpt, MO	COU	6	7
Seattle-Tacoma Intl, WA	SEA	5	7
Greater Kankakee Arpt, IL	IKK	4	7
Kansas City Center, MO	ZKC	4	7
Wichita Mid-Continent, KS	ICT	2	7
Altoona-Blair County Arpt, PA	AOO	6	6
Fort Worth Center, TX	ZFW	6	6
Huron Regional Arpt, SD	HON	4	6
Bradley Intl, CT	BDL	3	6
Cedar City Rgnl Arpt, UT	CDC	2	6
San Angelo Rgnl/Mathis Field Arpt, TX	SJT	2	6
Manchester Arpt, NH	MHT	11	5
Southern California TRACON, CA	SCT	4	5
St. Petersburg/Clearwater Intl, FL	PIE	2	5
Lovell Field Arpt, TN	CHA	2	5
New York Center, NY	ZNY	2	5
Norfolk Intl, VA	ORF	2	5
Anniston Metro Arpt, AL	ANB	0	5
Nashville Intl, TN	BNA	0	5

## Flight Assists By Region

1999 - May 2000

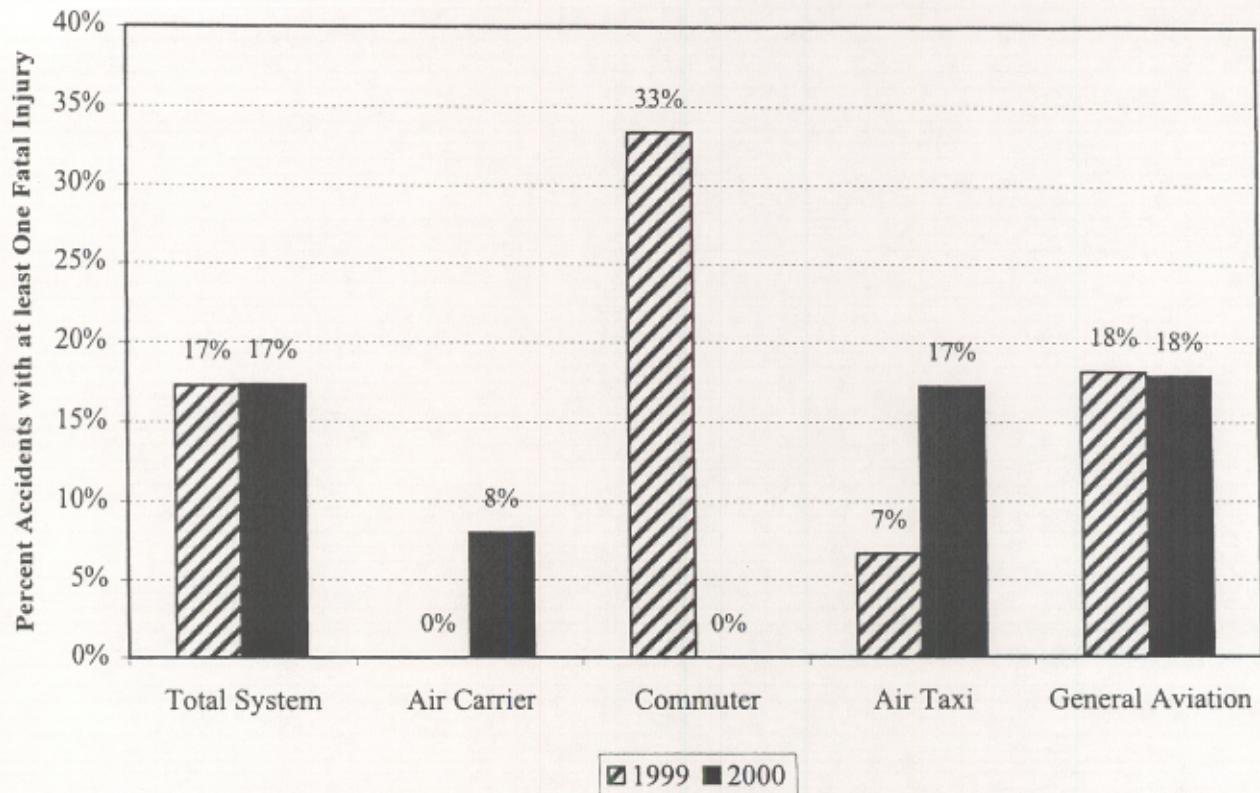


## **ACCIDENT DATA\***

**\*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 - May**  
**1999-2000**



SEGMENT	JAN - MAY YEAR	ACCIDENTS			FATAL RATE
		TOTAL	FATAL	FATALITIES	
<b>Total</b>	1999	729	126	222	17%
<b>System</b>	2000	709	123	336	17%
<b>Large Air</b>	1999	19	0	0	0%
<b>Carrier</b>	2000	25	2	91	8%
	1999	3	1	1	33%
<b>Commuter</b>	2000	7	0	0	0%
	1999	30	2	3	7%
<b>Air Taxi</b>	2000	29	5	31	17%
<b>General</b>	1999	677	123	218	18%
<b>Aviation</b>	2000	648	116	214	18%

**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	16,846,063	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	0.51
	1998	353,765	8	0	0	2.26	0.00
	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	1853	353	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.*