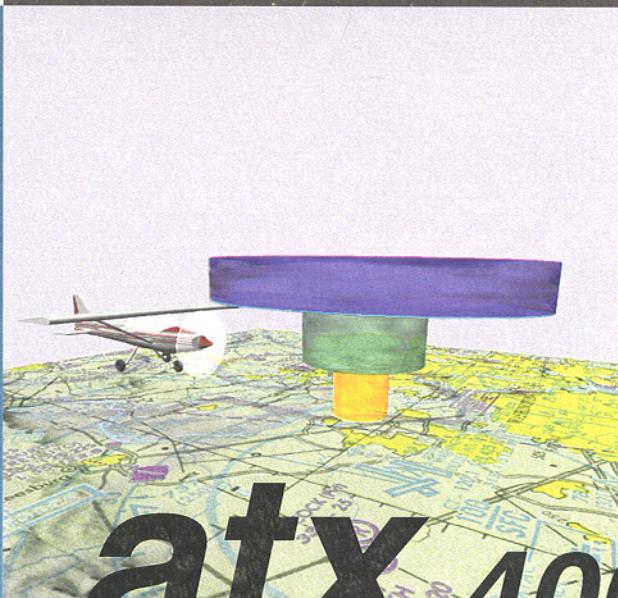
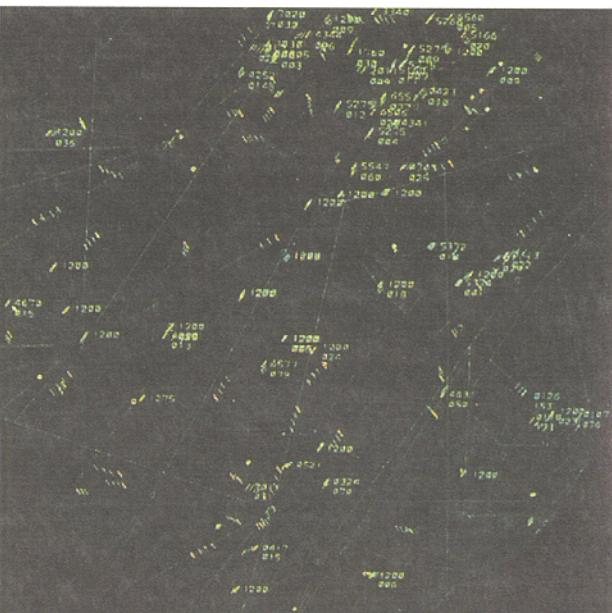




U.S. Department  
of Transportation

Federal Aviation  
Administration

# Aviation Safety Statistical Handbook



## atx-400

planning • information • analysis

November 2000

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 System (NAS). Data includes statistics on aviation incidents, aircraft accidents and flight assist. Data are presented for Near Midair Collisions (NMAC's), Operational Errors (OE's), Operational Deviations (OD's), Pilot Deviations (PD's), Vehicle/Pedestrian Deviations (VPD's), Surface Incidents (SI's), Runway Incursions (RI's), Flight Assists (FA's), and aircraft accidents in the NAS. Comparing January through November 1999 with January through November 2000, all airspace incidents have shown an increase, with the exception of NMAC's, which show a decrease. Accident counts for January through November 2000 show a decrease as well.

### **NEAR MIDAIR COLLISIONS**

During January through November 2000, the number of pilot-reported Near Midair Collisions decreased 9 percent from 242 to 220, compared to January through November 1999, (see Graph on Page ES-3). Over this period, the number of NMAC's reported by Air Carriers (Part 121/125/129 and Part 135) decreased from 95 to 85. General Aviation (G/A-Part 91) increased from 78 to 83. NMAC's where one aircraft was flying IFR and the other was flying VFR decreased from 133 to 121. Incidents where both aircraft were flying IFR increased from 23 to 25, and incidents where both aircraft were flying VFR decreased from 86 to 74. Nineteen incidents through November 2000 were judged to represent a critical hazard.

### **OPERATIONAL ERRORS/DEVIATIONS**

Operational Errors increased 20 percent from 887 to 1,063 during January through November 2000, compared to the same period in 1999. En route Operational Errors for this period increased 23 percent from 553 to 680. Errors at terminals increased 15 percent from 334 to 383. During the 12-month period ending November 2000, the top Air Route Traffic Control Centers (ARTCC's), based on Operational Errors per 100,000 operations, had error rates ranging from 3.58 for Washington Center to 1.36 for the Boston Center. TRACON Operational Errors varied from 1.73 for Meridian to .73 for Minneapolis.

Operational Deviations in the NAS for January through November 2000 increased 28 percent from 253 to 323 compared to January through November 1999.

### **PILOT DEVIATIONS**

Reports of Pilot Deviations for January through November 2000 increased 22 percent from 1,485 to 1,817, compared to January through November 1999. Over this period, Air Deviations increased 14 percent from 1,001 to 1,137; while Surface Deviations increased 39 percent, from 472 to 657. The number of Class 'B' Airspace Violations decreased one percent from 145 to 143.

## **VEHICLE/PEDESTRIAN DEVIATIONS**

Total Vehicle/Pedestrian Deviations during January through November 2000 increased 35 percent from 370 to 501 compared to the same period in 1999. Jeffco Airport recorded a total of 25 VPD's for the 12 months ending November 2000. This is up compared to the number recorded for the preceding 12 month period. Merrill Field in Alaska recorded a significant increase in VPD's over the last 12 months.

## **SURFACE INCIDENTS**

The number of Surface Incidents for January through November 2000 increased by 35 percent from 953 to 1,291, compared to the same period in 1999. Operational Error SI's increased slightly, from 83 to 86. Pilot Deviation SI's increased 40 percent, from 484 to 680. Operational Deviation SI's increased 50 percent, from 16 to 24.

The number of Runway Incursions for January through November 2000 increased 36 percent, from 290 to 394, compared to January through November 1999.

## **FLIGHT ASSISTS**

Flight assists for January through November 2000 decreased four percent from 453 to 436, compared to January through November 1999. Ninety-three percent of the flight assists handled in January through November 2000 were for General Aviation aircraft. A 12-month comparison of flight assists by facility showed New York TRACON topped the list with 21 assists.

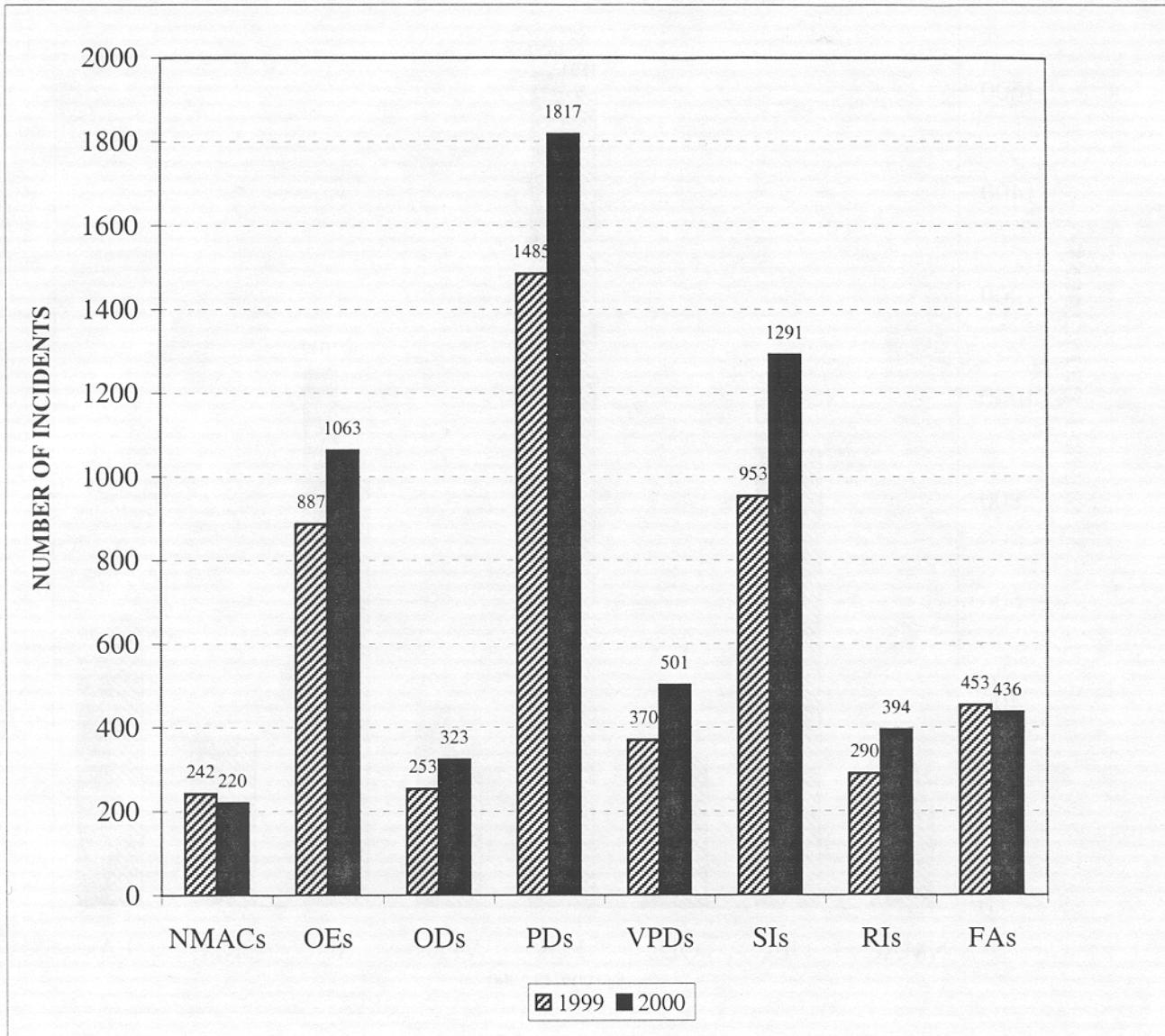
## **ACCIDENT DATA**

Total system accidents decreased four percent from 1,929 during January through November 1999, to 1,849 for January through November 2000. About 93 percent of the year 2000 accidents occurred in the General Aviation segment (1,719), which decreased 5 percent from 1,802 in January through November 1999. There were 47 large air carrier accidents in January through November 2000 compared to 50 for the same period in 1999. The total system fatalities increased 13 percent, from 660 to 749, during this period.

# NATIONAL AIRSPACE INCIDENTS

## JANUARY - NOVEMBER

### 1999 versus 2000



NMAC - Near Midair Collision

OE - Operational Error

OD - Operational Deviation

PD - Pilot Deviation

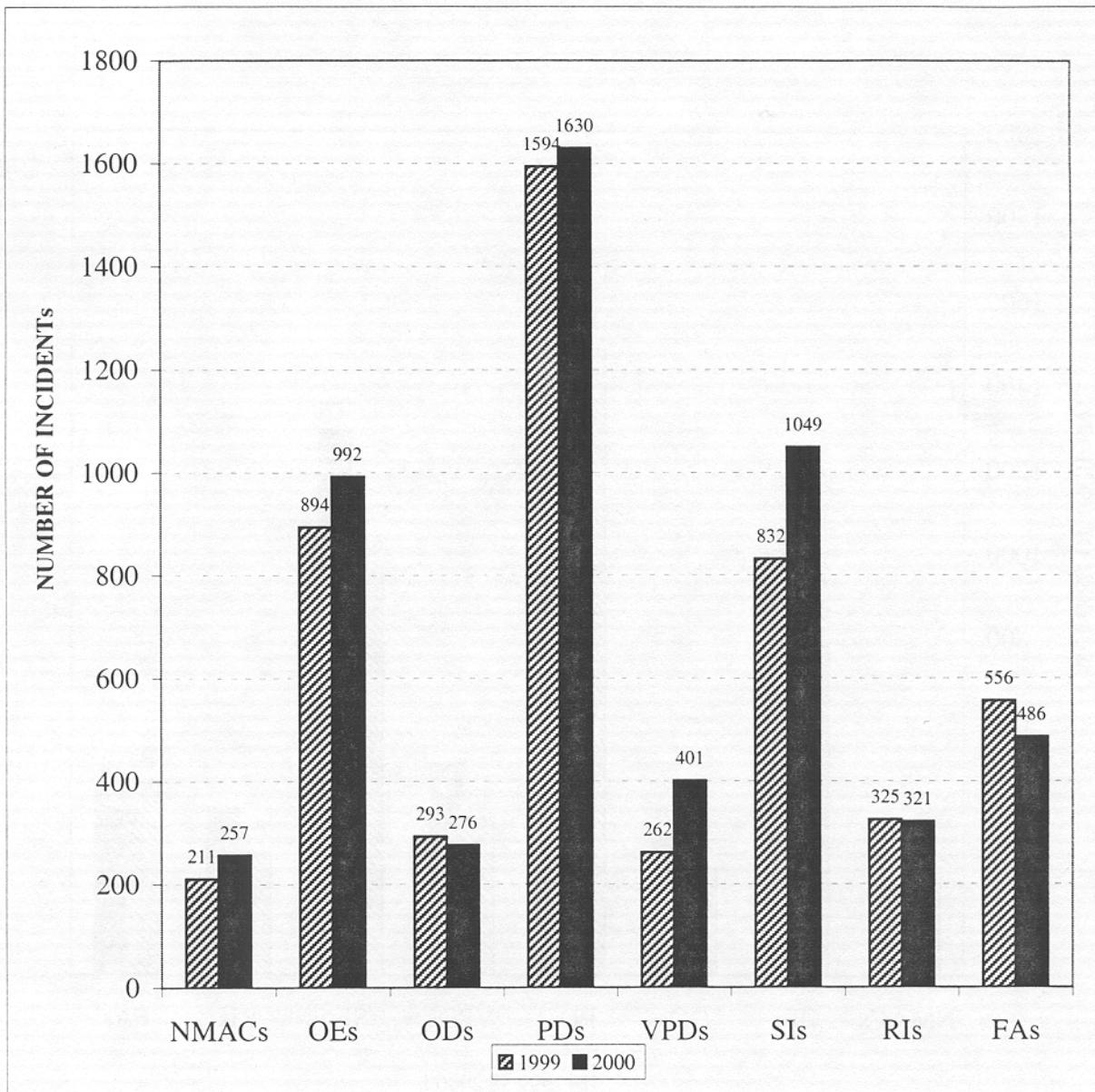
VPD - Vehicle/Pedestrian Deviation

SI - Surface Incident

RI - Runway Incursion

FA - Flight Assist

## NATIONAL AIRSPACE INCIDENTS CALENDAR YEARS 1998 and 1999



NMAC - Near Midair Collision

OE - Operational Error

OD - Operational Deviation

PD - Pilot Deviation

VPD - Vehicle/Pedestrian Deviation

SI - Surface Incident

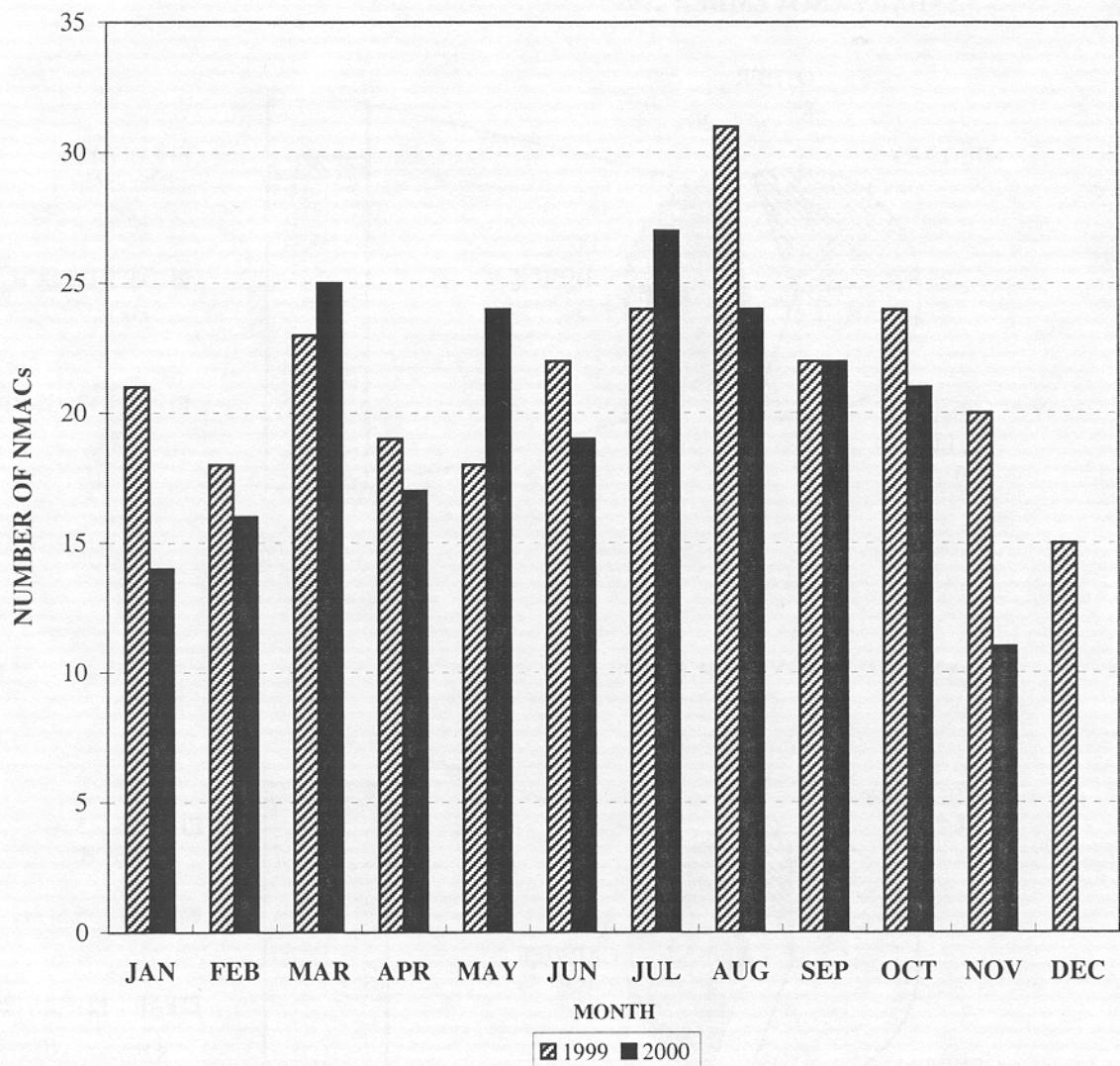
RI - Runway Incursion

FA - Flight Assist

## **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.**

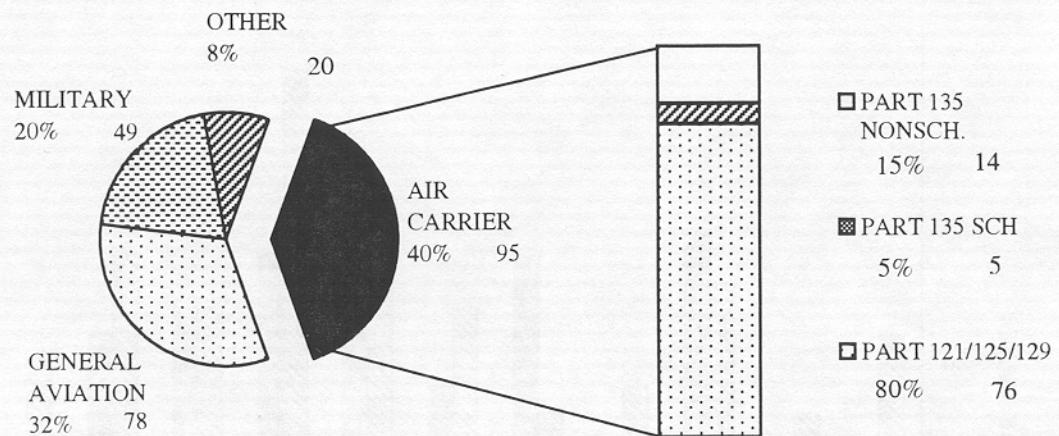
**PILOT-REPORTED NEAR MIDAIR COLLISIONS  
BY MONTH  
1999 - NOVEMBER 2000**



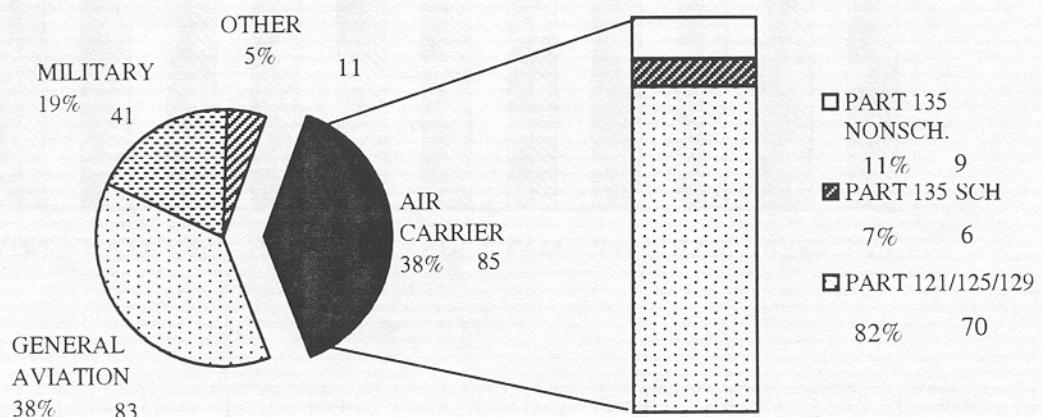
1999	21	18	23	19	18	22	24	31	22	24	20	15
2000	14	16	25	17	24	19	27	24	22	21	11	

# PILOT-REPORTED NEAR MIDAIR COLLISIONS BY REPORTING OPERATOR TYPE 1999 versus 2000

**JANUARY - NOVEMBER 1999**

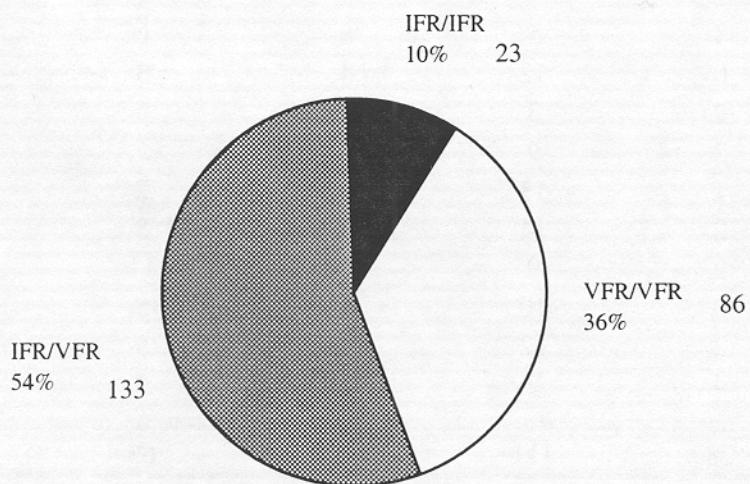


**JANUARY - NOVEMBER 2000**

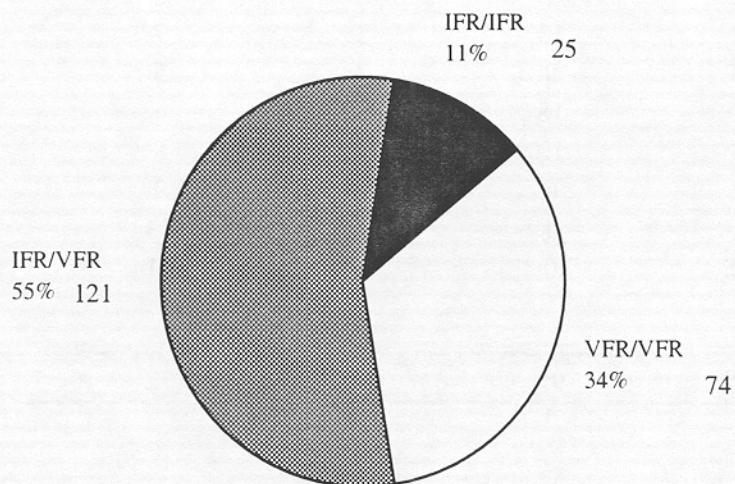


## PILOT-REPORTED NEAR MIDAIR COLLISIONS 1999 versus 2000

JANUARY - NOVEMBER 1999



JANUARY - NOVEMBER 2000



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

1999

MONTH	DEGREE OF HAZARD				TOTAL
	CRITICAL	POTENTIAL	NO HAZARD	NOT REPORTED	
JAN	4	8	2	7	21
FEB	2	9	3	4	18
MAR	4	5	8	6	23
APR	0	12	4	3	19
MAY	2	3	8	5	18
JUN	2	9	6	5	22
JUL	1	13	8	2	24
AUG	2	14	7	8	31
SEP	2	9	0	11	22
OCT	3	10	6	5	24
NOV	2	12	1	5	20
DEC	4	7	2	2	15
TOTAL	28	111	55	63	257

2000

MONTH	DEGREE OF HAZARD				TOTAL
	CRITICAL	POTENTIAL	NO HAZARD	NOT REPORTED	
JAN	2	8	3	1	14
FEB	1	8	0	7	16
MAR	2	12	6	5	25
APR	2	7	6	2	17
MAY	2	13	2	7	24
JUN	3	9	2	5	19
JUL	1	18	4	4	27
AUG	3	10	3	8	24
SEP	2	6	5	9	22
OCT	1	4	3	13	21
NOV	0	0	0	11	11
DEC					
TOTAL	19	95	34	72	220

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

1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	0	1	2	1	0	1	4	7	5	21
FEB	1	1	2	1	1	1	3	3	5	18
MAR	0	2	3	3	0	4	0	1	10	23
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	2	6	24
AUG	3	1	5	4	1	4	4	6	3	31
SEP	0	2	3	2	3	2	3	4	3	22
OCT	0	1	5	1	0	1	2	3	11	24
NOV	0	1	4	1	0	0	4	3	7	20
DEC	2	2	1	1	0	1	4	2	2	15
TOTAL	10	15	33	26	7	23	34	38	71	257

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	3	4	2	5	16
MAR	2	1	2	1	1	1	7	1	9	25
APR	0	1	0	0	0	1	4	2	9	17
MAY	0	0	2	0	2	2	5	4	9	24
JUN	1	0	1	1	0	1	7	2	6	19
JUL	1	1	7	1	0	2	4	2	9	27
AUG	2	0	2	4	2	1	4	3	6	24
SEP	0	0	5	0	1	3	4	3	6	22
OCT	1	0	4	0	1	4	6	1	4	21
NOV	0	0	0	0	1	2	1	1	6	11
DEC										
TOTAL	7	5	25	9	8	22	48	23	73	220

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

STATE	JAN-NOV		STATE	JAN-NOV	
	1999	2000		1999	2000
Alabama	3	0	Montana	2	0
Alaska	8	7	Nebraska	0	0
Arizona	12	17	Nevada	5	6
Arkansas	0	0	New Hampshire	1	2
Atlantic Ocean	1	1	New Jersey	10	4
Bahamas*	1	0	New Mexico	2	2
California	48	49	New York	8	5
Colorado	6	4	North Carolina	1	4
Connecticut	2	1	North Dakota	5	0
Delaware	0	2	Ohio	5	2
District of Columbia	0	0	Oklahoma	3	1
Florida	15	22	Oregon	1	5
Georgia	5	5	Pacific Ocean	1	0
Guam*	0	0	Pennsylvania	4	6
Hawaii	5	2	Puerto Rico*	0	4
Idaho	1	1	Rhode Island	0	0
Illinois	7	4	South Carolina	0	2
Indiana	3	1	South Dakota	1	1
Iowa	4	0	Tennessee	1	5
Kansas	7	4	Texas	25	14
Kentucky	3	2	Utah	3	6
Louisiana	0	4	Vermont	0	0
Maine	2	0	Virgin Islands*	0	0
Maryland	5	3	Virginia	4	3
Massachusetts	1	5	Wake Island*	0	0
Michigan	3	0	Washington	7	6
Minnesota	2	0	West Virginia	2	2
Mississippi	2	3	Wisconsin	1	2
Missouri	3	1	Wyoming	1	0

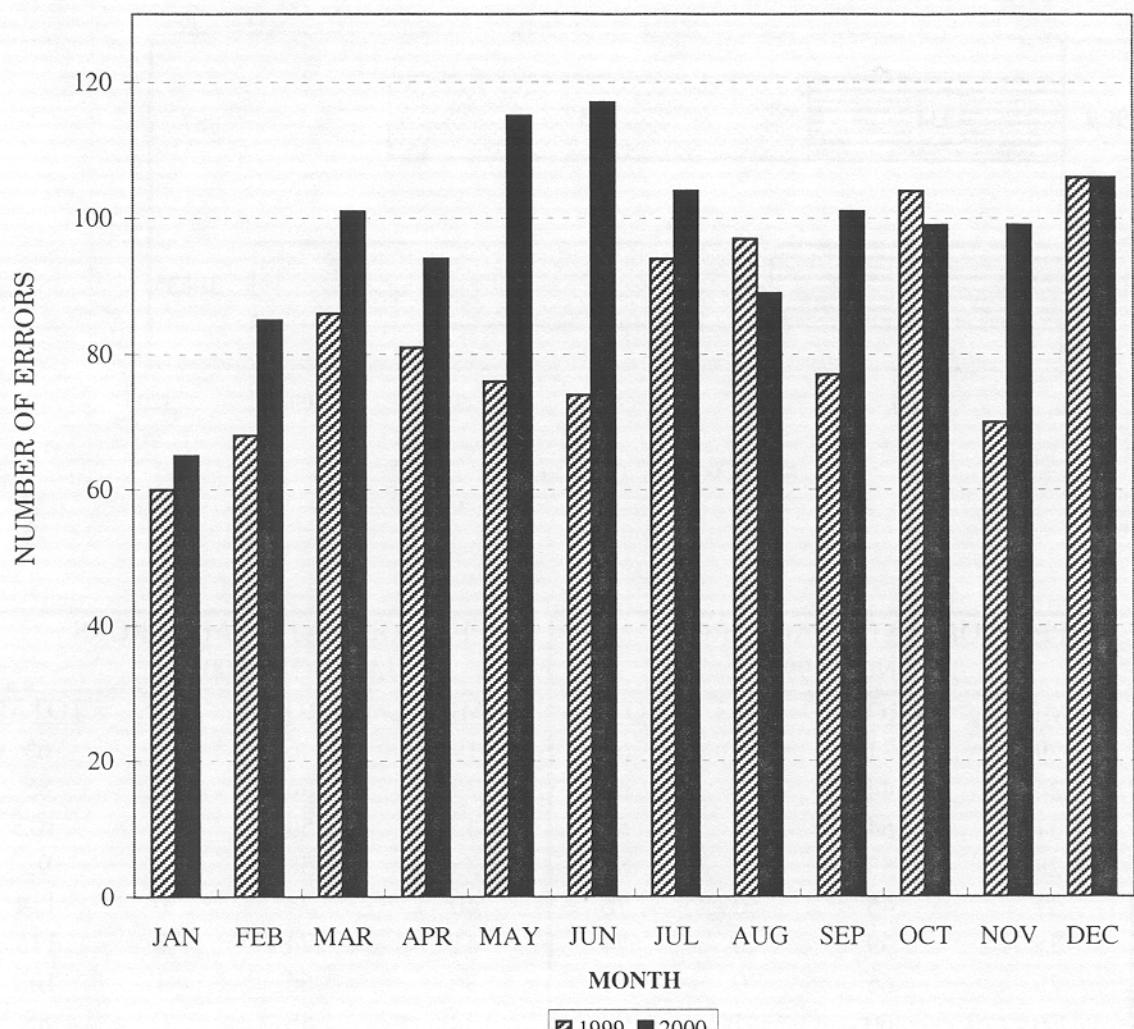
\*U.S. Controlled Airspace

TOTAL                    242                    220

## **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 - November 2000**

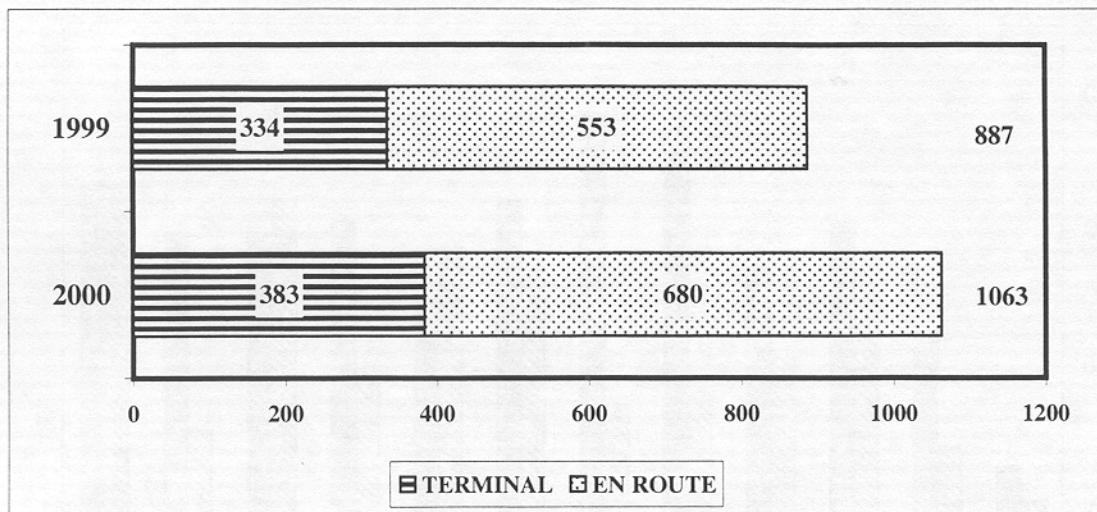


1999	60	68	86	81	76	74	94	97	77	104	70	105
2000	65	85	102	93	114	115	103	88	102	97	99	

## OPERATIONAL ERRORS

### JANUARY-NOVEMBER

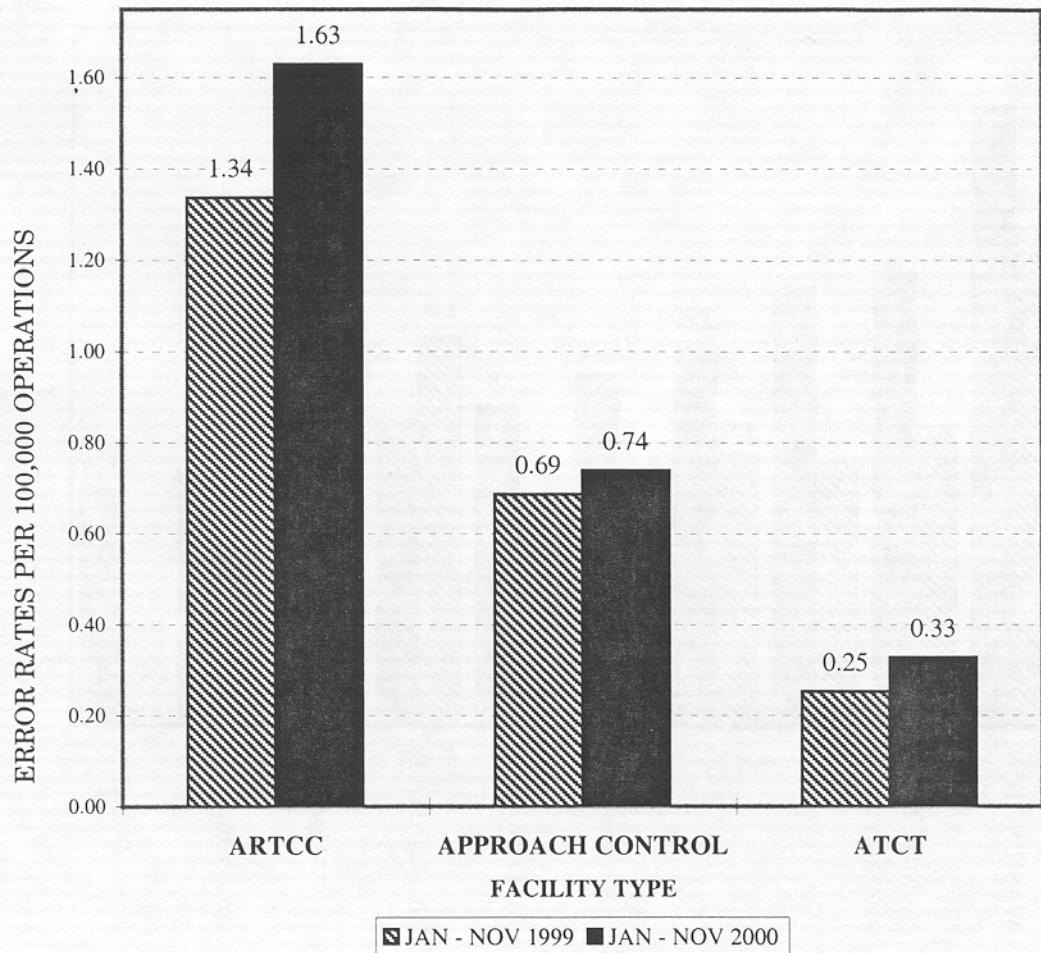
### 1999 versus 2000



MONTH	TYPE OF OPERATIONAL ERRORS JAN-NOV 1999				TYPE OF OPERATIONAL ERRORS JAN-NOV 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	40	74	0	114
JUN	35	39	0	74	41	74	0	115
JUL	29	65	0	94	36	66	1	103
AUG	36	60	1	97	32	56	0	88
SEP	33	44	0	77	36	66	0	102
OCT	36	68	0	104	33	64	0	97
NOV	20	50	0	70	38	61	0	99
DEC								
<b>TOTAL</b>	<b>332</b>	<b>553</b>	<b>2</b>	<b>887</b>	<b>382</b>	<b>680</b>	<b>1</b>	<b>1063</b>

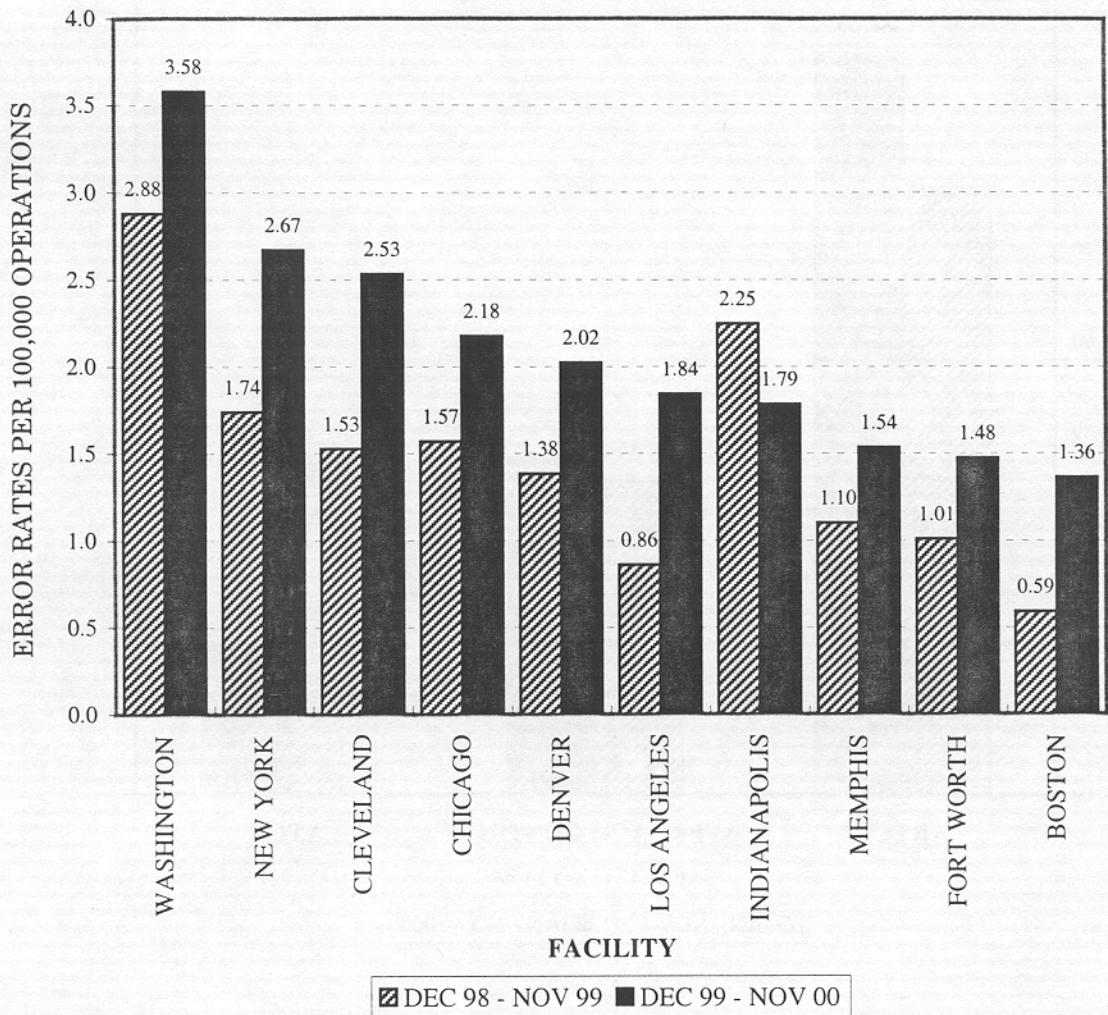
Note: In graphic overview FSSs are included in Terminals.

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



Actual Error Data thru 11/30/2000  
Actual Activity Data thru 08/31/2000  
Forecast Activity Data 09/01/2000 - 11/30/2000

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

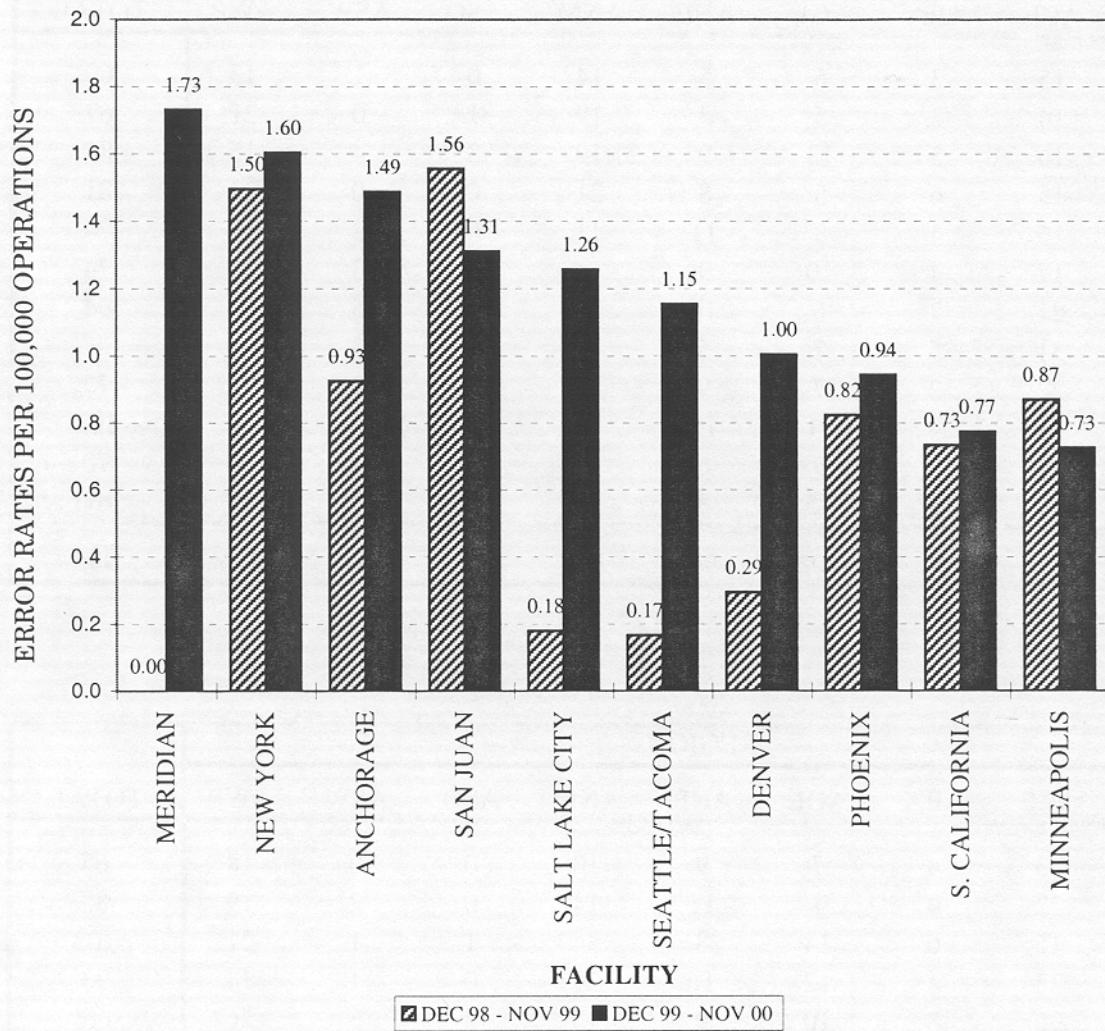


Actual Error Data thru 11/30/2000

Actual Activity Data thru 08/31/2000

Forecast Activity Data 09/01/2000 - 11/30/2000

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



Actual Error Data thru 11/30/2000

Actual Activity Data thru 08/31/2000

Forecast Activity Data 09/01/2000 - 11/30/2000

CERAPS are included in TRACONS

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

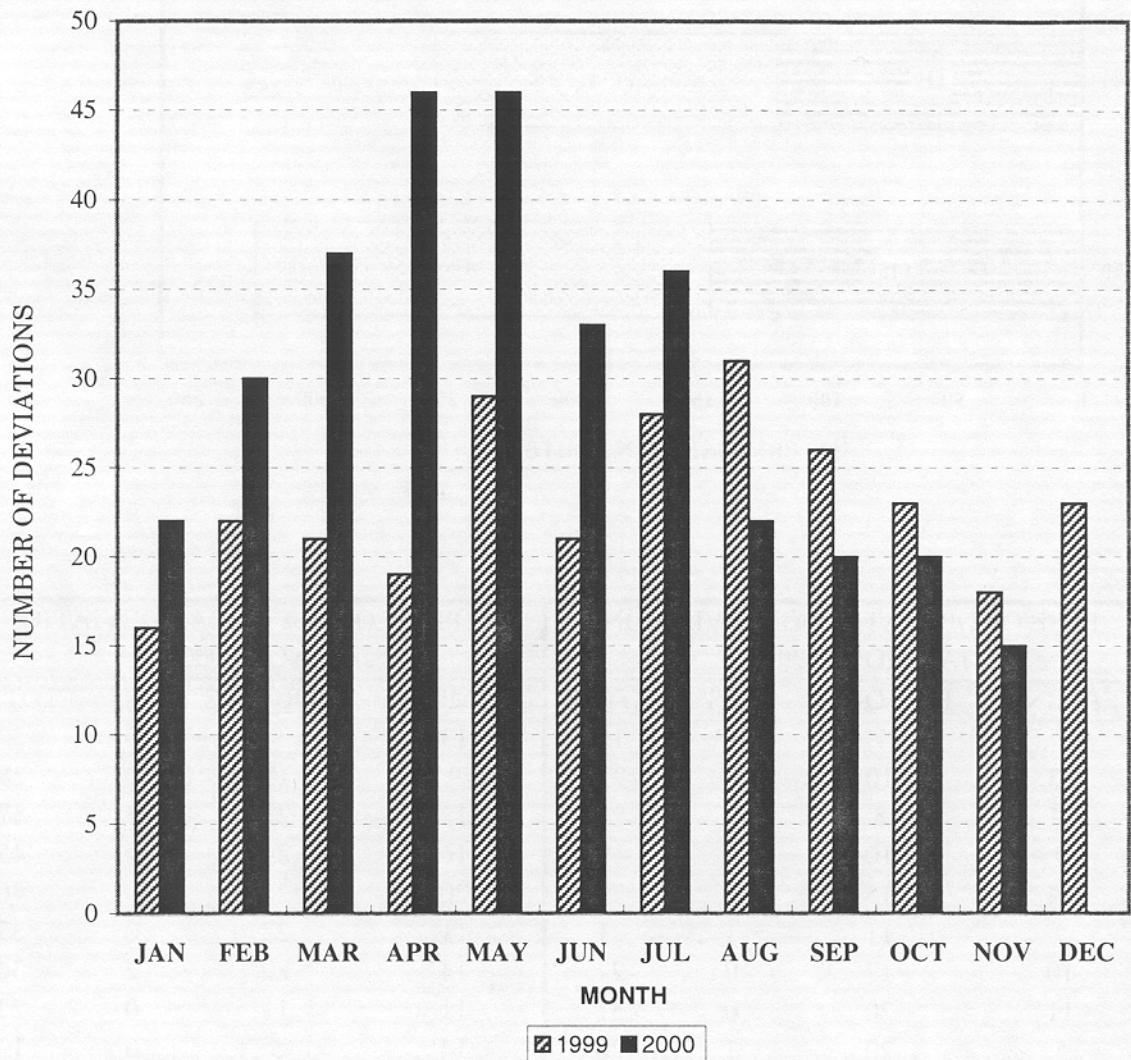
1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	3	15	3	6	5	14	0	1	13	60
FEB	1	14	3	5	4	19	1	0	21	67
MAR	2	16	5	13	9	19	3	4	15	85
APR	5	15	6	5	8	21	0	0	21	81
MAY	6	16	4	8	11	11	0	2	18	74
JUN	6	17	4	10	9	11	0	3	14	74
JUL	3	21	7	6	10	21	5	5	16	94
AUG	5	31	5	7	5	12	5	3	24	97
SEP	4	22	2	7	9	8	0	2	23	77
OCT	3	21	4	11	10	19	1	6	29	104
NOV	2	14	3	9	6	14	0	2	20	70
DEC	3	18	8	15	8	26	2	3	22	106
TOTAL	43	220	54	102	94	195	17	31	236	992

2000

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	4	13	4	7	9	10	0	0	18	65
FEB	6	22	4	7	11	14	0	2	19	85
MAR	2	15	6	14	8	34	1	1	21	102
APR	6	25	4	12	10	21	0	1	14	93
MAY	5	36	8	10	9	13	2	5	26	114
JUN	2	29	5	9	18	17	0	3	32	115
JUL	2	25	8	11	9	13	3	5	27	103
AUG	5	16	10	10	5	14	1	2	25	88
SEP	1	28	13	10	5	18	1	3	23	102
OCT	7	18	9	14	7	13	1	4	24	97
NOV	1	29	9	12	9	15	1	5	18	99
DEC										
TOTAL	41	256	80	116	100	182	10	31	247	1063

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

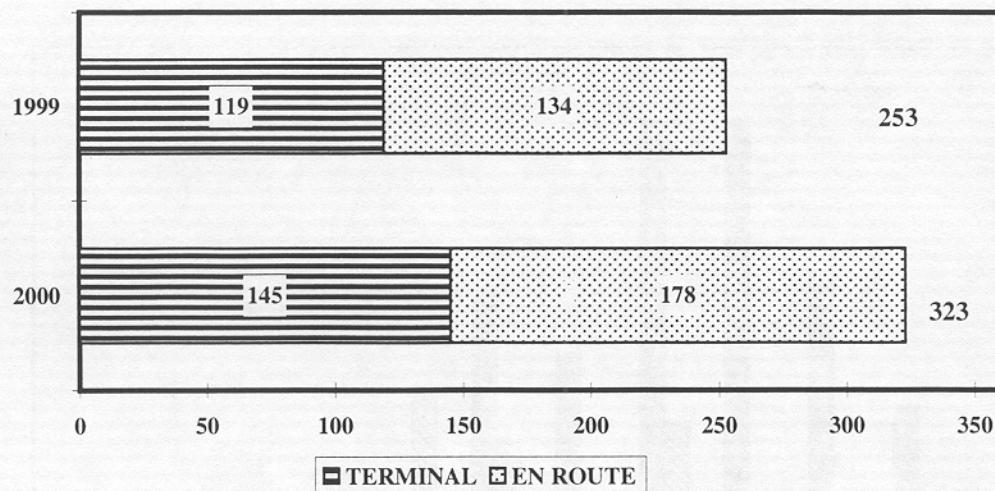


1999	15	23	21	19	29	21	27	31	26	23	18	23
2000	22	28	37	45	46	33	36	22	19	20	15	

# OPERATIONAL DEVIATIONS

## JANUARY-NOVEMBER

### 1999 versus 2000



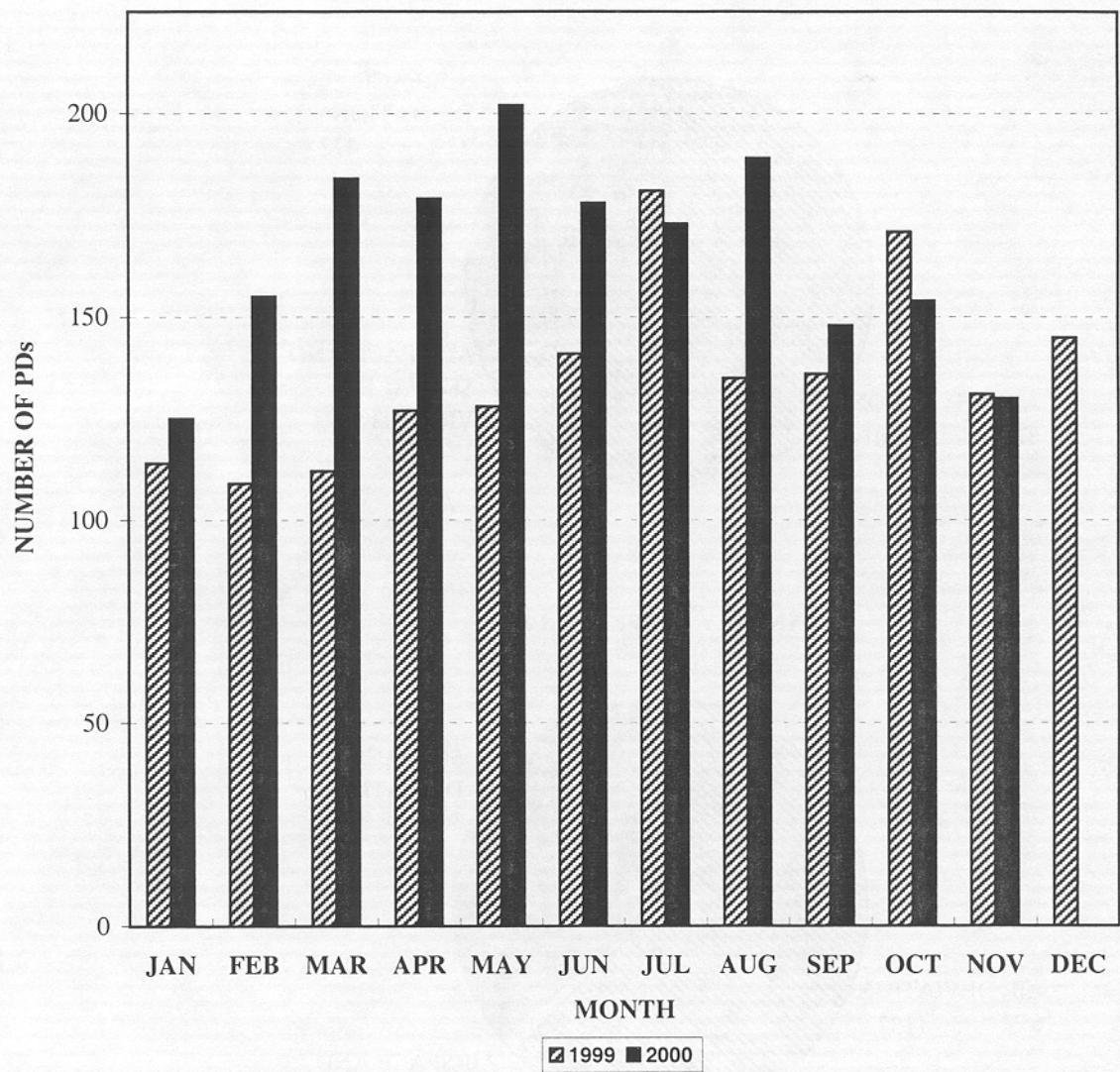
MONTH	TYPE OF OPERATIONAL DEVIATIONS JAN-NOV 1999				TYPE OF OPERATIONAL DEVIATIONS JAN-NOV 2000			
	TERMINAL	EN ROUTE	FSS	TOTAL	TERMINAL	EN ROUTE	FSS	TOTAL
JAN	7	7	1	15	13	9	0	22
FEB	13	10	0	23	9	19	0	28
MAR	11	8	2	21	12	22	3	37
APR	9	10	0	19	16	29	0	45
MAY	14	15	0	29	20	26	0	46
JUN	9	11	1	21	11	22	0	33
JUL	10	17	0	27	14	20	2	36
AUG	11	20	0	31	11	11	0	22
SEP	5	20	1	26	14	5	0	19
OCT	12	11	0	23	12	8	0	20
NOV	13	5	0	18	7	7	1	15
DEC								
<b>TOTAL</b>	<b>114</b>	<b>134</b>	<b>5</b>	<b>253</b>	<b>139</b>	<b>178</b>	<b>6</b>	<b>323</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.**

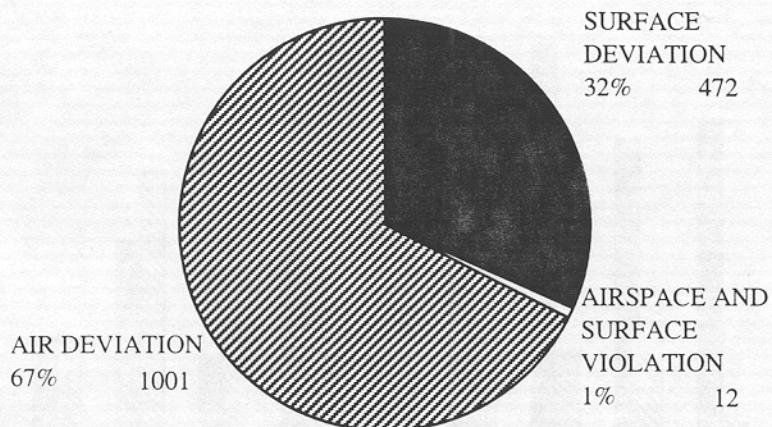
**PILOT DEVIATIONS  
BY MONTH  
1999 - NOVEMBER 2000**



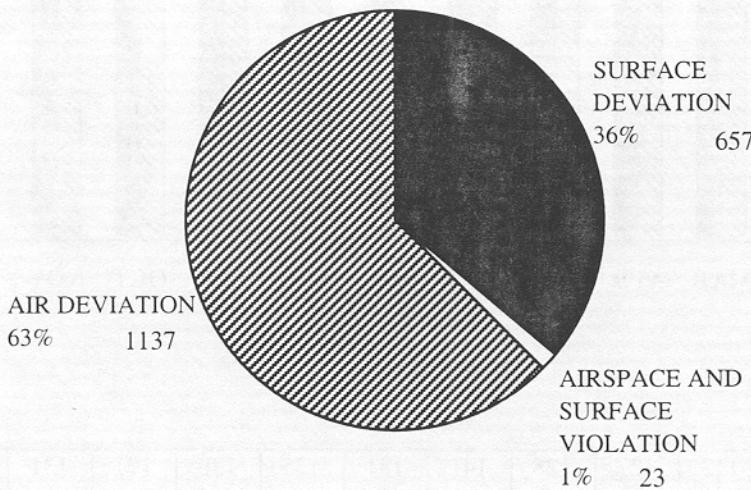
1999	114	109	112	127	128	141	181	135	136	171	131	145
2000	125	155	184	179	202	178	173	189	148	154	130	

# PILOT DEVIATIONS BY DEVIATION TYPE 1999 versus 2000

JANUARY - NOVEMBER 1999

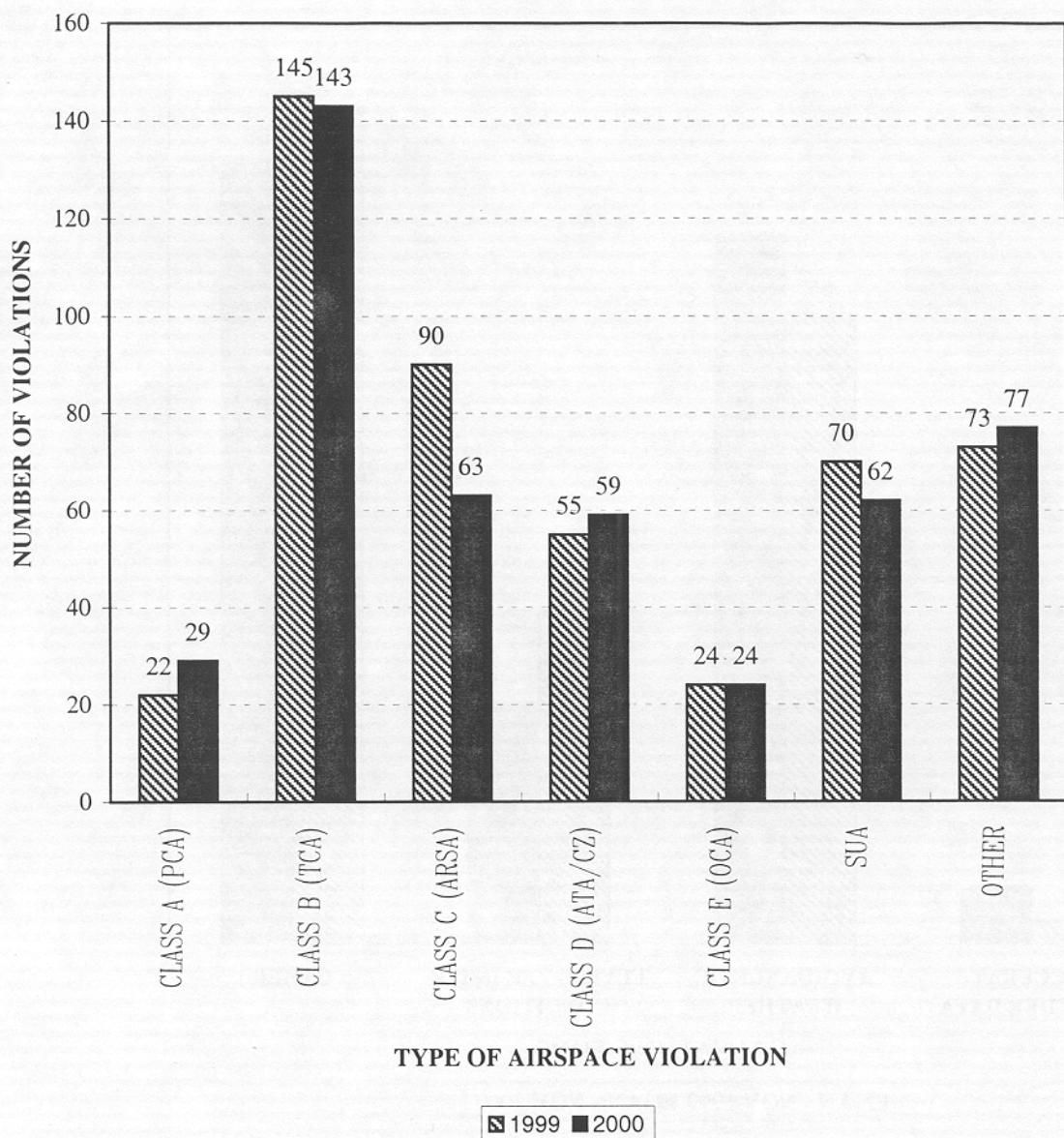


JANUARY - NOVEMBER 2000



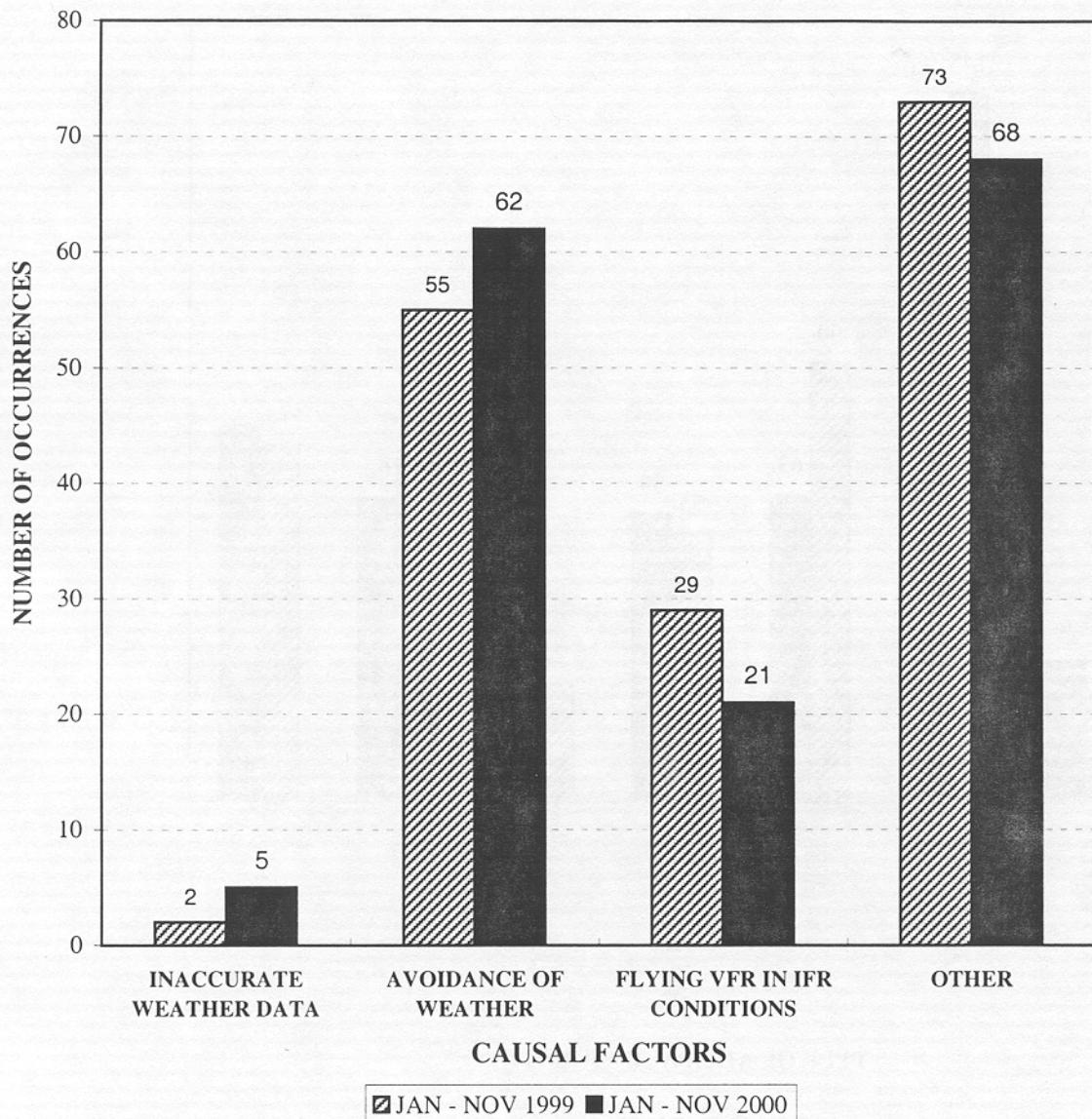
NOTE: The total number of deviations exceeds the number of reports. One report may involve multiple deviations, including both air and surface deviations on the same report.

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

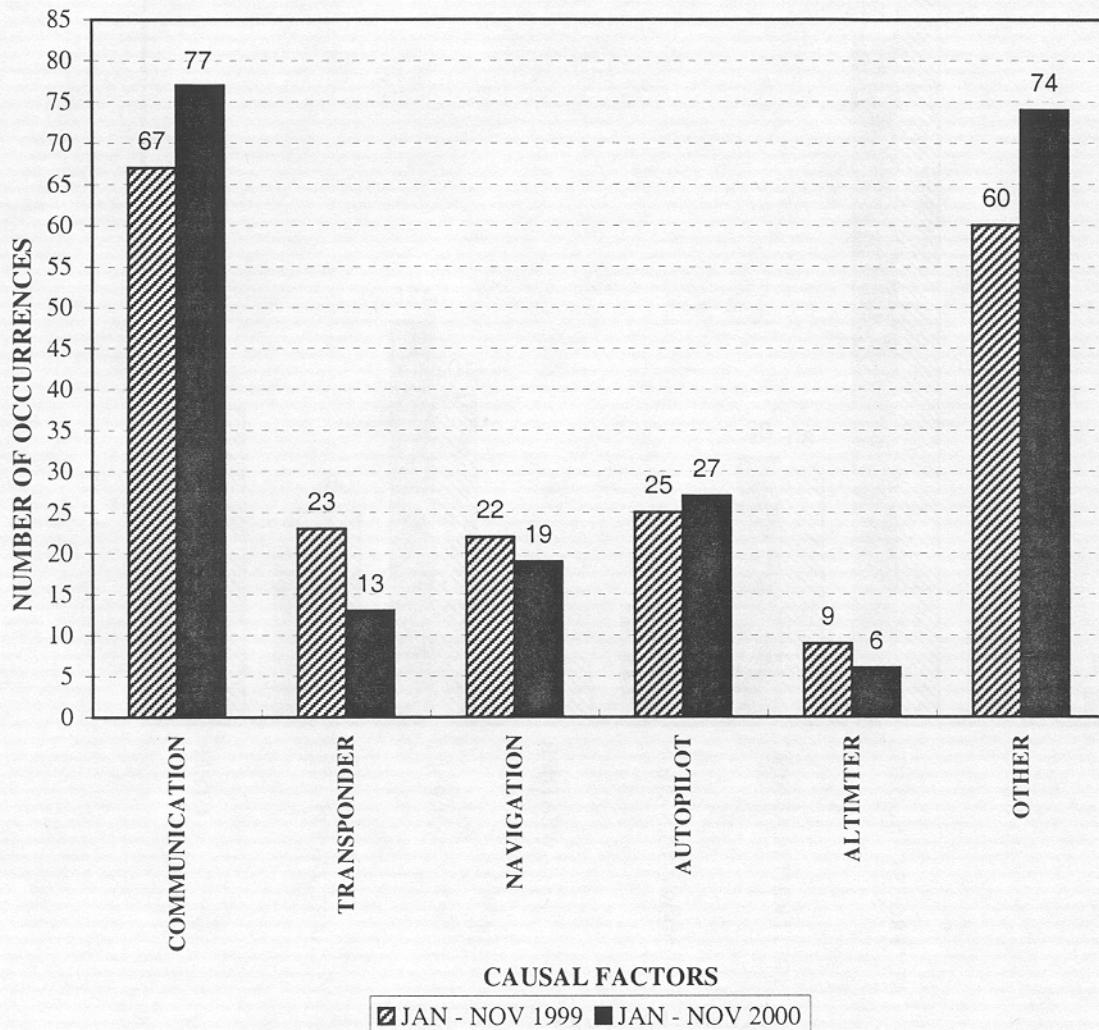


OTHER also includes Unknown.

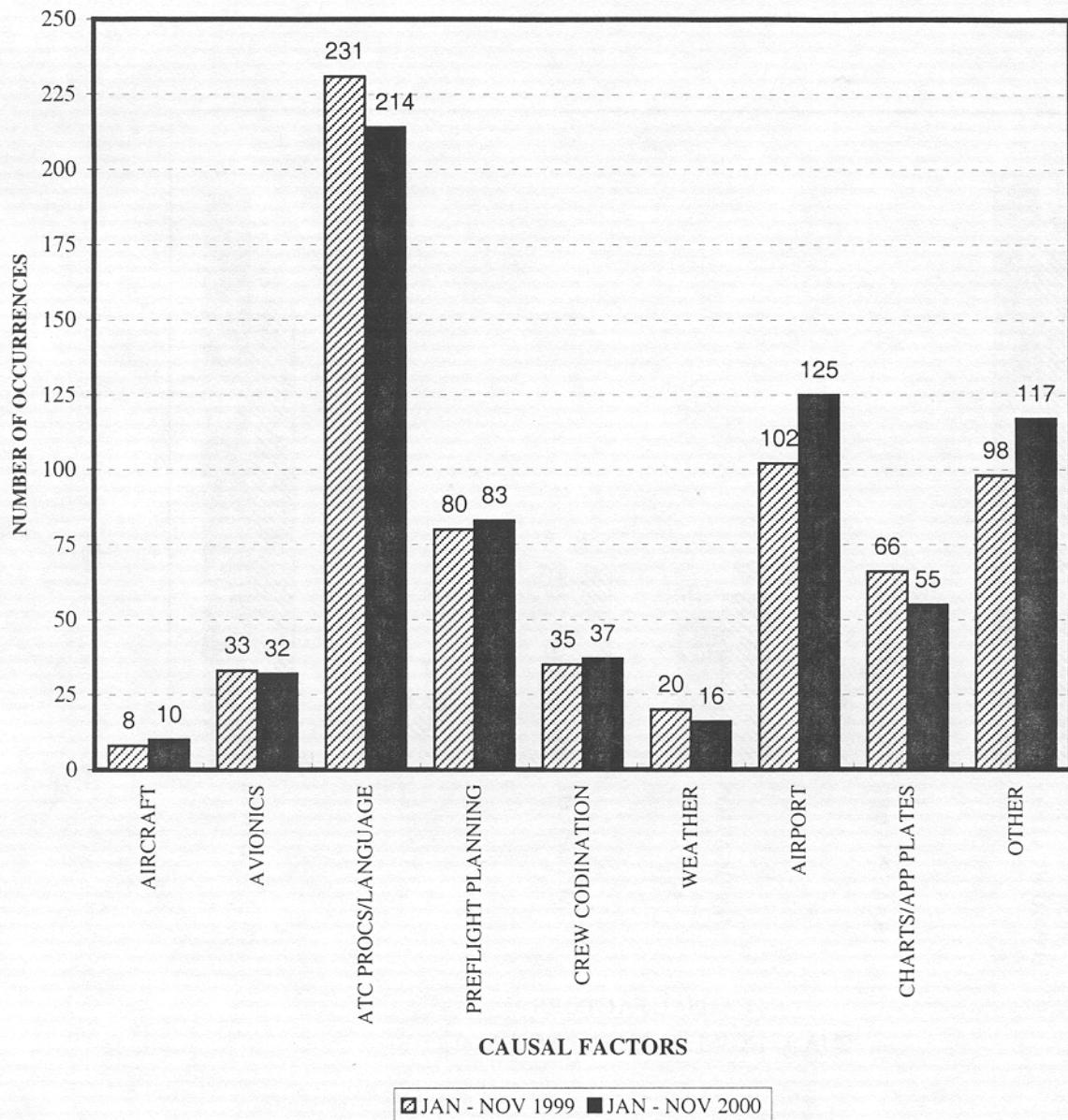
**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**WEATHER**  
**1999 versus 2000**



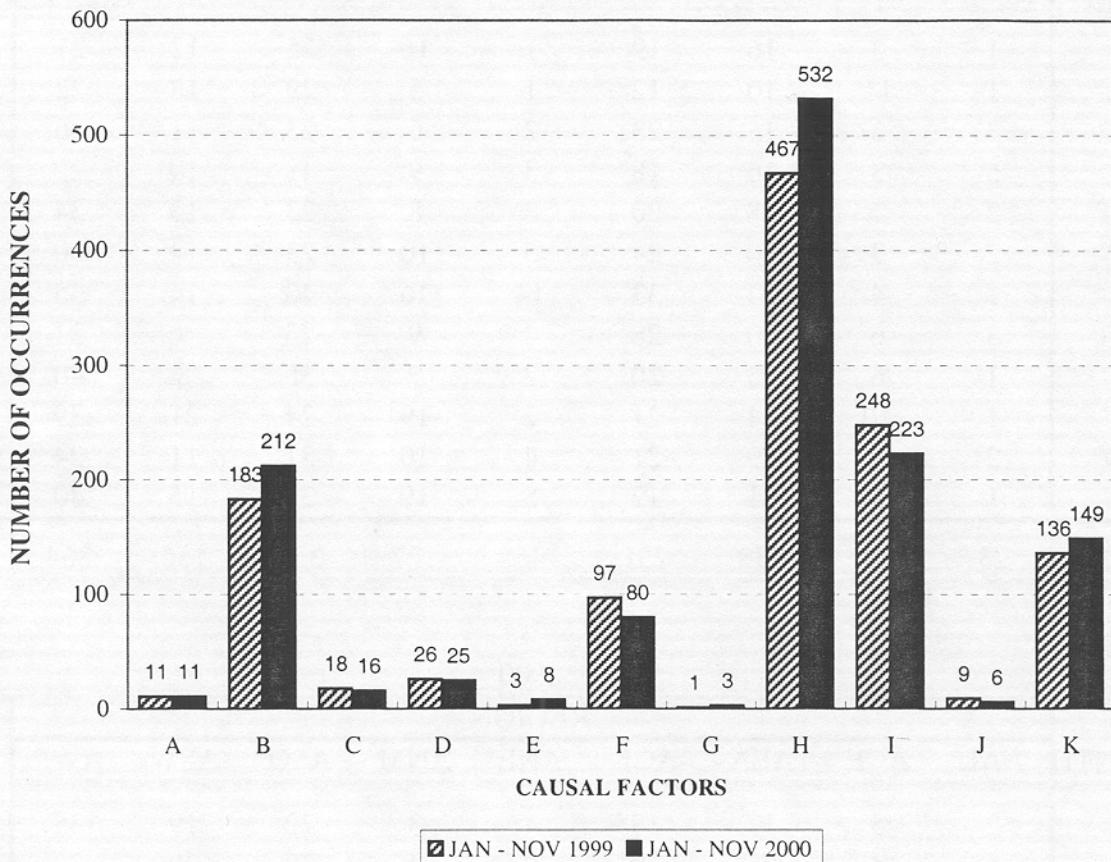
**PILOT DEVIATIONS BY CAUSAL FACTORS**  
**AIRCRAFT EQUIPMENT MALFUNCTION**  
**1999 versus 2000**



**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 - NOVEMBER 2000**

1999

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	1	3	16	19	1	16	25	12	21	114
FEB	1	11	10	12	1	5	29	18	22	109
MAR	3	3	15	23	2	6	23	11	26	112
APR	5	3	16	18	3	9	41	10	22	127
MAY	2	7	18	20	3	8	23	13	34	128
JUN	2	3	30	24	5	10	23	14	30	141
JUL	1	4	24	33	14	16	40	14	35	181
AUG	3	6	20	28	4	9	25	9	31	135
SEP	1	6	15	20	2	9	35	8	40	136
OCT	1	10	34	21	2	19	24	21	39	171
NOV	2	9	19	21	4	10	31	11	24	131
DEC	1	8	21	12	5	10	33	15	40	145
TOTAL	23	73	238	251	46	127	352	156	364	1630

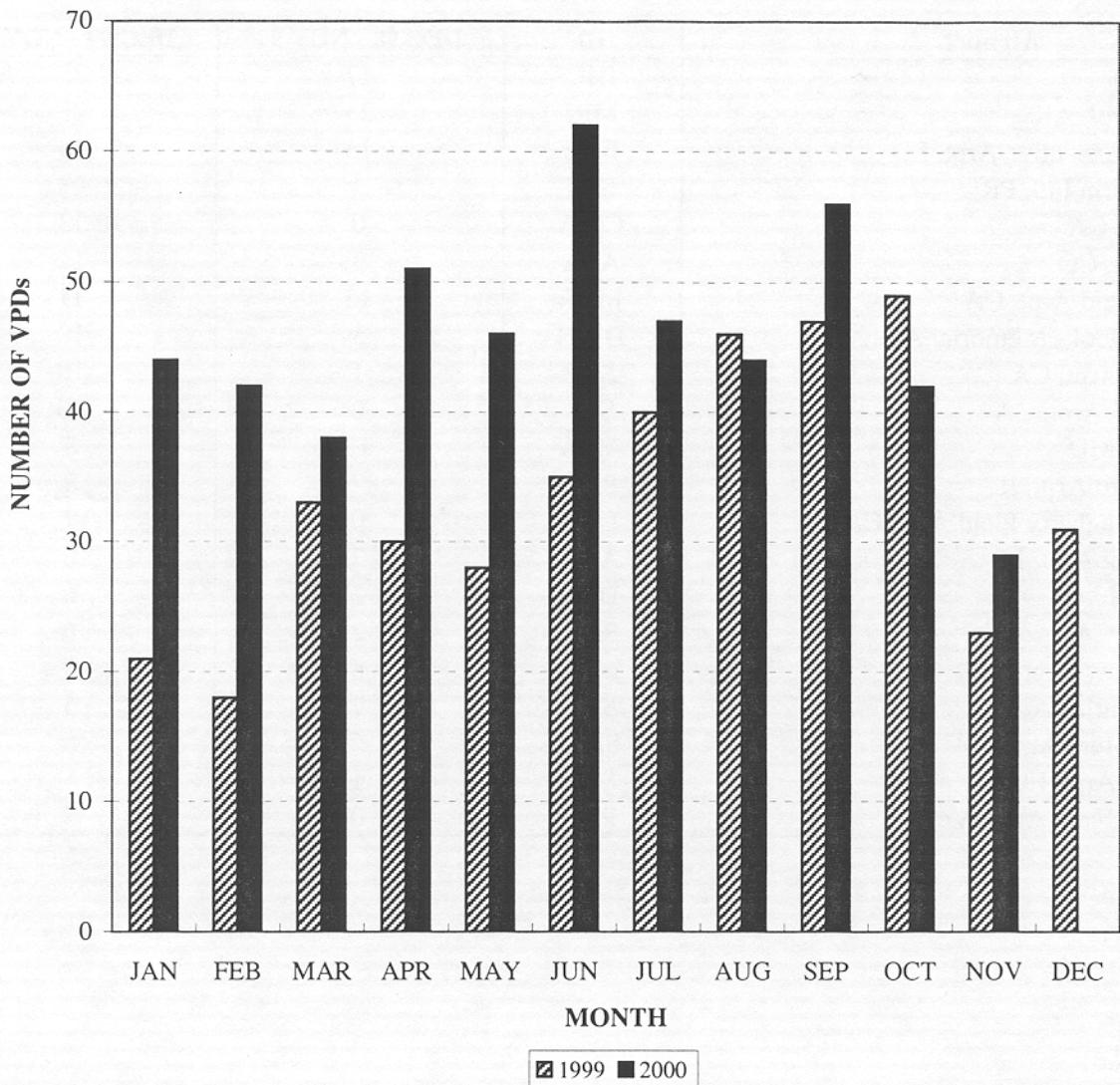
2000

MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	2	5	17	18	4	3	22	19	35	125
FEB	4	4	25	19	2	4	38	20	39	155
MAR	5	7	28	19	6	15	39	20	45	184
APR	5	10	27	25	4	11	23	21	53	179
MAY	0	11	25	22	7	18	42	24	53	202
JUN	4	13	23	23	9	9	28	17	52	178
JUL	10	9	16	29	5	14	33	18	39	173
AUG	5	14	21	34	5	18	27	30	35	189
SEP	3	7	8	21	5	19	29	19	37	148
OCT	3	8	26	17	5	10	31	17	37	154
NOV	2	4	18	12	2	15	29	17	31	130
DEC										
TOTAL	43	92	234	239	54	136	341	222	456	1817

## **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 - NOVEMBER 2000**



1999	21	18	33	30	28	35	40	46	47	49	23	31
2000	44	42	38	51	46	62	47	44	56	42	29	

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

<b>Airport</b>	<b>ID</b>	<b>DEC 98 - NOV 99</b>	<b>DEC 99 - NOV 00</b>
Jeffco Arpt, CO	BJC	17	25
Merrill Field Arpt, AK	MRI	25	23
Ft. Lauderdale Executive Arpt, FL	FXE	13	14
Luis Munoz Marin Intl, PR	SJU	4	13
Camarillo Arpt, CA	CMA	0	13
Centennial Arpt, CO	APA	3	12
Montgomery Field Arpt, CA	MYF	15	11
David Wayne Hooks Memorial Arpt, TX	DWH	5	10
Gillespie Field Arpt, CA	SEE	1	10
Sonoma County Arpt, CA	STS	0	10
Andrews AFB, MD	ADW	12	8
Greater Rockford Arpt, IL	RFD	2	8
Long Beach/Daugherty Field Arpt, CA	LGB	0	7
Ann Arbor Muni Arpt, MI	ARB	7	6
Duluth Intl, MN	DLH	2	6
El Monte Arpt, CA	EMT	2	6
Allegheny County Arpt, PA	AGC	8	5
San Francisco Intl, CA	SFO	7	5
Santa Monica Muni Arpt, CA	SMO	5	5
Albert Whitted Arpt, FL	SPG	1	5
Ernest A. Love Field Arpt, AZ	PRC	0	5

**VEHICLE/PEDSTRIAN DEVIATIONS  
BY REGION AND MONTH  
1999 - NOVEMBER 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	4	4	3	7	31
TOTAL	32	18	50	77	11	39	81	28	65	401

2000

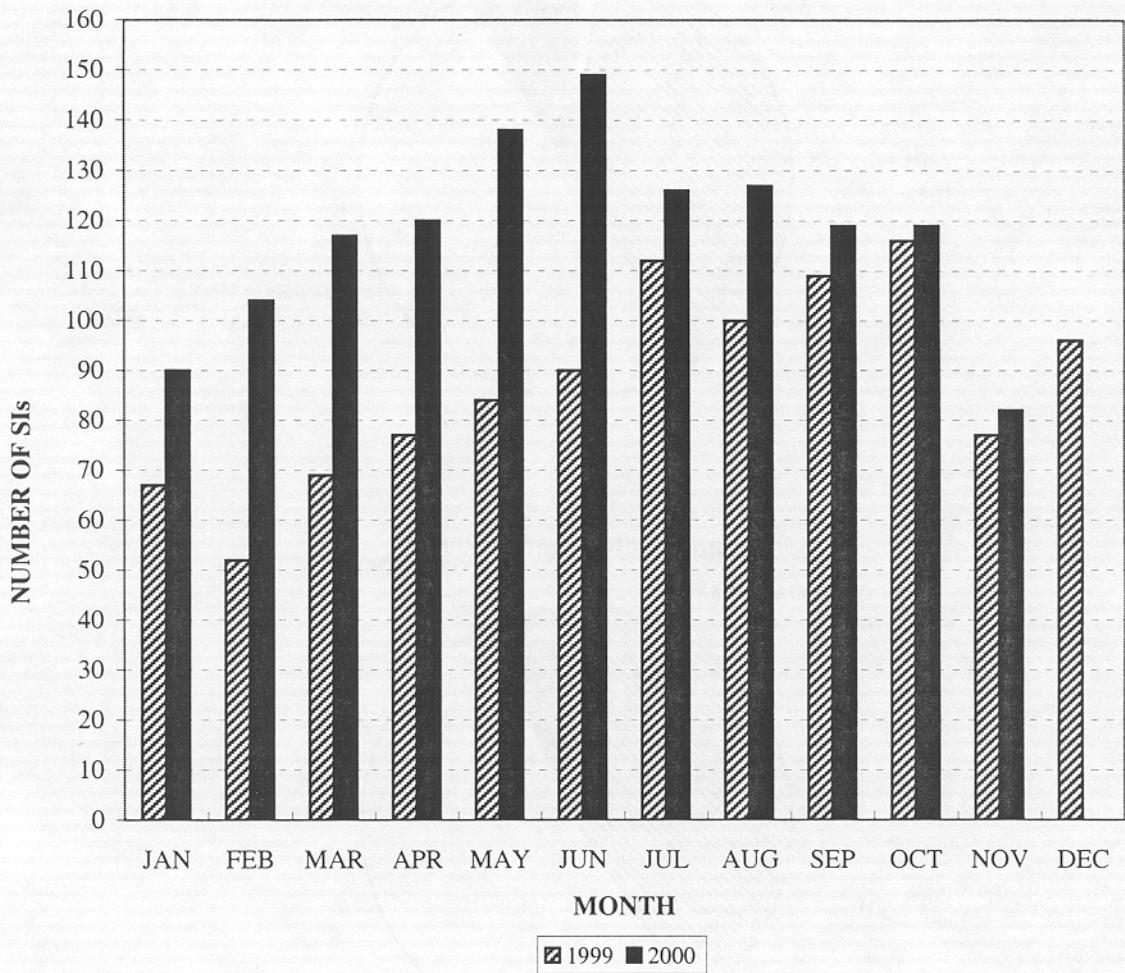
MONTH	REGION									TOTAL
	AAL	ACE	AEA	AGL	ANE	ANM	ASO	ASW	AWP	
JAN	3	2	5	6	0	2	6	7	13	44
FEB	2	0	1	7	2	6	12	4	8	42
MAR	3	0	4	4	0	3	9	5	10	38
APR	2	1	2	6	1	5	8	8	18	51
MAY	4	0	5	6	1	5	9	4	12	46
JUN	5	1	7	10	2	7	9	2	19	62
JUL	7	3	3	6	2	8	5	4	9	47
AUG	4	1	5	6	3	9	4	2	10	44
SEP	3	0	3	9	3	7	11	5	15	56
OCT	4	4	7	5	0	4	6	0	12	42
NOV	0	1	2	6	1	2	3	0	14	29
DEC										
TOTAL	37	13	44	71	15	58	82	41	140	501

## **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.

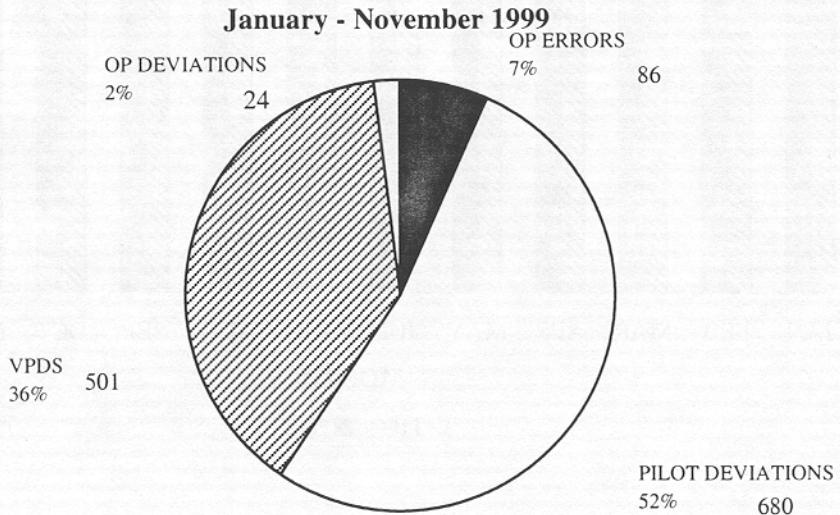
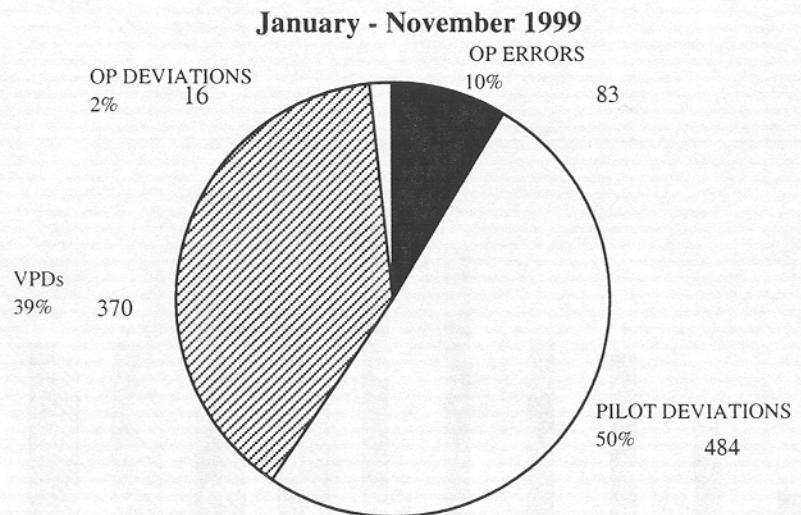
**Data are preliminary and subject to change.**

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



1999	67	52	69	77	84	90	112	100	109	116	77	96
2000	90	104	117	120	138	149	126	127	119	119	82	96

## SURFACE INCIDENTS BY TYPE



Caution\*: A surface incident may have multiple causal factors and result in multiple reports.  
VPDs: Vehicle/Pedestrian Deviations

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

AIRPORT	DEC 98 - NOV 99	DEC 99 - NOV 00
North Las Vegas Arpt, NV	5	38
Jeffco Arpt, CO	18	34
John Wayne-Orange County Arpt, CA	13	27
Los Angeles Intl, CA	13	27
Ft. Lauderdale Executive Arpt, FL	19	26
Long Beach/Daugherty Field Arpt, CA	16	26
Merrill Field Arpt, AK	27	25
Montgomery Field Arpt, CA	29	24
Reno/Tahoe Intl, NV	30	23
Luis Munoz Marin Intl, PR	9	22
David Wayne Hooks Memorial Arpt, TX	6	19
Phoenix Sky Harbor Intl, AZ	14	18
San Jose Intl, CA	13	16
Camarillo Arpt, CA	0	16
Lambert-St. Louis Intl, MO	13	15
Centennial Arpt, CO	9	15
Santa Barbara Muni Arpt, CA	5	15
San Francisco Intl, CA	16	14
Anchorage Intl, AK	1	14
Theodore Francis Green State Arpt, RI	7	13
Greater Rochester Intl, NY	5	13
Gillespie Field Arpt, CA	1	13
Raleigh-Durham Intl, NC	5	12
Spirit Of St. Louis Arpt, MO	2	12

**SURFACE INCIDENTS BY AIRPORT**  
**12 MONTH COMPARISON**  
**DECEMBER 1998 - NOVEMBER 1999 versus DECEMBER 1999 - NOVEMBER 2000**  
*Caution\*: A surface incident may have multiple causal factors and result in multiple reports.*

AIRPORT	PILOT			SURFACE ERRORS			SURFACE DEVIATIONS			VEHICLE			TOTAL*	RATE
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	PEDESTRIAN	DEVIATION		
Abilene Regional Apt, TX	1	1	0	0	0	0	1	1	2	2	2	2	2.296	2.351
Adams Field Apt, AR	2	2	1	0	0	0	0	0	3	2	2	1	1.651	1.130
Addison Apt, TX	3	2	0	0	0	0	2	3	5	5	5	5	2.893	2.981
Akron-Canton Regional Apt, OH	1	0	0	0	0	0	1	0	1	1	2	2	0.811	1.649
Albany Int'l, NY	2	2	0	0	0	0	1	0	3	2	2	2	2.014	1.356
Albert Whited Apt, FL	0	2	0	0	0	0	1	1	5	1	1	7	1.096	6.926
Albuquerque Int'l, NM	2	3	0	1	0	0	1	0	0	3	4	4	1.310	1.716
Alexandria Int'l Apt, LA	0	1	0	0	0	0	0	0	0	0	0	1	0.000	2.039
Allegheny County Apt, PA	0	2	0	0	0	0	0	0	8	5	8	7	6.437	5.161
Allen AAF, AK	1	0	0	0	0	0	0	0	0	1	0	0	N/A	N/A
Altus AFB, OK	0	2	0	0	0	0	0	0	0	0	0	2	N/A	N/A
Amarillo Int'l, TX	0	1	0	0	0	0	0	0	3	0	4	0	0.000	3.478
Anchorage Int'l, AK	1	10	0	0	0	0	1	0	3	1	14	14	0.324	4.599
Andrews AFB, MD	1	1	1	0	0	0	1	0	12	8	14	14	10	13.910
Ann Arbor Muni Apt, MI	1	2	0	0	0	0	0	0	7	6	8	8	5.966	7.562
Anoka County-Blaine Apt (Janes Field), MN	0	0	0	0	0	0	0	0	6	2	6	2	3.987	1.429
Asheville Regional Apt, NC	0	2	0	0	0	0	2	0	0	0	2	2	0.000	2.485
Aspen-Pitkin County/Sardy Field Apt, CO	1	0	0	0	0	0	0	0	0	1	0	0	2.184	0.000
Atlanta Center, GA	0	0	0	0	0	0	0	1	0	1	0	0	N/A	N/A
Augusta Rgnl at Bush Field Apt, GA	0	1	0	0	0	0	0	0	1	0	2	2	0.000	4.136
Aurora Muni Apt, IL	0	1	0	0	0	0	0	2	1	2	2	2	1.673	1.447
Austin Straubel Int'l, WI	1	1	0	2	0	0	0	0	0	1	1	3	1.316	4.325
Austin-Bergstrom Int'l Apt, TX	1	0	0	0	0	0	0	0	0	1	0	0	0.538	0.000
Baltimore-Washington Int'l, MD	2	4	1	1	0	0	1	0	0	4	5	5	1.318	1.616
Bangor Int'l, ME	0	0	0	0	0	0	0	0	1	1	1	1	0.989	1.073
Bartley Regional Apt, KY	1	0	0	0	0	0	0	0	1	1	2	2	7.018	3.393
Barnstable Muni-Boardman/Poland Field Apt, MA	0	0	0	0	0	0	0	0	1	0	0	0	0.000	0.743
Baton Rouge Metro, Ryan Field Apt, LA	0	0	0	0	0	0	0	2	1	2	1	1	1.334	0.793
Benedum Apt, WV	0	1	0	0	0	0	0	0	0	0	0	1	0.000	1.692
Bethel Apt, AK	0	2	0	0	0	0	0	0	4	0	6	6	0.000	4.153
Billings Logan Int'l, MT	0	1	0	0	0	0	0	0	0	0	1	1	0.000	0.872
Binghamton Regional/Edwin A. Link Field Apt, NY	0	0	0	0	0	0	0	0	0	1	0	1	0.000	2.473

Actual Activity Data thru 08/31/2000

Forecast Activity Data 09/01/2000 - 11/30/2000

Rates per 100,000 Operations

**SURFACE INCIDENTS BY AIRPORT**

**12 MONTH COMPARISON**

**DECEMBER 1998 - NOVEMBER 1999 versus DECEMBER 1999 - NOVEMBER 2000**

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

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		TOTAL*		RATE
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Birmingham Arpt, AL	2	0	0	0	0	0	6	3	8	3	5.126
Bishop Intl, MI	0	0	0	0	0	0	1	1	1	1	0.680
Blue Grass Arpt, KY	0	0	1	0	0	0	0	0	1	0	0.975
Boeing Field/King County Intl, WA	2	1	0	2	0	0	1	1	3	4	0.919
Boise Air Terminal/Gowen Field Arpt, ID	4	5	1	0	0	0	0	0	5	5	2.770
Boston TRACON, MA	0	2	0	0	0	0	0	0	0	0	N/A
Bowman Field Arpt, KY	1	0	0	1	0	0	2	2	3	3	1.980
Brackett Field Arpt, CA	3	3	0	0	0	0	0	4	3	7	1.221
Bradley Intl, CT	0	2	0	0	0	0	0	1	0	3	0.000
Brown Field Muni Arpt, CA	1	0	0	0	0	0	0	0	1	0	1.715
Brunswick NAS, ME	1	0	0	0	0	0	0	0	0	1	N/A
Buchanan Field Arpt, CA	5	7	0	0	0	0	0	0	3	5	10
Buffalo Niagara Intl, NY	1	0	0	2	0	0	4	0	0	5	3.173
Burbank-Glendale-Pasadena Arpt, CA	1	0	1	2	0	0	1	0	3	2	1.698
Burlington Intl, VT	0	0	0	0	0	1	0	1	0	2	0.000
Camarillo Arpt, CA	0	3	0	0	0	0	0	0	13	0	16
Capital Arpt, IL	2	3	1	1	0	0	0	0	0	3	4
Cecil Field NAS, FL	0	0	0	0	0	0	0	0	1	0	15.065
Centennial Arpt, CO	4	3	2	0	0	0	3	12	9	15	2.049
Central Illinois Rgnl Arpt, IL	4	0	1	0	0	0	0	0	5	0	7.533
Central Nebraska Regional Arpt, NE	0	1	0	0	0	0	0	0	0	1	0.000
Chandler Muni, AZ	0	3	0	0	0	0	0	3	0	6	0.000
Charleston AFB/Intl, SC	3	1	2	0	0	0	3	2	8	3	5.984
Charlotte/Douglas Intl, NC	6	3	1	1	0	0	0	1	7	5	1.573
Cherry Capital Arpt, MI	1	0	0	0	0	0	0	0	1	0	0.769
Chicago Midway Arpt, IL	2	6	2	2	1	1	2	2	7	11	2.362
Chicago Ohare Intl, IL	3	4	0	2	0	0	3	3	6	9	0.667
Chico Muni Arpt, CA	1	0	0	0	0	0	0	0	1	0	2.318
Chino Arpt, CA	3	2	1	1	0	0	2	3	6	6	3.315
Cincinnati Muni/Lunken Field Arpt, OH	1	0	0	0	0	0	0	0	1	0	0.821
Cincinnati/Northern Kentucky Intl, OH	0	3	1	1	0	0	0	2	1	6	0.211
City of Colorado Springs Muni Arpt, CO	1	0	0	0	0	0	1	3	2	3	0.846

Actual Activity Data thru 08/31/2000

Forecast Activity Data 09/01/2000 - 11/30/2000

Rates per 100,000 Operations

SURFACE INCIDENTS BY AIRPORT

12 MONTH COMPARISON

DECEMBER 1998 - NOVEMBER 1999 versus DECEMBER 1999 - NOVEMBER 2000  
*Caution\*: A surface incident may have multiple causal factors and result in multiple reports.*

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		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 Center, OH	0	0	0	1	0	0	0	0	0	1	N/A	N/A
Cleveland-Hopkins Intl, OH	8	4	0	0	0	0	2	0	10	4	3.129	1.230
Columbia Metro Arpt, SC	0	1	0	0	0	0	0	0	0	1	0.000	0.800
Columbia Regional Arpt, MO	0	0	1	0	0	0	1	0	2	0	4.738	0.000
Columbus Metro Arpt, GA	0	0	0	0	0	0	0	1	1	0	1.496	0.000
Craig Muni Arpt, FL	2	1	0	0	0	0	0	0	0	2	1	1.398
Crystal Arpt, MN	4	3	0	0	0	0	0	4	4	8	7	4.231
Cuyahoga County Arpt, OH	0	1	0	0	0	0	0	0	0	0	1	0.000
Cyril E. King Arpt, VI	1	0	1	0	0	0	3	1	5	1	4.927	1.023
Dallas Love Field Arpt, TX	3	1	0	0	0	1	0	4	3	6	1.216	2.389
Dallas-Ft. Worth Intl, TX	5	5	3	2	0	0	0	1	8	8	0.922	0.908
Danbury Muni Arpt, CT	2	1	0	0	0	0	0	0	0	2	1	1.666
Dane County Regional-Truax Field Arpt, WI	0	2	0	0	0	0	0	1	0	0	3	0.000
David Wayne Hooks Memorial Arpt, TX	1	9	0	0	0	0	5	10	6	19	2.182	8.431
Daytona Beach Intl Arpt, FL	6	6	1	0	0	0	0	0	0	7	6	1.916
Deadhorse Arpt, AK	0	0	0	0	0	1	0	0	0	0	1	N/A
Decatur Arpt, IL	1	0	0	0	0	0	0	0	1	0	1.840	0.000
DeKalb-Peachtree Arpt, GA	1	0	1	2	0	0	2	3	4	5	1.720	2.105
Denver Center, CO	1	0	0	0	0	0	0	0	0	1	0	N/A
Denver Intl, CO	1	1	0	1	0	0	0	0	3	1	5	0.200
Des Moines Intl, IA	4	2	0	1	0	0	1	0	0	5	3	3.681
Detroit Metro Wayne County Arpt, MI	1	1	0	1	0	0	1	0	0	2	2	0.357
Dobbins ARB, GA	0	1	0	0	0	0	0	0	0	1	N/A	N/A
Duluth Intl, MN	1	2	0	0	0	0	2	6	3	8	4.877	12.680
Dupage Arpt, IL	4	1	0	0	0	0	1	0	5	1	2.455	0.498
Dutchess County Arpt, NY	0	0	1	0	0	0	2	1	3	1	2.250	0.767
Eagle County Regional Arpt, CO	0	1	0	0	0	0	0	0	0	1	0.000	2.801
Eglin AFB, FL	0	3	0	0	0	0	0	0	0	3	N/A	N/A
El Monte Arpt, CA	0	2	0	0	0	0	2	6	2	8	1.223	4.647
El Paso Intl, TX	3	1	0	0	0	0	0	0	3	1	2.057	0.693
Emira/Corning Regional Arpt, NY	0	0	0	0	0	0	1	1	1	1	1.377	1.616
Empley Airfield Arpt, NE	2	1	0	0	0	0	1	1	3	3	1.592	1.757

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AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		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	
Eric Intl, PA	0	0	0	0	0	0	0	2	0	2	0.000
Ernest A. Love Field Arpt, AZ	1	1	0	0	0	0	0	5	1	6	3.673
Essex County Arpt, NJ	1	0	0	1	0	0	1	0	2	1	0.290
Evansville Regional Arpt, IN	0	4	0	0	0	0	0	2	0	6	0.878
Fairbanks Intl, AK	1	5	0	0	0	0	2	4	3	9	0.000
Falcon Field Arpt, AZ	2	2	0	0	0	0	3	4	5	6	6.859
Fanning Field Arpt, ID	0	1	0	0	0	0	1	1	1	2	4.507
Fayetteville Regional/Grannis Field Arpt, NC	0	1	0	0	0	0	0	0	0	1	0.000
Felts Field Arpt, WA	1	1	0	0	0	0	0	0	0	1	1.750
Flying Cloud Arpt, MN	6	2	1	0	0	0	4	0	11	2	1.324
Fort Wayne Intl, IN	0	1	1	0	0	0	0	2	1	3	2.261
Fort Worth Meacham Arpt, TX	0	1	0	0	0	0	3	2	3	3	1.884
Forth Worth Alliance Arpt, TX	2	0	0	0	0	0	0	0	0	1	0.000
Four Corners Regional Arpt, NM	1	0	1	0	0	0	0	0	2	0	1.327
Fresno Yosemite Intl Arpt, CA	3	5	0	1	0	0	0	2	3	3	0.000
Ft. Lauderdale Executive Arpt, FL	6	11	0	1	0	0	13	14	19	26	2.444
Ft. Lauderdale/Hollywood Intl, FL	2	2	1	1	0	0	0	0	3	3	1.023
Fullerton Muni Arpt, CA	2	0	0	0	0	0	2	1	3	3	0.985
Fulton County Arpt-Brown Field Arpt, GA	2	0	0	0	0	0	1	3	3	3	0.000
General Edward Lawrence Logan Intl, MA	1	7	2	2	0	0	2	1	5	10	1.959
General Mitchell Intl, WI	5	2	2	1	0	0	4	2	11	5	4.977
George Bush Intercontinental Arpt, TX	0	0	0	0	0	0	0	2	0	1	2.218
Gillespie Field Arpt, CA	0	3	0	0	0	0	1	10	1	13	0.428
Grand Forks Intl, ND	0	5	0	0	0	1	0	2	0	8	6.795
Grant County Arpt, WA	0	0	1	0	0	1	0	3	2	3	0.000
Greater Peoria Regional Arpt, IL	0	0	0	1	0	0	0	0	0	1	3.352
Greater Pittsburgh Intl, PA	1	4	1	0	0	0	0	0	2	4	0.000
Greater Rochester Intl, NY	2	9	1	2	0	0	2	2	5	13	2.633
Greater Rockford Arpt, IL	3	1	0	1	0	0	2	8	5	10	7.270
Grenville Downtown Arpt, SC	0	1	0	0	0	0	0	0	0	1	0.000
Gregg County Arpt, TX	4	2	0	0	0	0	1	4	3	4.133	1.171
Groton-New London Arpt, CT	0	1	0	0	0	0	1	2	1	3	3.513
											4.140
											1.251

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AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		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	
Gulfport-Biloxi Regional Arpt, MS	1	1	0	0	0	0	0	1	1	2	0.845 1.647
Gwinnett County - Brasco Field, GA	1	0	0	0	0	0	0	0	0	0	0.882 0.000
Hagerstown Rgnl-Richard A Henson Field Arpt, MD	1	2	0	0	0	0	0	1	1	3	1.727 5.497
Harford-Brainard Arpt, CT	0	0	0	0	0	0	1	0	1	0	0.781 0.000
Hawkins Field Arpt, MS	0	0	0	0	0	0	1	0	1	0	1.973 0.000
Hayward Executive Arpt, CA	0	5	0	0	0	0	0	1	0	6	0.000 3.662
Hector Intl, ND	3	0	1	0	0	0	0	7	1	11	11.794 1.021
Hill AFB, UT	0	1	0	0	0	0	0	0	0	1	N/A N/A
Honolulu Intl, HI	3	0	0	1	0	0	0	0	0	3	1 0.864
Huntsville Intl/Carl T. Jones Field Arpt, AL	3	0	0	0	0	0	0	5	1	8	1 7.917
Huron Regional Arpt, SD	0	0	0	0	0	0	0	0	1	0	N/A N/A
Hutchinson Muni Arpt, KS	0	0	0	0	0	0	0	0	1	0	1 0.000
Igor I. Sikorsky Memorial Arpt, CT	1	4	0	0	0	0	0	0	1	4	1.067 4.363
Indianapolis Intl, IN	3	0	0	1	0	0	0	2	2	5	3 1.981
Jack Northrop Fld-Hawthorne Muni Arpt, CA	1	1	0	0	0	0	0	3	4	4	5 4.657
Jackson County-Reynolds Field Arpt, MI	0	0	1	0	0	0	0	1	0	2	0 2.838
Jackson Intl, MS	0	0	0	0	0	0	0	1	2	1	2 0.918
Jacksonville Intl, FL	1	1	0	0	0	0	0	0	3	1	4 0.618
James M. Cox Dayton Intl, OH	1	2	1	0	0	0	1	2	3	4	1.977 2.661
Jeffco Arpt, CO	1	9	0	0	0	0	0	17	25	18	34 10.718
Joe Foss Field Arpt, SD	0	0	0	0	0	0	1	0	3	0	4 3.855
John F. Kennedy Intl, NY	3	1	2	0	0	0	0	2	2	7	3 1.969
John Wayne-Orange County Arpt, CA	10	25	0	2	0	0	0	3	0	13	27 2.786
Joplin Regional Arpt, MO	1	0	0	0	0	0	0	0	0	1	0 2.484
Joslin Field-Magic Valley Rgnl Arpt, ID	0	1	0	0	0	0	0	0	0	1	0 0.000
Juncau Intl, AK	0	2	0	0	0	0	0	0	0	2	0 2.277
Kahului Arpt, HI	0	9	0	0	0	0	0	0	2	0	11 0.000
Kalamazoo/Battle Creek Intl, MI	0	1	0	0	0	0	0	0	0	1	0 0.965
Kalaeloa Arpt, AK	0	0	0	0	0	0	0	1	0	1	N/A N/A
Kansas City Center, MO	1	0	0	0	0	0	0	0	0	1	0 N/A
Kansas City Downtown Arpt, MO	0	5	0	0	0	0	0	1	3	1 0.683	
Kansas City Intl, MO	1	0	0	0	0	0	0	1	3	2 0.905	
Kenai Muni Arpt, AK	1	1	1	0	0	0	0	0	0	2	1 1.381
											2.881 1.392

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AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		TOTAL*		RATE
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Kenosha Rgnl Airport, WI	0	1	0	0	0	0	0	0	0	1	0.000 1.070
Kent County Intl, MI	0	0	0	1	0	0	0	0	0	1	0.000 0.705
King Salmon Arpt, AK	0	1	0	0	0	0	0	0	0	1	0.000 3.436
Kissimmee Muni Arpt, FL	0	2	0	0	0	0	0	0	0	2	0.000 1.697
Kodiak Arpt, AK	0	0	0	0	0	0	0	0	2	0	0.000 5.930
La Guardia Arpt, NY	0	0	1	2	0	0	1	2	2	4	0.544 1.069
Lake Hood SPB, AK	0	0	0	0	0	0	0	3	3	3	N/A N/A
Lakefront Arpt, LA	2	3	0	0	0	0	0	2	2	5	1.088 3.395
Lakeland Linder Regional Arpt, FL	4	2	0	0	0	0	1	4	5	6	2.275 3.105
Lambert-St. Louis Intl, MO	4	13	3	0	0	0	6	2	13	15	2.585 3.083
Lancaster Arpt, PA	1	0	0	0	0	0	0	0	0	1	0 0.057
Laurence G. Hanscom Field Arpt, MA	0	3	3	0	1	0	0	1	4	4	2.038 1.912
Lawrence Muni Arpt, MA	1	3	0	0	0	0	0	2	1	5	1.032 5.374
Lawton-Fort Sill Rgnl Arpt, OK	0	1	0	0	0	0	0	0	0	0	0.000 3.070
Lehigh Valley Intl, PA	1	2	1	0	0	0	0	0	0	2	2 1.339
Lincoln Muni Arpt, NE	4	2	1	0	0	0	1	0	0	6	2 4.757
Livermore Muni Arpt, CA	0	0	0	0	0	0	0	1	0	1	0.000 0.417
Long Beach/Daugherty Field Arpt, CA	15	18	1	0	0	1	0	7	16	26	3.201 6.355
Long Island Mac Arthur Arpt, NY	1	2	0	1	0	0	0	0	0	1	3 0.489
Los Angeles Intl, CA	10	22	3	0	0	1	0	4	13	27	1.675 3.484
Louisville Intl-Standiford Field Arpt, KY	0	2	0	0	0	0	2	0	2	2	1.143 1.095
Lovell Field Arpt, TN	0	1	0	0	0	0	0	0	0	1	0.000 0.963
Lubbock Intl, TX	0	5	0	0	0	0	0	1	0	1	5 0.837
Luis Munoz Marin Intl, PR	5	7	0	1	0	1	4	13	9	22	4.088 9.353
Mahlon Sweet Field Arpt, OR	5	0	0	0	0	0	0	0	5	0	4.376 0.000
Manassas Rgnl/Harry P. Davis Field Arpt, VA	1	2	0	0	0	0	1	0	2	2	1.707 1.494
Manchester Arpt, NH	1	0	0	0	0	0	1	2	2	2	1.738 1.889
Mansfield Lahm Muni Arpt, OH	1	0	0	0	0	0	1	1	2	1	3.471 1.943
Marthas Vineyard Arpt, MA	1	3	0	0	0	0	0	1	1	4	1.522 6.153
MBS Intl, MI	0	0	0	0	0	0	0	1	0	1	0.000 1.803
Mc Carran Intl, NV	7	1	1	2	0	0	0	0	8	3	1.488 0.573
Mc Clellan-Palomar Arpt, CA	0	0	0	0	0	0	1	0	0	1	0.000 0.385

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AIRPORT	PILOT DEVIATIONS	SURFACE ERRORS	SURFACE DEVIATIONS	VEHICLE PEDESTRIAN DEVIATION	TOTAL*	RATE
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00
Mc Ghee Tyson Arpt, TN	2	1	0	2	0	0
Mc Kellar-Sipes Regional Arpt, TN	1	2	0	0	1	1
Mc Kinney Muni Arpt, TX	0	2	0	0	0	0
McNary Field Arpt, OR	1	1	0	0	1	2
Melbourne Regional Arpt, FL	3	0	0	1	0	1
Memphis Center, TN	0	0	1	0	0	0
Memphis Intl, TN	1	4	0	2	0	0
Merrill C. Meigs Arpt, IL	1	0	0	0	0	0
Merrill Field Arpt, AK	1	2	0	0	1	0
Metropolitan Oakland Intl, CA	2	1	0	0	0	0
Miami Intl, FL	1	2	0	1	0	0
Michigan Rgnl Transportation Ctr Arpt, IN	0	1	1	0	3	1
Mid Delta Rgnl, MS	0	1	0	0	0	0
Middle Georgia Regional Arpt, GA	0	1	0	0	0	0
Milville Muni Arpt, NJ	1	0	1	0	0	0
Minneapolis Center, MN	0	1	0	0	0	0
Minneapolis-St. Paul Intl/World Chamberlain Arpt, MN	5	2	0	2	0	0
Mobile Downtown, AL	1	0	0	0	0	0
Mobile Regional Arpt, AL	0	0	0	0	2	0
Monroe County Arpt, IN	1	0	0	0	0	0
Monroe Regional Arpt, LA	0	4	0	1	0	0
Monterey Peninsula Arpt, CA	0	2	1	0	1	0
Montgomery Field Arpt, CA	12	11	0	1	2	15
Montgomery Rgnl (Dannelly Field) Arpt, AL	0	2	0	0	1	1
Morganatown Muni-Walter L. Bill Hart Field Arpt, WV	0	0	0	0	0	0
Muskegon County Arpt, MI	0	0	0	0	0	0
Myrtle Beach Intl, SC	3	0	0	0	1	0
Napa County Arpt, CA	1	8	0	0	0	2
Naples Muni Arpt, FL	4	0	0	0	1	3
Nashville Intl, TN	4	4	0	1	0	4
Natrona County Intl, WY	0	0	0	0	1	1
New Castle County Arpt, DE	1	0	0	0	0	0

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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 Century Aircenter, KS	0	1	0	0	0	0	0	0	0	1	N/A	N/A
New Hanover Intl, NC	3	5	0	1	0	0	0	2	3	8	4.163	9.463
New Orleans Int'l/Moisant Field Apt, LA	0	2	0	0	0	0	0	0	0	2	0.000	1.185
New York TRACON, NY	1	0	0	0	0	0	0	0	1	0	N/A	N/A
Newark Intl, NJ	4	6	1	1	0	0	1	4	6	11	1.295	2.409
Newport News/Williamsburg Intl, VA	0	1	0	0	0	0	0	0	0	0	0.000	0.484
Niagara Falls Intl, NY	0	0	0	0	0	0	0	0	1	1	0.000	1.925
Norfolk Intl, VA	1	0	0	0	0	0	0	0	1	0	0.701	0.000
North Las Vegas Apt, NV	5	35	0	0	0	2	0	1	5	38	2.153	17.105
Northeast Philadelphia Apt, PA	0	0	0	0	0	0	0	1	0	1	0.000	0.576
Northwest Arkansas Rgnl, AR	1	0	0	0	0	0	0	0	0	1	N/A	0.000
Northwood Memorial Apt, MA	2	0	0	0	0	0	0	0	0	2	0.935	0.000
Oakland County Intl Apt, MI	0	0	0	0	0	0	0	2	0	2	0.000	0.594
Oneida County Apt, NY	0	1	0	0	0	0	0	0	0	1	0.000	1.810
Ontario Intl, CA	0	3	1	1	0	0	1	1	1	2	5	1.271
Opa Locka Apt, FL	2	0	0	0	0	0	2	0	4	0	3.555	0.000
Orlando Executive Apt, FL	2	2	1	0	0	0	2	1	5	3	2.243	1.282
Orlando Int'l, FL	0	0	0	0	0	0	2	0	2	0	0.550	0.000
Orlando Sanford Apt, FL	5	0	1	1	0	0	0	3	6	4	1.668	1.155
Outagamie County Rgnl Apt, WI	0	0	3	0	0	0	0	0	3	0	4.815	0.000
Page Field Apt, FL	1	0	0	0	0	0	2	1	3	1	3.030	1.121
Pago Pago Intl, AS	0	0	0	0	0	0	0	1	0	1	0.000	7.164
Palm Beach Intl, FL	8	3	1	2	0	0	0	0	9	5	4.547	2.369
Palm Springs Intl, CA	3	8	1	0	0	0	0	2	4	10	3.920	10.198
Palmdale Prod'n Flt/Test Instn Apt, CA	0	0	0	0	0	0	0	1	0	1	0.000	2.106
Palo Alto of Santa Clara County Apt, CA	0	0	0	0	0	0	0	1	2	1	0.491	0.996
Panama City-Bay County Intl Apt, FL	1	0	0	0	0	0	1	1	1	4	0.583	2.093
Pensacola Regional Apt, FL	0	2	1	0	0	0	0	0	2	0	2.132	0.000
Philadelphia Intl, PA	2	2	1	2	0	0	1	3	4	7	0.834	1.472
Philip Billard Muni Apt, KS	0	1	0	0	0	0	0	0	1	1	0.000	1.498
Phoenix Sky Harbor Intl, AZ	13	13	0	2	0	0	1	3	14	18	2.496	2.918

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	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Phoenix-Deer Valley Muni Aptl, AZ	6	2	1	0	0	0	1	3	8	5	2.795
Piedmont Triad Intl, NC	1	4	0	0	0	1	3	2	7	1.507	1.491
Port Columbus Intl, OH	1	2	0	0	0	0	0	0	1	2	0.447
Portland Intl Jetport Aptl, ME	1	1	0	0	0	0	2	1	3	2	2.373
Portland Intl, OR	1	2	0	0	0	0	0	0	1	2	0.311
Portland-Hillsboro Aptl, OR	1	0	0	0	0	0	0	0	1	0	0.401
Portland-Troutdale Aptl, OR	1	6	0	0	0	0	2	4	3	10	3.915
Pueblo Memorial Aptl, CO	0	0	0	0	0	0	0	1	0	1	0.000
Purdue University Aptl, IN	1	1	0	0	0	0	0	0	1	1	0.680
Quad-City Aptl Intl, IL	0	1	0	0	0	0	0	1	0	2	0.000
Raleigh-Durham Intl, NC	3	9	0	1	0	0	2	2	5	12	1.732
Ralph Wien Memorial Aptl, AK	0	1	0	0	1	0	0	0	1	1	N/A
Rapid City Regional Aptl, SD	0	2	0	0	0	0	0	0	0	2	0.000
Reading Regional/Carl A. Spaatz Field Aptl, PA	1	0	2	0	0	0	4	1	7	1	5.143
Redding Muni Aptl, CA	1	0	0	0	0	0	2	0	3	0	3.730
Reid-Hillview of Santa Clara County Aptl, CA	1	0	0	0	0	0	0	0	1	0	0.462
Reno/Tahoe Intl, NV	26	20	0	0	1	0	3	3	30	23	19.742
Renton Muni Aptl, WA	0	0	0	0	0	0	1	4	1	4	0.918
Republic Aptl, NY	1	5	0	0	0	0	0	0	0	1	5
Richard Lloyd Jones Jr. Aptl, OK	3	1	0	1	0	0	10	4	13	6	4.717
Richmond Intl, VA	5	3	0	0	0	0	2	0	7	3	5.493
Riverside Muni Aptl, CA	1	0	0	0	0	0	1	1	2	1	2.604
Roanoke Regional/Woodrum Field Aptl, VA	4	0	0	0	0	1	0	1	4	2	3.871
Roberts Field Aptl, OR	0	3	0	0	0	0	0	0	0	3	0.000
Robins AFB, GA	0	2	0	0	0	0	0	0	0	2	N/A
Rochester Intl Aptl, MN	0	2	0	1	0	0	0	0	0	3	0.000
Rock County Aptl, WI	2	1	1	0	0	0	0	0	3	1	3.280
Ronald Reagan Washington National Aptl, DC	1	1	1	2	0	0	1	0	3	3	0.898
Roswell Industrial Air Center Aptl, NM	0	1	0	0	0	0	0	0	0	1	0.000
Salina Muni Aptl, KS	0	1	0	0	0	0	0	0	0	1	0.000
Salinas Muni Aptl, CA	0	0	0	0	0	0	1	2	1	2	1.110
Salisbury-Ocean City-Wicomico Reg'l Aptl, MD	0	1	0	0	0	0	0	0	0	1	0.000

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**DECEMBER 1998 - NOVEMBER 1999 versus DECEMBER 1999 - NOVEMBER 2000**

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AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		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		
Salt Lake City Intl, UT	0	6	1	1	2	0	0	1	3	8	0.811	2.172
Salt Lake City TRACON, UT	0	1	0	0	0	0	0	0	0	1	N/A	N/A
San Antonio Intl, TX	8	5	0	0	0	2	0	10	5	5	3.913	1.974
San Carlos Apt, CA	0	2	0	0	0	0	0	3	0	5	0.000	3.168
San Diego Intl-Lindbergh Field Apt, CA	2	1	1	0	2	0	0	0	5	1	2.242	0.472
San Francisco Intl, CA	6	5	2	2	1	2	7	5	16	14	3.650	3.187
San Jose Intl, CA	9	15	2	1	2	0	0	0	13	16	4.281	5.345
Santa Barbara Muni Apt, CA	4	10	0	2	0	0	1	3	5	15	2.951	8.983
Santa Fe County Muni Apt, NM	0	0	0	0	0	0	0	1	0	1	0.000	1.098
Santa Maria Public/Capt G Allan Hancock Apt, CA	0	1	0	0	0	0	0	0	0	1	0.000	1.351
Santa Monica Muni Apt, CA	1	0	0	1	0	0	5	5	6	6	2.648	3.160
Sarasota-Bradenton Intl Apt, FL	0	4	0	1	0	0	0	1	0	0	0.000	3.544
Savannah Intl, GA	0	2	0	0	0	0	2	0	2	2	1.810	1.824
Scottsdale Apt, AZ	0	0	0	0	0	1	0	0	1	1	0.434	0.486
Seattle-Tacoma Intl, WA	4	3	2	0	0	0	3	1	9	4	2.076	0.921
Sioux Gateway Apt, IA	0	0	0	1	1	0	0	1	1	1	2	2.319
Snohomish County (Payne Field) Apt, WA	0	0	0	0	0	0	1	0	1	0	0.490	0.000
Sonoma County Apt, CA	0	1	0	0	0	0	0	10	0	11	0.000	7.856
Southeast Texas Rgnl, TX	1	0	0	0	0	0	1	0	2	0	3.633	0.000
Southwest Florida Intl Apt, FL	1	3	0	0	0	0	0	1	1	4	1.333	5.313
Spirit Of St. Louis Apt, MO	1	8	0	0	0	0	1	4	2	12	0.956	6.037
Spokane Intl, WA	0	3	0	0	0	1	0	0	0	4	0.000	3.329
Springfield-Branson Rgnl Apt, MO	2	1	0	0	0	0	0	0	2	1	1.610	0.918
St. Louis Downtown/Parks Apt, IL	2	1	0	0	0	0	4	1	6	2	3.380	1.159
St. Lucie County Intl, FL	2	3	0	0	0	0	0	1	2	4	1.285	2.330
St. Paul Downtown Holman Field Apt, MN	0	0	0	0	0	0	1	2	1	2	0.625	1.254
St. Petersburg/Clearwater Intl, FL	1	0	0	0	0	0	0	0	1	0	0.442	0.000
Stewart Intl, NY	1	1	0	0	0	0	0	0	1	1	0.604	0.729
Stockton Metro Apt, CA	0	1	0	0	0	0	0	0	0	1	0.000	1.243
Syracuse Hancock Intl, NY	1	0	0	1	0	0	1	2	2	3	1.324	2.087
Tallahassee Rgnl Apt, FL	1	2	0	0	0	0	0	0	1	2	0.851	1.618
Tampa Intl, FL	0	3	0	0	0	0	3	0	3	3	1.104	1.078

**SURFACE INCIDENTS BY AIRPORT  
12 MONTH COMPARISON**  
**DECEMBER 1998 - NOVEMBER 1999 versus DECEMBER 1999 - NOVEMBER 2000**  
*Caution\*: A surface incident may have multiple causal factors and result in multiple reports.*

AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		TOTAL*		RATE  99 - 00
	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	98 - 99	99 - 00	
Terre Haute Intl, IN	1	2	0	0	0	0	1	1	2	3	3.589
Teterboro Arpt, NJ	2	2	1	3	0	0	3	1	6	6	2.389
The Eastern Iowa Arpt, IA	0	0	1	0	0	0	2	0	3	0	3.520
The William B Hartsfield Atlanta Intl, GA	2	2	2	1	0	0	3	2	7	5	0.773
Theodore Francis Green State Arpt, RI	5	10	0	0	1	0	2	2	7	13	4.471
Toledo Express Arpt, OH	2	1	0	0	0	0	0	0	2	1	1.947
Tompkins County Arpt, NY	0	2	0	1	0	0	2	0	2	3	3.718
Trenton Mercer Arpt, NJ	0	0	0	0	0	0	0	1	0	1	0.000
Tri-Cities Arpt, WA	2	1	1	0	0	0	0	0	3	1	3.120
Tri-State/Milton J. Ferguson Field Arpt, WV	0	2	0	0	0	0	0	0	0	2	0.000
Tucson Intl, AZ	0	2	0	1	0	0	1	1	1	4	0.358
Tulsa Intl, OK	3	0	0	0	0	0	0	0	3	0	1.494
Tupelo Muni / C.D. Lemons Arpt, MS	0	3	0	0	0	0	0	0	0	3	0.000
Tuscaloosa Muni Arpt, AL	0	1	0	0	0	0	1	0	1	1	1.790
Tweed-New Haven Arpt, CT	-1	1	0	0	0	0	0	0	1	1	1.708
Tyler Pounds Field Arpt, TX	0	0	0	0	0	0	0	2	0	2	0.000
University Of Illinois-Willard Arpt, IL	-1	0	0	0	0	0	0	0	1	0	0.703
Valdosta Rgnl Arpt, GA	0	1	0	0	0	0	0	0	1	1	0.000
Van Nuys Arpt, CA	0	2	0	1	0	0	1	1	1	4	0.168
Vero Beach Muni Arpt, FL	2	0	0	0	0	0	1	0	3	0	1.376
W K Kellogg Arpt, MI	0	0	0	0	0	0	0	2	0	2	0.000
Waco Regional Arpt, TX	0	-1	0	0	0	0	0	0	0	1	0.000
Walla Walla Regional Arpt, WA	0	-1	0	0	0	0	0	0	0	1	0.000
Washington Dulles Intl, DC	5	0	1	0	0	0	0	0	6	0	1.263
Waterloo Muni Arpt, IA	0	1	0	0	0	0	1	0	1	1	1.894
Waukegan Rgnl Arpt, IL	0	2	0	0	0	0	0	0	0	2	0.000
Westchester County Arpt, NY	0	4	0	0	0	0	1	3	1	7	0.452
Wheeling Ohio County Arpt, WV	0	1	0	0	0	0	0	0	0	1	0.000
Whiteman Arpt, CA	0	1	0	0	0	0	0	2	0	3	0.000
Wichita Mid-Continent, KS	0	1	0	0	0	0	1	0	1	1	0.454
Wiley Post Arpt, OK	1	0	0	0	0	0	1	4	2	4	2.035
Wilkes-Barre/Scranton Intl, PA	0	0	0	0	0	0	0	1	0	1	0.000

Actual Activity Data thru 08/31/2000

Forecast Activity Data 09/01/2000 - 11/30/2000

Rates per 100,000 Operations

**SURFACE INCIDENTS BY AIRPORT**  
**12 MONTH COMPARISON**  
**DECEMBER 1998 - NOVEMBER 1999 versus DECEMBER 1999 - NOVEMBER 2000**  
*Caution\*: A surface incident may have multiple causal factors and result in multiple reports.*

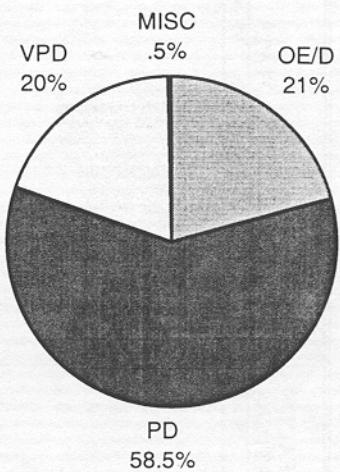
AIRPORT	PILOT DEVIATIONS		SURFACE ERRORS		SURFACE DEVIATIONS		VEHICLE PEDESTRIAN DEVIATION		TOTAL*		RATE <b>99 - 00</b>
	<b>98 - 99</b>	<b>99 - 00</b>	<b>98 - 99</b>	<b>99 - 00</b>	<b>98 - 99</b>	<b>99 - 00</b>	<b>98 - 99</b>	<b>99 - 00</b>	<b>98 - 99</b>	<b>99 - 00</b>	
Will Rogers World Apt, OK	1	3	1	0	0	0	0	0	2	3	1.227
William P. Hobby Apt, TX	2	1	1	0	0	0	0	1	3	2	1.156
Williams Gateway, AZ	0	3	0	0	0	0	0	0	0	3	0.792
Willow Run Apt, MI	3	1	0	0	0	0	4	3	7	4	2.291
Wittman Regional Apt, WI	1	1	0	0	0	0	1	1	2	2	2.688
Worchester Muni. Apt, MA	0	1	0	0	0	0	0	0	0	1	1.971
Yakima Air Terminal/Mcallister Field Apt, WA	1	1	0	0	0	0	0	3	1	4	1.970
Yeager Apt, WV	0	0	0	1	0	0	0	0	0	1	6.358
Youngstown Muni Apt, OH	3	1	0	0	0	1	2	0	5	2	1.111
Zampolini Field Apt, CA	1	2	0	0	0	0	0	1	2	1	2.281
											1.089
Total	518	737	93	95	16	23	384	532	1011	1387	1.788
Actual Activity Data thru 08/31/2000											2.605
Forecast Activity Data 09/01/2000 - 11/30/2000											
Rates per 100,000 Operations											

## Runway Incursions by Type and Month

### 1999 through November 2000

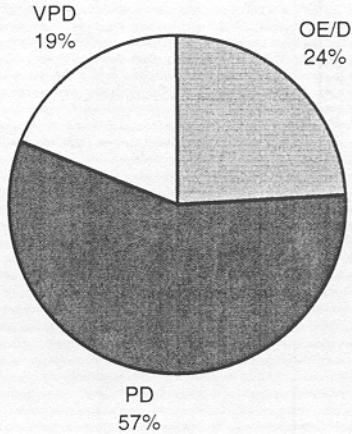
**Runway Incursions by Month - 2000**

MONTH	Incident Type				TOTAL
	OE/D	PD	VPD	MISC	
January	2	15	6	1	24
February	5	12	7	0	24
March	11	22	3	0	36
April	7	20	6	0	33
May	8	25	6	0	39
June	11	25	8	0	44
July	6	28	7	0	41
August	10	27	10	0	47
September	5	18	10	0	33
October	9	27	5	0	41
November	8	15	9	0	32
December					
TOTAL	82	234	77	1	394



**Runway Incursions by Month - 1999**

Month	Incident Type				Total
	OE/D	PD	VPD		
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
Totals	78	182	61		321



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 - Nov 2000**

(Operations in Millions)

**January - November 2000**

Region	OE	PD	VPD	MISC	TOTAL	OPERATIONS	RATE
AAL	1	5	6	0	12	1.01	11.88
ACE	2	13	2	0	17	2.40	7.08
AEA	14	17	7	0	38	8.21	4.63
AGL	13	25	13	1	52	10.17	5.11
ANE	2	20	3	0	25	2.76	9.06
ANM	6	23	7	0	36	5.58	6.45
ASO	22	27	17	0	66	12.79	5.16
ASW	5	21	4	0	30	7.48	4.01
AWP	17	83	18	0	118	13.67	8.63
Total	82	234	77	1	394	64.07	6.15

**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

CY 00 Runway incursion data is based on preliminary reports and is subject to change following a final investigation.

Source: Runway Safety Program Office, ATS-20

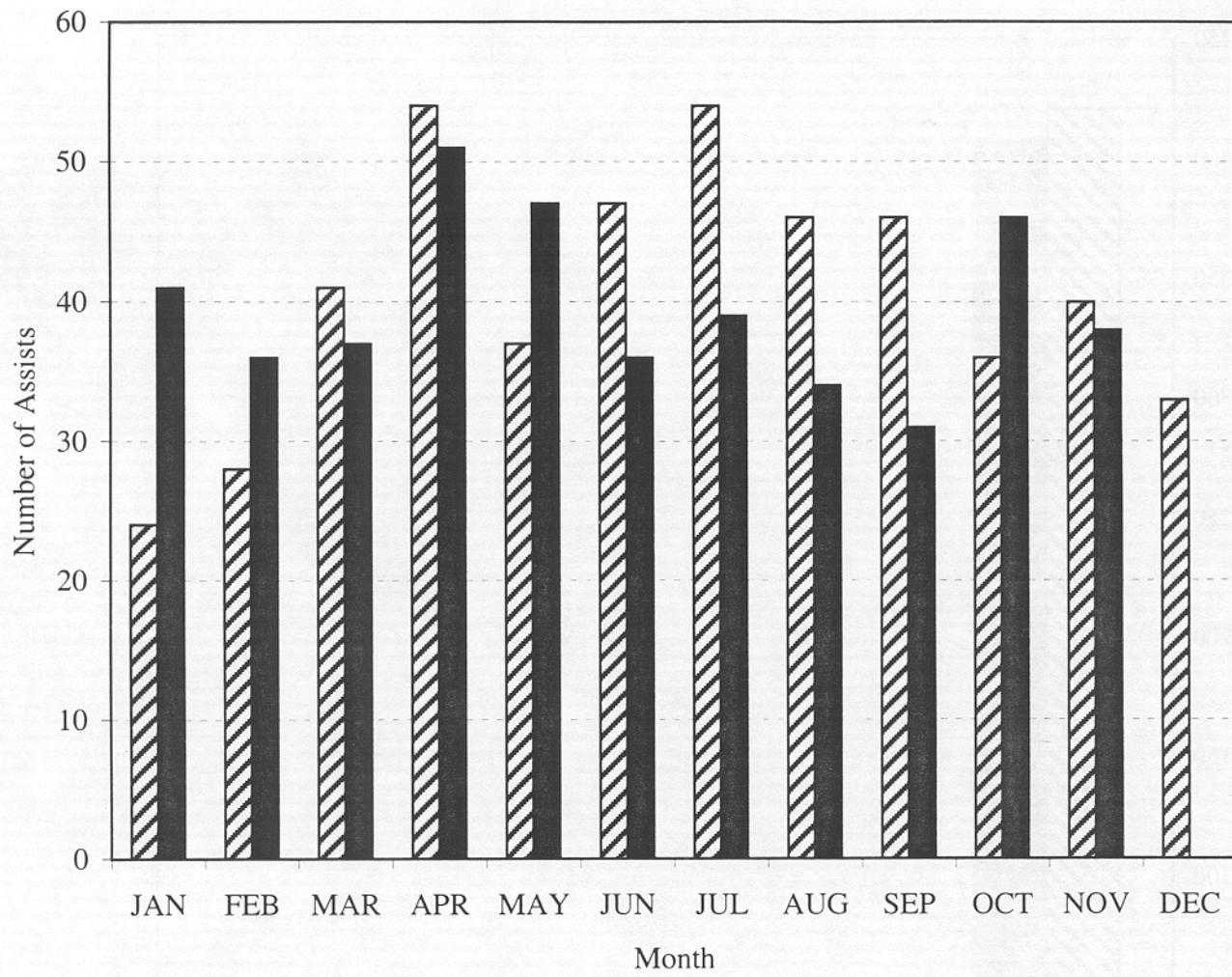
## **FLIGHT ASSISTS\***

\*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

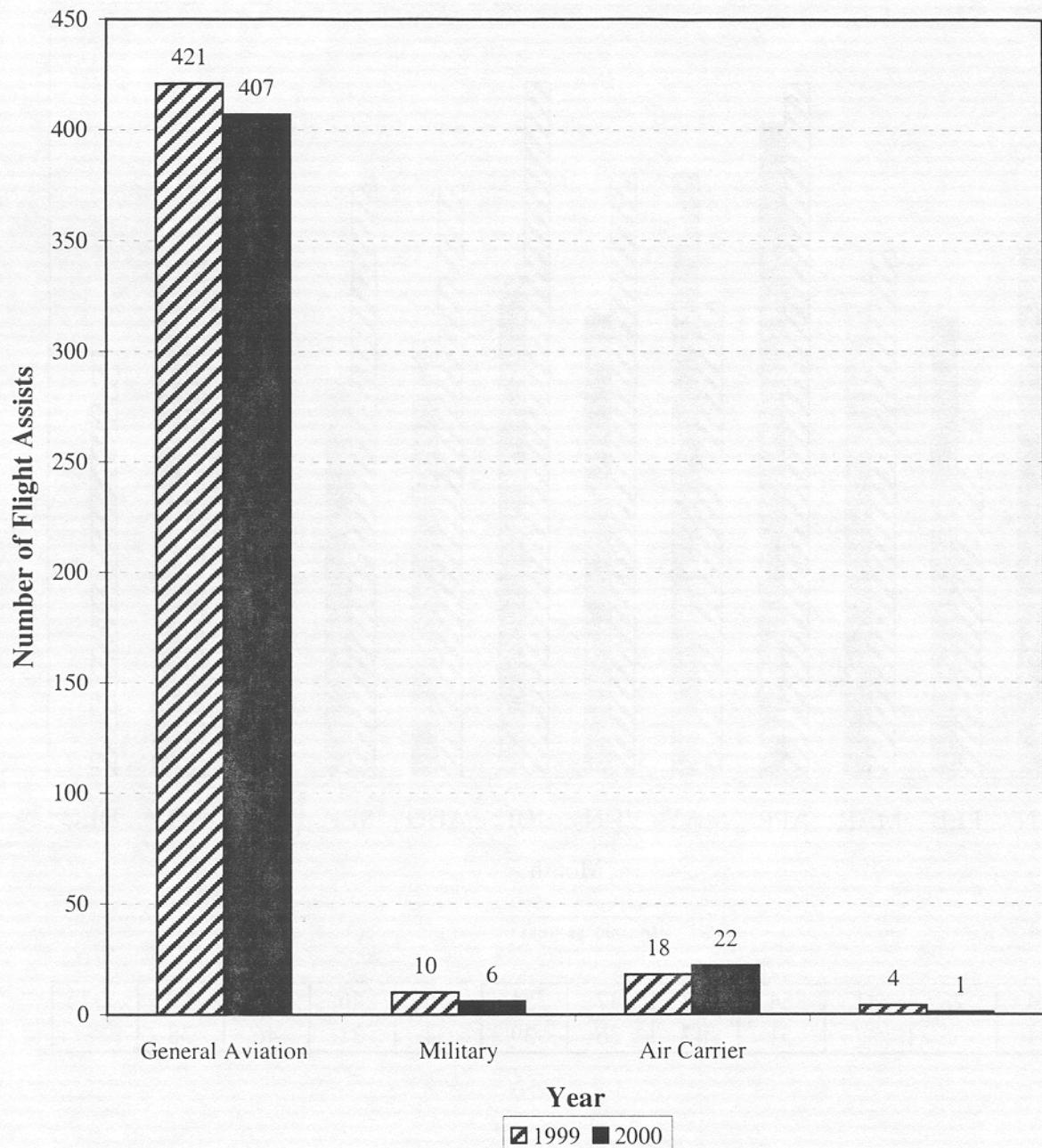
1999 - November 2000



	1999	2000
	24	41

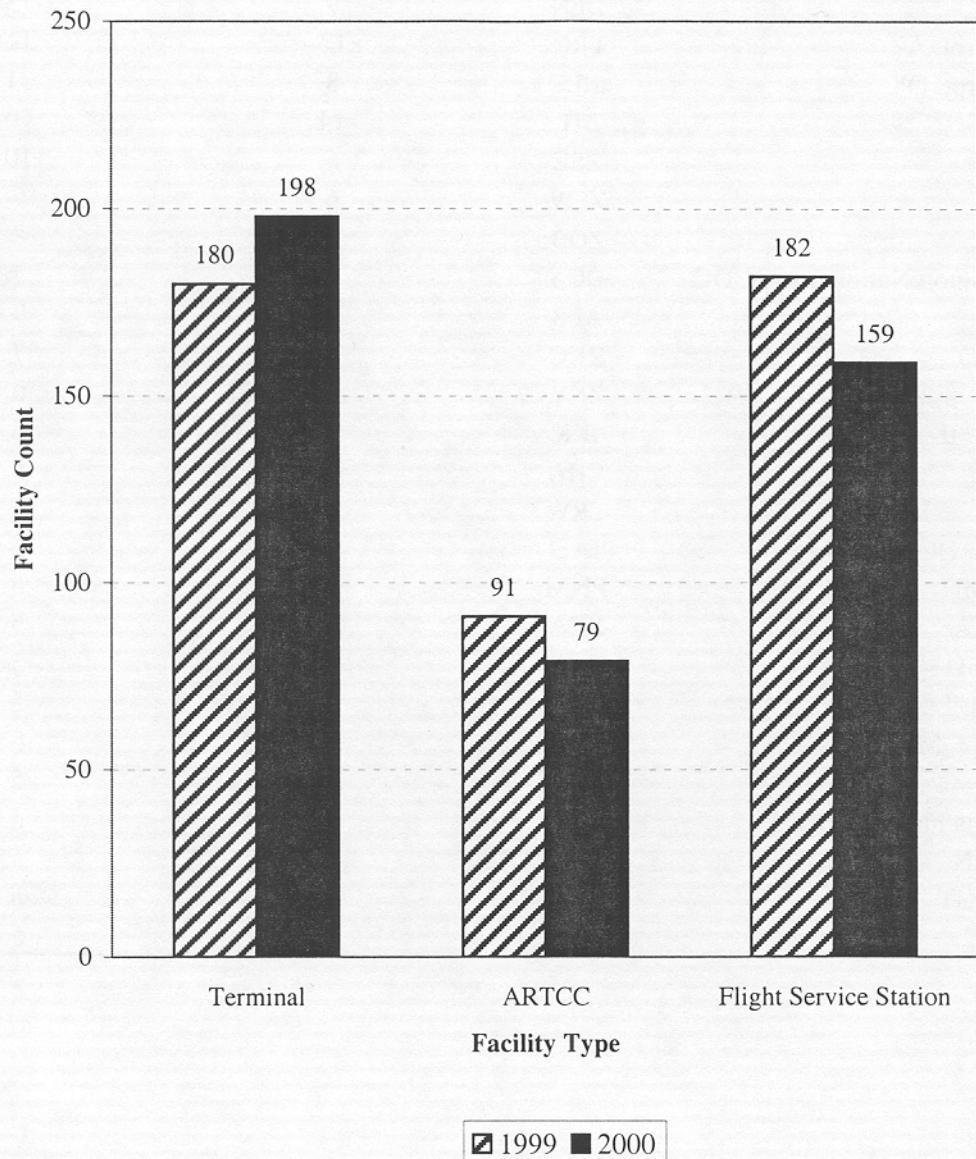
## Flight Assists By Operator Type

1999 - November 2000



## Flight Assists by Facility Type

1999 - November 2000

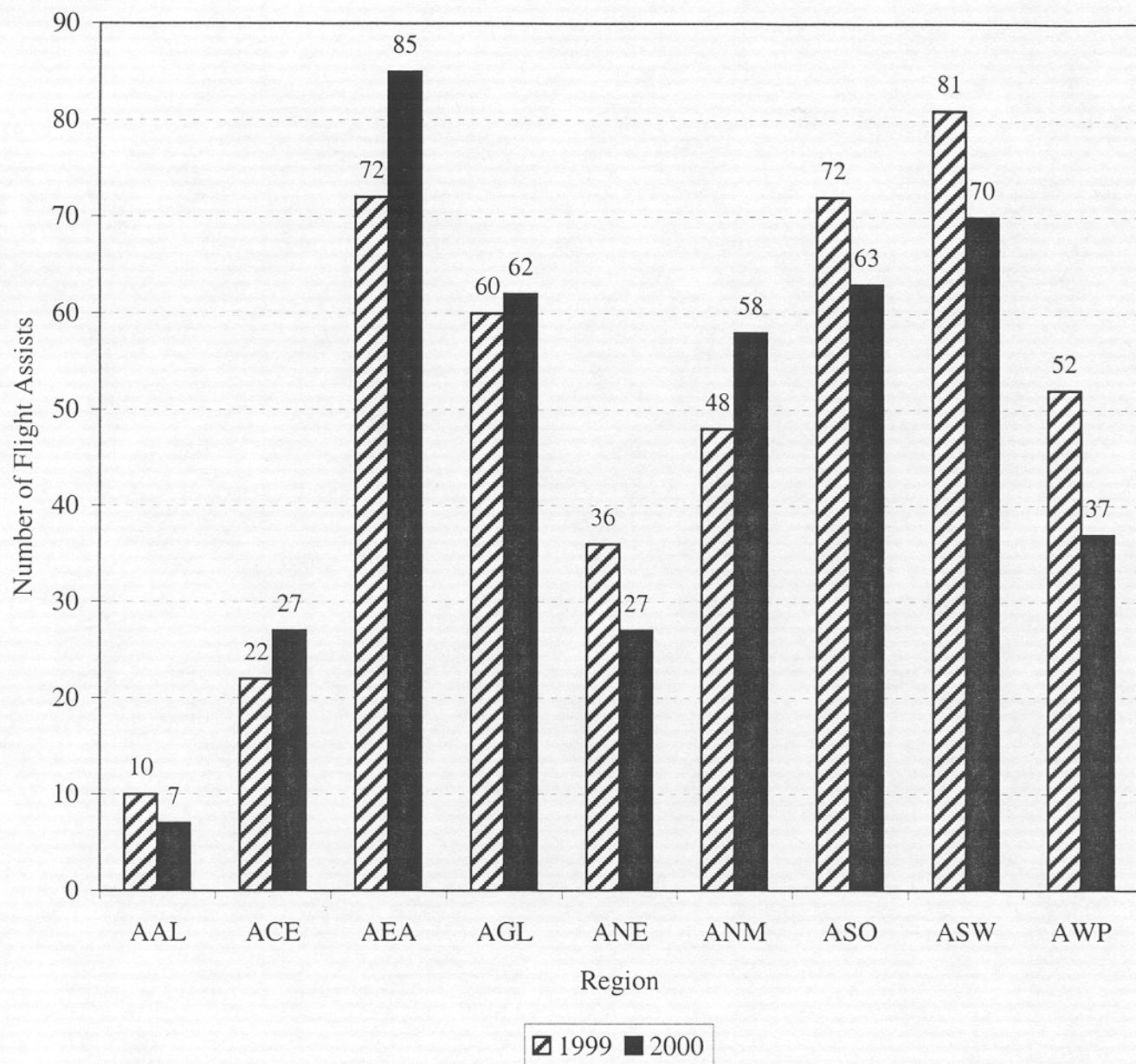


**Flight Assists by Facility**  
**12 Month Comparison (2000 Ranking)**

Facility Name	ID	DEC. 1998 - NOV. 1999	DEC. 1999 - NOV. 2000
New York TRACON, NY	N90	27	21
Fort Worth Meacham Arpt, TX	FTW	11	20
Denver Intl, CO	DEN	9	13
Ernest A. Love Field Arpt, AZ	PRC	12	11
Mc Alester Regional Arpt, OK	MLC	8	11
Atlanta Center, GA	ZTL	14	10
Seattle Center, WA	ZSE	5	10
Fort Worth Center, TX	ZFW	6	9
Cleveland Center, OH	ZOB	6	8
Ronald Reagan Washington National Arpt, DC	DCA	4	7
Albany Intl, NY	ALB	1	7
Kansas City Center, MO	ZKC	1	7
New York Center, NY	ZNY	4	6
Greater Kankakee Arpt, IL	IKK	4	6
Lovell Field Arpt, TN	CHA	2	6
Yeager Arpt, WV	CRW	1	6
Washington Dulles Intl, DC	IAD	1	6
Princeton Muni Arpt, MN	PNM	7	5
Seattle-Tacoma Intl, WA	SEA	7	5
Huron Regional Arpt, SD	HON	5	5
Cedar City Rgnl Arpt, UT	CDC	5	5
Columbia Regional Arpt, MO	COU	4	5
Burlington Intl, VT	BTW	4	5
San Angelo Rgnl/Mathis Field Arpt, TX	SJT	4	5
Minneapolis Center, MN	ZMP	4	5
Salt Lake City Center, UT	ZLC	2	5
Jacksonville Intl, FL	JAX	2	5

## Flight Assists By Region

1999 - November 2000

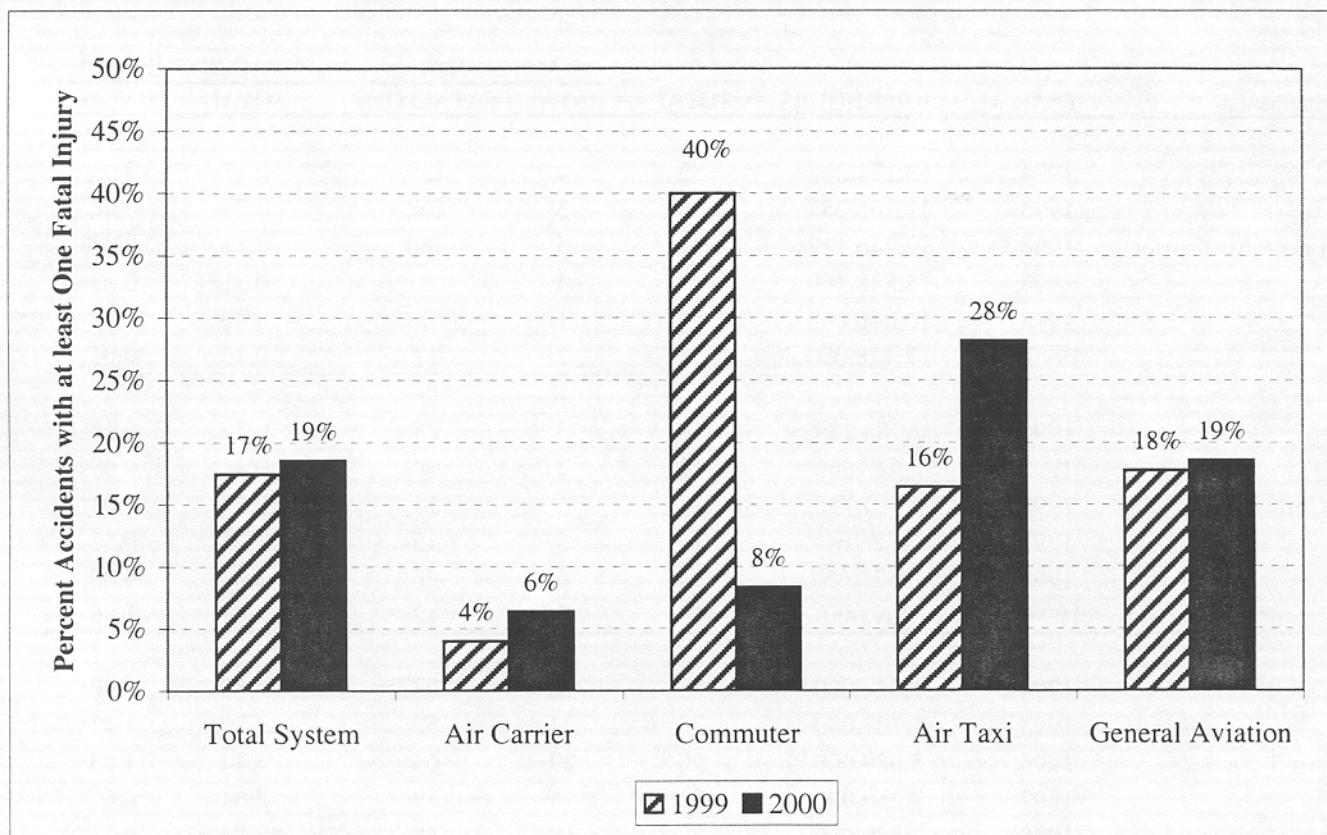


## **ACCIDENT DATA\***

**\*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 - November**  
**1999-2000**



SEGMENT	YEAR	ACCIDENTS			FATAL RATE
		TOTAL	FATAL	FATALITIES	
<b>Total</b>	1999	1929	337	660	17%
<b>System</b>	2000	1849	343	749	19%
<b>Large Air Carrier</b>	1999	50	2	12	4%
	2000	47	3	92	6%
<b>Commuter</b>	1999	10	4	6	40%
	2000	12	1	5	8%
<b>Air Taxi</b>	1999	67	11	37	16%
	2000	71	20	69	28%
<b>General</b>	1999	1802	320	605	18%
<b>Aviation</b>	2000	1719	319	583	19%

**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**

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