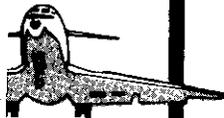


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ANNUAL REVIEW OF AIRCRAFT ACCIDENT DATA

U. S. AIR CARRIER OPERATIONS
1974

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This report
air carrier
a summary of
data for the
fatalities,
which was est
1969 through
and related
prevalent ac
sequences an
most accident
were used.

Figure
which U. S.
segments are
shown in App
this review.

ANNUAL REVIEW OF AIRCRAFT ACCIDENT DATA
U. S. AIR CARRIER OPERATIONS
1974

INTRODUCTION

This report is a compilation and statistical analysis of U. S. air carrier accidents that occurred during 1974. The report contains a summary of the 1974 U. S. air carrier safety record and comparative data for the previous 5 years. It also contains data on accidents, fatalities, rates, and 1974 growth changes compared with a base figure which was established by averaging the data for the 5-year period, 1969 through 1973. The report presents a 5-year summary of the causes and related factors of accidents. Also presented are the five most prevalent accident types depicting what happened in the accident sequences and the phases of operation to show the flight segments where most accidents occurred. Data for the 5-year period, 1970 through 1974, were used.

Figure 1 identifies the classifications and types of service in which U. S. air carriers are engaged. Accident data for the various segments are summarized in Appendix A and briefs of the accidents are shown in Appendix B. Appendix C contains definitions of terms used in this review.

Page

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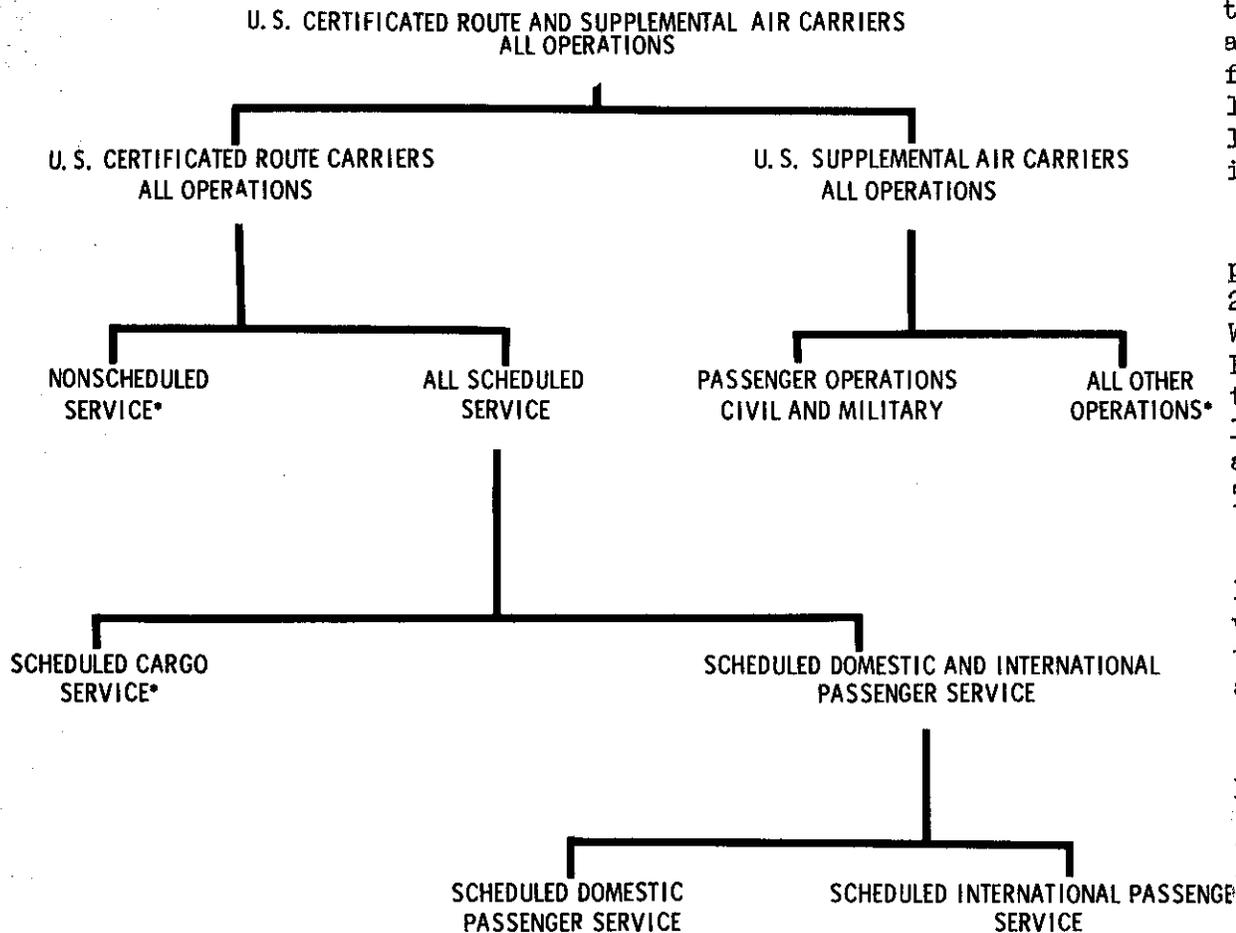
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23

61

95

CLASSIFICATION AND TYPE OF SERVICE U.S. AIR CARRIERS



NOTE: CATEGORIES MARKED WITH AN ASTERISK (*) ARE NOT SEPARATELY EXAMINED IN THIS ANALYSIS.

Figure 1

The 1974 U. total number of the downward trend accidents in the from 8 to 10 per 153 percent over 1969 through 19 international p

U. S. cert passenger servi 292 persons wer World Airlines Board's determi the 79 passenge 1974 passenger an increase of 5 years.

Of the rem landing phase c were passengers the majority of accidents durin

In all ope place for the 5 fatal accidents: the landing pha phase, and 14.0

The leadi of operation w ceiling, and f recommendation A-74-86) to in among pilots. accidents as e flight environ accident on Se in which 71 pe of the runway.

HIGHLIGHTS OF THE ANALYSIS

The 1974 U. S. air carrier accident record showed an upswing in the total number of accidents and corresponding accident rate compared with the downward trend of the past 5 years. Even though the number of fatal accidents in the past 5 years has remained relatively stable (ranging from 8 to 10 per year), the number of fatalities in 1974 increased about 153 percent over the average number of fatalities for the 5-year period, 1969 through 1973. The greatest increase occurred in the scheduled international passenger service operated by certificated route carriers.

U. S. certificated route carriers conducting scheduled international passenger service were involved in four fatal accidents in 1974 in which 292 persons were killed. However, one of these accidents was the Trans World Airlines accident near Cephalonia, Greece, in which the Safety Board's determination of probable cause was sabotage. Even after excluding the 79 passenger fatalities attributable to this sabotage accident, the 1974 passenger fatality rate per 100 million passenger miles still shows an increase of 1,100 percent compared with the average for the previous 5 years.

Of the remaining three fatal accidents, two happened during the landing phase of operation and resulted in 203 fatalities, 186 of which were passengers. Similarly, in scheduled domestic passenger service, the majority of the passenger fatalities (154 of 158) occurred in two accidents during landing or during approach to landing.

In all operations of the U. S. air carriers, a similar trend took place for the 5-year period, 1970 through 1974 -- 46.5 percent of all fatal accidents (and 65.4 percent of all the fatalities) occurred during the landing phase of operation, 25.6 percent occurred during the in-flight phase, and 14.0 percent occurred during takeoff.

The leading causes/factors of fatal accidents in the landing phase of operation were improper IFR operation, poor crew coordination, low ceiling, and fog. On October 8, 1974, the Safety Board issued two safety recommendations to the Federal Aviation Administration (A-74-85 and A-74-86) to initiate ways and means to improve professional standards among pilots. These recommendations cited five air carrier approach accidents as examples of a casual acceptance by the flightcrew of the flight environment. This casual acceptance was also demonstrated in the accident on September 11, 1974, at Charlotte, North Carolina (NTSB-AAR-75-9) in which 71 persons were killed when the aircraft crashed 3 miles short of the runway.

SUMMARY

All Operations

In overall operations of the U. S. air carriers during 1974, there were 47 aircraft accidents, 9 of which were fatal accidents resulting in 467 fatalities. A sabotage accident, which occurred September 8, 1974, and killed 79 passengers and 9 crewmembers, is included in all computations except rates. The 1974 accident record and records for the previous 5 years are compared in the following table.

6-Year Accident Record

| <u>Accidents</u> | <u>1969</u> | <u>1970</u> | <u>1971</u> | <u>1972</u> | <u>1973</u> | <u>1974</u> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Total | 63 | 55 | 48 | 50 | 43 | 47 |
| Fatal | 10 | 8 | 8 | 8 | 9 | 9 |
| Involving Serious Injury | 30 | 25 | 24 | 21 | 20 | 29 |
| Involving Minor or no Injury | 23 | 22 | 16 | 21 | 14 | 9 |
| <u>Aircraft Damage</u> | | | | | | |
| Destroyed | 8 | 11 | 5 | 7 | 7 | 9 |
| Substantial | 27 | 21 | 21 | 23 | 17 | 8 |
| <u>Fatalities</u> | | | | | | |
| Passenger | 132 | 118 | 174 | 160 | 200 | 421 |
| Crewmembers | 22 | 24 | 23 | 17 | 26 | 46 |
| Other Persons | 4 | 4 | 6 | 13 | 1 | 0 |
| Total | 158 | 146 | 203 | 190 | 227 | 467 |
| <u>Miles Flown (Billion)</u> ^{1/} | 2.74 | 2.68 | 2.66 | 2.62 | 2.65 | 2.46 |
| <u>Hours Flown (Million)</u> | 6.74 | 6.47 | 6.39 | 6.30 | 6.50 | 5.98 |
| <u>Accident Rates</u> | | | | | | |
| Per Million Aircraft-miles | 0.023 | 0.020 | 0.018 | 0.019 | 0.016 | 0.01 |
| Per 100,000 Aircraft-hours | 0.935 | 0.850 | 0.752 | 0.793 | 0.661 | 0.76 |

^{1/} Nonrevenue miles of the supplemental air carriers not reported.

Certificate

In 1974 their total accidents w by type of

Operations

Scheduled

Scheduled

Nonschedu

Nonrevenue

Trainin

Ferry

Tc

Accident Rat

Per Millic

Per 100,00

Aircraft-Mil

Per Accide

Per Fatal

Scheduled Pa

Revenue Pa

Passenger-

Passenger 1
Million P

^{2/} A sabotag in all c

Certificated Route Carriers

In 1974, the certificated route air carriers had 45 accidents in their total revenue and nonrevenue operations. Eight of the 45 were fatal accidents which resulted in 463 fatalities. The distribution of accidents by type of operation was as follows:

there were
in 467
4, and
ations
ous 5

1973 1974
43 47
9 9
20 29
14 9

7 9
17 8

| Operations | Accidents | | Fatalities |
|---|-----------|----------|------------|
| | Total | Fatal | |
| Scheduled Passenger Service ^{2/} | 42 | 7 | 460 |
| Scheduled Cargo Service | 1 | 0 | 0 |
| Nonscheduled Revenue Operations | 1 | 0 | 0 |
| Nonrevenue Operations | | | |
| Training | 0 | 0 | 0 |
| Ferry | <u>1</u> | <u>1</u> | <u>3</u> |
| Total | 45 | 8 | 463 |

200 421
26 46
1 0
227 467

2.65 2.46
5.50 5.98

0.016 0.01
0.661 0.76

| Accident Rates | Total Accidents | Fatal Accidents |
|---|-----------------|-----------------|
| Per Million Aircraft-miles | 0.018 | 0.003 |
| Per 100,000 Aircraft-hours | 0.763 | 0.121 |
| <u>Aircraft-Miles Flown</u> | | |
| Per Accident | 54.20 Million | |
| Per Fatal Accident | 340.70 Million | |
| <u>Scheduled Passenger Service</u> | | |
| Revenue Passengers Carried | 207.45 Million | |
| Passenger-miles Flown | 173.35 Billion | |
| Passenger Fatality Rate Per 100 Million Passenger-miles Flown | 0.197 | |

^{2/} A sabotage accident with 79 passenger and 9 crew fatalities is included in all computations except rates.

Supplemental Carriers

The supplemental air carriers had two accidents in 1974. One resulted in four fatalities. These accidents occurred in the following operations.

| <u>Operations</u> | <u>Accidents</u> | | <u>Fatalities</u> |
|----------------------|------------------|--------------|-------------------|
| | <u>Total</u> | <u>Fatal</u> | |
| Civil Operations: | | | |
| Passenger | 0 | 0 | 0 |
| Cargo | 0 | 0 | 0 |
| Military Operations: | | | |
| Passenger | 1 | 0 | 0 |
| Cargo | 1 | 1 | 4 |
| Training | 0 | 0 | 0 |
| Ferry | <u>0</u> | <u>0</u> | <u>0</u> |
| Total | 2 | 1 | 4 |

Aircraft-Miles Flown (revenue) 79,363,000

Aircraft-Hours Flown (revenue and nonrevenue) 211,131

| <u>Accident Rates</u> | <u>Total Accidents</u> | <u>Fatal Accidents</u> |
|----------------------------------|------------------------|------------------------|
| Per Million Aircraft-miles Flown | 0.025 | 0.013 |
| Per 100,000 Aircraft-hours Flown | 0.947 | 0.474 |

All Operations

In 1974, U. S. all operations had 4.6 percent from the aircraft-miles fatal accidents in 1974 (4.6 percent average from 1968 of 152.7 percent

ACCIDENTS, FATAL

Aircraft-Miles

Accidents

Total Accidents

Fatal Accidents

Fatal Injuries

Accident Rate Per Million Aircraft Miles Flown

Total Accidents

Fatal Accidents

Fatality Rate Per Million Aircraft Miles Flown

Base figure nonfatal to

A sabotage in all comp

ANALYSIS BY CLASS OF CARRIER
AND TYPE OF SERVICE

All Operations

In 1974, U. S. certificated route and supplemental air carriers in all operations flew 2,464,295,000 aircraft-miles, a decrease of 7.7 percent from the 1969 through 1973 base-period average of 2,669,518,000 aircraft-miles per year. Total accidents decreased 9.3 percent, and fatal accidents increased slightly from an average of 8.6 per year to 9 in 1974 (4.6 percent). Fatal injuries more than doubled the base-period average from 184.8 fatalities per year to 467 fatalities in 1974, an increase of 152.7 percent.

ACCIDENTS, FATALITIES, RATES, AND GROWTH CHANGES FROM BASE (1969-73)

| | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|---|-------------------|------------------|--------------------------|
| <u>Aircraft-Miles Flown</u> (Thousands) | 2,669,518 | 2,464,295 | - 7.7 |
| <u>Accidents</u> | | | |
| Total Accidents | 51.8 | 47 ^{2/} | - 9.3 |
| Fatal Accidents | 8.6 ^{1/} | 9 | + 4.6 |
| <u>Fatal Injuries</u> | 184.8 | 467 | +152.7 |
| <u>Accident Rate Per Million Aircraft-Miles Flown</u> | | | |
| Total Accidents | 0.019 | 0.019 | No change |
| Fatal Accidents | 0.003 | 0.003 | No change |
| <u>Fatality Rate Per Million Aircraft-Miles Flown</u> | 0.069 | 0.154 | +166.6 |

^{1/} Base figure derived from 43 fatal accidents, including 3 midair collisions nonfatal to air carrier occupants, excluded in fatal accident rate.

^{2/} A sabotage accident with 79 passenger and 9 crew fatalities is included in all computations except rates.

One
the following

Fatalities

0

0

0

4

0

0

4

Fatal
Accidents

0.013

0.474

Certificated Route Carriers

All Operations -- During the base period, 1969 through 1973, U. S. certificated route air carriers in all operations flew an average of 2,570,446,000 miles per year. In 1974, the figure was 2,384,933,000 miles, representing a decrease of 7.2 percent. Total accidents decreased 8.2 percent, while fatal accidents increased slightly from an average of 7.8 per year to 8 in 1974. These 8 fatal accidents resulted in 463 fatal injuries or a 170.1-percent increase over the base-period average of 171.4 fatal injuries per year.

All Scheduled air carrier operations miles flown decreased 7.2 percent, and average speed per hour over the base period an average of 414 mph. In 1974, the figure was 414.5 mph, representing a 0.1-percent increase.

ACCIDENTS

ACCIDENTS, FATALITIES, RATES, AND GROWTH CHANGES FROM BASE (1969-73)

| | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|--|-------------------|------------------|--------------------------|
| <u>Aircraft-Miles Flown</u> (Thousands) | 2,570,446 | 2,384,933 | - 7.2 |
| <u>Accidents</u> | | | |
| Total Accidents | 49.0 | 45 ^{2/} | - 8.2 |
| Fatal Accidents | 7.8 ^{1/} | 8 | + 2.6 |
| <u>Fatal Injuries</u> | 171.4 | 463 | +170.1 |
| <u>Accident Rates Per Million Aircraft-Miles Flown</u> | | | |
| Total Accidents | 0.019 | 0.018 | - 5.3 |
| Fatal Accidents | 0.003 | 0.003 | No change |
| <u>Fatality Rate Per Million Aircraft-Miles Flown</u> | | | |
| | 0.067 | 0.157 | +134.3 |

| |
|--|
| <u>Aircraft-Miles</u> |
| <u>Aircraft-Hours</u> |
| <u>Aircraft Departures</u> |
| <u>Accidents</u> |
| Total Accidents |
| Fatal Accidents |
| <u>Accident Rates Million Aircraft-Miles Flown</u> |
| Total Accidents |
| Fatal Accidents |
| <u>Accident Rates 100,000 Aircraft-Hours Flown</u> |
| Total Accidents |
| Fatal Accidents |
| <u>Accident Rates 100,000 Aircraft-Departures</u> |
| Total Accidents |
| Fatal Accidents |

^{1/} Base figure determined from 39 fatal accidents, including 3 midair collisions nonfatal to air carrier occupants, excluded in fatal accident rate.

^{2/} A sabotage accident with 79 passenger and 9 crew fatalities is included in all computations except rates.

^{1/} Base figure collisions rates.

^{2/} A sabotage in all computations.

1973, U. S.
 average of
 4,933,000 miles,
 creased 8.2
 average of 7.8
 463 fatal
 average of

All Scheduled Service -- The all scheduled service segment of U. S. air carrier operations showed a decrease in aircraft activity. Aircraft-miles flown decreased 5.7 percent, aircraft-hours flown decreased 5.4 percent, and aircraft departures decreased 7.6 percent. During the base period an average aircraft flew 468 miles per departure at an average speed of 414 mph. In 1974, the average aircraft flew 478 miles at 412 mph.

ACCIDENTS, ACCIDENT RATES, GROWTH CHANGES FROM BASE (1969-73)

(1969-73)

| Percentage Change | | Base | 1974 | Percentage Change |
|-------------------|--|-----------|-----------|-------------------|
| | <u>Aircraft-Miles Flown(Thousands)</u> | 2,395,855 | 2,258,136 | -5.7 |
| - 7.2 | <u>Aircraft-Hours Flown</u> | 5,787,417 | 5,474,495 | -5.4 |
| | <u>Aircraft Departures</u> | 5,115,334 | 4,725,783 | -7.6 |
| 2/ - 8.2 | <u>Accidents</u> | | | |
| | Total Accidents | 43.8 | 43 2/ | -1.8 |
| + 2.6 | Fatal Accidents | 6.8 1/ | 7 | +2.9 |
| +170.1 | <u>Accident Rates Per Million Aircraft-Miles Flown</u> | | | |
| | Total Accidents | 0.018 | 0.019 | +5.6 |
| | Fatal Accidents | 0.003 | 0.003 | No change |
| - 5.3 | <u>Accident Rates Per 100,000 Aircraft-Hours Flown</u> | | | |
| No change | Total Accidents | 0.757 | 0.767 | +1.3 |
| | Fatal Accidents | 0.111 | 0.110 | -0.9 |
| +134.3 | <u>Accident Rates Per 100,000 Aircraft-Departures</u> | | | |
| | Total Accidents | 0.856 | 0.889 | +3.9 |
| | Fatal Accidents | 0.125 | 0.127 | +1.6 |

3 midair
 fatal

s is included

1/ Base figure determined from 34 fatal accidents, including 2 midair collisions nonfatal to air carrier occupants, excluded in fatal accident rates.

2/ A sabotage accident with 79 passenger and 9 crew fatalities is included in all computations except rates.

Scheduled Domestic and International Passenger Service -- In 1974, the number of passengers carried for this segment of U. S. certificated route air carriers increased substantially (15.8 percent) over the base period average. Passenger-miles flown also increased (15.9 percent) from the base-period figure of 149.6 billion to 173.3 billion in 1974. Accidents in 1974 increased 3.4 percent, and fatal accidents increased 25 percent compared with the base-period averages. In 1974, fatal injuries more than tripled, and the passenger fatality rate per 100 million passenger-miles flown more than doubled, compared to the base-period averages.

Scheduled
certificated
service carri
over the base
increased 18.
accidents dec
though the nu
increased 33
passenger-mil
base-period e

ACCIDENTS, ACCIDENT RATES, GROWTH CHANGES FROM BASE (1969-73)

| | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|---|-------------|-------------------|------------------------------|
| <u>Passengers Carried</u> | 179,144,236 | 207,449,006 | + 15.8 |
| <u>Passenger-Miles Flown(Thousands)</u> | 149,631,368 | 173,349,894 | + 15.9 |
| <u>Accidents</u> | | | |
| Total Accidents | 40.6 | 42 ^{1/2} | + 3.4 |
| Fatal Accidents | 5.6 | 7 | + 25.0 |
| <u>Fatal Injuries</u> | | | |
| Passengers | 133.0 | 420 | +215.8 |
| Crew | 12.8 | 40 | +212.5 |
| Other | 4.6 | 0 | -100.0 |
| Total | 150.4 | 460 | +205.9 |
| <u>Passenger Fatality Rate Per 100 Million Passenger- Miles Flown</u> | 0.089 | 0.197 | +121.3 |

ACCIDENTS

| |
|---|
| <u>Passengers Ca</u> |
| <u>Passenger-Mi</u> |
| <u>Accidents</u> |
| Total Accid |
| Fatal Accid |
| <u>Fatal Injuri</u> |
| Passengers |
| Crew |
| Other |
| Total |
| <u>Passenger Fa</u> <u>Per 100 Mill</u> <u>Passenger-Mi</u> |

^{1/2} A sabotage accident with 79 passenger and 9 crew fatalities is included in all computations except rates.

Scheduled Domestic Passenger Service -- During 1974, U. S. certificated route air carriers engaged in scheduled domestic passenger service carried 189.7 million passengers -- a 17.6 percent increase over the base-period average of 161.4 million. Passenger-miles flown increased 18.5 percent over the base figure, whereas total and fatal accidents decreased 6.1 percent and 37.5 percent, respectively. Even though the number of fatal accidents decreased, passenger fatalities increased 33 percent. The passenger fatality rate per 100 million passenger-miles flown increased 12.7 percent in 1974 compared with the base-period average.

ACCIDENTS, ACCIDENT RATES, GROWTH CHANGES FROM BASE (1969-73)

| <u>Percentage Change</u> | | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|--------------------------|---|-------------|-------------|--------------------------|
| + 15.8 | <u>Passengers Carried</u> | 161,352,299 | 189,723,697 | + 17.6 |
| + 15.9 | <u>Passenger-Miles Flown(Thousands)</u> | 116,149,884 | 137,657,951 | + 18.5 |
| | <u>Accidents</u> | | | |
| + 3.4 | Total Accidents | 33.0 | 31 | - 6.1 |
| + 25.0 | Fatal Accidents | 4.8 | 3 | - 37.5 |
| | <u>Fatal Injuries</u> | | | |
| +215.8 | Passengers | 118.8 | 158 | + 33.0 |
| +212.5 | Crew | 10.8 | 10 | - 7.4 |
| -100.0 | Other | 4.4 | 0 | -100.0 |
| +205.9 | Total | 134.0 | 168 | + 25.4 |
| | <u>Passenger Fatality Rate</u> | | | |
| | <u>Per 100 Million</u> | | | |
| +121.3 | <u>Passenger-Miles Flown</u> | 0.102 | 0.115 | + 12.7 |

is included

Scheduled International Passenger Service -- In 1974, the number of passengers carried in scheduled international passenger service decreased slightly (0.4 percent), while passenger-miles flown increased 6.6 percent. In 1974, accidents increased from the base-period average of 7.6 to 12 (57.9 percent). Fatal accidents increased 400 percent from a base-period average of 0.8 to 4. Three of the four fatal accidents in 1974 accounted for 261 of the 262 passenger fatalities. The fourth fatal accident occurred when an infant passenger was strangled by a seatbelt. The passenger fatalities, crew fatalities, and total fatalities in 1974 represent the largest number of fatal injuries in these categories since 1938.

ACCIDENTS, FATALITIES, RATES, AND GROWTH CHANGES FROM BASE (1969-73)

| | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|--|-------------|------------------|--------------------------|
| <u>Passengers Carried</u> | 17,791,937 | 17,725,309 | - 0.4 |
| <u>Passenger-Miles Flown(Thousands)</u> | 33,481,484 | 35,691,093 | + 6.6 |
| <u>Accidents</u> | | | |
| Total Accidents | 7.6 | 12 ^{1/} | + 57.9 |
| Fatal Accidents | 0.8 | 4 | + 400.0 |
| <u>Fatal Injuries</u> | | | |
| Passengers | 14.2 | 262 | +1745.1 |
| Crew | 2.0 | 30 | +1400.0 |
| Other | 0.2 | 0 | - 100.0 |
| Total | 16.4 | 292 | +1680.5 |
| <u>Passenger Fatality Rate Per 100 Million Passenger-Miles Flown</u> | | | |
| | 0.042 | 0.513 | +1121.4 |

^{1/} A sabotage accident with 79 passenger and 9 crew fatalities is included in all computations except rates.

Supplemental C

All Operat carriers in 19 average. All one accident e and one nonrev supplemental c

ACCIDENTS, FAT

Aircraft-Miles

Accidents

Total Accide

Fatal Accide

Fatal Injuries

Accident Rates

Million Aircre
Miles Flown

Total Accide

Fatal Accide

Fatality Rate

Million Aircre
Miles Flown

^{1/} Nonrevenue

Supplemental Carriers

All Operations -- Aircraft-miles flown by U. S. supplemental air carriers in 1974 decreased 19.9 percent compared with the base-period average. All rates, except the fatal accident rate, decreased. In 1974, one accident accounted for four fatalities -- three crewmembers and one nonrevenue passenger -- the second consecutive year that the supplemental carriers experienced a fatal accident.

ACCIDENTS, FATALITIES, RATES, AND GROWTH CHANGES FROM BASE (1969-73)

| | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|--|--------------------------|--------------------------|--------------------------|
| <u>Aircraft-Miles Flown</u> | 99,072,000 ^{1/} | 79,363,000 ^{1/} | -19.9 |
| <u>Accidents</u> | | | |
| Total Accidents | 2.8 | 2 | -28.6 |
| Fatal Accidents | 0.8 | 1 | +25.0 |
| <u>Fatal Injuries</u> | 13.4 | 4 | -70.1 |
| <u>Accident Rates Per Million Aircraft-Miles Flown</u> | | | |
| Total Accidents | 0.028 | 0.025 | -10.7 |
| Fatal Accidents | 0.008 | 0.013 | +62.5 |
| <u>Fatality Rate Per Million Aircraft-Miles Flown</u> | | | |
| | 0.135 | 0.050 | -63.0 |

^{1/} Nonrevenue miles not reported.

Passenger Operations - Civil and Military -- For the fourth consecutive year, U. S. supplemental air carriers engaged in civil and military contract passenger operations had no fatal accidents in 1974 -- the eighth year out of the past 11 in which no fatal accidents were recorded. Since there were no fatalities in 1974, almost all indicators based on fatalities and fatal accidents decreased 100 percent.

Cause/Factor

ACCIDENTS, FATALITIES, RATES, AND GROWTH CHANGES FROM BASE (1969-73)

| | <u>Base</u> | <u>1974</u> | <u>Percentage Change</u> |
|--|-------------|-------------|--------------------------|
| <u>Passenger-Miles Flown</u> (Thousands) | 10,767,455 | 10,862,449 | + 0.9 |
| <u>Passengers Carried</u> | 3,399,103 | 3,194,463 | - 6.0 |
| <u>Accidents</u> | | | |
| Total Accidents | 0.6 | 1 | + 66.7 |
| Fatal Accidents | 0.2 | 0 | -100.0 |
| <u>Fatal Injuries</u> | | | |
| Passengers | 9.2 | 0 | -100.0 |
| Crew | 0.2 | 0 | -100.0 |
| Other | 0 | 0 | No change |
| Total | 9.4 | 0 | -100.0 |
| <u>Passenger Fatality Rate</u> | | | |
| <u>Per 100 Million</u> | | | |
| <u>Passenger-Miles Flown</u> | 0.085 | 0 | -100.0 |

For the and 36 fatal (Figure 2.) W percent of al pilot (39.0 p frequently in followed by p

Type of Accid

The five operations of Figure 3. In accident (75 the next most when the type passenger tri attendant did category was

For fata often are sho 42 fatal acci 1970 through

Phase of Oper

The perc operation is air carrier a in 243 accide is counted in number of acc

The majc operation (41 takeoff (11.C

ACCIDENT CAUSES OR RELATED FACTORS, TYPES
OF ACCIDENTS, AND PHASES OF OPERATION
5-YEAR SUMMARY, 1970 THROUGH 1974

Cause/Factor

3) For the 5-year period, 1970 through 1974, there were 228 accidents and 36 fatal accidents in which causal determinations were made. (See Figure 2.) Weather was cited as a cause or related factor in 47.4 percent of all the accidents, followed by personnel (44.3 percent), and pilot (39.0 percent). In fatal accidents, the pilot was cited most frequently in the causal area (55.6 percent of the fatal accidents), followed by personnel (41.7 percent), and weather (38.9 percent).

Type of Accident

+ 66.7
-100.0
-100.0
-100.0
The five types of accidents which occurred most frequently in all operations of U. S. air carriers from 1970 through 1974 are shown in Figure 3. In 243 accidents, turbulence was the most frequent type of accident (75 accidents), and it occurred almost three times as often as the next most frequent accident type. "Miscellaneous/other" was used when the type of accident was unusual; for example, when an elderly passenger tripped on stairs and was seriously injured, or when an attendant did not hear the call bell, and fell and broke an arm, this category was used.

o change
-100.0
For fatal accidents, the five types of accidents which occurred most often are shown in Figure 4. These five types accounted for 27 of the 42 fatal accidents (64.3 percent) which occurred during the 5-year period, 1970 through 1974.

Phase of Operation

-100.0
The percentage distribution of the air carrier accidents by phase of operation is displayed in Figure 5. Because of three collisions between air carrier aircraft, there are 246 accident records for aircraft involved in 243 accidents. When a collision occurs, each aircraft accident record is counted in the appropriate phase of operation category; hence, the number of accident records exceeds the actual number of accidents.

The majority of accidents occurred during the in-flight phase of operation (41.9 percent), followed by landing (29.7 percent), and then takeoff (11.0 percent).

Of the 103 accidents which occurred during the in-flight phase of operation, 70 were caused by turbulence. The leading causes/factors of these 103 accidents were seatbelt not fastened, turbulence associated with clouds or thunderstorms, and clear-air turbulence.

Figure 6 shows the percentage distribution of fatal accidents by phase of operation. Most fatal accidents occurred during landing (46.5 percent), followed by in-flight (25.6 percent), and then takeoff (14.0 percent). The leading causes/factors of the fatal accidents in the landing phase of operation were improper IFR operation, poor crew coordination, low ceiling, and fog.

CAUSES OR RELATED FACTORS PERCENTAGE DISTRIBUTION

U.S. AIR CARRIERS

1970 - 1974

CAUSES OR
RELATED FACTORS

Weather



Phase of
Factors of
Associated

ents by
ng
takeoff
ents in
or crew

CAUSES OR RELATED FACTORS PERCENTAGE DISTRIBUTION U.S. AIR CARRIERS 1970 - 1974

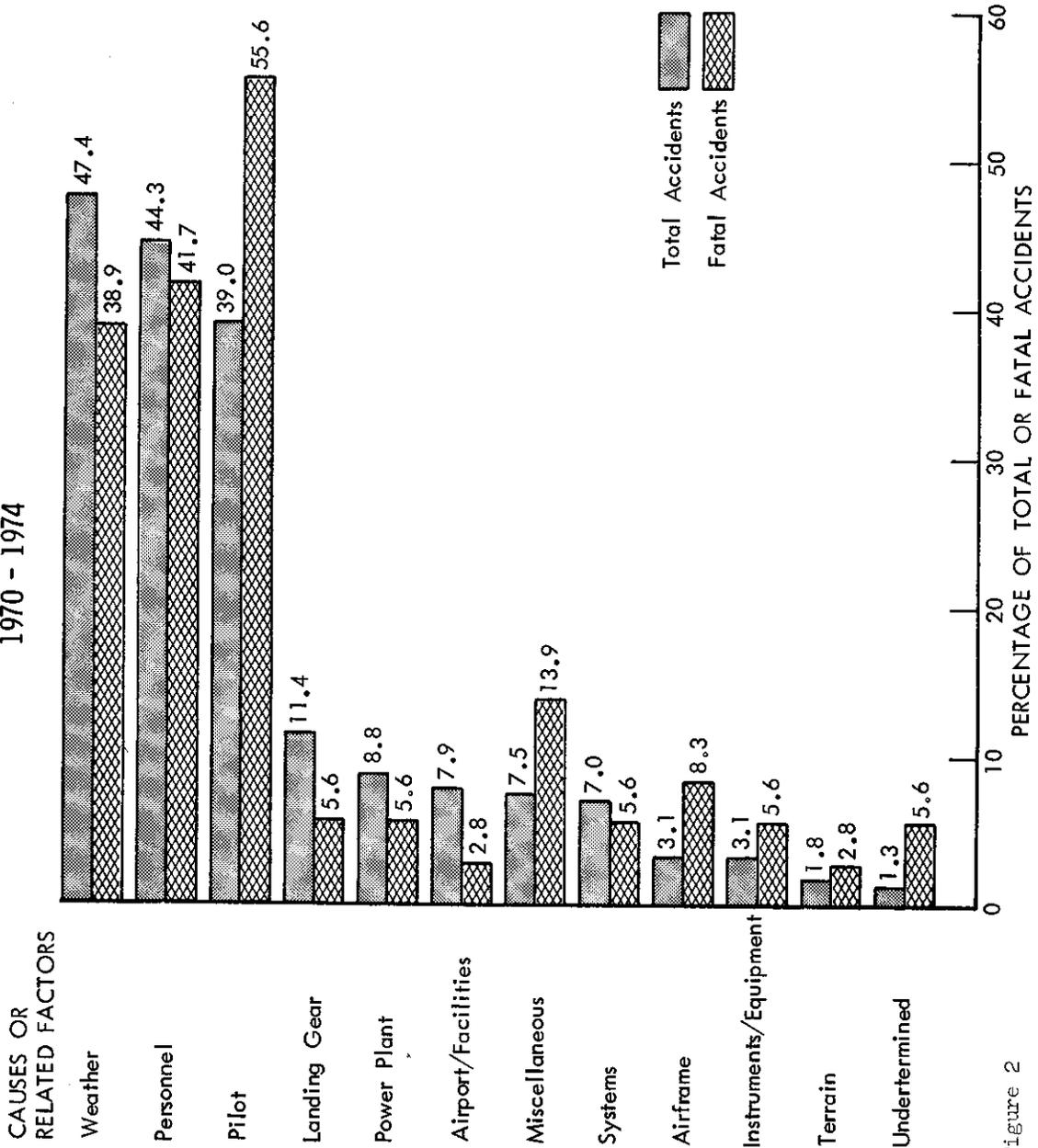


Figure 2

FIVE MOST PREVALENT ACCIDENT TYPES
 U.S. AIR CARRIERS
 1970 - 1974

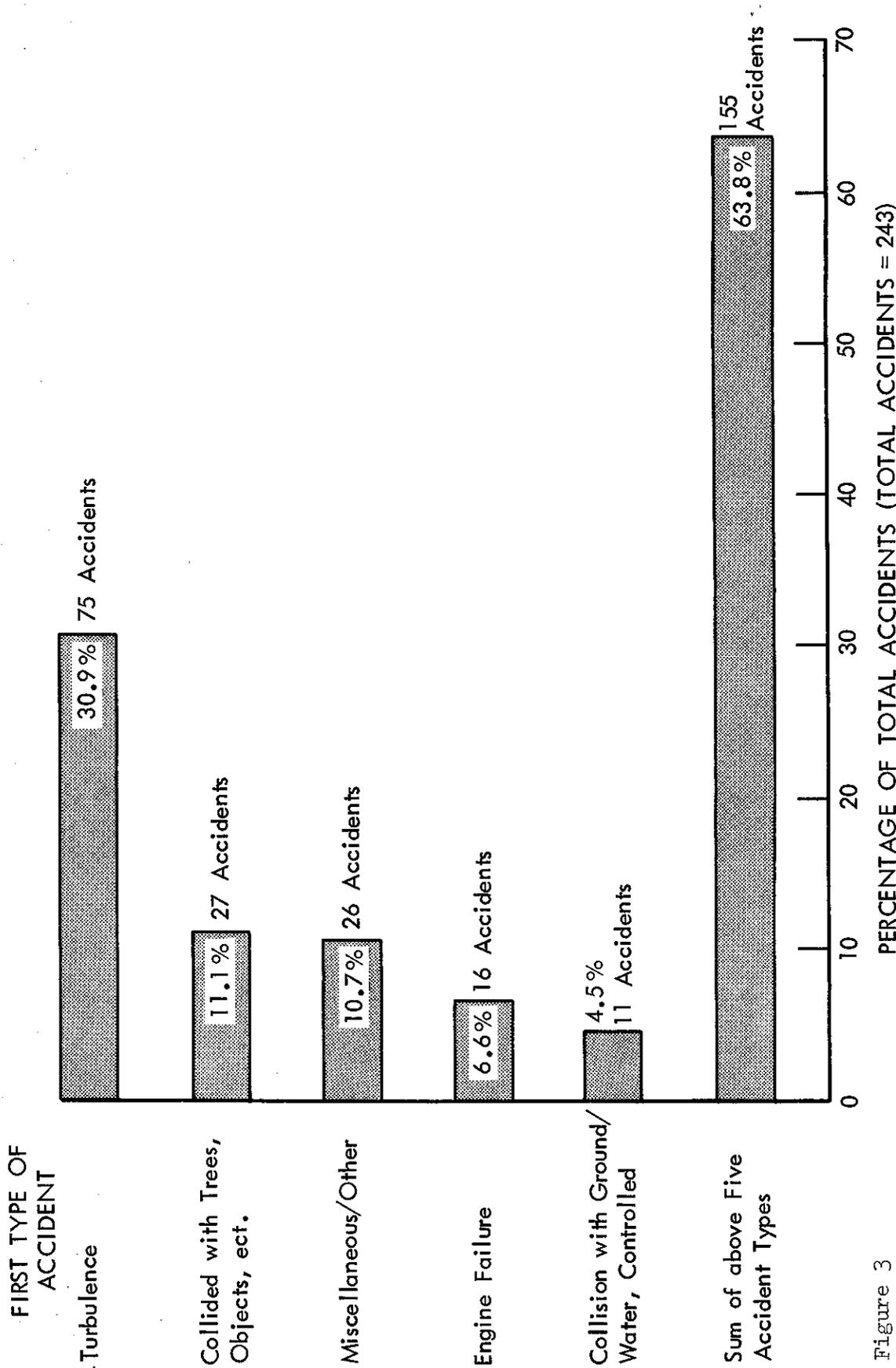


Figure 3

FIVE MOST PREVALENT FATAL ACCIDENT TYPES
 U.S. AIR CARRIERS
 1970 - 1974

FIRST TYPE OF

Figure 3

PERCENTAGE OF TOTAL ACCIDENTS (TOTAL ACCIDENTS = 243)

FIVE MOST PREVALENT FATAL ACCIDENT TYPES U.S. AIR CARRIERS 1970 - 1974

FIRST TYPE OF
ACCIDENT

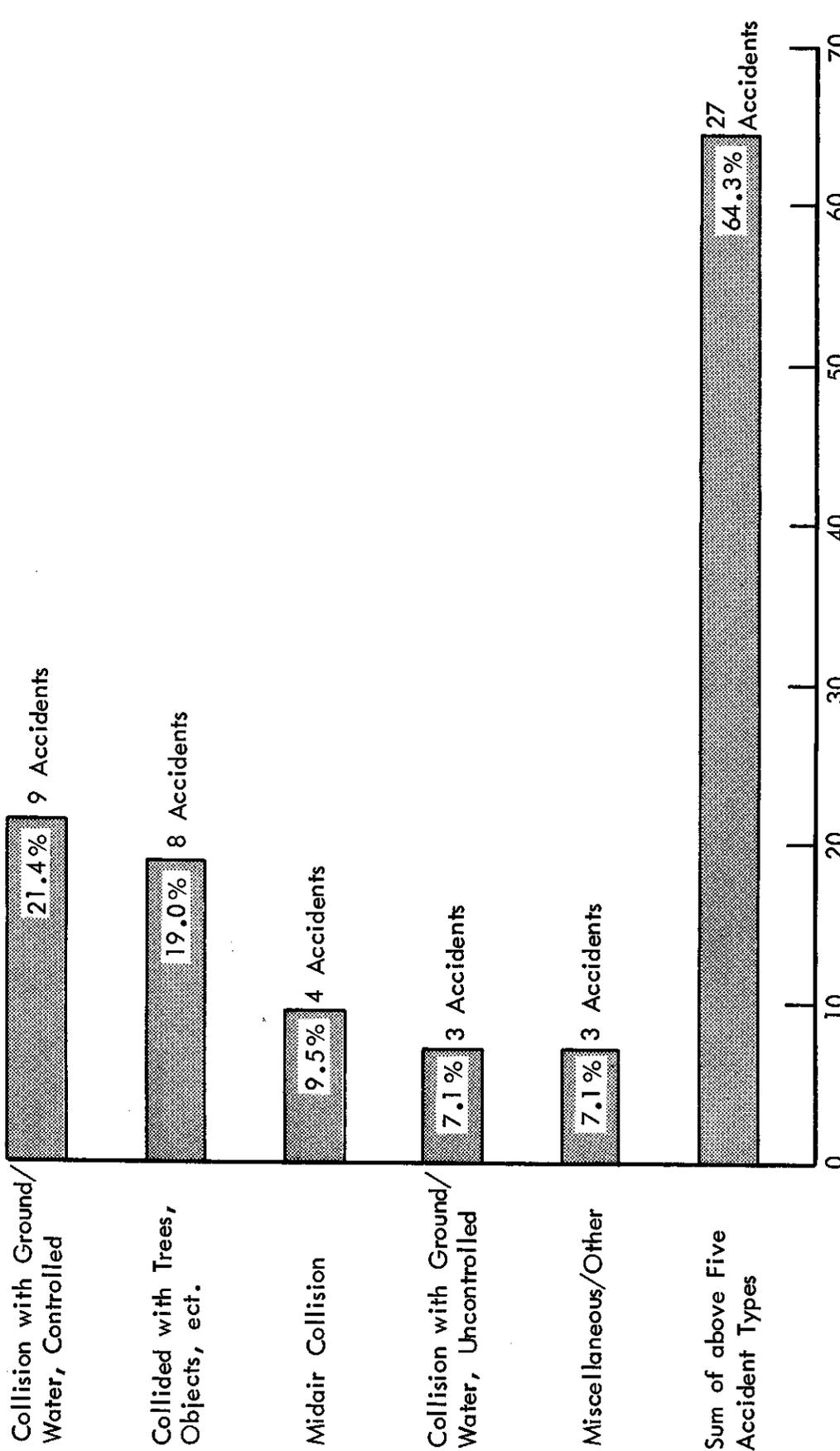


Figure 4

PERCENTAGE OF FATAL ACCIDENTS (FATAL ACCIDENTS = 42)

PHASE OF OPERATION
TOTAL ACCIDENTS
U.S. AIR CARRIERS
1970 - 1974

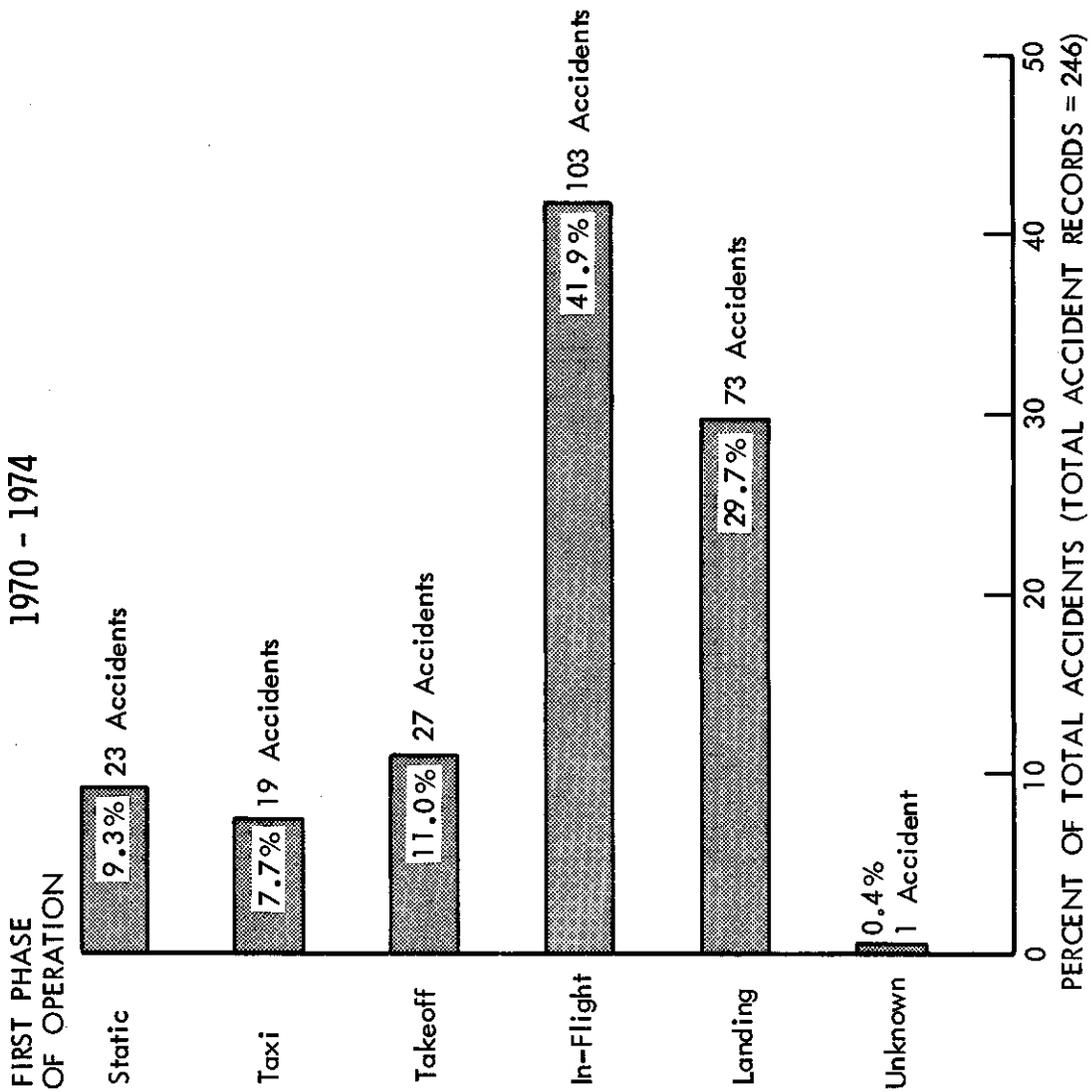


Figure 5

PHASE OF OPERATION
FATAL ACCIDENTS
U.S. AIR CARRIERS
1970 - 1974

FIRST PHASE

PHASE OF OPERATION
FATAL ACCIDENTS
U.S. AIR CARRIERS
1970 - 1974

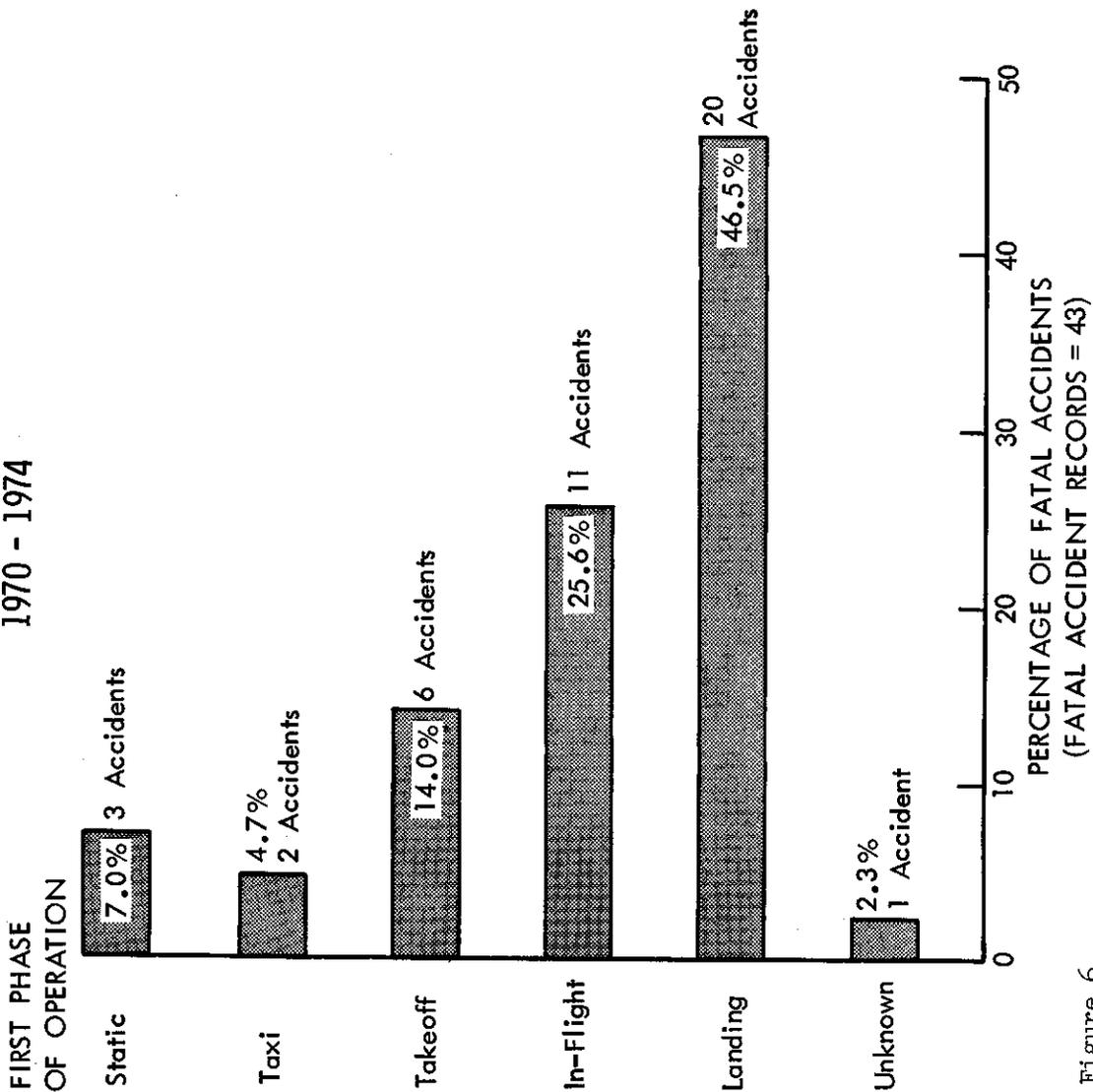


Figure 5

Figure 6

APPENDIX A

TABLES

FATAL ACCIDENTS - FATALITIES
 U. S. AIR CARRIERS
 (ALL OPERATIONS)
 1974

| DATE | LOCATION | OPER/SERV/ACFT/DMGE | FATALITIES | | | | TOTAL ABOARD | REPORTED TYPE OF ACCIDENT | | | |
|---------------------------------|-------------------------------------|--------------------------|------------|----|-----|-----|-----------------|---------------------------------|-----|---|--|
| | | | PSG | CR | OTH | TOT | | | | | |
| CERTIFICATED ROUTE AIR CARRIERS | | | | | | | | | | | |
| 013074 | PAGO PAGO, SAMOA. | PAA PSG, SI | B-707 | D | 86 | 10 | 0 | 96 | 101 | CRASHED DURING LANDING | |
| 020274 | NR. HONOLULU, HAWAII | PAA PSG, SI | B-747 | N | 1 | 0 | 0 | 1 | 299 | INFANT STRANGLER BY SEAT BELT ENROUTE | |
| 042274 | IS. OF BALI, REP. OF INDONESIA | PAA PSG, SI | B-707 | D | 96 | 11 | 0 | 107 | 107 | CRASHED DURING LANDING. | |
| 090874 | IONIAN SEA 215 MI WEST OF ATHENS | TWA PSG, SI | B-707 | D | 79 | 9 | 0 | 88 | 88 | CRASHED ENROUTE SABOTAGE | |
| 091174 | CHARLOTTE, N.C. | EAL PSG, SD | DC-9 | D | 69 | 2 | 0 | 71 | 82 | CRASHED DURING LANDING | |
| 120174 | BERRYVILLE, VA. | TWA PSG, SD | B-727 | D | 85 | 7 | 0 | 92 | 92 | CRASHED DURING APPROACH TO LDG | |
| 120174 | NR. THIELLS, NEW YORK | NWA FERRY D | B-727 | D | 0 | 3 | 0 | 3 | 3 | CRASHED ENROUTE | |
| 121174 | NR. KODIAK, ALASKA. | KWA PSG, SD | G-21 | D | 4 | 1 | 0 | 5 | 5 | MISSING AIRCRAFT- CRASHED ENROUTE 2 BODIES RECOVERED | |
| SUPPLEMENTAL AIR CARRIERS | | | | | | | | | | | |
| 052374 | SPRINGFIELD, ILL. | SAAX CRG, D MIL. CTR. | L-382 | D | 1 | 3 | 0 | 4 | 4 | THUNDERSTORM TURBULENCE AIR- FRAME FAILURE ENROUTE | |
| | | | | | --- | --- | --- | --- | | | |
| TOTAL | | | | | 421 | 46 | 0 | 467 | 781 | | |

ACCIDENTS, ACCIDENT RATES AND FATALITIES
U. S. CERIFICATED ROUTE AND SUPPLEMENTAL AIR CARRIERS
(ALL OPERATIONS)
1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | | AIRCRAFT- HOURS FLOWN | ACCIDENT RATE PER 100,000 AIRCRAFT-HOURS FLOWN | |
|------|-----------|-------|------------|------|-----|--------------------------|--|--------------------|
| | TOTAL | FATAL | PASG | CREW | OTH | | TOTAL ACCIDENTS | FATAL ACCIDENTS |
| 1964 | 79 | 13 | 202 | 35 | 1 | 4,312,764 | 1.809 | 0.278 |
| 1965 | 83 | 9 | 226 | 35 | 0 | 4,690,882 | 1.769 | 0.192 |
| 1966 | 75 | 8 | 137 | 27 | 108 | 5,104,984 | 1.469 | 0.157 |
| 1967 | 70 | 12 | 229 | 39 | 18 | 5,868,842 | 1.193 | 0.204 |
| 1968 | 71 | 15* | 306 | 37 | 6 | 6,404,260 | 1.109 | 0.203 |
| 1969 | 63 | 10* | 132 | 22 | 4 | 6,740,199 | 0.935 | 0.134 |
| 1970 | 55 | 8 | 118 | 24 | 4 | 6,470,351 | 0.850 | 0.124 |
| 1971 | 48 | 8* | 174 | 23 | 6 | 6,386,662 | 0.752 | 0.094 |
| 1972 | 50 | 8 | 160 | 17 | 13 | 6,302,160 | 0.793 | 0.127 |
| 1973 | 43 | 9 | 200 | 26 | 1 | 6,504,819 | 0.661 | 0.138 |
| 1974 | 47 | 9 | 421 | 46 | 0 | 5,978,480 | 0.769 | 0.134 |

* INCLUDES MIDAIR COLLISIONS NONFATAL TO AIR CARRIER OCCUPANTS,
EXCLUDED IN FATAL ACCIDENT RATES (1968--2, 1969--1, 1971--2).

NOTE--SABOTAGE ACCIDENTS OCCURRING 5/7/64 AND 9/8/74 ARE
INCLUDED IN ALL COMPUTATIONS EXCEPT RATES.

ACCIDENTS, ACCIDENT RATES AND FATALITIES
U. S. CERIFICATED ROUTE AND SUPPLEMENTAL AIR CARRIERS
(ALL OPERATIONS)
1964 - 1974

ACCIDENT RATE
PER MILLION
AIRCRAFT-MILES FLOWN

NOTE--SABOTAGE ACCIDENTS OCCURRING 5/7/64 AND 9/8/74 ARE INCLUDED IN ALL COMPUTATIONS EXCEPT RATES.

U. S. ACCIDENTS, ACCIDENT RATES AND FATALITIES
 CERTIFICATED ROUTE AND SUPPLEMENTAL AIR CARRIERS
 (ALL OPERATIONS)
 1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | | AIRCRAFT- MILES FLOWN (000) | ACCIDENT RATE PER MILLION AIRCRAFT-MILES FLOWN | |
|------|-----------|-------|------------|------|-----|-----------------------------------|--|--------------------|
| | TOTAL | FATAL | PASG | CREW | OTH | | TOTAL ACCIDENTS | FATAL ACCIDENTS |
| 1964 | 79 | 13 | 202 | 35 | 1 | 1,336,867** | 0.058 | 0.009 |
| 1965 | 83 | 9 | 226 | 35 | 0 | 1,536,395** | 0.054 | 0.006 |
| 1966 | 75 | 8 | 137 | 27 | 108 | 1,768,458** | 0.042 | 0.005 |
| 1967 | 70 | 12 | 229 | 39 | 18 | 2,179,739** | 0.032 | 0.006 |
| 1968 | 71 | 15* | 306 | 37 | 6 | 2,498,848** | 0.028 | 0.005 |
| 1969 | 63 | 10* | 132 | 22 | 4 | 2,736,596** | 0.023 | 0.003 |
| 1970 | 55 | 8 | 118 | 24 | 4 | 2,684,552** | 0.020 | 0.003 |
| 1971 | 48 | 8* | 174 | 23 | 6 | 2,660,731** | 0.018 | 0.002 |
| 1972 | 50 | 8 | 160 | 17 | 13 | 2,619,043** | 0.019 | 0.003 |
| 1973 | 43 | 9 | 200 | 26 | 1 | 2,646,669** | 0.016 | 0.003 |
| 1974 | 47 | 9 | 421 | 46 | 0 | 2,464,295** | 0.019 | 0.003 |

* INCLUDES MIDAIR COLLISIONS NONFATAL TO AIR CARRIER OCCUPANTS,
 EXCLUDED IN FATAL ACCIDENT RATES (1968--2, 1969--1, 1971--2).

** NONREVENUE MILES OF THE SUPPLEMENTAL AIR CARRIERS ARE NOT REPORTED.

NOTE--SABOTAGE ACCIDENTS OCCURRING 5/7/64 AND 9/8/74 ARE INCLUDED IN ALL COMPUTATIONS EXCEPT RATES.

ACCIDENTS, ACCIDENT RATES AND FATALITIES
 U. S. CERTIFICATED ROUTE CARRIERS
 (ALL OPERATIONS)
 1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | | AIRCRAFT-- MILES FLOWN (000) | ACCIDENT RATE PER MILLION AIRCRAFT-MILES FLOWN | | |
|------|-----------|-------|------------|------|-----|------------------------------------|--|--------------------|--------------------|
| | TOTAL | FATAL | PASG | CREW | OTH | | TOT | TOTAL ACCIDENTS | FATAL ACCIDENTS |
| 1964 | 70 | 12 | 200 | 33 | 1 | 234 | 1,286,029 | 0.054 | 0.009 |
| 1965 | 73 | 8 | 226 | 30 | 0 | 256 | 1,473,744 | 0.050 | 0.005 |
| 1966 | 69 | 6 | 59 | 20 | 107 | 186 | 1,683,547 | 0.041 | 0.004 |
| 1967 | 66 | 11 | 229 | 36 | 18 | 283 | 2,083,668 | 0.032 | 0.005 |
| 1968 | 62 | 14* | 305 | 37 | 6 | 348 | 2,385,309 | 0.026 | 0.005 |
| 1969 | 61 | 10* | 132 | 22 | 4 | 158 | 2,620,803 | 0.023 | 0.003 |
| 1970 | 49 | 5 | 72 | 9 | 4 | 85 | 2,591,706 | 0.019 | 0.002 |
| 1971 | 47 | 8* | 174 | 23 | 6 | 203 | 2,557,968 | 0.018 | 0.002 |
| 1972 | 48 | 8 | 160 | 17 | 13 | 190 | 2,526,021 | 0.019 | 0.003 |
| 1973 | 40 | 8 | 197 | 23 | 1 | 221 | 2,555,732 | 0.016 | 0.003 |
| 1974 | 45 | 8 | 420 | 43 | 0 | 463 | 2,384,933 | 0.018 | 0.003 |

* INCLUDES MIDAIR COLLISIONS NONFATAL TO AIR CARRIER OCCUPANTS,
 EXCLUDED IN FATAL ACCIDENT RATES (1968--2, 1969--1, 1971--2).

NOTE--SABOTAGE ACCIDENTS OCCURRING 5/7/64 AND 9/8/74 ARE
 INCLUDED IN ALL COMPUTATIONS EXCEPT RATES.

EXCLUDED IN FATAL ACCIDENT COMPUTATIONS EXCEPT RATES.

NOTE--SABOTAGE ACCIDENTS OCCURRING 5/7/64 AND 9/8/74 ARE INCLUDED IN ALL COMPUTATIONS EXCEPT RATES.

ACCIDENTS, ACCIDENT RATES
CERTIFICATED ROUTE AIR CARRIERS
ALL SCHEDULED SERVICE
1964 - 1974

| YEAR | ACCIDENTS | | AIRCRAFT- MILES FLOWN (000) | AIRCRAFT- HOURS FLOWN | DEPARTURES | PER MILLION AIRCRAFT-MILES | | PER 100,000 AIRCRAFT-HOURS | | PER 100,000 DEPARTURES | |
|------|-----------|-------|-----------------------------------|--------------------------|------------|-------------------------------|--------------------|-------------------------------|--------------------|------------------------|--------------------|
| | TOTAL | FATAL | | | | TOTAL ACCIDENTS | FATAL ACCIDENTS | TOTAL ACCIDENTS | FATAL ACCIDENTS | TOTAL ACCIDENTS | FATAL ACCIDENTS |
| 1964 | 59 | 11 | 1,189,135 | 3,774,771 | 3,954,083 | 0.049 | 0.008 | 1.537 | 0.265 | 1.467 | 0.253 |
| 1965 | 65 | 8 | 1,353,499 | 4,071,987 | 4,197,489 | 0.048 | 0.006 | 1.596 | 0.196 | 1.549 | 0.191 |
| 1966 | 56 | 5 | 1,482,273 | 4,232,982 | 4,373,229 | 0.038 | 0.003 | 1.323 | 0.118 | 1.281 | 0.114 |
| 1967 | 54 | 8 | 1,833,563 | 4,924,080 | 4,945,969 | 0.029 | 0.004 | 1.097 | 0.162 | 1.092 | 0.162 |
| 1968 | 56 | 13* | 2,146,038 | 5,521,931 | 5,299,987 | 0.026 | 0.005 | 1.014 | 0.199 | 1.057 | 0.208 |
| 1969 | 51 | 8 | 2,385,082 | 5,892,254 | 5,377,302 | 0.021 | 0.003 | 0.866 | 0.136 | 0.948 | 0.149 |
| 1970 | 43 | 4 | 2,417,550 | 5,780,503 | 5,100,201 | 0.018 | 0.002 | 0.744 | 0.069 | 0.843 | 0.078 |
| 1971 | 43 | 7* | 2,380,664 | 5,706,270 | 4,999,093 | 0.018 | 0.002 | 0.754 | 0.088 | 0.860 | 0.100 |
| 1972 | 46 | 7 | 2,347,864 | 5,659,485 | 4,966,256 | 0.020 | 0.003 | 0.813 | 0.124 | 0.926 | 0.141 |
| 1973 | 36 | 8 | 2,448,114 | 5,898,575 | 5,133,816 | 0.015 | 0.003 | 0.610 | 0.136 | 0.701 | 0.156 |
| 1974 | 43 | 7 | 2,258,136 | 5,474,495 | 4,725,783 | 0.019 | 0.003 | 0.767 | 0.110 | 0.889 | 0.127 |

* INCLUDES 2 MIDAIR COLLISIONS NONFATAL TO AIR CARRIER OCCUPANTS, EXCLUDED IN FATAL ACCIDENT RATES.

NOTE--SABOTAGE ACCIDENTS OCCURRING 5/7/64 AND 9/8/74 ARE INCLUDED IN ALL COMPUTATIONS EXCEPT RATES.

ACCIDENTS, FATALITIES, FATALITY RATES
U. S. CERTIFICATED ROUTE AIR CARRIERS
SCHEDULED DOMESTIC AND INTERNATIONAL PASSENGER SERVICE
1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | PASSENGERS CARRIED** | PASSENGER- MILES FLOWN (000) | PASG FATALITY RATE PER 100 MILLION PASSENGER- MILES FLOWN | | |
|------|-------------|-----------|------------|-----|-------------------------|------------------------------------|---|-------------|-------|
| | TOTAL FATAL | PASG CREW | OTH | TOT | | | | | |
| 1964 | 53 | 9 | 200 | 26 | 1 | 227 | 81,762,273 | 61,022,488 | 0.261 |
| 1965 | 63 | 7 | 226 | 27 | 0 | 253 | 94,662,314 | 71,796,399 | 0.315 |
| 1966 | 53 | 4 | 59 | 13 | 0 | 72 | 109,390,556 | 83,142,197 | 0.071 |
| 1967 | 51 | 8 | 226 | 24 | 5 | 255 | 132,088,038 | 103,381,996 | 0.219 |
| 1968 | 53 | 13* | 305 | 34 | 6 | 345 | 150,162,701 | 119,612,578 | 0.255 |
| 1969 | 48 | 7 | 132 | 17 | 3 | 152 | 159,213,414 | 132,161,593 | 0.100 |
| 1970 | 39 | 2 | 2 | 0 | 1 | 3 | 171,697,097 | 139,157,806 | 0.001 |
| 1971 | 41 | 6* | 174 | 14 | 6 | 194 | 173,664,737 | 145,678,876 | 0.119 |
| 1972 | 43 | 7 | 160 | 13 | 13 | 186 | 188,938,932 | 159,722,015 | 0.100 |
| 1973 | 32 | 6 | 197 | 20 | 0 | 217 | 202,207,000 | 171,436,549 | 0.115 |
| 1974 | 42 | 7 | 420 | 40 | 0 | 460 | 207,449,006 | 173,349,894 | 0.197 |

* INCLUDES MIDAIR COLLISIONS NONFATAL TO AIR CARRIER OCCUPANTS.

** BEGINNING IN 1970, CARRIERS WERE REQUIRED TO REPORT REVENUE PASSENGER ENPLANEMENTS, WHEREAS PRIOR TO 1970 REVENUE PASSENGER ORIGINATIONS WERE REPORTED.

NOTE--PASSENGER DEATHS OCCURRING IN SABOTAGE ACCIDENTS ARE INCLUDED IN THE PASSENGER FATALITY COLUMN BUT EXCLUDED IN THE COMPUTATION OF PASSENGER FATALITY RATES(1964--41, 1974--79).

ACCIDENTS, FATALITIES, FATALITY RATES
U. S. CERTIFICATED ROUTE AIR CARRIERS
SCHEDULED DOMESTIC PASSENGER SERVICE
1964 - 1974

| ACCIDENTS | FATALITIES | PASSENGER- | PASG FATALITY RATE PER 100 MILLION |
|-----------|------------|------------|--|
|-----------|------------|------------|--|

PASSENGER ORIGINATIONS WERE REPORTED.

NOTE--PASSENGER DEATHS OCCURRING IN SABOTAGE ACCIDENTS ARE INCLUDED IN THE PASSENGER FATALITY COLUMN BUT EXCLUDED IN THE COMPUTATION OF PASSENGER FATALITY RATES(1964--41, 1974--79).

ACCIDENTS, FATALITIES, FATALITY RATES
U. S. CERTIFICATED ROUTE AIR CARRIERS
SCHEDULED DOMESTIC PASSENGER SERVICE
1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | | PASSENGERS CARRIED** | PASSENGER- MILES FLOWN (000) | PASG FATALITY RATE PER 100 MILLION PASSENGER- MILES FLOWN |
|------|-----------|-------|------------|------|-----|-------------------------|------------------------------------|---|
| | TOTAL | FATAL | PASG | CREW | OTH | | | |
| 1964 | 45 | 6 | 106 | 14 | 0 | 120 | 46,044,743 | 0.141 |
| 1965 | 55 | 6 | 205 | 18 | 0 | 223 | 54,254,616 | 0.378 |
| 1966 | 50 | 4 | 59 | 13 | 0 | 72 | 62,964,948 | 0.094 |
| 1967 | 43 | 8 | 226 | 24 | 5 | 255 | 78,911,773 | 0.286 |
| 1968 | 42 | 11* | 258 | 24 | 6 | 288 | 91,668,180 | 0.281 |
| 1969 | 36 | 7 | 132 | 17 | 3 | 152 | 100,815,837 | 0.131 |
| 1970 | 32 | 1 | 0 | 0 | 1 | 1 | 109,183,837 | 0 |
| 1971 | 33 | 6* | 174 | 14 | 6 | 194 | 113,240,603 | 0.154 |
| 1972 | 37 | 6 | 160 | 13 | 12 | 185 | 123,775,960 | 0.129 |
| 1973 | 27 | 4 | 128 | 10 | 0 | 138 | 133,733,181 | 0.096 |
| 1974 | 31 | 3 | 158 | 10 | 0 | 168 | 137,657,951 | 0.115 |

* INCLUDES 2 MIDAIR COLLISIONS NONFATAL TO AIR CARRIER OCCUPANTS.

** BEGINNING IN 1970, CARRIERS WERE REQUIRED TO REPORT REVENUE PASSENGER ENPLANEMENTS, WHEREAS PRIOR TO 1970 REVENUE PASSENGER ORIGINATIONS WERE REPORTED.

NOTE--PASSENGER DEATHS OCCURRING IN SABOTAGE ACCIDENTS ARE INCLUDED IN THE PASSENGER FATALITY COLUMN BUT EXCLUDED IN THE COMPUTATION OF PASSENGER FATALITY RATES(1964--41).

ACCIDENTS, FATALITIES, FATALITY RATES
 U. S. CERTIFICATED ROUTE AIR CARRIERS
 SCHEDULED INTERNATIONAL PASSENGER SERVICE
 1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | | PASSENGERS CARRIED* | PASSENGER- MILES FLOWN (000) | PASG FATALITY RATE PER 100 MILLION PASSENGER- MILES FLOWN | |
|------|-----------|-------|------------|------|-----|------------------------|------------------------------------|---|-------|
| | TOTAL | FATAL | PASG | CREW | OTH | | | | TOT |
| 1964 | 8 | 3 | 94 | 12 | 1 | 107 | 8,774,537 | 14,977,745 | 0.628 |
| 1965 | 8 | 1 | 21 | 9 | 0 | 30 | 10,195,430 | 17,541,783 | 0.120 |
| 1966 | 3 | 0 | 0 | 0 | 0 | 0 | 11,644,990 | 20,177,249 | 0 |
| 1967 | 8 | 0 | 0 | 0 | 0 | 0 | 13,424,496 | 24,470,223 | 0 |
| 1968 | 11 | 2 | 47 | 10 | 0 | 57 | 15,728,069 | 27,944,398 | 0.168 |
| 1969 | 12 | 0 | 0 | 0 | 0 | 0 | 16,849,379 | 31,345,756 | 0 |
| 1970 | 7 | 1 | 2 | 0 | 0 | 2 | 16,599,453 | 29,973,969 | 0.007 |
| 1971 | 8 | 0 | 0 | 0 | 0 | 0 | 17,567,334 | 32,438,273 | 0 |
| 1972 | 6 | 1 | 0 | 0 | 1 | 1 | 19,007,517 | 35,946,055 | 0 |
| 1973 | 5 | 2 | 69 | 10 | 0 | 79 | 18,936,000 | 37,703,368 | 0.183 |
| 1974 | 12 | 4 | 262 | 30 | 0 | 292 | 17,725,309 | 35,691,093 | 0.513 |

* BEGINNING IN 1970, CARRIERS WERE REQUIRED TO REPORT REVENUE
 PASSENGER ENPLANEMENTS, WHEREAS PRIOR TO 1970 REVENUE
 PASSENGER ORIGINATIONS WERE REPORTED.

NOTE--PASSENGER DEATHS OCCURRING IN SABOTAGE ACCIDENTS ARE INCLUDED
 IN PASSENGER FATALITY COLUMN BUT EXCLUDED IN THE COMPUTATION
 OF PASSENGER FATALITY RATES (1974--79).

ACCIDENTS, ACCIDENT RATES AND FATALITIES
 U. S. SUPPLEMENTAL AIR CARRIERS
 (ALL OPERATIONS)
 1964 - 1974

ACCIDENT RATE

PASSENGER ORIGINATIONS WERE REPORTED.

NOTE---PASSENGER DEATHS OCCURRING IN SABOTAGE ACCIDENTS ARE INCLUDED
 IN PASSENGER FATALITY COLUMN BUT EXCLUDED IN THE COMPUTATION
 OF PASSENGER FATALITY RATES (1974--79).

ACCIDENTS, ACCIDENT RATES AND FATALITIES
 U. S. SUPPLEMENTAL AIR CARRIERS
 (ALL OPERATIONS)
 1964 - 1974

| YEAR | ACCIDENTS | | FATALITIES | | | AIRCRAFT MILES FLOWN (000) | ACCIDENT RATE PER MILLION AIRCRAFT-MILES FLOWN | |
|------|-----------|-------|------------|------|-----|----------------------------------|--|--------------------|
| | TOTAL | FATAL | PASG | CREW | OTH | | TOTAL ACCIDENTS | FATAL ACCIDENTS |
| 1964 | 9 | 1 | 2 | 2 | 0 | 50,838* | 0.177 | 0.020 |
| 1965 | 10 | 1 | 0 | 5 | 0 | 62,651* | 0.160 | 0.016 |
| 1966 | 6 | 2 | 78 | 7 | 1 | 84,911* | 0.071 | 0.024 |
| 1967 | 4 | 1 | 0 | 3 | 0 | 96,071* | 0.042 | 0.010 |
| 1968 | 9 | 1 | 1 | 0 | 0 | 113,540* | 0.079 | 0.009 |
| 1969 | 2 | 0 | 0 | 0 | 0 | 115,793* | 0.017 | 0 |
| 1970 | 6 | 3 | 46 | 15 | 0 | 92,846* | 0.065 | 0.032 |
| 1971 | 1 | 0 | 0 | 0 | 0 | 102,763* | 0.010 | 0 |
| 1972 | 2 | 0 | 0 | 0 | 0 | 93,022* | 0.022 | 0 |
| 1973 | 3 | 1 | 3 | 3 | 0 | 90,937* | 0.033 | 0.011 |
| 1974 | 2 | 1 | 1 | 3 | 0 | 79,363* | 0.025 | 0.013 |

* NONREVENUE MILES NOT REPORTED.

ACCIDENTS, FATALITIES, FATALITY RATES
U. S. SUPPLEMENTAL AIR CARRIERS
PASSENGER OPERATIONS (CIVIL AND MILITARY)
1964 - 1974

| YEAR | ACCIDENTS | | | FATALITIES | | | PASSENGERS CARRIED | PASSENGER- MILES FLOWN (000) | PASG FATALITY RATE PER 100 MILLION PASSENGER- MILES FLOWN |
|------|-----------|-------|------|------------|-----|-----|-----------------------|------------------------------------|---|
| | TOTAL | FATAL | PASG | CREW | OTH | TOT | | | |
| 1964 | 0 | 0 | 0 | 0 | 0 | 0 | 674,489 | 1,502,018 | 0 |
| 1965 | 0 | 0 | 0 | 0 | 0 | 0 | 1,060,206 | 2,489,173 | 0 |
| 1966 | 1 | 1 | 78 | 5 | 0 | 83 | 1,597,911 | 4,125,445 | 1.891 |
| 1967 | 0 | 0 | 0 | 0 | 0 | 0 | 2,315,820 | 5,995,901 | 0 |
| 1968 | 3 | 1 | 1 | 0 | 0 | 1 | 2,669,466 | 8,885,783 | 0.011 |
| 1969 | 0 | 0 | 0 | 0 | 0 | 0 | 3,705,975 | 11,134,706 | 0 |
| 1970 | 2 | 1 | 46 | 1 | 0 | 47 | 2,950,224 | 10,288,728 | 0.447 |
| 1971 | 0 | 0 | 0 | 0 | 0 | 0 | 3,295,803 | 10,573,646 | 0 |
| 1972 | 0 | 0 | 0 | 0 | 0 | 0 | 3,473,599 | 10,049,683 | 0 |
| 1973 | 1 | 0 | 0 | 0 | 0 | 0 | 3,569,912 | 11,790,513 | 0 |
| 1974 | 1 | 0 | 0 | 0 | 0 | 0 | 3,194,463 | 10,862,449 | 0 |

- FIRST
TYPE OF ACCIDENT
- GROUND-WATER LOOP-SI
 - DRAGGED WINGTIP POD
 - WHEELS-UP LANDING
 - WHEELS-DOWN LANDING
 - GEAR COLLAPSED
 - GEAR RETRACTED
 - HARD LANDING
 - NOSE OVER/DOWN
 - ROLL OVER
 - OVERSHOOT
 - UNDERSHOOT
 - COLLISION BETWEEN AIR
 - BOTH IN FLIGHT
 - ONE AIRBORNE
 - BOTH ON GROUND
 - COLLISION WITH GROUND
 - CONTROLLED
 - UNCONTROLLED
 - COLLIDED WITH
 - WIRES/POLES
 - TREES
 - RESIDENCE/S
 - BUILDING/S
 - FENCE, FENCEPOSTS
 - ELECTRONIC TOWERS
 - RUNWAY OR APPROACH LIC
 - AIRPORT HAZARD
 - ANIMALS
 - CROP
 - FLAGMAN LOADER
 - DITCHES
 - SNOWBANK
 - PARKED AIRCRAFT (UNATT
 - AUTOMOBILE

FIRST TYPE OF ACCIDENT BY INJURY INDEX
U. S. AIR CARRIERS
ALL OPERATIONS
1974

INJURY INDEX

| 1973 | 1 | 1974 | 1 | FIRST TYPE OF ACCIDENT | INJURY INDEX | | | | RECORDS | ACCIDENTS |
|------------|---|------------|---|------------------------------------|--------------|---------|-------|------|---------|-----------|
| | | | | | FATAL | SERIOUS | MINOR | NONE | | |
| 0 | | 0 | | GROUND-WATER LOOP-SWERVE | | | | 1 | | 1 |
| | | | | DRAGGED WINGTIP POD OR FLOAT | | | | | | |
| | | | | WHEELS-UP LANDING | | | | | | |
| | | | | WHEELS-DOWN LANDING IN WATER | | | | | | |
| | | | | GEAR COLLAPSED | | | | | | |
| | | | | GEAR RETRACTED | | | | | | |
| 11,790,513 | | 10,862,449 | | HARD LANDING | 1 | | | 1 | | 1 |
| | | | | NOSE OVER/DOWN | | | | | | |
| | | | | ROLL OVER | | | | | | |
| | | | | OVERSHOOT | | | | | | |
| | | | | UNDERSHOOT | 1 | | | 1 | | 1 |
| | | | | <u>COLLISION BETWEEN AIRCRAFT</u> | | | | | | |
| | | | | BOTH IN FLIGHT | | | | | | |
| | | | | ONE AIRBORNE | | | | | | |
| | | | | BOTH ON GROUND | | | 3 | 3 | | 2 |
| | | | | <u>COLLISION WITH GROUND/WATER</u> | | | | | | |
| | | | | CONTROLLED | 3 | | | 3 | | 3 |
| | | | | UNCONTROLLED | | | | | | |
| | | | | <u>COLLIDED WITH</u> | | | | | | |
| | | | | WIRES/POLES | | | | | | |
| | | | | TREES | | | | | | |
| | | | | RESIDENCE/S | | | | | | |
| | | | | BUILDING/S | | | | | | |
| | | | | FENCE, FENCEPOSTS | | | | | | |
| | | | | ELECTRONIC TOWERS | | | | | | |
| | | | | RUNWAY OR APPROACH LIGHTS | | | 1 | 1 | | 1 |
| | | | | AIRPORT HAZARD | | | 1 | 1 | | 1 |
| | | | | ANIMALS | | | | | | |
| | | | | CROP | | | | | | |
| | | | | FLAGMAN LOADER | | | | | | |
| | | | | DITCHES | | | | | | |
| | | | | SNOWBANK | | | 1 | 1 | | 1 |
| | | | | PARKED AIRCRAFT (UNATTENDED) | | | 1 | 1 | | 1 |
| | | | | AUTOMOBILE | | | | | | |

INJURY INDEX

FIRST TYPE OF ACCIDENT

FATAL
SERIOUS
MINOR
NONE

RECORDS ACCIDENTS

| FIRST TYPE OF ACCIDENT | FATAL | SERIOUS | MINOR | NONE |
|--------------------------------|-------|---------|-------|------|
| DIRT BANK | | | | |
| OTHER | | | 1 | |
| BIRD STRIKE | | | | |
| <u>STALL</u> | | | | |
| SPIN | | | | |
| SPIRAL | | | | |
| MUSH | | | | |
| <u>FIRE OR EXPLOSION</u> | | | | |
| IN FLIGHT | 1 | 1 | | |
| ON GROUND | | | | |
| <u>AIRFRAME FAILURE</u> | | | | |
| IN FLIGHT | 2 | | 1 | |
| ON GROUND | | 2 | | |
| ENGINE TEARAWAY | | | | |
| ENGINE FAILURE OR MALFUNCTION | | 1 | | |
| <u>PROPELLER/ROTOR FAILURE</u> | | | | |
| PROPELLER | | | | |
| TAIL ROTOR | | | | |
| MAIN ROTOR | | | | |
| PROP ROTOR ACNT TO PERSON | | | | |
| JET INTAKE/EXH ACNT TO PERS | | | | |
| PROPELLER/JET/ROTOR BLAST | | | | |
| TURBULENCE | | 16 | | |
| HAIL DAMAGE TO AIRCRAFT | | 1 | | |
| LIGHTNING STRIKE | | | | |
| EVASIVE MANEUVER | | 1 | | |
| UNCONTROLLED ALT DEVIATION | | 1 | | |
| DITCHING | | | | |
| MISSING ACFT NOT RECOVERED | 1 | | | |
| MISCELLANEOUS/OTHER | 1 | 5 | | |
| UNDETERMINED | | | | |
| OTHER | | | | |
| RECORDS | 9 | 29 | 1 | 9 |
| ACCIDENTS | 9 | 29 | 1 | 8 |

FIRST TYPE OF ACCIDENT

- GROUND-WATER LOOP-
- DRAGGED WINGTIP PD
- WHEELS-UP LANDING
- WHEELS-DOWN LANDIN
- GEAR COLLAPSED
- GEAR RETRACTED
- HARD LANDING
- NOSE OVER/DOWN
- ROLL OVER
- OVERSHOOT
- UNDERSHOOT
- COLLISION BETWEEN J
- BOTH IN FLIGHT
- ONE AIRBORNE
- BOTH ON GROUND
- COLLISION WITH GRD:
- CONTROLLED
- UNCONTROLLED
- COLLIDED WITH
- WIRES/POLES
- TREES
- RESIDENCE/S
- BUILDING/S
- FENCE, FENCEPOSTS
- ELECTRONIC TOWERS
- RUNWAY OR APPROACH I
- AIRPORT HAZARD
- ANIMALS
- CROP
- FLAGMAN LOADER
- DITCHES
- SNOWBANK
- PARKED AIRCRAFT (UNA
- AUTOMOBILE

48

47

FIRST TYPE OF ACCIDENT BY AIRCRAFT DAMAGE
U. S. AIR CARRIERS
ALL OPERATIONS
1974

AIRCRAFT DAMAGE

RECORDS ACCIDENTS

| RECORDS | ACCIDENTS | FIRST TYPE OF ACCIDENT | AIRCRAFT DAMAGE | | | | RECORDS | ACCIDENTS |
|---------|-----------|------------------------------------|-----------------|-------------|-------|------|---------|-----------|
| | | | DESTROYED | SUBSTANTIAL | MINOR | NONE | | |
| 1 | 1 | GROUND-WATER LOOP-SWERVE | 1 | | | | 1 | 1 |
| | | DRAGGED WINGTIP POD OR FLOAT | | | | | | |
| | | WHEELS-UP LANDING | | | | | | |
| | | WHEELS-DOWN LANDING IN WATER | | | | | | |
| | | GEAR COLLAPSED | | | | | | |
| 2 | 2 | GEAR RETRACTED | | | | | | |
| | | HARD LANDING | 1 | | | | 1 | 1 |
| | | NOSE OVER/DOWN | | | | | | |
| 3 | 3 | ROLL OVER | | | | | | |
| 2 | 2 | OVERSHOOT | | | | | | |
| | | UNDERSHOOT | 1 | | | | 1 | 1 |
| 1 | 1 | <u>COLLISION BETWEEN AIRCRAFT</u> | | | | | | |
| | | BOTH IN FLIGHT | | | | | | |
| | | ONE AIRBORNE | | | | | | |
| | | BOTH ON GROUND | 1 | 2 | | | 3 | 2 |
| | | <u>COLLISION WITH GROUND/WATER</u> | | | | | | |
| | | CONTROLLED | 3 | | | | 3 | 3 |
| | | UNCONTROLLED | | | | | | |
| | | <u>COLLIDED WITH</u> | | | | | | |
| 16 | 16 | WIRES/POLES | | | | | | |
| 1 | 1 | TREES | | | | | | |
| | | RESIDENCE/S | | | | | | |
| 1 | 1 | BUILDING/S | | | | | | |
| 1 | 1 | FENCE, FENCEPOSTS | | | | | | |
| | | ELECTRONIC TOWERS | | | | | | |
| 1 | 1 | RUNWAY OR APPROACH LIGHTS | 1 | | | | 1 | 1 |
| 6 | 6 | AIRPORT HAZARD | 1 | | | | 1 | 1 |
| | | ANIMALS | | | | | | |
| | | CROP | | | | | | |
| | | FLAGMAN LOADER | | | | | | |
| 48 | 47 | DITCHES | | | | | | |
| | | SNOWBANK | 1 | | | | 1 | 1 |
| | | PARKED AIRCRAFT (UNATTENDED) | 1 | | | | 1 | 1 |
| | | AUTOMOBILE | | | | | | |

AIRCRAFT DAMAGE

FIRST TYPE OF ACCIDENT

DESTROYED
SUBSTANTIAL
MINOR
NONE

RECORDS ACCIDENTS

| | | | | |
|--------------------------------|---|---|----|----|
| DIRT BANK | | | | |
| OTHER | 1 | | | |
| BIRD STRIKE | | | | |
| <u>STALL</u> | | | | |
| SPIN | | | | |
| SPIRAL | | | | |
| MUSH | | | | |
| <u>FIRE OR EXPLOSION</u> | | | | |
| IN FLIGHT | 1 | 1 | | |
| ON GROUND | | | | |
| <u>AIRFRAME FAILURE</u> | | | | |
| IN FLIGHT | 2 | 1 | | |
| ON GROUND | | 2 | | |
| ENGINE TEARAWAY | | | | |
| ENGINE FAILURE OR MALFUNCTION | | 1 | | |
| <u>PROPELLER/ROTOR FAILURE</u> | | | | |
| PROPELLER | | | | |
| TAIL ROTOR | | | | |
| MAIN ROTOR | | | | |
| PROP ROTOR ACNT TO PERSON | | | | |
| JET INTAKE/EXH ACNT TO PERS | | | | |
| PROPELLER/JET/ROTOR BLAST | | | | |
| TURBULENCE | | | 16 | |
| HAIL DAMAGE TO AIRCRAFT | | 1 | | |
| LIGHTNING STRIKE | | | | |
| EVASIVE MANEUVER | | | 1 | |
| UNCONTROLLED ALT DEVIATION | | | 1 | |
| DITCHING | | | | |
| MISSING ACFT NOT RECOVERED | 1 | | | |
| MISCELLANEOUS/OTHER | | 1 | 5 | |
| UNDETERMINED | | | | |
| OTHER | | | | |
| RECORDS | 9 | 8 | 8 | 23 |
| ACCIDENTS | 9 | 8 | 8 | 25 |

FIRST OPERATIONAL

STATIC

STARTING ENGI
IDLING ENGINE
ENGINE RUNUP
IDLING ROTORS
PARKED-ENGINE
OTHER

TAXI

TO TAKEOFF
FROM LANDING
OTHER

GROUND TAXI TO
GROUND TAXI FI
GROUND TAXI, I
AERIAL TAXI TO
AERIAL TAXI TO
AERIAL TAXI, I

TAKEOFF

RUN
INITIAL CLIMB
VERTICAL
RUNNING (ROTOR
ABORTED (FIXED
ABORTED (ROTOR
ABORTED (ROTOR

OTHER

INFLIGHT
CLIMB TO CRUISE
NORMAL CRUISE
DESCENDING
HOLDING (IFR)
HOVERING
POWER-ON DESCE
AUTOROTATIVE D

| | | | | |
|--|---|---|----|----|
| | 1 | 1 | | |
| | | | 2 | 2 |
| | | | 3 | 3 |
| | | | 2 | 2 |
| | | | 1 | 1 |
| | | | | |
| | | | | |
| | | | | |
| | | | 16 | 16 |
| | | | 1 | 1 |
| | | | 1 | 1 |
| | | | 1 | 1 |
| | | | 1 | 1 |
| | | | 6 | 6 |
| | | | | |
| | | | 48 | |
| | | | | 47 |

FIRST PHASE OF OPERATION BY INJURY INDEX
 U. S. AIR CARRIERS
 ALL OPERATIONS
 1974

S ACCIDENTS

INJURY INDEX

| S | ACCIDENTS | FIRST OPERATIONAL PHASE | INJURY INDEX | | | | RECORDS | ACCIDENTS |
|----|-----------|--------------------------------|--------------|---------|-------|------|---------|-----------|
| | | | FATAL | SERIOUS | MINOR | NONE | | |
| 1 | 1 | <u>STATIC</u> | | | | | | |
| | | STARTING ENGINE/S | | | | | | |
| | | IDLING ENGINE/S | | | | | | |
| | | ENGINE RUNUP | | | | | | |
| | | IDLING ROTORS | | | | | | |
| 2 | 2 | PARKED-ENGINES NOT OPERATING | 4 | | | 4 | 4 | |
| | | OTHER | 1 | 1 | | 2 | 2 | |
| | | <u>TAXI</u> | | | | | | |
| 3 | 3 | TO TAKEOFF | | | 3 | 3 | 2 | |
| 2 | 2 | FROM LANDING | | | | | | |
| | | OTHER | | | | | | |
| 1 | 1 | GROUND TAXI TO TAKEOFF | | | | | | |
| | | GROUND TAXI FROM LANDING | | | | | | |
| | | GROUND TAXI, OTHER | | | | | | |
| | | AERIAL TAXI TO TAKEOFF | | | | | | |
| | | AERIAL TAXI TO/FROM LANDING | | | | | | |
| | | AERIAL TAXI, OTHER | | | | | | |
| | | <u>TAKEOFF</u> | | | | | | |
| | | RUN | 3 | 1 | | 4 | 4 | |
| 16 | 16 | INITIAL CLIMB | | | | | | |
| 1 | 1 | VERTICAL | | | | | | |
| | | RUNNING (ROTORCRAFT/VTOL-STOL) | | | | | | |
| 1 | 1 | ABORTED (FIXED-WING) | | | | | | |
| 1 | 1 | ABORTED (ROTORCRAFT/VTOL) | | | | | | |
| | | ABORTED (ROTORCRAFT/STOL) | | | | | | |
| | | OTHER | | | | | | |
| 6 | 6 | <u>INFLIGHT</u> | | | | | | |
| | | CLIMB TO CRUISE | 3 | 1 | | 4 | 4 | |
| | | NORMAL CRUISE | 3 | 7 | | 10 | 10 | |
| | | DESCENDING | | 8 | | 8 | 8 | |
| 4R | | HOLDING (IFR) | | | | | | |
| | 47 | HOVERING | | | | | | |
| | | POWER-DN DESCENT (ROTORCRAFT) | | | | | | |
| | | AUTOROTATIVE DESCENT | | | | | | |

INJURY INDEX

FIRST OPERATIONAL PHASE

FATAL
SERIOUS
MINOR
NONE

RECORDS ACCIDENTS

| | FATAL | SERIOUS | MINOR | NONE | RECORDS | ACCIDENTS |
|-------------------------------|-------|---------|-------|------|---------|-----------|
| ACROBATICS | | | | | | |
| BUZZING | | | | | | |
| UNCONTROLLED DESCENT | 1 | | | | 1 | 1 |
| EMERGENCY DESCENT | | | | | | |
| LOW PASS | | | | | | |
| OTHER | | | | | | |
| EN ROUTE TO TREAT CRDP | | | | | | |
| EN ROUTE TO RELOADING AREA | | | | | | |
| SURVEY FIELD/AREA | | | | | | |
| STARTING SWATH RUN | | | | | | |
| SWATH RUN | | | | | | |
| FLAREOUT FOR SWATH RUN | | | | | | |
| PULLUP FROM SWATH RUN | | | | | | |
| PROCEDURE TURNAROUND | | | | | | |
| CLEANUP SWATH | | | | | | |
| MANEUVER TO AVOID OBSTRUCTION | | | | | | |
| RETURN TO STRIP | | | | | | |
| <u>LANDING</u> | | | | | | |
| TRAFFIC PATTERN-CIRCLING | | | | | | |
| FINAL APPROACH (VFR) | | 1 | | | 1 | 1 |
| INITIAL APPROACH | 2 | 1 | | | 3 | 3 |
| FINAL APPROACH (IFR) | 2 | | | | 2 | 2 |
| LEVEL OFF/TOUCHDOWN | | 1 | | 1 | 2 | 2 |
| ROLL (FIXED WING) | | | 1 | 2 | 3 | 3 |
| ROLL-ON/RUN-ON (ROTORCRAFT) | | | | | | |
| POWER-ON LANDING (ROTORCRAFT) | | | | | | |
| POWER-OFF AUTOROTATIVE LGD | | | | | | |
| GO-AROUND (VFR) | | | | | | |
| MISSED APPROACH (IFR) | | | | | | |
| OTHER | | | | | | |
| UNKNOWN/NOT REPORTED | 1 | | | | 1 | 1 |
| RECORDS | 9 | 29 | 1 | 9 | 48 | |
| ACCIDENTS | 9 | 29 | 1 | 8 | | 47 |

FIRST OPERATIONAL PHA

STATIC

STARTING ENGINE/S
IDLING ENGINE/S
ENGINE RUNUP
IDLING ROTORS
PARKED-ENGINES NO
OTHER

TAXI

TO TAKEOFF
FROM LANDING
OTHER

GROUND TAXI TO TA
GROUND TAXI FROM
GROUND TAXI, OTHE
AERIAL TAXI TO T
AERIAL TAXI TO/FF
AERIAL TAXI, OTHI

TAKEOFF

RUN
INITIAL CLIMB
VERTICAL
RUNNING (ROTORCR
ABORTED (FIXED-W
ABORTED (ROTORCR
ABORTED (ROTORCR

OTHER

INFLIGHT

CLIMB TO CRUISE
NORMAL CRUISE
DESCENDING
HOLOING (IFR)
HOVERING
POWER-ON DESCEN
AUTOROTATIVE DE

FIRST PHASE OF OPERATION BY AIRCRAFT DAMAGE
U. S. AIR CARRIERS
ALL OPERATIONS
1974

AIRCRAFT DAMAGE

DESTROYED
SUBSTANTIAL
MINOR
NONE

FIRST OPERATIONAL PHASE

RECORDS ACCIDENTS

STATIC

STARTING ENGINE/S

IDLING ENGINE/S

ENGINE RUNUP

IDLING ROTORS

PARKE-ENGINES NOT OPERATING

OTHER

TAXI

TO TAKEOFF

FROM LANDING

OTHER

GROUND TAXI TO TAKEOFF

GROUND TAXI FROM LANDING

GROUND TAXI, OTHER

AERIAL TAXI TO TAKEOFF

AERIAL TAXI TO/FROM LANDING

AERIAL TAXI, OTHER

TAKEOFF

RUN

INITIAL CLIMB

VERTICAL

RUNNING (ROTORCRAFT/VTOL-STOL)

ABORTED (FIXED-WING)

ABORTED (ROTORCRAFT/VTOL)

ABORTED (ROTORCRAFT/STOL)

OTHER

INFLIGHT

CLIMB TO CRUISE

NORMAL CRUISE

DESCENDING

HOLDING (IFR)

HOVERING

POWER-ON DESCENT (ROTORCRAFT)

AUTOROTATIVE DESCENT

| | DESTROYED | SUBSTANTIAL | MINOR | NONE | RECORDS | ACCIDENTS |
|-----------------------------|-----------|-------------|-------|------|---------|-----------|
| PARKE-ENGINES NOT OPERATING | | | | 4 | 4 | 4 |
| OTHER | 1 | 1 | | | 2 | 2 |
| TO TAKEOFF | 1 | 2 | | | 3 | 2 |
| RUN | 1 | 3 | | | 4 | 4 |
| CLIMB TO CRUISE | 1 | | | 3 | 4 | 4 |
| NORMAL CRUISE | 2 | | | 8 | 10 | 10 |
| DESCENDING | | 1 | | 7 | 8 | 8 |

ACCIDENTS

1

1

3

2

2

3

1

47

AIRCRAFT DAMAGE

FIRST OPERATIONAL PHASE

DESTROYED
SUBSTANTIAL
MINOR
NONE

RECORDS ACCIDENTS

TYPE OF OPERATION

| FIRST OPERATIONAL PHASE | DESTROYED | SUBSTANTIAL | MINOR | NONE | RECORDS | ACCIDENTS |
|-------------------------------|-----------|-------------|-------|------|---------|-----------|
| ACROBATICS | | | | | | |
| BUZZING | | | | | | |
| UNCONTROLLED DESCENT | 1 | | | | 1 | 1 |
| EMERGENCY DESCENT | | | | | | |
| LOW PASS | | | | | | |
| OTHER | | | | | | |
| EN ROUTE TO TREAT CROP | | | | | | |
| EN ROUTE TO RELOADING AREA | | | | | | |
| SURVEY FIELD/AREA | | | | | | |
| STARTING SWATH RUN | | | | | | |
| SWATH RUN | | | | | | |
| FLAREOUT FOR SWATH RUN | | | | | | |
| PULLUP FROM SWATH RUN | | | | | | |
| PROCEDURE TURNAROUND | | | | | | |
| CLEANUP SWATH | | | | | | |
| MANEUVER TO AVOID OBSTRUCTION | | | | | | |
| RETURN TO STRIP | | | | | | |
| <u>LANDING</u> | | | | | | |
| TRAFFIC PATTERN-CIRCLING | | | | | | |
| FINAL APPROACH (VFR) | | | | 1 | 1 | 1 |
| INITIAL APPROACH | 2 | 1 | | | 3 | 3 |
| FINAL APPROACH (IFR) | 2 | | | | 2 | 2 |
| LEVEL OFF/TOUCHDOWN | 1 | 1 | | | 2 | 2 |
| ROLL (FIXED WING) | | 3 | | | 3 | 3 |
| ROLL-ON/RUN-ON (ROTORCRAFT) | | | | | | |
| POWER-ON LANDING (ROTORCRAFT) | | | | | | |
| POWER-OFF AUTOROTATIVE LDG | | | | | | |
| GO-AROUND (VFR) | | | | | | |
| MISSED APPROACH (IFR) | | | | | | |
| OTHER | | | | | | |
| UNKNOWN/NOT REPORTED | 1 | | | | 1 | 1 |
| RECORDS | 9 | 8 | 8 | 23 | 48 | |
| ACCIDENTS | 9 | 8 | 8 | 23 | | 47 |

SCHEDULED DOMESTIC
SCHEDULED INTL PAS
SCHEDULED DOMESTIC
SCHEDULED INTL CAR
CHARTER-PASSENGER-
CHARTER-CARGO-DOME
MIL CONTRACT-PASS
MIL CONTRACT-CARGI
TEST
TRAINING
FERRY-DOMESTIC
COMPANY FLIGHT
CHARTER-PASSG-INT
CHARTER-CARGO-INT
MIL CONTRACT-PAS
MIL CONTRACT-CAR
FERRY-INTERNATIO
OTHER

RECORDS
ACCIDENTS

TYPE OF OPERATION BY INJURY INDEX
U. S. AIR CARRIERS
ALL OPERATIONS
1974

ACCIDENTS

INJURY INDEX

TYPE OF OPERATION

FATAL
SERIOUS
MINOR
NONE

RECORDS ACCIDENTS

| TYPE OF OPERATION | FATAL | SERIOUS | MINOR | NONE | RECORDS | ACCIDENTS |
|-------------------------------|-------|---------|-------|------|---------|-----------|
| SCHEDULED DOMESTIC PASSG. SVC | 3 | 21 | 1 | 6 | 31 | 31 |
| SCHEDULED INTL PASSG SERVICE | 4 | 7 | | 1 | 12 | 12 |
| SCHEDULED DOMESTIC CARGO SVC | | | | 1 | 1 | 1 |
| SCHEDULED INTL CARGO SERVICE | | | | | | |
| CHARTER-PASSENGER-DOMESTIC | | | | 1 | 1 | 1 |
| CHARTER-CARGO-DOMESTIC | | | | | | |
| MIL CONTRACT-PASSG-DOMESTIC | | | | | | |
| MIL CONTRACT-CARGO-DOMESTIC | 1 | | | | 1 | 1 |
| TEST | | | | | | |
| TRAINING | | | | | | |
| FERRY-DOMESTIC | 1 | | | | 1 | 1 |
| COMPANY FLIGHT | | | | | | |
| CHARTER-PASSG-INTL | | | | | | |
| CHARTER-CARGO-INTL | | | | | | |
| MIL CONTRACT-PASSG-INTL | | 1 | | | 1 | 1 |
| MIL CONTRACT-CARGO-INTL | | | | | | |
| FERRY-INTERNATIONAL | | | | | | |
| OTHER | | | | | | |
| RECORDS | 9 | 29 | 1 | 9 | 48 | |
| ACCIDENTS | 9 | 29 | 1 | 8 | | 47 |

1

1
3
2
2
3

1

48
47

CONDITIONS OF LIGHT BY INJURY INDEX
U. S. AIR CARRIERS
ALL OPERATIONS
1974

| CONDITIONS OF LIGHT | INJURY INDEX | | | | RECORDS | ACCIDENTS |
|----------------------------|--------------|---------|-------|------|---------|-----------|
| | FATAL | SERIOUS | MINOR | NONE | | |
| DAWN | | | | | | |
| DAYLIGHT | 4 | 17 | 1 | 6 | 28 | 27 |
| DUSK | 1 | | | | 1 | 1 |
| NIGHT (DARK) | 3 | 11 | | 3 | 17 | 17 |
| NIGHT (MODN. LIGHT-BRIGHT) | 1 | 1 | | | 2 | 2 |
| UNKNOWN/NOT REPORTED | | | | | | |
| OTHER | | | | | | |
| RECORDS | 9 | 29 | 1 | 9 | 48 | |
| ACCIDENTS | 9 | 29 | 1 | 8 | | 47 |

AIRPORT PROXIMITY

ON AIRPORT
ON SEAPLANE BASE
ON HELIPORT
ON BARGE/SHIP/PLATF
IN TRAFFIC PATTERN
WITHIN 1/4 MILE
WITHIN 1/2 MILE
WITHIN 3/4 MILE
WITHIN 1 MILE
WITHIN 2 MILES
WITHIN 3 MILES
WITHIN 4 MILES
WITHIN 5 MILES
BEYOND 5 MILES
UNKNOWN/NOT REPORTE
OTHER

RECORDS
ACCIDENTS

TYPE OF POWER BY INJURY INDEX
U. S. AIR CARRIERS
ALL OPERATIONS
1974

| TYPE OF POWER | INJURY INDEX | | | | RECORDS | ACCIDENTS |
|----------------------|--------------|---------|-------|------|---------|-----------|
| | FATAL | SERIOUS | MINOR | NONE | | |
| RECIPROCATING ENGINE | 1 | | 1 | 2 | 4 | 4 |
| TURBOJET ENGINE | 1 | 9 | | 1 | 11 | 11 |
| TURBOPROP ENGINE | 1 | 2 | | 1 | 4 | 4 |
| TURBOFAN ENGINE | 6 | 18 | | 5 | 29 | 28 |
| NONE | | | | | | |
| TURROSHAFT | | | | | | |
| OTHER | | | | | | |
| RECORDS | 9 | 29 | 1 | 9 | 48 | |
| ACCIDENTS | 9 | 29 | 1 | 8 | | 47 |

TYPE OF WEATHER CONDITIONS

VFR
IFR
BELOW MINIMUMS
UNKNOWN/NOT REPORTE
OTHER

RECORDS
ACCIDENTS

AIRPORT PROXIMITY BY INJURY INDEX
U. S. AIR CARRIERS
ALL OPERATIONS
1974

INJURY INDEX

AIRPORT PROXIMITY

FATAL
SERIOUS
MINOR
NONE

RECORDS ACCIDENTS

| | FATAL | SERIOUS | MINOR | NONE | RECORDS | ACCIDENTS |
|------------------------|-------|---------|-------|------|---------|-----------|
| ON AIRPORT | 1 | 9 | | 8 | 18 | 17 |
| ON SEAPLANE BASE | | | | | | |
| ON HELIPORT | | | | | | |
| ON BARGE/SHIP/PLATFORM | | | | | | |
| IN TRAFFIC PATTERN | | | | | | |
| WITHIN 1/4 MILE | | | | | | |
| WITHIN 1/2 MILE | | | | | | |
| WITHIN 3/4 MILE | | | | | | |
| WITHIN 1 MILE | | | | | | |
| WITHIN 2 MILES | | | | | | |
| WITHIN 3 MILES | | | | | | |
| WITHIN 4 MILES | 1 | 1 | | | 2 | 2 |
| WITHIN 5 MILES | | | | | | |
| BEYOND 5 MILES | 5 | 18 | 1 | 1 | 25 | 25 |
| UNKNOWN/NOT REPORTED | 2 | 1 | | | 3 | 3 |
| OTHER | | | | | | |
| RECORDS | 9 | 29 | 1 | 9 | 48 | |
| ACCIDENTS | 9 | 29 | 1 | 8 | | 47 |

TYPE OF WEATHER CONDITIONS BY INJURY INDEX
U. S. AIR CARRIERS
ALL OPERATIONS
1974

INJURY INDEX

TYPE OF WEATHER CONDITIONS

FATAL
SERIOUS
MINOR
NONE

RECORDS ACCIDENTS

| | FATAL | SERIOUS | MINOR | NONE | RECORDS | ACCIDENTS |
|----------------------|-------|---------|-------|------|---------|-----------|
| VFR | 6 | 14 | 1 | 6 | 27 | 26 |
| IFR | 3 | 12 | | 1 | 16 | 16 |
| BELOW MINIMUMS | | | | 1 | 1 | 1 |
| UNKNOWN/NOT REPORTED | | 3 | | 1 | 4 | 4 |
| OTHER | | | | | | |
| RECORDS | 9 | 29 | 1 | 9 | 48 | |
| ACCIDENTS | 9 | 29 | 1 | 8 | | 47 |

ACCIDENT RATES
U. S. CERTIFICATED ROUTE AND SUPPLEMENTAL AIR CARRIERS
ALL OPERATIONS
1974

| CLASS OF CARRIER | Number of Accidents | | | | Accident Rates | | | | | | |
|--|---------------------|-------|------------|------|----------------------------------|-----------------------------|-------------------|-------|-------------------|-------|-------|
| | Injury Index | | Minor/None | | Aircraft- Miles Flown(000) | Aircraft- Hours Flown | Per Million Miles | | Per 100,000 Hours | | |
| | Total | Fatal | Serious | None | | | Total | Fatal | Total | Fatal | |
| <u>CERTIFICATED ROUTE AIR CARRIERS</u> | | | | | | | | | | | |
| <u>1. Domestic Carriers</u> | | | | | | | | | | | |
| Trunk | 25 | 3 | 17 | 5 | 1 | 1,637,840 | 3,808,082 | .015 | .002 | .656 | .079 |
| Local Service | 5 | 0 | 5 | 0 | 0 | 272,509 | 909,790 | .018 | .000 | .550 | .000 |
| Helicopter | 0 | 0 | 0 | 0 | 0 | 1,293 | 13,224 | .000 | .000 | .000 | .000 |
| All Cargo | 0 | 0 | 0 | 0 | 0 | 18,586 | 40,232 | .000 | .000 | .000 | .000 |
| Other | 0 | 0 | 0 | 0 | 0 | 990 | 5,223 | .000 | .000 | .000 | .000 |
| Subtotal | 30 | 3 | 22 | 5 | 1 | 1,931,218 | 4,776,551 | .016 | .002 | .628 | .063 |
| Intra-Alaska | 5 | 1 | 0 | 4 | 4 | 20,968 | 81,739 | .238 | .048 | 6.117 | 1.223 |
| Intra-Hawaii | 0 | 0 | 0 | 0 | 0 | 9,641 | 29,520 | .000 | .000 | .000 | .000 |
| TOTAL DOMESTIC | 35 | 4 | 22 | 9 | 8 | 1,961,827 | 4,887,810 | .018 | .002 | .716 | .082 |
| <u>2. International Carriers</u> | | | | | | | | | | | |
| Passenger/Cargo | 11 | 2 | 4 | 6 | 1 | 385,495 | 801,072 | .026 | .008 | 1.248 | .374 |
| All-Cargo | 0 | 0 | 0 | 0 | 0 | 37,611 | 78,467 | .000 | .000 | .000 | .000 |
| TOTAL INTERNATIONAL | 11 | 4 | 6 | 1 | 3 | 423,106 | 879,539 | .024 | .007 | 1.137 | .342 |
| TOTAL CERTIFICATED ROUTE CARRIERS | 45 | 8 | 28 | 9 | 8 | 2,384,933 | 5,767,349 | .018 | .003 | .763 | .121 |
| <u>SUPPLEMENTAL AIR CARRIERS</u> | | | | | | | | | | | |
| <u>1. Domestic Carriers</u> | | | | | | | | | | | |
| Civil Operations | 0 | 0 | 0 | 0 | 0 | 13,287 | N/A | .000 | .000 | .000 | .000 |
| Military Contract | 1 | 1 | 0 | 0 | 0 | 16,174 | N/A | .055 | .055 | --- | --- |
| Subtotal | 1 | 1 | 0 | 0 | 0 | 31,461 | 94,158 | .032 | .032 | 1.062 | 1.062 |
| <u>2. International Carriers</u> | | | | | | | | | | | |
| Civil Operations | 0 | 0 | 0 | 0 | 0 | 36,192 | N/A | .000 | .000 | .000 | .000 |
| Military Contract | 1 | 0 | 1 | 0 | 0 | 11,709 | N/A | .085 | .000 | --- | .000 |
| Subtotal | 1 | 0 | 1 | 0 | 0 | 47,901 | 116,973 | .021 | .000 | .855 | .000 |
| TOTAL SUPPLEMENTAL AIR CARRIERS | 2 | 1 | 1 | 0 | 1 | 79,363 | 211,131 | .025 | .013 | .947 | .474 |
| GRAND TOTAL ALL OPERATIONS | 47 | 9 | 29 | 9 | 9 | 2,464,295 | 5,978,480 | .019 | .003 | .769 | .134 |

1/ Collision between different classes of carriers is counted as one accident in the totals.

2/ Sabotage accident is included in all computations except rates.

3/ Nonrevenue miles of the supplemental carriers not reported.

ACCIDENT RATES
CERTIFICATED ROUTE AIR CARRIERS
ALL REVENUE OPERATIONS
1974

| CLASS OF CARRIER | Number of Accidents | | | | Accident Rates | | | | | | |
|--|---------------------|-------|------------|------|----------------------------------|-----------------------------|--------------------|------------------|--------------------|------------------|-------|
| | Injury Index | | Minor/None | | Aircraft- Miles Flown(000) | Aircraft- Hours Flown | Total Accidents | | Fatal Accidents | | |
| | Total | Fatal | Serious | None | | | 1 Million Miles | 100,000 Hours | 1 Million Miles | 100,000 Hours | |
| <u>CERTIFICATED ROUTE AIR CARRIERS</u> | | | | | | | | | | | |
| <u>1. Domestic Carriers</u> | | | | | | | | | | | |
| Trunk | 25 | 3 | 17 | 5 | 1 | 1,637,840 | 3,808,082 | .015 | .002 | .656 | .079 |
| Local Service | 5 | 0 | 5 | 0 | 0 | 272,509 | 909,790 | .018 | .000 | .550 | .000 |
| Helicopter | 0 | 0 | 0 | 0 | 0 | 1,293 | 13,224 | .000 | .000 | .000 | .000 |
| All Cargo | 0 | 0 | 0 | 0 | 0 | 18,586 | 40,232 | .000 | .000 | .000 | .000 |
| Other | 0 | 0 | 0 | 0 | 0 | 990 | 5,223 | .000 | .000 | .000 | .000 |
| Subtotal | 30 | 3 | 22 | 5 | 1 | 1,931,218 | 4,776,551 | .016 | .002 | .628 | .063 |
| Intra-Alaska | 5 | 1 | 0 | 4 | 4 | 20,968 | 81,739 | .238 | .048 | 6.117 | 1.223 |
| Intra-Hawaii | 0 | 0 | 0 | 0 | 0 | 9,641 | 29,520 | .000 | .000 | .000 | .000 |
| TOTAL DOMESTIC | 35 | 4 | 22 | 9 | 8 | 1,961,827 | 4,887,810 | .018 | .002 | .716 | .082 |
| <u>2. International Carriers</u> | | | | | | | | | | | |
| Passenger/Cargo | 11 | 2 | 4 | 6 | 1 | 385,495 | 801,072 | .026 | .008 | 1.248 | .374 |
| All-Cargo | 0 | 0 | 0 | 0 | 0 | 37,611 | 78,467 | .000 | .000 | .000 | .000 |
| TOTAL INTERNATIONAL | 11 | 4 | 6 | 1 | 3 | 423,106 | 879,539 | .024 | .007 | 1.137 | .342 |
| TOTAL CERTIFICATED ROUTE CARRIERS | 45 | 8 | 28 | 9 | 8 | 2,384,933 | 5,767,349 | .018 | .003 | .763 | .121 |
| <u>SUPPLEMENTAL AIR CARRIERS</u> | | | | | | | | | | | |
| <u>1. Domestic Carriers</u> | | | | | | | | | | | |
| Civil Operations | 0 | 0 | 0 | 0 | 0 | 13,287 | N/A | .000 | .000 | .000 | .000 |
| Military Contract | 1 | 1 | 0 | 0 | 0 | 16,174 | N/A | .055 | .055 | --- | --- |
| Subtotal | 1 | 1 | 0 | 0 | 0 | 31,461 | 94,158 | .032 | .032 | 1.062 | 1.062 |
| <u>2. International Carriers</u> | | | | | | | | | | | |
| Civil Operations | 0 | 0 | 0 | 0 | 0 | 36,192 | N/A | .000 | .000 | .000 | .000 |
| Military Contract | 1 | 0 | 1 | 0 | 0 | 11,709 | N/A | .085 | .000 | --- | .000 |
| Subtotal | 1 | 0 | 1 | 0 | 0 | 47,901 | 116,973 | .021 | .000 | .855 | .000 |
| TOTAL SUPPLEMENTAL AIR CARRIERS | 2 | 1 | 1 | 0 | 1 | 79,363 | 211,131 | .025 | .013 | .947 | .474 |
| GRAND TOTAL ALL OPERATIONS | 47 | 9 | 29 | 9 | 9 | 2,464,295 | 5,978,480 | .019 | .003 | .769 | .134 |

- 2/ Sabotage accident is included in all computations except rates.
- 3/ Nonrevenue miles of the supplemental carriers not reported.

ACCIDENT RATES
CERTIFICATED ROUTE AIR CARRIERS
ALL REVENUE OPERATIONS
1974

| | Number of Accidents | | | | Accident Rates | | | | | | | | | | |
|-------------------------------------|---------------------|----------------|----------------------------------|-----------------------------|----------------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|------------------|------------------|-----------------------|------------------|
| | Injury Index | | Aircraft- Miles Flown(000) | Aircraft- Hours Flown | Number of Departures | Total Accidents | | Fatal Accidents | | 1 Million Miles | | 100,000 Hours | | 100,000 Departures | |
| | Total | Minor/ None | | | | 1 Million Miles | 100,000 Hours | 1 Million Miles | 100,000 Hours | 1 Million Miles | 100,000 Hours | 1 Million Miles | 100,000 Hours | 1 Million Miles | 100,000 Hours |
| SCHEDULED SERVICE | | | | | | | | | | | | | | | |
| 1. Domestic Carriers | | | | | | | | | | | | | | | |
| Trunk | 24 | 2 | 17 | 5 | 1,589,077 | 3,695,515 | 2,729,241 | .015 | .649 | .879 | .001 | .054 | .073 | .000 | .000 |
| Local Service | 5 | 0 | 5 | 0 | 264,522 | 886,338 | 1,443,942 | .019 | .564 | .346 | .000 | .000 | .000 | .000 | .000 |
| Helicopter | 0 | 0 | 0 | 0 | 1,029 | 10,310 | 78,409 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| All-Cargo | 0 | 0 | 0 | 0 | 17,319 | 37,477 | 15,928 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Other | 0 | 0 | 0 | 0 | 733 | 4,001 | 7,052 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Subtotal | 29 | 2 | 22 | 5 | 1,872,680 | 4,633,641 | 4,274,572 | .015 | .626 | .678 | .001 | .043 | .047 | .000 | .000 |
| Intra-Alaska | 4 | 1 | 0 | 3 | 18,660 | 68,912 | 100,290 | .214 | 5.804 | 3.988 | .054 | 1.451 | .997 | .000 | .000 |
| Intra-Hawaii | 0 | 0 | 0 | 0 | 9,192 | 28,192 | 74,453 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| TOTAL DOMESTIC | 33 | 3 | 22 | 8 | 1,900,532 | 4,730,705 | 4,449,315 | .017 | .698 | .742 | .002 | .063 | .067 | .000 | .000 |
| 2. International Carriers | | | | | | | | | | | | | | | |
| Passenger/Cargo | 11 | 2/ | 4 | 1 | 330,248 | 686,704 | 260,932 | .030 | 1.456 | 3.832 | .009 | .437 | 1.150 | .000 | .000 |
| All Cargo | 0 | 0 | 0 | 0 | 27,356 | 57,086 | 15,536 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| TOTAL INTERNATIONAL | 11 | 4 | 6 | 1 | 357,604 | 743,790 | 276,468 | .028 | 1.344 | 3.617 | .008 | .403 | 1.085 | .000 | .000 |
| TOTAL SCHEDULED SERVICE | 43 | 7 | 28 | 8 | 2,258,136 | 5,474,495 | 4,725,783 | .019 | .767 | .889 | .003 | .110 | .127 | .000 | .000 |
| NONSCHEDULED REVENUE SERVICE | | | | | | | | | | | | | | | |
| 1. Domestic Carriers | | | | | | | | | | | | | | | |
| Trunk | 0 | 0 | 0 | 0 | 29,892 | 63,477 | 22,851 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Local Service | 0 | 0 | 0 | 0 | 4,482 | 11,134 | 8,555 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Helicopter | 0 | 0 | 0 | 0 | 232 | 2,635 | 2,366 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| All-Cargo | 0 | 0 | 0 | 0 | 1,191 | 2,602 | 503 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Other | 0 | 0 | 0 | 0 | 203 | 968 | 655 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Subtotal | 0 | 0 | 0 | 0 | 36,000 | 80,816 | 35,030 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| Intra-Alaska | 1 | 0 | 0 | 1 | 1,443 | 9,029 | 15,000 | .693 | 11.075 | 6.667 | .000 | .000 | .000 | .000 | .000 |
| Intra-Hawaii | 0 | 0 | 0 | 0 | 1 | 5 | 6 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| TOTAL DOMESTIC | 1 | 0 | 0 | 1 | 37,444 | 89,850 | 50,036 | .027 | 1.113 | 1.999 | .000 | .000 | .000 | .000 | .000 |
| 2. International Carriers | | | | | | | | | | | | | | | |
| Passenger/Cargo | 0 | 0 | 0 | 0 | 46,100 | 94,090 | 21,747 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| All Cargo | 0 | 0 | 0 | 0 | 9,126 | 18,902 | 4,280 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| TOTAL INTERNATIONAL | 0 | 0 | 0 | 0 | 55,226 | 112,992 | 26,027 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| TOTAL NONSCHEDULED SERVICE | 1 | 0 | 0 | 1 | 92,670 | 202,842 | 76,063 | .011 | .493 | 1.315 | .000 | .000 | .000 | .000 | .000 |
| GRAND TOTAL | 44 | 7 | 28 | 9 | 2,350,806 | 5,677,337 | 4,801,846 | .018 | .757 | .895 | .003 | .106 | .125 | .000 | .000 |

1/ Collision between different classes of carriers counted as one accident in the totals.
 2/ Sabotage accident is included in all computations except rates.

ACCIDENTS, INJURIES, AIRCRAFT DAMAGE
BY TYPE OF OPERATION
U. S. CERTIFICATED ROUTE AND SUPPLEMENTAL AIR CARRIERS
1974

| ITEMS | CERTIFICATED ROUTE CARRIERS | | | | SUPPLEMENTAL CARRIERS | | | | GRAND TOTAL |
|------------------------------|-----------------------------|-----------------------|-----------------------|----------------------|--------------------------------|------------------------------|-----------------------|----------------------|-------------|
| | Scheduled Passenger Service | All Scheduled Service | Nonrevenue Operations | Total All Operations | Public Passg./Cargo Operations | Military Contract Operations | Nonrevenue Operations | Total All Operations | |
| <u>Accident-Injury Index</u> | | | | | | | | | |
| Fatal | 7 | 7 | 0 | 8 | 0 | 1 | 0 | 1 | 9 |
| Serious | 28 | 28 | 0 | 28 | 0 | 1 | 0 | 1 | 29 |
| Minor/None | 7 | 8 | 1 | 9 | 0 | 0 | 0 | 0 | 9 |
| Total | 42 | 43 | 1 | 45 | 0 | 2 | 0 | 2 | 47 |
| <u>Aircraft Damage 1/</u> | | | | | | | | | |
| Destroyed | 7 | 7 | 0 | 8 | 0 | 1 | 0 | 1 | 9 |
| Substantial | 6 | 7 | 1 | 8 | 0 | 0 | 0 | 0 | 8 |
| Minor/None | 30 | 30 | 0 | 30 | 0 | 1 | 0 | 1 | 31 |
| Total | 43 | 44 | 1 | 46 | 0 | 2 | 0 | 2 | 48 |
| <u>Fatalities</u> | | | | | | | | | |
| Captain | 6 | 6 | 0 | 7 | 0 | 1 | 0 | 1 | 8 |
| Copilot | 5 | 5 | 0 | 6 | 0 | 1 | 0 | 1 | 7 |
| Flight Engineer | 5 | 5 | 0 | 6 | 0 | 1 | 0 | 1 | 7 |
| Cabin Attendants | 23 | 23 | 0 | 23 | 0 | 0 | 0 | 0 | 23 |
| Other Crew | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Passenger | 420 | 420 | 0 | 420 | 0 | 1 | 0 | 1 | 421 |
| Other Aircraft | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Ground | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 460 | 460 | 3 | 463 | 0 | 4 | 0 | 4 | 467 |
| <u>Serious Injuries</u> | | | | | | | | | |
| Captain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Copilot | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Flight Engineer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cabin Attendants | 13 | 13 | 0 | 13 | 0 | 0 | 0 | 0 | 13 |
| Other Crew | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Passenger | 35 | 35 | 0 | 35 | 0 | 1 | 0 | 1 | 36 |
| Other Aircraft | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Ground | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Total | 50 | 50 | 0 | 50 | 0 | 1 | 0 | 1 | 51 |
| <u>Minor/No Injury</u> | | | | | | | | | |
| Captain | 37 | 38 | 1 | 39 | 0 | 1 | 0 | 1 | 40 |
| Copilot | 34 | 35 | 0 | 35 | 0 | 1 | 0 | 1 | 36 |
| Flight Engineer | 25 | 26 | 0 | 26 | 0 | 2 | 0 | 2 | 28 |
| Cabin Attendants | 158 | 158 | 0 | 158 | 0 | 6 | 0 | 6 | 164 |
| Other Crew | 5 | 5 | 0 | 5 | 0 | 4 | 0 | 4 | 9 |
| Passenger | 2806 | 2806 | 1 | 2807 | 0 | 218 | 0 | 218 | 3025 |
| Other Aircraft | 26 | 26 | 0 | 26 | 0 | 0 | 0 | 0 | 26 |
| Other Ground | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3091 | 3094 | 2 | 3096 | 0 | 232 | 0 | 232 | 3328 |
| TOTAL ABOARD | 3588 | 3591 | 2 | 3596 | 0 | 237 | 0 | 237 | 3833 |

1/ Includes all air carrier aircraft involved in collisions.

ACCIDENTS, RATES
BY PHASE OF OPERATION
CERTIFICATED ROUTE AIR CARRIERS
ALL REVENUE OPERATIONS
1974

| FIRST PHASE OF OPERATION | ACCIDENT RATES | |
|--------------------------|--------------------|-------------------------------|
| | Inflight | Other Than Inflight |
| | Inflight Phase Per | Other Than Inflight Phase Per |
| | 100,000 | 100,000 |

RECORD OF INDIVIDUAL SUPPLEMENTAL AIR CARRIERS
PASSENGER OPERATIONS (CIVIL AND MILITARY)
1974

| Operators | CIVILIAN SERVICE | | | | | MILITARY CONTRACT OPERATIONS | | | | | |
|--|--------------------------|-----------------------|---|-----------------------------|---------------------------|------------------------------|-----------------------|---|-----------------------------|---------------------------|---------------------------------------|
| | Accidents Total Fatal | Passengers Carried | Revenue Passenger- Miles (000) | Revenue/ Plane- Miles | Fatalities Passg. Crew | Accidents Total Fatal | Passengers Carried | Revenue Passenger- Miles (000) | Revenue/ Plane- Miles | Fatalities Passg. Crew | Total ^{2/} Hours Flown |
| Capitol International Airways, Inc. | 0 | 429,556 | 1,390,701 | 6,856,041 | 0 | 0 | 70,769 | 263,199 | 1,451,633 | 0 | 20,259 |
| Johnson Flying Service, Inc. | 0 | 36,288 | 23,926 | 490,838 | 0 | 0 | - | - | - | 0 | 2,075 |
| McCulloch International Airlines, Inc. ^{3/} | 0 | 35,681 | 99,555 | 1,873,386 | 0 | 0 | - | - | - | 0 | 6,214 |
| Modern Air Transport, Inc. | 0 | 399,075 | 531,740 | 4,557,594 | 0 | 0 | 6,970 | 9,267 | 107,243 | 0 | 10,910 |
| Overseas National Airways, Inc. | 0 | 484,649 | 1,480,760 | 8,022,667 | 0 | 0 | 76,559 | 319,295 | 8,610,271 | 0 | 43,979 |
| Saturn Airways, Inc. | 0 | 143,684 | 525,363 | 7,565,334 | 0 | 0 | 57,738 | 173,094 | 12,466,184 | 0 | 62,850 |
| Trans International Airlines, Corp. | 0 | 677,927 | 3,029,653 | 12,095,631 | 0 | 0 | 75,401 | 515,585 | 2,537,685 | 0 | 33,946 |
| World Airways, Inc. | 0 | 498,708 | 1,931,326 | 8,017,574 | 1 | 0 | 201,458 | 568,985 | 4,710,567 | 0 | 30,898 |
| Total | 0 | 2,705,568 | 9,013,024 | 49,479,065 | 0 | 1 | 488,895 | 1,849,425 | 29,883,583 | 0 | 211,131 |

^{1/} Includes miles flown in cargo operations.

^{2/} Total hours flown in all operations.

^{3/} Carrier operated under the name of Vance International Airways, Inc. prior to 11/16/70.

RECORD OF INDIVIDUAL TRUNK CARRIERS
SCHEDULED DOMESTIC PASSENGER SERVICE
1974

2/ Total hours flown in all operations.
 3/ Carrier operated under the name of Vance International Airways, Inc. prior to 11/16/70.

RECORD OF INDIVIDUAL TRUNK CARRIERS
 SCHEDULED DOMESTIC PASSENGER SERVICE

1974

| Operator | Accidents | | Fatalities | | | Revenue | | Passenger- Miles (000) | Revenue Plane- Miles(000) | Revenue Departures |
|-----------------------|-----------|-------|------------|------|--------|----------------------------|-------------|------------------------------|---------------------------------|-----------------------|
| | Total | Fatal | Passg. | Crew | Others | Passengers Carried(000) | Miles | | | |
| <u>Trunk</u> | | | | | | | | | | |
| American Airlines | 3 | 0 | 0 | 0 | 0 | 19,061 | 19,255,417 | 233,958 | 330,726 | |
| Braniff Airways | 0 | 0 | 0 | 0 | 0 | 7,472 | 4,999,570 | 77,736 | 172,638 | |
| Continental Air Lines | 0 | 0 | 0 | 0 | 0 | 6,489 | 5,978,705 | 73,762 | 133,273 | |
| Delta Air Lines | 6 | 0 | 0 | 0 | 0 | 26,004 | 16,519,912 | 200,690 | 475,977 | |
| Eastern Air Lines | 5 | 1 | 69 | 2 | 0 | 23,794 | 14,660,666 | 210,486 | 437,634 | |
| National Airlines | 2 | 0 | 0 | 0 | 0 | 4,747 | 4,045,913 | 45,326 | 94,615 | |
| Northwest Airlines | 0 | 0 | 0 | 0 | 0 | 8,123 | 7,081,062 | 85,384 | 165,232 | |
| Pan American | 0 | 0 | 0 | 0 | 0 | 705 | 1,893,736 | 14,658 | 8,084 | |
| Trans World Airlines | 4 | 1 | 85 | 7 | 0 | 13,449 | 14,726,248 | 192,910 | 261,458 | |
| United Air Lines | 2 | 0 | 0 | 0 | 0 | 30,588 | 29,352,822 | 322,974 | 507,360 | |
| Western Air Lines | 0 | 0 | 0 | 0 | 0 | 7,561 | 6,512,552 | 80,453 | 142,244 | |
| Total | 22 | 2 | 154 | 9 | 0 | 147,993 | 125,026,603 | 1,538,337 | 2,729,241 | |

1/ Both revenue and nonrevenue

RECORD OF INDIVIDUAL LOCAL SERVICE AND HELICOPTER CARRIERS
SCHEDULED PASSENGER SERVICE

1974

| Operator | Accidents | | Fatalities | | Revenue Passengers Carried(000) | Passenger- Miles (000) | Revenue Plane- Miles(000) | Revenue Departures |
|---------------------------------|-----------|----------|------------|----------|---------------------------------------|------------------------------|---------------------------------|-----------------------|
| | Total | Fatal | Passg. | Others | | | | |
| <u>Local Service</u> | | | | | | | | |
| Allegheny Airlines | 3 | 0 | 0 | 0 | 10,900 | 3,502,481 | 75,572 | 330,154 |
| Frontier Airlines | 1 | 0 | 0 | 0 | 3,614 | 1,470,954 | 34,251 | 182,410 |
| Hughes Air Corporation | 0 | 0 | 0 | 0 | 3,966 | 1,523,448 | 30,624 | 143,517 |
| North Central Airlines | 0 | 0 | 0 | 0 | 4,491 | 1,056,944 | 28,135 | 216,181 |
| Ozark Air Lines | 0 | 0 | 0 | 0 | 3,215 | 896,127 | 23,556 | 153,534 |
| Piedmont Aviation | 0 | 0 | 0 | 0 | 3,821 | 1,118,120 | 28,287 | 177,749 |
| Southern Airways | 0 | 0 | 0 | 0 | 2,940 | 872,558 | 22,497 | 136,332 |
| Texas International Airlines | 1 | 0 | 0 | 0 | 2,253 | 795,398 | 21,600 | 104,065 |
| Total | 5 | 0 | 0 | 0 | 35,200 | 11,236,030 | 264,522 | 1,443,942 |

| <u>Helicopter Service</u> | | | | | | | | |
|-------------------------------|-----------|------------|---------------------------------------|------------------------------|---------------------------------|-----------------------|--|--|
| Operator | Accidents | Fatalities | Revenue Passengers Carried(000) | Passenger- Miles (000) | Revenue Plane- Miles(000) | Revenue Departures | | |
| Chicago Helicopter Airways | 0 | 0 | 9 | 155 | 64 | 4,367 | | |
| New York Airways | 0 | 0 | 345 | 6,669 | 578 | 44,694 | | |
| San Francisco & Oakland | 0 | 0 | 238 | 3,953 | 387 | 29,348 | | |
| Total | 0 | 0 | 592 | 10,777 | 1,029 | 78,409 | | |

Both revenue and nonrevenue

1/ Both revenue and nonrevenue

RECORD OF INDIVIDUAL INTRA-ALASKA AND INTRA-HAWAII CARRIERS
SCHEDULED PASSENGER SERVICE

1974

| Operator | Accidents | | Fatalities | | Revenue Passengers Carried(000) | Passenger-Miles (000) 1/ | Revenue Plane-Miles(000) | Revenue Departures |
|--------------------------------|-----------|----------|------------|----------|---------------------------------|--------------------------|--------------------------|--------------------|
| | Total | Fatal | Passg. | Crew | | | | |
| <u>Alaskan</u> | | | | | | | | |
| Alaska Airlines | 0 | 0 | 0 | 0 | 618 | 497,972 | 8,766 | 20,924 |
| Kodiak Western Alaska Airlines | 3 | 1 | 4 | 1 | 25 | 1,247 | 722 | 19,577 |
| Reeve Aleutian Airways | 0 | 0 | 0 | 0 | 46 | 38,906 | 1,428 | 4,405 |
| Wein Consolidated Airlines | 1 | 0 | 0 | 0 | 418 | 148,324 | 7,741 | 55,384 |
| Total | 4 | 1 | 4 | 1 | 1,107 | 686,449 | 18,657 | 100,290 |
| <u>Hawaiian</u> | | | | | | | | |
| Aloha Airlines | 0 | 0 | 0 | 0 | 1,942 | 282,111 | 3,681 | 29,704 |
| Hawaiian Airlines | 0 | 0 | 0 | 0 | 2,733 | 394,997 | 4,933 | 44,749 |
| Total | 0 | 0 | 0 | 0 | 4,675 | 677,108 | 8,614 | 74,453 |
| <u>Other</u> | | | | | | | | |
| Aspen Airways | 0 | 0 | 0 | 0 | 95 | 11,162 | 450 | 3,981 |
| Wright Airlines | 0 | 0 | 0 | 0 | 62 | 5,795 | 283 | 3,071 |
| Total | 0 | 0 | 0 | 0 | 157 | 16,957 | 733 | 7,052 |

1/ Both revenue and nonrevenue

RECORD OF U. S. INTERNATIONAL CARRIERS

SCHEDULED PASSENGER SERVICE

1974

| Operator | Accidents | | Fatalities | | Revenue Passengers Carried(000) | Passenger- Miles (000) | Revenue Plane- Miles(000) | Revenue Departures |
|-------------------------------|-----------|----------|------------|-------------|---------------------------------------|------------------------------|---------------------------------|-----------------------|
| | Total | Fatal | Passg. | Crew Others | | | | |
| American Airlines | 1 | 0 | 0 | 0 | 1,495 | 2,462,750 | 18,620 | 15,574 |
| Braniff Airways | 1 | 0 | 0 | 0 | 826 | 1,529,231 | 17,179 | 15,836 |
| Continental Air Lines | 0 | 0 | 0 | 0 | 174 | 91,527 | 2,096 | 5,709 |
| Delta Air Lines ^{1/} | 0 | 0 | 0 | 0 | 374 | 505,355 | 5,596 | 5,574 |
| Eastern Air Lines | 0 | 0 | 0 | 0 | 3,657 | 3,901,265 | 33,744 | 47,595 |
| National Airlines | 0 | 0 | 0 | 0 | 65 | 307,120 | 1,970 | 447 |
| Northwest Airlines | 2 | 0 | 0 | 0 | 825 | 2,473,650 | 14,617 | 7,713 |
| Pan American World Airways | 5 | 3 | 183 | 21 | 7,790 | 15,907,423 | 132,931 | 126,994 |
| Trans World Airlines | 3 | 1 | 79 | 9 | 2,165 | 7,925,442 | 63,054 | 31,719 |
| Western Air Lines | 0 | 0 | 0 | 0 | 354 | 587,330 | 5,577 | 3,574 |
| Total | 12 | 4 | 262 | 30 | 17,725 | 35,691,093 | 295,384 | 260,735 |

^{1/} Both revenue and nonrevenue

^{2/} Carrier's prior year international data are included with domestic as a result of waiver granted carrier. Beginning 1/1/74, carriers domestic and international data are presented separately.

The following of aircraft represented.

| Aircraft Categ |
|----------------|
| Helicopter |
| Single-Engine |
| Piston-Engine |
| Turboprop Airc |
| Turbojet Aircr |

^{1/} Two or mor
^{2/} Sabotage a

ACCIDENTS BY TYPE OF AIRCRAFT
CERTIFICATED ROUTE AIR CARRIERS
ALL OPERATIONS
1974

The following is a resume of accident involvement of the different categories of aircraft. Accident rates per 100,000 hours of flight operations are also represented.

| <u>Aircraft Category</u> | <u>Hours Flown</u> | <u>Accidents</u> | | <u>Accident Rates Per 100,000 Hours</u> | |
|--------------------------------------|--------------------|------------------|-----------------|---|--------------|
| | | <u>Total</u> | <u>Fatal</u> | <u>Total</u> | <u>Fatal</u> |
| Helicopter | 13,225 | 0 | 0 | 0 | 0 |
| Single-Engine Aircraft | 17,756 | 3 | 0 | 16.90 | 0 |
| Piston-Engine Aircraft ^{1/} | 33,307 | 1 | 1 | 3.00 | 3.00 |
| Turboprop Aircraft ^{1/} | 373,127 | 3 | 0 | 0.80 | 0 |
| Turbojet Aircraft ^{1/} | 5,326,474 | 38 ^{2/} | 7 ^{2/} | 0.69 | 0.11 |

^{1/} Two or more engines

^{2/} Sabotage accident is included in all computations except rates.

^{2/} Carrier's prior year international data are included with domestic as a result of waiver granted carrier. Beginning 1/1/74, carriers domestic and international data are presented separately.

CAUSE/FACTOR TABLE

U. S. AIR CARRIERS
ALL OPERATIONS
1974

EXCLUDES 3 ACCIDENTS WITH NO CAUSAL ASSIGNMENTS

INVOLVES 44 TOTAL ACCIDENTS
INVOLVES 8 FATAL ACCIDENTS

| BROAD CAUSE/FACTOR | FATAL ACCIDENTS | | NONFATAL ACCIDENTS | | ALL ACCIDENTS | |
|---------------------------------------|-----------------|--------|--------------------|--------|---------------|--------|
| | CAUSE | TOTAL* | CAUSE | TOTAL* | CAUSE | TOTAL* |
| PILOT | 4 | 12.50 | 12 | 33.33 | 16 | 36.36 |
| PERSONNEL | 1 | 12.50 | 22 | 61.11 | 23 | 52.27 |
| AIRFRAME | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| LANDING GEAR | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| POWERPLANT | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| SYSTEMS | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| INSTRUMENTS/EQUIPMENT AND ACCESSORIES | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| ROTORCRAFT | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| AIRPORTS/AIRWAYS/FACILITIES | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| WEATHER | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| TERRAIN | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| MISCELLANEOUS | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |
| UNDETERMINED | 1 | 12.50 | 2 | 5.56 | 3 | 6.82 |

THE FIGURES OPPOSITE EACH CAUSAL CATEGORY REPRESENT THE NUMBER AND PERCENT OF ACCIDENTS IN WHICH THAT PARTICULAR CAUSAL CATEGORY WAS ASSIGNED

* IF AN ACCIDENT INCLUDES BOTH A CAUSE AND RELATED FACTOR IN THE SAME CAUSAL CATEGORY, THE ACCIDENT IS REPRESENTED ONCE UNDER THE TOTAL FOR THAT CATEGORY

INVOLVES 44 TOTAL
INVOLVES 8 FATAL

DETAILED CAUSE/FACTOR

** PILOT **

PILOT IN COMMAND
EXCEEDED DESIGN
FAILED TO SEE AND
FAILED TO SEE AND
FAILED TO OBTAIN
FAILED TO FOLLOW
IMPROPER OPERATION
IMPROPER OPERATION
IMPROPER IN-FLIGHT
INADEQUATE SUPERVISOR
SELECTED UNSUITABLE
SPONTANEOUS-IMPROPER
MISJUDGED DISTANCE
MISJUDGED CLEARANCE
SPATIAL DISORIENTATION
FAILED TO MAINTAIN
FAILED TO INITIATE
DIRECT ENTRIES

SUBTOTAL

COPILOT
IMPROPER INFLIGHT OPERATION

SUBTOTAL

** PERSONNEL **

FLIGHT INSTRUCTOR
MAINTENANCE, SERVICE
IMPROPER MAINTENANCE
OPERATIONAL SUPERVISOR
INADEQUATE GROUND
INADEQUATE SUPERVISOR
WEATHER PERSONNEL
TRAFFIC CONTROL PERSONNEL
FAILURE TO ADVISE
FAILURE TO ADVISE
OTHER
AIRPORT SUPERVISOR
AIRWAYS FACILITIES
PRODUCTION-DESIGN
MISCELLANEOUS-PERSONNEL
PILOT OF OTHER AIRCRAFT
GROUND CREWMAN
PASSENGER
THIRD PILOT
FLIGHT ENGINEER
FLIGHT PERSONNEL
FLIGHT ATTENDANT
DISPATCHING AIRCRAFT
OTHER
DISPATCHING
DISPATCHED AIRCRAFT

SUBTOTAL

** AIRFRAME **

WINGS
SPARS

CAUSE/FACTOR TABLE

U. S. AIR CARRIERS
ALL OPERATIONS
1974

EXCLUDES 3 ACCIDENTS WITH NO CAUSAL ASSIGNMENTS

INVOLVES 44 TOTAL ACCIDENTS
INVOLVES 8 FATAL ACCIDENTS

| DETAILED CAUSE/FACTOR | FATAL ACCIDENTS | | | NONFATAL ACCIDENTS | | | ALL ACCIDENTS | | |
|--|-----------------|--------|-------|--------------------|--------|-------|---------------|--------|-------|
| | CAUSE | FACTOR | TOTAL | CAUSE | FACTOR | TOTAL | CAUSE | FACTOR | TOTAL |
| ** PILOT ** | | | | | | | | | |
| PILOT IN COMMAND | | | | | | | | | |
| EXCEEDED DESIGN STRESS LIMITS OF AIRCRAFT | 1 | | 1 | | | | 1 | | 1 |
| FAILED TO SEE AND AVOID OTHER AIRCRAFT | | | | 1 | | 1 | 1 | | 1 |
| FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS | | | | 1 | | 1 | 1 | | 1 |
| FAILED TO OBTAIN/MAINTAIN FLYING SPEED | 1 | | 1 | | | | 1 | | 1 |
| FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES ETC | 2 | 1 | 3 | | | | 2 | 1 | 3 |
| IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS | | | | 1 | | 1 | 1 | | 1 |
| IMPROPER OPERATION OF FLIGHT CONTROLS | | | | 1 | | 1 | 1 | | 1 |
| IMPROPER IN-FLIGHT DECISIONS OR PLANNING | | | | 2 | | 2 | 2 | | 2 |
| INADEQUATE SUPERVISION OF FLIGHT | | | | 1 | | 1 | 1 | | 1 |
| SELECTED UNSUITABLE TERRAIN | | | | 1 | | 1 | 1 | | 1 |
| SPONTANEOUS-IMPROPER ACTION | | | | 2 | | 2 | 2 | | 2 |
| MISJUDGED DISTANCE AND ALTITUDE | 1 | | 1 | | | | 1 | | 1 |
| MISJUDGED CLEARANCE | | | | 1 | | 1 | 1 | | 1 |
| SPATIAL DISORIENTATION | | 1 | 1 | | | | | 1 | 1 |
| FAILED TO MAINTAIN DIRECTIONAL CONTROL | | | | 1 | | 1 | 1 | | 1 |
| FAILED TO INITIATE GO-AROUND | | | | 3 | | 3 | 3 | | 3 |
| DIRECT ENTRIES | 1 | | 1 | | | | 1 | | 1 |
| SUBTOTAL | 6 | 2 | 8 | 15 | | 15 | 21 | 2 | 23 |
| COPLOT | | | | | | | | | |
| IMPROPER IFR OPERATION | 1 | | 1 | 1 | | 1 | 2 | | 2 |
| SUBTOTAL | 1 | | 1 | 1 | | 1 | 2 | | 2 |
| ** PERSONNEL ** | | | | | | | | | |
| FLIGHT INSTRUCTOR | | | | | | | | | |
| MAINTENANCE, SERVICING, INSPECTION | | | | | | | | | |
| IMPROPER MAINTENANCE(MAINTENANCE PERSONNEL) | | | | 1 | 1 | 2 | 1 | 1 | 2 |
| OPERATIONAL SUPERVISORY PERSONNEL | | | | | | | | | |
| INADEQUATE GROUND TRAINING-PROCEDURES | | | | 1 | | 1 | 1 | | 1 |
| INADEQUATE SUPERVISION/TRAINING OF RAMP CREWS | | | | 1 | | 1 | 1 | | 1 |
| WEATHER PERSONNEL | | | | | | | | | |
| TRAFFIC CONTROL PERSONNEL | | | | | | | | | |
| FAILURE TO ADVISE OF UNSAFE WEATHER CONDITION | | | | | 1 | 1 | | 1 | 1 |
| FAILURE TO ADVISE OF OTHER TRAFFIC | | | | | 1 | 1 | | 1 | 1 |
| OTHER | | | | | 2 | 2 | | 2 | 2 |
| AIRPORT SUPERVISORY PERSONNEL | | | | | | | | | |
| AIRWAYS FACILITIES PERSONNEL | | | | | | | | | |
| PRODUCTION-DESIGN-PERSONNEL | | | | | | | | | |
| MISCELLANEOUS-PERSONNEL | | | | | | | | | |
| PILOT OF OTHER AIRCRAFT | | | | 1 | 1 | 2 | 1 | 1 | 2 |
| GROUND CREWMAN | | | | 2 | | 2 | 2 | | 2 |
| PASSENGER | 1 | | 1 | 9 | | 9 | 10 | | 10 |
| THIRD PILOT | | | | | | | | | |
| FLIGHT ENGINEER | | | | | | | | | |
| FLIGHT PERSONNEL | | | | | | | | | |
| FLIGHT ATTENDANT | | | | 9 | | 9 | 9 | | 9 |
| DISPATCHING (AIR CARRIER ONLY) | | | | | | | | | |
| OTHER | 1 | 1 | 2 | | | | 1 | 1 | 2 |
| DISPATCHING | | | | | | | | | |
| DISPATCHED AIRCRAFT IMPROPERLY EQUIPPED FOR FLIGHT | 1 | | 1 | | | | 1 | | 1 |
| SUBTOTAL | 3 | 1 | 4 | 24 | 6 | 30 | 27 | 7 | 34 |
| ** AIRFRAME ** | | | | | | | | | |
| WINGS | | | | | | | | | |
| SPARS | 1 | | 1 | | | | 1 | | 1 |

THE FIGURES OPPOSITE EACH CAUSAL CATEGORY REPRESENT THE NUMBER AND PERCENT OF ACCIDENTS IN WHICH THAT PARTICULAR CAUSAL CATEGORY WAS ASSIGNED

* IF AN ACCIDENT INCLUDES BOTH A CAUSE AND RELATED FACTOR IN THE SAME CAUSAL CATEGORY, THE ACCIDENT IS REPRESENTED ONCE UNDER THE TOTAL FOR THAT CATEGORY

CAUSE/FACTOR TABLE

AIRFRAME (CONTINUED)

| | FATAL ACCIDENTS | | | NONFATAL ACCIDENTS | | | ALL ACCIDENTS | | |
|---|-----------------|--------|-------|--------------------|--------|-------|---------------|--------|-------|
| | CAUSE | FACTOR | TOTAL | CAUSE | FACTOR | TOTAL | CAUSE | FACTOR | TOTAL |
| FUSELAGE | | | | | | | | | |
| LANDING GEAR | | | | | | | | | |
| WHEELS, TIRES, AXLES | | | | 2 | | 2 | 2 | | 2 |
| FLIGHT CONTROL SURFACES | | | | | | | | 1 | 1 |
| HORIZONTAL STABILIZER, ATTACHMENTS | | 1 | 1 | | | | | | |
| SUBTOTAL | 1 | 1 | 2 | 2 | | 2 | 3 | 1 | 4 |
| ** POWERPLANT ** | | | | | | | | | |
| ENGINE STRUCTURE | | | | | | | | | |
| IGNITION SYSTEM | | | | | | | | | |
| FUEL SYSTEM | | | | | | | | | |
| LUBRICATING SYSTEM | | | | | | | | | |
| COOLING SYSTEM | | | | | | | | | |
| PROPELLER AND ACCESSORIES | | | | | | | | | |
| EXHAUST SYSTEM | | | | | | | | | |
| ENGINE ACCESSORIES | | | | | | | | | |
| ENGINE CONTROLS-COCKPIT | | | | | | | | | |
| POWERPLANT-INSTRUMENTS | | | | | | | | | |
| MISCELLANEOUS | | | | | | | | | |
| FOREIGN OBJECT DAMAGE | | | | 1 | 1 | 2 | 1 | 1 | 2 |
| REDUCTION GEAR ASSEMBLY | | | | | | | | | |
| COMPRESSOR ASSEMBLY | | | | | | | | | |
| COMBUSTION ASSEMBLY | | | | | | | | | |
| TURBINE ASSEMBLY | | | | | | | | | |
| ACCESSORY DRIVE ASSEMBLY | | | | | | | | | |
| LUBRICATING SYSTEM | | | | | | | | | |
| FUEL SYSTEM | | | | | | | | | |
| SAFETY SYSTEM | | | | | | | | | |
| IGNITION SYSTEM | | | | | | | | | |
| TORQUEMETER | | | | | | | | | |
| AIR BLEED | | | | | | | | | |
| EXHAUST SYSTEM | | | | | | | | | |
| THRUST REVERSER | | | | | | | | | |
| PROPELLER SYSTEM | | | | | | | | | |
| CONSTANT SPEED DRIVE | | | | | | | | | |
| POWER LEVER | | | | | | | | | |
| PROPELLER LEVER | | | | | | | | | |
| REVERSE THRUST LEVER | | | | | | | | | |
| ENGINE INDICATING EQUIPMENT | | | | | | | | | |
| ENGINE INSTALLATION | | | | | | | | | |
| OTHER | | | | 1 | | 1 | 1 | | 1 |
| SUBTOTAL | | | | 2 | 1 | 3 | 2 | 1 | 3 |
| ** SYSTEMS ** | | | | | | | | | |
| ELECTRICAL SYSTEM | | | | | | | | | |
| HYDRAULIC SYSTEM | | | | | | | | | |
| FLIGHT CONTROL SYSTEMS | | | | | | | | | |
| ANTI-ICING, DE-ICING SYSTEMS | | | | | | | | | |
| AIR CONDITION, HEATING AND PRESSURIZATION | | | | | | | | | |
| AUTO PILOT | | | | | | | | | |
| FIRE WARNING SYSTEM | | | | | | | | | |
| POWERPLANT | | | | 1 | | 1 | 1 | | 1 |
| FIRE EXTINGUISHER SYSTEM | | | | | | | | | |
| OXYGEN SYSTEM | | | | | | | | | |
| OTHER SYSTEMS | | | | | | | | | |
| PITOT SYSTEM | 1 | | 1 | | | | 1 | | 1 |
| SUBTOTAL | 1 | | 1 | 1 | | 1 | 2 | | 2 |
| ** INSTRUMENTS/EQUIPMENT AND ACCESSORIES ** | | | | | | | | | |
| FLIGHT AND NAVIGATION INSTRUMENTS | | | | | | | | | |
| COMMUNICATIONS AND NAVIGATION EQUIPMENT | | | | | | | | | |
| OTHER | | | | | 1 | 1 | | 1 | 1 |
| MISCELLANEOUS EQUIPMENT | | | | | | | | | |
| OTHER | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |

INSTRUMENTS/EQUIPMENT

| |
|--------------------|
| SUBTOTAL |
| ** AIRPORTS/AIRWAY |
| AIRPORT FACILITIES |
| OTHER |
| AIRPORT CONDITIONS |
| SNOW ON RUNWAY |
| SNOW WINDROWS |
| HIDDEN HAZARD |
| OTHER |
| AIRWAYS FACILITIES |
| SUBTOTAL |
| ** WEATHER ** |
| LOW CEILING |
| RAIN |
| FOG |
| SNOW |
| HAIL |
| ICING CONDITIONS- |
| TURBULENCE IN FL |
| TURBULENCE ASSOC |
| THUNDERSTORM ACT |
| SUBTOTAL |
| ** TERRAIN ** |
| HIDDEN OBSTRUCTION |
| SUBTOTAL |
| ** MISCELLANEOUS |
| EVASIVE MANEUVER |
| SABOTAGE |
| FOREIGN OBJECT D |
| UNDETERMINED |
| SUBTOTAL |
| GRAND TOTAL |
| ** MISCELLANEOUS |
| CREW COORDINATION |
| INSTRUMENTS-MISR |
| SEAT BELT NOT FA |
| NOT ALLIGNED WIT |
| IMPROPERLY SECUR |
| FATIGUE FRACTURE |
| SEPARATION IN FL |
| FIRE IN ENGINE |
| FIRE IN BRAKES/ |
| WHITEDOUT |
| AIRCRAFT CAME TO |
| SEAT BELT SIGN O |
| OVERLOAD FAILURE |
| MATERIAL FAILURE |
| EXCESSIVE PRESSU |
| VIBRATION, EXCES |
| SEAT BELT SIGN O |

APPENDIX B
LISTING AND BRIEFS OF ACCIDENTS

U. S. AIR CARRIER ACCIDENTS
ALL OPERATIONS
1974

| FILE NUMBER | AIRCRAFT REGIST. | DATE | LOCATION | AIRCRAFT MAKE | AIRCRAFT MODEL | INJURY INDEX |
|----------------|---------------------|--------|---------------------|------------------|-------------------|-----------------|
| ----- | ----- | ---- | ----- | ----- | ----- | ----- |
| 1 0001 | N454PA | 013074 | PAGO PAGO, SAMOA | BOEING | 707 | FATAL |
| 1 0002 | N7624U | 010474 | TAMPA, FLA | BOEING | 727 | SERIOUS |
| 1 0003 | N1288L | 021574 | NALEXANDRIA, LA | DOUGLAS | DC-9 | SERIOUS |
| 1 0004 | N732PA | 020274 | NHONOLULU, HAWAII | BOEING | 747 | FATAL |
| 1 0005 | N73145 | 011374 | CHEYENNE, WYO | CONVAIR | 580 | SERIOUS |
| 1 0006 | N70418 | 031674 | NEW STUYAHOK, ALAS | CESSNA | A185F | NONE |
| 1 0007 | N94239 | 040274 | ARLINGTON, TEX | GEN DYNAMIC | 240D | SERIOUS |
| 1 0008 | N14ST | 052374 | SPRINGFIELD, ILL | LOCKHEED | 382 | FATAL |
| 1 0009 | N7567W | 040174 | NROSEWOOD, OHIO | BOEING | 707 | SERIOUS |
| 1 0010 | N8962E | 090174 | NMERIDIAN, MISS | DOUGLAS | DC-9 | SERIOUS |
| 1 0011 | N7521 | 010174 | SAN ANTONIO, TEX | BOEING | 707 | NONE |
| 1 0012 | N757TW | 011674 | LOS ANGELES, CALIF | BOEING | 707 | SERIOUS |
| 1 0013 | N60NA | 070874 | NTAMPA, FLA | DOUGLAS | DC-10 | NONE |
| 1 0014 | N791TW | 011774 | INDIANAPOLIS, IND | BOEING | 707 | NONE |
| 1 0015 | N1262L | 022174 | NPONTIAC, ILL | DOUGLAS | DC-9 | SERIOUS |
| 1 0016 | N1924U | 041874 | PT WAKEFIELD, ALAS | CESSNA | 185 | MINOR |
| 1 0017 | N321EA | 032174 | NFT LAUDERDALE, FLA | LOCKHEED | 1011 | SERIOUS |
| 1 0018 | N833TW | 040174 | NTERRE HAUTE, IND | BOEING | 727-31 | SERIOUS |
| 1 0019 | N801WA | 032774 | ANCHORAGE, ALAS | DOUGLAS | DC-8 | SERIOUS |
| 1 0020 | N8984E | 091174 | CHARLOTTE, NC | DOUGLAS | DC9-31 | FATAL |
| 1 0021 | N1122J | 072474 | CLEVELAND, OHIO | BRITISH AC | 1-11 | SERIOUS |
| 1 0022 | N1303L | 072774 | NFORT MYERS, FLA | DOUGLAS | DC-8 | SERIOUS |
| 1 0023 | N706DA | 070374 | NATLANTA, GA | LOCKHEED | 1011 | SERIOUS |
| 1 0024 | N8734 | 090874 | NCEPHALONIA, GREECE | BOEING | 707 | FATAL |
| 1 0025 | N615US | 092174 | NO. PACIFIC OCEAN | BOEING | 747 | SERIOUS |
| 1 0026 | N1548 | 092074 | NPITTSBURGH, PA | BRITISH AC | 1-11 | SERIOUS |

U. S. AIR CARRIER ACCIDENTS
ALL OPERATIONS
1974

| FILE NUMBER | AIRCRAFT REGIST. | DATE | LOCATION | AIRCRAFT MAKE | AIRCRAFT MODEL | INJURY INDEX |
|----------------|---------------------|--------|------------------|------------------|-------------------|-----------------|
| 1 0027 | N788TW | 021674 | NHERNDON,VA | BOEING | 707 | SERIOUS |
| 1 0028 | N6818 | 071074 | CHICAGO, ILL | BOEING | 727 | SERIOUS |
| 1 0029 | N54328 | 120174 | BERRYVILLE,VA | BOEING | 727 | FATAL |
| 1 0030 | N5110U | 021774 | KARLUK,ALAS | CESSNA | 206 | NONE |
| 1 0031 | N274US | 120174 | NTHIELLS,NY | BOEING | 727 | FATAL |
| 1 0032 | N4914 | 091274 | KIPNUK,ALAS | DEHAVILLAND | DHC-6 | NONE |
| 1 0033 | N1120J | 112174 | ALBANY,NY | BRITISH AC | 1-11 | SERIOUS |
| 1 0034 | N815E | 110674 | DETROIT,MICH | DOUGLAS | DC-8 | SERIOUS |
| 1 0035 | N1583V | 121174 | MISSING AIRCRAFT | GRUMMAN | G-21 | FATAL |
| 1 0036 | N8123N | 120174 | NGORDONSVILLE,VA | BOEING | 727 | SERIOUS |
| 1 0037 | N604US | 112174 | JAMAICA,NY | BOEING | 747 | NONE |
| 1 0037 | N8975E | 112174 | JAMAICA,NY | DOUGLAS | DC-9 | NONE |
| 1 0038 | N473DA | 112574 | FLUSHING,NY | BOEING | 727 | NONE |
| 1 0039 | N7061U | 092174 | NEW YOR, NY | BOEING | 727 | SERIOUS |
| 1 0040 | N4611 | 111774 | NGRAND ISLE,LA | BOEING | 727 | SERIOUS |
| 1 0041 | N93104 | 112674 | ROME, ITALY | BOEING | 747 | SERIOUS |
| 1 0042 | N653PA | 041674 | SAN JUAN,PR | BOEING | 747 | SERIOUS |
| 1 0043 | N1803 | 120574 | NBOGOTA,COLOMBIA | DOUGLAS | DC-8 | SERIOUS |
| 1 0044 | N8432 | 122874 | NRICHMOND,VA | BOEING | 707 | SERIOUS |
| 1 0045 | N7554A | 121074 | NPHOENIX,ARIZ | BOEING | 707 | SERIOUS |
| 1 0046 | N765PA | 112574 | BEIRUT,LEBANON | BOEING | 707 | SERIOUS |
| 1 0047 | N446PA | 042274 | BALI,INDONESIA | BOEING | 707 | FATAL |

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

BRIEFS OF ACCIDENTS

U. S. AIR CARRIERS

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

BRIEFS OF ACCIDENTS

U. S. AIR CARRIERS

ALL OPERATIONS

1974

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|--|--|----------|---|-----|--|------------|
| | | | | F | S | M/N | | |
| 1-0001 | 1/30/74 TIME - 2341 | PAGO PAGO, SAMDA | BOEING 707 N454PA DAMAGE-DESTROYED | CR- 10 | 0 | 0 | SCHED INTERNATL PASSG SRV AIRLINE TRANSPORT, AGE 52, 17414 TOTAL HOURS, 7414 IN TYPE, INSTRUMENT RATED. | |
| | | NAME OF AIRPORT - PAGO PAGO INTL OPERATOR - PAN AMERICAN WORLD AIRWAYS, INC. DEPARTURE POINT - INTENDED DESTINATION AUCKLAND, NEW ZEALAND - LOS ANGELES, CALIF TYPE OF ACCIDENT - UNDERSHOOT COLLIDED WITH TREES | | | | | LAST ENROUTE STOP HONOLULU, HAWAII PHASE OF OPERATION LANDING FINAL APPROACH LANDING FINAL APPROACH | |
| | | PROBABLE CAUSE(S) PILOT IN COMMAND - MISJUDGED DISTANCE AND ALTITUDE FACTOR(S) PILOT IN COMMAND - FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES, ETC. MISCELLANEOUS ACTS, CONDITIONS - INSTRUMENTS - MISREAD OR FAILED TO READ MISCELLANEOUS ACTS, CONDITIONS - CREW COORDINATION - POOR WEATHER - RAIN PILOT IN COMMAND - SPATIAL DISORIENTATION WEATHER BRIEFING - COMPANY DISPATCH WEATHER FORECAST - UNKNOWN/NOT REPORTED | | | | | | |
| | | SKY CONDITION BROKEN VISIBILITY AT ACCIDENT SITE 1/2 MILE OR LESS OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE WIND DIRECTION-DEGREES 20 TYPE OF WEATHER CONDITIONS IFR FIRE AFTER IMPACT REMARKS- EXCESSIVE RATE OF DESCENT AFTR DH-VISUAL ILLUSIONS PRODUCED BY ENVRMNT.VASI APPARENTLY NOT USED. | | | | | CEILING AT ACCIDENT SITE 1700 PRECIPITATION AT ACCIDENT SITE RAIN SHOWERS RELATIVE BEARING OF WIND LEFT QUARTERING HEAD WIND 293-337 DEGREES WIND VELOCITY-KNOTS 13 TYPE OF FLIGHT PLAN IFR | |

BRIEFS OF ACCIDENTS

FILE DATE LOCATION AIRCRAFT DATA INJURIES FLIGHT PURPOSE PILOT DATA
 F S M/N

1-0002 1/4/74 TAMPA,FLA BOEING 727 CR- 0 0 7 SCHED DOM PASSG SRV AIRLINE TRANSPORT, AGE
 TIME - 1617 N7624U PX- 0 1110 DAMAGE-MINOR 52, 16000 TOTAL HOURS,
 4747 IN TYPE, INSTRUMENT
 RATED.

NAME OF AIRPORT - TAMPA INTL
 OPERATOR - UNITED AIR LINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 TAMPA,FLA CLEVELAND,OHIO
 TYPE OF ACCIDENT
 AIRFRAME FAILURE ON GROUND
 ENGINE FAILURE OR MALFUNCTION

PROBABLE CAUSE(S)
 AIRFRAME - LANDING GEAR WHEELS, TIRES, AXLES
 MISCELLANEOUS ACTS, CONDITIONS - MATERIAL FAILURE
 POWERPLANT - MISCELLANEOUS FOREIGN OBJECT DAMAGE
 FACTOR(S)
 MISCELLANEOUS ACTS, CONDITIONS - FIRE IN BRAKES, WHEEL ASSEMBLY, WHEEL WELL
 PARTIAL POWER LOSS - PARTIAL LOSS OF POWER - 1 ENGINE
 REMARKS- TIRE DISINTEGRATED, #3 ENG INGESTED PCS OF RUBBER. ABORTED. PAX INJURED DRG EVAC USING ESCAPE SLIDES.

PHASE OF OPERATION
 TAKEOFF RUN
 TAKEOFF RUN

1-0003 2/15/74 NR.ALEXANDRIA,LA DOUGLAS DC-9 CR- 0 1 4 SCHED DOM PASSG SRV AIRLINE TRANSPORT, AGE
 TIME - 0850 N1288L PX- 0 0 64 DAMAGE-NONE 39, 15000 TOTAL HOURS,
 4000 IN TYPE, INSTRUMENT
 RATED.

OPERATOR - DELTA AIR LINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 NEW ORLEANS, LA DALLAS, TEX
 TYPE OF ACCIDENT
 TURBULENCE

PROBABLE CAUSE(S)
 WEATHER - TURBULENCE IN FLIGHT, CLEAR AIR
 PERSONNEL - FLIGHT PERSONNEL
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
 FACTOR(S)
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - UNKNOWN/NOT REPORTED

PHASE OF OPERATION
 IN FLIGHT NORMAL CRUISE

SKY CONDITION
 UNKNOWN/NOT REPORTED
 VISIBILITY AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 TYPE OF FLIGHT PLAN
 IFR
 REMARKS- FLT ATTENDANT IN REAR GALLEY THROWN AGAINST CEILING, FELL TO FLOOR.

CEILING AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 PRECIPITATION AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 TYPE OF WEATHER CONDITIONS
 VFR

BRIEFS OF ACCIDENTS

FILE DATE LOCATION AIRCRAFT DATA INJURIES FLIGHT PURPOSE PILOT DATA
 F S M/N

1-0004 2/2/74 NR.HONOLULU,HAWAII BOEING 747 CR- 0 0 19 SCHED INTERNATL PASSG SRV AIRLINE TRANSPORT, AGE
 TIME - 2130 N732PA PX- 1 0279 DAMAGE-NONE UNK/NR, UNK/NR TOTAL
 HOURS, UNK/NR IN TYPE,

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES F S M/N | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|--|--------------------------------------|--------------------------|---|---|
| 1-0004 | 2/2/74 TIME - 2130 | NR, HONOLULU, HAWAII | BOEING 747 N732PA DAMAGE-NONE | CR- 0 0 19 PX- 1 0279 | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED. |
| | | OPERATOR - PAN AMERICAN WORLD AIRWAYS, INC. DEPARTURE POINT INTENDED DESTINATION SAN FRANCISCO, CALIF AGANA, GUAM TYPE OF ACCIDENT MISCELLANEOUS | | | LAST ENROUTE STOP HONOLULU, HAWAII PHASE OF OPERATION IN FLIGHT NORMAL CRUISE | |
| | | PROBABLE CAUSE(S) PERSONNEL - MISCELLANEOUS-PASSENGER REMARKS- 16 MONTH OLD CHILD ASPHYXIATED BY SEATBELT WHILE UNATTENDED. | | | | |
| 1-0005 | 1/13/74 TIME - 1925 | CHEYENNE, WYO | CONVAIR 580 N73145 DAMAGE-NONE | CR- 0 1 2 PX- 0 0 44 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 44, 13800 TOTAL HOURS, 6090 IN TYPE, INSTRUMENT RATED. |
| | | NAME OF AIRPORT - CHEYENNE MUNI OPERATOR - FRONTIER AIRLINES, INC. DEPARTURE POINT INTENDED DESTINATION COLORADO SPRINGS, COLO ROCK SPRINGS, WYO TYPE OF ACCIDENT TURBULENCE | | | LAST ENROUTE STOP LARAMIE, WYO PHASE OF OPERATION LANDING FINAL APPROACH | |
| | | PROBABLE CAUSE(S) WEATHER - TURBULENCE IN FLIGHT, CLEAR AIR PERSONNEL - FLIGHT PERSONNEL MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED FACTOR(S) MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON WEATHER BRIEFING - BRIEFING RECEIVED-METHOD UNKNOWN WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT | | | | |
| | | SKY CONDITION SCATTERED VISIBILITY AT ACCIDENT SITE 5 OR OVER OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE WIND VELOCITY-KNOTS 30 TYPE OF FLIGHT PLAN VFR | | | CEILING AT ACCIDENT SITE UNLIMITED PRECIPITATION AT ACCIDENT SITE NONE WIND DIRECTION-DEGREES 260 TYPE OF WEATHER CONDITIONS VFR | |
| | | REMARKS- MODERATE TURBULENCE-FLT ATTENDANT THROWN AGAINST OVERHEAD. GUSTS TO 43KTS. | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|---|------------------------|--------------------|--|------------------------|--------|--------------------------|---|
| | | | | F | S. M/N | | |
| 1-0006 | 3/16/74 TIME - 1545 | NEW STUYAHOK, ALAS | CESSNA A185F N70418 DAMAGE-SUBSTANTIAL | CR- 0 0 1 PX- 0 0 1 | 0 0 1 | NS/CTR REVENUE PASSG DOM | COMMERCIAL, FL. INSTR., AGE 26, 1834 TOTAL HOURS, 118 IN TYPE, INSTRUMENT RATED. |
| <p>NAME OF AIRPORT - NEW STUYAHOK OPERATOR - KODIAK AIRWAYS, INC. DEPARTURE POINT - INTENDED DESTINATION DILLINGHAM, ALAS - NEW STUYAHOK, ALAS TYPE OF ACCIDENT - COLLIDED WITH SNOWBANK</p> <p>PHASE OF OPERATION LANDING LEVEL OFF/TOUCHDOWN</p> <p>PROBABLE CAUSE(S) PILOT IN COMMAND - FAILED TO INITIATE GO-AROUND MISCELLANEOUS ACTS, CONDITIONS - WHITEDOUT FACTOR(S) AIRPORTS/AIRWAYS/FACILITIES - AIRPORT CONDITIONS SNOW ON RUNWAY AIRPORTS/AIRWAYS/FACILITIES - AIRPORT CONDITIONS SNOW WINDROWS WEATHER - SNOW WEATHER BRIEFING - BRIEFED BY FLIGHT SERVICE PERSONNEL, BY RADIO WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT</p> <p>SKY CONDITION OVERCAST VISIBILITY AT ACCIDENT SITE 3 MILES OR LESS OBSTRUCTIONS TO VISION AT ACCIDENT SITE BLOWING SNOW WIND DIRECTION-DEGREES 135 TYPE OF WEATHER CONDITIONS VFR</p> <p>CEILING AT ACCIDENT SITE 1000 PRECIPITATION AT ACCIDENT SITE SNOW TEMPERATURE-F 30 WIND VELOCITY-KNOTS 5 TYPE OF FLIGHT PLAN VFR</p> <p>REMARKS- LOST REFERENCE AFTER PASSING THRESHOLD.</p> | | | | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES F S M/N | FLIGHT PURPOSE | PILOT DATA |
|--------|-----------------------|---|---|-------------------------|--|---|
| | | | | | | |
| 1-0007 | 4/2/74 TIME - 2005 | ARLINGTON, TEX | GEN DYNAMIC 240D N94239 DAMAGE-NONE | CR- 0 1 2 PX- 0 0 11 | SCHED DDM PASSG SRV | AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED. |
| | | OPERATOR - TEXAS INTERNATIONAL AIRLINES, INC. DEPARTURE POINT NEW ORLEANS, LA TYPE OF ACCIDENT TURBULENCE | INTENDED DESTINATION DALLAS, TEX | | LAST ENROUTE STOP LAKE CHARLES, LA PHASE OF OPERATION IN FLIGHT NORMAL CRUISE | |
| | | PROBABLE CAUSE(S) WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS PERSONNEL - FLIGHT PERSONNEL MISCELLANEOUS ACTS/CONDITIONS - SEAT BELT NOT FASTENED FACTOR(S) MISCELLANEOUS ACTS/CONDITIONS - SEAT BELT SIGN ON WEATHER BRIEFING - COMPANY DISPATCH WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT | | | | |
| | | SKY CONDITION UNKNOWN/NOT REPORTED VISIBILITY AT ACCIDENT SITE 5 OR OVER OBSTRUCTIONS TO VISION AT ACCIDENT SITE UNKNOWN/NOT REPORTED TYPE OF FLIGHT PLAN IFR | | | | CEILING AT ACCIDENT SITE UNKNOWN/NOT REPORTED PRECIPITATION AT ACCIDENT SITE UNKNOWN/NOT REPORTED TYPE OF WEATHER CONDITIONS IFR |
| | | REMARKS- FORECAST TURB.FLT ATTENDANT INJURED WHEN ANSWERING PSGR CALL BELL. | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|---|---------|---------------------------------|---|--------------------------------|---|-----|---|--|
| | | | | F | S | M/N | | |
| 1-0008 | 5/23/74 | SPRINGFIELD, ILL TIME - 1553 | LOCKHEED 382 NI4ST DAMAGE-DESTROYED | CR- 3 | 0 | 0 | MILITARY CTR CARGO DOM | AIRLINE TRANSPORT, AGE 58, 15553 TOTAL HOURS, 2424 IN TYPE, INSTRUMENT RATED. |
| <p>OPERATOR - SATURN AIRWAYS, INC. DEPARTURE POINT INTENDED DESTINATION ALAMEDA, CALIF WILMINGTON, DEL TYPE OF ACCIDENT AIRFRAME FAILURE IN FLIGHT</p> <p>PROBABLE CAUSE(S) AIRFRAME - WINGS SPARS MISCELLANEOUS ACTS, CONDITIONS - FATIGUE FRACTURE FACTOR(S) MISCELLANEOUS ACTS, CONDITIONS - SEPARATION IN FLIGHT WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS WEATHER - THUNDERSTORM ACTIVITY WEATHER BRIEFING - OTHER WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT</p> <p>SKY CONDITION OVERCAST VISIBILITY AT ACCIDENT SITE 2 MILES OR LESS OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE TYPE OF WEATHER CONDITIONS IFR FIRE AFTER IMPACT REMARKS- UNDISCOVERED, PREEXISTING FATIGUE CRACKS, DWS 162, LWR FRONT SPAR CAP, DUTBOARD SECT L WING SEPD.</p> | | | | | | | | |
| | | | | INJURIES | | | FLIGHT PURPOSE | |
| | | | | F | S | M/N | | |
| | | | | CR- 3 | 0 | 0 | LAST ENROUTE STOP INDIANAPOLIS, IND PHASE OF OPERATION IN FLIGHT - NORMAL CRUISE | |
| | | | | PX- 1 | 0 | 0 | | |
| | | | | CEILING AT ACCIDENT SITE | | | | |
| | | | | 3000 | | | | |
| | | | | PRECIPITATION AT ACCIDENT SITE | | | | |
| | | | | RAIN SHOWERS, THUNDERSTORM | | | | |
| | | | | TEMPERATURE-F | | | | |
| | | | | 60 | | | | |
| | | | | TYPE OF FLIGHT PLAN | | | | |
| | | | | IFR | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|--------|-----------------------------------|-------------------------------------|----------|---|-----|--|--|
| | | | | F | S | M/N | | |
| 1-0009 | 4/1/74 | NR, ROSEWOOD, OHIO TIME - 0545 | BOEING 707 N7567W DAMAGE-NONE | CR- 0 | 0 | 7 | SCHED DOM PASSG SRY | AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE. |
| | | | | INJURIES | | | FLIGHT PURPOSE | |
| | | | | F | S | M/N | | |
| | | | | CR- 0 | 0 | 7 | UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE. | |
| | | | | PX- 0 | 0 | 1 | | |

BRIEFS OF ACCIDENTS

FILE DATE LOCATION AIRCRAFT DATA INJURIES FLIGHT PURPOSE PILOT DATA

1-0009 4/1/74 NR-ROSEWOOD,OHIO BOEING 707 CR- 0 0 7 SCHED DOM PASSG SRV AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL TIME - 0545 N7567M PX- 0 1 53 DAMAGE-NONE HOURS, UNK/NR IN TYPE, UNK/NR INSTRUMENT RATED.

OPERATOR - TRANS WORLD AIRLINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 WASHINGTON,DC SAN FRANCISCO,CALIF
 TYPE OF ACCIDENT
 TURBULENCE
 PHASE OF OPERATION
 IN FLIGHT NORMAL CRUISE

PROBABLE CAUSE(S)
 WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
 WEATHER - THUNDERSTORM ACTIVITY
 FACTOR(S)
 INSTRUMENTS/EQUIPMENT AND ACCESSORIES - COMMUNICATIONS AND NAVIGATION EQUIPMENT OTHER
 MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT NOT FASTENED
 MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT SIGN OFF
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - UNKNOWN/NOT REPORTED

SKY CONDITION
 UNKNOWN/NOT REPORTED
 VISIBILITY AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 TYPE OF FLIGHT PLAN
 IFR

REMARKS- SUDDEN UNEXPECTED SVR TURBC.PSGR HIT LEG ON SERVICE CART.TSTM UNDETECTED BY ACFT WX RADAR.

1-0010 9/1/74 NR-MERIDIAN,MISS DOUGLAS DC-9 CR- 0 1 4 SCHED DOM PASSG SRV ATR,FLIGHT INSTR., AGE TIME - 1548 N8962E PX- 0 0 59 DAMAGE-NONE 41, 15500 TOTAL HOURS, 1900 IN TYPE, INSTRUMENT RATED.

OPERATOR - EASTERN AIR LINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 ATLANTA,GA SAN ANTONIO,TEX
 TYPE OF ACCIDENT
 TURBULENCE
 PHASE OF OPERATION
 IN FLIGHT NORMAL CRUISE

PROBABLE CAUSE(S)
 PERSONNEL - FLIGHT PERSONNEL
 MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT NOT FASTENED
 FACTOR(S)
 MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT SIGN ON

REMARKS- P/A ANNOUNCEMENT MADE PRIOR TURBC ENCOUNTER.FLT ATTENDANT INJURED TRYING TO HOLD SVC CART DOWN.

BRIEFS OF ACCIDENTS

FILE DATE LOCATION AIRCRAFT DATA INJURIES FLIGHT PURPOSE PILOT DATA

1-0011 1/1/74 SAN ANTONIO,TEX. BOEING 707 CR- 0 0 8 SCHED DOM PASSG SRV AIRLINE TRANSPORT, AGE
 TIME - 1840 N7521 PX- 0 0 1119 53, 18600 TOTAL HOURS.
 DAMAGE-MINOR QT- 0 0 0 2. 4000 IN TYPE, INSTRUMENT
 RATED.

NAME OF AIRPORT - SAN ANTONIO, INTL
 OPERATOR - AMERICAN AIRLINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 SAN ANTONIO, TEX CHICAGO, ILL
 TYPE OF ACCIDENT
 COLLISION WITH AIRCRAFT BOTH ON GROUND

PHASE OF OPERATION
 TAXI TO TAKEOFF

PROBABLE CAUSE(S)
 PILOT IN COMMAND - FAILED TO SEE AND AVOID OTHER AIRCRAFT
 FACTOR(S)
 PERSONNEL - TRAFFIC CONTROL PERSONNEL FAILURE TO ADVISE OF OTHER TRAFFIC
 PERSONNEL - MISCELLANEOUS-PERSONNEL PILOT OF OTHER AIRCRAFT
 REMARKS- LITES OF OTHER ACFT BLENDING IN WITH RNNY, TAXIWAY LITES-R WG HIT CESSNA TAIL.

1-0012 1/16/74 LOS ANGELES,CALIF BOEING 707 CR- 0 0 7 SCHED DOM PASSG SRV AIRLINE TRANSPORT, AGE
 TIME - 0035 N757TW PX- 0 2 56 45, 15800 TOTAL HOURS,
 DAMAGE-DESTROYED 6750 IN TYPE, INSTRUMENT
 RATED.

NAME OF AIRPORT - LOS ANGELES INTL
 OPERATOR - TRANS WORLD AIRLINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 NEW YORK, NY LOS ANGELES, CALIF
 TYPE OF ACCIDENT
 HARD LANDING
 GEAR COLLAPSED

PHASE OF OPERATION
 LANDING LEVEL OFF/TOUCHDOWN
 LANDING ROLL

PROBABLE CAUSE(S)
 COPILOT - IMPROPER IFR OPERATION
 PILOT IN COMMAND - INADEQUATE SUPERVISION OF FLIGHT
 PILOT IN COMMAND - FAILED TO INITIATE GO-AROUND
 FACTOR(S)
 WEATHER - FOG
 MISCELLANEOUS ACTS, CONDITIONS - OVERLOAD FAILURE
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - WEATHER CONSIDERABLY WORSE THAN FORECAST

CEILING AT ACCIDENT SITE
 UNLIMITED
 PRECIPITATION AT ACCIDENT SITE
 NONE
 RELATIVE BEARING OF WIND
 TAIL WIND 158-202 DEGREES
 WIND DIRECTION-DEGREES
 240
 TYPE OF WEATHER CONDITIONS
 VFR

SKY CONDITION
 PARTIAL OBSCURATION
 VISIBILITY AT ACCIDENT SITE
 3/4 MILE OR LESS
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 GROUND FOG
 TEMPERATURE-F
 52
 WIND VELOCITY-KNOTS
 2
 TYPE OF FLIGHT PLAN
 IFR

FIRE AFTER IMPACT
 REMARKS- CONT VIS APCH AFTER LOSING OUTSIDE VISUAL REF. PENETRATED FOG OVR RNV, NSE WELL FIRE SPREAD TO CABIN

TYPE OF FLIGHT PLAN

IFR

REMARKS- CONT VIS APCH AFTER LOSING OUTSIDE VISUAL REF. PENETRATED FOG OVR RWY. NSE WELL FIRE SPREAD TO CABIN

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|-----------------------|----------------|--|----------------|-------|---------------------|--|
| | | | | F | S M/N | | |
| 1-0013 | 7/8/74 TIME - 0840 | NR. TAMPA, FLA | DOUGLAS DC-10 NGONA DAMAGE-SUBSTANTIAL | CR- 0 PX- 0 | 0 12 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 55, 24104 TOTAL HOURS, 1250 IN TYPE, INSTRUMENT RATED. |

OPERATOR - NATIONAL AIRLINES, INC
 DEPARTURE POINT INTENDED DESTINATION
 MIAMI, FLA LOS ANGELES, CALIF
 TYPE OF ACCIDENT
 AIRFRAME FAILURE IN FLIGHT

PHASE OF OPERATION
 IN FLIGHT CLIMB TO CRUISE

PROBABLE CAUSE(S)
 PERSONNEL - MAINTENANCE, SERVICING, INSPECTION IMPROPER MAINTENANCE (MAINTENANCE PERSONNEL)
 POWERPLANT - ENGINE INSTALLATION OTHER
 MISCELLANEOUS ACTS, CONDITIONS - IMPROPERLY SECURED
 MISCELLANEOUS - FOREIGN OBJECT DAMAGE

FACTOR(S)
 MISCELLANEOUS ACTS, CONDITIONS - SEPARATION IN FLIGHT
 POWERPLANT - MISCELLANEOUS FOREIGN OBJECT DAMAGE
 MISCELLANEOUS ACTS, CONDITIONS - FIRE IN ENGINE
 EMERGENCY CIRCUMSTANCES - PRECAUTIONARY LANDING ON AIRPORT
 SUSPECTED OR KNOWN AIRCRAFT DAMAGE
 PROP/ENGINE VIBRATION

REMARKS- #1 ENG CORE COWL INSTALLATION NOT CMLPTD, SEPARATED, WING, VERT STAB DMGD, #2 ENG DMGD.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|---|---|------------------------|----------------|---------------------|--|
| | | | | F | S M/N | | |
| I-0014 | 1/17/74 TIME - 0538 | INDIANAPOLIS, IND N791TW DAMAGE-SUBSTANTIAL | BDEING 707 INTENDED DESTINATION SAN FRANCISCO,CALIF | CR- 0 0 3 PX- 0 0 0 | 0 0 0 0 0 0 | SCHED DOM CARGO SRV | AIRLINE TRANSPORT, AGE 54, 23700 TOTAL HOURS, 7000 IN TYPE, INSTRUMENT RATED. |

NAME OF AIRPORT - WEIR-COOK
 OPERATOR - TRANS WORLD AIRLINES, INC.
 DEPARTURE POINT
 NEW YORK, NY
 TYPE OF ACCIDENT
 COLLIDED WITH RUNWAY OR APPROACH LIGHTS
 GEAR COLLAPSED

LAST ENROUTE STOP
 LOS ANGELES,CALIF
 PHASE OF OPERATION
 LANDING ROLL
 LANDING ROLL

PROBABLE CAUSE(S)
 PILOT IN COMMAND - FAILED TO INITIATE GO-AROUND
 MISCELLANEOUS ACTS, CONDITIONS - NOT ALIGNED WITH RUNWAY/INTENDED LANDING AREA
 FACTOR(S)

PERSONNEL - TRAFFIC CONTROL PERSONNEL FAILURE TO ADVISE OF UNSAFE WEATHER CONDITIONS
 WEATHER - LOW CEILING
 WEATHER - FOG
 MISCELLANEOUS ACTS, CONDITIONS - OVERLOAD FAILURE
 AIRPORTS/AIRWAYS/FACILITIES - AIRPORT CONDITIONS SNOW ON RUNWAY
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - WEATHER SLIGHTLY WORSE THAN FORECAST

| SKY CONDITION | CEILING AT ACCIDENT SITE |
|---|---------------------------------|
| OBSCURATION | 100 |
| VISIBILITY AT ACCIDENT SITE | PRECIPITATION AT ACCIDENT SITE |
| 1/4 MILE OR LESS | NONE |
| OBSTRUCTIONS TO VISION AT ACCIDENT SITE | RELATIVE BEARING OF WIND |
| FOG | LEFT CROSS WIND 248-292 DEGREES |
| TEMPERATURE-F | WIND DIRECTION-DEGREES |
| 43 | 240 |
| WIND VELOCITY-KNOTS | TYPE OF WEATHER CONDITIONS |
| 9 | BELOW MINIMUMS |
| IFR | |

REMARKS- ENRT STOP, ILS APCH, T/D OFF L SIDE RMY 31L, NSE GR COLLAPSED, RVR 2200FT, PLT NOT ADVISED.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|------|------|----------|---------------|-----------|-------|---------------------|------------------------|
| | | | | F | S M/N | | |
| | | | | CR- 0 1 4 | 0 0 0 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGF |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|--|--------------------|--|----------------|--------|-----------|--|--|
| | | | | F | S | M/N | | |
| 1-0015 | 2/21/74 TIME - 2110 | NR,PONTIAC,ILL | DOUGLAS DC-9 N1262L DAMAGE-NONE | CR- 0 PX- 0 | 1 0 | 4 0 39 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE UNK/NR, 12833 TOTAL HOURS, 4223 IN TYPE, INSTRUMENT RATED. |
| | OPERATOR - DELTA AIR LINES, INC. DEPARTURE POINT NEW ORLEANS, LA TYPE OF ACCIDENT TURBULENCE | | INTENDED DESTINATION CHICAGO, ILL | | | | LAST ENROUTE STOP MEMPHIS, TENN PHASE OF OPERATION IN FLIGHT DESCENDING | |
| | PROBABLE CAUSE(S) WEATHER - TURBULENCE IN FLIGHT, CLEAR AIR PILOT IN COMMAND - IMPROPER IN-FLIGHT DECISIONS OR PLANNING FACTOR(S) MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN OFF PERSONNEL - TRAFFIC CONTROL PERSONNEL OTHER WEATHER BRIEFING - COMPANY DISPATCH WEATHER FORECAST - WEATHER SLIGHTLY WORSE THAN FORECAST | | | | | | | |
| | SKY CONDITION UNKNOWN/NOT REPORTED VISIBILITY AT ACCIDENT SITE UNKNOWN/NOT REPORTED OBSTRUCTIONS TO VISION AT ACCIDENT SITE UNKNOWN/NOT REPORTED TYPE OF FLIGHT PLAN IFR | | | | | | | CEILING AT ACCIDENT SITE UNKNOWN/NOT REPORTED PRECIPITATION AT ACCIDENT SITE UNKNOWN/NOT REPORTED TYPE OF WEATHER CONDITIONS UNKNOWN/NOT REPORTED |
| | REMARKS- CAT ADVISORY FRM PIREP APRX 4MIN PRIOR.CREW ASSUMED TURBC AREA AHEAD.A/S 340K.STEW FELL IN GALLEY. | | | | | | | |
| 1-0016 | 4/18/74 TIME - 1300 | PT WAKEFIELD, ALAS | CESSNA 185 N1924U DAMAGE-SUBSTANTIAL | CR- 0 PX- 0 | 0 0 | 1 0 3 | SCHED DOM PASSG SRV | COMMERCIAL, AGE 32, 1823 TOTAL HOURS, 95 IN TYPE, INSTRUMENT RATED. |
| | OPERATOR - KODIAK AIRWAYS, INC. DEPARTURE POINT KODIAK, ALAS TYPE OF ACCIDENT COLLIDED WITH OBJECT NOSE OVER/DOWN | | INTENDED DESTINATION PT WAKEFIELD, ALAS | | | | PHASE OF OPERATION LANDING ROLL LANDING ROLL | |
| | PROBABLE CAUSE(S) PILOT IN COMMAND - SELECTED UNSUITABLE TERRAIN PILOT IN COMMAND - SPONTANEOUS-IMPROPER ACTION FACTOR(S) TERRAIN - HIDDEN OBSTRUCTIONS REMARKS- FLOAT EQUIPPED.HIT CRABPOT, THROTTLE ADVANCED,RAN UP ON SAND. | | | | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--|---------|-------------------------------------|--|--|-------|---------------------|---|
| | | | | F | S M/N | | |
| 1-0017 | 3/21/74 | NR.FT LAUDERDALE,FLA TIME - 1915 | LOCKHEED 1011 N321EA DAMAGE-NONE | CR- 0 0 12 PX- 0 1173 | 0 12 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 53, 24099 TOTAL HOURS, 760 IN TYPE, INSTRUMENT RATED. |
| <p>OPERATOR - EASTERN AIR LINES, INC. DEPARTURE POINT INTENDED DESTINATION PHILADELPHIA,PA MIAMI,FLA TYPE OF ACCIDENT TURBULENCE</p> <p>PROBABLE CAUSE(S) WEATHER - TURBULENCE IN FLIGHT,CLEAR AIR PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT NOT FASTENED FACTOR(S) MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT SIGN ON WEATHER BRIEFING - COMPANY DISPATCH WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT</p> <p>SKY CONDITION CLEAR VISIBILITY AT ACCIDENT SITE 5 OR OVER OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE TYPE OF FLIGHT PLAN IFR</p> <p>REMARKS- SEAT BELT LIGHT ON.PAX NOT IN SEAT,FELL,BROKE LEG.PINS IN LEG FM PREVIOUS BREAK.SINGLE AIR BUMP.</p> | | | | | | | |
| | | | | LAST ENROUTE STOP FT LAUDERDALE,FLA | | | |
| | | | | PHASE OF OPERATION IN FLIGHT DESCENDING | | | |
| | | | | CEILING AT ACCIDENT SITE UNLIMITED | | | |
| | | | | PRECIPITATION AT ACCIDENT SITE NONE | | | |
| | | | | TYPE OF WEATHER CONDITIONS VFR | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|--------|-----------------------------------|--|-------------------------|-------|---------------------|---|
| | | | | F | S M/N | | |
| 1-0018 | 4/1/74 | NR.TERRE HAUTE,IND TIME - 1525 | BOEING 727-31 N833TW DAMAGE-NONE | CR- 0 0 6 PX- 0 1 44 | 0 6 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 38, 6442 TOTAL HOURS, 2080 IN TYPE, INSTRUMENT |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|-----------------------|----------------------|--|----------------|--------|---------|---------------------|---|
| | | | | F | S | M/N | | |
| 1-0018 | 4/1/74 TIME - 1525 | NR, TERRE HAUTE, IND | BOEING 727-31 N833TW DAMAGE-NONE | CR- 0 PX- 0 | 0 1 | 6 44 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 38, 6442 TOTAL HOURS, 2089 IN TYPE, INSTRUMENT RATED. |

OPERATOR - TRANS WORLD AIRLINES, INC.
DEPARTURE POINT - INDIANAPOLIS, IND
INTENDED DESTINATION - ST LOUIS, MO
TYPE OF ACCIDENT - TURBULENCE

PHASE OF OPERATION
IN FLIGHT NORMAL CRUISE

PROBABLE CAUSE(S)
WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
FACTOR(S)
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
WEATHER BRIEFING - COMPANY DISPATCH
WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION
OVERCAST
VISIBILITY AT ACCIDENT SITE
UNKNOWN/NOT REPORTED
OBSTRUCTIONS TO VISION AT ACCIDENT SITE
UNKNOWN/NOT REPORTED
TYPE OF FLIGHT PLAN
VFR

CEILING AT ACCIDENT SITE
UNKNOWN/NOT REPORTED
PRECIPITATION AT ACCIDENT SITE
THUNDERSTORM
TYPE OF WEATHER CONDITIONS
IFR

REMARKS- SAFETY BELT NOT SECURED. ELDERLY LADY BROKE LEG WHEN THROWN FM SEAT DRG TURBC ENCTR.

| | | | | | | | |
|--------|------------------------|-----------------|--|----------------|-----------|-------------------------|--|
| 1-0019 | 3/27/74 TIME - 1940 | ANCHORAGE, ALAS | DOUGLAS DC-8 N801WA DAMAGE-MINOR | CR- 0 PX- 0 | 0 1218 | MIL CONTRACT PASSG INTL | AIRLINE TRANSPORT, AGE 49, 23484 TOTAL HOURS, 1800 IN TYPE, INSTRUMENT RATED. |
|--------|------------------------|-----------------|--|----------------|-----------|-------------------------|--|

NAME OF AIRPORT - ANCHORAGE INTL
OPERATOR - WORLD AIRWAYS, INC.
DEPARTURE POINT - TRAVIS AFB, CALIF
INTENDED DESTINATION - UTAPAD, THAILAND
TYPE OF ACCIDENT - AIRFRAME FAILURE ON GROUND
MISCELLANEOUS

LAST ENROUTE STOP
YOKOTA AB, JAPAN
PHASE OF OPERATION
TAKEDOFF RUN
TAKEDOFF ABORTED

PROBABLE CAUSE(S)
AIRFRAME - LANDING GEAR WHEELS, TIRES, AXLES
MISCELLANEOUS ACTS, CONDITIONS - MATERIAL FAILURE
MISCELLANEOUS ACTS, CONDITIONS - VIBRATION, EXCESSIVE
PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER
FIRE AFTER IMPACT
REMARKS- TREAD SEPARATED FM #2 MN TIRE. PSGR FELL OFF EVAC SLIDE.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES F S M/N | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|---|--|---|---------------------|--|
| | | | | | | |
| 1-0020 | 9/11/74 TIME - 0734 | CHARLOTTE, NC | DOUGLAS DC9-31 N8984E DAMAGE-DESTROYED | CR- 2 1 1 PX- 69 9 0 | SCHED DDM PASSG SRV | AIRLINE TRANSPORT, AGE 49, 8876 TOTAL HOURS, 3856 IN TYPE, INSTRUMENT RATED. |
| | | NAME OF AIRPORT - DOUGLAS MUNICIPAL OPERATOR - EASTERN AIR LINES, INC. DEPARTURE POINT CHARLESTON, SC TYPE OF ACCIDENT COLLISION WITH GROUND/WATER CONTROLLED | INTENDED DESTINATION CHICAGO, IL | LAST ENROUTE STOP CHARLOTTE, NC PHASE OF OPERATION LANDING FINAL APPROACH | | |
| | | PROBABLE CAUSE(S) COPILOT - IMPROPER IFR OPERATION PILOT IN COMMAND - FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES, ETC. MISCELLANEOUS ACTS, CONDITIONS - CREW COORDINATION-POOR FIRE AFTER IMPACT REMARKS- LACK OF ALT AWARENESS DRG APCH. ALT CALLOUTS NOT MADE AT FAF, 500FT ABOVE FLD, DR 100FT ABOVE MDA. | | | | |
| 1-0021 | 7/24/74 TIME - 1911 | CLEVELAND, OHIO | BRITISH AC 1-11 N1122J DAMAGE-NONE | CR- 0 0 4 PX- 0 1 66 | SCHED DDM PASSG SRV | CERTIFICATE UNKNOWN, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, UNK/NR INSTRUMENT RATED. |
| | | NAME OF AIRPORT - CLEVELAND HOPKINS OPERATOR - ALLEGHENY AIRLINES, INC. DEPARTURE POINT COLUMBUS, OHIO TYPE OF ACCIDENT MISCELLANEOUS | INTENDED DESTINATION SYRACUSE, NY | LAST ENROUTE STOP BUFFALO, NY PHASE OF OPERATION STATIC PARKED-ENGINES NOT OPERATING | | |
| | | PROBABLE CAUSE(S) PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER REMARKS- DEPLANING PSGR TWISTED ANKLE AND FELL ON FWD STAIR. | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|---|---------|----------------------------------|---------------------------------------|--|---------------|---------------------|---|
| | | | | F | S M/N | | |
| I-0022 | 7/27/74 | NR-FDRT MYERS,FLA TIME - 1700 | DOUGLAS DC-8 N1303L DAMAGE-NONE | CR- 0 PX- 0 | 1 7 0 0167 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED. |
| <p>OPERATOR - DELTA AIR LINES, INC. DEPARTURE POINT - ATLANTA,GA INTENDED DESTINATION - MIAMI,FLA TYPE OF ACCIDENT - TURBULENCE</p> <p>PROBABLE CAUSE(S) WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS PERSONNEL - FLIGHT PERSONNEL MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT NOT FASTENED FACTOR(S) MISCELLANEOUS ACTS,CONDITIONS - SEAT BELT SIGN ON WEATHER BRIEFING - UNKNOWN/NOT REPORTED WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT</p> <p>SKY CONDITION - BROKEN VISIBILITY AT ACCIDENT SITE - 5 OR OVER OBSTRUCTIONS TO VISION AT ACCIDENT SITE - NONE WIND DIRECTION-DEGREES - 240 TYPE OF WEATHER CONDITIONS - IFR</p> <p>REMARKS- INJURIES TO PAX & F/A'S NOT SECURED BY SEATBELTS.1 F/A THROWN FM L AFT F/A SEAT,SEATBELT OPENED.</p> | | | | | | | |
| | | | | PHASE OF OPERATION IN FLIGHT DESCENDING | | | |
| | | | | CEILING AT ACCIDENT SITE 14000 | | | |
| | | | | PRECIPITATION AT ACCIDENT SITE NONE | | | |
| | | | | TEMPERATURE-F 86 | | | |
| | | | | WIND VELOCITY-KNOTS 7 | | | |
| | | | | TYPE OF FLIGHT PLAN IFR | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|-----------------------|-----------------|---|----------------|---------------|---------------------|---|
| | | | | F | S M/N | | |
| 1-0023 | 7/3/74 TIME - 1755 | NR. ATLANTA, GA | LOCKHEED 1011 N706DA DAMAGE-MINOR | CR- 0 PX- 0 | 2 11 0 138 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 54, 23180 TOTAL HOURS, 150 IN TYPE, INSTRUMENT RATED. |

OPERATOR - DELTA AIR LINES, INC.
DEPARTURE POINT - INTENDED DESTINATION
SAN DIEGO, CALIF ATLANTA, GA
TYPE OF ACCIDENT
HAIL DAMAGE TO AIRCRAFT
TURBULENCE

LAST ENROUTE STOP
LOS ANGELES, CALIF
PHASE OF OPERATION
IN FLIGHT DESCENDING
IN FLIGHT DESCENDING

PROBABLE CAUSE(S)
PILOT IN COMMAND - IMPROPER IN-FLIGHT DECISIONS OR PLANNING
WEATHER - HAIL
WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
PERSONNEL - FLIGHT PERSONNEL
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
FACTOR(S)

WEATHER - THUNDERSTORM ACTIVITY
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
WEATHER BRIEFING - COMPANY DISPATCH
WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION
OVERCAST
VISIBILITY AT ACCIDENT SITE
5 OR OVER
OBSTRUCTIONS TO VISION AT ACCIDENT SITE
UNKNOWN/NOT REPORTED
TYPE OF FLIGHT PLAN
IFR
CEILING AT ACCIDENT SITE
10000
PRECIPITATION AT ACCIDENT SITE
HAIL, THUNDERSTORM
TYPE OF WEATHER CONDITIONS
IFR

REMARKS- ENTERED TURB AREA NR KNOWN TSTM ACTIVITY. HAIL SHATTERED OUTER LAYER W/S, F/A'S CHECKING CABIN.

| | | | | | | | |
|--------|-----------------------|------------------------|---|-----------------|------------|---------------------------|--|
| 1-0024 | 9/8/74 TIME - 0940 | NR. CEPHALONIA, GREECE | BOEING 707 N8734 DAMAGE-DESTROYED | CR- 9 PX- 79 | 0 0 0 0 | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE 55, 21960 TOTAL HOURS, 7280 IN TYPE, INSTRUMENT RATED. |
|--------|-----------------------|------------------------|---|-----------------|------------|---------------------------|--|

OPERATOR - TRANS WORLD AIRLINES, INC.
DEPARTURE POINT - INTENDED DESTINATION
TEL AVIV, ISRAEL NEW YORK, NY
TYPE OF ACCIDENT
FIRE OR EXPLOSION IN FLIGHT
COLLISION WITH GROUND/WATER UNCONTROLLED

LAST ENROUTE STOP
ROME, ITALY
PHASE OF OPERATION
IN FLIGHT NORMAL CRUISE
IN FLIGHT UNCONTROLLED DESCENT

PROBABLE CAUSE(S)
MISCELLANEOUS - SABOTAGE
FACTOR(S)
MISCELLANEOUS ACTS, CONDITIONS - AIRCRAFT CAME TO REST IN WATER
REMARKS- DETONATION OF EXPLOSIVE DEVICE, AFT CARGO COMPARTMENT. CRASHED INTO IONIAN SEA 50MI W OF CEPHALONIA.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | FLIGHT PURPOSE | PILOT DATA |
|---|------------------------|------------------|-------------------------------------|----------------------------------|------------------|----------------|
| 1-0025 | 9/21/74 TIME - 1800 | ND.PACIFIC OCEAN | BOEING 747 N615US DAMAGE-NONE | F - 0 S - 0 M - 0 N - 0 | CR - 0 PX - 0 | 0 15 0 1284 |
| <p>OPERATOR - NORTHWEST AIRLINES, INC. DEPARTURE POINT - HONOLULU, HAWAII INTENDED DESTINATION - TOKYO, JAPAN TYPE OF ACCIDENT - TURBULENCE</p> <p>PROBABLE CAUSE(S) WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED WEATHER BRIEFING - COMPANY DISPATCH WEATHER FORECAST - UNKNOWN/NOT REPORTED</p> <p>SKY CONDITION - UNKNOWN/NOT REPORTED VISIBILITY AT ACCIDENT SITE - UNKNOWN/NOT REPORTED OBSTRUCTIONS TO VISION AT ACCIDENT SITE - UNKNOWN/NOT REPORTED TYPE OF FLIGHT PLAN - IFR</p> <p>PHASE OF OPERATION - IN FLIGHT NORMAL CRUISE</p> <p>CEILING AT ACCIDENT SITE - UNKNOWN/NOT REPORTED PRECIPITATION AT ACCIDENT SITE - UNKNOWN/NOT REPORTED TYPE OF WEATHER CONDITIONS - IFR</p> | | | | | | |
| <p>AIRLINE TRANSPORT, AGE 58, 24283 TOTAL HOURS, 2408 IN TYPE, INSTRUMENT RATED.</p> | | | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA | |
|--------|-------------|--------------------|---|----------|---|-----|---------------------|------------|--|
| | | | | F | S | M/N | | UNK/NR | AGE |
| 1-0026 | 9/20/74 | NR. PITTSBURGH, PA | BRITISH AC 1-11 N1548 DAMAGE-NONE | CR- 0 | 0 | 4 | SCHED DOM PASSG SRV | UNK/NR | TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED. |
| | TIME - 1634 | | | PX- 0 | 0 | 1 | 48 | | |

OPERATOR - ALLEGHENY AIRLINES, INC.
 DEPARTURE POINT - INTENDED DESTINATION
 PITTSBURGH, PA - LEXINGTON, KY
 TYPE OF ACCIDENT - TURBULENCE

PROBABLE CAUSE(S)
 WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
 PERSONNEL - MISCELLANEOUS-PASSENGER
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
 FACTOR(S)
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION - CEILING AT ACCIDENT SITE
 OVERCAST 3500
 VISIBILITY AT ACCIDENT SITE - PRECIPITATION AT ACCIDENT SITE
 5 OR OVER DRIZZLE
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE - TYPE OF WEATHER CONDITIONS
 HAZE IFR
 TYPE OF FLIGHT PLAN IFR
 REMARKS- CHILD THROWN FM SEAT, FELL INJURING SHOULDER IN THE AISLE.

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA | |
|--------|-------------|-----------------|--------------------------------------|----------|---|-----|---------------------------|------------|--|
| | | | | F | S | M/N | | UNK/NR | AGE |
| 1-0027 | 2/16/74 | NR. HERNDON, VA | BOEING 707 N788TH DAMAGE-MINOR | CR- 0 | 1 | 6 | SCHED INTERNATL PASSG SRV | UNK/NR | TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED. |
| | TIME - 1705 | | | PX- 0 | 0 | 45 | | | |

OPERATOR - TRANS WORLD AIRLINES, INC.
 DEPARTURE POINT - INTENDED DESTINATION
 PARIS, FRANCE - WASHINGTON, DC
 TYPE OF ACCIDENT - FIRE OR EXPLOSION IN FLIGHT
 PHASE OF OPERATION - LANDING INITIAL APPROACH

PROBABLE CAUSE(S)
 INSTRUMENTS/EQUIPMENT AND ACCESSORIES - MISCELLANEOUS EQUIPMENT OTHER
 MISCELLANEOUS ACTS, CONDITIONS - EXCESSIVE PRESSURE

PERSONNEL - MAINTENANCE, SERVICING, INSPECTION IMPROPER MAINTENANCE (MAINTENANCE PERSONNEL)
 REMARKS- #3 GALLEY COFFEE MAKER WATER HEATER FAILED TO CYCLE OFF, EXPLODED, NO PRESS RELIEF VALVE INSTALLED.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA | |
|--------|-------------|--------------|------------------------------------|----------|---|-----|---------------------|------------|--------------------------------|
| | | | | F | S | M/N | | UNK/NR | AGE |
| 1-0028 | 7/10/74 | CHICAGO, ILL | BOEING 727 N6818 DAMAGE-NONE | CR- 0 | 0 | 8 | SCHED DOM PASSG SRV | UNK/NR | TOTAL HOURS, INSTRUMENT RATED. |
| | TIME - 1838 | | | PX- 0 | 0 | 43 | | | |

OPERATOR - TRANS WORLD AIRLINES, INC.
 DEPARTURE POINT - INTENDED DESTINATION
 CHICAGO, ILL - CHICAGO, ILL
 TYPE OF ACCIDENT - TURBULENCE

PROBABLE CAUSE(S)
 WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
 PERSONNEL - MISCELLANEOUS-PASSENGER
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
 FACTOR(S)
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION - CEILING AT ACCIDENT SITE
 OVERCAST 3500
 VISIBILITY AT ACCIDENT SITE - PRECIPITATION AT ACCIDENT SITE
 5 OR OVER DRIZZLE
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE - TYPE OF WEATHER CONDITIONS
 HAZE IFR
 TYPE OF FLIGHT PLAN IFR
 REMARKS- CHILD THROWN FM SEAT, FELL INJURING SHOULDER IN THE AISLE.

REMARKS- #3 GALLEY COFFEE MAKER WATER HEATER FAILED TO CYCLE OFF, EXPLODED, NO PRESS RELIEF VALVE INSTALLED.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|--------------|------------------------------------|-------------------------|-------|---------------------|--|
| | | | | F | S M/N | | |
| 1-0028 | 7/10/74 TIME - 1838 | CHICAGO, ILL | BOEING 727 N6818 DAMAGE-NONE | CR- 0 0 8 PX- 0 2 43 | | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 57, 19153 TOTAL HOURS, 4100 IN TYPE, INSTRUMENT RATED. |

NAME OF AIRPORT - O'HARE INTL
 OPERATOR - AMERICAN AIRLINES, INC.
 DEPARTURE POINT
 CHICAGO, ILL
 TYPE OF ACCIDENT
 MISCELLANEOUS

PROBABLE CAUSE(S)
 SYSTEMS - FIRE WARNING SYSTEM POWERPLANT
 FACTOR(S)
 PERSONNEL - TRAFFIC CONTROL PERSONNEL OTHER
 EMERGENCY CIRCUMSTANCES - PRECAUTIONARY LANDING ON AIRPORT
 FALSE FIRE WARNING

REMARKS- #3 ENG FIRE WARNING IN CLIMB. RTRND TO ARPT. DELAY SWITCHING TO CRASH FREQ. INJURIES ON EVAC. NO FIRE.

PHASE OF OPERATION
 STATIC PARKED-ENGINES NOT OPERATING

1-0029 12/1/74 BERRYVILLE, VA
 TIME - 1110

BOEING 727
 N54328
 DAMAGE-DESTROYED

CR- 7 0 0
 PX- 85 0 0

AIRLINE TRANSPORT, AGE
 44, 3765 TOTAL HOURS,
 2899 IN TYPE, INSTRUMENT
 RATED.

OPERATOR - TRANS WORLD AIRLINES, INC.
 DEPARTURE POINT
 INDIANAPOLIS, IND
 TYPE OF ACCIDENT
 COLLISION WITH GROUND/WATER CONTROLLED
 FIRE AFTER IMPACT
 REMARKS- UNDER INVESTIGATION.

LAST ENROUTE STOP
 COLUMBUS, OHIO
 PHASE OF OPERATION
 LANDING INITIAL APPROACH

1-0030 2/17/74 KARLUK, ALAS
 TIME - 1400

CESSNA 206
 N51101
 DAMAGE-SUBSTANTIAL

CR- 0 0 1
 PX- 0 0 2

COMMERCIAL, AGE 32, 1784
 TOTAL HOURS, 54 IN TYPE,
 INSTRUMENT RATED.

NAME OF AIRPORT - KARLUK
 OPERATOR - KODIAK WESTERN ALASKA AIRLINES, INC.
 DEPARTURE POINT
 KODIAK, ALAS
 TYPE OF ACCIDENT
 COLLIDED WITH AIRPORT HAZARD

PHASE OF OPERATION
 LANDING ROLL

PROBABLE CAUSE(S)
 PILOT IN COMMAND - FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS
 PERSONNEL - OPERATIONAL SUPERVISORY PERSONNEL INADEQUATE GROUND TRAINING-PROCEDURES
 FACTOR(S)

AIRPORTS/AIRWAYS/FACILITIES - AIRPORT CONDITIONS SNOW ON RUNWAY
 AIRPORTS/AIRWAYS/FACILITIES - AIRPORT CONDITIONS HIDDEN HAZARD
 REMARKS- SNOW & ICE ON RWY. HIT WHITE PAINTED ROCKS ON RWY EDGE. COMPANY FAILED TO BRIEF PLT ON ARPT HAZARD.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|---------|-----------------|--|----------|---|-----|----------------|---|
| | | | | F | S | M/N | | |
| I-0031 | 12/1/74 | NR. THIELLS, NY | ROEING 727 N274US DAMAGE-DESTROYED | CR- 3 | 0 | 0 | FERRY | AIRLINE TRANSPORT, AGE 35, 7434 TOTAL HOURS, 1973 IN TYPE, INSTRUMENT RATED. |

OPERATOR - NORTHWEST AIRLINES, INC.
DEPARTURE POINT INTENDED DESTINATION
NEW YORK, NY BUFFALO, NY

TYPE OF ACCIDENT
STALL SPIRAL
AIRFRAME FAILURE IN FLIGHT

PHASE OF OPERATION
IN FLIGHT CLIMB TO CRUISE
IN FLIGHT UNCONTROLLED DESCENT

PROBABLE CAUSE(S)

PILOT IN COMMAND - FAILED TO OBTAIN/MAINTAIN FLYING SPEED
PILOT IN COMMAND - FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES, ETC.
SYSTEMS - OTHER SYSTEMS PILOT SYSTEM

WEATHER - ICING CONDITIONS - INCLUDES SLEET, FREEZING RAIN, ETC.

PILOT IN COMMAND - EXCEEDED DESIGNED STRESS LIMITS OF AIRCRAFT FACTOR(S)

AIRFRAME - FLIGHT CONTROL SURFACES HORIZONTAL STABILIZER, ATTACHMENTS
MISCELLANEOUS ACTS, CONDITIONS - OVERLOAD FAILURE
MISCELLANEOUS ACTS, CONDITIONS - SEPARATION IN FLIGHT

WEATHER BRIEFING - COMPANY DISPATCH

WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION

BROKEN
VISIBILITY AT ACCIDENT SITE

5 OR OVER

OBSTRUCTIONS TO VISION AT ACCIDENT SITE

NONE

WIND DIRECTION-DEGREES

70

TYPE OF WEATHER CONDITIONS

IFR

REMARKS- PITOT HEAT SWITCH NOT ON. FAILED TO RECOGNIZE PITOT ICG. LOST CTL. L HRZNIL STAB FAILED.

CEILING AT ACCIDENT SITE

2500

PRECIPITATION AT ACCIDENT SITE

SLEET

TEMPERATURE-F

34

WIND VELOCITY-KNOTS

14

TYPE OF FLIGHT PLAN

IFR

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA | |
|------|------|----------|------------------|----------|---|-----|----------------|---------------------|------------------------|
| | | | | F | S | M/N | | | |
| | | | NEWARK AND DHC-6 | CR- | 0 | 0 | 2 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|-------------|---|--|-----------|-----------|-----------|---|------------|
| | | | | F | S | M/N | | |
| 1-0032 | 9/12/74 | KIPNUK, ALAS | DEHAVILLAND DHC-6 N4914 DAMAGE-SUBSTANTIAL | CR- 0 0 2 | SCHED DOM | PASSG SRV | AIRLINE TRANSPORT, AGE 22, 2000 TOTAL HOURS, 470 IN TYPE, INSTRUMENT RATED. | |
| | TIME - 1100 | | | PX- 0 0 9 | | | | |
| | | NAME OF AIRPORT - KIPNUK OPERATOR - WIEN ALASKA AIRLINES, INC. DEPARTURE POINT BETHEL, ALAS TYPE OF ACCIDENT GROUND-WATER LOOP-SWERVE GEAR COLLAPSED | | | | | | |
| | | INTENDED DESTINATION RETURN | | | | | | |
| | | PROBABLE CAUSE(S) PILOT IN COMMAND - IMPROPER OPERATION OF POWERPLANT & POWERPLANT CONTROLS PILOT IN COMMAND - FAILED TO MAINTAIN DIRECTIONAL CONTROL CHECK PILOT - INADEQUATE SUPERVISION OF FLIGHT FACTOR(S) MISCELLANEOUS ACTS, CONDITIONS - OVERLOAD FAILURE AIRPORTS/AIRWAYS/FACILITIES - AIRPORT CONDITIONS OTHER REMARKS- PIC NEWLY UPGRADED CAPT. RWY SLICK. | | | | | | |
| | | | | | | | LAST ENROUTE STOP KIPNUK, ALAS PHASE OF OPERATION TAKEOFF RUN TAKEOFF ABORTED | |

| | | | | | | | |
|--------|-------------|---|--|------------|-----------|-----------|--|
| 1-0033 | 11/21/74 | ALBANY, NY | BRITISH AC 1-11 N1120J DAMAGE-NONE | CR- 0 0 4 | SCHED DOM | PASSG SRV | AIRLINE TRANSPORT, AGE 41, 13278 TOTAL HOURS, UNK/NR IN TYPE, INSTRU- MENT RATED. |
| | TIME - 1445 | | | PX- 0 1 45 | | | |
| | | NAME OF AIRPORT - ALBANY OPERATOR - ALLEGHENY AIRLINES, INC. DEPARTURE POINT JAMAICA, NY TYPE OF ACCIDENT MISCELLANEOUS | | | | | |
| | | INTENDED DESTINATION BURLINGTON, VT | | | | | |
| | | PROBABLE CAUSE(S) PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER FACTOR(S) INSTRUMENTS/EQUIPMENT AND ACCESSORIES - MISCELLANEOUS EQUIPMENT OTHER WEATHER - RAIN | | | | | |
| | | SKY CONDITION OVERCAST VISIBILITY AT ACCIDENT SITE UNKNOWN/NOT REPORTED OBSTRUCTIONS TO VISION AT ACCIDENT SITE UNKNOWN/NOT REPORTED TYPE OF FLIGHT PLAN IFR | | | | | |
| | | REMARKS- WHILE DEPLANING, ELDERLY PSGR SLIPPED AND FELL FM WET ACFT STAIRS. RAIN FALLING. | | | | | |
| | | | | | | | PHASE OF OPERATION STATIC PARKED-ENGINES NOT OPERATING |
| | | | | | | | CEILING AT ACCIDENT SITE UNKNOWN/NOT REPORTED PRECIPITATION AT ACCIDENT SITE RAIN TYPE OF WEATHER CONDITIONS UNKNOWN/NOT REPORTED |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES F S M/N | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|---------------|--------------------------------------|-------------------------|---------------------|--|
| 1-0034 | 11/6/74 TIME - 2230 | DETROIT, MICH | DOUGLAS DC-8 N815E DAMAGE-NONE | CR- 0 0 7 PX- 0 1118 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 49, 17980 TOTAL HOURS, 1030 IN TYPE, INSTRUMENT RATED. |

OPERATOR - DELTA AIR LINES, INC.
DEPARTURE POINT - INTENDED DESTINATION
DETROIT, MICH - TAMPA, FLA
TYPE OF ACCIDENT
TURBULENCE

PHASE OF OPERATION
IN FLIGHT CLIMB TO CRUISE

PROBABLE CAUSE(S)
WEATHER - TURBULENCE IN FLIGHT, CLEAR AIR
FACTOR(S)
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN OFF
WEATHER BRIEFING - COMPANY DISPATCH
WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION
CLEAR
VISIBILITY AT ACCIDENT SITE
5 OR OVER
OBSTRUCTIONS TO VISION AT ACCIDENT SITE
NONE
TYPE OF FLIGHT PLAN
IFR

CEILING AT ACCIDENT SITE
UNLIMITED
PRECIPITATION AT ACCIDENT SITE
NONE
TYPE OF WEATHER CONDITIONS
VFR

REMARKS- AS SEAT BELT SIGN WAS TURNED OFF ELDERLY PAX LEFT SEAT. BRIEF TURBC ENCTRD, PAX FELL INJURED ANKLE.

| | | | | | | |
|--------|---------------------------|------------------|--|------------------------|---------------------|--|
| 1-0035 | 12/11/74 TIME - UNK/NR | MISSING AIRCRAFT | GRUMMAN G-21 N1583V DAMAGE-DESTROYED | CR- 1 0 0 PX- 4 0 0 | SCHED DOM PASSG SRV | COMMERCIAL, AGE 20, 1494 TOTAL HOURS, 137 IN TYPE, INSTRUMENT RATED. |
|--------|---------------------------|------------------|--|------------------------|---------------------|--|

OPERATOR - KODIAK AIRWAYS, INC.
DEPARTURE POINT - INTENDED DESTINATION
OLD HARBOR, ALAS - KODIAK, ALAS
TYPE OF ACCIDENT
MISSING AIRCRAFT, NOT RECOVERED

PHASE OF OPERATION
UNKNOWN/NOT REPORTED

PROBABLE CAUSE(S)
MISCELLANEOUS - UNDETERMINED
REMARKS- INJURY INDEX & ACFT DMG PRESUMED.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES F S M/N | FLIGHT PURPOSE | PILOT DATA |
|------|------|----------|---------------|---------------------|-------------------|------------|
|------|------|----------|---------------|---------------------|-------------------|------------|

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | FLIGHT PURPOSE | PILOT DATA |
|------|------|----------|---------------|----------|----------------|------------|
| | | | | F S M/N | | |

| | | | | | | |
|--------|---------|-------------------------------------|-------------------------------------|-------------------------|---------------------|---|
| 1-0036 | 12/1/74 | NR. GORDONSVILLE, VA TIME - 1050 | BOEING 727 N8123N DAMAGE-NONE | CR- 0 1 5 PX- 0 0 92 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 39, 10500 TOTAL HOURS, 500 IN TYPE, INSTRUMENT RATED. |
|--------|---------|-------------------------------------|-------------------------------------|-------------------------|---------------------|---|

OPERATOR - EASTERN AIR LINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 MIAMI, FLA WASHINGTON, DC
 TYPE OF ACCIDENT
 TURBULENCE
 PROBABLE CAUSE(S)
 WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
 PERSONNEL - FLIGHT PERSONNEL
 MISCELLANEOUS ACTS/CONDITIONS - SEAT BELT NOT FASTENED
 FACTOR(S)
 MISCELLANEOUS ACTS/CONDITIONS - SEAT BELT SIGN ON
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION
 OVERCAST
 VISIBILITY AT ACCIDENT SITE
 5 OR OVER
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 NONE
 TYPE OF FLIGHT PLAN
 IFR
 CEILING AT ACCIDENT SITE
 1600
 PRECIPITATION AT ACCIDENT SITE
 RAIN
 TYPE OF WEATHER CONDITIONS
 IFR

REMARKS- F/A UNDERESTIMATED FIRST OFFICERS WARNING, DELAYED IN RETURNING TO SEAT, THROWN AGAINST CEILING.

| | | | | | | |
|--------|----------|----------------------------|--------------------------------------|--------------------------|---------------------------|--|
| 1-0037 | 11/21/74 | JAMAICA, NY TIME - 0839 | BOEING 747 N604US DAMAGE-MINOR | CR- 0 0 11 PX- 0 0 11 | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE 56, 27603 TOTAL HOURS, 2040 IN TYPE, INSTRUMENT RATED. |
|--------|----------|----------------------------|--------------------------------------|--------------------------|---------------------------|--|

NAME OF AIRPORT - JF KENNEDY INTL
 OPERATOR - NORTHWEST AIRLINES, INC.
 DEPARTURE POINT INTENDED DESTINATION
 JAMAICA, NY MANILA, RP
 TYPE OF ACCIDENT
 COLLISION WITH AIRCRAFT BOTH ON GROUND
 PROBABLE CAUSE(S)
 PILOT IN COMMAND - MISJUDGED CLEARANCE
 FACTOR(S)
 AIRPORTS/AIRWAYS/FACILITIES - AIRPORT FACILITIES OTHER
 REMARKS- ALTERNATE TAXIWAY CLOSED DUE CONSTRUCTION. COPILOT WATCHING R WING TIP. HIT RUDDER N8975E.

PHASE OF OPERATION
 TAXI TO TAKEOFF

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES F S M/N | FLIGHT PURPOSE | PILOT DATA |
|--------|---|-------------|---|-------------------------|---------------------|---|
| 1-0037 | 11/21/74 TIME - 0839 | JAMAICA,NY | DOUGLAS DC-9 N8975E DAMAGE--SUBSTANTIAL | CR- 0 0 5 PX- 0 0 23 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 47, 15500 TOTAL HOURS, UNK/NR IN TYPE, INSTRU- MENT RATED. |
| | NAME OF AIRPORT - JF KENNEDY INTL OPERATOR - EASTERN AIR LINES, INC. DEPARTURE POINT INTENDED DESTINATION JAMAICA,NY SARASOTA,FLA TYPE OF ACCIDENT PHASE OF OPERATION COLLISION WITH AIRCRAFT BOTH ON GROUND TAXI TO TAKEOFF | | | | | |
| | PROBABLE CAUSE(S) PERSONNEL - MISCELLANEOUS-PERSONNEL PILOT OF OTHER AIRCRAFT FACTOR(S) AIRPORTS/AIRWAYS/FACILITIES - AIRPORT FACILITIES OTHER REMARKS- DC9 PARKED ON TAXIWAY K-0TR ACFT ON OUTER TAXIWAY, ALTERNATE TAXIWAY CLOSED DUE CONSTRUCTION. | | | | | |
| 1-0038 | 11/25/74 TIME - 2250 | FLUSHING,NY | BOEING 727 N473DA DAMAGE--SUBSTANTIAL | CR- 0 0 7 PX- 0 0 46 | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED. |
| | NAME OF AIRPORT - LA GUARDIA OPERATOR - DELTA AIR LINES, INC. DEPARTURE POINT INTENDED DESTINATION ATLANTA,GA BOSTON,MASS TYPE OF ACCIDENT PHASE OF OPERATION COLLIDED WITH PARKED AIRCRAFT STATIC OTHER | | | | | |
| | PROBABLE CAUSE(S) PERSONNEL - MISCELLANEOUS-PERSONNEL GROUND CREWMAN REMARKS- ACFT BEING PUSHED BACK FOR ENG START, TAIL HIT OTHER ACFT PARKED AT GATE. | | | | | |

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|------------------------|--------------|-------------------------------------|-------------------------|-------|---------------------|---|
| | | | | F | S M/N | | |
| 1-0039 | 9/21/74 TIME - 1818 | NEW YORK, NY | B0EING 727 N7061U DAMAGE-NONE | CR- 0 1 5 PX- 0 0 36 | | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 45, 12741, TOTAL HOURS, 3113 IN TYPE, INSTRUMENT RATED. |

OPERATOR - UNITED AIR LINES, INC.
 DEPARTURE POINT - INTENDED DESTINATION
 NEW YORK, NY - MINNEAPOLIS, MINN
 TYPE OF ACCIDENT
 TURBULENCE

LAST ENROUTE STOP
 CHICAGO, ILL
 PHASE OF OPERATION
 IN FLIGHT CLIMB TO CRUISE

PROBABLE CAUSE(S)
 WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
 PERSONNEL - FLIGHT PERSONNEL
 MISCELLANEOUS ACTS/CONDITIONS - SEAT BELT NOT FASTENED
 FACTOR(S)
 MISCELLANEOUS ACTS/CONDITIONS - SEAT BELT SIGN ON
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - UNKNOWN/NOT REPORTED

SKY CONDITION
 OVERCAST
 VISIBILITY AT ACCIDENT SITE
 5 OR OVER
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 HAZE
 TYPE OF FLIGHT PLAN
 IFR

CEILING AT ACCIDENT SITE
 3100
 PRECIPITATION AT ACCIDENT SITE
 NONE
 TYPE OF WEATHER CONDITIONS
 VFR

REMARKS- CABIN ATTENDANT LEFT SEAT TO INITIATE HER DUTIES. FELL AND SUSTAINED A BROKEN ANKLE.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|--------|----------|---------------------------------|------------------------------------|-------------------------|-------|---------------------|--|
| | | | | F | S M/N | | |
| 1-0040 | 11/17/74 | NR.GRAND ISLE,LA TIME - 0855 | BOEING 727 N4611 DAMAGE-NONE | CR- 0 0 7 PX- 0 2 65 | | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 56, 15209 TOTAL HOURS, 1834 IN TYPE, INSTRUMENT RATED. |

OPERATOR - NATIONAL AIRLINES, INC
DEPARTURE POINT INTENDED DESTINATION
TAMPA, FLA HOUSTON, TEX
TYPE OF ACCIDENT
TURBULENCE

PHASE OF OPERATION
IN FLIGHT NORMAL CRUISE

PROBABLE CAUSE(S)
WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
FACTOR(S)
MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
WEATHER BRIEFING - COMPANY DISPATCH
WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION
OBSCURATION
VISIBILITY AT ACCIDENT SITE
1/4 MILE OR LESS
OBSTRUCTIONS TO VISION AT ACCIDENT SITE
NONE
WIND VELOCITY-KNOTS
14
TYPE OF FLIGHT PLAN
IFR
REMARKS- ENCNTD MDT TO HEAVY TURB DRG FLT IN VICINITY OF ISTM ACTIVITY. CREW GAVE AMPLE WARNING.

CEILING AT ACCIDENT SITE
UNKNOWN/NOT REPORTED
PRECIPITATION AT ACCIDENT SITE
RAIN SHOWERS, THUNDERSTORM
WIND DIRECTION-DEGREES
240
TYPE OF WEATHER CONDITIONS
IFR

| | | | | | | | |
|--------|----------|----------------------------|--------------------------------------|--------------------------|--|---------------------------|---|
| 1-0041 | 11/26/74 | ROME, ITALY TIME - 1428 | BOEING 747 N93104 DAMAGE-MINOR | CR- 0 0 14 PX- 0 3138 | | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE 58, 20548 TOTAL HOURS, 476 IN TYPE, INSTRUMENT RATED. |
|--------|----------|----------------------------|--------------------------------------|--------------------------|--|---------------------------|---|

NAME OF AIRPORT - FIUMICINO
OPERATOR - TRANS WORLD AIRLINES, INC.
DEPARTURE POINT INTENDED DESTINATION
ROME, ITALY NEW YORK, NY
TYPE OF ACCIDENT
MISCELLANEOUS
REMARKS- ACFT AWAITING CLRNC. SPARKS & SMOKE FM COVE LT.F.F/A INITIATED EVAC. INVEST JURISDCTN GOVT OF ITALY.

PHASE OF OPERATION
STATIC OTHER

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | FLIGHT PURPOSE | PILOT DATA |
|------|------|----------|---------------|----------|-------|----------------|------------|
| | | | | F | S M/N | | |

BRIEFS OF ACCIDENTS

FILE DATE LOCATION AIRCRAFT DATA INJURIES FLIGHT PURPOSE PILOT DATA

1-0042 4/16/74 SAN JUAN,PR BOEING 747 CR- 0 0 13 SCHED INTERNATL PASSG SRV AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED.

NAME OF AIRPORT - SAN JUAN INTL
 OPERATOR - PAN AMERICAN WORLD AIRWAYS, INC.
 DEPARTURE POINT - SAN JUAN, PR
 INTENDED DESTINATION - NEW YORK, NY
 TYPE OF ACCIDENT - MISCELLANEOUS

PHASE OF OPERATION
 STATIC PARKED-ENGINES NOT OPERATING

PROBABLE CAUSE(S)
 PERSONNEL - OPERATIONAL SUPERVISORY PERSONNEL INADEQUATE SUPERVISION/TRAINING OF RAMP CREWS
 PERSONNEL - MISCELLANEOUS-PERSONNEL GROUND CREWMAN
 REMARKS- ACFT DOOR 4L IN AUTO MODE-OPENED FM INSIDE BY FOOD SERVICE EMPLOYEE DISPLACING OTR EMP FM HI-LIFT.

1-0043 12/5/74 NR-BOGOTA,COLOMBIA DOUGLAS DC-8 CR- 0 1 6 SCHED INTERNATL PASSG SRV AIRLINE TRANSPORT, AGE UNK/NR, UNK/NR TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED.

TIME - 2100 NI803 PX- 0 1111
 DAMAGE-NONE

OPERATOR - BRANIFF AIRWAYS, INC.
 DEPARTURE POINT - TOCUMEN, PANAMA
 INTENDED DESTINATION - BOGOTA, COLOMBIA
 TYPE OF ACCIDENT - TURBULENCE

PHASE OF OPERATION
 IN FLIGHT DESCENDING

PROBABLE CAUSE(S)
 WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS
 PERSONNEL - FLIGHT PERSONNEL
 PERSONNEL - MISCELLANEOUS-PERSONNEL PASSENGER FACTOR(S)
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED
 MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON
 WEATHER BRIEFING - COMPANY DISPATCH
 WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT

SKY CONDITION
 OVERCAST
 VISIBILITY AT ACCIDENT SITE
 1/4 MILE OR LESS
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 TYPE OF FLIGHT PLAN
 IFR

REMARKS- CREW GAVE BOTH VISUAL AND ORAL WARNINGS.

CEILING AT ACCIDENT SITE
 UNKNOWN/NOT REPORTED
 PRECIPITATION AT ACCIDENT SITE
 NONE
 TYPE OF WEATHER CONDITIONS
 IFR

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--|----------|----------------------------------|--------------------------------------|-------------------------|---|-----|---------------------------|---|
| | | | | F | S | M/N | | |
| 1-0044 | 12/28/74 | NR. RICHMOND, VA TIME - 2140 | BOEING 707 N8432 DAMAGE-NONE | CR- 0 1 6 PX- 0 0 28 | | | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE 56, 23616 TOTAL HOURS, 3592 IN TYPE, INSTRUMENT RATED. |
| OPERATOR - AMERICAN AIRLINES, INC. DEPARTURE POINT - INTENDED DESTINATION SAN JUAN, PR - JAMAICA, NY TYPE OF ACCIDENT - UNCONTROLLED ALTITUDE DEVIATIONS PROBABLE CAUSE(S) - PILOT IN COMMAND - IMPROPER OPERATION OF FLIGHT CONTROLS REMARKS- DSCNDG THRU 10950FT ABT 1071 FPM AT 256K ACFT PITCHED-UP. POST EXAM, ACFT AND SYS CKD OK. NO TURBC. | | | | | | | | |
| 1-0045 | 12/10/74 | NR. PHOENIX, ARIZ TIME - 1902 | BOEING 707 N7554A DAMAGE-NONE | CR- 0 0 6 PX- 0 1 57 | | | SCHED DOM PASSG SRV | AIRLINE TRANSPORT, AGE 50, 25000 TOTAL HOURS, 11000 IN TYPE, INSTRUMENT RATED. |
| OPERATOR - AMERICAN AIRLINES, INC. DEPARTURE POINT - INTENDED DESTINATION LOS ANGELES, CALIF - PHOENIX, ARIZ TYPE OF ACCIDENT - EVASIVE MANEUVER PROBABLE CAUSE(S) - PILOT IN COMMAND - SPONTANEOUS-IMPROPER ACTION MISCELLANEOUS - EVASIVE MANEUVER TO AVOID COLLISION MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT NOT FASTENED FACTOR(S) MISCELLANEOUS ACTS, CONDITIONS - SEAT BELT SIGN ON REMARKS- PLT MISTOOK LYS FOR OTR UNREPORTED TRAFFIC. ENTRD R CLIMBING TURN. PAX FELL & BROKE LEG. | | | | | | | | |
| 1-0046 | 11/25/74 | BEIRUT, LEBANON TIME - 0616 | BOEING 707 N765PA DAMAGE-MINOR | CR- 0 0 9 PX- 0 1 20 | | | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE 53, 22579 TOTAL HOURS, 10579 IN TYPE, INSTRUMENT RATED. |
| NAME OF AIRPORT - RETRUT INTL OPERATOR - PAN AMERICAN WORLD AIRWAYS, INC. DEPARTURE POINT - INTENDED DESTINATION TEHRAN, IRAN - NEW YORK, NY TYPE OF ACCIDENT - ENGINE FAILURE OR MALFUNCTION MISCELLANEOUS - COMPLETE ENGINE FAILURE/FLAMEOUT-1 ENGINE COMPLETE POWER LOSS - FIRE AFTER IMPACT REMARKS- NR 4 ENG FAILED. ABORTED. PSGR INJURED DRG EVAC. INVESTIGATION UNDER JURISDICTION GOVT OF LEBANON. | | | | | | | | |

COMPLETE POWER LOSS - COMPLETE ENGINE FAILURE/FLAMEOUT-1 ENGINE
 FIRE AFTER IMPACT.
 REMARKS- NR 4 ENG FAILED.ABORTED.P.SGR INJURED DRG EVAC.INVESTIGATION UNDER JURISDICTION GOVT OF LEBANON.

BRIEFS OF ACCIDENTS

| FILE | DATE | LOCATION | AIRCRAFT DATA | INJURIES | | | FLIGHT PURPOSE | PILOT DATA |
|--------|-------------|----------------|---|----------|---|-----|---|--|
| | | | | F | S | M/N | | |
| 1-0047 | 4/22/74 | BALI,INDONESIA | BOEING 707 N446PA DAMAGE-DESTROYED | CR- 11 | 0 | 0 | SCHED INTERNATL PASSG SRV | AIRLINE TRANSPORT, AGE 52, 18247 TOTAL HOURS. 7192 IN TYPE, INSTRUMENT RATED. |
| | TIME - 1526 | | | PX- 96 | 0 | 0 | | |
| | | | OPERATOR - PAN AMERICAN WORLD AIRWAYS,INC. DEPARTURE POINT HONGKONG INTENDED DESTINATION SYDNEY,AUSTRALIA | | | | | |
| | | | TYPE OF ACCIDENT COLLISION WITH GROUND/WATER CONTROLLED | | | | | |
| | | | PROBABLE CAUSE(S) PILOT - PREMATURE PT OUTBD BASED ON ONLY 1 ADF INDCN FIRE AFTER IMPACT | | | | | |
| | | | REMARKS- QTR ADF INDCD STEADY COND.RPRTD BY GOVT OF INDO. | | | | | |
| | | | | | | | LAST ENROUTE STOP BALI,INDONESIA PHASE OF OPERATION LANDING INITIAL APPROACH | |

LIST OF ABBREVIATIONS USED IN BRIEFS

| ABBREVIATION | MEANING |
|---------------------------|--|
| AERIAL ADVERTISE | AERIAL ADVERTISING |
| ATR, FLIGHT INSTR. | AIRLINE TRANSPORT INSTRUCTOR |
| AIR SHOW/RACING | AIR SHOW/AIR RACING |
| AIR TAXI-CARGO | AIR TAXI-CARGO OPERATIONS |
| AIR TAXI-PASSG | AIR TAXI-PASSENGER OPERATIONS |
| APPROACH CTL-DEPARTURE | APPROACH CONTROL-DEPARTURE |
| APR CTL-TOW ENRT CTL SRV | APPROACH CONTROL-TOWER EN ROUTE CONTROL SERVICE |
| ASSOC CROP CTL ACTIVITIES | ASSOCIATED CROP CONTROL ACTIVITIES |
| ASSOC FIRE CTL ACTIVITIES | ASSOCIATED FIRE CONTROL ACTIVITIES |
| COMMERCIAL, FLIGHT INSTR. | COMMERCIAL FLIGHT INSTRUCTOR |
| CORP/EXEC | CORPORATE/EXECUTIVE |
| CR- | CREW |
| CTR CARGO-D | CONTRACT/CHARTER-CARGO-DOMESTIC |
| CTR CARGO-I | CONTRACT/CHARTER-CARGO-INTERNATIONAL |
| CTR PASSG-D | CONTRACT/CHARTER-PASSENGER-DOMESTIC |
| CTR PASSG-I | CONTRACT/CHARTER-PASSENGER-INTERNATIONAL |
| LAST ENROUTE STOP | LAST PLANNED EN ROUTE LANDING POINT |
| MAPPING/PHOTO | AERIAL MAPPING/PHOTOGRAPHY |
| MIL CONTRACT CARGO INTL | MILITARY CONTRACT-CARGO-INTERNATIONAL |
| MIL CONTRACT PASSG INTL | MILITARY CONTRACT-PASSENGER-INTERNATIONAL |
| MILITARY CTR CARGO DOM | MILITARY CONTRACT-CARGO-DOMESTIC |
| MILITARY CTR PASSG DOM | MILITARY CONTRACT-PASSENGER-DOMESTIC |
| MIL/CTR CARGO | MILITARY CONTRACT-CARGO |
| MIL/CTR PASSG | MILITARY CONTRACT-PASSENGER |
| NR. | NEAR |
| NS CTR CARGO | NONSCHEDULED/CHARTER REVENUE CARGO-INTRA-STATE |
| NS CTR PASSG | NONSCHEDULED/CHARTER REVENUE PASSENGER-INTRA-STATE |
| NS/CTR REVENUE CARGO DOM | NONSCHEDULED/CHARTER REVENUE CARGO-DOMESTIC |
| NS/CTR REVENUE CARGO INTL | NONSCHEDULED/CHARTER REVENUE CARGO-INTERNATIONAL |
| NS/CTR REVENUE PASSG DOM | NONSCHEDULED/CHARTER REVENUE PASSENGER-DOMESTIC |
| NS/CTR REVENUE PASSG INTL | NONSCHEDULED/CHARTER REVENUE PASSENGER-INTERNATL |
| OT- | OTHER AIRCRAFT AND GROUND |
| PARAJUMP | PARACHUTE JUMP |
| PRIVATE, FL. INST R. | PRIVATE FLIGHT INSTRUCTOR |
| PX- | PASSENGERS |
| RADAR CTL/SURVEILLANCE | RADAR CONTROL/SURVEILLANCE |
| SCHED CARGO SRV | SCHEDULED CARGO SERVICE |
| SCHED DOM CARGO SRV | SCHEDULED DOMESTIC CARGO SERVICE |
| SCHED DOM PASSG SRV | SCHEDULED DOMESTIC PASSENGER SERVICE |
| SCHED INTERNATL CARGO SRV | SCHEDULED INTERNATIONAL CARGO SERVICE |
| SCHED INTERNATL PASSG SRV | SCHEDULED INTERNATIONAL PASSENGER SERVICE |
| SCHED PASSG SRV | SCHEDULED PASSENGER SERVICE |
| S-D | SCHEDULED-DOMESTIC |
| S-I | SCHEDULED-INTERNATIONAL |
| UNK/NR | UNKNOWN/NOT REPORTED |

APPENDIX C
EXPLANATORY NOTES

ICE

E
STATE

UNAL
IC
IATL

EXPLANATORY NOTES

Aircraft Accident: For the purpose of this report, an aircraft accident is "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 such time as all such persons have disembarked, in which any persons 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 the aircraft receives substantial damage."

Air Carrier: As used in this report, those operators who have been issued a Certificate of Public Convenience and Necessity by the Civil Aeronautics Board.

Aircraft Miles: The distance flown by aircraft in terms of great circle airport-to-airport distances measured in statute miles.

All-Cargo Carriers: Certificated route carriers primarily engaged in the transportation of freight and express. The nonscheduled passenger operations of these carriers are included in this category. All-cargo operations of the passenger/cargo carriers are not included.

All-Cargo Service: Transport service established primarily for the transportation of freight, express, and mail.

All Operations: Refers to all flight operations including test, training, ferry, scheduled and nonscheduled passenger and cargo service, both revenue and nonrevenue.

Causes and Related Factors: In determining probable cause(s) of an accident, all facts, conditions, and circumstances are considered. The objective is to ascertain those cause-effect relationships in the accident sequence about which something can be done to prevent recurrence of the type of accident under consideration. Accordingly, for statistical purposes, where two or more causes exist in an accident, each is recorded and no attempt is made to establish a primary cause. Therefore, in the cause and related factor table, the figures shown in the columns dealing with cause will exceed the total number of accidents. The term factor is used, in general, to denote those elements of an accident which further explain or supplement the probable cause(s). This provision was incorporated in the coding system to increase its flexibility and to provide a means for collecting essential items of information which could not be readily categorized elsewhere in the system.

Certificate of Public Convenience and Necessity: A certificate issued to an air carrier by the Civil Aeronautics Board, authorizing the carrier to engage in air transportation.

Certificated Route Air Carrier: An air carrier holding a Certificate of Public Convenience and Necessity issued by the Civil Aeronautics Board to conduct scheduled services over specified routes. Certain nonscheduled charter operations may also be conducted by these carriers.

Collision Between Aircraft: Collisions between aircraft are so classified only when both aircraft are occupied. This includes collisions wherein both aircraft are airborne (midair); one is airborne, the other on the ground; and both are on the ground. A collision with a parked unoccupied aircraft is classified under the broad category of collision with objects (parked, unoccupied aircraft). Midair collisions nonfatal to air carrier occupants are included in all computations except the fatal accident rates.

Domestic Operations: Operations within and between the 50 states of the United States. Includes domestic operations of the certificated trunk and all-cargo carriers; the local service, helicopter, Alaskan, Hawaiian, and other carriers.

Domestic Trunk Carriers: Those domestic "grandfather" carriers designated as "trunk carriers" in 1945-46, when "feeder" carriers (now called local service carriers) were granted certificates by the Civil Aeronautics Board to perform local feeder air service. International and territorial operations of the trunk carriers are shown under "international operations" and are not included under "domestic operations."

Helicopter Carriers: Domestic certificated route air carriers employing helicopter aircraft for their primary operations.

International and Territorial Operations: Operations outside the territory of the United States, including operations between the United States and foreign countries and the United States and its territories or possessions. Includes both the combination passenger-cargo carriers (international trunks) and the all-cargo carriers engaged in international and territorial operations.

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Local Service Carriers: Certificated domestic route air carriers operating over routes of lesser density between the smaller traffic centers and between those centers and principal centers.

Nonscheduled Service: Revenue flights that are not operated in regular scheduled service such as charter flights and all nonrevenue flights incident to such flights.

Passenger-Mile: One passenger transported 1 mile. Passenger-miles are computed by the summation of the products of the aircraft-miles flown on each inter-airport flight multiplied by the number of passengers carried on the flight.

Phase of Operation: The phase of operation relates to the particular segment of the flight or operation during which the circumstances of the accident occur. In other words, where in the flight the circumstances took place.

The phase of operation is directly related to the type of accident. When more than one type is coded for an accident, each type will have a corresponding phase. In other words, the first phase of operation will be that phase of flight in which the first type or circumstance occurred. In the event that the first and second type both occur in one operational phase, the same phase is coded twice.

Revenue Passenger: A person receiving air transportation from an air carrier for which remuneration is received by the air carrier. Air carrier employees and others receiving air transportation against whom token service charges are levied are considered nonrevenue passengers.

Revenue Passenger Enplanements: The count of the total number of passengers boarding aircraft. This count may be measured on the basis of a standard number of passenger enplanements per online originating passengers.

Revenue Passenger Originations: The unduplicated count of passengers originating journeys on the lines of each reporting entity with the return portion of a round trip counted separately as an initial origination.

Revenue Plane-Miles: The total plane-miles flown in revenue service.

