Doc
NTSB
ARG
67
01

nual Review

of
U.S. General Aviation Accidents

occurring in
calendar year 1967

Doc
NTSB
ARG
67
01

NATIONAL TRANSPORTATION SAFETY BOARD
Department of Transportation
Washington, D.C. 20591

Annual Review

U.S. General Aviation Accidents

occurring in **calendar year 1967**

NATIONAL TRANSPORTATION SAFETY BOARD
Department of Transportation
Washington, D.C. 20591

FOREWORD

The Statistical Review of General Aviation Accidents is published annually by the National Transportation Safety Board. This publication contains statistical information compiled from reports of 6,115 General Aviation accidents that occurred during the calendar year 1967.

In the analysis of accidents a collision between aircraft is treated as one accident in the overall total. However, a complete analysis and coding is made on each aircraft involved in a collision. This produces two aircraft accident records, one for each aircraft. These records contain the same broad categories of coded data, however, the specific entries, such as type of aircraft, kind of flying, phase of operation, etc., may or may not be common to each aircraft. As a result, the number of accidents may differ in the various tables depending upon whether or not collisions are involved and if so, whether or not the selected items of data are common to each aircraft. For example: In a table showing the number of accidents occurring in the various kinds of flying, if each of the colliding aircraft were conducting Pleasure Flying, one accident would appear in the Pleasure Flying column. However, if one aircraft was engaged in Pleasure Flying and the other was conducting Dual Instruction, the accident would appear twice, once in the Pleasure Flying column, and once in the Dual Instruction column.

Included in the total number of accidents are 48 collisions between aircraft. By coding each aircraft involved in the collisions an additional 48 records are produced, bringing the total accident records to 6,163. This figure reflects the true number of pilots and aircraft involved in the 6,115 accidents.

October 1968

TABLE OF CONTENTS

		Page
FOREWORD		i
EXPLANATORY NOTES		vii
SECTION I -	All Categories of Aircraft	
Table 1 -	Statistical Recapitulation of Accidents	1
Table 2 -	Accidents, Rates, Active Aircraft	2
Table 3 -	Type of Aircraft Involved in Accidents, Injury Index, Damage, Fire After Impact	3
Table 4 -	Accidents, Injuries, Total Aboard by Type of Aircraft	4
Table 5 -	Accidents, Rates, Injury Index, Damage by Kind of Flying	5
Table 6 -	Accidents, Injuries by Kind of Flying	6
	Cause/Factor Tables by Kind of Flying	
Table 7 -	Instructional	7
Table 8 -	Noncommercial - Pleasure	8
Table 9 -	Noncommercial - Business	9
Table 10 -	Noncommercial - Corporate	10
Table 11 -	Commercial - Aerial Application	11
Table 12 -	Commercial - Air Taxi	12
Table 13 -	Location of Accidents by States	13
	Selected Accident Data	
Table 14 -	Pilot Age	14
Table 15 -	Pilot Certificate	14
Table 16 -	Total Pilot Time	14
Table 17 -	Pilot Time in Type Aircraft	14
Table 18 -	Type of Flight Plan	15
Table 19 -	Type of Aircraft Power	15
Table 20 -	Month of Occurrence	16
Table 21 -	Time of Occurrence	16
Table 22 -	Conditions of Light	17
Table 23 -	Type of Weather Conditions	17
Table 24 -	Airport Proximity	17
	Collisions Between Aircraft	
Table 25 -	By Type of Aircraft	18
Table 26 -	Total Aircraft Involved	18
Table 27 -	Conditions of Light	18
Table 28 -	Type of Weather Conditions	18
Table 29 -	Airport Proximity	18
Table 30 -	Type of Flight Plan	18
Table 31 -	Time of Occurrence	19
Table 32 -	Location by State	20
Table 33 -	Accidents, Aircraft, Injuries, by Operational Phase	21
Table 34 -	Type of Accident vs Injury Index and Aircraft Damage	22
Table 35 -	First Accident Type vs Second Accident Type	Fold
Table 36 -	Cause/Factor Table - All Operations	23

TABLE OF CONTENTS (CONT'D)

SECTION II - Small Fixed-Wing Aircraft

Table 37 - Accidents, Injury Index, Aircraft Damage by Kind of Flying..... 35
Table 38 - Type of Accident vs Kind of Flying..... 36
Table 39 - Type of Accident vs Phase of Operation..... 37
Table 40 - Cause/Factor Table - Small Fixed-Wing Aircraft..... 38
Table 41 - Injuries, Accidents - Small Fixed-Wing Aircraft..... 48

Injuries, Accidents by Kind of Flying

Table 42 - Instructional - Dual..... 49
Table 43 - Instructional - Solo..... 50
Table 44 - Instructional - All Other..... 51
Table 45 - Noncommercial - Pleasure..... 52
Table 46 - Noncommercial - Business..... 53
Table 47 - Noncommercial - Corporate..... 54
Table 48 - Noncommercial - All Other..... 55
Table 49 - Commercial - Aerial Application..... 56
Table 50 - Commercial - Fire Control..... 57
Table 51 - Commercial - Power/Pipeline Patrol..... 58
Table 52 - Commercial - Air Taxi - Passenger Operations..... 59
Table 53 - Commercial - Air Taxi - Cargo Operations..... 60
Table 54 - Commercial - All Other..... 61
Table 55 - Miscellaneous - Test..... 62
Table 56 - Miscellaneous - Demonstration..... 63
Table 57 - Miscellaneous - Ferry..... 64
Table 58 - Miscellaneous - Towing Gliders..... 65
Table 59 - Miscellaneous - Hunting..... 66
Table 60 - Miscellaneous - All Other..... 67

SECTION III - Large Fixed-Wing Aircraft

Table 61 - Accidents, Injury Index, Aircraft Damage by Kind of Flying..... 69
Table 62 - Type of Accident vs Kind of Flying..... 70
Table 63 - Type of Accident vs Phase of Operation..... 71
Table 64 - Cause/Factor Table - Large Fixed-Wing Aircraft..... 72
Table 65 - Injuries, Accidents - Large Fixed-Wing Aircraft..... 77

Injuries, Accidents by Kind of Flying

Table 66 - Instructional - Training..... 78
Table 67 - Instructional - All Other..... 79
Table 68 - Noncommercial - Corporate..... 80
Table 69 - Noncommercial - All Other..... 81
Table 70 - Commercial - Aerial Application..... 82
Table 71 - Commercial - Fire Control..... 83
Table 72 - Commercial - Air Taxi - Passenger Operations..... 84
Table 73 - Commercial - Air Taxi - Cargo Operations..... 85
Table 74 - Commercial - All Other..... 86
Table 75 - Miscellaneous - Test..... 87
Table 76 - Miscellaneous - Demonstration..... 88
Table 77 - Miscellaneous - Ferry..... 89
Table 78 - Miscellaneous - All Other..... 90

TABLE OF CONTENTS (CONT'D)

SECTION IV - Rotorcraft

Table 79 - Accidents, Injury Index and Aircraft Damage by Kind of Flying..... 91
Table 80 - Type of Accident vs Kind of Flying..... 92
Table 81 - Type of Accident vs Phase of Operation..... 93
Table 82 - Cause/Factor Table - Rotorcraft..... 94
Table 83 - Injuries, Accidents - Rotorcraft..... 100

Injuries, Accidents by Kind of Flying

Table 84 - Instructional - Dual..... 101
Table 85 - Instructional - Solo..... 102
Table 86 - Instructional - All Other..... 103
Table 87 - Noncommercial - Pleasure..... 104
Table 88 - Noncommercial - Business..... 105
Table 89 - Noncommercial - Corporate..... 106
Table 90 - Noncommercial - All Other..... 107
Table 91 - Commercial - Aerial Application..... 108
Table 92 - Commercial - Fire Control..... 109
Table 93 - Commercial - Power/Pipeline Patrol..... 110
Table 94 - Commercial - Air Taxi - Passenger Operations..... 111
Table 95 - Commercial - Air Taxi - Cargo Operations..... 112
Table 96 - Commercial - Construction..... 113
Table 97 - Commercial - All Other..... 114
Table 98 - Miscellaneous - Test..... 115
Table 99 - Miscellaneous - Demonstration..... 116
Table 100 - Miscellaneous - Ferry..... 117
Table 101 - Miscellaneous - Search and Rescue..... 118
Table 102 - Miscellaneous - All Other..... 119

SECTION V - Glider Aircraft

Table 103 - Accidents, Injury Index and Aircraft Damage by Kind of Flying..... 121
Table 104 - Type of Accident vs Kind of Flying..... 122
Table 105 - Type of Accident vs Phase of Operation..... 123
Table 106 - Cause/Factor Table - Glider Aircraft..... 124
Table 107 - Injuries, Accidents - Glider Aircraft..... 127

Injuries, Accidents by Kind of Flying

Table 108 - Instructional - Dual..... 128
Table 109 - Instructional - Solo..... 129
Table 110 - Instructional - All Other..... 130
Table 111 - Noncommercial - Pleasure..... 131
Table 112 - Noncommercial - All Other..... 132
Table 113 - Miscellaneous - Air Show..... 133

SECTION VI - Yearly Accident Record

Table 114 - Accidents, Fatalities, Rates, 1938 - 1967..... 135

EXPLANATORY NOTES

GENERAL AVIATION

General Aviation refers to the operation of U. S. Civil Aircraft owned and operated by persons, corporations, etc., other than those engaged in air carrier operations authorized by a certificate of public convenience and necessity, issued by the Civil Aeronautics Board.

AIRCRAFT ACCIDENT

The accidents included herein are the occurrences incident to flight in which, "as a result of the operation of an aircraft, any person (occupant or nonoccupant) receives fatal or serious injury or any aircraft receives substantial damage."

INJURY INDEX

Injury index refers to the highest degree of personal injury sustained as a result of the accident.

TYPE OF ACCIDENT

Type of accident relates to the immediate circumstances of the occurrence. Many accidents involve a series of circumstances and therefore require a second type to more fully describe the sequence of events. Table 35 shows the relationship of first and second accident types. Some examples of types of accidents are as follows:

Gear Collapsed
: Collapse of the landing gear due to mechanical failure other than a malfunction of the retracting mechanism.

Gear Retracted
: Retraction of the landing gear due to malfunction or failure of the retracting mechanism or to inadvertent retraction by the crew. Excludes intentional gear retraction and wheels-up landing.

Airframe Failure
: Occurrences resulting from failure of any part of the airframe while in flight or in motion on the ground. Excludes failure resulting from contact with another airplane or object, or impact with the ground, or damage from landing gear collapse or retraction.

Engine Failure/Malfunction
: Occurrences of engine failure or malfunction for any reason . Includes engine stoppage, power interruption or power loss.

EXPLANATORY NOTES

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.

KIND OF FLYING

Refers to the purpose for which the aircraft is being operated at the time of the accident. There are four broad categories of kind of flying.

1. Instructional Flying
   Refers to flying accomplished in supervised training under the direction of an accredited instructor.

2. Noncommercial Flying
   Refers to the use of an aircraft for purposes of pleasure, personal transportation or in connection with a private business, in corporate/executive operations, and in other operations, wherein there is no direct monetary fee charged. It includes the following categories:

   Pleasure
   Flying by individuals in their own or rented aircraft for pleasure, or personal transportation not in furtherance of their occupation or company business.

   Business
   The use of aircraft by pilots (not receiving direct salary or compensation for piloting) in connection with their occupation or in the furtherance of a private business.

   Corporate/Executive Operations
   The use of aircraft owned or leased, and operated by a corporation or business firm for the transportation of personnel or cargo in furtherance of the corporation's or firm's business, and which are flown by professional pilots receiving a direct salary or compensation for piloting.

3. Commercial Flying
   Commercial flying includes all general aviation flying normally conducted for direct financial return, except instructional flying. It includes air taxi operations, aerial application, fire control, aerial mapping or photography, aerial advertising, power/pipeline patrol and fish spotting.

4. Miscellaneous Flying

Includes other kinds of flying not covered under the other three broad categories. In some instances the criterion of direct financial return may or may not be present.

COLLISIONS 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).

CAUSE AND RELATED FACTORS

In determining the probable cause of an accident, all facts conditions and circumstances are considered. 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 reflect 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.

SMALL FIXED-WING AIRCRAFT

Aircraft which have a certificated maximum gross takeoff weight of 12,500 pounds, or less.

LARGE FIXED-WING AIRCRAFT

Aircraft which have a certificated maximum gross takeoff weight in excess of 12,500 pounds.

ROTORCRAFT

Aircraft which in all usual flight attitudes are supported in the air wholly or in part by a rotor or rotors, i.e., by airfoils rotating or revolving about an axis.

ABBREVIATIONS

SFW - Small Fixed-Wing

LFW - Large Fixed-Wing

ROTOR - Rotorcraft

SE - Single Engine

ME - Multi Engine

Section I

GENERAL AVIATION ACCIDENTS

ALL CATEGORIES of AIRCRAFT

TABLE 1

STATISTICAL RECAPITULATION OF ACCIDENTS
U. S. GENERAL AVIATION
ALL OPERATIONS

1966 - 1967

	1966	1967
Total Accidents	5712	6115
Aircraft Involved	5762	6163
Injury Index		
Fatal	573	603
Serious	342	362
Minor	615	696
None	4179	4454
Unknown	3	0
Injuries a/		
Fatal	1151	1333
Serious	588	617
Minor	987	1146
None	8542	9261
Unknown	3	1
Total Aboard a/	11,221	12,298
Aircraft Damage a/		
Destroyed	987	1034
Substantial	4738	5087
Minor/None	37	40
Not Reported	0	2
Fire After Impact a/		
Fatal Accidents	141	166
Nonfatal Accidents	110	100
Active Aircraft (Est.) b/	104,706	114,186
Hours Flown (Est.) b/	21,023,000	22,153,000
Accident Rates Per 100,000 Hours Flown		
Total	27.2	27.6
Fatal	2.7	2.7

a/ Includes Air Carrier and military aircraft when involved in collisions

b/ Source: FAA

TABLE 2

ACCIDENTS, RATES, ACTIVE AIRCRAFT
ALL OPERATIONS
1967

	FIXED-WING			Balloon	Blimp	Rotorcraft
	Single-Engine	Multi-Engine	Glider			
ACCIDENTS.....	5133	687	37	0	1	264
AIRCRAFT INVOLVED.....a/	5168	688	37	0	1	264
INJURY INDEX						
Fatal.....	471	103	0	0	0	32
Serious.....	291	32	5	0	0	34
Minor.....	618	39	6	0	0	33
None.....	3753	513	26	0	1	165
Unknown/Not Reported	0	0	0	0	0	0
ACTIVE AIRCRAFT (est)b/	96,540	14,651	1,053	40	3	1899
AIRCRAFT DAMAGE						
Destroyed.....	820	140	3	0	0	67
Substantial.....	4313	541	33	0	1	197
Minor/None.....	33	6	1	0	0	0
Unknown/Not Reported	2	1	0	0	0	0
HOURS FLOWN (est.) b/	17,526,000	3,450,000	90,000			538,000
ACCIDENT RATES PER 100,000 HOURS FLOWN						
Total.....	29.29	19.91	42.22			49.07
Fatal.....	2.69	2.99	0.00			5.95

a/ Excludes 2 Air Carrier and 3 Military aircraft involved in collisions.

b/ Source: FAA

TABLE 3

TYPE OF AIRCRAFT INVOLVED IN ACCIDENTS
INJURY INDEX, DAMAGE, FIRE AFTER IMPACT

ALL OPERATIONS
1967

	SMALL FIXED-WING			LARGE FIXED-WING a/		Rotor	Balloon	Blimp
	Single Engine	Multi-Engine	Glider	Single Engine	Multi-Engine			
ACCIDENTS.....	5118	646	37	15	41	264	0	1
AIRCRAFT INVOLVED.....	5153	647	37	15	41	264	0	1
INJURY INDEX								
Fatal.....	468	95	0	3	8	32	0	0
Serious.....	290	26	5	1	6	34	0	0
Minor.....	618	37	6	0	2	33	0	0
None.....	3742	488	26	11	25	165	0	1
Unknown.....	0	0	0	0	0	0	0	0
AIRCRAFT DAMAGE								
Destroyed.....	815	125	3	5	15	67	0	0
Substantial.....	4303	517	33	10	24	197	0	1
Minor/None	33	4	1	0	1	0	0	0
Unknown/Not Reported.....	2	1	0	0	1	0	0	0
FIRE AFTER IMPACT								
Fatal Accidents.....	126	28	0	1	2	6	0	0
Nonfatal Accidents.....	74	9	1	1	5	10	0	0

a/ Excludes 2 Air Carrier and 3 Military aircraft involved in collisions.

TABLE 4

ACCIDENTS, INJURIES, TOTAL ABOARD
BY TYPE OF AIRCRAFT
ALL OPERATIONS
1967

	SMALL FIXED-WING			LARGE FIXED-WING a/		ROTOR-CRAFT	BALLOONS	BLIMP	TOTAL
	Single Engine	Multi-Engine	Glider	Single Engine	Multi-Engine				
ACCIDENTS.....	5118	646	37	15	41	264	0	1	—
FATALITIES									
Pilot.....	440	88	0	3	8	31	0	0	570
Crew.....	46	19	0	0	9	0	0	0	74
Passengers.....	436	117	0	0	0	22	0	0	575
Other.....	7	2	0	0	0	0	0	0	9
Total.....	929	226	0	3	17	53	0	0	1228
SERIOUS INJURIES									
Pilot.....	260	23	4	1	4	26	0	0	318
Crew.....	23	6	1	0	2	2	0	0	34
Passengers.....	191	29	1	0	5	17	0	0	243
Other.....	16	2	0	0	1	3	0	0	22
Total.....	490	60	6	1	12	48	0	0	617
MINOR INJURIES									
Pilot.....	560	25	6	0	2	34	0	0	627
Crew.....	44	5	2	0	3	4	0	0	58
Passengers.....	370	48	1	0	0	26	0	0	445
Other.....	13	2	0	0	0	0	0	0	15
Total.....	987	80	9	0	5	64	0	0	1145
NO INJURIES									
Pilot.....	3893	511	27	11	27	173	0	1	4643
Crew.....	259	105	2	0	33	21	0	1	421
Passengers.....	3179	821	7	0	83	91	0	0	4181
Other.....	9	1	4	0	0	0	0	0	14
Total.....	7340	1438	40	11	143	285	0	2	9259
INJURIES NOT REPORTED									
Pilot.....	0	0	0	0	0	0	0	0	0
Crew.....	0	0	0	0	0	0	0	0	0
Passengers.....	1	0	0	0	0	0	0	0	1
Other.....	0	0	0	0	0	0	0	0	0
Total.....	1	0	0	0	0	0	0	0	1
TOTAL ABOARD	9702	1797	51	15	176	447	0	2	12,190

a/ Excludes 2 Air Carrier and 3 military aircraft involved in collisions.

TABLE 5

ACCIDENTS, RATES, INJURY INDEX, DAMAGE BY KIND OF FLYING

ALL OPERATIONS

1967 a/

	KIND OF FLYING								
		NONCOMMERCIAL				COMMERCIAL			
	INSTRUCTIONAL	PLEASURE	BUSINESS	CORPORATE	ALL OTHER	AERIAL APPLICATION	AIR TAXI	ALL OTHER	MISCELLANEOUS
ACCIDENTS	1303	2658	865	119	142	404	234	101	310
HOURS FLOWN (THOUSANDS OF HOURS) b/	5754	6859	5078		NA	1128	1766	NA	NA
Accident Rates Per 100,000 Hours									
Total Accidents	22.65	38.75	19.38		NA	35.82	13.25	NA	NA
Fatal Accidents	.89	4.49	2.07		NA	3.72	1.87	NA	NA
ACCIDENT INJURY INDEX									
Fatal	51	308	88	17	14	42	33	14	44
Serious	44	178	38	6	9	35	15	16	23
Minor	142	334	63	7	16	65	21	14	34
None	1066	1838	676	89	103	262	165	57	209
Unknown/Not Reported	0	0	0	0	0	0	0	0	0
AIRCRAFT DAMAGE									
Destroyed	103	482	139	21	23	115	45	33	69
Substantial	1202	2161	721	97	118	290	187	69	240
Minor	7	8	1	0	1	3	0	0	0
None	3	11	3	1	0	0	1	0	1
Unknown/Not Reported	0	1	1	0	0	0	1	0	0
Total	1315	2663	865	119	142	408	234	102	310

a/ Excludes 2 Air Carrier and 3 Military aircraft involved in collisions.

b/ Source: FAA

TABLE 6

ACCIDENTS, INJURIES BY KIND OF FLYING
ALL OPERATIONS

1967 a/

		NONCOMMERCIAL				COMMERCIAL				
	INSTRUCTIONAL	PLEASURE	BUSINESS	CORPORATE	ALL OTHER	AERIAL APPLICATION	AIR TAXI	ALL OTHER	MISCELLANEOUS	TOTAL
Accidents.....	1303	2658	865	119	142	404	234	101	310	-
Fatalities										
Pilot.....	50	282	84	16	14	41	28	15	40	57
Crew.....	26	21	3	4	5	0	3	4	8	7
Passengers.....	6	357	69	35	4	1	59	12	32	57
Other.....	0	7	0	1	0	1	0	0	0	
Total.....	82	667	156	56	23	43	90	31	80	12
Serious Injuries										
Pilot.....	38	155	33	5	6	35	12	13	21	3
Crew.....	16	5	1	0	4	0	2	2	4	
Passengers.....	6	161	24	6	0	0	28	9	9	2
Other.....	4	11	2	1	0	1	1	2	0	
Total.....	64	332	60	12	10	36	43	26	34	6
Minor Injuries										
Pilot.....	138	287	55	5	18	65	13	13	33	6
Crew.....	48	2	0	3	0	0	0	3	2	
Passengers.....	1	319	42	6	5	0	41	17	14	4
Other.....	1	13	0	0	0	1	0	0	0	
Total.....	188	621	97	14	23	66	54	33	49	11
No Injuries										
Pilot.....	1089	1939	693	93	104	267	181	61	216	46
Crew.....	293	15	22	31	6	2	21	9	22	4
Passengers.....	66	2617	613	236	50	5	440	48	106	41
Other.....	0	6	3	0	0	2	3	0	0	
Total.....	1448	4577	1331	360	160	276	645	118	344	9
Injuries Unknown										
Pilot.....	0	0	0	0	0	0	0	0	0	
Crew.....	0	0	0	0	0	0	0	0	0	
Passengers.....	1	0	0	0	0	0	0	0	0	
Other.....	0	0	0	0	0	0	0	0	0	
Total.....	1	0	0	0	0	0	0	0	0	
Total Aboard.....	1778	6160	1639	440	216	416	828	206	507	12

a/ Excludes 2 Air Carrier and 3 military aircraft involved in collisions.

TABLE 7

CAUSE/FACTOR TABLE

KIND OF FLYING
INSTRUCTIONAL
U. S. GENERAL AVIATION

1967

INVOLVES 1303 TOTAL ACCIDENTS
INVOLVES 51 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	44 86.27	3 5.88	44 86.27	1128 90.10	46 3.67	1129 90.18	1172 89.95	49 3.76	1173 90.02
PERSONNEL	7 13.73	4 7.84	10 19.61	89 7.11	20 1.60	108 8.63	96 7.37	24 1.84	118 9.06
AIRFRAME	1 1.96	.00	1 1.96	1 .08	.00	1 .08	2 .15	.00	2 .15
LANDING GEAR	.00	.00	.00	47 3.75	8 .64	54 4.31	47 3.61	8 .61	54 4.14
POWERPLANT	3 5.88	.00	3 5.88	53 4.23	2 .16	55 4.39	56 4.30	2 .15	58 4.45
SYSTEMS	1 1.96	.00	1 1.96	7 .56	1 .08	8 .64	8 .61	1 .08	9 .69
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	2 .16	.00	2 .16	2 .15	.00	2 .15
ROTORCRAFT	.00	.00	.00	3 .24	.00	3 .24	3 .23	.00	3 .23
AIRPORTS/AIRWAYS/FACILITIES	.00	.00	.00	15 1.20	71 5.67	86 6.87	15 1.15	71 5.45	86 6.60
WEATHER	1 1.96	4 7.84	5 9.80	66 5.27	131 10.46	197 15.73	67 5.14	135 10.36	202 15.50
TERRAIN	1 1.96	.00	1 1.96	9 .72	58 4.63	68 5.43	10 .77	58 4.45	69 5.30
MISCELLANEOUS	2 3.92	.00	2 3.92	26 2.08	2 .16	28 2.24	28 2.15	2 .15	30 2.30
UNDETERMINED	2 3.92	.00	2 3.92	1 .08	.00	1 .08	3 .23	.00	3 .23

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

TABLE 8

CAUSE/FACTOR TABLE

KIND OF FLYING
NONCOMMERCIAL - PLEASURE
U. S. GENERAL AVIATION

1967

INVOLVES 2658 TOTAL ACCIDENTS
INVOLVES 308 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	266 86.36	16 5.19	268 87.01	1936 82.38	86 3.66	1941 82.60	2202 82.84	102 3.84	2209 83.11
PERSONNEL	20 6.49	11 3.57	31 10.06	165 7.02	26 1.11	191 8.13	185 6.96	37 1.39	222 8.35
AIRFRAME	10 3.25	2 .65	12 3.90	12 .51	2 .09	14 .60	22 .83	4 .15	26 .98
LANDING GEAR	.00	.00	.00	149 6.34	30 1.28	178 7.57	149 5.61	30 1.13	178 6.70
POWERPLANT	18 5.84	1 .32	19 6.17	189 8.04	15 .64	203 8.64	207 7.79	16 .60	222 8.35
SYSTEMS	1 .32	.00	1 .32	17 .72	11 .47	28 1.19	18 .68	11 .41	29 1.09
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	1 .04	2 .09	3 .13	1 .04	2 .08	3 .11
ROTORCRAFT	2 .65	1 .32	3 .97	1 .04	.00	1 .04	3 .11	1 .04	4 .15
AIRPORTS/AIRWAYS/FACILITIES	.00	1 .32	1 .32	46 1.96	171 7.28	216 9.19	46 1.73	172 6.47	217 8.16
WEATHER	13 4.22	96 31.17	109 35.39	110 4.68	286 12.17	391 16.64	123 4.63	382 14.37	500 18.81
TERRAIN	.00	8 2.60	8 2.60	39 1.66	180 7.66	218 9.28	39 1.47	188 7.07	226 8.50
MISCELLANEOUS	3 .97	2 .65	5 1.62	56 2.38	12 .51	67 2.85	59 2.22	14 .53	72 2.71
INDETERMINED	22 7.14	.00	22 7.14	18 .77	.00	18 .77	40 1.50	.00	40 1.50

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

TABLE 9

CAUSE/FACTOR TABLE

KIND OF FLYING
NONCOMMERCIAL - BUSINESS
U. S. GENERAL AVIATION

1967

INVOLVES 865 TOTAL ACCIDENTS
INVOLVES 88 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	78 88.64	4 4.55	78 88.64	601 77.35	27 3.47	601 77.35	679 78.50	31 3.58	679 78.50
PERSONNEL	5 5.68	3 3.41	8 9.09	59 7.59	12 1.54	70 9.01	64 7.40	15 1.73	78 9.02
AIRFRAME	6 6.82	.00	6 6.82	3 .39	2 .26	5 .64	9 1.04	2 .23	11 1.27
LANDING GEAR	.00	1 1.14	1 1.14	85 10.94	27 3.47	110 14.16	85 9.83	28 3.24	111 12.83
POWERPLANT	3 3.41	1 1.14	3 3.41	71 9.14	1 .13	72 9.27	74 8.55	2 .23	75 8.67
SYSTEMS	.00	.00	.00	9 1.16	6 .77	15 1.93	9 1.04	6 .69	15 1.73
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	1 1.14	1 1.14	2 .26	2 .26	4 .51	2 .23	3 .35	5 .58
ROTORCRAFT	.00	.00	.00	2 .26	.00	2 .26	2 .23	.00	2 .23
AIRPORTS/AIRWAYS/FACILITIES	.00	2 2.27	2 2.27	18 2.32	53 6.82	71 9.14	18 2.08	55 6.36	73 8.44
WEATHER	5 5.68	40 45.45	44 50.00	37 4.76	105 13.51	141 18.15	42 4.86	145 16.76	185 21.39
TERRAIN	.00	5 5.68	5 5.68	7 .90	63 8.11	70 9.01	7 .81	68 7.86	75 8.67
MISCELLANEOUS	1 1.14	.00	1 1.14	10 1.29	.00	10 1.29	11 1.27	.00	11 1.27
UNDETERMINED	6 6.82	.00	6 6.82	12 1.54	.00	12 1.54	18 2.08	.00	18 2.08

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

TABLE 10

CAUSE/FACTOR TABLE

KIND OF FLYING
NONCOMMERCIAL - CORPORATE/EXECUTIVE
U. S. GENERAL AVIATION

1967

INVOLVES 119 TOTAL ACCIDENTS
INVOLVES 17 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	9 52.94	.00	9 52.94	54 52.94	1 .98	54 52.94	63 52.94	1 .84	63 52.94
PERSONNEL	1 5.88	1 5.88	2 11.76	12 11.76	1 .98	13 12.75	13 10.92	2 1.68	15 12.61
AIRFRAME	2 11.76	.00	2 11.76	1 .98	1 .98	2 1.96	3 2.52	1 .84	4 3.36
LANDING GEAR	.00	.00	.00	20 19.61	3 2.94	23 22.55	20 16.81	3 2.52	23 19.33
POWERPLANT	3 17.65	.00	3 17.65	9 8.82	.00	9 8.82	12 10.08	.00	12 10.08
SYSTEMS	.00	.00	.00	3 2.94	1 .98	4 3.92	3 2.52	1 .84	4 3.36
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	.00	.00	.00	.00	.00	.00
ROTORCRAFT	.00	.00	.00	3 2.94	.00	3 2.94	3 2.52	.00	3 2.52
AIRPORTS/AIRWAYS/FACILITIES	.00	.00	.00	2 1.96	11 10.78	13 12.75	2 1.68	11 9.24	13 10.92
WEATHER	2 11.76	5 29.41	7 41.18	.00	14 13.73	14 13.73	2 1.68	19 15.97	21 17.65
TERRAIN	.00	.00	.00	2 1.96	5 4.90	7 6.86	2 1.68	5 4.20	7 5.88
MISCELLANEOUS	.00	.00	.00	4 3.92	.00	4 3.92	4 3.36	.00	4 3.36
UNDETERMINED	2 11.76	.00	2 11.76	4 3.92	.00	4 3.92	6 5.04	.00	6 5.04

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

[illegible] FACTOR IN THE SAME CAUSAL

CATEGORY, THE ACCIDENT IS REPRESENTED ONCE UNDER THE TOTAL FOR THAT CATEGORY

TABLE 11

CAUSE/FACTOR TABLE

KIND OF FLYING
COMMERCIAL - AERIAL APPLICATION
U. S. GENERAL AVIATION

1967

INVOLVES 404 TOTAL ACCIDENTS
INVOLVES 42 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	36 85.71	2 4.76	36 85.71	272 75.14	9 2.49	272 75.14	308 76.24	11 2.72	308 76.24
PERSONNEL	6 14.29	3 7.14	7 16.67	33 9.12	8 2.21	40 11.05	39 9.65	11 2.72	47 11.63
AIRFRAME	1 2.38	.00	1 2.38	.00	.00	.00	1 .25	.00	1 .25
LANDING GEAR	.00	.00	.00	11 3.04	.00	11 3.04	11 2.72	.00	11 2.72
POWERPLANT	2 4.76	.00	2 4.76	63 17.40	4 1.10	67 18.51	65 16.09	4 .99	69 17.08
SYSTEMS	2 4.76	.00	2 4.76	1 .28	.00	1 .28	3 .74	.00	3 .74
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	2 .55	.00	2 .55	2 .50	.00	2 .50
ROTORCRAFT	.00	.00	.00	7 1.93	.00	7 1.93	7 1.73	.00	7 1.73
AIRPORTS/AIRWAYS/FACILITIES	.00	.00	.00	1 .28	13 3.59	14 3.87	1 .25	13 3.22	14 3.47
WEATHER	.00	2 4.76	2 4.76	14 3.87	35 9.67	47 12.98	14 3.47	37 9.16	49 12.13
TERRAIN	.00	4 9.52	4 9.52	7 1.93	31 8.56	38 10.50	7 1.73	35 8.66	42 10.40
MISCELLANEOUS	1 2.38	1 2.38	2 4.76	10 2.76	.00	10 2.76	11 2.72	1 .25	12 2.97
UNDETERMINED	.00	.00	.00	1 .28	.00	1 .28	1 .25	.00	1 .25

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

TABLE 12

CAUSE/FACTOR TABLE

KIND OF FLYING
COMMERCIAL - AIR TAXI
U. S. GENERAL AVIATION

1967

INVOLVES 234 TOTAL ACCIDENTS
INVOLVES 33 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	25 75.76	5 15.15	25 75.76	140 69.65	7 3.48	140 69.65	165 70.51	12 5.13	165 70.51
PERSONNEL	3 9.09	2 6.06	5 15.15	28 13.93	7 3.48	35 17.41	31 13.25	9 3.85	40 17.09
AIRFRAME	1 3.03	.00	1 3.03	3 1.49	.00	3 1.49	4 1.71	.00	4 1.71
LANDING GEAR	.00	.00	.00	22 10.95	11 5.47	32 15.92	22 9.40	11 4.70	32 13.68
POWERPLANT	4 12.12	.00	4 12.12	24 11.94	4 1.99	28 13.93	28 11.97	4 1.71	32 13.68
SYSTEMS	.00	.00	.00	6 2.99	.00	6 2.99	6 2.56	.00	6 2.56
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	.00	.00	.00	.00	.00	.00
ROTORCRAFT	2 6.06	.00	2 6.06	6 2.99	.00	6 2.99	8 3.42	.00	8 3.42
AIRPORTS/AIRWAYS/FACILITIES	.00	.00	.00	3 1.49	11 5.47	14 6.97	3 1.28	11 4.70	14 5.98
WEATHER	4 12.12	8 24.24	11 33.33	7 3.48	28 13.93	33 16.42	11 4.70	36 15.38	44 18.80
TERRAIN	1 3.03	2 6.06	3 9.09	8 3.98	14 6.97	22 10.95	9 3.85	16 6.84	25 10.68
MISCELLANEOUS	1 3.03	.00	1 3.03	13 6.47	.00	13 6.47	14 5.98	.00	14 5.98
UNDETERMINED	1 3.03	.00	1 3.03	2 1.00	.00	2 1.00	3 1.28	.00	3 1.28

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

Table 13

LOCATION OF ACCIDENTS BY STATES

ALL OPERATIONS

1967

LOCATION	INJURY INDEX					AIRCRAFT DAMAGE a/			
	Accidents	Fatal	Serious	Minor None	Unk.	Dest.	Subst.	Minor None	Unk/Not Reported
ALABAMA	85	12	8	65	0	20	65	0	0
ALASKA	160	15	14	131	0	31	127	2	0
ARIZONA	136	16	8	112	0	24	114	1	0
ARKANSAS	106	6	5	95	0	11	95	0	0
CALIFORNIA	789	84	46	659	0	147	648	6	0
COLORADO	138	12	9	117	0	26	112	1	0
CONNECTICUT	47	5	4	38	0	6	41	1	0
DELAWARE	21	1	2	18	0	2	19	1	0
DISTRICT OF COLUMBIA	4	0	0	4	0	0	4	0	0
FLORIDA	242	16	7	219	0	21	222	3	0
GEORGIA	138	15	10	113	0	27	111	1	0
HAWAII	26	5	1	20	0	9	17	0	0
IDAHO	64	5	1	58	0	11	53	0	0
ILLINOIS	233	12	9	212	0	19	213	1	0
INDIANA	132	14	6	112	0	20	112	1	0
IOWA	128	11	8	109	0	17	111	2	0
KANSAS	135	12	6	117	0	19	116	0	0
KENTUCKY	32	6	4	22	0	11	21	0	0
LOUISIANA	114	17	9	88	0	24	92	0	0
MAINE	26	3	0	23	0	4	22	1	0
MARYLAND	72	5	3	64	0	10	63	0	0
MASSACHUSETTS	65	7	4	54	0	16	49	0	0
MICHIGAN	185	15	9	161	0	26	159	0	0
MINNESOTA	130	7	13	110	0	14	117	0	0
MISSISSIPPI	58	6	2	50	0	15	43	1	0
MISSOURI	172	17	12	143	0	31	140	1	0
MONTANA	75	8	3	64	0	13	62	0	0
NEBRASKA	87	3	7	77	0	11	76	0	0
NEVADA	77	9	3	65	0	10	68	0	0
NEW HAMPSHIRE	25	5	1	19	0	7	20	0	0
NEW JERSEY	124	9	11	104	0	20	102	4	0
NEW MEXICO	111	9	4	98	0	10	101	0	0
NEW YORK	204	25	12	167	0	37	167	1	0
NORTH CAROLINA	98	9	10	79	0	24	75	0	0
NORTH DAKOTA	44	5	4	35	0	6	36	2	0
OHIO	178	14	15	149	0	28	153	0	0
OKLAHOMA	133	14	9	110	0	22	111	1	0
OREGON	109	15	7	87	0	27	79	3	0
PENNSYLVANIA	188	15	8	165	0	28	160	0	0
RHODE ISLAND	11	0	0	11	0	0	11	0	0
SOUTH CAROLINA	49	6	6	37	0	13	34	2	0
SOUTH DAKOTA	46	5	2	39	0	8	38	0	0
TENNESSEE	57	7	3	47	0	10	47	0	0
TEXAS	427	40	23	364	0	65	363	1	0
UTAH	51	7	6	38	0	10	41	0	0
VERMONT	14	2	0	12	0	5	9	0	0
VIRGINIA	69	8	4	57	0	10	60	0	0
WASHINGTON	152	12	9	131	0	23	130	1	0
WEST VIRGINIA	21	4	1	16	0	4	17	0	0
WISCONSIN	98	10	7	81	0	19	78	1	0
WYOMING	54	4	2	48	0	8	45	1	0
U. S. TERR./POSSESSIONS	32	4	0	28	0	8	24	0	0
OUTSIDE U. S. A.	132	19	5	108	0	36	94	0	2
UNKNOWN	11	11	0	0	0	11	0	0	0
GRAND TOTAL	6115	603	362	5150	0	1034	5087	40	2

a/ Includes all aircraft involved in collisions.

SELECTED ACCIDENT DATA

ALL OPERATIONS

1967 a/

TABLE 14

PILOT AGE	ACCIDENTS TOTAL	FATAL	NONFATAL
Under 20 years	166	9	157
20-24	648	58	590
25-29	928	70	858
30-34	861	71	790
35-39	945	112	833
40-44	1003	109	894
45-49	796	99	697
50-54	436	51	385
55-59	196	20	176
60-64	99	11	88
65-70	39	4	35
Over 70	10	1	9
Unknown/Not Reported	36	8	28
Total	6163	623	5540

TABLE 15

PILOT CERTIFICATE			
Student	1112	56	1056
Private	2666	289	2377
Commercial	2124	239	1885
Airline Transport	197	23	174
Other	4	3	1
None	36	5	31
Unknown/Not Reported	24	8	16
Total	6163	623	5540

TABLE 16

TOTAL PILOT TIME			
1- 25 Hours	412	15	397
26- 50 Hours	411	15	396
51- 100 Hours	614	60	554
101- 300 Hours	1172	105	1067
301- 500 Hours	564	53	511
501- 1000 Hours	685	71	614
1001- 3000 Hours	1040	114	926
3001- 5000 Hours	378	43	335
Over- 5000 Hours	333	37	296
Over- 8000 Hours	154	21	133
Over-10,000 Hours	287	33	254
Unknown/Not Reported	113	56	57
Total	6163	623	5540

TABLE 17

PILOT TIME IN TYPE AIRCRAFT			
5- Or less Hours	374	35	339
6- 25 Hours	1296	86	1210
26- 50 Hours	919	62	857
51- 100 Hours	808	80	728
101- 300 Hours	1166	99	1067
301- 500 Hours	444	38	406
501- 1000 Hours	432	41	391
1001- 2000 Hours	230	15	215
2001- 3000 Hours	100	9	91
Over- 3000 Hours	113	8	105
Unknown/Not Reported	281	150	131
Total	6163	623	5540

a/ Includes all aircraft involved in collisions.

SELECTED ACCIDENT DATA

ALL OPERATIONS

1967 a/

TABLE 18

TYPE OF FLIGHT PLAN	ACCIDENTS TOTAL	FATAL	NONFATAL
None	5256	496	4760
VFR	695	72	623
IFR	137	31	106
Controlled VFR	6	0	6
IFR (VFR Conditions on Top)	0	0	0
Tower En Route	0	0	0
DVFR	13	1	12
VFR Flight Following	9	2	7
Special VFR	6	5	1
Unknown/Not Reported	41	16	25
TOTAL	6163	623	5540

TABLE 19

TYPE OF AIRCRAFT POWER b/	ACCIDENTS TOTAL	FATAL	NONFATAL
Reciprocating Engine	6065	611	5454
Turbojet Engine	18	3	15
Turboprop Engine	26	3	23
Turbofan Engine	1	0	1
Turboshaft Engine	10	1	9
None	38	0	38
TOTAL	6158	618	5540

a/ Includes records of all aircraft involved in collisions.

b/ Excludes 2 Air Carrier and 3 Military aircraft involved in collisions.

SELECTED ACCIDENT DATA

ALL OPERATIONS

1967

TABLE 20

MONTH OF OCCURRENCE

	ACCIDENTS		
	TOTAL	FATAL	NONFATAL
January	386	44	342
February	418	32	386
March	483	50	433
April	527	51	476
May	618	54	564
June	619	46	573
July	657	73	584
August	657	67	590
September	519	51	468
October	466	48	418
November	403	48	355
December	362	39	323
TOTAL	6115	603	5512

TABLE 21

TIME OF OCCURRENCE

	ACCIDENTS		
	TOTAL	FATAL	NONFATAL
0100-0159	16	6	10
0200-0259	11	3	8
0300-0359	14	6	8
0400-0459	20	7	13
0500-0559	40	6	34
0600-0659	92	13	79
0700-0759	178	16	162
0800-0859	278	21	257
0900-0959	356	29	327
1000-1059	475	35	440
1100-1159	469	40	429
1200-1259	422	37	385
1300-1359	496	38	458
1400-1459	552	41	511
1500-1559	603	44	559
1600-1659	611	51	560
1700-1759	528	45	483
1800-1859	388	51	337
1900-1959	235	31	204
2000-2059	122	15	107
2100-2159	70	15	55
2200-2259	43	8	35
2300-2359	21	5	16
0000-0059	34	7	27
Unknown/Not reported	41	33	8
TOTAL	6115	603	5512

SELECTED ACCIDENT DATA

ALL OPERATIONS

1967

TABLE 22

CONDITIONS OF LIGHT	ACCIDENTS TOTAL	FATAL	NONFATAL
Dawn	31	3	28
Daylight	5326	438	4888
Dusk (twilight)	227	24	203
Night (dark)	489	120	369
Night (moonlight-bright)	19	3	16
Unknown/Not Reported	23	15	8
TOTAL	6115	603	5512

TABLE 23

TYPE OF WEATHER CONDITIONS	ACCIDENTS TOTAL	FATAL	NONFATAL
VFR	5758	430	5328
IFR	297	140	157
Below Minimums	9	6	3
Unknown/Not Reported	51	27	24
TOTAL	6115	603	5512

TABLE 24

AIRPORT PROXIMITY	ACCIDENTS TOTAL	FATAL	NONFATAL
On Airport	3613	61	3552
On Seaplane Base	9	1	8
On Heliport	17	1	16
On Barge, Ship/Platform (rotor only)	3	0	3
In Traffic Pattern	394	68	326
Within 1/4 Mile	92	26	66
Within 1/2 Mile	65	15	50
Within 3/4 Mile	23	8	15
Within 1 Mile	79	14	65
Within 2 Miles	150	40	110
Within 3 Miles	128	30	98
Within 4 Miles	91	27	64
Within 5 Miles	30	10	20
Beyond 5 Miles	1326	275	1051
Unknown/Not Reported	95	27	68
TOTAL	6115	603	5512

COLLISIONS BETWEEN AIRCRAFT

U. S. GENERAL AVIATION

1967

TABLE 25

Total Collisions By Type of Aircraft	Injury Index: Fatal	Serious	Minor	None	Total Collisions
SFW - SE vs. SFW - SE.....	11	3	1	20	35
SFW - SE vs. SFW - ME.....	3	0	0	3	6
SFW - ME vs. SFW - ME.....	1	0	0	0	1
SFW - ME vs. Air Carrier....	2	0	0	0	2
SFW - SE vs. Military.....	3	0	0	0	3
SFW - SE vs. Glider.....	0	0	0	1	1
TOTAL.....	20	3	1	24	48

TABLE 26

Total Aircraft Involved By Type of Aircraft	Aircraft Damage: Destroyed	Substantial	Minor	None	Total Aircraft
Single Engine - SFW.....	25	43	11	1	80
Multi-Engine - SFW.....	5	5	0	0	10
Glider.....	0	1	0	0	1
Military.....	1	2	0	0	3
Air Carrier.....	2	0	0	0	2
TOTAL.....	33	51	11	1	96

TABLE 27

Conditions of Light	Injury Index: Fatal	Serious	Minor	None	Total
Dawn.....	0	0	0	0	0
Daylight.....	18	3	1	20	42
Dusk.....	2	0	0	1	3
Night.....	0	0	0	3	3

TABLE 28

Type of Weather Conditions	Injury Index: Fatal	Serious	Minor	None	Total
VFR.....	20	3	1	24	48
IFR.....	0	0	0	0	0

TABLE 29

Airport Proximity	Injury Index: Fatal	Serious	Minor	None	Total
On Airport.....	2	3	0	20	25
Traffic Pattern.....	9	0	0	1	10
Within 3/4 Mile.....	0	0	1	1	2
Within 1 Mile.....	1	0	0	0	1
Within 2 Miles.....	1	0	0	0	1
Within 5 Miles.....	0	0	0	1	1
Beyond 5 Miles.....	7	0	0	1	8

TABLE 30

Total Aircraft Involved By Type of Flight Plan	Injury Index: Fatal	Serious	Minor	None	Total Aircraft
None.....	35	6	2	44	87
VFR.....	2	0	0	0	2
IFR.....	3	0	0	2	5
Unknown/Not Reported.....	0	0	0	2	2

TABLE 31

COLLISIONS BETWEEN AIRCRAFT

U. S. GENERAL AVIATION

1967

Time of Occurrence (Local Standard Time)	Injury Index				
	Fatal	Serious	Minor	None	Total
0100-0159.....	0	0	0	0	0
0200-0259.....	0	0	0	0	0
0300-0359.....	0	0	0	0	0
0400-0459.....	0	0	0	0	0
0500-0559.....	0	0	0	0	0
0600-0659.....	1	0	1	1	3
0700-0759.....	1	0	0	0	1
0800-0859.....	0	0	0	1	1
0900-0959.....	2	0	0	3	5
1000-1059.....	0	1	0	2	3
1100-1159.....	4	1	0	1	6
1200-1259.....	0	0	0	0	0
1300-1359.....	1	1	0	0	2
1400-1459.....	3	0	0	5	8
1500-1559.....	1	0	0	4	5
1600-1659.....	3	0	0	1	4
1700-1759.....	1	0	0	2	3
1800-1859.....	1	0	0	2	3
1900-1959.....	2	0	0	2	4
2000-2059.....	0	0	0	0	0
2100-2159.....	0	0	0	0	0
2200-2259.....	0	0	0	0	0
2300-2359.....	0	0	0	0	0
0000-0059.....	0	0	0	0	0
TOTAL.....	20	3	1	24	48

TABLE 32

COLLISIONS BETWEEN AIRCRAFT
U. S. GENERAL AVIATION
1967 a/

LOCATION	TOTAL	INJURIES				AIRCRAFT DAMAGE			
		Fatal	Serious	Minor	None	Dest.	Subst.	Minor	None
State									
Arizona.....	2	4	0	0	5	1	3	0	0
California.....	12	16	2	0	23	9	13	2	0
Colorado.....	1	4	1	0	0	2	0	0	0
Connecticut.....	1	0	0	0	4	0	1	1	0
Delaware.....	1	0	0	0	2	0	1	1	0
Florida.....	4	1	0	2	8	1	6	1	0
Georgia.....	1	0	0	0	3	0	1	1	0
Indiana.....	1	0	1	1	1	0	2	0	0
Iowa.....	2	1	0	0	6	1	2	0	1
Louisiana.....	2	1	1	0	2	2	2	0	0
Maine.....	1	0	0	0	2	0	1	1	0
Maryland.....	1	0	0	0	3	0	2	0	0
Minnesota.....	1	1	1	0	2	1	1	0	0
Mississippi.....	1	0	0	0	2	0	2	0	0
Nevada.....	1	2	0	0	0	2	0	0	0
New Hampshire.....	2	5	0	0	3	2	2	0	0
New Jersey.....	2	0	0	0	7	0	2	2	0
New York.....	1	3	2	2	7	2	0	0	0
North Carolina.....	1	82	0	0	0	2	0	0	0
Ohio.....	3	26	1	2	4	4	2	0	0
Oklahoma.....	1	4	0	0	2	1	1	0	0
Tennessee.....	1	1	0	1	0	1	1	0	0
Texas.....	2	0	0	0	5	0	3	1	0
Virginia.....	1	2	0	0	0	2	0	0	0
Washington.....	2	0	0	0	6	0	3	1	0
TOTAL.....	48	153	9	8	97	33	51	11	1

a/ Includes 2 Air Carrier and 3 Military aircraft.

TABLE 33

COLLISIONS BETWEEN AIRCRAFT

U. S. GENERAL AVIATION

1967

	Collisions Between Aircraft		
	Both in Flight	One Airborne	Both on Ground
ACCIDENTS			
Total	25	3	20
Fatal	19	0	1
AIRCRAFT INVOLVED	50	6	40
Fatalities			
Pilot	27	0	1
Crew	11	0	0
Passengers	112	0	2
Other	0	0	0
Total	150	0	3
Serious Injuries			
Pilot	3	1	1
Crew	1	0	2
Passengers	1	0	0
Other	0	0	0
Total	5	1	3
Minor Injuries			
Pilot	3	0	2
Crew	0	0	0
Passengers	0	1	2
Other	0	0	0
Total	3	1	4
No Injuries			
Pilot	17	5	36
Crew	5	2	9
Passengers	8	0	15
Other	0	0	0
Total	30	7	60

TABLE 34

TYPE OF ACCIDENT VS INJURY INDEX AND AIRCRAFT DAMAGE

ALL OPERATIONS

1967

FIRST TYPE OF ACCIDENT	INJURY INDEX						AIRCRAFT DAMAGE a/				
	FATAL	SERIOUS	MINOR	NONE	UNKNOWN/ NOT REPORTED	TOTAL	DESTROYED	SUBSTANTIAL	MINOR	NONE	UNKNO NOT RE
Ground/waterloop/swerve	1	6	63	824	0	894	18	875	1	0	0
Dragged wingtip, pod, or float	0	0	0	3	0	3	0	2	1	0	0
Wheels-up landing	0	0	2	432	0	434	2	432	0	0	0
Wheels-down landing in water	0	0	0	2	0	2	0	2	0	0	0
Gear collapsed	0	2	8	202	0	212	4	208	0	0	0
Gear retracted	0	0	0	220	0	220	0	220	0	0	0
Hard landing	2	6	43	467	0	518	13	505	0	0	0
Nose over/down	1	0	21	174	0	196	5	191	0	0	0
Roll over	0	0	3	10	0	13	0	13	0	0	0
Overshoot	7	16	43	322	0	388	27	361	0	0	
Undershoot	9	19	33	178	0	239	26	212	1	0	
Collision with aircraft											
Both in flight	19	1	1	4	0	25	29	20	1	0	
One airborne	0	1	0	2	0	3	0	4	2	0	
Both on ground	1	1	0	18	0	20	4	26	8	1	
Collision with ground/water											
Controlled	52	22	23	41	0	138	78	59	0	0	
Uncontrolled	100	10	20	16	0	146	117	29	0	0	
Collided with											
Wires/poles	27	33	26	89	0	175	62	113	0	0	
Trees	46	18	21	59	0	144	75	69	0	0	
Residence (s)	0	0	0	0	0	0	0	0	0	0	
Other buildings	1	1	0	21	0	23	2	21	0	0	
Fence, fenceposts	1	2	5	58	0	66	6	60	0	0	
Electronic towers	6	0	0	0	0	6	5	1	0	0	
Runway or approach lights	0	0	0	4	0	4	0	4	0	0	
Airport hazard	0	0	0	18	0	18	0	18	0	0	
Animals	0	0	0	4	0	4	0	4	0	0	
Crop	0	0	4	12	0	16	2	14	0	0	
Flagman, loader	1	0	0	0	0	1	0	0	1	0	
Ditches	0	0	7	43	0	50	0	50	0	0	
Snowbank	0	0	1	31	0	32	1	31	0	0	
Parked aircraft (Unattended, engines not running)	0	2	1	62	0	65	1	63	0	1	
Automobile	1	0	3	24	0	28	0	28	0	0	
Dirt bank	0	4	8	25	0	37	3	33	0	0	
Other	4	2	11	156	0	173	11	162	0	0	
Bird strike (collision with birds)	0	0	1	5	0	6	0	6	0	0	
Stall	73	44	49	55	0	221	122	98	1	0	
Spin	74	12	4	8	0	98	80	18	0	0	
Spiral	5	1	0	4	0	10	6	4	0	0	
Mush	5	18	41	105	0	169	35	134	0	0	
Fire or explosion											
In flight	4	3	4	13	0	24	18	6	0	0	
On ground	0	1	1	11	0	13	6	7	0	0	
Airframe failure											
In flight	32	2	3	7	0	44	32	12	0	0	
On ground	2	0	0	4	0	6	2	4	0	0	
Engine tearaway	0	0	0	0	0	0	0	0	0	0	
Engine failure or malfunction	71	95	225	614	0	1005	169	836	0	0	
Propeller/rotor failure											
Propeller	3	3	4	30	0	40	6	34	0	0	
Tail rotor	3	1	0	14	0	18	4	14	0	0	
Main rotor	6	4	0	2	0	12	7	5	0	0	
Propeller/rotor accident to person	4	21	0	0	0	25	0	4	3	18	
Jet intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	
Propeller/jet/rotor blast	0	0	3	11	0	14	0	14	0	0	
Turbulence	4	6	4	12	0	26	10	15	1	0	
Hail damage to aircraft	0	0	0	1	0	1	0	1	0	0	
Lightning strike	0	0	0	0	0	0	0	0	0	0	
Evasive maneuver	0	0	1	1	0	2	0	2	0	0	
Uncontrolled altitude deviations	0	0	0	0	0	0	0	0	0	0	
Ditching	0	0	1	0	0	1	1	0	0	0	
Missing aircraft, not recovered	20	0	0	0	0	20	20	0	0	0	
Other/Miscellaneous	5	5	8	34	0	52	12	40	0	0	
Undetermined	13	0	0	3	0	16	13	3	0	0	

a/ Includes all aircraft involved in collisions.

Table 35

FIRST ACCIDENT TYPE vs. SECOND ACCI

U.S. GENERAL AVIATION - ALL OPER

1967

SECOND T

FIRST TYPE OF ACCIDENT	TOTAL FIRST TYPES	Ground/water loop/swerve	Dragged wingtip, pod, or float	Wheels-up landing	Wheels-down landing in water	Gear collapsed	Gear retracted	Hard landing	Nose over/down	Roll over	Overshoot	Undershoot	Collision with aircraft: Both in flight	Collision with aircraft: One airborne	Collision with aircraft: Both on ground	Collision with ground/water: Controlled	Collision with ground/water: Uncontrolled	Collided with: Wires/poles	Collided with: Trees	Collided with: Residence(s)	Collided with: Other buildings	Collided with: Fence, fenceposts	Collided with: Electronic towers	Collided with: Runway or approach lights	Collided with: Airport hazard	Collided with: Animals	Collided with: Crop	Collided with: Flagman, loader	Collided with: Ditches	Collided with: Snowbank	Collided with: Parked aircraft (unattended, engines not running)	Collided with: Automobile
Ground/water loop/swerve	894					292			188	1					1			7	23		1	47		20			4		81	99	14	2
Dragged wingtip, pod, or float	3																															
Wheels-up landing	434																															
Wheels-down landing in water	2								2																							
Gear collapsed	212								28	1																						
Gear retracted	220			1		1																										
Hard landing	518	13	1	1		360			22	6						1				1		1							5		2	
Nose over/down	196																															
Roll over	13																															
Overshoot	388	18				57	1	1	44							3		9	40	1	3	51							90	11	2	1
Undershoot	239	3				61		11	21							3	1	38	29			14		4					9	8		
Collision with aircraft a/																																
Both in flight	50																1															
One airborne	6																															
Both on ground	39																															
Collision with ground/water																																
Controlled	138					3				2							1														1	2
Uncontrolled	146																															
Collided with																																
Wires/poles	175			1		5			2								3															
Trees	144					5			1								1															
Residence(s)	0																															
Other buildings	23																															
Fence, fenceposts	66					3													1													
Electronic towers	6																															
Runway or approach lights	4					2																										
Airport hazard	18	1				11																										
Animals	4					1																							1			
Crop	16	1				2			2	1																						
Flagman, loader	1																															
Ditches	50		1			18			6																							
Snowbank	32					14			8	1																						
Parked aircraft (unattended, engines not running)	65																															
Automobile	28					1																										
Dirt bank	37					14			6	1																						
Other	173	4		1		62		1	18	1							1															
Bird strike (collision with birds)	6																															
Stall	221	1						1		2								1													1	
Spin	98																															
Spiral	10																															
Mush	169					2				1								1	3										1			
Fire or explosion																																
In flight	24	1		6		1			2			1				1	3		1										1			
On ground	13																1															
Airframe failure																																
In flight	44			1		1		1									28															
On ground	6																1													1		
Engine tearaway	0																															
Engine failure or malfunction	1005	12		75		198	1	83	141	8	9	20				14	15	48	115	3	5	48		1		1	1		38	3		1
Propeller/rotor failure																																
Propeller	40			6		7			5	1							3	1	1			1							1			
Tail rotor	18					1		7								1	6					1										
Main rotor	12							4		1							5		1													
Propeller/rotor acc. to person	25																															
Jet intake/exhaust acc. to person	0																															
Propeller/jet/rotor blast	14								10	1																						
Turbulence	26	2						1	3								15		2													
Hail damage to aircraft	1			1																												
Lightning strike	0																															
Evasive maneuver	2																1															
Uncontrolled altitude deviations	0																															
Ditching	1																															
Missing aircraft, not recovered	20																															
Other/miscellaneous	52	3		3		2		4	2	1						4	9		2			1					1					
Undetermined	16																															
TOTAL SECOND ACCIDENT TYPE	3356	59	2	96	0	1124	2	114	511	29	9	21	0	0	1	27	95	105	218	5	9	164	0	25	0	1	6	0	227	122	20	6
TOTAL FIRST ACCIDENT TYPE	6163	894	3	434	2	212	220	518	196	13	388	239	50	6	39	138	146	175	144	0	23	66	6	4	18	4	16	1	50	32	65	28
TOTAL TYPES	9519	953	5	530	2	1336	222	632	707	42	397	260	50	6	40	165	241	280	362	5	32	230	6	29	18	5	22	1	277	154	85	34

a/ Includes both Aircraft Involved in Collisions.

IDENT TYPE vs. SECOND ACCIDENT TYPE
NERAL AVIATION - ALL OPERATIONS
1967

SECOND TYPE OF ACCIDENT

Collided with																				Fire or explosion		Airframe failure																			
Residence(s)	Other buildings	Fence, fenceposts	Electronic towers	Runway or approach lights	Airport hazard	Animals	Crop	Flagman, loader	Ditches	Snowbank	Parked aircraft (unattended, engines not running)	Automobile	Dirt bank	Other	Bird strike (collision with birds)	Stall	Spin	Spiral	Mush	In flight	On ground	In flight	On ground	Engine tearaway	Engine failure or malfunction	Propeller/rotor failure	Propeller	Tail rotor	Main rotor	Propeller/rotor acc. to person	Jet intake/exhaust acc. to person	Propeller/jet/rotor blast	Turbulence	Hail damage to aircraft	Lightning strike	Evasive maneuver	Uncontrolled altitude deviations	Ditching	Missing aircraft, not recovered	Other/miscellaneous	Undetermined
	1	47		20			4		81	99	14	2	33	27		1			2						1																
																									1																
																														1											
1		1							5		2			1		3	1																					1		1	
1	3	51							90	11	2	1	16	20		11			4						2																
		14		4					9	8			16	14			2		5																						
										1	2																								1						
													1					1										1													
																														1											
									1																																
																					1																				
											1		1									1																			
																						2																			
																						2																			
									1																																
									1																2																
																																								1	
										1																															
3	5	48		1		1	1		38	3		1	21	18		64	18	1	11	2	3	2																22		2	
		1							1							1								2														2			
		1																																				1			
														1		1																									
																1																									
		1					1						1	3					2																				1		
5	9	164	0	25	0	1	6	0	227	122	20	6	89	84	0	82	21	2	24	2	4	7	0	2	6		0	1	0	2	0	0	0	0	1	0	0	26	1	4	0
0	23	66	6	4	18	4	16	1	50	32	65	28	37	173	6	221	98	10	169	24	13	44	6	0	1005		40	18	12	25	0	14	26	1	0	2	0	1	20	52	16
5	32	230	6	29	18	5	22	1	277	154	85	34	126	257	6	303	119	12	193	26	17	51	6	2	1011		40	19	12	27	0	14	26	1	1	2	0	27	21	56	16

TABLE 36

CAUSE/FACTOR TABLE

U. S. GENERAL AVIATION
ALL OPERATIONS

1967

INVOLVES 6115 TOTAL ACCIDENTS
INVOLVES 603 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	506 83.91	36 5.97	508 84.25	4495 81.55	195 3.54	4501 81.66	5001 81.78	231 3.78	5009 81.91
PERSONNEL	46 7.63	22 3.65	64 10.61	437 7.93	85 1.54	517 9.38	483 7.90	107 1.75	581 9.50
AIRFRAME	23 3.81	2 .33	25 4.15	25 .45	5 .09	30 .54	48 .78	7 .11	55 .90
LANDING GEAR	.00	1 .17	1 .17	366 6.64	87 1.58	448 8.13	366 5.99	88 1.44	449 7.34
POWERPLANT	38 6.30	2 .33	39 6.47	463 8.40	27 .49	489 8.87	501 8.19	29 .47	528 8.63
SYSTEMS	4 .66	.00	4 .66	47 .85	20 .36	67 1.22	51 .83	20 .33	71 1.16
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	1 .17	1 .17	9 .16	6 .11	15 .27	9 .15	7 .11	16 .26
ROTORCRAFT	7 1.16	1 .17	8 1.33	31 .56	.00	31 .56	38 .62	1 .02	39 .64
AIRPORTS/AIRWAYS/FACILITIES	.00	3 .50	3 .50	86 1.56	341 6.19	425 7.71	86 1.41	344 5.63	428 7.00
WEATHER	29 4.81	167 27.69	194 32.17	265 4.81	636 11.54	890 16.15	294 4.81	803 13.13	1084 17.73
TERRAIN	2 .33	20 3.32	22 3.65	80 1.45	389 7.06	469 8.51	82 1.34	409 6.69	491 8.03
MISCELLANEOUS	9 1.49	3 .50	12 1.99	131 2.38	15 .27	145 2.63	140 2.29	18 .29	157 2.57
UNDETERMINED	48 7.96	.00	48 7.96	49 .89	.00	49 .89	97 1.59	.00	97 1.59

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

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

U. S. GENERAL AVIATION
ALL OPERATIONS

1967

INVOLVES 6115 TOTAL ACCIDENTS
INVOLVES 603 FATAL ACCIDENTS

DETAILED CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TO
** PILOT **									
PILOT IN COMMAND									
ATTEMPTED OPERATION W/KNOWN DEFICIENCIES IN EQUIPMENT	4		4	29	4	33	33	4	
ATTEMPTED OPERATION BEYOND EXPERIENCE/ABILITY LEVEL	29		29	59	8	67	88	8	
BECAME LOST/DISORIENTED	16	3	19	56	16	72	72	19	
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS	115	1	116	88		88	203	1	
CONTINUED INTO KNOWN AREA OF SEVERE TURBULENCE	4		4	6		6	10		
DELAYED ACTION IN ABORTING TAKEOFF				73	1	74	73	1	
DELAYED IN INITIATING GO-AROUND	4		4	67	1	68	71	1	
DIVERTED ATTENTION FROM OPERATION OF AIRCRAFT	6	2	8	71	24	95	77	26	
EXCEEDED DESIGN STRESS LIMITS OF AIRCRAFT	19		19	7		7	26		
FAILED TO EXTEND LANDING GEAR				190		190	190		
FAILED TO RETRACT LANDING GEAR				2		2	2		
RETRACTED GEAR PREMATURELY				16		16	16		
INADVERTENTLY RETRACTED GEAR				104		104	104		
FAILED TO SEE AND AVOID OTHER AIRCRAFT	22	1	23	28	2	30	50	3	
FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS	33		33	177		177	210		
FAILED TO OBTAIN/MAINTAIN FLYING SPEED	181		181	373		373	554		
MISJUDGED, SPEED, ALTITUDE OR CLEARANCE	1		1	1		1	2		
FAILED TO MAINTAIN ADEQUATE ROTOR RPM	2		2	16	1	17	18	1	
FAILED TO USE OR INCORRECTLY USED MISC EQUIPMENT	4	1	5	10	9	19	14	10	
FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES ETC	5	7	12	15	3	18	20	10	
IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS	7		7	153	2	155	160	2	
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				370	2	372	370	2	
IMPROPER OPERATION OF FLIGHT CONTROLS	15		15	102	1	103	117	1	
PREMATURE LIFT OFF				44		44	44		
IMPROPER LEVEL OFF	1		1	407		407	408		
IMPROPER IFR OPERATION	9		9	9		9	18		
IMPROPER IN-FLIGHT DECISIONS OR PLANNING	14	1	15	39	4	43	53	5	
IMPROPER COMPENSATION FOR WIND CONDITIONS				47	9	56	47	9	
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING	67	6	73	413	21	434	480	27	
INADEQUATE SUPERVISION OF FLIGHT	7		7	201	1	202	208	1	
LACK OF FAMILIARITY WITH AIRCRAFT	5	8	13	31	46	77	36	54	
MISMANAGEMENT OF FUEL SYSTEM	18	1	19	115		115	133	1	
EXERCISED POOR JUDGMENT	29	2	31	158		158	187	2	
OPERATED CARELESSLY				5	1	6	5	1	
SELECTED UNSUITABLE TERRAIN	5		5	348	7	355	353	7	
IMPROPER STARTING PROCEDURES				11	1	12	11	1	
STARTED ENGINE WITHOUT PROPER ASSISTANCE/EQUIPMENT	1		1	40		40	41		
TAXIED/PARKED WITHOUT PROPER ASSISTANCE				46	1	47	46	1	
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				139		139	139		
SPONTANEOUS-IMPROPER ACTION	2		2	27		27	29		
MISJUDGED DISTANCE, SPEED, AND ALTITUDE	2		2	59		59	61		
MISJUDGED DISTANCE AND SPEED	6		6	338		338	344		
MISJUDGED DISTANCE	2		2	17		17	19		
MISJUDGED DISTANCE AND ALTITUDE	8	1	9	164		164	172	1	
MISJUDGED SPEED AND ALTITUDE				14		14	14		
MISJUDGED SPEED		1	1	28	2	30	28	3	
MISJUDGED SPEED AND CLEARANCE				1		1	1		
MISJUDGED ALTITUDE AND CLEARANCE	10		10	11		11	21		
MISJUDGED ALTITUDE	10		10	18		18	28		
MISJUDGED CLEARANCE	8		8	111		111	119		
INADEQUATE TRAINING OF STUDENT				1		1	1		
MISUNDERSTANDING OF ORDERS OR INSTRUCTIONS				2		2	2		
IMPROPER RECOVERY FROM BOUNCED LANDING	1		1	212		212	213		
INCAPACITATION	9		9	2		2	11		
PHYSICAL IMPAIRMENT	38	4	42	8		8	46	4	
SPATIAL DISORIENTATION	77		77	15		15	92		
PSYCHOLOGICAL CONDITION		1	1					1	
MISUSED OR FAILED TO USE FLAPS	2	1	3	18	17	35	20	18	
LEFT AIRCRAFT UNATTENDED ENGINE RUNNING				6		6	6		
FAILED TO MAINTAIN DIRECTIONAL CONTROL	1		1	376		376	377		
SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND	1	1	2	55	11	66	56	12	

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

PILOT IN COMMAND (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
FAILED TO ABORT TAKEOFF	3		3	44	1	45	47	1	48
FAILED TO INITIATE GO-AROUND				133	4	137	133	4	137
DIRECT ENTRIES	2		2	16		16	18		18
SUBTOTAL	805	42	847	5742	200	5942	6547	242	6789
COPILOT									
CONTINUED FLIGHT INTO KNOWN AREA OF SEVERE TURBULENCE				1		1	1		1
DIVERTED ATTENTION FROM OPERATION OF AIRCRAFT				1		1	1		1
RETRACTED GEAR PREMATURELY				1		1	1		1
INADVERTENTLY RETRACTED GEAR				2		2	2		2
FAILED TO SEE AND AVOID OTHER AIRCRAFT	1		1				1		1
FAILED TO OBTAIN/MAINTAIN FLYING SPEED				3		3	3		3
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				3		3	3		3
IMPROPER LEVEL OFF				4		4	4		4
IMPROPER IFR OPERATION				1		1	1		1
IMPROPER COMPENSATION FOR WIND CONDITIONS				1		1	1		1
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING				1		1	1		1
LACK OF FAMILIARITY WITH AIRCRAFT				1		1	1		1
OPERATED CARELESSLY				1		1	1		1
SELECTED UNSUITABLE TERRAIN				1		1	1		1
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				1		1	1		1
CONTROL INTERFERENCE				1		1	1		1
SPONTANEOUS-IMPROPER ACTION				2		2	2		2
MISJUDGED DISTANCE AND ALTITUDE				2		2	2		2
MISJUDGED SPEED		1	1					1	1
IMPROPER RECOVERY FROM BOUNCED LANDING				1		1	1		1
FAILED TO MAINTAIN DIRECTIONAL CONTROL				1		1	1		1
FAILED TO INITIATE GO-AROUND				1		1	1		1
DIRECT ENTRIES				1		1	1		1
SUBTOTAL	1	1	2	31		31	32	1	33
DUAL STUDENT									
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS	1		1				1		1
DELAYED IN INITIATING GO-AROUND	1		1				1		1
EXCEEDED DESIGNED STRESS LIMITS OF AIRCRAFT				1		1	1		1
FAILED TO EXTEND LANDING GEAR				13		13	13		13
RETRACTED GEAR PREMATURELY				5		5	5		5
INADVERTENTLY RETRACTED GEAR				13		13	13		13
FAILED TO SEE OTHER AIRCRAFT				3		3	3		3
FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS	1		1	2		2	3		3
FAILED TO OBTAIN/MAINTAIN FLYING SPEED	6		6	18		18	24		24
FAILED TO USE OR INCORRECTLY USED MISC EQUIPMENT				1		1	1		1
IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS				7		7	7		7
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				30		30	30		30
IMPROPER OPERATION OF FLIGHT CONTROLS				7		7	7		7
PREMATURE LIFT-OFF				1		1	1		1
IMPROPER LEVEL OFF	1		1	30		30	31		31
IMPROPER IN-FLIGHT DECISIONS OR PLANNING				1		1	1		1
IMPROPER COMPENSATION FOR WIND CONDITIONS				3		3	3		3
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING	1		1	2		2	3		3
MISMANAGEMENT OF FUEL SYSTEM				3		3	3		3
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				3		3	3		3
CONTROL INTERFERENCE				2		2	2		2
SPONTANEOUS-IMPROPER ACTION				11		11	11		11
MISJUDGED DISTANCE, SPEED, AND ALTITUDE				9		9	9		9
MISJUDGED DISTANCE AND SPEED	1		1	7		7	8		8
MISJUDGED DISTANCE AND ALTITUDE				10		10	10		10
MISJUDGED ALTITUDE				1		1	1		1
MISJUDGED CLEARANCE				1		1	1		1
IMPROPER RECOVERY FROM BOUNCED LANDING	1		1	5		5	6		6
PHYSICAL IMPAIRMENT					1	1		1	1
FAILED TO MAINTAIN DIRECTIONAL CONTROL				25		25	25		25
SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND	1		1				1		1
SUBTOTAL	14		14	214	1	215	228	1	229
CHECK PILOT									

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

CHECK PILOT (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
INADEQUATE SUPERVISION OF FLIGHT				5		5	5		5
CONTROL INTERFERENCE				1		1	1		1
SPONTANEOUS-IMPROPER ACTION				1		1	1		1
SUBTOTAL				7		7	7		7
** PERSONNEL **									
FLIGHT INSTRUCTOR	1		1	14	3	17	15	3	18
INADEQUATE SUPERVISION OF FLIGHT		1	1	12	4	16	12	5	17
INADEQUATE TRAINING OF STUDENT									
MAINTENANCE, SERVICING, INSPECTION	1		1	29	1	30	30	1	31
IMPROPER MAINTENANCE(MAINTENANCE PERSONNEL)				12	1	13	12	1	13
IMPROPER MAINTENANCE(OWNER PERSONNEL)				4	1	5	4	1	5
IMPROPERLY SERVICED AIRCRAFT(GROUND CREW)	1		1	7	1	8	8	1	9
IMPROPERLY SERVICED AIRCRAFT(OWNER-PILOT)				8		8	8		8
INADEQUATE INSPECTION OF AIRCRAFT(MAINTENANCE PERSONNEL)				2	2	4	2	2	4
INADEQUATE INSPECTION OF ACFT(OWNER-PILOT PERSONNEL)	13	3	16	194	16	210	207	19	226
INADEQUATE MAINTENANCE AND INSPECTION				1		1	1		1
OTHER					1	1		1	1
UNK/NR									
OPERATIONAL SUPERVISORY PERSONNEL				2		2	2		2
INADEQUATE FLIGHT TRAINING-PROCEDURES		1	1	1	1	2	1	2	3
INADEQUATE SUPERVISION OF FLIGHT CREW				1		1	1		1
INADEQUATE SUPERVISION/TRAINING OF RAMP CREWS		1	1	4		4	4	1	5
DEFICIENCY, COMPANY MAINTAINED EQMT, SERV, REGULATIONS									
WEATHER PERSONNEL		4	4	1	1	2	1	5	6
INCORRECT WEATHER FORECAST		1	1					1	1
INADEQUATE/INCORRECT WEATHER BRIEFING									
TRAFFIC CONTROL PERSONNEL	1	2	3				1	2	3
FAILURE TO ADVISE OF UNSAFE WEATHER CONDITION					1	1		1	1
FAILURE TO ADVISE OF UNSAFE AIRPORT CONDITION				1		1	1		1
FAILURE TO ADVISE OF OTHER TRAFFIC	2		2	1	1	2	3	1	4
INADEQUATE SPACING OF AIRCRAFT		3	3	1	2	3	1	5	6
OTHER									
AIRPORT SUPERVISORY PERSONNEL		1	1	13	7	20	13	8	21
IMPROPER MAINTENANCE-AIRPORT FACILITIES				27	7	34	27	7	34
FAILURE TO NOTIFY OF UNSAFE CONDITION				4	4	8	4	4	[illegible]
IMPROPER/INADEQUATE SNOW REMOVAL				1	1	2	1	1	[illegible]
IMPROPER OPERATION OF FACILITIES				1		1	1		
IMPROPER INSPECTION OF FACILITIES									
AIRWAYS FACILITIES PERSONNEL					1	1		1	
FAILURE TO ISSUE NOTAM									
PRODUCTION-DESIGN	5		5	8		8	13		1
SUBSTANDARD QUALITY CONTROL				3		3	3		
INCORRECT FACTORY INSTALLATION	1	1	2	12	1	13	13	2	1
POOR/INADEQUATE DESIGN									
MISCELLANEOUS-PERSONNEL	21	4	25	39	8	47	60	12	7
PILOT OF OTHER AIRCRAFT	1		1	1	2	3	2	2	
GROUND SIGNALMAN		1	1	1	1	2	1	2	
SPECTATOR				6		6	6		
GROUND CREWMAN	4		4	25	4	29	29	4	3
PASSENGER		1	1	17	9	26	17	10	2
DRIVER OF VEHICLE	1		1	6	6	12	7	6	1
OTHER	1		1	3		3	4		
DIRECT ENTRIES									
THIRD PILOT									
FLIGHT ENGINEER									
DISPATCHING									
SUBTOTAL	53	24	77	462	87	549	515	111	6[illegible]
** AIRFRAME **									
WINGS	14	2	16	1	1	2	15	3	
SPARS				1		1	1		
RIBS, STRINGERS, CAP STRIPS	2		2	1		1	3		
WING ATTACHMENT FITTINGS, BOLTS	1		1	1		1	2		
BRACING WIRES, STRUTS	2		2	3		3	5		
SKIN AND ATTACHMENTS				1		1	1		
WHEEL WELL DOORS	1		1		1	1	1	1	
OTHER									

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

AIRFRAME (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
FUSELAGE									
SKIN AND ATTACHMENTS	1		1	1		1	2		2
DOORS, DOOR FRAMES				2		2	2		2
WINDSHIELDS, WINDOWS, CANOPIES				1	1	2	1	1	2
SEATS				4	1	5	4	1	5
WHEEL WELL DOORS				1		1	1		1
OTHER				2		2	2		2
DIRECT ENTRIES				1		1	1		1
LANDING GEAR									
MAIN GEAR-SHOCK ABSORBING ASSY, STRUTS, ATTACHMENTS, ETC				33		33	33		33
NORMAL RETRACTION/EXTENSION ASSEMBLY				126	12	138	126	12	138
EMERGENCY/EXTENSION ASSEMBLY				63		63	63		63
TAILWHEEL ASSEMBLIES				8	2	10	8	2	10
NOSEWHEEL ASSEMBLIES				70	2	72	70	2	72
WHEELS, TIRES, AXLES				30	4	34	30	4	34
FLOAT ASSEMBLIES		1	1	2		2	2	1	3
BRAKING SYSTEM (NORMAL)				50	10	60	50	10	60
BRAKING SYSTEM (EMERGENCY)				2		2	2		2
LANDING GEAR WARNING AND INDICATING COMPONENTS				2	51	53	2	51	53
GEAR LOCKING MECHANISM				26	1	27	26	1	27
SWITCHES, LEVERS, CRANKING MECHANISM, ETC				11	6	17	11	6	17
NOSEWHEEL STEERING				16		16	16		16
OTHER					1	1		1	1
DIRECT ENTRIES				9		9	9		9
FLIGHT CONTROL SURFACES									
ELEVATOR, ASSEMBLY ATTACHMENTS				2		2	2		2
AILERON, SURFACES ATTACHMENTS	1		1	4	1	5	5	1	6
HORIZONTAL STABILIZER, ATTACHMENTS	5	1	6	2		2	7	1	8
VERTICAL STABILIZER, ATTACHMENTS	1		1	1		1	2		2
OTHER	1		1				1		1
DIRECT ENTRIES				1		1	1		1
SUBTOTAL	29	4	33	478	94	572	507	98	605
** POWERPLANT **									
ENGINE STRUCTURE									
CRANKCASE				2		2	2		2
CRANKSHAFT				10		10	10		10
MASTER AND CONNECTING RODS	2		2	24	1	25	26	1	27
CYLINDER ASSEMBLY				18		18	18		18
PISTON, PISTON RINGS	3		3	16		16	19		19
VALVE ASSEMBLIES	1		1	26		26	27		27
BLOWER, IMPELLER ASSEMBLY				4		4	4		4
OTHER	1		1	9		9	10		10
IGNITION SYSTEM									
MAGNETOES	3	1	4	14		14	17	1	18
SPARK PLUG	3		3	12	1	13	15	1	16
COILS				1		1	1		1
IGNITION HARNESS, SHIELDING				3		3	3		3
SWITCHES				3		3	3		3
LEADS				1		1	1		1
FUEL SYSTEM									
TANKS				3	3	6	3	3	6
LINES AND FITTINGS				18	2	20	18	2	20
SELECTOR VALVES	1		1	2		2	3		3
FILTERS, STRAINERS, SCREENS				6		6	6		6
PRIMING SYSTEM				2		2	2		2
CARBURETOR	3		3	26	1	27	29	1	30
PUMPS	1		1	5		5	6		6
FUEL INJECTION SYSTEM	1		1	3		3	4		4
VENTS, DRAINS, TANK CAPS				15	2	17	15	2	17
RAM AIR ASSEMBLY					1	1		1	1
OTHER				4		4	4		4
LUBRICATING SYSTEM									
LINES, HOSES, FITTINGS				6		6	6		6
FILTERS, SCREENS				3		3	3		3
PUMP-PRESSURE				2		2	2		2
OTHER				3		3	3		3
COOLING SYSTEM									
BAFFLES				1		1	1		1
PROPELLER AND ACCESSORIES									

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

POWERPLANT (CONTINUED)	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
BLADES	2		2	18		18	20		20
HUBS				6		6	6		6
ELECTRIC PITCH CONTROL MECHANISM	1		1				1		1
HYDRAULIC PITCH CONTROL MECHANISM	1		1	4		4	5		5
GOVERNORS				2		2	2		2
OTHER				5		5	5		5
EXHAUST SYSTEM				1		1	1		
MANIFOLDS				2		2	2		
MUFFLERS				1		1	1		
GASKETS				2		2	2		
CLAMPS				3		3	3		
STACKS				1		1	1		
EXTERNAL SUPERCHARGER		1	1					1	
OTHER							1		
ENGINE ACCESSORIES	1		1				1		
VACUUM PUMPS				1	2	3	1	2	
GENERATORS				1		1	1		
OTHER									
ENGINE CONTROLS-COCKPIT				5	4	9	5	4	
THROTTLE-POWER LEVER ASSEMBLIES				4		4	4		
MIXTURE CONTROL ASSEMBLIES				1		1	1		
PROPELLER GOVERNOR CONTROLS				1	12	13	1	12	
POWERPLANT-INSTRUMENTS									
FUEL QUANTITY GAUGE									1
MISCELLANEOUS	15		15	178		178	193		
POWERPLANT FAILURE FOR UNDETERMINED REASONS				2		2	2		
DETONATION	1		1				1		
OTHER				6		6	6		
DIRECT ENTRIES				3		3	3		
REDUCTION GEAR ASSEMBLY									
GEARS, ACCESSORY DRIVE									
COMPRESSOR ASSEMBLY									
COMBUSTION ASSEMBLY									
TURBINE ASSEMBLY									
ACCESSORY DRIVE ASSEMBLY									
LUBRICATING SYSTEM									
FUEL SYSTEM									
SAFETY SYSTEM									
IGNITION SYSTEM									
TORQUEMETER									
AIR BLEED									
EXHAUST SYSTEM									
THRUST REVERSER				1		1	1		
PROPELLER SYSTEM									
BLADES									
CONSTANT SPEED DRIVE									
POWER LEVER									
PROPELLER LEVER									
REVERSE THRUST LEVER				1		1	1		
ENGINE INDICATING EQUIPMENT									
TACHOMETER									
ENGINE INSTALLATION									
SUBTOTAL	40	2	42	491	29	520	531	31	
** SYSTEMS **									
ELECTRICAL SYSTEM				2	5	7	2	5	
BATTERIES				2	3	5	2	3	
GENERATORS/ALTERNATORS				1	1	2	1	1	
REGULATOR	1		1	2		2	3		
RELAYS AND WIRING					2	2		2	
MOTORS					2	2		2	
PROTECTIVE DEVICES				2	1	3	2	1	
OTHER				2	2	4	2	2	
HYDRAULIC SYSTEM				1		1	1		
HYDRAULIC PUMPS				3	2	5	3	2	
HYDRAULIC MOTORS				8	1	9	8	1	
RESERVOIR, LINES, FITTINGS				2		2	2		
SEALS				1		1	1		
RELIEF VALVE									
SHUT-OFF VALVE									

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

SYSTEMS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
OTHER									
FLIGHT CONTROL SYSTEMS				4	1	5	4	1	5
AILERON AND AILERON TAB CONTROL SYSTEM	1		1	1		1	2		2
ELEVATOR AND ELEVATOR TAB CONTROL SYSTEM				1	2	3	1	2	3
ELEVATOR TRIM INDICATOR SYSTEM				1		1	1		1
RUDDER AND RUDDER TAB CONTROL SYSTEM	2		2	6		6	8		8
ANTI-ICING, DE-ICING SYSTEMS									
CARBURETOR DE-ICING SYSTEM				8		8	8		8
AIR CONDITION, HEATING AND PRESSURIZATION									
OTHER				1		1	1		1
AUTO PILOT									
FIRE WARNING SYSTEM									
FIRE EXTINGUISHER SYSTEM									
OXYGEN SYSTEM									
OTHER SYSTEMS									
DIRECT ENTRIES				4		4	4		4
SUBTOTAL	4		4	52	22	74	56	22	78
** INSTRUMENTS/EQUIPMENT AND ACCESSORIES **									
FLIGHT AND NAVAGATION INSTRUMENTS									
AIRSPEED				2	4	6	2	4	6
ATTITUDE GYRO		1	1					1	1
DIRECTIONAL GYRO				1		1	1		1
COMPASS				2		2	2		2
COURSE INDICATOR				1		1	1		1
COMMUNICATIONS AND NAVIGATION EQUIPMENT									
TRANSMITTERS AND/OR RECEIVERS					1	1		1	1
OTHER					1	1		1	1
MISCELLANEOUS EQUIPMENT									
SPRAY, DUSTING EQUIPMENT				2		2	2		2
OTHER				2		2	2		2
DIRECT ENTRIES				1		1	1		1
SUBTOTAL		1	1	11	6	17	11	7	18
** ROTORCRAFT **									
ROTOR ASSEMBLIES									
MAIN ROTOR BLADES	1		1				1		1
TAIL ROTOR BLADES	2	1	3	5		5	7	1	8
MAIN ROTOR HEAD ASSEMBLIES	3		3				3		3
BEARINGS	1		1	1		1	2		2
OTHER				1		1	1		1
TRANSMISSION ROTOR DRIVE SYSTEM									
ENGINE DRIVE SHAFT				1		1	1		1
FREE WHEEL UNIT				1		1	1		1
MAIN ROTOR PULLEYS, BELTS				1		1	1		1
TAIL ROTOR DRIVE SHAFT ASSEMBLY				3		3	3		3
CLUTCH ASSEMBLY				8		8	8		8
OTHER				2		2	2		2
FLIGHT CONTROL SYSTEMS									
CYCLIC PITCH CONTROL SYSTEM				1		1	1		1
COLLECTIVE PITCH CONTROL SYSTEM				1		1	1		1
TAIL ROTOR PITCH CONTROL SYSTEM				3		3	3		3
STABILIZING SURFACES-DAMPERS				1		1	1		1
OTHER				1		1	1		1
MISCELLANEOUS UNITS AND ASSEMBLIES									
TAIL BOOMS/PYLONS/CONES				2		2	2		2
DIRECT ENTRIES	3		3	3		3	6		6
SUBTOTAL	10	1	11	35		35	45	1	46
** AIRPORTS/AIRWAYS/FACILITIES **									
AIRPORT FACILITIES									
RUNWAY LIGHTING					3	3		3	3
TAXIWAY LIGHTING AND MARKING				1		1	1		1
OTHER					2	2		2	2
AIRPORT CONDITIONS									
WET RUNWAY				10	81	91	10	81	91

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

AIRPORTS/AIRWAYS/FACILITIES (CONTINUED)	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
ICE/SLUSH ON RUNWAY				3	42	45	3	42	45
SNOW ON RUNWAY				8	50	58	8	50	58
SNOW WINDROWS				2	5	7	2	5	7
UNMARKED OBSTRUCTIONS				12	6	18	12	6	18
SOFT SHOULDERS (RUNWAY)				1	24	25	1	24	25
HIGH VEGETATION				2	23	25	2	23	25
HIDDEN HAZARD				15	5	20	15	5	20
POORLY MAINTAINED RUNWAY SURFACE		2	2	9	24	33	9	24	33
SOFT RUNWAY				11	44	55	11	45	56
WET RAMP/TAXIWAY					2	2		2	
ICE/SLUSH ON RAMP/TAXIWAY				2	7	9	2	7	
SNOW ON RAMP/TAXIWAY				1	2	3	1	2	
SOFT SHOULDERS (RAMP/TAXIWAY)					4	4		4	
POORLY MAINTAINED RAMP/TAXIWAY SURFACE				3	3	6	3	3	
OTHER				11	48	59	11	48	59
AIRWAYS FACILITIES		2	2					2	
OTHER		4	4	91	375	466	91	379	470
SUBTOTAL									
** WEATHER **									
LOW CEILING	11	128	139	3	93	96	14	221	235
RAIN	4	48	52	2	69	71	6	117	123
FOG	7	73	80	2	55	57	9	128	137
SNOW	3	17	20		22	22	3	39	
ICING CONDITIONS-INCLUDES SLEET, FREEZING RAIN, ETC	4	13	17	4	12	16	8	25	
CONDITIONS CONDUCIVE TO CARB/INDUCTION SYSTEM ICING	2	6	8	23	39	62	25	45	
UNFAVORABLE WIND CONDITIONS	3	8	11	202	295	497	205	303	508
SUDDEN WINDSHIFT				13	18	31	13	18	
TURBULENCE IN FLIGHT, CLEAR AIR	5	1	6	2	1	3	7	2	
TURBULENCE, ASSOCIATED W/CLOUDS, THUNDERSTORMS	3	20	23	2	14	16	5	34	
DOWNDRAFTS, UPDRAFTS	5	9	14	11	40	51	16	49	
LOCAL WHIRLWIND				10	3	13	10	3	
LINE SQUALL	2	2	4		3	3	2	5	
ADVERSE WINDS ALOFT					2	2		2	
HIGH TEMPERATURE		3	3		29	29		32	
OBSTRUCTIONS TO VISION	1	6	7	3	8	11	4	14	
HIGH DENSITY ALTITUDE		12	12	4	48	52	4	60	
THUNDERSTORM ACTIVITY	3	14	17	3	25	28	6	39	
OTHER					3	3		3	
SUBTOTAL	53	360	413	284	779	1063	337	1139	1
** TERRAIN **									
WET, SOFT GROUND		2	2	13	125	138	13	127	
SNOW-COVERED				7	19	26	7	19	
ICY				2	2	4	2	2	
HIGH VEGETATION				3	56	59	3	56	
HIDDEN OBSTRUCTIONS		1	1	19	6	25	19	6	
ROUGH/UNEVEN	1		1	20	119	139	20	120	
ROUGH WATER				1	2	3	2	2	
GLASSY WATER	1	17	18		2	2		2	
HIGH OBSTRUCTIONS				10	56	66	11	73	
LOOSE GRAVEL				1		1	1		
SANDY		1	1	5	18	23	5	18	
OTHER				2	17	19	2	18	
SUBTOTAL	2	21	23	93	422	505	85	443	
** MISCELLANEOUS **									
BIRD COLLISION	4		4	6		6	6		
VORTEX TURBULENCE				16	1	17	20	1	
PROP/JET BLAST	2	2	4	14		14	14		
EVASIVE MANEUVER TO AVOID COLLISION		1	1	13	4	17	15	6	
UNQUALIFIED PERSON OPERATED AIRCRAFT				16	4	20	16	5	
FOREIGN OBJECT DAMAGE				1		1	1		
SMOKE IN COCKPIT	3		3	2	2	4	2	2	
FOREIGN MATERIAL AFFECTING NORMAL OPERATIONS	50		50	51	4	55	54	4	
UNDETERMINED				49		49	99		

CAUSE/FACTOR TABLE

SCELLANEOUS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
DIRECT ENTRIES				13		13	13		13
SUBTOTAL	59	3	62	181	15	196	240	18	258
GRAND TOTAL	1070	463	1533	8162	2030	10192	9232	2493	11725
** MISCELLANEOUS ACTS, CONDITIONS **									
ALTIMETER SETTING-INCORRECT		2	2		1	1		3	3
IMPROPER OPER/FAILED TO USE CARB HEAT/DE-ICING EQUIP	5	1	6	86	3	89	91	4	95
CHECKLIST-FAILED TO USE	1	1	2	14	144	156	15	145	160
COWL FLAPS-IMPROPERLY POSITIONED					1	1		1	1
CREW COORDINATION-POOR				1	1	2	1	1	2
DISREGARD OF GOOD OPERATING PRACTICE		1	1	5	4	9	5	5	10
IMPROPER EMERGENCY PROCEDURES	8	1	9	26	14	40	34	15	49
FEATHERED WRONG ENGINE				1		1	1		1
GUST LOCKS ENGAGED	1		1	2		2	3		3
INSTRUCTIONS-MISINTERPRETED					3	3		3	3
INSTRUMENTS-MISREAD OR FAILED TO READ				3	1	4	3	1	4
SEAT BELT NOT FASTENED		3	3	2	3	5	2	6	8
NOT ALIGNED WITH RUNWAY/INTENDED LANDING AREA				32	28	60	32	28	60
UNWARRANTED LOW FLYING	36	19	55	20	21	41	56	40	96
FAILED TO EXTEND THE LANDING FLAPS		1	1		1	1		2	2
FAILED TO USE ALL AVAILABLE RUNWAY		2	2	6	5	11	6	7	13
LANDED AT WRONG AIRPORT				1	1	2	1	1	2
INATTENTIVE TO FUEL SUPPLY	5		5	30	7	37	35	7	42
FLEW INTO BLIND CANYON	5	1	6	14	3	17	19	4	23
POORLY PLANNED APPROACH	4	12	16	16	44	60	20	56	76
MISCALCULATED FUEL CONSUMPTION	1	1	2	18	12	30	19	13	32
JETTISONED LOAD		1	1		10	10		11	11
STOLEN OR UNAUTHORIZED USE OF AIRCRAFT		9	9	1	19	20	1	28	29
LANDED ON FOAMED RUNWAY					9	9		9	9
CORRECTING LENSES-NOT USED		2	2					2	2
IMPROPERLY SECURED	1	2	3	32	6	38	33	8	41
BOGUS PART		1	1		2	2		3	3
ELECTRICAL FAILURE	1		1	7	27	34	8	27	35
ENGINE LOADED UP				23	2	25	23	2	25
EXPLOSIVE DECOMPRESSION					1	1		1	1
FATIGUE FRACTURE	14		14	50	2	52	64	2	66
FUEL GRADE-IMPROPER				3	1	4	3	1	4
HYDRAULIC FAILURE				7	1	8	7	1	8
IMPROPER GRADE OIL-LUBRICATING SYSTEM					1	1		1	1
RPM-UNCONTROLLABLE-OVERSPEED					1	1		1	1
WINDSHIELD, DIRTY, FOGGY, ETC-RESTRICTED VISION		1	1	1	6	7	1	7	8
WRONG PART				3	1	4	3	1	4
IMPROPER ALIGNMENT/ADJUSTMENT		1	1	29	6	35	29	7	36
FAILURE OF TWO OR MORE ENGINES	2	4	6	5	21	26	7	25	32
SEPARATION IN FLIGHT		39	39		43	43		82	82
FIRE IN CABIN/ COCKPIT/ BAGGAGE COMPARTMENT	2		2	2	3	5	4	3	7
FIRE IN ENGINE	1	1	2	8	5	13	9	6	15
FIRE IN BRAKES/ WHEEL ASSEMBLY/ WHEEL WELL		1	1	1	2	3	1	3	4
ASYMETRICAL FLAPS					1	1		1	1
LATERAL IMBALANCE				3		3	3		3
CORRODED/CORROSION	3		3	11	5	16	14	5	19
INCORRECT TRIM SETTING				1	2	3	1	2	3
CONGESTED TRAFFIC-PATTERN OR RAMP		7	7		10	10		17	17
PILOT FATIGUE		5	5	2	7	9	2	12	14
FUEL EXHAUSTION	10		10	152		152	162		162
FUEL CONTAMINATION-EXCLUSIVE OF WATER IN FUEL				7	1	8	7	1	8
PILOT SUFFERED HEART ATTACK	4		4				4		4
ALCOHOLIC IMPAIRMENT OF EFFICIENCY AND JUDGMENT	41	2	43	5		5	46	2	48
HYPOXIA	2		2	1		1	3		3
CARBON MONOXIDE POISONING		2	2					2	2
ICE-IN FUEL				4	2	6	4	2	6
ICE-ENGINE				3		3	3		3
ICE-CARBURETOR	3		3	61	2	63	64	2	66
AIRFRAME ICE	3	2	5	16	11	27	19	13	32
ICE-WINDSHIELD				2	2	4	2	2	4
IMPROPERLY LOADED AIRCRAFT-WEIGHT-AND/OR CG	9	15	24	12	13	25	21	28	49
INTERFERENCE WITH FLIGHT CONTROLS	1		1	4	1	5	5	1	6

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

MISCELLANEOUS ACTS, CONDITIONS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TO
WHITEOUT				2	1	3	2	1	
SUNGLARE		4	4	1	31	32	1	35	
LACK OF LUBRICATION-SPECIFIC PART, NOT SYSTEM				9	5	14	9	5	
OIL EXHAUSTION-ENGINE LUBRICATION SYSTEM	2		2	9		9	11		
SIMULATED CONDITIONS	3		3	33	34	67	36	34	
WATER IN FUEL	1		1	37	2	39	38	2	
AIRCRAFT CAME TO REST IN WATER		39	39		88	88		127	
FROZEN				5	3	8	5	3	
MISSING				12	6	18	12	6	
HYDROPLANING ON WET RUNWAY				9	3	12	9	3	
SEAT BELT SIGN OFF					1	1		1	
OVERLOAD FAILURE	16	12	28	24	1157	1181	40	1169	1
MATERIAL FAILURE	8	1	9	287	24	311	295	25	
FUEL STARVATION	18	1	19	169		169	187	1	
OIL STARVATION	2		2	12		12	14		
IMPROPER CLEARANCE-TOLERANCE				20	3	23	20	3	
FUEL SELECTOR POSITIONED BETWEEN TANKS	4		4	11		11	15		
TIEDOWN LINES SNAPPED					2	2		2	
FIRE OF UNDETERMINED ORIGIN				1	1	2	1	1	
UNAPPROVED MODIFICATION		1	1	3	1	4	3	2	
IMPROPER/INADEQUATE VENTING				1		1	1		
ACTION, LACK OF				1	1	2	1	1	
POOR WELD	3		3	2	1	3	5	1	
PREVIOUS DAMAGE				42	41	83	42	41	
BRAKES FROZEN				1		1	1		
LEAK/LEAKAGE				22	9	31	22	9	
LOW FLUID LEVEL				4	4	8	4	4	
CIRCUIT BREAKER POPPED				4	19	23	4	19	
LOW COMPRESSION				2		2	2		
RUNWAY CLOSED				2	14	16	2	14	
DOWNWIND		7	7	1	107	108	1	114	
CARBON DEPOSITS	1	1	2	6	1	7	7	2	
LANDED IN CONSTRUCTION AREA				3	5	8	3	5	
OVER TORQUED				1		1	1		
UNDER TORQUED				1		1	1		
LOOSE, PART/FITTING	1		1	10	6	16	11	6	
GROUND RESONANCE				2		2	2		
BENT				6	3	9	6	3	
BINDING				10	8	18	10	8	
BRITTLE				1		1	1		
BUCKLED				2		2	2		
BURST				1	1	2	1	1	
BURNED		1	1	5	2	7	5	3	
CHAFED				2	3	5	2	3	
COLLAPSED				2	1	3	2	1	
CROSSED				1		1	1		
DETERIORATED		1	1	6	1	7	6	2	
DISCONNECTED				11	2	13	11	2	
DISTORTED					2	2		2	
ELONGATED				2		2	2		
EXCESSIVE				3	1	4	3	1	
ERRATIC				2	3	5	2	3	
FLUCTUATING					1	1		1	
FLUTTER				1		1	1		
FRAYED		1	1					1	
FRICTION, EXCESSIVE	1		1				1		
GROUNDED				3	1	4	3	1	
IMPROPERLY INSTALLED				9		9	9		
JAMMED	1		1	34	2	36	35	2	
OBSTRUCTED				8	2	10	8	2	
OPEN					1	1		1	
OUT OF BALANCE					1	1		1	
OVERHEATED				8	1	9	8	1	
EXCESSIVE PRESSURE				1		1	1		
PRESSURE TOO LOW				5	2	7	5	2	
PRESSURE, NONE				9	3	12	9	3	
SCORED				1		1	1		
SHEARED				5	2	7	5	2	
STICKING				3	1	4	3	1	
STRIPPED				1		1	1		
STUCK				7	2	9	7	2	
EXCESSIVE TEMPERATURE		1	1		2	2		3	

TABLE 36 (CONTINUED)

CAUSE/FACTOR TABLE

MISCELLANEOUS ACTS, CONDITIONS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
VIBRATION, EXCESSIVE				17	18	35	17	18	35
WARPED					1	1		1	1

DIRECT ENTRY CAUSES

PERSONNEL-ROTOR SPINDLE NOT MADE TO SPECIFICATIONS
PILOT-INADVERTENT SPIN FOR UNDETERMINED REASON.
PILOT-LOSS OF CONTROL FOR UNDERMINED CAUSE.
PILOT-FAILED TO DETECT WINDSHIFT.
ROTORCFT-CLUTCH SLIPPAGE FOR UNDETERMINED CAUSE.
PILOT-ATTEMPTED OPERATION BEYOND ACFT CAPABILITY.
SYSTEMS-RUDDER JAMMED LEFT. CAUSE UNDETERMINED.
EQUIP-RIGHT HOPPER DID NOT DISCHARGE.
PERSONNEL-IMPROPER HANDLING OF PROPELLER.
PWR PLT-NO.2 CYL CON ROD CAP BOLT FAILED.
ROTORCFT-ANTITORQUE CONTROL LOSS-CAUSE UNDETERMND.
PILOT-LOSS OF CONTROL DUE TO IMPROPER LIFT OFF.
ROTORCFT-INTERMEDIATE DRIVE SHAFT RIVETS SHEARED.
PILOT-PARKED TOO CLOSE TO OBSTRUCTION.
COPILOT-INADVERTENTLY MOVD PWR LVRS TO CUTOFF.
MISC-FLOCK OF BIRDS ROSE INTO TAKEOFF PATH OF ACFT
PILOT-INATTENTION TO ROTATING PROPELLER.
PERSONNEL-INATTENTIVE TO ROTATING PROP.
PILOT-ACFT ON AUTOPILOT,PLT ASLEEP.
ROTORCFT-TAILROTOR ASSY FAILURE,UNDETERMINED CAUSE
ROTORCFT-M/R CLEVIS BEARINGS SEIZED.
PILOT-INITIATED FLIGHT IN ADVERSE WEATHER CONDS.
ROTORCFT-HIGH BLADE FLAPPING AND INPLANE LOADS.
MISC-RAPID ACCUMULATION OF STRUCTURAL ICE.
LDG GR-COLLAPSED FOR UNDETERMINED CAUSE.
LDG GR-SHIMMY DAMPER BRACKET BROKE.
LDG GR- RETRACTED,CAUSE UNDETERMINED.
SYSTEMS-OVERHEATED STARTER CABLE
LDG GR-SNOW PACKED WHEEL PANTS ON PREVIOUS TAKEOFF
LDG GR-NOSE GR SHIMMY DAMPER JAMMED,FAILED NOSE GR
SYSTEMS-ELECTRICAL FAILURE UNDETERMINED.
LDG GR-RETRACTED,UNDETERMINED CAUSE.
LDG GR-LEFT GEAR FAILED FOR UNDETERMINED CAUSE.
PILOT-LEG STRUCK AND TURNED FUEL SELECTR VALVE OFF
MISC-RH ENG COWLING CAME LOOSE,FOLDED OVER WING.
PWR PLT-THROTTLE HOUSING BROKE FORWARD OF FIREWALL
PWR PLT-LEFT PROPELLER SURGED, CAUSE UNDETERMINED.
PWR PLT-CARB INGESTED WATER,AIR SCREEN SATURATED.
FUSELAGE-RIGHT SIDE BRACE BENT,FUSELAGE TWISTED.
PERSONNEL-POORLY DESIGNED MODIFICATION.
PILOT-OPR BEYOND ACFT CAPABILITY UNDER EXISTG COND
FLT CONTROLS-RUDDER JAMMED FULL LEFT,UNDETERMINED.
LDG GR-RT GEAR FAILED-CAUSE UNDETERMINED.
MISC-TOWLINE BROKE DURING WINCH TOW LAUNCH.
PILOT-TAXIED WITH EXCESSIVE SPEED IN CONFINED AREA
LDG GR-LFT GR COLLAPSED FOR UNDETERMINED CAUSE.
MISC-SULPHUR IN SPREADER IGNITED, CAUSE UNKNOWN.
MISC-HORSE RAN ONTO RWY IN FRONT OF ACFT.
PWR PLT-ENG ROUGH,CAUSE UNDETERMINED.
PILOT-INTENTIONAL GROUND LOOP.
PILOT-LACK OF CONFIDENCE IN ACFT TAKEOFF PERFRMNCE
PILOT-PREMATURE RELEASE OF TOW LINE,TOO LOW.
PILOT-FAILED TO JETTISON LOAD.
FAILURE STARTED FROM 1/4 IN DRILLED HOLE-RT STRUT.
MISC-DEER RAN IN FRONT OF ACFT.
MISC-OVERHEATED STEEL SKID SHOE IGNITED COVERING.
MISC-PARACHUTE OPENED IN ACFT,PULLED CHUTIST OUT.
MISC-DEER RAN IN PATH OF ACFT.
PILOT-DID NOT USE LDG LIGHT FOR NIGHT TAXI.
PILOT-TAXIED ON UNSUITABLE TERRAIN,WENT THRU DITCH
MISC-UPPER ENG COWL CAME LOOSE,SEPARATED.
MISC-CONTROL LOSS DUE TO SEAT SLIDING BACK.
PWR PLT-INFLIGHT FUEL FED FIRE IN RT WHEEL WELL.
SYSTEMS-RUDDER JAMMED FULL LEFT,CAUSE UNDETERMINED

DIRECT ENTRY CAUSES ARE CARRIED UNDER THEIR APPROPRIATE CAUSAL CATEGORIES AND ARE INCLUDED IN THE TOTALS

Section II

GENERAL AVIATION ACCIDENTS

SMALL FIXED-WING AIRCRAFT

TABLE 37

ACCIDENTS, INJURY INDEX, AIRCRAFT DAMAGE BY KIND OF FLYING

SMALL FIXED-WING AIRCRAFT
1967

	KIND OF FLYING																							
	INSTRUCTIONAL				NONCOMMERCIAL					COMMERCIAL							MISCELLANEOUS							
	DUAL	SOLO	OTHER	TOTAL	PLEASURE	BUSINESS	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	POWER/PIPELINE PATROL	AIR TAXI - PASSENGER	AIR TAXI - CARGO	OTHER	TOTAL	TEST	DEMONSTRATION	FERRY	TOWING GLIDER	HUNTING	OTHER	TOTAL	GRAND TOTAL
ACCIDENTS.....	338	406	513	1257	2602	841	97	123	3663	348	4	5	182	27	25	591	57	29	93	6	13	74	272	-
INJURY INDEX																								
Fatal.....	29	10	10	49	300	84	16	10	410	38	0	2	25	5	4	74	5	3	10	0	2	16	36	569
Serious.....	19	9	13	41	166	35	3	7	211	30	2	0	11	0	1	44	5	1	5	0	3	8	22	318
Minor.....	43	39	53	135	327	61	5	14	407	57	0	0	14	3	7	81	9	3	9	1	1	9	32	655
None.....	247	348	437	1032	1809	661	73	92	2635	223	2	3	132	19	13	392	38	22	69	5	7	41	182	4241
Unknown.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIRCRAFT DAMAGE																								
Destroyed.....	49	25	24	98	466	132	16	17	631	103	2	2	33	6	8	154	11	4	18	0	3	21	57	940
Substantial.....	290	378	488	1156	2122	706	80	105	3013	246	2	3	147	21	18	437	46	25	75	6	10	52	214	4820
Minor.....	2	3	2	7	7	0	0	1	8	3	0	0	0	0	0	3	0	0	0	0	0	0	0	18
None.....	1	0	2	3	11	2	1	0	14	0	0	0	1	0	0	1	0	0	0	0	0	1	1	19
Unknown.....	0	0	0	0	1	1	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
Total.....	342	406	516	1264	2607	841	97	123	3668	352	4	5	182	27	26	596	57	29	93	6	13	74	272	5800

TABLE 38

TYPE OF ACCIDENT VS KIND OF FLYING

SMALL FIXED-WING AIRCRAFT

1967

FIRST TYPE OF ACCIDENT	KIND OF FLYING: INSTRUCTIONAL				NONCOMMERCIAL					COMMERCIAL							MISCELLANEOUS						
	DUAL	SOLO	OTHER	TOTAL	PLEASURE	BUSINESS	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	POWER/PIPELINE PATROL	AIR TAXI-PASSENGER	AIR TAXI-CARGO	OTHER	TOTAL	TEST	DEMONSTRATION	FERRY	TOWING GLIDER	HUNTING	OTHER	TOTAL
Ground/waterloopswerve	55	157	176	388	312	84	10	21	427	22	0	0	10	1	2	35	6	5	19	2	0	7	39
Dragged wingtip, pod, or float	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheels-up landing	24	2	4	30	195	131	14	11	351	0	0	0	26	2	2	30	7	5	6	0	0	1	19
Wheels-down landing in water	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear collapsed	8	10	14	32	108	41	5	3	157	4	0	0	6	2	1	13	2	1	3	0	1	1	8
Gear retracted	19	0	3	22	72	62	[illegible]	6	147	0	0	0	21	4	1	26	10	1	4	0	0	4	19
Hard landing	37	83	84	204	229	43	3	9	284	1	0	0	2	1	1	5	2	1	2	0	0	2	7
Nose over/down	10	18	20	48	95	27	0	0	122	6	0	0	5	1	3	15	1	1	5	2	0	1	10
Roll over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overshoot	11	42	23	76	213	63	3	8	287	2	1	0	9	0	1	13	0	0	2	0	0	2	4
Undershoot	18	13	21	52	123	18	5	9	155	3	0	0	7	1	0	11	1	2	3	0	0	2	8
Collision with aircraft																							
Both in flight	6	2	8	16	15	3	1	0	19	6	0	0	0	0	2	8	0	1	1	0	0	0	2
One airborne	2	1	1	4	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Both on ground	7	3	6	16	7	1	2	4	14	3	0	0	1	0	0	4	0	0	1	0	0	3	4
Collision with ground/water																							
Controlled	7	4	5	16	58	18	0	2	78	9	1	0	3	2	0	15	0	0	1	0	0	4	5
Uncontrolled	1	2	1	4	74	21	1	3	99	6	1	0	4	0	0	11	0	0	2	1	0	6	9
Collided with																							
Wires/poles	3	1	6	10	64	17	1	1	83	48	0	0	2	0	0	50	0	0	1	0	1	3	5
Trees	1	4	2	7	62	24	4	1	91	15	0	0	6	0	2	23	4	0	3	0	0	1	8
Residence (s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other buildings	0	3	5	8	6	7	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fence, fenceposts	1	2	1	4	41	11	0	0	52	7	0	0	1	0	1	9	0	0	1	0	0	0	1
Electronic towers	0	0	0	0	4	1	0	0	5	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Runway or approach lights	0	1	0	1	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airport hazard	0	1	4	5	7	5	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Animals	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop	0	0	1	1	4	8	0	1	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagman, loader	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Ditches	2	3	4	9	26	9	0	0	35	0	0	0	0	1	0	1	0	0	3	0	1	1	5
Snowbank	4	3	1	8	13	5	2	0	20	0	0	0	2	0	0	2	1	0	0	0	0	0	1
Parked aircraft (Unattended, engines not running)	1	7	7	15	34	7	0	1	42	0	0	0	2	1	0	3	0	1	0	0	0	3	4
Automobile	0	2	2	4	9	3	1	0	13	5	0	0	3	0	0	8	0	0	0	0	0	0	0
Dirt bank	2	1	3	6	12	6	1	2	21	4	0	0	1	0	0	5	1	0	2	0	0	1	4
Other	6	9	9	24	73	32	1	3	109	10	0	0	11	1	2	24	1	1	1	0	3	2	8
Bird strike (collision with birds)	1	0	0	1	2	1	0	0	3	0	0	0	1	0	0	1	0	0	0	0	0	0	0
Stall	15	12	13	40	97	18	2	4	121	30	0	0	2	1	3	36	0	0	3	0	0	6	9
Spin	7	2	3	12	42	11	0	3	56	12	0	0	3	0	1	16	2	3	1	0	3	2	11
Spiral	0	0	0	0	5	3	0	0	8	0	0	0	1	0	0	1	0	0	0	0	0	1	1
Mush	6	4	12	22	72	12	0	1	85	37	0	0	5	1	0	43	0	0	2	0	2	2	6
Fire or explosion																							
In flight	0	1	0	1	4	4	2	1	11	2	0	0	1	0	0	3	1	0	2	0	0	0	3
On ground	0	0	0	0	5	2	3	0	10	1	0	0	0	0	0	1	0	0	0	0	0	0	0
Airframe failure																							
In flight	2	0	0	2	20	10	4	0	34	1	0	0	3	0	0	4	1	0	1	0	0	2	4
On ground	0	0	0	0	2	0	1	1	4	0	0	0	0	1	0	1	0	0	0	0	0	0	0
Engine tearaway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine failure or malfunction	77	20	56	153	421	124	12	28	585	95	1	0	32	7	9	144	16	6	18	0	0	6	46
Propeller/rotor failure																							
Propeller	3	0	1	4	12	10	2	0	24	4	0	0	3	0	0	7	1	0	2	1	0	0	4
Tail rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/rotor accident to person	1	0	2	3	15	1	1	0	17	0	0	0	1	0	0	1	0	0	0	0	0	0	0
Jet intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/jet rotor blast	2	2	3	7	4	0	0	0	4	0	0	0	2	0	0	2	0	0	0	0	0	0	0
Turbulence	0	1	3	4	7	2	2	0	11	6	0	0	3	0	0	9	0	0	0	0	0	0	0
Hail damage to aircraft	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lightning strike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evasive maneuver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncontrolled altitude deviations	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditching	0	0	0	0	9	0	0	0	9	0	0	0	1	0	0	1	0	0	2	0	0	5	7
Missing aircraft, not recovered	1	0	0	1	12	4	3	0	19	3	0	0	2	0	1	6	0	1	2	0	0	2	5
Other/miscellaneous	2	0	2	4	8	1	2	0	11	0	0	0	0	0	0	0	0	0	0	0	0	4	4
Undetermined	0	0	0	0																			
TOTAL	342	406	516	1264	2607	851	95	123	3676	344	4	0	182	27	32	589	57	29	93	6	11	75	271

a/ Includes all small Fixed-Wing aircraft involved in collisions.

TYPE OF ACCIDENT VS PHASE OF OPERATION

SMALL FIXED-WING AIRCRAFT

1967

FIRST TYPE OF ACCIDENT	PHASE OF OPERATION: STATIC				TAXI			TAKEOFF				INFLIGHT							LANDING									
	STARTING ENGINES	IDLING ENGINES	ENGINE RUNUP	OTHER	TO TAKEOFF	FROM LANDING	OTHER	GROUND RUN	INITIAL CLIMB	ABORTED	OTHER	CLIMB TO CRUISE	NORMAL CRUISE	DESCENDING	HOLDING (IFR)	ACROBATICS	BUZZING	OTHER	IN TRAFFIC PATTERN	FINAL APPROACH (VFR)	APPROACH (IFR)	LEVEL OFF/TOUCH-DOWN	ROLLOUT	GO-AROUND (VFR)	MISSED APPROACH (IFR)	OTHER	UNKNOWN	TOTAL
...ground/waterloop/swerve	0	0	0	0	10	18	1	184	2	12	0	0	0	0	0	0	0	0	0	0	0	92	564	6	0	0	0	880
...ragged wingtip, pod or float	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
...heels-up landing	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	424	4	0	0	0	0	430
...heels-down landing in water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
...ear collapsed	0	0	0	0	8	10	1	10	0	13	0	0	0	0	0	0	0	0	0	0	0	36	121	0	0	1	0	210
...ear retracted	0	0	0	0	3	7	0	39	2	0	0	0	0	0	0	0	0	0	0	0	0	23	138	1	0	0	1	214
...ard landing	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	499	0	0	0	0	0	500
...ose over/down	0	5	3	0	33	42	4	8	0	12	0	0	0	0	0	0	0	0	0	0	0	9	79	0	0	0	0	195
...oll over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
...vershoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0	328	21	0	0	0	0	380
...dershoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185	4	36	0	1	0	0	0	226
Collision with a/																												
Both in flight	0	0	0	0	0	0	0	0	1	0	0	0	12	1	0	1	0	4	7	18	0	0	0	0	0	0	1	45
One airborne	0	1	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	6
Both on ground	0	8	1	0	9	6	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	38
Collision with ground/water																												
Controlled	0	0	0	0	0	0	0	0	16	0	0	1	38	6	0	7	2	22	2	4	5	8	0	1	0	2	0	114
Uncontrolled	0	0	0	0	0	0	0	0	10	0	2	0	1	0	0	1	0	102	1	4	1	1	0	0	0	0	0	123
Collided with																												
Wires/poles	0	0	0	0	7	6	1	0	14	0	0	0	8	0	0	0	7	69	3	21	0	1	1	9	1	0	0	148
Trees	0	0	0	0	3	1	2	1	16	8	0	2	25	1	0	0	4	30	2	10	2	2	9	8	1	2	0	129
Residence (s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other buildings	0	0	0	0	4	9	6	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Fence, fenceposts	0	0	0	0	1	5	5	8	21	17	0	0	0	0	0	0	0	2	0	0	0	0	6	1	0	0	0	66
Electronic towers	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	0	0	0	0	0	0	6
Runway or approach lights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	4
Airport hazard	0	0	0	0	4	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	18
Animals	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	4
Crop	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	7	0	0	0	2	1	0	0	0	0	14
Flagman, loader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Ditches	0	0	0	0	5	7	2	6	0	9	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	50
Snowbank	0	0	0	0	1	1	0	5	4	0	0	0	0	0	0	0	0	0	0	1	0	5	14	0	0	0	0	31
Parked aircraft (Unattended, engines not running)	0	1	0	0	15	14	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	64
Automobile	0	0	0	0	8	4	2	3	0	1	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	25
Dirt bank	0	0	0	0	1	1	0	4	3	8	0	0	0	0	0	0	0	4	0	0	0	3	10	2	0	0	0	36
Other	0	0	0	0	16	25	4	28	6	7	0	0	1	0	0	0	1	5	0	0	0	5	62	3	0	1	1	165
Bird strike (collision with birds)	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5
Stall	0	0	0	0	0	0	0	0	62	0	1	1	15	1	0	8	10	50	13	18	0	0	0	25	0	1	1	206
Spin	0	0	0	0	0	0	0	0	21	0	0	3	15	0	0	8	5	23	8	3	0	0	0	4	0	0	5	95
Spiral	0	0	0	0	0	0	0	0	2	0	0	1	5	0	1	0	0	0	1		0	0	0	0	0	0	0	10
Mush	0	0	0	0	0	0	0	1	107	0	0	2	3	0	0	0	1	28	0	7	0	0	0	7	0	0	0	156
Fire or explosion																												
In flight	0	0	0	0	0	0	0	0	2	0	0	1	12	0	0	0	0	1	1	1	0	0	0	0	0	0	0	18
On ground	6	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	11
Airframe failure																												
In flight	0	0	0	0	0	0	0	0	3	0	0	1	20	0	0	4	0	11	1	1	0	0	0	0	0	0	3	44
On ground	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	5
Engine tearaway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine failure or malfunction	0	1	0	0	0	0	0	11	209	0	0	21	417	33	0	2	0	86	46	60	3	1	0	37	0	1	0	928
Propeller/rotor failure																												
Propeller	0	0	0	0	0	0	0	0	7	0	0	1	22	0	0	1	0	3	2	0	0	0	0	3	0	0	0	39
Tail rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/rotor accident to person	4	16	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Jet intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/jet/rotor blast	0	3	0	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Turbulence	0	0	0	0	1	1	0	0	5	0	0	1	1	1	0	0	0	2	0	8	0	0	3	1	0	0	0	24
Hail damage to aircraft	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lightning strike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evasive maneuver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncontrolled altitude deviations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Missing aircraft, not recovered	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18
Other/miscellaneous	2	1	0	0	0	0	0	6	10	0	0	1	5	0	0	1	0	0	1	2	0	2	3	0	0	0	0	34
Undetermined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	14	15
TOTAL	12	36	5	1	138	164	62	320	530	93	3	36	611	43	1	33	30	452	89	377	16	1486	1098	109	2	8	45	5800

a/ Includes all Small Fixed-Wing aircraft involved in collisions.

TABLE 40

CAUSE/FACTOR TABLE

SMALL FIXED-WING AIRCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 5758 TOTAL ACCIDENTS
INVOLVES 560 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	477 85.18	33 5.89	479 85.54	4255 81.86	185 3.56	4262 81.99	4732 82.18	218 3.79	4741 82.34
PERSONNEL	41 7.32	22 3.93	59 10.54	394 7.58	73 1.40	462 8.89	435 7.55	95 1.65	521 9.05
AIRFRAME	23 4.11	2 .36	25 4.46	24 .46	5 .10	29 .56	47 .82	7 .12	54 .94
LANDING GEAR	.00	1 .18	1 .18	362 6.96	84 1.62	441 8.48	362 6.29	85 1.48	442 7.68
POWERPLANT	35 6.25	2 .36	36 6.43	426 8.20	25 .48	450 8.66	461 8.01	27 .47	486 8.44
SYSTEMS	3 .54	.00	3 .54	46 .88	19 .37	65 1.25	49 .85	19 .33	68 1.18
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	1 .18	1 .18	6 .12	6 .12	12 .23	6 .10	7 .12	13 .23
ROTORCRAFT	.00	.00	.00	.00	.00	.00	.00	.00	.00
AIRPORTS/AIRWAYS/FACILITIES	.00	3 .54	3 .54	86 1.65	339 6.52	423 8.14	86 1.49	342 5.94	426 7.40
WEATHER	27 4.82	163 29.11	188 33.57	251 4.83	601 11.56	841 16.18	278 4.83	764 13.27	1029 17.87
TERRAIN	2 .36	20 3.57	22 3.93	69 1.33	370 7.12	438 8.43	71 1.23	390 6.77	460 7.99
MISCELLANEOUS	9 1.61	3 .54	12 2.14	117 2.25	12 .23	129 2.48	126 2.19	15 .26	141 2.45
UNDETERMINED	42 7.50	.00	42 7.50	45 .87	.00	45 .87	87 1.51	.00	87 1.51

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

CAUSE AND RELATED FACTOR IN THE SAME CAUSAL

LE 40(CONTINUED)

CAUSE/FACTOR TABLE

SMALL FIXED-WING AIRCRAFT
U. S. GENERAL AVIATION

1967

NVOLVES 5758 TOTAL ACCIDENTS
NVOLVES 560 FATAL ACCIDENTS

DETAILED CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
** PILOT **									
PILOT IN COMMAND									
ATTEMPTED OPERATION W/KNOWN DEFICIENCIES IN EQUIPMENT	4		4	27	3	30	31	3	34
ATTEMPTED OPERATION BEYOND EXPERIENCE/ABILITY LEVEL	28		28	53	8	61	81	8	89
BECAME LOST/DISORIENTED	16	3	19	54	16	70	70	19	89
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS	114		114	85		85	199		199
CONTINUED INTO KNOWN AREA OF SEVERE TURBULENCE	4		4	6		6	10		10
DELAYED ACTION IN ABORTING TAKEOFF				71	1	72	71	1	72
DELAYED IN INITIATING GO-AROUND	4		4	67	1	68	71	1	72
DIVERTED ATTENTION FROM OPERATION OF AIRCRAFT	6	2	8	68	22	90	74	24	98
EXCEEDED DESIGN STRESS LIMITS OF AIRCRAFT	19		19	7		7	26		26
FAILED TO EXTEND LANDING GEAR				187		187	187		187
FAILED TO RETRACT LANDING GEAR				2		2	2		2
RETRACTED GEAR PREMATURELY				16		16	16		16
INADVERTENTLY RETRACTED GEAR				103		103	103		103
FAILED TO SEE AND AVOID OTHER AIRCRAFT	19	1	20	28	2	30	47	3	50
FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS	29		29	157		157	186		186
FAILED TO OBTAIN/MAINTAIN FLYING SPEED	178		178	351		351	529		529
MISJUDGED, SPEED, ALTITUDE OR CLEARANCE	1		1	1		1	2		2
FAILED TO USE OR INCORRECTLY USED MISC EQUIPMENT	4	1	5	9	8	17	13	9	22
FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES ETC	5	7	12	14	3	17	19	10	29
IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS	5		5	143	1	144	148	1	149
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				368	2	370	368	2	370
IMPROPER OPERATION OF FLIGHT CONTROLS	5		5	57		57	62		62
PREMATURE LIFT OFF				42		42	42		42
IMPROPER LEVEL OFF	1		1	391		391	392		392
IMPROPER IFR OPERATION	9		9	9		9	18		18
IMPROPER IN-FLIGHT DECISIONS OR PLANNING	13	1	14	35	4	39	48	5	53
IMPROPER COMPENSATION FOR WIND CONDITIONS				39	9	48	39	9	48
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING	62	6	68	373	21	394	435	27	462
INADEQUATE SUPERVISION OF FLIGHT	7		7	188	1	189	195	1	196
LACK OF FAMILIARITY WITH AIRCRAFT	3	7	10	29	44	73	32	51	83
MISMANAGEMENT OF FUEL SYSTEM	18	1	19	110		110	128	1	129
EXERCISED POOR JUDGMENT	29	2	31	151		151	180	2	182
OPERATED CARELESSLY				5	1	6	5	1	6
SELECTED UNSUITABLE TERRAIN	5		5	339	7	346	344	7	351
IMPROPER STARTING PROCEDURES				10	1	11	10	1	11
STARTED ENGINE WITHOUT PROPER ASSISTANCE/EQUIPMENT				40		40	40		40
TAXIED/PARKED WITHOUT PROPER ASSISTANCE				46	1	47	46	1	47
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				136		136	136		136
SPONTANEOUS-IMPROPER ACTION	1		1	23		23	24		24
MISJUDGED DISTANCE, SPEED, AND ALTITUDE	2		2	57		57	59		59
MISJUDGED DISTANCE AND SPEED	6		6	331		331	337		337
MISJUDGED DISTANCE	2		2	16		16	18		18
MISJUDGED DISTANCE AND ALTITUDE	8	1	9	153		153	161	1	162
MISJUDGED SPEED AND ALTITUDE				9		9	9		9
MISJUDGED SPEED				28	1	29	28	1	29
MISJUDGED SPEED AND CLEARANCE				1		1	1		1
MISJUDGED ALTITUDE AND CLEARANCE	8		8	11		11	19		19
MISJUDGED ALTITUDE	10		10	14		14	24		24
MISJUDGED CLEARANCE	7		7	94		94	101		101
MISUNDERSTANDING OF ORDERS OR INSTRUCTIONS				2		2	2		2
IMPROPER RECOVERY FROM BOUNCED LANDING	1		1	211		211	212		212
INCAPACITATION	8		8	2		2	10		10
PHYSICAL IMPAIRMENT	38	4	42	8		8	46	4	50
SPATIAL DISORIENTATION	77		77	14		14	91		91
PSYCHOLOGICAL CONDITION		1	1					1	1
MISUSED OR FAILED TO USE FLAPS	2	1	3	18	17	35	20	18	38
LEFT AIRCRAFT UNATTENDED ENGINE RUNNING				4		4	4		4
FAILED TO MAINTAIN DIRECTIONAL CONTROL	1		1	373		373	374		374
SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND	1	1	2	54	10	64	55	11	66
FAILED TO ABORT TAKEOFF	2		2	43	1	44	45	1	46
FAILED TO INITIATE GO-AROUND				130	4	134	130	4	134

TABLE 40 (CONTINUED)

CAUSE/FACTOR TABLE

PILOT IN COMMAND (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
DIRECT ENTRIES	2		2	10		10	12		12
SUBTOTAL	764	39	803	5423	189	5612	6187	228	6415
COPILOT									
RETRACTED GEAR PREMATURELY				1		1	1		1
INADVERTENTLY RETRACTED GEAR				1		1	1		1
FAILED TO OBTAIN/MAINTAIN FLYING SPEED				3		3	3		3
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				3		3	3		3
IMPROPER LEVEL OFF				3		3	3		3
IMPROPER IFR OPERATION				1		1	1		1
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING				1		1	1		1
LACK OF FAMILIARITY WITH AIRCRAFT				1		1	1		1
OPERATED CARELESSLY				1		1	1		1
SELECTED UNSUITABLE TERRAIN				1		1	1		1
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				1		1	1		1
CONTROL INTERFERENCE				1		1	1		1
SPONTANEOUS-IMPROPER ACTION				2		2	2		2
MISJUDGED DISTANCE AND ALTITUDE				2		2	2		2
IMPROPER RECOVERY FROM BOUNCED LANDING				1		1	1		1
FAILED TO MAINTAIN DIRECTIONAL CONTROL				1		1	1		1
FAILED TO INITIATE GO-AROUND				1		1	1		1
SUBTOTAL				25		25	25		25
DUAL STUDENT									
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS	1		1				1		1
DELAYED IN INITIATING GO-AROUND	1		1				1		1
EXCEEDED DESIGNED STRESS LIMITS OF AIRCRAFT				1		1	1		1
FAILED TO EXTEND LANDING GEAR				13		13	13		13
RETRACTED GEAR PREMATURELY				5		5	5		5
INADVERTENTLY RETRACTED GEAR				13		13	13		13
FAILED TO SEE OTHER AIRCRAFT				3		3	3		3
FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS	1		1	2		2	3		3
FAILED TO OBTAIN/MAINTAIN FLYING SPEED	6		6	18		18	24		24
FAILED TO USE OR INCORRECTLY USED MISC EQUIPMENT				1		1	1		1
IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS				6		6	6		6
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				30		30	30		30
IMPROPER OPERATION OF FLIGHT CONTROLS				3		3	3		3
PREMATURE LIFT-OFF				1		1	1		1
IMPROPER LEVEL OFF	1		1	27		27	28		28
IMPROPER IN-FLIGHT DECISIONS OR PLANNING				1		1	1		1
IMPROPER COMPENSATION FOR WIND CONDITIONS				2		2	2		2
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING	1		1	2		2	3		3
MISMANAGEMENT OF FUEL SYSTEM				3		3	3		3
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				3		3	3		3
CONTROL INTERFERENCE				2		2	2		2
SPONTANEOUS-IMPROPER ACTION				11		11	11		11
MISJUDGED DISTANCE, SPEED, AND ALTITUDE				8		8	8		8
MISJUDGED DISTANCE AND SPEED	1		1	7		7	8		8
MISJUDGED DISTANCE AND ALTITUDE				10		10	10		10
MISJUDGED CLEARANCE				1		1	1		1
IMPROPER RECOVERY FROM BOUNCED LANDING	1		1	5		5	6		6
PHYSICAL IMPAIRMENT					1	1		1	1
FAILED TO MAINTAIN DIRECTIONAL CONTROL				25		25	25		25
SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND	1		1				1		1
SUBTOTAL	14		14	203	1	204	217	1	21
CHECK PILOT									
INADEQUATE SUPERVISION OF FLIGHT				5		5	5		
CONTROL INTERFERENCE				1		1	1		
SPONTANEOUS-IMPROPER ACTION				1		1	1		
SUBTOTAL				7		7	7		
** PERSONNEL **									
FLIGHT INSTRUCTOR									

TABLE 40 (CONTINUED) CAUSE/FACTOR TABLE

PERSONNEL (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
INADEQUATE SUPERVISION OF FLIGHT	1		1	14	3	17	15	3	18
INADEQUATE TRAINING OF STUDENT		1	1	10	4	14	10	5	15
MAINTENANCE, SERVICING, INSPECTION									
IMPROPER MAINTENANCE(MAINTENANCE PERSONNEL)	1		1	27		27	28		28
IMPROPER MAINTENANCE(OWNER PERSONNEL)				9	1	10	9	1	10
IMPROPERLY SERVICED AIRCRAFT(GROUND CREW)				1	1	2	1	1	2
IMPROPERLY SERVICED AIRCRAFT(OWNER-PILOT)	1		1	6	1	7	7	1	8
INADEQUATE INSPECTION OF AIRCRAFT(MAINTENANCE PERSONNEL)				8		8	8		8
INADEQUATE INSPECTION OF ACFT(OWNER-PILOT PERSONNEL)				2	2	4	2	2	4
INADEQUATE MAINTENANCE AND INSPECTION	12	3	15	172	11	183	184	14	198
OTHER				1		1	1		1
UNK/NR					1	1		1	1
OPERATIONAL SUPERVISORY PERSONNEL									
INADEQUATE FLIGHT TRAINING-PROCEDURES				2		2	2		2
INADEQUATE SUPERVISION OF FLIGHT CREW		1	1	1	1	2	1	2	3
INADEQUATE SUPERVISION/TRAINING OF RAMP CREWS				1		1	1		1
DEFICIENCY, COMPANY MAINTAINED EQMT, SERV, REGULATIONS		1	1	2		2	2	1	3
WEATHER PERSONNEL									
INCORRECT WEATHER FORECAST		4	4	1	1	2	1	5	6
INADEQUATE/INCORRECT WEATHER BRIEFING		1	1					1	1
TRAFFIC CONTROL PERSONNEL									
FAILURE TO ADVISE OF UNSAFE WEATHER CONDITION	1	2	3				1	2	3
FAILURE TO ADVISE OF UNSAFE AIRPORT CONDITION					1	1		1	1
FAILURE TO ADVISE OF OTHER TRAFFIC				1		1	1		1
INADEQUATE SPACING OF AIRCRAFT	2		2	1	1	2	3	1	4
OTHER		3	3	1	2	3	1	5	6
AIRPORT SUPERVISORY PERSONNEL									
IMPROPER MAINTENANCE-AIRPORT FACILITIES		1	1	13	6	19	13	7	20
FAILURE TO NOTIFY OF UNSAFE CONDITION				27	7	34	27	7	34
IMPROPER/INADEQUATE SNOW REMOVAL				4	4	8	4	4	8
IMPROPER OPERATION OF FACILITIES					1	1		1	1
IMPROPER INSPECTION OF FACILITIES				1		1	1		1
AIRWAYS FACILITIES PERSONNEL									
FAILURE TO ISSUE NOTAM					1	1		1	1
PRODUCTION-DESIGN									
SUBSTANDARD QUALITY CONTROL	4		4	8		8	12		12
INCORRECT FACTORY INSTALLATION				3		3	3		3
POOR/INADEQUATE DESIGN		1	1	11	1	12	11	2	13
MISCELLANEOUS-PERSONNEL									
PILOT OF OTHER AIRCRAFT	20	4	24	38	7	45	58	11	69
GROUND SIGNALMAN	1		1	1	1	2	2	1	3
SPECTATOR		1	1	1		1	1	1	2
GROUND CREWMAN				4		4	4		4
PASSENGER	4		4	21	4	25	25	4	29
DRIVER OF VEHICLE		1	1	16	8	24	16	9	25
OTHER				6	5	11	6	5	11
DIRECT ENTRIES				3		3	3		3
THIRD PILOT									
FLIGHT ENGINEER									
DISPATCHING									
SUBTOTAL	47	24	71	417	75	492	464	99	563
** AIRFRAME **									
WINGS									
SPARS	14	2	16	1	1	2	15	3	18
RIBS, STRINGERS, CAP STRIPS				1		1	1		1
WING ATTACHMENT FITTINGS, BOLTS	2		2	1		1	3		3
BRACING WIRES, STRUTS	1		1	1		1	2		2
SKIN AND ATTACHMENTS	2		2	3		3	5		5
WHEEL WELL DOORS				1		1	1		1
OTHER	1		1		1	1	1	1	2
FUSELAGE									
SKIN AND ATTACHMENTS	1		1	1		1	2		2
DOORS, DOOR FRAMES				2		2	2		2
WINDSHIELDS, WINDOWS, CANOPIES					1	1		1	1
SEATS				4	1	5	4	1	5
WHEEL WELL DOORS				1		1	1		1
OTHER				2		2	2		2
DIRECT ENTRIES				1		1	1		1
LANDING GEAR									

TABLE 40 (CONTINUED)

CAUSE/FACTOR TABLE

AIRFRAME (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TO
MAIN GEAR-SHOCK ABSORBING ASSY, STRUTS, ATTACHMENTS, ETC				32		32	32		
NORMAL RETRACTION/EXTENSION ASSEMBLY				126	12	138	126	12	
EMERGENCY/EXTENSION ASSEMBLY				63		63	63		
TAILWHEEL ASSEMBLIES				8	2	10	8	2	
NOSEWHEEL ASSEMBLIES				70	2	72	70	2	
WHEELS, TIRES, AXLES				30	3	33	30	3	
FLOAT ASSEMBLIES		1	1	2		2	2	1	
BRAKING SYSTEM (NORMAL)				49	10	59	49	10	
BRAKING SYSTEM (EMERGENCY)				2		2	2		
LANDING GEAR WARNING AND INDICATING COMPONENTS				2	50	52	2	50	
GEAR LOCKING MECHANISM				25	1	26	25	1	
SWITCHES, LEVERS, CRANKING MECHANISM, ETC				9	6	15	9	6	
NOSEWHEEL STEERING				16		16	16		
DIRECT ENTRIES				9		9	9		
FLIGHT CONTROL SURFACES									
ELEVATOR, ASSEMBLY ATTACHMENTS				2		2	2		
AILERON, SURFACES ATTACHMENTS	1		1	4	1	5	5	1	
HORIZONTAL STABILIZER, ATTACHMENTS	5	1	6	2		2	7	1	
VERTICAL STABILIZER, ATTACHMENTS	1		1	1		1	2		
OTHER	1		1				1		
DIRECT ENTRIES				1		1	1		
SUBTOTAL	29	4	33	472	91	563	501	95	
** POWERPLANT **									
ENGINE STRUCTURE									
CRANKCASE				2		2	2		
CRANKSHAFT				10		10	10		
MASTER AND CONNECTING RODS	2		2	20	1	21	22	1	
CYLINDER ASSEMBLY				17		17	17		
PISTON, PISTON RINGS	3		3	11		11	14		
VALVE ASSEMBLIES	1		1	24		24	25		
BLOWER, IMPELLER ASSEMBLY				2		2	2		
OTHER	1		1	9		9	10		
IGNITION SYSTEM									
MAGNETOES	3	1	4	14		14	17	1	
SPARK PLUG	3		3	9	1	10	12	1	
COILS				1		1	1		
IGNITION HARNESS, SHIELDING				3		3	3		
SWITCHES				3		3	3		
LEADS				1		1	1		
FUEL SYSTEM									
TANKS				3	3	6	3	3	
LINES AND FITTINGS				17	2	19	17	2	
SELECTOR VALVES	1		1	2		2	3		
FILTERS, STRAINERS, SCREENS				5		5	5		
PRIMING SYSTEM				1		1	1		
CARBURETOR	3		3	21	1	22	24	1	
PUMPS	1		1	4		4	5		
FUEL INJECTION SYSTEM	1		1	3		3	4		
VENTS, DRAINS, TANK CAPS				15	2	17	15	2	
RAM AIR ASSEMBLY					1	1		1	
OTHER				4		4	4		
LUBRICATING SYSTEM									
LINES, HOSES, FITTINGS				6		6	6		
FILTERS, SCREENS				3		3	3		
PUMP-PRESSURE				2		2	2		
OTHER				3		3	3		
COOLING SYSTEM									
BAFFLES				1		1	1		
PROPELLER AND ACCESSORIES									
BLADES	2		2	17		17	19		
HUBS				6		6	6		
HYDRAULIC PITCH CONTROL MECHANISM	1		1	4		4	5		
GOVERNORS				2		2	2		
OTHER				5		5	5		
EXHAUST SYSTEM									
MANIFOLDS				1		1	1		
MUFFLERS				2		2	2		
CLAMPS				1		1	1		
STACKS				3		3	3		

TABLE 40 (CONTINUED)

CAUSE/FACTOR TABLE

POWERPLANT (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
OTHER									
ENGINE ACCESSORIES		1	1					1	1
VACUUM PUMPS									
GENERATORS	1		1				1		1
OTHER				1	2	3	1	2	3
ENGINE CONTROLS-COCKPIT				1		1	1		1
THROTTLE-POWER LEVER ASSEMBLIES									
MIXTURE CONTROL ASSEMBLIES				5	4	9	5	4	9
PROPELLER GOVERNOR CONTROLS				4		4	4		4
POWERPLANT-INSTRUMENTS				1		1	1		1
FUEL QUANTITY GAUGE									
MISCELLANEOUS				1	10	11	1	10	11
POWERPLANT FAILURE FOR UNDETERMINED REASONS									
DIRECT ENTRIES	14		14	168		168	182		182
REDUCTION GEAR ASSEMBLY				5		5	5		5
GEARS, ACCESSORY DRIVE									
COMPRESSOR ASSEMBLY				3		3	3		3
COMBUSTION ASSEMBLY									
TURBINE ASSEMBLY									
ACCESSORY DRIVE ASSEMBLY									
LUBRICATING SYSTEM									
FUEL SYSTEM									
SAFETY SYSTEM									
IGNITION SYSTEM									
TORQUEMETER									
AIR BLEED									
EXHAUST SYSTEM									
THRUST REVERSER									
PROPELLER SYSTEM									
BLADES									
CONSTANT SPEED DRIVE				1		1	1		1
POWER LEVER									
PROPELLER LEVER									
REVERSE THRUST LEVER									
ENGINE INDICATING EQUIPMENT									
TACHOMETER									
ENGINE INSTALLATION				1		1	1		1
SUBTOTAL	37	2	39	448	27	475	485	29	514
** SYSTEMS **									
ELECTRICAL SYSTEM									
BATTERIES									
GENERATORS/ALTERNATORS				2	5	7	2	5	7
REGULATOR				2	3	5	2	3	5
RELAYS AND WIRING				1	1	2	1	1	2
MOTORS				2		2	2		2
PROTECTIVE DEVICES					2	2		2	2
OTHER					2	2		2	2
HYDRAULIC SYSTEM				2	1	3	2	1	3
HYDRAULIC PUMPS									
HYDRAULIC MOTORS				2	2	4	2	2	4
RESERVOIR, LINES, FITTINGS				1		1	1		1
SEALS				3	2	5	3	2	5
RELIEF VALVE				8	1	9	8	1	9
SHUT-OFF VALVE				2		2	2		2
OTHER				1		1	1		1
FLIGHT CONTROL SYSTEMS				4		4	4		4
AILERON AND AILERON TAB CONTROL SYSTEM	1		1	1		1	2		2
ELEVATOR AND ELEVATOR TAB CONTROL SYSTEM				1	2	3	1	2	3
ELEVATOR TRIM INDICATOR SYSTEM				1		1	1		1
RUDDER AND RUDDER TAB CONTROL SYSTEM	2		2	5		5	7		7
ANTI-ICING, DE-ICING SYSTEMS									
CARBURETOR DE-ICING SYSTEM				8		8	8		8
AIR CONDITION, HEATING AND PRESSURIZATION									
OTHER				1		1	1		1
AUTO PILOT									
FIRE WARNING SYSTEM									
FIRE EXTINGUISHER SYSTEM									
OXYGEN SYSTEM									
OTHER SYSTEMS									

TABLE 40 (CONTINUED)

CAUSE/FACTOR TABLE

SYSTEMS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
DIRECT ENTRIES				4		4	4		4
SUBTOTAL	3		3	51	21	72	54	21	75
** INSTRUMENTS/EQUIPMENT AND ACCESSORIES **									
FLIGHT AND NAVAGATION INSTRUMENTS				2	4	6	2	4	6
AIRSPEED		1	1					1	1
ATTITUDE GYRO				1		1	1		1
DIRECTIONAL GYRO				2		2	2		2
COMPASS				1		1	1		1
COURSE INDICATOR					1	1		1	
COMMUNICATIONS AND NAVIGATION EQUIPMENT					1	1		1	
TRANSMITTERS AND/OR RECEIVERS									
OTHER				1		1	1		
MISCELLANEOUS EQUIPMENT									
SPRAY, DUSTING EQUIPMENT		1	1	7	6	13	7	7	1
SUBTOTAL									
** AIRPORTS/AIRWAYS/FACILITIES **									
AIRPORT FACILITIES					3	3		3	
RUNWAY LIGHTING				1		1	1		
TAXIWAY LIGHTING AND MARKING					2	2		2	
OTHER									
AIRPORT CONDITIONS				10	79	89	10	79	
WET RUNWAY				3	42	45	3	42	
ICE/SLUSH ON RUNWAY				8	50	58	8	50	
SNOW ON RUNWAY				2	5	7	2	5	
SNOW WINDROWS				12	6	18	12	6	
UNMARKED OBSTRUCTIONS				1	24	25	1	24	
SOFT SHOULDERS (RUNWAY)				2	23	25	2	23	
HIGH VEGETATION				15	5	20	15	5	
HIDDEN HAZARD				9	24	33	9	24	
POORLY MAINTAINED RUNWAY SURFACE		2	2	11	44	55	11	46	
SOFT RUNWAY					2	2		2	
WET RAMP/TAXIWAY				2	7	9	2	7	
ICE/SLUSH ON RAMP/TAXIWAY				1	2	3	1	2	
SNOW ON RAMP/TAXIWAY					4	4		4	
SOFT SHOULDERS (RAMP/TAXIWAY)				3	3	6	3	3	
POORLY MAINTAINED RAMP/TAXIWAY SURFACE				11	48	59	11	48	
OTHER								1	
AIRWAYS FACILITIES		1	1						
OTHER		3	3	91	373	464	91	376	
SUBTOTAL									
** WEATHER **									
LOW CEILING	11	126	137	3	90	93	14	216	
RAIN	4	48	52	2	68	70	6	116	
FOG	7	73	80	2	52	54	9	125	
SNOW	3	17	20		22	22	3	39	
ICING CONDITIONS-INCLUDES SLEET, FREEZING RAIN, ETC	4	13	17	4	11	15	8	24	
CONDITIONS CONDUCIVE TO CARB/INDUCTION SYSTEM ICING	1	6	7	23	39	62	24	45	
UNFAVORABLE WIND CONDITIONS	2	6	8	196	277	473	198	283	
SUDDEN WINDSHIFT				11	15	26	11	15	
TURBULENCE IN FLIGHT, CLEAR AIR	5	1	6	1	1	2	6	2	
TURBULENCE, ASSOCIATED W/CLOUDS, THUNDERSTORMS	3	19	22	2	14	16	5	33	
DOWNDRAFTS, UPDRAFTS	5	9	14	9	38	47	14	47	
LOCAL WHIRLWIND				10	3	13	10	3	
LINE SQUALL	2	2	4		3	3	2	5	
ADVERSE WINDS ALOFT					2	2		2	
HIGH TEMPERATURE		3	3		27	27		30	
OBSTRUCTIONS TO VISION	1	6	7	1	7	8	2	13	
HIGH DENSITY ALTITUDE		12	12	1	43	44	1	55	
THUNDERSTORM ACTIVITY	3	14	17	3	24	27	6	38	
OTHER					3	3		3	
SUBTOTAL	51	355	406	268	739	1007	319	1094	

TABLE 40 (CONTINUED)

TERRAIN (CONTINUED)

CAUSE/FACTOR TABLE

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
** TERRAIN **									
WET, SOFT GROUND		2	2	12	123	135	12	125	137
SNOW-COVERED				7	17	24	7	17	24
ICY				2	2	4	2	2	4
HIGH VEGETATION				3	54	57	3	54	57
HIDDEN OBSTRUCTIONS				17	6	23	17	6	23
ROUGH/UNEVEN		1	1	19	115	134	19	116	135
ROUGH WATER	1		1	1	1	2	2	1	3
GLASSY WATER					1	1		1	1
HIGH OBSTRUCTIONS	1	17	18	4	49	53	5	66	71
LOOSE GRAVEL				1		1	1		1
SANDY				4	18	22	4	18	22
OTHER		1	1	2	15	17	2	16	18
SUBTOTAL	2	21	23	72	401	473	74	422	496
** MISCELLANEOUS **									
BIRD COLLISION				5		5	5		5
VORTEX TURBULENCE	4		4	15	1	16	19	1	20
PROP/JET BLAST				13		13	13		13
EVASIVE MANEUVER TO AVOID COLLISION	2	2	4	13	1	14	15	3	18
UNQUALIFIED PERSON OPERATED AIRCRAFT		1	1	14	4	18	14	5	19
SMOKE IN COCKPIT				2	2	4	2	2	4
FOREIGN MATERIAL AFFECTING NORMAL OPERATIONS	3		3	46	4	50	49	4	53
UNDETERMINED	43		43	45		45	88		88
DIRECT ENTRIES				10		10	10		10
SUBTOTAL	52	3	55	163	12	175	215	15	230
GRAND TOTAL	999	452	1451	7647	1935	9582	8646	2387	11033
** MISCELLANEOUS ACTS, CONDITIONS **									
ALTIMETER SETTING-INCORRECT		2	2		1	1		3	3
IMPROPER OPER/FAILED TO USE CARB HEAT/DE-ICING EQUIP	4	1	5	86	3	89	90	4	94
CHECKLIST-FAILED TO USE	1	1	2	14	143	157	15	144	159
COWL FLAPS-IMPROPERLY POSITIONED					1	1		1	1
CREW COORDINATION-POOR				1	1	2	1	1	2
DISREGARD OF GOOD OPERATING PRACTICE		1	1	5	4	9	5	5	10
IMPROPER EMERGENCY PROCEDURES	6	1	7	23	14	37	29	15	44
FEATHERED WRONG ENGINE				1		1	1		1
GUST LOCKS ENGAGED	1		1	1		1	2		2
INSTRUCTIONS-MISINTERPRETED					3	3		3	3
INSTRUMENTS-MISREAD OR FAILED TO READ				2	1	3	2	1	3
SEAT BELT NOT FASTENED		3	3	1	3	4	1	6	7
NOT ALLIGNED WITH RUNWAY/INTENDED LANDING AREA				32	28	60	32	28	60
UNWARRANTED LOW FLYING	35	19	54	20	20	40	55	39	94
FAILED TO EXTEND THE LANDING FLAPS		1	1		1	1		2	2
FAILED TO USE ALL AVAILABLE RUNWAY		2	2	6	5	11	6	7	13
LANDED AT WRONG AIRPORT				1	1	2	1	1	2
INATTENTIVE TO FUEL SUPPLY	4		4	24	6	30	28	6	34
FLEW INTO BLIND CANYON	5	1	6	14	3	17	19	4	23
POORLY PLANNED APPROACH	4	12	16	14	41	55	18	53	71
MISCALCULATED FUEL CONSUMPTION	1	1	2	16	11	27	17	12	29
JETTISONED LOAD		1	1		6	6		7	7
STOLEN OR UNAUTHORIZED USE OF AIRCRAFT		9	9	1	16	17	1	25	26
LANDED ON FOAMED RUNWAY					9	9		9	9
CORRECTING LENSES-NOT USED		2	2					2	2
IMPROPERLY SECURED	1	1	2	31	6	37	32	7	39
BOGUS PART		1	1		2	2		3	3
ELECTRICAL FAILURE				7	26	33	7	26	33
ENGINE LOADED UP				23	2	25	23	2	25
EXPLOSIVE DECOMPRESSION					1	1		1	1
FATIGUE FRACTURE	10		10	40	2	42	50	2	52
FUEL GRADE-IMPROPER				3		3	3		3
HYDRAULIC FAILURE				7	1	8	7	1	8
RPM-UNCONTROLLABLE-OVERSPEED					1	1		1	1
WINDSHIELD, DIRTY, FOGGY, ETC-RESTRICTED VISION		1	1	1	6	7	1	7	8
WRONG PART				1	1	2	1	1	2

TABLE 40 (CONTINUED)

CAUSE/FACTOR TABLE

MISCELLANEOUS ACTS, CONDITIONS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
IMPROPER ALIGNMENT/ADJUSTMENT		1	1	27	6	33	27	7	34
FAILURE OF TWO OR MORE ENGINES	2	3	5	5	19	24	7	22	29
SEPARATION IN FLIGHT		29	29		36	36		65	65
FIRE IN CABIN/ COCKPIT/ BAGGAGE COMPARTMENT	2		2	2	2	4	4	2	6
FIRE IN ENGINE				7	5	12	7	5	12
FIRE IN BRAKES/ WHEEL ASSEMBLY/ WHEEL WELL				1	2	3	1	2	3
ASYMMETRICAL FLAPS					1	1		1	1
CORRODED/CORROSION	3		3	10	5	15	13	5	18
INCORRECT TRIM SETTING				1	2	3	1	2	3
CONGESTED TRAFFIC-PATTERN OR RAMP		7	7		9	9		16	16
PILOT FATIGUE		5	5	1	6	7	1	11	12
FUEL EXHAUSTION	9		9	136		136	145		145
FUEL CONTAMINATION-EXCLUSIVE OF WATER IN FUEL				7	1	8	7	1	8
PILOT SUFFERED HEART ATTACK	4		4				4		4
ALCOHOLIC IMPAIRMENT OF EFFICIENCY AND JUDGMENT	41	2	43	5		5	46	2	48
HYPOXIA	2		2	1		1	3		3
CARBON MONOXIDE POISONING		1	1					1	1
ICE-IN FUEL				4	2	6	4	2	6
ICE-ENGINE				3		3	3		3
ICE-CARBURETOR	3		3	61	2	63	64	2	66
AIRFRAME ICE	3	2	5	15	11	26	18	13	31
ICE-WINDSHIELD				2	2	4	2	2	4
IMPROPERLY LOADED AIRCRAFT-WEIGHT-AND/OR CG	8	15	23	9	11	20	17	26	43
INTERFERENCE WITH FLIGHT CONTROLS	1		1	3	1	4	4	1	5
WHITEOUT				1	1	2	1	1	2
SUNGLARE		4	4		29	29		33	33
LACK OF LUBRICATION-SPECIFIC PART, NOT SYSTEM				8	3	11	8	3	11
OIL EXHAUSTION-ENGINE LUBRICATION SYSTEM	2		2	9		9	11		11
SIMULATED CONDITIONS	3		3	31	28	59	34	28	62
WATER IN FUEL	1		1	34	2	36	35	2	37
AIRCRAFT CAME TO REST IN WATER		33	33		81	81		114	114
FROZEN				5	3	8	5	3	8
MISSING				11	6	17	11	6	17
HYDROPLANING ON WET RUNWAY				8	2	10	8	2	10
OVERLOAD FAILURE	15	10	25	17	1146	1163	32	1156	1188
MATERIAL FAILURE	7	1	8	269	24	293	276	25	301
FUEL STARVATION	18	1	19	163		163	181	1	182
OIL STARVATION	2		2	10		10	12		12
IMPROPER CLEARANCE-TOLERANCE				19	3	22	19	3	22
FUEL SELECTOR POSITIONED BETWEEN TANKS	4		4	10		10	14		14
TIEDOWN LINES SNAPPED					2	2		2	2
FIRE OF UNDETERMINED ORIGIN				1		1	1		1
UNAPPROVED MODIFICATION		1	1	3	1	4	3	2	5
IMPROPER/INADEQUATE VENTING				1		1	1		1
ACTION, LACK OF				1	1	2	1	1	2
POOR WELD	3		3	2	1	3	5	1	6
PREVIOUS DAMAGE				42	41	83	42	41	83
BRAKES FROZEN				1		1	1		1
LEAK/LEAKAGE				20	8	28	20	8	28
LOW FLUID LEVEL				4	4	8	4	4	8
CIRCUIT BREAKER POPPED				4	18	22	4	18	22
LOW COMPRESSION				2		2	2		2
RUNWAY CLOSED				2	13	15	2	13	15
DOWNWIND		7	7	1	98	99	1	105	106
CARBON DEPOSITS	1	1	2	3	1	4	4	2	6
LANDED IN CONSTRUCTION AREA				3	5	8	3	5	8
OVER TORQUED				1		1	1		1
LOOSE, PART/FITTING	1		1	10	5	15	11	5	16
BENT				5	3	8	5	3	8
BINDING				8	8	16	8	8	16
BRITTLE				1		1	1		1
BUCKLED				2		2	2		2
BURST				1	1	2	1	1	2
BURNED		1	1	4	2	6	4	3	7
CHAFED				2	3	5	2	3	5
COLLAPSED				2	1	3	2	1	3
CROSSED				1		1	1		1
DETERIORATED		1	1	6		6	6	1	7
DISCONNECTED				9	2	11	9	2	11
DISTORTED					2	2		2	2
ELONGATED				2		2	2		2
EXCESSIVE				2	1	3	2	1	3

TABLE 40 (CONTINUED) CAUSE/FACTOR TABLE

MISCELLANEOUS ACTS, CONDITIONS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
ERRATIC				2	2	4	2	2	4
FLUCTUATING					1	1		1	1
FLUTTER				1		1	1		1
FRAYED		1	1					1	1
FRICTION, EXCESSIVE	1		1				1		1
GROUNDED				3	1	4	3	1	4
IMPROPERLY INSTALLED				8		8	8		8
JAMMED	1		1	33	2	35	34	2	36
OBSTRUCTED				7	2	9	7	2	9
OPEN					1	1		1	1
OUT OF BALANCE					1	1		1	1
OVERHEATED				6		6	6		6
EXCESSIVE PRESSURE				1		1	1		1
PRESSURE TOO LOW				5	1	6	5	1	6
PRESSURE, NONE				9	3	12	9	3	12
SCORED				1		1	1		1
SHEARED				4	1	5	4	1	5
STICKING				3	1	4	3	1	4
STRIPPED				1		1	1		1
STUCK				7	2	9	7	2	9
EXCESSIVE TEMPERATURE					2	2		2	2
VIBRATION, EXCESSIVE				17	17	34	17	17	34
WARPED					1	1		1	1

DIRECT ENTRY CAUSES

PILOT-INADVERTENT SPIN FOR UNDETERMINED REASON.
SYSTEMS-RUDDER JAMMED LEFT. CAUSE UNDETERMINED.
PERSONNEL-IMPROPER HANDLING OF PROPELLER.
PILOT-INATTENTION TO ROTATING PROPELLER.
PERSONNEL-INATTENTIVE TO ROTATING PROP.
PILOT-ACFT ON AUTOPILOT,PLT ASLEEP.
PILOT-INITIATED FLIGHT IN ADVERSE WEATHER CONDS.
MISC-RAPID ACCUMULATION OF STRUCTURAL ICE.
LDG GR-COLLAPSED FOR UNDETERMINED CAUSE.
LDG GR-SHIMMY DAMPER BRACKET BROKE.
LDG GR- RETRACTED,CAUSE UNDETERMINED.
SYSTEMS-OVERHEATED STARTER CABLE
LDG GR-SNOW PACKED WHEEL PANTS ON PREVIOUS TAKEOFF
LDG GR-NOSE GR SHIMMY DAMPER JAMMED,FAILED NOSE GR
SYSTEMS-ELECTRICAL FAILURE UNDETERMINED.
LDG GR-RETRACTED,UNDETERMINED CAUSE.
LDG GR-LEFT GEAR FAILED FOR UNDETERMINED CAUSE.
PILOT-LEG STRUCK AND TURNED FUEL SELECTR VALVE OFF
MISC-RH ENG COWLING CAME LOOSE,FOLDED OVER WING.
PWR PLT-THROTTLE HOUSING BROKE FORWARD OF FIREWALL
PWR PLT-LEFT PROPELLER SURGED, CAUSE UNDETERMINED.
PWR PLT-CARB INGESTED WATER,AIR SCREEN SATURATED.
FUSELAGE-RIGHT SIDE BRACE BENT,FUSELAGE TWISTED.
PERSONNEL-POORLY DESIGNED MODIFICATION.
PILOT-OPR BEYOND ACFT CAPABILITY UNDER EXISTG COND
FLT CONTROLS-RUDDER JAMMED FULL LEFT,UNDETERMINED.
LDG GR-RT GEAR FAILED-CAUSE UNDETERMINED.
PILOT-TAXIED WITH EXCESSIVE SPEED IN CONFINED AREA
LDG GR-LFT GR COLLAPSED FOR UNDETERMINED CAUSE.
MISC-SULPHUR IN SPREADER IGNITED, CAUSE UNKNOWN.
MISC-HORSE RAN ONTO RWY IN FRONT OF ACFT.
PWR PLT-ENG ROUGH,CAUSE UNDETERMINED.
PILOT-INTENTIONAL GROUND LOOP.
PILOT-LACK OF CONFIDENCE IN ACFT TAKEOFF PERFRMNCE
PILOT-FAILED TO JETTISON LOAD.
FAILURE STARTED FROM 1/4 IN DRILLED HOLE-RT STRUT.
MISC-DEER RAN IN FRONT OF ACFT.
MISC-PARACHUTE OPENED IN ACFT,PULLED CHUTIST OUT.
MISC-DEER RAN IN PATH OF ACFT.
PILOT-DID NOT USE LDG LIGHT FOR NIGHT TAXI.
PILOT-TAXIED ON UNSUITABLE TERRAIN,WENT THRU DITCH
MISC-UPPER ENG COWL CAME LOOSE,SEPARATED.
MISC-CONTROL LOSS DUE TO SEAT SLIDING BACK.
PWR PLT-INFLIGHT FUEL FED FIRE IN RT WHEEL WELL.
SYSTEMS-RUDDER JAMMED FULL LEFT,CAUSE UNDETERMINED

DIRECT ENTRY CAUSES ARE CARRIED UNDER THEIR APPROPRIATE CAUSAL CATEGORIES AND ARE INCLUDED IN THE TOTALS

TABLE 41

INJURIES, ACCIDENTS
SMALL FIXED-WING AIRCRAFT
U.S. GENERAL AVIATION

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN	TOTAL
PILOT	528	283	585	4404		5800
COPILOT	33	13	5	80		131
DUAL STUDENT	28	13	41	263		345
CHECK PILOT			1	9		10
FLIGHT ENGINEER						
NAVIGATOR				1		1
CABIN ATTENDANT				11		20
EXTRA CREW	4	3	2	4000	1	5192
PASSENGERS	553	220	418			
TOTAL	1146	532	1052	8768	1	ABOARD 11499
* OTHER-AIRCRAFT	105		1	4		110
OTHER-GROUND	9	18	15	10		52
GRAND TOTAL	1260	550	1068	8782	1	11661

INVOLVES 5756 TOTAL ACCIDENTS
INVOLVES 560 FATAL ACCIDENTS

AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART
OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 42

KIND OF FLYING
INSTRUCTIINAL - DUAL
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	28	16	39	259			342
COPILOT			1				1
DUAL STUDENT	24	13	40	256			333
CHECK PILOT				1			1
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW	1		1	1			3
PASSENGERS	5	4		49			58
TOTAL	58	33	81	566		ABOARD	738
* OTHER-AIRCRAFT		1		10			11
OTHER-GROUND		3	1				4
GRAND TOTAL	58	37	82	576			753

INVOLVES 338 TOTAL ACCIDENTS
INVOLVES 29 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 43

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - SOLO
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	10	9	39	348			406
COPILOT							
DUAL STUDENT				1			1
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS				5			5
TOTAL	10	9	39	354		ABOARD	412
* OTHER-AIRCRAFT	4			7			11
OTHER-GROUND							
GRAND TOTAL	14	9	39	361			423

INVOLVES 406 TOTAL ACCIDENTS
INVOLVES 10 FATAL ACCIDENTS

OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 44

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - ALL OTHER
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	9	11	53	443			516
COPILOT				3			3
DUAL STUDENT				3			3
CHECK PILOT			1	8			9
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	1		1	10	1		13
TOTAL	10	11	55	467	1	ABOARD	544
* OTHER-AIRCRAFT	8	3	2	7			20
OTHER-GROUND		1					1
GRAND TOTAL	18	15	57	474	1		565

INVOLVES 513 TOTAL ACCIDENTS
INVOLVES 10 FATAL ACCIDENTS

TABLE 45

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - PLEASURE
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	274	146	278	1909			2607
COPILOT	19	4	2	13			38
DUAL STUDENT	2						2
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT				2			2
EXTRA CREW							
PASSENGERS	357	154	316	2598			3425
TOTAL	652	304	596	4522		ABOARD	6074
* OTHER-AIRCRAFT	5	1		11			17
OTHER-GROUND	7	11	13	2			33
GRAND TOTAL	664	316	609	4535			6124

INVOLVES 2602 TOTAL ACCIDENTS
INVOLVES 300 FATAL ACCIDENTS

OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 46

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - BUSINESS
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	80	32	53	676			841
COPILOT	3	1		12			16
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				3			3
PASSENGERS	66	22	39	595			722
TOTAL	149	55	92	1286		ABOARD	1582
* OTHER-AIRCRAFT	27	2	3	7			39
OTHER-GROUND		1		3			4
GRAND TOTAL	176	58	95	1296			1625

INVOLVES 841 TOTAL ACCIDENTS
INVOLVES 84 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 47

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - CORPORATE/EXECUTIVE
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	15	2	3	77			97
COPILOT	3		2	19			24
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				1			1
PASSENGERS	35	4	5	170			214
TOTAL	53	6	10	267		ABOARD	336
* OTHER-AIRCRAFT	79			3			82
OTHER-GROUND	1	1					2
GRAND TOTAL	133	7	10	270			420

INVOLVES 97 TOTAL ACCIDENTS
INVOLVES 16 FATAL ACCIDENTS

TABLE 48

INJURIES, ACCIDENTS/
KIND OF FLYING
NONCOMMERCIAL - ALL OTHER
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	10	4	16	93			123
COPILOT	3	3		4			10
DUAL STUDENT	1			1			2
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							2
EXTRA CREW	1	1					50
PASSENGERS	2		4	44			
TOTAL	17	8	20	142		ABOARD	187
* OTHER-AIRCRAFT			1	4			5
OTHER-GROUND							
GRAND TOTAL	17	8	21	146			192

INVOLVES 123 TOTAL ACCIDENTS
INVOLVES 10 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 49

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AERIAL APPLICATION
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	37	31	57	227			352
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	1			3			4
TOTAL	38	31	57	230		ABOARD	356
* OTHER-AIRCRAFT				1			1
OTHER-GROUND	1		1	2			4
GRAND TOTAL	39	31	58	233			361

INVOLVES 348 TOTAL ACCIDENTS
INVOLVES 38 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN

AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 50

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - FIRE CONTROL
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		2		2			4
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW		1					1
PASSENGERS			2	3			5
TOTAL		3	2	5		ABOARD	10
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL		3	2	5			10

INVOLVES 4 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 51

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - POWER AND PIPELINE PATROL
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	2			3			5
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	4			2			6
TOTAL	6			5		ABOARD	11
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	6			5			11

INVOLVES 5 TOTAL ACCIDENTS
INVOLVES 2 FATAL ACCIDENTS

TABLE 52

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AIR TAXI - PASSENGER OPERATIONS
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	21	9	6	146			182
COPILOT	1	2		15			18
DUAL STUDENT	1						1
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT				1			1
EXTRA CREW							
PASSENGERS	52	24	36	406			518
TOTAL	75	35	42	568		ABOARD	720
* OTHER-AIRCRAFT	3						3
OTHER-GROUND		1		3			4
GRAND TOTAL	78	36	42	571			727

INVOLVES 182 TOTAL ACCIDENTS
INVOLVES 25 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 53

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AIR TAXI - CARGO OPERATIONS
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	5		3	19			27
COPILOT				2			2
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW	1			2			3
PASSENGERS	2	1		3			6
TOTAL	8	1	3	26		ABOARD	38
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	8	1	3	26			38

INVOLVES 27 TOTAL ACCIDENTS
INVOLVES 5 FATAL ACCIDENTS

TABLE 54

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - ALL OTHER
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	5	1	7	13			26
COPILOT				1			1
DUAL STUDENT			1				1
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW	1		1	2			4
PASSENGERS	4	2	1	10			17
TOTAL	10	3	10	26		ABOARD	49
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	10	3	10	26			49

INVOLVES 25 TOTAL ACCIDENTS
INVOLVES 4 FATAL ACCIDENTS

TABLE 55

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - TEST
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	4	5	10	38			57
COPILOT	1			4			5
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	1	1	2	15			19
TOTAL	6	6	12	57		ABOARD	81
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	6	6	12	57			81

INVOLVES 57 TOTAL ACCIDENTS
INVOLVES 5 FATAL ACCIDENTS

TABLE 56

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - DEMONSTRATION
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	2	1	2	24			29
COPILOT	1			4			5
DUAL STUDENT				1			1
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	1	1	6	30			38
TOTAL	4	2	8	59		ABOARD	73
* OTHER-AIRCRAFT	2						2
OTHER-GROUND							
GRAND TOTAL	6	2	8	59			75

INVOLVES 29 TOTAL ACCIDENTS
INVOLVES 3 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 57

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - FERRY
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	9	4	10	70			93
COPILOT	1			1			2
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	3	1		9			13
TOTAL	13	5	10	80		ABOARD	108
* OTHER-AIRCRAFT	2			1			3
OTHER-GROUND							
GRAND TOTAL	15	5	10	81			111

INVOLVES 93 TOTAL ACCIDENTS
INVOLVES 10 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN

AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 58

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - TOWING GLIDERS
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT			1	5			6
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL			1	5		ABOARD	6
* OTHER-AIRCRAFT				2			2
OTHER-GROUND							
GRAND TOTAL			1	7			8

INVOLVES 6 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 59

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - HUNTING
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	2	3	1	7			13
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	3	2	1	6			12
TOTAL	5	5	2	13		ABOARD	25
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	5	5	2	13			25

INVOLVES 13 TOTAL ACCIDENTS
INVOLVES 2 FATAL ACCIDENTS

TABLE 60

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - ALL OTHER
SMALL FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	15	7	7	45			74
COPILOT	1	3		2			6
DUAL STUDENT				1			1
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW		1					1
PASSENGERS	16	4	5	41			66
TOTAL	32	15	12	89		ABOARD	148
* OTHER-AIRCRAFT				6			6
OTHER-GROUND							
GRAND TOTAL	32	15	12	95			154

INVOLVES 74 TOTAL ACCIDENTS
INVOLVES 16 FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

Section III

GENERAL AVIATION ACCIDENTS

LARGE FIXED-WING AIRCRAFT

TABLE 61

ACCIDENTS, INJURY INDEX AND AIRCRAFT DAMAGE BY KIND OF FLYING

LARGE FIXED-WING AIRCRAFT

1967

	KIND OF FLYING																	
	INSTRUCTIONAL			NONCOMMERCIAL			COMMERCIAL						MISCELLANEOUS					
	TRAINING	OTHER	TOTAL	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	AIR TAXI - PASSENGER	AIR TAXI - CARGO	OTHER	TOTAL	TEST	DEMONSTRATION	FERRY	OTHER	TOTAL	GRAND TOTAL
TOTAL ACCIDENTS.....	1	4	5	15	6	21	6	9	1	0	3	19	6	0	4	1	11	56
INJURY INDEX																		
Fatal.....	1	1	2	1	1	2	3	1	0	0	1	5	0	0	1	1	2	11
Serious.....	0	1	1	2	2	4	0	2	0	0	0	2	0	0	0	0	0	7
Minor.....	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	1	2
None.....	0	2	2	11	3	14	3	6	1	0	2	12	6	0	2	0	8	36
Unknown.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIRCRAFT DAMAGE																		
Destroyed.....	1	1	2	5	1	6	3	3	0	0	1	7	1	0	3	1	5	20
Substantial.....	0	3	3	10	3	13	3	6	1	0	2	12	5	0	1	0	6	34
Minor.....	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
None.....	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
Total.....	1	4	5	15	6	21	6	9	1	0	3	19	6	0	4	1	11	56

TABLE 62

TYPE OF ACCIDENT VS KIND OF FLYING

LARGE FIXED-WING AIRCRAFT

1967

FIRST TYPE OF ACCIDENT	KIND OF FLYING: INSTRUCTIONAL			NONCOMMERCIAL			COMMERCIAL						MISCELLANEOUS					GRAND TOTAL
	TRAINING	OTHER	TOTAL	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	AIR TAXI-PASSENGER	AIR TAXI-CARGO	OTHER	TOTAL	TEST	DEMONSTRATION	FERRY	OTHER	TOTAL	
Ground/waterloop/swerve	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	2
Dragged wingtip, pod, or float	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
Wheels-up landing	0	0	0	0	1	1	1	1	0	0	0	2	0	0	1	0	1	4
Wheels-down landing in water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear collapsed	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
Gear retracted	0	0	0	2	1	3	0	1	1	0	1	3	0	0	0	0	0	6
Hard landing	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Nose over/down	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overshoot	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Undershoot	1	0	1	0	2	2	0	0	0	0	0	0	1	0	0	0	1	4
Collision with aircraft a/																		
Both in flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One airborne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Both on ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collision with ground/water																		
Controlled	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Uncontrolled	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Collided with																		
Wires/poles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trees	0	0	0	0	0	0	1	3	0	0	1	5	0	0	0	0	0	5
Residence (s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fence, fenceposts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electronic towers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Runway or approach lights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airport hazard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagman, loader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowbank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parked aircraft (Unattended, engines not running)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Automobile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dirt bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bird strike (collision with birds)	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Stall	1	0	1	0	0	0	1	0	0	0	1	2	0	0	0	0	0	3
Spin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spiral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mush	0	0	0	1	0	1	1	1	0	0	0	2	0	0	2	0	2	3
Fire or explosion																		
In flight	1	0	1	1	0	1	1	1	0	0	0	2	0	0	2	0	2	6
On ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airframe failure																		
In flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine tearaway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine failure or malfunction	1	0	1	2	0	2	0	2	0	0	0	2	3	0	0	0	3	8
Propeller/rotor failure																		
Propeller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tail rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/rotor accident to person	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
Jet intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/jet/rotor blast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turbulence	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1
Hail damage to aircraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lightning strike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evasive maneuver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncontrolled altitude deviations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
Missing aircraft, not recovered	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	1
Other/miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Undetermined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	5	0	5	12	9	21	6	9	1	0	3	19	6	0	4	1	11	56

a/ Excludes 2 Air Carrier and Military aircraft involved in collisions.

TABLE 63

TYPE OF ACCIDENT VS PHASE OF OPERATION

LARGE FIXED-WING AIRCRAFT

1967

FIRST TYPE OF ACCIDENT	PHASE OF OPERATION: STATIC				TAXI		TAKEOFF				IN-FLIGHT							LANDING									
	STARTING ENGINES	IDLING ENGINES	ENGINE RUNUP	OTHER	TO TAKEOFF	FROM LANDING	GROUND RUN	INITIAL CLIMB	ABORTED	OTHER	CLIMB TO CRUISE	NORMAL CRUISE	DESCENDING	HOLDING (IFR)	ACROBATICS	BUZZING	OTHER	IN TRAFFIC PATTERN	FINAL APPROACH (VFR)	APPROACH (IFR)	LEVEL OFF/TOUCH-DOWN	ROLLOUT	GO-AROUND (VFR)	MISSED APPROACH (IFR)	OTHER	UNKNOWN	TOTAL
Ground/waterloop/swerve	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Dragged wingtip, pod, or float	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Wheels-up landing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Wheels-down landing in water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear collapsed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Gear retracted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	6
Hard landing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Nose over/down	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overshoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Undershoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4
Collision with aircraft a/																											
Both in flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One airborne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Both on ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collision with ground/water																											
Controlled	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Uncontrolled	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Collided with																											
Wires/poles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trees	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	5
Residence (s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other buildings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fence, fenceposts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electronic towers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Runway or approach lights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airport hazard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagman, loader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowbank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parked aircraft (Unattended, engines not running)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Automobile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dirt bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bird strike (collison with birds)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Stall	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
Spin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spiral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mush	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Fire or explosion																											
In flight	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	6
On ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airframe failure																											
In flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine tearaway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine failure or malfunction	0	0	0	0	0	0	1	4	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	8
Propeller/rotor failure																											
Propeller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tail rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main rotor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/rotor accident to person	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Jet intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/jet/rotor blast	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Turbulence	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hail damage to aircraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lightning strike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evasive maneuver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uncontrolled altitude deviations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Missing aircraft, not recovered	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Other/miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Undetermined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	0	0	0	0	0	10	0	0	0	5	2	0	0	0	11	0	2	0	14	7	0	0	0	2	56

a/ Excludes 2 Air Carrier and 3 Military aircraft involved on collisions.

TABLE 64

CAUSE/FACTOR TABLE

LARGE FIXED-WING AIRCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 56 TOTAL ACCIDENTS
INVOLVES 11 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	6 54.55	.00	6 54.55	30 66.67	1 2.22	29 64.44	36 64.29	1 1.79	35 62.50
PERSONNEL	.00	.00	.00	7 15.56	2 4.44	9 20.00	7 12.50	2 3.57	9 16.07
AIRFRAME	.00	.00	.00	.00	.00	.00	.00	.00	.00
LANDING GEAR	.00	.00	.00	3 6.67	3 6.67	6 13.33	3 5.36	3 5.36	6 10.71
POWERPLANT	1 9.09	.00	1 9.09	8 17.78	.00	8 17.78	9 16.07	.00	9 16.07
SYSTEMS	1 9.09	.00	1 9.09	.00	1 2.22	1 2.22	1 1.79	1 1.79	2 3.57
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	1 2.22	.00	1 2.22	1 1.79	.00	1 1.79
ROTORCRAFT	.00	.00	.00	.00	.00	.00	.00	.00	.00
AIRPORTS/AIRWAYS/FACILITIES	.00	.00	.00	.00	2 4.44	2 4.44	.00	2 3.57	2 3.57
WEATHER	.00	1 9.09	1 9.09	2 4.44	6 13.33	8 17.78	2 3.57	7 12.50	9 16.07
TERRAIN	.00	.00	.00	.00	2 4.44	2 4.44	.00	2 3.57	2 3.57
MISCELLANEOUS	.00	.00	.00	1 2.22	.00	1 2.22	1 1.79	.00	1 1.79
UNDETERMINED	3 27.27	.00	3 27.27	3 6.67	.00	3 6.67	6 10.71	.00	6 10.71

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

TABLE 64 (CONTINUED)

CAUSE/FACTOR TABLE

LARGE FIXED-WING AIRCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 56 TOTAL ACCIDENTS
INVOLVES 11 FATAL ACCIDENTS

DETAILED CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
** PILOT **									
PILOT IN COMMAND									
ATTEMPTED OPERATION W/KNOWN DEFICIENCIES IN EQUIPMENT				1		1	1		1
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS	1		1				1		1
DELAYED ACTION IN ABORTING TAKEOFF				1		1	1		1
DIVERTED ATTENTION FROM OPERATION OF AIRCRAFT				1		1	1		1
FAILED TO EXTEND LANDING GEAR				3		3	3		3
INADVERTENTLY RETRACTED GEAR				1		1	1		1
FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS				1		1	1		1
FAILED TO OBTAIN/MAINTAIN FLYING SPEED	2		2	1		1	3		3
PREMATURE LIFT OFF				1		1	1		1
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING	2		2	3		3	5		5
INADEQUATE SUPERVISION OF FLIGHT				5		5	5		5
EXERCISED POOR JUDGMENT				1		1	1		1
SELECTED UNSUITABLE TERRAIN				1		1	1		1
FAILED TO ASSURE THE GEAR WAS DOWN AND LOCKED				3		3	3		3
MISJUDGED DISTANCE AND SPEED				3		3	3		3
MISJUDGED DISTANCE AND ALTITUDE				3		3	3		3
MISJUDGED ALTITUDE AND CLEARANCE	2		2				2		2
MISJUDGED CLEARANCE				2		2	2		2
INADEQUATE TRAINING OF STUDENT				1		1	1		1
IMPROPER RECOVERY FROM BOUNCED LANDING				1		1	1		1
FAILED TO MAINTAIN DIRECTIONAL CONTROL				1		1	1		1
SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND				1		1	1		1
FAILED TO ABORT TAKEOFF	1		1		1	1		1	1
FAILED TO INITIATE GO-AROUND				3		3	3		3
SUBTOTAL	8		8	37	1	38	45	1	46
COPILOT									
CONTINUED FLIGHT INTO KNOWN AREA OF SEVERE TURBULENCE				1		1	1		1
DIVERTED ATTENTION FROM OPERATION OF AIRCRAFT				1		1	1		1
INADVERTENTLY RETRACTED GEAR				1		1	1		1
IMPROPER LEVEL OFF				1		1	1		1
IMPROPER COMPENSATION FOR WIND CONDITIONS				1		1	1		1
DIRECT ENTRIES				1		1	1		1
SUBTOTAL				6		6	6		6
DUAL STUDENT									
IMPROPER LEVEL OFF				1		1	1		1
MISJUDGED DISTANCE, SPEED, AND ALTITUDE				1		1	1		1
SUBTOTAL				2		2	2		2
** PERSONNEL **									
FLIGHT INSTRUCTOR									
MAINTENANCE, SERVICING, INSPECTION									
INADEQUATE MAINTENANCE AND INSPECTION									
OPERATIONAL SUPERVISORY PERSONNEL				5	1	6	5	1	6
WEATHER PERSONNEL									
TRAFFIC CONTROL PERSONNEL									
AIRPORT SUPERVISORY PERSONNEL									
IMPROPER MAINTENANCE-AIRPORT FACILITIES									
AIRWAYS FACILITIES PERSONNEL					1	1		1	1
PRODUCTION-DESIGN									
MISCELLANEOUS-PERSONNEL									
GROUND CREWMAN									
PASSENGER				1		1	1		1
THIRD PILOT				1		1	1		1

TABLE 64 (CONTINUED)

CAUSE/FACTOR TABLE

PERSONNEL (CONTINUED)	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
FLIGHT ENGINEER									
DISPATCHING									
SUBTOTAL				7	2	9	7	2	9
** AIRFRAME **									
WINGS									
FUSELAGE									
LANDING GEAR					1	1		1	1
WHEELS, TIRES, AXLES				1		1	1		1
BRAKING SYSTEM (NORMAL)					1	1		1	1
LANDING GEAR WARNING AND INDICATING COMPONENTS				1		1	1		1
GEAR LOCKING MECHANISM				2		2	2		2
SWITCHES, LEVERS, CRANKING MECHANISM, ETC					1	1		1	1
OTHER									
FLIGHT CONTROL SURFACES									
SUBTOTAL				4	3	7	4	3	7
** POWERPLANT **									
ENGINE STRUCTURE				1		1	1		1
CYLINDER ASSEMBLY				1		1	1		1
PISTON, PISTON RINGS				2		2	2		2
BLOWER, IMPELLER ASSEMBLY									
IGNITION SYSTEM									
FUEL SYSTEM				1		1	1		1
LINES AND FITTINGS				1		1	1		1
CARBURETOR									
LUBRICATING SYSTEM									
COOLING SYSTEM									
PROPELLER AND ACCESSORIES									
ELECTRIC PITCH CONTROL MECHANISM	1		1				1		1
EXHAUST SYSTEM									
ENGINE ACCESSORIES									
ENGINE CONTROLS-COCKPIT									
POWERPLANT-INSTRUMENTS									
MISCELLANEOUS				1		1	1		1
POWERPLANT FAILURE FOR UNDETERMINED REASONS				2		2	2		2
DETONATION									
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									
SUBTOTAL	1		1	9		9	10		10
** SYSTEMS **									
ELECTRICAL SYSTEM									
RELAYS AND WIRING	1		1				1		1
HYDRAULIC SYSTEM					1	1		1	1
OTHER									
FLIGHT CONTROL SYSTEMS									
ANTI-ICING, DE-ICING SYSTEMS									

TABLE 64 (CONTINUED)

CAUSE/FACTOR TABLE

SYSTEMS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
AIR CONDITION, HEATING AND PRESSURIZATION									
AUTO PILOT									
FIRE WARNING SYSTEM									
FIRE EXTINGUISHER SYSTEM									
OXYGEN SYSTEM									
OTHER SYSTEMS									
SUBTOTAL	1		1		1	1	1	1	2
** INSTRUMENTS/EQUIPMENT AND ACCESSORIES **									
FLIGHT AND NAVAGATION INSTRUMENTS									
COMMUNICATIONS AND NAVIGATION EQUIPMENT									
MISCELLANEOUS EQUIPMENT									
OTHER				1		1	1		1
SUBTOTAL				1		1	1		1
** AIRPORTS/AIRWAYS/FACILITIES **									
AIRPORT FACILITIES									
AIRPORT CONDITIONS									
WET RUNWAY					2	2		2	2
AIRWAYS FACILITIES									
SUBTOTAL					2	2		2	2
** WEATHER **									
LOW CEILING		1	1		1	1		2	2
ICING CONDITIONS-INCLUDES SLEET, FREEZING RAIN, ETC					1	1		1	1
UNFAVORABLE WIND CONDITIONS					2	2		2	2
SUDDEN WINDSHIFT					1	1		1	1
TURBULENCE IN FLIGHT, CLEAR AIR				1		1	1		1
TURBULENCE, ASSOCIATED W/CLOUDS, THUNDERSTORMS		1	1					1	1
DOWNDRAFTS, UPDRAFTS				1		1	1		1
OBSTRUCTIONS TO VISION				1	1	2	1	1	2
THUNDERSTORM ACTIVITY					1	1		1	1
SUBTOTAL		2	2	3	7	10	3	9	12
** TERRAIN **									
ROUGH WATER					1	1		1	1
HIGH OBSTRUCTIONS					1	1		1	1
SUBTOTAL					2	2		2	2
** MISCELLANEOUS **									
BIRD COLLISION				1		1	1		1
UNDETERMINED	3		3	3		3	6		6
SUBTOTAL	3		3	4		4	7		7
GRAND TOTAL	13	2	15	73	18	91	86	20	106
** MISCELLANEOUS ACTS, CONDITIONS **									
CHECKLIST-FAILED TO USE					1	1		1	1
IMPROPER EMERGENCY PROCEDURES				1		1	1		1
GUST LOCKS ENGAGED				1		1	1		1
SEAT BELT NOT FASTENED				1		1	1		1
JETTISONED LOAD					3	3		3	3
IMPROPERLY SECURED		1	1					1	1
ELECTRICAL FAILURE	1		1		1	1	1	1	2
WRONG PART				1		1	1		1
FAILURE OF TWO OR MORE ENGINES		1	1		2	2		3	3
SEPARATION IN FLIGHT		1	1					1	1
FIRE IN CABIN/ COCKPIT/ BAGGAGE COMPARTMENT					1	1		1	1

TABLE 64 (CONTINUED)

CAUSE/FACTOR TABLE

MISCELLANEOUS ACTS, CONDITIONS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
FIRE IN ENGINE	1	1	2	1		1	2	1	3
FIRE IN BRAKES/ WHEEL ASSEMBLY/ WHEEL WELL		1	1					1	1
CORRODED/CORROSION				1		1	1		1
AIRFRAME ICE				1		1	1		1
IMPROPERLY LOADED AIRCRAFT-WEIGHT-AND/OR CG	1		1		1	1	1	1	2
AIRCRAFT CAME TO REST IN WATER		2	2					2	2
HYDROPLANING ON WET RUNWAY				1	1	2	1	1	2
SEAT BELT SIGN OFF					1	1		1	1
OVERLOAD FAILURE					5	5		5	5
MATERIAL FAILURE				4		4	4		4
FUEL STARVATION				1		1	1		1
FIRE OF UNDETERMINED ORIGIN					1	1		1	1
LEAK/LEAKAGE				1		1	1		1
CIRCUIT BREAKER POPPED					1	1		1	1
RUNWAY CLOSED					1	1		1	1
DOWNWIND					1	1		1	1
DETERIORATED					1	1		1	1
SHEARED					1	1		1	1
EXCESSIVE TEMPERATURE		1	1						

DIRECT ENTRY CAUSES

COPILOT-INADVERTENTLY MOVD PWR LVRS TO CUTOFF.

DIRECT ENTRY CAUSES ARE CARRIED UNDER THEIR APPROPRIATE CAUSAL CATEGORIES AND ARE INCLUDED IN THE TOTALS

TABLE 65

INJURIES, ACCIDENTS
LARGE FIXED-WING AIRCRAFT
U. S. GENERAL AVIATION

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	11	5	2	38			56
COPILOT	5		3	25			33
DUAL STUDENT	1	2		2			5
CHECK PILOT							
FLIGHT ENGINEER				2			2
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW	3			4			7
PASSENGERS		5		83			88
TOTAL	20	12	5	154		ABOARD	191
OTHER-AIRCRAFT							
OTHER-GROUND		1					1
GRAND TOTAL	20	13	5	154			192

INVOLVES 56 TOTAL ACCIDENTS
INVOLVES 11 FATAL ACCIDENTS

TABLE 66

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - TRAINING
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1						1
COPILOT							
DUAL STUDENT	1						1
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL	2					ABOARD	2
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	2						2

INVOLVES 1 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 67

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - ALL OTHER
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1	1		2			4
COPILOT							
DUAL STUDENT		2		2			4
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS		2		2			4
TOTAL	1	5		6		ABOARD	12
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	1	5		6			12

INVOLVES 4 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 68

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - CORPORATE
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1	2	1	11			15
COPILOT	1		1	11			13
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS		1		53			54
TOTAL	2	3	2	75		ABOARD	82
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	2	3	2	75			82

INVOLVES 15 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 69

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - ALL OTHER
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1			5			6
COPILOT				5			5
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER				1			1
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				1			1
PASSENGERS		2		13			15
TOTAL	1	2		25		ABOARD	28
OTHER-AIRCRAFT							
OTHER-GROUND		1					1
GRAND TOTAL	1	3		25			29

INVOLVES 6 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 70

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AERIAL APPLICATION
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	3			3			6
COPILOT				1			1
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL	3			4		ABOARD	7
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	3			4			7

INVOLVES 6 TOTAL ACCIDENTS
INVOLVES 3 FATAL ACCIDENTS

TABLE 71

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - FIRE CONTROL
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1	2		6			9
COPILOT	1		1	1			3
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL	2	2	1	7		ABOARD	12
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	2	2	1	7			12

INVOLVES 9 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 72

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AIR TAXI - PASSENGER OPERATIONS
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				1			1
COPILOT				1			1
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS				11			11
TOTAL				13		ABOARD	13
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL				13			13

INVOLVES 1 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 73

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AIR TAXI - CARGO OPERATIONS
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN	TOTAL
PILOT						
COPILOT						
DUAL STUDENT						
CHECK PILOT						
FLIGHT ENGINEER						
NAVIGATOR						
CABIN ATTENDANT						
EXTRA CREW						
PASSENGERS						
TOTAL						ABOARD
OTHER-AIRCRAFT						
OTHER-GROUND						
GRAND TOTAL						

INVOLVES NO TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 74

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - ALL OTHER
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1			2			3
COPILOT	1			2			3
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							1
EXTRA CREW	1						4
PASSENGERS				4			
TOTAL	3			8		ABOARD	11
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	3			8			11

INVOLVES 3 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 75

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - TEST
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				6			6
COPILOT				2			2
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER				1			1
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				2			2
PASSENGERS							
TOTAL				11		ABOARD	11
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL				11			11

INVOLVES 6 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 76

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - DEMONSTRATION
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN	TOTAL
PILOT						
COPILOT						
DUAL STUDENT						
CHECK PILOT						
FLIGHT ENGINEER						
NAVIGATOR						
CABIN ATTENDANT						
EXTRA CREW						
PASSENGERS						
TOTAL						ABOARD
OTHER-AIRCRAFT						
OTHER-GROUND						
GRAND TOTAL						

INVOLVES NO TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 89

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - FERRY
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1		1	2			4
COPILOT	1		1	2			4
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				1			1
PASSENGERS							
TOTAL	2		2	5		ABOARD	9
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	2		2	5			9

INVOLVES 4 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 78

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - ALL OTHER
LARGE FIXED-WING AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1						1
COPILOT	1						1
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW	2						2
PASSENGERS							
TOTAL	4					ABOARD	4
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	4						4

INVOLVES 1 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

Section IV

GENERAL AVIATION ACCIDENTS

ROTORCRAFT

TABLE 79

ACCIDENT, INJURY INDEX AND AIRCRAFT DAMAGE BY KIND OF FLYING

ROTORCRAFT ACCIDENTS

1967

	KIND OF FLYING																							
	INSTRUCTIONAL				NONCOMMERCIAL					COMMERCIAL								MISCELLANEOUS						
	DUAL	SOLO	OTHER	TOTAL	PLEASURE	BUSINESS	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	POWER/PIPE-LINE PATROL	AIR TAXI-PASSENGER	AIR TAXI-CARGO	CONSTRUCTION	OTHER	TOTAL	TEST	DEMONSTRATION	FERRY	SEARCH/RESCUE	OTHER	TOTAL	GRAND TOTAL
TOTAL ACCIDENTS	19	2	8	29	37	18	7	17	79	50	4	2	22	2	10	39	129	10	4	4	0	9	27	264
INJURY INDEX																								
Fatal.....	0	0	1	1	8	3	0	4	15	1	0	1	3	0	0	5	10	4	0	0	0	2	6	32
Serious.....	1	0	0	1	8	1	1	2	12	5	1	1	3	1	2	7	20	1	0	0	0	0	1	34
Minor.....	2	0	1	3	5	2	1	2	10	8	0	0	3	1	2	5	19	0	1	0	0	0	1	33
None.....	16	2	6	24	16	12	5	9	42	36	3	0	13	0	6	22	80	5	3	4	0	7	19	165
Unknown.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIRCRAFT DAMAGE																								
Destroyed.....	1	0	1	2	14	6	0	6	26	9	0	1	5	1	3	13	32	4	0	1	0	2	7	67
Substantial...	18	2	7	27	23	12	7	11	53	41	4	1	17	1	7	26	97	6	4	3	0	7	20	197
Minor.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
None.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total.....	19	2	8	29	37	18	7	17	79	50	4	2	22	2	10	39	129	10	4	4	0	9	27	264

TABLE 80

TYPE OF ACCIDENT VS KIND OF FLYING

ROTORCRAFT

1967

FIRST TYPE OF ACCIDENT	KIND OF FLYING: INSTRUCTIONAL				NONCOMMERCIAL					COMMERCIAL								MISCELLANEOUS						GRAND TOTAL
	DUAL	SOLO	OTHER	TOTAL	PLEASURE	BUSINESS	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	POWER/PIPE-LINE PATROL	AIR TAXI-PASSENGER	AIR TAXI-CARGO	CONSTRUCTION	OTHER	TOTAL	TEST	DEMONSTRATION	FERRY	SEARCH/RESCUE	OTHER	TOTAL	
Ground/waterloop/swerve	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Dragged wingtip, pod or float	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheels-up landing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wheels-down landing in water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gear collapsed	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Gear retracted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hard landing	1	0	2	3	5	1	1	1	8	1	0	0	2	0	0	1	4	0	1	0	0	0	1	16
Nose over/down	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Roll over	2	0	3	5	1	1	0	1	3	0	0	0	2	1	0	1	4	1	0	0	0	0	1	13
Overshoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Undershoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collision with aircraft																								
Both in flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One airborne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Both on ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Collision with ground/water																								
Controlled	5	0	0	5	5	2	0	3	10	3	0	0	0	0	1	1	5	0	0	0	0	0	0	20
Uncontrolled	0	1	1	2	4	3	0	3	10	0	0	0	1	0	2	2	5	1	0	0	0	3	4	21
Collided with																								
Wires/poles	0	0	0	0	1	4	2	0	7	10	1	0	0	0	1	1	13	1	2	1	0	1	5	25
Trees	0	0	0	0	0	1	0	0	1	2	0	0	0	0	1	5	8	0	0	0	0	0	0	9
Residence (s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other buildings	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Fence, fenceposts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electronic towers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Runway or approach lights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airport hazard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Flagman, loader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowbank	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Parked aircraft (Unattended, engines not running)	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Automobile	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Dirt bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Other	1	0	0	1	0	1	0	0	1	1	0	0	1	0	0	3	5	0	0	1	0	0	1	8
Bird strike (collision with birds)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stall	1	0	0	1	3	0	0	1	4	0	0	0	2	0	0	0	2	0	0	0	0	0	0	7
Spin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spiral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mush	0	0	0	0	1	0	0	0	1	2	0	0	2	0	0	4	8	0	0	0	0	0	0	9
Fire or explosion																								
In flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ground	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Airframe failure																								
In flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ground	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Engine tearaway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engine failure or malfunction	4	0	1	5	7	2	2	7	18	15	1	1	6	0	3	12	38	4	0	2	0	2	8	69
Propeller/rotor failure																								
Propeller	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Tail rotor	0	1	0	1	1	1	2	0	4	4	1	0	2	0	1	4	12	0	1	0	0	0	1	18
Main rotor	1	0	0	1	2	0	0	1	3	2	0	1	2	0	0	1	6	2	0	0	0	0	2	12
Propeller/rotor accident to person	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	2	0	0	0	0	0	0	3
Jet intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propeller/jet/rotor blast	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Turbulence	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Hail damage to aircraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lightning strike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evasive maneuver	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Uncontrolled altitude deviations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ditching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Missing aircraft, not recovered	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other/miscellaneous	1	0	1	2	3	0	0	0	3	3	0	0	2	1	0	3	9	0	0	0	0	2	2	16
Undetermined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
TOTAL	19	2	8	29	37	18	7	18	80	47	4	2	24	2	10	39	128	10	4	4	0	9	27	264

TYPE OF ACCIDENT VS PHASE OF OPERATION

ROTORCRAFT

1967

FIRST TYPE OF ACCIDENT	PHASE OF OPERATION																									
	STATIC				TAXI		TAKEOFF					IN-FLIGHT						LANDING								
	STARTING ENGINES	ENGINE RUNUP	IDLING ROTORS	OTHER	GROUND TAXI	AERIAL TAXI	INITIAL CLIMB	VERTICAL	RUNNING	ABORTED	OTHER	CLIMB TO CRUISE	NORMAL CRUISE	HOVERING	POWER ON DESCENT	AUTOROTATIVE DESCENT	OTHER	IN TRAFFIC PATTERN (VFR)	APPROACH	TOUCHDOWN	ROLL-ON	POWER ON-VERTICAL	POWER OFF-AUTO-ROTATIVE	OTHER	UNKNOWN	TOTAL
ound/waterloop/swerve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
ngged wingtip, pod, or float	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eels-up landing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eels-down landing in water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ear collapsed	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ear retracted	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
rd landing	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	8	2	1	0	16
ose over/down	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ll over	0	0	1	0	1	0	0	4	0	1	1	0	0	1	0	0	0	0	0	2	0	2	0	0	0	13
vershoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
dershoot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ollision with aircraft																										
Both in flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One airborne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Both on ground	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ollision with ground/water																										
Controlled	0	0	0	0	0	1	1	0	1	1	0	0	1	2	2	0	7	0	0	0	0	3	1	0	0	20
Uncontrolled	0	0	0	0	0	1	1	1	1	0	0	0	0	2	0	0	13	0	1	1	0	0	0	0	0	21
ollided with																										
Wires/poles	0	0	0	0	0	1	2	0	0	0	0	0	4	0	0	0	13	0	4	0	0	1	0	0	0	25
Trees	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	2	0	0	0	0	3	0	0	0	9
Residence (s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other buildings	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
Fence, fenceposts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electronic towers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Runway or approach lights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Airport hazard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flagman, loader	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Ditches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snowbank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parked aircraft (Unattended, engines not running)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Automobile	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Dirt bank	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Other	0	1	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ird strike (collision with birds)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	8
tall	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0
Spin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	7
Spiral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mush	0	0	0	0	0	0	2	1	0	0	0	0	0	2	0	0	3	0	0	0	0	0	0	1	0	9
ire or explosion																										
In flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ground	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
irframe failure																										
In flight	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
On ground	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ngine tearaway	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ngine failure or malfunction	0	0	0	0	0	0	10	2	1	0	0	1	32	4	1	1	10	2	3	0	0	0	0	1	1	69
ropeller/rotor failure																										
Propeller	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Tail rotor	0	0	1	0	0	0	3	0	0	0	0	0	5	3	0	1	2	0	3	0	0	0	0	0	0	18
Main rotor	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1	12
ropeller/rotor accident to person	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
et intake/exhaust accident to person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ropeller/jet/rotor blast	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
urbulence	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ail damage to aircraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ightning strike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
vasive maneuver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
ncontrolled altitude deviations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
itching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
issing aircraft, not recovered	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ther/miscellaneous	0	0	2	0	0	0	2	2	0	0	0	0	4	2	0	0	3	1	0	0	0	0	0	0	0	16
ndetermined	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL	1	1	8	2	2	6	30	11	4	6	1	1	47	20	4	3	62	4	11	9	0	22	3	3	3	264

TABLE 82

CAUSE/FACTOR TABLE

ROTORCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 264 TOTAL ACCIDENTS
INVOLVES 32 FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT	21 65.63	2 6.25	21 65.63	175 75.43	8 3.45	175 75.43	196 74.24	10 3.79	196 74.24
PERSONNEL	5 15.63	.00	5 15.63	32 13.79	7 3.02	39 16.81	37 14.02	7 2.65	44 16.67
AIRFRAME	.00	.00	.00	1 .43	.00	1 .43	1 .38	.00	1 .38
LANDING GEAR	.00	.00	.00	1 .43	.00	1 .43	1 .38	.00	1 .38
POWERPLANT	2 6.25	.00	2 6.25	29 12.50	2 .86	31 13.36	31 11.74	2 .76	33 12.50
SYSTEMS	.00	.00	.00	1 .43	.00	1 .43	1 .38	.00	1 .38
INSTRUMENTS/EQUIPMENT AND ACCESSORIES	.00	.00	.00	2 .86	.00	2 .86	2 .76	.00	2 .76
ROTORCRAFT	7 21.88	1 3.13	8 25.00	31 13.36	.00	31 13.36	38 14.39	1 .38	39 14.77
AIRPORTS/AIRWAYS/FACILITIES	.00	.00	.00	.00	.00	.00	.00	.00	.00
WEATHER	2 6.25	3 9.38	5 15.63	11 4.74	24 10.34	35 15.09	13 4.92	27 10.23	40 15.15
TERRAIN	.00	.00	.00	11 4.74	16 6.90	28 12.07	11 4.17	16 6.06	28 10.61
MISCELLANEOUS	.00	.00	.00	11 4.74	2 .86	12 5.17	11 4.17	2 .76	12 4.55
UNDETERMINED	3 9.38	.00	3 9.38	1 .43	.00	1 .43	4 1.52	.00	4 1.52

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

TABLE 82(CONTINUED)

CAUSE/FACTOR TABLE

ROTORCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 264 TOTAL ACCIDENTS
INVOLVES 32 FATAL ACCIDENTS

DETAILED CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
** PILOT **									
PILOT IN COMMAND									
ATTEMPTED OPERATION W/KNOWN DEFICIENCIES IN EQUIPMENT				1	1	2	1	1	2
ATTEMPTED OPERATION BEYOND EXPERIENCE/ABILITY LEVEL	1		1	5		5	6		6
BECAME LOST/DISORIENTED				1		1	1		1
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS		1	1	2		2	2	1	3
DELAYED ACTION IN ABORTING TAKEOFF				1		1	1		1
DIVERTED ATTENTION FROM OPERATION OF AIRCRAFT				2	2	4	2	2	4
FAILED TO SEE AND AVOID OBJECTS OR OBSTRUCTIONS	4		4	19		19	23		23
FAILED TO OBTAIN/MAINTAIN FLYING SPEED	1		1	11		11	12		12
FAILED TO MAINTAIN ADEQUATE ROTOR RPM	2		2	16	1	17	18	1	19
FAILED TO USE OR INCORRECTLY USED MISC EQUIPMENT				1	1	2	1	1	2
FAILED TO FOLLOW APPROVED PROCEDURES, DIRECTIVES ETC				1		1	1		1
IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS	2		2	10	1	11	12	1	13
IMPROPER OPERATION OF BRAKES AND/OR FLIGHT CONTROLS				2		2	2		2
IMPROPER OPERATION OF FLIGHT CONTROLS	10		10	41	1	42	51	1	52
IMPROPER LEVEL OFF				15		15	15		15
IMPROPER IN-FLIGHT DECISIONS OR PLANNING	1		1	1		1	2		2
IMPROPER COMPENSATION FOR WIND CONDITIONS				8		8	8		8
INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING	3		3	37		37	40		40
INADEQUATE SUPERVISION OF FLIGHT				8		8	8		8
LACK OF FAMILIARITY WITH AIRCRAFT	2	1	3	1	1	2	3	2	5
MISMANAGEMENT OF FUEL SYSTEM				5		5	5		5
EXERCISED POOR JUDGMENT				5		5	5		5
SELECTED UNSUITABLE TERRAIN				7		7	7		7
IMPROPER STARTING PROCEDURES				1		1	1		1
STARTED ENGINE WITHOUT PROPER ASSISTANCE/EQUIPMENT	1		1				1		1
SPONTANEOUS-IMPROPER ACTION	1		1	3		3	4		4
MISJUDGED DISTANCE AND SPEED				1		1	1		1
MISJUDGED DISTANCE				1		1	1		1
MISJUDGED SPEED AND ALTITUDE				5		5	5		5
MISJUDGED SPEED					1	1		1	1
MISJUDGED ALTITUDE				3		3	3		3
MISJUDGED CLEARANCE	1		1	13		13	14		14
INCAPACITATION	1		1				1		1
SPATIAL DISORIENTATION				1		1	1		1
LEFT AIRCRAFT UNATTENDED ENGINE RUNNING				2		2	2		2
FAILED TO MAINTAIN DIRECTIONAL CONTROL				1		1	1		1
DIRECT ENTRIES				5		5	5		5
SUBTOTAL	30	2	32	236	9	245	266	11	277
DUAL STUDENT									
IMPROPER OPERATION OF POWERPLANT + POWERPLANT CONTROLS				1		1	1		1
IMPROPER OPERATION OF FLIGHT CONTROLS				4		4	4		4
IMPROPER LEVEL OFF				2		2	2		2
IMPROPER COMPENSATION FOR WIND CONDITIONS				1		1	1		1
MISJUDGED ALTITUDE				1		1	1		1
SUBTOTAL				9		9	9		9
** PERSONNEL **									
FLIGHT INSTRUCTOR									
MAINTENANCE, SERVICING, INSPECTION									
IMPROPER MAINTENANCE(MAINTENANCE PERSONNEL)				2	1	3	2	1	3
IMPROPER MAINTENANCE(OWNER PERSONNEL)				3		3	3		3
IMPROPERLY SERVICED AIRCRAFT(GROUND CREW)				3		3	3		3
IMPROPERLY SERVICED AIRCRAFT(OWNER-PILOT)				1		1	1		1
INADEQUATE MAINTENANCE AND INSPECTION	1		1	17	4	21	18	4	22
OPERATIONAL SUPERVISORY PERSONNEL									
DEFICIENCY, COMPANY MAINTAINED EQMT, SERV, REGULATIONS				2		2	2		2

TABLE 82 (CONTINUED)

CAUSE/FACTOR TABLE

PERSONNEL (CONTINUED)	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
WEATHER PERSONNEL									
TRAFFIC CONTROL PERSONNEL									
AIRPORT SUPERVISORY PERSONNEL									
AIRWAYS FACILITIES PERSONNEL									
PRODUCTION-DESIGN	1		1				1		1
SUBSTANDARD QUALITY CONTROL	1		1	1		1	2		2
POOR/INADEQUATE DESIGN					1	1		1	1
MISCELLANEOUS-PERSONNEL				1		1	1		1
GROUND SIGNALMAN				3		3	3		3
GROUND CREWMAN					1	1	1	1	2
PASSENGER	1		1				1		1
OTHER	1		1						
DIRECT ENTRIES									
THIRD PILOT									
FLIGHT ENGINEER									
DISPATCHING									
SUBTOTAL	5		5	33	7	40	38	7	45
** AIRFRAME **									
WINGS									
FUSELAGE				1		1	1		1
WINDSHIELDS, WINDOWS, CANOPIES									
LANDING GEAR				1		1	1		1
MAIN GEAR-SHOCK ABSORBING ASSY, STRUTS, ATTACHMENTS, ETC.									
FLIGHT CONTROL SURFACES				2		2	2		2
SUBTOTAL									
** POWERPLANT **									
ENGINE STRUCTURE				4		4	4		4
MASTER AND CONNECTING RODS				4		4	4		4
PISTON, PISTON RINGS				2		2	2		2
VALVE ASSEMBLIES									
IGNITION SYSTEM				3		3	3		3
SPARK PLUG									
FUEL SYSTEM				1		1	1		1
FILTERS, STRAINERS, SCREENS				1		1	1		1
PRIMING SYSTEM				4		4	4		4
CARBURETOR				1		1	1		1
PUMPS									
LUBRICATING SYSTEM									
COOLING SYSTEM									
PROPELLER AND ACCESSORIES				1		1	1		1
BLADES									
EXHAUST SYSTEM				1		1	1		1
GASKETS				1		1	1		1
CLAMPS				1		1	1		1
EXTERNAL SUPERCHARGER									
ENGINE ACCESSORIES									
ENGINE CONTROLS-COCKPIT					2	2		2	2
POWERPLANT-INSTRUMENTS									
FUEL QUANTITY GAUGE									
MISCELLANEOUS	1		1	9		9	10		10
POWERPLANT FAILURE FOR UNDETERMINED REASONS	1		1				1		1
OTHER				1		1	1		1
DIRECT ENTRIES									
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									

TABLE 82 (CONTINUED)

CAUSE/FACTOR TABLE

POWERPLANT (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
PROPELLER SYSTEM									
CONSTANT SPEED DRIVE									
POWER LEVER									
PROPELLER LEVER									
REVERSE THRUST LEVER									
ENGINE INDICATING EQUIPMENT									
ENGINE INSTALLATION									
SUBTOTAL	2		2	34	2	36	36	2	38
** SYSTEMS **									
ELECTRICAL SYSTEM									
HYDRAULIC SYSTEM									
FLIGHT CONTROL SYSTEMS									
RUDDER AND RUDDER TAB CONTROL SYSTEM				1		1	1		1
ANTI-ICING, DE-ICING SYSTEMS									
AIR CONDITION, HEATING AND PRESSURIZATION									
AUTO PILOT									
FIRE WARNING SYSTEM									
FIRE EXTINGUISHER SYSTEM									
OXYGEN SYSTEM									
OTHER SYSTEMS									
SUBTOTAL				1		1	1		1
** INSTRUMENTS/EQUIPMENT AND ACCESSORIES **									
FLIGHT AND NAVAGATION INSTRUMENTS									
COMMUNICATIONS AND NAVIGATION EQUIPMENT									
MISCELLANEOUS EQUIPMENT									
SPRAY, DUSTING EQUIPMENT				1		1	1		1
OTHER				1		1	1		1
DIRECT ENTRIES				1		1	1		1
SUBTOTAL				3		3	3		3
** ROTORCRAFT **									
ROTOR ASSEMBLIES									
MAIN ROTOR BLADES	1		1				1		1
TAIL ROTOR BLADES	2	1	3	5		5	7	1	8
MAIN ROTOR HEAD ASSEMBLIES	3		3				3		3
BEARINGS	1		1	1		1	2		2
OTHER				1		1	1		1
TRANSMISSION ROTOR DRIVE SYSTEM									
ENGINE DRIVE SHAFT				1		1	1		1
FREE WHEEL UNIT				1		1	1		1
MAIN ROTOR PULLEYS, BELTS				1		1	1		1
TAIL ROTOR DRIVE SHAFT ASSEMBLY				3		3	3		3
CLUTCH ASSEMBLY				8		8	8		8
OTHER				2		2	2		2
FLIGHT CONTROL SYSTEMS									
CYCLIC PITCH CONTROL SYSTEM				1		1	1		1
COLLECTIVE PITCH CONTROL SYSTEM				1		1	1		1
TAIL ROTOR PITCH CONTROL SYSTEM				3		3	3		3
STABILIZING SURFACES-DAMPERS				1		1	1		1
OTHER				1		1	1		1
MISCELLANEOUS UNITS AND ASSEMBLIES									
TAIL BOOMS/PYLONS/CONES				2		2	2		2
DIRECT ENTRIES	3		3	3		3	6		6
SUBTOTAL	10	1	11	35		35	45	1	46
** WEATHER **									
LOW CEILING		1	1		1	1		2	2
FOG					3	3		3	3
CONDITIONS CONDUCIVE TO CARB/INDUCTION SYSTEM ICING	1		1				1		1
UNFAVORABLE WIND CONDITIONS	1	2	3	5	14	19	6	16	22
SUDDEN WINDSHIFT				2	2	4	2	2	4
DOWNDRAFTS, UPDRAFTS				1		1	1		1

TABLE 82 (CONTINUED)

CAUSE/FACTOR TABLE

WEATHER (CONTINUED)	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
HIGH TEMPERATURE					2	2		2	2
OBSTRUCTIONS TO VISION				1		1	1		1
HIGH DENSITY ALTITUDE				3	5	8	3	5	8
SUBTOTAL	2	3	5	12	27	39	14	30	44
** TERRAIN **									
WET, SOFT GROUND				1	2	3	1	2	3
SNOW-COVERED					2	2		2	2
HIGH VEGETATION					1	1		1	1
HIDDEN OBSTRUCTIONS				2		2	2		2
ROUGH/UNEVEN				1	4	5	1	4	5
GLASSY WATER					1	1		1	1
HIGH OBSTRUCTIONS				6	6	12	6	6	12
SANDY				1		1	1		1
OTHER					2	2		2	2
SUBTOTAL				11	18	29	11	18	29
** MISCELLANEOUS **									
VORTEX TURBULENCE				1		1	1		1
PROP/JET BLAST				1		1	1		1
EVASIVE MANEUVER TO AVOID COLLISION					2	2		2	2
UNQUALIFIED PERSON OPERATED AIRCRAFT				2		2	2		2
FOREIGN OBJECT DAMAGE				1		1	1		1
FOREIGN MATERIAL AFFECTING NORMAL OPERATIONS				5		5	5		5
UNDETERMINED	3		3	1		1	4		4
DIRECT ENTRIES				1		1	1		1
SUBTOTAL	3		3	12	2	14	15	2	17
GRAND TOTAL	52	6	58	388	65	453	440	71	511
** MISCELLANEOUS ACTS, CONDITIONS **									
IMPROPER OPER/FAILED TO USE CARB HEAT/DE-ICING EQUIP	1		1				1		1
IMPROPER EMERGENCY PROCEDURES	2		2	2		2	4		4
UNWARRANTED LOW FLYING	1		1		1	1	1	1	2
INATTENTIVE TO FUEL SUPPLY	1		1	6	1	7	7	1	8
POORLY PLANNED APPROACH				1	2	3	1	2	3
MISCALCULATED FUEL CONSUMPTION				2	1	3	2	1	3
JETTISONED LOAD					1	1		1	1
STOLEN OR UNAUTHORIZED USE OF AIRCRAFT					3	3		3	3
IMPROPERLY SECURED				1		1	1		1
FATIGUE FRACTURE	4		4	10		10	14		14
FUEL GRADE-IMPROPER					1	1		1	1
IMPROPER GRADE OIL-LUBRICATING SYSTEM					1	1		1	1
WRONG PART				1		1	1		1
IMPROPER ALIGNMENT/ADJUSTMENT				2		2	2		2
SEPARATION IN FLIGHT		9	9		7	7		16	16
LATERAL IMBALANCE				3		3	3		3
CONGESTED TRAFFIC-PATTERN OR RAMP					1	1		1	1
PILOT FATIGUE				1	1	2	1	1	2
FUEL EXHAUSTION	1		1	16		16	17		17
CARBON MONOXIDE POISONING		1	1					1	1
IMPROPERLY LOADED AIRCRAFT-WEIGHT-AND/OR CG				3	1	4	3	1	4
INTERFERENCE WITH FLIGHT CONTROLS				1		1	1		1
WHITEOUT				1		1	1		1
SUNGLARE				1	2	3	1	2	3
LACK OF LUBRICATION-SPECIFIC PART, NOT SYSTEM				1	2	3	1	2	3
SIMULATED CONDITIONS				2	6	8	2	6	8
WATER IN FUEL				3		3	3		3
AIRCRAFT CAME TO REST IN WATER		4	4		7	7		11	11
MISSING				1		1	1		1
OVERLOAD FAILURE	1	2	3	7	6	13	8	8	16
MATERIAL FAILURE	1		1	14		14	15		15
FUEL STARVATION				5		5	5		5
OIL STARVATION				2		2	2		2

TABLE 82 (CONTINUED)

CAUSE/FACTOR TABLE

MISCELLANEOUS ACTS, CONDITIONS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
IMPROPER CLEARANCE-TOLERANCE				1		1	1		1
FUEL SELECTOR POSITIONED BETWEEN TANKS				1		1	1		1
LEAK/LEAKAGE				1	1	2	1	1	2
DOWNWIND					6	6		6	6
CARBON DEPOSITS				3		3	3		3
UNDER TORQUED				1		1	1		1
LOOSE, PART/FITTING					1	1		1	1
GROUND RESONANCE				2		2	2		2
BENT				1		1	1		1
BINDING				2		2	2		2
BURNED				1		1	1		1
DISCONNECTED				2		2	2		2
EXCESSIVE				1		1	1		1
ERRATIC					1	1		1	1
IMPROPERLY INSTALLED				1		1	1		1
JAMMED				1		1	1		1
OBSTRUCTED				1		1	1		1
OVERHEATED				2	1	3	2	1	3
PRESSURE TOO LOW					1	1		1	1
SHEARED				1		1	1		1
VIBRATION, EXCESSIVE					1	1		1	1

DIRECT ENTRY CAUSES

PERSONNEL-ROTOR SPINDLE NOT MADE TO SPECIFICATIONS
PILOT-LOSS OF CONTROL FOR UNDERMINED CAUSE.
PILOT-FAILED TO DETECT WINDSHIFT.
ROTORCFT-CLUTCH SLIPPAGE FOR UNDETERMINED CAUSE.
PILOT-ATTEMPTED OPERATION BEYOND ACFT CAPABILITY.
EQUIP-RIGHT HOPPER DID NOT DISCHARGE.
PWR PLT-NO.2 CYL CON ROD CAP BOLT FAILED.
ROTORCFT-ANTITORQUE CONTROL LOSS-CAUSE UNDETERMND.
PILOT-LOSS OF CONTROL DUE TO IMPROPER LIFT OFF.
ROTORCFT-INTERMEDIATE DRIVE SHAFT RIVETS SHEARED.
PILOT-PARKED TOO CLOSE TO OBSTRUCTION.
MISC-FLOCK OF BIRDS ROSE INTO TAKEOFF PATH OF ACFT
ROTORCFT-TAILROTOR ASSY FAILURE.UNDETERMINED CAUSE
ROTORCFT-M/R CLEVIS BEARINGS SEIZED.
ROTORCFT-HIGH BLADE FLAPPING AND INPLANE LOADS.

DIRECT ENTRY CAUSES ARE CARRIED UNDER THEIR APPROPRIATE CAUSAL CATEGORIES AND ARE INCLUDED IN THE TOTALS

TABLE 83

INJURIES, ACCIDENTS
ROTORCRAFT
U. S. GENERAL AVIATION

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	31	26	34	173			264
COPILOT		1	1	1			3
DUAL STUDENT			2	15			17
CHECK PILOT			1				1
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT		1					1
EXTRA CREW				5			5
PASSENGERS	22	17	26	91			156
TOTAL	53	45	64	285		ABOARD	447
OTHER-AIRCRAFT							
OTHER-GROUND		3					3
GRAND TOTAL	53	48	64	285			450

INVOLVES 264 TOTAL ACCIDENTS
INVOLVES 32 FATAL ACCIDENTS

TABLE 84

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - DUAL
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		1	2	16			19
COPILOT				1			1
DUAL STUDENT			2	15			17
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL		1	4	32		ABOARD	37
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL		1	4	32			37

INVOLVES 19 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 85

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - SOLO
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				2			2
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL				2		ABOARD	2
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL				2			2

INVOLVES 2 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 86

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - ALL OTHER
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1		1	6			8
COPILOT							
DUAL STUDENT							
CHECK PILOT			1				1
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL	1		2	6		ABOARD	9
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	1		2	6			9

INVOLVES 8 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 87

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - PLEASURE
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	8	5	7	17			37
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT		1					1
EXTRA CREW							
PASSENGERS		6	2	12			20
TOTAL	8	12	9	29		ABOARD	58
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	8	12	9	29			58

INVOLVES 37 TOTAL ACCIDENTS
INVOLVES 8 FATAL ACCIDENTS

TABLE 88

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - BUSINESS
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	3	1	2	12			18
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	3		3	7			13
TOTAL	6	1	5	19		ABOARD	31
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	6	1	5	19			31

INVOLVES 18 TOTAL ACCIDENTS
INVOLVES 3 FATAL ACCIDENTS

TABLE 89

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - CORPORATE
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		1	1	5			7
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS		1	1	13			15
TOTAL		2	2	18		ABOARD	22
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL		2	2	18			22

INVOLVES 7 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 90

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - ALL OTHER
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	4	2	2	9			17
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	2		1	3			6
TOTAL	6	2	3	12		ABOARD	23
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	6	2	3	12			23

INVOLVES 17 TOTAL ACCIDENTS
INVOLVES 4 FATAL ACCIDENTS

TABLE 91

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AERIAL APPLICATION
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1	4	8	37			50
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT				1			1
EXTRA CREW				2			2
PASSENGERS							
TOTAL	1	4	8	40		ABOARD	53
OTHER-AIRCRAFT							
OTHER-GROUND		1					1
GRAND TOTAL	1	5	8	40			54

INVOLVES 50 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 92

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - FIRE CONTROL
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				4			4
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS				2			2
TOTAL				6		ABOARD	6
OTHER-AIRCRAFT							
OTHER-GROUND		1					1
GRAND TOTAL		1		6			7

INVOLVES 4 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 93

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - POWER / PIPELINE PATROL
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	1	1					2
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	2		1				3
TOTAL	3	1	1			ABOARD	5
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	3	1	1				5

INVOLVES 2 TOTAL ACCIDENTS
INVOLVES 1 FATAL ACCIDENTS

TABLE 94

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AIR TAXI - PASSENGER OPERATIONS
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	2	2	3	15			22
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	5	3	4	20			32
TOTAL	7	5	7	35		ABOARD	54
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	7	5	7	35			54

INVOLVES 22 TOTAL ACCIDENTS
INVOLVES 3 FATAL ACCIDENTS

TABLE 95

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - AIR TAXI - CARGO OPERATIONS
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		1	1				2
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS			1				1
TOTAL		1	2			ABOARD	3
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL		1	2				3

INVOLVES 2 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 96

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - CONSTRUCTION
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		1	2	7			10
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				1			1
PASSENGERS		2	1	3			6
TOTAL		3	3	11		ABOARD	17
OTHER-AIRCRAFT							
OTHER-GROUND		1					1
GRAND TOTAL		4	3	11			18

INVOLVES 10 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 97

INJURIES, ACCIDENTS
KIND OF FLYING
COMMERCIAL - ALL OTHER
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	5	6	4	24			39
COPILOT		1					1
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT				2			2
EXTRA CREW							
PASSENGERS	2	5	12	24			43
TOTAL	7	12	16	50		ABOARD	85
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	7	12	16	50			85

INVOLVES 39 TOTAL ACCIDENTS
INVOLVES 5 FATAL ACCIDENTS

TABLE 98

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - TEST
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	4	1		5			10
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW				1			1
PASSENGERS	3						3
TOTAL	7	1		6		ABOARD	14
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	7	1		6			14

INVOLVES 10 TOTAL ACCIDENTS
INVOLVES 4 FATAL ACCIDENTS

TABLE 99

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - DEMONSTRATION
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT			1	3			4
COPILOT			1				1
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS				2			2
TOTAL			2	5		ABOARD	7
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL			2	5			7

INVOLVES 4 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 100

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - FERRY
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				4			4
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS				1			1
TOTAL				5		ABOARD	5
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL				5			5

INVOLVES 4 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 101

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - SEARCH AND RESCUE
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN	TOTAL
PILOT						
COPILOT						
DUAL STUDENT						
CHECK PILOT						
FLIGHT ENGINEER						
NAVIGATOR						
CABIN ATTENDANT						
EXTRA CREW						
PASSENGERS						
TOTAL						ABOARD
OTHER-AIRCRAFT						
OTHER-GROUND						
GRAND TOTAL						

INVOLVES NO TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 102

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - ALL OTHER
ROTORCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT	2			7			9
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS	5			2			7
TOTAL	7			9		ABOARD	16
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL	7			9			16

INVOLVES 9 TOTAL ACCIDENTS
INVOLVES 2 FATAL ACCIDENTS

Section V

GENERAL AVIATION ACCIDENTS

GLIDER AIRCRAFT

TABLE 103

ACCIDENTS, INJURY INDEX AND AIRCRAFT DAMAGE BY KIND OF FLYING

GLIDER AIRCRAFT

1967

	KIND OF FLYING																			
	INSTRUCTIONAL				NONCOMMERCIAL					COMMERCIAL					MISCELLANEOUS					
	DUAL	SOLO	OTHER	TOTAL	PLEASURE	BUSINESS	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	AIR TAXI	OTHER	TOTAL	TEST	DEMONSTRATION	AIR SHOW	OTHER	TOTAL	GRAND TOTAL
TOTAL ACCIDENTS	5	3	9	17	19	0	0	1	20	0	0	0	0	0	0	0	0	0	0	37
INJURY INDEX																				
Fatal.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Serious.....	1	0	0	1	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
Minor.....	2	0	2	4	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
None.....	2	3	7	12	13	0	0	1	14	0	0	0	0	0	0	0	0	0	0	26
AIRCRAFT DAMAGE																				
Destroyed....	0	0	1	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
Substantial..	5	3	8	16	16	0	0	1	17	0	0	0	0	0	0	0	0	0	0	33
Minor.....	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
None.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total.....	5	3	9	17	19	0	0	1	20	0	0	0	0	0	0	0	0	0	0	37

TABLE 104

TYPE OF ACCIDENT VS KIND OF FLYING

GLIDER AIRCRAFT

1967

FIRST TYPE OF ACCIDENT	KIND OF FLYING																			GRAND TOTAL
	INSTRUCTIONAL				NONCOMMERCIAL					COMMERCIAL						MISCELLANEOUS				
	DUAL	SOLO	OTHER	TOTAL	PLEASURE	BUSINESS	CORPORATE	OTHER	TOTAL	AERIAL APPLICATION	FIRE CONTROL	AIR TAXI-PASSENGER	AIR TAXI-CARGO	OTHER	TOTAL	TEST	DEMONSTRATION	AIR SHOW	OTHER	TOTAL	
Ground/waterloop/swerve			1	1	1				1												2
Dragged wingtip, pod, or float																					
Wheels-up landing																					
Wheels-down landing in water																					
Gear collapsed																					
Gear retracted																					
Hard landing	1			1																	1
Nose over/down																					
Roll over																					
Overshoot		1	1	2	2				2												4
Undershoot		1	4	5	3			1	4												9
Collision with aircraft																					
Both in flight																					
One airborne																					
Both on ground	1			1																	1
Collision with ground/water																					
Controlled			1	1	2				2												3
Uncontrolled					1				1												1
Collided with																					
Wires/poles					1				1												1
Trees			1	1																	1
Residence (s)																					
Other buildings																					
Fence, fenceposts																					
Electronic towers																					
Runway or approach lights																					
Airport hazard																					
Animals																					
Crop																					
Flagman, loader																					
Ditches																					
Snowbank																					
Parked aircraft (Unattended, engine not running)					2				2												2
Automobile																					
Dirt bank																					
Other																					
Bird strike (collision with birds)	1		1	2	3				3												5
Stall		1		1	2				2												3
Spin																					
Spiral					1				1												1
Mush																					
Fire or explosion																					
In flight																					
On ground	1			1																	1
Airframe failure																					
In flight																					
On ground																					
Engine tearaway																					
Engine failure or malfunction																					
Propeller/rotor failure																					
Propeller																					
Tail rotor																					
Main rotor																					
Propeller/rotor accident to person																					
Jet intake/exhaust accident to person																					
Propeller/jet/rotor blast																					
Turbulence																					
Hail damage to aircraft																					
Lightning strike																					
Evasive maneuver					1				1												1
Uncontrolled altitude deviations																					
Ditching																					
Missing aircraft, not recovered																					1
Other/miscellaneous	1			1																	
Undetermined																					
TOTAL	5	3	9	17	19			1	20												37

TABLE 105

TYPE OF ACCIDENT VS PHASE OF OPERATION

GLIDER AIRCRAFT

1967

FIRST TYPE OF ACCIDENT	PHASE OF OPERATION																						
	STATIC				TAXI			TAKEOFF				INFLIGHT						LANDING					
	STARTING ENG. (S)	IDLING ENG. (S)	ENGINE RUNUP	OTHER	TO TAKEOFF	FROM LANDING	OTHER	GROUND RUN	INITIAL CLIMB	ABORTED	OTHER	CLIMB TO CRUISE	NORMAL CRUISE	DESCENDING	ACROBATICS	BUZZING	OTHER	IN TRAFFIC PATTERN	FINAL APPROACH	LEVEL OFF/TOUCH-DOWN	ROLLOUT	OTHER	UNKNOWN	GRAND TOTAL
Ground/waterloop/swerve																				1	1			2
Dragged wingtip, pod, or float																								
Wheels-up landing																								
Wheels-down landing in water																								
Gear collapsed																								
Gear retracted																				1				1
Hard landing																								
Nose over/down																								
Roll over																								
Overshoot																			1	3				4
Undershoot																			9					9
Collision with aircraft																								
Both in flight																								
One airborne																								
Both on ground				1																				1
Collision with ground/water																								
Controlled										1	1								1					3
Uncontrolled																	1							1
Collided with																								
Wires/poles																			1					1
Trees																			1					1
Residence (s)																								
Other buildings																								
Fence, fenceposts																								
Electronic towers																								
Runway or approach lights																								
Airport hazard																								
Animals																								
Crop																								
Flagman, loader																								
Ditches																								
Snowbank																								
Parked aircraft (Unattended, engines not running).																								
Automobile																				1	1			2
Dirt bank																								
Other																								
Bird strike (collision with birds)																								
Stall								2										1	2					5
Spin																		1	1			1		3
Spiral																								
Mush																		1						1
Fire or explosion																								
In flight																								
On ground																					1			1
Airframe failure																								
In flight																								
On ground																								
Engine tearaway																								
Engine failure or malfunction																								
Propeller/rotor failure																								
Propeller																								
Tail rotor																								
Main rotor																								
Propeller/rotor accident to person																								
Jet intake/exhaust accident to person																								
Propeller/jet/rotor blast																								
Turbulence																								
Hail damage to aircraft																								
Lightning strike																								
Evasive maneuver																			1					1
Uncontrolled altitude deviations																								
Ditching																								
Missing aircraft, not recovered																								
Other/miscellaneous																								
Undetermined									1															1
TOTAL	0	0	0	1	0	0	0	0	3	1	1	0	0	0	0	0	1	3	17	6	3	1	0	37

TABLE 106

CAUSE/FACTOR TABLE

GLIDER AIRCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 37 TOTAL ACCIDENTS
INVOLVES FATAL ACCIDENTS

BROAD CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*	CAUSE	FACTOR	TOTAL*
PILOT				34 91.89	1 2.70	34 91.89	34 91.89	1 2.70	34 91.89
PERSONNEL				4 10.81	3 8.11	7 18.92	4 10.81	3 8.11	7 18.92
AIRFRAME				.00	.00	.00	.00	.00	.00
LANDING GEAR				.00	.00	.00	.00	.00	.00
POWERPLANT				.00	.00	.00	.00	.00	.00
SYSTEMS				.00	.00	.00	.00	.00	.00
INSTRUMENTS/EQUIPMENT AND ACCESSORIES				.00	.00	.00	.00	.00	.00
ROTORCRAFT				.00	.00	.00	.00	.00	.00
AIRPORTS/AIRWAYS/FACILITIES				.00	.00	.00	.00	.00	.00
WEATHER				1 2.70	5 13.51	6 16.22	1 2.70	5 13.51	6 16.22
TERRAIN				.00	1 2.70	1 2.70	.00	1 2.70	1 2.70
MISCELLANEOUS				2 5.41	1 2.70	3 8.11	2 5.41	1 2.70	3 8.11
UNDETERMINED				.00	.00	.00	.00	.00	.00

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

TABLE 106 (CONTINUED)

CAUSE/FACTOR TABLE

GLIDER AIRCRAFT
U. S. GENERAL AVIATION

1967

INVOLVES 37 TOTAL ACCIDENTS
INVOLVES FATAL ACCIDENTS

DETAILED CAUSE/FACTOR	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
** PILOT **									
PILOT IN COMMAND									
ATTEMPTED OPERATION BEYOND EXPERIENCE/ABILITY LEVEL				1		1	1		1
BECAME LOST/DISORIENTED				1		1	1		1
CONTINUED VFR FLIGHT INTO ADVERSE WEATHER CONDITIONS				1		1	1		1
FAILED TO OBTAIN/MAINTAIN FLYING SPEED				10		10	10		10
IMPROPER OPERATION OF FLIGHT CONTROLS				4		4	4		4
PREMATURE LIFT OFF				1		1	1		1
IMPROPER LEVEL OFF				1		1	1		1
IMPROPER IN-FLIGHT DECISIONS OR PLANNING				3		3	3		3
LACK OF FAMILIARITY WITH AIRCRAFT				1	1	2	1	1	2
SELECTED UNSUITABLE TERRAIN				1		1	1		1
SPONTANEOUS-IMPROPER ACTION				1		1	1		1
MISJUDGED DISTANCE, SPEED, AND ALTITUDE				2		2	2		2
MISJUDGED DISTANCE AND SPEED				3		3	3		3
MISJUDGED DISTANCE AND ALTITUDE				8		8	8		8
MISJUDGED ALTITUDE				1		1	1		1
MISJUDGED CLEARANCE				2		2	2		2
FAILED TO MAINTAIN DIRECTIONAL CONTROL				1		1	1		1
SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND				1		1	1		1
FAILED TO ABORT TAKEOFF				1		1	1		1
DIRECT ENTRIES				1		1	1		1
SUBTOTAL				45	1	46	45	1	46
** PERSONNEL **									
FLIGHT INSTRUCTOR									
INADEQUATE TRAINING OF STUDENT				2		2	2		2
MAINTENANCE, SERVICING, INSPECTION									
OPERATIONAL SUPERVISORY PERSONNEL									
WEATHER PERSONNEL									
TRAFFIC CONTROL PERSONNEL									
AIRPORT SUPERVISORY PERSONNEL									
IMPROPER OPERATION OF FACILITIES				1		1	1		1
AIRWAYS FACILITIES PERSONNEL									
PRODUCTION-DESIGN									
MISCELLANEOUS-PERSONNEL									
PILOT OF OTHER AIRCRAFT				1	1	2	1	1	2
SPECTATOR					1	1		1	1
DRIVER OF VEHICLE				1	1	2	1	1	2
THIRD PILOT									
FLIGHT ENGINEER									
DISPATCHING									
SUBTOTAL				5	3	8	5	3	8
** WEATHER **									
LOW CEILING					1	1		1	1
RAIN					1	1		1	1
UNFAVORABLE WIND CONDITIONS				1	2	3	1	2	3
DOWNDRAFTS, UPDRAFTS					2	2		2	2
SUBTOTAL				1	6	7	1	6	7
** TERRAIN **									
HIGH VEGETATION					1	1		1	1
SUBTOTAL					1	1		1	1

TABLE 106 (CONTINUED)

CAUSE/FACTOR TABLE

MISCELLANEOUS (CONTINUED)

	FATAL ACCIDENTS			NONFATAL ACCIDENTS			ALL ACCIDENTS		
	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL	CAUSE	FACTOR	TOTAL
** MISCELLANEOUS **									
EVASIVE MANEUVER TO AVOID COLLISION					1	1		1	1
DIRECT ENTRIES				2		2	2		2
SUBTOTAL				2	1	3	2	1	3
GRAND TOTAL				53	12	65	53	12	65
** MISCELLANEOUS ACTS, CONDITIONS **									
INSTRUMENTS-MISREAD OR FAILED TO READ				1		1	1		1
POORLY PLANNED APPROACH				1	1	2	1	1	2
DOWNWIND					2	2		2	2

DIRECT ENTRY CAUSES

MISC-TOWLINE BROKE DURING WINCH TOW LAUNCH.
PILOT-PREMATURE RELEASE OF TOW LINE,TOO LOW.
MISC-OVERHEATED STEEL SKID SHOE IGNITED COVERING.

DIRECT ENTRY CAUSES ARE CARRIED UNDER THEIR APPROPRIATE CAUSAL CATEGORIES AND ARE INCLUDED IN THE TOTALS

TABLE 107

INJURIES, ACCIDENTS
GLIDER AIRCRAFT
U. S. GENERAL AVIATION

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		4	6	27			37
COPILOT							
DUAL STUDENT		1	2	2			5
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS		1	1	7			9
TOTAL		6	9	36		ABOARD	51
* OTHER-AIRCRAFT				1			1
OTHER-GROUND				4			4
GRAND TOTAL		6	9	41			56

INVOLVES 37 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 108

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - DUAL
GLIDER AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT			2	3			5
COPILOT							
DUAL STUDENT		1	2	2			5
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL		1	4	5		ABOARD	10
* OTHER-AIRCRAFT				1			1
OTHER-GROUND							
GRAND TOTAL		1	4	6			11

INVOLVES 5 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

* INJURIES CARRIED OPPOSITE 'OTHER-AIRCRAFT' ARE INJURIES OCCURRING IN AIRCRAFT THAT ARE NOT PART OF THIS SUBJECT TABULATION, BUT WERE PART OF THE TOTAL INJURIES INVOLVED IN COLLISIONS BETWEEN AIRCRAFT.

TABLE 109

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - SOLO
GLIDER AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				3			3
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL				3		ABOARD	3
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL				3			3

INVOLVES 3 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 110

INJURIES, ACCIDENTS
KIND OF FLYING
INSTRUCTIONAL - ALL OTHER
GLIDER AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT			2	7			9
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL			2	7		ABOARD	9
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL			2	7			9

INVOLVES 9 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 111

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - PLEASURE
GLIDER AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT		4	2	13			19
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS		1	1	7			9
TOTAL		5	3	20		ABOARD	28
OTHER-AIRCRAFT							
OTHER-GROUND				4			4
GRAND TOTAL		5	3	24			32

INVOLVES 19 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 112

INJURIES, ACCIDENTS
KIND OF FLYING
NONCOMMERCIAL - ALL OTHER
GLIDER AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN		TOTAL
PILOT				1			1
COPILOT							
DUAL STUDENT							
CHECK PILOT							
FLIGHT ENGINEER							
NAVIGATOR							
CABIN ATTENDANT							
EXTRA CREW							
PASSENGERS							
TOTAL				1		ABOARD	1
OTHER-AIRCRAFT							
OTHER-GROUND							
GRAND TOTAL				1			1

INVOLVES 1 TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

TABLE 113

INJURIES, ACCIDENTS
KIND OF FLYING
MISCELLANEOUS - AIR SHOW
GLIDER AIRCRAFT

1967

	FATAL	SERIOUS	MINOR	NONE	UNKNOWN	TOTAL
PILOT						
COPILOT						
DUAL STUDENT						
CHECK PILOT						
FLIGHT ENGINEER						
NAVIGATOR						
CABIN ATTENDANT						
EXTRA CREW						
PASSENGERS						
TOTAL						ABOARD
OTHER-AIRCRAFT						
OTHER-GROUND						
GRAND TOTAL						

INVOLVES NO TOTAL ACCIDENTS
INVOLVES NO FATAL ACCIDENTS

Section VI

YEARLY ACCIDENT RECORD

TABLE 114

ACCIDENT, FATALITIES, RATES

U. S. GENERAL AVIATION

1938 - 1967

Year	Accidents Total	Accidents Fatal	Fatalities	Hours* Flown (000)	Plane-Miles* Flown (000)	Accident Rates 100,000 Hours Total	Accident Rates 100,000 Hours Fatal	Accident Rates Million Plane-Miles Total	Accident Rates Million Plane-Miles Fatal
1938.....	1,861	176	274	1,478	129,359	125.9	11.9	14.3	1.3
1939.....	2,222	203	315	1,922	177,868	115.6	10.5	12.4	1.1
1940.....	3,471	232	359	3,200	264,000	108.4	7.2	13.1	0.8
1941.....	4,252	217	312	4,460	346,303	95.3	4.8	12.2	0.6
1942.....	3,324	143	220	3,786	293,593	87.7	3.7	11.3	0.4
1943.....	3,871	167	257	NA	NA	NA	NA	NA	NA
1944.....	3,343	169	257	NA	NA	NA	NA	NA	NA
1945.....	4,652	322	508	NA	NA	NA	NA	NA	NA
1946.....	7,618	690	1,009	9,788	874,740	77.8	7.0	8.7	0.7
1947.....	9,253	882	1,352	16,334	1,502,402	56.6	5.3	6.1	0.5
1948.....	7,850	850	1,384	15,130	1,469,540	51.8	5.6	5.3	0.5
1949.....	5,459	562	896	11,031	1,128,992	49.4	5.0	4.8	0.4
1950.....	4,505	499	871	9,650	1,061,500	46.6	5.1	4.2	0.4
1951.....	3,824	441	750	8,451	975,480	45.2	5.2	3.9	0.4
1952.....	3,657	401	691	8,186	972,055	44.6	4.8	3.7	0.4
1953.....	3,232	387	635	8,527	1,045,346	37.9	4.5	3.0	0.3
1954.....	3,381	393	684	8,963	1,119,295	37.7	4.3	3.0	0.3
1955.....	3,343	384	619	9,500	1,216,000	35.1	4.0	2.7	0.3
1956.....	3,474	356	669	10,200	1,315,000	34.0	3.4	2.6	0.2
1957.....	4,200	438	800	10,938	1,426,285	38.4	4.0	2.9	0.3
1958.....	4,584	384	717	12,579	1,660,109	36.4	3.1	2.8	0.2
1959.....	4,576	450	823	12,903	1,716,019	35.5	3.5	2.7	0.3
1960.....	4,793	429	787	13,121	1,768,704	36.5	3.3	2.7	0.2
1961.....	4,625	426	761	13,602	1,857,946	34.0	3.1	2.5	0.2
1962.....	4,840	430	857	14,500	1,964,586	33.4	3.0	2.5	0.2
1963.....	4,690	482	893	15,106	2,048,574	31.0	3.2	2.3	0.2
1964.....	5,069	526	1,083	15,738	2,180,818	32.2	3.3	2.3	0.2
1965.....	5,196	538	1,029	16,733	2,562,380	31.1	3.2	2.0	0.2
1966.....	5,712	573	1,149	21,023	3,336,138	27.2	2.7	1.7	0.2
1967.....	6,115	603	1,228	22,153	3,439,964	27.6	2.7	1.8	0.2

* Source: FAA

EMBRY-RIDDLE AERO U. DAYTONA BEACH
3 1745 00071 0064