



**Review of Aviation Accidents Occurring
in the State of Alaska
1992-2001**

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Introduction

This report presents a review of aviation accidents¹ occurring in the state of Alaska between the years 1992 and 2001. Data include accidents involving U.S. registered aircraft operating under Title 14 Code of Federal Aviation Regulations (FAR). Although all operations are included in this study, the report provides a detailed review of accidents involving aircraft operating under Title 14, Parts 91, 135, and 121 of the FARs.

Briefly defined, Part 91 applies to General Aviation operations. General aviation refers to all aviation other than commercial airline operations and military aviation. For example, flights for recreation and training are generally carried out under Part 91. Part 135 can be broken out by scheduled and non-scheduled operations. Scheduled Part 135 applies to commercial air carriers that carry nine or fewer passengers on regularly scheduled flights. These operations are commonly referred to as commuter operations. Non-scheduled Part 135 operations are commonly referred to as air taxi, and carry nine or fewer passengers with schedules that are arranged between passengers and the operator. Non-scheduled Part 135 also applies to cargo planes with payload capacities of 7,500 pounds or less. Part 121 applies to major airlines and cargo carriers that fly large transport-category aircraft.

Accident data for this review were extracted from the National Transportation Safety Board (NTSB) Aviation Accident and Incident Database. The NTSB Accident and Incident Database is the official repository of aviation accident data and causal factors.

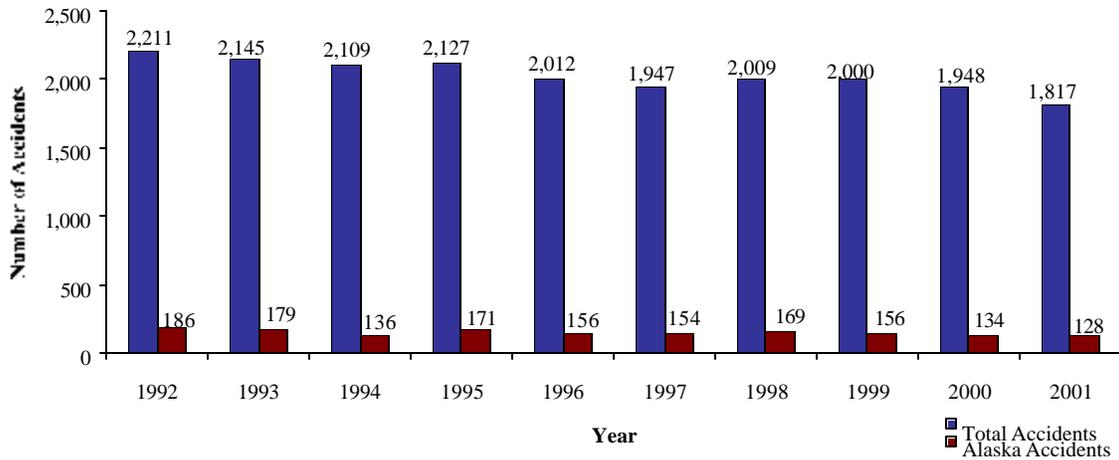
¹ NTSB defines an accident as an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage. A collision between aircraft is counted as one accident.

Relationship of Alaska Accidents to U.S. Accidents

Ten Year Review

From 1992 to 2001, a total of 20,325 accidents occurred in the United States. Of these accidents, 1,569 occurred in the state of Alaska.

Chart 1: Comparison of Alaska Accidents to U.S. Accidents



Year	United States			Alaska		
	Total Accidents	Fatal Accidents	Percentage Fatal	Total Accidents	Fatal Accidents	Percentage Fatal
1992	2,211	476	21.5%	186	18	9.7%
1993	2,145	417	19.4%	179	22	12.3%
1994	2,109	426	20.2%	136	16	11.8%
1995	2,127	423	19.9%	171	18	10.5%
1996	2,012	374	18.6%	156	22	14.1%
1997	1,947	359	18.4%	154	20	13.0%
1998	2,009	371	18.5%	169	14	8.3%
1999	2,000	343	17.2%	156	14	9.0%
2000	1,948	360	18.5%	134	14	10.4%
2001	1,817	341	18.8%	128	9	7.0%
Total	20,325	3,890	19.1%	1,569	167	10.6%

A higher percentage of accidents resulted in injury for the U.S. as a whole versus Alaska. For the timeframe 1992 through 2001, an average of 19.1 percent of the total accidents occurring in the U.S. resulted in fatal injuries, compared to an average of 10.6 percent for accidents in Alaska. Of the 3,890 fatal accidents that occurred in the U.S., 8,257 lives were lost. There were no injuries in 53 percent of the total accidents.

For Alaska, the 167 fatal accidents resulted in 367 fatalities. Seventy-one percent of Alaska accidents resulted in no injuries.

Accidents by FAR Part

Accidents may involve more than one aircraft in one event. For the 20,325 total accidents occurring in the U.S., 20,598 aircraft were involved. For Alaska, 1,586 aircraft were involved in the 1,569 total accidents. Each aircraft operates under its own operating rules under Title 14 of the Code of Federal Aviation Regulations (FAR). For example, an event involving two aircraft may involve one aircraft operating under Part 91, while the second aircraft was operating under Part 135.

For both U.S. and Alaska, the majority of accidents involve Part 91, General Aviation operations. Eighty-seven percent of U.S. accidents and 74.7 percent of Alaska accidents were Part 91. A greater percentage of accidents involved Part 135 Air Taxi operations in Alaska compared to the U.S. In fact, Alaska had the greatest number of accidents for Part 135, both scheduled and non-scheduled operations, among all U.S. states. See Appendix 1 for a list of accidents by state and FAR Part.

Alaska also experienced a greater percentage of accidents during Public Use operations, however only five fatalities were involved. The highest percentage of fatal accidents for Alaska occurred during Part 135 operations, with the majority occurring in Air Taxi operations. Only nine percent of Part 91 operations resulted in fatalities.

The charts below depict the breakout of U.S. and Alaska accidents by the operating rules being conducted at the time of the event. Counts reflect the ten-year summary, 1992 through 2001.

Chart 2: U.S. Accidents by FAR Part

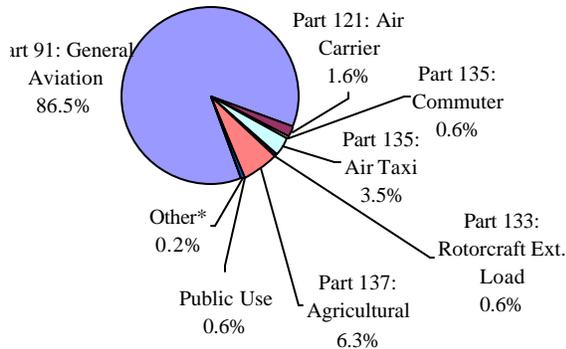
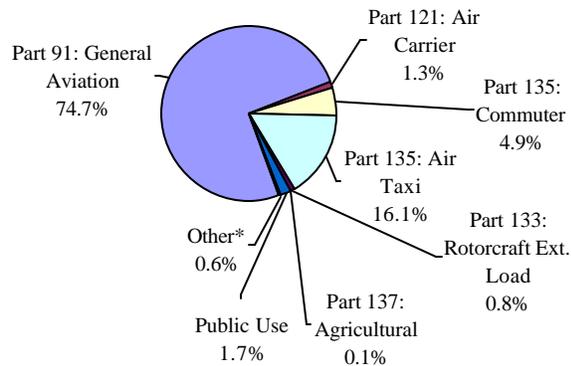


Chart 3: Alaska Accidents by FAR Part

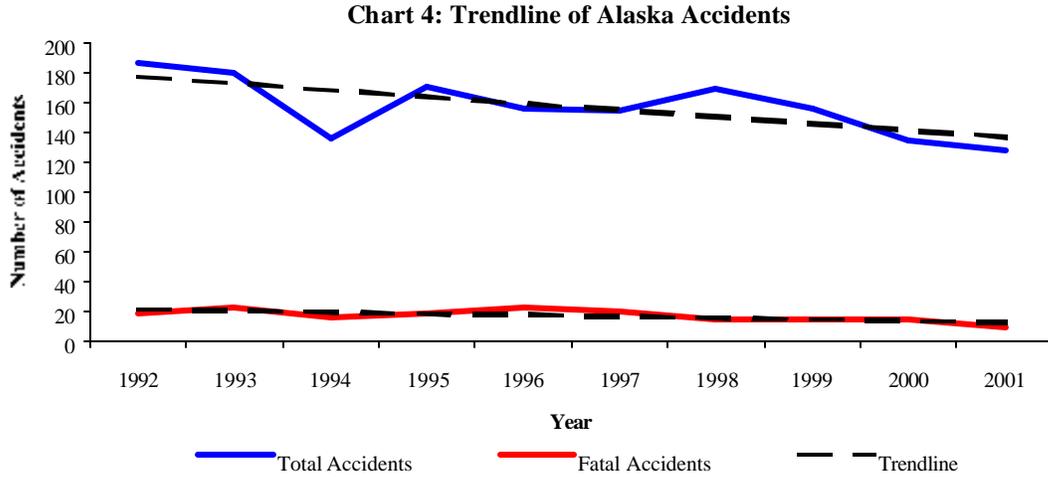


FAR Part	U.S (Including Alaska)			Alaska		
	Total Accidents	Fatal Accidents	Number of Fatalities	Total Accidents	Fatal Accidents	Number of Fatalities
PART 91: GENERAL AVIATION	17,811	3,542	6,139	1,184	110	190
PART 121: AIR CARRIER	335	27	1,246	20	1	4
PART 135: COMMUTER	121	27	156	77	13	50
PART 135: AIR TAXI	730	183	462	256	40	106
PART 133: ROTORCRAFT EXT. LOAD	130	23	27	12	5	10
PART 137: AGRICULTURAL	1,305	135	137	1	0	0
PUBLIC USE	115	27	60	27	3	5
OTHER*	51	55	30	9	1	2
Total	20,598	4,019	8,257	1,586	173	367

*Other includes Military, Part 103 Ultralight, Part 125 20+ Pax, 6000 lbs, Part 129 Foreign, Part 91F Special Flight Operations, and Non-U.S. Commercial Operations.

Profile of Alaska Accidents

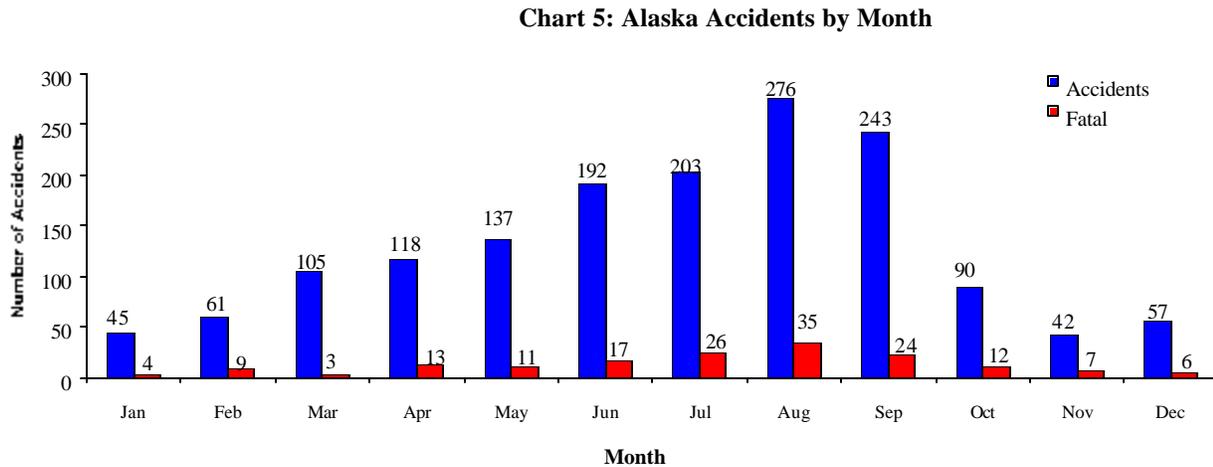
Alaska experienced an overall downward trend in the number of accidents experienced from 1992 through 2001. There was only a slight decline in the number of fatal accidents.



Although the overall trend is decreasing, Part 135 Commuter operations and Part 121 Air Carrier operations both experienced a slight increase in their accident trend. Part 91 General Aviation and Part 135 Air Taxi operations had a decrease in trend.

Monthly Activity

The majority of Alaska accidents occurred in summer and early fall months, with the greatest number of accidents occurring in August. An average of 27.6 accidents occurred during August for the years 1992 through 2001. September experienced the second highest number of accidents, averaging 24.3 accidents.



City Location

The highest number of accidents occurred in the city of Anchorage. From 1992 through 2001, an average of 14.8 accidents occurred per year in Anchorage. Eighty-seven percent of these accidents involved Part 91 operations. Fairbanks had the second highest number of occurrences, with an average of 6.6 accidents per year. Juneau and Bethel had the highest number of accidents for Part 135 operations.

Chart 6 presents the accidents, by the city of the accident location, for the top 30 cities. Note, since one accident may involve more than one aircraft, counts reflect the number of accidents by aircraft count.

Chart 6: Alaska Accidents by City

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations	Total Accidents
ANCHORAGE	129	5	1	8	5	148
FAIRBANKS	58	3	1	2	2	66
PALMER	41	0	0	0	1	42
TALKEETNA	27	10	0	0	0	37
SKWENTNA	29	6	0	0	0	35
WASILLA	33	0	0	0	0	33
JUNEAU	21	10	1	1	0	33
BETHEL	9	13	5	1	2	30
PORT ALSWORTH	20	7	0	0	2	29
KOTZEBUE	18	3	5	0	2	28
KETCHIKAN	17	5	1	2	2	27
KENAI	22	5	0	0	0	27
DILLINGHAM	19	6	2	0	0	27
ILIAMNA	22	3	0	0	0	25
CHUGIAK	22	0	0	0	0	22
DELTA JUNCTION	17	3	0	0	0	20
BIG LAKE	20	0	0	0	0	20
NOME	10	3	5	0	1	19
KING SALMON	15	3	0	0	1	19
YAKUTAT	10	5	0	1	1	17
TYONEK	13	2	0	0	1	16
SOLDOTNA	14	0	1	0	0	15
MC GRATH	9	3	0	1	2	15
KODIAK	10	5	0	0	0	15
GLENNALLEN	13	2	0	0	0	15
WILLOW	13	0	0	0	1	14
ANIAK	9	5	0	0	0	14
CORDOVA	12	1	1	0	0	14
LIME VILLAGE	10	2	0	0	0	12
HAINES	9	3	0	0	0	12

See Appendix 2 for the complete list of accidents by City.

Airport Location

Twenty-seven percent of all accidents occurred within a five-mile radius of an airport or airstrip. Whereas the majority of accidents occur off the airport or airstrip, 55 percent of Part 121 operations occurred on the airport. Chart 7 presents the top 30 airports identified. Note, since one accident may involve more than one aircraft, counts reflect the number of accidents by aircraft count.

Chart 7: Alaska Accidents by Airport

Airport/Airstrip (Accident Occurred Within Five-Mile Radius)	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations	Total Accidents
MERRILL FIELD	33	1	0	0	0	34
LAKE HOOD STRIP	20	0	0	0	0	20
BETHEL	5	8	3	1	2	19
FAIRBANKS INTL	11	1	0	2	1	15
TED STEVENS ANCHORAGE INTL	3	0	1	3	4	11
LAKE HOOD	10	1	0	0	0	11
DILLINGHAM	8	2	1	0	0	11
GOOSE BAY	10	0	0	0	0	10
BIRCHWOOD	10	0	0	0	0	10
TALKEETNA	7	2	0	0	0	9
SOLDOTNA	7	0	0	0	0	7
RALPH WIEN MEMORIAL	3	1	3	0	0	7
JUNEAU INTL	5	1	0	1	0	7
CHENA MARINA	7	0	0	0	0	7
BIG LAKE	5	0	0	0	0	5
NORTHWAY	5	0	0	0	0	5
KIVALINA	2	1	2	0	0	5
GULKANA	5	0	0	0	0	5
WASILLA	4	0	0	0	0	4
MC CARTHY NR 2	3	1	0	0	0	4
KONGIGANAK	0	4	0	0	0	4
CHEVAK	0	3	1	0	0	4
KENAI MUNI	4	0	0	0	0	4
ANDERSON LAKE STRIP	4	0	0	0	0	4
AKIACHAK	0	2	1	0	0	3
WILLOW	3	0	0	0	0	3
SKWENTNA	3	0	0	0	0	3
SITKA ROCKY GUTIERREZ	3	0	0	0	0	3
SELAWIK	0	0	2	0	1	3

See Appendix 3 for complete list of accidents by Airport.

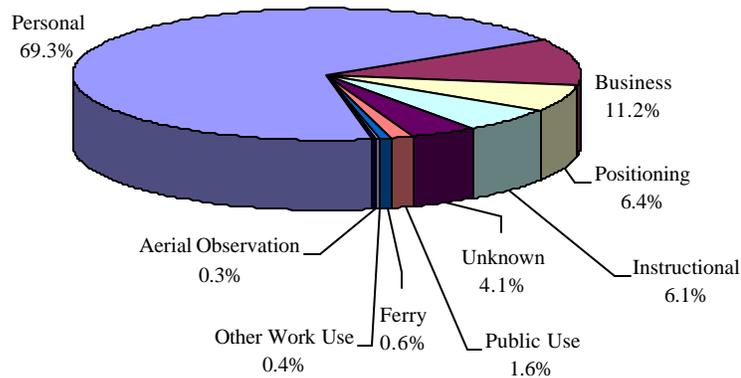
Purpose of Flight

Part 91 General Aviation operations experienced the greatest number of accidents in Alaska for the time period 1992 through 2001. Personal flying accounted for 69.3 percent of General Aviation accidents, resulting in 820 total accidents, 69 fatal accidents, and 125 fatalities. Personal flying includes flying for pleasure or for personal transportation not used for company business. It does not include flying performed under supervision or as part of an approved flight program. Those flights are categorized as Instructional.

Business flying accounted for the second highest number of accidents, resulting in 133 total accidents, 18 fatal accidents, and 34 fatalities. Business includes 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.

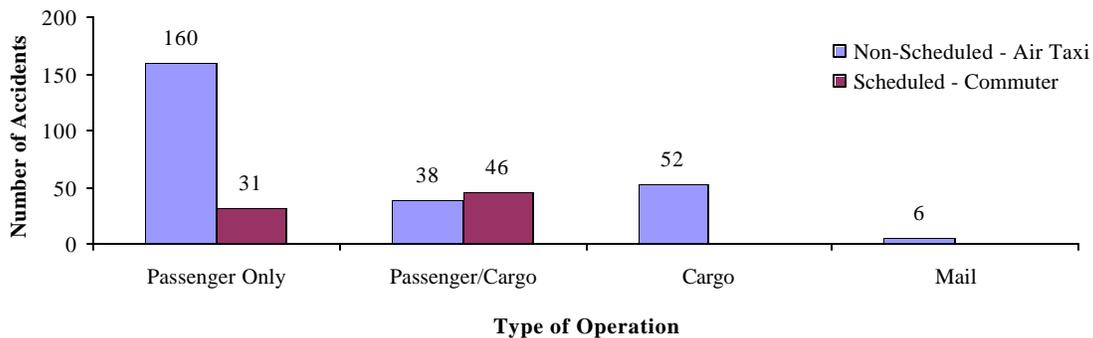
The chart below shows the breakout of Part 91 General Aviation accidents by the purpose for which the aircraft was being operated at the time of the accident.

Chart 8: Part 91 Alaska Accidents by Purpose of Flight



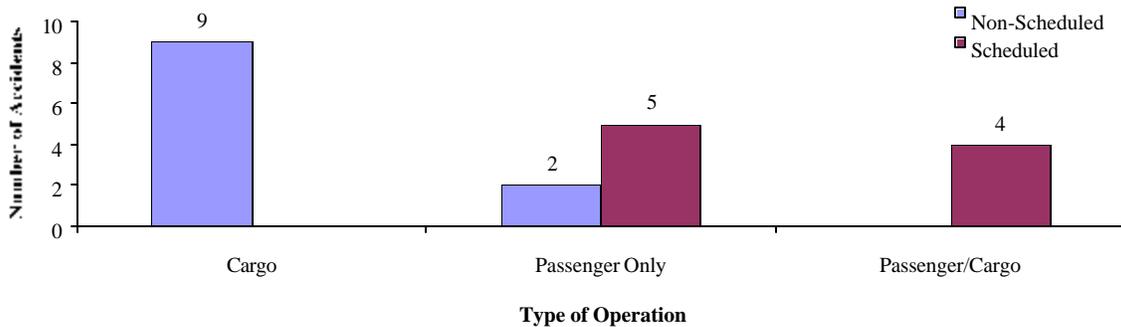
For Part 135 operations, 76.9 percent of the accidents involved non-scheduled Air Taxi operations while the remaining involved scheduled Commuter operations. The type of service provided by Part 135 operators are passenger, cargo, a combination of both passenger and cargo, and mail. Chart 9 shows the breakout of Part 135 operations, both scheduled and non-scheduled, by the type of service provided at the time of the accident.

Chart 9: Part 135 Alaska Accidents by Purpose of Flight



For Part 121 Air Carrier operations, 55 percent of the accidents occurred during non-scheduled operations. The majority of non-scheduled operations were conducting cargo operations. Chart 10 shows the breakout of Part 121 operations, both scheduled and non-scheduled, by the type of service provided at the time of the accident.

Chart 10: Part 121 Alaska Accidents by Purpose of Flight



Below is a list of the Part 121 operators involved in accidents for the time period 1992 through 2001. Note, no accidents occurred in 1992 and 1993.

Chart 11: Alaska Accidents by Part 121 Operators

Operator	1994	1995	1996	1997	1998	1999	2000	2001	Total
ALASKA AIRLINES	0	0	0	0	1	0	1	0	2
NORTHERN AIR CARGO INC.	0	0	1	0	0	0	0	1	2
LYNDEN AIR CARGO	0	0	0	0	1	0	0	1	2
DELTA AIR LINES	0	0	1	0	0	0	0	0	1
FEDERAL EXPRESS CORP	0	0	1	0	0	0	0	0	1
FRONTIER FLYING SERVICE	0	0	0	0	0	0	1	0	1
EVERGREEN INTERNATIONAL AIRLINES	0	0	0	0	0	0	0	1	1
MARKAIR	1	0	0	0	0	0	0	0	1
MERLIN EXPRESS INC	0	0	0	1	0	0	0	0	1
ERA AVIATION INC.	0	0	0	0	0	1	0	0	1
SOUTHERN AIR TRANSPORT	0	1	0	0	0	0	0	0	1
UNITED AIRLINES	0	0	1	0	0	0	0	0	1
Operator Unknown	1	0	1	0	0	3	0	0	5
Grand Total	2	1	5	1	2	4	2	3	20

Aircraft Type

The majority of all accidents occurring in Alaska involved airplanes. Ninety percent of these involved single-engine aircraft while the remaining were multi-engine aircraft. Only five percent of the accidents involved helicopters, and one accident each involved an ultralight, a gyrocraft, and a glider.

Chart 12 presents the top 15 airplane make/models involved in accidents in Alaska, 1992 through 2001.

Chart 12: Alaska Accidents by Type of Airplane Involved

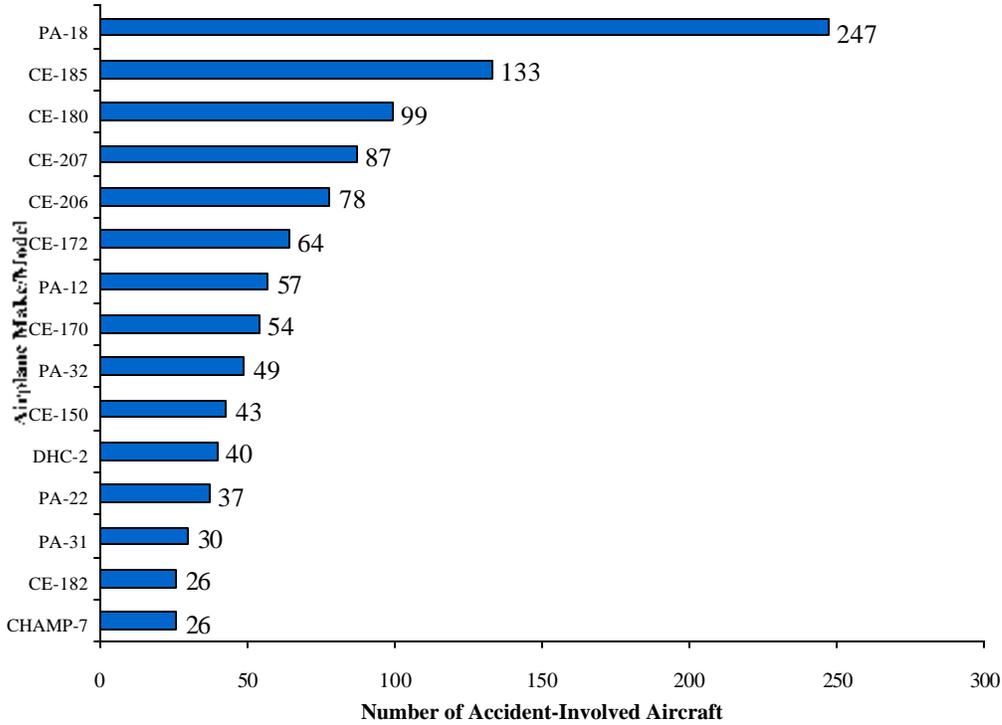
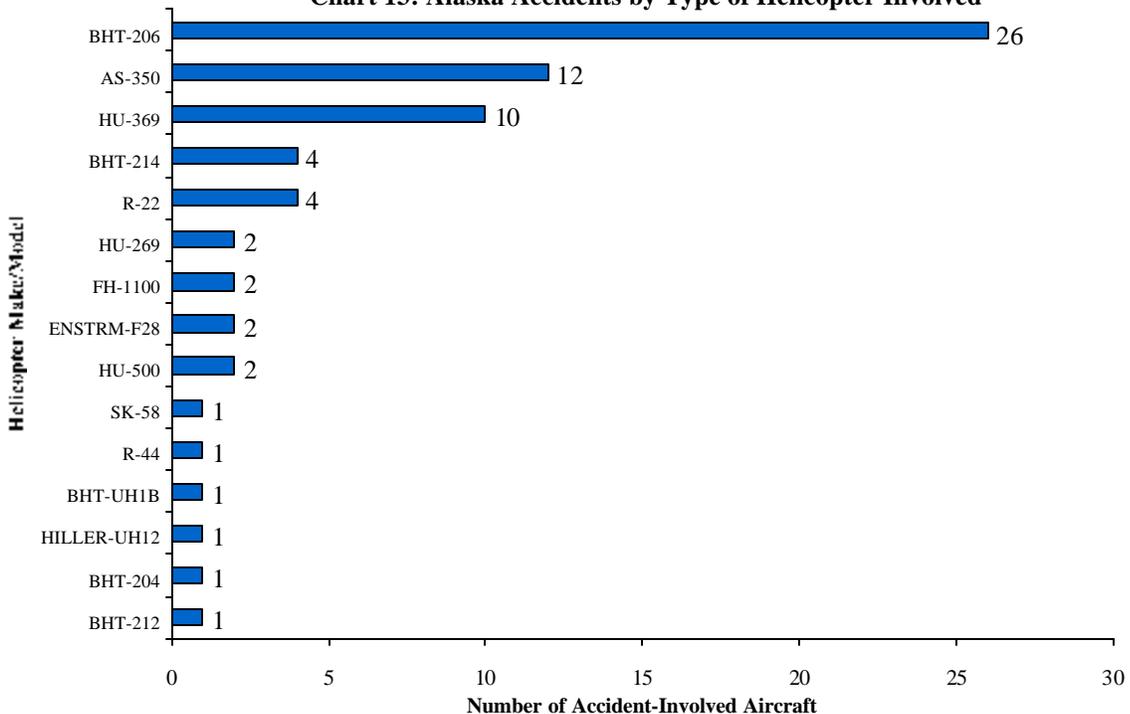


Chart 13 presents the top 10 helicopter make/model involved in accidents in Alaska, 1992 through 2001.

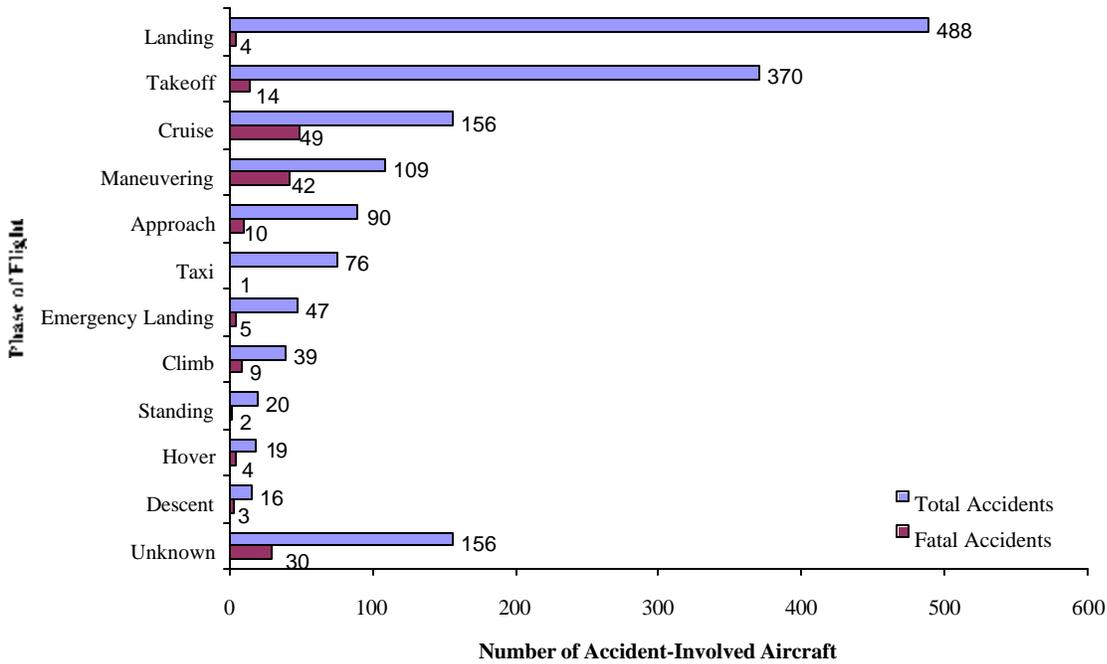
Chart 13: Alaska Accidents by Type of Helicopter Involved



Phase of Flight

Phase of Flight is defined as the point in operations in which aircraft damage or injury occurred. The majority of Alaska accidents occurred during the Landing phase of operations, however more fatalities occurred during Cruise and Maneuvering operations.

Chart 14: Alaska Accidents by Phase of Flight

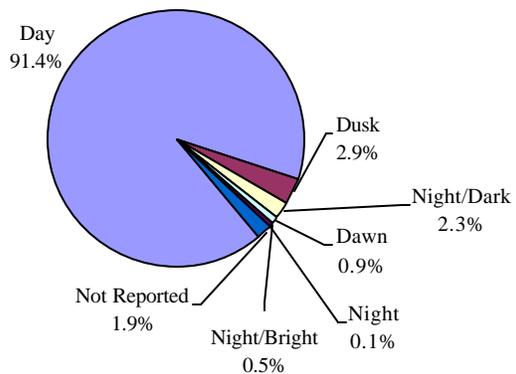


Parts 91, 135, and 121 accidents follow the same phase of flight trend, with Part 135 having a higher occurrence of Takeoff events versus Landing events. Part 121 also had a higher percentage of accidents during Standing operations than Parts 91 or 135. See Appendix 4 for breakdown of Alaska accidents by Phase of Flight and FAR Part.

Environmental Factors

The majority of accidents occurred during day light conditions. Day light was the prevailing light condition approximately 90 percent of the time for Parts 91 and 135 operations. For Part 121, day light was the prevailing light condition 70 percent of the time. Five out of the 20 Part 121 accidents occurred during night conditions, while one accident occurred at dusk.

Chart 15: Alaska Accidents by Light Condition



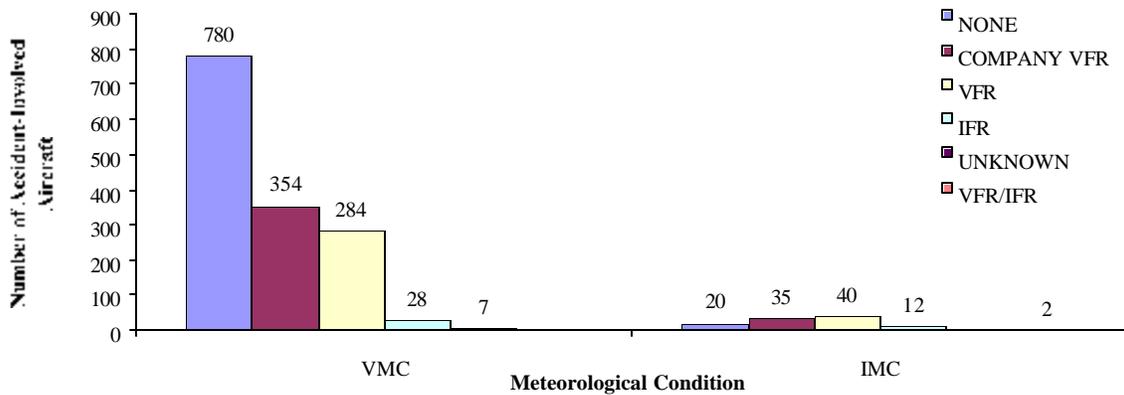
Ninety-two percent of all accidents occurred during Visual Meteorological Conditions (VMC). Of these events, 43.9 percent had Visual Flight Rules (VFR) or Company VFR flight plans filed, while only two percent filed Instrument Flight Rules (IFR). The remaining aircraft had no flight plan filed.

Seven percent of the total accidents occurred during Instrument Meteorological Conditions (IMC), but only 11 percent of those aircraft filed IFR. Nearly 70 percent of IMC accidents had VFR or Company VFR flight plans filed.

Although more accidents occurred during VMC, a greater percentage of accidents were fatal during IMC. Thirty-nine percent of IMC accidents resulted in fatal injuries compared to eight percent of VMC accidents.

Chart 16 presents the breakout of the meteorological condition at the time of the accident and the flight plan the aircraft had on file. Counts have been included to show further breakdown between FAR Parts.

Chart 16: Alaska Accidents by Meteorological Condition and Flight Plan Filed



Flight Plan Filed	Part 91: General Aviation		Part 135: Air Taxi		Part 135: Commuter		Part 121: Air Carrier		All Other Operations		Total Accidents*
	VMC	IMC	VMC	IMC	VMC	IMC	VMC	IMC	VMC	IMC	
NONE	767	20	7	0	0	0	0	0	6	0	810
COMPANY VFR	144	4	159	21	31	9	2	0	18	1	392
VFR	200	23	50	7	19	10	2	0	13	0	330
IFR	5	3	3	2	2	4	14	1	4	2	42
UNKNOWN	3	0	0	0	1	0	1	0	2	0	10
VFR/IFR	0	2	0	0	0	0	0	0	0	0	2
Total	1,119	52	219	30	53	23	19	1	43	3	1,586

*Total Accidents include accident counts for those events where the meteorological condition was unknown.

First Occurrences

The NTSB identifies one or more occurrences that describe the accident sequence of events. The first occurrence is the event that initiates the accident sequence. There may be as many as five occurrences for one accident. Occurrences are only identified in accident reports that have been completed and have a status of Final Report.

For all accidents occurring in Alaska, 1992 through 2001, Loss of Control On Ground/Water had the highest citing of first occurrence. None of these events resulted in fatal injuries. Thirty-three percent of events with Loss of Control In Flight as the first occurrence resulted in fatalities. Inflight Collision with Terrain/Water resulted in fatalities 27.6 percent of the time.

Chart 17: Alaska Accidents by First Occurrence

First Occurrence	Number of Occurrences by Level of Injury				Total Occurrences
	None	Minor	Serious	Fatal	
LOSS OF CONTROL - ON GROUND/WATER	198	12	1	0	211
IN FLIGHT COLLISION WITH TERRAIN/WATER	68	26	19	43	156
ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER	127	8	2	0	137
IN FLIGHT ENCOUNTER WITH WEATHER	61	22	19	31	133
LOSS OF CONTROL - IN FLIGHT	37	16	21	36	110
LOSS OF ENGINE POWER (TOTAL) - NON-MECHANICAL	56	19	10	2	87
IN FLIGHT COLLISION WITH OBJECT	55	8	5	2	70
LOSS OF ENGINE POWER	47	11	5	4	67
ON GROUND/WATER COLLISION WITH OBJECT	53	3	1	0	57
AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION	42	5	3	7	57
HARD LANDING	42	4	2	1	49
OVERRUN	39	6	1	1	47
NOSE OVER	40	4	0	1	45
LOSS OF ENGINE POWER (TOTAL) - MECH FAILURE/MALF	25	10	5	5	45
UNDERSHOOT	25	6	1	1	33
ON GROUND/WATER ENCOUNTER WITH WEATHER	30	2	0	0	32
LOSS OF ENGINE POWER (PARTIAL) - NON-MECHANICAL	23	3	5	1	32
DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID	22	2	0	1	25
LOSS OF ENGINE POWER (PARTIAL) - MECH FAILURE/MALF	12	3	2	4	21
MIDAIR COLLISION	6	2	0	12	20
MAIN GEAR COLLAPSED	16	1	0	0	17
MISCELLANEOUS/OTHER	9	2	1	0	12
COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)	6	3	0	0	9
NOSE GEAR COLLAPSED	9	0	0	0	9
ABRUPT MANEUVER	6	1	0	2	9
GEAR COLLAPSED	7	1	0	0	8
MISSING AIRCRAFT	0	0	0	8	8
WHEELS UP LANDING	7	0	0	0	7
NOSE DOWN	6	0	0	0	6
UNDETERMINED	2	0	0	3	5
PROPELLER FAILURE/MALFUNCTION	4	0	0	1	5
FIRE	4	0	0	0	4
ROLL OVER	1	3	0	0	4
PROPELLER/ROTOR CONTACT TO PERSON	0	0	1	3	4
VORTEX TURBULENCE ENCOUNTERED	1	2	0	0	3
FORCED LANDING	2	0	0	0	2
ALTITUDE DEVIATION, UNCONTROLLED	1	0	1	0	2
PROPELLER BLAST OR JET EXHAUST/SUCTION	1	0	0	0	1
TAIL GEAR COLLAPSED	1	0	0	0	1
GEAR RETRACTION ON GROUND	1	0	0	0	1
GEAR NOT RETRACTED	0	1	0	0	1
HAZARDOUS MATERIALS LEAK/SPILL (FUMES/SMOKE)	1	0	0	0	1
WHEELS DOWN LANDING IN WATER	1	0	0	0	1
Total	1,094	186	105	169	1,554

Inflight Collision with Terrain/Water ranked among the highest first occurrences for Parts 91 and 135 operations. For Part 135 Air Taxi operations, Inflight Encounter with Weather was the first occurrence 13.4 percent of the time, with nearly 30 percent resulting in fatal injury. The second highest occurrence was Inflight Collision with Terrain/Water with 37.5 percent of the accidents resulting in fatalities. Part 135 Commuter operations had Inflight Collision with Terrain/Water as the highest first occurrence with Inflight Encounter with Weather as the second highest.

For Part 91, Loss of Control on Ground/Water and On Ground/Water Encounter with Terrain/Water were the first and second top occurrences, but neither resulted in fatal injury. Inflight Collision with Terrain/Water was the third highest occurrence, with 25.5 percent resulting in fatalities.

Part 121 had four out of the 20 accidents with Dragged Wing, Rotor, Pod, Float, or Tail/Skid as the first occurrence. Two accidents involved Ground Collisions Between Aircraft, therefore this occurrence was identified four times. Two accidents also experienced On Ground/Water Collision with Object. Only one fatal accident occurred for Part 121, and the first occurrence cited was Loss of Engine Power (Total) – Mechanical Failure/Malfunction.

See Appendix 5 for a complete list of first occurrences by FAR Part.

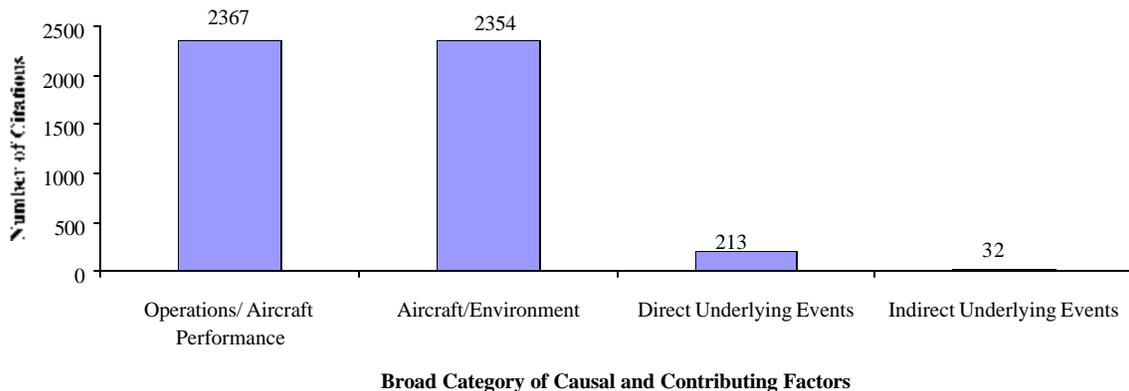
Causal and Contributing Factors

For each occurrence, the NTSB identifies one or more findings to further describe the accident sequence. These findings are classified as a cause or related factor, or may be an event the investigator deemed important and took note of it. Findings are comprised of Subject Codes and Modifier/Personnel Codes as applicable. Since multiple findings may be cited in an accident, the number of findings will exceed the total number of accidents.

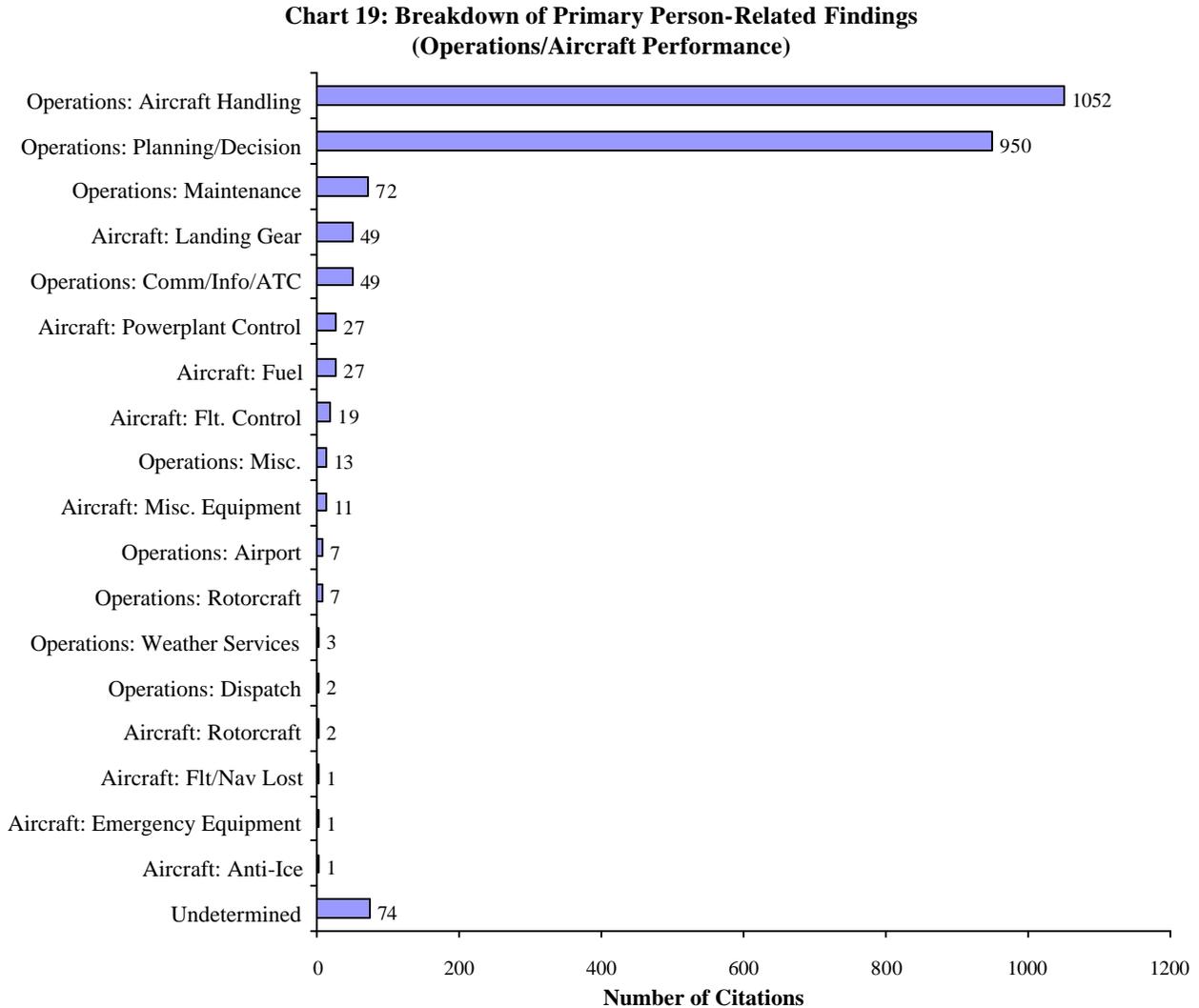
The NTSB categorizes findings into four main sections – Primary Non-Person Related (Aircraft/Environment), Primary Person-Related (Operations/Performance), Direct Underlying Events, and Indirect Underlying Events. Sections Primary Non-Person Related and Primary Person-Related are used to list the primary events/findings that led to the accident. Direct and Indirect Underlying Events are findings used to further define a primary event.

For accidents occurring in Alaska, the findings were divided almost in half between Non-Person-Related (Aircraft/Environment) and Person-Related (Operations/Performance).

Chart 18: Alaska Accidents Causal and Contributing Factors



Person-Related findings identify the findings where a person was directly involved or related to the event. These include Aircraft/Equipment Performance Subjects and Operations/ATC/Maintenance Subjects. Chart 19 provides a breakdown of the Primary Person-Related findings.

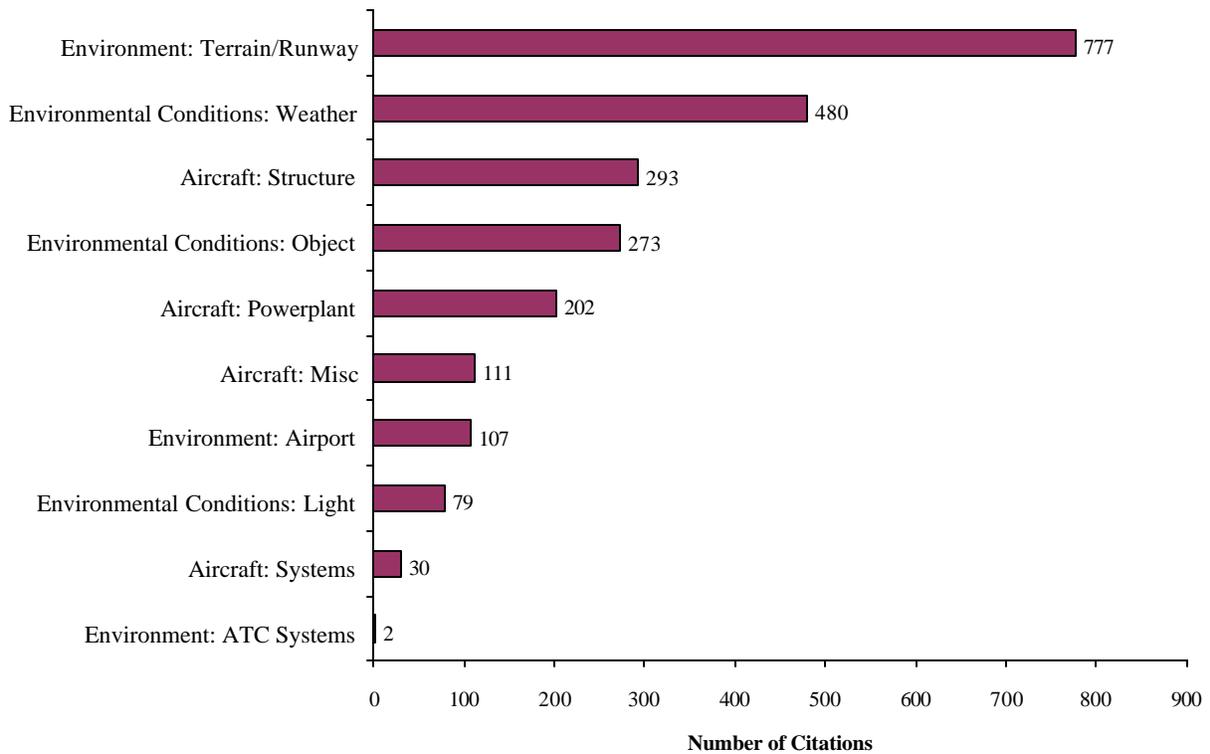


Operational findings Aircraft Handling and Planning/Decision attributed to 84.6 percent of the Primary Person-Related Factors, and were the leading findings overall. Citations for Aircraft Handling were identified as a cause to the event 67.5 percent of the time, with the remaining identified as factors or findings. Leading citations included directional control not maintained by the pilot in command, and ground loop/swerve inadvertent by pilot in command.

Citations for Planning/Decision were identified as a cause 84.7 percent of the time. Leading citations included unsuitable terrain or takeoff/landing/taxi area selected by pilot in command, and compensation for wind conditions inadequate by pilot in command.

Primary Non-Person-Related findings are grouped into non-person categories such as Aircraft Systems/ Components, Air Traffic Facilities, Airport Facilities, Terrain Conditions, Weather Conditions, Light Conditions, and Objects. Chart 20 presents a breakdown of the Primary Non-Person-Related findings.

Chart 20: Breakdown of Primary Non-Person-Related Findings (Aircraft/Environment)

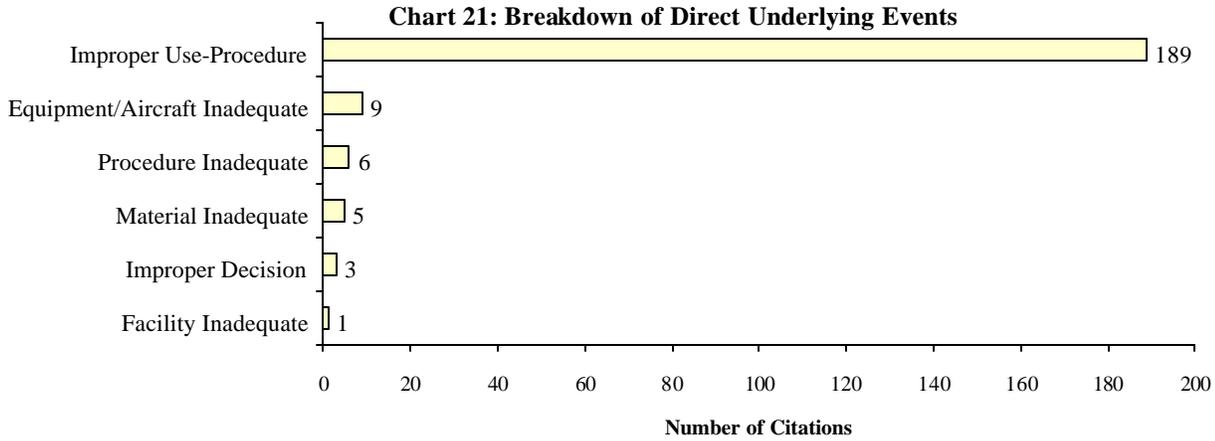


Terrain/Runway accounted for 33 percent of the Non-Person-Related findings, however these findings were only identified as a cause two percent of the time. They were primarily identified as a factor or merely noted. Terrain condition snow covered and terrain condition none suitable were among the leading citations.

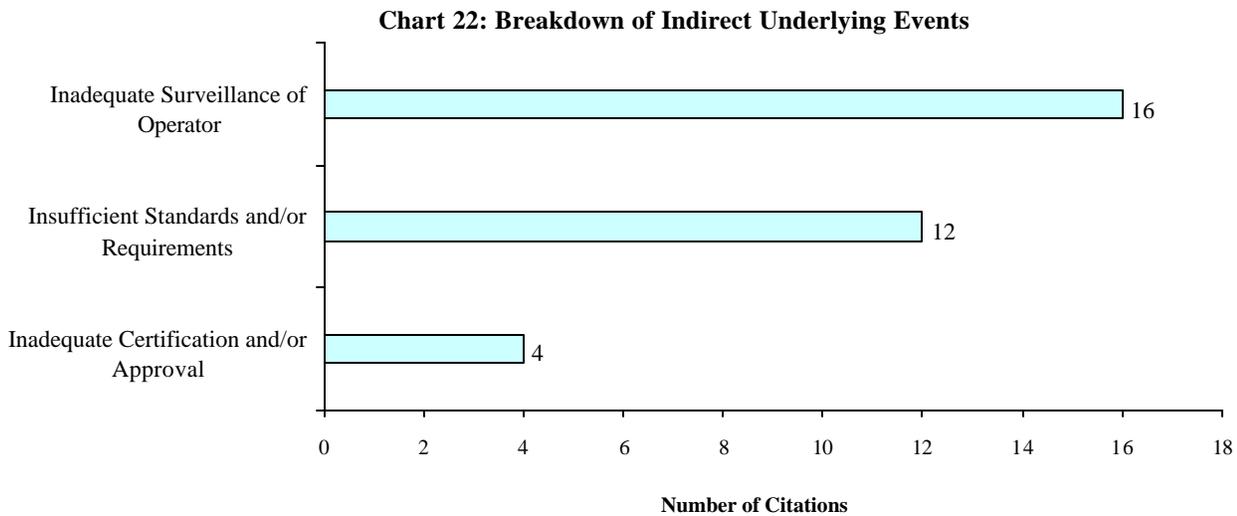
Weather accounted for 20.4 percent of the Non-Person-Related findings. Ninety-eight percent of the weather-related findings were identified as a factor, and only two percent were identified as a cause. The leading weather citations were crosswind and gusts.

The primary Non-Person-Related finding cited most frequently was Object-Tree(s), however, it was never cited as a cause, only a factor or finding. Powerplant had the highest number of findings cited as a cause.

Direct and Indirect Underlying Events further define the primary event and are usually coded with a Subject Code and Personnel Code. Charts 21 and 22 present a breakdown of the Direct Underlying Events and Indirect Underlying Events.



Improper Use-Procedure accounted for 88.7 percent of the Direct Underlying Events. It was a cause 12 percent of the time and a factor 79.7 percent of the time. The modifiers and personnel codes most frequently cited with these events were diverted attention by the pilot in command and lack of total experience in type of operation for the pilot in command.



Only 32 citations were identified for Indirect Underlying Factors. Inadequate Surveillance of Operator accounted for 50 percent of this category, while Insufficient Standards and/or Requirements accounted for 37.5 percent. The personnel codes most frequently cited were company/operator management and the Federal Aviation Administration.

For a complete listing of Broad Category Findings broken out by FAR Parts 91, 135, and 121, please see Appendix 6.

Appendix 1

U.S. Accidents by State and FAR Part
1992 through 2001

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
AK	1,184	256	77	20	49	1,586
AL	228	6	1	1	55	291
AR	275	4	1	3	163	446
AZ	618	23	1	6	29	677
CA	1,997	31	1	22	186	2,237
CO	647	27	4	19	27	724
CT	125	1	0	3	0	129
DC	1	1	0	2	0	4
DE	28	0	0	0	0	28
FL	1,295	31	8	28	56	1,418
GA	386	5	1	15	54	461
HI	75	33	0	6	8	122
IA	148	5	0	1	11	165
ID	259	27	0	0	60	346
IL	435	7	1	18	19	480
IN	297	8	0	7	2	314
KS	211	4	0	1	45	261
KY	126	3	2	7	2	140
LA	163	17	0	3	96	279
MA	240	2	2	10	4	258
MD	207	5	0	0	6	218
ME	132	4	2	1	4	143
MI	502	16	1	11	11	541
MN	301	4	3	4	48	360
MO	342	7	0	5	21	375
MS	184	3	0	0	69	256
MT	221	14	2	1	30	268
NC	380	8	1	5	14	408
ND	95	3	1	1	62	162
NE	152	7	0	0	30	189
NH	94	1	1	0	0	96
NJ	277	5	1	10	9	302
NM	339	11	1	3	12	366
NV	306	12	1	8	3	330
NY	390	4	1	33	5	433
OH	419	12	1	3	5	440
OK	301	5	0	1	24	331
OR	416	4	0	8	53	481
PA	416	8	1	11	9	445
RI	34	1	1	2	1	39
SC	231	5	0	1	12	249
SD	82	4	0	1	21	108
TN	239	10	0	16	15	280
TX	1,167	27	1	17	141	1,353
UT	285	13	0	1	19	318
VA	292	5	0	8	5	310
VT	57	15	2	0	0	57
WA	569	0	0	4	83	673
WI	381	11	0	7	12	411
WV	96	5	1	1	0	103
WY	166	10	0	0	11	187
Total	17,811	730	121	335	1,601	20,598

*Other includes Military, Part 103 Ultralight, Part 125 20+ Pax,6000 lbs, Part 129 Foreign, Part 91F Special Flight Operations, and Non-U.S. Commercial Operations.

Appendix 2

Alaska Accidents by City Location and FAR Part
1992 through 2001

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
ANCHORAGE	129	5	1	8	5	148
FAIRBANKS	58	3	1	2	2	66
PALMER	41	0	0	0	1	42
TALKEETNA	27	10	0	0	0	37
SKWENTNA	29	6	0	0	0	35
WASILLA	33	0	0	0	0	33
JUNEAU	21	10	1	1	0	33
BETHEL	9	13	5	1	2	30
PORT ALSWORTH	20	7	0	0	2	29
KOTZEBUE	18	3	5	0	2	28
KETCHIKAN	17	5	1	2	2	27
KENAI	22	5	0	0	0	27
DILLINGHAM	19	6	2	0	0	27
ILIAMNA	22	3	0	0	0	25
CHUGIAK	22	0	0	0	0	22
DELTA JUNCTION	17	3	0	0	0	20
BIG LAKE	20	0	0	0	0	20
NOME	10	3	5	0	1	19
KING SALMON	15	3	0	0	1	19
YAKUTAT	10	5	0	1	1	17
TYONEK	13	2	0	0	1	16
SOLDOTNA	14	0	1	0	0	15
MC GRATH	9	3	0	1	2	15
KODIAK	10	5	0	0	0	15
GLENNALLEN	13	2	0	0	0	15
WILLOW	13	0	0	0	1	14
ANIAK	9	5	0	0	0	14
CORDOVA	12	1	1	0	0	14
LIME VILLAGE	10	2	0	0	0	12
HAINES	9	3	0	0	0	12
NORTHWAY	11	0	0	0	0	11
CHICKALOON	9	2	0	0	0	11
NIKISKI	11	0	0	0	0	11
NAKNEK	9	1	1	0	0	11
BARROW	6	2	2	0	1	11
CANTWELL	8	2	0	0	0	10
HOMER	7	2	0	0	1	10
PORT HEIDEN	7	2	0	0	0	9
NORTH POLE	9	0	0	0	0	9
NONDALTON	6	3	0	0	0	9
ARCTIC VILLAGE	9	0	0	0	0	9
CHITINA	9	0	0	0	0	9
GUSTAVUS	8	1	0	0	0	9
DEADHORSE	3	5	1	0	0	9
PILOT POINT	6	2	0	0	0	8
PAXSON	7	1	0	0	0	8
HEALY	4	4	0	0	0	8
GALENA	7	1	0	0	0	8
WHITTIER	5	2	0	0	0	7
SLEETMUTE	4	2	1	0	0	7
SITKA	7	0	0	0	0	7

Appendix 2

Alaska Accidents by City Location and FAR Part
1992 through 2001

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
NEW STUYAHOK	6	1	0	0	0	7
MC CARTHY	6	1	0	0	0	7
KIVALINA	4	1	2	0	0	7
FORT YUKON	5	2	0	0	0	7
WRANGELL	3	1	0	0	2	6
ANAKTUVUK PASS	5	1	0	0	0	6
TOK	4	2	0	0	0	6
SEWARD	5	1	0	0	0	6
SAINT MARYS	3	3	0	0	0	6
QUINHAGAK	1	4	1	0	0	6
BETTLES	4	0	1	0	1	6
NENANA	6	0	0	0	0	6
COLD BAY	4	0	0	0	2	6
IGIUGIG	6	0	0	0	0	6
COOPER LANDING	4	1	0	0	0	5
VALDEZ	3	2	0	0	0	5
TOGIAC	4	0	1	0	0	5
SKAGWAY	2	3	0	0	0	5
SHISHMAREF	3	0	0	0	2	5
SELAWIK	2	0	2	0	1	5
NINILCHIK	4	1	0	0	0	5
MINTO	4	0	1	0	0	5
KONGIGANAK	0	4	1	0	0	5
CHEVAK	1	3	1	0	0	5
GULKANA	4	0	0	0	1	5
TUNTUTULIAK	3	1	0	0	0	4
TELLER	3	0	1	0	0	4
STERLING	4	0	0	0	0	4
SELDOVIA	4	0	0	0	0	4
EKWOK	2	2	0	0	0	4
RUSSIAN MISSION	2	0	1	1	0	4
PETERSBURG	3	1	0	0	0	4
COLDFOOT	3	1	0	0	0	4
MANLEY HOT SPRINGS	3	1	0	0	0	4
KOLIGANEK	4	0	0	0	0	4
KASILOF	4	0	0	0	0	4
KAKTOVIK	4	0	0	0	0	4
HOPE	3	1	0	0	0	4
AKIACHAK	0	2	1	0	0	3
CIRCLE	3	0	0	0	0	3
EUREKA	3	0	0	0	0	3
HOLY CROSS	1	1	1	0	0	3
EGEGIK	1	1	1	0	0	3
TWIN HILLS	2	1	0	0	0	3
TANANA	1	1	1	0	0	3
GOLOVIN	3	0	0	0	0	3
DENALI	2	1	0	0	0	3
EAGLE RIVER	2	1	0	0	0	3
GOOSE BAY	3	0	0	0	0	3
KALSKAG	2	0	1	0	0	3
SCAMMON BAY	0	3	0	0	0	3

Appendix 2

Alaska Accidents by City Location and FAR Part
1992 through 2001

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
SAND POINT	2	1	0	0	0	3
GRAYLING	1	1	1	0	0	3
GIRDWOOD	1	2	0	0	0	3
CHEFORNAK	0	2	1	0	0	3
NUNAPITCHUK	2	1	0	0	0	3
CLEAR	2	0	0	0	1	3
ANVIK	3	0	0	0	0	3
NUIQSUT	0	1	1	1	0	3
NOATAK	2	1	0	0	0	3
GAKONA	2	1	0	0	0	3
EAGLE	2	1	0	0	0	3
NIKOLAI	2	1	0	0	0	3
NIGHTMUTE	0	0	2	0	1	3
ELMENDORF AFB	3	0	0	0	0	3
DUTCH HARBOR	1	1	1	0	0	3
MANOKOTAK	1	1	1	0	0	3
HOONAH	2	0	0	0	0	2
HUSLIA	1	0	0	1	0	2
KOYUK	2	0	0	0	0	2
WAINWRIGHT	0	1	1	0	0	2
AKIAK	1	0	1	0	0	2
LEVELOCK	2	0	0	0	0	2
ENGLISH BAY	0	2	0	0	0	2
TUNUNAK	0	1	1	0	0	2
THORNE BAY	1	0	0	0	1	2
MARSHALL	1	1	0	0	0	2
TENAKEE SPRINGS	1	0	0	0	1	2
TATITLEK	2	0	0	0	0	2
BUCKLAND	0	2	0	0	0	2
MEKORYUK	2	0	0	0	0	2
EMMONAK	1	0	1	0	0	2
ALEKNAGIK	2	0	0	0	0	2
STEBBINS	0	0	2	0	0	2
MONTAGUE ISLAND	1	1	0	0	0	2
SLANA	2	0	0	0	0	2
HOBART BAY	0	0	0	0	2	2
SHELDON POINT	2	0	0	0	0	2
EKUK	1	1	0	0	0	2
KARLUK	1	1	0	0	0	2
SALCHA	2	0	0	0	0	2
KASIGLUK	0	1	1	0	0	2
ATMAUTLUAK	0	2	0	0	0	2
NEWTOK	2	0	0	0	0	2
SAINT GEORGE	1	0	1	0	0	2
CRAIG	1	0	1	0	0	2
PRUDHOE BAY	1	0	1	0	0	2
KNIK	2	0	0	0	0	2
PORT ASHTON	2	0	0	0	0	2
ANGOON	2	0	0	0	0	2
POINT LAY	2	0	0	0	0	2
NOORVIK	0	0	2	0	0	2

Appendix 2

Alaska Accidents by City Location and FAR Part
1992 through 2001

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
CIRCLE HOT SPRINGS	2	0	0	0	0	2
CHICKEN	2	0	0	0	0	2
BIG DELTA	2	0	0	0	0	2
POINT HOPE	1	0	1	0	0	2
KIANA	0	0	2	0	0	2
COPPER CENTER	2	0	0	0	0	2
OPHIR	2	0	0	0	0	2
GAMBELL	0	0	2	0	0	2
CHALKYITSIK	1	0	0	0	0	1
PEDRO BAY	1	0	0	0	0	1
PELICAN	1	0	0	0	0	1
KATMAI	1	0	0	0	0	1
ALAKANUK	0	1	0	0	0	1
PILOT STATION	0	0	1	0	0	1
PLATINUM	0	1	0	0	0	1
POINT BAKER	1	0	0	0	0	1
OLD HARBOR	1	0	0	0	0	1
NULATO	1	0	0	0	0	1
CLARKS POINT	1	0	0	0	0	1
ELIM	0	0	1	0	0	1
CIRCLE CITY	1	0	0	0	0	1
PORT LIONS	0	1	0	0	0	1
PORT WALTER	0	1	0	0	0	1
PORTAGE CREEK	0	1	0	0	0	1
KIPNUK	1	0	0	0	0	1
ELFIN COVE	0	1	0	0	0	1
RED DEVIL	1	0	0	0	0	1
RUBY	1	0	0	0	0	1
KOBUK	1	0	0	0	0	1
CHIGNIK	1	0	0	0	0	1
BEAR CREEK	1	0	0	0	0	1
SAINT MICHAEL	1	0	0	0	0	1
NEW KOLIGANEK	1	0	0	0	0	1
KASAAN	0	1	0	0	0	1
HAPPY VALLEY	1	0	0	0	0	1
FUNTER BAY	0	1	0	0	0	1
KANTISHNA	1	0	0	0	0	1
NAPASKIAK	0	1	0	0	0	1
SHAGELUK	1	0	0	0	0	1
SHAKTOOLIK	1	0	0	0	0	1
NAPAKIAK	0	1	0	0	0	1
SHEMYA	0	0	0	0	1	1
NANWALEK	0	1	0	0	0	1
KAKE	1	0	0	0	0	1
FORT WAINWRIGHT	1	0	0	0	0	1
ALLAKAKET	0	1	0	0	0	1
CHISTOCHINA	1	0	0	0	0	1
SLATE CREEK	1	0	0	0	0	1
BEAVER	0	0	0	0	1	1
BLACK RAPIDS	1	0	0	0	0	1
MOUNTAIN VILLAGE	1	0	0	0	0	1

Appendix 2

Alaska Accidents by City Location and FAR Part
1992 through 2001

State	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
ANCHOR POINT	1	0	0	0	0	1
STEVENS VILLAGE	1	0	0	0	0	1
SUTTON	0	0	0	0	1	1
TAKOTNA	0	1	0	0	0	1
GALBRAITH LAKE	1	0	0	0	0	1
MINCHUMINA	1	0	0	0	0	1
METLAKATLA	0	0	1	0	0	1
TATITNA	1	0	0	0	0	1
CAPE SABINE	0	1	0	0	0	1
CROOKED CREEK	0	0	0	0	1	1
MAY CREEK	1	0	0	0	0	1
FAREWELL	1	0	0	0	0	1
EIELSON AFB	0	0	0	0	1	1
TOKSOOK BAY	0	0	1	0	0	1
TULUKSAK	0	0	1	0	0	1
GLENALLEN	1	0	0	0	0	1
KOTLIK	0	1	0	0	0	1
HALIBUT COVE	1	0	0	0	0	1
BIRCHWOOD	1	0	0	0	0	1
UGASHIK	1	0	0	0	0	1
UMIAT	1	0	0	0	0	1
UNALAKLEET	1	0	0	0	0	1
UNALASKA	0	1	0	0	0	1
CHENA HOT SPRINGS	1	0	0	0	0	1
VENETIE	1	0	0	0	0	1
LAKE MINCHUMINA	0	0	0	1	0	1
WALES	0	0	1	0	0	1
KWIGILLINGOK	0	0	1	0	0	1
WHITE MOUNTAIN	1	0	0	0	0	1
HUGHES	0	1	0	0	0	1
CENTRAL	1	0	0	0	0	1
EEK	1	0	0	0	0	1
AKHIOK	1	0	0	0	0	1
CITY UNKNOWN	82	18	1	0	4	105
Total	1,184	256	77	20	49	1,586

*Other includes Military, Part 103 Ultralight, Part 125 20+ Pax,6000 lbs, Part 129 Foreign, Part 91F Special Flight Operations, and Non-U.S. Commercial Operations.

Appendix 3

Alaska Accidents by Airport Location and FAR Part
1992 through 2001

Airport/Airstrip (Accident Occurred Within Five-Mile Radius)	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
MERRILL FIELD	33	1	0	0	0	34
LAKE HOOD STRIP	20	0	0	0	0	20
BETHEL	5	8	3	1	2	19
FAIRBANKS INTL	11	1	0	2	1	15
TED STEVENS ANCHORAGE INTL	3	0	1	3	4	11
LAKE HOOD	10	1	0	0	0	11
DILLINGHAM	8	2	1	0	0	11
GOOSE BAY	10	0	0	0	0	10
BIRCHWOOD	10	0	0	0	0	10
TALKEETNA	7	2	0	0	0	9
SOLDOTNA	7	0	0	0	0	7
RALPH WIEN MEMORIAL	3	1	3	0	0	7
JUNEAU INTL	5	1	0	1	0	7
CHENA MARINA	7	0	0	0	0	7
BIG LAKE	5	0	0	0	0	5
NORTHWAY	5	0	0	0	0	5
KIVALINA	2	1	2	0	0	5
GULKANA	5	0	0	0	0	5
WASILLA	4	0	0	0	0	4
MC CARTHY NR 2	3	1	0	0	0	4
KONGIGANAK	0	4	0	0	0	4
CHEVAK	0	3	1	0	0	4
KENAI MUNI	4	0	0	0	0	4
ANDERSON LAKE STRIP	4	0	0	0	0	4
AKIACHAK	0	2	1	0	0	3
WILLOW	3	0	0	0	0	3
SKWENTNA	3	0	0	0	0	3
SITKA ROCKY GUTIERREZ	3	0	0	0	0	3
SELAWIK	0	0	2	0	1	3
QUINHAGAK	0	2	1	0	0	3
PALMER MUNI	3	0	0	0	0	3
NUNAPITCHUK	2	1	0	0	0	3
NOME	0	1	2	0	0	3
DELTA JUNCTION	2	1	0	0	0	3
NEW STUYAHOK	2	1	0	0	0	3
KETCHIKAN INTL	3	0	0	0	0	3
ILIAMNA	3	0	0	0	0	3
HORSFELD	3	0	0	0	0	3
HEALY RIVER	3	0	0	0	0	3
GUSTAVUS	2	1	0	0	0	3
ENGLISH BAY	0	3	0	0	0	3
CIRCLE HOT SPRINGS	2	0	0	0	0	2
YAKUTAT	1	1	0	0	0	2
WILEY POST-WILL ROGERS MEM	1	0	1	0	0	2
CHENA HOT SPRINGS	2	0	0	0	0	2
BUCKLAND	0	2	0	0	0	2
GRAYLING	0	1	1	0	0	2

Appendix 3

Alaska Accidents by Airport Location and FAR Part
1992 through 2001

Airport/Airstrip (Accident Occurred Within Five-Mile Radius)	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
SUMMIT	2	0	0	0	0	2
CHEFORNAK	0	1	1	0	0	2
STEBBINS	0	0	2	0	0	2
HAINES	2	0	0	0	0	2
ELMENDORF AFB	2	0	0	0	0	2
ST MARY'S	1	1	0	0	0	2
HOONAH	2	0	0	0	0	2
SPARREVOHN LRRS	1	1	0	0	0	2
BLACK RAPIDS	2	0	0	0	0	2
SKAGWAY	1	1	0	0	0	2
SHELDON POINT	2	0	0	0	0	2
SHANNONS POND	2	0	0	0	0	2
SELDOVIA	2	0	0	0	0	2
BOLD	2	0	0	0	0	2
KALSKAG	1	0	1	0	0	2
RUSSIAN MISSION	0	0	1	1	0	2
KASIGLUK	0	1	1	0	0	2
QUARTZ CREEK	1	1	0	0	0	2
POINT LAY LRRS	2	0	0	0	0	2
KETCHIKAN HARBOR	1	1	0	0	0	2
DEADHORSE	1	1	0	0	0	2
KING SALMON	2	0	0	0	0	2
NONDALTON	2	0	0	0	0	2
BELUGA	1	1	0	0	0	2
KODIAK	1	1	0	0	0	2
KODIAK /LILY LAKE/	2	0	0	0	0	2
CHISTOCHINA	2	0	0	0	0	2
NENANA MUNI	2	0	0	0	0	2
NAKNEK	1	1	0	0	0	2
MINCHUMINA	1	0	0	1	0	2
AKIAK	1	0	1	0	0	2
MC GRATH	2	0	0	0	0	2
FORT YUKON	0	1	0	0	0	1
MANLEY HOT SPRINGS	1	0	0	0	0	1
MARSHALL	1	0	0	0	0	1
BRADLEY SKY-RANCH	1	0	0	0	0	1
LOST RIVER 2	0	0	1	0	0	1
MCGAHAN INDUSTRIAL AIRPARK	1	0	0	0	0	1
MEKORYUK	1	0	0	0	0	1
LIME VILLAGE	0	1	0	0	0	1
METLAKATLA	0	0	1	0	0	1
MIDDLETON ISLAND	1	0	0	0	0	1
ALAKANUK	0	1	0	0	0	1
MOUNTAIN VILLAGE	1	0	0	0	0	1
ATMAUTLUAK	0	1	0	0	0	1
NAPAKIAK	0	1	0	0	0	1
NAPASKIAK	0	1	0	0	0	1

Appendix 3

Alaska Accidents by Airport Location and FAR Part
1992 through 2001

Airport/Airstrip (Accident Occurred Within Five-Mile Radius)	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
KOYUK	1	0	0	0	0	1
NEW GOLOVIN	1	0	0	0	0	1
DUTCH LANDING STRIP	1	0	0	0	0	1
NEWTOK	1	0	0	0	0	1
NINILCHIK	1	0	0	0	0	1
NOATAK	1	0	0	0	0	1
KOTLIK/NEW	0	1	0	0	0	1
KOBUK	1	0	0	0	0	1
CAMPBELL AIRSTRIP	1	0	0	0	0	1
CAPE SABINE	0	1	0	0	0	1
OPHIR	1	0	0	0	0	1
CORDOVA MUNI	1	0	0	0	0	1
PELICAN	1	0	0	0	0	1
PETERSBURG JAMES A JOHNSON	1	0	0	0	0	1
POINT HOPE	0	0	1	0	0	1
EDWARD G. PITKA SR	1	0	0	0	0	1
PORT CLARENCE CGS	1	0	0	0	0	1
PORT HEIDEN	0	1	0	0	0	1
PORT LIONS	0	1	0	0	0	1
PORT WALTER	0	1	0	0	0	1
CHITINA	1	0	0	0	0	1
COPPER CENTER 2	1	0	0	0	0	1
BLAIR LAKE	1	0	0	0	0	1
ROBERT /BOB/ CURTIS MEML	0	0	1	0	0	1
KASILOF	1	0	0	0	0	1
SAND POINT	1	0	0	0	0	1
SCAMMON BAY	0	1	0	0	0	1
COLDFOOT	1	0	0	0	0	1
KANTISHNA	1	0	0	0	0	1
SEWARD	1	0	0	0	0	1
JONESVILLE MINE	0	0	0	0	1	1
SHEEP MOUNTAIN	1	0	0	0	0	1
EKUK	0	1	0	0	0	1
COLD BAY	1	0	0	0	0	1
HUSLIA	1	0	0	0	0	1
SKELTON	1	0	0	0	0	1
CLEAR CREEK	1	0	0	0	0	1
SLEETMUTE	0	0	1	0	0	1
HUNT STRIP	0	1	0	0	0	1
EKWOK	0	1	0	0	0	1
ST GEORGE	1	0	0	0	0	1
HOPE	1	0	0	0	0	1
HOMER	1	0	0	0	0	1
STEVENS VILLAGE	1	0	0	0	0	1
ANIAK	1	0	0	0	0	1
TAKOTNA	0	1	0	0	0	1
GREEN'S STRIP	1	0	0	0	0	1

Appendix 3

Alaska Accidents by Airport Location and FAR Part
1992 through 2001

Airport/Airstrip (Accident Occurred Within Five-Mile Radius)	Part 91: General Aviation	Part 135: Air Taxi	Part 135: Commuter	Part 121: Air Carrier	All Other Operations*	Total Accidents
TATITNA	1	0	0	0	0	1
TAYLOR MOUNTAIN	0	1	0	0	0	1
ARNESS LAKE	0	1	0	0	0	1
THOMAS STRIP	0	0	1	0	0	1
TIBBETTS	0	0	1	0	0	1
TOK	1	0	0	0	0	1
TOKSOOK BAY	0	0	1	0	0	1
TULUKSAK	0	0	1	0	0	1
UNALAKLEET	1	0	0	0	0	1
UNALASKA	1	0	0	0	0	1
VALDEZ PIONEER FIELD	1	0	0	0	0	1
WALES	0	0	1	0	0	1
CIRCLE CITY /NEW/	1	0	0	0	0	1
WEST POINT VILLAGE	0	1	0	0	0	1
GAMBELL	0	0	1	0	0	1
CLARKS POINT	1	0	0	0	0	1
WOLF LAKE	1	0	0	0	0	1
WRANGELL	1	0	0	0	0	1
FOUR CORNERS	1	0	0	0	0	1
Accident Occurred Outside Five-Mile Radius of Airport/Airstrip or Location Unknown	881	184	40	11	40	1,156
Total	1,184	256	77	20	49	1,586

*Other includes Military, Part 103 Ultralight, Part 125 20+ Pax,6000 lbs, Part 129 Foreign, Part 91F Special Flight Operations, and Non-U.S. Commercial Operations.

Appendix 4

Alaska Accidents by Phase of Flight and FAR Part
1992 through 2001

Phase of Flight	Part 91: General Aviation		Part 135: Air Taxi		Part 135: Commuter		Part 121: Air Carrier		All Other Operations*		Total Accidents	Total Fatal Accidents
	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal		
APPROACH	52	7	12	2	7	0	2	1	3	0	76	10
APPROACH - FAF/OUTER MARKER TO	0	0	1	0	0	0	0	0	0	0	1	0
APPROACH - VFR PATTERN - FINAL	4	0	1	0	0	0	0	0	0	0	5	0
CLIMB	24	6	9	1	2	1	1	0	2	0	38	8
CLIMB - TO CRUISE	0	0	1	1	0	0	0	0	0	0	1	1
CRUISE	98	28	33	14	17	5	1	0	4	2	153	49
CRUISE - NORMAL	2	0	0	0	0	0	0	0	1	0	3	0
DESCENT	9	3	3	0	2	0	0	0	0	0	14	3
DESCENT - NORMAL	1	0	0	0	0	0	0	0	0	0	1	0
DESCENT - UNCONTROLLED	0	0	1	0	0	0	0	0	0	0	1	0
EMERGENCY DESCENT/LANDING	3	0	0	0	0	0	0	0	0	0	3	0
EMERGENCY LANDING	34	2	8	3	1	0	0	0	0	0	43	5
EMERGENCY LANDING AFTER TAKEOFF	1	0	0	0	0	0	0	0	0	0	1	0
GO-AROUND (VFR)	8	0	0	0	0	0	0	0	0	0	8	0
HOVER	6	0	5	0	0	0	0	0	7	4	18	4
HOVER - IN GROUND EFFECT	1	0	0	0	0	0	0	0	0	0	1	0
LANDING	368	3	55	0	10	1	6	0	13	0	452	4
LANDING - ABORTED	3	0	0	0	0	0	0	0	0	0	3	0
LANDING - FLARE/TOUCHDOWN	9	0	1	0	1	0	2	0	1	0	14	0
LANDING - ROLL	17	0	1	0	0	0	0	0	1	0	19	0
MANEUVERING	75	29	25	9	7	3	0	0	1	1	108	42
MANEUVERING - TURN TO REVERSE	0	0	1	0	0	0	0	0	0	0	1	0
OTHER	1	0	0	0	0	0	0	0	1	0	2	0
STANDING	8	1	6	1	1	0	3	0	2	0	20	2
TAKEOFF	261	7	53	4	17	2	0	0	4	0	335	13
TAKEOFF - ABORTED	7	0	0	0	0	0	0	0	0	0	7	0
TAKEOFF - INITIAL CLIMB	11	0	2	0	1	0	0	0	0	0	14	0
TAKEOFF - ROLL/RUN	11	0	2	1	0	0	1	0	0	0	14	1
TAXI	57	1	8	0	2	0	2	0	2	0	71	1
TAXI - FROM LANDING	3	0	0	0	0	0	0	0	0	0	3	0
TAXI - TO TAKEOFF	2	0	0	0	0	0	0	0	0	0	2	0
UNKNOWN	108	23	28	4	9	1	2	0	7	2	154	30
Total	1,184	110	256	40	77	13	20	1	49	9	1,586	173

*Other includes Military, Part 103 Ultralight, Part 125 20+ Pax,6000 lbs, Part 129 Foreign, Part 91F Special Flight Operations, and Non-U.S. Commercial Operations.

Appendix 5

Alaska Accidents by First Occurrence and FAR Part
1992 through 2001

First Occurrence	Part 91: General Aviation		Part 135: Air Taxi		Part 135: Commuter		Part 121: Air Carrier		All Other Operations		Total Accidents	Total Fatal Accidents
	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal		
LOSS OF CONTROL - ON GROUND/WATER	194	0	16	0	0	0	1	0	0	0	211	0
IN FLIGHT COLLISION WITH TERRAIN/WATER	106	27	32	12	18	4	0	0	0	0	156	43
ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER	110	0	23	0	3	0	0	0	1	0	137	0
IN FLIGHT ENCOUNTER WITH WEATHER	83	17	34	10	13	4	2	0	1	0	133	31
LOSS OF CONTROL - IN FLIGHT	90	30	14	4	6	2	0	0	0	0	110	36
LOSS OF ENGINE POWER (TOTAL) - NON-MECHANICAL	71	1	15	1	1	0	0	0	0	0	87	2
IN FLIGHT COLLISION WITH OBJECT	50	0	6	0	9	1	1	0	4	1	70	2
LOSS OF ENGINE POWER	60	3	6	0	1	1	0	0	0	0	67	4
ON GROUND/WATER COLLISION WITH OBJECT	38	0	13	0	2	0	2	0	2	0	57	0
AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION	37	1	6	1	6	0	1	0	7	5	57	7
HARD LANDING	40	1	6	0	0	0	2	0	1	0	49	1
OVERRUN	32	1	10	0	4	0	0	0	1	0	47	1
NOSE OVER	44	1	1	0	0	0	0	0	0	0	45	1
LOSS OF ENGINE POWER (TOTAL) - MECH FAILURE/MALF	28	2	13	2	0	0	2	1	2	0	45	5
UNDERSHOOT	27	1	3	0	3	0	0	0	0	0	33	1
ON GROUND/WATER ENCOUNTER WITH WEATHER	29	0	3	0	0	0	0	0	0	0	32	0
LOSS OF ENGINE POWER (PARTIAL) - NON-MECHANICAL	27	1	5	0	0	0	0	0	0	0	32	1
DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID	13	0	7	0	1	1	4	0	0	0	25	1
LOSS OF ENGINE POWER (PARTIAL) - MECH FAILURE/MALF	11	1	8	3	2	0	0	0	0	0	21	4
MIDAIR COLLISION	16	11	4	1	0	0	0	0	0	0	20	12
MAIN GEAR COLLAPSED	12	0	5	0	0	0	0	0	0	0	17	0
MISCELLANEOUS/OTHER	6	0	3	0	2	0	0	0	1	0	12	0
COLLISION BETWEEN AIRCRAFT (OTHER THAN MIDAIR)	1	0	3	0	0	0	4	0	1	0	9	0
NOSE GEAR COLLAPSED	6	0	1	0	2	0	0	0	0	0	9	0
ABRUPT MANEUVER	9	2	0	0	0	0	0	0	0	0	9	2
GEAR COLLAPSED	6	0	2	0	0	0	0	0	0	0	8	0
MISSING AIRCRAFT	6	6	2	2	0	0	0	0	0	0	8	8
WHEELS UP LANDING	3	0	2	0	2	0	0	0	0	0	7	0
NOSE DOWN	5	0	1	0	0	0	0	0	0	0	6	0
UNDETERMINED	4	2	1	1	0	0	0	0	0	0	5	3
PROPELLER FAILURE/MALFUNCTION	2	0	3	1	0	0	0	0	0	0	5	1
FIRE	1	0	2	0	0	0	0	0	1	0	4	0
ROLL OVER	3	0	1	0	0	0	0	0	0	0	4	0

Appendix 5

Alaska Accidents by First Occurrence and FAR Part
1992 through 2001

First Occurrence	Part 91: General Aviation		Part 135: Air Taxi		Part 135: Commuter		Part 121: Air Carrier		All Other Operations		Total Accidents	Total Fatal Accidents
	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal	Total	Fatal		
PROPELLER/ROTOR CONTACT TO PERSON	2	2	1	1	1	0	0	0	0	0	4	3
VORTEX TURBULENCE ENCOUNTERED	2	0	0	0	0	0	1	0	0	0	3	0
FORCED LANDING	1	0	0	0	1	0	0	0	0	0	2	0
ALTITUDE DEVIATION, UNCONTROLLED	2	0	0	0	0	0	0	0	0	0	2	0
PROPELLER BLAST OR JET EXHAUST/SUCTION	1	0	0	0	0	0	0	0	0	0	1	0
TAIL GEAR COLLAPSED	1	0	0	0	0	0	0	0	0	0	1	0
GEAR RETRACTION ON GROUND	1	0	0	0	0	0	0	0	0	0	1	0
GEAR NOT RETRACTED	0	0	1	0	0	0	0	0	0	0	1	0
HAZARDOUS MATERIALS LEAK/SPILL (FUMES/SMOKE)	0	0	1	0	0	0	0	0	0	0	1	0
WHEELS DOWN LANDING IN WATER	1	0	0	0	0	0	0	0	0	0	1	0
Total	1,181	110	254	39	77	13	20	1	22	6	1,554	169

*Other includes Military, Part 103 Ultralight, Part 125 20+ Pax,6000 lbs, Part 129 Foreign, Part 91F Special Flight Operations, and Non-U.S. Commercial Operations.

Appendix 6

Broad Category Finding for FAR Parts 91, 135, and 121
1992 through 2001

FAR Part	Broad Category	Cause	Factor	Finding	Total Citations
Part 91: General Aviation	Operations: Aircraft Handling	558	114	162	834
	Environment: Terrain/Runway	10	408	288	706
	Operations: Planning/Decision	598	88	8	694
	Environmental Conditions: Weather	6	415	30	451
	Aircraft: Structure	77	34	119	230
	Environmental Conditions: Object	3	51	173	227
	Aircraft: Powerplant	102	16	23	141
	Improper Use-Procedures	17	107	12	136
	Environment: Airport	1	81	7	89
	Aircraft: Misc	66	11	10	87
	Undetermined	62	1	4	67
	Environmental Conditions: Light	0	41	5	46
	Aircraft: Landing Gear	31	8	3	42
	Operations: Maintenance	25	10	4	39
	Operations: Comm/Info/ATC	26	5	1	32
	Aircraft: Powerplant Control	17	5	1	23
	Aircraft: Fuel	16	0	2	18
	Aircraft: Systems	9	4	5	18
	Aircraft: Flt. Control	7	3	4	14
	Operations: Misc.	5	3	2	10
	Equipment/Aircraft Inadequate	0	7	0	7
	Operations: Airport	3	3	0	6
	Aircraft: Misc.	0	4	1	5
	Operations: Rotorcraft	3	0	1	4
	Procedure Inadequate	1	3	0	4
	Inadequate Surveillance of Operator	0	3	0	3
	Insufficient Standards and/or Requirements	0	3	0	3
	Improper Decision	0	3	0	3
	Aircraft: Rotorcraft	2	0	0	2
	Operations: Weather Services	0	1	1	2
Environment: ATC Systems	0	1	1	2	
Material Inadequate	2	0	0	2	
Inadequate Certification and/or Approval	0	1	0	1	
Part 135: Air Taxi	Operations: Planning/Decision	157	33	2	192
	Environment: Terrain/Runway	2	100	74	176
	Environmental Conditions: Weather	0	137	9	146
	Operations: Aircraft Handling	97	15	19	131
	Aircraft: Powerplant	45	5	11	61
	Aircraft: Structure	23	7	23	53
	Improper Use-Procedures	5	30	2	37
	Environmental Conditions: Object	2	5	27	34
	Environment: Airport	0	25	4	29
	Operations: Maintenance	14	7	3	24
	Environmental Conditions: Light	0	23	0	23
	Aircraft: Misc	14	4	2	20
	Operations: Comm/Info/ATC	6	3	1	10
	Aircraft: Fuel	8	0	0	8
	Aircraft: Systems	2	4	1	7

Appendix 6

Broad Category Finding for FAR Parts 91, 135, and 121
1992 through 2001

FAR Part	Broad Category	Cause	Factor	Finding	Total Citations
Part 135: Air Taxi (Cont)	Inadequate Surveillance of Operator	2	4	0	6
	Insufficient Standards and/or Requirements	0	4	2	6
	Aircraft: Misc.	0	4	1	5
	Undetermined	4	0	1	5
	Aircraft: Landing Gear	3	0	1	4
	Aircraft: Powerplant Control	1	0	2	3
	Aircraft: Flt. Control	2	1	0	3
	Operations: Dispatch	0	2	0	2
	Inadequate Certification and/or Approval	0	2	0	2
	Operations: Rotorcraft	1	0	1	2
	Material Inadequate	1	1	0	2
	Aircraft: Emergency Equipment	0	1	0	1
	Operations: Airport	0	1	0	1
	Procedure Inadequate	0	1	0	1
	Equipment/Aircraft Inadequate	0	1	0	1
	Operations: Misc.	0	0	1	1
Facility Inadequate	0	1	0	1	
Part 135: Commuter	Operations: Planning/Decision	53	7	3	63
	Operations: Aircraft Handling	37	7	9	53
	Environmental Conditions: Weather	0	49	2	51
	Environment: Terrain/Runway	2	14	21	37
	Aircraft: Structure	11	3	8	22
	Environment: Airport	0	13	1	14
	Environmental Conditions: Object	6	2	5	13
	Improper Use-Procedures	0	9	1	10
	Environmental Conditions: Light	0	7	1	8
	Aircraft: Powerplant	4	0	2	6
	Aircraft: Systems	3	1	2	6
	Operations: Maintenance	2	2	0	4
	Inadequate Surveillance of Operator	0	4	0	4
	Operations: Comm/Info/ATC	1	2	0	3
	Undetermined	2	0	0	2
	Aircraft: Landing Gear	2	0	0	2
	Aircraft: Misc	1	1	0	2
	Aircraft: Flt. Control	1	1	0	2
	Aircraft: Flt/Nav Lost	0	1	0	1
	Aircraft: Powerplant Control	0	0	1	1
Operations: Misc.	1	0	0	1	
Part 121: Air Carrier	Operations: Planning/Decision	11	3	0	14
	Operations: Aircraft Handling	7	2	4	13
	Operations: Comm/Info/ATC	1	1	5	7
	Aircraft: Powerplant	6	0	0	6
	Aircraft: Structure	1	0	5	6
	Environmental Conditions: Weather	2	3	0	5
	Environmental Conditions: Object	1	0	4	5
	Environment: Airport	0	2	0	2
	Improper Use-Procedures	0	1	1	2
	Operations: Misc.	0	0	1	1

Appendix 6

Broad Category Finding for FAR Parts 91, 135, and 121
1992 through 2001

FAR Part	Broad Category	Cause	Factor	Finding	Total Citations
Part 121: Air Carrier (Cont)	Insufficient Standards and/or Requirements	0	1	0	1
	Environment: Terrain/Runway	0	1	0	1
	Environmental Conditions: Light	0	1	0	1
	Aircraft: Systems	1	0	0	1