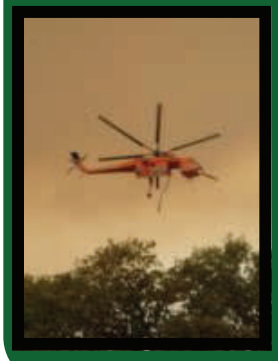
U.S. Forest Service

FY 2010
Aviation Safety Summary



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NOTE: Formulas used: Industry standard "per 100,000 hours flown"

Accident Rate = Number of accidents divided by the number of hours flown multiplied by 100,000.

Fatal Accident Rate = Number of fatal accidents divided by the number of hours flown multiplied by 100,000.

Fatality Rate = Number of fatalities divided by the number of hours flown multiplied by 100,000.

This report is available on-line at: http://www.fs.fed.us/fire/av_safety/fy_safety_reports/index.html

Executive Summary

In FY 2010 the U.S. Forest Service experienced a below average mishap rate, however, the attainment of zero aviation accident/incident occurrence is our ultimate goal. Unfortunately we did have a tragic accident resulting in 3 fatalities. 2010 was the first year in 15 years that we did NOT have a helicopter accident.

The Forest Service Aviation Risk Management program is based on the philosophy that all aircraft mishaps are preventable and that mishap prevention is an inherent function of management.

Risk Management Program Objective:

The objectives of Aviation Risk Management and Training Systems are in keeping with the most modern approaches to the safe management of complex systems. Success in aviation safety is a result of coordinated efforts with cooperators and vendors who provide approximately 90% of all Forest Service aviation services.

The Forest Service incorporates Safety Management Systems (SMS) in it's aviation program. The Forest Service continues working with the FAA on implementing Safety Management Systems that target a reduction in the number of accidents experienced by aircraft vendors that service our natural resource missions.

Safety Management Systems achieve high standards of efficiency and effectiveness within the four primary components which include:

- **Policy** is management commitment, responsibility and accountability for the program and the appointment of key safety personnel. Forest Service manuals are being revised using principle centered management for guidance of aviation operations.
- **Risk Management** identifies hazards and applies risk assessment and mitigation processes.
- **Assurance** is the process of monitoring controls that also includes aviation accident prevention, review and analysis of historical data, accident investigation, error analysis, and corrective action plans.
- **Promotion** includes training for pilots, crews, managers, support personnel and end-users. Other communications, awards and lessons learned help to maintain safety awareness.

Executive Summary

Mishap Trends:

The Branch of Aviation Risk Management monitors safety data, hazard reports and mishaps in its effort to identify hazardous trends. The Aviation Accident Database supports accident trend analysis, and the identification of Human Factors issues. The SAFECOM system is a proactive method that monitors and corrects safety issues and shares lessons learned on a daily basis.

- Of the two Forest Service accidents, one was a non-fire Forest Health Protection mission (3 fatalities) and the other was an airtanker accident (no injuries).
- This was the first year since 1995 the Forest Service has not had a helicopter accident.
- Forest Service Owned and/or Operated aircraft (O/O) have not had an accident in 7 years, the last accident occurred in December of 2003. There have not been any fatalities in O/O aircraft for 15 years.
- The FS had 398 SAFECOM reports, which is well below the average of 644 reports. The SAFECOM Working Group completed a survey on the system and are implementing a promotional campaign on the system as well as several other initiatives identified from the survey.
- There were a total of 104 incidents and 115 hazards reported in the SAFECOM system for 2010.
- The current accident rate of 4.46 is slightly below the average of 6.13, bringing the trend line on a slight decrease in the last 10-years (pg 8).
- The current fatality rate is 6.69, which is above the 10-year average of 4.96.
- Fixed wing contract operations have generally remained the same for the past ten years with an average of nearly one accident a year. All the fatalities in fixed-wing aircraft in the past 10 years have been non-fire missions.
- Airtankers accounted for 6.4% of the flight hours in 2010, they continue to have the highest 10-year average accident rate at 13.64.
- Helicopters accounted for 41.7% of the flight hours in 2010 and have the second highest 10-year accident rate at 7.4.
- Helicopters accounted for 47.6% of the flight hours over the past 10 years and 60% of all the accidents.
- The number of reported helicopter dropped (8) and dragged (17) loads accounted for 24% of the incident reports in 2010 compared to 41% in 2009, 54% in 2008 and 42% in 2007.

Aviation Safety Accomplishments

Accomplishments achieved in aviation safety in FY 2010 include the following:

Policy:

- Assisted in fire and aviation policy rewrite implementing Doctrine
- Completed 5720 doctrinal rewrite
- Produced draft Safety Management Systems Guide using IS-BAO Standards
- Assisted with contract modifications to include safety criteria
- Assisted with contract evaluation to assess safety criteria
- Assisted in revision/review of Interagency guides including National Mobilization Guide, Redbook, Rappel guide, etc.

Risk Management:

- Published Aviation Risk Management Workbook and distributed copies to all Forest Service Aviation units and bases
- Contracted and completed Strategic Risk Assessment for Rappel Operations
- Completed SMS strategic risk assessment and quality audit on low level helicopter missions (rappel, aerial ignition)
- Completed operational risk assessment for R-1 smokejumper round/square chutes in mixed loads
- Completed operational risk assessment for night helicopter operations
- Completed operational risk assessment for the proposed new BAE 146 Airtanker
- Completed operational risk assessment for commercial filming of smokejumper training operations (Meglomedia)
- Initiated Strategic Risk Assessment for Aerial Supervision, Airtankers and Airtanker bases
- Completed Strategic Risk Assessments on the Type I Helicopter and Rappel programs with Aerial Supervision to be completed in 2011.

Assurance:

- Coordinated investigations on 2 Forest Service accidents
- Initiated rappel standardization and quality assurance program in R-6, all other regions stood down their rappel programs for FY 2010
- Conducted quality assurance operational reviews on all R-6 rappel bases
- Conducted quality assurance audits on all Type I Helicopter Operators

Safety Promotion:

- Published 2 Interagency Airward Newsletters, recognizing 45 individuals with Airwards
- Published 1 Forest Service Length of Service & Safe Flying Award Newsletter recognizing 9 Forest Service Pilots

Aviation Safety Accomplishments

Safety Promotion (continued):

- Published 2 Interagency Aviation Safety Alerts
- Published 4 Interagency Technical Bulletins
- Published 3 Interagency Aviation Lessons Learned
- Published 1 Forest Service Aviation Lessons Learned
- Published 6 Interagency Accident Prevention Bulletins
- Published 1 Interagency Information Bulletin
- Published 1 Forest Service Information Bulletin
- Published 4 Monthly SAFECOM Summaries
- SAFECOM Working Group analyzed SAFECOM Survey data and published SAFECOM Survey Report
- Sponsored 27 scholarships each for six System Safety Leadership and Aviation Management (SSLAM) modules through UC Davis
- Assisted Regions 1, 2, 3, 8 and FHP in coordinating and instructing IAT week long training sessions
- Coordinated USFS ACE instructor assignments.
- Presented Controlled Flight into Terrain (CFIT) course for NAFA and SSLAM
- Presented A-200 Aviation Mishap Reviews at several Regional Aviation and Safety meetings, Helicopter Crewmember, Helicopter Manager and Helibase Manager Courses

Statistical Summary

The USFS flew 44,833 hours in FY 2010 which is significantly below the 10-year average of 76,590 flight hours. There were 2 accidents and unfortunately 3 fatalities involved in a Forest Health Protection aerial survey flight in Pennsylvania. The accident rate for FY 2010 is 4.46, which is below the 10-year average of 6.13. The primary mission of Forest Service Aviation is to support the natural resource programs through a variety of means, including, but not limited to:

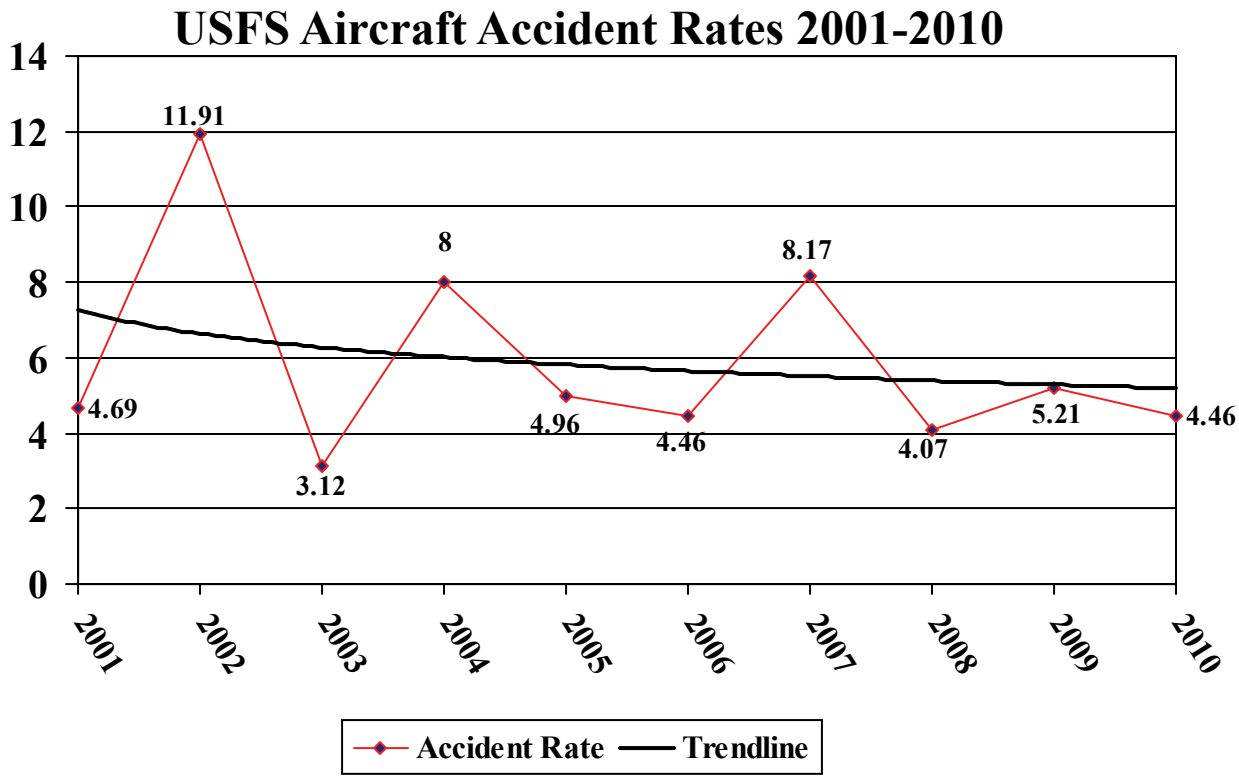
- Aerial delivery of firefighters by parachute, rappel rope, or on site landing
- Air tactical command and control
- Surveillance, reconnaissance, and intelligence gathering
- Infrared detection & mapping
- Aerial delivery of fire retardant and water
- Passenger transport for firefighting and resource missions
- Administrative flights
- Research
- Forest rehabilitation
- Forest Health Protection (aerial surveys, application and photography)
- Law enforcement
- Aerial photography

Approximately 180 employees at the Washington Office, Regional Offices and Forest levels administer the Forest Service aviation program. The national staff is located in Washington D.C. and at the National Interagency Fire Center in Boise, Idaho. The vast majority of aviation personnel are located at nine regional operations centers around the United States, providing day-to-day operational oversight and program guidance.

The Forest Service annually operates approximately 650 aircraft. These include government owned and leased, but mostly contracted aircraft. The Forest Service owns and operates 27 aircraft (24 fixed-wing and 3 helicopters) and leases/operates 13 aerial supervision fixed wing aircraft.

Numerous state agencies and county municipalities operate Forest Service owned aircraft under the Federal Excess Personal Property (FEPP) program. These aircraft are not included in these statistics or mishap data.

Statistical Summary

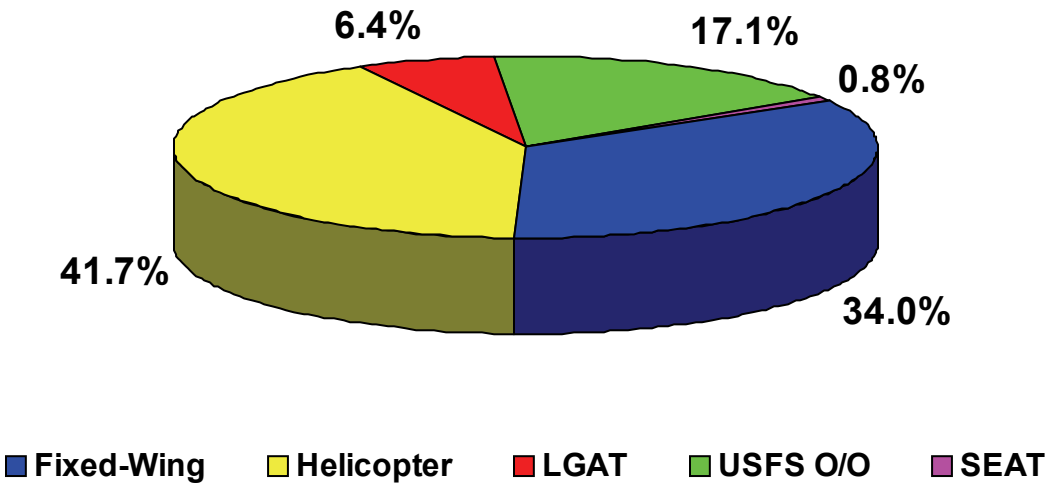


FY 2010 Accident Statistics

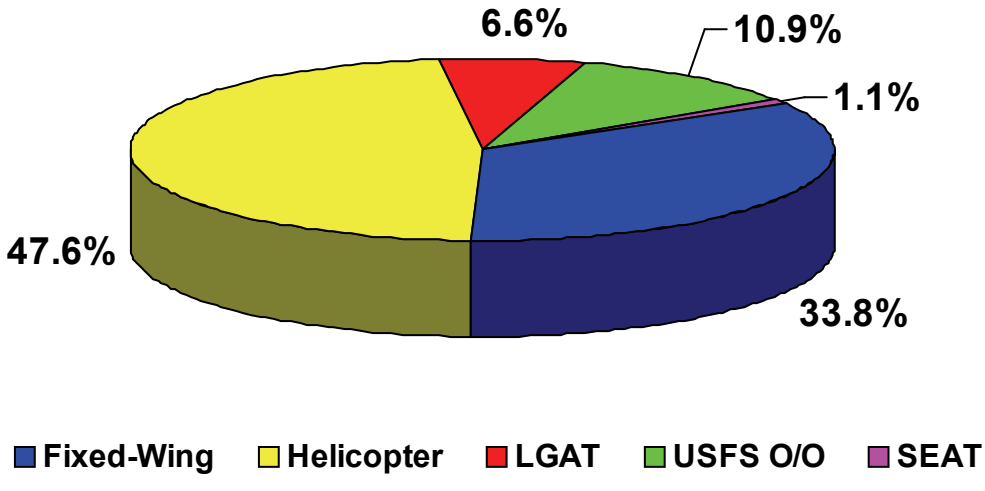
Aircraft Type	Hours	Number of Accidents	Accident Rate	Number of Fatalities	Fatality Rate
Fixed-Wing	15,227	1	6.56	3	19.7
Helicopter	18,707	0	0	0	0
Large Airtanker (LGAT)	2,853	1	35.05	0	0
*Single Engine Air-tanker (SEAT)	379	0	0	0	0
USFS Owned and/or Operated (USFS O/O)	7,667	0	0	0	0
Total	44,833	2	4.46	3	6.69

Statistical Summary

FY 2010 Flight Hour Percentages

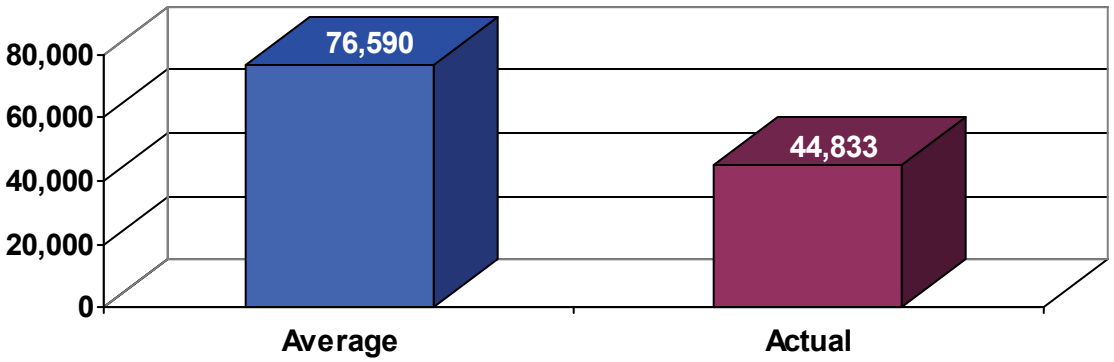


10 Year Average of Flight Hour Percentages 2001-2010



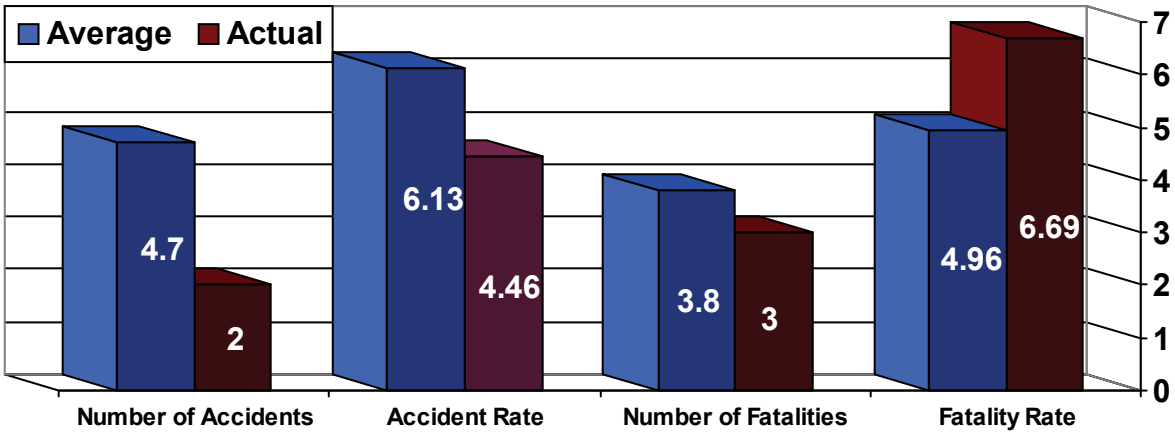
Statistical Summary

Average vs Actual Hours Flown for FY 2010



Comparison of Average vs 2010			
	10 Year Average	2010	Comparison
Hours flown	76,590	44,833	-31,757
Number of Accidents	4.7	2	-1.7
Number of Fatalities	3.8	3	-.8
Accident Rate	6.13	4.46	-1.67
Fatality Rate	4.96	6.69	+1.73

Average vs Actual for FY 2010



Statistical Summary

10-Year Flight Hour Statistics						
Fiscal Year	Fixed Wing	Helicopter	LGAT	SEAT	USFS O/O	Total
2010	15,227	18,707	2,853	379	7,667	44,833
2009	18,576	26,439	3,684	781	8,056	57,536
2008	23,600	35,512	5,010	1,318	8,187	73,627
2007	29,631	41,571	5,641	628	8,122	85,593
2006	34,564	39,735	6,659	1,792	6,898	89,648
2005	22,521	28,362	3,682	674	5,185	60,424
2004	22,713	29,885	1,535	1,006	7,333	62,472
2003	32,704	50,662	5,082	765	7,607	96,820
2002	33,011	54,427	8,573	451	13,052	109,063
2001	26,580	39,497	7,832	282	11,241	85,150
10-year Totals	259,127	364,797	50,551	8076	83,348	765,899
Averages	25,913	36,480	5,055	808	8,335	76,590

10-Year Accident Rates							
Year	# of Accidents	Total All Aircraft	Fixed-Wing	Helicopter	LGAT	SEAT	USFS O/O
2010	2	4.46	6.56	0.00	35.05	0.00	0.00
2009	3	5.21	0.00	7.56	27.14	0.00	0.00
2008	3	4.07	4.23	5.63	0.00	0.00	0.00
2007	7	8.17	3.37	9.62	0.00	318.47	0.00
2006	4	4.46	2.89	7.55	0.00	0.00	0.00
2005	3	4.96	4.44	7.05	0.00	0.0	0.00
2004	5	8.0	4.4	6.69	0.00	99.4	13.693
2003	3	3.12	3.05	3.94	0.00	0.00	0.00
2002	13	11.91	3.02	14.69	23.32	0.00	15.32
2001	4	4.69	3.76	5.06	0.00	354.6	0.00
10-year Average	4.7	6.13	3.47	7.4	7.91	49.52	3.59

Accident Rate = Number of accidents divided by the number of hours flown multiplied by 100,000.

Statistical Summary

10-Year Fatal Accident and Fatality Rates				
Year	**Fatal Accidents**	**Fatal Accident Rate**	**Number of Fatalities**	**Fatality Rate**
2010	1	4.46	3	6.69
2009	2	3.47	4	6.95
2008	1	1.35	9	12.22
2007	1	1.16	1	1.16
2006	2	2.23	6	6.69
2005	1	1.65	3	4.96
2004	2	3.2	4	6.4
2003	1	1.04	2	2.08
2002	3	2.75	6	5.50
2001	0	0.00	0	0.00
10-year Average	**1.4**	**1.82**	**3.8**	**4.96**

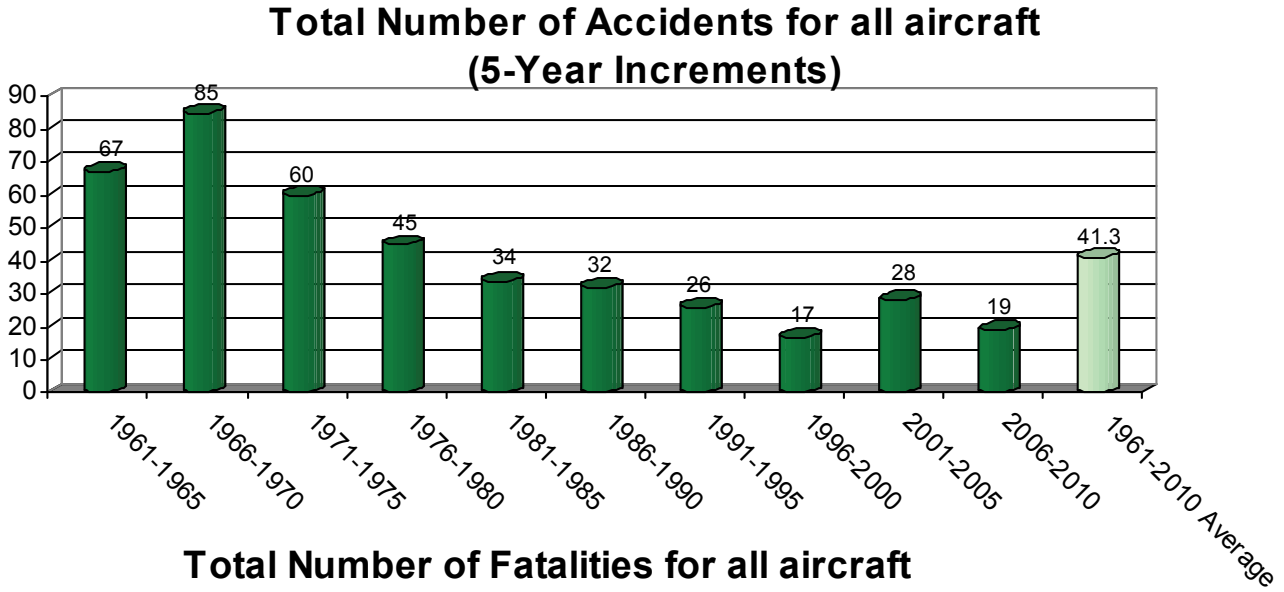
Fatal Accident Rate = Number of fatal accidents divided by the number of hours flown multiplied by 100,000.

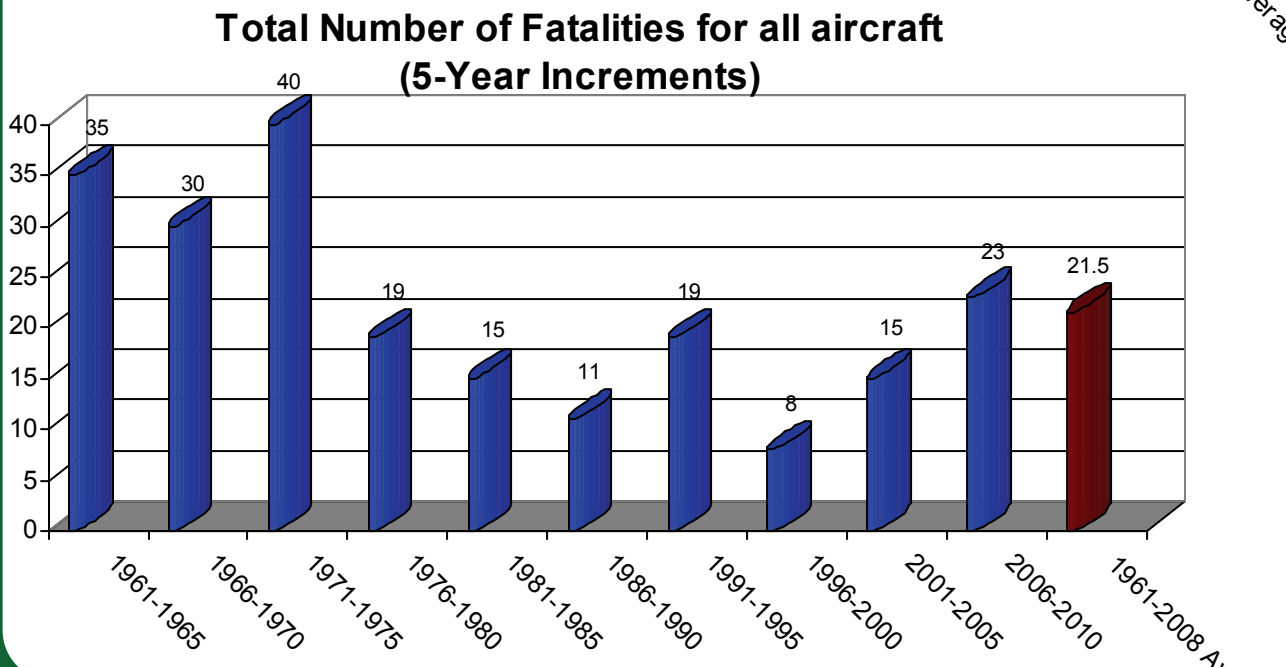
Fatality Rate = Number of fatalities divided by the number of hours flown multiplied by 100,000.

Statistical Summary

Forest Service Aircraft
Accident Statistics in 5-Year Increments

The total number of accidents in 5-year increments shows a steady decline, until the 2001-2005 period. The total number of fatalities in 5-year increments shows a major decline in the 80's from the 70's; however, since 2001 the number of fatalities has begun to rise. With the adoption of Safety Management Systems, particularly new risk management processes and quality assurance programs we anticipate a decrease in the number of accidents and fatalities in the future.





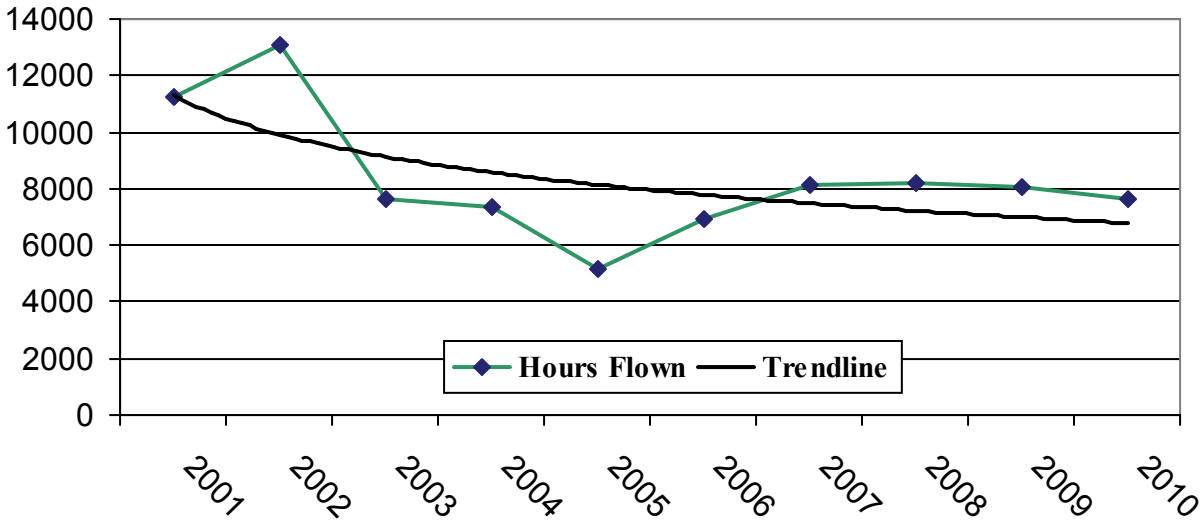
USFS Owned and/or Operated Aircraft

This section of statistics include the 25 Forest Service owned fleet aircraft and 13 leased Forest Service operated aerial supervision aircraft. The Forest Service owned aircraft accounted for 4,308 flight hours and the 13 leased aerial supervision aircraft flew 2,831 hours. This was 17.1% of the total flight hours, which is well above the average of 10.9%. There have not been any accidents since FY 2004 (December 2003) and no fatal accidents for fifteen years in USFS owned aircraft.

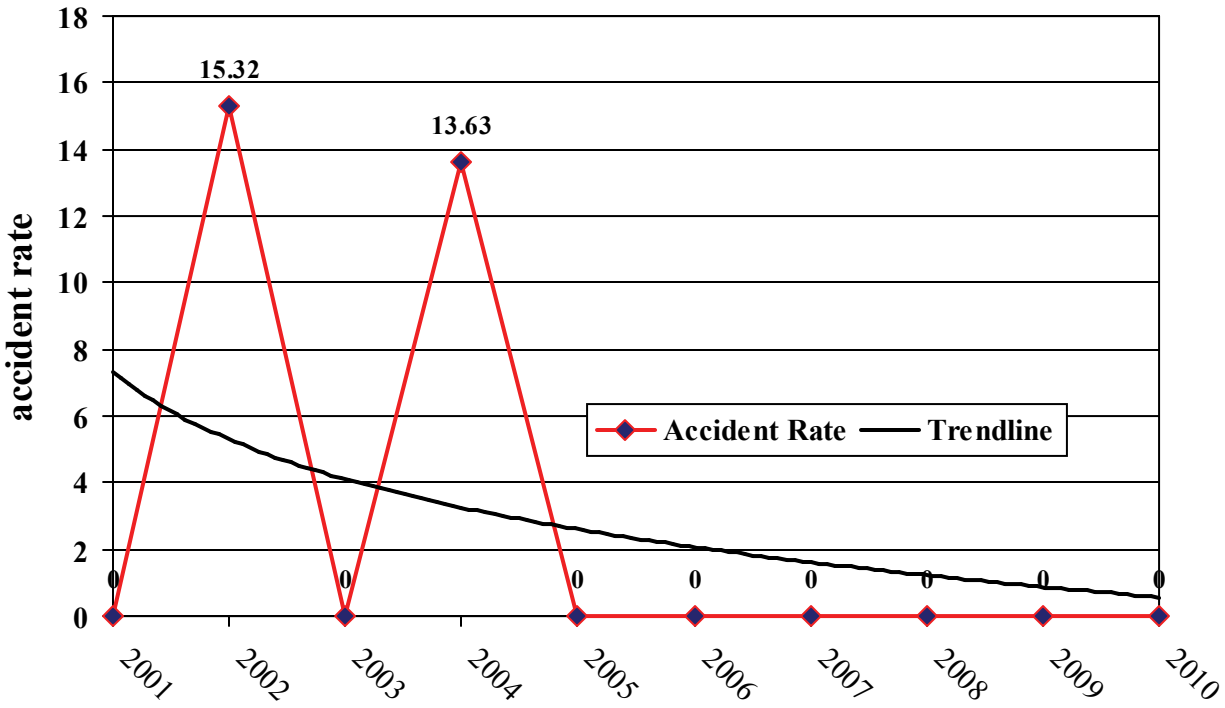
USFS Owned and/or Operated 10-Year Statistics							
Fiscal Year	**Hours Flown**	**# of Accidents**	**Accident Rate**	**Fatal Accidents**	**Fatal Accident Rate**	**Fatalities**	**Fatality Rate**
2010	7,667	0	0.00	0	0.00	0	0.00
2009	8,056	0	0.00	0	0.00	0	0.00
2008	8,187	0	0.00	0	0.00	0	0.00
2007	8,122	0	0.00	0	0.00	0	0.00
2006	6,898	0	0.00	0	0.00	0	0.00
2005	5,185	0	0.00	0	0.00	0	0.00
2004	7,333	1	13.63	0	0.00	0	0.00
2003	7,607	0	0.00	0	0.00	0	0.00
2002	13,052	2	15.32	0	0.00	0	0.00
2001	11,241	0	0.00	0	0.00	0	0.00
Total	83,348	3		0		0	
Average	8,335	0.3	3.59	0	0.00	0	0.00

USFS Owned and/or Operated Aircraft

USFS Owned & Operated Hours Flown



USFS Owned & Operated Accident Rates



Fixed-Wing Aircraft (contract)

Fixed-Wing contract aircraft accounted for 34% of the total hours flown in FY 2010; the 10 -year average is 33.8 percent. There were 15,227 hours flown in FY 2010, which is well below the 10-year average of 25,913. Unfortunately there was one fatal accident which took the lives of two Forest Service employees and the pilot. See pages 33-36 for more information.

Fixed-Wing 10-Year Statistics

Fiscal Year	Hours Flown	Accidents	Accident Rate	Fatal Accidents	Fatal Accident Rate	Fatalities	Fatality Rate
2010	15,227	1	6.56	1	6.56	3	19.7
2009	18,576	0	0.00	0	0.00	0	0.00
2008	23,600	1	4.23	0	0.00	0	0.00
2007	29,631	1	3.37	0	0.00	0	0.00
2006	34,564	1	2.89	0	0.00	0	0.00
2005	22,521	1	4.44	0	0.00	0	0.00
2004	22,713	1	4.40	1	4.40	3	13.2
2003	32,704	1	3.06	0	0.00	0	0.00
2002	33,011	1	3.03	0	0.00	0	0.00
2001	26,580	1	3.76	0	0.00	0	0.00
Total	259,127	9		2		6	
Average	25,913	0.9	3.47	0.2	.77	0.6	2.31

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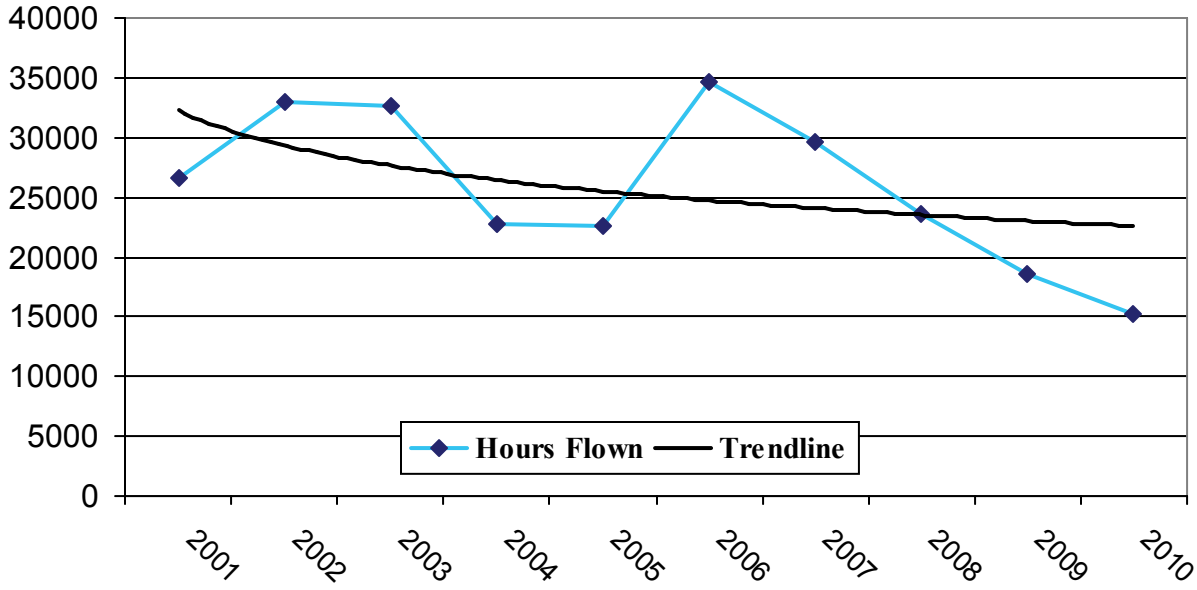
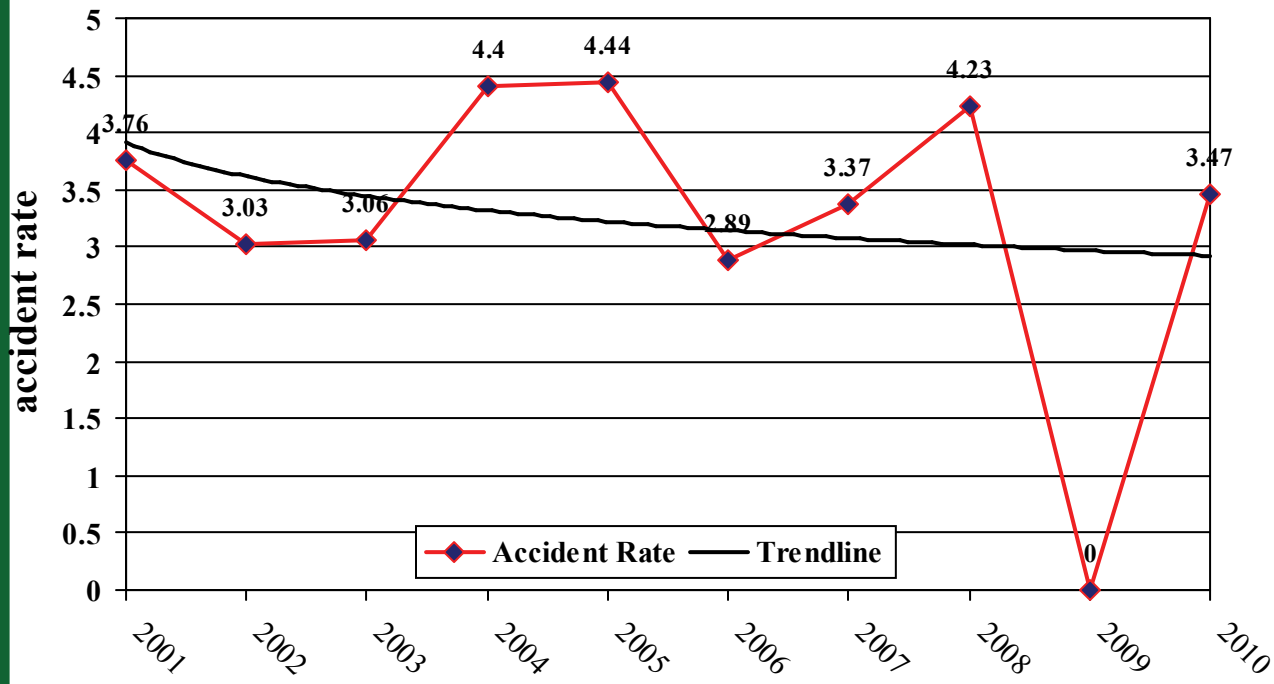
Fixed-Wing Aircraft (contract)

Fixed-Wing Hours Flown



Fixed-Wing Accident Rates



Airtankers (contract)

Large Airtankers accounted for 6.4% of the total hours flown in FY 2010; which is slightly below the 10-year average of 6.6%. There was one large airtanker accident with no fatalities or injuries. See page 36 for the NTSB preliminary report. Single Engine Airtankers only accounted for .8% of the flight hours; which is below the average of 1.1%.

All Airtanker 10-Year Statistics

Fiscal Year	Hours Flown	Accidents	Accident Rate	Fatal Accidents	Fatal Accident Rate	Fatalities	Fatality Rate
2010	3,232	1	30.94	0	0.00	0	0.00
2009	4,465	1	22.39	1	22.39	3	67.18
2008	6,328	0	0.0	0	0.00	0	0.00
2007	6,269	2	31.9	0	0.00	0	0.00
2006	8,451	0	0.00	0	0.00	0	0.00
2005	4,356	0	0.00	0	0.00	0	0.00
2004	2,541	1	39.35	0	0.00	0	0.00
2003	5,847	0	0.00	0	0.00	0	0.00
2002	9,024	2	22.16	2	22.16	5	58.32
2001	8,114	1	12.32	0	0.00	0	0.00
Total	58,627	8		3		8	
Average	5,863	0.8	13.64	0.3	5.11	0.8	13.64

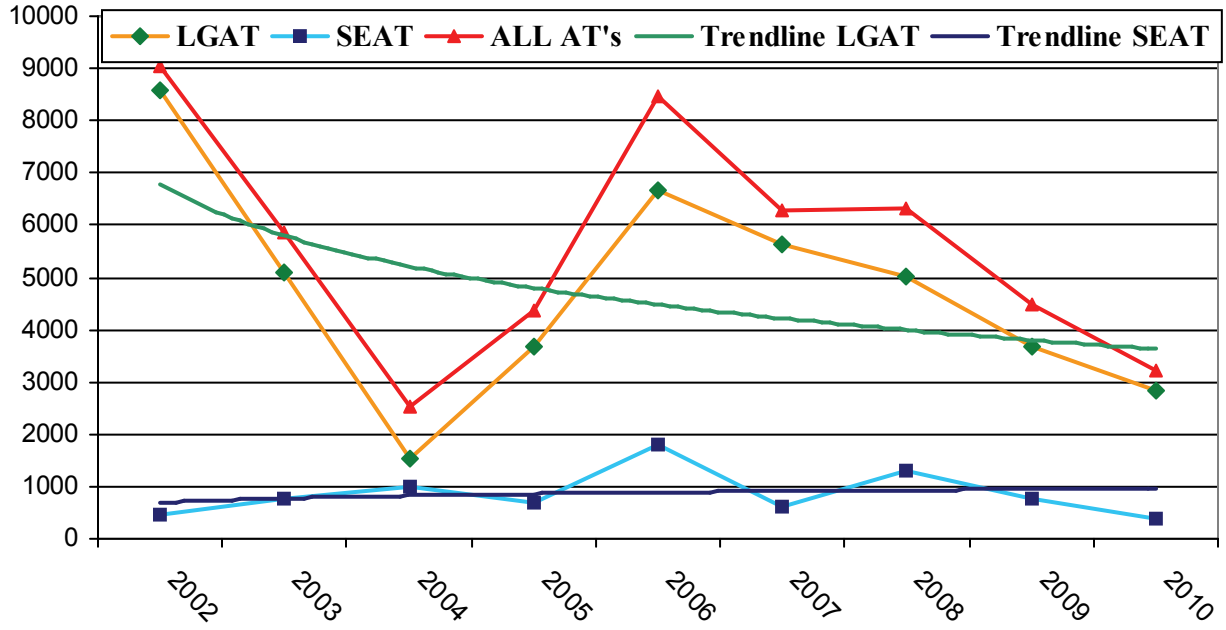
Airtankers (contract)

Large Airtanker 10-Year Statistics							
Fiscal Year	**Hours Flown**	**Accidents**	**Accident Rate**	**Fatal Accidents**	**Fatal Accident Rate**	**Fatalities**	**Fatality Rate**
2010	2,853	1	35.05	0	0.00	0	0.00
2009	3,684	1	27.14	1	27.14	3	81.43
2008	5,010	0	0.00	0	0.00	0	0.00
2007	5,641	0	0.00	0	0.00	0	0.00
2006	6,659	0	0.00	0	0.00	0	0.00
2005	3,682	0	0.00	0	0.00	0	0.00
2004	1,535	0	0.00	0	0.00	0	0.00
2003	5,082	0	0.00	0	0.00	0	0.00
2002	8,573	2	23.33	2	23.33	5	58.32
2001	7,832	0	0.00	0	0.00	0	0.00
Total	50,551	4		3		8	
Average	5,055	0.4	7.91	0.3	5.93	0.8	15.82

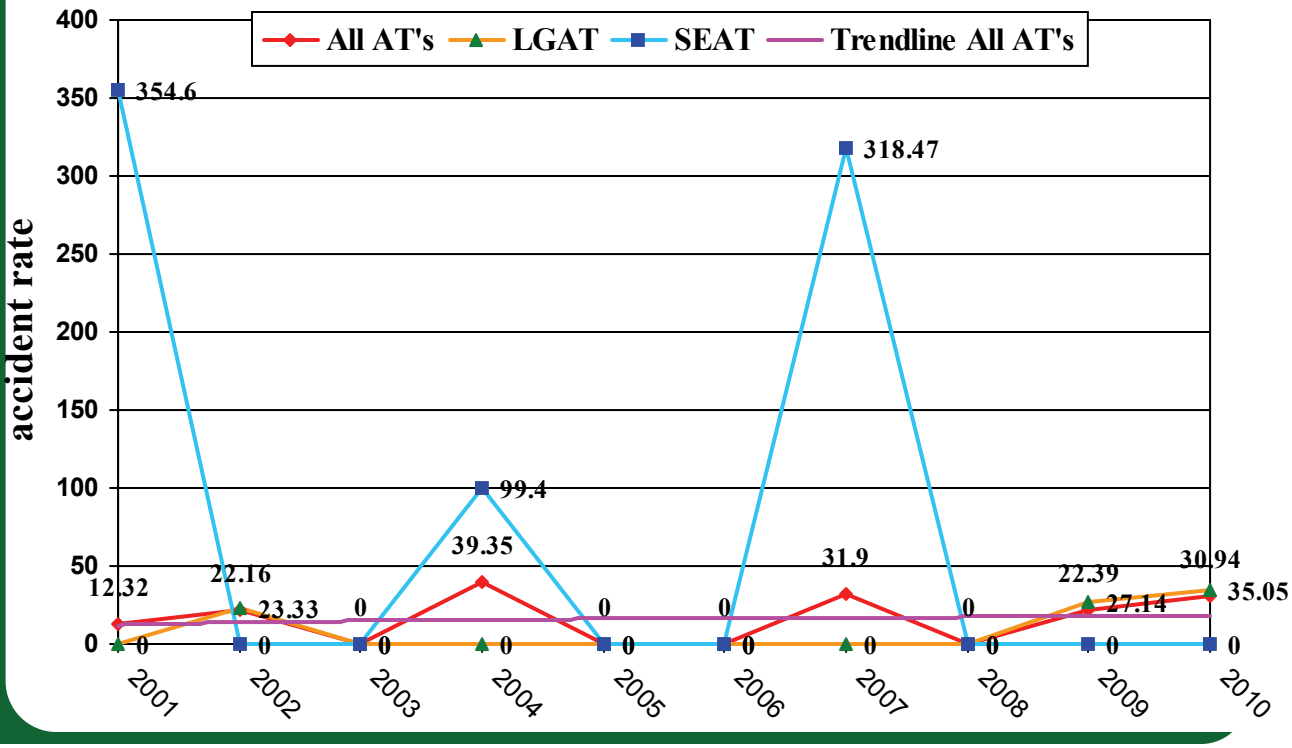
Single Engine Airtanker 10-Year Statistics							
Fiscal Year	**Hours Flown**	**Accidents**	**Accident Rate**	**Fatal Accidents**	**Fatal Accident Rate**	**Fatalities**	**Fatality Rate**
2010	379	0	0.00	0	0.00	0	0.00
2009	781	0	0.00	0	0.00	0	0.00
2008	1,318	0	0.00	0	0.00	0	0.00
2007	628	2	318.47	0	0.00	0	0.00
2006	1,792	0	0.0	0	0.00	0	0.00
2005	674	0	0.0	0	0.00	0	0.00
2004	1,006	1	99.4	0	0.00	0	0.00
2003	765	0	0.0	0	0.00	0	0.00
2002	451	0	0.0	0	0.00	0	0.00
2001	282	1	354.6	0	0.00	0	0.00
Total	8,076	4		0		0	
Average	808	0.4	49.52	0	0.00	0	0.00

Airtankers (contract)

Airtanker Hours Flown



Airtanker Accident Rates



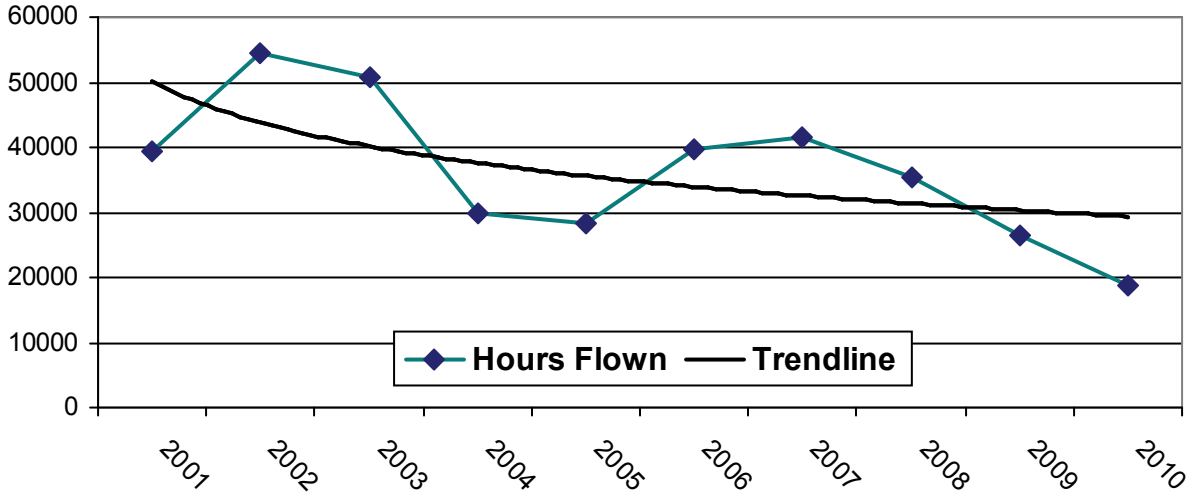
Helicopters (contract)

Helicopters accounted for 41.7% of the flight hours in FY 2010, which is below the 10-year average of 47.6%. Flight hours were significantly lower, in fact nearly half of the 10-year average. There were no helicopter accidents, which is the first year since 1995, the flight hours were 20, 031 which were also significantly lower than the average.

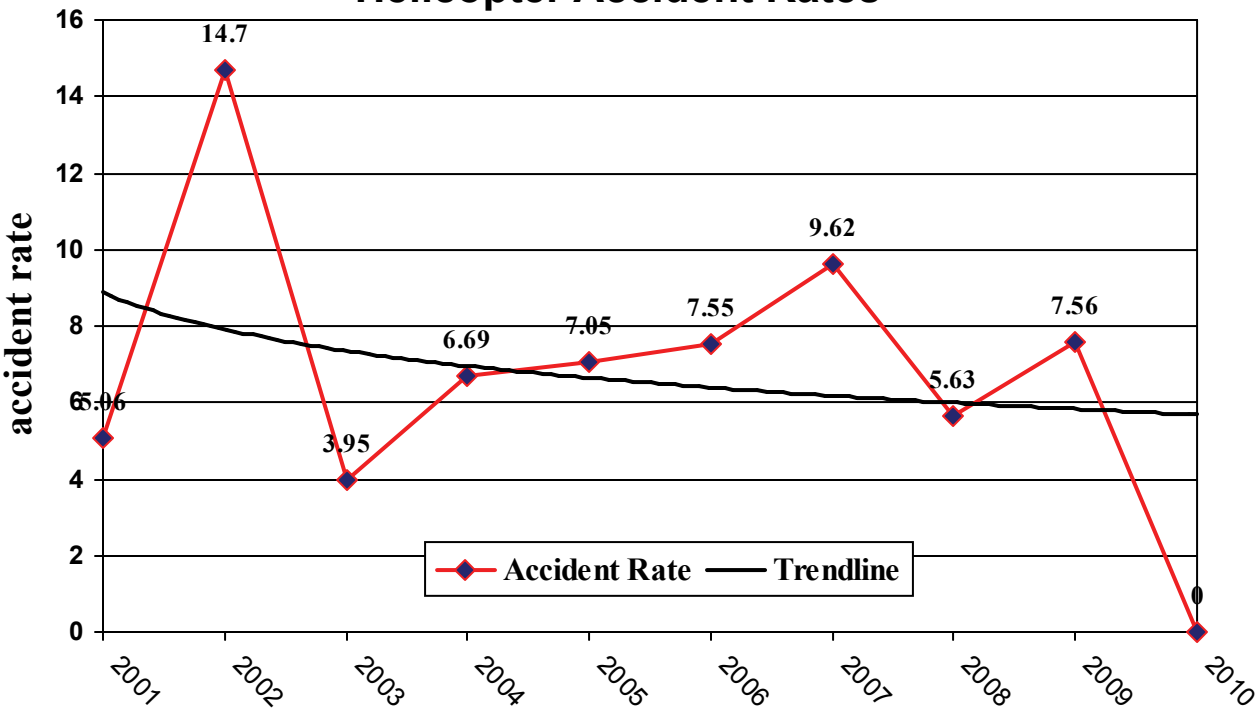
Helicopter 10-Year Statistics							
Fiscal Year	**Hours Flown**	**Accidents**	**Accident Rate**	**Fatal Accidents**	**Fatal Accident Rate**	**Fatalities**	**Fatality Rate**
2010	18,707	0	0.00	0	0.00	0	0.00
2009	26,439	2	7.56	1	3.78	1	3.78
2008	35,512	2	5.63	1	2.81	9	25.34
2007	41,571	4	9.62	1	2.40	1	2.40
2006	39,735	3	7.55	2	5.03	6	15.01
2005	28,362	2	7.05	1	3.52	3	10.57
2004	29,885	2	6.69	1	3.34	1	3.34
2003	50,662	2	3.95	1	1.97	2	3.95
2002	54,427	8	14.70	1	1.84	1	1.84
2001	39,497	2	5.06	0	0.00	0	0.00
Total	364,797	27		9		24	
Average	36,480	2.7	7.4	0.9	2.46	2.4	6.57

Helicopters (contract)

Helicopter Hours Flown



Helicopter Accident Rates



SAFECOM Summary

The SAFECOM system satisfies Federal Aviation Regulations requirements for incident reporting, but more importantly, it provides management and front line supervisors with near real time accident prevention information. Armed with data on emerging safety and effectiveness challenges, operators and management can take appropriate actions before a mishap occurs.

There were a total of 760 SAFECOMs (398 Forest Service, 312 DOI, 39 State and 11 Other/Unknown/Military/Vendor) submitted to the Interagency SAFECOM database.

The following charts trend the Forest Service SAFECOM data submitted to the Interagency SAFECOM database online at http://www.safecom.gov/. In FY 2010 there were 398 Forest Service SAFECOMs submitted, which is well below the 10-year average of 644.

The most reported SAFECOMs in FY 2010 were communications (47), engine (37), precautionary landing (29), electrical (22), avionics (20), mission equipment (18) and dropped load (17). In an analysis of the past five years all but avionics and mission equipment were in the top reported. This was due to the issues with the new radios and the rappellers utilizing the SAFECOM system to report all equipment issues.

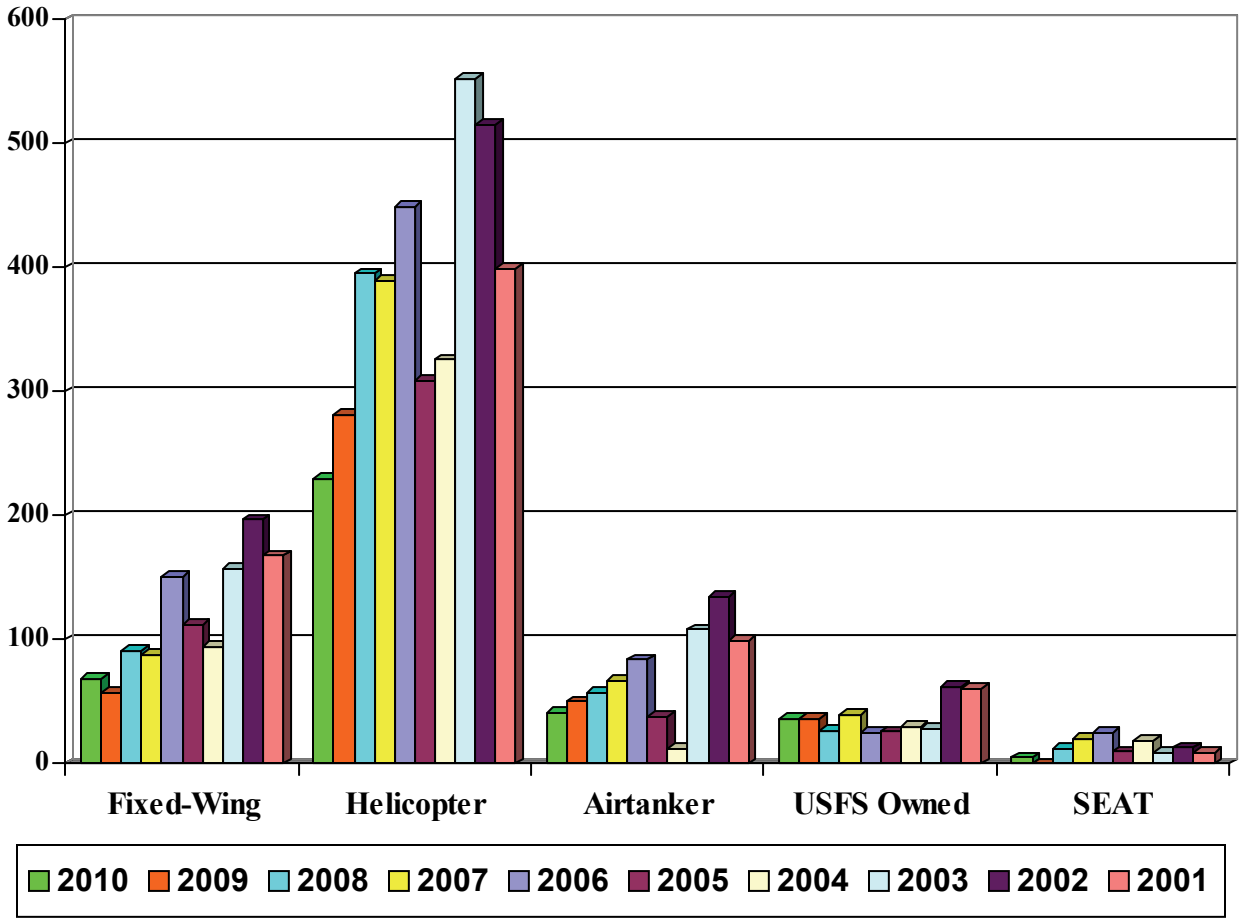
Yearly Forest Service SAFECOM Totals	
YEAR	Number of SAFECOM's
2010	398
2009	441
2008	594
2007	620
2006	753
2005	516
2004	494
2003	887
2002	962
2001	773
Total	6,438
10 YR Average	644

SAFECOM Summary

2010 SAFECOMs by Aircraft

Aircraft Type	Number
Fixed Wing	69
Helicopter	230
Airtanker	41
N/A	16
SEAT	5
USFS Owned/Operated	37
Total	398

SAFECOMs by Aircraft Type for 10 Years

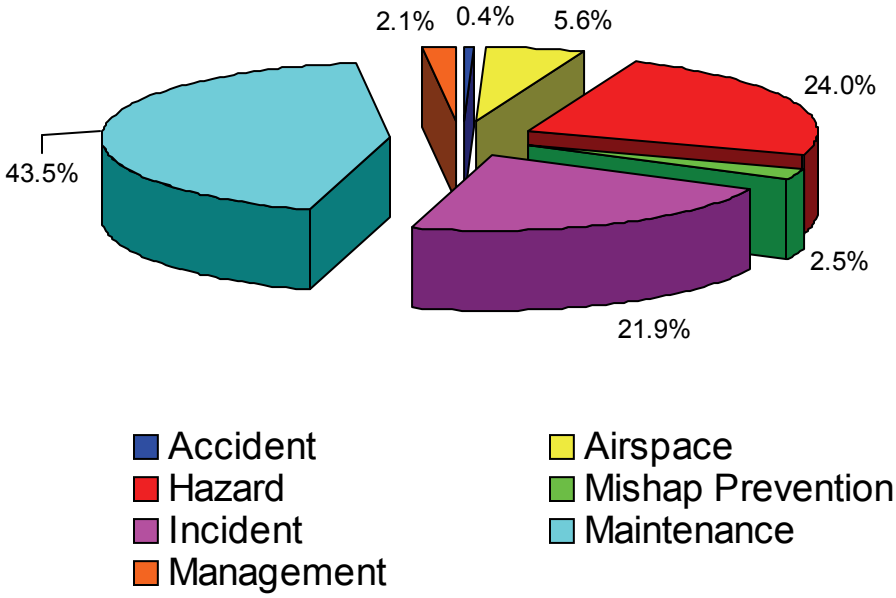


SAFECOM Summary

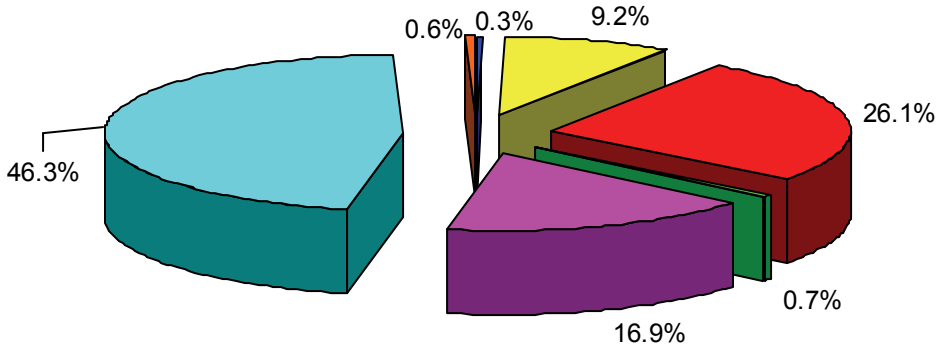
SAFECOMs by Category

The numbers of SAFECOMs by category will be more that the total number of SAFECOMs reported as each SAFECOM may have more than one category assigned to it. For example several of the Maintenance SAFECOMs also have Incidents or Hazards associated with them.

2010 Percent of SAFECOMs by Category



10-Year Average Percent of SAFECOMs by Category

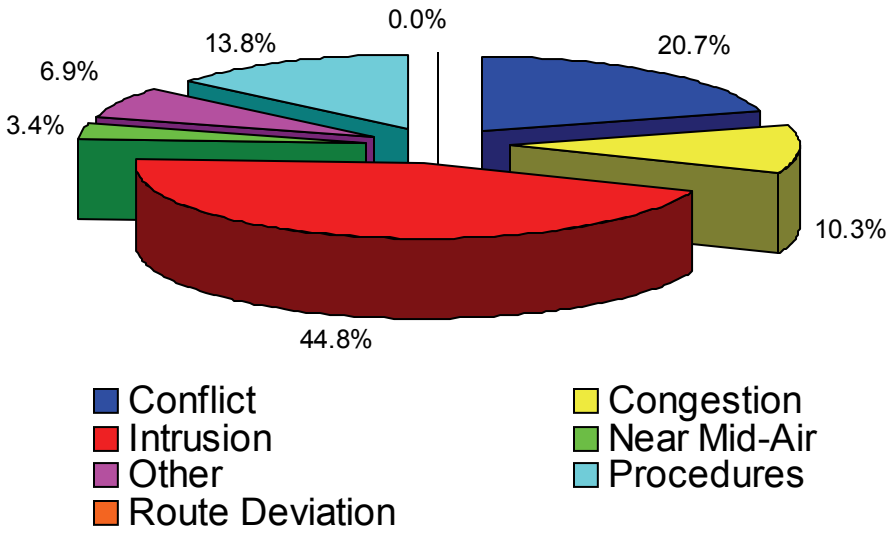


SAFECOM Summary

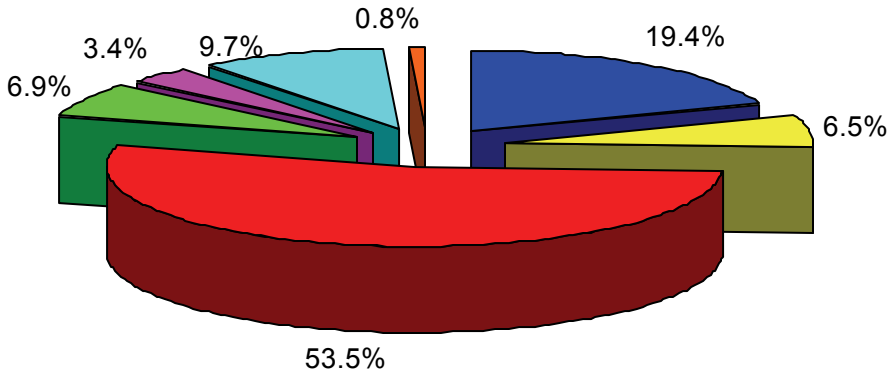
Airspace SAFECOMs by sub-category

There were a total of 27 Airspace SAFECOMs reported this year, significantly below the 10-year average of 65. Intrusions (13) accounted for almost half of the Airspace reports and we had 6 conflicts, 4 procedural issues, 3 congestion events, 2 other and 1 near mid-air event.

2010 Percent of Airspace SAFECOMs



10-Year Average Percent of Airspace SAFECOMs

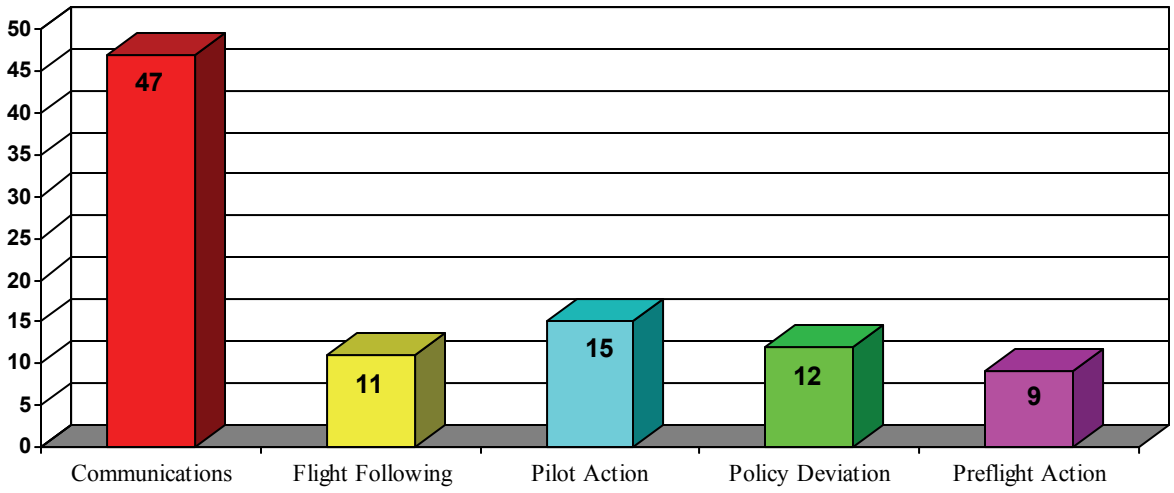


SAFECOM Summary

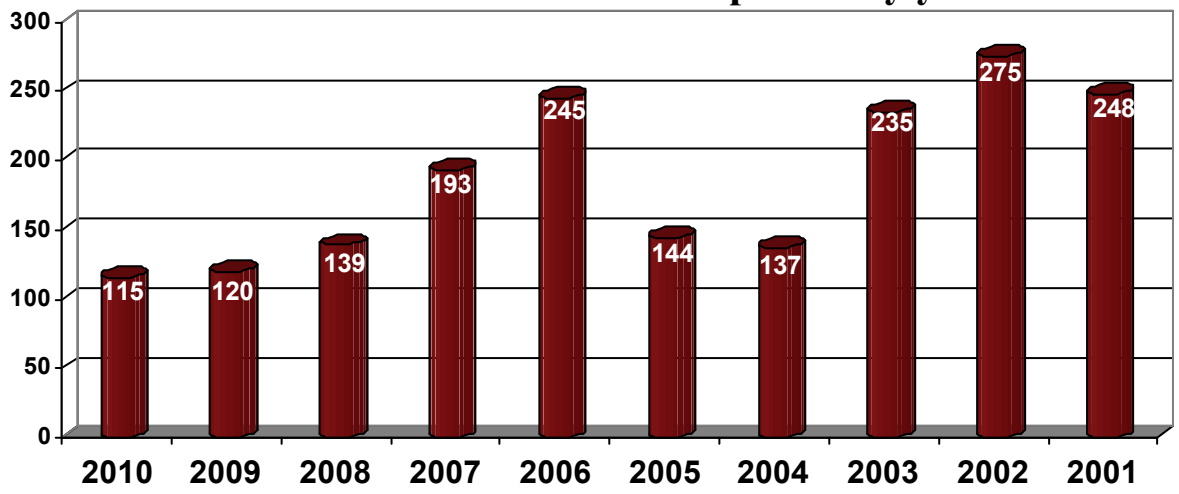
Hazard SAFECOMs by sub-category

Communication issues are the most reported hazard, accounting for nearly half of the Hazard SAFECOMs. Frequency management, ground radios and repeaters and verbal communications accounted for a good portion of the communication SAFECOMs. Below are charts indicating the top 5 Hazard SAFECOMs reported and the total number of Hazard SAFECOMs reported for the last 10-years.

2010 Top 5 Hazards reported



Total number of Hazards reported by year

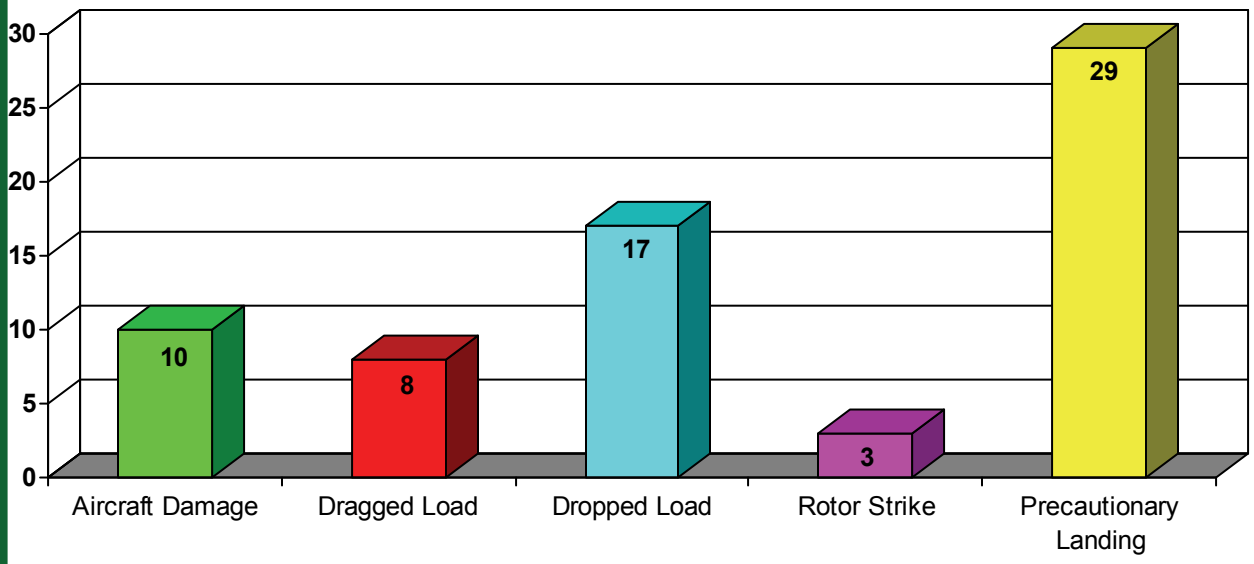


SAFECOM Summary

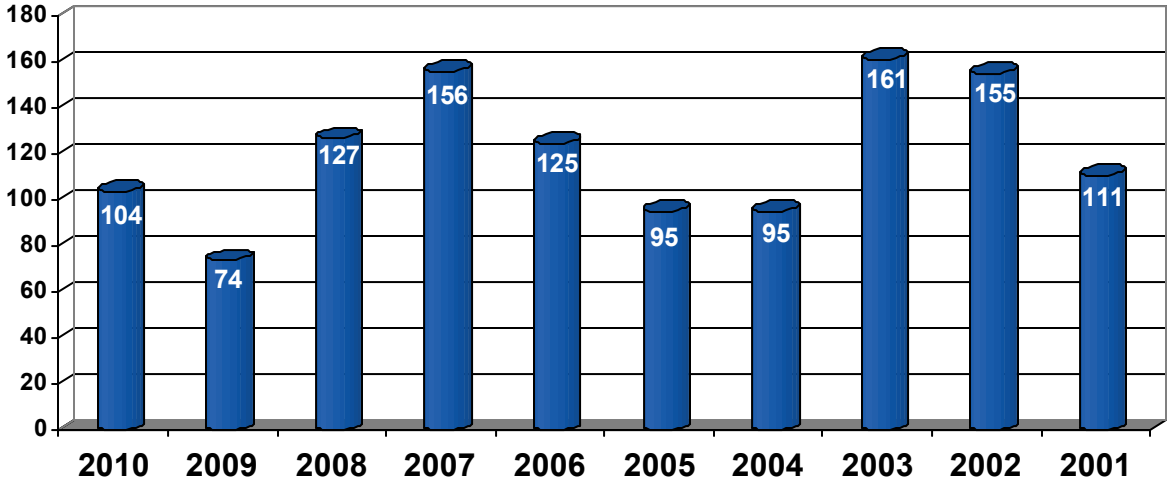
Incident SAFECOMs by sub-category

Precautionary Landings were by far the most reported in this category with most attributed to maintenance problems. Dropped Load were the next most reported with nearly half associated to human factors. Below are the top 5 Incident SAFECOMs reported in 2010 and the total number of Incident SAFECOMs reported for the last 10-years.

2010 Top 5 Incidents reported



Total number of Incidents reported by year

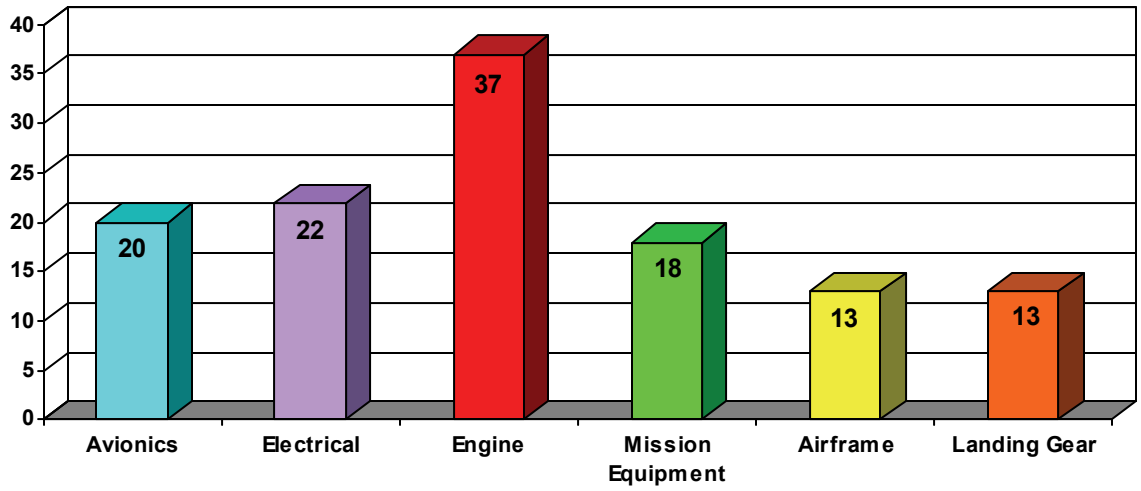


SAFECOM Summary

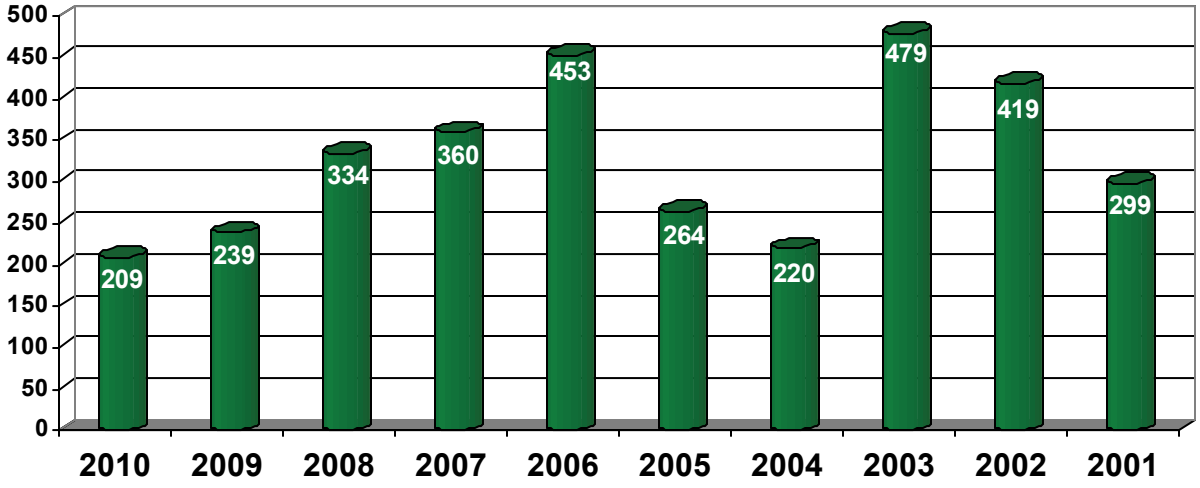
Maintenance SAFECOMs by sub-category

Almost half of the SAFECOMs reported had maintenance related deficiencies. Engine maintenance discrepancies continue to be the most reported. In 2004 we added a sub-category under engine to capture more severe engine events (failures & shutdowns) which included six last year. Below are the top 5 Maintenance SAFECOMs reported in 2009 and the total number of maintenance SAFECOMs reported for the last 10-years.

2010 Top 6 Maintenance deficiencies reported



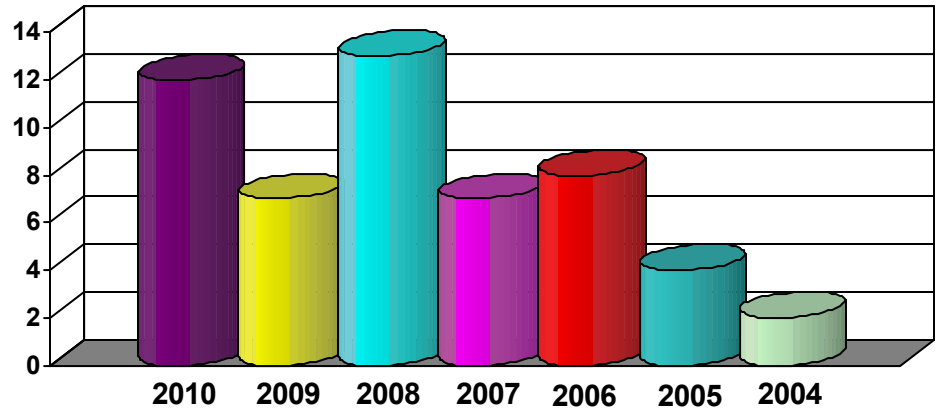
Total number of Maintenance deficiencies reported by year



SAFECOM Summary

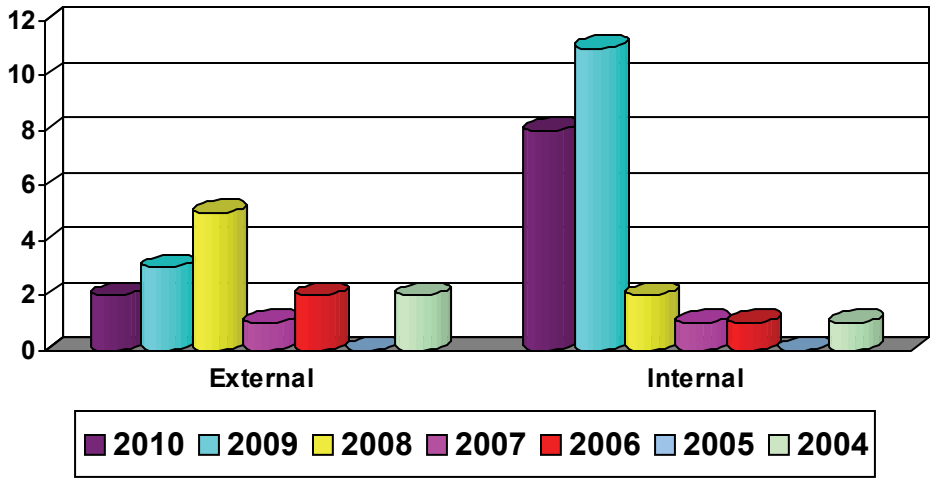
Forest Service Mishap Prevention

This was a new category added in 2004 to attempt to capture the good things that individuals are doing for mishap prevention. We have a lot more work to do promoting the SAFECOM System for reporting the good things that folks are doing. Most of the Airwards come from the SAFECOM system under this category.



Forest Service Management SAFECOM's by sub-category

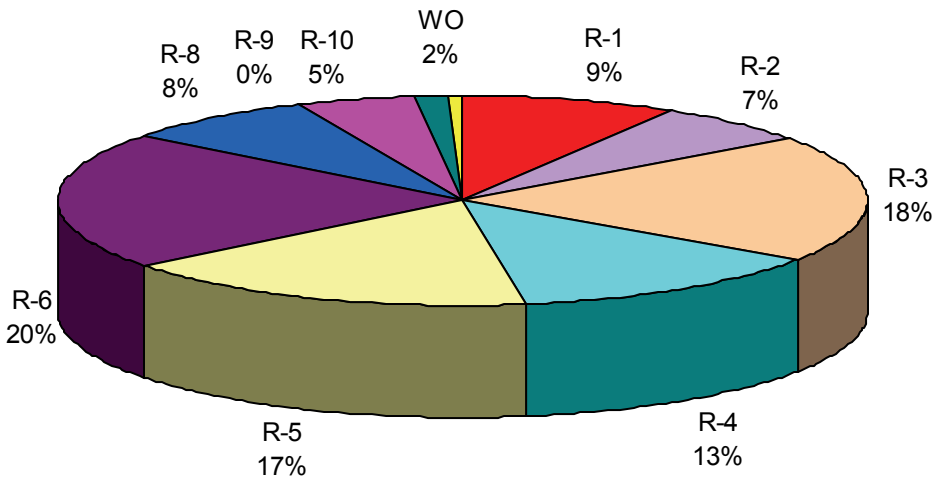
Management was a new category added in 2004 as well with the intent of capturing management safety issues internally and externally.



SAFECOM Summary

FY 2010 SAFECOMs by Region

Percent of SAFECOMs by Region



FY 2010 SAFECOMs by Aircraft Type and Region							
Region	Fixed-Wing	Helicopter	Airtanker	SEAT	USFS Owned	N/A	Total
Region 1	6	13	0	1	12	2	34
Region 2	1	17	4	0	2	2	26
Region 3	14	34	21	0	8	0	77
Region 4	13	28	6	1	2	2	52
Region 5	8	46	6	0	4	3	67
Region 6	17	51	4	3	3	6	84
Region 8	1	27	0	0	3	0	31
Region 9	0	0	0	0	0	0	0
Region 10	7	10	0	0	2	0	19
NEA	2	0	0	0	0	0	2
WO	2	1	0	0	1	2	6
Total	71	227	41	5	37	17	398

SAFECOM Summary

SAFECOMs by Region

The numbers of SAFECOM's by category are more than the total number of SAFECOMs reported as each SAFECOM can have more than one category assigned to it.

FY 2010 SAFECOMs by Category and Region								
Region	Accident	Airspace	Hazard	Incident	Maint.	Mgt.	Mishap Prevention	Total
R-1	0	1	7	8	17	0	0	33
R-2	1	1	11	3	12	0	2	30
R-3	0	5	17	9	53	0	2	86
R-4	0	8	19	19	21	2	3	72
R-5	0	4	24	11	31	1	4	75
R-6	0	7	22	34	41	5	0	109
R-8	0	1	8	17	18	0	1	45
R-9	0	0	0	0	0	0	0	0
R-10	0	0	4	5	14	0	0	23
NEA	1	0	1	0	0	0	0	2
WO	0	0	3	0	3	2	0	8
Total	2	27	116	106	210	10	12	483

Mishap Summary

USFS Accidents

Date	Region/For	Aircraft Type	Tail #	Mission
6/21/2010	Northeast Area	Cessna T210 L	N30266	FHP Survey
6/26/2010	Region 2	P2V-5	N1386C	Airtanker

The following are the NTSB Reports for the accidents. All of the reports are the preliminary reports which are subject to change, and may contain errors. Any errors in these reports will be corrected on the NTSB web-site when the final reports are completed. Links are provided to the NTSB reports where updated information may be posted after the completion of this report.

NTSB Identification: **ERA10GA320**
14 CFR Public Use
Accident occurred Monday, June 21, 2010 in Lock Haven, PA
Aircraft: CESSNA T210L, registration: N30266
Injuries: 3 Fatal.

On June 21, 2010, at 1257 eastern daylight time, a Cessna T210L, N30266, registered to Sterling Airways, Inc., and operated under contract by the United States Department of Agriculture (USDA) Forest Service, was substantially damaged when it struck a light stanchion and collided with terrain while maneuvering for a forced landing at William T. Piper Memorial Airport (LHV), Lock Haven, Pennsylvania. The certificated airline transport pilot and two USDA Forest Service mission specialists were fatally injured. Visual meteorological conditions prevailed, and a company visual flight rules flight plan was filed for the flight which departed Clarion Country Airport (AQX), Clarion, Pennsylvania, about 1035. The public use aerial observation flight was conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

According to a representative of USDA Forest Service, the purpose of the flight was to conduct an aerial survey of tree defoliation in southwestern Pennsylvania. A review of fueling records revealed that the pilot serviced the accident airplane with 49 gallons of fuel on the evening of June 20, 2010. On the morning of the accident, the pilot flew the airplane from its base at Hornell Municipal Airport (4G6), Hornell, New York, to AQX where the two USDA Forest Service employees boarded the airplane about 1000. The flight from AQX was scheduled to arrive at LHV about 1300 to refuel the airplane, before continuing with the survey.

According to a certificated flight instructor (CFI) who was flying in the traffic pattern at LHV for runway 27, he heard the accident pilot announce over the LHV Common Traffic Advisory Frequency (CTAF) that he was 8 miles southwest of the airport. The CFI also heard the accident pilot ask if fuel was available at the airport. About 2 minutes later, the CFI heard the accident pilot report that he was 5 miles southwest of the airport. No further transmissions were made by the accident pilot. The CFI stated there was no tone of urgency in the accident pilot's voice nor did he declare an emergency at any point. A Piper PA-24 subsequently taxied onto runway 27, announced its position via the CTAF, and departed to the west. Shortly after that airplane departed, when the CFI had turned his airplane onto the base leg of the traffic pattern, an unknown person announced on the CTAF that there had been an explosion off the departure end of the runway, which the CFI later learned was the accident airplane.

Two witnesses that worked at Lock Haven University, about 1.5 nautical miles northwest of the accident site, observed the accident airplane as it overflew university property. Both of the witnesses stated that the airplane Aflying lower when compared to the other airplanes that they would normally see landing at the airport. Shortly after first observing the airplane, it began trailing smoke. The smoke trail then stopped, and they both heard a loud noise, similar to a "gun blast." Both witnesses stated that after the initial loud noise, the engine ceased operating for several seconds, and then it started to "cough and sputter." Both of the witnesses reported hearing a second loud noise, while the engine continued to "sputter."

Numerous other individuals witnessed the accident airplane as it approached LHV over the town of Lock Haven, and their statements were generally consistent. Six of the witnesses described that the airplane’s engine was "sputtering" as it flew over them, and several remarked about how loud the engine was. One witness commented that "it sounded like a connecting rod problem with the engine due to the noise it was making." Six of the witnesses also commented that the airplane appeared to be "struggling" to maintain altitude, or that it was lower than normal as it overflew them. Several witnesses commented that they found it unusual that the airplane's landing gear was retracted as it overflew them.

Mishap Summary - Accidents

The pilot, who was an employee of Sterling Airways, held an airline transport pilot certificate with ratings for airplane single and multiengine land. He also held a flight instructor certificate with ratings for airplane single-engine and instrument airplane. His most recent Federal Aviation Administration (FAA) second-class medical certificate was issued on December 29, 2009. The pilot's logbooks were not recovered; but according to USDA Forest Service records, the pilot had logged 8,280 total hours of flight experience as of March 16, 2010, with 1,775 hours in the accident airplane make and model.

According to FAA records, the airplane was manufactured in 1973. The airplane was equipped with a Teledyne Continental Motors TSIO-520-H engine. The airplane's most recent annual inspection was completed at Sterling Airways on March 9, 2010. The most recent engine overhaul was completed on May 7, 2004. The airplane's maintenance records were retained for further review.

The airplane was examined at the accident site on June 21, 2010. The accident site was located on a residential street, about 1,300 feet west of the runway 9 threshold at LHV, at an elevation of 556 feet. The initial impact point was located about 7.5 feet below the top of a wooden street light stanchion, where the outboard section of the left horizontal stabilizer impacted the pole. The wreckage path was oriented about 120 degrees magnetic. The airplane struck the front porch of a residence and three parked cars before coming to rest about 260 feet from the initial impact point, oriented about 250 degrees magnetic. Small parts of the airplane were strewn along the wreckage path, and all flight control surfaces were accounted for at the accident scene.

The cockpit and cabin were substantially impact-damaged and partially consumed by a post-impact fire. The instrument panel was severely burned, and none of the flight instruments contained any legible information. The throttle was found in the full aft position, the mixture control was found in the full rich position, and the propeller control was found in the full forward position. The fuel selector valve was selected to the right fuel tank.

Flight control continuity to the ailerons was traced through a single separation, consistent with overload, to the control column. Flight control continuity was confirmed from the rudder, elevator, and elevator trim tab to the cockpit area. Measurement of the elevator trim tab actuator correlated to between a 10 and 15 degree tab trailing edge up position. Measurement of the flap actuator jackscrew correlated to the flaps up position. The main landing gear was in the up position, though both were dislodged out of the up-locking mechanism. The nose gear was in the up and locked position.

All three propeller blades remained attached to the hub, which remained attached to the engine. One of the three propeller blades was bent aft at a point about 1/3 of its span, and had rotated 180 degrees in the propeller hub. The remaining two propeller blades exhibited minor scratching, and were relatively undamaged.

Mishap Summary - Accidents

The engine cowling was removed, and examination of the engine revealed that the upper portion of the crankcase exhibited a protruding separation of material from the magneto mounting areas, forward to the No. 5 cylinder deck area along the upper spine. The connecting rods for cylinders 2, 3, and 4 were separated. The engine was retained for further examination.

Weather, recorded at LHV at 1300, included no ceiling information, visibility 10 statute miles, temperature 21 degrees C, dewpoint 16 degrees C, and an altimeter setting of 30.10 inches of mercury. The winds were from 250 degrees true at 6 knots.

NTSB Identification: **CEN10TA355**
14 CFR Public Use
Accident occurred Saturday, June 26, 2010 in Broomfield, CO
Aircraft: LOCKHEED P2V-5, registration: N1386C
Injuries: 2 Uninjured.

On June 26, 2010, about 1300 mountain daylight time, a Lockheed P2V-5 airplane, N1386C, was substantially damaged during a landing roll overrun at the Rocky Mountain Metropolitan Airport (BJC), in Broomfield, Colorado. The pilot and co-pilot were not injured. The airplane was registered to Neptune Aviation Services Inc., of Missoula, Montana, and operated by the United States Department of Agriculture (USDA), Forestry Service, under an exclusive public-use firefighting contract. Visual meteorological conditions prevailed and a company flight plan was filed for the fire suppression flight. The local flight originated from BJC at 1150.

According to the pilot, following a "normal" retardant drop, the main hydraulic system failed. The airplane was configured for landing via emergency hydraulic pressure and an emergency declared. The pilot continued, that the landing was routine; however, when he attempted to stop the airplane using the emergency system brakes there was no response. The airplane rolled through a fence, went down an embankment, and came to rest nose down on a city street. The pilot and co-pilot were able to exit unassisted.

A Federal Aviation Administration (FAA) inspector responded to the accident site and reported that the airplane's nose structure had sustained structural damage.