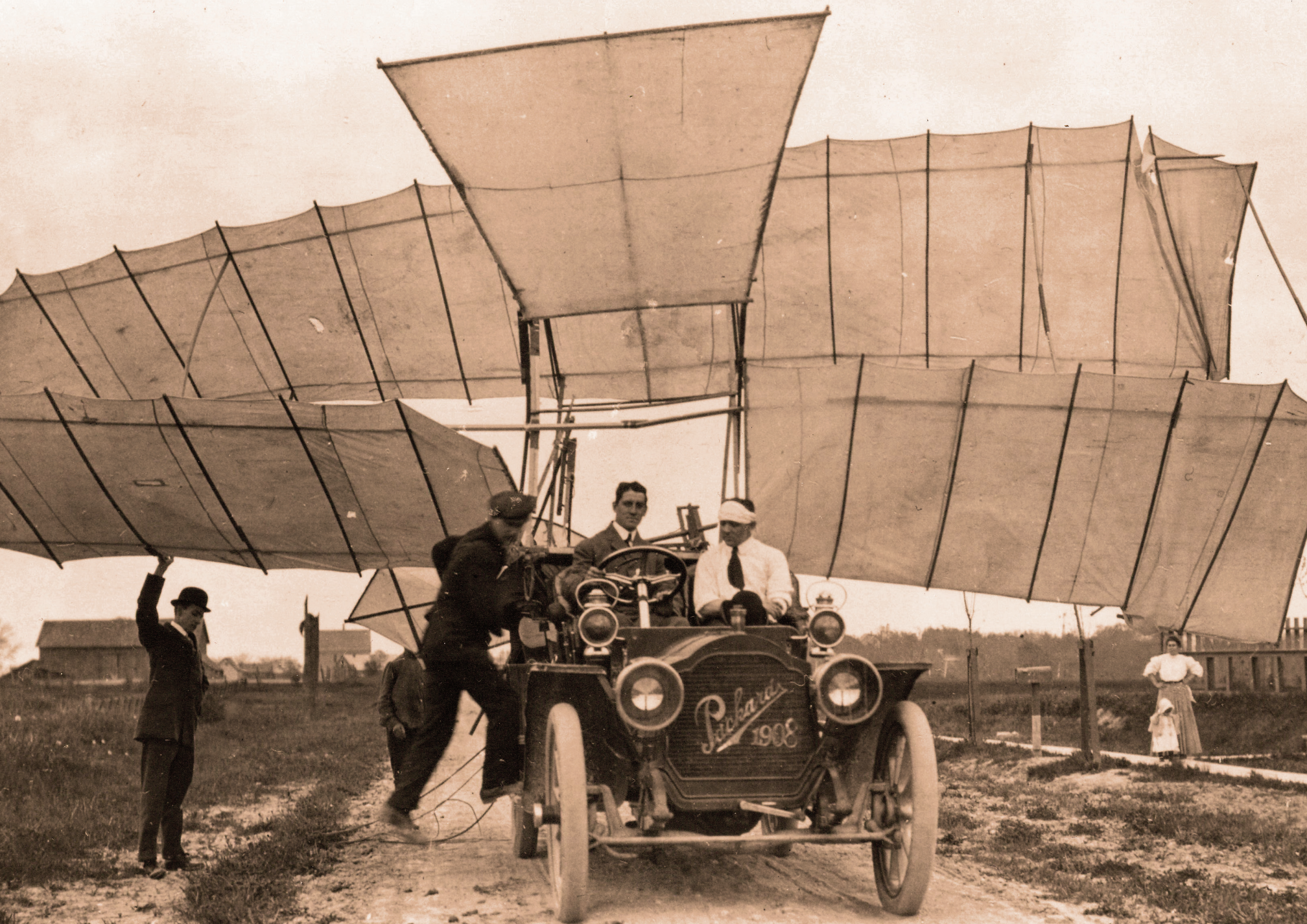




Passengers take flight on a TWA DC-2



*References
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1908, Packard pulls a homemade glider

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Piper

Smithsonian Institution

Stella Mollman

The Boeing Company

Trey Brandt

United States Air Force



1930, Gladys O'Donnell wins the Women's Air Derby



Appendices



1928, passengers board a Fokker Transport Aircraft, which also carries mail

Appendix A: Passenger Enplanements, Operations, and Airports, 1959-2007

Year	Enplanements (Million)	Operations (Millions)	No. of Airports	No. of Public Use	No. of NPIAS Airports	No. of Proposed NPIAS Airports	Total Development (Billion)
*1959	50				2,680	644	1.3
1978	328	67	13,830	6,914	3,137	472	8.43
1998	657	66	18,345	5,357	3,344	217	35.1
2008	776	61	19,815	5,190	3,356	55	49.7

**Federal Aviation Agency published its first National Airport Plan (now called National Plan of Integrated Airport Systems, or NPIAS) in 1959.*

Source: NTSB website, <http://ntsb.gov/aviation/Table2.htm>.

Note: Since March 20, 1997, aircraft with 10 or more seats used in scheduled passenger service have been operated under 14 CFR 121.

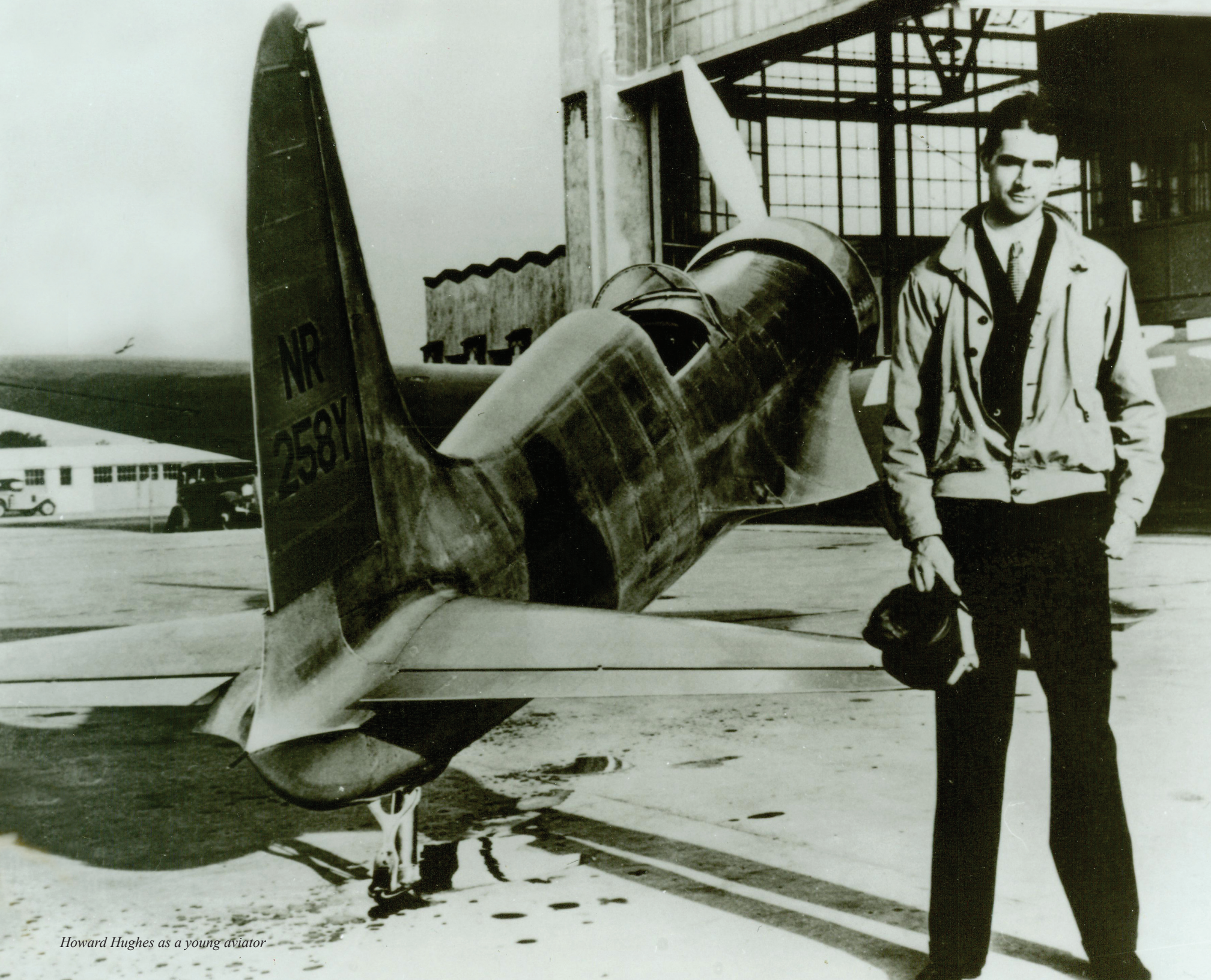


1949, prototype Aerocar debuts in Washington

Appendix B: Safety Record of U.S. Carriers, 1927-2007

Year	Flight Operations		Accidents		Fatal Accident Rates		Fatalities	
	Aircraft Miles (000,000)	Aircraft Depts (000)	Total	Fatal	Per Million Aircraft Miles	Per Million Aircraft Depts.	Total	Onboard
1927	6	N/A	25	4	0.6813	N/A	5	5
1928	11	N/A	86	12	1.1243	N/A	24	24
1929	25	N/A	137	24	0.9546	N/A	43	43
1930	37	N/A	91	9	0.2436	N/A	33	33
1931	48	N/A	126	14	0.2938	N/A	39	39
1932	51	N/A	115	17	0.3322	N/A	45	45
1933	55	N/A	101	9	0.1640	N/A	28	17
1934	49	N/A	73	10	0.2038	N/A	38	38
1935	64	N/A	62	8	0.1253	N/A	29	29
1936	74	N/A	70	10	0.1358	N/A	67	67
1937	73	N/A	50	6	0.0821	N/A	66	66
1938	76	N/A	29	7	0.0919	N/A	54	54
1939	91	N/A	33	3	0.0330	N/A	26	26
1940	120	N/A	35	3	0.0250	N/A	45	45
1941	149	N/A	30	5	0.0335	N/A	46	46
1942	130	N/A	25	5	0.0383	N/A	71	71
1943	124	N/A	16	3	0.0242	N/A	44	44
1944	161	N/A	31	4	0.0248	N/A	73	73
1945	242	N/A	38	9	0.0372	N/A	114	114
1946	369	N/A	43	11	0.0298	N/A	149	149
1947	412	N/A	45	8	0.0194	N/A	249	249
1948	441	2,092	64	6	0.0136	2.868	128	128
1949	463	2,262	37	6	0.0130	2.653	104	104
1950	477	2,457	41	6	0.0126	2.442	165	165
1951	527	2,596	47	9	0.0171	3.467	206	206
1952	589	2,737	45	8	0.0136	2.923	155	155
1953	657	2,960	37	6	0.0091	2.027	103	103
1954	690	3,002	48	4	0.0058	1.333	23	23
1955	780	3,281	46	9	0.0115	2.743	225	225
1956	869	3,503	48	4	0.0046	1.142	156	156
1957	976	3,771	51	5	0.0051	1.326	78	78
1958	973	3,629	54	6	0.0062	1.653	139	139
1959	1,030	3,910	67	10	0.0097	2.557	310	310
1960	998	3,853	67	12	0.0120	3.115	378	378
1961	970	3,750	58	5	0.0052	1.333	135	135
1962	1,010	3,660	43	5	0.0050	1.366	183	183
1963	1,095	3,788	49	5	0.0046	1.320	145	145
1964	1,189	3,955	53	9	0.0076	2.276	227	226

NOTE: The data below reflects the activity of passenger and cargo airlines operating under 14 CFR 121. Since March 20, 1997, aircraft with 10 or more seats in scheduled service (or their all-cargo equivalent) have operated under this part. Incidents resulting from illegal acts such as suicide or sabotage are included in accident and fatality totals but are excluded from accident rates, per National Transportation Safety Board.



Howard Hughes as a young aviator

Year	Flight Operations		Accidents		Fatal Accident Rates		Fatalities	
	Aircraft Miles (000,000)	Aircraft Depts (000)	Total	Fatal	Per Million Aircraft Miles	Per Million Aircraft Depts.	Total	Onboard
1965	1,354	4,198	63	7	0.0052	1.668	253	253
1966	1,482	4,374	53	4	0.0027	0.915	72	72
1967	1,834	4,946	51	8	0.0044	1.617	255	250
1968	2,146	5,348	53	13	0.0061	2.431	345	339
1969	2,385	5,378	48	7	0.0029	1.302	152	149
1970	2,418	5,120	39	2	0.0008	0.391	5	2
1971	2,378	4,999	41	6	0.0025	1.200	198	192
1972	2,376	5,046	43	7	0.0029	1.387	186	160
1973	2,448	5,135	32	6	0.0025	1.169	221	220
1974	2,258	4,726	42	7	0.0031	1.481	460	460
1975	2,241	4,705	29	2	0.0009	0.425	122	122
1976	2,320	4,833	21	2	0.0009	0.414	42	42
1977	2,419	4,937	19	3	0.0012	0.608	78	69
1978	2,520	5,016	21	5	0.0020	0.997	160	150
1979	2,791	5,400	24	4	0.0014	0.741	353	350
1980	2,816	5,353	15	0	0.0000	0.000	1	0
1981	2,703	5,212	25	4	0.0015	0.767	4	2
1982	2,699	4,964	16	4	0.0011	0.604	235	223
1983	2,921	5,235	22	4	0.0014	0.764	15	14
1984	3,259	5,666	13	1	0.0003	0.176	4	4
1985	3,453	6,069	17	4	0.0012	0.659	197	196
1986	3,829	6,928	21	2	0.0003	0.144	5	4
1987	4,126	7,293	32	4	0.0007	0.411	231	229
1988	4,261	7,348	27	3	0.0005	0.272	285	274
1989	4,337	7,267	20	5	0.0012	0.688	124	123
1990	4,689	7,796	19	4	0.0009	0.513	11	9
1991	4,559	7,504	21	3	0.0007	0.400	60	47
1992	4,767	7,515	15	3	0.0006	0.399	29	27
1993	4,936	7,722	22	1	0.0002	0.130	1	0
1994	5,113	7,825	18	4	0.0008	0.511	239	237
1995	5,329	8,106	30	1	0.0002	0.123	160	160
1996	5,450	7,851	31	3	0.0006	0.382	342	342
1997	6,339	9,925	43	3	0.0005	0.302	3	2
1998	6,344	10,535	41	1	0.0002	0.095	1	0
1999	6,689	10,861	40	2	0.0003	0.184	12	11
2000	7,152	11,054	49	2	0.0003	0.181	89	89
2001	6,995	10,633	41	6	0.0003	0.188	531	525
2002	6,928	10,276	34	0	0.0000	0.000	0	0
2003	7,016	10,228	51	2	0.0003	0.196	22	21
2004	7,604	10,783	23	1	0.0001	0.093	13	13
2005	7,844	10,910	33	3	0.0004	0.275	22	20
2006	7,852	10,627	26	2	0.0003	0.188	50	49
2007	7,860	10,720	24	0	0.0000	0.000	0	0

Notes: All data reflects systemwide scheduled service performed by U.S. air carriers operating under 14 CFR 121. Data for 1927 passengers and fatalities were available for domestic flights only. Sabotage-caused accidents and fatalities are included in counts but not rates. Onboard fatalities include passengers and crewmembers.

Source: Air Transport Association,
<http://www.airlines.org/economics/specialtopics/SafetyRecordOfCarriers.htm>



1929, passengers undergo U.S. Customs at Alhambra Airport, California

Appendix C: List of FAA Administrators

Elwood R. Quesada, November 1, 1958 - January 20, 1961
Deputy Administrator James T. Pyle became acting administrator

Najeeb E. Halaby, March 3, 1961 - July 1, 1965

William F. McKee, July 1, 1965 - July 31, 1968
Deputy Administrator David D. Thomas became acting administrator

John H. Shaffer, March 24, 1969 - March 14, 1973

Alexander P. Butterfield, March 14, 1973 - March 31, 1975
Deputy Administrator James E. Dow became acting administrator

John L. McLucas, November 24, 1975 - April 1, 1977
Quentin S. Taylor, nominated for Deputy Administrator, became acting administrator

Langhorne M. Bond, May 4, 1977 - January 20, 1981
Associate Administrator for Administration Charles E. Weithoner became acting administrator

J. Lynn Helms, April 22, 1981 - January 31, 1984
Deputy Administrator Michael J. Fenello became acting administrator

Donald D. Engen, April 10, 1984 - July 2, 1987
Director of the New England Region, Robert Whittington became acting administrator

T. Allan McArtor, July 22, 1987 - February 17, 1989
Executive Director for Policy, Plans, and Resource Management Robert Whittington became acting administrator

James B. Busey IV, June 30, 1989 - December 4, 1991
Deputy Administrator Barry L. Harris became acting administrator

Thomas C. Richards, June 27, 1992 - January 20, 1993
Acting Deputy Administrator Joseph M. Del Balzo became acting administrator

David R. Hinson, August 10, 1993 - November 9, 1996
Deputy Administrator Linda Daschle became acting administrator until her resignation from the agency on January 31, 1997; on February 1, 1997, Barry Valentine became acting administrator

Jane F. Garvey, August 4, 1997 - August 2, 2002
Acting Deputy Administrator Monte Belger became acting administrator

Marion C. Blakey September 13, 2002 - September 13, 2007
Deputy Administrator Robert Sturgell became acting administrator



1936, Newark, New Jersey, airport tower

Appendix D: List of Acronyms

AAS	Advanced Automation System	CRAF	Civil Reserve Air Fleet
ACCC	Area Control Computer Complex	DoD	U.S. Department of Defense
AD	airworthiness directive	DOT	U.S. Department of Transportation
ADAP	Airport Development Aid Program	DSR	Display System Replacement
ADS-B	Automatic Dependent Surveillance-Broadcast	ECG	En route Communications Gateway
AEDT	Aviation Environmental Design Tool	EDS	Environmental Design Space
AMK	anti-misting kerosene	EDMS	Emissions and Dispersion Modeling System
APMT	Aviation environmental Portfolio Management Tool	EPA	Environmental Protection Agency
ARAC	Aviation Rulemaking Advisory Committee	EPNdB	effective perceived noise level in decibel scale
ARTCC	air route traffic control center	ERAM	En Route Automation Modernization
ARTS	Automated Radar Terminal System	FAA	Federal Aviation Administration
ASIAS	Aviation Safety Information Analysis and Sharing	FAA	Federal Aviation Agency (prior to 1966)
ASDE	airport surface detection equipment	FAR	federal aviation regulation
ASDE-X	Airport Surface Detection Equipment-Version X	FAS	Federal Aviation Service
ATC	air traffic control	FASTA	Federal Aviation Science and Technological Association
ATCRBS	Air Traffic Control Radar Beacon System	FBI	Federal Bureau of Investigation
ATO	Air Traffic Organization [FAA]	FCC	Federal Communications Commission
BCAS	beacon avoidance system	FHWA	Federal Highway Administration
CAA	Civil Aeronautics Authority	FLRA	Federal Labor Relations Authority
CAAFI	Commercial Aviation Alternative Fuels Initiative	FMCS	Federal Mediation and Conciliation Service
CAB	Civil Aeronautics Board	FSM	Federal Security Manager
CAEP	Committee on Aviation Environment Protection [ICAO]	GAO	Government Accountability Office
CARD	civil aviation research and development [DOT/NASA study]	GDPE	Ground Delay Program Enhancement
CAST	Commercial Aviation Safety Team	GPS	[U.S.] Global Positioning System
CDA	continuous descent approach	HFACS	Human Factors Analysis and Certification System
CDM	Collaborative Decision Making [Free Flight Program tool]	ICAO	International Civil Aviation Organization
CID	controlled impact demonstration	IFF	identification, friend, or foe
CIP	Capital Investment Plan	IFR	instrument flight rules

1912, Ruth Law set many aviation records in her Curtiss Pusher



ILS	instrument landing system	pFAST	passive Final Approach Spacing Tool [Free Flight Program tool]
INM	Integrated Noise Model	R&D	research and development
IPT	integrated product team	REDAC	Research and Engineering Development Advisory Committee
ISSS	Initial Sector Suite System	RLV	reusable launch vehicle
JPDO	Joint Planning and Development Office	RNAV	area navigation
LAAS	Local Area Augmentation System	RNP	Required Navigation Performance
LLWAS	Low Level Wind Shear Alert System	RVSM	Reduced Vertical Separation Minima
MAGENTA	Model for Assessing Global Exposure to the Noise of Transport Aircraft	SAFER	Special Aviation Fire and Explosion Reduction
MLS	Microwave Landing System	SAGE	semi-automatic ground environment
MWAA	Metropolitan Washington Airport Authority	SFAR	special federal aviation regulation
NAATS	National Association of Air Traffic Specialists	SMA	Surface Movement Advisor [Free Flight Program tool]
NAS	national airspace system	STARS	Standard Terminal Automation Replacement System
NASA	National Aeronautics and Space Administration	SUP	suspected unapproved parts
NOTAM	notice to airmen	SWIM	Systemwide Information Management
NATCA	National Air Traffic Controllers Association	TACAN	tactical air navigation
NATI	national air transportation inspection	TAMR	Terminal Automation Modernization-Replacement
NEXRAD	Next Generation Weather Radar	TCA	Terminal Control Area
NextGen	Next Generation Air Transportation System	TCAS	traffic alert and collision avoidance system
NORAD	North American Aerospace Defense Command	TDWR	Terminal Doppler Weather Radar
NPIAS	National Plan of Integrated Airport Systems	TMA	Traffic Management Advisor [Free Flight Program tool]
NTSB	National Transportation Safety Board	TNA	thermal neutron activation
ODAPS	Oceanic Display and Planning System	TRACON	terminal radar approach control [facility]
OEP	Operational Evolution Partnership	TSA	Transportation Security Administration
PAMRI	Peripheral Adapter Module Replacement Item	UAV	unmanned aerial vehicle
PARTNER	Partnership for Air Transportation Noise and Emissions Reduction	URET	User Request Evaluation Tool [Free Flight Program tool]
PASS	Professional Airway Systems Specialists	VFR	visual flight rules
PATCO	Professional Air Traffic Controllers Organization	VOR	very high frequency omnidirectional range
		WAAS	Wide Area Augmentation System



Washington National Airport Tower

Author's Biography

Dr. Theresa L. Kraus joined the FAA in 1991 as a senior historian and recently served as an analyst in the ATO Operations Planning Research and Development Office. Prior to her 2008 appointment as the agency historian, she authored or co-authored a range of articles and publications on FAA and aviation history. Before coming to the FAA, she worked for the U.S. Army Center of Military History, where she served as one of the authors and co-editor the Army's official history of Operations Desert Shield/Desert Storm. Dr. Kraus holds a Ph.D. in history from the University of Maryland. Her additional publications include complete books, chapters in anthologies, and a variety of articles appearing in military and aviation magazines and journals.



1920s, pilot ensures the aircraft's weight and balance

