

AIR WEATHER SERVICE:

OUR



**HERITAGE
1937-1987**



AIR WEATHER SERVICE:

OUR HERITAGE

1937-1987



MILITARY AIRLIFT COMMAND
HISTORICAL OFFICE SPECIAL STUDY

BY
RITA M. MARKUS
AND
MASTER SERGEANT NICHOLAS F. HALBEISEN
AND
JOHN F. FULLER

Edited By
James K. Matthews, PhD.

and

Joylyn I. Gustin
Military Airlift Command
United States Air Force
Scott AFB, Illinois
July 1987

THE WHITE HOUSE

WASHINGTON

1 July 1987

I am pleased to send my congratulations to the Air Weather Service as you celebrate your Golden Anniversary.

For 50 years you have done an outstanding job supporting America's military forces and originating many of the major advances in the science of meteorology. The Air Weather Service plays a vital role in the decision making process of military commanders by providing necessary weather information. You also perform a crucial function by aiding civilian meteorologists with accurate and timely weather reports through the use of satellites, radar and air reconnaissance.

I salute the men and women of the Air Weather Service for a job well done. With your continued dedication and professionalism I am sure that the forecast of the Air Force will always be "clear and a million." Again, congratulations and God bless you.

Ronald Reagan



The "father" of Air Weather Service, Capt Randolph P. "Pinkie" Williams (right) in balloon basket at Scott Field, Illinois, in April 1935. It was largely due to Capt Williams' efforts that the Army Air Corps Weather Service came into existence in 1937. In basket with Capt Williams is Capt Orvil A. Anderson, renowned balloonist who rose to the rank of major general in the Air Force.

FOREWORD

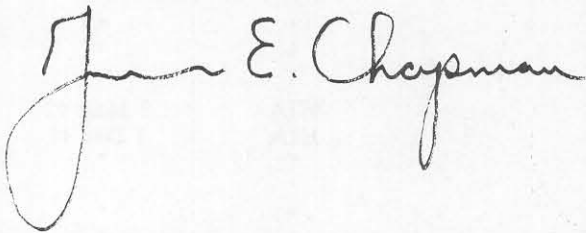
Today, 1 July 1987, is the date we recognize as the 50th birthday of our Air Weather Service. On this day in 1937 the War Department transferred the responsibility for providing Army Air Corps weather services from the Signal Corps to a small group known then as the Army Air Corps Weather Service. At birth, the fledgling weather service consisted of about 280 enlisted men and 22 officers manning 40 weather stations. They were led by 1st Lt Robert M. Losey, who reported directly to the Army Air Corps Commanding General.

This book, a combined effort of the Military Airlift Command's Historical Office and the AWS staff, begins with that day in 1937 and takes us on a 50-year journey through time as we examine the places, faces, and events that have shaped our Air Weather Service into what it is today.

As the Air Weather Service evolved from its original complement of about 300 people, it gradually acquired tools that make the provision of weather services faster and more accurate and responsive to customer needs. Our "supercomputer," for example, performs millions of calculations in the time it once took a forecaster to sharpen a pencil. Weather satellites offer a view of our planet that few in 1937 could have dreamt of. And communications of the sort only science fiction writers dared discuss 50 years ago tie us and our hard-won knowledge and technology together as if we were all in the same room.

But the Air Weather Service has never been equipment-centered, and probably never will be. The Air Weather Service is people. No matter whether the roster lists 300 or 3,000 names, people have always been the heart of Air Weather Service, and people have made Air Weather Service what it is. It was that way in 1937, it is still that way in 1987, and I have no reason to believe it will not be that way in 2037.

The thousands of people who have worn the Air Weather Service insignia through times of international crisis or in peacekeeping may correctly and proudly use this occasion, stirred by the recollections motivated by this book, to reflect on the individual contributions they have made to their country. When future Air Weather Service members look through these pages, I hope they feel the same sense of pride and accomplishment that those of us who helped shape the first 50 years are expressing today.

A handwritten signature in cursive script that reads "George E. Chapman". The signature is written in dark ink and is positioned above the typed name and title.

GEORGE E. CHAPMAN
Brigadier General, USAF
Commander

DEDICATION

"Pinkie Williams was the true father of the Air Corps Weather Service, and established the first real Air Corps weather station at Langley Field around the mid-1930s."

—Colonel Arthur F. Merewether, USAF (Retired)

"No one has ever given Major R. P. Williams the credit due him for prying the meteorological service loose from the Signal Corps. It was his dream and he was the prime mover. He was a regular bulldog in his tenacity to get hold of the kind of service that the Air Corps had to have. I have no doubt that World War II would have caught us without a weather service had it not been for Major Williams."

—Major General J. K. Lacey, USAF (Retired)

This book is dedicated to the 222 Air Weather Service members who lost their lives in the service of their country, and especially to Colonel Randolph P. ("Pinkie") Williams, the founder of the Army Air Corps Weather Service. His aggressive pioneering and organizational efforts in 1936-37 are generally acknowledged to have been instrumental in the creation of the Air Weather Service as we know it today. Colonel Williams was killed in action September 5, 1944, when his photographic reconnaissance aircraft was shot down over France.

AIR WEATHER SERVICE PERSONNEL KILLED IN ACTION/MISSING IN ACTION

World War II

Name/Serial #	KIA/MIA	Date
Capt Jean W. Dixon; 0-426149	KIA	13 Dec 44
2Lt Elgin E. Fisher; 0-704424	"	"
2Lt William C. Stilwell; 0-713239	"	"
2Lt Harold G. Brink; 0-874191	"	"
TSgt John F. Spellman; 11013779	"	"
Sgt Albert F. Whalen; 12174283	"	"
TSgt Walter C. Ahrens; 6908767	KIA	23 Jan 45
1Lt William L. Knowlan; 0-701066	MIA	10 Mar 45
2Lt Charles H. Janssen, Jr; 0-874309	"	"
2Lt Charles A. Cannon, Jr; 0-704460	"	"
SSgt William H. Hutchings; 11064264	"	"
SSgt Frederick E. Keup; 36325666	"	"
Maj Robert C. Kunz; 0-436779	MIA	19 Jun 45
F/O James M. Pyca; T-137530	"	"
1Lt Stanley Z. Abrams; 0-675977	"	"
SSgt Billy R. Isham; 39296231	"	"
SSgt Alvin C. Schaefer; 37477372	"	"
1Lt James H. Cooke; 0-418668	MIA	7 May 42
Cpl Harold W. Borgelt; 6277330	KIA	7 Dec 41
TSgt Daniel A. Dyer; 6293492	"	"
Cpl James M. Topalian; 6922392	"	"
Pfc Sherman Levine; 16003162	"	"
Pvt Richard E. Livingston; 6987527	"	"
2Lt Robert L. Shaw; 0-874043	KIA	25 Oct 44
Pvt George D. Cunning; 31135353	KIA	2 Feb 43
Pvt Gordon S. Hart; 11072105	"	"
Pvt Earl W. Wilson; 11062598	"	"
Lt Walter R. Weston; 0-875894	MIA	19 Oct 45
TSgt Cletus G. Bice; 35132444	MIA	22 May 45
Capt Edward P. McDermott; 0-561578	KIA	26 Apr 44
2Lt Leland T. Harder, Jr; 0-873807	KIA	26 Mar 44
MSgt James K. Hastings; 11030521	MIA	6 Nov 44
Cpl Carl E. Houston; 16155729	MIA	3 Mar 45
1Lt William E. Stodghill; 0-912337	KIA	25 Apr 43

**AIR WEATHER SERVICE PERSONNEL
KILLED IN ACTION/MISSING IN ACTION**

WORLD WAR II (continued)

Name/Serial #	KIA/MIA	Date
1Lt James W. Pflueger; 0-436792	KIA	9 Nov 42
Maj Frank T. Cox, Jr; 0-484565	KIA	24 Dec 44
SSgt David W. Fogo; 35281575	KIA	28 Mar 44
Col Joseph A. Miller, Jr; 0-20752	MIA	21 Oct 44
MSgt Donald E. Tice; 6575114	KIA	14 Jun 43
TSgt Herman C. Hudson; 14049053	KIA	16 Mar 44
SSgt Everett N. Dietrich; 16026822	KIA	23 Mar 44
SSgt Charles H. Hammill; 39034039	MIA	25 Sep 44
Cpl Robert P. Herbig; 35583726	"	"
Sgt Harold E. Gstalder; 39197840	MIA	25 Jul 45
Cpl John R. Waite; 36404344	MIA	27 Jul 45
Cpl Arthur H. Gill, Jr; 33587829	MIA	5 Jul 44
Sgt Joseph H. Kimmel, Jr; 34057874	MIA	30 Aug 44
MSgt Raymond B. Orner, Jr; 6578587	KIA	16 Dec 43
2Lt Raymond W. Pope; 0-873994	MIA	20 Mar 44
Maj William P. "Tony" Conway, Jr; 0900356	KIA	1 Apr 44
SSgt Russell E. Hill; 37213907	KIA	22 Apr 44
TSgt Ben Slobutsky; 36398057	MIA	10 Oct 43
1Lt Amos M. Hutchinson, Jr; 0-436139	MIA	16 Feb 43
1Lt J. J. Mann; 0-745438	KIA	7 Jul 44
2Lt John H. Macklin; 0-874360	KIA	22 Sep 44
MSgt Richard W. Stoodley; 32285356	"	"
Maj Jay Jacobs; 0-437680	KIA	23 Mar 45
1Lt Arthur J. Brestlin; 0-567449	"	"
MSgt Thomas W. Smith; (Unknown)	MIA	21 Mar 45
Capt Robert G. Aho; 0-436624	KIA	13 Jun 43
2Lt Richard W. Beard, Jr; 0-880517	KIA	12 Jan 45
2Lt Robert G. Kraybill; 0-874335	MIA	27 Jan 45
Cpl Walter A. Marsh, Jr; 38529217	MIA	20 Jan 45
Sgt Louis J. Heller; 13060926	KIA	26 Sep 44
Cpl Leonard S. Harrow; 36719055	KIA	6 Oct 44
1Lt James A. Fuller; 0-876013	KIA	12 Aug 45
1Lt Howard R. Henry; 0-865975	MIA	13 Dec 44
Sgt Myron Hirshfield; 12042304	KIA	6 Dec 44

KOREA

Capt Warren G. Harding; A0663147	KIA	7 Dec 50
Capt David H. Grisham; A00684725	MIA	3 Sep 50
1Lt James M. Schooley, Jr; A02078699	KIA	9 Oct 50
Capt Gerald L. Brose; A00714856	MIA	11 Aug 51
Capt Bruce K. Nims; A00868523	MIA	21 Oct 51
TSgt Carl M. Spence; AF16247665	MIA	22 Feb 52

SOUTHEAST ASIA

SSgt James C. Swann; 14451249	KIA	4 Mar 68
Sgt Edward W. Milan; 11619777	"	"
SSgt Eduardo Garcia, Jr; 18488899	KIA	18 Mar 68
A1C Kenneth E. Baker, Jr; 15841464	KIA	22 Mar 68

RECONNAISSANCE

1Lt Joseph E. Finkey	KIA	31 Dec 47
1Lt William N. Green	"	"
1Lt Paul G. Jordan	"	"
2Lt Donald DeNeau	"	"
MSgt James D. Matthew	"	"
TSgt George W. Bessire	"	"
SSgt David C. Brown	"	"

**AIR WEATHER SERVICE PERSONNEL
KILLED IN ACTION/MISSING IN ACTION**

RECONNAISSANCE (continued)

Name/Serial #	KIA/MIA	Date
Sgt Edward C. Decker	KIA	31 Dec 47
Cpl Earl P. Domangue	"	"
1Lt Otis A. Young	KIA	28 Sep 48
1Lt Jay A. Steinbrenner	"	"
1Lt John P. Trostel	"	"
TSgt Harry A. Holt	"	"
Maj Roy H. Bruns	KIA	3 Nov 49
Capt Cleo S. Maddox	"	"
Capt John C. Mays	"	"
1Lt James E. Shewey	"	"
1Lt Andrew J. Rooks	"	"
TSgt Clarence J. Hyatt	"	"
SSgt Harry N. Barker	"	"
SSgt Preston S. Treadway	"	"
Sgt James A. Sapp	"	"
Cpl Harry N. Carden	"	"
Cpl Robert D. Myrman	"	"
1Lt Walter Krueger	KIA	26 Feb 52
2Lt Vincent P. Gendusa	"	"
2Lt Robert J. Shaw	"	"
MSgt Frank P. Leach	"	"
Sgt Donald E. Parker	"	"
Cpl Francis X. Toland	"	"
Maj Bruce Acebedo	KIA	5 Apr 52
Capt Guilford A. Hopkins	"	"
Capt Leonard B. Winstead	"	"
2Lt August I. Lam	"	"
MSgt Edwin M. Fultz	"	"
TSgt George R. Shook	"	"
SSgt Elbert E. King	"	"
SSgt Hayden C. Shulz	"	"
SSgt Carlton J. Fose	"	"
Capt Robert L. Kizer	"	"
Maj Sterling L. Harrell	MIA	26 Oct 52
Capt Donald M. Baird	"	"
Capt Frank J. Pollak	"	"
1Lt William D. Burchell	"	"
1Lt Clifton R. Knickmeyer	"	"
MSgt Edward H. Fontaine	"	"
A1C Alton B. Brewton	"	"
A1C William Colgan	"	"
A1C Anthony J. Fasullo	"	"
A3C Rodney E. Verrill	"	"
Capt Guy M. Broughton	KIA	18 Sep 53
Capt John A. Lelland	KIA	18 Sep 53
Capt William T. Allen	"	"
Capt Thomas H. Smatana	"	"
Capt Thomas E. Zapolsky	"	"
SSgt Walter C. Drew	"	"
A2C Billy G. Elliott	"	"
Capt Charles F. Baker	KIA	25 Sep 53
Capt Leonard N. Chapman, Jr	KIA	31 Aug 56
Maj Dale Richardson	"	"
1Lt William J. Wolters, Jr	"	"
MSgt Fred T. Gregg, Jr	"	"
Capt Everett E. Dyson	"	"
2Lt William W. Faustlin	KIA	31 Aug 56
A2C Elijah Spencer	"	"
A2C Melvin O. Lindsay	"	"
A3C Douglas W. Maxson	"	"

**AIR WEATHER SERVICE PERSONNEL
KILLED IN ACTION/MISSING IN ACTION**

RECONNAISSANCE (continued)

Name/Serial #	KIA/MIA	Date
SSgt Ronald R. Ragland	KIA	31 Aug 56
TSgt Richard K. Brown	"	"
Capt Raymond A. Durr	KIA	28 Dec 56
Capt Dewey A. Keithly	"	"
Capt Leonard A. Klawa	"	"
Capt Lawrence E. Monies	"	"
1Lt Waylon H. Moseley	"	"
SSgt William A. Taylor	"	"
A2C Gerald R. Arnn	"	"
A2C John E. Hollis	"	"
A2C Mose F. Thomas, Jr	"	"
Capt Robert E. Eichelberger	KIA	17 Jan 57
1Lt Robert E. McGough	"	"
Capt William P. Spil	"	"
Capt Harold W. Bales	"	"
1Lt Ralph L. Sampson	"	"
2Lt Bobby H. Spencer	"	"
MSgt Woodrow B. Russell	"	"
A2C Robert C. Glenn	"	"
A3C Roger D. Sigman	"	"
A1C Donald D. Dodds	"	"
A2C Thomas F. Patterson	"	"
A1C John W. Cramer	"	"
Capt Albert J. Lauer	KIA	15 Jan 58
Capt Clyde W. Tefertiller	"	"
Capt Marcus G. Miller	"	"
1Lt Courtland Beeler III	"	"
1Lt Paul J. Buerkle, Jr	"	"
TSgt Delivan L. Gordon	"	"
SSgt Kenneth L. Tetzloff	"	"
SSgt Kenneth L. Houseman	"	"
A1C Randolph C. Watts	"	"
A1C Bernard G. Tullgren	"	"
Capt Robert F. Aldrich	KIA	4 Feb 59
Capt Andrew P. Stefurak	"	"
Capt Robert A. Brown	"	"
Capt William Potter, Jr	"	"
1Lt Carlton S. Whitney	"	"
1Lt Frank C. King, Jr	"	"
MSgt Donald R. Fitzgerald	"	"
TSgt Alfred E. Estes	"	"
SSgt Jack A. Parmelee	"	"
SSgt Harvey O. Ward	"	"
A1C Franklin D. Radcliff	"	"
A3C Scott Stephens, Jr	"	"
Capt John R. Willis	KIA	8 Sep 60
1Lt Robert W. Blanton	"	"
1Lt Howard S. Kelly	"	"
2Lt Lawrence K. Draper	"	"
1Lt William L. Hesse	"	"
MSgt Claude M. Burgess	"	"
MSgt James W. Fields, Jr	"	"
A1C Edward L. Armstead	"	"
A3C Barney Jablonski	"	"
A3C Alfred Campbell, Jr	"	"
TSgt Vernon W. Powell	"	"
Capt Paul H. Palmer	KIA	17 Sep 62
Capt Joseph W. Ivins	"	"
Lt Glenn Sprague	KIA	16 Oct 62
Lt Bobby Galbrecht	"	"

**AIR WEATHER SERVICE PERSONNEL
KILLED IN ACTION/MISSING IN ACTION**

RECONNAISSANCE (continued)

Name/Serial #	KIA/MIA	Date
Maj Joseph M. Pair	KIA	17 Sep 63
Capt Carl R. Laffoon	"	"
Capt Warren S. Hillis	"	"
Maj Conrad L. Lienhart	KIA	21 Apr 64
TSgt Charles F. Heckman	"	"
Capt Robert O. Bartlett	KIA	21 Apr 64
Capt Leo R. Otway	KIA	7 Nov 66
Amn Terry J. Nirolis	"	"
Lt Col James B. McCravy	KIA	15 Apr 70
Capt Harold A. "Pat" Moore, Jr	KIA	27 Jun 72
Maj Dale M. Mann	KIA	27 Jun 72
1Lt Gary Wayne Crass	KIA	27 Apr 73
1Lt Michael Patrick O'Brien	KIA	12 Oct 74
1Lt Timothy John Hoffman	"	"
Capt Edward R. Bushnell	"	"
TSgt Kenneth George Suhr	"	"
Sgt Detlef Wolfgang Ringler	"	"

ACKNOWLEDGEMENTS

The authors wish to thank the following people whose dedication, knowledge, and hard work, and historical expertise were invaluable in the publication of this book:

Headquarters, Military Airlift Command, Reprographics Division, especially Mr. Charles W. Brantley; the 1201st Field Print Squadron, especially Mrs Tana L. Nordaker and Ms Ann Leonard; Detachment 1, 1361st Audiovisual Squadron, especially Lt Col Edward F. Wittel, commander, TSgt Del Rosenkranz, Sgt Ronald A. Reed, A1C Edward Southwood, Sgt Toni Tungul, and Mr Clement "Slim" Weidemann.

Special thanks to 7th Weather Wing's commander, Colonel Thomas O. Proffitt; vice commander, Colonel Philip D. Wood, the Directorate of Operations, Colonel William B. Freeman, and Chief of Operations, Plans Branch, Lieutenant Colonel Richard D. Stonemark for their continued encouragement and support to MSgt Halbeisen through the period that this book was being written. We are also indebted to Major John F. Phillips for his work in obtaining the cartoon strips and permission to reprint squadron emblems designed by the Walt Disney Company. We wish to convey our gratitude to the following men and women of 7th Weather Wing; CMSgt John Steffen, MSgt James D. Agnes, SSgt Jeffrey H. Miller, SSgt Trina L. Gioja, Sgt Andrea Y. Randle, A1C Kevin T. Shanahan, Ms Joni Fix, Ms Gracy Thomas, and especially Mr. Thomas Dorenkamper.

We are indebted to Ms Kyong Im Oh for her last minute contributions of art work so vital to the completion of the color emblem section.

Also Headquarters Air Weather Service's Task Force 50 Committee, especially Colonel Ronald R. Brown, Colonel Patrick J. Larkin, and Major Carol L. Belt; the Directorate of Small Computer and Configuration Management's Lieutenant Colonel John M. Haas and Major Judson E. Stailey; the Directorate of Aerospace Services' CMSgt William Williams; the Directorate of Current Operations' Central Support Division's Lieutenant Colonel Frank Misciasci, Major Paul Demmert, and Major John E. Vogel; the Directorate of Reconnaissance Requirements' Captain Howard K. Arnold; the USAF Environmental Technical Applications Center's Mr George M. Horn; Colonel Dale Flinders, USAF, Retired; Public Affairs' MSgt Michael T. Devine; and Air Weather Service Personnel's MSgt Michael A. Burroughs.

We are deeply indebted to the USAF Historical Research Center's Dr. Frederick J. Shaw, Jr., Major Lester Sliter, MSgt Carl Bailey, and especially Mrs Judy G. Endicott.

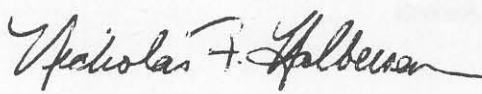
And finally, the Military Airlift Command's Historical Office: Ms Joylyn I. Gustin, for her excellent editorial skills and professional guidance; Ms June Dobrinich, for her patience and understanding during the rewrites; Dr Hans S. Pawlisch, for his support and professional direction; and Dr James K. Matthews, the MAC Command Historian, for his guidance on organization, format and style.

You may all take pride in the publication of this book, for without just one of you this book would not have been the quality product that it is.

Sincerely and gratefully



RITA M. MARKUS



MSGT NICHOLAS F. HALBEISEN



JOHN F. FULLER

TABLE OF CONTENTS

	<i>PAGE</i>
Title Page	i
President's Congratulatory Letter	ii
Frontispiece	iii
Foreword	iv
Dedication	v
Acknowledgements	x
Table of Contents	xi
SECTION I: The Roots of Air Weather Service	1
SECTION II: Air Weather Service Chronology	5
SECTION III: Commanders Biographies	53
Williams	53
Losey	53
Merewether	53
Zimmerman	54
Bassett	54
Yates	55
Senter	56
Moorman	57
Peterson	57
Nelson	58
Pierce	59
Best	60
Aldrich	60
Collens	61
Rowe	62
Kaehn	63
Chapman	64
SECTION IV: Headquarters Staff by Function	64
Individual Mobilization Augmentees	66
Deputy Chief/Vice Commanders	66
Chiefs of Staff	66
Deputy Chiefs of Staff, Aerospace Sciences	67
Deputy Chiefs of Staff, Operations	67
Deputy Chiefs of Staff, Logistics	67
Deputy Chiefs of Staff, Systems	68
Chief Scientists	68
Senior Enlisted Advisors	68
Deputy Chiefs of Staff, Personnel	68
Deputy Chiefs of Staff, Plans	69
Inspector General/Air Inspector	69
Comptroller	70
Deputy Chiefs of Staff/Directorate of Air Operations	70
Air Weather Service Historian	70
SECTION V: Air Weather Service Awards	71
Bassett	71
Best	71
Collens	72
Merewether	72
Moorman	74
Pierce	75
Senter	75
Williams	76
Yates	77
Zimmerman	78
Airman of the Year	79
Junior Officer of the Year	79
NCO of the Year	80
Senior NCO of the Year	80
Spengler	80
Grimes	81
Jenner	81
Barney	82
Observer (Observing)	82
Observer (Specialized Support)	83

Technical Supervisor	83
Forecaster (Centralized Facility)	84
SECTION VI: Air Weather Service Emblems and Insignia	86
Emblem Plates	89
SECTION VII: Headquarters Lineage	94
SECTION VIII: Wing Lineages	95
SECTION IX: Group Lineages	103
SECTION X: Squadron Lineages	111
SECTION XI: Reconnaissance Lineages	140
SECTION XII: Corollary Units	153
SECTION XIII: Army Air Forces Base Units	154
SECTION XIV: Weather Regions	159
Appendix I: Lineage Terms	162
Appendix II: Assigned Personnel	164
Appendix III: Aircraft Possessed	165
Appendix IV: Bibliography	166
Air Weather Service Song	inside back cover

SECTION I: THE ROOTS OF AIR WEATHER SERVICE

Although today's Weather Bureau and the Air Weather Service are distinct and separate organizations, they have a mutual share in the origins of meteorology in the United States. The interwoven background of these two organizations, prior to 1917, can be divided into four distinct periods.

The first period, 1644-1819, was characterized by the individual efforts of prominent citizens such as doctors, clergymen, judges, and scientists. The first known regular record of the weather on the North American continent was kept by the Reverend John Campanius at the Swedes Fort near Wilmington, Delaware, in 1644-65. The Honorable Paul Dudley, chief justice of Massachusetts, kept a regular weather record in Boston, 1729-30. In September 1743 Benjamin Franklin, then Postmaster General, using reports of numerous postmasters, deduced the movement of a hurricane moving up from the West Indies. Thomas Jefferson at Monticello and James Madison at Williamsburg, Virginia, maintained a series of contemporaneous observations showing that the climate conditions harmonized completely.

The second period, 1819-1870, was marked by more concentrated individual investigations and by the interest of the Army's Surgeon General, James Tilton, who, in 1814, directed hospital surgeons to record the weather. Tilton's successor, Dr Joseph Lovell, continued the practice of collecting reports which outlined the climate, diseases most prevalent in the vicinity, their most probable causes, and the general state of the local weather — temperature, wind, rain, etc. Dr Lovell also suggested the creation of a weather observing system, improvement of the soldiers rations and clothing, and abolition of the whiskey ration. His recommendation concerning a weather observing system led to an Army regulation with the first recorded observations being made in January 1819. The thermometer and the wind vane were the only weather instruments used at first. In 1836 a rain gauge was added, and in 1840 and 1841 additional funds allowed the purchase of barometers and hygrometers. In 1842 a "Meteorologist to the U. S. Government" was appointed by Congress and assigned to the Surgeon General's Office.

The third period, 1870-1890, saw formal action by Congress to create a functioning weather service in 1870 by charging the War Department with "... taking meteorological observations at the military stations in the interior of the continent and at other points in the States and territories of the United States, and for giving notice on the northern lakes and on the seacoast, by magnetic telegraph and marine signals, of the approach and force of the storms." The Secretary of War assigned the Chief Signal Officer, General A. J. Myer, the duty of executing the order. General Myer's first step was the establishment of a school of instruction in meteorology at Fort Whipple (later named Fort Myer). In November 1870 the first bulletin announcing storms on the Great Lakes was published. In January of the following year the first "weather probabilities" were published. Issued three times daily, these forecasts covered eight areas: New England, Middle States, South Atlantic states, Lower Lakes, Upper Lakes, Eastern Gulf, Western Gulf, and Northwest.

The rapid growth of the Signal Corps' weather service is reflected in the following annual appropriations for meteorological works: (exclusive of pay and allowances of military personnel).

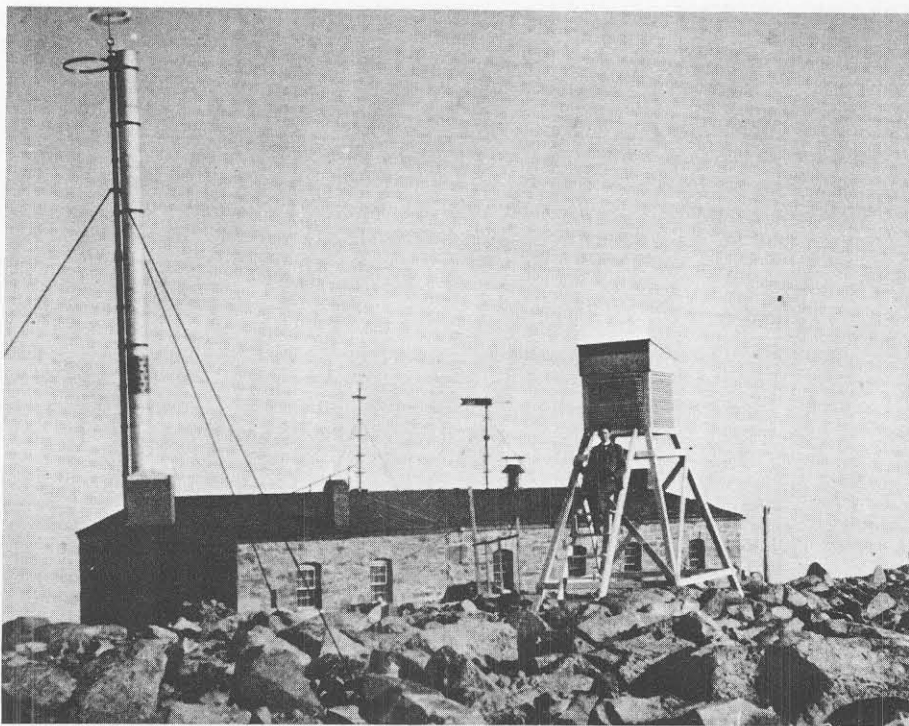
1870	\$ 15,000
1871	\$ 50,000
1872	\$ 102,451
1873	\$ 250,000

This period also saw the establishment of the Weather Station atop Mount Washington, New Hampshire, and stations at Fort St Michaels and St Paul's Island, Alaska, in 1876. By 1882 an extensive Alaskan observing system had been developed. In 1885 the Signal Corps opened a weather station on top of Pikes Peak, Colorado, which remained in operation under the Weather Bureau until 1894, when it was closed due to budget cuts.

The fourth period, 1890-1917, saw the creation of the U. S. Weather Bureau under the Department of Agriculture, by a Congressional Act of 1 October 1890 and effective 1 July 1891. On that date, buildings, telegraph lines, stations and apparatus, and personnel were turned over to the Department of Agriculture.



An U.S. Army Signal Corps soldier, at Pikes Peak weather station, transmits latest weather data by heliograph (circa 1880s).



U.S. Signal Corps and Weather Bureau Station on Pikes Peak, altitude 14, 147 feet, circa 1890s (U.S. Signal Corps).



Weathermen of the U.S. Army Signal Corps with the American Expeditionary Forces in France, World War I (U.S. Signal Corps).

From 1891 until the U. S. entered World War I, there was practically no military weather service except for a limited capability to provide ballistic data for artillery firing.

The Weather Service of the United States Army was started under the Chief Signal Officer in 1917. Its mission was to provide the American Expeditionary Forces with all the meteorological information needed; to supply the aviation fields, the coast artillery stations, the ordnance proving grounds, and the gas warfare service within the United States with such meteorological and aerological data as might be useful to them; and to undertake special investigations in military meteorology and related problems.

For carrying out these projects it was necessary to provide 14 officers and approximately 300 men for duty in the Meteorological Section of the Signal Corps overseas, and 13 officers and approximately 175 men for duty in the United States. This number of men with meteorological experience was not available, and it was necessary to take men having satisfactory educational qualifications and give them additional training in meteorology. Through the cooperation of the National Research Council, the Committee on Education and Special Training of the General Staff, and by transfer from other military organizations, approximately 500 men were obtained.

The first group of 150 men obtained was sent to various Weather Bureau stations in the United States for training in meteorology. After a short period of training, nine of these men were sent to Fort Omaha, Nebraska, and in November 1917 the first military meteorological station was established. A school of meteorology was opened at College Station, Texas, with Dr Oliver I. Fassig as chief instructor, where approximately 300 men were given preliminary training in meteorology. In September Majors W. R. Blair and E. H. Bowie were sent abroad to begin the work there.

The meteorological service with the American Expeditionary Forces immediately made plans for cooperation with the French and British meteorological service at the front. The first American station was established in May 1918 at the flying field of the First Corps Observation

Group located at Ourches (Meurthe-et-Moselle), France. The first station to take part in combat operations was the one which operated with the I Army Corps near Chateau-Thierry. Several stations operated with the First Army during the St-Mihiel and Meuse-Argonne operations. Thirteen officers and approximately 175 men were on duty in the United States. For the accomplishment of the second element of the program, 37 military meteorological stations were established in the United States, equipped with instruments and personnel for furnishing meteorological data to other branches of the Army. Most of these stations were at military posts and were established at the request of some branch of the military service.

By 1 July 1919, the Meteorological Section, Signal Corps, was practically on a peace-time basis; all men who enlisted for the period of the emergency had been discharged, excepting two, who had requested that they be retained temporarily (these two men were discharged during July 1919). Men who had enlisted in the Regular Army after the close of the war had been given training in meteorological work and were capable of performing, under direction, the necessary meteorological work of the Army.



U.S. Army Weather Forecast Center at Colombey-les-Belles, France, December 1918 (U.S. Signal Corps).



Pibal release near Pee Dee River, North Carolina, December 1927 (U.S. Signal Corps).

World War I had clearly demonstrated the need for and the potential of a military weather service and had produced airmen such as Billy Mitchell and, later, Jimmy Doolittle, who were dedicated to its development. Despite their ardent efforts and the passage of the Air Corps Act in 1926, military aviation developed slowly. There were too many skeptics and critics, some of whom were in the military, particularly the Navy, which viewed air power as a direct threat to the future of the battleship. Additionally, the nation's economy during the early thirties did not allow the allocation of sufficient funds to improve U. S. air power. By 1937 the U.S. had dropped to sixth place among the world powers in combat

airplane strength. It took World War II, launched by Hitler's Stuka dive bombers and the capitulation of France in 1940, to shake loose the critics and the necessary funds to build a modern Air Force.

If the development of the Air Force was retarded, it naturally follows that the development of an Air Weather Service would also be retarded. In 1935 there were only about 160 enlisted weathermen and half a dozen weather officers in the Signal Corps' weather service.

Two events in 1936 served to focus attention, both public and congressional, on the inadequacies of the Air Corps. One was the Air Corps' frustrating experience in flying the mail following President Roosevelt's cancellation of the civilian air line contracts with the Post Office. Severe winter weather, obsolete aircraft, inadequate clothing, and lack of training had contributed to ten fatal crashes during the three-month operation. It was a tribute to the airmen of the Air Corps that not one pound of the 777,389 pounds of mail flown was ever lost.

The other significant event was the report of the Baker Committee. The committee had been charged by the Secretary of War to investigate and report on the performance of the Air Corps in carrying the mail and the "adequacy and efficiency of its technical flying equipment and training for such a mission." Although the committee's report failed to recognize the potential of the airplane, it did lead to the creation of the General Headquarters Air Force (GHQ Air Force) in March 1935. The GHQ Air Force was charged with directing the combat operations of the Air Corps. The commanding general of the GHQ Air Force was at the same command level as the Chief of the Air Corps whose job it was to develop, procure, and supply equipment and train personnel. This division of leadership gave rise to many jurisdictional disputes, some of which directly affected the future of the weather service. Another recommendation in the Baker Committee report was that the Air Corps should operate the weather service in time of war.

Included in the organization of the newly created GHQ Air Force was a weather officer, Captain Randolph P. Williams, later recognized as the father of the Air Weather Service. In a number of studies during 1935 and 1936, Captain Williams outlined the shortcomings of the weather service as it then existed. Various proposals to improve the weather service were also made by the Signal Corps, the Air Corps, the Adjutant General, and, finally, the General Staff.

After a year of recommendations and debate, but no decisions, Major General John H. Hughes, Assistant Chief of Staff of the War Department General Staff, advised the Chief of the Air Corps in November 1936 that the weather service should be transferred from the Signal Corps to the Air Corps. The main thrust of General Hughes memorandum was that 95% of the weather service provided by the Army was used by the Air Corps, and that, as of December 1936, there were actually more weather officers in the Air Corps (10) than in the Signal Corps (7).

After another round of debate and counter-proposals, the Secretary of War ordered the Adjutant General to send a letter directing the transfer. The letter dated 28 January 1937, charged the Chief of the Air Corps to assume the responsibility effective 1 July 1937. Thus, the weather service entered a new era with the transfer of 40 weather stations, 22 weather officers, and 180 enlisted men from the Signal Corps to the Air Corps.



At work in an early military weather station, a meteorologist records the data telephoned to him by a colleague form the balloon release point outside.

SECTION II: AWS CHRONOLOGY, 1 July 1937—1 July 1987

1937

1 Jul War Department transferred responsibility for weather support of Army air arm from Army Signal Corps to Army Air Corps, and 1WS, 2WS, and 3WS activated, respectively, at March Field, CA, Langley Field, VA, and Barksdale Field, LA. However, Army Signal Corps retained responsibility for research and development, procurement, issuance, installation, and major maintenance of weather equipment and supplies to Army Air Corps, and for communications needed by its weather service.

First Chief, Weather Section, Office of the Chief of the Army Air Corps, Washington, DC, was First Lieutenant Robert M. Losey, who reported directly to the Commanding General, Army Air Corps, and was responsible for operations of Army Air Corps Weather Service.

In addition to 100-odd Army Air Corps enlisted men on weather duty, 180 Army Signal Corps enlisted men were transferred to Army Air Corps Weather Service. They and 22 officers (10 of whom subsequently attained general officer rank) manned 40 weather stations, 35 stateside and five overseas—two in Hawaii, two in Canal Zone, and one in Philippines.

1 Sep The Army Signal Corps' six-month school at Fort Monmouth, NJ, for training enlisted forecasters disbanded, and was reestablished by Army Air Corps at Patterson Field, OH.

1938

15 Nov The Army Airways Communications System (AACS subsequently redesignated Air Communications Service, Airways and Air Communications Service, and then Air Force Communications Service—AFCS) established. Its mission included responsibility to transmit Army Air Corps Weather Service communications.

1939

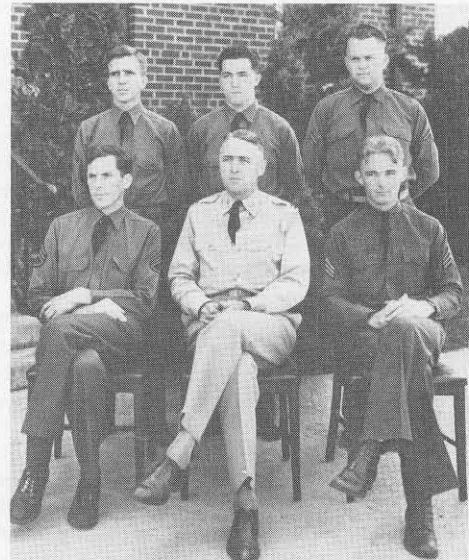
Sep The first class of seven enlisted men entered first formal Army Air Corps weather observer school at Scott Field, IL. Course duration was twelve weeks originally. It was later shortened to ten weeks.

1940

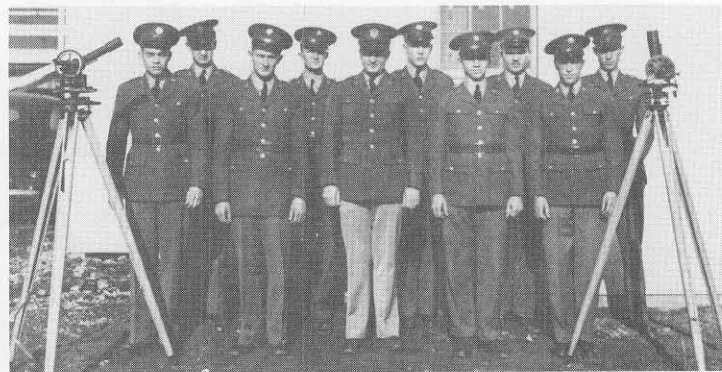
18 Jan First Lieutenant Arthur F. Merewether replaced Captain Losey as Chief, Weather Section, HQ Army Air Corps.

11 Apr The Army Air Corps ordered the move of the enlisted forecaster school at Patterson Field, and the observer school at Scott Field, to Chanute Field, IL, where the Air Corps Weather School was established. The first observer class there entered in August; the first forecaster class entered in September 1940.

21 Apr Captain Losey killed in Norway during German air raid while acting as a military observer. He was the first officer killed by hostile action while in the service of the U.S. during World War II.



Capt Don McNeal and staff at Patterson Field forecaster school, 1937.



First observer class and instructors, Scott Field, November 1939.

Jun First meteorological cadet class was enrolled in three-month course at Massachusetts Institute of Technology. From that beginning until its end in June 1944, the unique aviation meteorological cadet program (later lengthened to nine-month course leading to commission) was expanded to include other universities and eventually produced 5,000 weather officers.

30 Jun The U.S. Weather Bureau transferred from Department of Agriculture, where it had been since 1891, to the Department of Commerce.

1941

21 Jan The first formal meeting of Defense Meteorological Committee. Established to coordinate wartime civilian and military weather activities, it became the Joint Meteorological Committee, Joint Chiefs of Staff (JCS), in 1942 and, subsequently, Joint Meteorological Group, JCS, on 1 June 1967.

20 Jun Army Air Forces (AAF) was established. Under the command of Major General Henry H. Arnold (Army Air Corps chief since September 1938), AAF composed primarily of Air Corps (responsible for providing equipment, supplies, and service), the Air Force Combat Command, and an Air Staff.

The Weather Section, responsible for managing Army Air Corps Weather Service, became part of the Training and Operations Division, Air Corps.

20 Oct First official Army Air Corps Weather Service long-range (30-day) forecast, and long-range forecast verification attempts.

7 Dec Five 7WS enlisted men killed during Japanese attack on Pearl Harbor and Hickam Field, HI.

1942

7 Jan-5 May Approximately 15 5WS enlisted men, most killed or taken prisoner, among last-ditch defenders at Bataan and Corregidor. Captured also was 5WS' Lieutenant James H. Cooke, who died in a Japanese prisoner of war camp on 18 June 1943.

8 Jan Major Don Z. Zimmerman, Director, Weather Research, Bolling Field, Washington, DC, replaced Major Merewether as Chief, Weather Section, Training and Operations Division, Air Corps, HQ AAF.

10 Jan AAF approved "General Meteorological Plan for the Army Air Forces." It included provisions for: AACs' developing worldwide, AAF weather-communications system; establishing an inspection system for Army Air Corps Weather Service; and developing a forecast verification system.

Mar Army Air Corps Weather Service began using map typing (analogues) technique in preparing long-range forecasts for Allied invasion forces.

9 Mar AAF reorganized. Air Corps and Weather Section abolished. Administration of Army Air Corps Weather Service transferred to Directorate of Weather, a subdivision of Directorate of Technical Services—the technical branch of AAF's Operations Staff which included, besides Weather, Directorates of Communications, Photography, and Maps and Charts.

9 Mar Colonel Zimmerman appointed Director of Weather with job of supervising and directing AAF Weather Service. Assigned strength of Directorate of Weather staff was 16 (15 officers and a civilian), excluding approximately 30 enlisted men assigned to Weather Research Center. The figure grew to 143 (51 officers and 92 civilians) on 10 July, 183 (70 officers and 113 civilians) on 31 August, and 246 (98 officers and 148 civilians) on 30 September.



Capt Losey with Mrs. Florence Jaffray Harriman, U.S. Minister to Norway, shortly before his death.



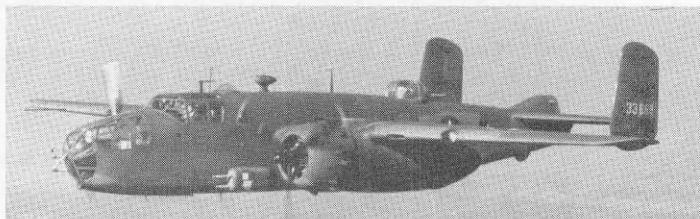
The first weather station, August, 1944, Guam.

- 18 Mar Staff formed to support AAF Weather Service. It included eventually, among others, an Executive, Administrative, Climatological, Personnel, Operations, Equipment (to include Supply), and Plans functions.
- 21 Mar Black weather detachment formed at Tuskegee Institute, Alabama. AAF Weather Service's only all-black weather unit was commanded by First Lieutenant Wallace P. Reed, who completed the aviation meteorological cadet program at the Massachusetts Institute of Technology.
- Jun-Dec Test facsimile transmission of weather products on circuit from AAF Weather Service, Weather Central, Washington, to 8WS station at Presque Isle, ME, conducted.

24 Jun 10WS activated. 10WS moved to China-Burma-India theater in January 1943, and by close of war was authorized 1,709 officers and men, but was manned by over 2,000—making it the largest squadron in AWS history.

24 Jul Army Regulation 95-150 officially designated the "Army Air Forces Weather Service." Other provisions indicated that: AAF Weather Service had technical control of all weather units, and was responsible for organizing, training, and equipping all weather units for combat operations; combat and theater commanders had operational control of weather units within their areas of jurisdiction; Army Signal Corps retained responsibility for research and development, procurement, issue, installation and major maintenance of all weather equipment, weather communications equipment, and supplies.

21 Aug First weather reconnaissance squadron activated at Patterson Field. By 1943 it had moved and, equipped with B-25s, began weather reconnaissance flights along North Atlantic ferry route.



AAF Weather Service (2WRS) B-25D used for weather recce.

14 Sep AAF Weather Service's first tactical (mobile) squadron, the 12WS, activated. With mission of supporting the Twelfth Air Force and Army ground forces during and after invasion of North Africa, 12WS pioneered mobile weather support concepts that were later refined and used by 21WS detachments supporting U.S. tactical air and ground forces in the race across Europe following Allied invasion of France in June 1944.

8 Nov Allied invasion of North Africa (Operation Torch). Weather was acceptable, as forecasted, but began deteriorating that evening. Following the invasion, the headquarters of the Supreme Allied Commander for the invasion, General Dwight D. Eisenhower, reported that "the strategic and tactical importance of weather forecasts cannot be over emphasized." Forecasting techniques adapted for Operation Torch (some successful, some not) provided lessons that were applied by military meteorologists and decision makers alike to all subsequent large-scale amphibious operations. The AAF Weather Service's Weather Research Center in the Pentagon was one source of forecasts for Torch.

21 Nov Weather Training Center activated at Grand Rapids, MI. First class of meteorological cadets entered 33-week school on 4 January 1943. Effective 1 April 1943 enlisted forecaster school at Chanute moved to the center, and another observer school opened there. The center officially closed 15 October 1943.

1943

1943 First radiosondes installed at AAF Weather Service units.

1943 U.S. Weather Bureau's hurricane warning center at Jacksonville moved to Miami, FL, where Joint (Weather Bureau-Navy-AAF Weather Service) Hurricane Warning Central (subsequently designated National Hurricane Center) was established.

9 Mar Lieutenant Colonel Harold H. Bassett replaced Colonel Zimmerman as Director of Weather.

29 Mar AAF reorganized. With the basic objective of transferring bulk of purely operational matters from HQ AAF to field and theater units, all directorates on Operations Staff, including Weather Directorate, were abolished. Training, Climatological, Weather Central, and certain Supply functions of Weather Directorate were divided among five weather branches, sections, or units of three different Air Staff divisions. Most significant of new Air Staff weather organizations was the Weather Unit (headed by Colonel Bassett) assigned to the Office of the Assistant Chief of Air Staff for Operations, Commitments, and Requirements (AC/AS, OC&R).

Other former Weather Directorate functions, including parts of Operations and Plans, were transferred to HQ Flight Control Command, Winston-Salem, NC, also established on 29 March 1943 and given responsibility of, among other tasks, operating AAF Weather Service field units and AACS. All weather squadrons not assigned to theater commands (primarily those in Zone of Interior) were assigned to Flight Control Command effective 29 March.

- Apr Short-range (24, 36, and 48 hours) forecast verification program inaugurated by AAF Weather Service.
- 14 Apr Weather Wing, Flight Control Command, activated at Pentagon, under command of Lieutenant Colonel William O. Senter. Weather Wing headquarters moved to Asheville, NC, on 3 May, and on 19 May 1943, those weather squadrons assigned to Flight Control Command (nine of the 19 weather squadrons then in existence) were reassigned to Lieutenant Colonel Senter's Weather Wing.
- May AAF requested ten AN/TMQ-1 transportable weather stations be service tested.
- Jul First AAF Weather Service facsimile net established to support six First Fighter Command bases in New York-New England area.
- 6 Jul Weather Wing reassigned from Flight Control Command to HQ AAF (under immediate supervision of AC/AS, OC&R) and redesignated as Army Air Forces Weather Wing.
- 10 Jul Position of Air Weather Officer created on Air Staff (under AC/AS, OC&R) and given responsibility of supervising AAF Weather Wing and overall AAF Weather Service. Assigned as Air Weather Officer was Colonel Bassett who, in effect, commanded AAF Weather Service.
- 15 Jul First weather inspection system established under Weather Inspector, AAF Weather Wing. It was authorized to coordinate and supervise inspection activities of all AAF Weather Service units.
- 27 Jul Colonel Joseph B. Duckworth and First Lieutenant Ralph O'Hair flew an AT-6 Texas trainer from Bryan, Texas, into the eye of a hurricane between Galveston and Houston. It was commonly recognized as first premeditated flight into a hurricane's eye.
- Aug First formal school for staff weather officers (two-week course) established at AAF School of Applied Tactics, Orlando, FL. Course discontinued on 14 November 1945.



Weather facsimile equipment at 2WS' Regional Weather Central, Mitchel Army Air Base, NY, July 1943.



Pointing at victory symbols on the side of his aircraft is Col Leon W. Johnson, a Medal of Honor holder. With him is Lt Gen Jacob L. Devers, European Theater of Operations, U.S. Army, commander. General Devers had just presented the Medal of Honor to Colonel Johnson for action during the Ploesti raid. The Medal is still around Colonel Johnson's neck.

1 Aug In first large-scale, low-altitude attack by U.S. heavy bombers against a heavily defended target, 177 Ninth Air Force B-24s attacked oil fields and refineries at Ploesti, Rumania. Leading one of four bomber groups over Ploesti was Colonel Leon W. Johnson, one of original 22 officers in the AAC Weather Service. Johnson, who earned the Congressional Medal of Honor for Ploesti raid, was one of only two ex-AWS officers ever to obtain the four-star rank of general. The other was General Williams S. Stone, who spent eight years with AWS.

Sep In September 6WS began using harbor and air defense radars adjacent to Panama Canal for weather surveillance; by April 1944 a radar weather reporting net was in operation. A year later, using AN/APQ-13 radars from military aircraft, 10WS established a weather radar net in India. Last AN/APQ-13 weather radar in AWS inventory deactivated at Fort Sill, OK, on 18 February 1975.

3 Sep Air Staff's Air Weather Officer position discontinued and replaced by Weather Division, AC/AS, OC&R, which assumed duties and responsibility for all other Air Staff weather branches and sections. Appointed chief of Weather Division was Colonel Bassett whose responsibilities included supervision of AAF Weather Wing and operation of AAF Weather Service. Colonel Senter, Commanding Officer, AAF Weather Wing, reported to Colonel Bassett, who also served as staff weather officer to Commanding General, AAF. AAF Weather Wing was an administrative headquarters for AAF Weather Service.



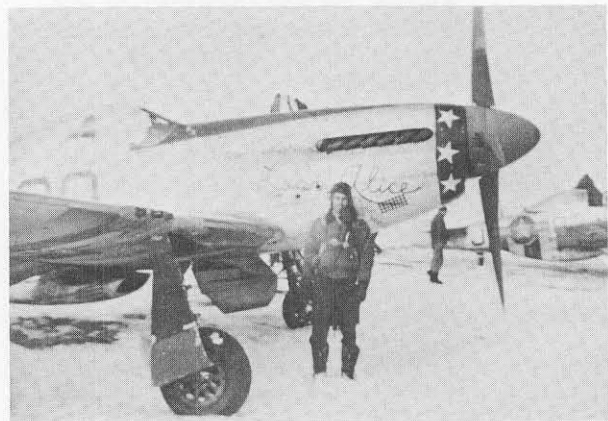
AAF Weather Service WASPs, 1943.

26 Nov First ten WASP (Women Airforce Service Pilots) assigned to AAF Weather Service. Before the program ended 20 December 1944, five more WASPs, used to free male pilots for combat, were assigned to AAF Weather Service.

Dec Approximately 50 volunteer weathermen, officer and enlisted, completed an intensive combat training course in secret at Kearns Field, Utah. Shipped to Australia in early 1944, they were assigned to 15WS to form a nucleus of weather teams going ashore during initial assaults on Japanese-held islands in the southwest Pacific. Put ashore by U.S. submarines, they also worked behind Japanese lines in Philippines supporting Allied air strikes in preparation for an invasion by forces under General Douglas MacArthur. By 10 May 1944, 15WS guerrilla weathermen operated six stations on Mindanao and Samar Islands. Two 15WS guerrilla weathermen, Sergeant Charles Hammill and Corporal Robert P. Herbig, were aboard the submarine U.S.S. *Seawolf* that was sunk off Samar's east coast in October 1944 with loss of all hands (82 crewmen and 17 passengers).

1944

1944 First B-17s and B-24s for weather reconnaissance purposes delivered to AAF Weather Service units.



1Lt Norman E. Ott in front of P-51D Lady Alice, Laon, France, 1944.

14 Feb JCS approved first formal plan for aerial reconnaissance of hurricanes by AAF Weather Service and Navy aircraft. Operations, including eye penetrations, began that season.

- 14 Mar Two 19WS enlisted observers and a radio operator parachuted at night into mountains of Slovenia in German-occupied Yugoslavia. Until extracted on 3 September 1944, they worked with Marshall Josip Tito's partisans, taking and transmitting observations to improve efficiency of C-47 airlift to Yugoslavian guerrillas.
- 15 Mar U.S. bombers pounded Cassino, Italy. As the greatest massed air attack of the war in direct support of ground forces to that date, it was tagged "Operation Ludlum" by Fifth Army Commander Lieutenant General Mark W. Clark in honor of his staff weather officer, 12WS' Captain David M. Ludlum. It was a unique distinction, quickly picked up by magazine reporters from *Time* and *Newsweek*.
- 17 Apr On experimental basis, ten enlisted WAC (Women's Army Corps) observers entered enlisted forecaster course at Chanute. Only five graduated and the experiment was discontinued.
- Jun Three-station AAF Weather Service sferics net operational.
- 6 Jun D-Day Allied invasion of France, a date determined by weather forecast prepared with help of 18WS and 21WS personnel in England. On that date, three 21WS observers (Sergeant Charles J. Staub, Corporal Warren F. Wolf, and Staff Sergeant Robert A. Dodson) parachuted and glided in, with elements of the 82d and 101st Airborne Division, behind German lines at Normandy in the pre-dawn darkness. Some 20 other 21WS weathermen, assigned to air support parties with the infantry, waded ashore with the assault troops, or landed behind the beaches in gliders. By the close of the Normandy campaign, 30 21WS mobile detachments were on the continent, and by war's end 21WS became AAF Weather Service's most decorated unit of WW II.



1WS' WAC Cpls Paula Eberstadt (left) and Evelyn Barclay making Pibal run at Minter Fld, Bakersfield, CA, 1944.

- Mid-1944 AAF Weather Service had over 19,000 military personnel assigned, AWS' largest population ever.
- 5 Sep Colonel Randolph P. "Pinkie" Williams (considered "father" of AWS for his pioneering work in organizing the Army Air Corps Weather Service between 1936 and 1937 when he was a captain) killed in action when his photo reconnaissance aircraft was shot down over France.
- 20 Sep U.S. invasion of Philippines (Leyte Island). Among Sixth Army assault forces landing that day was a 15WS team of seven enlisted men led by First Lieutenant Lorin A. Hamel. Two days later, a second 15WS team landed, led by First Lieutenant Leon M. Rottman. The weather-plagued Leyte campaign ended 25 December 1944, when organized Japanese resistance collapsed.

- 1 Oct Army transferred responsibility for research, development, maintenance, and storage of weather communications equipment from Army Signal Corps to AAF. In addition, AACS was to provide weather communications support to AAF Weather Service including acting on requests for service, equipment, and weather intercepts.

1945

- Jan AAF B-24 weather reconnaissance squadron (forerunner of AWS' 55WRS) commenced operation from Guam. Its primary mission was target reconnaissance over Japan, but on a non-interference basis, it also flew typhoon reconnaissance.



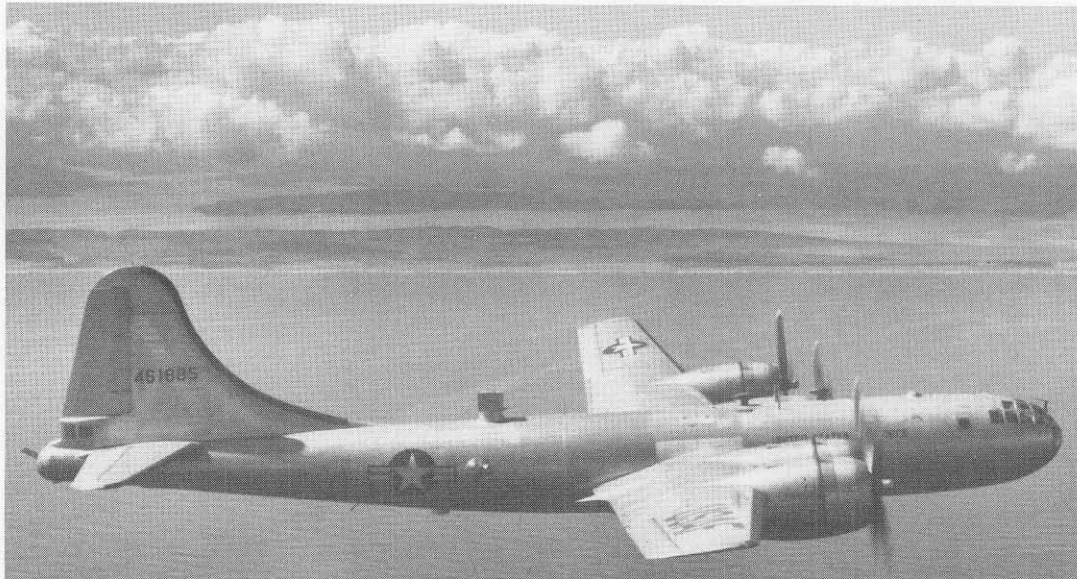
26WS' B-17 Weather Witch at Orlando, FL, 1944. Standing in back row (middle) is Capt William S. Barney, who eventually became AWS vice commander before retiring in 1967.

- 9 Jan Colonel Bassett appointed Director, Weather Services, United States Strategic Air Forces in Europe replacing Colonel Donald N. Yates, who assumed Colonel Bassett's former job as Chief, Weather Division, of Air Staff's AC/AS OC&R.
- 19 Feb Two U.S. Marine Corps divisions invaded Iwo Jima. A 7WS team of two officers and seven enlisted, under Captain Patrick D. Goldsworthy, landed on Iwo Jima's west beach on 5 March, ten days after the Marines' famed symbolic capture of Mt Suribachi. Organized Japanese resistance ended 16 March.
- 15 Mar Colonel James W. Twaddell, Jr., Deputy Commander, AAF Weather Wing, replaced Colonel Senter as Commander, AAF Weather Wing.
- 1 Apr U.S. invasion of Okinawa. Not until 21 June did organized Japanese resistance succumb to what was the most audacious and complex enterprise undertaken by U.S. amphibious forces. During heavy fighting, units of three 7WS detachments supported Tenth Army elements on Okinawa commencing 18 April.
- 19 May Revised Army Regulation 95-150 gave AAF Weather Service responsibility for providing weather service to all U.S. Army components except those specifically exempted by War Department (i.e., artillery units and theater commands) and for meteorological technique research and development.
- 1 Jul Air Staff's Weather Division (under AC/AS, OC&R in Pentagon) abolished, and AAF Weather Wing at Asheville redesignated as new command, the AAF Weather Service. All former Weather Division and AAF Weather Wing functions transferred to AAF Weather Service.
Colonel Yates appointed Chief, AAF Weather Service, and his office remained in Washington. As chief of the new separate command, he reported directly to and served as staff weather officer for Commanding General, AAF. In time, the Office, Chief of AAF Weather Service, in Washington became known as the Weather Service Liaison Office.
HQ AAF Weather Service at Asheville was headed by Deputy Chief, AAF Weather Service, Colonel Twaddell.
Although all Weather Division personnel were reassigned to HQ AAF Weather Service, all were not transferred to Asheville.
- 6 Aug Age of atomic warfare opened with drop of first atomic bomb on Hiroshima on date determined by weather forecast prepared by AAF Weather Service's Majors Edward Brewster Buxton and Joshua Holland at the Guam weather central.
- 17 Aug War Department ordered all weather units outside continental U.S. in theater commands be assigned to, and come under operational control of, AAF through AAF Weather Service. Last such unit assigned 12 October 1945, thus completing AAF Weather Service's worldwide organization.
- 2 Sep Japan formally surrendered ending World War II. As of early 1945, available records indicated that 68 AWS men (30 officers and 38 enlisted) were killed in action, excluding deaths of Captain Losey and Colonel Williams. AWS ground and weather reconnaissance units earned a minimum of 10 campaign streamers, 20 service streamers, and 9 other assorted awards and decorations.
- Nov AAF Weather Service began around-the-clock forecasting support to AACS' Military Flight Service Center (MFSC) program. MFSC program continued until 1962, when it transferred to Federal Aviation Administration.
- 1946
- 1946 AAF Weather Service units received first B-29s for weather reconnaissance mission.
- 7 Jan HQ AAF Weather Service moved from Asheville to Langley Field.



The weather central at Guam, 1945--source of Hiroshima forecast.

- 13 Mar AAF Weather Service redesignated AWS and reassigned from HQ AAF to Air Transport Command.
- 14 Jun HQ AWS moved from Langley to Gravelly Point, VA.
- 30 Jun AWS military population dropped to post-World War II low of 4,209.
- 30 Jun First atomic bomb test at Bikini (Project Crossroads) on the date determined by weather forecasts prepared with the help of AWS forecasters and B-29 weather reconnaissance. During it and succeeding detonations at Bikini and Eniwetok over next two years, AWS perfected fallout forecasting techniques.
During Sandstone test of 1948, Major Paul H. Fackler and his B-29 crew from AWS' 59th WRS were first to fly into an atomic cloud.
- 1 Jul War Department directed transfer of responsibility for field engineering installation and major maintenance of weather and weather communications equipment from Army Signal Corps to AAF (Air Materiel Command). Army Signal Corps retained responsibility for research and development, standardization, procurement, and supply of weather equipment for AAF (AWS).
- 1 Aug HQ AWS formally announced that it had established a Research and Development Division on its staff



AWS WB-29

responsible for research and development in both meteorological equipment and techniques. R&D Division at HQ AWS was established 15 March 1946. ATC challenged legal basis for AWS assuming such mission in view of War Department and Army directives giving responsibility for weather equipment research and development to Army Signal Corps. AWS thus submitted staff study through ATC to AAF recommending that research and development in both meteorological techniques and equipment for AAF be transferred to AAF's Air Materiel Command. HQ AAF did so in a letter dated 26 March 1947—evidently having secured War Department and Army approval, although Army Signal Corps retained responsibility for unique Army weather equipment research and development requirements. Transfer involved 81 AWS manpower authorizations (20 civilian and 61 military).



Major Paul H. Fackler

Sep First AN/GMQ-2 fixed-beam ceilometer installed at Langley Field.

7 Oct First flight over top of hurricane by AWS B-29.

1947

1947 UHF pilot-to-forecaster service established for AAF crews (VHF service established in 1955).

5 Feb Colonel Yates promoted to brigadier general. Yates was first AWS commander to attain general officer rank.

17 Mar First AWS B-29 weather reconnaissance flight over North Pole. Labeled "Ptarmigan" after a bird native to the Arctic, this North Pole track became a standard mission for AWS crews.

1 Apr AAF transferred \$1 million to Army Signal Corps for procurement of first 25 AN/GMD-1 rawin sets for AWS. Delivery to AWS field units completed by June 1949.

16 Jul Joint Weather Bureau-Air Force-Navy (WBAN) weather analysis center established in Washington D.C.

26 Jul National Security Act signed into law by President Truman. Among other provisions, the act abolished War Department and established Department of Defense; established Air Force as separate branch of service; and created National Security Council and Central Intelligence Agency. In one of over 200 roles-and-missions agreements ironed out under the act by the Army and Air Force on 15 September 1947, the Air Force was made responsible, through AWS, for the "provision of meteorological service to the Army, except Army meteorological ballistic data which will remain in the Army."

First Secretary of Air Force administered oath of office 18 September and first Air Force chief of staff sworn in on 26 September 1947.

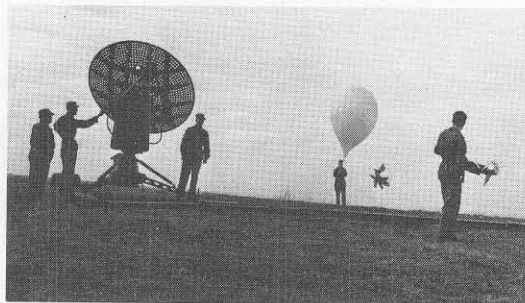
19 Oct First low-level and night penetration of hurricane by AWS RB-29.

1948

1948 AWS began testing "Minimal Flight" procedures for long-range flights. Later referred to as "4-D Minimal Flight Planning," the procedures were eventually used in computer flight plans.

25 Mar First tornado forecast issued by AWS at Tinker AFB, OK. AWS' Major Ernest J. Fawbush and Captain Robert C. Miller pioneered efforts in U.S. to forecast severe weather.

1 Jun Military Air Transport Service (MATS) formed by combining Air Transport Command and Naval Air Transport Command elements. AWS assigned to MATS.



AN/GMD-1 at Sherman AFB, KS, 1952.



Lt Col Fawbush (left) and Maj Miller after being presented the American Meteorological Society's (AMS) Meisinger Award in Wash, DC, in 1956 for their contribution to science of severe weather forecasting. Between them is AMS President, Dr. Robert D. Fletcher, who was also HQ AWS Director of Scientific Services.

- 26 Jun "Operation Vittles," airlift of food and supplies to Berlin, commenced. Weather, the greatest single threat to fifteen-month Berlin Airlift, determined daily tonnage delivered.
- 1 Jul Phase I of first major post-World War II AWS program to train and integrate Reserve forces personnel implemented.
- Sep First dropsondes delivered to AWS weather reconnaissance units for operational suitability tests. Tests completed July 1949 after which operational use began.
- 29 Sep HQ AWS established Scientific Services function under Dr. Sverre Petterssen.
- 1 Dec HQ AWS moved with HQ MATS from Gravelly Point to Andrews AFB, MD.
- 1949
- 15 Mar Global Weather Central organized at Offutt AFB, NE, to support Strategic Air Command (SAC).
- 31 Mar Joint Army Regulation 115-10/Air Force Regulation 105-3 published, superseding Army Regulation 95-150 of 19 May 1945. The new joint regulation held Army Signal Corps responsible for procurement, storage, and issue of weather equipment for Air Force and Army.
- Aug Policy Board established at HQ AWS. Composed of deputy AWS chief, chief of staff, and heads of each staff agency function, the Policy Board's charter was to advise and make recommendations to AWS chief in all matters related to development, implementation, and status of AWS objectives and policy.
Eighteen years later, in November 1967, HQ AWS established the AWS Council whose composition and charter were identical to defunct Policy Board's.
- 23 Sep U.S. confirmed that Russia had exploded its first atomic bomb. An AWS RB-29 discovered the radioactive debris.
- 28 Dec Air Force formally established "Airman Weather Career Field" with publication of Air Force Regulation 35-425.
- 31 Dec AWS' inputs to Central Intelligence Agency's National Intelligence Summary increased from two to fifteen studies per year.
- 1950
- 1950 First use of dropsondes by AWS RB-29s in hurricanes.
- 18 Jan Formal flight following and met-watch advisory service inaugurated in AWS.
- 25 Jun Hostilities in Korea commenced. Within 24 hours an AWS RB-29 was flown on a weather reconnaissance mission over Korea, and within 48 hours a weather detachment was airlifted from Japan to Taegu (the last AWS station had been withdrawn from Seoul in September 1949 when U.S. forces evacuated Korea). It began furnishing weather information to United Nations forces.
- 13 Jul AWS RB-29 piloted by First Lieutenant Fred R. Spies (later awarded the first oak leaf cluster to the Distinguished Flying Cross for that and two other B-29 strikes) led first B-29 strike from Japan against targets in North Korea.
- 29 Jul Fletcher's Ice Island (as subsequently named in honor of AWS officer Lieutenant Colonel Joseph O. Fletcher) discovered in Arctic Ocean by AWS RB-29 weather reconnaissance crew.
- 29 Aug AWS mission amended to exclude weather reconnaissance "over areas where active enemy aerial resistance may be encountered."



Lt Col Fletcher (left) on "his" ice island, 1953. At right is Capt Marion F. Brinegar.

30 Aug Air Force authorized use of prefix "W" with AWS aircraft modified for weather reconnaissance mission, thus AWS B/RB-29s became WB-29s.

3 Sep AWS suffered its first casualty of Korean War. First Lieutenant David H. Grisham, from Benton, LA, assigned to 20WS, was staff weather officer to 18th Fighter Bomber Group at Ashiya AB, Japan. Also qualified as F-51 pilot, Grisham flew 45 combat missions over Korea. On his 46th, an F-51 mission from Japan to Korea on 3 September, Grisham was reported missing in action. He was posthumously awarded Bronze Star Medal.



AWS' first Korean War casualty, 1 Lt Grisham, watches Pibal at forward base in Korea in late June 1950 while 20WS' 1 Lt John T. Gordon operates theodolite.

8 Sep Captain Charles R. Cloniger, 514th Reconnaissance Squadron (VLR) Weather, of AWS' 2143d Air Weather Wing at Andersen AFB, Guam, awarded Distinguished Flying Cross for continuing and completing a typhoon reconnaissance mission in a heavily-loaded WB-29 with one engine feathered. Determination of typhoon's position and intensity was vital to U.S. forces then conducting landing operations at Kobe, Japan, in preparation for the Inchon invasion. It was believed to be the first DFC in AWS for such missions.

24 Oct Testing of classified "customer's" Atmospheric Measuring Equipment (AME) aboard AWS WB-29s commenced.

28 Nov Duration of tour for AWS personnel in Korea extended from sixty days to six months, excluding volunteers and key personnel, who could be retained in Korea for up to one year. To handle the turnover, personnel were rotated between 20WS in Japan and 30WS in Korea on basis of foreign service credits. The policy remained in effect until 1 September 1951 when Korean tours were lengthened to one year.



Capt Cloniger (second from left) in front of WB-29 Typhoon Goon at Andersen AFB, 1950.

1951

22 Jan Manpower Group formed on HQ AWS staff to establish manpower standards for all AWS squadrons, groups, and wings.

Feb Severe Weather Warning Center established at Tinker AFB.

1 Mar An AWS F-51 pilot became the first weather officer with the 5th Air Force to complete 100 combat missions in the F-80 Shooting Star in Korea. From Ft Worth, Texas, Captain Leon Grisham became the staff weather officer to the 51st Fighter Interceptor Wing in Japan. On 1 March 1951 Grisham was credited with damaging a MiG-15 in air battle over Korea. During WW II, he flew 41 combat missions over Germany in P-47s and P-51s, shooting down three ME-109s. On his 41st mission, he was shot down and spent the remainder of the war as a POW at Fellingbestel. Grisham earned three Distinguished Flying Crosses,

13 Air Medals, a Bronze Star, and two Purple Hearts. After Korea, he remained with AWS in weather reconnaissance, rising eventually to command the 55WRS as a colonel.

19 Mar-
28 Apr

AWS representatives attended first session of U.N.'s newly-established World Meteorological Organization (WMO). The WMO replaced International Meteorological Organization originally formed in Vienna in 1873.

Apr

RAND Corporation issued report entitled *Inquiry into the Feasibility of Weather Reconnaissance from a Satellite Vehicle*.

Jul

AWS began field testing prototype SCM-19 Automatic Weather Station (developed by Army Signal Corps) installed at Amchitka. Every three hours the station automatically transmitted, on two frequencies, precipitation, temperature, pressure, humidity, sunshine, and wind data. By August 1952, three SCM-19s were installed and operational: at Amchitka, Thule, Greenland, and St Matthew Island in the Bering Sea.



The original AAF Weather Service weather station at a fighter strip on Amchitka. When activated on 27 January 1943, enemy Japanese forces were a mere 65 miles westward at Kiska Island.

11-12 Jul

Expanding concepts battle tested in World War II when tactical units used assigned aircraft for target weather recce, SAC and TAC (Tactical Air Command) revealed plans for using specifically-instrumented aircraft manned with AWS-trained personnel for multi-purpose missions, including ECM (Electronic Countermeasures), photo reconnaissance, and weather reconnaissance.

By 1954-56 period, SAC strategic reconnaissance units equipped with RB-36s, RB-47Ks, and RB-50s were flying weather reconnaissance missions, as were TAC units with WT-33s and WB-66Ds. Special weather equipment on some aircraft included dropsonde chambers, psychrometers, radar altimeters, and AN/AMQ-7 temperature-humidity measuring sets.

21 Aug

Major Jean D. Armstrong became the first WAF officer to command an AWS detachment. She commanded the 18WS detachment at Frankfurt, staffed with five male forecasters and ten WAF observers, which was responsible for monitoring weather reports from MATS trans-Atlantic flights and coordinating weather advisories for Air Force aircraft.

1952

Feb

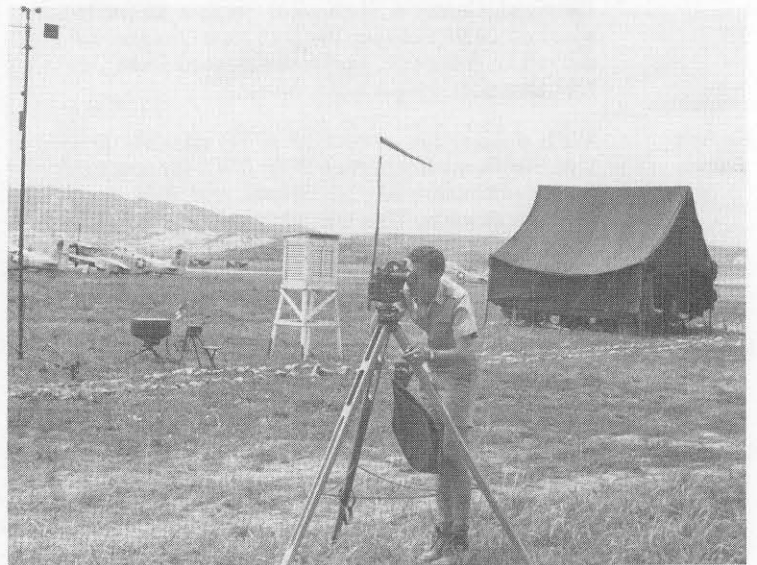
First 56WRS WB-29 crews completed 50 combat missions over Korea and, under Air Force's rotation policy, were transferred back stateside.

5 Feb

Brigadier General Senter, Chief, AWS, promoted to temporary grade of major general making him the first two-star AWS commander.

Apr

For the first time, AWS began decentralizing its climatology service by placing climatology cells at selected field units.



20 WS' 1 Lt Albert T. Watson, Jr., readying Pibal run at advanced F-51 strip in Korea, late June 1950.



Left to right are Col Senter, Brig Gen Yates, and Lt Col Jerome A. Pryber (the commanders, respectively, of the 43WW, AWS, and 20WS) at HQ 20WS, Nagoya, Japan, in April 1947. Yates was AWS' first general officer commander, and Senter became AWS' first two-star commander.

10 Apr AWS' Data Control Unit (Detachment 1, HQ AWS—the heart of its climatological function which traced its roots to the establishment of AAF Research Center's Statistical Section at Bolling Field on 10 September 1941) at New Orleans, LA, moved to Asheville, and redesignated Data Control Division, HQ AWS.

18 Apr With publication of revised AWS mission directive, Air Force Regulation 20-2, AWS for first time had a definitive organizational and field maintenance mission. This mission was centralized under the 6WG and given responsibility for field maintenance support to AWS groups and squadrons stateside.

May At General Senter's instigation, AWS units completed a major reorganization from geographic to functional support posture.

9 Jun For first time since the day after Korean War began, WB-29 crews of AWS' 512RS (VLR) Weather/56WRS at Yokota AB, Japan, did not fly daily strategic weather reconnaissance missions over combat zone north of 38th Parallel. In logging approximately 750 combat missions since 26 June 1950, 512RS (VLR) Weather/56WRS was the only Air Force unit to have an aircraft over enemy-held territory every day since war began.



Essentials at hand, AWS tail gunner on way to "office"—the "business end" of WB-29

7 Jul Forerunner of Representative Observation Site program established. However, it was May 1956 before Air Force approved additional 234 observer spaces AWS needed to implement program and authorized major air commands to construct necessary sites.

15 Jul First formal AWS Objectives Program inaugurated.

1 Sep An unforecast tornado struck Carswell AFB, TX, causing estimated \$48 million in damage to 107 of SAC's B-36s, one of which was completely destroyed. "It caused an angry outcry in congress" the AWS historian wrote of Carswell incident, because "the main atomic striking force of SAC had been crippled."

26 Oct First loss of AWS aircraft during regular hurricane or typhoon reconnaissance. All ten crewmembers were killed in a crash of 54WRS WB-29 making low-level penetration of Typhoon Wilma some 300 miles east of Leyte.

31 Dec First three stateside bases had Telautograph installed.

1953

12 Jan Hamilton AFB, CA, site of first test of Weathervision.

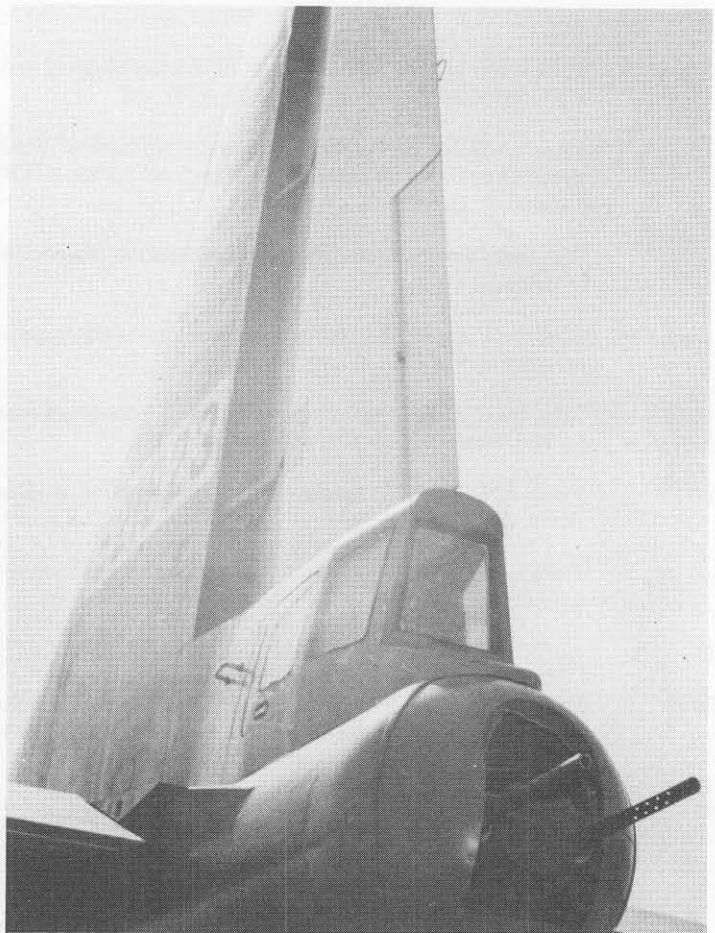
18 Mar Brigadier General Richard E. Ellsworth, then assigned with SAC at Rapid City AFB, SD, killed in B-36 crash in Newfoundland. Ellsworth was assigned with AWS from 1942 to 1949, including duty as 10WS commander in China-Burma-India theater where he helped pioneer night flights across the Himalayas' famed "Hump." Ellsworth AFB was subsequently named in his honor.

27 Jul Korean armistice signed. Six AWS men (five officers and one enlisted man) were killed in action.

Retained by Chinese communists after armistice as political prisoner was Colonel John K. Arnold, Jr., a former AWS chief of staff, whose B-29 (he was then assigned to Thirteenth Air Force's 581st Air Resupply and Communications Wing) was shot down near Yalu River on 12 January 1953. Convicted as a "spy" by a military tribunal in Peiping, Colonel Arnold was imprisoned 31 months before released by Chinese communists in August 1955.

AWS ground and weather reconnaissance units earned 18 campaign streamers, three Republic of Korea Presidential Unit citations, two Air Force Outstanding Awards, and four service streamers.

12 Aug Russia exploded its first hydrogen bomb. AWS WB-29s detected the nuclear debris.



"Business end" of AWS WB-29s flown on combat weather reconnaissance missions over North Korea: twin .50 caliber machine guns.



Colonel Ellsworth, 10 WS Commander, 1944.

1954

- 20 Jun First radar specifically designed for meteorological use, the AN/CPS-9, installed at Maxwell AFB, AL.
- 1 Jul Joint (AWS-Navy-Weather Bureau) Numerical Weather Prediction Unit activated at Suitland, MD, with AWS' Dr. George P. Cressman as director.
- Aug Weather Observing and Forecasting System (Project 433L) launched.
- 26 Aug First AN/GMQ-10 transmissometer installed/operational at Andrews AFB.
- 26 Aug First weather teletype circuits stateside converted from 60 to 100 word-per-minute capability.
- Oct First AN/GMQ-11 surface wind set installed at Eielson AFB, AK.
- Nov First issue of AWS command newspaper, the *Observer* published.

1955

- 1955 Prototype WB-50D delivered. New equipment installed included AN/APN-82 doppler radar and AN/AMQ-7 airborne temperature-humidity indicators.

- Jan Ground Observer Corps formed in 1950 as air defense warning system began 24-hour-a-day severe weather watch for AWS. Weather observations continued until GOC's disbandment in January 1959.

- 11 Jan USAF Weather Central move from Andrews AFB to Suitland completed. The central, which traced its origins to establishment of Weather Research Center at Bolling Field in September 1941 (subsequently moved in 1943 to Pentagon, and commonly referred to as Pentagon, Army, or AAF Weather Central), was merged at Suitland with other Washington-area centrals—the joint WBAN (Weather Bureau-Air Force-Navy) and Navy Fleet Weather Central—to form National Weather Analysis Center.

- Feb IBM 701 computer installed at Joint Numerical Weather Prediction Unit (JNWPU). On 6 May 1955 JNWPU began daily production of regular computer-generated forecasts for North America in what meteorologists hailed



Colonel John K. Arnold, Jr., 1948.



AIC Catherine J. Joyce and SSgt Keith C. Blean at USAF Central, Andrews AFB.

as the most significant advance in weather prediction in 30 years.



Dr. Cressman with USAF's highest civilian honor, the Decoration for Exceptional Civilian Service, awarded March 1956 for his work with JNWPU.

1956

Jan AWS' Severe Weather Warning Center moved from Tinker AFB to Kansas City, Missouri.

Jan AWS submitted requirement to Air Force for high-altitude sounding rocketsonde system capable of reaching 250,000-foot altitude.

Feb AWS tested special weather balloons at Albrook AFB, Canal Zone, capable of reaching altitudes of 100,000 feet and higher.

Apr Air Force issued general operational requirement for new weather reconnaissance system subsequently given program title of Weather Reconnaissance Support System, 460L.

Jun Drafted and coordinated by the 1WG, and designed to consolidate several SAC directives, SAC Manual 105-1, *Weather Support Procedures*, published. It was the first such treatise, under AWS' functional support concept, for support of a major air command, which outlined weather support doctrine, concepts, and procedures for SAC operations in peace and war.

5 Jun The "20 Minute Reporting System" for off-period, limited weather observations became operational. The AWS historian described it as "one of the most important innovations in the annals of weather communications history."

30 Aug The Army sent the Air Force its first formal and comprehensive statement of requirements for weather service since early 1946. It equated to 74 additional manpower spaces for AWS, most of which Air Force directed MATS to provide from MATS resources.

31 Aug First crash of AWS (58WRS) WB-50D. Between then and 17 January 1957, there were three other major accidents with the trouble-plagued, AWS WB-50D program. Over 30 AWS crewmen lost their lives in the four mishaps—the worst rash of aircraft accidents in AWS history.

26 Sep IBM 705 computer inaugurated at AWS' Data Control Division, Asheville, which marked the beginning of the end of AWS' use of WW II era, high-speed electronic accounting machines for processing climatological data.

Nov First AN/TMQ-11 surface temperature-humidity measuring sets delivered.

20 Dec First formal treatise on AWS doctrine, Air Force Manual 105-6, *Weather Service for Military Agencies*, published. It addressed topics such as AWS capabilities and limitations.

1957

1957 Global Weather Central began using SAC's IBM 704 computer.

7 Jun First AWS Commanders Awards presented.

17 Jun Task team convened at HQ AWS in first AWS-wide look at centralizing terminal forecasts. The team's final report, issued 12 August 1957, recommended a test centralized forecast facility at Tinker AFB. The site subsequently changed to AWS' Severe Weather Warning Center, Det 25, 6WS (Mobile), at Kansas City, where a pilot program began forecasting for five terminals on 1 November 1957. The facility merged with SWWC (subsequently referred to as Severe Weather Warning Facility) to form Kansas City Centralized (Terminal) Forecast Facility, (formally Det 4, 4WG) which, on 15 May 1958, issued official (advisory only, not obligatory) forecasts for the first block of 12 (number rose to 35 by January 1959) AWS detachments at Air Force and Army bases in central U.S.



First WB-50D received by 55WRS, 1955.

Jul Weather IBM 701 computer at Joint Numerical Weather Prediction Unit replaced with IBM 704.

Sep AWS began weather reconnaissance support of SAC and TAC air refueling areas.

Nov In connection with U.S. Weather Bureau's National Hurricane Research Project (forerunner to Project Stormfury which got underway in 1956 and to which AWS provided TB-50 support), AWS (55WRS) assigned a B-47.

11 Dec USAF Weather Central at Suitland closed and its functions and resources combined with Offutt (Global) Weather Central (formally Det 1, 3WW) at Offutt AFB. In the vacated space at Suitland, AWS united its Washington-area climatological functions into what became referred to as the Climatic Center (formally Det 3, HQ AWS).



IBM 705 computer recorded most of the climatological data on over 300 million punch cards filed in these and other drawers at AWS' Data Control Division.

1958

Jan-Mar First AN/GMD-2 rawin sets tested at Andrews AFB.

Mar U.S. Weather Bureau's National Meteorological Center commenced operation at Suitland.

23 Jun HQ AWS moved from Andrews AFB to Scott AFB.

Two, two-man offices created to fill AWS' liaison need in Washington area. They were the Office of the Assistant for Weather with the Air Staff's Operations staff agency (AWS had actually maintained a liaison officer in Pentagon since September 1955) and the AWS Washington office.

1 Sep Twenty-five master sergeants were the first in AWS (nine with weather AFSCs) promoted to new grade of E-8 (senior master sergeant). None of the promotees were WAFs with weather AFSCs.

22 Oct While joint Army Regulation 115-10/Air Force Regulation



First Moorman Award presentation, 1964, at Kansas City Centralized (Terminal) Forecast Facility (Det 42, 8WG). Left to right are Lt Col Robert C. Miller, Det 42 chief forecaster and AWS' "Mr. Severe Weather"; Lt Col Edward J. Dolezel, Det 42 comdr; Lt Gen Moorman, PACAF vice comdr and former AWS comdr; and Brig Gen Roy W. Nelson, Jr., AWS comdr.



B-47 assigned AWS in 1957 for National Hurricane Research Project.

105-3 of 31 March 1949 was under revision, Air Force issued guidance for Army weather support establishing Air Force responsibility for providing, installing, and maintaining weather equipment at Army installations. The Army was made responsible for providing, installing, and maintaining weather communications equipment.

31 Dec Most of new AN/AMT-6 dropsondes and related equipment delivered to AWS weather reconnaissance units.

1959

First AN/GMQ-13 rotating beam ceilometers installed.

15 Feb USAF strategic facsimile net established connecting Global Weather Central with other weather centers and facilities stateside.

24 Feb At Air Force's request, AWS forwarded first formal statement of requirements for meteorological satellite data.

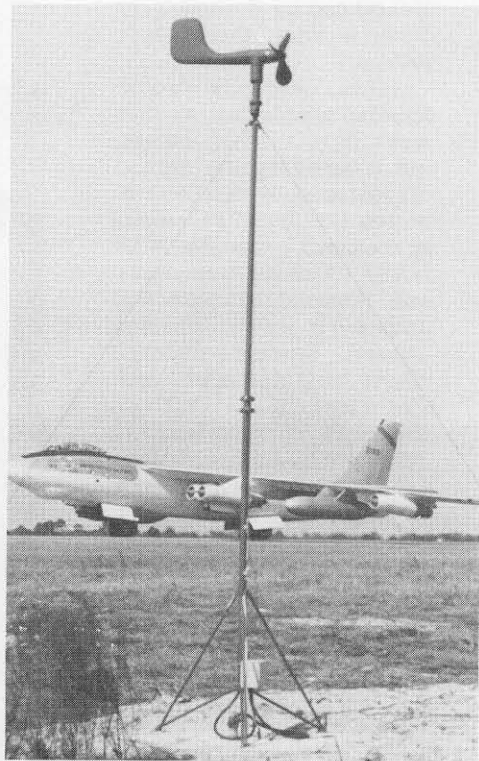
1 May Joint (Navy-Air Force) Typhoon Warning Center established at Navy's Fleet Weather Central facility, Nimitz Hill, Guam.

15 May Due largely to AWS' initiative and preparation, MATS participated in operational test of numerical flight plans produced by Joint Numerical Weather Prediction Unit's IBM 704 computer. On 14 December 1959 MATs directed AWS to set up an operational system.

Jul First AN/FMS-3 sferics equipment received by AWS.

8 Jul First two weather squadrons (7WS at Heidelberg AI, Germany, and 16WS at Ft Monroe, Virginia) activated for exclusive support of Army.

1 Oct AWS Regulation 55-3, "AWS Centralization Program," published. It established AWS policy including that of making Kansas City Centralized (Terminal) Forecast Facility forecasts obligatory, with a few exceptions, for local terminal use after a three-hour period.



AN/GMQ-11 at MacDill AFB, FL, 1955.

- 1 Dec Four senior master sergeants (Leonard S. Grisham, 25WS; James T. Hastings, 33WS; and Jerome D. Rhodes and George E. Sheldon, 9WRG) are first from AWS promoted to grade of E-9 (chief master sergeant).
- 15 Dec Naval Aerological Service, first established on permanent basis in 1919, redesignated as Naval Weather Service.
- 1960
- 8 Feb Data Control Division of AWS' Climatic Center (Det 3, HQ AWS) at Asheville redesignated Data Processing Division.
- 18 Mar AWS finished placing all its weather reconnaissance units under control of 9WG, Scott AFB (moved to McClellan AFB, California, in 1961 and redesignated 9th Weather Reconnaissance Group until 8 July 1965, when it became 9th Weather Reconnaissance Wing). It was the first time since 1951 that all weather reconnaissance operations were supervised by one field unit headquarters.
- 1 Apr World's first weather satellite, TIROS I, launched.
- May AN/TPQ-11 weather radar installed at Cape Canaveral, FL, for Category II and III testing.
- 1 May U-2 piloted by Francis Gary Powers shot down over Russia.

U.S. originally denied Russian claims that aircraft was a "spy" plane, maintaining it inadvertently drifted off course while on a "weather reconnaissance" or "weather research" mission with NASA (National Aeronautics and Space Administration) and AWS instrumentation aboard. Powers' ill-fated flight originated from Peshawar, Pakistan, although the pilot was based at Incirlik AB, Adana, Turkey. U.S. later admitted U-2s flew intelligence-gathering missions over Russia. CIA director Allen Dulles said weather conditions, not political considerations, were the primary determining factor in scheduling U-2 flights.

Ostensibly, Powers' U-2 belonged to Weather Reconnaissance Squadron Provisional #2—one of three such squadrons organized and attached to HQ AWS in 1956 to "obtain high-level meteorological data in conjunction with the NACA (National Advisory Committee for Aeronautics)," the forerunner of NASA. AWS provided logistical and technical support to the NACA/NASA marked U-2s, aboard which, among other gear, was the AN/AMQ-7 temperature-humidity measuring system. AWS and NACA/NASA interests were secondary to U-2's primary intelligence-gathering mission.



Discussing new IBM 7090 computer at Global Weather Central on 24 Oct 1960 are, left to right: Brig Gen Peterson, AWS comdr; Lt Col Roland Rogers, GWC; and Col Anthony T. Shtogren, 3WW comdr.

- 20 Jun Air Research and Development Command's Air Force Ballistic Missile Division published AFBMD Regulation 80-6, "Staff Meteorological-Geophysical Services." It was the first clear delineation of AWS staff meteorologists responsibilities and organization.
- 27 Jun AWS Regulation 105-1, "Weather Modification," published. It was the first directive addressing subject.
- Jul IBM 7090 computer installed at Joint Numerical Weather Prediction Unit. It replaced the IBM 704.
- Jul HQ AWS established in-house the "Advanced Systems Program" for monitoring development of new weapons and command-and-control systems (such as B-70, Dynasour, SAMOS, MIDAS, etc.). Program instituted because AWS believed previous weapons and command-and-control systems (F-102, B-47, B-58, Matador, SAGE, etc.) development had not taken into account environmental factors. HQ AWS appointed "Advanced System Project Officers" for each Air Force weapons system then under development.
Twelve years later, with publication of AWS Regulation 800-2, HQ AWS established a program with a charter identical to that of the defunct Advanced Systems Program.
- 1 Jul HQ AWS' Det 3, the Climatic Center, inactivated and 2150th Air Weather Squadron, HQ AWS, established in its place at Washington DC, designated the Climatic Center USAF.
- 26 Aug AWS formally proposed establishing Air Force weather satellite system.
- 24 Oct After SAC determined in 1959 that Global Weather Central could no longer share its IBM 704 computer, Air Force approved AWS' request for new IBM 7090 computer, which became operational at Global Weather Central.
- Nov IBM 1401 computer installed at Global Weather Central to transfer data in and out of IBM 7090.
- 22 Dec MATS gave EASTAF (Eastern Transport Air Force) responsibility for the numerical (computer) flight plan program AWS had inaugurated earlier.

1961

- 1 Mar Among 45 master sergeants in AWS selected for promotion to E-8 was Olive M. Folze of HQ AWS, the first WAF in AWS to obtain grade of E-8.

- 16 Mar U.S. Weather Bureau's SELS (Severe Local Storm) unit at Kansas City assumed from AWS' Severe Weather Warning Facility responsibility for preparing preliminary severe weather outlooks and severe weather warning advisories and amendments.

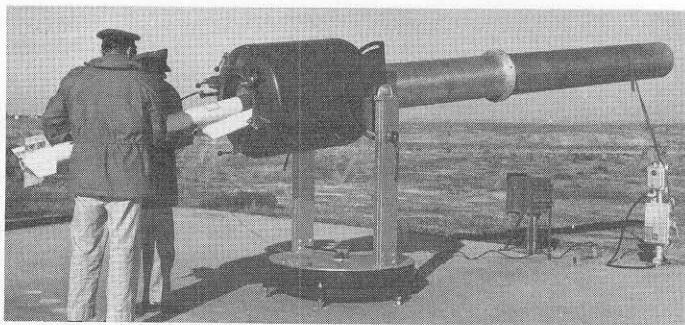
- Jun Under Air Force's single manager concept for support aircraft, AWS field units transferred their support aircraft (mainly C-47s and C-54s) to host bases.

- Jul-Dec AWS submitted QOR (Qualitative Operational Requirement) to Air Force for mobile tactical meteorological van (subsequently designated AN/MMQ-2) for use as representative observing site to support tactical operations.



Interior of Kansas City Centralized (Terminal) Forecast Facility showing, left to right in foreground: SMSgt Frank J. Brzeczek, Lt Col James A. Bunce, Lt Col Robert C. Miller, and Maj Neil B. Gardner. In background: CMSgt Claborn I. Gibson and 1 Lt Douglas F. Fenn.

1 Jul 2150th Air Weather Squadron (a named activity designated as Climatic Center, USAF) HQ AWS redesignated 1210th Weather Squadron, HQ AWS, Washington, DC.



AWS crew preparing ARCAS-ROBIN met rocket for firing near White Sands Missile Range, NM, 1960.

Aug Air Force expanded AWS' mission by designating AWS the Defense Department single manager for aerial sampling as of 1 April 1962. With this expansion, AWS gained unique B-57 and balloon sampling capability with associated helicopter (six CH-21s) recovery activity.

1 Nov World's first official clear air turbulence forecast issued by AWS' Kansas City Centralized (Terminal) Forecast Facility.

9 Nov First duplicate precision-approach weather-observation facility (weather instrumentation at both ends of runway) installed at Suffolk County AFB, NY.



AWS WC-130B

27-29 Dec Responding to PACAF (Pacific Air Forces) and Thirteenth Air Force requests, initial cadre of 23 AWS personnel deployed to Republic of Vietnam.

1962

20 Mar Russia launched recoverable satellite which, among other missions, investigated "the distribution and formation of cloud patterns."

22 May AWS directed to implement a USAF meteorological rocket (rocketsonde) network. First simultaneous, four station rocketsonde firing occurred 7 November 1962.

28 Aug COMET (CONUS—Continental United States—Meteorological Teletype) system implemented with automated weather relay center at Tinker AFB.

Oct First AWS solar forecast issued by HQ AWS.

22 Oct First WC-130B configured for atmospheric sampling delivered at AWS.

7 Dec Air Force ordered Inspection function withdrawn from all MATS wings and groups, and centralized, in AWS' case, at HQ AWS.



A1C Peter T. Cromwell (left) and Sgt Angelo Marinosci from 5WS' (of 1WG) Combat Weather Team 1, pose with weapons in front of AN/MMQ-2 mobile met van at Long Giao AI, Rep of Vietnam, 1968.

1963

1 Mar AWS implemented WBAWS (Weather Briefing Advisory and Warning System) whereby 26 stateside detachments provided severe weather warning service to Air Force and Army installations within specified geographical areas.

20 Mar First of 34 WB-47Es (equipped with AN/AMQ-19 meteorological system) delivered to AWS.

2 Apr The Joint Meteorological Group, JCS, agreed to develop weather support concepts for WWMCCS (World-Wide Military Command and Control System).

1 May 1210WS, HQ AWS, at Washington, DC, reassigned to 4WG at Andrews AFB. The squadron commander also served as Director, Climatic Center, USAF.

31 May IBM 7090 computer at Global Weather Central converted to IBM 7094 purchased in January 1964 for \$2,442,160.

Jun Air Force awarded contract under Project 433L to Hamilton Standard for 58 AN/MMQ-2s and associated tactical equipment (AN/GVN-1 night visibility set, AN/TMQ-14 ceilometer, AN/TMQ-15 wind set, and AN/TMQ-20 temperature-humidity set). First AN/MMQ-2 installed in Republic of Vietnam on 1 July 1966, but AN/MMQ-2s subsequently proved unsatisfactory for tactical operations.



Adjusting AN/GMQ-13 rotating beam ceilometer at U-Tapao Royal Thai Naval Air Station (RTNAS), Thailand, in 1969 are Sgts Raymond J. Metzge (left) and Robert W. Stalker from Det 30 of 1WG's (1WW) 10WS. In background is SAC B-52 on landing roll.

22 Jul AWS transferred responsibility for clear air turbulence forecasts from Kansas City Centralized (Terminal) Forecast Facility to 3WW forecast centers at March and Westover AFBs.

20 Aug First operationally ready APT (Automatic Picture Transmission) weather satellite readout installed at Offutt AFB and operated by 3WW.

15 Sep AWS transferred responsibility for terminal forecasting from Kansas City Centralized (Terminal) Forecast Facility (Det 42, 8WG) back to respective detachments and, due to dissatisfaction with the service of U.S. Weather Bureau's SELS Unit, established a Military Weather Warning Center (MWWC) at Kansas City responsible for severe warning function of the 26 WBAWS detachments.



AWS RB-57C(top) and RB-57F.

23 Nov First major WB-47E accident. A 55WRS WB-47E crashed on landing at Lajes Field, Portuguese Azores.

1964

Jan Department of Commerce established office of the Federal Coordinator for Meteorological Services and Supporting Research (commonly referred to as OFCM). Headed by U.S. Weather Bureau chief, under which were two committees: ICMS (Interdepartmental Committee for Meteorological Services) and ICAMR (Interdepartmental Committee for Applied Meteorological Research).

8 May Six CH-21s associated with AWS' balloon sampling activity assigned to the 59WRS, which was inactivated 8 May 1964 when AWS consolidated all balloon support activities under Detachment 1 of 4WG's 6WS (Mobile), and two other aircraft transferred to Air Rescue Service.

18 Jun First of 19 RB-57Fs delivered to AWS. Unit cost approximately \$1.5 million.

13 Aug IBM 7040 computer installed at Climatic Center, USAF.

15 Aug AWS transferred responsibility for clear air turbulence forecasting from 3WW centers at March and Westover AFBs to Global Weather Central.

31 Aug Solar forecasting function transferred from HQ AWS to 4WW, Ent AFB, Colorado.

26 Oct First production-model AN/TPQ-11 weather radar received.

4 Nov First AN/FPS-77 weather radar delivered to Griffiss AFB, New York, for Category II and III testing.

15 Dec Climatic Center, USAF, Washington, DC, redesignated Environmental Technical Applications Center (ETAC), USAF. It remained assigned to 4WG's 1210WS.

1965

14 Apr First C-130E picked up at factory (Lockheed, Marietta, Georgia) and delivered to 53WRS. Air Force Logistics Command subsequently modified the aircraft to WC-130E configuration.

22 Apr Two C-135Bs transferred from MATS to AWS, the first of 10 eventually modified to WC-135B configuration. The tenth WC-135B was received 21 January 1966.

1 Jul Automated Weather Network (AWN) operational. It linked weather centrals at Fuchu AS, Japan, and High Wycombe, England, and Global Weather Central with high-speed weather communications link via Tinker AFB switch.

1 Jul At direction of MATS, AWS manpower and organization function and its 29 manpower spaces transferred to HQ MATS to man Management Engineering Team (MET)-1.

13 Jul U.S. Weather Bureau became component of Commerce Department's newly formed ESSA (Environmental Science Services Administration).

1 Sep First day of continuous operation of AWS' SOFNET (Solar Observing and Forecasting Network), as reported by AWS solar observers and forecasters at Athens, Sagamore Hill, Sacramento Peak, Hawaii, and Manila.

10 Sep First Air Force DMSP (Defense Meteorological Satellite Program) weather satellite launched.

14 Sep Last AWS WB-50D departed Yokota AS (56WRS) for eventual storage at "boneyard," Davis-Monthan AFB, Arizona. In 10 years with AWS, WB-50Ds experienced 13 accidents, killing 66 crewmen.



AWS WC-135B.



"Looking North" is A1C Ronald D. Marquardt (Det 9 of 1WG's 30WS), M-16 rifle ready and clad in flak vest, standing guard in 1968 near sandbagged weather instrument shelter at Dong Ha AB, some six miles south of Demilitarized Zone (DMZ) in Rep of Vietnam.



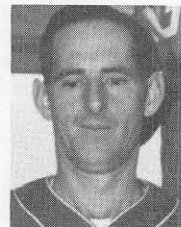
In what would have been a classic pose for a Bill Mauldin "Willy-and-Joe" cartoon of WW II fame, whisker stubbled, cigar-smoking Sgt Michael Connell, a 39 year-old "lifer" from Loving, NM, assigned as a combat weather team chief to OL-2 of 5WS' Det 31 at Phuoc Vinh, wearing a helmet with the words "lover not fighter" scrawled over its burlap camouflaging, squints into the hot Vietnam sun one day in 1968. "We get a very deep sense of satisfaction working with the 'Cav,'" he was quoted when asked how it felt being stationed with 1st Cavalry Div (Airmobile) in 'Nam,' "because it is a division noted for its success against the enemy" and "the information we obtain and pass on plays a vital role in the planning of each operation."

- 8 Nov Univac 418 computer for AWN installed at Global Weather Central. Effective 1 June 1967, when low-speed teletype input to ITT 7300/ADX was terminated, UNIVAC 418 became sole data source for Global Weather Central.
- 22 Nov Global Weather Central began transmitting six analysis and forecast maps twice daily to Fuchu and High Wycombe centrals over AWN.
- 26 Nov AWS mission regulation expanded to include weather modification.
- 1966
- 1 Jan MATS redesignated Military Airlift Command (MAC) with no change in status of AWS.
- 31 Mar Using dry ice with tethered balloons, AWS conducted its first operational test of dissipating cold fog. The tests were deemed inconclusive.
- 1 Apr Solar Forecast Facility (Det 7, 4WW) established at Ent AFB, Colorado. It was charged with operating SOFNET and a Solar Forecast Center within the NORAD (North American Air Defense Command) Space Defense Center in Cheyenne Mountain complex near Colorado Springs.
- 17 May Solar-geophysical teletype network became operational.
- 8 Jul To support widening U.S. combat effort, AWS expanded its Southeast Asia organizational posture from a squadron to a group and three squadrons.
- 4 Aug First AN/TKR-1 transportable weather satellite receiving station accepted.
- 26-30 Sep First AN/FMN-1 for computing RVR (Runway Visual Range) installed at Westover AFB, MA.
- 7 Oct Air Force approved installation of advanced computers at Global Weather Central, Offutt AFB.
- 7 Nov First major RB-57F accident. A 58WRS RB-57F crashed into Sandia Mountains approximately ten miles from Kirtland AFB, NM, killing both crewmembers.
- 11 Nov World's first magnetometer network established by AWS.
- 16 Dec AWS Solar Forecast Facility (Det 7, 4WW) began mapping ionosphere.
- 1967
- 17 Mar AWS WC-130s commenced weather reconnaissance and rainmaking operations in Southeast Asia.
- 22 Mar Seventh Air Force formally expressed immediate need for tactical, cloud-height measuring device for use by AWS combat weather teams at forward airstrips in Vietnam that did not have external power sources. On 19 February 1969 Air Force awarded the contract to General Time Corporation (Rolling Meadows, Illinois) for 25 AN/TMQ-25 tactical ceilometers. (The estimated costs had risen in 1968 from \$127,500 to \$290,000, or \$11,600 per unit.) Category III testing of four sets was completed on 23 December 1970, when AWS declared the AN/TMQ-25 "suitable for its intended function." The first AN/TMQ-25s was installed in Republic of Vietnam in November 1971, but proved unsatisfactory for tactical operations.
- 4 May In television interview at Tan Son Nhut AB, Republic of Vietnam, the Seventh Air Force commander, Lieutenant General William W. Momyer, said, "This weather [satellite] picture is probably the greatest innovation of the war."
- 1 Jun Office of Special Assistant for Environmental Services (SAES), JCS, established. Its mission was to "assist the JCS and Secretary of Defense in coordinating, reviewing, and providing continuing broad policy guidance concerning environmental services of the Department of Defense."
SAES assumed Joint Meteorological Group's functions, ending over 26 years of that organization's existence. SAES also served as Defense Department interface with Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM), including, as of 1 April 1968, its Interdepartmental Committee for Meteorological Services, ICMS. This ended, in effect, AWS' direct formal participation in a number of key interagency and international meteorological committees.
- 16 Jun Four Univac 1108 computers selected as replacement for IBM 7094s at AFGWC. Acceptance testing of first system was completed 5 June 1968 and the entire Univac 1108 system was officially operational 1 June 1969. It represented the largest meteorological data processing system in the world.

- 1 Jul Naval Weather Service designated a separate command, the Naval Weather Service Command.
- 8 Jul Det 1, 3WW, charged with operating AFGWC, inactivated and 2WS activated in its place with same mission.
- 8 Jul ETAC reorganized as USAFETAC, 6WW, concurrent with inactivation of 6WW's 1210WS.
- 1 Aug MAC transferred assignment responsibility for weather observers and weather equipment technicians back to AWS, thus giving AWS assignment control over all its enlisted and officer weather AFSCs (Air Force Specialty Codes).

1968

- 4 Mar AWS suffered its first casualties of Vietnam war when two 5WS observers, Staff Sergeants James C. Swann and Edward W. Milan, were killed during enemy 82mm mortar attack on Ban Me Thout AI, Republic of Vietnam.
- 25 Jun Inflight refueling modification completed on first AWS WC-135Bs.
- 20 Nov AWS formally unveiled plans for Space Environmental Support System (SESS) which would consolidate several space metering and monitoring systems, including SOFNET.



SSgt Swann—AWS' first Vietnam War casualty.

- 23 Dec Position of special assistant to AWS commander for airman affairs established at HQ AWS. Title subsequently changed to: Chief Master Sergeant of AWS; Senior Airman Advisor; and finally, Senior Enlisted Advisor.

1969

Under Air Force-directed reductions (Project 703) AWS lost all 24 of its WB-47Es, one weather reconnaissance squadron, a net of three ground weather squadrons, and 757 manpower authorizations (approximately seven percent of its total).

- 8 Jul 3WW's 2WS, charged with operating AFGWC, inactivated, and AFGWC activated as named squadron-level organization and reassigned in place to HQ AWS.



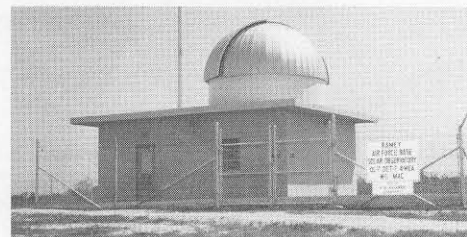
CMSgt William M. Gardner—first special assistant to AWS commander for airman affairs.

- 8 Aug Accountability for Razdow W-250-1 solar optical telescope at Ramey AFB, Puerto Rico, transferred to AWS. It was the first solar telescope possessed by AWS.

- 1 Oct Official dedication of Automated Digital Weather Switch (ADWS) at Carswell AFB (equipped with dual Univac 1108 computers), AWN's "hub" moved at that time to Carswell from Tinker AFB.

1970

- 1970 Under Air Force and MAC Projects 72-B2, 72-B3, and 72-B3 "Plus," AWS reduced by 195 manpower authorizations (approximately two percent of its total) and two ground weather squadrons.



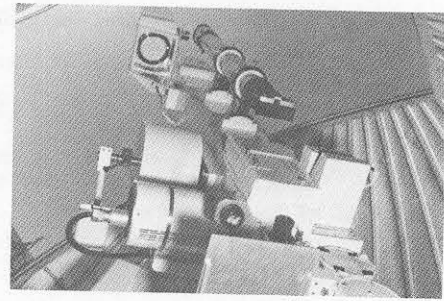
AWS Ramey observatory, . . .

- 31 Jan Military Weather Warning Center (Det 42, 7WW) at Kansas City inactivated and severe weather forecasting/warning function assumed by AFGWC.

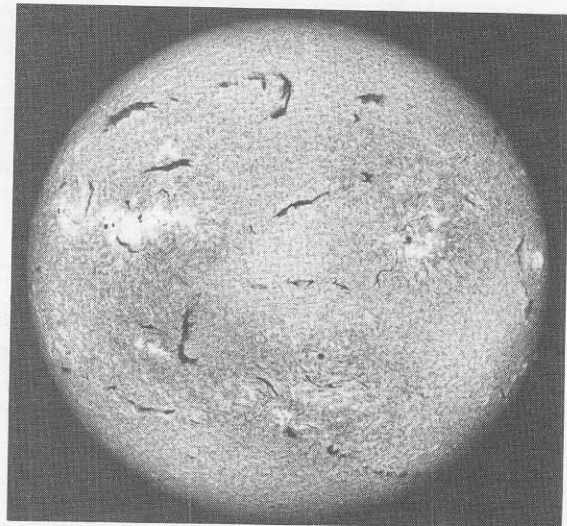
- 5 Feb As a result of Hurricane Camille of August 1969, first of 11 additional C-130Bs delivered to AWS—aircraft subsequently modified to WC-130B configuration.

- 25 Mar Revised AWS mission regulation (Air Force Regulation 23-31) deleted reference to AWS as Defense Department single manager for aerial atmospheric sampling.

- 27 Mar Announcement made that Air Force would purchase \$400,000 worth of Army's AN/TMQ-22 tactical meteorological measuring sets. The first six sets accepted by Air Force from contractor on 11 November 1974.
- 1 Apr JCS' SAES redesignated as Deputy Director for Operations/Environmental Services (DDOES).
- 8 Apr Solar Forecast Center (OL-10, Det 7, 4WW) in NORAD's Cheyenne Mountain complex combined with Det 1, 4WW, and redesignated as Space Forecasting Branch of Aerospace Environmental Center. AESC subsequently redesignated Aerospace Environmental Support Unit.
- 15 Apr *Air Force Times* indicated that AWS' Captains Marvin A. Lillie and Robert Y. Foerster, WC-130 pilots with 9WRW's 53WRS, were Air Force's nominees for coveted Harmon International Trophy for Aviator category for their work during Hurricane Camille of August 1969. It was first time AWS aircrews were Air Force nominees for that award.
- 1 Jul Automated Digital Weather Switch (ADWS) activated at Clark AB, thereby extending AWN to Philippines.
- 1 Jul Directorate of Systems, Deputy Chief of Staff for Operations, HQ AWS, elevated to deputy-chief-of-staff status.
- 8 Jul Major Henry M. Dyches, Jr., a pilot with 9WRW's 56WRS, awarded Koren Kolligian, Jr., trophy for 1969 for handling WC-135B emergency. It was first time an AWS crewmember won that award. He also earned a Distinguished Flying Cross.
- 15 Jul First mission analysis of AWS completed by Air Force Systems Command's Space and Missile Systems Organization.
- 1 Aug MAC computer flight plan responsibility transferred from Suitland (Det 44, 7WW) to AFGWC.
- 25 Sep AWS airborne supercooled fog and cloud dissipation techniques declared operational.
- 3 Oct Commerce Department's NOAA (National Oceanic and Atmospheric Administration) replaced ESSA, and U.S. Weather Bureau redesignated National Weather Service and placed under NOAA.
- 3 Nov Automatic Response to Query (ARQ) system operational at Carswell Automated Digital Weather Switch (ADWS).
- 20-21 Nov Daring night raid by small U.S. force on prisoner of war camp at Son Tay, North Vietnam, date determined by AWS climatological study and forecasts. Overall raid commander later wrote that "as far as tactical considerations were concerned, weather was probably the most critical factor."
- 1971
- Jan Promotion list to E-9 contained the name of Alice L. Hill, Chief Observer, HQ 17WS, Travis AFB. A black, Senior Master Sergeant Hill, became the first weather WAF to obtain rank of E-9.
- 7 Jan Last of AWS' (54WRS) three WC-130As used for rainmaking in Southeast Asia transferred to Air Force Reserve. Since their deployment to theater in 1967, WC-130As were flown on 1,435 combat and combat support missions. Using other model WC-130s 54WRS possessed, rainmaking operations continued in theater until 5 July 1972, when last mission was flown.
- 5 Feb Air Force announced awarding \$4 million contract for production of a Tactical Weather System.



... its Razdow telescope ...



... and the product: photograph of sun, July 15, 1968.

23 Feb Air Force approved Chief Scientist position for HQ AWS.

16 Apr Air Force approved AWS request of 21 November 1970 for final increment of "hardware balance" (primarily increased core capacity and faster drums) for AFGWC's Univac 1108 computers.

19 Jul Air Force authorized MAC to redesignate all AWS RB-57s as WB-57s.

31 Jul AWS' unique, high-altitude balloon sampling support of the Atomic Energy Commission ended with inactivation of Det 31, 6WW, at Goodfellow AFB, Texas.

8 Aug AWS inactivated Latin American Forecast Center (Det 3, 15WS, 7WW) at Charleston AFB, South Carolina, and transferred tasks to AFGWC.

26 Sep Under Project Stormfury, designed to modify such storms, AWS WC-130Bs seeded Hurricane Ginger with silver iodide.

31 Oct AFGWC's Univac 418 computers phased out for disposition by Air Force Communications Service.

1 Nov AWS launched Centralized Terminal Forecast Program for eventually issuing terminal forecasts from AFGWC for all stateside units.

1 Nov Navy weather reconnaissance in Pacific ended.

29 Dec Air Force approved AWS request to install Univac 1110 computer at AFGWC. Performance and acceptance testing on Univac 1110 at AFGWC completed 30 October 1972.

1972

26 Apr AWS unveiled plans for "Value Analysis" program. It was designed to demonstrate through selected case studies that AWS support was economical. AWS first previewed Value Analysis studies at MAC commanders conference 5 October 1972.

23 May OL-B, HQ AWS (AWS' "Washington Office") inactivated.

30 Jun With no change in station, AFGWC reassigned from HQ AWS to 6WW.

30 Jun AWS mission expanded to include Air Force's residual aerial photomapping capability. The expansion added a squadron, five RC-130As, and 276 personnel to AWS.

Mid-1972 Air Force drawdowns and Southeast Asia withdrawals during Fiscal Year 1972 reduced AWS by two wings, a group, five squadrons, nine aircraft, and 2,315 manpower authorizations—the largest single-year manpower reduction in AWS (23 percent of its total) since immediate post-World War II period. Additionally, HQ AWS' Plans, Comptroller, History, and Information functions transferred to HQ MAC.



Capt. Foerster (right) and Lillie at Scott AFB on September 12, 1969, with Distinguished Flying Crosses awarded them for their airmanship in Hurricane Camille. Each of their crewmembers received the Air Medal.



Major Henry M. Dyches, Jr.

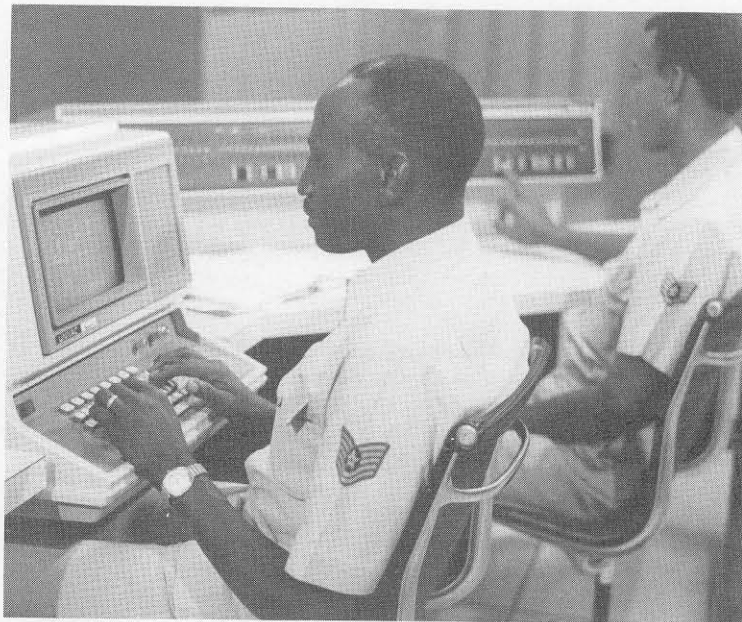
- 1 Jul Reductions in AWS manpower resulted in forecaster service being reduced by eight-to-eleven hours per day at 35 stateside units; 17 others designated "Regional Briefing Stations."
- 21 Jul AUTODIN (Automatic Digital Network) operational at AFGWC.
- 26 Sep Move of remote weather observation instrumentation from Representative Observation Site to base weather station at Yokota AB completed. It was the first of 109 such relocations directed by Air Force to save manpower.
- 1 Oct National Weather Service assigned liaison official to HQ AWS. Official remained in position until 17 March 1974, after which NWS declined to replace him.
- 1 Nov AFGWC's fully automated, Vela satellite, proton event detection and warning system, "Velawatch," operational.
- 21 Dec Air Force approved swap of fourteen Aerospace Rescue and Recovery Service (ARRS) HC-130Hs modified to WC-130H configuration for AWS' sixteen WC-130Bs. First WC-130H added to AWS inventory 26 June 1973.



Major Keith R. Grimes (center) with Son Tay raiders at Eglin AFB, FL, in 1970 during break in their highly intensive and secret training. Grimes, who spent most of his Air Force career as a forecaster in AWS, acted as weather advisor to raid force commander, and it was his work with climatological data which set raid's general date.

1973

- 3 Jan Direct drive facsimile from AFGWC to Pacific and European theaters fully operational.
- 27 Jan U.S. and North Vietnam agreed to cease-fire in Vietnam and Secretary of Defense announced immediate halt and indefinite suspension of drafting through Selective Service System. All U.S. combat forces withdrawn from Republic of Vietnam by 30 March 1973.
- 22 Feb MAC commander directed transfer of Inspector General, Personnel, Administration, and Headquarters Squadron Section staff functions from HQ AWS to HQ MAC by 1 July 1973, thereby reducing HQ AWS to "operational" headquarters. HQ AWS left with Operations, Systems, Logistics, Aerospace Sciences, Safety, and Executive staff functions.



TSgt Leon W. Major (left) and SSgt Claude W. Kay at Carswell AFB AWN/ADWS "hub."

- 3 Mar Last AWS unit in Republic of Vietnam (Det 1, 10WS at Tan Son Nhut AB) inactivated.
- 11 Jun Defense Department announced that it had reached a tri-service agreement for joint use of Air Force's Defense System Applications Program (DSAP) weather satellites. AFGWC commander retained loading responsibility for system.

- 12 Sep AWS announced Sergeant Vicki Ann Esposito's assignment as dropsonde operator. Reporting to WC-130 equipped 53WRS in December 1973, Sergeant Esposito was the first bonafide female weather reconnaissance crewmember in AWS history.
- 17 Sep Acting on MAC commander's recommendation, Air Force ordered the storage of AWS' remaining thirteen WB-57Fs at Davis-Monthan AFB, Arizona. On 7 December 1973 the Air Force directed transfer of WB-57Fs' high-altitude aerial sampling mission to SAC. Completed by 30 June 1974, the transfer eliminated one squadron (58WRS) and 221 manpower spaces, approximately three percent of AWS total authorization.
- Oct Ground-based, liquid propane system at Elmendorf AFB, Alaska, for dissipating cold fog declared operational by AWS.
- 13 Nov Special warfare weather team (primarily members of 2WG/5WW's Det 75) efforts in Laos, suspended temporarily from 30 July to September 1973, ended permanently. From 1965 on, team members worked clandestinely in Laos, under dangerous conditions and on a nearly uninterrupted basis, to establish and maintain a weather observing and reporting net essential to combat air operations.



End of the line for AWS' unique WB-57Fs: the "boneyard" at Davis-Monthan AFB, AZ.

- 1 Dec "Palace Weather" weather officer career management team operational at Air Force Military Personnel Center, Randolph AFB, Texas.

One of 14 officer management teams at AFMPC, Palace Weather, in conjunction with HQ AWS and major air command personnel staffs, handled assignments of all weather officers below the rank of colonel. Concept expanded in 1976 to include enlisted weather personnel.



- 15 Dec AWS transferred SESS forecast function from Aerospace Environmental Support Unit of 3WW's 12WS to AFGWC.

These special warfare—or commando—weathermen formed the nucleus of 2WG's Det 75 at Hurlburt Fld, FL, in 1964. Left to right are: A1C Wayne L. Golding, A1C Andrew V. Wilder, Capt Keith R. Grimes, A1C James P. Williams, MSgt Thomas M. Watson, and A1C Lloyd W. Mitchell, Jr. All but Williams and Golding eventually saw action in Laos and Cambodia; Wilder and Grimes barely escaped with their lives after firefights with North Vietnamese and Pathet Lao forces.

- 1974
- 1974 AWS launched program to qualify all enlisted weather personnel as both observers and forecasters by early 1980s.

6 Feb Air Force ordered that, after 1 July 1974, AWS' WC-135Bs be used on atmospheric sampling missions only, thus ending the aircraft's weather reconnaissance mission.

15 Mar The Air Force ordered phase-out of AWS' aerial photomapping mission and resources by 1 January 1975. Last operational aerial photomapping sortie was flown 15 January 1975, and AWS' fifth and last RC-130A associated with the mission relinquished on 20 February 1975.

28 Mar The Air Force approved AWS/MAC data automation request for computer at USAFETAC to replace IBM 7044. Installation of IBM 360/44 at USAFETAC completed 25 August 1975.

23 Jul The Air Force announced NASA's and NOAA's agreement to use Air Force-developed, Model 5D DMSP weather satellites as "basic bus" for their TIROS-N weather satellite series. NASA subsequently teamed with the Air Force to buy 12 RCA (Radio Corporation of America) Model 5D satellites, three for Air Force and nine for NASA-NOAA TIROS-N satellites.

30 Jul Defense Department suggested to the Commerce Department that it form a joint study group with Office of Management and Budget (OMB) to establish national policy on aerial hurricane reconnaissance. On 23 August Commerce agreed and the first study group meeting was held 30 September 1974. Based on the group's findings OMB advised Defense on 28 October 1975 to continue its aerial reconnaissance support of National Hurricane Operations Plan, but that, commencing fiscal 1977, Commerce should reimburse it for "all directly attributable costs."



Primary duty of special warfare weathermen in Laos was training friendly forces to take and report weather observations—a task MSgt Watson (left) and Capt Grimes (kneeling center, without glasses, facing camera) perform here in Laos, 1965.

26 Aug MAC sought Air Force's permission to transfer weather reconnaissance and residual aerial sampling missions and resources to ARRS. The Air Force granted approval on 18 June 1975, and the transfer was made 1 September 1975, ending over 33 continuous years of organized weather reconnaissance in AWS. The transfer reduced AWS by a wing, three squadrons, 27 aircraft (the last remaining in AWS), and 845 manpower spaces, approximately 11 percent of its total authorizations.

24 Oct AWS distributed white paper on its "capabilities and limitations."

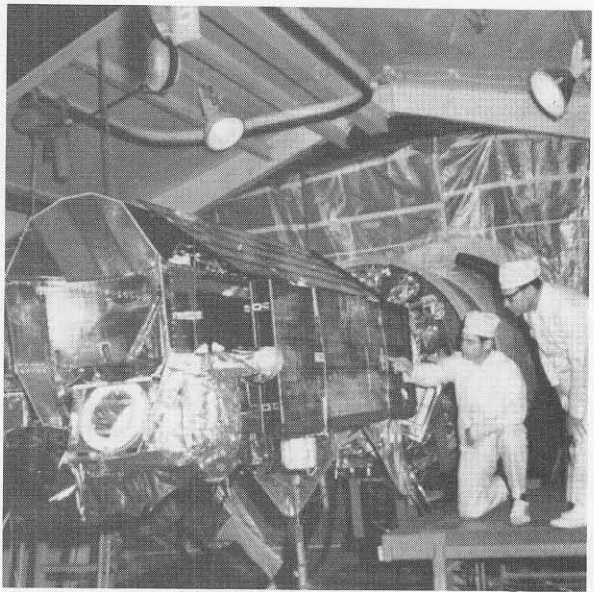
1975

Apr-May With evacuation of Americans from Laos in late May, over 13 years of involvement by U.S. military forces in combat in Southeast Asia concluded.

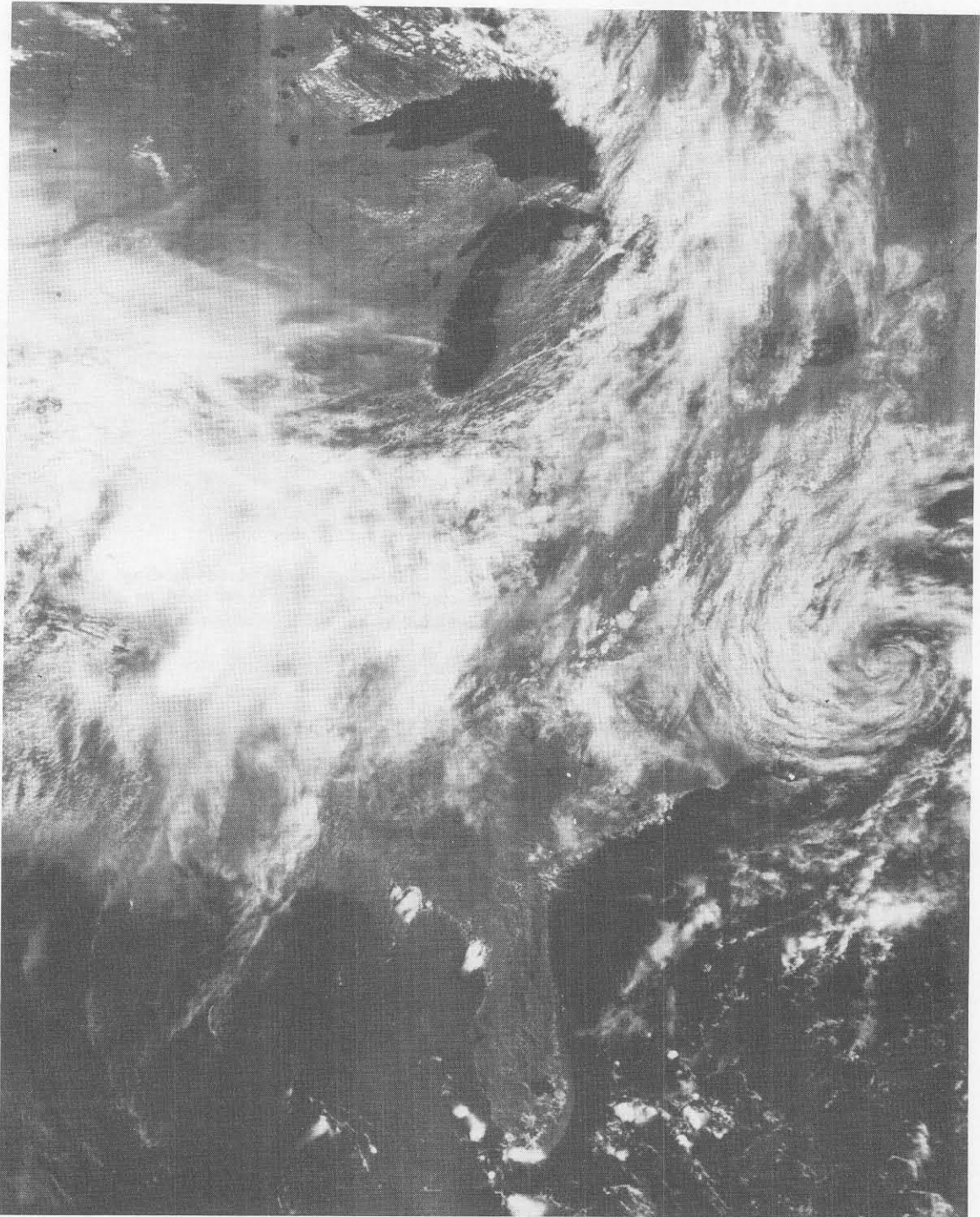
Last weather squadron in Southeast Asia (10WS at Nakhon Phanom AB, Thailand) inactivated 30 September 1975; last AWS unit (Det 30, 1WW at U-Tapao, RTNAS) inactivated 7 June 1976. Last permanently-assigned AWS individual in theater departed Thailand 21 May 1976.

Four AWS enlisted men killed in action in Southeast Asia.

AWS ground units in theater (including detachments) earned outright or shared: seven



First Model 5D DMSP weather satellite undergoing final testing at Vandenberg AFB, CA, prior to launch.



There were heavy thunderstorms over south-central U.S., and a low-pressure area lay off the Virginia coast as this DMSP photograph was taken about noon on 8 June 1974. Three hours later a tornado struck Oklahoma City, OK.

Presidential Unit Citations; eight Republic of Vietnam Gallantry Crosses with Palms; 50 campaign streamers; 16 Air Force Outstanding Unit Awards; and 10 Air Force Outstanding Unit Awards with Combat "V" devices.

22 May MAC advised AWS that, effective fourth quarter Fiscal Year 1975, it would be authorized only one general officer billet, that of the AWS commander. The AWS vice commander and 9WRW commander billets were converted to O-6 (colonel) slots.

1 Jul First of five AN/FMQ-7 solar optical telescopes planned for AWS operational at Palehua, Hawaii.

1 Jul AWS implemented centralized forecast verification program.

1 Jul Last Navy weather reconnaissance unit (Weather Reconnaissance Squadron Four, VW-4, at Jacksonville NAS, FL) decommissioned.



1 Aug AFGWC reassigned from 6WW to HQ AWS, with no change in station. USAFETAC assigned to AFGWC.

1 Aug 2WS assumed rocketsonde program management responsibility from HQ AWS.

21 Aug U.S. and Russia submitted joint draft accord for consideration by Geneva conference of U.N.'s Committee on Disarmament recommending environmental modification for hostile purposes be prohibited.

Withdrawing from Southeast Asia—loading a DMSP weather satellite readout van aboard a MAC C-5A at Nakhon Phanom AB, Thailand, in September 1975 for shipment out of theater.

30 Aug USAFETAC moved from Washington, DC, to Scott AFB, Illinois.

1 Sep For the first time ever, no member of AWS command section (chief of staff, vice commander, or commander) held an aeronautical rating.

6 Dec The MAC commander ordered AWS to identify 1,900 AWS manpower spaces for elimination (400 in "near term" prior to October 1976, and balance thereafter) to "help alleviate continuing budgetary pressures" in Air Force. Nine months later, MAC and Air Force agreed AWS would eliminate 311 spaces in "near term" (approximately five percent of its total).



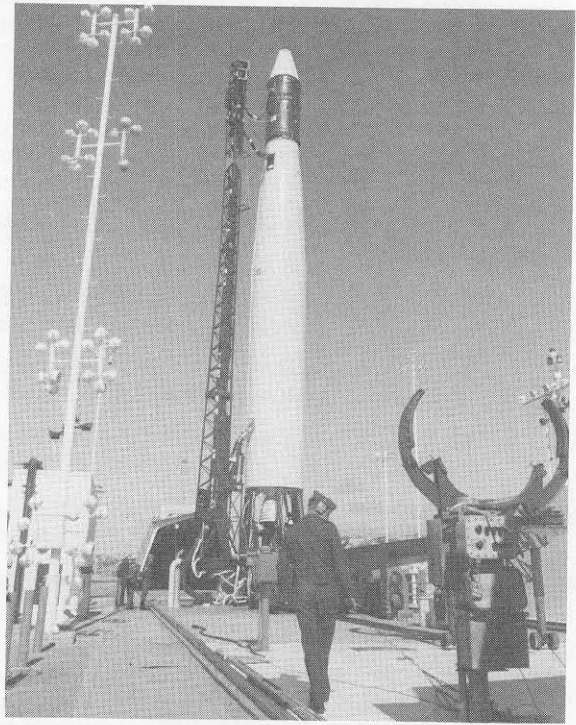
1976

9 Feb The Air Force awarded \$4.091 million contract for procurement and installation of three AN/FRR-95 solar radio telescope systems for AWS.

18 Feb The Naval Weather Service Command redesignated, in effect, as Director Naval Oceanography and Meteorology, and its headquarters moved from Washington, DC, to Bay St. Louis, MS, 1 October.

AWS Commander Brig Gen Rowe cutting ribbon at Carswell AFB AWN "hub" (Det 7, AFGWC), 14 Jan 1977, dedicating COMEDS.

- 29 Feb Acceptance testing completed on additional Univac 1110 computer at AFGWC to be used primarily for processing weather satellite data.
- 30 Mar The Air Force awarded \$287,300 contract for manufacture of 34 AN/GMH-7 lightning warning (sferics) sets.
- 1 Jul First COMEDS (CONUS Meteorological Data System) segment operational. Operating at 1,200 words per minute, COMEDS replaced COMET weather communications service.
- 27 Aug The Army notified Air Force it would assign liaison officer to HQ AWS, a first. Lt Col Charles J. Swayne's first day on job as TRADOC liaison officer to AWS was 5 July 1977.
- 1 Sep AFGWC began issuing MSIs (Mission Success Indicators—probability that mission would have favorable weather) for aerial refueling operations.
- 1 Sep In AWS commander's opinion use of MSIs "marked a significant turning point in the history of Air Weather Service" because it "signified the entry of centralized expertise and production capability into the area of tactical decision assistance with products delivered in an operationally tailored format."



First Model 5D DMSP weather satellite atop Thor booster at Vandenberg AFB shortly before launch on 11 September 1976.

- 8 Sep Operation of AFCS' weather facsimile switching center at AFGWC commenced.
- 11 Nov Memorandum of agreement issued on joint service management and operation of DMSP weather satellite program.
- 1977
- 1 Feb MAC became specified command, with no change in AWS status.
- 1 Mar Last warrant officer in AWS, CWO Billy G. Hance (Det 7, 24WS, 5WW, Mather AFB, California) retired.
- 1 Apr The Air Force ordered transfer of AWS' weather equipment maintenance mission and most associated manpower to AFCS. Officially opposed to the transfer initially, AWS changed its position in late 1975 and 1976. Mission transfer, which became effective 1 October 1977, reduced AWS by 785 manpower authorizations (approximately 15 percent of its total). Net savings to Air Force in AWS maintenance manpower was 94 spaces.
- 16 May Situation climatic brief for islands of Trinidad and Tobago was first AUTODIN message to leave USAFETAC addressed to a WWMCCS computer, and marked USAFETAC's first step into realtime, command-and-control support under automated WWMCCS concept.



Weather equipment repairmen in AWS—the end of an era.

- 18 May Together with thirty-two other nations, U.S. and Russia signed convention on prohibition of military or

other hostile use of environmental modification techniques. "Each State Party to this convention undertakes not to engage in military or any other hostile use of environmental modification techniques having widespread, long lasting or severe effects as the means of destruction, damage, or injury to any other State Party," the convention read. "Widespread" was defined as "encompassing an area on the scale of several hundred square kilometers;" "long lasting" as "lasting for a period of months, or approximately a season;" and "severe" as "involving serious or significant disruption or harm to human life, natural and economic resources or other assets." AWS believed convention did not affect its current capabilities in weather modification, nor AFGL's research and development therein.

- 15 Jun Full-duplex (send and receive), 1200-word-per-minute data circuit between AFGWC and USAFETAC operational.
- 28 Jun Geostationary Operational Environmental Satellite (GOES) data utilization station at AFGWC became operational, thus permitting AFGWC direct access to either of two GOES satellites.
- 14 Jul NASA launched first Japanese Geostationary Meteorological Satellite (GMS) from Cape Canaveral for use in Global Atmospheric Research Program.
- 15 Aug Last AN/APQ-11 weather radar in AWS inventory (with Det 1, 3WW, at Offutt AFB) declared out of commission for final time, and subsequently turned in.
- 8 Sep In response to AWS' 8 June 1977 request, Air Staff directed MAC (ARRS-AWS) to retain rainmaking capability inherent in photoflash ejector racks for ARRS WC-130s.
- 22 Nov NASA launched European Space Agency's Meteosat weather satellite from Cape Canaveral, western Europe's first such satellite.
- 23 Nov Based on discussions and correspondence with AFTAC and AWS, SAMSO found no operational requirements for data from DMSP satellites F-32 and F-33 and directed SAC to terminate all Block 5C operations as soon as possible and dispose of all Block 5C peculiar hardware. Consequently the Space and Missile Systems Organization (SAMSO) announced on 14 December that "operation of [DMSP satellites] FTV 9532 and 10633 was terminated effective 1 December 1977." This ended an era of Blocks 5A, B, and C spanning almost eight years.

1978

- 1 Feb First combined DOD weather forecaster training course commenced at Chanute AFB, as approved by the DOD Interservice Curricular Review Board in January 1977. The 18-week TDY course was attended by USAF, Navy, and USMC personnel.

- 1 Feb First RSTN site at Palehua, HI, declared operational, six months behind schedule. AWS accepted AN/FRR-95 set there 2 February 1978, but AFLC's Sacramento ALC advised 15 February it would not sign turnover agreement until support equipment problems were resolved. On 2 March 1978 Sacramento ALC signed agreement, reflecting initial operational capability for the Palehua AN/FRR-95.



- 1 Feb Eurfax II supplanted Eurfax I as primary weather facsimile circuit for Europe and Mediterranean. Muirhead recorders replaced by Datalog DL-19W recorders, except for nine Alden recorders installed in Ramstein AB area. Eurfax II permitted receipt of weather charts at double the speed of Eurfax I, thus providing more circuit time.

- 12 Apr Air Force announced major realignments within office of Secretary of the Air Force, Air Staff, and functions of certain subordinate commands and agencies. Most actions were to be initiated in FY 1978 and completed by

SSgt Mike Springer (Det 7, 2WS, Holloman AFB, NM) using a control unit of the AN/FMQ-7 SOON System, 1979.

the end of FY 1979. The most significant change affecting AWS was abolishment of the office of Assistant for Weather (AF/PRW), DCS Programs and Resources (AF/PR), HQ USAF. AF/PRW's former responsibility for coordinating weather matters on the Air Staff transferred to AF/XOOTF. It was authorized a single manpower space (colonel), performing essentially the same tasks handled by four people formerly authorized AF/PRW.

- 23 May AWS point paper this date indicated FY 1978 Air Force budget for meteorological services was \$249,007,000—\$112,730,000 for AWS, \$16,974,000 for weather reconnaissance, \$17,090,000 for weather communications, \$71,783,000 for DMSP, and \$30,430,000 for R&D.
- 1 Jul Colonel Paul W. Kadlec, IMA to AWS commander, promoted to rank of brigadier general in Air Force Reserve.
- 28 Jul Air Force approved PLN-11 Hardware Alternatives DAR for "sole source" acquisition of two Univac 1100/81 computers to replace three Univac 1108s (Systems I, II, and IV) at AFGWC.
- 10 Aug In reply to Air Staff's insistence that the requirement for a warm fog dispersal system be re-examined, MAC withdrew its support of the system because of USAFE's repeated objection to: using Ramstein AB for a prototype site, a microwave landing system that was being developed that may meet "mission requirements," and spiraling costs. The Air Staff officially cancelled joint ROC 508-74 for a warm fog dispersal system on 11 September.
- Sep AFGWC published its Master Plan: 1978-1988—AFGWC's first attempt at documenting known requirements through 1980s.
- 17 Sep President Carter signed Public Law 95-367, National Climate Program Act, mandating that the executive branch develop, within a year, a five-year plan integrating on-going and proposed climate efforts of all federal weather agencies. Plan was to be revised every other year.
- 11 Oct In a major alteration to AWS' centralization and automation doctrine, Colonel Albert J. Kaehn, Jr., AWS Commander, announced approval of AWS Council recommendation to change AWS' policy on terminal aerodrome forecasts (TAFs). AWS would transfer from AFGWC back to base weather station forecaster—when on duty—responsibility for 0-to-24 hour TAFs, and AFGWC would continue producing 0-to-24 hour TAFs for limited duty stations, with base weather station forecaster—when on duty—having total net-watch and amendment responsibility. Implementation occurred in 1979.
- 13 Oct The prototype third-generation civil polar orbiting weather satellite, TIROS-N, launched from Vandenberg AFB. Following check out of sensors and systems, NASA turned the satellite over to NOAA for operational use on 6 November 1978.
- 24 Oct Representatives from National Guard Bureau (NGB), MAC, and AWS met to determine how to distribute manpower cuts the Air Staff, in July, had ordered for AFRES and ANG weather, and how the remaining ANG weather flights would be organized and aligned. It was decided that ANG weather flights would be aligned primarily to support Army reserve units. Consequently, on 13 February 1979, AWS asked the NGB to change the mission of 18 100-series ANG weather flights from Air Force reserve to Army reserve support. AWS anticipated a similar realignment for 10 additional 100-series ANG weather flights, once approved and funded by Air Force. On 26 February 1978 NGB authorized realignment of 18 ANG weather flights to become effective 1 October 1979.
- 1979
- 2 Jan Western Fire Equipment Company, Brisbane, California, delivered prototype belt weather kit to AWS for evaluation. Balance of order for 250 kits delivered 27 April 1979.
- 7 Jan Operations suspended at solar observatory in Tehran (Det 7, 2WW) due to strife and volatile political atmosphere in Iran's capital.
- 10 Jan MAC approved reorganization of HQ AWS on a so-called "functional" basis. Effective date was 15 January 1979.
- 15 Jan During meeting at HQ AWS, SAMSO's DMSP director verbally approved idea of modifying all AWS' Mark IIA and Mark III DMSP readout vans to be able to acquire and process data from Japan's GMS geostationary weather satellites, and from NOAA's third-generation polar orbiting weather satellites in the TIROS-N series.
- 16 Jan In support of Reforger 79, two WC-130s from ARRS' 53WRS conducted a successful cold fog dispersal operation dropping crushed dry ice at Rhein Main AB. It represented the first operational use of WC-130s for that purpose in Europe since the 1972-73 cold fog season.

26 Jan

In a major policy statement, the Army informed the Air Staff that "direct weather service support by . . . [AWS] must be provided to separate brigades, armored cavalry regiments, air cavalry combat brigades, and Special Forces groups" when asked for, and that "this position applied to active Army, Army Reserve and Army National Guard units, and assumes that direct weather service support will be continued at division, corps and echelons above corps as currently provided."



Using AN/TMQ-22 in field in support of the Army.

13 Feb

SAMSO requested proposals (bids) for design concepts of DMSP Block 6 satellites. By mid-year SAMSO had awarded \$200,000, four-month design contracts to five aerospace companies: Rockwell International, Lockheed Missiles and Space Co., Hughes Aircraft Co., RCA (Astro Electronics Div), and General Electric. DMSP Block 6 satellites, launched from the Space Shuttle, were to commence operation in 1984, and carry the DMSP program into 1990s. Following concept design, two firms were to be selected for preliminary design and engineering development, after which one would be awarded the contract during 1982 for full-scale engineering development and production of DMSP Block 6 satellites.

Using AN/TMQ-22 in field in support of the Army.

14 Feb

Iranian dissidents overran the American embassy in Tehran. One American captured was Captain George R. Davenport, commander of AWS' solar observatory in Tehran, Det 7, 2WW. Subsequently returned to embassy, Davenport was evacuated from Iran together with other Americans on 18 February 1979. As the last AWS individual in Iran, Davenport drew special hostile fire pay the DOD authorized for military personnel stationed in Iran from 8 December 1978 to 23 February 1979.

26 Feb

AWS forwarded MAC justification for reinstating 10 ANG weather flights for Army reserve support, and for recovering 207 of 224 ANG manpower authorizations Air Staff planned to eliminate. In 1 March letter, MAC validated the need and passed it to Air Staff who subsequently approved the proposal.

16 Mar

SAMSO awarded \$21 million contract to Harris Corp for Satellite Data Handling System (SDHS) to be operational at AFGWC by late 1982. Contract included option for 29 IPADS III consoles at AFGWC, and constituted half of the contract's cost.

23 Mar

AWS Council reviewed AWS' Army weather support policy. By adopting position of "give the Army equal service as the Air Force," the Council recommended overturning Brigadier General Rowe's December 1977 proposal to draw back all direct AWS support to corps level. On 17 April 1979, Colonel Kaehn approved Council recommendation that, through 1986, AWS would furnish direct observing, forecasting, and staff weather officer support to each tactical Army echelon down through divisions, separate brigades, and armored cavalry regiments. Revised AWS position conveyed to field units on 2 May 1979.



6WS(M)'s Sgt Joseph H. Rello, with Three Mile Island plant in background. Due to continuous attention by nation's news media, plant's distinctive cooling towers behind Rello became symbolic of nuclear power's potential hazards.

31 Mar

In response to request from NOAA and Nuclear Regulatory Commission, JCS asked the Air Force to deploy mobile rawinsonde unit to Middletown, Pennsylvania, in support of Three Mile Island Nuclear Power Plant incident. Support by 7WW's 6WS(M), to include six rawinsonde and six Pibal observations per day, commenced on 1 April and continued to 18 April 1979.

4 Apr

Acceptance testing completed on second Univac 1100/10 computer system (designated as "Air Force" system) at joint Air Force-NOAA (OL A of

USAFETAC and NOAA's National Climatic Center) computer facility, Asheville, North Carolina. Formal dedication of joint Air Force-NOAA Univac 1100 computer system conducted 25 April 1979. Production on Spectra 70/45 system discontinued on 31 December 1979.

- 3 May JCS distributed to service chiefs and other interested agencies a WWMCCS environmental services interface implementation plan it approved for supplying environmental information and support during crises, and limited environmental support for day-to-day operations.
- 4 May AWS officially accepted AFGL's proposal to assume responsibility for operating AFGL's polarimeter network of nine sites (Athens, Goose Bay, Osan, Palehua, Patrick, Ramey, Sagamore Hill, Shemya, and Taiwan). Action to transfer the equipment was initiated 9 May 1979. Except for Goose Bay, Patrick, and Taiwan, which were handled through contracts, all sites were operated by AWS personnel.
- 8 May The Air Force Computer Acquisition Center awarded a \$760,000 contract to Sperry Rand Corporation, for Univac 1106 computer peripherals on the new consolidated Pacific ADWS at Hickam AFB. Installation commenced 27 July. Univac turned over first system to Air Force on 7 September, but numerous problems were encountered with the second ("B") system. Thus, consolidation at Hickam ADWS of functions previously handled by Fuchu and Clark ADWSs was not completed by 1 October 1979, as planned. Not until 17 January 1980 was Pacific ADWS activated at Hickam, climaxing an eight-year effort.
- 16 May DECCO (Defense Commercial Communications Office) requested bids from industry for Air Force digital graphics system. DECCO awarded a contract on 31 December 1979 to American Telephone and Telegraph Co., which specified 1 October 1980 operational date.
- 21 May After substantial intervening deliberations, MAC decided to acquire an IBM 4341 computer, vice a government-owned IBM 370-155, to replace USAFETAC's IBM 360/44 computer. MAC approved USAFETAC computer upgrade DAR on 29 May, and ordered IBM 4341 on 22 June 1979. Due to a backlog of orders, the computer was not delivered to USAFETAC until 18 January 1980. It was accepted from IBM on 28 February 1980.
- 4 Jun National Guard Bureau directed realignment of 10 additional 100-series ANG weather flights presently supporting Air Force elements to support Army reserve elements—to become effective 1 October 1979.
- 8 Jun AWS Council convened this date, and again on 11 June 1979, to address issues related to AFGWC's use and development of models and Model Output Statistics (MOS) products. On 1 August 1979 Brigadier General Kaehn approved the following Council recommendations as AWS policy: AWS (AFGWC) would continue using numerical weather prediction models, subject to HQ AWS approval of basic model; AWS (AFGWC) would not perform basic numerical weather prediction model development, but instead would adopt operational models developed by others; AWS would continue to rely on MOS products of National Weather Service's Techniques Development Laboratory (TDL) for support of AWS units stateside and in Alaska; AFGWC would develop and implement MOS capability to meet requirements of AWS units overseas; AFGWC would save stateside and Alaska data fields from its models so that a capability could be developed if TDL's support faltered; and AWS would continue to maintain a liaison cell at TDL to handle AWS' requirements, and insure that TDL's MOS products continued to be responsible to military's needs.
- 2 Jul Assistant Secretary of Air Force for Financial Management directed the Air Force Vice Chief of Staff to revalidate System Development Corp's (SDC) 1976 computer "architecture" study of AFGWC. Separate contracts subsequently awarded Aerospace Corp and SDC. Final reports, available 11 December 1979, reached diverse conclusions: SDC basically revalidated its 1976 study, recommending AFGWC continue with Univac line and hang array processors on them to obtain additional computer power; Aerospace also recommended continuing with Univac line, but to acquire "super-computers" competitively for additional computer power needed later.
- 19 Jul Air Force signed \$4.5 million contract (combination rental/purchase price) with Sperry Rand Corp for installation of two Univac 1100/81 computers at AFGWC. The computers were delivered by the end of month. The changeover was completed on 8 November and Univac 1100/81s officially declared operational effective 1 December 1979.
- 13 Aug Installation and testing commenced at Travis and Mather AFBs of upgrade kits in AN/GMQ-10 transmitters for conversion to solid-state technology with AN/GMQ-32 nomenclature. Testing was successfully completed in October 1979 after which all AN/GMQ-10s were to be converted to AN/GMQ-32s in 1980.
- 19 Sep German Military Geophysical Office (GMGO) approved the 2WW/AWS concept for establishing an AWS unit at Traben-Trarbach, GMGO's fortified combat weather center complex. Heavily dependent on communications, the concept would, AWS believed, unify planning forecasts for NATO's Central Region and significantly improve weather support to USAREUR forces. AWS subsequently forwarded the concept to the Air Staff for approval.

- 1 Oct AFSC's SAMSO was inactivated and two new organizations, the Ballistic Missile Office, Norton AFB, and the Space Division, Los Angeles AFS, assumed its functions. The later organization also assumed responsibility for DMSP.
- 3 Oct OFCM's crosscut reviews for OMB on nation's need for advanced weather radar and automated observing system published. The reviews concluded that the radar requirement was valid and recommended NEXRAD concept approval, provided PDP (Program Development Plan) was formulated in time for FY 1982 budget cycle. The PDP addressed a mix of Doppler and non-Doppler sites, and the communications necessary to disseminate NEXRAD data nationwide. The PDP stipulated that procurement of demonstration models be made in connection with FY 1982 budget review. A sister review concluded that automated systems based on current technology would not meet DOD's and DOC's needs for information on "present" weather, and recommended acceleration of sensor development to meet those needs so that fully-automated systems could be deployed at sites where staff reductions were possible. Report also recommended that procurement of new sensors and processors by all agencies be held in abeyance until coordination mechanism was established to mesh agency requirements and assure benefits of joint procurement of common equipment. Recommendations subsequently briefed to President's science advisor and then to OMB, who essentially approved them in its FY 1981 budget decision.
- 11 Oct CARMISH at the American embassy in Tehran wired AWS for a description of the equipment that Det 7, 2WW had abandoned at the AWS observatory in January following the Shah's overthrow. A representative from Tehran University had expressed interest in reopening the observatory, and the American embassy was anxious to pursue the matter. However, before preliminary talks had progressed very far, the embassy was overrun by militant university students on 4 November 1979. They took 53 American hostages, demanding that the U.S. return the Shah to Iran to face trial for crimes he had allegedly committed against Iranians.
- 12 Oct Lowest pressure ever observed, 870 millibars, recorded in eye of Typhoon Tip by dropsonde operator Sergeant Roger Ritchie, flying with Det 4, HQ AWS, and the WC-130-equipped Typhoon Chasers. The new low pressure equated to a 700-mb height of 1,944 meters.
- 16 Oct GAO published and forwarded to Congress a Report to the Congress of the United States: The Federal Weather Program Must Have Stronger Central Direction. The report was extremely critical of OFCM, averring that federal weather programs were costly and in urgent need of stronger central direction because OFCM had become ineffective as coordination mechanism, and was unable to handle problems leading to unwarranted duplication. "GAO believes that a "national" weather service may be the most effective organization for providing central direction," the report read. The Air Force declined formal comment and on 5 November 1979 the DOD stated that there was a continuing need for weather support to successfully discharge its many and varied missions, and promised continued cooperation with other federal agencies to ensure the most economical weather support.
- 22 Oct AWS asked MAC to either fund or abandon a study on the survival, recovery, and reconstitution (SR) of AFGWC. On 31 December 1979 MAC recommended it be abandoned due to its "extremely high costs" for backup computers and because of relatively low risk to AFGWC in all but nuclear war. On 13 February 1980 AWS conveyed to MAC its decision to cease all attempts to acquire a backup computer capability for AFGWC.
- 25 Oct The first meeting of OFCM's ICMSR (Interdepartmental Committee for Meteorological Services and Supporting Research). To tighten and revitalize interdepartmental coordination on meteorological affairs as recommended by the GAO, OFCM formed ICMSR by merging two former committees: ICMS (Interdepartmental Committee for Meteorological Services) and ICAMR (Interdepartmental Committee for Applied Meteorological Research). William S. Barney, a former AWS vice commander, chaired the meeting.
- 16 Nov President Carter approved a directive (Presidential Directive/National Security Council-54, "Civil Operational Remote Sensing") permitting Commerce and Defense Departments to continue operating separate meteorological satellite programs, although an appropriate coordination mechanism was to be established to insure more effective cooperation and prevent duplication.
- 28 Nov Senate ratified Executive K, "Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques," which had been approved by the United Nations General Assembly in December 1976 and signed by the U.S., Russia, and 32 other nations in May 1977.
- 1 Dec AFGWC commenced limited operational WWMCCS support to MAC, ADCOM, TAC, and USEUCOM.
- 14 Dec "Zebra Class" (officially, Class 790807) graduated from Chanute's forecasting school. The class was composed of senior NCOs, all former 252XXs (chief observers).

1980

- 29 Feb In letter this date, Brigadier General Kaehn asked National Guard Bureau (NGB) to establish an ANG position at HQ AWS for purpose of advising the AWS commander and his staff on matters relating to provision of weather support to reserve forces. The NGB approved the request in June, and on 9 December 1980 Lieutenant Colonel Ronald L. Godbey reported for duty at HQ AWS for a full-time, four-year tour. Godbey was the former 181WF commander.
- Mar AWS published the first 14 of 21, 100-series *Forecaster Memos* distributed in 1980. The publications concentrated on the climates and weather of Africa, the Middle East, and Southwest Asia and reflected a renewed national and DOD interest in those areas.
- 1 Apr Federal Meteorological Handbook 1B implemented—combined and standardized USAF and Navy observing procedures for first time.
- 24 Apr Iranian hostage rescue attempt ended unsuccessfully with disaster at Desert One. A 2 May AWS white paper (based on post-mission analysis) concluded that except for restricted visibility from unforecast suspended dust, all AWS forecasts (including those for the hideout location, C-130 routes in and out, and Teheran itself), had verified. At JCS direction, a panel of three independent experts was later formed. Their 21 May report corroborated the AWS white paper. AWS support was found to have been professionally planned and executed; forecasts were as accurate as the available data and state-of-the-art allowed.
- 21 May Palehua became a fully-automated Solar Electro-Optical Network (SEON) observatory (Det 6, 1WW) with activation of the automated AN/FRR-95 RSTN system.
- 24 Jun Viz Manufacturing Co. presented AWS with plaque “in recognition of the friendly cooperation and support” that helped make it possible for the company to build four million radiosondes. AWS used about 5,000 of the instruments a year.
- Jul For the first time, AWS picked an AWS Senior NCO, NCO, and Airman of the Year. First winners: Master Sergeant Leonard C. Hume, Jr. (Det 4, HQ AWS, Andersen AFB, Guam), Technical Sergeant Donny Weaver (Det 3, 5WS, Fort Bragg, NC), and Sergeant Harald Naestvold (USAFETAC, Scott AFB).
- 17 Jul Space Division accepted DMSP Mark IV transportable terminal prototype from Harris Corporation’s Government Systems Group at Melbourne, Florida.
- 28 Aug Based on an HQ AWS review, Brigadier General Kaehn approved the recommendation to reassign 2WS from AFGWC to HQ AWS. On 19 September 1980 AWS sought MAC approval for the transfer and on 27 October 1980 received it. The transfer became effective 1 January 1981.
- 2 Sep OL A, Det 50, 2WS, was activated at Johnson Space Center, Houston. Manned by a captain, the unit advised the Manned Space Flight Support Group on Space Transportation System (Space Shuttle) environmental issues and supplied the DOD manager for the Space Shuttle with staff meteorologist support during orbital flight tests.
- 4 Sep MAC urged Air Staff to get immediate decision from GSA on whether to acquire Univac general-purpose computers to meet new AFGWC requirements or “waste over \$30 million for a competitive replacement that will add nothing to our capability and disrupt support to high priority operations.” On 15 September Air Staff provided reassurance that its support for a Univac “central core” will continue. On 21 November GSA agreed that the Univac continuance “seems reasonable,” but suggested AFGWC develop a long-range software improvement plan. AFGWC’s plan was completed and accepted in 1981.



Interior view of new MARK IV DMSP satellite readout van, 1981.

- 3 Oct Air Force Digital Fascimile System (AFDIGS) became fully operational in "Lower 48" and Alaska. System provided transmitted weather charts in only 2 1/2 minutes. Pacific and European AFDIGS became operational on 15 December 1980.
- 16 Oct Brigadier General Kaehn received first non-rated officer aircrew member badge awarded in MAC from General Robert E. Huyser, CINCMAC. MAC succeeded in restoring the badge in 1978 after aerial weather reconnaissance officers were denied the right to wear standard aircrew member wings in 1959.
- 29 Oct A JCS memorandum this date assigned the Air Force responsibility for furnishing weather support to Joint Deployment Agency and RDJTF. In 26 November 1980 letter, the Air Staff assigned the mission to AWS, adding that AWS resources already dedicated to USCINCREC support (1WS) were to be utilized "to the maximum extent possible" in fulfilling the mission.
- 25 Nov Computer flight plan (CFP) test showed AFGWC capable of producing more than 100 CFPs an hour under optimum conditions. AFGWC processed 233,753 computer flight plans during 1980.
- 1981
- 1 Feb AFGWC produced first AWS global solar optical coverage chart.
- 26 Feb OFCM forwarded to the OMB a crosscut review of roles and missions of nation's three numerical meteorological processing centers: AFGWC, Fleet Numerical Oceanography Center, and National Meteorological Center.
- 6 Mar The Air Force sought an eight-year delegation of procurement authority from GSA to remain with Univac computer line at AFGWC. In return, it promised to initiate an aggressive computer software improvement program for AFGWC. In its 24 April 1981 reply, the GSA granted USAF sole source procurement authority for the Univac line for 18 months; authority to remain with Univac for the balance of the eight years would be contingent upon GSA's review of USAF's software improvement plan for AFGWC.
- 30 Apr "Single Career Ladder" concept for AWS enlisted people fully implemented; AFSC 252X1 (weather observer) was eliminated.
- 1 Jun Air Staff reorganization of its Directorate of Operations and Readiness (AF/XOO) reassigned the Airspace and Traffic Services Division (which contained a weather programs function) to Deputy Director for Operational Support. Office symbol changed from AF/XOOTF to AF/XOORF.
- 3 Jun Installation of 56-kilobaud circuit between AFGWC and USAFETAC completed. The system replaced the discontinued ARPA (Advanced Research Project Agency) drop at AFGWC.
- 7 Jul The Air Force Chief of Staff forwarded a strawman DMSP requirements document to the JCS, which subsequently relayed it to Navy and USMC for comment. As a result, on 5 October 1981, the JCS sent to the Air Force validated joint requirements for DMSP.
- 13 Jul Based on AWS' input, MAC proposed to the Air Staff a policy on AFGWC support to Navy. The policy, approved as written, was relayed by AWS to AFGWC on 4 September 1981. It stated that AFGWC could approve Navy requests for support which were nonrecurring, required no additional resources to fulfill, and did not impact support to other customers.
- 11 Aug AFGWC's 2400-baud AUTODIN circuit to Tinker AFB AUTODIN switching center replaced with 4800-baud circuit to Hancock Field AUTODIN switching center to give AFGWC added AUTODIN capability for new requirements.
- 24 Aug Circuit activated between AFGWC and NASA's Goddard Space Flight Center to provide AFGWC with data from Meteosat weather satellite.



AFDIGS (A.F. Digital Graphics System) displaced at HQ AWS, Scott AFB, being reviewed by Capt Merrilee A. Powell and Maj Eldon E. Schmidt.

- 1 Sep Air Force Directorate of Space (AF/XOS) established under DCS Plans and Ops (AF/XO). The Space Operations Division was to manage such space and missile programs as DMSP.
- 9 Sep New 9600-baud data circuit between National Weather Service and AFGWC operational.
- 18 Sep MAC returned public affairs function to AWS after consolidation move nine years ago. Staff Sergeant Ethel (Sue) Shearer reported as full-time Public Affairs specialist, AWS *Observer* editor.
- 21 Oct "Dialup" weather radar capability installed at AFGWC for its severe weather forecasting section.
- 27 Oct Lieutenant Colonel Frederick F. Haddad, Jr., Det 2, 7WS, Hanau AI, GE., was first recipient of USAF's new Lance P. Sijan Leadership Award.

1982

- 6 Jan In response to MAC's December 1981 query, the Air Staff advised this date that there were no operational contingency plans requiring USAF to maintain rainmaking equipment, i.e., removable flare ejector racks mounted on the fuselages of ARRS' WC-130s. When racks in storage at Keesler AFB were subsequently turned over for disposition, it marked the end of a capability that began in 1967 when AWS WC-130s conducted rainmaking operations in Southeast Asia.

- 7 Jan A memorial plaque—containing the names of AWS KIAs and MIAs from World War II, Korea, and Southeast Asia, as well as names of weather reconnaissance crews lost in line-of-duty accidents—was dedicated at HQ AWS. Brigadier General Kaehn presided at the ceremony.



Dedication of plaque at HQ AWS bearing the names of weathermen KIA/MIA in World War II, Korea, and Vietnam, January 1982.

- 17 Mar The Air Staff approved a DAR for the upgrade of AFGWC's two Univac 1100/81 computers to Univac 1100/82s, and the implementation of the "optimized" MAC computer flight plan program. The upgraded computers were declared operational on 16 June 1982.

- 30 Mar The AWS informed AFGWC that the AWS short wave fade network, used since the mid-1960s, would be terminated. AFGWC was to continue producing alerts and advisories by using x-ray data from GOES satellites, models which related x-ray intensity to short wave fade and numerous HF communicators. AWS' short wave fade network was shut down on 1 January 1983.

- 30 Mar Six paratroopers of the 82d Airborne Division were killed during exercise Gallant Eagle 82 at National Training Center near Fort Irwin, California. Five of the dead suffered hard landings or were dragged to their deaths by undetected high winds on the western half of Silver drop zone. Also because of the high winds, more than 150 others suffered injuries, most at Silver and Gold drop zones.

- 31 Mar Daily transfer of SESS data from AFGWC to USAFETAC terminated after six and one half years. SESS data were replaced by AFGWC's Astrogeophysical Data Base (AGDB). A "cleaner" and far more useful data file, AGOB was sent on a weekly basis to USAFETAC's OL A, Asheville, North Carolina.

- 20 May USAF signed a contract with Lockheed for \$2.3 million in Fiscal Year 1982 for software, personnel, and maintenance needed to implement the "optimized" MAC computer flight plan system at AFGWC.

- 1 Jul An AWS Annual Programming Plan (A²P²) was published, marking AWS' discontinuation of its Command, Control, and Communications Programming Plan (C³P³)—AWS' mechanism for competing for Air Force funds in annual POM cycle.

- 2 Jul Turnover papers on the first two AN/TPS-68 tactical weather radars were signed at Tinker AFB. Initial operational capability was declared on 2 August 1982.
- 27 Jul NCOs presented the "Order of the Sword" to Brigadier General Kaehn in formal ceremony held at the NCO Club, Scott AFB, Illinois. General Kaehn was first AWS Commander ever to receive the prestigious award.
- 27 Aug "Optimized" MAC computer flight plan system at AFGWC declared operational.
- 4 Oct Published this date was the first joint TRADOC/MAC pamphlet *Military Operations: Joint Operational Concept for Army Tactical Weather Support*.
- 21 Oct A secure 1200-baud circuit between AFGWC and Joint Special Operations Command at Fort Bragg became operational.
- 15 Nov Per AWS instructions of 12 November 1982, the TAF function at AFGWC was terminated. Henceforth, AWS field units issued TAFs.
- 3 Dec In a letter to MAC, AFMEA (Air Force Management Engineering Agency) formally approved the details of a base weather station manpower standards study. Initial application of the new standards validated 395 additional AWS spaces (80 officer, 315 enlisted).
- 20 Dec Upgrade of the COMEDS circuits from 1200 to 2400-baud commenced. The upgrade, completed on 9 August 1983, not only doubled speed of system but also allowed for transmission of NOTAMs.
- 21 Dec DMSP spacecraft F-6 successfully launched at 0235Z from Vandenberg AFB. It was first successful launch of new Block 5D-2 series DMSP weather satellites and the first successful DMSP launch since June 1979 (F-4).

1983

- 1 Jan Det 26, 28WS, 2WW, activated at RAF Greenham Common, UK, to support new GLCM unit. Appointed commander effective same day was Captain Curtis A. Reutner.
- 20 Jan Boeing Aerospace Company stated its requirements for AFGWC support to ASAT (the air-launched, antisatellite program) tests.
- 22 Jan Arrival of First Lieutenant Emilo R. Banos-Nieves (Det 25, 5WW) at Le Mesa International Airport near San Pedro-Sula, Honduras, for exercise Ahuas Tara marking the beginning of continuous deployment of AWS personnel to that troubled Central American nation.
- 1 May Space Command assumed management responsibilities for 1000th Space Operations Group (formerly SAC's 4000th Space Operations Group) and all DMSP responsibilities previously assigned to SAC.
- 9 May Operational this date, AFGWC's version of Global Spectral Model (20-wave, 9-layer model) transferred from National Meteorological Center (a 40-wave, 12-layer model). Concurrently, AFGWC implemented Hough analysis program four times a day, making it the first weather central in the world with operational, six-hour weather cycling system.
- 15 Jun Sacramento ALC signed contract with International Creative Data Industries for an AN/FMQ-8 temperature-dewpoint set that would replace the AN/TMQ-11. First sets were installed in January 1987.
- 5 Jul AWS closed out AWS PAD 79-1, "AWS Probability Support." AFGWC also suspended work on the AWS MOS system.



Chief Master Sergeant of the Air Force Sam E. Parish poses with SrA Linda M. Bogart, AWS 1984 Airman of the Year winner.

- 14 Jul AFGWC asked AWS for permission to delay work on Relocatable Window Model (RWM) until Global Spectral Model (GSM) was operational; delay covering RTNEPH to Advanced Weather Analysis and Prediction System (AWAPS) Class IV computer until Fiscal Year 1990; and an increase in workhours for implementing AWAPS from 28,829 (or 14.3 man-years, as specified in AWAPS DAR) to over 61,000 man-hours. AWS chief of staff on 21 September 1983 agreed to petition MAC for delay of RWM until GSM was operational; to extend work to 41,800 man-hours (20.7 man-years); and to eliminate RTNEPH (Real-time Nephanalysis Model) conversion to Class VI computer from the AWAPS program.
- 20 Jul EURDIGS circuit to AFGWC operational.
- 1 Aug Sam E. Parish became Chief Master Sergeant of the Air Force. Parish began his Air Force career in December 1954 as a weather equipment operator in AWS. In 1973 he was named senior enlisted advisor for AWS, which was followed by assignments as the senior enlisted advisor for USAFE (1977) and SAC (1981).
- 1 Aug RTNEPH replaced 3-dimensional nephanalysis (3DNEPH) model at AFGWC. RTNEPH was designed for more efficient computer operations and software maintenance. It incorporated minor improvements in use of satellite and surface data, analyzed clouds in four floating layers (vice 3DNEPH's 15 fixed layers), and furnished additional data quality information for more effective use in climatological studies.
- 1 Aug Six minutes after Air Force One landed with President Reagan aboard a microburst, with winds of 120 knots, struck Andrews AFB causing estimated \$465,000 damage to Andrews.
- 5 Aug Colonel William E. Buchan relinquished command of 3WW's 11WS to become Chief Meteorological Officer, SHAPE (Supreme Headquarters Allied Powers Europe), Mons, Belgium. Replacing RAF's Group Captain Haworth, Buchan was first non-Brit to fill chief meteorological officer position since SHAPE's formation in World War II.
- Sep Using MAC Crisis Action Team (CAT) WWMCCS Intercomputer Network (WIN) terminal on time-sharing basis, AWS established a permanent AWS WWMCCS teleconference at HQ AWS (DOJ). Teleconference was used to support contingencies and JCS-directed exercises.
- 29 Sep NOAA signed \$2.368 million contract with Tracor, Inc., for development of two prototype IWR (Improved Weather Reconnaissance) systems. The Air Force underwrote \$700,000 of the contract.
- 1 Oct 4th Weather Wing reactivated at Peterson AFB, CO, replacing 5WW's 12WS which was inactivated this date at Colorado Springs, CO. Effective 1 January 1984, HQ AWS' 2WS at Andrews AFB, MD, was reassigned in place to 4WW.
- 21 Oct GAO published report entitled "Air Force Global Weather Central Initiates Positive Action to Assess Adequacy of Software Improvement," which praised AFGWC's software improvement program. The DOD concurred on 2 December 1983.
- 25 Oct Under Operation Urgent Fury, combined U.S. air, sea, and land forces invaded Grenada to evacuate American students. Before combat operations were officially declared ended on 2 November, nine men from Detachment 3 of 5WW' 5WS at Fort Bragg, NC, deployed to Grenada and furnished weather support during the fighting. All nine received Bronze Stars.
- 28 Oct After nearly two years of delays, AFGWC WIN terminal declared operational.
- 22 Dec Contract signed with Sperry Corporation for upgrading Univac 1100/21 computer system of USAFETAC's OL A at Asheville, NC, to Univac 1100/62.
- 1984
- 1 Jan AWS eliminated Terminal Aerodrome Verification (TAFVER) program in favor of Operational Verification (OpVer) program more attuned to operator criteria.



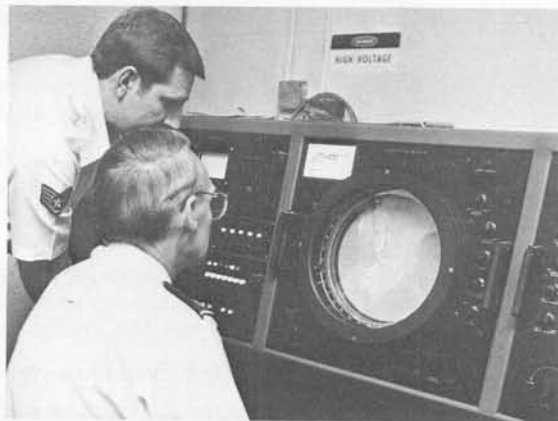
SSgt James D. Methvan, from Det 3 of the 5WW's 5WS at Ft Bragg, poses near Russian AN-2 aircraft at Pearls Airport, Grenada, used by Soviet Embassy, 1 Nov 1983.

- 6 Jan Ribbon-cutting ceremony for new \$6 million MAC consolidated computer facility, Building 1575, at Scott AFB that eventually housed USAFETAC's computer systems—USAFETAC completed moving its computer apparatus to Building 1575 on 15 August 1984.
- 27 Jan As a test case, Sergeant Robert C. St. John, assigned to Det 4 of 7WW's 17WS, Altus AFB, OK, became AWS' first Forecaster Assistant by completing weather specialist and weather technician courses back-to-back.
- 1 Feb AFGWC ceased issuing MOS bulletins for stateside units and the National Meteorological Center began issuing them.
- 24 Feb Air Staff sought MAC's (AWS') comments regarding what position the U.S. should assume when the 1978 international "convention" (treaty) banning weather modification as a weapon of war was formally reviewed by signatory nations in September 1984. In its 20 March 1984 response, AWS recommended that there should be no changes that might translate into a prohibition of weather modification by military (to include research and development of techniques).
- 2 Mar Air Force awarded \$16.6 million contract to Canadian Commercial Corp (Hull, Quebec) for full-scale development of Automated Weather Distribution System (AWDS). In turn, on 12 April 1984, CCC awarded the contract to MacDonald Dettwiler and Associates, Limited, of Richland, BC. The contract award represented another six-month slip in the program.
- 12 Mar TRADOC Weather and Environmental Support Office (TWESO) established under the Combined Arms Combat Development Activity (CACDA) at Ft Leavenworth, Kansas. It functioned as the Army focal point for weather and surface hydrological services.
- 30 Mar Crisis Action Weather Support System (CAWSS) became accessible to all WWMCCS Intercomputer Network (WIN) users with access to HQ USAF, NMCC, or ANMCC computers. WWMCCS environmental support on three computers was furnished daily through the CAWSS and the NMCC Environmental Support System (NESS) for exercises and crises.
- 4 Jun MAC orders published this date inactivated all MAC Training Advisor (MTA) operating locations with ANG weather flights effective 1 October 1984.
- 1 Jul USAREUR tactical forecast unit moved from Campbell Barracks, Heidelberg AI, Germany, to German Meteorological and Geophysical Office (GMGO) facility at Traben-Trarbach, Germany. Associated official organizational actions effective this date: OL A, 2WW, at Traben-Trarbach inactivated; Det 14, 7WS, at Heidelberg inactivated; Det 13, 7WS, activated at Traben-Trarbach.
- 2 Jul Amdahl 470V/8 computer delivered to USAFETAC to replace IBM 4341. USAFETAC computer operations moved to new Consolidated Computer Facility (MAC, AFCC, and ARRS), on opposite side of Scott AFB on 15 August. Testing completed and Amdahl 470V/8 accepted on 5 September 1984.
- 14 Jul AN/CPS-9 weather radar at Maxwell AFB removed and replaced by AN/FPS-77. AN/CPS-9 was the first radar specifically designed for meteorological use, and the one at Maxwell (serial number 001) was the first ever installed, on 20 June 1954. Maxwell's CPS-9 was the last in the AWS inventory. It was shipped to Scott AFB for display before eventually entering the AWS museum.
- 1 Aug Original edition published of AWSR 105-7, outlining support to electro-optical weapon systems with the application of tactical decision aids.
- 22 Aug With reassignment of its commander, Captain James Warnke, Det 12 of 7WW's 15WS at Selfridge AFB, became AWS' only all-civilian detachment. Mr. John Pacek assumed duties as interim meteorologist-in-charge.
- 1 Sep The 4800-baud, full-duplex circuit between AFGWC and AFTAC declared operational.
- 20 Sep During its fourth and final meeting at AFGL (L.G. Hanscom AFB), Weather 2000 Steering Group approved final draft of the mission analysis for immediate publication/distribution. Weather 2000 was distributed to the field in April 1985.
- 16-17 Oct First ever AWS airmen "forum" at HQ AWS. The airmen came to Scott AFB to receive a series of briefings on AWS activities.
- 30 Oct Published this date was MAC Sup 1 to AFR 35-30, 4 November 1982, which specifically delineated 37 positions in AWS eligible for wear of USAF's new space badge.



AWS commander Col Chapman addressing first AWS airmen "forum" at HQ AWS, October 1984.

- 30 Oct AFGWC completed formal implementation of HIRAS model.
- 13 Nov Under AWAPS contract, two Sperry 1100/72 computers delivered to AFGWC: System B (PLN 33) commenced operations this date and System A (PLN 32) commenced operations on 11 December 1984. The computers functioned as front end/data base systems for AWAPS Cray X-MP "super" computer.
- 19-20 Nov First meeting of International Polar Orbiting Meteorological Satellite (IPOMS) group in Washington, DC, at which NOAA won support for continuation of two polar-orbiting weather satellites. Earlier, OMB had sought to eliminate second polar orbiter from NOAA's Fiscal Year 1986 budget request.

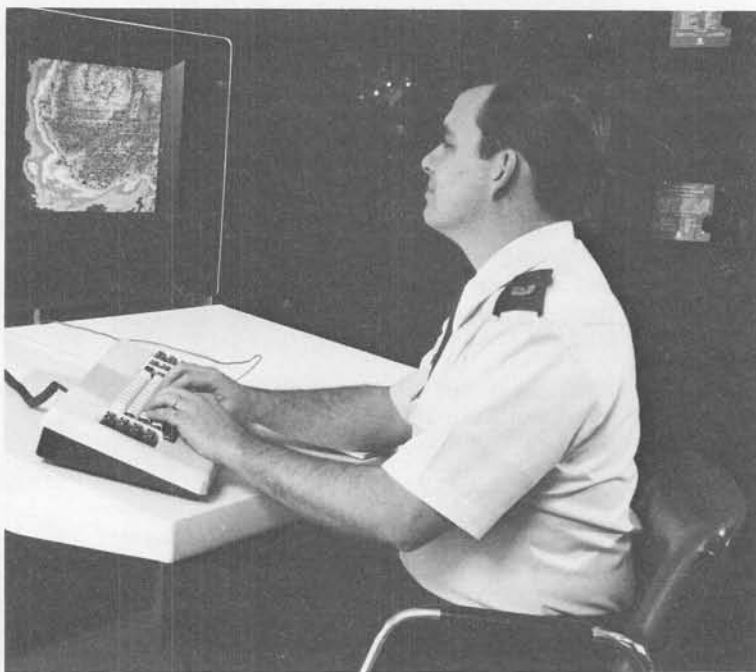


Demonstrating WSR-74C operational replacement radar, 1986.

1985

- 25 Mar AWAPS, using the Cray X-MP "super" computer, formally dedicated during ribbon cutting ceremony.
- 4 Jun AFLC's Sacramento Air Logistics Center awarded a contract to Space Data Corporation (Tempe, AZ) for 39 Meteorological Data System (MDS) Model 691s (17 for AWS and 22 for the Army) as replacements for the AN/GMD-2 and AN/GMD-4 rawinsonde sets. Subsequently given the nomenclature AN/GMD-5, the MDS underwent qualification/initial testing and evaluation from 10 April to 10 May 1986, after which 7WW's 6WS(M) accepted delivery of the first unit and transported it to Hurlburt Fld, FL.
- 19 Jun AFLC's Sacramento Air Logistics Center awarded a sole source contract to Enterprise Electronics Corporation for 24 WSR-74C weather radars that were to be an operational radar replacement for the remaining AN/FPS-103s and some AN/FPS-77 weather radars. Enterprise delivered the first set, subsequently given the nomenclature AN/FPQ-21 (it had a 12' diameter antenna, while the WSR-74's had an 8' antenna) to Ft Sill on 5 February 1986.

- 30 Jun AFLC's Sacramento Air Logistics Center awarded a contract to the University of Lowell for 19 replacement ionospheric sounders. The first sounder was installed at Argentia NAS, Newfoundland, and on 7 October 1985 AFGWC received the first data from it.



The Satellite Data Handling System at AFGWC, December 1985.

- 10 Jul AFLC's Sacramento Air Logistics Center awarded a contract to Tele-Signal Corporation (Hauppauge, NY) for tactical cloud height devices as replacements for the AN/TMQ-14, AN/TMQ-2, ML-121, and ceiling balloons.
- 9 Aug Initial operational capability declared for Satellite Data Handling System (SDHS) at AFGWC. Final operational capability declared 17 April 1986.
- 4 Sep NASA approved AWS' request for a weather officer to fly on a future shuttle mission. In December AWS Commander Brigadier General George Chapman selected Major Fred P. Lewis to be the first weather officer in space.
- 28 Sep AFLC's Sacramento Air Logistics Center awarded a contract to Sutron Corporation (Herndon, VA) for digital wind measuring sets to replace the AN/GMQ-11 and AN/GMQ-20 wind measuring sets. Subsequently given the nomenclature AN/FMQ-13(V), difficulties with its design slipped the scheduled delivery of the first set to late 1987.

- 30 Sep The last of the 15 backbone circuits of the Military Dedicated Service "A" network disconnected, terminating Service "A" support in AWS.
- 21 Oct Based on SAC's long-standing requirement, the Washington Area Contracting Office purchased a WSR-74C weather radar that was installed at Shemya AFB, AK, this date.
- 9 Dec Tele-Signal Corporation shipped the first five production AN/GMQ-13 cloud-height sets to Chanute AFB; it shipped the next ten to McClellan AFB on 30 December 1985.
- 1986
- 8 Jan First overseas Meteorological Data System (MEDS) circuit accepted in Alaska at Eielson AFB, marking the initial milestone in the replacement of obsolete weather teletype systems with more modern equipment in Alaska, Europe, and the Pacific.
- 19 Mar Last rocket launched from Shemya AB, ending the era of Air Force rocketsonde operations.
- 26 Mar First Sperry 1100-91 installed at AFGWC as new System 6, the first step in a program to replace five main-frame computers with larger, more powerful systems.
- 31 Mar National Weather Service Digital Facimile (DIFAX) circuit to AFGWC converted from landline to satellite.
- 28 Apr AWS units initiated support to the U.S. effort to track the movement of radioactive contamination from the Chernobyl reactor accident in the Soviet Union. AFGWC provided extensive data and modeling support, and Det 3, 1WW, personnel flew air sampling missions aboard WC-130s.
- Jun AFLC's Sacramento Air Logistics Center awarded a contract to Tele-Signal Corporation for 401 tactical meteorological surface observing systems to replace the AN/TMQ-22 tactical meteorological stations. Subsequently given the nomenclature of AN/TMQ-34, first article testing commenced in April 1987, with delivery of production items to commence in October 1987.
- 11 Jun AFLC's Sacramento Air Logistics Center awarded a contract to a Finnish firm, Vaisala, for tactical wind measuring sets to replace the AN/TMQ-15 wind sets. Due to difficulties with the contractor, first article testing slipped to July 1987, with delivery of the first production items not expected until 1988.
- 20 Jun State of the art Global Spectral (forecast) Model was implemented at AFGWC, providing a significant reduction in forecast errors. Run on an extremely fast Cray "super" computer, the model described the global atmosphere more accurately at a higher resolution than before.
- Jul AWS personnel began support to Blast Furnace, a four-month operation to interdict drug production and traffic in Columbia. Fifteen officers and enlisted personnel comprised the weather support forces located at Howard AFB. They deployed with operational forces in Columbia.
- Sep First Volant Lightning training class held at Hurlburt Field, FL. The ongoing program trains 120 AWS staff officers per year to live and work in realistic field conditions in preparation for meeting wartime commitments.
- Oct First "dial up" computer flight plans using AFGWC data provided directly to aircrews from remote terminals.
- 31 Dec As of this date, new ML-658/GM altimeter-barometer digital (DBA-SI) sets were installed at 197 sites worldwide, with only five sites remaining to receive them.
- 1987
- 5 Jan The Air Force announced that, effective 1 October 1987, the 54th Weather Reconnaissance Squadron of MAC's Twenty-Third Air Force at Andersen AFB, Guam, would be deactivated, (its six WC-130E/Hs would be retired), and the Air Force Reserve's 815th Weather Reconnaissance Squadron at Keesler AFB would be converted to a tactical airlift squadron.



Demonstrating NEXRAD's capabilities, 1986.

- 6 Apr Air Staff approved new badge for wear by AWS personnel.
- 16 Apr U.S. Special Operations Command (USSOCOM) established at MacDill AFB, FL. At USSOCOM's request, the JCS assigned responsibility for staff meteorological support to the Air Force (AWS).
- 1 May In a reorganization of HQ AWS, the Deputy Chief of Staff (DCS) for Logistics directorate was dissolved, and a new directorate, the DCS for Program Management was created.
- 1 May A network of automated observing stations established in Honduras to provide remote meteorological sensing and reporting in support of continuing heavy exercise commitments. The network consisted of two fixed and four mobile stations that automatically transmitted into the AWN observations including temperature, dewpoint, wind, and pressure data.

B.C.

by johnny hart



By permission of Johnny Hart and Creators Syndicate, Inc.

SECTION III: COMMANDERS BIOGRAPHIES

RANDOLPH PIERSOL (PINKIE) WILLIAMS

Colonel, United States Army Air Corps

Father of Air Weather Service

Randolph Piersol Williams was born on 31 October 1898 in Baltimore, Maryland. He married Elizabeth Conroy of Belleville, Illinois.

Williams attended West Point from 15 July 1916 until 31 October 1918. He was commissioned as a second lieutenant 1 November 1918 and as a first lieutenant 2 August 1920. He received a succession of assignments with the engineers until he transferred to Scott Field, Illinois, in September 1925 to attend the Air Corps Balloon and Airship School.

As a first lieutenant, Pinkie (as he was called by his friends and close associates because of his thinning, light-red hair) Williams enrolled as a student in aerology at the Naval Academy's postgraduate school on 9 July 1928, and began postgraduate work in meteorology at the Massachusetts Institute of Technology in September 1929 under Carl-Gustav Rossby.

Williams spent more than 14 years as a first lieutenant, typical of promotions in the regular Army between wars. During that period, he furnished the behind-the-scenes ground support for the Explorer II stratospheric balloon flight from Rapid City, South Dakota, on 11 November 1935. The world's largest balloon, Explorer II, reached an altitude of 72,385 feet.

Between July 1935 and December 1936 many proposals were studied, but a memorandum Williams drafted on behalf of the Air Corps became the plan that eventually encompassed the Army Air Corps Weather Service. Colonel Williams' dreams materialized on 1 July 1937 when the War Department transferred the Signal Corps Meteorological Service to the Air Corps. Upon Colonel Williams' recommendation to Brigadier General Henry H. (Hap) Arnold, First Lieutenant Robert M. Losey, on 1 July 1937, was appointed the first chief of the Weather Section, Training and Operations Division, Headquarters Army Air Corps (AAC), with the responsibility of managing the Army Air Corps Weather Service.

In September 1938 Major Williams became an instructor at the famed Air Corps Tactical School at Maxwell Field, where most air doctrine studies originated at that time. Williams was promoted to colonel in February 1942, and became the Commander, 84th Fighter Wing in France in February 1944. Two months later he was reassigned as Chief of Staff of the Ninth Air Force's XIX Tactical Air Command. On 5 September 1944 Colonel Williams was killed in action while on a photo reconnaissance mission over France.

ROBERT MOFFAT LOSEY

Captain, United States Army Air Corps

First Commander of Air Weather Service

1 July 1937—17 January 1940

Robert Moffat Losey was born 27 May 1908 in Andrew, Iowa. He married Kathryn Banta. He was appointed to West Point in 1925 and, upon graduation, was commissioned as a second lieutenant on 12 June 1929. He completed pilot training at Brooks and Kelly Fields, Texas, and meteorological training at the California Institute of Technology.

On 1 July 1937 Robert M. Losey, then a first lieutenant, was named the first Chief, Weather Section, Training and Operations Division, Headquarters Army Air Corps (the forerunner of the Air Weather Service), at age 28.

After Russia invaded Finland in late 1939, the chief of the Army Air Corps, Brigadier General Henry H. (Hap) Arnold, approved Captain Losey's request to go to Finland as a military observer. On 21 April 1940, while detailed to escort the United States Minister to Norway, Mrs. Florence Jaffray Harriman, safely out of the country, Captain Losey was killed during a German air raid. He was the first American officer to die from hostile action while in the service of the United States during World War II.

Losey Street (formerly 9th Street) at Scott Air Force, Illinois, (home of Headquarters AWS) was dedicated in his honor on 28 June 1979. The forerunner of today's American Institute of Aeronautics and Astronautics honored him by inaugurating the Losey Award given in recognition of outstanding contributions to the science of meteorology as applied to aeronautics. Winners of this award have included Francis W. Reichelderfer, Joseph J. George, Harry Wexler, Carl-Gustav Rossby, Vincent J. Schaefer, Arthur F. Merewether, Robert C. Miller, and Robert D. Fletcher.

Significant events during Captain Losey's tenure as AWS Commander include commanding 40 weather stations, five of which were in Hawaii, Panama, and the Philippines; reestablishing the enlisted forecaster school at Patterson Field, Ohio; and opening the observer school at Scott AFB, Illinois, in 1939.



ARTHUR FRANCIS MEREWETHER
Colonel, United States Army Air Forces
Second Commander of Air Weather Service
18 January 1940—7 January 1942

Arthur Francis Merewether was born in Providence, Rhode Island, on 7 July 1902. He graduated from Brown University with a degree in chemistry in 1922. An avid sportsman, he excelled in football, hockey, and baseball. He even played for the Pittsburgh Pirates for part of a season. On 7 July 1937 he married Genevieve Evans and they raised two sons and two daughters.

In 1925 he entered the Massachusetts Institute of Technology, earned a masters degree in chemistry, and spent two years teaching at Phillips Academy. He then worked as a chemist with the Squibb Pharmaceutical Firm in Brooklyn, New York, before entering the Air Corps. He completed basic flight school the year the stock market crashed, 1929, and after finishing advanced flight school at Kelly Field, Texas, the following year, he was appointed second lieutenant in the regular Army Air Corps (AAC).

In 1933 Lieutenant Merewether again enrolled at the Massachusetts Institute of Technology and completed its meteorology course in June 1935 under Carl-Gustav Rossby. Promoted to first lieutenant on 1 August 1935, he was detailed to create a weather station and forecasting service at Barksdale Field, Louisiana. Captain Merewether became Chief, Weather Section, Headquarters, Army Air Corps (later to become the Directorate of Weather) on 18 January 1940, and was promoted to major on 21 March 1941. A lieutenant colonel as of 5 January 1942, he became the regional control officer and Commander, 8th Weather Region, at Presque Isle, Maine (later relocated to Grenier Field, New Hampshire) in late September 1942.

He was promoted to colonel 1 March 1942 and became Commander, 8th Weather Group, on 1 January 1946. He retired from the Army Air Forces in that position in August 1946.

Significant events during Colonel Merewether's tenure as AWS Commander include establishment of the Air Corps Weather School at Chanute Field, Illinois, on 11 April 1940; initiation of the first meteorological cadet (three-month) course in June 1940; and the Army Air Corps' first attempt at official long-range (30-day) forecast and verification on 20 October 1941.

DON ZABRISKIE ZIMMERMAN
Brigadier General, United States Army Air Forces
Third Commander of the Air Weather Service
8 January 1942—8 March 1943

Don Zabriskie Zimmerman was born in Eugene, Oregon, on 25 November 1903. He obtained a bachelors degree in geology at the University of Oregon in 1924. Enrolled in the Reserve Officers Training Corps, he was commissioned in the Army (infantry) reserve. Zimmerman married Marion Doherty and they raised two children.

In 1925 he left a graduate teaching post in geology and relinquished his reserve commission to accept an appointment to West Point. He enjoyed baseball and basketball, and was captain of both teams during his studies there. He was described in his year book as being "the most popular man of his class," which included Robert M. Losey and Harold H. Bassett. As a 25-year-old graduate in 1929, he was sixth in his class (of 299) and one of the few cadets to have been elected class president every year during his tenure at the academy.

Receiving his pilot's wings and an assignment to March Field in 1930, he entered the California Institute of Technology and obtained his masters in meteorology under Dr. Irving P. Krick in 1936. While a weather instructor at Randolph Field in 1939, he discarded the standard curriculum and co-authored with First Lieutenant Thomas S. Moorman a *Weather Manual for Pilots* based on the new meteorological theories and his own observations from hundreds of flights through thunderstorms and unstable fronts in an open-cockpit biplane. The work incorporated the latest polar air-mass theories from the Bergen School and long remained an important educational tool. He also wrote many technical papers. One, on the geology of atolls, proved an accepted theory of Charles Darwin wrong and helped the Marines find safe landings on Kwajalein and Eniwetok atolls during World War II.

On 8 January 1942 Colonel Zimmerman assumed command of the Weather Directorate and in early 1943 entered the Command and General Staff School. On 19 April 1943 he took command of the 21st Bombardment Group at MacDill Field, Florida, and on 6 June 1943 he was reassigned to the 5th Amphibious Force. In 1947 then-Army Chief of Staff Dwight D. Eisenhower picked him to form an Advanced Study Group, an advisory body of three senior officers who were chosen on the basis of their records as independent thinkers. It determined how the Weather Bureau and the Army's and Navy's weather services should coordinate mobilization of the nation's meteorological resources.



During the Korean War, Colonel Zimmerman was assigned to the Far East Air Forces as Director of Plans, and later as Chief of Intelligence. He returned to Washington, DC, with a promotion to brigadier general. When the Air Force established its own academy in 1955, Zimmerman's academic background made him an ideal choice to set up the curriculum. That year he was appointed as Dean of Faculty.

He retired in 1958 when the Boeing Company hired him as a consultant. Brigadier General Zimmerman died 11 May 1983 and was buried with full military honors at the U.S. Air Force Academy.

Significant events during General Zimmerman's tenure as AWS Commander include the designation of the "Directorate of Weather" as the "Army Air Forces Weather Service" in Army Regulation 95-150, 24 July 1942; activation of the first weather reconnaissance squadron at Patterson Field, Ohio, on 21 August 1942; and the installation of the first radiosondes at weather units.

HAROLD HUNTLEY BASSETT
Major General, United States Air Force
Fourth and Ninth Commander of Air Weather Service
9 March 1943—9 January 1945
13 November 1958—31 October 1959

Harold Huntley Bassett was born in Albion, Illinois, on 1 April 1907. After completing high school in Albion and two years of study at St. John's Military Academy, Delafield, Wisconsin, he entered West Point in 1925. The year book described him as the "big, strong, silent type." As a first classman, he was a cadet lieutenant and a good student, graduating 12th in his class of 299. He married Anita Horner of Honolulu and they had one daughter.

He was commissioned as a second lieutenant in the Corps of Engineers upon graduation on 13 June 1929 when he went directly into flight training. He transferred to the Air Corps after earning his pilot's wings in 1930.

After approximately five years of various squadron officer duties in Hawaii and Randolph Field, Texas, First Lieutenant Bassett entered the California Institute of Technology to study under Dr. Irving P. Krick. He received a masters of science degree in meteorology in 1936.

In July 1937, when the present Air Weather Service was first organized under the Air Corps, Lieutenant Bassett commanded the First Weather Squadron at March Field, California, one of the three original AWS weather squadrons. He was promoted to captain on 13 June 1939. Leaving the weather service in 1940, he was again assigned to Hawaii where he performed staff duties at the Seventh Air Force. He was promoted to lieutenant colonel on 1 March 1942 and in July of that year he became a student at the Naval War College. Upon graduation he returned to the weather service where he served until shortly after the end of World War II.

Colonel Bassett was appointed acting Director of Weather on 9 December 1942, and Director of Weather (equivalent to today's AWS/CC) on 9 March 1943. He served overseas as Director of Weather for the U.S. Strategic Air Forces in Europe and with the U.S. Air Forces in Europe from 1945 to 1947, and graduated from the National War College in 1948. He spent the following three years as Assistant Director of Intelligence on the Joint Staff.

In 1951 he became deputy commander of the newly organized U. S. Air Force Security Service. Following his promotion to brigadier general in September 1952, he became its commander in 1953. Promoted to major general on 27 October 1954, Bassett served as the commander of the Security Service until he was reassigned to the Far East in February 1957 as Deputy Commander, Taiwan Defense Command.

On 13 November 1958 he became the Air Weather Service Commander for the second time, the first man to serve in that position twice. General Bassett retired from active duty in October 1959.

Significant events during General Bassett's tenure as the AWS Commander include establishment of a short-range forecast verification program (24-, 36-, and 48-hour), April 1943; inauguration of the U.S. Air Force Strategic Facsimile Network which connected Global Weather Central, Offutt AFB, Nebraska, with five other U.S. weather centers on 15 February 1959; initiation of the operational numerical (computer) flight plan system on 15 May 1959; and activation of the first two weather squadrons (7th at Heidelberg, Germany, and the 16th at Fort Monroe, Virginia) for exclusive support of the U.S. Army on 8 July 1959.



DONALD NORTON YATES
Lieutenant General, United States Air Force
Fifth Commander of Air Weather Service
10 January 1945—31 July 1950

Donald Norton Yates was born in Bangor, Maine, on 25 November 1909. He graduated from Bangor High School in 1927 and, at age 17, entered West Point. He enjoyed sports and lettered in soccer and gymnastics. He was elected captain of the gymnastics team in his last year at West Point and was a member of the undefeated 1928 Army soccer team. The team was selected for the U.S. Olympic team, but the academy superintendent did not permit it to participate. Graduating in 1931, he was commissioned as a second lieutenant in the cavalry. In 1932 he married Gertrude I. Hansen of San Antonio and they raised a daughter and son.



While attending Primary Flying School at Randolph Field, his instructor slow-rolled him out of a PT-3 when his seat belt was not fastened. As a result, he was accepted into the Caterpillar Club (anyone whose life was saved by using a parachute received a gold caterpillar). He pinned on his pilot wings in 1932 and in December was assigned to Luke Field, Hawaii, with the 23d Bomb Squadron. He was transferred from the cavalry to the Army Air Corps on 25 January 1933.

In November 1935 First Lieutenant Yates was assigned to Brooks Field, Texas. After studying under Dr. Irving P. Krick at the California Institute of Technology, he earned a masters of science degree in meteorology in 1938. He was then assigned to the Third Weather Squadron at Barksdale Field, Louisiana. Captain Yates became executive officer of the Sixth Air Base Group at Barksdale in March 1941, and served subsequently as Group Commander and Post Operations Officer. In December 1941 he became Assistant Chief of the Weather Section, Operations Division, Headquarters, Army Air Corps. He was promoted to lieutenant colonel on 23 January 1942, and in March became Deputy Director of Weather and was placed in charge of the Army's section of the Joint Weather Central.

He was promoted to colonel 2 November 1942. From May to December 1942 Colonel Yates was in the U.S.S.R. as a member of a military mission coordinating weather matters. In February 1944 he became Director of Weather Service for the U.S. Strategic Air Forces in Europe, in addition to serving on General Dwight D. Eisenhower's staff. For his participation in the selection of 6 June as D-Day for the Normandy Invasion, he was decorated by the United States, Great Britain, and France.

In January 1945 Colonel Yates was made Chief, Weather Division, which later merged with the AAF Weather Wing to form the Air Weather Service. Commander of Air Weather Service at Andrews AFB, Maryland, until 1950, he was promoted to brigadier general on 5 February 1947. He flew the first scheduled weather reconnaissance mission over the North Pole on 17 March 1947.

In July 1950 Brigadier General Yates was appointed Assistant Deputy Chief of Staff for Development at Headquarters, U. S. Air Force, and the following April he became Director of Research and Development. He was promoted to the rank of major general on 2 February 1952 and became Commander, Air Force Missile Test Center, Patrick AFB, Florida, on 31 July 1954. Promoted to lieutenant general on 4 May 1960, he retired from the Air Force on 3 March 1961.

Significant events during General Yates' tenure as AWS Commander include the selection of 6 August 1945 for the atomic bomb drop on Hiroshima, Japan; the redesignation of weather service to its official name of "Air Weather Service," and assignment of it to the Air Transport Command, on 13 March 1946; installation of the first fixed-beam ceilometer at Langley Field, Virginia; initiation of the UHF pilot-to-forecaster service in 1947; issuance of the first tornado forecast at Tinker AFB, Oklahoma, on 25 March 1948; organization of Global Weather Central at Offutt AFB, Nebraska, on 15 March 1949, to support SAC; establishment of a weather detachment at Taegu, Korea, within 48 hours after the Korean War began in June 1950; and discovery of an ice island in the Arctic Ocean by Lieutenant Colonel J. O. Fletcher.

WILLIAM OSCAR SENTER
Lieutenant General, United States Air Force
Sixth Commander of Air Weather Service
1 August 1950—22 April 1954

William Oscar Senter was born on 15 June 1910 near Stamford, Texas. He attended grade school and high school in Abilene, Texas. After one year at Hardin-Simmons University, he was appointed in 1929 to West Point. While at West Point he lettered in football and lacrosse. He entered the Air Corps Flying School at Randolph Field, Texas, in 1933, and received his pilot's wings in October 1934. In April 1937 Lieutenant Senter married Ruth Jane Tinsley. The Senters raised two daughters.

As a second lieutenant he served at Langley Field, Virginia, with the 20th Bomb Squadron of the 2d Bomb Group. There Major Barney M. Giles selected Lieutenant Senter to be his navigator when the Army Air Corps took delivery of Boeing's first production B-17 bomber.

In June 1938 First Lieutenant Senter completed his meteorology training at the Massachusetts Institute of Technology, studying under Carl-Gustav Rossby and Hurd C. Willet. He was then assigned as station weather officer at Maxwell Field, Alabama. There he was promoted to captain (October 1940) and major (July 1941). He eventually commanded the 4th Weather Squadron. Promoted to lieutenant colonel in January 1942, he was assigned to the Army Air Forces Headquarters in Washington, D.C., as Chief of the Operations Division of the Directorate of Weather. He was promoted to colonel on 21 July 1943.

Colonel Senter assumed command of and organized the Army Air Forces Weather Wing in Asheville, North Carolina, when the Directorate of Weather was disbanded in 1943. In March 1945 Colonel Senter was assigned to command the Far East Air Forces (FEAF) Weather Group (Provisional), and became staff weather officer to Lieutenant General George C. Kenney and later meteorological advisor to General of the Army Douglas MacArthur. In September 1945 the FEAF Weather Group became the 43d Weather Wing, which moved to Tokyo in March 1946. In addition to his normal duties, he was also responsible for the rehabilitation of the Japanese and Korean weather services and for the establishment of a weather service within the Ryukyuan Islands.

In July 1948 he entered the Air War College and, after graduation in June 1949, he became Deputy Chief of Air Weather Service. On 1 August 1950 he assumed command of the Air Weather Service and was promoted to brigadier general on 4 August. He was promoted again on 8 March 1952 making him the first major general to command Air Weather Service. He moved to Headquarters Air Materiel Command in 1957 and was subsequently assigned as the Assistant Deputy Chief of Staff for Material at Headquarters U. S. Air Force in 1959. Promoted to lieutenant general in August 1963, he was named Director of Petroleum Logistics Policy in the Office of Assistant Secretary of Defense. He retired in 1966.

Significant events during General Senter's tenure as AWS Commander include the establishment of the Severe Weather Warning Center at Tinker in February 1951; and the reorganization of AWS from geographic to functional support in May 1952.

THOMAS SAMUEL MOORMAN
Lieutenant General, United States Air Force
Seventh Commander of Air Weather Service
23 April 1954—27 March 1958

Thomas Samuel Moorman was born at the Presidio of Monterey, California, 11 July 1910. He attended John J. Phillips High School in Birmingham, Alabama, and graduated from West Point in 1933 with a commission as a second lieutenant. He then entered the Air Corps Flying Training School at Randolph Field, Texas. In October 1934 he earned his pilot wings and was assigned to the 4th Observation Squadron, 5th Composite Group at Luke Field, Hawaii. In October 1936 he married Miss Atha Grace Gullion, the daughter of an Army judge advocate who was chief prosecutor in the court martial of Major General Billy Mitchell. The Moormans raised four children.

In 1936 Second Lieutenant Moorman was promoted to first lieutenant and assigned to the 97th Reconnaissance Squadron at Mitchel Field, New York. In 1937 he entered the California Institute of Technology where he obtained a masters in meteorology. In 1938 he was assigned as assistant station weather officer at Randolph Field under Captain Don Z. Zimmerman. He also served as assistant instructor for meteorology at the flight school there. In 1940 First Lieutenant Moorman teamed with Captain Zimmerman to write the first Army-published *Weather Manual For Pilots*. He was promoted to captain on 5 October 1940 and major on 22 July 1941. Moorman was part of a six-man team that formed



a Weather Research Center at Bolling Field which became a weather central for long-range forecasting. In July 1941 Major Moorman was assigned to Air Corps Headquarters where he served as Chief Climatologist, Assistant Director of the Air Corps Research Center, and liaison officer to the U.S. Weather Bureau. A joint Army/Navy/Weather Bureau central was formed in February 1942, based on a recommendation by Moorman, and it later became the Joint Weather Central. He was promoted to lieutenant colonel on 23 January 1942.

On 1 May 1943 the 21st Weather Squadron, the first fully-mobile squadron trained exclusively for combat, was activated at Bradley Field, Connecticut, and Lieutenant Colonel Moorman became its regional control officer. He was promoted to colonel in August 1943 and assumed command of the 21st on 1 September 1943, then located in England. On 16 October 1943 Colonel Moorman became staff weather officer to, and later director of, weather support to the Ninth Air Force. In 1944 Moorman functioned as the liaison officer for the American First Army commanded by Lieutenant General Omar N. Bradley.

In 1945 he returned to the U.S. as Deputy Chief of Staff, Air Weather Service under Colonel Don Yates. A year later he became the air weather officer at Headquarters Army Air Corps and remained in that position until he entered the Air War College in 1947.

In January 1949 Colonel Moorman was sent to Tokyo as Commander of the 2143d Air Weather Wing and he also served indirectly as staff weather officer to General of the Army Douglas MacArthur. In August 1951 he became Deputy Commander of Air Weather Service and received his first star in September 1952. On 23 April 1954 he was appointed Commander of Air Weather Service, and in October 1956 he received his second star. In April 1958 Moorman assumed command of the Thirteenth Air Force at Clark Air Base, Philippines, and on 28 July 1961 he became Vice Commander in Chief, Headquarters, Pacific Air Forces, Hickam AFB, Hawaii. That same year he was promoted to lieutenant general. On 1 July 1965 he became superintendent of the Air Force Academy at Colorado Springs, Colorado, and in August 1970 he retired with 37 years service to his country.

Significant events during General Moorman's tenure as AWS Commander include installation on 20 June 1954 at Maxwell AFB, Alabama, of the first radar specifically designed for meteorological use; activation of the Joint Numerical Weather Prediction Unit at Suitland, Maryland, in August 1954; sanction of Project 433L, a weather observing and forecasting system, in August 1954; operation of the first transmissometer on 26 August 1954 at Andrews AFB, Maryland; installation of the first surface wind set in October 1954 at Eielson AFB, Alaska; and the expansion of Global Weather Central, Offutt AFB, Nebraska, following the closure of the USAF Weather Central in 1957.

NORMAN LEWIS PETERSON
Brigadier General, United States Air Force
Eighth and Tenth Commander of Air Weather Service
8 March 1958—12 November 1958
November 1959—17 March 1963

Norman Lewis Peterson was born in Houston, Texas, on 28 November 1911. He attended Alamo Heights High School in San Antonio, Texas, and later married Roselle Fulmore. They raised three children. He entered Yale University at New Haven, Connecticut, and graduated with a bachelor of arts degree, majoring in history, in 1932. On 1 October 1936 he was commissioned a second lieutenant in the regular Army (Air Corps) after earning his pilots wings at Kelly Field, Texas.

After performing numerous Air Corps assignments, he entered the California Institute of Technology in 1940, where he wrote a masters thesis titled "The Origin and Movement of Tropical Hurricanes." He was promoted to captain 9 September 1940 and to major 5 December 1941. He became station weather officer at Langley AFB, Virginia, and later at Bolling AFB, Washington, D.C. He was promoted to lieutenant colonel on 1 March 1942, and in November 1942 he became commander of the 2d Weather Region.

In September 1943 Lieutenant Colonel Peterson was transferred to the South Pacific theater as Commander, 17th Weather Region, and on 1 January 1944 he was promoted to the grade of colonel. In July 1944 Colonel Peterson left the Air Weather Service to serve on the staff of Lieutenant General Millard F. Harmon, Commander of Army Air Forces in the Pacific Ocean Area. In September 1945 he served as Commander, 400th Army Air Forces (AAF) Base Unit (Headquarters, 4th Air Force) for a year and as Commander, 465th AAF Base Unit at MacDill AFB, Florida, for a year.

In 1947 he returned to Air Weather Service as Chief of Staff, 59th Weather Wing, Tinker AFB, Oklahoma, and the following year he attended the Air War College. He was subsequently assigned as commanding officer of the 2108th Air Weather Group at Westover AFB, Massachusetts, in 1949. In October 1951 he was assigned as Commander, 2058th Air Weather Wing (now 2d Weather Wing) in Wiesbaden, Germany, where he became staff weather officer for the U.S. Air Forces in Europe.



In April 1954 Colonel Peterson returned to the United States to become Deputy Commander, Air Weather Service. On 28 March 1958 he became commander of the Air Weather Service serving in that capacity until Major General Harold H. Bassett assumed command on 13 November 1958. Peterson was promoted to brigadier general on 20 November 1958 and served as AWS Vice Commander until 31 October 1959, at which time he again assumed command of Air Weather Service. In 1963 he was assigned as Commander, Air Force Communications Service's Pacific Communications Area at Wheeler AFB.

Significant events during General Peterson's tenure as AWS Commander include the world's first weather satellite launch on 1 April 1960; issuance of the first official clear air turbulence forecast from the Kansas City Centralized Forecast Facility on 1 November 1961; implementation of the first Continental U.S. Meteorological Teletype (COMET) System on 28 August 1962; release of the first solar forecast in October 1962.

ROY WILLARD NELSON, JR.
Brigadier General, United States Air Force
Eleventh Commander of Air Weather Service
18 March 1963—5 October 1965

Born in Tacoma, Washington, on 20 September 1916, Roy Nelson attended Lincoln High School in Seattle. He married Helene Snow and they raised three children. In 1934 he entered the University of Washington and in 1940 he graduated from West Point. He was commissioned a second lieutenant on 11 June 1940 after receiving his pilots wings at Stockton, California. He was promoted to first lieutenant 10 October 1941, and soon thereafter entered the California Institute of Technology to study meteorology.

During World War II he served in the Mediterranean theater of operations as staff weather officer to the North African Coastal Command and to Major General Nathan W. Twining's Fifteenth Air Force from its activation until V-E Day.

In 1947 he was transferred to Guam where he commanded the 514th Reconnaissance Squadron, Very Long Range, Weather, which was the first B-29 weather reconnaissance squadron overseas. In January 1948 he became Deputy Commander, 43d Weather Wing in Tokyo, Japan. In July he was promoted to lieutenant colonel.

In December 1949 he returned from the Far East to attend the Armed Forces Staff College, from which he graduated in June 1950. Reassigned to Air Weather Service headquarters, he served as Director of Plans and Organization until August 1951 when he became AWS Chief of Staff at the rank of colonel.

In 1951 he was appointed commander of MATS activities supporting the Operation Ivy nuclear bomb tests in the Pacific. When he returned he was assigned as commander of the newly activated 9th Weather Group at Andrews AFB, Maryland.

In 1955 Colonel Nelson entered the National War College. After his graduation in 1956, he went to Europe to command the 2d Weather Wing at Wiesbaden, Germany, in February 1957. He remained there until July 1960, when he became the Vice Commander, Air Weather Service. Promoted to brigadier general on 26 February 1963, Nelson became Air Weather Service Commander on 18 March 1963. In October 1965 he was reassigned to Travis AFB as Deputy Commander of MATS' Western Transport Air Force.

Significant events during General Nelson's tenure as AWS Commander include the JCS decision to develop weather support concepts for the Worldwide Military Command and Control System (WWMCCS) on 2 April 1963; receipt by 3WW of the first operationally ready automatic picture transmission (APT) weather satellite readout on 20 August 1963; redesignation of the Washington D.C. Climatic Center as the Environmental Technical Applications Center on 15 December 1964; and opening of the Automated Weather Network (AWN) to link Fuchu AS, Japan, RAF High Wycombe, United Kingdom, and Global Weather Central, Offutt AFB, Nebraska, through the Tinker AFB, Oklahoma, switch on 1 July 1965.



RUSSELL KURTZ PIERCE, JR.
Major General, United States Air Force
Twelfth Commander of Air Weather Service
6 October 1965—26 July 1970

Russell Kurtz Pierce was born in Fremont, Nebraska, on 17 January 1921. After graduation from Fremont High School in 1939, he attended Midland College where he majored in chemistry and mathematics. He joined the Army Air Corps in August 1941 and began flight training at Mather Field, Sacramento, California, where he received his commission as a second lieutenant in March 1942. In November 1943 he married Helenjane Gray and they raised three children.

During World War II, Lieutenant Pierce served with the 98th Bombardment Group in Palestine and the Middle East as a B-24 pilot. He flew 33 missions. In April 1943 he was promoted to captain and assigned as a B-24 aircraft instructor pilot at Casper, Wyoming.

In early 1944 he became section commander and director of flying training in B-29 aircraft at air bases in Nebraska and New Mexico. He attended the Command and General Staff School at Fort Leavenworth, Kansas, in 1946, and the Weather Officers School at Chanute AFB, Illinois, in 1947.

In June 1947 he went to Lowry Field, Colorado, and served as station weather officer until July 1948, when he became Commander, 19th Weather Squadron, as a 24-year-old major.

In May 1951 he went overseas to Tripoli, Libya, as Commander, 29th Weather Squadron, until September 1953. He was then assigned as operations officer for the 1st Weather Group (now 3d Weather Wing) at Offutt AFB, Nebraska. In July 1954 he became commander of the 3d Weather Group. Following graduation from the Air War College in June 1959, he was assigned as the Commander, 10th Weather Group, and staff weather officer to the Fifth Air Force, Fuchu Air Station, Japan. In October 1960, upon inactivation of the 10th Weather Group, he became commander of the advanced echelon of the 1st Weather Wing at Fuchu. In July 1961 he was assigned as the Deputy Commander, 3d Weather Wing, and in July 1963 he took command of the 3d Weather Wing.

On 6 October 1965 he assumed command of the Air Weather Service at Scott AFB, Illinois. He was the only AWS Commander without service on the Headquarters AWS staff. He was promoted to brigadier general in March 1966, at age 45, and to major general in March 1969. In July 1970 he was appointed Deputy Commandant, Industrial College of the Armed Forces.

Significant events during General Pierce's tenure as AWS Commander include the first operational test of cold fog dissipation using dry ice with tethered balloons (test results determined inconclusive); establishment of the Air Force Global Weather Central on 7 October 1966; and operation of the first Automated Digital Weather Switch at Carswell AFB, Texas, in 1969.

WILLIAM HENRY BEST, JUNIOR
Brigadier General, United States Air Force
Thirteenth Commander of Air Weather Service
27 July 1970—29 July 1973

William Henry Best was born in Brooklyn, New York, on 24 August 1920. He graduated from Princeton University in 1941 with a bachelor of arts degree in mathematics. Enlisting in the Army Air Corps in August 1942, he graduated from the aviation cadet course in meteorology at the Massachusetts Institute of Technology in September 1943, when he was commissioned as a second lieutenant. He married Evelyn Louise Gonzales of Yonkers, New York, and they raised four children.

From 1943 to 1945 Lieutenant Best served as a weather officer in the Pentagon Weather Central and earned his captain bars in February 1945. In June 1945 he was released from active military service, and in April 1946 he began work as a U.S. Weather Bureau meteorologist and staff weather officer for the Colorado Air National Guard in Denver. He was recalled to active military duty in June 1947.

From July 1947 through December 1949 he was chief forecaster at the U.S. Air Force Weather Central at Haneda, Tokyo, Japan. After graduation from the Air Tactical School at Tyn-dall AFB, Florida, in April 1950, he became Assistant Operations Officer, 2102d Weather Group at Mitchel AFB, New York. In 1951 he obtained a master's degree in meteorology from New York University under the Air Force Institute of Technology Program and was subsequently assigned to the Air Weather Service headquarters in Washington, D.C., in July 1951. He was promoted to major in September.



Major Best entered the University of Stockholm, Sweden, in August 1954 under the Air Force Institute of Technology doctorate-level program, one of the first U.S. Air Force officers to be so selected. He received the rank of lieutenant colonel in April 1955, and was assigned as Assistant Technical Services Officer, 2d Weather Wing, at Furstenfeldbruck, Germany, in August 1955.

In October 1957 he returned to the United States and assumed command of Detachment 30, 5th Weather Group, at Westover AFB, Massachusetts. In August 1960 he entered the Air War College and was promoted to the rank of colonel on 10 March 1961. In July 1961 he became Deputy Commander, 4th Weather Group at Andrews AFB, Maryland. In July 1963 he returned to Westover and was assigned as Commander, 8th Weather Squadron, and staff weather officer for SAC's Eighth Air Force. In June 1966 he assumed command of the 7th Weather Wing and one year later he became Deputy Chief of Staff for Operations, Air Weather Service. In February 1970 he became AWS Vice Commander and received his first star. On 27 July 1970 Brigadier General Best took command of Air Weather Service. He was the first nonrated Air Weather Service commander. Three years later he retired.

Significant events during General Best's tenure as AWS Commander include the transfer of the MAC computer flight plan function from Suitland, Maryland, to AFGWC on 1 August 1970; operation of the Automatic Response to Query (ARQ) system with the ADWS at Carswell AFB, Texas, on 3 November 1970; launching of the centralized terminal forecast program which led to AFGWC on 1 November 1971 issuing terminal forecasts for all U.S. units; and inactivation of the last AWS unit in South Vietnam on 3 March 1973.

THOMAS ALBERT ALDRICH
Major General, United States Air Force
Fourteenth Commander of Air Weather Service
30 July 1973—14 February 1974

Thomas Albert Aldrich was born on 30 November 1923 in Rosebud, Texas. He enlisted in the Army Air Forces in December 1942. An avid hunter and sports enthusiast, he married Virginia Peterson of Alta, Iowa, and they raised three children.

In February 1944 he was commissioned after completing the aviation meteorological cadet training at the University of Chicago. He was corps commander of his cadet class. First assigned as a weather officer at Goodfellow Field, Texas, he later went to Waco Army Air Field, Texas, as a weather instructor. He was transferred to the Air Reserve School, Keesler Field, Mississippi, as an assistant station weather officer and later as detachment commander.

In August 1946 he was sent to Japan and served as station weather officer, squadron communications officer, and operations and training officer with the 20th Weather Squadron.

In March 1950, at the age of 26, he completed basic and advanced pilot training at Randolph AFB, Texas, and Vance AFB, Oklahoma, respectively. He was promoted to captain on 19 December 1950. From April 1950 to November 1952 he was assigned as officer-in-charge of flight operations for the 10th Weather Squadron and as squadron weather officer with the 55th Strategic Reconnaissance Squadron, Medium, Weather, McClellan AFB, California. In November 1952 he was transferred to the 58th Strategic Reconnaissance Squadron, Medium, Weather, Eielson AFB, Alaska. Rated as a command pilot with more than 7,500 flying hours, he flew more than 50 polar ice cap missions in WB-29 aircraft.

Major Aldrich joined Headquarters Air Weather Service, Andrews AFB, Maryland, in March 1955 as Chief, Programs and Standards Branch, Office of the Deputy Chief of Staff for Operations. In 1957 he was named Deputy Director, Air Operations, and went with the headquarters when it moved to Scott AFB, Illinois. In August 1960 Lieutenant Colonel Aldrich began studies at the Air War College.

He was reassigned to Victoria, Australia, in September 1962 where he commanded the first Air Force flying unit in the "land down under" since World War II, the 57th Weather Reconnaissance Squadron, based at Avalon Airfield. At that time, he was the only United States Air Force base commander in Australia, and the only base commander in Air Weather Service.

Lieutenant Colonel Aldrich was assigned to Maxwell AFB, Alabama, in September 1965. Promoted to colonel on 20 December 1965, he was on the staff of the Air Command and Staff College as Chief, Military Employment Division and Deputy Director of Curriculum. In July 1968 Colonel Aldrich started a one-year tour of duty as Director of War Plans, Headquarters MAC. He was named Vice Commander, 9th Weather Reconnaissance Wing (which was responsible for all U.S. Air Force weather reconnaissance and atmospheric sampling throughout the world) at McClellan AFB, California, in July 1969, and in October he assumed command of that organization.

In July 1970 Colonel Aldrich was named Vice Commander, Air Weather Service, Scott AFB, Illinois. He became Commander, U.S. Forces, Azores, and Commander, 1605th Air Base Wing, Lajes Field, Azores, in June 1971. He was promoted to brigadier general effective 1 August 1971, and on 30 July 1973 he assumed command of Air Weather Service. He was reassigned as the Deputy Chief of Staff for Plans, Headquarters MAC in February of 1974, where he pinned on his second star. Major General Aldrich took over MAC's Twenty-second Air Force in August 1975, and in March 1978 he retired from the Air Force.



Significant events during General Aldrich's tenure as AWS Commander include assignment of the first female weather reconnaissance crewmember, a dropsonde operator, in December 1973; operation of a liquid propane cold fog dissipation system at Elmendorf AFB, Alaska, in October 1973; establishment of Palace Weather, a concept for management of weather officer personnel actions on 1 December 1973 (three years later it included enlisted as well) at Randolph AFB, Texas; and the beginning of an AWS program to qualify all enlisted weather people as both observers and forecasters.

JOHN W. COLLENS III
Major General, United States Air Force
Fifteenth Commander of Air Weather Service
15 February 1974—5 August 1975

John Collens was born on 14 November 1924 in Monroe, Louisiana. He attended Loyola University at New Orleans, the University of Mississippi at Oxford, and Schreiner College at Kerrville, Texas. His hobby was golfing. He married Barbara Wesbrook of Chico, California, and they raised two children.

He began his military career as an aviation cadet in May 1943 and received his commission and pilot wings in April 1944. First Lieutenant Collens served as a pilot at Gulfport Army Air Field, Mississippi, until October 1944 when he went to the European theater of operations where he flew 28 B-17 combat missions with the 96th Bombardment Squadron. He was released from active duty in October 1945.

In March 1949 First Lieutenant Collens returned to active duty. After attending the Weather Officer Course at Chanute AFB, Illinois, he entered the Air Weather Service. In March 1950 he was sent to Okinawa as a weather forecaster with the 15th Weather Squadron. In 1951 he was in Korea with the 6166th Air Weather Reconnaissance Flight with whom he flew, over a period of six months, 75 tactical weather reconnaissance combat missions in WB-26Cs. He was a command pilot with more than 5,600 flying hours, which included more than 1,200 hours in single jet engine aircraft.

Captain Collens was a weather forecaster at Shaw AFB, South Carolina, from October 1951 to July 1954. In July 1954 he transferred to Germany and commanded the weather detachment at Sembach Air Base. Then, in October 1956 Major Collens moved to Ramstein Air Base to serve on the weather operations staff of the 30th Weather Squadron. He accompanied a squadron of fighter aircraft on a month-long exercise in Pakistan, providing their weather support through liaison with foreign meteorological agencies.

In July 1958 Major Collens returned to the United States for duty with Headquarters Air Weather Service as a staff duty officer, Deputy Chief of Staff Plans, Scott AFB, Illinois. He served on the ad hoc committee that justified and obtained the first sole-use computer for AFGWC. He entered the Air Command and Staff College in July 1960.

In July 1961 he served on the Twelfth Air Force weather operations staff at Waco, Texas. Major Collens was the weather officer for Air Task Force 13 at Taipei, Taiwan, from July 1963 to July 1965. At that time he was assigned to the 5th Weather Wing Operations Staff at Langley AFB, Virginia, and promoted to lieutenant colonel in February 1966.

He was assigned to the 58th Military Airlift Squadron at Robins AFB, Georgia, in September 1966, and flew 40 C-141 combat support missions into Vietnam. In June 1969 he was reassigned as Chief, Civil Air Division, Headquarters Military Airlift Command (MAC), Scott AFB, Illinois. He then became Director, Studies and Analysis, HQ MAC.

In June 1971 Colonel Collens was appointed Vice Commander, Air Weather Service, and in May 1973 he was named Commander, 9th Weather Reconnaissance Wing at McClellan AFB, California. On 22 January 1974 the Air Force announced Colonel Collens' nomination for promotion to brigadier general (he pinned on his new rank on 1 September 1974, with an adjusted date of rank of 9 August 1974), and on 15 February 1974 he became Air Weather Service Commander. On 5 August 1975 he moved to Headquarters MAC as Deputy Chief of Staff for Plans. He received his second star on 1 September 1976, and he was appointed Headquarters MAC Chief of Staff on 11 July 1977. In November 1978 he became the Deputy Inspector General, Headquarters, USAF, Washington, D.C. He retired in October 1979 from that position.

Significant events during General Collens' tenure as AWS Commander include aerial photography by the 53WRS of a non-nuclear detonation at the Nevada Test Site on 17 August 1974; launch of the first rocketsonde from Shemya, 26 March 1974; operation of the first SOON telescope at Palehua, Hawaii, on 1 July 1975; initiation of weather support for Apollo Test Project, 14 July 1975; and the selection of the first enlisted detachment commander in 1975.



BERRY WILLIAM ROWE
Brigadier General, United States Air Force
Sixteenth Commander of Air Weather Service
6 August 1975—16 August 1978

Born on 14 September 1924 in Kanarra, Utah, Berry William Rowe graduated from Las Vegas High School, Las Vegas, Nevada, in 1942. One of his favorite hobbies was photography. He married Alta Carter of Logan, Utah, and they raised three children.

He began his military career as an enlisted man in the Army Air Corps serving with the 17th Airborne Division and the Corps of Engineers during World War II. He received a commission as a second lieutenant in 1949 and was a distinguished military graduate of the Air Force Reserve Officers Training Corps program at Utah State University, where he received his bachelors degree in political science.

He entered Air Tactical School in Florida and upon graduation requested and received an assignment to Air Weather Service. From May 1950 to August 1951 he served as squadron reserve coordinator at Lowry AFB, Colorado. He then entered Pennsylvania State University and received a bachelor of science degree in meteorology in 1952. He was reassigned as a detachment weather officer at Nellis AFB, Nevada, in August 1952, and the following year received orders to go to Okinawa, where he provided forecaster support for B-29 operations.

In November 1953 he became wing manpower officer in Tokyo, Japan, and remained in that position until January 1956. He rotated to Washington, D.C., to serve as a detachment weather officer at Bolling AFB until July 1956 when he became a member of the Group Forecasting/Technical Services at Andrews AFB, Maryland. Later he served in the same capacity at Scott AFB, Illinois. He entered the Air Command and Staff College, Maxwell AFB, Alabama, in July 1960.

From July 1961 to July 1964 he served as assistant staff weather officer for the Pacific Air Forces at Hickam AFB, Hawaii. He was then assigned as Director, Long Range Plans, Headquarters AWS, at Scott AFB, Illinois, from July 1964 to January 1968. It was there he conceived the idea of an AWS Council, which came into being in November 1967. He then became Deputy Assistant for Weather in the Office of the Deputy Chief of Staff for Programs and Resources, Headquarters USAF, Washington, D.C. He pinned on his colonel's eagles in 1969.

Colonel Rowe was assigned as commander of the 1st Weather Group at Tan Son Nhut Air Base, Republic of Vietnam, from January until June 1972 when it was inactivated as part of the American withdrawal from Southeast Asia. In July 1972 he became Commander, 10th Weather Squadron at Udorn, Thailand.

He returned to Scott AFB in November 1972 to serve as Inspector General for Headquarters AWS. In May 1973 he was transferred to Offutt AFB, Nebraska, where he served as Vice Commander, 3d Weather Wing until February 1974 when he became commander of that wing. On 18 July 1975 Colonel Rowe again returned to Scott, this time as Vice Commander, AWS. On 6 August 1975 he became AWS commander. He was promoted to the grade of brigadier general on 15 December 1975, and retired from the Air Force on 1 September 1978.

Significant events during General Rowe's tenure as AWS Commander include relocation of USAFETAC to Scott AFB, Illinois, on 30 August 1975; initial implementation of the Continental U.S. Meteorological Data System (COMEDS) on 1 July 1976; issuance by AFGWC of Mission Success Indicators for aerial refueling operations on 1 September 1976; the launch of a new generation of Defense Meteorological Satellites (Block 5D) in September 1976; and the implementation of the "single career ladder" whereby enlisted observers eventually became forecasters.



ALBERT J. KAEHN, JUNIOR
Brigadier General, United States Air Force
Seventeenth Commander of Air Weather Service
17 August 1978—29 July 1982

Born in Queens County, New York, on 2 December 1929, Albert J. (A.J.) Kaehn graduated from John Adams High School in Ozone Park in 1947. He received his bachelors degree in 1951 and a masters of arts degree in 1952 from the State University of New York at Albany. He married Melina (Melly) Kayaian and they raised two children.

He entered active duty via a direct commission in the Air Force Reserve in 1952. He then studied undergraduate meteorology at Pennsylvania State University through the Air Force Institute of Technology program.

Lieutenant Kaehn served as a detachment forecaster in Korea in 1954, supporting fighter bomber and fighter interceptor operations. He was also a forecaster at Roslyn, New York, for Air Defense Control Center operations. From April 1956 to March 1959 he flew tactical aerial weather reconnaissance in WB-26 and WB-66D aircraft with the 42d Tactical Reconnaissance Squadron in Europe. He was commissioned into the regular Air Force in 1958.

His duty as Assistant Professor of Air Science and Commandant of Cadets in the Air Force Reserve Officers Training Course at New York University from April 1959 to August 1962 was followed by graduate work in meteorology at New York University. In 1964 Captain Kaehn was assigned to Headquarters AWS, serving as a division chief in the Aerospace Sciences staff agency until 1968, and then as a Director of Special Projects (the "vault" area that managed AWS support to sensitive and highly classified Defense Department and Air Force missions) where, by 1970, he had risen to the rank of lieutenant colonel.

From July 1970 until July 1971 he commanded the 10th Weather Squadron in Thailand, and in October 1971 he was promoted to colonel below the zone. Following oceanography training at the U.S. Naval Postgraduate School at Monterey, California, Colonel Kaehn became the Military Assistant for Environmental Sciences, Office of the Director, Defense Research and Engineering, Office of the Secretary of Defense. In March of 1974 he testified as an expert witness in behalf of the Defense Department during sensitive hearings conducted by Senator Clairborne Pell into AWS' rainmaking operations in South-east Asia.

In July 1975 Colonel Kaehn was assigned as Commander, 3d Weather Wing, with concurrent duty as Director of Weather, Deputy Chief of Staff for Operations, Headquarters Strategic Air Command, Offutt AFB, Nebraska. He became Commander, Air Weather Service on 17 August 1978. He was promoted to brigadier general effective 1 May 1979.

Significant events during General Kaehn's tenure as AWS Commander include return of the 24-hour forecast to the base weather station; restoration of selective reenlistment bonuses for the enlisted; and initiation of the two-tier enlisted promotion system.



GEORGE E. CHAPMAN
Brigadier General, United States Air Force
Eighteenth Commander of Air Weather Service
30 July 1982 to Present (1987)

George Chapman was born in Detroit, Michigan, on 3 April 1934. His hobbies included nearly all sports and, in particular, golf. He married Lisa Modde and they raised four children.

He enlisted in the U.S. Air Force in July 1952 and subsequently attained the rank of staff sergeant. He was commissioned through the Officer Candidate School as a second lieutenant in September 1959. He then served as a forecaster at Laredo AFB, Texas, until 1963, interrupted by an extended temporary tour at Point Mugu Naval Air Station, California, as a member of a weather satellite team developing TIROS (Television Infrared Observation Satellite) in 1962.

He entered the Air Force Institute of Technology program in 1963 and received a bachelors degree in meteorology from Texas A&M in 1965. Captain Chapman then went to South Ruislip, England, where he served first as the staff weather officer to Headquarters Third Air Force, and then as director of the AWS' Terminal Forecast Facility there from 1965 to 1968.

Major Chapman completed his masters degree at the Massachusetts Institute of Technology in 1969 and was then assigned as staff meteorologist at the Space and Missile Systems Organization, Los Angeles, California, from 1969 to 1970. Reassigned to the Republic of Vietnam in late 1970, he served initially at Headquarters 1st Weather Group at Tan Son Nhut, and then as Commander, Detachment 18, 30th Weather Squadron, at Cam Ranh Bay.

Following his attendance at the Armed Forces Staff College in 1972, he was assigned to Headquarters AWS from July 1972 to June 1975. He held positions of Chief, Analysis Division, and Director of Operational Evaluation. He completed the Industrial College of the Armed Forces by correspondence in 1975. On 16 June 1975 Lieutenant Colonel Chapman was assigned as commander of the 25th Weather Squadron, Bergstrom AFB, Texas, supporting TAC's Twelfth Air Force. He entered Air War College in residence in 1977, completing his coursework in 1978.

Colonel Chapman was then assigned to Headquarters U.S. Air Force, Office of the Deputy Chief of Staff for Research, Development and Acquisition, as acting Chief, Aeronautical Systems Division, and as special assistant for the Airborne Early Warning and Control System (AWACS). In the latter role, he served as U.S. government agent for the NATO AWACS program and the U.S. representative to the NATO Program Management Office Technical and Configuration Committee and Board of Directors' meetings in Brunssum, Netherlands.

In July 1980 Colonel Chapman was assigned as Vice Commander, Air Force Global Weather Central (AFGWC), Offutt AFB, Nebraska, and in June 1981 he assumed command of AFGWC. He became Commander, Air Weather Service, on 30 July 1982 and attained the rank of brigadier general on 1 June 1985. He was the first commander to rise through the AWS enlisted ranks.

Significant events during General Chapman's tenure as AWS Commander include bringing the manning of the enlisted forecaster career field up to 100% in 1986 for the first time since Vietnam drawdowns; installation of various types of digital equipment at base weather stations; distribution of personal computers and microprocessors throughout AWS; implementation of a sixth generation computer (Cray X-MP) at AFGWC; and arranging for a weathernaut to fly aboard the space shuttle.



SECTION IV: HEADQUARTERS STAFF BY FUNCTION

This section chronologically lists the officer in charge of each Headquarters Air Weather Service directorate and certain staff positions. This information was extracted from annual AWS histories and is on file in the AWS archives. Information not available is noted. This section is current as of 31 March 1987; the last name listed is presently in that position. The commanders list can be found following the Headquarters Air Weather Service lineage.

INDIVIDUAL MOBILIZATION AUGMENTEES (IMA)

A member of the Air Force Reserve designated as the Individual Mobilization Augmentee (IMA) to the Air Weather Service commander. During incumbent's period of active duty, the AWS commander normally assigned him tasks related to his area of expertise in meteorology that would benefit AWS most.

1949	Brig Gen Joseph J. George
1961	Brig Gen Kenneth C. Spengler
1975	Brig Gen Paul W. Kadlec
July 1983	Brig Gen Clarence B. H. Lee

DEPUTY CHIEF/DEPUTY COMMANDERS

25 Jul 49	Col William O. Senter
9 Aug 51	Col Thomas S. Moorman
23 Apr 54	Col Norman L. Peterson
28 Mar 58	Col James T. Seaver, Jr.
13 Nov 58	Brig Gen Norman L. Peterson
1 Nov 59	Col James T. Seaver, Jr.
30 Jul 60	Col Roy W. Nelson, Jr.
May 63	Col William S. Barney
1 Aug 67	Col Ralph G. Suggs
6 Feb 70	Brig Gen William H. Best, Jr.
27 Jul 70	Col Thomas A. Aldrich
1 Jun 71	Col John W. Collens
14 May 73	Col Thomas D. Potter
1 Aug 74	Col Edwin E. Carmell
18 Jul 75	Col Berry W. Rowe
6 Aug 75	Col Alfred C. Molla, Jr.
31 Jul 78	Col Salvatore R. LeMole
3 Jul 81	Col Thomas L. Harris
1 May 83	Col Norman F. Rauscher
15 Apr 86	Col James A. Young

CHIEFS OF STAFF

1947-48	Col Harold L. Smith
unknown	Lt Col Anthony T. Shtogren (temporary)
18 Apr 49	Col Lewis L. Mundell
17 Jul 50	Col John K. Arnold, Jr.
1 Jul 51	Col Roy W. Nelson (temporary)
16 Aug 51	Col Roy W. Nelson
7 Jan 52	Col Diran Arakelian (temporary)
5 Feb 52	Col Diran Arakelian
18 Feb 52	Col Oliver K. Jones
Aug 52	Col Nicholas H. Chavasse
16 Aug 56	Col Richard M. Gill (temporary)
15 Mar 57	Col James T. Seaver, Jr.
28 Mar 58	Col Virgil E. Sandifer
1 Jul 58	Col Walter C. Phillips
Jul 59	Col James T. Seaver, Jr.
1 Nov 59	Col Arthur W. Anderson
18 Jul 60	Col Walter C. Phillips
Mar 63	Col Thomas J. Arbogast
14 Jun 66	Col Arthur W. Anderson
28 Feb 71	Col Douglas C. Purdy
1 Jul 72	Col Edwin E. Carmell
1 Aug 74	Col Morris H. Newhouse
1 Sep 75	Col Hyko Gayikian
15 Nov 77	Col Ramon C. Wilkins

1 Jul 81	Col Joseph D. Saccone
1 Jan 83	Col Norman F. Rauscher
1 Jun 83	Col Wesley E. Robb
1 Apr 85	Col Ronald C. Overby
11 Aug 86	Col Thomas D. Guest
May 87	Col Paul D. Try

DEPUTY CHIEFS OF STAFF AEROSPACE SCIENCES

Directorate of Scientific Services redesignated as Aerospace Sciences on 1 July 1965.

29 Sep 48	Dr Sverre Petterssen
1 Oct 52	Dr Robert D. Fletcher
1 Jul 71	Col Dale J. Flinders
1 Aug 74	Col Joseph M. Tyndall
1 Sep 75	Col David L. Roberts
1 Feb 76	Col Robert H. Gottuso
15 Aug 79	Col Thomas A. Studer
1 Apr 82	Col Allan C. Ramsay
21 Aug 84	Col Floyd F. Hauth
29 Jul 85	Col John H. Taylor
12 Jul 86	Col David L. Donley

DEPUTY CHIEFS OF STAFF OPERATIONS

Directorate of Operations and Training redesignated Directorate of Operations on 11 May 1949.

20 Sep 45	Col Richard E. Ellsworth
12 Aug 46	Lt Col Nicholas H. Chavasse
Jan 49	Col Diran Arakelian
7 Jan 52	Col Oliver K. Jones
18 Feb 52	Col Lawrence A. Atwell
28 Apr 54	Lt Col Thomas J. Arbogast
Jun 54	Col Richard M. Gill
8 Jun 56	Col Arthur W. Anderson (temporary)
15 Mar 57	Col Richard M. Gill
30 Apr 58	Lt Col R. G. Bounds, Jr.
15 Jun 58	Col Robert F. Long
8 Aug 60	Col Clarence E. Roache, Jr.
6 May 64	Col Lowell A. Stiles
4 Aug 67	Col William H. Best, Jr.
6 Feb 70	Col Douglas C. Purdy
1 Mar 71	Col Edwin E. Carmell
1 Jul 72	Col Leonard E. Zapinski
Aug 73	Col James M. Burkhart
1 Jun 74	Col Hyko Gayikian
Aug 75	Col Robert M. Chamberlain
17 Aug 76	Col Salvatore R. LeMole
26 Jul 78	Col Joseph D. Saccone
1 Jul 81	Col Wesley E. Robb
27 Jun 83	Col Tommy D. Guest
4 Aug 86	Col Glen A. Ryan
2 Feb 87	Col Darrell L. Lucas

DEPUTY CHIEFS OF STAFF LOGISTICS

Directorate of Materiel redesignated as Directorate of Logistics in January 1970.

20 Sep 45	Lt Col Jerome A. Pryber
7 Jan 46	Maj Ernest R. Miller (temporary)
Aug 46	Col Wilson H. Neal
Jan 49	Col Lloyd A. Walker
17 Aug 49	Lt Col Hyme A. Budd
2 Apr 51	Lt Col Ronald Mogford
7 Jan 54	Col John E. Crowley
2 Jun 58	Col Robert C. Ross
22 Jun 58	Col Robert G. David
10 Jun 59	Col Robert C. Ross

8 Jul 59	Col William W. Riser, Jr.
Jul 62	Col James A. Hogg
1 Jun 66	Col Arthur L. Moreland
27 Nov 67	Col Wayne C. Bogard
31 Jan 70	Col Kenneth Bixler
1 Aug 71	Col Frank Z. Kamer
1 Jun 73	Col Wilson V. Palmore
1 Apr 75	Lt Col Paul F. Pulse II
1 Dec 76	Lt Col Edward D. Aitken
15 Jun 77	Lt Col William J. Haugen
18 Jun 79	Lt Col Jerry R. Crenshaw
Apr 82	Col John R. Sweeney
6 Dec 82	Col Jareld L. Picantine
30 Jun 84	Col Glenn A. Ryan
30 Jun 86	Col Ronald D. Haynes

DEPUTY CHIEFS OF STAFF SYSTEMS

The Directorate of Systems, DCS Operations, Headquarters Air Weather System, was elevated to Deputy Chief of Staff status on 1 July 1970.

1 Jul 70	Col Ralph J. Steele
1 Jul 72	Col Herbert A. Million
1 May 74	Col Castor Mendez-Vigo, Jr.
7 Jul 75	Col Arthur Bidner
31 Jul 77	Col Ramon C. Wilkins (temporary)
15 Nov 77	Col Robert J. Fox
9 Jul 78	Col Joseph K. Lambert
16 Jul 79	Col Charles D. Stephens
3 Jun 81	Col Ronald C. Overby
6 Mar 86	Col John P. Upchurch
29 Jun 86	Col Ronald R. Brown

CHIEF SCIENTISTS

Headquarters, Air Weather Service (AWS) requested approval from Military Airlift Command (MAC) to establish a Chief Scientist position on 25 January 1971. The U. S. Air Force (USAF) approved the request on 23 February 1971. This position was not filled during some periods because of AWS' policy of only filling the slot on a yearly basis. In October 1978 the AWS Chief Scientist position was abolished at the headquarters. This slot was used, along with five others, as validations for additional manpower spaces at the United States Air Force Environmental Technical Applications Center.

23 Feb 71	Dr Robert D. Fletcher
30 Jun 72	UNFILLED
19 Feb 73	Dr Thomas E. Oberbeck
20 Feb 74	UNFILLED
20 Aug 74	Dr Paul L. Smith, Jr.
20 Aug 75	UNFILLED
28 Jul 76	Dr Robert G. Miller
19 Jul 77	UNFILLED

SENIOR ENLISTED ADVISORS

Created as the Special Assistant for Airmen Affairs under Brigadier General Pierce in December 1968, the MAC Commander, the following September, ordered the title of the position changed to Chief Master Sergeant of AWS and directed that the position be filled only by Chief Master Sergeants. The title was subsequently changed to Senior Enlisted Advisor.

23 Dec 68	CMSgt William M. Gardner
3 Jul 70	CMSgt Martin W. Dwyer
1 Jul 73	CMSgt Sam E. Parish
1 Dec 75	CMSgt Howard M. Bock
1 Jan 79	CMSgt George M. Horn
20 Aug 82	CMSgt Charles T. Melson

DEPUTY CHIEFS OF STAFF PERSONNEL/ADMINISTRATION PERSONNEL DIVISION

This function was abolished on 15 March 1973.

1945	Col Keene Watkins
------	-------------------

22 Sep 45	Col James W. Twaddell, Jr.
15 Nov 45	Lt Col Paul W. Norton
14 Jan 46	Lt Col Anthony T. Shtogren
28 Jun 46	Col Leigh H. Hunt
unknown	Lt Col Edward W. Wigman
unknown	Col Anthony T. Shtogren
30 Jun 51	Col Evan F. Bourne, Jr.
11 May 53	Col Oliver K. Jones
1 Oct 56	Col Virgil E. Sandifer
28 Mar 58	Lt Col Jay T. Treat
2 Jul 58	Col Virgil E. Sandifer
13 Jul 59	Col Wilson H. Neal
7 Jul 60	Col Arnold L. Smith
9 Aug 65	Col Franklin W. Horton
4 Sep 68	Col Arthur Yorra
31 Mar 71	Lt Col Wilson J. Boaz (acting)
28 Jun 71	Col Isaac S. Israel
1 Jul 72	Lt Col Wilson J. Boaz

DEPUTY CHIEFS OF STAFF PLANS

The Deputy Chief of Staff for Plans and Requirements, Headquarters Air Weather Service, was established on 1 August 1946. It was replaced by the Directorate of Plans and Organizations, Headquarters Air Weather Service, on 18 April 1950. The function was abolished on 1 July 1972.

1 Aug 46	Lt Col Oscar A. Heinlein
10 Dec 46	Lt Col Joseph W. Ruebell
18 Apr 50	Lt Col Diran Arekelian
1 Aug 50	Maj Max M. Stratten (acting)
20 Aug 50	Lt Col Roy W. Nelson, Jr.
2 Jul 51	Maj Max M. Stratten (acting)
31 Aug 51	Lt Col Norman E. King
7 Mar 54	Lt Col Clarence E. Roache, Jr.
Nov 54	Lt Col Joseph S. Slack (temporary)
Jun 55	Lt Col Charles R. Dole
Jul 55	Col Wilson H. Neal
7 Oct 57	Mr James V. Bassett (acting)
14 Jun 58	Lt Col Donald C. Rhoads
Dec 58	Col Wilson H. Neal
6 Jul 59	Col Thomas J. Arbogast
17 Mar 63	Col Robert A. Taylor
Jun 65	Col James R. Anderson
21 Jul 67	Col Robert B. Hughes
3 Nov 69	Col Morris H. Newhouse
1 Jun 71	Col Leonard E. Zapinski

INSPECTOR GENERAL/AIR INSPECTOR

The Inspector General function was abolished on 23 May 1973.

20 Sep 45	Lt Col Maxwell W. Roman
24 Aug 48	Col John K. Arnold
8 Aug 50	Col Karl T. Rauk
8 Jul 52	Col Oliver K. Jones
4 Mar 53	Lt Col James M. Fahey
Jul 54	Col William S. Barney
12 Oct 55	Lt Col Joseph A. Viger (acting)
4 Aug 56	Col William S. Barney
1 Jun 57	Col Arthur W. Anderson
1 Nov 59	Lt Col Carl H. Morales
10 Aug 60	Col George E. Rath
31 Aug 63	Col Eugene D. Wallace
13 Jun 66	Col James M. Burkhardt
29 May 68	Col Hal R. Montague
20 Aug 71	Col Hubert E. Harvey
1 Feb 73	Col Berry W. Rowe

COMPTROLLER

The Office of the Comptroller, Headquarters Air Weather Service, was established on 1 December 1949. The function was abolished on 1 July 1972.

1 Dec 49	Lt Col Charles E. Baldwin, Jr.
15 Sep 52	Lt Col Kenneth A. Swanson
16 Nov 53	Col John M. Tucker
10 Jun 58	Lt Col Roland H. Leisy
19 Oct 59	Col Harry G. Bowman
25 Aug 61	Col Thomas C. McGuire
1 Aug 65	Lt Col Nicholas Tony
Aug 66	Col George A. Williamson
31 Jul 70	Col Steven Pusker, Jr.

DEPUTY CHIEFS OF STAFF/DIRECTORATE OF AIR OPERATIONS/RECONNAISSANCE DIVISION

The function was abolished on 1 September 1975.

18 Jan 46	Capt Ralph W. Spurlock
Mar 46	Lt Col James B. Baker
May 54	Lt Col Virgil N. Nestor
Jul 54	Lt Col Lawrence Cometh
unknown	Lt Col Griffin H. Wood
Jun 59	Lt Col Thomas A. Adrich
20 Jul 59	Col Templeton S. Walker
Jul 62	Col Carl H. Morales (acting)
Sep 62	Col Harvey P. Hall
Oct 64	Col Robert A. Kerr
13 Sep 67	Col Robert L. Kane
10 Jul 69	Col Whitney L. Morgan
1 Aug 70	Col Tedd L. Bishop
2 Jul 71	Col Ralph M. Hayes
20 Nov 72	Col Hiram P. Bilyeau

AIR WEATHER SERVICE HISTORIAN

1944	Capt Cushman Reynolds
1948	Mr Frederick L. Rodenbeck, Jr.
1952	Mr Samuel Milner
1958	1Lt Philip M. Flammer (interim)
1958	Mr Charles W. Dickens
1970	Mr John F. Fuller
1987	Dr Hans S. Pawlisch

SECTION V: AIR WEATHER SERVICE AWARDS

Air Weather Service initiated its awards program in 1956 with the presentation of the first "Commanders Awards." Since then Air Weather Service has expanded the awards program to recognize individual achievements in a wide variety of functions and roles. A description of each award and a chronological listing of their recipients follows.

BASSETT AWARD

The Bassett Award was established in 1956 in honor of Major General Harold H. Bassett, Chief of the Weather Division, Army Air Forces, 1943—1945. It was given yearly to the AWS rawinsonde section compiling the most outstanding record of upper air observations during the year. Nominations were limited to one per wing or independent group. This award was discontinued in 1975 due to a decrease in the rawinsonde requirement and a resultant lack of qualified contenders.

1956	Detachment 1, 15th Weather Squadron, 10th Weather Group, 1st Weather Wing, Clark AB, Philippine Islands.
1957	Detachment 4, 15th Weather Squadron, 10th Weather Group, 1st Weather Wing, Kadena AB, Okinawa.
1958	Detachment 4, 15th Weather Squadron, 10th Weather Group, 1st Weather Wing, Kadena AB, Okinawa.
1959	Detachment 21, 4th Weather Group, Edwards AFB, California.
1960	Detachment 17, 21st Weather Squadron, 2d Weather Wing, Zaragoza AB, Spain.
1961	Detachment 5, 1st Weather Wing, Clark AB, Philippine Islands.
1962	Flight C, 6th Weather Squadron (Mobile), 4th Weather Group, Johnston Island, Pacific.
1963	Detachment 17, 21st Weather Squadron, 2d Weather Wing, Zaragoza AB, Spain.
1964	Detachment 17, 21st Weather Squadron, 2d Weather Wing, Zaragoza AB, Spain.
1965	Operating Location 1, Detachment 4, 21st Weather Squadron, 2d Weather Wing, Iraklion AS, Crete.
1966	Detachment 10, 6th Weather Wing, Eglin AFB, Florida.
1967	Detachment 19, 15th Weather Squadron, 7th Weather Wing, Lajes Field, Azores.
1968	Detachment 19, 15th Weather Squadron, 7th Weather Wing, Lajes Field, Azores
1969	Detachment 48, 11th Weather Squadron, 4th Weather Wing, Thule AB, Greenland.
1970	Operating Location A (Formerly OL 1) Detachment 4, 21st Weather Squadron, 2d Weather Wing, Iraklion AB, Crete.
1971	Detachment 19, 15th Weather Squadron, 7th Weather Wing, Lajes Field, Azores.
1972	Detachment 25, 5th Weather Wing, Howard AFB, Canal Zone.
1973	Detachment 25, 5th Weather Wing, Howard AFB, Canal Zone.
1974	NOT PRESENTED.
1975	Detachment 3, 11th Weather Squadron, 3d Weather Wing, Shemya AFB, Alaska.

BEST AWARD

The Best Award was established in 1973 in honor of Brigadier General William H. Best, Jr., Commander, Air Weather Service, 1970—1973. It is awarded each year to recognize individual excellence in performing environmental service support at staff level.

1972	Major Hans-Joachim E. Fischer, Detachment 6, 6th Weather Wing, L. G. Hanscom Field, Massachusetts.
1973	Lieutenant Colonel William O. Breedlove, 12th Weather Squadron, 3d Weather Wing, Ent AFB, Colorado.
1974	Lieutenant Colonel Eichi Shibata, Detachment 8, 20th Weather Squadron, 1st Weather Wing, Kadena AB, Japan.

BEST AWARD (continued)

- 1975 Lieutenant Colonel James C. Owens, Operating Location A, 16th Weather Squadron, 5th Weather Wing, Fort Huachuca AI, Arizona.
- 1976 Lieutenant Colonel Robert W. Smith, Detachment 1, Headquarters Air Weather Service, Pentagon, Washington, District of Columbia.
- 1977 Major David K. Douglas, 5th Weather Wing, Langley AFB, Virginia.
- 1978 Major Charles H. Tracy, 2d Weather Wing, Kapaun Barracks, Germany.
- 1979 Major William S. Weaving, 7th Weather Wing, Scott AFB, Illinois.
- 1980 Lieutenant Colonel Robert W. Endlich, Operating Location B, 7th Weather Squadron, 2d Weather Wing, Moehringen City, Germany.
- 1981 Major Michael R. Snapp, Detachment 1, 2d Weather Squadron, Headquarters Air Weather Service, Wright-Patterson AFB, Ohio.
- 1982 Captain Thomas C. Adang, Detachment 7, Headquarters Air Weather Service, Mercury, Nevada.
- 1983 Major Donald G. Buchanan, 3d Weather Wing, Offutt AFB, Nebraska.
- 1984 Major Charles W. French, Detachment 25, 5th Weather Wing, Howard AFB, Republic of Panama.
- 1985 Captain Gregory J. Donovan, Detachment 13, 20th Weather Squadron, 1st Weather Wing, Misawa AB, Japan.
- 1986 Captain William Collins, 7th Weather Squadron, 2d Weather Wing, Heidelberg AI, Germany.

COLLENS AWARD

The Collens Award was established in 1975 in honor of Brigadier General John W. Collens, Commander, Air Weather Service, 1974—1975. It is for the year's most outstanding ANG weather unit in voluntary and host-unit support, and annual unit, technical, and mission readiness training.

- 1975 120th Weather Flight, Buckley ANGB, Colorado.
- 1976 107th Weather Flight, Selfridge ANGB, Michigan.
- 1977 182d Weather Flight, Kelly AFB, Texas.
- 1978 123d Weather Flight, Portland IAP, Oregon.
- 1979 122d Weather Flight, New Orleans, Louisiana.
- 1980 196th Weather Flight, Ontario, Canada.
- 1981 121st Weather Flight, District of Columbia ANG, Andrews AFB, Maryland.
- 1982 146th Weather Flight, Pennsylvania ANG, Pittsburgh, Pennsylvania.
- 1983 121st Weather Flight, District of Columbia ANG, Andrews AFB, Maryland.
- 1984 209th Weather Flight, Texas ANG, Camp Mabry, Austin, Texas.
- 1985 204th Weather Flight, New Jersey ANG, McGuire AFB, New Jersey.
- 1986 208th Weather Flight, Minnesota ANG, St. Paul, Minnesota.

MEREWETHER AWARD

The Merewether Award was established in 1956 in honor of Colonel Arthur F. Merewether, Chief of the Weather Section, Army Air Forces, from 1940—1942. The award is presented yearly to the individual (or individuals, in case of a joint contribution) who has made the most significant technical contributions to the military meteorology/aerospace environmental support mission of Air Weather Service. Nomination of a team (not more than three individuals) is permitted for exceptional contributions.

MEREWETHER AWARD (continued)

- 1956 Major Harold A. Bedient, Detachment 28, 9th Weather Group, Suitland, Maryland.
- 1957 Lieutenant Colonel Ronald C. Lame, Detachment 5, 21st Weather Squadron, 2d Weather Wing, Sidi Sli-
mane, Morocco.
- 1958 Lieutenant Colonel Gene E. Drubeck, 3d Weather Wing, Offutt AFB, Nebraska.
- 1959 Captain Orville H. Daniel, Detachment 11, 4th Weather Group, Patrick AFB, Florida.
- 1960 Captain Guenther E. Luckenbach, 8th Weather Group, Randolph AFB, Texas, and Technical Sergeant
John C. Kocher, Detachment 29, 8th Weather Group, Kelly AFB, Texas.
- 1961 Lieutenant Colonel Francis W. Murray and Captain Hugh M. O'Neil, 3d Weather Wing, Offutt AFB,
Nebraska.
- 1962 Major Gordon D. Smith, (AFIT), 1st Weather Wing, Fuchu AS, Japan.
- 1963 Master Sergeant Myles M. Mitchell, Detachment 10, 4th Weather Group, Eglin AFB, Florida.
- 1964 Lieutenant Colonel Roland Rogers, Detachment 1, 3d Weather Wing, Offutt AFB, Nebraska.
- 1965 Major Robert W. Fett, 1210th Weather Squadron, 6th Weather Wing, Washington, District of Columbia.
- 1966 Master Sergeant Richard R. Adkins, 6th Weather Squadron, 6th Weather Wing, Tinker AFB, Oklahoma.
- 1967 Lieutenant Colonel James G. Howcroft, Operating Location 10, Headquarters Air Weather Service, Suit-
land, Maryland.
- 1968 Captain Robert E. de Michaels, Detachment 25, 10th Weather Squadron, 1st Weather Wing, Nakhon
Phanom Aprt, Thailand.
- 1969 Major Golden R. Farr, USAF Environmental Technical Applications Center, Washington, District of
Columbia.
- 1970 Lieutenant Colonel Kenneth D. Hadeen, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1971 Lieutenant Colonel Gary D. Atkinson, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1972 Captains Charles P. Arnold and Charles C. Olsen, Detachment 1, 1st Weather Wing, Nimitz Hill, Guam.
- 1973 NO AWARD PRESENTED
- 1974 Captains Robert G. Feddes and Robert D. Smith, USAF Environmental Technical Applications Center,
Washington, District of Columbia.
- 1975 Captain Robert D. Abbey, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1976 Captain Albert R. Boehm, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1977 Captain Bruce D. Springer, Detachment 6, 1st Weather Wing, Palehua, Hawaii.
- 1978 Chief Master Sergeant Eugene M. Weber, 3d Weather Wing, Offutt AFB, Nebraska.
- 1979 Captains Marcus D. Bailey and Gerard D. Wittman, Detachment 7, 12th Weather Squadron, 3d Weath-
er Wing, Holloman Solar Observatory, New Mexico.
- 1980 Major Roger C. Whiton and Captain Emil M. Berecek, USAF Environmental Technical Applications
Center, Scott AFB, Illinois.
- 1981 Captain Alan E. Ronn, Operating Location B, 2d Weather Squadron, Headquarters Air Weather Serv-
ice, Kirtland AFB, New Mexico.
- 1982 Captain Ronald D. Townsend, Detachment 3, Headquarters Air Weather Service, Sunnyvale AFS,
California.
- 1983 Captain Michael D. Abel, USAF Environmental Technical Applications Center, Scott AFB, Illinois.

MEREWETHER AWARD (continued)

- 1984 Captain Mitchel A. Langford, First Lieutenant Jason P. Tuell, and Mr. Edward L. Carr, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1985 Captains Neil R. Wyse and Angelo A. Giusti, Detachment 3, Headquarters Air Weather Service, Sunnysvale AFS, California.
- 1986 Captain Joseph P. Alleca and Mr. Eugene Weber, Air Force Global Weather Central, Offutt AFB, Nebraska.

MOORMAN AWARD

The Moorman Award was established in 1962 in honor of Lieutenant General Thomas S. Moorman, Commander, Air Weather Service, 1954–1958. It is presented each year to a unit, other than a base weather station, that provides the most outstanding technical support to a numbered air force.

- 1963 Terminal Forecast Facility, Detachment 42, 8th Weather Group, Kansas City, Missouri.
- 1964 Langley Forecast Center, Detachment 2, 2d Weather Group, Langley AFB, Virginia.
- 1965 Detachment 40, 28th Weather Squadron, 2d Weather Wing, High Wycombe AS, England.
- 1966 Detachment 14, 1st Weather Group, 1st Weather Wing, Saigon Cholon Cy, Vietnam.
- 1967 Detachment 44, 7th Weather Wing, Suitland, Maryland.
- 1968 Detachment 14, 7th Weather Squadron, 2d Weather Wing, Heidelberg AI, Germany.
- 1969 Detachment 1, 4th Weather Wing, Ent AFB, Colorado (Formerly OL 10, Det 7).
- 1970 European Weather Central, Detachment 40, 28th Weather Squadron, 2d Weather Wing, Croughton RAF, England.
- 1971 Asia Weather Central, 20th Weather Squadron, 1st Weather Wing, Fuchu AS, Japan.
- 1972 Air Force Global Weather Central, Special Projects, 6th Weather Wing, Offutt AFB, Nebraska.
- 1973 Strategic Air Command Weather Support Unit, 3d Weather Wing, Offutt AFB, Nebraska.
- 1974 NOT PRESENTED.
- 1975 Detachment 1, 11th Weather Squadron, 3d Weather Wing, Elmendorf AFB, Alaska.
- 1976 Detachment 1, 1st Weather Wing, Nimitz Hill, Guam.
- 1977 Detachment 21, 2d Weather Wing, Kapaun Barracks, Germany.
- 1978 U. S. Army Forces, Europe (USAREUR), Tactical Forecast Unit, 7th Weather Squadron, 2d Weather Wing, Heidelberg AI, Germany.
- 1979 Detachment 7, 12th Weather Squadron, 3d Weather Wing, Holloman AFB, New Mexico.
- 1980 Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1981 Detachment 1, Headquarters Air Weather Service, Washington, District of Columbia.
- 1982 Contingency Support Branch, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1983 Detachment 11, 1st Weather Wing, Hickam AFB, Hawaii.
- 1984 21st Air Force Weather Support Unit, 15th Weather Squadron, 7th Weather Wing, McGuire AFB, New Jersey.
- 1985 Detachment 1, 1st Weather Wing, Joint Typhoon Warning Center, Nimitz Hill, Guam.
- 1986 Contingency Support Branch, Air Force Global Weather Central, Offutt AFB, Nebraska.

PIERCE AWARD

The Pierce Award was established in 1968 in honor of Major General Russell K. Pierce, Jr., Commander, Air Weather Service, 1965—1970. This annual award recognizes individual excellence in weather forecasting in a noncentralized facility.

- 1968 Master Sergeant Lorenzo A. Corpus, Jr., Detachment 6, 15th Weather Squadron, 7th Weather Wing, Griffiss AFB, New York.
- 1969 Master Sergeant Donald R. Jones, Chief Forecaster, Detachment 13, 16th Weather Squadron, 5th Weather Wing, Fort Eustis AI, Virginia.
- 1970 Chief Master Sergeant Robert E. Clark, Detachment 11, 21st Weather Squadron, 2d Weather Wing, Torrejon AB, Spain.
- 1971 Mr. Milton M. Rasmussen, Detachment 3, 17th Weather Squadron, 7th Weather Wing, Norton AFB, California.
- 1972 Master Sergeant William A. Crawford, 3d Weather Wing, Offutt AFB, Nebraska.
- 1973 Technical Sergeant Robert H. Cook, Detachment 17, 31st Weather Squadron, 2d Weather Wing, Upper Heyford RAF, United Kingdom.
- 1974 Senior Master Sergeant Kenneth R. Walters, Detachment 7, 15th Weather Squadron, 5th Weather Wing, Kelly AFB, Texas.
- 1975 First Lieutenant John C. Karsk, Detachment 9, 16th Weather Squadron, 5th Weather Wing, Fort Rucker AI, Alabama.
- 1976 Staff Sergeant Danny J. Meade, Detachment 14, 25th Weather Squadron, 5th Weather Wing, Holloman AFB, New Mexico.
- 1977 Senior Master Sergeant Darrel L. McClung, Detachment 3, 9th Weather Squadron, 3d Weather Wing, Fairchild AFB, Washington.
- 1978 Chief Master Sergeant Alvin C. Wiens, Detachment 2, 9th Weather Squadron, 3d Weather Wing, Castle AFB, California.
- 1979 Mr Lee Dixon, Detachment 13, 15th Weather Squadron, 7th Weather Wing, Robins AFB, Georgia.
- 1980 Master Sergeant Billy W. Brown, Detachment 20, 17th Weather Squadron, 7th Weather Wing, Little Rock AFB, Arkansas.
- 1981 Technical Sergeant Randolph C. Settje, Detachment 21, 7th Weather Squadron, 2d Weather Wing, Kapaun AS, Germany.
- 1982 Technical Sergeant Mark Hamberger, Detachment 5, 7th Weather Squadron, 2d Weather Wing, Katterbach City, Germany.
- 1983 Technical Sergeant Lee R. Bruce, Detachment, 1, 3d Weather Squadron, 5th Weather Wing, Shaw AFB, South Carolina.
- 1984 Technical Sergeant Earl J. Simon, Detachment 30, 2d Weather Squadron, 4th Weather Wing, Vandenberg AFB, California.
- 1985 Staff Sergeant Jacob R. Lee, Jr., Detachment 8, 26th Weather Squadron, 3d Weather Wing, Griffiss AFB, New York.
- 1986 TSgt Luke D. Whitney, Detachment 9, Headquarters Air Weather Service, Las Vegas, Nevada.

SENER AWARD

The Senter Award was established in 1956 in honor of Major General William O. Senter, Commander, Air Weather Service, from 1950—1954. This award is presented yearly to the weather reconnaissance squadron (WRS) with the highest overall effectiveness rating. Responsibility for presenting the award passed to Aerospace Rescue and Recovery Service in 1975 along with the weather reconnaissance mission.

- 1956 57th WRS, 1st Weather Wing, Hickam AFB, Hawaii.

SENER AWARD (continued)

1957 53d WRS, 1st Weather Wing, Burtonwood RAF Station, England.
1958 55th WRS, 9th Weather Group, McClellan AFB, California.
1959 55th WRS, 9th Weather Group, McClellan AFB, California.
1960 Detachment 3, 55th WRS, 9th Weather Group, Kindley AFB, Bermuda.
1961 55th WRS, 9th Weather Group, McClellan AFB, California.
1962 55th WRS, 9th Weather Group, McClellan AFB, California.
1963 53th WRS, 9th Weather Recon Group, Hunter AFB, Georgia.
1964 56th WRS, 9th Weather Recon Group, Yokota AB, Japan.
1965 53d WRS, 9th Weather Recon Group, Hunter AFB, Georgia.
1966 56th WRS, 9th Weather Recon Wing, Yokota AB, Japan.
1967 58th WRS, 9th Weather Recon Wing, Kirtland AFB, New Mexico.
1968 58th WRS, 9th Weather Recon Wing, Kirtland AFB, New Mexico.
1969 56th WRS, 9th Weather Recon Wing, Yokota AB, Japan.
1970 55th WRS, 9th Weather Recon Wing, McClellan AFB, California.
1971 54th WRS, 9th Weather Recon Wing, Andersen AFB, Guam.
1972 53d WRS, 9th Weather Recon Wing, Ramey AFB, Puerto Rico.
1973 54th WRS, 9th Weather Recon Wing, Andersen AFB, Guam.
1974 54th WRS, 9th Weather Recon Wing, Andersen AFB, Guam.

WILLIAMS AWARD

The Williams Award was established in 1956 in honor of Colonel Randolph P. Williams who organized the Army Air Corps Weather Service in 1937. It is presented each year to the most outstanding weather detachment or unit performing as a "weather station" with a weather observing, forecasting, or briefing function. Weather centrals and forecast centers are also eligible.

1956 Detachment 14, 9th Weather Squadron, 3d Weather Wing, Dyess AFB, Texas.
1957 Detachment 11, 4th Weather Group, Patrick AFB, Florida.
1958 Detachment 24, 4th Weather Group, Holloman AFB, New Mexico.
1959 Detachment 18, 10th Weather Group, 1st Weather Wing, Yokota AB, Japan.
1960 Detachment 2, 8th Weather Squadron, 3d Weather Wing, Homestead AFB, Florida.
1961 Detachment 4, 35th Weather Squadron, 4th Weather Wing, McChord AFB, Washington.
1962 Detachment 19, 9th Weather Squadron (March AFB Forecast Center), 3d Weather Wing, March AFB, California.
1963 Detachment 14, 21st Weather Squadron, 2d Weather Wing, Moron AB, Spain.
1964 Detachment 2, 4th Weather Group, Andrews AFB, Maryland.
1965 Detachment 28, 26th Weather Squadron, 3d Weather Wing, Wurtsmith AFB, Michigan.
1966 Detachment 8, 20th Weather Squadron, 1st Weather Wing, Kadena AB, Okinawa.

WILLIAMS AWARD (continued)

1967	Detachment 9, 30th Weather Squadron, 1st Weather Group, Da Nang Aprt, Vietnam.
1968	Detachment 31, 5th Weather Squadron, 1st Weather Group, Nha Trang AI, Vietnam.
1969	Detachment 3, 17th Weather Squadron (formerly Det 24, 15th Weather Squadron), 7th Weather Wing, Norton AFB, California.
1970	Detachment 1, 31st Weather Squadron, 2d Weather Wing, Bitburg AB, Germany.
1971	Detachment 30, 10th Weather Squadron, 1st Weather Group, U-Tapao Airfield, Thailand.
1972	Detachment 2, 1st Weather Wing, Andersen AFB, Guam.
1973	Detachment 7, 31st Weather Squadron, 2d Weather Wing, Aviano AB, Italy.
1974	Detachment 8, 20 Weather Squadron, 1st Weather Wing, Kadena AB, Japan.
1975	Detachment 10, 2d Weather Squadron, Air Force Global Weather Central, Eglin AFB, Florida.
1976	Detachment 13, 15th Weather Squadron, 7th Weather Wing, Robins AFB, Georgia.
1977	Detachment 5, 1st Weather Wing, Clark AB, Republic of Philippines.
1978	Detachment 1, 7th Weather Wing, Andrews AFB, Maryland.
1979	Detachment 14, 7th Weather Wing, Norton AFB, California.
1980	Detachment 10, 7th Weather Squadron, 2d Weather Wing, Kitzingen AB, Germany.
1981	Detachment 25, 31st Weather Squadron, 2d Weather Wing, Rhein-Main AB, Germany.
1982	Detachment 8, 1st Weather Wing, Kadena AB, Japan.
1983	Detachment 3, 28th Weather Squadron, 2d Weather Wing, RAF Lakenheath, United Kingdom.
1984	Detachment 15, 9th Weather Squadron, 3d Weather Wing, Grand Forks AFB, North Dakota.
1985	Detachment 14, 5th Weather Squadron, 5th Weather Wing, Fort Hood AI, Texas.
1986	Detachment 8, 31st Weather Squadron, 2d Weather Wing, Zweibrucken AB, Germany.

YATES AWARD

The Yates Award was established in 1956 in honor of Major General Donald N. Yates, Commander, Air Weather Service, 1945—1950. This award is given yearly to the AWS reconnaissance aircrew with the most consistent record of excellence in the performance of weather reconnaissance flights. Responsibility for presenting the award passed to Aerospace Rescue and Recovery Service in 1975 along with the weather reconnaissance mission.

1956	Aircrew 10, 55th WRS, 9th Weather Group, McClellan AFB, California.
1957	Aircrew B-3, 57th WRS, 1st Weather Wing, Hickam AFB, Hawaii.
1958	Aircrew 5, 53d WRS, 2d Weather Wing, Burtonwood RAF Station, England.
1959	Aircrew B-1, 54th WRS, 1st Weather Wing, Andersen AFB, Guam.
1960	Aircrew B-10, 55th WRS, 9th Weather Group, McClellan AFB, California.
1961	Aircrew 2, 53th WRS, 2d Weather Wing, Kindley AFB, Bermuda.
1962	Aircrew 5, 55th WRS, 9th Weather Group, McClellan AFB, California.
1963	Aircrew 2, 53d WRS, 9th Weather Group, Hunter AFB, Georgia.
1964	Aircrew 7, 54th WRS, 9th Weather Recon Group, Andersen AFB, Guam

YATES AWARD (continued)

- 1965 Aircrew 7, 53th WRS, 9th Weather Recon Group, Hunter AFB, Georgia.
- 1966 Major Richard K. McNab, 57th WRS, 9th Weather Recon Wing, Hickam AFB, Hawaii.
- 1967 Captain Charles F. Blount, 54th WRS, 9th Weather Recon Wing, Andersen AFB, Guam.
- 1968 Major Charles A. Erni, 55th WRS, 9th Weather Recon Wing, McClellan AFB, California.
- 1969 Captain Lawrence B. Dillehay, 56th WRS, 9th Weather Recon Wing, Yokota AB, Japan.
- 1970 Captain John W. Pavone, 55th WRS, 9th Weather Recon Wing, McClellan AFB, California.
- 1971 Captain Edgar A. Gideons, 55th WRS, 9th Weather Recon Wing, McClellan AFB, California.
- 1972 Major John E. Bugge, 58th WRS, 9th Weather Recon Wing, Kirtland AFB, New Mexico.
- 1973 Captain Gary F. Sanderson, 53d WRS, 9th Weather Recon Wing, Keesler AFB, Mississippi.
- 1974 Crew B-1, 53d WRS, 9th Weather Reconnaissance Wing, Keesler AFB, Mississippi.

ZIMMERMAN AWARD

The Zimmerman Award was established in 1956 in honor of Brigadier General Don Z. Zimmerman, Director of Weather, Army Air Forces, 1942. The award is given to the AWS individual who has demonstrated the best application of climatology during the year or who has developed a device or technique which has proved of greatest value in furthering the AWS climatology program. Nomination of a team (not more than three individuals) is permitted for exceptional contributions.

- 1956 Warrant Officer Whitmal W. Hill, Jr., 1st Weather Wing, Fuchu AS, Japan.
- 1957 Master Sergeant James L. Rosenberry, 3rd Weather Group, Colorado Springs, Colorado.
- 1958 Major Russell G. McGrew, Headquarters 3d Weather Wing, Offutt AFB, Nebraska.
- 1959 NO AWARD PRESENTED
- 1960 Major Clarence E. Everson, Headquarters 4th Weather Wing, Colorado Springs, Colorado.
- 1961 Mr Milo J. Andre, GS-13, USAF Climatic Center, Suitland, Maryland.
- 1962 Captain Richard E. Cale, Detachment 10, 4th Weather Group, Eglin AFB, Florida.
- 1963 Captain Joseph K. Lambert and First Lieutenant John A. Dutton, 1210th Weather Squadron, 4th Weather Group, Washington, District of Columbia.
- 1964 Technical Sergeant Warren L. Hatch, 8th Weather Group, Scott AFB, Illinois.
- 1965 Lieutenant Colonel John T. McCabe, 1210th Weather Squadron, 6th Weather Wing, Washington, District of Columbia.
- 1966 Captain Gary D. Atkinson, Detachment 1, 1st Weather Wing, Fuchu AS, Japan.
- 1967 Mr Joe S. Restivo, Headquarters 4th Weather Wing, Ent AFB, Colorado.
- 1968 Major James S. Kennedy and Captain Dennis L. Quick, 2d Weather Squadron, 3d Weather Wing, Offutt AFB, Nebraska.
- 1969 Lieutenant Colonel Robert C. Sabin, Headquarters 4th Weather Wing, Ent AFB, Colorado.
- 1970 Major Paul Janota, Detachment 1, Headquarters Air Weather Service, Springfield, Virginia.
- 1971 Master Sergeant Charles Ronan, Headquarters 2d Weather Wing, Wiesbaden AB, Germany.
- 1972 Captain Albert R. Boehm, 20th Weather Squadron, 1st Weather Wing, Fuchu AS, Japan.

ZIMMERMAN AWARD (continued)

- 1973 Lieutenant Colonel Robert C. Sabin, Captain Richard L. Nieman, and Captain Hal W. Wold, jointly, 12th Weather Squadron, 3d Weather Wing, Ent AFB, Colorado.
- 1974 Major Dell V. McDonald, Operating Location E, 16th Weather Squadron, 5th Weather Wing, Fort Leavenworth AI, Kansas.
- 1975 Major Robert E. Dettling, USAF Environmental Technical Applications Center, Scott AFB, Illinois.
- 1976 Major Roger H. Schauss, Headquarters Air Force Study and Analysis Staff.
- 1977 Captain Henry A. Chary, Headquarters 2d Weather Wing, Kapaun Barracks, Germany.
- 1978 Major Robert D. Smith, Detachment 11, 2d Weather Squadron, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1979 NO AWARD PRESENTED
- 1980 Major Laurence D. Mendenhall, Headquarters 2d Weather Wing, Kapaun Barracks, Germany.
- 1981 Major Edward M. Tomlinson, Major William C. Smith, and Mr. Frank W. Jenks, III, Detachment 1, 2d Weather Squadron, Air Force Global Weather Central, Wright-Patterson AFB, Ohio.
- 1982 Captain James K. Woessner, Operating Location G, 2d Weather Squadron, Headquarters Air Weather Service, Tyndall AFB, Florida.
- 1983 Mr. Robert M. Rubendall, Mr. Mark T. Surmeier, and Mr. Robert D. Davy, Operating Location A, USAF Environmental Technical Applications Center, Asheville, North Carolina.
- 1984 Major Eugene S. Barnes, Detachment 14, 25th Weather Squadron, 5th Weather Wing, Holloman AFB, New Mexico.
- 1985 Captain Christopher G. Konze, First Lieutenant Phillip A. Zuzolo, and Mr. Charles J. Glauber, USAF Environmental Technical Applications Center, Scott AFB, Illinois.
- 1986 First Lieutenant Robert L. Haase, Jr., USAF Environmental Technical Applications Center, Scott AFB, Illinois.

AIRMAN OF THE YEAR AWARD

The Airman of the Year Award was established in 1979 to recognize excellence in performance of duty.

- 1979 Sergeant Harald Naestvold, USAF Environmental Technical Applications Center, Scott AFB, Illinois.
- 1980 Senior Airman Starr A. Olson, Detachment 20, 17th Weather Squadron, 7th Weather Wing, Little Rock AFB, Arkansas.
- 1981 Senior Airman David L. Johansen, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1982 Airman Ricky A. Hiltbrand, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1983 Senior Airman Harry L. Druckenmiller, Detachment 12, 7th Weather Squadron, 2d Weather Wing, Finthen AI, Germany.
- 1984 Senior Airman Linda M. Bogart, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1985 Senior Airman Bruce S. Linde, Detachment 11, 1st Weather Wing, Hickam AFB, Hawaii.
- 1986 Senior Airman Matthew J. Cornell, Detachment 21, 15th Weather Squadron, 7th Weather Wing, Pope AFB, North Carolina.

JUNIOR OFFICER OF THE YEAR AWARD

The Junior Officer of the Year Award was established in 1981 to recognize excellence in performance of duty.

- 1981 First Lieutenant Lauraleen O'Connor, Detachment 2, 7th Weather Squadron, 2d Weather Wing, Hanau AI, Germany.
- 1982 Captain Erwin L. Williams, Detachment 11, 1st Weather Wing, Hickam AFB, Hawaii.

JUNIOR OFFICER OF THE YEAR AWARD (continued)

- 1983 Captain David E. Howell, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1984 Captain Daniel C. Daubach, Commander, Detachment 12, 25th Weather Squadron, 5th Weather Wing, George AFB, California.
- 1985 Captain Alan R. Shaffer, Foreign Technology Division, Air Force Systems Command, Wright-Patterson AFB, Ohio.
- 1986 First Lieutenant Kimberley L. Carver, Detachment 1, 31st Weather Squadron, 2d Weather Wing, Sembach AB, Germany.

NCO OF THE YEAR AWARD

The NCO of the Year Award was established in 1979 to recognize excellence in performance of duty.

- 1979 Technical Sergeant Donny Weaver, Detachment 3, 5th Weather Squadron, 5th Weather Wing, Fort Bragg AI, North Carolina.
- 1980 Technical Sergeant James A. Hoy, Operating Location C, 7th Weather Squadron, 2d Weather Wing, Bad Toelz City, Germany.
- 1981 Staff Sergeant Cynthia G. Mendonca, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1982 Technical Sergeant Leonard L. Czepiel, Detachment 14, 17th Weather Squadron, 7th Weather Wing, Norton AFB, California.
- 1983 Technical Sergeant Mary F. Hebert, Detachment 15, 28th Weather Squadron, 2d Weather Wing, RAF Mildenhall, United Kingdom.
- 1984 Technical Sergeant Franklin C. Mullins, Detachment 10, 25th Weather Squadron, 5th Weather Wing, Bergstrom AFB, Texas.
- 1985 Technical Sergeant Mariano De La Ossa, Jr., Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1986 Staff Sergeant Frank J. Hall III, Detachment 25, 5th Weather Wing, Howard AFB, Panama.

SENIOR NCO OF THE YEAR AWARD

The Senior NCO of the Year Award was established in 1979 to recognize excellence in performance of duty.

- 1979 Master Sergeant Leonard C. Hume, Jr., Detachment 4, Headquarters Air Weather Service, Andersen AFB, Guam.
- 1980 Master Sergeant John J. Hewitt, Detachment 2, 7th Weather Squadron, 2d Weather Wing, Hanau AI, Germany.
- 1981 Master Sergeant Kirby Danielson, Detachment 25, 31st Weather Squadron, 2d Weather Wing, Rhein-Main AB, Germany.
- 1982 Master Sergeant John F. Mullins, Detachment 19, 15th Weather Squadron, 7th Weather Wing, Lajes Field, Azores.
- 1983 Senior Master Sergeant Finis R. Herron, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1984 Master Sergeant Michael A. Jinenez, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1985 Master Sergeant Rosanne Eodchick, USAF Environmental Technical Applications Center, Scott AFB, Illinois.
- 1986 Senior Master Sergeant Dennis F. Gagne, 31st Weather Squadron, Sembach AB, Germany.

SPENGLER AWARD

The Spengler Award was established in 1975 in honor of Brigadier General Kenneth C. Spengler (Air Force Reserve) who served as Special Assistant to Commander, Air Weather Service, 1961—1975. It is presented yearly to the most outstanding weather mobilization augmentee of the year.

- 1975 Colonel Paul W. Kadlec, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1976 Lieutenant Colonel Paul Twitchell, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1977 Lieutenant Colonel Charles M. Umpenhour, Denver, Colorado.

SPENGLER AWARD (continued)

- 1978 Major Roger C. Clapp, Detachment 2, 24th Weather Squadron, 5th Weather Wing, Columbus AFB, Mississippi.
- 1979 Captain Kerry A. Bartels, Detachment 6, 26th Weather Squadron, 3d Weather Wing, Pease AFB, New Hampshire.
- 1980 Lieutenant Colonel Douglas L. Jonas, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1981 Major Thomas H. Kyle, Detachment 2, 2d Weather Squadron, Air Force Global Weather Central, L. G. Hanscom AFB, Maine.
- 1982 Major James R. Allen, 17th Weather Squadron, 7th Weather Wing, Travis AFB, California.
- 1983 Major John T. Sigmon, Detachment 5, 15th Weather Squadron, 7th Weather Wing, Dover, Delaware.
- 1984 Lieutenant Colonel Herbert T. Sherrow, 25th Weather Squadron, 5th Weather Wing, Bergstrom AFB, Texas.
- 1985 Major Charles R. Holliday, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1986 Major Brian E. Heckman, Denver Weather Service Forecast Office, Denver, Colorado.

GRIMES AWARD

The Grimes Award was established in 1979 in honor of Colonel Keith R. Grimes who organized the first Air Weather Service Unconventional Warfare Detachment. It is for the weather unit exhibiting each year the highest state of readiness to support wartime tactical Air Force or tactical Army missions.

- 1979 Detachment 15, 30th Weather Squadron, 1st Weather Wing, Osan AB, Korea.
- 1980 Detachment 75, 3d Weather Squadron, 5th Weather Wing, Hurlburt Field, Florida.
- 1981 Detachment 12, 7th Weather Squadron, 2d Weather Wing, Finthen AI, Germany.
- 1982 Detachment 3, 5th Weather Squadron, 5th Weather Wing, Fort Bragg, North Carolina.
- 1983 Detachment 75, 7th Weather Wing, Hurlburt Field, Florida.
- 1984 Detachment 20, 30th Weather Squadron, 1st Weather Wing, Camp Casey, Korea.
- 1985 Detachment 6, 5th Weather Squadron, 5th Weather Wing, Fort Lewis, Washington.
- 1986 Detachment 20, 30th Weather Squadron, 1st Weather Wing, Camp Casey, Korea.

JENNER AWARD

The Air Weather Service Civilian of the Year award (established in 1982) was renamed the Jenner Award in 1985 in honor of Mr. William A. Jenner, whose career with Air Weather Service spanned 42 years. This award is given yearly for performance and achievements that significantly contribute to the overall welfare of the Air Force and the civilian community.

- 1982 Mr. Donald G. Caviness, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1983 Mr. Clarence B. Elam, Jr., USAF Environmental Technical Applications Center, Special Projects Section, Scott AFB, Illinois.
- 1984 Mr. John T. Pacek, Jr., Detachment 12, 15th Weather Squadron, 7th Weather Wing, Selfridge ANGB, Michigan.
- 1985 Mr. Edward L. Carr, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1986 Mr. Frank W. Jenks III, Detachment 1, 2d Weather Squadron, 4th Weather Wing, Wright-Patterson AFB, Ohio.

BARNEY LEADERSHIP AWARD

The Barney Leadership Award was established in 1986 in honor of Colonel William S. Barney, Vice Commander, Air Weather Service, from May 1963—July 1967. This award is presented yearly to officer or enlisted personnel at wing level and below who demonstrate the highest quality of leadership in the performance of their duties and the conduct of their lives. It is limited to those members whose duties require them to assume active leadership roles.

1986 Colonel William S. Barney, USAF, Retired.

OBSERVER AWARD (OBSERVING)

Established in 1968, this award recognizes the top observer assigned to a unit making surface observations and providing base weather or operating location forecasting support (excluding supervisors) dedicated to airfield, range, or tactical operations.

1968 Sergeant Lawrence J. Wocjik, Detachment 21, 6th Weather Wing, Edwards AFB, California.

1969 Staff Sergeant James F. Robinson, Detachment 2, 30th Weather Squadron, 1st Weather Wing, Ton San Nhut AB, Vietnam.

1970 Sergeant David Eatwell, Detachment 21, 9th Weather Squadron, 3d Weather Wing, Minot AFB, North Dakota.

1971 Staff Sergeant Randolph C. Murphy, Headquarters 6th Weather Wing, Andrews AFB, Maryland.

1972 Staff Sergeant Kenneth G. Bennekamper, Detachment 17, 31st Weather Squadron, 2d Weather Wing, Upper Heyford RAF, United Kingdom.

1973 Sergeant William E. Adams, Detachment 15, 24th Weather Squadron, 3d Weather Wing, Vance AFB, Oklahoma.

1974 Staff Sergeant Paul C. Ferris, 10th Weather Squadron, 1st Weather Wing, Nakhon Phanom Airport, Thailand.

1975 Sergeant Penny L. Decker, Detachment 2, 1st Weather Wing, Nimitz Hill, Guam.

1976 Senior Airman Dan H. Vial, Jr., Detachment 1, 15th Weather Squadron, 7th Weather Wing, Tinker AFB, Oklahoma.

1977 Senior Airman Donnie R. Galarowics, Detachment 10, 30th Weather Squadron, 1st Weather Wing, Kunsan AB, Korea.

1978 Senior Airman Charles R. Pierce, Detachment 2, 3d Weather Squadron, 5th Weather Wing, Seymour-Johnson AFB, North Carolina.

1979 Sergeant Paul J. Angel, Detachment 12, 7th Weather Squadron, 2d Weather Wing, Finthen AI, Germany.

1980 Senior Airman Timothy J. Smith, Detachment 6, 26th Weather Squadron, 3d Weather Wing, Pease AFB, New Hampshire.

1981 Senior Airman Mark A. Seigel, Detachment 7, 9th Weather Squadron, 3d Weather Wing, March AFB, California.

1982 Staff Sergeant Franklin E. Henry, Detachment 10, 2d Weather Squadron, Headquarters Air Weather Service, Eglin AFB, Florida.

1983 Senior Airman Harry L. Druckenmiller, Detachment 12, 7th Weather Squadron, 2d Weather Wing, Finthen AI, Germany.

1984 Senior Airman Mark R. Christensen, Detachment 7, 5th Weather Squadron, 5th Weather Wing, Fort Ord, California.

1985 Sergeant Brian P. Bergmann, Detachment 10, 15th Weather Squadron, 7th Weather Wing, McGuire AFB, New Jersey.

1986 Senior Airman Barry C. West, Detachment 24, 26th Weather Squadron, 3d Weather Wing, K.I. Sawyer AFB, Michigan.

OBSERVER AWARD (SPECIALIZED SUPPORT)

Established in 1968, this award recognizes individual excellence in a specialized observer function which includes observers assigned to duties other than surface observing.

- 1968 Sergeant Andrew I. Watson, 6th Weather Squadron, 6th Weather Wing, Tinker AFB, Oklahoma.
- 1969 Staff Sergeant Edward M. Cloutier, Detachment 8, 20th Weather Squadron, 1st Weather Wing, Kadena AB, Japan.
- 1970 Technical Sergeant Clarence C. Chamberlain, DCS Operations, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1971 Sergeant Edward J. Kasten, Detachment 30, 6th Weather Wing, Vandenberg AFB, California.
- 1972 Staff Sergeant Tommy M. Pelley, Detachment 30, 6th Weather Wing, Vandenberg AFB, California.
- 1973 Staff Sergeant Earl W. Schneider, Detachment 1, 1st Weather Wing, Nimitz Hill, Guam.
- 1974 Staff Sergeant Albert H. Mongeon, Detachment 7, 6th Weather Wing, Carswell AFB, Texas.
- 1975 Staff Sergeant Tommy M. Pelley, Detachment 3, 11th Weather Squadron, Shemya AFB, Alaska.
- 1976 Technical Sergeant Ronald H. Adsit, 7th Weather Squadron, 2d Weather Wing, Heidelberg AI, Germany.
- 1977 Senior Master Sergeant Horace L. Maxwell, Detachment 1, 30th Weather Squadron, 1st Weather Wing, Fuchu COM, Japan.
- 1978 Master Sergeant Harley O. Sunsdahl, Detachment 1, 2d Weather Squadron, Air Force Global Weather Central, Wright-Patterson AFB, Ohio.
- 1979 Technical Sergeant George R. N. Hanohano, 6th Weather Squadron (Mobile), 7th Weather Wing, Tinker AFB, Oklahoma.
- 1980 Technical Sergeant Michael H. A. Springer, Detachment 9, 1st Weather Wing, Learmonth Solar Observatory, Australia.
- 1981 Sergeant Richard W. Korich, Detachment 3, 11th Weather Squadron, 3d Weather Wing, Shemya AFB, Alaska.
- 1982 Staff Sergeant Nancy J. Hester, Detachment 11, 1st Weather Wing, Hickam AFB, Hawaii.
- 1983 Master Sergeant Marvin L. Freimund, Detachment 11, 1st Weather Wing, Hickam AFB, Hawaii.
- 1984 Technical Sergeant Gerald D. Rugg, Operating Location A, Detachment 6, 2d Weather Wing, Bad Toelz City, Germany.
- 1985 Technical Sergeant Stephen A. Lord, Detachment 8, 20th Weather Squadron, 1st Weather Wing, Kadena AB, Japan.
- 1986 Technical Sergeant Wayne A. Chapman, Operating Location H, 7th Weather Squadron, 2d Weather Wing, Schwaebisch Gmuend AI, Germany.

TECHNICAL SUPERVISOR AWARD

Established in 1968, this award recognizes individual excellence in technical supervisory functions.

- 1968 Technical Sergeant Ronald W. Bray, Detachment 14, 31st Weather Squadron, 2d Weather Wing, Hahn AB, Germany.
- 1969 Master Sergeant Harry J. Kohler, Headquarters Air Weather Service, Scott AFB, Illinois.
- 1970 Staff Sergeant Celestino G. Martinez, Detachment 30, 6th Weather Wing, Vandenberg AFB, California.
- 1971 Master Sergeant Gerald E. Daugherty, DCS Operations, Headquarters Air Weather Service, Scott AFB, Illinois.

TECHNICAL SUPERVISOR AWARD (continued)

- 1972 Master Sergeant Concepcion V. Armenta, Detachment 25, 5th Weather Wing, Howard AFB, Canal Zone.
- 1973 Master Sergeant John H. Dansby, Detachment 21, 6th Weather Wing, Edwards AFB, California.
- 1974 Master Sergeant Fortunato Moreno, Jr., Air Force Global Weather Central, 6th Weather Wing, Offutt AFB, Nebraska.
- 1975 Master Sergeant John E. Steffan, Detachment 7, 31st Weather Squadron, 2d Weather Wing, Aviano AB, Italy.
- 1976 Master Sergeant John W. Cheatham, 7th Weather Wing, Scott AFB, Illinois.
- 1977 Master Sergeant Duane E. Chilton, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1978 Senior Master Sergeant John L. Williams, Detachment 10, 2d Weather Squadron, Air Force Global Weather Central, Eglin AFB, Florida.
- 1979 Senior Master Sergeant John L. Williams, Detachment 10, 2d Weather Squadron, Air Force Global Weather Central, Eglin AFB, Florida.
- 1980 Master Sergeant John J. Hewitt, Detachment 2, 7th Weather Squadron, 2d Weather Wing, Hanau AI, Germany.
- 1981 Master Sergeant Billy W. Harless, Detachment 2, 3d Weather Squadron, 5th Weather Wing, Seymour-Johnson AFB, North Carolina.
- 1982 Senior Master Sergeant Earl W. Rook, Detachment 15, 30th Weather Squadron, 1st Weather Wing, Osan AB, Korea.
- 1983 Master Sergeant Robert H. Hinson, Detachment 3, 28th Weather Squadron, 2d Weather Wing, RAF Lakenheath, United Kingdom.
- 1984 Master Sergeant Edmund D. Wallace, Detachment 4, 17th Weather Squadron, 7th Weather Wing, Altus AFB, Oklahoma.
- 1985 Master Sergeant Johnny W. Kicklighter, Detachment 20, 24th Weather Squadron, 3d Weather Wing, Laughlin AFB, Texas.
- 1986 Master Sergeant Jerry B. Heath, Detachment 8, 31st Weather Squadron, 2d Weather Wing, Zweibrucken AB, Germany

FORECASTER AWARD (CENTRALIZED FACILITY)

Established in 1968, this award recognizes individual excellence in weather forecasting at a centralized forecast unit. The "centralized" forecaster is responsible for large areas of the earth or specialized programs.

- 1968 Senior Master Sergeant Eugene A. Murdock, Detachment 21, 31st Weather Squadron, 2d Weather Wing, Kindsbach Combined Meteorological Facility, Germany.
- 1969 Captain James K. Lavin, Detachment 14, 1st Weather Group, Tan Son Nhut Afd, Vietnam.
- 1970 Mr. Robert C. Miller, Air Force Global Weather Central, Offutt AFB, Nebraska.
- 1971 Master Sergeant Edward D. Beard, 4th Weather Wing, Ent AFB, Colorado.
- 1972 Captain Leon F. Albrecht, Detachment 21, USAFE Forecast Center, 2d Weather Wing, Kindsbach CMF, Germany.
- 1973 Captain Arthur T. Safford III, Air Force Global Weather Central, 6th Weather Wing, Offutt AFB, Nebraska.
- 1974 Captain Charles R. Holliday, Joint Typhoon Warning Center, Guam.
- 1975 Master Sergeant Clyde A. Cook, Detachment 21, 2d Weather Wing, Kindsbach CMF, Germany.

FORECASTER AWARD (CENTRALIZED FACILITY)

1976 Technical Sergeant Charlie A. Crisp, Air Force Global Weather Central, Offutt AFB, Nebraska.

1977 NO AWARD PRESENTED

1978 Staff Sergeant Leslie O. Taylor, Air Force Global Weather Central, Offutt AFB, Nebraska.

1979 Captain John D. Shewchuk, Detachment 1, 1st Weather Wing, Joint Typhoon Warning Center, Nimitz Hill, Guam.

1980 Technical Sergeant Terry F. Landsvork, Air Force Global Weather Central, Offutt AFB, Nebraska.

1981 Mr. Donald W. Messecar, Air Force Global Weather Central, Offutt AFB, Nebraska.

1982 Technical Sergeant Kenneth R. Chesson, 11th Weather Squadron, Weather Support Unit, Elmendorf AFB, Alaska.

1983 Captain Richard H. Blackmon, Air Force Global Weather Central, Offutt AFB, Nebraska.

1984 Captain Boyce R. Columbus, Detachment 1, 1st Weather Wing, Joint Typhoon Warning Center, Nimitz Hill, Guam.

1985 Technical Sergeant Albert J. Yunt III, Air Force Global Weather Central, Offutt AFB, Nebraska.

1986 First Lieutenant Steven J. Higley, Air Force Global Weather Central, Offutt AFB, Nebraska.