

United States Naval Aviation

1910–2010

United States Naval Aviation

1910–2010

For sale by the Superintendent of Documents, U.S. Government Publishing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

ISBN 978-0-945274-86-5

United States Naval Aviation

1910–2010

Volume II Statistics

Roy A. Grossnick
Mark L. Evans



Naval History and Heritage Command
Department of the Navy
Washington, D.C.

Library of Congress Cataloging-in-Publication Data

Evans, Mark L.

United States naval aviation 1910-2010 / Mark L. Evans, Roy A. Grossnick. -- 5th ed.

pages cm

Includes index.

ISBN 978-0-945274-86-5 (v. 1 : alk. paper) 1. United States.

Navy--Aviation. 2. United States. Navy--Aviation--Chronology. I. Grossnick, Roy A. II. Naval History & Heritage Command (U.S.) III. Title.

VG93.E95 2015

359.9'409730904--dc23

2015002942

For sale by the U.S. Government Publishing Office

Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328

ISBN 978-0-945274-86-5

Contents

Preface		vii
Acknowledgments		ix
Glossary		xi
Part I: Aircraft		
Chapter 1	Aircraft Designations and Popular Names	1
Chapter 2	Combat Aircraft Procured	59
Chapter 3	Transport and Training Aircraft Procured	75
Chapter 4	Helicopters and Tiltrotor V/STOL Aircraft Procured	79
Chapter 5	Drones and Missiles Procured	83
Chapter 6	Aircraft on Hand	93
Chapter 7	Naval Aircraft Bureau (Serial) Numbers	97
Part II: Personnel		
Chapter 8	History of the Naval Aviator and Designations and Numbers	189
Chapter 9	Evolution of Naval Wings (Breast Insignia)	209
Chapter 10	Aviation Ratings	223
Chapter 11	Aviation Personnel on Active Duty	233
Chapter 12	Medal of Honor Awards in Naval Aviation	237
Chapter 13	U.S. Navy and Marine Corps Aces	241
Chapter 14	Early Naval Jet Pilots	247
Chapter 15	Early Helicopter Pilots	261
Chapter 16	Naval Astronauts	269
Chapter 17	Naval Aviation Hall of Honor	277
Chapter 18	Gray Eagle Award	281
Chapter 19	Honorary Naval Aviator Designations	283
Chapter 20	Navy and Marine Corps Air Stations and Fields Named for Aviators	285
Part III: Units		
Chapter 21	Aviation Commands	293
Chapter 22	Evolution of Carrier Air Groups and Wings	299
Chapter 23	Squadron Designations and Abbreviations	315
Chapter 24	Current Squadron Lineage	323
Chapter 25	Visual Identification System (Tail Codes)	333

Part IV: Ships		
Chapter 26	Aviation Ships	341
Chapter 27	Ships Named for Naval Aviators	361
Part V: Deployments		
Chapter 28	Post–World War II Carrier Deployments by Year	367
Chapter 29	Post-Korean War Amphibious Assault Ship Deployments by Year	393
Chapter 30	Carrier and Squadron Deployments During the Korean War	405
Chapter 31	Carrier and Squadron Deployments to Vietnam	415
Part VI: Operations		
Chapter 32	Grenada Combat Operations	439
Chapter 33	Squadrons Involved in Libyan Operations	441
Chapter 34	Operation Desert Shield and Desert Storm	443
Chapter 35	Operation Desert Fox	453
Chapter 36	Operation Enduring Freedom Phase I	455
Chapter 37	Operation Iraqi Freedom Phase I	457
Part VII: Other Actions		
Chapter 38	Navy and Marine Corps Shoot Downs Since 1950	461
Chapter 39	Cold War Incidents Involving U.S. Navy Aircraft	467

Preface

Naval aviation has celebrated more than 100 years of service to this country. Its story as told in this volume and its companion, the chronology, had its origins in the 1950s. This is the fifth update to the original book, *United States Naval Aviation 1910–1960*, and due to the extensive role naval aviation has played in its country's history, the book is published in two volumes.

This volume provides invaluable facts, figures, and a compilation of data not suitable for a chronological approach. When *United States Naval Aviation 1910–1995* was published, the appendix section had more than doubled in size from the previous edition. Many statistical facts and compilations frequently requested of naval aviation historians were incorporated into that book. The current work further expands the number of chapters. It provides the researcher, Navy study groups, statistical analysis groups, and anyone interested in the topic a more detailed account of specific subjects pertinent to better understanding its history.

To facilitate a better grasp of the various subjects, the chapters have been divided into seven sections covering aircraft, personnel, units, ships, deployments, operations, and other actions. Personnel are key to naval aviation's success, closely followed by technological developments. There are many different functions within naval aviation; this volume attempts to document the multiple aspects, including operational activities, administrative and personnel changes, and the technical evolutions that have kept it in the forefront of the United States' military role in the world.

Compiling statistical information requires the historian to search a very wide range of sources. Over the past 15 years many of those reliable sources have ceased to exist. This drying up of sources resulted when specialized documents were no longer published or compiled within the Navy and from the trend toward computerized data not being maintained or transferred to the Naval History and Heritage Command archives. An exhaustive effort was made to find all possible sources necessary to compile the information presented in these chapters. When records provided conflicting data, I selected the most accurate information after reviewing all possible sources. Professional standards were paramount when conducting this research.

Special recognition is made to the naval aviation historians preceding me who were instrumental in researching and publishing the previous editions of this book: Mr. Adrian O. Van Wyen, Mr. Lee M. Pearson, Dr. William J. Armstrong, and Mr. Clarke Van Vleet. As primary compiler for these chapters, I am fully responsible for any errors of fact or mistakes that may have occurred in this volume.

ROY A. GROSSNICK
Naval Aviation Historian

Acknowledgments

This centennial update of United States Naval Aviation would not be possible without the previous editions covering the periods 1910–1960, 1910–1970, 1910–1980, and 1910–1995. The dedication and professionalism of the authors of these original editions—Adrian O. Van Wyen, Lee M. Pearson, Clarke Van Vleet, Dr. William J. Armstrong, and Major John M. Elliott, USMC (Ret.)—laid the foundation for this new version.

In addition, the extensive revisions and updates to the previous versions' appendices would not have been possible without the generous support of the Naval Historical Foundation. Updating of this primary reference work on naval aviation was facilitated by a generous donation from former CNO Admiral James L. Holloway III, USN (Ret.). His donation to the Naval Historical Foundation enabled an aviation historian to research, write, and update all the chapters of volume II. The Naval Historical Foundation then gifted the completed text to the Naval History and Heritage Command.

A project of this magnitude requires the work of many people. The authors owe a debt of gratitude to historians Dr. Michael J. Crawford, Dr. Timothy L. Francis, Dr. Jeffrey G. Barlow, Dr. Robert J. Schneller Jr., Dr. John D. Sherwood, and Robert J. Cressman of the Naval History and Heritage Command who reviewed chapter manuscripts. Their subject matter expertise, insight, and exacting verification of salient points ensured the historical accuracy and the development of cogent themes.

Additional people outside the command generously reviewed chapter manuscripts. Vice Adm. Robert F. Dunn, USN (Ret.) of the Naval Historical Foundation; Maj. Elliott; Dr. Sarandis Papadopoulos, Secretariat Historian, Department of the Navy; Capt. Edmund T. Wooldridge, USN (Ret.); and Capt. Rosario M. Rausa, USNR (Ret.) examined the voluminous material and provided critical objectivity and analysis.

Other members of the command played a key role by researching information or by providing their extensive background knowledge in specific areas. The then Head, Archives Branch Curtis A. Utz and archivists Dale J. Gordon and John L. Hodges provided an incalculable wealth of specific knowledge of naval aviation and archival sources.

Historian Dr. Regina T. Akers of the command contributed her unparalleled knowledge of diversity issues to ensure a balanced representation of the people who comprise the rich heritage of naval aviation. Then-Art Director Morgan I. Wilbur cheerfully disregarded the repeated interruptions to help with the accurate and comprehensive selection of images. Librarians Glenn E. Helm, A. Davis Elliott, J. Allen Knechtmann, and Linda J. Edwards provided crucial, enthusiastic, and knowledgeable reference support. Former photographic curator Robert Hanshaw offered technical expertise that enabled the timely processing of the numerous photographic images.

The extent of the material involved required the assistance of additional people outside the command. Historian and consultant Harold Andrews was an indispensable technical expert, and his lifetime of experience and attentive character facilitated the compilation of multiple entries. Marine Corps historian Annette D. Amerman and Coast Guard historian Scott Price consistently offered immediate and vital assistance. William C. Booth of Aircraft Inventory N8812A provided indispensable support.

A special acknowledgment goes to editors Wendy Sauvageot, James M. Caiella, and Caitlin Conway of the Naval History and Heritage Command. Their keen professionalism, diligent attention to detail, and unique combination of naval aviation knowledge and matchless editorial skills proved invaluable, and every page bears their legacy.

Because an index is the key to making this book a successful reference document, the final thanks go to those who helped with it: Cmdr. Austin W. O'Toole, USNR; Cmdr. Ronald B. Mitchell, USNR (Fleet Historian, Undersea Warfare Operations Det. D); and Byron W. Hurst, Communication and Outreach Division, NHHC.

Glossary

1st MAW	First Marine Aircraft Wing	ALARS	air-launched acoustical reconnaissance
6th FLT	Sixth Fleet		
7th FLT	Seventh Fleet	ALM	Antilliaanse Luchtvaart Maatschappij (airline)
A&R	Assembly & Repair	ALNAV	All Navy
A.P.	armor piercing	ALVRJ	advanced low volume ramjet
AAF	United States Army Air Forces	AMD	aeronautical maintenance duty
AAM	air-to-air missile	AMO	aviation medical officer
AARGM	Advanced Anti-Radiation Guided Missile	AMRAAM	advanced medium range air-to-air missile
AAS	United States Army Air Service	ANA	Association of Naval Aviation
ABATU	advanced base training unit	ANG	Air National Guard
ABDA	American-British-Dutch-Australian Command	AOCP	aviation officer continuation pay
ACC	Air Combat Command	AOCS	aviation officer candidate school
ACLS	automatic carrier landing system	ARAPHAHO	merchant ship portable modular aviation facility
ACMR	Air Combat Maneuvering Range	ARG	amphibious ready group
ACNO	Assistant Chief of Naval Operations	ARM	antiradiation missile
ACP	aviation continuation pay	Arowa	Applied Research: Operational Weather Analysis
ADVCAP	advanced capability	ARPA	Advanced Research Projects Agency
AED	Aeronautical Engineering Duty	ARPS	automatic radar processing system
AEDO	Aeronautical Engineering Duty Officer	ASM	air-to-surface missile
Aéronautique Militaire	Army Air Service (France)	ASMD	antiship missile defense
AESR	active electronically scanned radar	ASO	aviation supply office
AEW	airborne early warning	ASR	antisubmarine rocket
AEWWINGPAC	Airborne Early Warning Wing, Pacific	ASROC	Anti-Submarine Rocket
AFB	Air Force base	ASTOVL	advanced short takeoff/vertical landing
AIM	aircraft intermediate maintenance	ASV	surface vessel detection
AIM	air-launched aerial intercept guided missile	ASW	antisubmarine warfare
AIMD	Aircraft Intermediate Maintenance Division	ATARS	Advanced Tactical Airborne Reconnaissance System
AirDet/AIR DET	air detachment	ATC	Air Transport Command
AirLant/AIRLANT	Air Force, Atlantic Fleet or Commander, Air Force, U.S. Atlantic Fleet	ATFLIR	advanced targeting forward looking infrared
AirPac/AIRPAC	Air Force, Pacific Fleet or Commander, Air Force, U.S. Pacific Fleet	ATG	air task group
		ATS	Air Transport Service
		ATU	advanced training unit
		AVG	American Volunteer Group

AWACS	airborne warning and control systems	CNATRA	Chief of Naval Air Training
BAMS	Broad Area Maritime Surveillance	CNATT	Center for Naval Aviation Technical Training
BAMS-D	Broad Area Maritime Surveillance Demonstrator	CNO	Chief of Naval Operations
BRAC	Defense Base Closure and Realignment	CNR	Chief of Naval Research
BTG	basic training group	COD	carrier on-board delivery
BuAer	Bureau of Aeronautics	COIN	counter insurgency
BuC&R	Bureau of Construction and Repair	ComAirLant	Commander, Naval Air Force, U.S. Atlantic Fleet
BuMed	Bureau of Medicine	ComAirPac	Commander, Naval Air Force, U.S. Pacific Fleet
BuNav	Bureau of Navigation	ComFAIR/COMFAIR	Commander, Fleet Air
BuOrd	Bureau of Ordnance	COMHATWING	Commander, Heavy Attack Wing
BuPers	Bureau of Naval Personnel	COMHSLWINGPAC	Commander, Helicopter Antisubmarine Light Wing, U.S. Pacific Fleet
BuShips	Bureau of Ships		
BuWeps	Bureau of Naval Weapons		
CAA	Civil Aeronautics Administration	COMINCH	Commander in Chief, U.S. Fleet
CAA	Civil Aeronautics Authority	COMINCUS	Commander in Chief, U.S. Fleet
CAEWWS	Carrier Airborne Early Warning Weapons School	COMLATWING	Commander, Light Attack Wing
CAINS	carrier aircraft inertial navigation system	COMMATWING	Commander, Medium Attack Wing
CalTech	California Institute of Technology	COMNAVAIRESFOR	Commander, Naval Air Reserve Force
CAP	Civil Air Patrol	COMNAVAIRLANT	Commander, Naval Air Force, U.S. Atlantic Fleet
CAP	combat air patrol		
CARDIV	carrier division		
CASU	carrier aircraft service unit	COMNAVAIRPAC	Commander, Naval Air Force, U.S. Pacific Fleet
CASU(F)	combat aircraft service unit (forward)		
CC	Construction Corps	COMNAVELEX	Naval Electronic Systems Command
CCR	circulation control rotor	COMNAVFOR Somalia	Commander, Naval Forces Somalia
CEC	cooperative engagement capability	COMNAVSUPFOR	Commander, Naval Support Force
CG	commanding general	COMOPDEVFOR	Commander, Operational Development Force, U.S. Fleet
CGAS	Coast Guard Air Station		
CHNAVRSCH	Chief of Naval Research		
CIA	Central Intelligence Agency	COMPATWING	Commander, Patrol Wing
CIC	combat information center	COMSTRKFIGHTWING	Commander, Strike Fighter Wing
CincPac/CINCPAC	Commander in Chief, Pacific		
CincPacFlt/CINCPACFLT	Commander in Chief, U.S. Pacific Fleet	CONUS	Continental United States
CINCUS	Commander in Chief, U.S. Fleet	CTF	Combined Task Force
		DARPA	Defense Advanced Research Projects Agency
CIWS	Close-In Weapons System (Phalanx)	DASH	Drone Anti-Submarine Helicopter
CJTF	Combined Joint Task Force		

DCNO	Deputy Chief of Naval Operations	FLIR	forward looking infrared radar
DEW	Distant Early Warning line	FMS	foreign military sales
DICASS	directional command active sonobuoy system	FOB	forward operating base
DIFAR	directional frequency analysis and recording	FORSCOM	Forces Command
DMZ	demilitarized zone	FROG	free rocket over ground
DOD	Department of Defense	FTEG	Flight Test and Engineering Group
DODGE	Department of Defense Gravity Experiment satellite	FY	fiscal year
EALS	Electromagnetic Aircraft Launch System	G.P.	general purpose
ECM	electronic countermeasures	GBU	guided bomb unit
ECMO	electronic countermeasures operator/officer	GCA	ground-controlled approach
ECP	Enlisted Commissioning Program	Glomb	guided glider bomb
EDO	engineering duty officer	GMGRU	guided missile group
EFM	enhanced fighter maneuverability	GMU	guided missile unit
ELEX	Naval Electronic Systems Command	Halon	fire suppression agent
EOD	explosive ordnance disposal	HARM	High Speed Anti-Radiation Missile
ESG	expeditionary strike group	HATWING	heavy attack wing
EW	electronic warfare	HIPEG	high-performance external gun
EXCAP	expanded (extended) capability	HTA	heavier-than-air
FAA	Federal Aviation Administration	HUD	heads-up display
FAA	Fleet Air Arm	Huff-Duff	high frequency direction-finder
FAB	Fleet Air Base	HVAR	High-Velocity Aircraft Rocket
FAC	Federal Aviation Commission	IBM	International Business Machine Company
FAC	forward air controller	ICAP	improved capability
FAETU	fleet airborne electronics training unit	IFF	identification friend or foe
FARP	forward arming and refueling point	IGY	International Geophysical Year
FASOTRAGRULANT	Fleet Airborne Specialized Operational Training Group Atlantic	IO	Indian Ocean
FAW	fleet air wing	IOC	initial operational capability
FAWTUPAC	Fleet All Weather Training Unit, Pacific	IR	imaging infrared
FBM	fleet ballistic missile	IR	infrared
FEMA	Federal Emergency Management Agency	ITALD	Improved Tactical Air Launched Decoy
FEWSG	Fleet Electronic Warfare Support Group	JAGM	Joint Air-to-Ground Missile
FKR	frontoviye krilatiye raketi (frontal rocket)	JASSM	Joint Air-to-Surface Standoff Missile
		JATO	jet-assisted takeoff
		JCM	joint common missile
		JCS	Joint Chiefs of Staff
		JDAM	Joint Direct Attack Munition
		JPALS	Joint Precision Approach and Landing System

JPATS	Joint Primary Aircraft Training System	MCB	Marine Corps Base
JRB	joint reserve base	MCM	mine countermeasures
JRFB	joint reserve force base	MEB	Marine Expeditionary Brigade
JSF	joint strike fighter	Med	Mediterranean Sea
JSOW	joint standoff weapon	MEF	Marine Expeditionary Force
JSTARS	Joint Surveillance Target Attack Radar System	MEU	Marine Expeditionary Unit
KIA	killed in action	MIA	missing in action
LAMPS	Light Airborne Multipurpose System	MiG	Russian aircraft designed by Artem I. Mikoyan and Mikhail I. Gurevich
Lant/LANT	Atlantic	MIO	maritime interception operations
LANTIRN	low altitude navigation/targeting infrared for night	MIRALC/SLBD	mid-infrared advanced chemical laser/Sea Lite Beam Director
Laser-JDAM	Laser-Joint Direct Attack Munition	MIT	Massachusetts Institute of Technology
LCAC	landing craft, air cushion	MLS	microwave landing system
LCS	littoral combat ship	MMA	multimission maritime aircraft
LDO	limited duty officer	MOL	Manned Orbiting Laboratory
LGB	laser-guided bomb	MOUT	military operations in urban terrain
LIC	low intensity conflict	MRASM	medium range air-to-surface missile
LJDAM	Laser Joint Direct Attack Munition	MRBM	medium range ballistic missile
Lofti	Low Frequency Transionospheric satellite	MRC	major regional conflict
LORAN	Long Range Navigation	MSC	Military Sealift Command
LRAACA	Long-Range Air Antisubmarine Warfare Capable Aircraft	MSO	maritime security operations
LSO	landing signal officer	NAA	National Aeronautic Association
LTA	lighter-than-air	NAAF	Naval Air Auxiliary Facility
LTV	Ling-Temco-Vought Corp.	NAAS	Naval Air Auxiliary Station
MAC	Military Airlift Command	NAATSC	Naval Air Advanced Training Subordinate Command
MACV	Military Assistance Command, Vietnam	NAB	Naval Air Base
MAD	magnetic airborne/anomaly detection	NACA	National Advisory Committee for Aeronautics
MAG	Marine Aircraft Group	NAD	Naval Aviation Depot
MAGTF	Marine Air-Ground Task Force	NADC	Naval Air Development Center
MATS	Military Air Transport Service	NADEP	Naval Aviation Depot
MAU	master augmentation unit	NADS	Naval Air Development Station
MAW	Marine Aircraft Wing	NAEC	Naval Air Engineering Center
MAWSPAC	Medium Attack Weapons School, Pacific	NAESU	Naval Aviation Electronic Service Unit
MC	Medical Corps		
MCAAS	Marine Corps Auxiliary Air Station		
MCAF	Marine Corps Air Facility		
MCAS	Marine Corps Air Station		

NAF	Naval Air Facility	NAVCAD	naval aviation cadet
NAF	Naval Aircraft Factory	NAVICP	Naval Inventory Control Point
NAFC	Naval Air Ferry Command		
NAILS	Naval Aviation Integrated Logistic Support	NAVMAT	Naval Material Command
		NAVPRO	Naval Plant Representative Office
NALCOLANTUNIT	Naval Air Logistics Control Office, Atlantic Unit	NAVRES	Naval Reserve
NAMC	Naval Air Material Center	NAVSEA	Naval Sea Systems Command
NAMO	Naval Aviation Maintenance Office	Navstar	navigation satellite
NAMTC	Naval Air Missile Test Center	NAWC	Naval Air Warfare Center
NAO	naval aviation observer	NAWCAD	Naval Air Warfare Center Aircraft Division
NAOTS	Naval Aviation Ordnance Test Station	NAWCWD	Naval Air Warfare Center Weapons Division
NAP	naval aviation pilot/naval air pilot	NAWS	Naval Air Weapons Station
NAR	Naval Air Reserve	NB	Naval Base
NARF	Naval Air Rework Facility	NERV	Nuclear Emulsion Recovery Vehicle
NARTS	Naval Air Rocket Test Station	NFO	naval flight officer
NARTU	Naval Air Reserve Training Unit	NMC	Naval Material Command
NARU	Naval Air Reserve Unit	NME	National Military Establishment
NAS	Naval Aeronautic Station	NMF	Naval Missile Facility
NAS	Naval Air Station	NNV	national naval volunteers
NASA	National Air and Space Administration	NOB	Naval Operating Base
NASM	National Air and Space Museum	NORAD	North American Air Defense Command
NATB	Naval Air Training Base	NorLant	Northern Atlantic Ocean
NATC	Naval Air Training Center	NorPac	Northern Pacific Ocean
NATC	Naval Air Training Command	NOTS	Naval Aviation Ordnance Test Station
NATEC	Naval Airship Training and Experimental Command	NOTS	Naval Ordnance Test Station
NATMSACT	Naval Air Training Maintenance Support Activity	NR	Naval Reserve/Navy Reserve
NATO	North Atlantic Treaty Organization	NRAB	Naval Reserve Aviation Base
NATOPS	Naval Air Training and Operating Procedures Standardization	NRFC	Naval Reserve Flying Corps
NATS	Naval Air Transport Service	NRL	Naval Research Laboratory
NATT	Naval Air Technical Training	NROTC	Naval Reserve Officer Training Corps
NATTC	Naval Air Technical Training Center	NS	Naval Station
NAVAIR	Naval Air Systems Command	NSA	Naval Support Activity
NAVAIRSYSCOM	Naval Air Systems Command	NSAWC	Naval Strike and Air Warfare Center
		NSC	National Security Council
		NSRB	National Security Resources Board
		NTPS	Naval Test Pilot School
		NVG	night vision goggles

NVN	North Vietnam	RNAS	Royal Naval Air Station
NWC	Naval Weapons Center	ROK	Republic of Korea
OASU	Oceanographic Air Survey	RPG	rocket-propelled grenade
OCS	Officer Candidate School	RPV	remotely piloted vehicle
ODM	operational development model	RVN	Republic of Vietnam
ONR	Office of Naval Research	SAM	surface-to-air missile
OPNAV	Naval Operations	SAR	search-and-rescue
Ops	operations	SCS	sea control ship concept
OSD	Office of the Secretary of Defense	SDB	small diameter bomb
OSRD	Office of Scientific Research and Development	SEAL	Sea-Air-Land team
P/A	pilotless aircraft	SEAPAC	sea activated parachute automatic crew release
Pac/PAC	Pacific	SecDef/SECDEF	Secretary of Defense
PASU	Patrol Aircraft Service Unit	SecNav/SECNAV	Secretary of the Navy
Patriot	Phased Array Tracking Intercept of Target missile	SEVENTHFLT	Seventh Fleet
PatSU/Patsu	Patrol Aircraft Service Unit	SIXTHFLT	Sixth Fleet
PatWing/PATWING	Patrol Wing	SLAM	Standoff Land Attack Missile
PIMA	planned incremental maintenance availability	SLAM-ER	Standoff Land Attack Missile–Expanded Response
PLAF	People's Liberation Armed Forces (Viet Cong)	SLCM	Sea/Surface Launched Cruise Missile
PLAT	Pilot Landing Aid Television system	SLEP	Service Life Extension Program
PMTC	Pacific Missile Test Center	SoLant/SOLANT	Southern Atlantic Ocean
POL	petroleum, oil, lubricants	SoRad	Solar Radiation (satellite)
POW	prisoner of war	SoPac/SOPAC	Southern Pacific Ocean
PPI	plan position indicator	SPASUR	Navy Space Surveillance System
RAAF	Royal Australian Air Force	SSM	surface-to-surface missile
radar	radio detection and ranging	STAG	Special Task Air Group
RAF	Royal Air Force	STM	supersonic tactical missile
RAG	replacement air group	STOL	short takeoff and landing
RAM	Rolling Airframe Missile	STOVL	short takeoff/vertical landing
RAST	recovery assist, securing, and traversing system	STRATCOM	Strategic Command
RCA	Radio Corporation of America	SWIP	System Weapons Integration Program
RDT&E	research, development, test, and evaluation	SWOD	Special Weapons Ordnance Device
retrorocket ASR	rearward-firing antisubmarine rocket	T&E	test and evaluation
REWSON	reconnaissance, electronic warfare, and special operations	TACAMO	Take Charge and Move Out
RFC	Royal Flying Corps	TACAN	tactical air navigation system
RimPac	Rim of the Pacific Exercise (Joint)	TACELWING	Tactical Electronic Warfare Wing
RIO	radar intercept officer	TACGRU	tactical group
RN	Royal Navy	TALD	tactical air launch decoy

TARPS	Tactical Aerial Reconnaissance Pod System	USNR	United States Naval/Navy Reserve
TERCOM	terrain contour matching	USNRF	United States Naval/Navy Reserve Force
TF	task force	USNS	United States Naval Ship
TG	task group	V/STOL	vertical and/or short takeoff and landing
TINS	Thermal Imaging Navigation Set	VAST	versatile avionics shop test
TLAM	Tomahawk land-attack missile	VCNO	Vice Chief of Naval Operations
TOW	tube-launched, optically tracked, wire-command- link	VFAX	advanced experimental fighter aircraft
TRAM	Target Recognition Attack Multisensor	Viet Cong	People's Liberation Armed Forces
TraWing/TRAWING	Training Air Wing	VOD	vertical on-board delivery
TRIM	Trail Road Interdiction Mission	VOR	very-high frequency omni- range direction finder
TU	task unit	VORTAC	very-high frequency omni- range direction finder tactical air navigation system
TWA	Trans World Airlines		
UAS	unmanned aerial systems	VSTOL	vertical/short takeoff and landing
UAV	unmanned aerial vehicle	VT	variable-time (fuze)
UCAS	unmanned combat air system	VTOL	vertical takeoff and landing
UDT	underwater demolition team	VTUAV	vertical takeoff and landing tactical unmanned aerial vehicle
UN	United Nations		
USA	United States Army	VTXTS	fixed-wing experimental training aircraft training system
USAAF	United States Army Air Forces		
USAAS	United States Army Air Service	VWS	ventilated wet suit
USACOM	United States Atlantic Command	WAVES	Women Accepted for Volunteer Emergency Service
USAF	United States Air Force	WestPac/WESTPAC	Western Pacific Ocean
USCG	United States Coast Guard	WNY	Washington Navy Yard
USMC	United States Marine Corps	WWI	World War I
USN	United States Navy	WWII	World War II

Note: Acronyms or abbreviations for squadron designations, air groups or air wings, aviation ship designations, and aviation ratings may be found in the Vol. II appendices, as will other more specialized acronym meanings.