

abbreviations dictionary by *ralph de sola*

rev. 67
Ed. 1967

foreword

Abbreviations, contractions, signs, and symbols are all around us and are increasing rapidly with the development of our technological civilization, which demands short cuts and invents short forms.

This reference book is necessary if only for the reason that some short forms stand for as many as sixty-four different things. Daily speech, newspapers, magazines, books, and signs along the airways, highways, railways, and waterways reveal the universality of short forms and the growing tendency to use and devise more and more of them.

arrangement

Everything in this book is arranged in alphabetical and numerical order. Particles, prepositions, and the ampersand are ignored in the arrangement. For example, U of P is alphabetized as UP; A & M and IT & T are arranged as if they were AM and ITT.

capitalization

Short forms usually follow the capitalization of the words they stand for, although this is not a fast rule. In the fields of armament, computing machinery, electronics, and engineering, we find that, as people get used to new devices and concepts, capital letters drop to initial capitals and finally to lower case. ICBM has become icbm; UNIVAC became Univac and now is often written univac. Loran has become plain loran.

In many military establishments and offices, full capitalization is used because message machines are provided only with capital letters. That is the reason why many engineering drawings supplied the armed forces contain all abbreviated material in full capital letters.

In good technical writing and printing, however, all units of measure, velocity, and weight are rendered in lower case: 45 yds, 1500 mph, 1100 lbs. To set such items in running text or on drawings as 45 YDS, 1500 MPH, or 1100 LBS makes them look clumsy and in some instances may lead readers to believe that they stand for things other than the measures and weights indicated.

ABBREVIATIONS DICTIONARY

correct method

The correct way to use a short form is to explain it to your reader or listener the first time it appears. The burden of explaining short forms is one that every writer and speaker must shoulder if the communication given is to be understood clearly and quickly.

If you must write about the United Nations, for example, you had best begin: United Nations (UN) and then use UN throughout your article in order to avoid endless repetition as well as to save space.

golden rule

"When in doubt—spell it out," declared Ralph L. Bayless, former chief engineer of Convair, in the foreword of a special work on abbreviations I compiled for his organization. This is the golden rule to be followed by all who are tempted to use short forms that are not clear in themselves and that are to appear without previous definition.

Several common-sense rules about short forms are most often ignored. These include the rule not to abbreviate short words like Maine, dock, June; to avoid the truncation of words that wind up as other words: king.—kingdom, man.—management, etc.; but all these good rules are broken every day and in this reference you will find many examples of unapproved abbreviations.

You will also find what at first glance may appear to be unnecessary duplication as in the case of airlines and nationalities that are represented by both two- and three-letter combinations. They are all included because while you may correctly guess some of the short forms you cannot be expected to guess correctly all of them.

italics

Items taken from Latin, titles of books and periodicals, and a few other things, are usually set in italics. Many physical symbols are set in italics to differentiate them from other letters they resemble.

punctuation

Short forms were devised to save time, save space, and to overcome the necessity of repeating long words and phrases. All punctuation is avoided in modern practice unless the short form is taken from Latin or there is some conventional use that demands punctuation as is the

FOREWORD

case with certain academic degrees and a few governmental designations.

However, when the short form appears in lower-case letters and spells out a word it is followed by a period in order to avoid confusion with that word as we have seen in king.—kingdom, man.—management, and as we will observe in many other instances.

readers

Readers are invited to submit any useful short forms they would care to have us consider for inclusion in subsequent editions of this reference. Handling of such contributions for an expanded edition will be facilitated if they are submitted as separate items typed on a 3 x 5-inch card or slip of paper.

For example:

dsp: Duell, Sloan & Pearce (publisher's device)

thanks

The friendly co-operation of many people contributed to the publication of this book. Thanks and warm appreciation are due the librarians and many others in the Engineering Department of Convair.

The publisher and the printer and all of their personnel who had anything to do with the editing and production of this book are also in the category of people most important in helping make this an accurate and useful reference. I thank all of them, but because they are in New York and I am in California, I do not know them all by name and cannot give them individual credit for their aid.

Judy Michael, editorial assistant, is especially deserving of gratitude for her painstaking efforts with the manuscript, the galleys, and the page proofs of this expanded and revised edition.

Michael J. Sadoski, science reference librarian, and John A. Turner, ballistics expert, are also to be thanked for their splendid co-operation in giving us material for this expanded edition.

Finally, let me express my warmest gratitude to my wife, Dorothy, and to my friend, Robert McManaway, who undertook the dreadfully dull but most significant task of checking the more than seventeen thousand entries and arranging them in alphabetical and numerical order.

RALPH DE SOLA

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ABBREVIATIONS DICTIONARY

abbreviations

acronyms

contractions

signs

&

symbols

defined

including

Civil and Military Time Systems

Greek Alphabet

International Civil Aircraft Markings

Numbered Abbreviations

Proofreader's Marks

Punctuation and Diacritical Marks

Radio Alphabet

Roman Numerals

Ship's Bell Time Signals

Signs and Symbols

by RALPH DE SOLA

DUELL, SLOAN AND PEARCE

NEW YORK

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First Revised Edition



Affiliate of
MEREDITH PRESS
Des Moines & New York

Library of Congress Catalogue Card Number: 63-16829

MANUFACTURED IN THE UNITED STATES OF AMERICA FOR MEREDITH PRESS

VAN REES PRESS • NEW YORK

A

- a:** abbreviation; absent; acceleration in feet per second; account; acre; adjective; adult; aerial; afternoon; altitude intercept; amateur; ampere; annealing; anthracite; arc; are (unit of metric land measure); area; argent; at; atmosphere; audit; auditor; automatic; available; aviation; aviator; axis; azure; distance from leading edge to aerodynamic center
- a':** a minute (angle); a prime
- a'':** a second (angle); a double-prime
- a''':** a triple-prime
- a:** angle of attack; *annus* (Latin-year); attenuation constant
- A:** absolute; absolute temperature; academy; acid; acoustic source; actual weight of an aircraft; aircraft; airman; Alaska Steamship Company; Alcoa Steamship Company; Alfa-code for letter A; Ambassador; America; American; Americanization; Americanize; amphibian; Anchor Line; anode; anterior; April; Argon; Army; artillery; aspect ratio; astragal; Atlantic; atomic weight; attack; August; Austria (auto plaque); chemical activity; first van der Waals constant; Fraunhofer line caused by oxygen; linear acceleration; mean sound absorption coefficient; total acidity
- Å:** angstrom unit
- A/1C:** airman first class
- A-2:** intelligence
- A/2C:** airman second class
- A-3:** training and operations
- A/3C:** airman third class
- A-4:** supply and matériel
- A-5:** planning
- A-6:** communications
- A:** *albus* (Latin-white); *Amos*, *Book of*
- aa:** adjectives; armature accelerator
- āā:** equal parts
- a-a:** air-to-air

- AA: absolute altitude; achievement age; Alcoholics Anonymous; American Airlines; Ansett Airways; anti-aircraft
- A.A.: Associate in Arts
- AA: *Astronautica Acta* (journal, International Astronautical Federation)
- aaa: amalgam
- AAA: All American Aviation; Allegheny Airlines; American Academy of Allergy; American Arbitration Association; American Automobile Association; anti-aircraft artillery
- AAAA: American Association for the Advancement of Atheism; American Association of Advertising Agencies; Army Aviation Association of America
- AAAE: American Association of Airport Executives
- AAAS: Anti-aircraft Artillery Information Service
- AAAL: American Academy of Arts and Letters
- AAAS: American Association for the Advancement of Science
- AAC: Aeronautical Advisory Council; Alaskan Air Command; Association of American Colleges
- AACS: Airways and Air Communications Service
- AADA: Advanced Air Depot Area
- AADS: Army Air Defense System
- AAE: American Association of Endodontists; American Association of Engineers
- AAEC: Australian Atomic Energy Commission
- AAF: American Air Filter; Army Air Field; Army and Air Force
- AAFCE: Allied Air Force, Central Europe
- AAFES: Army and Air Force Exchange Service
- AAFMP: Army and Air Force Motion Picture Service
- AAFNE: Allied Air Force, Northern Europe
- AAFSE: Allied Air Force, Southern Europe
- AAFWB: Army and Air Force Wage Board
- AAG: Air Adjutant General; Association of American Geographers
- AAGP: American Academy of General Practice
- AAL: American Airlines
- aam: air-to-air missile; *also* AAM
- AAM: American Association of Museums
- AAML: Arctic Aeromedical Laboratory
- AAMRL: American Association of Medical Record Librarians
- AANR: American Association of Newspaper Representatives
- AAO: American Association of Orthodontists
- AAOC: Anti-aircraft Operations Center

- AAO & O: American Academy of Ophthalmology and Otolaryngology
a.a.O.: *an andern Orten* (German—elsewhere; in the place cited)
 aar: against all risks
 AAR: Aircraft Accident Report; Association of American Railroads
 AAs: author's alterations
 AAS: Aircraft Airworthiness Section; American Antiquarian Society; American Astronomical Society
 AASE: Association for Applied Solar Energy
 AASHO: American Association of State Highway Officials
 AASM: Association of American Steel Manufacturers
 AATC: Army Aviation Test Command
 AAXICO: American Air Export and Import Company
 ab: adapter booster; afterburner; anchor bolt
 a/b: airborne; *also* A/B
 a-b: Aktiebolag (Swedish Company)
 Ab: Alabamine
Ab: abnormal
 AB: able-bodied seaman; Air Base; Arnold Bernstein Line
 A/B: Airman Basic
 ABA: American Bankers Association; American Bar Association; American Booksellers Association; Swedish Airlines
 abandt: abandonment
 abat: abattoir
Abb.: *Abbas* (Latin—Abbot); *Abbildung* (German—cut, diagram, figure, illustration, portrait)
Abbild.—*Abbildungen* (German—illustrations)
 abbrev: abbreviation
 abc: automatic bass control; automatic brightness control
 ABC: American Brass Company; American Broadcasting Company; Aerated Bread Company; Argentina, Brazil, Chile; atomic, biological, and chemical; Audit Bureau of Circulation
 ABC: Aruba, Bonaire, Curaçao (Netherlands Antilles)
 ABCB: American Bottlers of Carbonated Beverages
 abdc: after bottom dead center
 abdom: abdomen
Abdr.—*Abdruck* (German—copy, printing)
 Abe: Abraham
 aber: aberration
ab ex.: *ab extra* (Latin—from outside)
Abh.—*Abhandlungen* (German—transactions, treatises)
ab init.: *ab initio* (Latin—from the beginning)
 ablat: ablative
 ABMA: American Boiler Manufacturers Association; Army Ballistic Missile Agency
 ABMC: American Battle Monuments Commission

- abn: airborne
 ABNCO: American Bank Note Company
 abo: aboriginal; aborigine
 A-bomb: atomic bomb
 abonn.: *abonnement* (French—subscription)
 abonné: (French—subscriber)
 abp: arterial blood pressure
 Abp: Archbishop
 ABP: American Business Publications
 ABPC: American Book Publishers Council
 abr: abridge; abridgment
 abrsv: abrasive
 abs: absolute; air-break switch
 ABS: American Bible Society; American Brake Shoe; American Bureau of Shipping
 ABSD: advanced base sectional dock
 abs.feb.: *absente febre* (in the absence of fever)
 absol: absolute
 abst jdg: abstract of judgment
 abstr: abstract
 abt: about
Abt.—Abteilung (German—part)
 abv: above
 abvolt: absolute volt
 ac: absolute ceiling; aerodynamic center; air cool; anti-corrosive; arithmetic computation (test); auxiliary console; asbestos cement
 a/c: account current; aircraft; also A/C and AC
 a-c: alternating current (when used as an adjective)
 ac: *ante cibos* (before meals)
 Ac: Actinium; altocumulus
 AC: Aden Colony; aerodynamic center; air controlman; alternating current (when used as a noun); Ambulance Corps; Amherst College; anodal contraction or closure; Antioch College; Arcadia College; arithmetic computation test; athletic club
 A/C: Air Commodore; aviation cadet
 A-C: Allis-Chalmers
 AC: *Atlanta Constitution*
 A.C.: *Ante Christum* (Latin—before Christ)
 ACA: Aircraft Castings Association; Alaska Coastal Airlines
 Acad. Med: Academy of Medicine
 Acad Mus: Academy of Music
 Acad Sci: Academy of Science
 ACAN: Army Command and Administrative Network
 Acap: Acapulco
 a capp.: *a cappella* (unaccompanied chorus)
 AC/AS: Assistant Chief of Air Staff
 acb: air circuit breaker; asbestos cement board
 ACC: Air Control Center; Air Coordinating Committee; Allied Control Commission; astronomical great circle course

- ACCCE: Association of Consulting Chemists and Chemical Engineers
 accel: accelerate
accel.: *accelerando* (faster by degrees)
 access: accessory
 acci: accidental injury
 ACCL: American Council of Commercial Laboratories
acco.: *accompagnamento* (accompaniment)
 accom: accommodation
 accomp: accomplish
 acct: account; accountant; accounting
 accum: accumulate
 accus: accusative
 accy: accessory
 acd: accord
 acdt: accident
 ACE: alcohol, chloroform, ether mixture; Allied Command, Europe; American Council of Education; American Hard Rubber Company
 acet: acetone
 acetyl: acetylene
 ACF: American Car & Foundry
 acft: aircraft
 ACFT: Aircraft Flying Training
 achrom: achromatism
 ACI: Air Cargo Incorporated; American Concrete Institute
 ACIC: Aeronautical Chart and Information Center
 acid.: acidosis
 ACJ: American Council for Judaism
 ack: acknowledge; acknowledgment
 ack-ack: antiaircraft (slang)
 acl: allowable cabin load
 ACL: Atlantic Coast Line Railroad
 ACLant: Allied Command, Atlantic
 aclid: air cooled
 acs: automatic carrier landing system
 ACLS: American Council of Learned Societies
 ACLU: American Civil Liberties Union
 acly: accrued leave
 ACM: Association for Computing Machinery; auxiliary mine layer
 ACME: Association of Consulting Management Engineers
 acmp: accompany
 acn: automatic celestial navigation
 ACO: anodal closing odor
 acog: aircraft on ground
 acous: acoustics
 ACP: American College of Physicians
 ACPA: Asbestos-Cement Products Association
 acpt: accept
 acq: acquire; acquittal
 acr: anti-constipation regimen
 acrd: accrued
 acre ft: acre foot
 ACRL: Association of College and Research Libraries

- acs: alternating current synchronous
- ACS: Alaskan Communication System; American Ceramic Society; American Chemical Society; American College of Surgeons; anodal closing sound
- AC/S: Assistant Chief of Staff
- ACSC: Air Command and Staff College
- ACSF: attack carrier striking force
- act.: acting; active; actor; actress; actuate
- ACT: Air Control Team
- ACTA: Aircoach Transport Association
- actnt: accountant
- ACTOR: Askania cine-theodolite optical-tracking range
- Acts: Acts of the Apostles*
- acv: air-cushion vehicle (ACV)
- actv: activate
- ACV: auxiliary aircraft carrier or tender
- ACW: Amalgamated Clothing Workers
- AC & Y: Akron, Canton & Youngstown Railroad
- ad: area drain
- AD: active duty; Aden Airways; air distance; Astia Document; average deviation; destroyer tender
- A/D: Air Depot
- A.D.: Anno Domini (Latin—In the Year of Our Lord); auris dextra (Latin—right ear)*
- ADA: air defense area; American Dental Association; American Dietetic Association; Atomic Development Authority
- adam: area defense anti-missile missile (ADAMM)
- adandac: administrative and accounting purposes
- adc: adopted child
- ADC: aide-de-camp; Air Defense Command; Air Development Center
- ADCC: Air Defense Control Center
- add.: addendum (addition)*
- ad fin.: ad finem (to the end)*
- ADG: degaussing vessel
- adh: adhesive
- adhib.: adhibetur (administer)*
- ad inf.: ad infinitum (to infinity)*
- ad init.: ad initium (to the beginning)*
- ad int.: ad interim (meanwhile)*
- ADIS: air defense integrated system
- ADiv: Air Division
- ADIZ: air defense identification zone
- adj: adjective; adjoint; adjust
- Adj: Adjutant
- Adj Gen: Adjutant General
- adl: armament datum line
- ADL: Anti-Defamation League; Arthur D. Little, Inc.
- ad lib.: ad libitum (at one's pleasure)*
- ad loc.: ad locum (to, or at, the place)*
- Adm: Admiral

- ADMA: Aircraft Distributors and Manufacturers Association
 admin: administration; administrative; administrator
 AdminInstr: administrative instructions
 AdminO: administrative order (s)
admov.: *admoveatur* (apply)
 admx: administratrix
ado.: *adagio* (very slow and expressive)
 adpt: adapter
 adr: address
 Adr: Adriatic
 adren: adrenal; adrenalin
 adrm: airdrome
 ads: advertisements; air defense sector (ADS); area, date, subject (ADS); automatic door seal
 AdSec: Advanced Section
 adt: average daily traffic
 ADT: American District Telegraph
 ADTIC: Arctic, Desert, Tropic Information Center
 adult.: adulteration
 adv: advance; adverb
adv.: *adversum* (against)
 Adv: Adventist
 ADVON: Advanced Echelon
 advst: advance stoppage
 advt: advertise; advertisement; advertiser; advertising
 ADW: air defense warning
 ADWKP: air defense warning key point
 ae: aircraft equipment; air escape
 AE: Air Explorer; ammunition ship (symbol); Automatic Electric
 A.E.: Agricultural Engineer; Architectural Engineer
 A & E: Agricultural and Engineering; Architectural and Engineering
A & E: Adolphus and Ellis
 AEA: American Economic Association; American Education Association; American Enterprise Association; American Export Airlines
 AEC: Aeronautical Research Council; Aircraft Radio Corporation; Airworthiness Requirements Committee; American Red Cross; Ames Research Center; Army Electronics Command (formerly Signal Corps)
 AEDC: Arnold Engineering Development Center
 AEDD: Air Engineering Development Division
 Ae. E.: Aeronautical Engineer
 AEEC: Airlines Electronic Engineering Committee
 AEEL: Aeronautical Electronic and Electrical Laboratory
 AEF: American Expeditionary Force
 Aeg: Aegean
 AEG: Allgemeine Elektrizitäts-Gesellschaft
 AEI: Air Express International
 AEL: Aeronautical Engine Laboratory

- Aeol:** Aeolic
AEP: American Electric Power
aera: aeration
AERNO: Aeronautical Equipment Reference Number
aero: aerographer; aeronautical; aeronautics
aerodyn: aerodynamics
AEROFLOT: Soviet Air Lines
AERONAVES: Aeronaves de Mexico
AERONORTE: Empresa de Transportes Aereos Norte do Brasil
AERO O/Y: Finnair
AEROVIAS "Q": Cuban Airline
AES: Aircraft Electrical Society; American Electrochemical Society; American Electroplaters Society; American Eugenics Society
AESC: American Engineering Standards Committee
aet.: *aetatis* (Latin—at or of the age of)
AEW: airborne early warning
AEWRON: Airborne Early Warning Squadron
af: anti-foam; audio frequency; *also* AF
AF: Africa; African; Air Force; Air France; air freight; Anglo-French; armored force; Aviation Photographer's Mate; provision stores ship
AFA: Air Force Association; American Foundrymen's Association
AFAC: Air Force Armament Center
AFAPO: Air Force Property Accountable Officer
AFAS: Air Force Aid Society
afb: antifriction bearing
AFB: Air Force Base
AFBMA: Antifriction Bearing Manufacturers Association
afc: automatic frequency control
AFCEA: Armed Forces Communications and Electronics Association
AFCent: Allied Forces, Central Europe
AFCO: Air Force Contracting Officer
AFCRC: Air Force Cambridge Research Center
AFCRL: Air Force Cambridge Research Laboratories
AFD: Air Force Depot; mobile floating drydock
AFHF: Air Force Historical Foundation
AFF: Army Field Forces
AFFA: Air Freight Forwarders Association
AFFC: Air Force Finance Center
affeto.: *affetuoso* (tenderly, with pathos)
affores: afforestation
affreto.: *affretando* (speeding the tempo)
afft: affidavit
AFFTC: Air Force Flight Test Center
Afghan: Afghanistan

- AFIED:** Armed Forces Information and Education Division
- AFIP:** Air Force Information Program; Armed Forces Institute of Pathology
- afirm:** affirmative
- AFIS:** Armed Forces Information School
- AFL:** Air Force Letter
- AF of L:** American Federation of Labor
- AFLC:** Air Force Logistics Command
- AFL-CIO:** American Federation of Labor and Congress of Industrial Organizations
- afld:** airfield
- afm:** antifriction metal
- AFM:** Air Force Manual; American Federation of Musicians
- AFMed:** Allied Forces, Mediterranean
- AFML:** Armed Forces Medical Library
- AFMTC:** Air Force Missile Test Center
- AFNA:** Air Force with Navy
- AFNC:** Air Force Nurse Corps
- AFNorth:** Allied Forces, Northern Europe
- a fort.:** *a fortiori* (with greater force)
- AFOSR:** Air Force Office of Scientific Research
- AFP:** Air Force Pamphlet
- AFPC:** Air Force Procurement Circular; Armed Forces Policy Council
- AFPI:** Air Force Procurement Instructions
- AFPP:** Air Force Procurement Procedures
- AFPR:** Air Force Plant Representative
- AFPS:** Armed Forces Press Service
- AFPTRC:** Air Force Personnel and Training Research Center
- AFPU:** Air Force Postal Unit
- AFQC:** Air Force Quality Control
- AFQT:** Armed Forces Qualification Test
- afr:** airframe
- Afr:** Afrikaans (South African Dutch)
- AFR:** Air Force Regulation
- AFRC:** Air Force Records Center
- AFRes:** Air Force Reserve
- AFROTC:** Air Force Reserve Officers Training Corps
- AFS:** Air Force Specialty; Air Force Supply
- AFSA:** Armed Forces Security Agency
- AFSC:** Air Force Specialty Code; Air Force Systems Command; Air Force Supply Catalog
- AFSN:** Air Force Stock Number
- AFSS:** Air Force Service Statement
- AFSWC:** Air Force Special Weapons Center
- AFSWP:** Armed Forces Special Weapons Project
- aft.:** after; at, near, or toward the rear; afternoon

- AFT: Air Freight Terminal
 AFTAC: Air Force Technical Applications Center
 AFTB: Air Force Test Base
 AFTR: *American Federal Tax Reports*
 AFTRA: American Federation of Television and Radio Artists
 AFTRC: Air Force Training Command
 AFTTH: Air Force Technical Headquarters
 AFVA: Air Force Visual Aid
 ag: armor grating
 a-g: air-to-ground; anti-gas
 Ag: Agaña; *argentum* (silver)
 AG: Aktiengesellschaft (German company); Attorney General; miscellaneous auxiliaries
 AGA: American Gas Association; American Gastroenterological Association
 agacs: automatic ground-air communication system
 AGARD: Advisory Group for Aeronautical Research and Development (NATO)
 agb: any good brand
 AGCA: Associated General Contractors of America
 AGCT: Army General Classification Test
 AGB: icebreaker
 agc: automatic gain control
 AGC: amphibious vessel; combined operations communications headquarters ship
 agca: automatic ground control approach
 AGD: Adjutant General's Department
 Ag. Dei: *Agnus Dei* (Latin—Lamb of God)
 AGDS: American Gage Design Standard
 age.: aerospace ground equipment; AGE (program)
 AGEP: Advisory Group on Electronic Parts
 AG & ES: American Gas & Electric System
 AGFA: Aktiengesellschaft für Anilinfabrikation
 AGI: American Geological Institute
 agit.: *agitatum* (shaken)
 agit-prop: agitation and propaganda
 AGL: lighthouse tender
 agm: air-to-ground missile
 AGMA: American Gear Manufacturers Association
 agnos: agnostic; agnosticism
 AGO: American Guild of Organists
 AGP: motor torpedo boat tender
 appe: angle plate
 agpi: automatic ground position indicator
 AGREE: Advisory Group on Reliability of Electronic Equipment
 agric: agricultural; agriculture
 agron: agronomy
 Ags: Aguascalientes