

## 9. ABBREVIATIONS AND LETTER SYMBOLS

**9.1.** Abbreviations and letter symbols are used to save space and to avoid distracting the reader by use of repetitious words or phrases.

**9.2.** The nature of the publication governs the extent to which abbreviations are used. In text of technical and legal publications, and in parentheses, brackets, footnotes, sidenotes, tables, leaderwork, and bibliographies, many words are frequently abbreviated. Heads, legends, tables of contents, and indexes follow the style of the text.

**9.3.** Internal and terminal punctuation in symbols representing units of measure are to be omitted to conform with practice adopted by scientific, technical, and industrial groups. Where omission of terminal punctuation causes confusion; e.g., the symbol *in* (inch) mistaken for the preposition *in*, the symbol should be spelled out.

**9.4.** Standard and easily understood forms are preferable, and they should be uniform throughout a job. Abbreviations not generally known should be followed in the text by the spelled-out forms in parentheses the first time they occur; in tables and leaderwork such explanatory matter should be supplied in a footnote. As the printer cannot rewrite the copy, the author should supply these explanatory forms.

**9.5.** In technical matter, symbols for units of measure should be used only with figures; similarly, many other abbreviations and symbols should not appear in isolation. For example, energy is measured in foot-pounds, *not* energy is measured in ft•lbs.

### Capitals, hyphens, periods (points), and spacing

**9.6.** In general, an abbreviation follows the capitalization and hyphenation of the word or words abbreviated. It is followed by a period unless otherwise indicated.

c.o.d.

St.

*but* ft•lb

**9.7.** Abbreviations and initials of a personal name with points are set without spaces. Abbreviations composed of contractions and initials or numbers, will retain space.

H.S.T.

B.S., LL.D., Ph.D., B.Sc.

J.F.K.

H.R. 116 (*but* S. 116, S. Con.

L.B.J.

Res. 116)

U.S.

C.A.D.C. (*but* App. D.C.)

U.N.

A.B. Secrest, D.D.S.

U.S.C. (*but* Rev. Stat.)

A.F. of L.-CIO (AFL-CIO preferred)	<i>but</i>
A.D., B.C.	AT&T
e.s.t.	Texas A&M
i.e., e.g. ( <i>but</i> op. cit.)	R&D

**9.8.** Except as otherwise designated, points and spaces are omitted after initials used as shortened names of governmental agencies and of other organized bodies. "Other organized bodies" shall be interpreted to mean organized bodies that have become popularly identified with a symbol, such as MIT (Massachusetts Institute of Technology), GM (General Motors), GMAC (General Motors Acceptance Corp.), etc. (See "List of Abbreviations.") Symbols, when they appear in copy, may be used for acts of Congress. Example: ARA (Area Redevelopment Act).

VFW	TVA	ARC
NLRB	AFL-CIO	ASTM

### Geographic terms

**9.9.** *United States* must be spelled out when appearing in a sentence containing the name of another country. The abbreviation *U.S.* will be used when preceding the word *Government* or the name of a Government organization, except in formal writing (treaties, Executive orders, proclamations, etc.); congressional bills; legal citations and courtwork; and covers and title pages.

U.S. Government	
U.S. Congress	
U.S. Department of Health and Human Services	
U.S. district court	
U.S. Supreme Court ( <i>but</i> Supreme Court of the United States)	
U.S. Army ( <i>but</i> Army of the United States)	
U.S. monitor <i>Nantucket</i>	
U.S.-NATO assistance	
U.S. Government efforts to control inflation must be successful if the United States is to have a stable economy.	
<i>but</i> British, French, and United States Governments; United States-British talks	

**9.10.** With the exceptions in the preceding rule, the abbreviation *U.S.* is used in the adjective position, but is spelled out when used as a noun.

U.S. foreign policy	United States Steel Corp. (legal title)
U.S. farm-support program	Foreign policy of the United States
U.S. attorney	
U.S. citizen	
United States Code (official title)	<i>not</i> Temperatures vary in the U.S.

**9.11.** The names of foreign countries are not abbreviated, with the exception of the former U.S.S.R., which is abbreviated due to its length.

**9.12.** In other than formal usage as defined in rule 9.9, all States of the United States, the Canal Zone, Puerto Rico, and the Virgin Islands are abbreviated immediately following any capitalized geographic term, including armory, arsenal, airbase, airport, barracks,

depot, fort, Indian agency, military camp, national cemetery (also forest, historic site, memorial, seashore, monument, park), naval shipyard, proving ground, reservation (forest, Indian, or military), and reserve or station (military or naval).

Prince George's County, MD	Arlington National Cemetery, VA
Mount Rainier National Forest, WA	Aberdeen Proving Ground, MD
Stone Mountain, GA	Baltimore-Washington
National Naval Medical Center, Bethesda, MD	International Airport, MD
Mark Twain National Wildlife Refuge, IL-IA-MO (note use of hyphens here)	Redstone Arsenal, AL
Richmond, VA	<i>but</i> Leavenworth freight yards, Kansas Altoona sidetrack, Wisconsin

**9.13.** The Postal Service style of two-letter State, Province, and Freely Associated State abbreviations is to be used.

**UNITED STATES (INCLUDING FREELY ASSOCIATED STATES)**

AL	Alabama	IN	Indiana	ND	North Dakota
AK	Alaska	IA	Iowa	OH	Ohio
AZ	Arizona	KS	Kansas	OK	Oklahoma
AR	Arkansas	KY	Kentucky	OR	Oregon
AS	American Samoa	LA	Louisiana	PA	Pennsylvania
CA	California	ME	Maine	PR	Puerto Rico
CO	Colorado	MD	Maryland	RI	Rhode Island
CT	Connecticut	MA	Massachusetts	SC	South Carolina
CZ	Canal Zone	MI	Michigan	SD	South Dakota
DE	Delaware	MN	Minnesota	TN	Tennessee
DC	District of Columbia	MS	Mississippi	TX	Texas
FL	Florida	MO	Missouri	UT	Utah
FM	Federated States of Micronesia	MT	Montana	VT	Vermont
GA	Georgia	NE	Nebraska	VA	Virginia
GU	Guam	NV	Nevada	VI	Virgin Islands
HI	Hawaii	NH	New Hampshire	WA	Washington
ID	Idaho	NJ	New Jersey	WV	West Virginia
IL	Illinois	NM	New Mexico	WI	Wisconsin
		NY	New York	WY	Wyoming
		NC	North Carolina		

**CANADA**

AB	Alberta	NF	Newfoundland	PE	Prince Edward Island
BC	British Columbia	NT	Northwest Territories	PQ	Quebec
LB	Labrador			SK	Saskatchewan
MB	Manitoba	NS	Nova Scotia	YT	Yukon Territory
NB	New Brunswick	ON	Ontario		

**9.14.** The names of other insular possessions, trust territories, and *Long Island*, *Staten Island*, etc., are not abbreviated.

**9.15.** The names of Canadian Provinces and other foreign political subdivisions are not abbreviated except as noted in rule 9.13.

**Addresses**

**9.16.** Words such as *Street*, *Avenue*, *Place*, *Road*, *Square*, *Boulevard*, *Terrace*, *Drive*, *Court*, and *Building*, following a name or number, are abbreviated in footnotes, sidenotes, tables, leaderwork, and lists.

**9.17.** In addresses, a single period is used with the abbreviations *NW.*, *SW.*, *NE.*, *SE.* (indicating sectional divisions of cities) follow-

ing name or number. *North*, *South*, *East*, and *West* are spelled out at all times.

**9.18.** The word *Street* or *Avenue* as part of a name is not abbreviated even in parentheses, footnotes, sidenotes, tables, lists, and leaderwork.

14th Street Bridge

Ninth Avenue Bldg.

**9.19.** The words *County*, *Fort*, *Mount*, *Point*, and *Port* are not abbreviated. *Saint* (*St.*) and *Sainte* (*Ste.*) should be abbreviated.

### Descriptions of tracts of land

**9.20.** If fractions are spelled out in land descriptions, *half* and *quarter* are used (not *one-half* nor *one-quarter*).

south half of T. 47 N., R. 64 E.

**9.21.** In the description of tracts of public land the following abbreviations are used (periods are omitted after abbreviated compass directions that immediately precede and close up on figures):

SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4, T. 12 S., R. 15 E., of the Boise Meridian

lot 6, NE $\frac{1}{4}$  sec. 4, T. 6 N., R. 1 W.

N $\frac{1}{2}$  sec. 20, T. 7 N., R. 2 W., sixth principal meridian

Tps. 9, 10, 11, and 12 S., Rs. 12 and 13 W.

T. 2 S., Rs. 8, 9, and 10 E., sec. 26

T. 3 S., R. 1 E., sec. 34, W $\frac{1}{2}$ E $\frac{1}{2}$ , W $\frac{1}{2}$ , and W $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$

sec. 32 (with or without a township number)

**9.22.** In case of an unavoidable break in a land-description symbol group at end of a line, use no hyphen and break after fraction.

### Names and titles

**9.23.** The following forms are not always abbreviations, and copy should be followed as to periods:

Al  
Alex

Ben  
Ed

Fred  
Sam

Walt  
Will

**9.24.** In signatures, an effort should be made to retain the exact form used by the signer.

George Wythe

Geo. Taylor

**9.25.** In company and other formal names, if it is not necessary to preserve the full legal title, such forms as *Bro.*, *Bros.*, *Co.*, *Corp.*, *Inc.*, *Ltd.*, and *&* are used. *Association* and *Manufacturing* are not abbreviated.

Radio Corp. of America  
Aluminum Co. of America  
Standard Oil Co. of New Jersey  
Ronald G. Brown & Bro.  
Jones Bros. & Co.  
American Telephone & Telegraph  
Co.  
Norton Enterprises, Inc.  
Maryland Steamship Co., Ltd.  
Chesapeake & Delaware Canal  
Fairmount Building & Loan  
Association  
Electronics Manufacturing Co.

Texas College of Arts & Industries  
National Barrel & Drum  
Association  
Robert Wilson & Associates, Inc.  
U.S. News & World Report  
Baltimore & Ohio Railroad  
Mine, Mill & Smelter Workers  
*but*  
Little Theater Company  
Senate Banking, Housing and  
Urban Affairs Committee

**9.26.** *Company* and *Corporation* are not abbreviated in names of Federal Government units.

Commodity Credit Corporation  
Federal Savings and Loan Insurance Corporation  
Pension Benefit Guaranty Corporation

**9.27.** In parentheses, footnotes, sidenotes, tables, and leaderwork, abbreviate the words *railroad* and *railway* (*RR.* and *Ry.*), except in such names as "Washington Railway & Electric Co." and "Florida Railroad & Navigation Corp." *SS* for *steamship*, *MS* for *motorship*, etc., preceding name are used at all times.

**9.28.** In the names of informal companionships the word *and* is spelled out.

Gilbert and Sullivan Currier and Ives

**9.29.** In other than formal usage, a civil, military, or naval title preceding a name is abbreviated if followed by first or given name or initial; but *Mr.*, *Mrs.*, *Miss*, *Ms.*, *M.*, *MM.*, *Messrs.*, *Mlle.*, *Mme.*, and *Dr.* are abbreviated with or without first or given name or initial.

## ARMY, AIR FORCE, AND MARINE CORPS OFFICERS

GEN	General	CPT	Captain
LTG	Lieutenant General	1LT	First Lieutenant
MG	Major General	2LT	Second Lieutenant
BG	Brigadier General	MWO	Master Warrant Officer
COL	Colonel	CWO	Chief Warrant Officer
LTC	Lieutenant Colonel	WO	Warrant Officer
MAJ	Major		

## NAVY OFFICERS

ADM	Admiral	LCDR	Lieutenant Commander
VADM	Vice Admiral	LT	Lieutenant
RADM	Rear Admiral	LTJG	Lieutenant Junior Grade
COMO	Commodore	ENS	Ensign
CAPT	Captain	WO	Warrant Officer
CDR	Commander		

## ARMY ENLISTED PERSONNEL

SMA	Sergeant Major of the Army	1SG	First Sergeant
CSM	Command Sergeant Major	MSG	Master Sergeant
SGM	Sergeant Major	PSG	Platoon Sergeant
SFC	Sergeant First Class	PFC	Private First Class
SSG	Staff Sergeant	PVT	Private
SGT	Sergeant	SP4	Specialist Fourth Class
CPL	Corporal		

## MARINE CORPS ENLISTED PERSONNEL

MGySgt	Master Gunnery Sergeant	Sgt	Sergeant
1stSgt	First Sergeant	Cpl	Corporal
MSgt	Master Sergeant	LCpl	Lance Corporal
GySgt	Gunnery Sergeant	PFC	Private First Class
SSgt	Staff Sergeant	PVT	Private

## AIR FORCE ENLISTED PERSONNEL

CMSgt	Chief Master Sergeant	Sgt	Sergeant
SMSgt	Senior Master Sergeant	SrA	Senior Airman
MSgt	Master Sergeant	A1C	Airman First Class
TSgt	Technical Sergeant	Amn	Airman
SSgt	Staff Sergeant		

**9.30.** Spell out *Senator*, *Representative*, and *commandant*.

**9.31.** Unless preceded by *the*, abbreviate *Honorable*, *Reverend*, and *Monsignor* when followed by the first name, initials, or title.

Hon. Elihu Root; the Honorable Elihu Root; the Honorable Mr. Root  
the Honorable William H. Rehnquist, John Paul Stevens, and Sandra  
Day O'Connor

Rev. Martin Luther King, Jr.; the Reverend Dr. King; Rev. Dr. King;  
Reverend King (*not* Rev. King, *nor* the Reverend King)

Rt. Rev. James E. Freeman; the Right Reverend James E. Freeman;  
Very Rev. Henry Boyd; the Very Reverend Henry Boyd

Rt. Rev. Msgr. John Bird; the Right Reverend Monsignor John Bird

**9.32.** The following and similar forms are used after a name:

Esq., Jr., Sr.

2d, 3d (*or* II, III) (*not* preceded by comma)

Degrees: LL.D., M.A., Ph.D., etc.

Fellowships, orders, etc.: FSA Scot, F.R.S., K.C.B., C.P.A., etc.

**9.33.** The abbreviation *Esq.* and other titles such as *Mr.*, *Mrs.*, and *Dr.*, should not appear with any other title or with abbreviations indicating scholastic degrees.

John L. Smith, Esq., *not* Mr. John L. Smith, Esq., *nor* John L. Smith,  
Esq., A.M.; *but* James A. Jones, Jr., Esq.

Ford Maddox, A.B., Ph.D., *not* Mr. Ford Maddox, A.B., Ph.D.

George Gray, M.D., *not* Mr. George Gray, M.D., *nor* Dr. George Gray,  
M.D.

Dwight A. Bellinger, D.V.M.

**9.34.** *Sr.* and *Jr.* should not be used without first or given name or initials, but may be used in combination with any title.

A.K. Jones, Jr., or Mr. Jones, Junior, *not* Jones, Jr., *nor* Jones, Junior  
President J.B. Nelson, Jr.

**9.35.** When name is followed by abbreviations designating religious and fraternal orders and scholastic and honorary degrees, their sequence is as follows: Orders, religious first; theological degrees; academic degrees earned in course; and honorary degrees in order of bestowal.

Henry L. Brown, D.D., A.M., D.Lit.

T.E. Holt, C.S.C., S.T.Lr., LL.D., Ph.D.

Samuel J. Deckelbaum, P.M.

**9.36.** Academic degrees standing alone may be abbreviated.

John was graduated with a B.A. degree; *but* bachelor of arts degree  
(lowercase when spelled out).

She earned her Ph.D. by hard work.

**9.37.** In addresses, signatures, lists of names, and leaderwork but not in tables nor in centerheads, *Mr.*, *Mrs.*, and other titles

preceding a name, and *Esq.*, *Jr.*, *Sr.*, *2d*, and *3d* following a name, are set in roman caps and lowercase if the name is in caps and small caps. If the name is in caps, they are set in caps and small caps, if small caps are available—otherwise in caps and lowercase.

### Parts of publications

**9.38.** The following abbreviations are used for parts of publications mentioned in parentheses, brackets, footnotes, sidenotes, list of references, tables, and leaderwork, when followed by figures, letters, or Roman numerals.

app., apps. (appendix, appendixes)	pt., pts. (part, parts)
art., arts. (article, articles)	sec., secs. (section, sections)
bull., bulls. (bulletin, bulletins)	subch., subchs. (subchapter, subchapters)
ch., chs. (chapter, chapters)	subpar., subpars. (subparagraph, subparagraphs)
col., cols. (column, columns)	subpt., subpts. (subpart, subparts)
ed., eds. (edition, editions)	subsec., subsecs. (subsection, subsections)
fig., figs. (figure, figures)	supp., suppss. (supplement, supplements)
No., Nos. (number, numbers)	vol., vols. (volume, volumes)
p., pp. (page, pages)	
par., pars. (paragraph, paragraphs)	
pl., pls. (plate, plates)	

**9.39.** The word *article* and the word *section* are abbreviated when appearing at the beginning of a paragraph and set in caps and small caps followed by a period and an en space, except that the first of a series is spelled out.

ART. 2; SEC. 2; etc.; but ARTICLE 1; SECTION 1

ART. II; SEC. II; etc.; but ARTICLE I; SECTION I

**9.40.** At the beginning of a legend, the word *figure* preceding the legend number is not abbreviated.

FIGURE 4.—Landscape.

### Terms relating to Congress

**9.41.** The words *Congress* and *session*, when accompanied by a numerical reference, are abbreviated in parentheses, brackets, and text footnotes. In sidenotes, lists of references, tables, leaderwork, and footnotes to tables and leaderwork, the following abbreviations are used:

106th Cong., 1st sess.  
1st sess., 106th Cong.

Public Law 84, 102d Cong.  
Private Law 68, 102d Cong.

**9.42.** In references to bills, resolutions, documents and reports in parentheses, brackets, footnotes, sidenotes, tables, and leaderwork, the following abbreviations are used:

H.R. 416 (House bill)  
S. 116 (Senate bill)  
The examples above may be  
abbreviated or spelled out in  
text.  
H. Res. 5 (House resolution)  
H. Con. Res. 10 (House concurrent  
resolution)

H.J. Res. 21 (House joint  
resolution)  
S. Res. 50 (Senate resolution)  
S. Con. Res. 17 (Senate concurrent  
resolution)  
S.J. Res. 45 (Senate joint  
resolution)

H. Conf. Rept. 10 (House conference report)	Ex. Doc. B (Executive document)
H. Doc. 35 (House document)	Ex. F (92d Cong., 2d sess.)
S. Doc. 62 (Senate document)	Ex. Rept. 9 (92d Cong., 1st sess.)
H. Rept. 214 (House report)	Misc. Doc. 16 (miscellaneous document)
S. Rept. 410 (Senate report)	Public Res. 47

**9.43.** References to statutes in parentheses, footnotes, sidenotes, tables, leaderwork, and congressional work are abbreviated.

Rev. Stat. (Revised Statutes); 43 Rev. Stat. 801; 18 U.S.C. 38

Supp. Rev. Stat. (Supplement to the Revised Statutes)

Stat. L. (Statutes at Large)

but Public Law 85-1; Private Law 68

### Calendar divisions

**9.44.** Names of months followed by the day, or day and year, are abbreviated in footnotes, tables, leaderwork, sidenotes, and in bibliographies. (See examples, rule 9.45.) *May*, *June*, and *July* are always spelled out. In narrow columns in tables, however, the names of months may be abbreviated even if standing alone. Preferred forms follow:

Jan.	Apr.	Oct.
Feb.	Aug.	Nov.
Mar.	Sept.	Dec.

**9.45.** In text only, dates as part of a citation or reference within parentheses or brackets are also abbreviated.

(Op. Atty. Gen., Dec. 4, 1985)

(Congressional Record, Sept. 25, 1981)

[From the New York Times, Mar. 4, 1978]

[From the Mar. 4 issue]

On Jan. 25 (we had commenced on Dec. 26, 1977) the work was finished. (In footnotes, tables, leaderwork, and sidenotes)

On January 25, a decision was reached (Op. Atty. Gen., Dec. 4, 1975). (Text, but with citation in parentheses)

but On January 25 (we had commenced on December 26, 1967) the work was finished. (Not a citation or reference in text)

**9.46.** Weekdays are not abbreviated, but the following forms are used, if necessary, in lists or in narrow columns in tables:

Sun.	Wed.	Fri.
Mon.	Thurs.	Sat.
Tues.		

### Time zones

**9.47.** The following forms are to be used when abbreviating names of time zones:

A.s.t., Atlantic standard time	G.c.t., Greenwich civil time
A.t., Atlantic time	G.m.a.t., Greenwich mean astronomical time
c.s.t., central standard time	G.m.t., Greenwich mean time
c.t., central time	I.s.t., local standard time
d.s.t., daylight saving (no "s") time	m.s.t., mountain standard time
e.d.s.t., eastern daylight saving time	m.t., mountain time
e.d.t., eastern daylight time	P.s.t., Pacific standard time
e.s.t., eastern standard time	P.t., Pacific time
e.t., eastern time	UTC, universal time coordinated

## Acronyms, coined words, and symbols

**9.48.** To obtain uniform treatment in the formation of acronyms, coined words, and symbols, apply the formulas that follow:

Use all capital letters when only the first letter of each word or selected words is used to make up the symbol:

APPR (Army package power reactor)  
 EPCOT (Experimental Prototype Community of Tomorrow)  
 MAG (Military Advisory Group)  
 MIRV (multiple independently targetable reentry vehicle)  
 SALT (strategic arms limitation talks); (*avoid SALT talks*)  
 STEP (supplemental training and employment program)

Use all capital letters where first letters of prefixes and/or suffixes are utilized as part of established expressions:

CPR (cardiopulmonary resuscitation)  
 ESP (extrasensory perception)  
 FLIR (forward-looking infrared)

Copy must be followed where an acronym or abbreviated form is copyrighted or established by law:

ACTION (agency of Government; not an acronym)  
 MarAd (*Maritime Administration*)  
 NACo (National Association of *Counties*)  
 MEDLARS (*Medical Literature Analysis and Retrieval System*)

Use caps and lowercase when proper names are used in shortened form, any word of which uses more than the first letter of each word:

Conrail (Consolidated Rail Corporation)  
 Pepco (Potomac Electric Power Co.)  
 Inco (International Nickel Co.)  
 Aramco (Arabian-American Oil Co.)  
 Unprofor (United Nations Protection Force)

Use lowercase in common-noun combinations made up of more than the first letter of lowercased words:

loran (*long-range navigation*)  
 sonar (*sound navigation ranging*)  
 secant (*separation control of aircraft by nonsynchronous techniques*)

**9.49.** The words *infra* and *supra* are not abbreviated.

## Terms of measure

**9.50.** Compass directions are abbreviated as follows:

N.	S.	ESE.
NE.	NNW.	10° N. 25° W.
E.	W.	NW. by N. ¼ W.
SW.		

**9.51.** The words *latitude* and *longitude*, followed by figures, are abbreviated in parentheses, brackets, footnotes, sidenotes, tables, and leaderwork, and the figures are always closed up.

lat. 52°33'05" N.

long. 13°21'10" E.

**9.52.** Avoid breaking latitude and longitude figures at end of line; space out line instead. In case of an unavoidable break at end of line, use hyphen.

**9.53.** Temperature and gravity are expressed in figures. When the degree mark is used, it must appear closed up to the capital

letter, not against the figures. Note the following related abbreviations and letter symbols and their usages:

abs, absolute	API, American Petroleum
Bé, Baumé	Institute
°C, <sup>1</sup> degree Celsius <sup>2</sup>	Twad, Twaddell
°F, degree Fahrenheit	100 °C
°R, degree Rankine	212 °F <sup>1</sup>
K, kelvin	671.67 °R
273.15 K	18 °API
°API	

**9.54.** References to meridian in statements of time are abbreviated as follows:

10 a.m. (not 10:00 a.m.)	12 a.m. (formerly 12 m.) (noon)
2:30 p.m.	12 p.m. (midnight)

**9.55.** The word *o'clock* is not used with abbreviations of time.

*not* 10 o'clock p.m.

**9.56.** Metric unit letter symbols are set lowercase roman unless the unit name has been derived from a proper name, in which case the first letter of the symbol is capitalized (for example Pa for pascal and W for watt). The exception is the letter L for liter. The same form is used for singular and plural. The preferred symbol for *cubic centimeter* is  $cm^3$ ; use  $cc$  only when requested.

A space is used between a figure and a unit symbol except in the case of the symbols for degree, minute, and second of plane angle.

3 m      45 mm      25 °C      *but* 33°15'21"

Prefixes for multiples and submultiples				Metric units	
E	exa ( $10^{18}$ )	d	deci ( $10^{-1}$ )	m	meter (for length)
P	peta ( $10^{15}$ )	c	centi ( $10^{-2}$ )	g	gram (for weight or mass)
T	tera ( $10^{12}$ )	m	milli ( $10^{-3}$ )	L	liter (for capacity)
G	giga ( $10^9$ )	$\mu$	micro ( $10^{-6}$ )		
M	mega ( $10^6$ )	n	nano ( $10^{-9}$ )		
k	kilo ( $10^3$ )	p	pico ( $10^{-12}$ )		
h	hecto ( $10^2$ )	f	femto ( $10^{-15}$ )		
da	deka ( $10$ )	a	atto ( $10^{-18}$ )		

  

Length		Area		Volume	
km	kilometer	$km^2$	square kilometer	$km^3$	cubic kilometer
hm	hectometer	$hm^2$	square hectometer	$hm^3$	cubic hectometer
dam	dekameter	$dam^2$	square dekameter	$dam^3$	cubic dekameter
m	meter	$m^2$	square meter	$m^3$	cubic meter
dm	decimeter	$dm^2$	square decimeter	$dm^3$	cubic decimeter
cm	centimeter	$cm^2$	square centimeter	$cm^3$	cubic centimeter
mm	millimeter	$mm^2$	square millimeter	$mm^3$	cubic millimeter

<sup>1</sup> Without figures preceding it, °C or °F should be used only in boxheads and over figure columns in tables.

<sup>2</sup> Preferred form (superseding Centigrade) approved by Ninth General Conference on Weights and Measures, October 1948.

<i>Weight</i>		<i>Land area</i>		<i>Capacity of containers</i>	
kg	kilogram	ha	hectare	kL	kiloliter
hg	hectogram	a	acre	hL	hectoliter
dag	dekagram			daL	dekaliter
g	gram			L	liter
dg	decigram			dL	deciliter
cg	centigram			cL	centiliter
mg	milligram			mL	milliliter
μg	microgram				

**9.57.** A similar form of abbreviation applies to any unit of the metric system.

A	ampere	V	volt	mF	millifarad
VA	voltampere	W	watt	mH	millihenry
F	fared	kc	kilocycle	μF	microfarad (one-millionth of a farad)
H	Henry	kV	kilovolt		
Hz	Hertz	kVA	kilovoltampere		
J	joule	kW	kilowatt		

**9.58.** The following forms are used when units of English weight and measure and units of time are abbreviated, the same form of abbreviation being used for both singular and plural:

		<i>Length</i>		<i>Area and volume</i>	
	in	inch		in <sup>2</sup>	square inch
	ft	foot		in <sup>3</sup>	cubic inch
	yd	yard		mi <sup>2</sup>	square mile
	mi	mile (statute)		ft <sup>3</sup>	cubic foot

  

		<i>Weight</i>		<i>Capacity</i>	
yr	year	gr	grain	gill	(not abbreviated)
mo	month	dr	dram	pt	pint
d	day	oz	ounce	qt	quart
h	hour	lb	pound	gal	gallon
min	minute	cwt	hundredweight	pk	peck
s	second	dwt	pennyweight	bu	bushel
		ton(s)	(not abbreviated)	bbl	barrel
		but t	metric ton (tonne)		

**9.59.** In astrophysical and similar scientific matter, magnitudes and units of time may be expressed as follows, if so written in copy.

5<sup>h</sup>3<sup>m</sup>9<sup>s</sup>4.5<sup>h</sup>

## Money

**9.60.** The following are some of the abbreviations and symbols used for indicating money:

\$, dol (dollar)	Mex\$2,650
c, ct, c (cent, cents)	P (peso)
LT175 (Turkish)	£ (pound)
US\$15,000	d (pence)

Use "US\$" if omission would result in confusion.

(For the abbreviations of other terms indicating currency, see the table "Foreign Money" in "Useful Tables.")

## LIST OF ABBREVIATIONS

### Standard word abbreviations

#### 9.61. If abbreviations are required, use these forms:

AA, Alcoholics Anonymous	APPR, Army package power reactor
AARP, American Association of Retired Persons <i>also</i> AppleTalk	approx., approximately
Address Resolution Protocol	ARC, American Red Cross
abbr., abbreviation	ARP, Address Resolution Protocol
ABM, Asynchronous Balanced Mode	ARS, Agricultural Research Service
abs., abstract	ASCII, American Standard Code for Information Interchange
acct., account	ASCS, Agricultural Stabilization and Conservation Service
ACDA, Arms Control and Disarmament Agency	ASME, American Society of Mechanical Engineers
ACTH, adrenocorticotropic hormone	A.S.N., Army service number
A.D. (anno Domini), in the year of our Lord (A.D. 937)	ASTM, American Society for Testing and Materials
ADHD, attention deficit disorder with hyperactivity	ATM, automatic teller machine
ADHD, attention deficit hyperactivity disorder	Atl., Atlantic Reporter; A.2d, Atlantic Reporter, second series
ADN, advanced digital network	AUS, Army of the United States
ADP, automated data processing	Ave., avenue
ADSL, asymmetric digital subscriber line	AWACS, airborne warning and control system
AEF, American Expeditionary Forces	AWOL, absent without leave
AF, audiofrequency	B.A. or A.B., bachelor of arts
AFB, and similar military symbols (with name), Air Force Base	BBB, Better Business Bureau
AFL-CIO, American Federation of Labor and Congress of Industrial Organizations	BBS, bulletin board service
AID, Agency for International Development	B.C., before Christ (1200 B.C.)
AIDS, acquired immunodeficiency syndrome	BCG (bacillus Calmette-Guérin), antituberculosis vaccine
a.k.a., also known as	bf., boldface
A.L.R., American Law Reports	BGN, Board on ( <i>not of</i> ) Geographic Names
AM (no periods), amplitude modulation	BIA, Bureau of Indian Affairs
A.M. (anno mundi), in the year of the world	BIOS, Basic Input/Output System
A.M. or M.A., master of arts	BIS, Bank for International Settlements
a.m. (ante meridiem), before noon	BIT, BInary digiT
Am. Repts., American Reports	Blatch. Pr. Cas., Blatchford's Prize Cases
Amtrak, National Railroad Passenger Corporation	Bldg., building
AMVETS, American Veterans of World War II; Amvet(s) (individual)	B.Lit(t). or Lit(t).B., bachelor of literature
ANSI, American National Standards Institute	BLM, Bureau of Land Management
antilog (no period), antilogarithm	BLS, Bureau of Labor Statistics
A1 (rating)	Bld., boulevard
AOA, Administration on Aging	b.o., buyer's option
API, American Petroleum Institute	BPS, bits per second
APO (no periods), Army post office	B.S. or B.Sc., bachelor of science
App. D.C., District of Columbia	ca. (circa), about
Appeal Cases	ca, centiare
App. Div., Appellate Division	CACM, Central American Common Market
	CAD, computer-aided design
	c. and s.c., caps and small caps
	CAP, Civil Air Patrol
	CARE, Cooperative for American Remittances to Everywhere, Inc.
	CAT scan, computerized axial tomography

C.C.A., Circuit Court of Appeals	Ct., court
CCC, Commodity Credit Corporation	Dall., Dallas (U.S. Supreme Court Reports)
CCITT, Consultative Committee for International Telegraphy and Telephony	DAR, Daughters of the American Revolution
C.Cls., Court of Claims	d.b.a., doing business as
C.Cls.R., Court of Claims Reports	d.b.h., diameter at breast height
C.C.P.A., Court of Customs and Patents Appeals	DBMS, database management system
CCR, Commission on Civil Rights	D.D., doctor of divinity
CDC, Centers for Disease Control	D.D.S., doctor of dental surgery
CD-I, Compact Disk Interactive	DDT,
CD-ROM, Compact Disk—Read Only Memory	dichlorodiphenyltrichloroethane
CD-R, Compact Disk—Recordable	DEW, distant early warning (DEW line)
CEA, Council of Economic Advisers	Dist. Ct., District Court
cf. (confer), compare, or see	D.Lit(t). or Lit(t).D., doctor of literature
CFR, Code of Federal Regulations	DMI, Desktop Management Interface
CFR Supp., Code of Federal Regulations Supplement	DNC, Domestic Names Committee (BGN)
CGI, Common Gateway Interface	DNS, Domain Name Service
CHAMPUS, Civilian Health and Medical Program of the Uniformed Services	do. (ditto), the same
CIA, Central Intelligence Agency	DOC, Department of Commerce
CIC, Counterintelligence Corps	DOD, Department of Defense
C.J. (corpus juris), body of law; Chief Justice	DOE, Department of Energy
CNN, Cable News Network	DOJ, Department of Justice
CO, commanding officer	DOL, Department of Labor
Co., company (commercial)	DOS, Department of State; disk operating system
c.o.d., cash on delivery	DOT, Department of Transportation
COLA, cost-of-living adjustment	DP (no periods), displaced person
Comp. Dec., Comptroller's Decisions (Treasury)	D.P.H., doctor of public health
Comp. Gen., Comptroller General Decisions	dpi, dots per inch
con., continued	D.P.Hy., doctor of public hygiene
conelrad, control of electromagnetic radiation (civil defense)	DPT, diphtheria, pertussis, tetanus inoculation
Conrail, Consolidated Rail Corporation	dr., debit; debtor
Conus, continental United States	Dr., doctor; drive
Corp., corporation (commercial)	DSSL, Document Style and Semantics Language
cos (no period), cosine	d.s.t., daylight saving (no "s") time
cosh (no period), hyperbolic cosine	DTP, desktop publishing
cot (no period), cotangent	DVD, digital video disk
coth (no period), hyperbolic cotangent	D.V.M., doctor of veterinary medicine
c.p., chemically pure	E, east
C.P.A., certified public accountant	EBCDIC, Extended Binary Coded Decimal Interchange Code
CPI, Consumer Price Index	e-mail, electronic mail
CPR, cardiopulmonary resuscitation	EOC, Equal Employment Opportunity Commission
CPU, central processing unit (computer)	EFTA, European Free Trade Association
cr., credit; creditor	EFTS, electronic funds transfer system
C-SPAN, Cable Satellite Public Affairs Network	e.g. (exempli gratia), for example
csc (no period), cosecant	EHF, extremely high frequency
csch (no period), hyperbolic cosecant	8°, octavo
CTI, computer-telephony integration	emcee, master of ceremony
	e.o.m., end of month
	EOP, Executive Office of the President
	EPA, Environmental Protection Agency

EPS, Encapsulated PostScript file	FNMA, Federal National Mortgage Association (Fannie Mae)
ERP, European Recovery Program et al. (et alii), and others	FNS, Food and Nutrition Service
et seq. (et sequentia), and the following	FOSI, Format Output Specification Instance
etc. (et cetera), and so forth	f <sup>o</sup> , folio
EU, European Union	f.o.b., free on board
Euratom, European Atomic Energy Community	4 <sup>o</sup> , quarto
Euro, currency (common)	FPC, Federal Power Commission
Eurodollars, U.S. dollars used to finance foreign trade	FPO (no periods), fleet post office
Ex. Doc. (with letter), executive document	FR, Federal Register (publication)
Ex-Im Bank, Export-Import Bank of the United States	FRG, Federal Republic of Germany
f., ff., and following page (pages)	FRS, Federal Reserve System
FAA, Federal Aviation Administration	FS, Forest Service
FACCS, Faculty of the American College of Surgeons	FSLIC, Federal Savings and Loan Insurance Corporation
FAO, Food and Agriculture Organization	FSS, Federal Supply Service
f.a.s., free alongside ship	FSupp., Federal Supplement
FAS, Foreign Agricultural Service	FTC, Federal Trade Commission
FBB, Federal Bulletin Board	FTP, File Transfer Protocol
FBI, Federal Bureau of Investigation	FWS, Fish and Wildlife Service
FCA, Farm Credit Administration	GAO, General Accounting Office
FCC, Federal Communications Commission	GATT, General Agreement on Tariffs and Trade
FCIC, Federal Crop Insurance Corporation	GB, gigabyte
FCSC, Foreign Claims Settlement Commission	GDI, Graphical Device Interface
FDA, Food and Drug Administration	GDR, German Democratic Republic
FDDI, Fiber Distributed Data Interface	GGP, Gateway-to-Gateway Protocol
FDIC, Federal Deposit Insurance Corporation	GI, general issue; Government issue
FDLP, Federal Depository Library Program	GIF, Graphical Interchange Format
Fed., Federal Reporter; F.3d, Federal Reporter, third series	GILS, Government Information Locator Service
FEOF, Foreign Exchange Operations Fund	GIS, Geographic Information System
FHA, Federal Housing Administration	G.M.&S., general, medical, and surgical
FmHA, Farmers Home Administration	GNMA, Government National Mortgage Association (Ginnie Mae)
FHLBB, Federal Home Loan Bank Board	GNP, gross national product
FHWA, Federal Highway Administration	Gov., Governor
FICA, Federal Insurance Contributions Act	GPO, Government Printing Office
FIPS, Federal Information Processing Standards	gr. wt., gross weight
FLSA, Fair Labor Standards Act	GSA, General Services Administration
FM, frequency modulation	GSE, Government-Sponsored Enterprise
FMC, Federal Maritime Commission	GUI, Graphical User Interface
FMCS, Federal Mediation and Conciliation Service	H.C., House of Commons
	H. Con. Res. (with number), House concurrent resolution
	H. Doc. (with number), House document
	hazmat, hazardous material
	HE (no periods), high explosive
	HF (no periods), high frequency
	HHS, Health and Human Services (Department of)
	HIV, human immunodeficiency virus

H.J. Res. (with number), House joint resolution	ISO, International Standards Organization
HMO, health-maintenance organization	ISP, Internet service provider
HOV, high-occupancy vehicle	ITO, International Trade Organization
How., Howard (U.S. Supreme Court Reports)	ITU, International Telecommunications Union
H.R. (with number), House bill	JAG, Judge Advocate General
H. Rept. (with number), House report	jato, jet-assisted takeoff
H. Res. (with number), House resolution	J.D. (jurum or juris doctor), doctor of laws
HTML, HyperText Markup Language	JOBS, Job Opportunities in the Business Sector
HTTP, HyperText Transfer Protocol	JIT, just in time
HTTPD, HyperText Transfer Protocol Daemon	JPEG, Joint Photographic Experts Group
HUD, Housing and Urban Development	Jpn., Japan or Japanese where necessary to abbreviate
HYTELNET, HyperText-browser for Telnet Accessible Sites	Jr., junior
IADB, Inter-American Defense Board	Judge Adv. Gen., Judge Advocate General
IAEA, International Atomic Energy Agency	LAFTA, Latin American Free Trade Association
ibid. (ibidem), in the same place	LAN, local area network
ICBM, intercontinental ballistic missile	LAPM, Link Access Procedure for Modems
ICC, Interstate Commerce Commission	lat., latitude
ICMP, Internet Control Message Protocol	LC, Library of Congress
id. (idem), the same	LCD, liquid crystal display
IDA, International Development Association	lc., lowercase
IDE, integrated drive electronics	L.Ed., Lawyer's edition (U.S. Supreme Court Reports)
i.e. (id est), that is	liq., liquid
IEEE, Institute of Electrical and Electronic Engineers	lf., lightface
IF (no periods), intermediate frequency	LF, low frequency
IFC, International Finance Corporation	LL.B., bachelor of laws
IMCO, Intergovernmental Maritime Consultative Organization	LL.D., doctor of laws
IMF, International Monetary Fund	loc. cit. (loco citato), in the place cited
INS, Immigration and Naturalization Service	log (no period), logarithm
Insp. Gen. (also IG), inspector general	long., longitude
Interpol, International Criminal Police Organization	loran (no periods), long-range navigation
IOU, I owe you	lox (no periods), liquid oxygen
IP, Internet Protocol	LPG, liquefied petroleum gas
IQ, intelligence quotient	Ltd., limited
IRA, individual retirement account	Lt. Gov., lieutenant governor
IRBM, intermediate range ballistic missile	M, money supply: M1, M2, etc.
IRE, Institute of Radio Engineers	M., monsieur; MM., messieurs
IRO, International Refugee Organization	m. (meridies), noon
IRS, Internal Revenue Service	M, more
ISDN, Integrated Services Digital Network	MA (see MarAd)
	MAC, Military Airlift Command
	MAG, Military Advisory Group
	MarAd, Maritime Administration
	MB, megabyte
	MC, Member of Congress (emcee, master of ceremonies)
	M.D., doctor of medicine
	MDAP, Mutual Defense Assistance Program
	MediCal, Medicaid California
	memo, memorandum
	MF, medium frequency; microfiche
	MFN, most favored nation
	MIA, missing in action (plural, MIA's)

MIME, Multipurpose Internet Mail Extensions	n.o.i.b.n., not otherwise indexed by name
MIPS, millions of instructions per second	n.o.p., not otherwise provided (for)
MIRV, multiple independently targetable reentry vehicle	n.o.s., not otherwise specified
Misc. Doc. (with number), miscellaneous document	NOVS, National Office of Vital Statistics
Mlle., mademoiselle	NPS, National Park Service
Mme., madam	NRC, Nuclear Regulatory Commission
Mmes., mesdames	NS, nuclear ship
mo., month	NSA, National Shipping Authority
MOS, military occupational specialty	NSC, National Security Council
MPEG, Motion Pictures Experts Group	NSF, National Science Foundation
M.P., Member of Parliament	n.s.k., not specified by kind
MP, military police	n.s.p.f., not specifically provided for
Mr., mister (plural, Messrs.)	NW., northwest
MRI, magnetic resonance imaging	OAPEC, Organization of Arab Petroleum Exporting Countries
Mrs., mistress	OAS, Organization of American States
Ms., coined feminine title (plural, Mses.)	OASDHI, Old-Age, Survivors, Disability, and Health Insurance Program
M.S., master of science	OASI, Old-Age and Survivors Insurance
MS., MSS., manuscript, manuscripts	OCD, Office of Civil Defense
MSC, Military Sealift Command	OCR, optical character recognition
Msgr., monsignor	OD, officer of the day
m.s.l., mean sea level	OD, overdose; ODD, overdosed
MSNBC, Microsoft, National Broadcasting Co.	O.D., doctor of optometry
MTN, multilateral trade negotiations	OECD, Organization for Economic Cooperation and Development
N., north	OK, OKed, OKing, OKs
NA, not available; not applicable	OMB, Office of Management and Budget
NACo., National Association of Counties	Op. Atty. Gen., Opinions of the Attorney General
NAFTA, North American Free Trade Agreement	op. cit. (opere citato), in the work cited
NAS, National Academy of Science	OPEC, Organization of Petroleum Exporting Countries
NASA, National Aeronautics and Space Administration	OSD, Office of the Secretary of Defense
NAT, network address translation module	OTC, Organization for Trade Cooperation
NATO, North Atlantic Treaty Organization	PA, public address system
NCUA, National Credit Union Administration	Pac., Pacific Reporter; P.2d, Pacific Reporter, second series
NE., northeast	PAC, political action committee (plural, PAC's)
n.e.c., not elsewhere classified	Passed Asst. Surg., passed assistant surgeon
n.e.s., not elsewhere specified	PBS, Public Building Service
net wt., net weight	PC, personal computer
N.F., National Formulary	PCV, Peace Corps Volunteer
NFAH, National Foundation on the Arts and the Humanities	PDF, Adobe Acrobat Portable Document Format
NIH, National Institutes of Health	PDL, Page Description Language
N-ISDN, Narrowband ISDN	Pet., Peters (U.S. Supreme Court Reports)
NIST, National Institute of Standards and Technology	Ph, phenyl
n.l., natural log or logarithm	Phar.D., doctor of pharmacy
NLRB, National Labor Relations Board	Ph.B. or B.Ph., bachelor of philosophy
NNTP, Network News Transfer Protocol	Ph.D., or D.Ph., doctor of philosophy
No., Nos., number, numbers	
NOAA, National Oceanic and Atmospheric Administration	

Ph.G., graduate in pharmacy	SAR, Sons of the American Revolution
PHS, Public Health Service	SBA, Small Business Administration
PIN, personal identification number	sc. (scilicet), namely (see also ss)
PING, Packet Internet Groper	s.c., small caps
Pl., place	S. Con. Res. (with number),
p.m. (post meridiem), after noon	Senate concurrent resolution
P.O. Box (with number); <i>but post</i>	s.d. (sine die), without date
office box (in general sense)	SDI, Strategic Defense Initiative
POP, Point of Presence; Post Office Protocol	S. Doc. (with number), Senate document
POW, prisoner of war (plural, POWs)	SE, southeast
PPP, Point-to-Point Protocol	SEATO, Southeast Asia Treaty Organization
PPTP, Point-to-Point Tunneling Protocol	SEC, Securities and Exchange Commission
PTSD, post-traumatic-stress syndrome	sec, secant
PERL, practical extraction and report language	sech, hyperbolic secant
Private Res. (with number), private resolution	2d, 3d, second, third
Prof., professor	SGML, Standard Generalized Markup Language
pro tem (pro tempore), temporarily	SHF, superhigh frequency
P.S. (post scriptum), postscript; public school (with number)	shoran, short range (radio)
PTA, parent-teachers' association	SI, Système International
Public Res. (with number), public resolution	d'Unités
PX, post exchange	sic, thus
QT, on the quiet	sin, sine
racon, radar beacon	sinh, hyperbolic sine
radar, radio detection and ranging	S.J. Res. (with number), Senate joint resolution
RAID, redundant array of inexpensive disks	SLIP, Serial Line Internet Protocol
RAM, Random-Access Memory	SMTP, Simple Mail Transfer Protocol
R&D, research and development	SNMP, Simple Network Management Protocol
rato, rocket-assisted takeoff	sonar (no period), sound, navigation, and ranging
Rd., road	SOP, standard operating procedure
RDT&E, research, development, testing, and evaluation	SOS, wireless distress signal
REA, Rural Electrification Administration	SP, shore patrol
Rev., reverend	SPAR, Coast Guard Women's Reserve ( <i>semper paratus—always ready</i> )
Rev. Stat., Revised Statutes	sp. gr., specific gravity
RF, radiofrequency	Sq., square (street)
R.F.D., rural free delivery	Sr., senior
Rh, Rhesus (blood factor)	S. Rept. (with number), Senate report
RIF, reduction(s) in force; RIFed, RIFing, RIFs	S. Res. (with number), Senate resolution
R.N., registered nurse	SS, steamship
ROTC, Reserve Officers' Training Corps	ss (scilicet), namely (in law) (see also sc.)
RPC, remote procedure call	SSA, Social Security Administration
RR., railroad	SSL, Secure Sockets Layer
RRB, Railroad Retirement Board	SSS, Selective Service System
Rt. Rev., right reverend	St., Ste., SS., Saint, Sainte, Saints
RTF, Rich Text Format	St., street
Ry., railway	Stat., Statutes at Large
S., south; Senate bill (with number)	STP, standard temperature and pressure
SAC, Strategic Air Command	Sup. Ct., Supreme Court Reporter
SAE, Society of Automotive Engineers	
S&L(s), savings and loan(s)	
SALT, strategic arms limitation talks	

Supp. Rev. Stat., Supplement to the Revised Statutes	USGS, U.S. Geological Survey
Supt., superintendent	USIA, U.S. Information Agency
Surg., surgeon	USMC, U.S. Marine Corps
Surg. Gen., Surgeon General	USN, U.S. Navy
SW, southwest	USN&R, U.S. Naval Reserve
S.W.2d, Southwestern Reporter, second series	U.S.P., United States Pharmacopeia
SWAIS, Simple Wide Area Information System	USPS, U.S. Postal Service
SWAT, special weapons and tactics (team)	U.S.S., U.S. Senate; U.S. ship
T., Tps., township, townships	U.S.S.R., Union of Soviet Socialist Republics
tan, tangent	v. or vs. (versus), against
tann, hyperbolic tangent	VA, Department of Veterans Affairs
TB, tuberculosis	VAT, value added tax
TCP/IP, Transmission Control Protocol/Internet Protocol	VCR, video cassette recorder
T.D., Treasury Decisions	VHF, very high frequency
TDMA, Time Division Multiplexing Access	VIP, very important person
TDY, temporary duty	viz (videlicet), namely
Ter., terrace	VLAN, virtual LAN
TIFF, Tagged Image File Format	VLF, very low frequency
t.m., true mean	VRML, Virtual Reality Modeling Language
TNT, trinitrotoluol	VTR, video tape recording
TV, television	W., west
TVA, Tennessee Valley Authority	WAC, Women's Army Corps; a Wac
2,4-D (insecticide)	w.a.e., when actually employed
uc., uppercase	WAF, Women in the Air Force; a Waf
UDP, User Datagram Protocol	WAIS, Wide Area Information Server
UHF, ultrahigh frequency	Wall., Wallace (U.S. Supreme Court Reports)
UMTA, Urban Mass Transportation Administration	WAN, wide area network
U.N., United Nations	WAVES, women accepted for volunteer emergency service; a Wave
Unesco, United Nations Educational, Scientific, and Cultural Organization (copyrighted form)	wf, wrong font
UNICEF, United Nations Children's Fund	Wheat., Wheaton (U.S. Supreme Court Reports)
URL, Uniform Resource Locator	WHO, World Health Organization
URN, Uniform Resource Name/ Number	WIPO, World Intellectual Property Organization
U.S., U.S. Supreme Court Reports	WMAL, WRC, etc., radio stations
U.S.A., United States of America	w.o.p., without pay
USA, U.S. Army	WORM, write once, read many
USAF, U.S. Air Force	WWW, World Wide Web
USB, universal serial bus	WYSIWYG, What you see is what you get.
U.S.C., United States Code	Yale L.J., Yale Law Journal
U.S.C.A., United States Code Annotated	ZIP Code, Zone Improvement Plan Code (Postal Service)
U.S.C. Supp., United States Code Supplement	ZIP+4, 9-digit ZIP Code
USCG, U.S. Coast Guard	<b><i>Italic</i></b>
USDA, U.S. Department of Agriculture	GPO Access
USES, U.S. Employment Service	CBDNet
U.S. 40, U.S. No. 40, U.S. Highway No. 40	

## Standard letter symbols for units of measure

9.62. The same form is used for singular and plural senses.

A, ampere	daL, dekaliter
Å, angstrom	dam, dekameter
a, are	dam <sup>2</sup> , square dekameter
a, atto (prefix, one-quintillionth)	dam <sup>3</sup> , cubic dekameter
aA, attoampere	dB, decibel
abs, absolute (temperature and gravity)	dBu, decibel unit
ac, alternating current	dc, direct current
AF, audiofrequency	dg, decigram
Ah, ampere-hour	dL, deciliter
A/m, ampere per meter	dm, decimeter
AM, amplitude modulation	dm <sup>2</sup> , square decimeter
asb, apostilb	dm <sup>3</sup> , cubic decimeter
At, ampere-turn	dol, dollar
at, atmosphere, technical	doz, dozen
atm, atmosphere	dr, dram
at wt, atomic weight	dwt, deadweight tons
au, astronomical units	dwt, pennyweight
avdp, avoirdupois	dyn, dyne
b, barn	EHF, extremely high frequency
B, bel	emf, electromotive force
b, bit	emu, electromagnetic unit
bbi, barrel	erg, erg
bbi/d, barrel per day	esu, electrostatic unit
Bd, baud	eV, electronvolt
bd. ft., board foot (obsolete); use fbm	°F, degree Fahrenheit
Bé, Baumé	F, farad
Bev (obsolete); see GeV	f, femto (prefix, one-quadrillionth)
Bhn, Brinell hardness number	fbm, board foot; board foot measure
bhp, brake horsepower	fc, footcandle
bm, board measure	fL, footlambert
bp, boiling point	fm, femtometer
Btu, British thermal unit	FM, frequency modulation
bu, bushel	ft, foot
c, e, ct; cent(s)	ft <sup>2</sup> , square foot
c, centi (prefix, one-hundredth)	ft <sup>3</sup> , cubic foot
C, coulomb	ftH <sub>2</sub> O, conventional foot of water
°C, degree Celsius	ft•lb, foot-pound
cal, calorie (also: cal <sub>IT</sub> , International Table; cal <sub>th</sub> , thermochemical)	ft•lbf, foot-pound force
cd/in <sup>2</sup> , candela per square inch	ft/min, foot per minute
cd/m <sup>2</sup> , candela per square meter	ft <sup>2</sup> /min, square foot per minute
cg, centigram	ft <sup>3</sup> /min, cubic foot per minute
cd•h, candela-hour	ft-pdl, foot poundal
Ci, curie	ft/s, foot per second
cL, centiliter	ft <sup>2</sup> /s, square foot per second
cm, centimeter	ft <sup>3</sup> /s, cubic foot per second
c/m, cycles per minute	ft/s <sup>2</sup> , foot per second squared
cm <sup>2</sup> , square centimeter	ft/s <sup>3</sup> , foot per second cubed
cm <sup>3</sup> , cubic centimeter	G, gauss
cmil, circular mil	G, giga (prefix, 1 billion)
cp, candlepower	g, gram; acceleration of gravity
cP, centipoise	Gal, gal cm/s <sup>2</sup>
cSt, centistokes	gal, gallon
cwt, hundredweight	gal/min, gallons per minute
D, darcy	gal/s, gallons per second
d, day	GB, gigabyte
d, deci (prefix, one-tenth)	Gb, gibbert
d, pence	g/cm <sup>3</sup> , gram per cubic centimeter
da, deka (prefix, 10)	GeV, gigaelectronvolt
dag, dekagram	GHz, gigahertz (gigacycle per second)
	gr, grain; gross
	h, hecto (prefix, 100)

H, henry	lct, long calcined ton
h, hour	ldt, long dry ton
ha, hectare	LF, low frequency
HF, high frequency	lin ft, linear foot
hg, hectogram	l/m, lines per minute
hL, hectoliter	lm, lumen
hm, hectometer	lm/ft <sup>2</sup> , lumen per square foot
hm <sup>2</sup> , square hectometer	lm/m <sup>2</sup> , lumen per square meter
hm <sup>3</sup> , cubic hectometer	lm•s, lumen second
hp, horsepower	lm/W, lumen per watt
hph, horsepower-hour	l/s, lines per second
Hz, hertz (cycles per second)	L/s, liter per second
id, inside diameter	lx, lux
ihp, indicated horsepower	M, mega (prefix, 1 million)
in, inch	M, million (3 M=3 million)
in <sup>2</sup> , square inch	m, meter
in <sup>3</sup> , cubic inch	m, milli (prefix, one-thousandth)
in/h, inch per hour	M1, monetary aggregate
inH <sub>2</sub> O, conventional inch of water	m <sup>3</sup> , cubic meter
inHg, conventional inch of mercury	m <sup>2</sup> , square meter
in-lb, inch-pound	μ, micro (prefix, one-millionth)
in/s, inch per second	μm, micrometer
J, joule	mA, milliampere
J/K, joule per kelvin	μA, microampere
K, kayser	MB, megabyte
K, kelvin (use without degree symbol)	mbar, millibar
k, kilo (prefix, 1,000)	μbar, microbar
k, thousand (7k=7,000)	Mc, megacycle; see also MHz (megahertz), megacycles per second
kc, kilocycle; see also kHz (kilohertz), kilocycles per second	mc, millicycle; see also mHz (millihertz), millicycles per second
kcal, kilocalory	mD, millidarcy
keV, kiloelectronvolt	meq, milliquivalent
kG, kilogauss	MeV, megaelectronvolts
kg, kilogram	mF, millifarad
kgf, kilogram-force	μF, microfarad
kHz, kilohertz (kilocycles per second)	mG, milligauss
kL, kiloliter	mg, milligram
klbf, kilopound-force	μg, microgram
km, kilometer	Mgal/d, million gallons per day
km <sup>2</sup> , square kilometer	mH, millihenry
km <sup>3</sup> , cubic kilometer	μH, microhenry
km/h, kilometer per hour	MHz, megahertz
kn, knot (speed)	mHz, millihertz
kΩ, kilohm	mi, mile (statute)
kt, kiloton; carat	mi <sup>2</sup> , square mile
kV, kilovolt	mi/gal, mile(s) per gallon
kVA, kilovoltampere	mi/h, mile(s) per hour
kvar, kilovar	mil, mil
kW, kilowatt	min, minute (time)
kWh, kilowatthour	μin, microinch
L, lambert	mL, milliliter
L, liter	mm, millimeter
lb, pound	mm <sup>2</sup> , square millimeter
lb ap, apothecary pound	mm <sup>3</sup> , cubic millimeter
lb, avdp, avoirdupois pound	μm <sup>2</sup> , square micrometer
lbf, pound-force	μm <sup>3</sup> , cubic micrometer
lbf/ft, pound-force foot	μμ, micromicron (use of compound prefixes obsolete; use pm, picometer)
lbf/ft <sup>2</sup> , pound-force per square foot	μμf, micromicrofarad (use of compound prefixes obsolete; use pF)
lbf/ft <sup>3</sup> , pound-force per cubic foot	mmHg, conventional millimeter of mercury
lbf/in <sup>2</sup> , pound-force per square inch (see psi)	
lb/ft, pound per foot	
lb/ft <sup>2</sup> , pound per square foot	
lb/ft <sup>3</sup> , pound per cubic foot	

$M\Omega$ , megohm	$^{\circ}R$ , roentgen
mo, month	R, degree rankine
mol, mole (unit of substance)	R, degree reaumur
mol wt, molecular weight	rad, radian
mp, melting point	rd, rad
ms, millisecond	rem, roentgen equivalent man
$\mu s$ , microsecond	r/min, revolutions per minute
Mt, megaton	rms, root mean square
mV, millivolt	r/s, revolutions per second
$\mu V$ , microvolt	s, second (time)
MW, megawatt	s, shilling
mW, milliwatt	S, siemens
$\mu W$ , microwatt	sb, stilb
MWd/t, megawatt-days per ton	scp, spherical candlepower
Mx, maxwell	s•ft, second-foot
n, nano (prefix, one-billionth)	shp, shaft horsepower
N, newton	slug, slug
nA, nanoampere	sr, steradian
nF, nanofarad	sF, standard saybolt fural
N•m, newton meter	sSu, standard saybolt universal
N/m <sup>2</sup> , newton per square meter	stdft <sup>3</sup> , standard cubic foot (feet)
nmi, nautical mile	Sus, saybolt universal second(s)
Np, neper	T, tera (prefix, 1 trillion)
ns, nanosecond	Tft <sup>3</sup> , trillion cubic feet
N•s/m <sup>2</sup> , newton second per square meter	T, tesla
nt, nit	t, tonne (metric ton)
od, outside diameter	tbsp, tablespoonful
Oe, oersted (use of A/m, amperes per meter, preferred)	thm, therm
oz, ounce (avoirdupois)	ton, ton
p, pico (prefix, one-trillionth)	tsp, teaspoonful
P, poise	Twad, twaddell
Pa, pascal	u, (unified) atomic mass unit
pA, picoampere	UHF, ultrahigh frequency
pct, percent	V, volt
pdl, poundal	VA, voltampere
pF, picofarad (micromicrofarad, obsolete)	var, var
pF, water-holding energy	VHF, very high frequency
pH, hydrogen-ion concentration	V/m, volt per meter
ph, phot; phase	W, watt
pk, peck,	Wb, weber
p/m, parts per million	Wh, watthour
ps, picosecond	W/(m•K), watt per meter kelvin
psi, pounds per square inch	W/sr, watt per steradian
pt, pint	W/(sr•m <sup>2</sup> ), watt per steradian square meter
pW, picowatt	x, unknown quantity (italic)
qt, quart	yd, yard
quad, quadrillion ( $10^{15}$ )	yd <sup>2</sup> , square yard
$^{\circ}R$ , rankine	yd <sup>3</sup> , cubic yard
	yr, year

## Standard Latin abbreviations

**9.63.** When Latin abbreviations are used, follow this list.

a., annus, year; ante, before	coch. med., cochlear medium, a dessert spoonful
A.A.C., anno ante Christum, in the year before Christ	coch. parv., cochlear parvum, a teaspoonful
A.A.S., Academiae Americanae Socius, Fellow of the American Academy [Academy of Arts and Sciences]	con., contra, against; conjunx, wife
A.B., artium baccalaureus, bachelor of arts	C.P.S., custos privati sigilli, keeper of the privy seal
ab init., ab initio, from the beginning	C.S., custos sigilli, keeper of the seal
abs. re., absente reo, the defendant being absent	cwt., c. for centum, wt. for weight, hundredweight
A.C., ante Christum, before Christ	D., Deus, God; Dominus, Lord; d., decretum, a decree; denarius, a penny; da, give
A.D., anno Domini, in the year of our Lord	D.D., divinitatis doctor, doctor of divinity
a.d., ante diem, before the day	D.G., Dei gratia, by the grace of God; Deo gratias, thanks to God
ad fin., ad finem, at the end, to one end	D.N., Dominus noster, our Lord
ad h.l., ad hunc locum, to this place, on this passage	D. Sc., doctor scientiae, doctor of science
ad inf., ad infinitum, to infinity	d.s.p., decessit sine prole, died without issue
ad init., ad initium, at the beginning	D.V., Deo volente, God willing
ad int., ad interim, in the meantime	dwt., d. for denarius, wt. for weight pennyweight
ad lib., ad libitum, at pleasure	e.g., exempli gratia, for example
ad loc., ad locum, at the place	et al., et alibi, and elsewhere; et alii, or aliae, and others
ad val., ad valorem, according to value	etc., et cetera, and others, and so forth
A.I., anno inventionis, in the year of the discovery	et seq., et sequentes, and those that follow
al., alia, alii, other things, other persons	et ux., et uxor, and wife
A.M., anno mundi, in the year of the world; Annus mirabilis, the wonderful year [1666]; a.m., ante meridiem, before noon	F., filius, son
an., anno, in the year; ante, before	f. fiat, let it be made; forte, strong
ann., annales, annals; anni, years	fac., factum similis, facsimile, an exact copy
A.R.S.S., Antiquariorum Regiae Societatis Socius, Fellow of the Royal Society of Antiquaries	fasc., fasciculus, a bundle
A.U.C., anno urbis conditae, ab urbe conoluta, in [the year from] the building of the City [Rome], 753 B.C.	fl., flores, flowers; floruit, flourished; fluidus, fluid
B.A., baccalaureus artium, bachelor of arts	f.r., folio recto, right-hand page
B. Sc., baccalaureus scientiae, bachelor of science	F.R.S., Fraternitatis Regiae Socius, Fellow of the Royal Society
C., centum, a hundred; condemn., I condemn, find guilty	f.v., folio verso, on the back of the leaf
c., circa, about	guttat., guttatum, by drops
cent., centum, a hundred	H., hora, hour
cf., confer, compare	h.a., hoc anno, in this year; hujus anni, this year's
C.M., chirurgiae magister, master of surgery	hab. corp., habeas corpus, have the body—a writ
coch., cochlear, a spoon, spoonful	h.e., hic est, this is; hoc est, that is
coch. amp., cochlear amplum, a tablespoonful	h.m., hoc mense, in this month; huius mensis, this month's
coch. mag., cochlear magnum, a large spoonful	h.q., hoc quaere, look for this
	H.R.I.P., hic requiescat in pace, here rests in peace
	H.S., hic sepultus, here is buried; hic situs, here lies; h.s., hoc sensu, in this sense

H.S.S., Historiae Societatis Socius,	M., magister, master; manipulus,
Fellow of the Historical Society	handful; medicinae, of medicine;
h.t., hoc tempore, at this time; hoc	m., meridies, noon
titulo, in or under this title	M.A., magister artium, master of
I, Idus, the Ides; i., id, that;	arts
immortalis, immortal	M.B., medicinae baccalaureus,
ib. or ibid., ibidem, in the same	bachelor of medicine
place	M. Ch., magister chirurgiae,
id., idem, the same	master of surgery
i.e., id est, that is	M.D., medicinae doctor, doctor of
imp., imprimatur, sanction, let it	medicine
be printed	m.m., mutatis mutandis, with the
I.N.D., in nomine Dei, in the name	necessary changes
of God	m.n., mutato nomine, the name
in f., in fine, at the end	being changed
inf., infra, below	MS., manuscriptum, manuscript;
init., initio, in the beginning	MSS., manuscripta, manuscripts
in lim., in limine, on the	Mus. B., musicae baccalaureus,
threshold, at the outset	bachelor of music
in loc., in loco, in its place	Mus. D., musicae doctor, doctor of
in loc. cit., in loco citato, in the	music
place cited	Mus. M., musicae magister,
in pr., in principio, in the	master of music
beginning	N., Nepos, grandson; nomen,
in trans., in transitu, on the way	name; nomina, names; noster,
i.q., idem quod, the same as	our; n., natus, born; nocte, at
i.q.e.d., id quod erat	night
demonstrandum, what was to be	N.B., nota bene, mark well
proved	ni. pri., nisi prius, unless before
J., judex, judge	nob., nobis, for (or on) our part
J.C.D., juris civilis doctor, doctor	nol. pros., nolle prosequi, will not
of civil law	prosecute
J.D., jurum or juris doctor, doctor	non cul., non culpabilis, not guilty
of laws	n.l., non licet, it is not permitted;
J.U.D., juris utriusque doctor,	non liquet, it is not clear; non
doctor of both civil and canon	longe, not far
law	non obs., non obstante,
L., liber, a book; locus, a place	notwithstanding
£, libra, pound; placed before	non pros., non prosequitur, he
figures, thus £10; if l., to be	does not prosecute
placed after, as 401.	non seq., non sequitur, it does not
L.A.M., liberalium artium	follow logically
magister, master of the liberal	O., octarius, a pint
arts	ob., obiit, he, or she, died; obiter,
L.B., baccalaureus literarum,	incidentally
bachelor of letters	ob. s.p., obiit sine prole, died
lb., libra, pound (singular and	without issue
plural)	o.c., opere citato, in the work cited
L.H.D., literarum humaniorum	op., opus, work; opera, works
doctor, doctor of the more	op. cit., opere citato, in the work
humane letters	cited
Litt. D., literarum doctor, doctor of	P., papa, pope; pater, father;
letters	pontifex, bishop; populus,
LL.B., legum baccalaureus,	people; p., partim, in part; per,
bachelor of laws	by, for; pius, holy; pondere, by
LL.D., legum doctor, doctor of laws	weight; post, after; primus, first;
LL.M., legum magister, master of	pro, for
laws	p.a., or per ann., per annum,
loc. cit., loco citato, in the place	yearly; pro anno, for the year
cited	p. ae., partes aequales, equal parts
log., loquitur, he, or she, speaks	pass., passim, everywhere
L.S., locus sigilli, the place of the	percent., per centum, by the
seal	hundred
l.s.c., loco supra citato, in the	pil., pilula, pill
place above cited	Ph. B., philosophiae baccalaureus,
£ s. d., librae, solidi, denarii,	bachelor of philosophy
pounds, shillings, pence	P.M., post mortem, after death

p.m., post meridiem, afternoon	sec. reg., secundum regulam,
pro tem., pro tempore, for the time	according to rule
being	seq., sequens, sequentes,
prox., proximo, in or of the next	sequentia, the following
[month]	S.H.S., Societatis Historiae Socius,
P.S., postscriptum, postscript;	Fellow of the Historical Society
P.S.S., postscripta, postscripts	s.h.v., sub hac voce or sub hoc
q.d., quasi dicat, as if one should	verbo, under this word
say; quasi dictum, as if said;	s.l.a.n., sine loco, anno, vel
quasi dixisset, as if he had said	nomine, without place, date, or
q.e., quod est, which is	name
Q.E.D., quod erat	s.l.p., sine legitima prole, without
demonstrandum, which was to	lawful issue
be demonstrated	s.m.p., sine mascula prole, without
Q.E.F., quod erat faciendum,	male issue
which was to be done	s.n., sine nomine, without name
Q.E.I., quod erat inveniendum,	s.p., sine prole, without issue
which was to be found out	S.P.A.S., Societatis Philosophiae
q.l., quantum libet, as much as	Americanae Socius, Fellow of
you please	the American Philosophical
q. pl., quantum placet, as much as	Society
seems good	s.p.s., sine prole superstite,
q.s., quantum sufficit sufficient	without surviving issue
quantity	S.R.S., Societatis Regiae Socius or
q.v., quantum vis, as much as you	Sodalis, Fellow of the Royal
will; quem, quam, quod vide,	Society
which see; qq. v., quos, quas, or	ss, scilicet, namely (in law)
quae vide, which see (plural)	S.S.C., Societas Sanctae Crucis,
R., regina, queen; recto, right-	Society of the Holy Cross
hand page; respublica,	stat., statim, immediately
commonwealth	S.T.B., sacrae theologiae
R., recipe, take	baccalaureus, bachelor of sacred
R.I.P., requiescat, or requiescant,	theology
in pace, may he, she, or they,	S.T.D., sacrae theologiae doctor,
rest in peace	doctor of sacred theology
R.P.D., rerum politicarum doctor,	S.T.P., sacrae theologiae professor,
doctor of political science	professor of sacred theology
rr., rarissime, very rarely	sub., subaudi, understand, supply
R.S.S., Regiae Societatis Sodalis,	sup., supra, above
Fellow of the Royal Society	t. or temp., tempore, in the time of
S., sepultus, buried; situs, lies;	tal. qual., talis qualis, just as they
societas, society; socius or	come; average quality
sodalis, fellow; s., semi, half;	U.J.D., utriusque juris doctor,
solidus, shilling	doctor of both civil and canon
s.a., sine anno, without date;	law
secundum artem, according to	ult., ultimo, last month (may be
art	abbreviated in writing but
S.A.S., Societatis Antiquariorum	should be spelled out in
Socius, Fellow of the Society of	printing)
Antiquaries	ung., unguentum, ointment
sc., scilicet, namely; sculpsit, he,	u.s., ubi supra, in the place above
or she, carved or engraved it	mentioned
Sc. B., scientiae baccalaureus,	ut dict., ut dictum, as directed
bachelor of science	ut sup., ut supra, as above
Sc. D., scientiae doctor, doctor of	ux., uxoris, wife
science	v., versus, against; vide, see; voce,
S.D., salutem dicit, sends	voice, word
greetings	v., — a., vixit — annos, lived
s.d., sine die, indefinitely	[so many] years
sec., secundum, according to	verb, sap., verbum [satis] sapienti,
sec. leg., secundum legem,	a word to the wise suffices
according to law	v.g., verbi gratia, for example
sec. nat., secundum naturam,	viz., videlicet, namely
according to nature, or naturally	v.s., vide supra, see above