## 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 the 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 represening units of measure are to be omitted to conform with practice adopted by scientific, technical, and industrial groups. Where the 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 ftolbs.

## 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.

$$
\begin{array}{cll}
\text { c.o.d. St. but ftolb }
\end{array}
$$

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.
L.B.J.
U.S.
U.N.
U.S.C. (but Rev. Stat.)
A.F. of L.-CIO (AFL-CIO
        preferred)
A.D., B.C.
e.s.t.
i.e., e.g. (but op. cit.) R&D
H.R. }116\mathrm{ (but S. 116, S. Con.
        Res. 116)
C.A.D.C. (but App. D.C.)
A.B. Secrest, D.D.S.
but
AT&T
Texas A&M
```

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.

[^0]U.S. monitor Nantucket
U.S.-NATO assistance
U.S. Government efforts to control inflation must be successful if the United States is to have a stable economy.
but 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. |
| :--- | :---: |
| U.S. farm-support program | (legal title) |
| U.S. attorney | Foreign policy of the |
| U.S. citizen | $\quad$ United States |
| United States Code (official title) | not 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, 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, | Aberdeen Proving Ground, MD |
| $\quad$ WA | Baltimore-Washington |
| Stone Mountain, GA | International Airport, MD |
| National Naval Medical Center, <br> Bethesda, MD | Redstone Arsenal, AL |
| Mark Twain National Wildlife | but |
| Refuge, IL-IA-MO (note use of <br> hyphens here) | Leavenworth freight yards, |
| Richmond, VA | Kansas |

9.13. The Postal Service style of two-letter State, Province, and freely associated State abbreviations is to be used.

| United States <br> [Including freely associated States] |  |  |
| :---: | :---: | :---: |
| Alabama................................AL | Kentucky................................KY | Ohio.....................................OH |
| Alaska.................................... AK | Louisiana .................................LA | Oklahoma..............................OK |
| American Samoa ..................... AS | Maine...................................ME | Oregon ..................................OR |
| Arizona .................................AZ | Marshall Islands ....................MH | Palau ....................................PW |
| Arkansas...............................AR | Maryland.............................. MD | Pennsylvania..........................PA |
| California ..............................CA | Massachusetts ........................ MA | Puerto Rico ............................. PR |
| Colorado ..............................CO | Michigan...............................MI | Rhode Island...........................RI |
| Connecticut ............................CT | Minnesota ............................. MN | South Carolina .........................SC |
| Delaware................................DE | Mississippi.............................MS | South Dakota.......................... SD |
| District of Columbia ............... DC | Missouri............................... MO | Tennessee.............................. TN |
| Federated States of | Montana................................MT | Texas.....................................TX |
| Micronesia ...........................FM | Nebraska.................................NE | Utah ......................................UT |
| Florida ...................................FL | Nevada .................................NV | Vermont................................VT |
| Georgia.................................GA | New Hampshire .....................NH | Virgin Islands.........................VI |
| Guam.......................................GU | New Jersey ...............................NJ | Virginia.................................VA |
| Hawaii ........................................... | New Mexico ............................ NM | Washington.............................WA |
| Idaho.....................................ID | New York ..............................NY | West Virginia.......................WV |
| Illinois ....................................IL | North Carolina....................... NC | Wisconsin..............................WI |
| Indiana..................................IN | North Dakota .........................ND | Wyoming..............................WY |
| Iowa.......................................IA | Northern Mariana |  |
| Kansas ...................................... KS | Islands...................................MP |  |
| Canada |  |  |
| Alberta .................................AB | Northwest Territories .............. NT | Prince Edward Island ...............PE |
| British Columbia ..................... BC | Nova Scotia ............................NS | Quebec .................................. QC |
| Manitoba ................................. ${ }^{\text {MB }}$ | Nunavut...............................NU | Saskatchewan ..........................SK |
| New Brunswick.......................NB | Ontario.................................ON | Yukon .....................................YT |
| Newfoundland and Labrador ...NL |  |  |

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 $N W$., SW., NE., SE. (indicating sectional divisions of cities) following 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, or 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 or 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):
$\mathrm{SE}^{1} 1 / 4 \mathrm{NW}^{1} 1 / 4$ sec. 4 , T. 12 S., R. 15 E., of the Boise Meridian
lot $6, \mathrm{NE}^{1 / 4} \mathrm{sec} .4$, T. $6 \mathrm{~N} .$, R. 1 W .
$\mathrm{N} 1 / 2$ sec. 20, T. $7 \mathrm{~N} .$, 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. $34, \mathrm{~W}^{1} / 2 \mathrm{E}^{1} / 2, \mathrm{~W}^{1} / 2$, and $\mathrm{W}^{1} / 2 \mathrm{SE}^{1} / 4 \mathrm{SE}^{1 / 4}$ 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 | Ben | Fred | Walt |
| :--- | :--- | :--- | :--- |
| Alex | Ed | Sam | 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 | Electronics Manufacturing Co. |
| :--- | :--- |
| Aluminum Co. of America | Texas College of Arts \& Industries |
| Standard Oil Co. of New Jersey | Robert Wilson \& Associates, Inc. |
| H.J. Baker \& Bro. | U.S. News \& World Report |
| Jones Bros. \& Co. | Baltimore \& Ohio Railroad |
| American Telephone \& | Mine, Mill \& Smelter Workers |
| $\quad$ Telegraph Co. |  |
| Norton Enterprises, Inc. | but |
| Maryland Steamship Co., Ltd. | Little Theater Company |
| Chesapeake \& Delaware Canal | Senate Banking, Housing and |
| Fairmount Building \& Loan | 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 ( $R R$. and $R y$.), 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.

$$
\text { Gilbert and Sullivan } \quad \text { Currier and Ives }
$$

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.

## United States military titles and abbreviations

## Officer rank

Officer ranks in the United States military consist of commissioned officers and warrant officers. The commissioned ranks are the highest in the military. These officers hold presidential commissions and are confirmed at their ranks by the Senate. Army, Air Force, and Marine Corps officers are called company grade officers in the pay grades of $\mathrm{O}-1$ to $\mathrm{O}-3$, field grade
officers in pay grades O-4 to O-6, and general officers in pay grades O-7 and higher. The equivalent officer groupings in the Navy are called junior grade, mid-grade, and flag.
Warrant officers hold warrants from their service secretary and are specialists and experts in certain military technologies or capabilities. The lowest ranking warrant officers serve under a warrant, but they receive commissions from the President upon promotion to chief warrant officer 2. These commissioned warrant officers are direct representatives of the President of the United States. They derive their authority from the same source as commissioned officers but remain specialists, in contrast to commissioned officers, who are generalists. There are no warrant officers in the Air Force.

|  | Army | Navy <br> Coast Guard | Marines | Air Force |
| :---: | :---: | :---: | :---: | :---: |
|  | General of the Army (Reserved for wartime only) | Fleet Admiral (Reserved for wartime only) |  | General of the Air Force (Reserved for wartime only) |
| O 10 | $\begin{gathered} \text { General } \\ \text { GEN } \\ \text { Army Chief of Staff } \end{gathered}$ | Admiral ADM <br> Chief of Naval Operations and Commandant of the Coast Guard | General Gen. <br> Commandant of the Marine Corps | General Gen. <br> Air Force Chief of Staff |
| O9 | Lieutenant General LTG | Vice Admiral VADM | Lieutenant General Lt. Gen. | Lieutenant General Lt. Gen. |
| O8 | Major General MG | Rear Admiral Upper Half RADM | Major General Maj. Gen. | Major General Maj. Gen. |
| O7 | Brigadier General BG | Rear Admiral Lower Half RDML | Brigadier General Brig. Gen. | Brigadier General Brig. Gen. |
| O6 | Colonel COL | Captain CAPT | Colonel Col. | Colonel Col. |
| O5 | Lieutenant Colonel LTC | Commander CDR | Lieutenant Colonel Lt. Col. | Lieutenant Colonel Lt. Col. |
| O4 | Major <br> MAJ | Lieutenant Commander LCDR | Major <br> Maj. | Major <br> Maj. |
| O3 | Captain CPT | Lieutenant LT | Captain Capt. | Captain Capt. |


|  | Army | Navy <br> Coast Guard | Marines | Air Force |
| :---: | :---: | :---: | :---: | :---: |
| O2 | First Lieutenant <br> 1LT | Lieutenant Junior Grade <br> LTJG | First Lieutenant <br> 1st Lt. | First Lieutenant <br> 1st Lt. |
| W5 | Second Lieutenant <br> 2LT | Chief Warrant Officer <br> CW5 | Ensign <br> ENS | Second Lieutenant <br> 2nd Lt. |
| W4CWO5 | Second Lieutenant <br> 2nd Lt. |  |  |  |
| W3 | Chief Warrant Officer 4 <br> CW4 | Chief Warrant Officer 4 <br> CWO4 | Chief Warrant Officer 4 <br> CWO4 | NO WARRANT |
| CW3 |  |  |  |  |

Source: http://www.defenselink.mil/specials/insignias/officers.html.

## Enlisted rank

Service members in pay grades E-1 through E-3 are usually either in some kind of training status or on their initial assignment. The training includes the basic training phase where recruits are immersed in military culture and values and are taught the core skills required by their service component.

Basic training is followed by a specialized or advanced training phase that provides recruits with a specific area of expertise or concentration. In the Army and Marines, this area is called a military occupational specialty; in the Navy it is known as a rate; and in the Air Force it is simply called an Air Force specialty.

Leadership responsibility significantly increases in the mid-level enlisted ranks. This responsibility is given formal recognition by use of the terms noncommissioned officer and petty officer. An Army sergeant, an Air Force staff sergeant, and a Marine corporal are considered NCO ranks. The Navy NCO equivalent, petty officer, is achieved at the rank of petty officer third class.

At the E-8 level, the Army, Marines, and Air Force have two positions at the same pay grade. Whether one is, for example, a senior master sergeant or a first sergeant in the Air Force depends on the person's job. The same is true for the positions at the E-9 level. Marine Corps master gunnery sergeants and sergeants major receive the same pay but have different responsibilities. $\mathrm{E}-8 \mathrm{~s}$ and $\mathrm{E}-9$ s have 15 to 30 years on the job, and are commanders' senior advisers for enlisted matters.

A third E-9 element is the senior enlisted person of each service. The sergeant major of the Army, the sergeant major of the Marine Corps, the master chief petty officer of the Navy, and the chief master sergeant of the Air Force are the spokespersons of the enlisted force at the highest levels of their services.

|  | Army |  | Navy Coast Guard |  | Marines |  | Air Force |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E9 | Sergeant Major of the Army (SMA) |  | Master Chief Petty Officer of the Navy (MCPON) <br> and <br> Coast Guard (MCPOCG) |  | Sergeant Major of the Marine Corps (SgtMajMC) |  | Chief Master Sergeant of the Air Force (CMSAF) |  |  |
| E9 | Sergeant Major (SGM) | Command <br> Sergeant <br> Major <br> (CSM) | Master Chief Petty Officer (MCPO) | Fleet/ Command Master Chief Petty Officer | Sergeant Major (SgtMaj) | Master <br> Gunnery <br> Sergeant <br> (MGySgt) | Chief <br> Master <br> Sergeant <br> (CMSgt) | First Sergeant | Command <br> Chief <br> Master <br> Sergeant <br> (CCM) |
| E8 | Master Sergeant (MSG) | First Sergeant (1SG) | Senior Chief Petty Officer (SCPO) |  | Master Sergeant (MSgt) | First Sergeant | Senior <br> Master <br> Sergeant <br> (SMSgt) | First S | ergeant |
| E7 | Sergeant First Class (SFC) |  | Chief P | ty Officer P) | Gunnery Sergeant (GySgt) |  | Master Sergeant (MSgt) | First S | ergeant |
| E6 | Staff Sergeant (SSG) |  | Petty Officer First Class (PO1) |  | Staff Sergeant(SSgt) |  | Technical Sergeant (TSgt) |  |  |
| E5 | Sergeant (SGT) |  | Second Class <br> (PO2) |  | Sergeant (Sgt) |  | $\begin{aligned} & \text { Staff Sergeant } \\ & \text { (SSgt) } \end{aligned}$ |  |  |
| E4 | Corporal (CPL) | Specialist (SPC) | Third Class <br> (PO3) |  | Corporal (Cpl) |  | Senior Airman (SrA) |  |  |


|  | Army | Navy <br> Coast Guard | Marines | Air Force |
| :---: | :---: | :---: | :---: | :---: |
| E3 | Private First Class <br> (PFC) | Seaman <br> (SN) | Lance Corporal <br> (LCpl) | Airman First Class <br> (A1C) |
| E2 | Private E-2 <br> (PV2) | Seaman Apprentice <br> (SA) | Private First Class <br> (PFC) | Airman <br> (Amn) |
| E1 | Private | Seaman Recruit <br> (SR) | Private | Airman Basic |

Source: http://www.defenselink.mil/specials/insignias/enlisted.html.
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 Honorables John Roberts, John Paul Stevens, and Ruth Bader Ginsberg
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 $J r$. 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 $3 d$ 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)
art., arts. (article, articles)
bull., bulls. (bulletin, bulletins)
ch., chs. (chapter, chapters)
col., cols. (column, columns)
ed., eds. (edition, editions)
fig., figs. (figure, figures)
No., Nos. (number, numbers)
p., pp. (page, pages)
par., pars. (paragraph,
    paragraphs)
pl., pls. (plate, plates)
pt., pts. (part, parts)
sec., secs. (section, sections)
subch., subchs. (subchapter,
    subchapters)
subpar., subpars. (subparagraph,
    subparagraphs)
subpt., subpts. (subpart, subparts)
subsec., subsecs. (subsection,
    subsections)
supp., supps. (supplement,
    supplements)
vol., vols. (volume, volumes)
```

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) | H. Conf. Rept. 10 (House |
| :--- | :--- |
| S. 116 (Senate bill) | conference report) |
| The examples above may be | H. Doc. 35 (House document) |
| $\quad$ abbreviated or spelled | S. Doc. 62 (Senate document) |
| $\quad$ out in text. | H. Rept. 214 (House report) |
| H. Res. 5 (House resolution) | S. Rept. 410 (Senate report) |
| H. Con. Res. 10 (House concurrent | Ex. Doc. B (Executive document) |
| $\quad$ resolution) | Ex. F (92d Cong., 2d sess.) |
| H.J. Res. 21 (House joint resolution) | Ex. Rept. 9 (92d Cong., 1st sess.) |
| S. Res. 50 (Senate resolution) <br> S. Con. Res. 17 (Senate concurrent <br> $\quad$ resolution) | Misc. Doc. 16 (miscellaneous <br> document) |
| S.J. Res. 45 (Senate joint resolution) | 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, 2005)
(Congressional Record, Sept. 25, 2007)
[From the New York Times, Mar. 4, 2008]
[From the Mar. 4 issue]
On Jan. 25 (we had commenced on Dec. 26, 2005) the work was finished. (In footnotes, tables, leaderwork, and sidenotes)
On January 25, a decision was reached (Op. Atty. Gen., Dec. 4, 2006). (Text, but with citation in parentheses)
but On January 25 (we had commenced on December 26, 2008) 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:

AKDT—Alaska daylight time
AKST—Alaska standard time
AKT—Alaska time (implies
standard or daylight time)
AST-Atlantic standard time
AT-Atlantic time
CDT-central daylight time
CST-central standard time
CT-central time
DST-daylight saving (no "s") time
EDT-eastern daylight time
EST-eastern standard time
ET-eastern time
GCT-Greenwich civil time

GMAT-Greenwich mean astronomical time
GMT-Greenwich mean time
HDT-Hawaii-Aleutian daylight time (not observed in HI)
HST-Hawaii-Aleutian standard time
LST-local standard time
MDT—mountain daylight time
MST-mountain standard time
MT- mountain time
PDT—Pacific daylight time
PST-Pacific standard time
PT-Pacific time
UTC-coordinated universal time

## Acronyms and coined words

9.48. To obtain uniform treatment in the formation of acronyms and coined words, 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. | $10^{\circ}$ N. $25^{\circ} \mathrm{W}$. |
| E. | W. | NW. by N. $1 / 4 \mathrm{~W}$. |
| 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. $52^{\circ} 33^{\prime} 05^{\prime \prime} \mathrm{N}$.
long. $13^{\circ} 21^{\prime} 10^{\prime \prime} \mathrm{E}$.
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 |
| ${ }^{\circ} \mathrm{C},{ }^{1}$ degree Celsius ${ }^{2}$ | Twad, Twaddell |
| ${ }^{\circ} \mathrm{F}$, degree Fahrenheit | $100^{\circ} \mathrm{C}$ |
| ${ }^{\circ} \mathrm{R}$, degree Rankine | $212{ }^{\circ} \mathrm{F}^{1}$ |
| K, kelvin | $671.67{ }^{\circ} \mathrm{R}$ |
| 273.15 K | $18^{\circ} \mathrm{API}$ |
| ${ }^{\circ} \mathrm{API}$ |  |

[^1]9.54. References to meridian in statements of time are abbreviated as follows:

| 10 a.m. (not 10:00 a.m.) | 12 p.m. (12 noon) |
| :--- | :--- |
| 2:30 p.m. | 12 a.m. ( 12 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 $\mathrm{cm}^{3}$; use $c c$ 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
$25^{\circ} \mathrm{C}$
but $33^{\circ} 15^{\prime} 21^{\prime \prime}$

Prefixes for multiples and submultiples

| E | exa $\left(10^{18}\right)$ | d | $\operatorname{deci}\left(10^{-1}\right)$ |
| :--- | :--- | :--- | :--- |
| P | peta $\left(10^{15}\right)$ | c | $\operatorname{centi}\left(10^{-2}\right)$ |
| T | tera $\left(10^{12}\right)$ | m | $\operatorname{milli}\left(10^{-3}\right)$ |
| G | giga $\left(10^{9}\right)$ | $\mu$ | $\operatorname{micro}\left(10^{-6}\right)$ |
| M | mega $\left(10^{6}\right)$ | n | nano $\left(10^{-9}\right)$ |
| k | kilo $\left(10^{3}\right)$ | p | pico $\left(10^{-12}\right)$ |
| h | hecto $\left(10^{2}\right)$ | f | femto $\left(10^{-15}\right)$ |
| da | $\operatorname{deka}(10)$ | a | atto $\left(10^{-18}\right)$ |


|  |  | Length | Area |  |
| :--- | :--- | :--- | :--- | :---: |
| km | kilometer | $\mathrm{km}^{2}$ | square kilometer |  |
| hm | hectometer | $\mathrm{hm}^{2}$ | square hectometer |  |
| dam | decameter | $\mathrm{dam}^{2}$ | square decameter |  |
| m | meter | $\mathrm{m}^{2}$ | square meter |  |
| dm | decimeter | $\mathrm{dm}^{2}$ | square decimeter |  |
| cm | centimeter | $\mathrm{cm}^{2}$ | square centimeter |  |
| mm | millimeter | $\mathrm{mm}^{2}$ | square millimeter |  |


|  |  | Weight | Land area |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Capacity of containers |  |  |  |  |  |
| 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 |
| $\mu \mathrm{g}$ | 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 | farad | kc | kilocycle | $\mu \mathrm{F}$ | microfarad (one- |
| H | Henry | kV | kilovolt |  | millionth of a farad) |
| 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:

9.59. In astrophysical and similar scientific matter, magnitudes and units of time may be expressed as follows:
$5^{\mathrm{h}} 3^{\mathrm{m}} 9^{\mathrm{s}}$
$4.5^{\mathrm{h}}$

## Money

9.60. The following are some of the abbreviations and symbols used for indicating money:
(For the abbreviations of other terms indicating currency, see the table "Currency" in Chapter 17 "Useful Tables.")

| $\$$, dol (dollar) | Mex $\$ 2,650$ |
| :--- | :--- |
| $c, c t, \Phi$ (cent, cents) | P (peso) |
| TRL175 (Turkish) | $£$ (pound) |
| USD15,000 | d (pence) |
| $€$ (euro) |  |

Use "USD" if omission would result in confusion.

## Standard word abbreviations

9.61. If abbreviations are required, use these forms:

2,4D (insecticide)
3d-third
$4^{\circ}$-quarto
$8^{\circ}$-octavo
A1 (rating)
A.A.-Alcoholics Anonymous

AARP—American Association of
Retired Persons
abbr.-abbreviation
abs.-abstract
acct.-account
ACDA-Arms Control and Disarmament Agency
ACTH-adrenocorticotropic hormone
A.D.-(anno Domini) in the year of our Lord (A.D. 937)
ADDH—attention deficit disorder with hyperactivity
ADHD-attention deficit hyperactivity disorder
AEF-American Expeditionary Forces

AF-audiofrequency
AFB-Air Force Base

AFL-CIO-American Federation of Labor and Congress of Industrial Organizations
AID-Agency for International Development
AIDS-acquired immunodeficiency syndrome
a.k.a.-also known as
A.L.R.-American Law Reports

AM-amplitude modulation (no periods)
A.M.-(anno mundi) in the year of the world
A.M. or M.A.-master of arts
a.m.-(ante meridiem) before noon

Am. Repts.-American Reports
Amtrak-National Railroad Passenger Corporation
AMVETS-American Veterans of World War II; Amvet(s) (individual)
antilog-antilogarithm (no period)
AOA-Administration on Aging
API-American Petroleum
Institute

APO—Army post office (no periods)
App. D.C.-District of Columbia
Appeal Cases
App. Div.-Appellate Division
APPR-Army package power
reactor
approx.-approximately
ARC-American Red Cross
ARS—Agricultural Research
Service
ASCS—Agricultural Stabilization
and Conservation Service
ASME-American Society of
Mechanical Engineers
A.S.N.—Army service number

ASTM-American Society for
Testing and Materials
ATM-automatic teller machine
Atl.—Atlantic Reporter; A.2d,
Atlantic Reporter, second series
AUS—Army of the United States
Ave.-avenue
AWACS-airborne warning and
control system
AWOL-absent without leave
B.A. or A.B.-bachelor of arts

BBB—Better Business Bureau
B.C.-before Christ (1200 B.C.)
B.C.E.-Before Common Era

BCG—(bacillus Calmette-Guerin)
antituberculosis vaccine
bf.-boldface
BGN-Board on (not of)
Geographic Names
BIA-Bureau of Indian Affairs
BIS—Bank for International
Settlements
Blatch. Pr. Cas.-Blatchford's
Prize Cases
Bldg.-building
B. $\operatorname{Lit}(\mathrm{t})$. or $\operatorname{Lit}(\mathrm{t})$.B.-bachelor of literature

BLM-Bureau of Land Management
BLS—Bureau of Labor Statistics
Blvd.-boulevard
b.o.-buyer's option
B.S. or B.Sc.-bachelor of science
C. and s.c.-caps and small caps
ca.-(circa) about
ca-centiare
CACM-Central American
Common Market
CAD-computer-aided design
CAP-Civil Air Patrol
CARE-Cooperative for
American Remittances to Everywhere, Inc.
CAT scan-computerized axial tomography
C.C.A.-Circuit Court of Appeals

CCC-Commodity Credit Corporation
CCITT—Consultative Committee for International Telegraphy and Telephony
C.Cls.-Court of Claims
C.Cls.R.-Court of Claims Reports
C.C.P.A.-Court of Customs and Patents Appeals
CCR-Commission on Civil Rights
CDC-Centers for Disease Control
and Prevention
C.E.-Common Era

CEA-Council of Economic Advisers
cf.-(confer) compare or see
CFR-Code of Federal Regulations
CFR Supp.-Code of Federal Regulations Supplement
CHAMPUS-Civilian Health and Medical Program of the Uniformed Services
CIA-Central Intelligence Agency
CIC-Counterintelligence Corps
C.J.-(corpus juris) body of law;

Chief Justice

CNN-Cable News Network
CO-commanding officer
Co.-company (commercial)
c.o.d.-cash on delivery

COLA-cost-of-living adjustment
Comp. Dec.-Comptroller's
Decisions (Treasury)
Comp. Gen.-Comptroller General Decisions
con.-continued
conelrad-control of electromagnetic radiation (civil defense)
Conus-continental United States
Corp.-corporation (commercial)
cos-cosine (no period)
cosh-hyperbolic cosine (no period)
cot-cotangent (no period)
coth-hyperbolic cotangent (no period)
c.p.-chemically pure
C.P.A.-certified public accountant
CPI-Consumer Price Index
CPR-cardiopulmonary
resuscitation
cr.-credit; creditor
C-SPAN—Cable Satellite Public
Affairs Network
csc-cosecant (no period)
csch-hyperbolic cosecant (no period)
Ct.-court
Dall.-Dallas (U.S. Supreme Court Reports)
DAR—Daughters of the American
Revolution
d.b.a.-doing business as
d.b.h.-diameter at breast height
D.D.-doctor of divinity
D.D.S.-doctor of dental surgery

DDT-dichlorodiphenyl-
trichloroethane

DHS——epartment of Homeland Security
Dist. Ct.—District Court
D.Lit(t). or Lit(t).D.-doctor of literature
DNC—Domestic Names Committee (BGN)
do.-(ditto) the same
DOC-Department of Commerce
DOD-Department of Defense
DOE-Department of Energy
DOJ-Department of Justice
DOL-Department of Labor
DOS-Department of State
DOT-Department of Transportation
DP—displaced person (no period)
D.P.H.-doctor of public health
D.P.Hy.-doctor of public hygiene

DPT-diphtheria, pertussis, tetanus innoculation
dr.-debit; debtor
Dr.-doctor; drive
d.s.t.-daylight saving (no "s") time
D.V.M.-doctor of veterinary medicine
E.-east

EDGAR-Electronic Data Gathering, Analysis and Retrieval (SEC)
EEOC-Equal Employment Opportunity Commission
EFTA-European Free Trade Association
EFTS—electronic funds transfer system
e.g.-(exempli gratia) for example

EHF-extremely high frequency
emcee-master of ceremony
e.o.m.-end of month

EOP-Executive Office of the President
EPA-Environmental Protection Agency
et al.-(et alii) and others
et seq.-(et sequentia) and the following
etc.-(et cetera) and so forth
EU—European Union
Euratom-European Atomic Energy Community
Euro-currency (common)
Eurodollars-U.S. dollars used to finance foreign trade
Ex. Doc. (with letter)—executive document

Ex-Im Bank-Export-Import Bank of the United States
f., ff.-and following page (pages)

FAA—Federal Aviation Administration
FACS—Faculty of the American College of Surgeons
FAO—Food and Agriculture Organization
f.a.s.-free alongside ship

FAS—Foreign Agricultural Service
FBI—Federal Bureau of Investigation
FCA—Farm Credit Administration
FCC—Federal Communications Commission
FCIC—Federal Crop Insurance Corporation
FCSC—Foreign Claims Settlement Commission

FDA—Food and Drug Administration
FDIC-Federal Deposit Insurance Corporation
FDLP—Federal Depository
Library Program
Fed.-Federal Reporter; F.3d, Federal Reporter, third series
FEOF-Foreign Exchange Operations Fund

FHA—Federal Housing Administration
FmHA—Farmers Home Administration

FHLBB—Federal Home Loan Bank Board
FHWA—Federal Highway Administration
FICA—Federal Insurance Contributions Act
FLSA—Fair Labor Standards Act
FM-frequency modulation
FMC-Federal Maritime Commission
FMCS—Federal Mediation and Conciliation Service
FNMA-Federal National
Mortgage Association (Fannie Mae)
FNS—Food and Nutrition Service
$\mathrm{f}^{\circ}$-folio
f.o.b.-free on board

FPC-Federal Power Commission
FPO—fleet post office (no periods)
FR—Federal Register (publication)
FRG—Federal Republic of Germany
FRS—Federal Reserve System
FS-Forest Service
FSLIC—Federal Savings and Loan Insurance Corporation
FSS—Federal Supply Service
F.Supp.-Federal Supplement

FTC—Federal Trade Commission
FWS—Fish and Wildlife Service
GAO—Government
Accountability Office
GATT—General Agreement on
Tariffs and Trade
GDR—German Democratic
Republic
GI—general issue; Government issue

GIS—Geographic Information System
G.M.\&S.-general, medical, and surgical
GNMA-Government National Mortgage Association (Ginnie Mae)
GNP—gross national product
Gov.-Governor
GPO-Government Printing Office
GPS—Global Positioning System
gr. wt.-gross weight
GSA-General Services
Administration
GSE—Government-Sponsored Enterprise
H.C.-House of Commons
H. Con. Res. (with number)House concurrent resolution
H. Doc. (with number)-House document
hazmat-hazardous material
HDTV—high definition television
HE—high explosive (no periods)
HF-high frequency (no periods)
HHS-Health and Human Services (Department of)
HIV-human immunodeficiency virus
H.J. Res. (with number)-House joint resolution
HMO-health-maintenance organization
HOV-high-occupancy vehicle
How.-Howard (U.S. Supreme Court Reports)
H.R. (with number)-House bill
H. Rept. (with number)-House report
H. Res. (with number)-House resolution
HUD-Housing and Urban Development (Department of)

IADB-Inter-American Defense Board
IAEA-International Atomic Energy Agency
ibid.-(ibidem) in the same place
ICBM-intercontinental ballistic missile
id.-(idem) the same
IDA-International Development Association
IDE-integrated drive electronics
i.e.-(id est) that is

IEEE-Institute of Electrical and Electronic Engineers
IF-intermediate frequency (no periods)
IFC-International Finance Corporation
IMCO-Intergovernmental Maritime Consultative Organization
IMF-International Monetary Fund
Insp. Gen. (also IG)-inspector general
Interpol-International Criminal Police Organization
IOU-I owe you
IQ-intelligence quotient
IRA-individual retirement account
IRBM—intermediate range ballistic missile
IRE-Institute of Radio Engineers
IRO-International Refugee Organization
IRS-Internal Revenue Service
ISO-International Standards Organization
ITO-International Trade Organization
ITU-International Telecommunications Union
JAG-Judge Advocate General
jato-jet-assisted takeoff
J.D.-(jurum or juris doctor) doctor of laws
JOBS-Job Opportunities in the Business Sector
JIT-just in time
Jpn.-Japan or Japanese where necessary to abbreviate
Jr.-junior
Judge Adv. Gen.-Judge Advocate General
LAFTA-Latin American Free
Trade Association
lat.-latitude
LC-Library of Congress
LCD-liquid crystal display
lc.-lowercase
L.Ed.-Lawyer's edition (U.S.

Supreme Court Reports)
liq.--liquid
lf.-lightface
LF-low frequency
LL.B.-bachelor of laws
LL.D.-doctor of laws
loc. cit.-(loco citato) in the place cited
$\log$ (no period)—logarithm
long.-longitude
loran (no periods)—long-range navigation
lox (no periods)-liquid oxygen
LPG-liquefied petroleum gas
Ltd.-limited
Lt. Gov.-lieutenant governor
M-money supply: M1, M2, etc.
M.-monsieur; MM., messieurs
m.-(meridies) noon

M-more
MAC-Military Airlift Command
MAG-Military Advisory Group
MarAd-Maritime
Administration
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)
MIRV—multiple independently targetable reentry vehicle
Misc. Doc. (with number) miscellaneous document
Mlle.-mademoiselle
Mme.-madam
Mmes.-mesdames
mo.-month
MOS-military occupational specialty
M.P.-Member of Parliament

MP-military police
Mr.-mister (plural Messrs.)
MRI-magnetic resonance
imaging
Mrs.-mistress
Ms.-feminine title (plural Mses.)
M.S.-master of science

MS.-MSS., manuscript, manuscripts
MSC-Military Sealift Command
Msgr.-monsignor
m.s.l.-mean sea level

MSNBC-Microsoft National Broadcasting Co.
MTN-multilateral trade negotiations
N .-north
NA-not available; not applicable
NACo.-National Association of Counties
NAFTA-North American Free
Trade Agreement

NAS-National Academy of Sciences
NASA-National Aeronautics and
Space Administration
NATO-North Atlantic Treaty
Organization
NCUA-National Credit Union
Administration
NE.-northeast
n.e.c.-not elsewhere classified
n.e.s.-not elsewhere specified
net wt.-net weight
N.F.-National Formulary

NFAH—National Foundation on
the Arts and the Humanities
NIH—National Institutes of Health
NIST—National Institute of
Standards and Technology
n.l.-natural log or logarithm

NLRB—National Labor Relations
Board
NNTP—Network News Transfer
Protocol
No.-Nos., number, numbers
NOAA-National Oceanic and
Atmospheric Administration
n.o.i.b.n.-not otherwise indexed by name
n.o.p.-not otherwise provided (for)
n.o.s.-not otherwise specified

NOVS—National Office of Vital
Statistics
NPS—National Park Service
NRC-Nuclear Regulatory
Commission
NS-nuclear ship
NSA-National Security Agency
NSC-National Security Council
NSF-National Science
Foundation
n.s.k.-not specified by kind
n.s.p.f.-not specifically provided for
NW.-northwest
OAPEC-Organization of Arab
Petroleum Exporting Countries
OAS—Organization of American States
OASDHI—Old-Age, Survivors, Disability, and Health Insurance Program
OASI—Old-Age and Survivors Insurance
OCD—Office of Civil Defense
OD-officer of the day
OD—overdose; Odd, overdosed
O.D.-doctor of optometry

OECD—Organization for Economic Cooperation and Development
OK—Oked, Oking, Oks
OMB—Office of Management and Budget
Op. Atty. Gen.-Opinions of the Attorney General
op. cit.-(opere citato) in the work cited
OPEC-Organization of Petroleum Exporting Countries
OSD—Office of the Secretary of Defense
OTC-Organization for Trade Cooperation
PA-public address system
Pac.-Pacific Reporter; P.2d, Pacific Reporter, second series
PAC-political action committee (plural PAC's)
Passed Asst. Surg.-passed assistant surgeon
PBS—Public Building Service
PCV—Peace Corps Volunteer

Pet.-Peters (U.S. Supreme Court
Reports)
Ph-phenyl
Phar.D.-doctor of pharmacy
Ph.B. or B.Ph.-bachelor of philosophy
Ph.D. or D.Ph.-doctor of philosophy
Ph.G.-graduate in pharmacy
PHS—Public Health Service
PIN—personal identification number
Pl.-place
p.m.-(post meridiem) after noon
P.O. Box (with number)-but post office box (in general sense)
POP-Point of Presence; Post Office Protocol
POW—prisoner of war (plural POWs)
PTSD—post-traumatic-stress
disorder
Private Res. (with number) private resolution
Prof.-professor
pro tem-(pro tempore) temporarily
P.S.-(post scriptum) postscript; public school (with number)
PTA-parent-teachers' association
Public Res. (with number) - public resolution
PX—post exchange
QT-on the quiet
racon-radar beacon
radar-radio detection and ranging
R\&D-research and development
rato-rocket-assisted takeoff
Rd.-road
RDT\&E-research, development, testing, and evaluation
REA-Rural Electrification Administration

Rev.-reverend
Rev. Stat.-Revised Statutes
RF-radiofrequency
R.F.D.-rural free delivery

Rh—Rhesus (blood factor)
RIF-reduction(s) in force; RIFed, RIFing, RIFs
R.N.-registered nurse

ROTC-Reserve Officers'
Training Corps
RR.-railroad
RRB—Railroad Retirement Board
Rt. Rev.-right reverend
Ry.-railway
S.-south; Senate bill (with number)
SAC-Strategic Air Command
SAE-Society of Automotive Engineers
S\&L(s)—savings and loan(s)
SALT-strategic arms limitation talks
SAR-Sons of the American Revolution
SBA-Small Business
Administration
sc.-(scilicet) namely (see also ss)
s.c.-small caps
S. Con. Res. (with number) -

Senate concurrent resolution
s.d.-(sine die) without date

SDI—Strategic Defense Initiative
S. Doc. (with number)-Senate document
SE.-southeast
SEATO—Southeast Asia Treaty Organization
SEC-Securities and Exchange Commission
sec-secant
sech-hyperbolic secant
2d-second
SHF—superhigh frequency
shoran-short range (radio)

SI-Systeme International d'Unités
sic-thus
sin-sine
sinh-hyperbolic sine
S.J. Res. (with number) - Senate
joint resolution
sonar-sound, navigation, and ranging (no period)
SOP—standard operating procedure
SOS—wireless distress signal
SP—shore patrol
SPAR—Coast Guard Women's
Reserve (semper paratusalways ready)
sp. gr.-specific gravity
Sq.-square (street)
Sr.-senior
S. Rept. (with number)-Senate report
S. Res. (with number)—Senate resolution
SS-steamship
ss-(scilicet) namely (in law) (see also sc.)
SSA-Social Security
Administration
SSS—Selective Service System
St.-Ste., SS., Saint, Sainte, Saints
St.-street
Stat.—Statutes at Large
STP—standard temperature and pressure
Sup. Ct.-Supreme Court Reporter
Supp. Rev. Stat.-Supplement to the Revised Statutes
Supt.-superintendent
Surg.-surgeon
Surg. Gen.-Surgeon General
SW.-southwest
S.W.2d—Southwestern Reporter, second series

SWAT-special weapons and tactics (team)
T.-Tps., township, townships
tan-tangent
tann-hyperbolic tangent
TB-tuberculosis
T.D.-Treasury Decisions

TDY-temporary duty
Ter.-terrace
t.m.-true mean

TNT-trinitrotoluol
TV-television
TVA-Tennessee Valley Authority
uc.-uppercase
UHF-ultrahigh frequency
UMTA-Urban Mass
Transportation
Administration
U.N.-United Nations

UNESCO—United Nations
Educational, Scientific, and
Cultural Organization
UNICEF-United Nations
Children's Fund
U.S.-U.S. Supreme Court Reports
U.S.A.-United States of America

USA-U.S. Army
USAF-U.S. Air Force
U.S.C.-United States Code
U.S.C.A.-United States Code Annotated
U.S.C. Supp.-United States Code Supplement
USCG-U.S. Coast Guard
USDA-U.S. Department of Agriculture
USES—U.S. Employment Service
U.S. 40-U.S. No. 40, U.S.

Highway No. 40
USGS—U.S. Geological Survey
USIA-U.S. Information Agency
USMC-U.S. Marine Corps
USN-U.S. Navy

USNR—U.S. Naval Reserve
U.S.P.-United States

Pharmacopeia
USPS—U.S. Postal Service
U.S.S.-U.S. Senate
v. or vs.-(versus) against

VA-Department of Veterans
Affairs
VAT—value added tax
VCR—video cassette recorder
VHF-very high frequency
VIP-very important person
viz-(videlicet) namely
VLF-very low frequency
VTR-video tape recording
W.-west
w.a.e.-when actually employed

Wall.-Wallace (U.S. Supreme
Court Reports)
wf-wrong font
Wheat.-Wheaton (U.S. Supreme
Court Reports)
WHO-World Health
Organization
WIPO-World Intellectual
Property Organization
WMAL-WRC, etc., radio stations
w.o.p.-without pay

Yale L.J.-Yale Law Journal
ZIP Code-Zone Improvement
Plan Code (Postal Service)
ZIP+4-9-digit ZIP Code

## Standard letter symbols for units of measure

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

A-ampere
$\AA$-angstrom
a-are
a-atto (prefix, one-quintillionth)
aA-attoampere
abs-absolute (temperature and gravity)
ac-alternating current
AF-audiofrequency
Ah -ampere-hour
$\mathrm{A} / \mathrm{m}$-ampere per meter
AM-amplitude modulation
asb-apostilb
At-ampere-turn
at-atmosphere, technical
atm-atmosphere
at wt-atomic weight
au-astronomical units
avdp-avoirdupois
b-barn
B-bel
b-bit
bbl-barrel
bbl/d-barrel per day

Bd-baud
bd. ft.-board foot (obsolete); use fbm
Bé-Baumé
Bev (obsolete); see GeV
Bhn-Brinell hardness number
bhp-brake horsepower
bm-board measure
bp-boiling point
Btu-British thermal unit
bu-bushel
c-\&, ct; cent(s)
c-centi (prefix, one-hundredth)
C-coulomb
${ }^{\circ} \mathrm{C}$-degree Celsius
cal-calorie (also: $\mathrm{cal}_{\mathrm{IT}}$, International Table; $\mathrm{cal}_{\mathrm{th}}$-thermochemical)
$\mathrm{cd} / \mathrm{in}^{2}$ —candela per square inch
$\mathrm{cd} / \mathrm{m}^{2}$-candela per square meter
cg-centigram
cd•h—candela-hour
Ci-curie
cL-centiliter
cm -centimeter
$\mathrm{c} / \mathrm{m}$-cycles per minute
$\mathrm{cm}^{2}$-square centimeter
$\mathrm{cm}^{3}$-cubic centimeter
cmil-circular mil
cp-candlepower
cP -centipoise
cSt-centistokes
cwt-hundredweight
D-darcy
d-day
d-deci (prefix, one-tenth)
d-pence
da-deka (prefix, 10)
dag-dekagram
daL—dekaliter
dam-dekameter
dam ${ }^{2}$-square dekameter
dam ${ }^{3}$-cubic dekameter
dB-decibel
dBu-decibel unit
dc-direct current
dg-decigram
dL—deciliter
dm-decimeter
$\mathrm{dm}^{2}$-square decimeter
$\mathrm{dm}^{3}$-cubic decimeter
dol-dollar
doz-dozen
dr-dram
dwt—deadweight tons
dwt-pennyweight
dyn-dyne
EHF-extremely high frequency
emf-electromotive force
emu-electromagnetic unit
erg-erg
esu-electrostatic unit
eV-electronvolt
${ }^{\circ} \mathrm{F}$-degree Fahrenheit
F -farad
f -femto (prefix, one-quadrillionth)
fbm-board foot; board foot measure
fc-footcandle
fL-footlambert
fm -fentometer

FM-frequency modulation
ft -foot
$\mathrm{ft}^{2}$-square foot
$\mathrm{ft}^{3}$-cubic foot
$\mathrm{ftH}_{2} \mathrm{O}$-conventional foot of water
ftolb-foot-pound
ft -lbf-foot-pound force
$\mathrm{ft} / \mathrm{min}$-foot per minute
$\mathrm{ft}^{2} / \mathrm{min}$-square foot per minute
$\mathrm{ft}^{3} / \mathrm{min}$-cubic foot per minute
ft-pdl-foot poundal
$\mathrm{ft} / \mathrm{s}$-foot per second
$\mathrm{ft}^{2} / \mathrm{s}$-square foot per second
$\mathrm{ft}^{3} / \mathrm{s}$-cubic foot per second
$\mathrm{ft} / \mathrm{s}^{2}$-foot per second squared
$\mathrm{ft} / \mathrm{s}^{3}$-foot per second cubed
G-gauss
G-giga (prefix, 1 billion)
g-gram; acceleration of gravity
Gal-gal cm/s ${ }^{2}$
gal-gallon
gal/min-gallons per minute
gal/s-gallons per second
GB-gigabyte
Gb-gilbert
$\mathrm{g} / \mathrm{cm}^{3}$ - gram per cubic centimeter
GeV -gigaelectronvolt
GHz-gigahertz (gigacycle per second)
gr-grain; gross
h-hecto (prefix, 100)
H-henry
h-hour
ha-hectare
HF-high frequency
hg-hectogram
hL-hectoliter
hm -hectometer
$\mathrm{hm}^{2}$-square hectometer
$\mathrm{hm}^{3}$-cubic hectometer
hp -horsepower
hph-horsepower-hour
Hz -hertz (cycles per second)
id-inside diameter
ihp-indicated horsepower
in-inch
in ${ }^{2}$-square inch
in $^{3}$-cubic inch
in/h—inch per hour
inH2 $\mathrm{H}_{2}$-conventional inch of water
inHg-conventional inch of mercury
in-lb-inch-pound
in/s-inch per second
J-joule
J/K—joule per kelvin
K—kayser
K—kelvin (use without degree symbol)
k—kilo (prefix, 1,000)
k -thousand $(7 \mathrm{k}=7,000)$
kc-kilocycle; see also kHz (kilohertz), kilocycles per second
kcal—kilocalorie
keV—kiloelectronvolt
kG—kilogauss
kg—kilogram
kgf—kilogram-force
kHz -kilohertz (kilocycles per second)
kL—kiloliter
klbf-kilopound-force
km—kilometer
$\mathrm{km}^{2}$-square kilometer
$\mathrm{km}^{3}$-cubic kilometer
$\mathrm{km} / \mathrm{h}$-kilometer per hour
kn-knot (speed)
$\mathrm{k} \Omega$ —kilohm
kt-kiloton; carat
kV—kilovolt
kVA—kilovoltampere
kvar—kilovar
kW—kilowatt
kWh—kilowatthour
L-lambert
L-liter
lb -pound
lb ap-apothecary pound
lb —avdp, avoirdupois pound
lbf-pound-force
$\mathrm{lbf} / \mathrm{ft}$-pound-force foot
$\mathrm{lbf} / \mathrm{ft}^{2}$ —pound-force per square foot
$\mathrm{lbf} / \mathrm{ft}^{3}$ —pound-force per cubic foot
$\mathrm{lbf} / \mathrm{in}^{2}$ —pound-force per square inch (see psi)
$\mathrm{lb} / \mathrm{ft}$ —pound per foot
$\mathrm{lb} / \mathrm{ft}^{2}$-pound per square foot
$\mathrm{lb} / \mathrm{ft}^{3}$-pound per cubic foot
lct-long calcined ton
ldt-long dry ton
LF-low frequency
lin ft-linear foot
l/m-lines per minute
lm-lumen
$\mathrm{lm} / \mathrm{ft}^{2}$-lumen per square foot
$\mathrm{lm} / \mathrm{m}^{2}$-lumen per square meter
$\operatorname{lm} \bullet$ s-lumen second
lm/W-lumen per watt
l/s-lines per second
$\mathrm{L} / \mathrm{s}$ —liter per second
lx-lux
M—mega (prefix, 1 million)
M -million (3 $\mathrm{M}=3$ million)
m—meter
m—milli (prefix, one-thousandth)
M1-monetary aggregate
$\mathrm{m}^{2}$-square meter
$\mathrm{m}^{3}$-cubic meter
$\mu$-micro (prefix, one-millionth)
$\mu \mathrm{m}$-micrometer
mA -milliampere
$\mu \mathrm{A}$-microampere
MB—megabyte
mbar-millibar
$\mu \mathrm{bar}$-microbar
Mc-megacycle; see also MHz
(megahertz), megacycles per
second
mc-millicycle; see also mHz
(millihertz), millicycles per
second
mD —millidarcy
meq-milliquivalent
MeV -megaelectronvolts
mF -millifarad
$\mu \mathrm{F}$-microfarad
mG-milligauss
mg-milligram
$\mu \mathrm{g}$-microgram
$\mathrm{Mgal} / \mathrm{d}$-million gallons per day
mH -millihenry
$\mu \mathrm{H}$-microhenry
MHz-megahertz
mHz -millihertz
mi -mile (statute)
$\mathrm{mi}^{2}$-square mile
$\mathrm{mi} / \mathrm{gal}-\mathrm{mile}(\mathrm{s})$ per gallon
$\mathrm{mi} / \mathrm{h}$-mile(s) per hour
mil-mil
min-minute (time)
$\mu$ in-microinch
mL -milliliter
mm -millimeter
$\mathrm{mm}^{2}$-square millimeter
$\mathrm{mm}^{3}$-cubic millimeter
$\mu \mathrm{m}^{2}$-square micrometer
$\mu \mathrm{m}^{3}$-cubic micrometer
$\mu \mu$-micromicron (use of compound prefixes obsolete; use pm, picometer)
$\mu \mu \mathrm{f}$-micromicrofarad (use of compound prefixes obsolete; use pF)
mmHg -conventional millimeter of mercury
$\mathrm{m} \Omega$-megohm
mo-month
mol-mole (unit of substance)
mol wt-molecular weight
mp -melting point
ms-millisecond
us-microsecond
Mt-megaton
mV -millivolt
$\mu \mathrm{V}$-microvolt
MW—megawatt
mW-milliwatt
$\mu \mathrm{W}$-microwatt
MWd/t-megawatt-days per ton
Mx-maxwell
n-nano (prefix, one-billionth)
N -newton
nA-nanoampere
nF -nanofarad
$\mathrm{N} \cdot \mathrm{m}$-newton meter
$\mathrm{N} / \mathrm{m}^{2}$ —newton per square meter
nmi-nautical mile
Np -neper
ns-nanosecond
$\mathrm{N} \cdot \mathrm{s} / \mathrm{m}^{2}$ - newton second per square
meter
nt—nit
od-outside diameter
Oe-oersted (use of A/m, amperes per meter, preferred)
oz-ounce (avoirdupois)
$\mathrm{p}-$ pico (prefix, one-trillionth)
P -poise
Pa -pascal
pA-picoampere
pct-percent
pdl—poundal
pF -picofarad (micromicrofarad, obsolete)
pF -water-holding energy
pH -hydrogen-ion concentration
ph-phot; phase
pk-peck,
$\mathrm{p} / \mathrm{m}$ - parts per million
ps-picosecond
psi-pounds per square inch
pt-pint
pW-picowatt
qt-quart
quad-quadrillion ( $10^{15}$ )
${ }^{\circ} \mathrm{R}$-rankine
${ }^{\circ} \mathrm{R}$-roentgen
R -degree rankine
R -degree reaumur
rad-radian
rd-rad
rem-roentgen equivalent man
$\mathrm{r} / \mathrm{min}$-revolutions per minute
rms-root mean square
$\mathrm{r} / \mathrm{s}-\mathrm{revolutions} \mathrm{per} \mathrm{second}$
s -second (time)
s-shilling
S—siemens
sb-stilb
scp-spherical candlepower
s.ft-second-foot
shp-shaft horsepower
slug-slug
sr-steradian
sSf—standard saybolt fural
sSu-standard saybolt universal
stdft ${ }^{3}$-standard cubic foot (feet)
Sus-saybolt universal second(s)
T-tera (prefix, 1 trillion)
Tft ${ }^{3}$-trillion cubic feet
T-tesla
t -tonne (metric ton)
tbsp-tablespoonful
thm-therm
ton-ton
tsp-teaspoonful
Twad-twaddell
u -(unified) atomic mass unit
UHF-ultrahigh frequency
V-volt
VA-voltampere
var-var
VHF-very high frequency
V/m—volt per meter
W-watt
Wb -weber
Wh-watthour
$\mathrm{W} /(\mathrm{m} \cdot \mathrm{K})$-watt per meter kelvin
W/sr-watt per steradian
W/(sr•m²)—watt per steradian square meter
$x$-unknown quantity (italic)
yd-yard
yd$^{2}$-square yard
yd $^{3}$-cubic yard
yr-year

## Standard Latin abbreviations

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

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

Fellow of the Royal Society
f.v.-folio verso, on the back of the leaf
guttat.-guttatim, by drops
H.-hora, hour
h.a.-hoc anno, in this year; hujus anni, this year's
hab. corp.-habeas corpus, have the body-a writ
h.e.-hic est, this is; hoc est, that is
h.m.-hoc mense, in this month; huius mensis, this month's
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, Fellow of the Historical Society
h.t.-hoc tempore, at this time; hoc titulo, in or under this title
I-Idus, the Ides; i., id, that; immortalis, immortal
ib. or ibid.-ibidem, in the same place
id.-idem, the same
i.e.-id est, that is
imp.-imprimatur, sanction, let it be printed
I.N.D.-in nomine Dei, in the name of God
in f.-in fine, at the end
inf.-infra, below
init.-initio, in the beginning
in lim.-in limine, on the threshold, at the outset
in loc.-in loco, in its place
in loc. cit.-in loco citato, in the place cited
in pr.-in principio, in the beginning
in trans.-in transitu, on the way
i.q.-idem quod, the same as
i.q.e.d.-id quod erat demonstrandum, what was to be proved
J.-judex, judge
J.C.D.-juris civilis doctor, doctor of civil law
J.D.-jurum or juris doctor, doctor of laws
J.U.D.-juris utriusque doctor, doctor of both civil and canon law
L.-liber, a book; locus, a place
£—libra, pound; placed before figures thus $£ 10$; if l., to be placed after, as 401.
L.A.M.-liberalium artium magister, master of the liberal arts
L.B.-baccalaureus literarum, bachelor of letters
lb.-libra, pound (singular and plural)
L.H.D.-literarum humaniorum doctor, doctor of the more humane letters
Litt. D.-literarum doctor, doctor of letters
LL.B.-legum baccalaureus, bachelor of laws
LL.D.-legum doctor, doctor of laws
LL.M.-legum magister, master of laws
loc. cit.-loco citato, in the place cited
loq.-loquitur, he, or she, speaks
L.S.-locus sigilli, the place of the seal
l.s.c.-loco supra citato, in the place above cited
$£$ s. d.-librae, solidi, denarii, pounds, shillings, pence
M.-magister, master; manipulus, handful; medicinae, of medicine; m., meridies, noon
M.A.-magister artium, master of arts
M.B.-medicinae baccalaureus, bachelor of medicine
M. Ch.-magister chirurgiae, master of surgery
M.D.-medicinae doctor, doctor of medicine
m.m.-mutatis mutandis, with the necessary changes
m.n.-mutato nomine, the name being changed
MS.-manuscriptum, manuscript; MSS., manuscripta, manuscripts
Mus. B.-musicae baccalaureus, bachelor of music
Mus. D.-musicae doctor, doctor of music
Mus. M.-musicae magister, master of music
N.-Nepos, grandson; nomen, name; nomina, names; noster, our; n., natus, born; nocte, at night
N.B.-nota bene, mark well
ni. pri.-nisi prius, unless before
nob.-nobis, for (or on) our part
nol. pros.-nolle prosequi, will not prosecute
non cul.-non culpabilis, not guilty
n.l.-non licet, it is not permitted; non liquet, it is not clear; non longe, not far
non obs.-non obstante, notwithstanding
non pros.-non prosequitur, he does not prosecute
non seq.-non sequitur, it does not follow logically
O.-octarius, a pint
ob.-obiit, he, or she, died; obiter, incidentally
ob. s.p.-obiit sine prole, died without issue
o.c.-opere citato, in the work cited op.-opus, work; opera, works op. cit.-opere citato, in the work cited P.-papa, pope; pater, father; pontifex, bishop; populus, people; p ., partim, in part; per, by, for; pius, holy; pondere, by weight; post, after; primus, first; pro, for
p.a.-or per ann., per annum, yearly; pro anno, for the year
p. ae.-partes aequales, equal parts
pass.-passim, everywhere
percent.-per centum, by the hundred pil.-pilula, pill
Ph. B.-philosophiae baccalaureus, bachelor of philosophy
P.M.-post mortem, after death
p.m.-post meridiem, afternoon
pro tem.-pro tempore, for the time being
prox.-proximo, in or of the next [month]
P.S.-postscriptum, postscript; P.SS., postscripta, postscripts
q.d.-quasi dicat, as if one should say; quasi dictum, as if said; quasi dixisset, as if he had said
q.e.-quod est, which is
Q.E.D.-quod erat demonstrandum, which was to be demonstrated
Q.E.F.-quod erat faciendum, which was to be done
Q.E.I.-quod erat inveniendum, which was to be found out
q.l.-quantum libet, as much as you please
q. pl.-quantum placet, as much as seems good
q.s.-quantum sufficit, sufficient quantity
q.v.-quantum vis, as much as you will; quem, quam, quod vide, which see; qq. v., quos, quas, or quae vide, which see (plural)
R.-regina, queen; recto, right-hand page; respublica, commonwealth
R-recipe, take
R.I.P.-requiescat, or requiescant, in pace, may he, she, or they, rest in peace
R.P.D.-rerum politicarum doctor, doctor of political science
R.S.S.-Regiae Societatis Sodalis, Fellow of the Royal Society
S.-sepultus, buried; situs, lies; societas, society; socius or sodalis, fellow; s., semi, half; solidus, shilling
s.a.-sine anno, without date; secundum artem, according to art
S.A.S.-Societatis Antiquariorum Socius, Fellow of the Society of Antiquaries
sc.-scilicet, namely; sculpsit, he, or she, carved or engraved it
Sc. B.-scientiae baccalaureus, bachelor of science
Sc. D.-scientiae doctor, doctor of science
S.D.-salutem dicit, sends greetings
s.d.-sine die, indefinitely
sec.-secundum, according to
sec. leg.-secundum legem, according to law
sec. nat.-secundum naturam, according to nature, or naturally
sec. reg.-secundum regulam, according to rule
seq.-sequens, sequentes, sequentia, the following
S.H.S.-Societatis Historiae Socius, Fellow of the Historical Society s.h.v.-sub hac voce or sub hoc verbo, under this word
s.l.a.n.-sine loco, anno, vel nomine, without place, date, or name
s.l.p.-sine legitima prole, without lawful issue
s.m.p.-sine mascula prole, without male issue
s.n.-sine nomine, without name
s.p.-sine prole, without issue
S.P.A.S.-Societatis Philosophiae Americanae Socius, Fellow of the American Philosophical Society
s.p.s.-sine prole superstite, without surviving issue
S.R.S.-Societatis Regiae Socius or Sodalis, Fellow of the Royal Society
ss-scilicet, namely (in law)
S.S.C.-Societas Sanctae Crucis, Society of the Holy Cross
stat.-statim, immediately
S.T.B.-sacrae theologiae baccalaureus, bachelor of sacred theology
S.T.D.-sacrae theologiae doctor, doctor of sacred theology
S.T.P.-sacrae theologiae professor, professor of sacred theology
sub.-subaudi, understand, supply
sup.-supra, above
t. or temp.-tempore, in the time of tal. qual.-talis qualis, just as they come; average quality
U.J.D.-utriusque juris doctor, doctor of both civil and canon law
ult.-ultimo, last month (may be abbreviated in writing but should be spelled out in printing)
ung.-unguentum, ointment
u.s.-ubi supra, in the place above mentioned
ut dict.-ut dictum, as directed
ut sup.-ut supra, as above
ux.-uxor, wife
v.--versus, against; vide, see; voce, voice, word
v. -a., vixit — annos-lived [so many] years
verb. sap.-verbum [satis] sapienti, a word to the wise suffices
v.g.-verbi gratia, for example
viz-videlicet, namely
v.s.-vide supra, see above

## Information technology acronyms and initialisms

9.64. If abbreviations are required, use these forms:

AARP—Apple Address Resolution Protocol

ABLS—Automated Bid List System
ABM-asynchronous balanced mode
ACES-access certificates for electronic services
ACP—Access Content Package
ACS—Access Content Storage
ACSIS—Acquisition, Classification, and Shipment Information System

AES—advanced encryption standard AIFF-audio interchange file format
AIP—Archival Information Package
AIS—Archival Information Storage
ANSI-American National Standards
Institute
AP—access processor
ARK—archival resource key
ARP—address resolution protocol
ASCII-American Standard Code for
Information Interchange

ASP—application service provider
BAC-billing address code
BBS—bulletin board service
BPEL-business process execution language
BPI-business process information
BPS—business process storage
CA-certification authority
CCSDS-Consultative Committee for
Space Data Systems
CD-compact disk
CDN—content delivery network
CDR-critical design review
CD-ROM - compact disk read only memory
CE-content evaluator
CFR-Code of Federal Regulations
CGP—Catalog of U.S. Government Publications

CMS-content management system
CMYK-cyan, magenta, yellow, black
CO—content originator
COOP-continuity of operations plan
CP -content processor
CPI-content packet information
CRC-cyclic redundancy checks
CSV-comma separated variable
DBMS-database management system
DES - data encryption standard
DIP—Dissemination Information Package
DMI—desktop management interface
DNS-domain name system
DO—digital objects
DOI—Digital Object Identifier
DoS—denial of service
DPI—dots per inch
DSR—deployment system review
DSSL-document style and semantics
language
DVD—digital versatile disc
EA-enterprise architecture
EAD—encoded archival description

EAC-estimate at completion
EAP-enterprise application platform
EBCDIC-Extended Binary Coded
Decimal Interchange Code
ePub-Electronic Publishing Section
FAQ-frequently asked question
FBCA-Federal Bridge Certificate
Authority
FDDI-fiber distributed data interface
FDLP—Federal Depository Library
Program
FDsys—Federal Digital System
FICC-Federal Identity Credentialing
Committee
FIFO-first in first out
FIPS—Federal Information Processing Standard
FOB-free on board
FOSI-format output specification
instance
FTP-file transfer protocol
GAP—GPO Access Package
GDI-graphical device interface
GFE-government furnished equipment
GFI-government furnished information
GGP—gateway-to-gateway protocol
GIF-graphics interchange format
GILS—Government Information
Locator Service
GUI-graphical user interface
HDTV-high definition television
HMAC-key hashed message authentication code
HSM-hardware security module
HTML—hypertext markup language
HTTP—hypertext transfer protocol
Hz-Hertz
ICMP—internet control message protocol
ID-Information Dissemination
IDD-interface design description

IEEE-Institute of Electronics and Electrical Engineers
IETF-Internet Engineering Task Force

ILS—Integrated Library System
IP—internet protocol
IPR-internal progress review
IPSEC—internet protocol security
ISO—International Organization for
Standardization
ISP—internet service provider
ISSN—International Standard Serial
Number
IT—information technology
ITU—International
Telecommunications Union
JDF-Job Definition Format
JPEG—Joint Photographic Experts Group
LAN-local area network
LDAP—lightweight directory access protocol
LPI-lines per inch
MAC—message authentication code
MARC-Machine Readable
Cataloging
METS-Metadata Encoding and
Transmission Standard
MHz -megahertz
MIME—multipurpose internet mail extensions
MIPS—millions of instructions per second
MMAR—Materials Management
Procurement Regulation
MODS—Metadata Object Descriptive Schema

MPCF-marginally punched
continuous forms
NAT—network address translation
NDIIPP—National Digital
Information Infrastructure and
Preservation Program

NFC-National Finance Center
NIST—National Institute of Standards and Technology
NNTP—network news transfer protocol
OAI—Open Archives Initiative
OAI-PMH—Open Archives Initiative Protocol for Metadata Harvesting
OAIS—Open Archival Information Systems
OCLC—Online Computer Library Center

OCR—optical character recognition
OLTP—online transaction processing
PRONOM—Practical Online
Compendium of File Formats
PTR—program tracking report
PURL—persistent uniform resource
locator
RAID—redundant array of inexpensive disks
RAM—random access memory
RFC—request for comments
RGB—red, green, blue
RI—representation information
RMA—reliability, maintainability, availability
RPC—remote procedure call
RSA—Rivest, Shamir, Adleman
(public key decryption algorithm)
RTF—rich text format
RVTM—requirements verification traceability matrix
SAML—security assertion markup language
SDLC—software/system development life cycle
SDR—system design review
Section 508-Section 508 of the
Rehabilitation Act
SGML—standard generalized markup language
SHA—secure hash algorithm

SIP—Submission Information Package
SLIP—serial line internet protocol
SMP—storage management processor
SMS—storage management system
SMTP—simple mail transfer protocol
SNMP—simple network management protocol
SPA-simplified purchase agreement
SSL-secure sockets layer
SSP—system security plan
SSR—software specification review
TDES—Triple Data Encryption Standard
TIFF-tagged image file format
TLS—transport layer security
UDP—user datagram protocol
URL-uniform resource locator
URN-uniform resource name/ number

VLAN-virtual local area network
VPN—virtual private network
VRML—virtual reality modeling language
W3C-World Wide Web Consortium
WAIS—wide area information service
WAN-wide area network
WAP—wireless application protocol
WAV—waveform audio format
WIP—work in process
WML—wireless markup language
WMS—workflow management system
WWW—World Wide Web
WYSIWYG-what you see is what you get
XML-extensible markup language
XMLDsig-xml signature XMLENC-xml encryption


[^0]:    U.S. Government
    U.S. Congress
    U.S. Department of Health and Human Services
    U.S. district court
    U.S. Supreme Court (but Supreme Court of the United States)
    U.S. Army (but Army of the United States)

[^1]:    ${ }^{1}$ Without figures preceding it, ${ }^{\circ} \mathrm{C}$ or ${ }^{\circ} \mathrm{F}$ should be used only in boxhead and over figure columns in tables.
    ${ }^{2}$ Preferred form (superseding Centigrade).

