**NATO Phonetic Alphabet**

From Wikipedia, the free encyclopedia

*Not to be confused with* [*International Phonetic Alphabet*](http://en.wikipedia.org/wiki/International_Phonetic_Alphabet)*.*

FAA radiotelephony alphabet and [Morse code](http://en.wikipedia.org/wiki/Morse_code) chart

The NATO phonetic alphabet, also known as the NATO spelling alphabet, ICAO phonetic or spelling alphabet, ITU phonetic alphabet, and the international radiotelephony spelling **alphabet**, is the most widely used [spelling alphabet](http://en.wikipedia.org/wiki/Spelling_alphabet). Though often called "phonetic alphabets", spelling alphabets are not in fact [phonetic](http://en.wikipedia.org/wiki/Phonetics) in the sense that [linguists](http://en.wikipedia.org/wiki/Linguist) use the term, and they do not have any association with [phonetic transcription](http://en.wikipedia.org/wiki/Phonetic_transcription) systems like the [International Phonetic Alphabet](http://en.wikipedia.org/wiki/International_Phonetic_Alphabet). Instead, the [International Civil Aviation Organization](http://en.wikipedia.org/wiki/International_Civil_Aviation_Organization) (ICAO) alphabet assigns [code words](http://en.wikipedia.org/wiki/Code_word) to digits and [acrophonically](http://en.wikipedia.org/wiki/Acrophony) to the letters of the [English alphabet](http://en.wikipedia.org/wiki/English_alphabet) (*Alfa* for A, *Bravo* for B, etc.) so that critical combinations of letters and numbers can be pronounced and understood by those who transmit and receive voice messages by radio or telephone regardless of their native language, especially when navigation or persons might be endangered due to transmission static.

**International adoption**

After the phonetic alphabet was developed by the International Civil Aviation Organization (ICAO) (see [history](http://en.wikipedia.org/wiki/NATO_phonetic_alphabet#History#History) below) it was adopted by many other international and national organizations, including the [North Atlantic Treaty Organization](http://en.wikipedia.org/wiki/North_Atlantic_Treaty_Organization) (NATO), the [International Telecommunication Union](http://en.wikipedia.org/wiki/International_Telecommunication_Union) (ITU), the [International Maritime Organization](http://en.wikipedia.org/wiki/International_Maritime_Organization) (IMO), the American [Federal Aviation Administration](http://en.wikipedia.org/wiki/Federal_Aviation_Administration) (FAA), the [American National Standards Institute](http://en.wikipedia.org/wiki/American_National_Standards_Institute) (ANSI), and the [American Radio Relay League](http://en.wikipedia.org/wiki/American_Radio_Relay_League) (ARRL). It is a subset of the much older [International Code of Signals](http://en.wikipedia.org/wiki/International_Code_of_Signals) (INTERCO), which originally included visual signals by flags or flashing light, sound signals by whistle, siren, foghorn, or bell, as well as one, two, or three letter codes for many phrases. The same alphabetic code words are used by all agencies, but each agency chooses one of two different sets of numeric code words. NATO uses the regular English numeric words (Zero, One, with some alternative pronunciations), whereas the IMO provides for compound numeric words (Nadazero, Unaone, Bissotwo...). In practice these are used very rarely, as they frequently result in confusion between speakers of different languages.

**NATO**

The spelling alphabet's common name (NATO phonetic alphabet) exists because it appears in Allied Tactical Publication ATP-1, Volume II: *Allied Maritime Signal and Maneuvering Book* used by all allied navies of NATO, which adopted a modified form of the *International Code of Signals*. Because the latter allows messages to be spelled via flags or [Morse code](http://en.wikipedia.org/wiki/Morse_code), it naturally named the code words used to spell out messages by *voice* its "phonetic alphabet". The name *NATO phonetic alphabet* became widespread because the signals used to facilitate the naval communications and tactics of NATO have become global. However, ATP-1 is marked *NATO Confidential* (or the lower *NATO Restricted*) so it is not available publicly. Nevertheless, a NATO unclassified version of the document is provided to foreign, even hostile, militaries, even though they are not allowed to make it available publicly. The spelling alphabet is now also defined in other unclassified international military documents.

**Language**

Most of the words are recognizable by native English speakers because English must be used upon request for communication between an aircraft and a control tower whenever two different nations are involved, especially when they speak different languages. It is generally required internationally, not domestically, however, thus if both parties of a radio conversation are from the same country, then another phonetic alphabet of that nation's choice may be used.

In most versions of the alphabet, the non-English spellings Alfa and Juliet are used. *Alfa* is spelled with an *f* as it is in most European languages. The English and French spelling *alpha* would not be pronounced properly by speakers of some other languages the native speakers of which may not know that *ph* should be pronounced as *f*. *Juliet* is spelled with a *tt* for [French](http://en.wikipedia.org/wiki/French_language) speakers because they may otherwise treat a single final *t* as silent. For English versions of the alphabet, like that from ANSI or the version used by the British armed forces and emergency services, one or both may revert to their standard English spelling.

**Code words**

The pronunciation of the codes for the letters of the alphabet and for the digits varies according to the language habits of the speaker. To eliminate wide variations in pronunciation, posters illustrating the pronunciation desired by the ICAO are available. However, there are still differences in pronunciation between the ICAO and other agencies, and the ICAO has conflicting Roman-alphabet and IPA transcriptions. Also, although all codes for the letters of the alphabet are English words, they are not in general given English pronunciations. Assuming that the transcriptions are not intended to be precise, only 11 of the 26—*Bravo, Echo, Hotel, Juliet(t), Kilo, Mike, Papa, Quebec, Romeo, Whiskey,* and *Zulu*—are given English pronunciations by all these agencies, though not always the same English pronunciations.

**Letters**

|  |  |  |
| --- | --- | --- |
| **Letter** | **Code word** | **Pronunciation** |
| **US Armystandard** | **ICAO and ITURoman standard** | **FAAstandards** | **ICAOIPA standard** | **Consolidated transcription** |
| [A](http://en.wikipedia.org/wiki/A) | **Alfa**(ICAO, ITU,IMO, FAA)**Alpha** (ANSI) | AL fah | AL FAH | **AL**FAH orAL-FAH | ˈælfɑ | [/ˈælfɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***al****-fah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [B](http://en.wikipedia.org/wiki/B) | **Bravo** | BRAH voh | BRAH VOH | **BRAH**VOH orBRAH-VO | ˈbrɑːˈvo | [/ˈbrɑːvoʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***brah****-voh*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˌbrɑːˈvoʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***brah-voh***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [C](http://en.wikipedia.org/wiki/C) | **Charlie** | CHAR lee | CHAR LEE orSHAR LEE | **CHAR**LEE orCHAR-LEE orSHAR-LEE | ˈtʃɑːli orˈʃɑːli | [/ˈtʃɑrliː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***char****-lee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈtʃɑːliː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***chah****-lee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈʃɑrliː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***shar****-lee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈʃɑːliː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***shah****-lee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [D](http://en.wikipedia.org/wiki/D) | **Delta** | DEL tah | DELL TAH | **DELL**TAH orDELL-TAH | ˈdeltɑ | [/ˈdɛltɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***del****-tah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [E](http://en.wikipedia.org/wiki/E) | **Echo** | EKK oh | ECK OH | **ECK**OH orECK-OH | ˈeko | [/ˈɛkoʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***ek****-oh*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [F](http://en.wikipedia.org/wiki/F) | **Foxtrot** | FOKS trot | FOKS TROT | **FOKS**TROT orFOKS-TROT | ˈfɔkstrɔt | [/ˈfɔːkstrɔːt/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***fawks****-trawt*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [G](http://en.wikipedia.org/wiki/G) | **Golf** | Golf | GOLF | GOLF | ɡʌlf  | [/ˈɡɔːlf/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***gawlf***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈɡʌlf/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***gulf***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [H](http://en.wikipedia.org/wiki/H) | **Hotel** | HO tell | HOH TELL | HOH**TELL** orHOH-TELL | hoːˈtel | [/hoʊˈtɛl/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*hoh-****tel***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈhoʊtɛl/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***hoh****-tel*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [I](http://en.wikipedia.org/wiki/I) | **India** | IN dee ah | IN DEE AH | **IN**DEE AH orIN-DEE-AH | ˈindiˑɑ | [/ˈɪndiːɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***in****-dee-ah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [J](http://en.wikipedia.org/wiki/J) | **Juliett**(ICAO, ITU,IMO, FAA)**Juliet** (ANSI) | JEW lee ett | JEW LEE ETT | **JEW**LEE ETT orJEW-LEE-ETT | ˈdʒuːliˑˈet | [/ˈdʒuːliːɛt/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***jew****-lee-et*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˌdʒuːliːˈɛt/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***jew****-lee-****et***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [K](http://en.wikipedia.org/wiki/K) | **Kilo** | KEY loh | KEY LOH | **KEY**LOH orKEY-LOH | ˈkiːlo | [/ˈkiːloʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) ***[kee](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key%22%20%5Co%20%22Wikipedia%3APronunciation%20respelling%20key)****[-loh](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key%22%20%5Co%20%22Wikipedia%3APronunciation%20respelling%20key)* |
| [L](http://en.wikipedia.org/wiki/L) | **Lima** | LEE mah | LEE MAH | **LEE**MAH orLEE-MAH | ˈliːmɑ | [/ˈliːmɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***lee****-mah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [M](http://en.wikipedia.org/wiki/M) | **Mike** | Mike | MIKE | MIKE | mɑik | [/ˈmaɪk/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***myk***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [N](http://en.wikipedia.org/wiki/N) | **November** | NOH vem ber | NO VEM BER | NO**VEM**BER orNO-VEM-BER | noˈvembə | [/noʊˈvɛmbə/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*noh-****vem****-bə*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈnoʊvɛmbər/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***noh****-vem-bər*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [O](http://en.wikipedia.org/wiki/O) | **Oscar** | OSS car | OSS CAH | **OSS**CAH orOSS-CAH | ˈɔskɑ | [/ˈɔːskɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***aws****-kah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈɔːskɑr/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***aws****-kar*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [P](http://en.wikipedia.org/wiki/P) | **Papa** | PAH | PAH | PAH**PAH** orPAH-PAH | pəˈpɑ | [/pɑːˈpɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*pah-****pah***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/pəˈpɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*pə-****pah***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈpɑːpɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***pah****-pah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [Q](http://en.wikipedia.org/wiki/Q) | **Quebec** | keh BECK | KEH BECK | KEH**BECK** orKEH-BECK | keˈbek | [/kɛˈbɛk/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*ke-****bek***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [R](http://en.wikipedia.org/wiki/R) | **Romeo** | ROW me oh | ROW ME OH | **ROW**ME OH orROW-ME-OH | ˈroːmiˑo | [/ˈroʊmiːoʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***roh****-mee-oh*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [S](http://en.wikipedia.org/wiki/S) | **Sierra** | see AIR ah | SEE AIR RAH | SEE**AIR**AH orSEE-AIR-AH | siˈerɑ | [/siːˈɛrɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*see-****err****-ah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [T](http://en.wikipedia.org/wiki/T) | **Tango** | TANG go | TANG GO | **TANG**GO orTANG-GO | ˈtænɡo [*sic*] | [/ˈtæŋɡoʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***tang****-goh*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈtæn.ɡoʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***tan****-goh*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [U](http://en.wikipedia.org/wiki/U) | **Uniform** | YOU nee form | YOU NEE FORM orOO NEE FORM | **YOU**NEE FORM orYOU-NEE-FORM orOO-NEE-FORM | ˈjuːnifɔːm orˈuːnifɔrm | [/ˈjuːniːfɔrm/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***ew****-nee-form*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈjuːniːfɔːm/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***ew****-nee-fawm*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈuːniːfɔrm/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***oo****-nee-form*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [V](http://en.wikipedia.org/wiki/V) | **Victor** | VIK ter | VIK TAH | **VIK**TAH orVIK-TAH | ˈviktɑ | [/ˈvɪktɑː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***vik****-tah*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈvɪktər/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***vik****-tər*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [W](http://en.wikipedia.org/wiki/W) | **Whiskey** | WISS key | WISS KEY | **WISS**KEY orWISS-KEY | ˈwiski | [/ˈwɪskiː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***wis****-kee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [X](http://en.wikipedia.org/wiki/X) | **X-ray** or**Xray** | EKS ray | ECKS RAY | **ECK**SRAY [*sic*] orECKS-RAY | ˈeksˈrei | [/ˈɛksreɪ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***eks****-ray*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˌɛksˈreɪ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***eks-ray***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [Y](http://en.wikipedia.org/wiki/Y) | **Yankee** | YANG kee | YANG KEY | **YAN**GKEY [*sic*] orYANG-KEY | ˈjænki [*sic*] | [/ˈjæŋkiː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***yang****-kee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) or[/ˈjæn.kiː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***yan****-kee*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [Z](http://en.wikipedia.org/wiki/Z) | **Zulu** | ZOO loo | ZOO LOO | **ZOO**LOO orZOO-LOO | ˈzuːluː | [/ˈzuːluː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***zoo****-loo*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| (hyphen) | **Dash** |  |  |  |  | [/ˈdæʃ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [*dash*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |

**Digits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Digit** | **Code word** | **Pronunciation** | **Wikipedia transcription** |
| [0](http://en.wikipedia.org/wiki/0_%28number%29) | Zero (FAA)Nadazero (ITU, IMO) | ZE-RO (ICAO), ZE RO or ZEE-RO (FAA)NAH-DAH-ZAY-ROH (ITU, IMO) | [/ˈziːroʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***zee****-roh*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌnɑːˌdɑːˌzeɪˈroʊ/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***nah-dah-zay-roh***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [1](http://en.wikipedia.org/wiki/1_%28number%29) | One (FAA)Unaone (ITU, IMO) | WUN (ICAO, FAA)OO-NAH-WUN (ITU, IMO) | [/ˈwʌn/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***wun***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌuːˌnɑːˈwʌn/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***oo-nah-wun***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [2](http://en.wikipedia.org/wiki/2_%28number%29) | Two (FAA)Bissotwo (ITU, IMO) | TOO (ICAO, FAA)BEES-SOH-TOO (ITU, IMO) | [/ˈtuː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***too***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌbiːˌsoʊˈtuː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***bee-soh-too***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [3](http://en.wikipedia.org/wiki/3_%28number%29) | Three (FAA)Terrathree (ITU, IMO) | TREE (ICAO, FAA)TAY-RAH-TREE (ITU, IMO) | [/ˈtriː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***tree***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌteɪˌrɑːˈtriː/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***tay-rah-tree***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [4](http://en.wikipedia.org/wiki/4_%28number%29) | Four (FAA)Kartefour (ITU, IMO) | FOW-ER (ICAO), **FOW** ER (FAA)KAR-TAY-FOWER (ITU, IMO) | [/ˈfoʊ.ər/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***foh****-ər*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌkɑrˌteɪˈfoʊ.ər/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***kar-tay-foh****-ər*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [5](http://en.wikipedia.org/wiki/5_%28number%29) | Five (FAA)Pantafive (ITU, IMO) | FIFE (ICAO, FAA)PAN-TAH-FIVE (ITU, IMO) | [/ˈfaɪf/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***fyf***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) [/ˌpænˌtɑːˈfaɪv/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***pan-tay-fyv***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [6](http://en.wikipedia.org/wiki/6_%28number%29) | Six (FAA)Soxisix (ITU, IMO) | SIX (ICAO, FAA)SOK-SEE-SIX (ITU, IMO) | [/ˈsɪks/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***siks***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌsɔːkˌsiːˈsɪks/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***sawk-see-siks***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [7](http://en.wikipedia.org/wiki/7_%28number%29) | Seven (FAA)Setteseven (ITU, IMO) | SEV-EN (ICAO), **SEV** EN (FAA)SAY-TAY-SEVEN (ITU, IMO) | [/ˈsɛvɛn/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***sev****-en*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌseɪˌteɪˈsɛvɛn/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***say-tay-sev****-en*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [8](http://en.wikipedia.org/wiki/8_%28number%29) | Eight (FAA)Oktoeight (ITU, IMO) | AIT (ICAO, FAA)OK-TOH-AIT (ITU, IMO) | [/ˈeɪt/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***ayt***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌɔːkˌtoʊˈeɪt/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***awk-toh-ayt***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [9](http://en.wikipedia.org/wiki/9_%28number%29) | Nine (FAA)Nine *or* niner (ICAO)Novenine (ITU, IMO) | NIN-ER (ICAO), **NIN** ER (FAA)NO-VAY-NINER (ITU, IMO) | [/ˈnaɪnər/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***ny****-nər*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key)[/ˌnɔːˌveɪˈnaɪnər/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***naw-vay-ny****-nər*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [100](http://en.wikipedia.org/wiki/Hundred) | Hundred (ICAO) | HUN-dred (ICAO) | [/ˈhʌndrɛd/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***hun****-dred*](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [1000](http://en.wikipedia.org/wiki/Thousand) | Thousand (ICAO) | TOU-SAND (ICAO) | [/ˌtaʊˈsænd/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***tow-sand***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) (??) |
| [.](http://en.wikipedia.org/wiki/Decimal_point) (decimal point) | Decimal (ITU, ICAO) | DAY-SEE-MAL (ITU) (ICAO) | [/ˌdeɪˌsiːˈmæl/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***day-see-mal***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |
| [.](http://en.wikipedia.org/wiki/Full_stop) (full stop) | Stop (ITU) | STOP (ITU) | [/ˈstɔːp/](http://en.wikipedia.org/wiki/Wikipedia%3AIPA_for_English) [***stawp***](http://en.wikipedia.org/wiki/Wikipedia%3APronunciation_respelling_key) |

**Other words**

Several important short words and responses have set equivalents designed to make them more reliably intelligible, and are used in the same situations as the NATO alphabet. For "yes" and "no", radio operators say *affirmative* and *negative* however to avoid possible confusion *affirm* is sometimes used rather than *affirmative*; "help" is [*mayday*](http://en.wikipedia.org/wiki/Mayday) *– emergency*; and acknowledgement of a message is expressed with *roger message*: "[roger](http://en.wikipedia.org/wiki/Roger)" was the WWII-era code word for R, standing for "received". [Telegraphese](http://en.wikipedia.org/wiki/Telegraphese) is used, with functions words like *the, a/an,* and *is/are* dropped, and contractions are avoided for full forms such as *do not*. And, as noted above, *stop* is used to end a sentence, contrasting with *decimal* for a decimal point in a number.

**Pronunciation**

Pronunciations are somewhat uncertain because the agencies, while ostensibly using the same pronunciations, give different transcriptions, which are often inconsistent from letter to letter. The ICAO gives different pronunciations in IPA transcription than in respelling, and the FAA also gives different pronunciations depending on the publication consulted, the *FAA Aeronautical Information Manual* (§ 4-2-7), the FAA *Flight Services* manual (§ 14.1.5), or the *ATC* manual (§ 2-4-16). ANSI gives English spellings, but does not give pronunciations or numbers. The ICAO, NATO, and FAA use modifications of English numerals, with stress on one syllable, while the ITU and IMO compound pseudo-Latinate numerals with a slightly different set of modified English numerals, and with stress on each syllable. Numbers 10–99 are spelled out (that is, 17 is "1-7" and 60 is "6-0"), while for hundreds and thousands the English words *hundred* and *thousand* are used.

Only the ICAO prescribes pronunciation with the [IPA](http://en.wikipedia.org/wiki/IPA), and then only for letters. Several of the pronunciations indicated are slightly modified from their normal English pronunciations: /ˈælfɑ, ˈbrɑːˈvo, ˈʃɑːli, ˈdeltɑ, ˈfɔkstrɔt, ɡʌlf, ˈliːmɑ, ˈɔskɑ, siˈerɑ, ˈtænɡo, ˈuːnifɔrm, ˈviktɑ, ˈjænki/, partially due to the substitution of final [schwas](http://en.wikipedia.org/wiki/Schwa) with the *ah* vowel; in addition, the intended distinction between the short vowels /o ɑ ɔ/ and the long vowels /oː ɑː ɔː/ is obscure, and has been ignored in the consolidated transcription. Both the IPA and Latin alphabet pronunciations were developed by the ICAO before 1956 with advice from the governments of both the [United States](http://en.wikipedia.org/wiki/United_States) and [United Kingdom](http://en.wikipedia.org/wiki/United_Kingdom), so the pronunciations of both [General American](http://en.wikipedia.org/wiki/General_American) English and British [Received Pronunciation](http://en.wikipedia.org/wiki/Received_Pronunciation) are evident, especially in the [rhotic and non-rhotic accents](http://en.wikipedia.org/wiki/Rhotic_and_non-rhotic_accents). The Latin alphabet version is usually at least consistent with a rhotic accent ('r' pronounced), as in **CHAR** LEE, **SHAR** LEE, NO **VEM** BER, **YOU** NEE FORM, and **OO** NEE FORM, whereas the IPA version usually specifies a non-rhotic accent ('r' pronounced only before a vowel), as in ˈtʃɑːli, ˈʃɑːli, noˈvembə, and ˈjuːnifɔːm. Exceptions are **OSS** CAH, **VIK** TAH and ˈuːnifɔrm. The IPA form of *Golf* implies it is pronounced *gulf*, which does occur, but not in either General American English or British Received Pronunciation. Different agencies assign different stress patterns to *Bravo, Hotel, Juliett, November, Papa, X-ray*; the ICAO has different stresses for *Bravo, Juliett, X-ray* in its respelled and IPA transcriptions. The ŋ [phoneme](http://en.wikipedia.org/wiki/Phoneme) ('ng') in the IPA forms of *Tango* and *Yankee* is shown as an 'n' and marked '[*sic*]'. The mid-height back rounded vowel shown in *Oscar* and *Foxtrot* is actually a low back rounded vowel in Received British, and a low unrounded vowel in General American. Furthermore, the pronunciation prescribed for "whiskey" agrees with many (but by no means all) English dialects, in which the "wh-" is simplified into the non-[fricative](http://en.wikipedia.org/wiki/Fricative) "w-" sound.

**History**

The first internationally recognized spelling alphabet was adopted by the [ITU](http://en.wikipedia.org/wiki/ITU) during 1927. The experience gained with that alphabet resulted in several changes being made during 1932 by the ITU. The resulting alphabet was adopted by the International Commission for Air Navigation, the predecessor of the [ICAO](http://en.wikipedia.org/wiki/ICAO), and was used for civil aviation until [World War II](http://en.wikipedia.org/wiki/World_War_II). It continued to be used by the IMO until 1965:

*Amsterdam Baltimore Casablanca Denmark Edison Florida Gallipoli Havana Italia Jerusalem Kilogramme Liverpool Madagascar New York Oslo Paris Quebec Roma Santiago Tripoli Upsala Valencia Washington Xanthippe Yokohama Zurich*

|  |
| --- |
| Military alphabets before 1956 |
|  |  |
| [**Royal Navy**](http://en.wikipedia.org/wiki/Royal_Navy) | **Western Front slangor "signalese"** | [**RAF phonetic alphabet**](http://en.wikipedia.org/wiki/RAF_phonetic_alphabet) | [**U.S. phoneticalphabet**](http://en.wikipedia.org/wiki/Joint_Army/Navy_Phonetic_Alphabet) |
| **1914–1918 (WWI)** | **1924–1942** | **1943–1956** | **1941–1956** |
| ApplesButterCharlieDuffEdwardFreddyGeorgeHarryInkJohnnieKingLondonMonkeyNutsOrangePuddingQueenieRobertSugarTommyUncleVinegarWillieXerxesYellowZebra | AckBeerCharlieDonEdwardFreddieGeeHarryInkJohnnieKingLondonEmmaNutsOrangesPipQueenRobertEssesTocUncleVicWilliamX-rayYorkerZebra | AceBeerCharlieDonEdwardFreddieGeorgeHarryInkJohnnieKingLondonMonkeyNutsOrangePipQueenRobertSugarTocUncleVicWilliamX-rayYorkerZebra | Able/AffirmBakerCharlieDogEasyFoxGeorgeHowItem/InterrogatoryJig/JohnnyKingLoveMikeNab/NegatOboePeter/PrepQueenRogerSugarTareUncleVictorWilliamX-rayYokeZebra | AbleBakerCharlieDogEasyFoxGeorgeHowItemJigKingLoveMikeNanOboePeterQueenRogerSugarTareUncleVictorWilliamX-rayYokeZebra |

For military use, British and American armed forces each developed their spelling alphabets before both forces adopted the ICAO alphabet during 1956. British forces adopted the [RAF phonetic alphabet](http://en.wikipedia.org/wiki/RAF_phonetic_alphabet), which is similar to the phonetic alphabet used by the [Royal Navy](http://en.wikipedia.org/wiki/Royal_Navy) during [World War I](http://en.wikipedia.org/wiki/World_War_I). The U.S. adopted the [Joint Army/Navy Phonetic Alphabet](http://en.wikipedia.org/wiki/Joint_Army/Navy_Phonetic_Alphabet) during 1941 to standardize systems amongst all branches of its armed forces. The U.S. alphabet became known as *Able Baker* after the words for A and B. The [United Kingdom](http://en.wikipedia.org/wiki/United_Kingdom) adapted its RAF alphabet during 1943 to be almost identical to the American Joint-Army-Navy (JAN) one.

After World War II, with many aircraft and ground personnel from the allied armed forces, "Able Baker" continued to be used for civil aviation. But many sounds were unique to English, so an alternative "Ana Brazil" alphabet was used in [Latin America](http://en.wikipedia.org/wiki/Latin_America). But the [International Air Transport Association](http://en.wikipedia.org/wiki/International_Air_Transport_Association) (IATA), recognizing the need for a single universal alphabet, presented a draft alphabet to the ICAO during 1947 that had sounds common to English, French, and Spanish. After further study and modification by each approving body, the revised alphabet was implemented on 1 November 1951 for civil aviation (but it may not have been adopted by any military):

*Alfa Bravo Coca Delta Echo Foxtrot Golf Hotel India Juliett Kilo Lima Metro Nectar Oscar Papa Quebec Romeo Sierra Tango Union Victor Whisky Extra Yankee Zulu*

Problems were soon found with this list. Some users believed that they were so severe that they reverted to the old "Able Baker" alphabet. To identify the deficiencies of the new alphabet, testing was conducted among speakers from 31 nations, principally by the governments of the [United Kingdom](http://en.wikipedia.org/wiki/United_Kingdom) and the [United States](http://en.wikipedia.org/wiki/United_States). Confusion among words like *Delta*, *Nectar*, *Victor*, and *Extra*, or the unintelligibility of other words during poor receiving conditions were the main problems. After much study, only the five words representing the letters C, M, N, U, and X were replaced. The final version given in the [table above](http://en.wikipedia.org/wiki/NATO_phonetic_alphabet#Alphabet_and_pronunciation#Alphabet_and_pronunciation) was implemented by the ICAO on 1 March 1956, and was adopted before 1959 by the ITU, because it appears in the 1959 [*Radio Regulations*](http://en.wikipedia.org/wiki/Radio_Regulations) as an established phonetic alphabet. Because the ITU governs all international radio communications, it was also adopted by all radio operators, whether military, civilian, or amateur ([ARRL](http://en.wikipedia.org/wiki/ARRL)). It was finally adopted by the IMO in 1965. During 1947 the ITU adopted the compound number words (Nadazero Unaone, etc.), later adopted by the IMO during 1965.

**Usage**

A spelling alphabet is used to spell parts of a message containing letters and numbers to avoid confusion, because many letters sound similar, for instance "n" and "m" or "b" and "d"; the potential for confusion increases if static or other interference is present. For instance the message "proceed to map grid DH98" could be transmitted as "proceed to map grid Delta-Hotel-Niner-Ait". Using "Delta" instead of "D" avoids confusion between "BH98" and "DH98". The unusual pronunciation of certain numbers was designed to reduce confusion.

In addition to the traditional military usage, civilian industry uses the alphabet to avoid similar problems in the transmission of messages by telephone systems. For example, it is often used in the retail industry where customer or site details are spoken by telephone (to authorize a credit agreement or confirm stock codes), although ad hoc coding is often used in that instance. It has been used often by information technology workers to communicate serial/reference codes (which are often very long) or other specialized information by voice. Additionally, most major airlines use the alphabet to communicate [Passenger Name Records](http://en.wikipedia.org/wiki/Passenger_Name_Record) (PNRs) internally, and in some cases, with customers.

Several letter codes and abbreviations using the spelling alphabet have become well-known, such as [Bravo Zulu](http://en.wikipedia.org/wiki/Bravo_Zulu) (letter code BZ) for "well done", [Checkpoint Charlie](http://en.wikipedia.org/wiki/Checkpoint_Charlie) (Checkpoint C) in [Berlin](http://en.wikipedia.org/wiki/Berlin), and [Zulu Time](http://en.wikipedia.org/wiki/Zulu_Time) for [Greenwich Mean Time](http://en.wikipedia.org/wiki/Greenwich_Mean_Time) or [Coordinated Universal Time](http://en.wikipedia.org/wiki/Coordinated_Universal_Time). During the [Vietnam War](http://en.wikipedia.org/wiki/Vietnam_War), [Viet Cong](http://en.wikipedia.org/wiki/Viet_Cong) guerrillas and the group itself were referred to as VC, or Victor Charlie; the name "Charlie" became synonymous with this force.

**Variants**

**Aviation**

* "Delta" is replaced by "Data", "Dixie" or "David" at airports that have a majority of [Delta Air Lines](http://en.wikipedia.org/wiki/Delta_Air_Lines) flights, such as [Hartsfield-Jackson Atlanta International Airport](http://en.wikipedia.org/wiki/Hartsfield-Jackson_Atlanta_International_Airport) in order to avoid confusion because "Delta" is also Delta's callsign.
* "Lima" is replaced by "London" in [Brunei](http://en.wikipedia.org/wiki/Brunei), [Indonesia](http://en.wikipedia.org/wiki/Indonesia), [Malaysia](http://en.wikipedia.org/wiki/Malaysia) and [Singapore](http://en.wikipedia.org/wiki/Singapore) because "lima" means "five" in [Indonesian](http://en.wikipedia.org/wiki/Indonesian_language), [Malay](http://en.wikipedia.org/wiki/Malay_language) and a number of other languages in those countries. Thus, confusion could occur if a string of mixed numerals and letters were being given.
* In Saudi Arabia, where a diverse population results in English being used for many commercial communications, the NATO alphabet is used. However, because alcohol is banned, "Washington" or "White" replaces "Whiskey" for "W".
* In Pakistan, where tolerance of alcohol varies, "Washington" often replaces "Whiskey" for "W". Additionally, "Indigo" or "Italy" replaces "India" because of historical and present conflicts between Pakistan and India.

**Other**

Many unofficial spelling alphabets are in use that are not based on a standard, but are based on words the transmitter can remember easily, including first names, states, or cities. The [LAPD phonetic alphabet](http://en.wikipedia.org/wiki/LAPD_phonetic_alphabet) has many first names.

**Additions in other languages**

Certain languages' standard alphabets have letters, or letters with diacritics (e.g., [umlauts](http://en.wikipedia.org/wiki/Umlaut_%28diacritic%29)) that do not exist in the English alphabet. If these letters have two letter substitutes, NATO code words corresponding to the two letters may be used.

**Swedish**

In [Swedish](http://en.wikipedia.org/wiki/Swedish_language), *Alfa Alfa* (aa) is used for <[Å](http://en.wikipedia.org/wiki/%C3%85)>, *Alfa Echo* (ae) for <[Ä](http://en.wikipedia.org/wiki/%C3%84)> and *Oscar Echo* (oe) for <[Ö](http://en.wikipedia.org/wiki/%C3%96)> in conjunction with the ICAO spelling alphabet.

**Norwegian**

In the Norwegian military, *Ærlig* is used for <[Æ](http://en.wikipedia.org/wiki/%C3%86)>, *Østen* is used for <[Ø](http://en.wikipedia.org/wiki/%C3%98)> and *Åse* is used for <[Å](http://en.wikipedia.org/wiki/%C3%85)>.

**See also**

* [International Code of Signals](http://en.wikipedia.org/wiki/International_Code_of_Signals) Includes flag representations.
* [LAPD phonetic alphabet](http://en.wikipedia.org/wiki/LAPD_phonetic_alphabet)
* [List of military time zones](http://en.wikipedia.org/wiki/List_of_military_time_zones)
* [Procedure word](http://en.wikipedia.org/wiki/Procedure_word)
* [Q code](http://en.wikipedia.org/wiki/Q_code)
* [Ten-code](http://en.wikipedia.org/wiki/Ten-code)
* [Voice procedure](http://en.wikipedia.org/wiki/Voice_procedure)

**External links**

* [Phonetic transcription tool](http://www.radiospelling.com/)
* [Military Alphabet and translator on MilitarySpot.com](http://www.militaryspot.com/resources/item/military_alphabet)
* [Phonetic Alphabets, Historic, English & Others plus other Comms Info.](http://www.phonetic.org.au/alphabet.htm)
* [Most comprehensive collection of phonetic alphabets](http://www.bckelk.ukfsn.org/menu.html)
* [Online utility for phoneticising text](http://www.phoneticise.com/)
* [Public ICAO site](http://www.icao.int/)
* Google Gadgets:
	+ [NATO phonetic alphabet Google Gadget cheat sheet](http://www.falkens-maze.com/articles/39-reference/55-nato-phonetic-alphabet.html)
	+ [Spell It Out! (Alpha Bravo Charlie)](http://www.braju.com/ig/)

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