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The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. WordPress. , | The NATO Phonetic Alphabet, also known as the International Radiotelephony Spelling Alphabet, is a standardized set of words used to spell out letters in communication over radio or telephone. It is designed to reduce confusion and errors caused by misheard or misunderstood letters. In contrast, the normal alphabet is the standard set of letters used in written and spoken language. While the normal alphabet is used for everyday communication, the NATO Phonetic Alphabet is specifically designed for clear and precise communication in situations where clarity is crucial, such as military operations or aviation. Alphabets are the building blocks of language, allowing us to communicate effectively through the written word. While the normal alphabet is widely used in everyday communication, the NATO Phonetic Alphabet serves a specific purpose in military and aviation contexts. In this article, we will compare the attributes of the NATO Phonetic Alphabet and the normal alphabet, highlighting their differences and similarities.Origin and PurposeThe normal alphabet, also known as the Latin alphabet, has its origins in ancient Rome and has evolved over centuries to become the standard script for many languages around the world. It consists of 26 letters, from A to Z, and is used in written and printed communication. On the other hand, the NATO Phonetic Alphabet was developed by the International Civil Aviation Organization (ICAO) to improve communication clarity in radio transmissions. It assigns a unique word to each letter to avoid confusion between similar-sounding letters.Clarity and PrecisionOne of the key advantages of the NATO Phonetic Alphabet is its ability to ensure clear and precise communication, especially in noisy or chaotic environments. For example, when spelling out a word over a radio transmission using the normal alphabet, letters like "B" and "D" can sound similar and lead to misunderstandings. However, by using phonetic words like "Bravo" and "Delta" from the NATO Alphabet, the chances of miscommunication are significantly reduced.Usage in Military and AviationThe NATO Phonetic Alphabet is widely used in military operations, aviation, and other fields where clarity is critical. Pilots, air traffic controllers, and military personnel rely on the phonetic alphabet to spell out words, names, and codes with accuracy and speed. In contrast, the normal alphabet is used in everyday writing, typing, and reading, without the need for phonetic clarification.Memorization and TrainingLearning the NATO Phonetic Alphabet requires memorizing 26 unique words, one for each letter of the alphabet. This can be challenging for individuals who are not familiar with the phonetic system. In contrast, most people are already familiar with the normal alphabet from a young age, making it easier to recognize and use in daily communication. However, with practice and repetition, the NATO Phonetic Alphabet can become second nature for those who need to use it regularly.International StandardizationOne of the key benefits of the NATO Phonetic Alphabet is its international standardization, ensuring that communication remains consistent across different languages and regions. This is particularly important in aviation, where pilots and air traffic controllers from various countries need to communicate effectively in a common language. The normal alphabet, while widely used, can vary in pronunciation and spelling conventions depending on the language or region.Efficiency and SpeedWhen it comes to spelling out words or codes, the NATO Phonetic Alphabet is often faster and more efficient than using the normal alphabet. The phonetic words are designed to be easily distinguishable and pronounced, reducing the chances of errors or misunderstandings. In contrast, spelling out words letter by letter using the normal alphabet can be time-consuming, especially in high-pressure situations where quick communication is essential.ConclusionIn conclusion, both the NATO Phonetic Alphabet and the normal alphabet have their own unique attributes and purposes. While the normal alphabet is the standard script for written communication in many languages, the NATO Phonetic Alphabet offers a specialized system for clear and precise verbal communication in military and aviation contexts. Understanding the differences between these two alphabets can help individuals communicate effectively in a variety of situations. Comparisons may contain inaccurate information about people, places, or facts. Please report any issues. Alpha:is the term in the Phonetic Alphabet, that represents the letter "A". An alternate spelling is "Alfa" is a slang-term used by pilots when describing general maintenance status of an aircraft. Problems are referred to as Writeups. Fighter Aircraft use the term Code for the same purpose. The term is followed by a number to describe the severity of the writeup1 = No problems2 = Minor problems that do not affect the air-worthiness of the aircraft.3 = Problems severe enough that the aircraft should not be flown again until defects are fixed. Share copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. The phonetic alphabet assigns code words to the letters of the 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 the safety of navigation or persons is essential.LetterInternationalCommon US Law EnforcementAlfaAdamBravoBoyCharlieCharlieDDeltaDavidEEchoEdwardFFoxtrotFrankGGolfGeorgeHHotelHenryIIndiaIdaJJulietJohnKKiloKingLLimaLincolnMMikeMaryNNovemberNoraOOscarOceanPPapaPaulQQuebecQueenRRomeoRobertSSierraSamTTangoTomUUniformUnionVVictorVictorVWhiskeyWilliamXX-RayX-RayYYankeeYoungZZuluZebraExternal Links Letter names for unambiguous communicationNot to be confused with International Phonetic Alphabet.Alphabetic code wordsAlfaNovemberBravoOscarCharliePapaDeltaQuebecEchoRomeoFoxtrotSierraGolfTangoHotelUniformIndiaVictorJulietWhiskeyKiloXrayLimaYankeeMikeZuluICAO spelling alphabetvoice recording: ICAO spelling alphabetProblems playing this file? See media help.The International Radiotelephony Spelling Alphabet or simply the Radiotelephony Spelling Alphabet, commonly known as the NATO phonetic alphabet, is the most widely used set of clear-code words for communicating the letters of the Latin/Roman alphabet. Technically a radiotelephonic spelling alphabet, it goes by various names, including NATO spelling alphabet, ICAO phonetic alphabet, and ICAO spelling alphabet. The ITU phonetic alphabet and figure code is a rarely used variant that differs in the code words for digits.Although spelling alphabets are commonly called "phonetic alphabets", they are not phonetic in the sense of phonetic transcription systems such as the International Phonetic Alphabet.To create the code, a series of international agencies assigned 26clear-code words (also known as "phonetic words") acrophonically to the letters of the Latin alphabet, with the goal that the letters and numbers would be easily distinguishable from one another over radio and telephone. The words were chosen to be accessible to speakers of English, French and Spanish. Some of the code words were changed over time, as they were found to be ineffective in real-life conditions. In 1956, NATO modified the then-current set used by the International Civil Aviation Organization (ICAO): the NATO version was accepted by ICAO that year, and by the International Telecommunication Union (ITU) a few years later, thus becoming the international standard.[1] The 26code words are as follows (ICAO spellings): Alfa, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, Hotel, India, Juliett, Kilo, Lima, Mike, November, Oscar, Papa, Quebec, Romeo, Sierra, Tango, Uniform, Victor, Whiskey, X-ray, Yankee, and Zulu.[Note 1] Alfa and Juliett are spelled that way to avoid mispronunciation by people unfamiliar with English orthography. NATO changed X-ray to Xray for the same reason.[2] The code words for digits are their English names, though with their pronunciations modified in the cases of three, four, five, nine and thousand.The code words have been stable since 1956. A 1955 NATO memo stated that:It is known that [the spelling alphabet] has been prepared only after the most exhaustive tests on a scientific basis by several nations. One of the firmest conclusions reached was that it was not practical to make an isolated change to clear confusion between one pair of letters. To change one word involves reconsideration of the whole alphabet to ensure that the change proposed to clear one confusion does not itself introduce others.[3]Soon after the code words were developed by ICAO (see history below), they were adopted by other national and international organizations, including the ITU, the International Maritime Organization (IMO), the United States Federal Government as Federal Standard 1037C: Glossary of Telecommunications Terms[4] and its successors ANSI T1.523-2001[5] and ATIS Telecom Glossary (ATIS-0100523.2019)[6] (all three using the spellings "Alpha" and "Juliet"), the United States Department of Defense,[7] the Federal Aviation Administration (FAA) (using the spelling "Xray"), the International Amateur Radio Union (IARU), the American Radio Relay League (ARRL), the Association of Public-Safety Communications Officials-International (APCO), and by many military organizations such as NATO (using the spelling "Xray") and the now-defunct Southeast Asia Treaty Organization (SEATO).[citation needed]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 numerals (zero, one, two, etc., though with some differences in pronunciation), whereas the ITU (beginning on 1 April 1969)[8] and the IMO created compound code words (nadazero, unaone, bissotwo etc.). In practice the compound words are used very rarely.[citation needed]This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources in this section. Unsourced material may be challenged and removed.Find sources:"NATO phonetic alphabet"news newspapers books scholar JSTOR (February 2018) (Learn how and when to remove this message)A spelling alphabet is used to distinguish those parts of a message that contain letters and digits, because the names of many letters sound similar, for instance bee and pee, en and em or ef and ess. The potential for confusion increases if static or other interference is present, as is commonly the case with radio and telephonic communication. For instance, the target message "proceed to map grid DH98" would be transmitted as proceed to map grid Delta-Hotel-Niner-Ait. Civilian industry uses the code words 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 conveyed by telephone (for example to authorize a credit agreement or confirm stock codes), although ad-hoc code words are often used in that instance. It has been used by information technology workers to communicate serial numbers and reference codes, which are often very long, by voice. Most major airlines use the alphabet to communicate passenger name records (PNRs) internally, and in some cases, with customers. It is often used in a medical context as well.Several codes words and sequences of code words have become well-known, such as Bravo Zulu (letter code BZ) for "well done",[9] Checkpoint Charlie (Checkpoint C) in Berlin, and Zulu Time for Greenwich Mean Time or Coordinated Universal Time. During the Vietnam War, the US government referred to the Viet Cong guerrillas and the group itself as VC, or Victor Charlie; the name "Charlie" became synonymous with this force.This article contains phonetic transcriptions in the International Phonetic Alphabet (IPA). For an introductory guide on IPA symbols, see Help:IPA. For the distinction between [], / / and , see IPA Brackets and transcription delimiters.The final choice of code words for the letters of the alphabet and for the digits was made after hundreds of thousands of comprehension tests involving 31 nationalities. The qualifying feature was the likelihood of a code word being understood in the context of others. For example, Football has a higher chance of being understood than Foxtrot in isolation, but Foxtrot is superior in extended communication.[10]Pronunciations were set out by the ICAO before 1956 with advice from the governments of both the United States and United Kingdom.[11] To eliminate national variations in pronunciation, posters illustrating the pronunciation desired by ICAO are available.[12] However, there remain differences in the pronunciations published by ICAO and other agencies, and ICAO has apparently conflicting Latin-alphabet and IPA transcriptions. At least some of these differences appear to be typographic errors. In 2022, the Deutsches Institut fr Normung (DIN) attempted to resolve these conflicts.[13] For example, they consistently transcribe [a] for what the ICAO had transcribed variously as [a], [aː], [], [], [] in IPA and as a, ah, ar, er in orthography. Just as words are spelled out as individual letters, numbers are spelled out as individual digits. That is, 17 is rendered as one seven and 60 as six zero. Depending on context, the word thousand may be used as in English, and, for whole hundreds only (when the sequence 00 occurs at the end of a number), the word hundred may be used. For example, 1300 is read as one three zero zero if it is a transponder code or serial number, and as one thousand three hundred if it is an altitude or distance.The ICAO, NATO, and FAA use modifications of English digits as code words, with 3, 4, 5 and 9 being pronounced tree, fower (rhymes with lower), fife and niner. The digit 3 is specified as tree so that it will not be mispronounced sri (and similarly thousand is pronounced tousand); the long pronunciation of 4 (still found in some English dialects) keeps it somewhat distinct from for; 5 is pronounced with a second "f" because the normal pronunciation with a "v" is easily confused with "fire"; and 9 has an extra syllable to keep it distinct from the German word nein "no".[14] (Prior to 1956, three and five had been pronounced with the English consonants, but with the vowels broken into two syllables.) For directions presented as the hour-hand position on a clock, the additional numerals "ten", "eleven" and "twelve" are used with the word "o'clock".[12]:577The ITU and IMO, however, specify a different set of code words for digits. These are compounds of ICAO and Latinesque roots.[15]The IMO's GMDSS procedures permits the use of either set of code words.[15]There are two IPA transcriptions of the letter names, from the International Civil Aviation Organization (ICAO) and the Deutsches Institut fr Normung (DIN). Both authorities indicate that a non-rhotic pronunciation is standard.[Note 2] That of the ICAO, first published in 1950 and reprinted many times without correction (e.g. the error in 'golf'), uses a large number of vowels. For instance, it has six low/central vowels: [], [a], [aː], [], [] and []. The DIN consolidates all six into the single low-central vowel [a]. The DIN vowels are partly predictable, with [ ] in closed syllables and [a e/ei o] in open syllables apart from echo and sierra, which have [ ] as in English, German and Italian. The DIN also reduced the number of stressed syllables in bravo and x-ray, consistent with the ICAO English respellings of those words and with the NATO change of spelling of x-ray to xray so that people would know to pronounce it as a single word.Letter code words with pronunciationSymbolCode wordDIN 5009(2022) IPA[13]ICAO (1950)[12]IPAEnglish respellingAlfa [sic]alfaalfaAL fahlBravobravobravo [sic]BRAH vohCCharlietali (or ali)ti (or li)CHAR kee (or SHAR lee)[16]DDeltadltadeltDELL tahEEchokoekoECK ohFFoxtrotfkstrtfkstrtFOKS trotGGolfffff [sic]golfHHotelhottheltelo TELLHindiandiandi.N dee ah[]Juliett [sic]dulitdulii.etJEW lee ETTKKilokiolokiloKEY lohLLimalimalimLEE mahMMikemaikmikmikeNNovembernovmbanovembno VEM berOOscarskaskOSS cahPPapapapappah PAHQQuebeckebk [sic]kebekkeh BECKKRomeoromioromi.oROW me ohSSierrasirasiersese AIR rahTTangotaotnoTANG goUUniformjunifm (or unifm)jinifm (or unifirm [sic]YOU nee form (or OO nee form)[16]VVictorvktavjktVIK tahWWhiskeywwskiwisksWISS keyXXray, x-rayksreiseksesei [sic]ECKS rayYYankeejakjinjkYANG keyZZuluzulazulu.zOO looThere is no authoritative IPA transcription of the digits. However, there are respellings into both English and French, which can be compared to clarify some of the ambiguities and inconsistencies. Digit code words with pronunciationSymbolCode wordRespellingsICAO[12]IEnglishSIA[17]IFrenchICCEB 2016[18]IFAA[19]ITU-R 2007 (WRC-07)[20]IMO (English)[21]IMO(French)[21]US Navy1957[22]US Army[23]1One, unaoneWUNOUANNwunwunOO-NAH-WUNOUNA-OUANNwunwun, won (USMC)[24]2Two, bissotwoTOOTOUtootooBEES-SOH-TOOBIS-SO-TOUtootoo3Three, terrathreeTREETRltreetreeTAY-RAH-TREET-RA-TRIthuh-reetree4Four, kartefourFOW-erFO eurFOW-erfow-erKAR-TAY-FOWERKAR-T-FO-EURfo-werfow-er5Five, pantafiveFIFEFA F [sic]fifefifePAN-TAH-FIVEPANN-TA-FAIFfi-yivfife6Six, soxisixSIXSIKSsixsixSOK SEE-SIXSO-XI-SICKSsixsix7Seven, settesevenSEV-enSV nSEV-ensev-enSAY-TAY-SEVENST-T-SEV'N [sic]sevensev-en8Eight, oktoeightAITETaitaitOK-TOH-AITOK-TO-EITateait9Nine, novenine[Note 3]NIN-erNA neuNINE-rnin-erNO-VAY-NINERNO-V-NAI-NEUninernin-er0Zero, nadazeroZE-RO (ZEE-ro)[Note 4]ZI ROZE-roze-ro / zee-roNAH-DAH-ZAY-ROH[Note 5][Note 6]NA-DA-ZE-RO[Note 5][Note 6]zeroze-ro00HundredHUN-dredHUN-dred(zero zero)(hundred)hun-dred000ThousandTOU-SAND (TOU-sand)[Note 4]TAOU ZEND(zero zero zero)(thousand)thow-zandtou-sand(decimal point)Decimal, (FAA) pointDAY-SEE-MAL[Note 4]D SI MAL(decimal)(point)DAY-SEE-MALD-SI-MALThe Combined Communications-Electronics Board (CCEB) has code words for punctuation, including those in the table below.Punctuation code words (CCEB)SymbolCode word.stop (when not a decimal point),comma (when not a decimal comma)-hyphen, (FAA) dash/slant(brackets on)brackets offOthers are: "colon", "semi-colon", "exclamation mark", "question mark", "apostrophe", "quote", and "unquote".[18]Prior to World War I and the development and widespread adoption of two-way radio that supported voice, telephone spelling alphabets were developed to improve communication on low-quality and long-distance telephone circuits.The first non-military internationally recognized spelling alphabet was adopted by the CCIR (predecessor of the 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, and was used for civil aviation until World War II.[11] It continued to be used by the IMO until 1965.Throughout World War II, many nations used their own versions of a spelling alphabet. The US adopted the Joint Army/Navy radiotelephony alphabet during 1941 to standardize systems among all branches of its armed forces. The US alphabet became known as Able Baker after the words for A and B. The Royal Air Force adopted one similar to the United States one during World War II as well. Other British forces adopted the RAF radio alphabet, which is similar to the phonetic alphabet used by the Royal Navy during World War I. At least two of the terms are sometimes still used by UK civilians to spell words over the phone, namely F for Freddie and S for Sugar.To enable the US, UK, and Australian armed forces to communicate during joint operations, in 1943 the CCB (Combined Communications Board; the combination of US and UK upper military commands) modified the US military's Joint Army/Navy alphabet for use by all three nations, with the result being called the US-UK spelling alphabet. It was defined in one or more of CCBP-1: Combined Amphibious Communications Instructions, CCBP3: Combined Radiotelephone (R/T) Procedure, and CCBP-7: Combined Communication Instructions. The CCB alphabet itself was based on the US Joint Army/Navy spelling alphabet. The CCBP (Combined Communications Board Publications) documents contain material formerly published in US Army Field Manuals in the 24-series. Several of these documents had revisions, and were renamed. For instance, CCBP3-2 was the second edition of CCBP3.During World War II, the US military conducted significant research into spelling alphabets. Major F. D. Handy, directorate of Communications in the Army Air Force (and a member of the working committee of the Combined Communications Board), enlisted the help of Harvard University's Psycho-Acoustic Laboratory, asking them to determine the most successful word for each letter when using "military interphones in the intense noise encountered in modern warfare." He included lists from the US, Royal Air Force, Royal Navy, British Army, AT&T, Western Union, RCA Communications, and that of the International Telecommunications Convention. According to a report on the subject:The results showed that many of the words in the military lists had a low level of intelligibility, but that most of the deficiencies could be remedied by the judicious selection of words from the commercial codes and those tested by the laboratory. In a few instances where none of the 250 words could be regarded as especially satisfactory, it was believed possible to discover suitable replacements. Other words were tested and the most intelligible ones were compared with the more desirable lists. A final NDRC list was assembled and recommended to the CCB.[25]After World War II, with many aircraft and ground personnel from the allied armed forces, "Able Baker" was officially adopted for use in international aviation. During the 1946 Second Session of the ICAO Communications Division, the organization adopted the so-called "Able Baker" alphabet[10] that was the 1943 USUK spelling alphabet. However, many sounds were unique to English, so an alternative "Ana Brazil" alphabet was used in Latin America. In spite of this, 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, Spanish and Portuguese.From 1948 to 1949, Jean-Paul Vinay, a professor of linguistics at the Universit de Montral, worked closely with the ICAO to research and develop a new spelling alphabet.[26][10] The directions of ICAO were that "To be considered, a word must:Be a live word in each of the three working languages.Be easily pronounced and recognized by airmen of all languages.Have good radio transmission and readability characteristics.Have a similar spelling in at least English, French, and Spanish, and the initial letter must be the letter the word identifies.Be free from any association with objectionable meanings."[25]After further study and modification by each approving body, the revised alphabet was adopted on 1 November 1951, to become effective on 1 April 1952 for civil aviation (but it may not have been adopted by any military).[11]Problems were soon found with this list. Some users believed that they were so severe that they reverted to the old "Able Baker" alphabet. Confusion among words like Delta and Extra, and between Nectar and Victor, or the poor intelligibility of other words during poor receiving conditions were the main problems. Later in 1952, ICAO decided to revisit the alphabet and their research. To identify the deficiencies of the new alphabet, testing was conducted among speakers from 31 nations, principally by the governments of the United Kingdom and the United States. In the United States, the research was conducted by the USAF-directed Operational Applications Laboratory (AFCRC, ARDC), to monitor a project with the Research Foundation of Ohio State University. Among the more interesting of the research findings was that "higher noise levels do not create confusion, but do intensify those confusions already inherent between the words in question".[25]By early 1956 the ICAO was nearly complete with this research, and published the new official phonetic alphabet in order to account for discrepancies that might arise in communications as a result of multiple alphabet naming systems coexisting in different places and organizations. NATO was in the process of adopting the ICAO spelling alphabet, and apparently felt enough urgency that it adopted the proposed new alphabet with changes based on NATO's own research, to become effective on 1 January 1956,[27] but quickly issued a new directive on 1 March 1956[28] adopting the now official ICAO spelling alphabet, which had changed by one word (November) from NATO's earlier request to ICAO to modify a few words based on US Air Force research.After all of the above study, only the five words representing the letters C, M, N, U, and X were replaced. The ICAO sent a recording of the new Radiotelephony Spelling Alphabet to all member states in November 1955.[10] The final version given in the table above was implemented by the ICAO on 1 March 1956,[11] and the ITU adopted it no later than 1959 when they mandated its usage via their official publication, Radio Regulations.[29] Because the ITU governs all international radio communications, it was also adopted by most radio operators, whether military, civilian, or amateur. It was finally adopted by the IMO in 1965.During 1947 the ITU adopted the compound Latinate prefix-number words (Nadazero, Unaone, etc.), later adopted by the IMO during 1965.[citation needed]Nadazero from Spanish or Portuguese nada + NATO/ICAO zeroUnaone generic Romance una, from Latin na + NATO/ICAO oneBissotwo from Latin bis + NATO/ICAO two. (1959 ITU proposals bis and too)[30]Terrathree from Italian terzo + NATO/ICAO three ("tree") (1959 ITU proposals ter and tree)Kartefour from French quatre (Latin quartus) + NATO/ICAO four ("fow-er") (1959 ITU proposals quarto and fow-er)Pantafive from Greek penta- + NATO/ICAO five ("fife") (From 1959 ITU proposals penta and fife)Soxisix from French seix + NATO/ICAO six (1959 ITU proposals were saxo and sixSettesseven from Italian sette + NATO/ICAO seven (1959 ITU proposals sette and sev-en)Oktoeight generic Romance octo-, from Latin ot + NATO/ICAO eight (1959 ITU proposals octo and ait)Novecine from Italian nove + NATO/ICAO nine ("niner") (1959 ITU proposals were nona and niner)In the official version of the alphabet,[31] two spellings deviate from the English norm: Alfa and Juliett. Alfa is spelled with an f as it is in most European languages because the spelling Alpha may not be pronounced properly by native speakers of some languages who may not know that ph should be pronounced as f. The spelling Juliett is used rather than Juliet for the benefit of French speakers, because they may otherwise treat a single final t as silent. For similar reasons, Charlie and Uniform have alternative pronunciations where the ch is pronounced "sh" and the u is pronounced "oo". Early on, the NATO alliance changed X-ray to Xray in its version of the alphabet to ensure that it would be pronounced as one word rather than as two,[32] while the global organization ICAO keeps the spelling X-ray.The alphabet is defined by various international conventions on radio, including:Universal Electrical Communications Union (UECU), Washington, D.C., December 1920[33]International Radiotelegraph Convention, Washington, 1927 (which created the CCIR)[34]General Radiocommunication and Additional Regulations (Madrid, 1932)[35]Instructions for the International Telephone Service, 1932 (ITU-T E.141; withdrawn in 1993)General Radiocommunication Regulations and Additional Radiocommunication Regulations (Cairo, 1938)[36]Radio Regulations and Additional Radio Regulations (Atlantic City, 1947),[37] where "it was decided that the International Civil Aviation Organization and other international aeronautical organizations would assume the responsibility for procedures and regulations related to aeronautical communication. However, ITU would continue to maintain general procedures regarding distress signals."1959 Administrative Radio Conference (Geneva, 1959)[38]International Telecommunication Union, RadioFinal Acts of WARC-79 (Geneva, 1979)[39] Here the alphabet was formally named "Phonetic Alphabet and Figure Code".International Code of Signals for Visual, Sound, and Radio Communications, United States Edition, 1969 (revised 2003)[40]Timeline in development of the ICAO/ITU-R radiotelephony spelling alphabetLetter1920 UECU[33]1927 (Washington, D.C.) International Radiotelegraph Convention (CCIR)[34]1932 General Radiocommunication and Additional Regulations (CCIR/ICAN)[41][42]1938 (Cairo) International Radiocommunication Conference code words[36]1947 (Atlantic City) International Radio Conference[43]1947 ICAO (from 1943 USUK)[44][45][42]1947 ICAO alphabet (from ARRL[citation needed])[46]1947 ICAO Latin America/Caribbean[25]1947 IATA proposal to ICAO[25]1949 ICAO code words[25]1951 ICAO code words[26]1956 ICAO final code words[12]1959 (Geneva) ITU Administrative Radio Conference code words[38]1959 ITU pronunciations[38]2008present ICAO code words[12]2005present IMO pronunciations (English)[21]2005present IMO pronunciations (French)[21]2008present ICAO pronunciations[12]2018present NATO pronunciations[16]AargentineAmsterdamAmsterdamAmsterdam