

Phonetic Alphabet: Names of the Letters

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WHEN SUBJECTED to either an analysis or an investigation, “phonetic alphabet” (as a name for a system that lists identifying names for the letters of the alphabet) is not a legitimate term. In fact, no valid claim can be made to justify its existence except that it exists. Nevertheless, the name has been in constant use by some groups (particularly the British and American military services and civil aviation) for, at least, the past half century, and is by now so well established that it cannot be ignored. It will not go away, nor will it disappear. It cannot be driven out of existence, nor can it be erased from its recorded uses by applying to it a label of “not eligible.”¹

Before I continue further with a defense of the usage of the “illegitimate” name, however, I must mention the “legitimate” name. “Phonetic alphabet” correctly means a set of symbols used for phonetic transcription. “Phonetic,” itself, is derived from the Greek φωνή (“sound,” “voice”). More fully then, “phonetic alphabet” is a set of characters or signs, representing speech sounds, made according to or designating a system of spelling in which each letter represents always the same speech sound in contradistinction to spelling in which the letters are traditional, historical or etymological and have various values.

Most linguists use “phonetic alphabet” to designate the international phonetic alphabet, i. e., the alphabet of the International Phonetic Association, as fostered by major phoneticians such as

¹ The status of the term seems to be pretty well indicated in the following entry: U. S. Joint Chiefs of Staff, *Dictionary of United States Military Terms for Joint Usage* (Washington, 1948), p. 64: “Phonetic alphabet — A list of standard words used to identify letters in a message given by radio or telephone, such as BAKER for B or KING for K. By standard dictionary definition a misnomer but accepted because of common military usage.”

Daniel Jones and John S. Kenyon. There are other phonetic alphabets possible, of course, broad and narrow, phonemic and diacritical. Many authorities consider the sixteenth century as the period in which the first major attempts were made to devise phonetic alphabets. John Hart, who made his contributions during that period, is generally reputed to be the first phonetician of modern times, but Robert Robinson is considered by some to be "first." The first successful international phonetic alphabet (preceding that of the International Phonetic Association) dates from the mid-nineteenth century. It is attributed to [Karl] Richard Lepsius, a German Egyptologist.

The name (the "illegitimate" one) has a strong currency in the special milieu of communications by voice in the armed forces, aviation, and general public practices when it is necessary to spell out a word or name. The ambiguity between the two uses (the "legitimate" and the "illegitimate") of the name "phonetic alphabet" may be resolved in the military and popular usages, but if the name (the "illegitimate" one) is to be used in the presence of linguists, it might be desirable to specify that this is a "military phonetic alphabet," a "communications phonetic alphabet," or perhaps just a "communications alphabet." However, the ambiguity may present no real problem as the people have abundantly demonstrated an ability to cope with ambiguous terms, e. g., the verb "scan" means both to examine intensively, scrutinize, examine with care as well as to look over hastily, read hurriedly; and the adjective "fulsome" means both nauseous, repulsive, disgusting, offensive as well as meritorious, highly deserving (i. e., in the current popular usage).

The functions of the two alphabets are, of course, quite different, though both of them have something to do with sound. The international phonetic alphabet and its modifications are conceived for the singular purpose of a world-wide description of speech sounds on the principle of one sound one letter, and one letter one sound. The military (communications) phonetic alphabet works on the principle that the ordinary names of the alphabet, and their correspondents in other languages are not heard well when they are spoken over the telephone or the radio or even by direct voice communication. Hence, full words are substituted, often personal names, so that there can be no ambiguity. The use is mandatory

in the armed forces and aviation (both military and civil) communications, and in an informal sense its use is quite common as, for example, on a telephone. Most school teachers use the name in referring to the international phonetic alphabet.

Inasmuch as "phonetic alphabet" (the "illegitimate" one) has existence as a name with the above indicated meaning, the continued objections to it as well as the continued denunciations of it as being "incorrect" seem both futile and pointless. (The efforts to correct the popular mis-usages of "fulsome" [nauseous vs. meritorious], "noisome" [noxious vs. noisy], and "deprecate" [disapprove vs. belittle] have been futile.) Perhaps the words of Associate Justice Thomas P. White, of the Supreme Court of California, may make its acceptance, by those purists who are opposed to it, a little more easy and a little more graceful:

A "word" is a symbol of thought but has no arbitrary and fixed meaning like a symbol of algebra or chemistry, and it may take on values from words and ideas with which it is associated. Words are the product of history and their meaning may change with time, place and social group.²

Today the name carries the stamp of official approval by both the British and American armed forces,³ but it was preceded by various improvised descriptive expressions. Some of the expressions that were tried out, and then disappeared, were "conventional telephone signals,"⁴ a table of "how letters . . . are spelled out,"⁵

² *Pearson v. State Welfare Board*, 353 Pacific Reporter, Second Series, 29 (May 20, 1960).

³ The name, with its definition, appears in successive editions of official American military dictionaries: (a) U. S. War Department, Technical Manual, TM 20-205, *Dictionary of United States Army Terms* (Washington, 1944), p. 201/1; (b) U. S. Department of the Army, Special Regulations, SR 320-5-1, *Dictionary of United States Army Terms* (Washington, 1950), p. 168/2; (c) U. S. Department of the Army, Army Regulations, AR 320-5, *Dictionary of United States Army Terms* (Washington, 1961), p. 399; (d) U. S. Department of the Army, Army Regulations, AR 320-5, *Dictionary of United States Army Terms* (Washington, 1965), p. 297/2. The name also appears in various official British War Office publications.

⁴ U. S. War Department, Signal Corps, *Signal Book United States Army 1916*, War Department Document No. 500, April 15, 1916 (Washington), p. 33.

⁵ U. S. Joint Army and Navy Committee on Army and Navy Communications, *Communications Procedure between the Army and Navy* (Washington, 1922), p. 74.

a “euphonic alphabet,”⁶ a “pronunciation of letters,”⁷ and a “signallers’ vernacular.”⁸

For a long time, many members of the U. S. Navy had been prone to point out that the Navy did not have a “phonetic alphabet,” but that it did have a system of names for the “Alphabetical Code Flags,”⁹ or a “Flag Alphabet.”¹⁰ This distinction was still being made as late as 1950,¹¹ and it was continued until March 1, 1956

⁶ Owen Stedman Albright, *Signal Communications For All Arms, Revision of A. E. F. No. 2—b* (Fort Leavenworth, Kansas, 1920), p. 141.

⁷ U. S. War Department, *Signal Communications for All Arms and Services, Training Regulations, TR 160—5*, November 7, 1923 (Washington), p. 11.

⁸ Edward Fraser and John Gibbons, *Soldier and Sailor Words and Phrases* (London: George Routledge & Sons, Ltd, 1925), p. 1.

⁹ William Freeland Fullam, *The Recruit’s Handy Book United States Navy* (rev. ed.; Annapolis: Naval Institute, 1913), Plate xviii, p. 78. The earlier editions of 1902, 1903, 1905, 1907, and 1908 did not contain the name. Later in the same year, it was used in Ridley McLean, *The Bluejacket’s Manual United States Navy 1913* (5th ed., rev.; Annapolis: U. S. Naval Institute, 1913), p. 308. *The Bluejacket’s Manual* was prepared by Lieutenant Ridley McLean in 1902 for (and published by) the Naval Institute, under the direction of the Bureau of Navigation. It was issued by the Navy for the use and information of the enlisted personnel. Its 17 editions have served the Navy for more than 60 years as a source of practical information. The various editions have been useful in tracing the changes that have taken place in the Navy. The Naval Institute copyrighted the several editions, and the revisions and enlargements of some of those editions, between 1902 and 1918, and again between 1938 and 1963. The U. S. Navy Department published the “sixth edition, revised (1922)” and the “seventh edition (1927).”

¹⁰ U. S. Naval Institute, *The Bluejackets’ Manual United States Navy 1938* (9th ed.; Annapolis: U. S. Naval Institute, 1938), Plate IV.

¹¹ U. S. Naval Institute, *The Bluejackets’ Manual* (14th ed.; Annapolis: U. S. Naval Institute, 1950), p. 744: “In identifying any letter of the alphabet, the standard phonetic alphabet must be used. This alphabet is similar to the flag alphabet . . . , but with certain differences which should be noted.” *Cf.* U. S. Navy Department, Bureau of Naval Personnel, Training Division, Training Aids Section, 1943 REVISION — SIGNAL FLAGS AND PHONETIC ALPHABET (Washington), Broadside: “5 ALPHABET *FLAG NAMES* CHANGED. These alphabet flag names are effective for Navy and Army-Navy communications on January 1, 1943, and for all combined operations with Allied forces on February 1, 1943. Note that names of governing flags *AS FLAGS* are not changed, even though the *PHONETIC* alphabet (see box at right) is different. 10 *PHONETIC ALPHABET LETTERS* CHANGED This new phonetic alphabet is effective at the same time as flag changes but must not be confused with flag names: *ABLE*, *baker*, *CHARLIE*, *dog*, *easy*, *fox*, *george*, *HOW*, *ITEM*, *jig*, *king*, *love*, *mike*, *NAN*, *OBOE*, *PETER*, *queen*, *roger*, *SUGAR*, *tare*, *UNCLE*, *victor*, *william*, *x-ray*, *yoke*, *ZEBRA*. Changed letters have been capitalized.”

when the *alfa-bravo-charlie* system was adopted as both the “phonetic alphabet” and the “flag alphabet.”¹² Even though the names for the “Alphabetical Code Flags” were supposed to be just that and nothing more,¹³ in actual practice the system of flag names was freely used as a “phonetic alphabet.”

The name has been carefully avoided by practically all of the general dictionaries as well as by most of the periodicals and other general publications. Almost all of the dictionaries define “phonetic” as representing sounds, especially speech sounds, and many include a definition of “phonetic alphabet” as a set of symbols used for phonetic transcription. There has been only one dictionary editor who has been bold enough to record the name in his dictionary with the meaning that is to be found in popular usage:

phonetic alphabet *n* 2: any of various systems of code words in voice communication (as radio) < *Alfa* and *Bravo* represent *a* and *b* in one *phonetic alphabet* >¹⁴

However, elsewhere in his dictionary where he gives examples from several “phonetic alphabets,” he elects to avoid the name and gives preference to such expressions as “communications code word,”¹⁵ and “Brit. signalmen’s telephone pron.”¹⁶

One of the articles on war-time speech, published in the immediate post-World War II period, mentioned, “Anti-aircraft fire is . . . *ack-ack*, . . . *Ack-ack*, which echoes the staccato sound of the

¹² U. S. Naval Institute, *The Bluejackets’ Manual* (15th ed.; Annapolis: U. S. Naval Institute, 1957), pp. 532 (Figure 30–3), 552. Cf. “Phonetic Alphabet,” *All Hands*, No. 469 (March, 1956), p. 45: “The Navy’s ABCs have been revised — or, at least, the Navy’s phonetic alphabet is no longer the familiar Able, Baker, Charlie. . . . Commanding officers are being instructed to institute training in the new alphabet for all personnel who normally use the phonetic alphabet.”

¹³ Norman R. Van der Veer, *The Bluejacket’s Manual United States Navy 1917* (5th ed., rev. and enl.; New York: Military Publishing Co., 1917), p. 443: “In order to avoid confusing the sounds of the various letters in reporting signals, each flag is given a distinctive name. It would be a simple matter, for example, to confuse the sound of ‘T’ and ‘D,’ but, by using the names ‘Tare’ and ‘Dog,’ all possibility of confusion is avoided. The names given will always be used in reporting or calling out signals on the bridge.”

¹⁴ *Webster’s Third New International Dictionary [NID 3]* (Springfield: G. & C. Merriam Co., 1961), p. 1700/1.

¹⁵ *NID 3*. See entries of: ³able, ²alfa, ²baker, ⁴bravo, charlie, ²coca, ²delta, ⁵dog, ⁵easy, ²echo, etc.

¹⁶ *NID 3*. See entries of: *ack-ack*, *ack emma*, *pip emma*.

firing anti-aircraft guns consists of the code phonetic equivalent of the letter 'A'; . . ."¹⁷ Another writer commented on the foregoing as follows:

Ack-ack (p. 379 [this reference is to the pagination of the magazine in which the preceding quotation appeared]). "code phonetic equivalent of the letter A." This is an editorial interpolation for which Mr. Riordan [author of the preceding quotation] is not responsible. The standard word for *A*, as prescribed in *Communication Instructions*, is *able*, and I never heard anything else. *Afirm* (so spelled) is used for the *A*-flag in visual signaling. *Ack-emma* and *pip-emma*, for A. M. and P. M., may perhaps be British Army usage. As for *ack-ack* itself, the derivation sounds reasonable, since *A. A.* is a common abbreviation for *anti-aircraft*. Presumably *ack-ack* originated in the British Army and was borrowed by us.¹⁸

The use of *ack*, to represent the letter *A*, had already been adopted by the British prior to 1914,¹⁹ but it was not until a quarter of a century had passed and another war had started that an effective anti-aircraft gun and anti-aircraft fire had been developed. As the use of anti-aircraft guns became more widespread and more common, the abbreviation *A. A.* was used as the familiar name. This, in turn, developed into the more popular name of *ack-ack* by 1939.²⁰

One American dictionary recorded the term as:

ack-ack, *n* [From British army telegrapher's code for A. A.]
Anti-aircraft fire.²¹

¹⁷ John Lancaster Riordan, "American Naval 'Slanguage' in the Pacific in 1945," *California Folklore Quarterly*, V, No. 4 (October, 1946), p. 379.

¹⁸ C. Douglas Chretien, "Comments on Naval Slang," *Western Folklore*, VI, No. 2 (April, 1947), p. 160.

¹⁹ Eric Partridge, *A Dictionary of Slang and Unconventional English* (London: G. Routledge & Sons, Ltd., 1937), p. 4/1: "*Ack*; *Beer*; *Don*. — A, B, D Company: military coll.: from 1914. Ex signalese"; and "*ack emma*. A. m.: military from 1915. Ex signalese for these two letters."

²⁰ Partridge (3d ed.; London: Routledge & Kegan Paul, 1949), p. 976/1: "*ack ack*. Anti-aircraft (fire) guns: ca. 1939. Signalese."

²¹ *The New Century Dictionary* (New York: Appleton-Century-Crofts, Inc., 1952), p. 11/1.

One thing that the foregoing quotations seem to have in common is a desire to avoid the use of the name "phonetic alphabet." Recourse was made by the writers to the use of such expressions as "army telegrapher's code," "code phonetic equivalent," "signalese," and "British army telegrapher's code." In other dictionaries in which *ack-ack* is recorded, different phrases are used to give an explanation of the term, e. g., "signallers' names for the letters,"²² "British radio operator's code,"²³ "semaphore symbols for initial letters,"²⁴ "as said by British signalmen by assoc.,"²⁵ "telephonic expansion of abbrev.,"²⁶ and "British radio operator's code word."²⁷

At the time when the *alfa-bravo-charlie* system was adopted during the mid-1950's, the *New York Times*,²⁸ in its coverage of the story, reported the "revision of the phonetic alphabet." However, the heading of the article referred to a "phonetic speller." In the listing of "the new phonetic alphabet," the column headed "Letters" was set off against one headed "New Phonetic Equivalent" and with another one headed "Old Phonetic Equivalent." In its report of the same event, *Time* magazine, whose reputation is unhesitatingly to use new and strange words (some with unusual meanings), avoided the use of "phonetic alphabet" by substituting "pronouncing alphabet."²⁹

²² *Chambers' Twentieth Century Dictionary* (Edinburgh: W. & R. Chambers, Ltd., 1965), p. 9/1.

²³ *Funk & Wagnalls Standard Dictionary of the English Language* (International Edition; New York: Funk & Wagnalls Co., 1958), p. 12/3.

²⁴ *Odhams Dictionary of the English Language* (London: Odhams Press Ltd., 1946), p. 11/1.

²⁵ *The Random House Dictionary of the English Language* (New York: Random House, 1965), p. 12/3.

²⁶ *Webster's New World Dictionary of the American Language* (encyclopedic edition; Cleveland: The World Publishing Co., 1951), p. 12/2.

²⁷ *The World Book Encyclopedia Dictionary* (Chicago: Field Enterprises Educational Corporation, 1963), p. 16/1.

²⁸ "Phonetic Speller Revised for NATO," *New York Times* (Thursday, March 1, 1956), p. 10/1-2.

²⁹ "Alfa, Bravo . . .," *Time*, LXVII, No. 11 (March 12, 1956), p. 98: "For U. S. servicemen in World War II, the pronouncing alphabet (Able, Baker, Charlie, etc.) was well suited to rolling off the American tongue." An example of *Time's* well-known writing style, along with an example of the use of *ack-ack*, is well illustrated in the following: "Comedians. A Put-On Is Not a Put-Down," *Time*, XCI, No. 10 (March 8, 1968), p. 65/2: "One-liners fly like *ack-ack*, and if there are more than a few duds it is hard to tell in the thick of the barrage. Everybody wings it, and

It is abundantly clear, from the preceding cited examples, that there is a variety of ways by which the use of the name "phonetic alphabet" can be avoided if one desires to do so. Accordingly, there certainly is no need to discuss endlessly the various phrases that can be used to express the idea contained in the name "phonetic alphabet." Even though it has been granted that the name is a "misnomer," and that it cannot be considered as "legitimate," it has been recognized and identified through its military usage. The name serves a useful purpose, and it already has been established in military speech. Granted that it is "illegitimate," it has a formal existence, and that alone makes it the thing that it is, i. e., a name. The name is readily understood and it conveys accurately the user's intended idea. Its detractors have no valid claim of finding support for their opposition to the name in the truism of "Men may confound each other by unintelligible terms or wrong application of words."

The use of the name "phonetic alphabet" had its forerunner in the U. S. Army's explanation of its "conventional telephone signals" in 1916 that it was "to provide a ready means of phonetically distinguishing similar sounding letters."³⁰

Even though the name was not recorded in the Oxford English Dictionary (nor in its supplement), it was used by the British in official governmental publications at least as early as (and probably earlier than) 1925 when it appeared as

PHONETIC ALPHABET

10. The following Phonetic Alphabet is in general use throughout the Fighting Services, and is to be used in all cases where, in order to avoid phonetic errors, substitutes are required for spelling out doubtful words, names, etc., in telephone messages: —³¹

In another official publication a few years later, it appeared as the following chapter heading: "CHAPTER I THE PHONETIC

in that spirit the show's resident cast of bright young kooks often make the lines seem funnier than they really are."

³⁰ *Signal Book 1916*, p. 33.

³¹ Great Britain Air Ministry, Air Publication 1081, *Royal Air Force, Field Service Pocket Book*, December, 1924 (London: H. M. Stationery Office, 1925), p. 18.

ALPHABET AND THE USE OF SIGNALLING CODES.”³²


An indication that the name already had been carried over into popular use is suggested in the following: “This use of the phonetic alphabet for telephoning with a name for every letter is common practice in civil life. . . .”³³ In a succeeding publication, the name was used with more emphasis: “2. i. In order to avoid errors, the following phonetic alphabet will be used by signal personnel: -”³⁴

The U. S. Army finally used the name in a 1939 official publication:

■ 181. PHONETIC ALPHABET. - a. The phonetic alphabet and the pronunciation of numerals (par. 182) are extracted from the Joint Army and Navy Radiotelegraph and Radiotelephone Procedure which is in effect at this time. They are prescribed for wire communication as well as for radio communication.

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c. The words of the phonetic alphabet are used in place of the letters they represent just as in spelling a word. . . .

d. The phonetic alphabet is also used in the transmission by telephone of coded messages.³⁵ 

Undoubtedly the U. S. Navy used the name “phonetic alphabet” in some of its other publications, at least in those that made reference to joint Army and Navy communication procedures, but it did not use the name in the *Bluejackets’ Manual* until 1950 when it appeared under the heading of “TELEPHONE PROCEDURE”

³² Great Britain, War Office, *Signal Training (All Arms) 1928* (London: H. M. Stationery Office, 1928), p. 1.

³³ *Signal Training 1928*, p. 2. Cf. A. Lloyd James, *Speech Signals in Telephony* (London: Sir Isaac Pitman & Sons, Ltd., 1940), p. 32: “When we are thrown back on the phonetic details of the signal, we soon realize how deficient the telephone really is. . . . We have even to supply a context if we want to signal separately the names of the letters: and so we have to have recourse to the familiar: S for Soldier¹, M for Mary, I for Isaac, T for Tommy, H for Harry. . . . ¹The example recommended by the G. P. O. is S for Sugar.”

³⁴ Great Britain, War Office, *Signal Training (All Arms) 1932* (London: H. M. Stationery Office, 1932), p. 1.

³⁵ U. S. War Department, *Basic Field Manual, FM 24-5*, November 1, 1935, *Signal Communication* (Washington: Government Printing Office, 1939), pp. 143-144.

as “**Phonetic alphabet.** – In identifying any letter of the alphabet, the standard phonetic alphabet must be used.”³⁶

The acceptability of the name “phonetic alphabet” may be acknowledged, even though consent for its acceptance may be given grudgingly by some, because of the length of the duration of its usage. Whether or not the same sort of acceptance can be extended to “phonetic spelling” is debatable. In what appears to be an example of “Pentagonese,” this latter name was introduced less than two decades ago in

50. PHONETIC SPELLING

Some letters of the alphabet have similar sounds and are easily confused in telephone conversations. . . . To avoid this difficulty, always use the phonetic alphabet for spelling. Words of the phonetic alphabet are spoken in place of the letters they represent. . . . Say the word that might be misunderstood, and then spell it out phonetically.³⁷

Another name, that has been altered in its basic meaning in “Pentagonese” and that may be challenged in regard to the appropriateness of its usage, is “phonetics.” An example of it, found in the Army instructions for “Drafting the Message,” as included under “Style,” is

c. PHONETICS. When it is necessary to include isolated letters, other than standard abbreviations, in messages which are to be cryptographed, employ the standard phonetic alphabet as follows:³⁸

A subsequent revision of the foregoing modified the phraseology and choice of words (apparently after someone in the Pentagon realized that “standard” can be a confusing term and that it did not necessarily mean “authorized”), and added some new thoughts:

³⁶ U. S. Naval Institute, *The Bluejackets' Manual* (14th ed.; Annapolis: U. S. Naval Institute, 1950), p. 744.

³⁷ U. S. Department of the Army, Basic Field Manual, FM 24–5, 29 August 1950, *Signal Communication* (Washington: Government Printing Office, 1950), p. 27.

³⁸ U. S. War Department, Technical Manual, TM 12–253, 1 October 1944, *Correspondence* (Washington: Government Printing Office, 1944), p. 34.

e. PHONETIC ALPHABET. (1) When it is necessary to include isolated letters, other than authorized abbreviations, in messages, the authorized phonetic alphabet listed below should be employed:

(2) Phonetic equivalentents are desirable in expressing letter coordinates, in operation orders or ordering equipment by letter and number. The following are examples of the use of the phonetic alphabet:³⁹

When one realizes that there are numerous systems of "phonetic alphabets" (I have been told that there are between 75 and 100 systems), one cannot help but wonder what is meant by the expression "standard phonetic alphabet" as used by the U. S. Army in the quotation under "PHONETICS" given above. An earlier usage of the same expression appeared as

3. **Phonetic Alphabet** – When necessary to identify any letter of the alphabet the standard phonetic alphabet is to be used. This alphabet is listed below:⁴⁰

What seems to be very odd is that this listed alphabet differed considerably from the one published only three months earlier in another similar publication.⁴¹ There was no indication that any change had been made in the "phonetic alphabets" then in use, nor was there any indication that this was a newly adopted system. Presumably, "standard" was used here as a synonym for "authorized" in the same manner as was illustrated in the revision of "PHONETICS," quoted above, which included a change in the choice of words. Whatever "standard" may have referred to, it was not the same alphabet as the one in prior use by the Americans nor was it

³⁹ U. S. Department of the Army, Technical Manual, TM 12-253, 1 June 1948, *Correspondence* (Washington: Government Printing Office, 1948), pp. 38-39.

⁴⁰ U. S. War Department, Basic Field Manual, FM 24-9, December 28, 1942, *Combined United States-British Radio-Telephone (R/T) Procedure* (Washington: Government Printing Office, 1942), p. 1.

⁴¹ U. S. War Department, Basic Field Manual, FM 24-5, October 19, 1942, *Signal Communication* (Washington: Government Printing Office, 1942), p. 177. The phonetic alphabet here is identical with that published in FM 24-5, November 1, 1939 and with the Names of the "Flag Alphabet" then in use in the U. S. Navy. Cf. *The Bluejackets' Manual 1940*, Plate IV, and *The Bluejackets' Manual 1943*, Figure 31-5.

the same as the one that was being used by the British. However, it could have meant that the "phonetic alphabet" was a new one to be used by the allied powers, i. e., the one that had been adopted shortly after America's entry into World War II, to provide a common means of naming the letters of the alphabet for use by the American and British armed forces.

Albert J. Myer, founder and first chief of the Signal Corps, U. S. Army, devised the visual signaling methods which were widely used during and after the Civil War. Undoubtedly, frequent errors were made in transmission and reception as a result of misunderstood or mis-pronounced letters when they were called out between the signalmen members of the sending and receiving teams. The Signal Corps personnel, at that time, probably devised some sort of "phonetic alphabet" system to minimize such errors, but, apparently, they left no records of any efforts along that line.

The records and accounts, that have been available for my examination, indicate that the British were the first to work out an acceptable alphabetical system. The senior service, the Royal Navy, probably took the lead in the creation of either such a system or else of a flag-alphabet because of its dependence on and frequent use of visual signaling. The following tale illustrates an early use of a portion of such a system.

"BUNTING"

He was a short, thick-set, ruddy-faced, shrewd-eyed little person, who wore . . . on his right [sleeve of his blue jumper] the crossed flags denoting his calling, together with a star above and below which signified that he was something of an expert at his job. In short, he was a Leading Signalmans of His Majesty's Navy. . . .

"Butter, Monkey, Nuts," he rattled off as a light cruiser two miles away suddenly wreathed herself in flags. "Zebra, Charlie, Fanny-Ethel, Donkey, Tommy-Ginger, Percy, Lizzie-Got that, Bill?"

An Able Seaman, busy with a pencil and a signal pad, signified that he had.

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. . . . He [the A. B.] then handed the pad across, on which, in large sprawling capital letters, he had laboriously traced "B M N-Z C F-E D T-G P L."

The "Butter, Monkey, Nuts" business, incomprehensible and startling as it might have been to any outsider, merely emphasized the difference in sound between various letters. B, C, D, E, P, and T; J and K; M and N, among others, are very much alike when pronounced by themselves; but "butter" could not well be mistaken for "Charlie," neither could "monkey" be confounded with "nuts."

The Leading Signman looked out the meaning of the different groups of letters in the book provided for the purpose and showed the result to his commanding officer. Its purport was comparatively unimportant, something about oil-fuel on arrival in harbour.⁴²

An American, who had served with the Canadian Army during the early days of World War I, wrote in his reminiscences that names had been given to certain letters of the alphabet as a result of private initiative and that those names were "officially recognized." His remarks were as follow:

NEW NAMES FOR OLD LETTERS

When reading messages sent by any "visual" method of signaling, such as flags, heliograph or lamp, it is necessary for the receiver to keep his eyes steadily fixed upon the sender, probably using binoculars or telescope, which makes it difficult, if not impossible, for him to write down each letter as it comes, and this is absolutely required in military work, where nearly everything is in code or cipher; the services of a second man are needed to write down the letters as the first calls them off.

As many letters of the alphabet have sounds more or less similar, such as "S" and "F," "M" and "N," and "D" and "T," many mistakes have occurred. Therefore, the ingenuity

⁴² "TAFFRAIL" [Henry Taprell Dorling], *Stand By!* (London: C. Arthur Pearson, Ltd., 1917), pp. 34-38. "Bunting" appeared originally in the *London Daily Mail*, ca. 1916.

of the signaler was called upon to invent names for certain of the letters most commonly confused.⁴³

He also gave some examples of how these names entered into the speech of the soldiers of the British Expeditionary Force (and, in fact, they were adopted by the members of the American Expeditionary Force):

After a short time all soldiers get the habit of using these designations in ordinary conversation. For instance, one will say: "I am going over to 'esses-pip seven,'" meaning "Supporting Point No. 7," or, in stating the time for any event, "ack-emma" is A. M. and "pip-emma" P. M.

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"Ack-pip-emma" is the Assistant Provost Marshal, whom every body hates, while just "pip-emma" is the Paymaster, who is always welcome.

Thus, the Machine Gunner is an "Emma Gee" throughout the army.⁴⁴

The adoption of the newest phonetic alphabet in 1956 by both the Americans and the British, as well as others, was accompanied by more publicity than was true for all of the combined preceding British and American systems. One American comment was

Throughout the Fleet the new phonetic alphabet is being talked over. It has become the subject of cartoons, of poems (to assist in learning the new words) and of articles in civilian newspapers and magazines.

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A real old-timer, especially if he was around the bridge as a quartermaster, signalman or radioman, may pride himself on his memory. If he's really good, he'll not only know the new one, and the old one, but he still should be able to write the old, old list that began AFIRM, BAKER, CAST.⁴⁵

⁴³ Herbert Wes McBride, *The Emma Gees* (Indianapolis: The Bobbs-Merrill Co., 1918), p. [ix].

⁴⁴ *Ibid.*, pp. [x, xi].

⁴⁵ "How To Learn Your ALFA, BRAVO, CHARLIEs," *All Hands*, No. 472 (June, 1956), p. 31/2-3.

The young British or American serviceman of today, whose military service began after 1956, may find that the names used for the letters of the alphabet during World War II are strange and entirely alien to anything in his experience. He may be somewhat puzzled to understand a dictionary's explanation: "Ack-ack. Short for 'anti-aircraft'. ('Ac' was used in the services' phonetic alphabet for sending the letter 'A' . . .)"⁴⁶ He undoubtedly would not know that *A* once was pronounced *ack* in the "phonetic alphabet" common to all three branches of the British "fighting services," that it was so used by them from early in World War I until late in World War II, and that it had been used by the U. S. Army from 1918 until 1939. Today's serviceman probably would not be able to identify *ack*. In his military training, since 1956, he is being taught that the letter *A* is "spoken as" *alfa*.

The new member of today's U. S. Air Force is instructed that the expression *Roger* means "I have received the message,"⁴⁷ and is often told to add "and understand it." It is very probable that he is not told that the term was derived from the World War II "phonetic alphabet" equivalent of the letter *R*, and that the letter *R* was the designated abbreviation for "received." He is taught, however, that the name for the letter *R* in the present day "phonetic alphabet" is spoken as *Romeo*. One writer must have anticipated changes in the "phonetic alphabet" of his own experience when he lamented that

nobody seems to have drawn attention to the influence of the telecommunications alphabet. In addition to being the source of the Air Corps' *Roger*, this alphabet contributed several minor usages. In our headquarters we often spoke of the General Staff officers as *George One*, *George Two*, etc., and of the *Adjutant General* as *Able George*. Logically, Ameri-

⁴⁶ John Leslie Hunt and Alan George Pringle, *Service Slang* (London: Faber & Faber Ltd., 1943), p. 11.

⁴⁷ U. S. Department of the Air Force, Air Force Manual, AFM 51-37, November 15, 1960, *Instrument Flying* (Washington: Government Printing Office, 1960), p. 18-3/2: "STANDARD TERMS AND PHRASES PHRASE: Roger — 'Meaning . . . I have received all your last transmission.' (Under no circumstances to be used as an affirmative)." Cf. AFM 51-38, April, 1954, *Theory of Instrument Flying* (Washington: Government Printing Office, 1954), p. 103: "Term: ROGER Meaning: Transmission received and understood. (Does not mean YES)."

cans should have used the form *able-able* for anti-aircraft instead of picking up the British form *ack-ack*.⁴⁸

The nautical, both merchant marine and naval, use of signal flags (rather than the improvisation on the part of army signalmen) may have laid the foundation for the creation of a "phonetic alphabet." During the early use of the signal flags, they did not represent individual letters of the alphabet. Some were given names usually in connection with the meaning of the message conveyed by the display of that flag. "Quarantine" flag, "Powder" flag, "Meal" flag are examples of some of the particular names that were given to certain individual signal flags. It is interesting to note that the "Blue Peter" flag, originally not representing a letter of the alphabet but a signal that the vessel was about to depart and that all members of the crew were notified to report on board, later became the flag for the letter *P* and, at one time, that the letter *P* was known by the name of "Peter" in one of the "phonetic alphabets." (The U. S. Navy continued the connotation, whether intentional or unintentional is not known to me, contained in the "Blue Peter" flag by naming the flag, in its *Flag-Alphabet*, as "Preparatory" – later abbreviated to "Prep.") Also, the "Quarantine" flag became the *Q*-flag.

The early use of the signal flags was as a system of numeral flags, i. e., a combination of numbers displayed by the numeral flags would indicate the word, phrase, or letter as they were listed in a signal code book.⁴⁹

In 1856, the British Board of Trade after studying the problem of "a Code of Signals to be used at Sea" found that "the system of numerals" (numeral flags) was "defective for a comprehensive Code."⁵⁰ The Board assigned 18 letters of the alphabet to

⁴⁸ Edwin H. Carpenter, Jr., "Some Notes on Army Language," *American Speech*, XXI, No. 4 (December, 1946), pp. 284–285.

⁴⁹ An example of the use of numeral flags is contained in Lord Nelson's famous message at Trafalgar:

253 269 863 261 471 958 220 370 4 21 19 24
 "ENGLAND EXPECTS THAT EVERY MAN WILL DO HIS D U T Y."
 Cf. William James, *The Naval History of Great Britain* (London: R. Bentley, 1947), IV, footnote (*) on p. 34.

⁵⁰ Great Britain, Board of Trade, *The Commercial Code of Signals* (2d ed.; London: George E. Eyre and William Spottiswoode, 1859), pp. iii, viii.

certain specified "Code Flags," i. e., *B-W*, omitting *E, I, O*, and *U* (*A, X, Y*, and *Z* were not included) for inclusion in the first several published editions of *Commercial Code of Signals*,⁵¹ and in what was the foundation which was later to develop into today's International Code.

Even though the U. S. Navy did not adopt the embryonic system, the British Board of Trade provided a system based on the "American Merchant Signal Flags" (patented by Henry J. Rogers) of which only four flags (*B, M, Q*, and *V*) were the same as the "Flags of the Commercial Code of Signals," and made it available for use by the merchant marine.⁵²

By 1898, the U. S. Navy felt the need and realized the importance of having an alphabet system for its signal flags. In that year, 26 "Ships' Distinguishing Pennants" were designated to represent the letters of the alphabet from *A* to *Z*. That system was short-lived, and the U. S. Navy in 1902 adopted a slight variation of the new international code of signals developed by the British Board of Trade. Eleven years later, the U. S. Navy adopted a system of names for its "Alphabetical Code Flags" which seems to be the

⁵¹ As the Board of Trade explained in its report, the use of the alphabet was restricted to the designated consonants because of an over-developed sense of nicety which led to an apprehension that the British sailor might use three and four letter code groups to form obscene or "taboo" words. A more complete explanation is contained in "REPORT OF THE COMMITTEE ON A CODE OF SIGNALS to be used at SEA, . . . 24th Sept. 1856" in *The Commercial Code of Signals* (2d.; 1859), p. ix: "The actual number (18) . . . and having decided upon this number, we proceed to the *naming* of the Flags or Signs, in devising which it appeared to us — 1. That the characters should be familiar ones. 2. That they should recur in a well-known order, for facility of reference.

"The letters of the alphabet seemed best adapted for the purpose, and we determined that it would be most convenient to assign to each of the 18 Flags a letter of the alphabet, leaving out the vowels.

"The omission of the vowels was forced upon us from the circumstance, that by introducing them every objectionable word composed of four letters or less, not only in our own but in foreign languages, would appear in the Code in the course of the permutation of the letters of the alphabet."

"Too much importance should not, however, be set upon the objection which naturally occurs, that the alphabet is thus incomplete, and that the power of spelling is apparently lost; for it should be understood that the letters are not used *as letters*, but *as signs*, characterizing the different Flags by the most familiar method, and in an order well known."

⁵² *Commercial Code of Signals* (1859), pp. [xxix], [xxx].

first published list of what was later to be named the "phonetic alphabet."⁵³

The "Flag-Alphabet" seems to have played a part in pioneering the development of the "phonetic alphabet," but only the name *MIKE*, taken from the 1913 U. S. Navy "Flag-Alphabet," and the name *CHARLIE*, taken from the 1916 (probably 1914 or earlier) usage by the British Royal Navy, have survived in the *alfa-bravo-charlie* phonetic alphabet adopted in 1956. A general historical summary is well presented in the following.

Like the words of any language, those of the phonetic alphabet have been changed a number of times to try and improve man's efforts to communicate with man. The ALFA, BRAVO, CHARLIE alphabet which the [U. S.] Navy put into effect on 1 Mar[ch] 1956 is the biggest step yet in the search for a set of words that would be universally understandable to people of all nationalities.

This alphabet, developed by the International Civil Aviation Organization (which includes about 60 member-nations) was approved by the Joint Communications-Electronics Committee (Joint Chiefs of Staff) on 22 Aug[ust] 1955. It is the result of years of intensive study by international experts in phonetics, languages, speech training, education and applied psychology. As part of that study, people of more than 30 nationalities repeatedly tested long lists of words in a search for those which would work best in international use.

.....

The first attempt at world-wide agreement on a spelling alphabet was made in 1927 at the International Telecommunication Union Radio Conference in Washington, D. C. For international use in maritime and aeronautical communication, the ITU set up a system based on geographical names. This one started out with AMSTERDAM, BALTIMORE and CANADA and wound up with XANTHIPPE, YOKOHAMA and ZOULOULAND. In

⁵³ *The Recruit's Handy Book* (rev. ed., 1913), Plate xviii, p. 78. [Approved April 5, 1913 by the Bureau of Navigation.] Within a few months a revised list appeared. Cf. *The Bluejacket's Manual 1913* (5th ed., revised to September, 1913), p. 308.

1932 the ITU made 14 changes in this alphabet, but XANTHIPPE went rolling merrily along.

Although the ITU set-up was used internationally, most countries had other alphabets for their own use prior to World War II. The British RAF, for example, had one which began ACK (OR APPLE), BE[E]R, CHARLIE. This version and the U. S. Army system of 1914 were combined and modified to create the old ABLE, BAKER, CHARLIE set-up, which America and her allies adopted in 1943 as their official phonetic alphabet. However, a different set of words was agreed upon for the official names of the alphabetical signal flags used by the Allied navies.

In 1947, the members of ICAO made two alphabets official – the Allied version of 1943 and another system specifically designed for Spanish-speaking people. At the same time the search was begun for an alphabet which would be almost universally acceptable. The words the experts sought had to start with the letter which they were to identify (EXTRA had been used for x in some systems); they had to be short (preferably two syllables); they had to look [and] sound practically the same in French, English or Spanish; and they had to have good “recognizability factors” so that they could be heard and understood easily.

It wasn't easy to find the right words but these words, now that we have them, should make it easier for people of the world to understand each other. If they do, they're worth the trouble it took to find them.⁵⁴

In spite of the military usage of the name “phonetic alphabet,” and in spite of the millions of ex-servicemen and veterans who recognize and understand the meaning of the name, it has been repeatedly asserted that the name is not acceptable because the original (and therefore correct) meaning is something entirely different. In some circles, the name, with its unorthodox meaning, has taken on the status of being a “taboo word,” and those who have dared to use it in that environment have been looked upon

⁵⁴ “*New Phonetic Alphabet* — From Fox to Foxtrot, Tare to Tango,” *All Hands*, No. 472 (June, 1956), p. 31.

as having committed a “social error.” However, the name was understandable and easily conveyed the intended message in the various articles discussing the adoption of the *alfa-bravo-charlie* “phonetic alphabet” in 1956, viz:

- a) The Army adoption of the International Civil Aviation Organization phonetic alphabet went into effect Thursday, March 1;⁵⁵
- b) Yachtsmen will also be interested to know that, as of March 1, a new phonetic alphabet is being employed for international code. . . . To quote the U. S. C. G. A. bulletin of the 1st Coast Guard District: “This is the same phonetic alphabet that has been in use in international aircraft operations for the past few years”;⁵⁶
- c) New International Phonetic Alphabet. A group of the world’s linguists – including Russians – met recently and agreed upon a new international phonetic alphabet to be used in radio communications;⁵⁷
- d) New Phonetic Alphabet For Air-Ground Communications.⁵⁸

Even though the name “phonetic alphabet” may be classified as a perversion, it has had continuous existence and constant use for the past several decades during which time its meaning has been easily and readily understood. “Phonetic alphabet,” as a name, merits more recognition and general acceptance as a standard name than has been its lot in the past.

⁵⁵ “ABLE BAKER OUT; CHARLIE MIKE XRAY IN,” *The Army-Navy-Air Force Register*, LXXVII, No. 3978 (March 3, 1956), p. 1/2.

⁵⁶ [Editorial], *Yachting*, XCIX, No. 4 (April, 1956), p. 3.

⁵⁷ “New International Phonetic Alphabet,” *Electronics World*, LXIX, No. 4 (April, 1963), p. 79.

⁵⁸ *Popular Mechanics Magazine*, CV, No. 5 (May, 1956), p. 254.

APPENDIX I

The following tables list the names used in the English language application to signal flags in the "flag alphabet" and to the letters in the "phonetic alphabet." The date used at the head of each list is not necessarily the date when the names in the list were first used, but is the date of the source from which they were taken (unless otherwise indicated). Some lists do not illustrate a change in a name, but may illustrate only a slight variation in the spelling, e. g., Ac, Ack, Ac; Optional, OPTION.

Table I presents the names used in the U. S. Navy for its "flag alphabet." The list of "1943" adds the names of the "phonetic alphabet" where they differ from those of the "flag alphabet," and the "phonetic alphabet" of "1950" uses an asterisk to indicate where the name differs from that of the "flag alphabet."

Table II shows the names that the British used in "phonetic alphabets" until the change was made in 1943 to conform to the one decided upon for use by the allied powers. The list headed "a. 1918" does not indicate a change in the names used by the Royal Navy, but indicates only that the British Expeditionary Forces found that a shortened list satisfied their needs.

The various "phonetic alphabets" used by the U. S. Army are listed in Table III. The U. S. Army, in its early usage of a "phonetic alphabet," first adopted almost all of the U. S. Navy names of the "Alphabetical Code Flags." During World War I, it dropped that "phonetic alphabet" and adopted that of the British Expeditionary Forces. The latter was continued after World War II with variations until a new one was worked out with the U. S. Navy. The "phonetic alphabet," adopted for the latter stages of World War II, seems to be a compromise between the U. S. Navy "flag alphabet" and the British "phonetic alphabet."

The U. S. Air Force, after it became a separate organization and ceased to be the U. S. Army Air Corps, continued to use the same "phonetic alphabet" that was in effect in the U. S. Army. In 1952, it made a change to the "phonetic alphabet" devised by the International Civil Aviation Organization. This list appears in Table IV.

The culmination in the development of the "phonetic alphabet" came in 1956 when all the armed forces of the allied powers adopted the latest revision of the list of names offered by the International Civil Aviation Organization. Table V contains the names that are in current use.

TABLE I, U. S. NAVY

Letters	Names of Alphabetical Code Flags			
	1913 ^a	1913 ^b	1922 ^c	1927 ^d
A	<i>AFTER</i>	<i>ABLE</i>	Affirmative	AFFIRMATIVE
B	<i>BATTLE</i>	<i>BOY</i>	Baker	BAKER
C	<i>CAST</i>	<i>CAST</i>	Cast	CAST
D	<i>DOG</i>	<i>DOG</i>	Dog	DOG
E	<i>EAGLE</i>	<i>EASY</i>	Easy	EASY
F	<i>FRANK</i>	<i>FOX</i>	Fox	FOX
G	<i>GEORGE</i>	<i>GEORGE</i>	George	GEORGE
H	<i>HAVE</i>	<i>HAVE</i>	Hypo	HYPO
I	<i>ISLAND</i>	<i>ITEM</i>	Interrogatory	INTERROGATORY
J	<i>JACK</i>	<i>JIG</i>	Jig	JIG
K	<i>KING</i>	<i>KING</i>	King	KING
L	<i>LOVE</i>	<i>LOVE</i>	Love	LOVE
M	<i>MONEY</i>	<i>MIKE</i>	Mike	MIKE
N	<i>NOISE</i>	<i>NAN</i>	Negative	NEGATIVE
O	<i>OBOE</i>	<i>OBOE</i>	Optional	OPTION
P	<i>PISTOL</i>	<i>PUP</i>	Preparatory	PREPARATION
Q	<i>QUACK</i>	<i>QUACK</i>	Quack	QUACK
R	<i>RUSH</i>	<i>RUSH</i>	Roger	ROGER
S	<i>SAIL</i>	<i>SAIL</i>	Sail	SAIL
T	<i>TARE</i>	<i>TARE</i>	Tare	TARE
U	<i>UNION</i>	<i>UNIT</i>	Unit	UNIT
V	<i>VICE</i>	<i>VICE</i>	Vice	VICE
W	<i>WATCH</i>	<i>WATCH</i>	William	WILLIAM
X	<i>X-RAY</i>	<i>X-RAY</i>	X-ray	X-RAY
Y	<i>YOKE</i>	<i>YOKE</i>	Yoke	YOKE
Z	<i>ZED</i>	<i>ZED</i>	Zed	ZED

TABLE I, U. S. NAVY (continued)

Letters	Flag Alphabet		Phonetic Alphabet
	1939 ^e	1943 ^f	1950 ^g
A	Afirm	Afirm (Able)	ABLE*
B	Baker	Baker	BAKER
C	Cast	Charlie	CHARLIE
D	Dog	Dog	DOG
E	Easy	Easy	EASY
F	Fox	Fox	FOX
G	George	George	GEORGE
H	Hypo	How	HOW
I	Int	Int (Item)	ITEM*

TABLE I (continued)

J	Jig	Jig	JIG
K	King	King	KING
L	Love	Love	LOVE
M	Mike	Mike	MIKE
N	Negat	Negat (Nan)	NAN*
O	Option	Option (Oboe)	OBOE*
P	Prep	Prep (Peter)	PETER*
Q	Queen	Queen	QUEEN
R	Roger	Roger	ROGER
S	Sail	Sugar	SUGAR
T	Tare	Tare	TARE
U	Unit	Uncle	UNCLE
V	Victor	Victor	VICTOR
W	William	William	WILLIAM
X	Xray	Xray	XRAY
Y	Yoke	Yoke	YOKE
Z	Zed	Zebra	ZEBRA

^a *Recruit's Handy Book* (1913), pp. 78–79.

^b *Bluejacket's Manual* (1913), pp. 308–309.

^c *Bluejacket's Manual* (1922) [pp. 353–355].

^d *Bluejacket's Manual* (1927), Plates IV–VI.

^e *Bluejacket's Manual* (1939), Plate IV.

^f *Bluejacket's Manual* (1943), Figure 31–5, p. 842. Names enclosed by parentheses are those of the “phonetic alphabet” that differ from the flag alphabet.

^g *Bluejacket's Manual* (1950), p. 744. Asterisk (*) indicates the names of the “phonetic alphabet” that differ from those of the flag alphabet.

TABLE II, GREAT BRITAIN ARMED FORCES

Letters	Royal Navy		B. E. F.	All Arms	All Arms	All Arms
	incomplete					
	a. 1916 ^a	a. 1918 ^b	a. 1918 ^c	1924 ^d	1928 ^e	1932 ^f
A	—	Apples	ack	Ac	Ack	Ac
B	Butter	Butter	beer	Beer	Beer	Beer
C	Charlie	Charlie	—	Charlie	Charlie	Charlie
D	Donkey	Duff	don	Don	Don	Don
E	Ethel	Edward	—	Edward	Edward	Edward
F	Fanny	Freddy	—	Freddie	Freddie	Freddie
G	Ginger	George	—	George	George	George
H	Harry	Harry	—	Harry	Harry	Harry
I	—	Ink	—	Ink	Ink	Ink
J	—	Johnnie	—	Johnnie	Johnny	Johnnie
K	—	King	—	King	King	King

TABLE II (continued)

L	Lizzie	London	—	London	London	London
M	Monkey	Monkey	emma	Monkey	Monkey	Monkey
N	Nuts	Nuts	—	Nuts	Nuts	Nuts
O	—	Orange	—	Orange	Orange	Orange
P	Percy	Pudding	pip	Pip	Pip	Pip
Q	—	Queenie	—	Queen	Queen	Queen
R	—	Robert	—	Robert	Robert	Robert
S	—	Sugar	esses	Sugar	Sugar	Sugar
T	Tommy	Tommy	tock	Toc	Toc	Toc
U	—	Uncle	—	Uncle	Uncle	Uncle
V	—	Vinegar	vick	Vic	Vic	Vic
W	—	William	—	William	William	William
X	—	Xerxes	—	X-ray	X-ray	X-ray
Y	—	Yellow	—	Yorker	Yorker	Yorker
Z	Zebra	Zebra	zed	Zebra	Zebra	Zebra

^a "TAFFRAIL," *Stand By!* (1917), pp. 34–38.

^b David L. Woods, *A History of Tactical Communication Techniques* (Orlando: 1965), Plate XI–6.

^c McBride (1918), pp. [ix–xi].

^d *RAF, Field Service Pocket Book* (1925), p. 18.

^e *Signal Training* (1929), p. 1.

^f *Signal Training* (1932), p. 1.

TABLE III, U. S. ARMY

Letters	Phonetic Alphabets				
	1916 ^a	1920 ^b	1923 ^c	1939 ^d	1942 ^e
A	Able	Ack	ACK	Afirm	ABLE (AFIRM)*
B	Boy	Boy	BOUGH	Baker	BAKER
C	Cast	Cat	CAW	Cast	CHARLIE
D	Dock	Don	DON	Dog	DOG
E	Easy	E	E	Easy	EASY
F	Fox	F	F	Fox	FOX
G	George	George	GOGO	George	GEORGE
H	Have	H	H	Hypo	HOW
I	Item	I	I	Inter	ITEM (INTERROGA- TORY)*
J	Jig	Jig	JIG	Jig	JIG
K	King	K	K	King	KING
L	Love	L	L	Love	LOVE
M	Mike	Emma	EMMA	Mike	MIKE
N	Nan	N	N	Negat	NAN (NEGAT)*
O	Opal	O	O	Option	OBOE (OPTION)*
P	Pup	Pip	PIP	Prep	PETER (PREP)*

TABLE III (continued)

Q	Quack	Quash	QUASH	Queen	QUEEN
R	Rush	R	R	Roger	ROGER
S	Sail	Esses	ESSES	Sail	SUGAR
T	Tare	Toc	TOC	Tare	TARE
U	Unit	U	U	Unit	UNCLE
V	Vice	Vic	VIC	Victor	VICTOR
W	Watch	W	W	William	WILLIAM
X	X-ray	X	X	Xray	XRAY
Y	Yoke	Yoke	YOKE	Yoke	YOKE
Z	Zed	Zed	ZED	Zed	ZEBRA

^a *Signal Book* (1916), p. 33.

^b Albright (1920), p. 141.

^c Training Regulation, TR 160-5 (1923), p. 11.

^d Basic Field Manual, FM 24-5 (1939), paragraph 181, p. 144.

^e Basic Field Manual, FM 24-9 (1942), pp. 1-2: “*Names in parentheses shall be used when the *United States Navy General Signal Book* is used.”

TABLE IV, U. S. AIR FORCE

Letters	Names 1952 ^a
A	Alfa
B	Bravo
C	Coca
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliet
K	Kilo
L	Lima
M	Metro
N	Nectar
O	Oscar
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Union
V	Victor

TABLE V, INTERNATIONAL

Letters	Names 1956 ^b
A	ALFA
B	BRAVO
C	CHARLIE
D	DELTA
E	ECHO
F	FOXTROT
G	GOLF
H	HOTEL
I	INDIA
J	JULIETT
K	KILO
L	LIMA
M	MIKE
N	NOVEMBER
O	OSCAR
P	PAPA
Q	QUEBEC
R	ROMEO
S	SIERRA
T	TANGO
U	UNIFORM
V	VICTOR

TABLE IV and V (continued)

W	Whiskey	W	WHISKEY
X	Extra	X	XRAY
Y	Yankee	Y	YANKEE
Z	Zulu	Z	ZULU

^a Air Force Manual, AFM 51-38 (1954), p. 102. The "phonetic alphabet" had been in use by the Air Force since 1952.

^b Great Britain, Admiralty. *Admiralty Manual of Seamanship*, BR 67 (1) (London: H. M. Stationery Office, 1964, p. 342; or U. S. Navy, Bureau of Naval Personnel, Navy Training Course, NAVPERS 10054, *Basic Military Requirements*) (Washington: Government Printing Office, 1957), p. 449. The new international "phonetic alphabet" can be found also in: *All Hands* (June, 1956), p. 31; *Army-Navy-Air Force Register* (March 3, 1956), p. 1/2; *Yachting* (April, 1956), p. 3; *Popular Mechanics Magazine* (May, 1956), p. 254; *Time* (March 12, 1956), p. 98; *N. Y. Times* (March 1, 1956), p. 10/1-2. These new names for the alphabet flags appear in *Bluejackets' Manual* (1957), Figure 30-3, pp. 532-533, and in *Admiralty Manual of Seamanship* (1964), Figure 13-5, p. 360-1. The "phonetic alphabet" and the alphabet flags also appear in Navy Training Course, NAVPERS 10135, *Signalman 3 & 2* (1956) on p. 25 and p. 65 (Figure 3-4) respectively.

APPENDIX II

The following is not to be considered as an example of early efforts to devise a "phonetic alphabet." It is primarily Myer's Code for visual signaling. In addition, however, it has a list of words and phrases which may be conveniently abbreviated by using the corresponding letter of the alphabet. In spite of the abundantly clear purpose of the list, it may be looked upon as an indication that the "phonetic alphabet" may have been developed in conjunction with the army's need for visual signaling instead of in conjunction with the navy's need for names for signal flags, i. e., the "flag-alphabet," as the available evidence seems to suggest. It is probably only a coincidence, but "after" and "have" in the list cited below appeared in the 1913 U. S. Navy list of names of "alphabetical code flags."

EXTRACT

"Signaling Instruction," *Scientific American*, LVI (XLII NS),
No. 16 (April 17, 1880), p. 244/3:

The spring signaling instruction has commenced at Fort Preble, an hour's drill each day. . . . We give the alphabet below for the benefit of the curious. The second columns are the equivalentents for which the corresponding letters may serve

as contractions. With four of any two kinds of things, fixed signaling can be done. Calling one's right side one, and his left side two, he can transmit any message by waving a handkerchief according to the following table.

Letters	Word Equivalent	Signal Number	Letters	Word Equivalent	Signal Number
A	after	22	P	put	1212
B	before	2112	Q	quiet	1211
C	can	121	R	are	211
D	did	222	S	station	212
E	of the	12	T	the	2
F	for the	2221	U	you	112
G	ground	2211	V	very	1222
H	have	122	W	wood	1121
I	if the	1	X	next	2122
J	—	1122	Y	why	111
K	o'clock	2121	Z	—	2222
L	—	221	&	—	1111
M	—	1221	ing	—	2212
N	not	11	tion	—	1112
O	of	21			

APPENDIX III

The "phonetic alphabets," utilizing a variety of names that are useful in conjunction with each of several languages, are presented in the following ten tables. In many cases, they are placed together in the respective tables because of the linguistic group to which the individual language belongs; and, in some cases, they are placed together (regardless of language origin) merely for ease of comparison.

With the exception of the *Flaggenzeichen* in Table I, the "phonetic alphabets" were taken from telephone books. A comparison of the names used shows clearly the problems faced by those who worked at the task of creating a "phonetic alphabet" that would be intelligible in international use. Not only did the variations in pronunciation of the same letter of the alphabet in the different languages present a problem, but there were complications that arose from the letters of the alphabets of many languages that were not to be found among the 26 letters of the Roman alphabet used in the English language.

Table I compares the "phonetic alphabets" available in the German language as taken from the German Navy of World War II, the civilian sources of names for domestic and foreign use, and the Austrian civilian source.

The Swiss telephone book (being tri-lingual) makes available "phonetic alphabets" in three languages (German, French and Italian) to constitute Table II.

The "phonetic alphabets" of the Scandinavian languages (Norwegian, Swedish, Danish, and Icelandic) comprise Table III.

Table IV contains names appropriate for use with the Yugoslav, Polish, and Czechoslovak languages, i. e., slavonic.

Names, used in conjunction with some of the Romance languages (Spanish, French, and Portuguese), are listed in Table V.

The "phonetic alphabets" in Table VI do not list names from the respective languages, but represent English names found to be suitable for use in India, Pakistan, and Malaya.

The lists of names for domestic and foreign use by the Dutch are placed alongside the Afrikaans and the English lists used in Johannesburg. Table VII also includes a list used in Ireland.

Table VIII contains "phonetic alphabets" suggested for international use in the respective Countries of Greece, Ethiopia, and Israel. The alphabets (Greek, Amharic, and Hebrew) of the three languages involved are entirely dissimilar. Perhaps I should mention also that the alphabetical order of these three languages differs from that of the Roman alphabet. Inasmuch as many readers have at least a nodding acquaintance with the Greek alphabet only the Greek "phonetic alphabet" is reproduced in the table in addition to the lists for international use. (There seems to be no need to provide the romanization for each Greek name.) The Amharic alphabet is called a "syllabary," and has 33 basic characters with each character having seven different shapes called "orders" according to the vowel with which the basic character is combined. The telephone book lists only the 33 basic characters out of the possible total of 231. The Israeli telephone book, in contrast, contains only 22 letters of the Hebrew alphabet. As a matter of possible interest, the first three letters of these two alphabets are reproduced (and romanized) from the respective telephone books:

AMHARIC (read left to right)	HEBREW (read right to left)
letter: name	letter spelled out – letter
ሀ [ha]: ሃለታ [haleta]:	[aleph] אלה – [aleph] א
ለ [le or lä]: ለቂ [lewi]:	[Boaz] בועז – [beth] ב
ሐ [ha]: ሐመር [hamere]:	[gimel] גימל – [gimel] ג

Even though the differences of the spoken languages are enormous, the Finnish, Hungarian, and Turkish languages belong to the linguistic group known as Finno-Ugrian or Ural- Altaic and the appropriate “phonetic alphabets” appear in Table IX. The Finnish telephone book is bi-lingual with Swedish.

Table X offers “phonetic alphabets” from three members (Jamaica, Kenya, and Guyana) of the Commonwealth of Nations. The telephone book from Guyana not only makes use of the name “phonetic alphabet,” but it also reproduces the “alfa-bravo charlie” system.

TABLE I

Flaggenzeichen aus dem „Signalbuch der Kriegsmarine“	Buchstabiertafel Berlin, 1966 ^b	Buchstabiertabelle Wien, 1966 ^c
1944 ^a	INLAND	AUSLAND
A Anton	A = Anton	A = Amsterdam
Ä Ärger	Ä = Ärger	Ä = Ärger
B Bruno	B = Berta	B = Baltimore
C Cäsar	C = Cäsar	C = Casablanca
Ch China	CH = Charlotte	CH = Christine
D Dora	D = Dora	D = Danemark
E Emil	E = Emil	E = Edison
F Fritz	F = Friedrich	F = Florida
G Gustav	G = Gustav	G = Gallipoli
H Hans	H = Heinrich	H = Havana
I Ida	I = Ida	I = Italia
J Jota	J = Julius	J = Jérusalem
K Karl	K = Kaufmann	K = Kilogramme
L Lucie	L = Ludwig	L = Liverpool
M Max	M = Martha	M = Madagaskar
N Nanni	N = Nordpol	N = New York
O Otto	O = Otto	O = Oslo
Ö Öse	Ö = Ökonom	Ö = Österreich
P Paula	P = Paula	P = Paris
Q Quatsch	Q = Quelle	Q = Québec
R Richard	R = Richard	R = Roma

TABLE I (continued)

S	Sophie	S = Samuel	S = Santiago	S = Siegfried
		SCH = Schule		
T	Toni	T = Theodor	T = Tripoli	T = Theodor
U	Ulrich	U = Ulrich	U = Upsala	U = Ulrich
Ü	Übel	Ü = Übermut		Ü = Übel
V	Viktor	V = Viktor	V = Valencia	V = Viktor
W	Wilhelm	W = Wilhelm	W = Washington	W = Wilhelm
X	Xanthippe	X = Xanthippe	X = Xanthippe	X = Xaver
Y	Ysop	Y = Ypsilon	Y = Yokohama	Y = Ypsilon
Z	Zet (Zeppelin)	Z = Zacharias	Z = Zurich	Z = Zacharias

^a *Der Signalgast* (Berlin: E. S. Mittler & Sohn, 1944), p. 5.

^b Amtliches Fernsprechbuch, Berlin, 1966/67, p. 1.

^c Amtliches Telephonbuch, Wien, 1966, p. i.

TABLE II

Buchstabiertabelle Tableau d'épellation Tabella di compitazione
Genève-Lausanne, 1965^a

A	Anna	A	Anna	A	Anna
B	Bertha	B	Berthe	B	Battista
C	Cäsar	C	Cécile	C	Carlo
D	Daniel	D	Daniel	D	Davide
E	Emil	E	Émile	E	Ernesto
F	Friedrich	F	François	F	Federico
G	Gustav	G	Gustave	G	Giovanni
H	Heinrich	H	Henri	H	acca
I	Ida	I	Ida	I	Isidoro
J	Jakob	J	Jeanne	J	ilungo
K	Kaiser	K	Kilo	K	cappa
L	Leopold	L	Louise	L	Luigi
M	Marie	M	Marie	M	Maria
N	Niklaus	N	Nicolas	N	Nicola
O	Otto	O	Olga	O	Olga
P	Peter	P	Paul	P	Pietro
Q	Quelle	Q	Quittance	Q	Quintino
R	Rosa	R	Robert	R	Rodolfo
S	Sophie	S	Suzanne	S	Susanna
T	Theodor	T	Thérèse	T	Teresa
U	Ulrich	U	Ulysse	U	Umberto
V	Viktor	V	Victor	V	Vittorio
W	Wilhelm	W	William	W	vu doppia
X	Xaver	X	Xavier	X	ics
Y	Yverdon	Y	Yvonne	Y	ipsilon
Z	Zürich	Z	Zurich	Z	Zurigo

^a [Swiss Telephone Book], Genève-Lausanne, 1965/66 (blue pages), p. 14.

TABLE III

NAVNELISTE	BOKSTA- VERING	Navene- bogstavering	HVERNIG STAFA SKAL SÍMSKEYTI Í SÍMA [Iceland], 1964 ^d	
			Bókstafur	
Oslo, 1965 ^a	Stockholm, 1966 ^b	København, 1965 ^c	Innanlands	við útlönd
A: Anna	A - Adam	A: Anna	A Anna	Amsterdam
B: Bernhard	B - Bertil	B: Bernhard	B Bjarni	Baltimore
C: Cæsar	C - Cesar	C: Cecilie	C Ceres	Casablanca
D: David	D - David	D: David	D Davið	Danemark
E: Edith	E - Erik	E: Erik	E Einar	Edison
F: Fredrik	F - Filip	F: Frederik	F Finnur	Florida
G: Gustav	G - Gustav	G: Georg	G Gunnar	Gallipoli
H: Harald	H - Helge	H: Hans	H Hannes	Havana
I: Ivar	I - Ivar	I: Ida	I Ingi	Italia
J: Johan	J - Johan	J: Johan	J Jónas	Jerusalem
K: Karin	K - Kalle	K: Karen	K Kristján	Kilogramme
L: Ludvig	L - Ludvig	L: Ludvig	L Lárus	Liverpool
M: Martin	M - Martin	M: Marie	M Magnús	Madagaskar
N: Nils	N - Niklas	N: Nikolaj	N Nikulás	New-York
O: Olivia	O - Olof	O: Odín	O Oddur	Oslo
P: Petter	P - Petter	P: Peter	P Pétur	Paris
Q: Quintus	Q - Qvintus	Q: Quintus	Q Q (kú)	Quebec
R: Rikard	R - Rudolf	R: Rasmus	R Ragnar	Roma
S: Sigrid	S - Sigurd	S: Søren	S Sigurður	Santiago
T: Teodor	T - Tore	T: Theodor	T Teitur	Tripoli
U: Ulrik	U - Urban	U: Ulla	U Unnur	Upsala
V: Enkelt-v	V - Viktor	V: Viggo	V Valdi	Valencia
W: Dobbelt-v	W - Wilhelm	W: William	W Tvofalt V	Washington
X: Xerxes	X - Xerxes	X: Xerxes	X Kross	Xantippa
Y: Yngling	Y - Yngve	Y: Yrsa	Y Ypsilon	Yokohama
Z: Zakarias	Z - Zäta	Z: Zacharias	Z Zeta	Zurich
Æ: Ærlig		Æ: Ægir	Ð Dórður	
Ø: Østen		Ø: Øresund	Æ Ægir	
Å: Åse	Å - Åke	Å: Åse		
	Ä - Ärlig			
	Ö - Östen		Ö Ögmundur	

^a Rikstelefon Katalogen, Oslo, 1965, p. 24.^b Riks Telefon Katalogen, Stockholm, 1966, [detachable page inside front cover].^c KTAS Telefonbog, Navnebog A-K, København, 1965, p. 28/1.^d SÍMASKRÁ [Telephone Directory, Iceland], 1964, p. [6].

TABLE IV

Pomoćna Tablica Beograd, 1965 ^a	[alfabet imienny] Warszawa, 1962 ^b	hláskování těchto slov [Czechoslovakia], 1967 ^c
A = Avala	a — Adam	A Adam
B = Beograd	b — Barbara	B Božena
C = Cetinje	c — Celina	C Cyril
Č = Čačak		Č Čeněk
Ć = Ćuprija		
D = Dubrovnik	d — Dorota	D David
		Ď Ďumbier
DŽ = Džamija Džep: Sarajevo, 1964		
Đ = Đakovo	e — Ewa	E Emil
E = Evropa	f — Franciszek	F František
F = Foca	g — Genowefa	G Gustav
G = Gorica	h — Henryk	H Helena
H = Hercegovina		Ch Chrudim
	i — Irena	I Ivan
I = Istra	j — Jadwiga	J Josef
J = Jadran	k — Karol	K Karel
K = Kosovo	l — Leon	L Ludvík
L = Lika	ł — Łukasz	
		L' L'ubochňa
LJ = Ljubljana		
M = Mostar	m — Maria	M Marie
N = Niš	n — Natalia	N Norbert
		Ň Ňitra
NJ = Njegoš		
O = Osijek	o — Olga	O Otto
P = Petrovac Piro: Zagreb, 1962	p — Paweł	P Petr
		Q Quido (vyslov Kvído)
R = Rijeka	r — Roman	R Rudolf
		Ř Řehoř
S = Skopje Skoplje: Sarajevo, 1964	s — Stanisław	S Svatopluk
Š = Šabac Šibenik: Zagreb, 1962		Š Šimon
T = Titograd	t — Tadeusz	T Tomáš
		Ě Ěplá (vyslov Těplá)
U = Uroševac Ub: Zagreb, 1962	u — Urszula	U Urban

TABLE IV (continued)

V = Valjevo		V Václav
	w — Waclaw	W Dvojité vé
	x — Xantypa	X Xaver
	y — Ypsilon	Y Ypsilon
Z = Zagreb	z — Zygmunt	Z Zuzana
Ž = Žirovnica		Ž Žofie
Županja: Sarajevo, 1964		
Q = Kvadrat		
X = iks		
Y = Ipsolon		
W = dvostruko V		
duplo V: Sarajevo, 1964		

^a Telefonski Imenik, Beograd, 1964, p. xii. In those cases where the names in the telephone books of Sarajevo and Zagreb differed from those in the Beograd telephone book, a notation was made. The letters *Q*, *X*, *Y*, and *W* were placed after *Ž* in the telephone book.

^b Spis Telefonów, Warszawa, 1962–63, p. 8.

^c Telefonní Seznam pro kraj Severočeský, 1967–68, p. vi. These names appeared in the directory for the “northern area.” A “phonetic alphabet” was not included in the Praha telephone book.

TABLE V

E LETREO DE PALABRAS	les mots du code	Alfabeto de soletração	
		[de fonogramas]	
Madrid, 1962 ^a	Paris, 1965 ^b	[Coimbra], 1963 ^c	
		nacionais	internacionais
A. — Antonio	A = <i>Anatole</i>	A — Aveiro	Amsterdam
B. — Barcelona	B = <i>Berthe</i>	B — Bragança	Baltimore
C. — Carmen	C = <i>Célestin</i>	C — Coimbra	Casablanca
Ch. — Chocolate			
D. — Dolores	D = <i>Désiré</i>	D — Dafundo	Danemark
E. — Enrique	E = <i>Eugène</i>	E — Évora	Edison
	É = <i>Émile</i>		
F. — Francia	F = <i>François</i>	F — Faro	Florida
G. — Gerona	G = <i>Gaston</i>	G — Guarda	Gallipoli
H. — Historia	H = <i>Henri</i>	H — Horta	Havana
I. — Inés	I = <i>Irma</i>	I — Itália	Itália
J. — José	J = <i>Joseph</i>	J — José	Jerusalém
K. — Kilo	K = <i>Kléber</i>	K — Kilograma	Kilogramme
L. — Lorenzo	L = <i>Louis</i>	L — Lisboa	Liverpool
LL. — Llobregat			
M. — Madrid	M = <i>Marcel</i>	M — Maria	Madagascar

TABLE V (continued)

N. — Navarra	N = <i>Nicolas</i>	N — Nazaré	New-York
Ñ. — Ñoño			
O. — Oviedo	O = <i>Oscar</i>	O — Ovar	Oslo
P. — Paris	P = <i>Pierre</i>	P — Porto	Paris
Q. — Querido	Q = <i>Quintal</i>	Q — Queluz	Québec
R. — Ramón	R = <i>Raoul</i>	R — Rossio	Roma
S. — Sábado	S = <i>Suzanne</i>	S — Setúbal	Santiago
T. — Tarragona	T = <i>Thérèse</i>	T — Tavira	Tripoli
U. — Ulises	U = <i>Ursule</i>	U — Unidade	Upsala
V. — Valencia	V = <i>Victor</i>	V — Vidago	Valencia
W. — Washington	W = <i>William</i>	W — Wilson	Washington
X. — Xiquena	X = <i>Xavier</i>	X — Xavier	Xantippe
Y. — Yegua	Y = <i>Yvonne</i>	Y — York	Yokoham[sic]
Z. — Zaragoza	Z = <i>Zoé</i>	Z — Zulmira	Zurich

^a Guia Telefónica, Madrid, 1962, p. vii.

^b Annuaire Officiel des Abonnés au Téléphone, Paris 1965 (les pages roses), p. 21.

^c Lista de Assinantes de rede Telefonica Nacional Zona Centro, No. 26, 1963/64, p. 57/1.

TABLE VI

PHONETIC CODES	PHONETIC ANALOGY FOR USE IN PHONOGRAM SERVICE		list of analogies
Bombay, 1966 ^a	East Pakistan Dacca, 1968 ^b		Malaya, 1965 ^c
	Inland	International	
A — Army	A AKBAR	ANDREW	A AUSTRALIA
B — Brother	B BABY	BENJAMIN	B BOMBAY
C — Cinema	C CYCLE	CHARLIE	C CHINA
D — Doctor	D DOCTOR	DAVID	D DENMARK
E — English	E EAGLE	EDWARD	E ENGLAND
F — Father	F FATHER	FREDERICK	F FIJI
G — Gold	G GARDEN	GEORGE	G GHANA
H — Hotel	H HABIB	HARRY	H HONGKONG
I — India	I INDUS	ISAAC	I INDIA
J — Jam	J JAMAL	JACK	J JAPAN
K — King	K KAMAL	KING	K KEDAH
L — Lady	L LAHORE	LUCY	L LONDON
M — Mother	M MANGO	MARY	M MALACCA
N — Navy	N NAVY	NELLIE	N NORWAY
O — Orange	O ORANGE	OLIVER	O OSAKA
P — Paper	P PAKISTAN	PETER	P PENANG
Q — Queen	Q QUETTA	QUEENIE	Q QUEENSLAND
R — Raja	R RANGOON	ROBERT [sic]	R RUSSIA

TABLE VI (continued)

S — Sisters	S SALIM	SUGAR	S SINGAPORE
T — Table	T TABLE	TOMMY	T TURKEY
U — Uncle	U UNTPY	UNCLE	U UGANDA
V — Victory	V VICTORY	VICTORY	V VICTORIA
W — Water	W WATER	WILLIAM	W WALES
X — X-ray	X X-RAY	X-MAS	X X'RAY
Y — Yellow	Y YELLOW	YELLOW	Y YOKOHAMA
Z — Zero	Z ZEBRA	ZEBRA	Z ZANZIBAR

^a Telephone Directory, Bombay, May, 1966, p. 21.

^b Telephone Directory, East Pakistan Dacca, 1968, p. [7].

^c Panduan Talipon, Malaya, Jul 1965, pp. 26–27. The list appears on p. 26 with the columns of letters and names headed: “Huruf2 yang di-eja” and “Kata2 yang di-gunakan” respectively. The list is repeated on p. 27 with the columns of letters and names headed: “Letters to be spelt” and “Words to be used” respectively.

TABLE VII

SPELLINGSWOORDEN		SPELALFABET SPELLING CODE		letters or words can be identified by using the following: (Ireland), 1958 ^c
'S-GRAVENHAGE, 1964 ^a		Johannesburg, 1966 ^b		
Binnenland	Buitenland	Letter Afrikaans	English/ Engels	
A = Anna	Amsterdam	A Andries	Arthur	A for Ark
B = Bernard	Baltimore	B Boetie	Betty	B ,, Bank
C = Cornelis	Casablanca	C Christo	Charlie	C ,, Church
D = Dirk	Danemark	D Dawid	David	D ,, Danger
E = Eduard	Edison	E Eva	Edward	E ,, Evening
F = Ferdinand	Florida	F Fanie	Frederick	F ,, Frank
G = Gerard	Gallipoli	G Gert	George	G ,, Germany
H = Hendrik	Havana	H Hendrik	Harry	H ,, Happy
I = Izaak	Italia	I Isak	Isaac	I ,, Ireland
J = Jan	Jérusalem	J Jan	Jane	J ,, John
K = Karel	Kilogramme	K Karel	Kate	K ,, Kerry
L = Lodewijk	Liverpool	L Lena	Lucy	L ,, Letterkenny
M = Marie	Madagascar	M Marie	Mary	M ,, Mary
N = Nico	New York	N Nellie	Nellie	N ,, Nora
O = Otto	Oslo	O Oom	Olive	O ,, Ocean
P = Pieter	Paris	P Pieter	Peter	P ,, Poland
Q = Quotient	Quebec	Q Queenie	Queen	Q ,, Question
R = Rudolph	Roma	R Roos	Robert	R ,, Rabbit
S = Simon	Santiago	S Sannie	Simon	S ,, Shoe

TABLE VII (continued)

T = Teunis	Tripoli	T Tom	Thomas	T for Tipperary
U = Utrecht	Upsala	U Unie	Union	U ,, Una
V = Victor	Valencia	V Venter	Violet	V ,, Victory
W = Willem	Washington	W Willem	William	W ,, William
X = Xantippe	Xantippe	X X-straal	X-Ray	X ,, X-ray
IJ = IJmuiden				
Y = Ypsilon	Yokohama	Y Yster	York	Y ,, Yellow
Z = Zaandam	Zürich	Z Zoeloe	Zero	Z ,, Zebra

^a Telefoongids voor het district 'S-GRAVENHAGE, 1964, p. xii.

^b (Telephone Directory), Johannesburg, 1968, p. 9.

^c EOLAÍ AN TELEFÓIN Telephone Directory (Ireland), 1958, p. vi.

TABLE VIII

ΠΙΝΑΞ ΑΛΦΑΒΗΤΙΣΜΟΥ ΔΥΣΝΟΗΤΩΝ ΛΕΞΕΩΝ	Analogy Key	to identify any letter or word by analogy
(Greece), 1968 ^a	Ethiopia, 1967 ^b	Tel-Aviv, 1963 ^c
ΕΙΣ ΤΗΝ ΕΛΛΗΝΙΚΗΝ	ΕΙΣ ΞΕΝΗΝ ΓΛΩΣΣΑΝ	
A 'Αθανάσιος	A Amsterdam	A -- Adam A -- AFFULA
B Βασίλειος	B Baltimore	B -- Baker B -- BINYAMINA
Γ Γεώργιος	C Casablanca	C -- Charlie C -- CARMEL
Δ Δημήτριος	D Danemark	D -- David D -- DALIA
Ε 'Ελένη	E Edison	E -- Edward E -- ERETZ
Z Ζηνοβία	F Florida	F -- Frank F -- FRANCE
Η 'Ηρακλής	G Gallipoli	G -- George G -- GEDERA
Θ Θεόδωρος	H Havana	H -- Henry H -- HAIFA
Ι 'Ιωάννης	I Italia	I -- Ida I -- ISRAEL
K Κωνσταντῖνος	J Jerusalem	J -- John J -- JAFFA
Λ Λεωνίδα	K Kilogramme	K -- King K -- KARKUR
M Μενέλαος	L Liverpool	L -- Lewis L -- LOD
N Νικόλαος	M Madagascar	M -- Mary M -- MOLEDET
Ξ Ξενοφῶν	N New-York	N -- Nancy N -- NAAN
Ο 'Οδυσσεύς	O Oslo	O -- Otto O -- OGEN
Π Παναγιώτης	P Paris	P -- Peter P -- PARDESS
P Ρωξάνη	Q Quebec	Q -- Queen Q -- QUEEN
Σ Σωτήριος	R Roma	R -- Robert R -- RISHON
T Τιμολέων	S Santiago	S -- Susan S -- SEFER
Υ 'Υψηλάντης	T Tripoli	T -- Thomas T -- TVERIA
Φ Φώτιος	U Upsala	U -- Union U -- URIM
X Χαράλαμπος	V Valencia	V -- Victor V -- VERED

TABLE VIII (continued)

Ψ Ψάλλης	W Washington	W — William	W — WINGATE
Ω 'Ομέγας	X Xanthippe	X — X-Ray	X — EXPRESS
	Y Yokohama	Y — Young	Y — YAVNIEL
	Z Zurich	Z — Zebra	Z — ZIKHRON

^a ΚΑΤΑΛΟΓΟΣ ΣΥΝΔΡΟΜΗΤΩΝ ΤΗΛΕΦΩΝΟΥ (Telephone Directory, Greece), 1968, p. 25.

^b Telephone Directory, Ethiopia, 1967—68, p. 13/2.

^c Telephone Directory, Vol. 2, Tel-Aviv, 1963, p. ix.

TABLE IX

NIMLUETTELO NAMNFÖRTECKNING		Az egyes betűk érthetőségének fokozására célszerű a következő neveket használni:	heceleme listesi
Helsingin, Helsingfors, 1962 ^a		Budapesti, 1960 ^b	Istanbul, 1968 ^c
A — Aarne — Arne		A mint Anna	A: ANKARA
		Á „ Ádám	
B — Bernhard		B „ Bálint	B: BURSA
C — Celsius		C „ Cecil	C: CEYHAN
			Ç: ÇANAKKALE
D — Daavid — David		D „ Dénes	D: DENİZLİ
E — Eemeli — Emil		E „ Elemer	E: EDİRNE
		É „ Éva	
F — Faarao — Farao		F „ Ferenc	F: FATİH
G — Gideon		G „ Gábor	G: GİRESUN
H — Keikki — Henrik		H „ Hedvig	H: HAKKARI
I — Iivari — Ivar		I „ Ilona	I: ILGAZ
			İ: İZMİR
J — Jussi — Johan		J „ János	J: JAPONYA
K — Kalle — Karl		K „ Károly	K: KAYŞERİ
L — Lauri — Lasse		L „ Lajos	L: LÜLEBURGAZ
M — Matti		M „ Mária	M: MALATYA
N — Niilo — Nils		N „ Napoleon	N: NEVŞEHİR
O — Otto		O „ Olga	O: ORDU
		Ó „ Ódön	Ö: ÖDEMİS
P — Paavo — Paul		P „ Peter	P: POLATLI
Q — Qvintus (kirjain q "kuu")		Q „ Qu (ku)	
R — Risto — Richard		R „ Rozsa	R: RİZE
S — Sakari — Saga		S „ Sarolta	S: SIVAS
			Ş: ŞİLE
T — Tyyne — Torsten		T „ Tibor	T: TRABZON

TABLE IX (continued)

U — Urho	— Ulrik	U mint Ubul	U: UŞAK
V — Vihtori	— Viktor	Û „ üzem [sic]	Û: ÜRGÜP
	(Yks. kert. V) (Enkelt V)	V „ Vilmos	V: VAN
W — Kaks. kert.	— Dubbelt W		
	W		
X — Xerxes (kirjain x	“aksa”)	X „ Iksz	
Y — Yrjö	— Yngve	Y „ Ipszilon	Y: YOZGAT
Z — Zürich (kirjain z	“tseta”)	Z „ Zoltán	Z: ZONGULDAK
Å — ruotsal å	— Åse		
Ä — Äiti	— Ärlig		
Ö — Öljy	— Östen		
Ü — saksal. y.	— tykst y.		

^a HELSINGIN PUHELINLUETTELO; HELSINGFORS TELEFONKATA
LOG: HEL I (Finland), 1962, p. 27.

^b BUDAPESTI TÁVBESZELŐNÉVSOR (Hungary), 1960, p. vi/1.

^c TELEFON REHBERİ, 1966, Istanbul, p. xii/2.

TABLE X

	ANALOGY ALPHABET	PHONETIC ALPHABET FOR INTERIOR STATION OPERATORS
Jamaica, 1963 ^a	Nairobi, 1968 ^b	Guyana, 1967 ^c
A — Andrew	A. Africa	A Alfa
B — Benjamin	B. Bombay	B Bravo
C — Charlie	B. Charlie	C Charlie
D — David	D. Durban	D Delta
E — Edward	E. England	E Echo
F — Frederick	F. Freddie	F Foxtrot
G — George	G. George	G Golf
H — Harry	H. Harry	H Hotel
I — Isaac	I. India	I India
J — Jack	J. Japan	J Juliet
K — King	K. Kenya	K Kilo
L — London	L. London	L Lima
M — Mary	M. Mombasa	M Mike
N — Nellie	N. Nairobi	N November
O — Oliver	O. Orange	O Oscar
P — Peter	P. Peter	P Papa
Q — Queenie	Q. Queen	Q Quebec
R — Robert	R. Robert	R Romeo

TABLE X (continued)

S — Samuel	S. Sugar	S Sierra
T — Tommy	T. Tanga	T Tango
U — Uncle	U. Uganda	U Uniform
V — Victor	V. Victory	V Victor
W — William	W. William	W Whiskey
X — X-Ray	X. X-Ray	X X-Ray
Y — Yellow	Y. Yellow	Y Yankee
Z — Zebra	Z. Zanzibar	Z Zulu

^a Jamaica Telephone Directory, 1963–64, p. xv.

^b Telephone Directory, Kenya, 1968, Nairobi, p. P20. The following instructions were added under the heading of “ANALOGY ALPHABET”: “(For use when dictating doubtful word over the telephone.)” Cf. Telephone Directory, Tanzania, 1968, p. (Pink) 140. The “Analogy Alphabet” here is the same as that used in Kenya.

^c GUYANA Telephone Directory 1967–1968, p. 10.

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