Introduction and Explanation of Earhart Radio Logs

There are a number of logs of radio taken by Itasca radiomen before, during, and after the Earhart disappearance, including those taken on Howland Island, and at Pan American Airways stations (see RSOURCES file for complete description of the various logs). The Itasca radio logs, as a rule, are not saved for any special purpose, but are used by the radiomen to denote when message traffic flows through the ship, and serves as a log of activity in the radio room. While these logs are required to be maintained, they were typically destroyed at the end of each month by the chief communications officer responsible for radio traffic. I believe the same holds true for the US Navy, but copies of the radio logs during the Earhart disappearance apparently were not saved. The message traffic embedded in these logs are in radio shorthand, a combination of individual shorthand notation, procedure signs, and radio signals, known as Z-Codes. Procedure sign definitions can be found in the file PROCSIGN; and translations of Z-Codes in file ZCODES. There were two sets of Z-Codes in existence in 1937: a general purpose set for use between various branches of the military, and a separate set used by the Navy (and Coast Guard). Both sets were classified for unknown reasons, and translation tables are difficult to obtain. The one table I found that made the most sense dated back to 1925, entitled US Naval Radio Operating Signals, CSP 417-E, found in the National Archives, under N27.2:R11 in Record Group 287. Since 1925, a few more Z codes were introduced, and I am still looking for proper translations.

Shorthand notation by radio operators was often used as abbreviations. For example, "cu" was used for "see you later". Lists of these kinds of shorthand notations can be found in amateur radio handbooks. One shorthand notation, "fl" is used quite a bit between the Itasca and Howland Island, and no translation is available for this. My speculation is that it means voice transmission {fone line?), but I certainly may be wrong. Another shorthand used was Q-codes, an unclassified series of codes. The Q-codes are interpreted within the database, and no separate compilation has been made. The source of translations is from the National Archives, Record Group 149, C213.2:s.2, "Q" Signal Abbreviations, put out by the Department of Commerce, Bureau of Air Commerce, Washington, DC in July 1, 1935.

Radio operators typically use the call signs of the stations or ships being contacted. US Navy and Coast Guard call signs can be easily determined; commercial call signs are rather difficult. The best source of information is the Berne List, otherwise known as "List of Coast Stations and Ship Stations", published by the Bureau of the International Telecommunication Union, in Berne, Switzerland. Unfortunately, this list is tabulated according to vessel name, and not call signs. The version of the Berne List I have was obtained from TIGHAR, and is dated September, 1937. A list of all call signs used in the radio log database can be found in RCALLSGN file.

The radio log database is in chronological order, after first translating all local time to Greenwich Mean Time (GMT). The various entries are:

DATEZ	The GMT date of the radio log entry
TIMEBZ	The GMT time of the beginning period of notation. Occasionally, a log entry spans a few minutes.
TIMEEZ	The GMT time of the ending period of notation. This displays only if timeez differs from timebz.
DATEL	The local date of the radio log entry.
TIMEBL	The local time of the beginning period of notation.
TIMEEL	The local time of the ending period of notation.

FROM:	Listed only if a message was sent from one party to another. If the call sign is unknown, it was not translated.
TO:	Listed only if a message was specifically sent to a particular party. If the call sign is unknown, it was not translated.
LITERAL:	The literal notation in the radio log. Capitalization was used in the database when it was used in the original log.
TRANSLATION:	My best attempt at translating the literal log entry.
SOURCE:	The source of the log entry. See RSOURCE file for more information.
RECORD NO:	The internal database record number.
FREQUENCY:	If a particular frequency was denoted,, it is printed out.
KEY SIGNAL	If a particular signal, thought to originate from Earhart, was denoted in the log as CW or Morse Code, the words "KEY SIGNAL" were printed.
VOICE SIGNAL	If a particular signal, thought to originate from Earhart , was denoted as voice or phone (fone), the words "VOICE SIGNAL" were printed.
POSSIBLE EARHART SIGNAL	If a particular signal was strongly thought to be an Earhart signal, the words "POSSIBLE EARHART SIGNAL" were printed out.
REFERMADMES	If a particular radio log entry refers to a radio message (telegram-type), the reference is given. This reference is to the Radio Message database, where the reference is decoded as YYYYMMDDHHMMSOURCE, all in GMT time.
COMMENT:	A personal comment by the author.