Yardleygram

In 1932, Herbert Yardley of the American Black Chamber, the forerunner of the NSA, published a book of cryptographic puzzles called *Yardleygrams*. It is set as a fictional challenge between an old spy and a young man interested in codes.

What follows is a paraphrase of one of his ciphers. It can be solved with a pencil and paper. Yardley recommends using graph paper.

The Mysterious Signals

During the end of World War I, wireless stations along the northern shore of the Atlantic intercepted a signal every morning at 3:00 am. Direction finders placed the signal's origin in the North Atlantic.

The signal was broadcast at incredible speed. It was recorded on a phonograph. No one could make sense of it. Yardley writes, "Then, one day, the machine happened to run down and, to our astonishment, the jargon resolved itself into a perfectly intelligible sequence of letters."

ciphertext: snszk kxchr zakdc knmfh stcde nqsxk zshst cdrdu dmsxs gqdd

First, make a frequency table of the letters:
a-1, c-4, d-7, e-1, f-1, g-1, h-3, k-5, m-2, n-3, q-2, r-2, s-8, t-2, u-1, x-3, z-3.

Frequency distribution suggests a substitution cipher, like a Caesar.

decipher: take the first letter of the ciphertext "in this case *s*, and continue the alphabet in vertical columns, *s*, *t*, *u*, *v, etc.*

snszkkxch ⋯
totallydi ⋯
upubmmzej ⋯
vqvcnnaf ⋯

Don't forget, the message may be hidden in a mass of senseless letter.