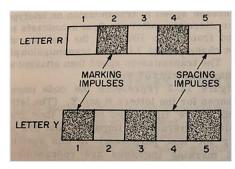


RY (test signal)

RYRYRYRY... is a character string that was widely used to test a five-level <u>teleprinter</u> or <u>RTTY</u> channel. The characters R and Y are "01010" and "10101" in 5-bit <u>ITA2</u> code, also known as Baudot. Thus they are Boolean complements of each other.

Switching between the two characters is a stressful test for electromechanical teleprinters. [1] Repeated over and over, *RYRYRYRY*... outputs a carrier wave that regularly and rapidly shifts back and forth in frequency.



RY test pattern in 5-level ITA2 code

Test tapes were easily made with a repeating RY sequence. These were used by technicians to align the bias adjustment on equipment such as the 43A1 carrier channel terminal

This signal pattern also provided a test for signal polarity; if polarity was reversed, the test signal would print as "SG". [2]

The corresponding string of complementary characters in 7-bit ASCII is $U^*U^*U^*U^*...$

The RYRYRY sequence usage can be seen on the following DDH47 weather station broadcast excerpt:

```
CO CO CO DE DDH47 DDH9 DDH8
FREQUENCIES
         147.3 kHz
                  11039 kHz
                          14467.3 kHz
CQ CQ CQ DE DDH47 DDH9 DDH8
FREQUENCIES
         147.3 kHz
                  11039 kHz
                          14467.3 kHz
CO CO CO DE DDH47 DDH9 DDH8
FREQUENCIES
                  11039 kHz
         147.3 kHz
                          14467.3 kHz
ZCZC 643
WWXX60 EDZW 150900
NAUTISCHE WARNNACHRICHTEN VOM 15.09.2017 UM 09 UTC
STRONGWIND GALE STORMWARNINGS FOR GERMAN BIGHT AND BALTIC SEA
STARKWIND STURMWARNUNGEN FUER NORD UND OSTSEE
NO WARNINGS IN FORCE
KEINE WARNUNGEN IN KRAFT
```

References

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Archived (https://web.archive.org/web/20090320011657/http://www.hertzmail.com/rtty/tt
yinfo1.pdf) 2009-03-20 at the Wayback Machine

2. Digital Signal Types (http://www.c	minous-valve.	com/digital.txt)
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