

QRQ and iCW – Morse Code in the Fast Lane

About me

- N7RH, Wolf(gang) Heeren, * 1978
- M.Eng. Electrical Engineering and Information Technology
- DL license from 1996 to 2016, US Extra since 2012
- Self-taught code proficiency
- Since 2013: Focus on High Speed Telegraphy activities

High Speed Telegraphy

- High Speed Telegraphy competitions*
- Clear Text QSOs (aka Ragchewing)
 - On Air
 - iCW

* HST-related content with kind permission of DJ1YFK

High Speed Telegraphy Competitions

- Started in early 20th century in USA, as well as USSR
- RX & TX of Code Groups
 - 1939: Ted McElroy (USA): 75.2 WPM (RX, typewriter)
 - 1942: Harry Abner Turner: 35 WPM (TX, hand key)
 - 1954: Fjodor Rosljakow (USSR): 88 WPM (RX, typewriter)
 - 1954: Wesselin Borisov (Bulgaria): 80 WPM (RX, pencil)

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dmxkb kqnvh zzeek beoop ygcca yvepv tykmt iykfl zkacv  
uxiyd kruwy vnjvp xyeqp jpmfo abzpt mjtdy zvkzy bjgze  
vdtyd zeejw zumjp ivsna gsmzq dltxb qjqjq fnpta mqted
```

Code Group example



High Speed Telegraphy Competitions

- Since 1995: IARU HST Competitions
 - Stronger focus on Amateur Radio, with additional disciplines (Callsign RX, Pileup competition, but no head copy)
- IARU World Championship each odd year
- IARU Region 1 Championship each even year

- Most successful teams are from Eastern Europe, most notably Belarus, Romania and Russia
 - Taught as competitive activity in school
 - “Athletes” are supervised by professional trainers



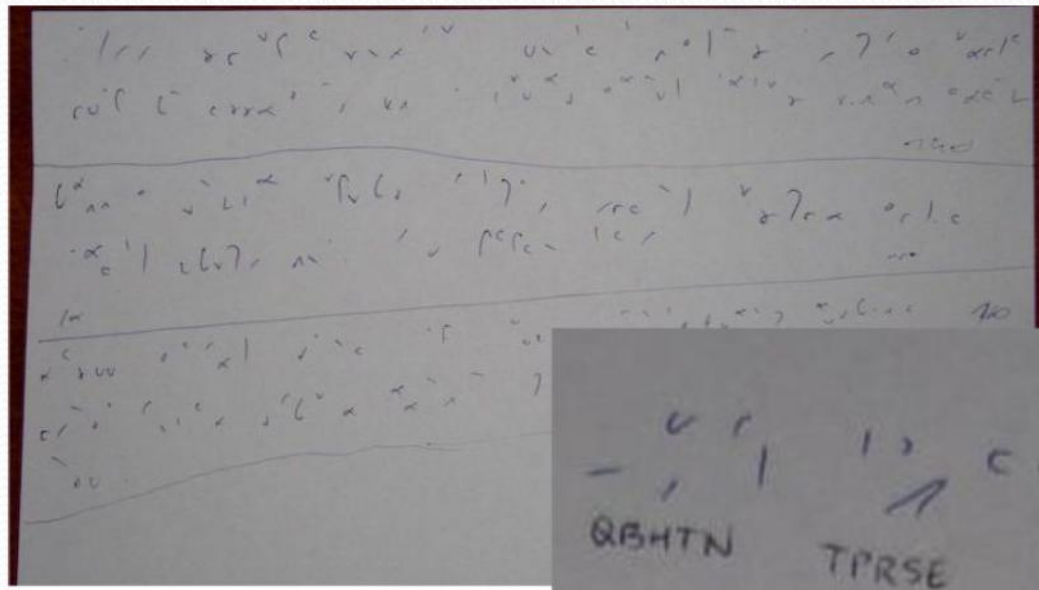
Team YO



Team EW

High Speed Telegraphy Competitions

- In HST competitions, received content has to be written down for accuracy evaluation
- → Ability to type or jot down received content is often times limiting factor



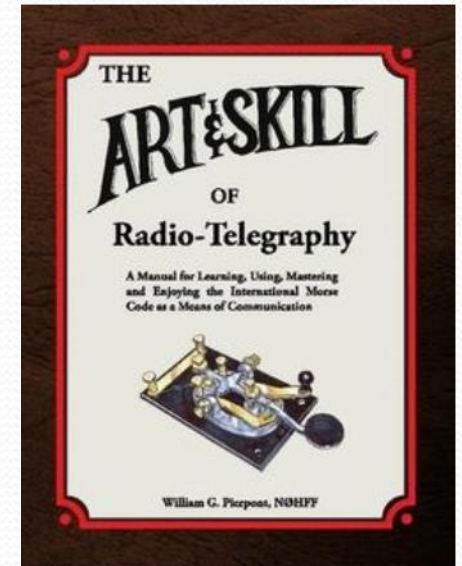
UT5URM shorthand notes

Clear text QSOs

- Clear text QSOs offer the freedom to head-copy clear language, which enables us to go beyond max. speeds of code group- or callsign-based competitions
- The faster it gets, the more recognition changes from letter-by-letter to word-by-word, or even beyond that.
 - → e.g., “THE” does not take longer than the number “9”
 - At 40 WPM: transition to word by word
 - At 60 WPM: transition to phrase by phrase
- Familiar patterns are the key to fast content recognition

QRQ: How fast is fast?

- According to N0HFF's "The Art & Skill of Radio-Telegraphy", Ted McElroy stated that "any normal person can easily achieve 25 WPM"
- 25 WPM is HSC entry level
- At this point, the sky is the limit, sometimes literally... (QRM, QRN, QSB, etc.)

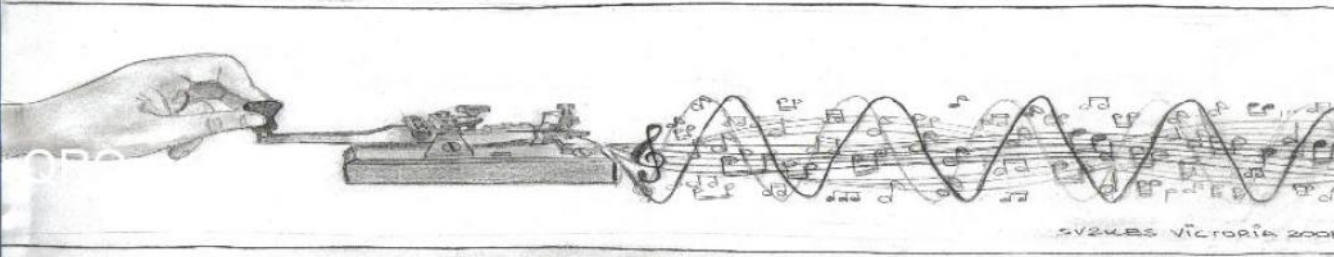


QRQ: How fast is fast?

- Fast copying is a matter of practice; what about sending?
- Straight Key → (el.) Bug → Keyboard
- Possibly enjoyable sending speed : My (arguable) opinion:
 - Straight key: up to 20 WPM
 - Paddle: ~ 55 WPM
 - Keyboard: > 100 WPM
 - Five Star Operators Club admission was @ 80 WPM, sent with unbuffered keyboard (founder: W6UF, † 1989)
- <https://soundcloud.com/chaseology/qrq-cw-morse-code-qso-over-the-internet-k8if-aaohw>

QRQcw web page

- Good resource for all kinds of QRQ-related topics:
- <http://qrqcw.net.ning.com/>



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A gathering place for QRQ ops world wide to share information and experience in pursuing QRQ cw

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* THANKS FOR YOUR SUPPORT *

WINDOWS's VERSION OF FABIAN's QRQ TRAINING PROGRAM CALLED 'qrq' AVAILABLE NOW!




Members



[Alex Robertson](#)



[John Carmody](#)



Please feel free to start any QRQcw topics or leave comments for the discussions already posted. You may also load pictures or videos relating to qrq cw operations. Thank you for your contributions.

Alas – the bands are dead!

- iCW
 - Is a great addition to on air activities for
 - Skeds with friends we can't reach on air
 - Off air training sessions at any speed
 - QSOs with people from all over the world (if they are logged in)
 - Has the potential for being an alternative for everyone who does not have the chance to install a decent antenna
 - telegraphy over the internet is better than no telegraphy at all
 - Easy installation & free of charge (no registration necessary)



iCW

- 👤 iCW
 - 👤 For info - click on box at right side
 - 👤 Support Your iCW Server
 - 👤 QRL or Away
 - ▶️ 👤 **QRV Hangout**
 - 👤 DL2LE
 - 🚫 f5vgr
 - 👤 **N7RH**
 - 👤 FOG QRQ CW NET
 - 👤 PADDLES BUGS and KEYS
 - 👤 Saturday iCW Net
 - ▶️ 👤 W5UXH
 - 👤 W4TY
 - 👤 W5UXH
 - 👤 W5UXH-Win10-text-only
 - ▶️ 👤 Ebook-code-practice 1
 - 👤 ebook-code-practice
 - ▶️ 👤 Ebook-code-practice 2
 - 👤 eBookNr2-Lenovo
 - ▶️ 👤 CW ROOM 1
 - 👤 W5UXH-RaspPi-eBook-QRV
 - 👤 CW ROOM 2
 - 👤 CW ROOM 3
 - 👤 CW ROOM 4
 - 👤 CW ROOM 5
 - 👤 CW ROOM 6
 - 👤 QRS Hangout
 - 👤 TESTING ROOM

iCW: How to get started

- Hardware requirements
 - Computer (Windows, Apple or Linux machine)
 - Rig or some kind of tone generator + keyer (if needed)
 - Some audio cables for the necessary connections
- Software requirement
 - Mumble (open source VoIP software)



iCW - Schnelleinstieg in Internet CW (iCW installation in 8 minutes)

- <https://www.youtube.com/watch?v=zjG6MZ7LZUI>



AAoHW example setup



Begali Sculpture and W5UXH iCW keyer

References

- Kurz, F. (2011). **Morse Code – Alive and kicking!**, Ham Radio convention in Friedrichshafen
- Pierpont, William G. (2001). **The Art and Skill of Radio-Telegraphy**
- QRQcwnet.ning.com

