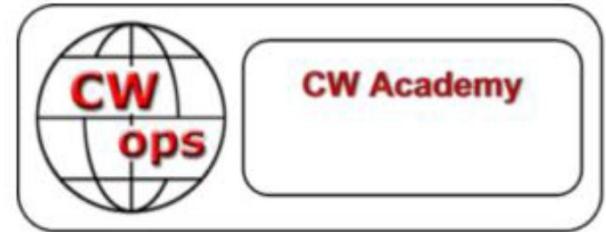
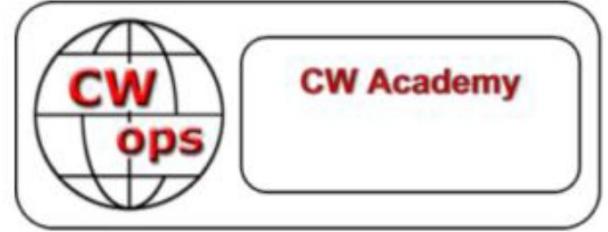


CW online lernen



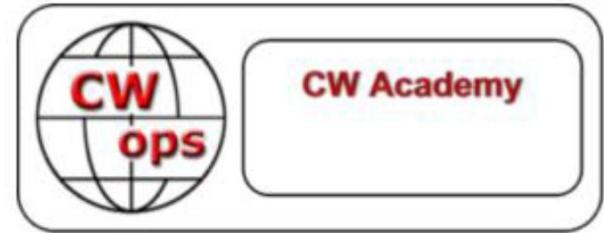
CW online lernen



Erfahrungsaustausch und Treffen

- CW Online Lernen – wie geht das?
- Wer möchte CW Lernen?
- Wer hat Interesse anderen die Kunst des Morsens zu lehren?
- Vorstellung CW Academy Ansatz
- Erfahrungsaustausch!!!

CW Academy



Seit 2011 Erfahrungen mit CW Online Kursen

- Jedes Jahr eine 3-stellige Anzahl an Studenten
- International: Englisch, Japanisch, Griechisch

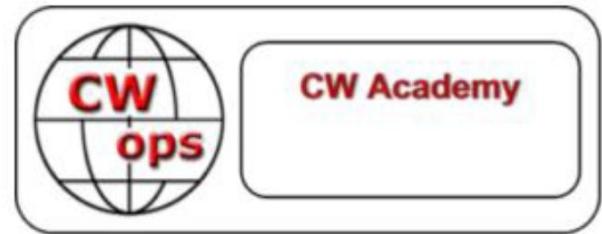
und

seit 2023 auch in Deutsch!!

Beginner Practice & Homework Assignments – Online Practice & Homework Assignments – JAPAN Practice & Homework Assignments – GREEK Practice & Homework Assignments – GERMAN
Fundamental Practice & Homework Assignments – Online Practice & Homework Assignments 2.0 New- Online Practice & Homework Assignments – GERMAN Practice Files
Intermediate Practice & Homework Assignments – Online Practice & Homework Assignments 2.0 New – Online Practice & Homework Assignments 2.1 New – Online Practice & Homework Assignments – GERMAN Practice & Homework Assignments – GREEK Practice Files
Advanced Practice & Homework Assignments – Online Practice & Homework Assignments 2.0 New – Online Practice & Homework Assignments 2.1 New – Online Practice & Homework Assignments – GERMAN Practice Files

Additional Info & Practice Material for Students

Advisor Team DL



DK3WW, Uwe



DK1WB, Hans



DM6EE, Lutz



DL7UGN, Mike



DF2OF, Matthias



DL1RS, Ralf

DM6BU, Markus



DL8TG, Klaus

Voraussetzungen



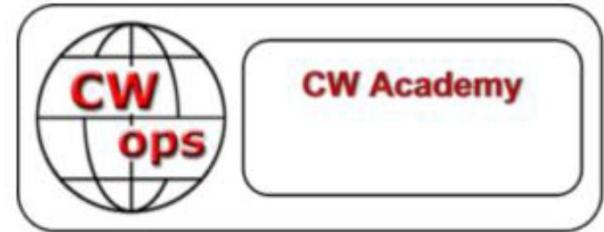
- **Jeden Tag durchschnittlich 1 Stunde individuelles Training nach den Vorgaben im Skript (Gebe-und Hörübungen)!!**



- Wir sind mehr Mentor als intensiver „Lehrer“ – Unterstützung bei Problemen, Tools, Fragen!
- Tool: wir haben uns für treff.darc.de entschieden
- Taste elektronisch mit Single oder Squeeze
- Morsegenerator (Morserino, TRX mit Abschlusswiderstand, ...)
- Ton des Generators muss in die Online-Session (Mikrofon, ...)



Voraussetzungen



- Für die online Session ein Mikrofon (z.B. Bluetoothbox mit Mikrofon) o.ä.



- Tongenerator, z.B. Morserino o.ä. (Morse Tutor W8BH <http://w8bh.net/MorseTutor1.pdf>)

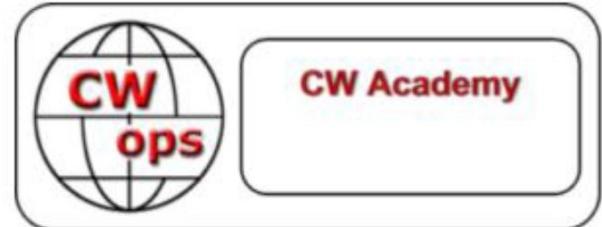


- QCX / QMX mit Dummy Load von QRP Labs Hans Summer: CW wird erzeugt sowie dekodiert und man hat gleich einen Transceiver für die Praxis auf dem Band!



Hinweis: hier wird ebenfalls ein Morserino vertrieben (unter Lizenz des Entwicklers)

Teilnehmerurkunde



CW Academy Certificate of Completion

Max Mustermann – DL00XX

has successfully completed

Fundamental

an 8-week/16-session training program
in Morse Code sending and receiving

Klaus Hanschmann
Klaus Hanschmann – DL8TG
CW Academy Advisor

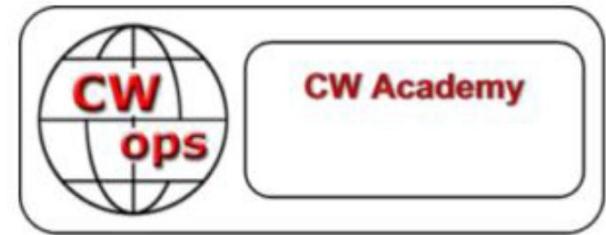


Sep/Oct 2025

Roland K Smith
R Carter

Roland K Smith – K7OJL
Bob Carter – WR7Q
CW Academy Managers

Ziele Beginner

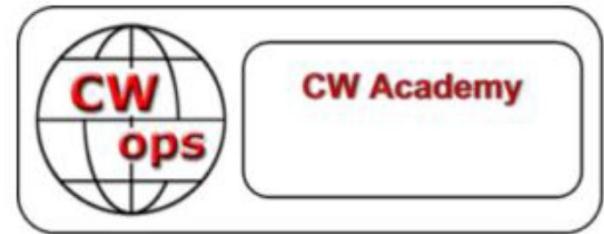


- **Erlernen aller Buchstaben, Zahlen und einiger weniger Sonderzeichen (/ - ?)**
- **25 WPM Zeichengeschwindigkeit,
6 WPM reale Geschwindigkeit**
- **Abkürzungen, Rufzeichen, Wörter**
- **On Air?**
- **Am Wichtigsten: Motivation!!!**



**Erfahrungsaustausch untereinander,
praktische Tipps**

Ziele Fundamental



- **Sicheres Aufnehmen von Morsezeichen mit 12 WPM bei einer Zeichen-geschwindigkeit von 25 WPM**

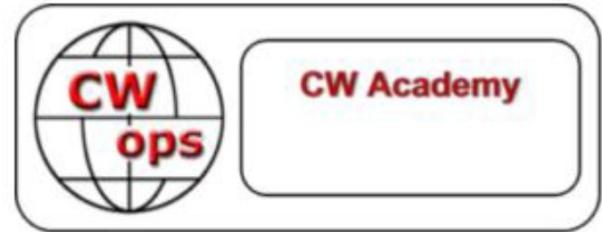
- **Praktische Fertigkeiten für Standard-QSOs**
- **Ablauf und Übung Contest-QSOs**

- **Üben und Festigung Gehörlesen und sofortige Zeichenerkennung (ICR)**

**Erfahrungsaustausch untereinander,
praktische Tipps**



Ziele Intermediate



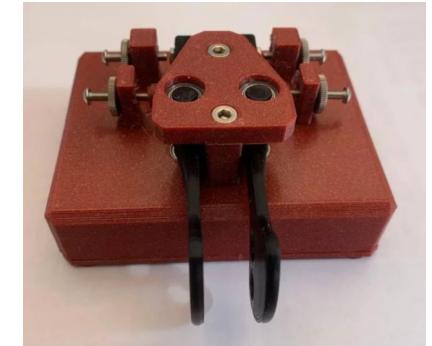
- **Sicheres Aufnehmen von Morsezeichen mit 20 WPM bei einer Zeichen-geschwindigkeit von 25 WPM**

- **Praktische Fertigkeiten für Standard-QSOs**

- **Ablauf und Übung Contest QSOs**

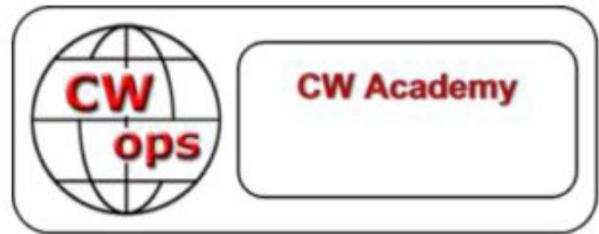
- **Klartext hören: Wörter, Phrasen (viel Englisch)**

- **On Air Übungen: Contest, Klartext**



**Erfahrungsaustausch untereinander,
praktische Tipps**

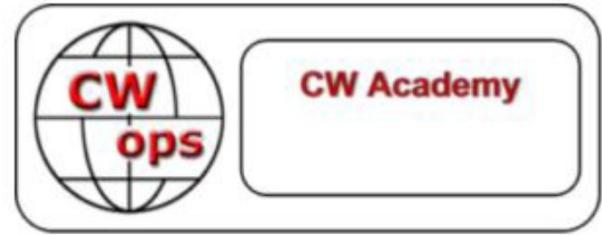
Übungsprotokoll



- Jeden Tag soll ein kurzes Übungsprotokoll geführt werden
 - Jeden Sonntag/Montag 18:00 per Mail an die Advisor

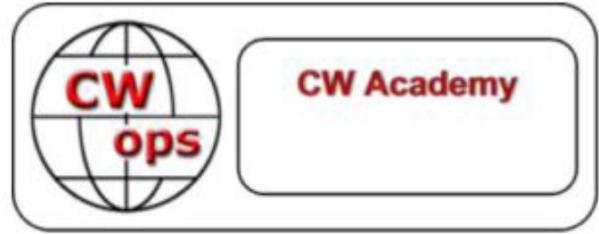
Kurse ab Januar

Wintersemester Jan/Feb



- Je nach Anmeldezahlen werden wir Beginner, Fundamental und Intermediate Kurse anbieten.
- Anzahl der Teilnehmer pro Kurs maximal 10!!!
- Kurse je nach Advisor **Sonntag/Mittwoch 20 Uhr** oder **Montag/Donnerstag 20 Uhr** auf treff.darc.de
- **Bitte bis Mitte Dezember anmelden!!**

Anmeldung



- Die Anmeldung erfolgt durch den Teilnehmer hier:

<https://cwa.cwops.org/cwa-student-portal-information/>

...es öffnet sich diese WEB-Seite...

Student Portal Information

The CW Academy Student Portal is where students can sign up for classes and manage their student information. Capabilities available on the Student Portal include:

Sign Up for a Class

Check Student Status

Update Signup Information

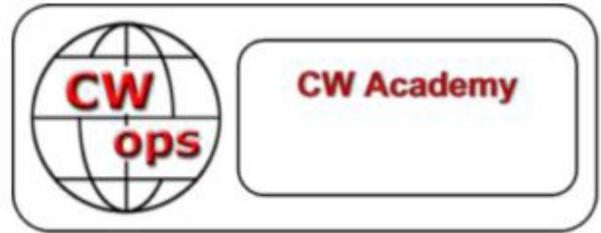
Take a Morse Code Practice Assessment

Along with other actions during the semester

Click Setup Username and Password if you are a new student.

CW Academy requires a username and password to access the Student Portal.

Anmeldung



- Link zur Registrierung:
<https://cwa.cwops.org/register>
- CW Academy

INSTRUCTIONS!

Your Username **MUST** be your Amateur Radio Callsign **OR** if you do not have a callsign, please use your last name as your Username

- **DO NOT** use an email address or some combination of your name! This is necessary to allow the system to properly link your information in the CW Academy database with your username
- Be certain to select the appropriate role: either a **Student** or an **Advisor**
- You will receive an email with a link to verify your username and password which will then allow you to log into the website
- At that time you must sign up for a class. **Creating a username and password DOES NOT sign you up for a class!** If you do not sign up within the next seven days your username will be deleted

Username *

First name

Last name

Email *

Password *

 (

Select Role *

Student

Select your user role

CW ACADEMY

Guiding Better CW Operators

CWA - POST REGISTRATION

Registration complete. We have sent you an email with a verification link.

New User Registration

You have entered your user information. An email has been sent to your email address with a verification link. You must click on that link in order to complete your registration.

The email also has your username and password. CW Academy suggests that you keep this email for future reference.

Welcome to CW Academy!

Welcome to CW Academy

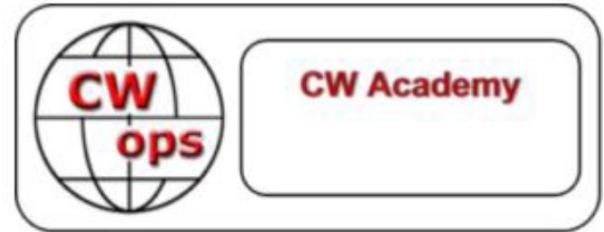
Hello L G DN6EEE, and welcome to CW Academy. We're thrilled to have you on board.

Please verify your registration: https://cwa.cwops.org/register/?user_id=1254&verification_key=884ce4bb65d328ecb03c598409e2b16866056f127dd28

For reference, here's your login information:

Username: DN6EEE
Login page: <https://cwa.cwops.org/log-in/>

Anmeldung



CW ACADEMY
Guiding Better CW Operators
LOG IN

If you get a message below that you are already logged in, click [HERE](#) to access your portal.

Thank you for verifying your account. You can now login.

Username*

Password*

Remember me

Login

Don't have an account? [Signup Now »](#)
[Lost your password?](#)

CW ACADEMY
Guiding Better CW Operators
CWA - STUDENT REGISTRATION

Student Registration V11

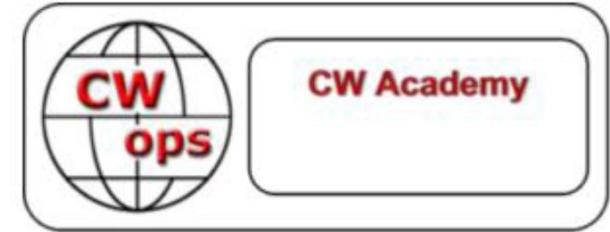
Welcome to the CW Academy where our mission is to increase the number of competent CW operators on the amateur radio bands and our goal is to guide you to becoming a better CW operator as you increase your CW skills, speed, and activity!

Sign-up You should now sign up as a student for an upcoming semester Sign-Up	Check SignupStatus You have already signed up and want to check the status of your registration Check Status	Practice Assessment If you want to take a practice Morse Code Proficiency Assessment, click the 'Practice Assessment' button below. You are allowed to take a practice Morse Code Proficiency Assessment twice in a 45-day period. Practice Assessment
---	---	---

V11. Prepared at 2024-03-28 13:26:33

Report pass 1 took 0.0009 seconds to run

Anmeldung



Signup Information

CW Academy offers four levels of classes based upon operator CW proficiency: Beginner, Fundamental, Intermediate or Advanced.

- The Beginner level, as the name implies, is for people who have little or no Morse code knowledge. Choose the Beginner class if that is your situation
- The Fundamental class is for people who have learned the Morse code characters and are capable of sending and receiving CW at about 6 words per minute and wish to increase that capability to about 12 words per minute
- The Intermediate class is for people who are capable of sending and receiving Morse code at a minimum of 10 words per minute and wish to increase that capability to about 20 words per minute
- The Advanced class is for people who are capable of sending and receiving Morse code at a minimum of 20 words per minute and wish to increase that capability to about 30 words per minute

Classes at the CW Academy are free of charge. The advisors and staff are volunteers who have a passion for CW. Classes are eight weeks long and held in January - February, May - June, and September - October. Classes meet twice a week for about an hour. Between classes the students have daily homework assignments which will take about an hour to complete.

Minimum essentials:

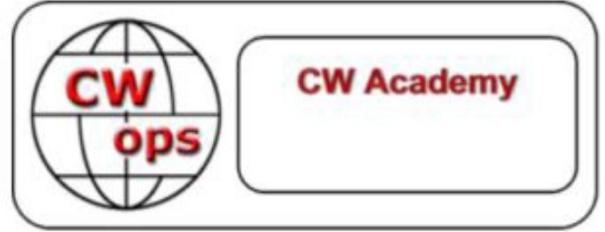
- High speed broadband internet access
- Computing device (desktop, laptop)
- Webcam (camera, microphone) either built-in or USB add-on
- Key paddle (single lever or dual lever. Straight keys or Bugs are not allowed)
- Keyer with sidetone or radio with built-in keyer and sidetone
- Dedication to 60 minutes of daily practice
- Comfortable understanding and speaking the English language unless previous arrangements have been made

Students are limited to one registration at a time in the system. When you have completed a class you may register for a future class.

To get started, please enter your call sign (or your last name if you do not have a call sign) and select the class level you are considering. Note: *call sign may not include a space, hyphen, or a slash*.

Call Sign (If you do not have a call sign, enter your last name)	<input type="text" value="DN6EE"/>
Class Level	<input type="radio"/> Beginner <input type="radio"/> Fundamental <input type="radio"/> Intermediate <input type="radio"/> Advanced
Email Address	<input type="text" value="....."/>
Important! Make certain that the email address you enter is spelled correctly and is complete. All communication from CW Academy is by email.	
Semester	<input checked="" type="radio"/> 2024 May/Jun <input type="radio"/> 2024 Sep/Oct <input type="radio"/> 2025 Jan/Feb
Next	

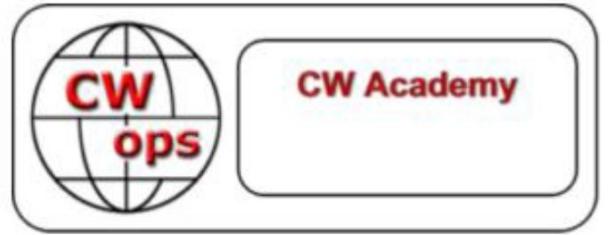
Anmeldung



➤ Herausforderungen:

- Da intensive Betreuung ist die Teilnehmerzahl begrenzt (max. 10 Teilnehmer pro Kurs)
- Start im nächsten Semester (Jan/Feb) mit Beginner, Fundamental und Intermediate
- Abschluss: Teilnahmeurkunde der CW Akademie
- Einfach erstmal anmelden, Bob Carter informiert uns über die Anmeldungen aus DL und weist sie uns zu!
- Wir suchen zur Unterstützung weitere Trainer (Advisor)

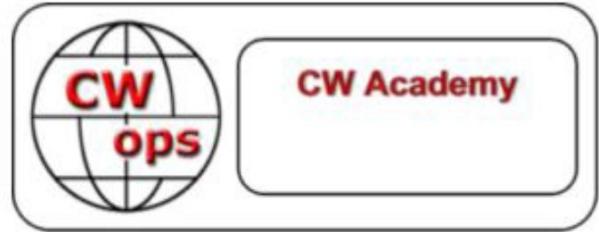
Kursablauf



- 2 Online Sessions pro Woche:
Sonntag/Mittwoch oder
Montag/Donnerstag 20-21Uhr
MEZ auf treff.darc.de
- **CWops Morsetrainer Online**
(<https://morsecode.world/international/trainer/trainer.html>)
- Offline (noch nicht getestet): **Download Offline Morsetrainer**
(<https://morsecode.world/international/trainer/morse-trainer-offline.zip>)
- LCWO online (<https://lcwo.net/>)
- Training mit dem CWops Tool

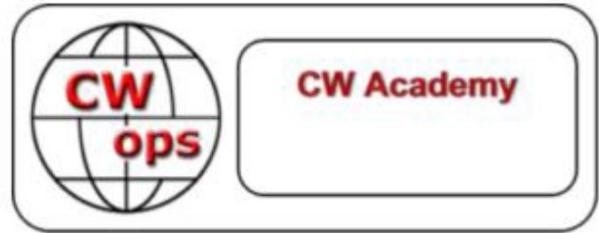
The screenshot shows the 'International Morse Training' interface. At the top, there are input fields for 'Your call sign', 'Your town/city and state abbreviation', 'Your name', 'Your age', 'Your power', and 'Your antenna'. Below these are two main sections: 'Session' and 'Feedback'. The 'Session' section includes a '1/13 Session' button with 'Previous' and 'Next' arrows. The 'Feedback' section allows users to choose between 'Copying' and 'Random' activities, with options to 'Show text' or 'Flashcard' and a 'Thinking time' slider set at 75%. On the right, the 'Morse Sound Controls' panel includes sliders for 'Frequency' (550), 'Volume' (100), 'Character speed' (25), 'Farnsworth speed' (4), and 'Segment gap' (#Dits 21, Length 18). At the bottom, there's a grid of Morse code symbols ('t') and a row of control buttons: Play, Pause, Stop, Previous, Segment, Next, Repeat, Shuffle, and Download.

Kursablauf



- Pro Session ein Arbeitsblatt mit den Aufgaben für Hören und Geben
Wir nutzen Softwaretools
Wir arbeiten parallel mit den Skripten Original (Englisch) und Deutsch
(Übersetzung durch Software)
link: <https://cwops.org/cw-academy/cw-academy-student-resources/>
- **Beginner**
 - Practice & Homework Assignments – ENGLISH
 - Practice & Homework Assignments – GERMAN
- **Fundamental**
 - Practice & Homework Assignments – ENGLISH
 - Practice & Homework Assignments – GERMAN

Kursablauf



➤ Intermediate

Wir nutzen Softwaretools wie z.B. Morserunner, LCWO, Soundfiles

New Short Files – Are available at speeds of 10, 13, 15, 18, 20 and 25 WPM.

Short Words – Starts with few characters and words and increase up to five of each.

Short Phrases – Start with few characters and words and increasing to six and four.

Short QSOS – Introduces common exchanges. Begin fairly simple and then have increasing complexity.

Short POTA – Typical POTA exchanges. Begin fairly simple and then have increasing complexity.

New Prefix Files – are available at speeds of 10, 13, 15, 18, 20 and 25 WPM.

Contains the four most commonly use prefixes – DIS, IM, IN, IR, RE and UN

Each prefix is repeated three times, then it sends associated words from 4 to 8 characters in length.

New Suffix Files – are available at speeds of 10, 13, 15, 18, 20 and 25 WPM.

Contains the four most commonly use suffixes – ED, ES, ING and LY

Each suffix is repeated three times, then it sends associated words from 4 to 8 characters in length.

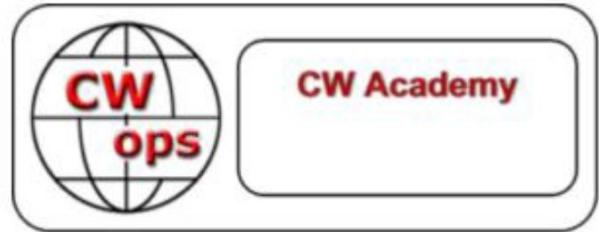
QSO Practice Files (QSO 201, etc.) – Are available at speeds of 10, 13, 15, 18, 20 and 25 WPM.

CWT Practice Files (CWT 201, etc.) – Are available at speeds of 20, 25 and 30 WPM. This is to give you experience in listening and getting ready to participate in CWT.

The weekly CWT – Is an ‘on-air’ higher-speed event, managed by CWops. These occur each Wednesday at 1300 UTC and 1900 UTC, and Thursday at 0300 UTC and 0700 UTC. Each is an hour long and provides a great opportunity to practice and learn techniques that can prepare you to work DX and/or become an effective contest. And they are fun.

RufzXP – Is an ‘optional’ practice application. It is a contest simulator and a great way to practice callsigns that come to you at different speeds. It ‘rewards’ or ‘penalizes’ based on the timing and accuracy of your response. A session is comprised of 50 callsigns, with two chances to get it correct. Practice this as desired or assigned by your advisor. See webpage: [Using RufzXP](#)

Session 1: Beginner



Session 01:

Characters for this session: **A E N T**

Characters learned 4: **A E N T**

Work through the copy practice for each message group using the MCT tool. Once you have committed all the copy practice to memory proceed to the sending practice section and go through each section in the same way.

Copy Practice

Characters:

A T E N

Words:

TEA	TEE	EAT	ATE	AT	TAT	TEEN
NEAT	TEN	TAN				

CW Abbreviations:

AA **ANT** **NET**

Phrases:

EAT AT TEN **AN ANT** **AT TEE** **A NEAT ANT**

Sending practice

Characters:

A T E N

Words:

TEA **TEN** **TEE**

CW Abbreviations:

AA **ANT** **NET**

Phrases:

EAT AT TEN **AN ANT** **AT TEE** **A NEAT ANT**

Sitzung 01:

MCT-Einstellungen:

Zeichengeschwindigkeit: 25 WPM oder höher.

Farnsworth-Geschwindigkeit: 4 WPM.

Morsezeichen für diese Sitzung:

Neue Morsezeichen 4: **A E N T**

Hören

Zeichen:

TTTTT **EEEEEE** **AAAAAA** **NNNNNN**

Worte:

TEA	TEE	EAT	ATE	AT	TAT	TEEN
NEAT	TEN	TAN				

CW Abkürzungen:

AA **ANT** **NET**

Redewendungen:

EAT AT TEN **AN ANT** **AT TEE** **A NEAT ANT**

Geben

Worte:

TEA **TEN** **TEE**

CW Abkürzungen:

AA **ANT** **NET**

Redewendungen:

EAT AT TEN **AN ANT** **AT TEE** **A NEAT ANT**

Lasst uns Starten



Wir freuen uns auf den Kurs mit Euch!

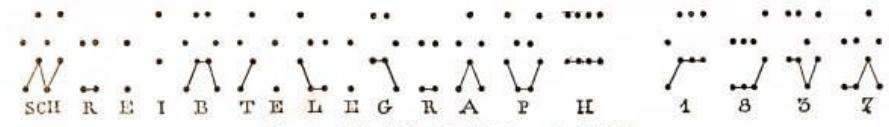
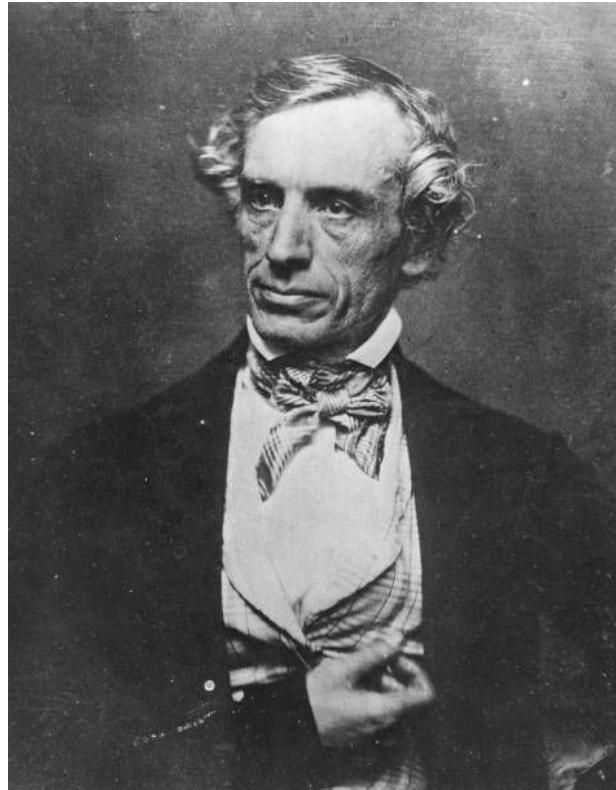


Fig. 4. Steinheil's Alphabet vom Juli 1837.

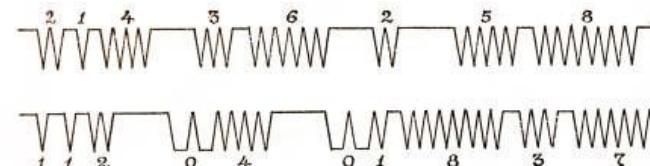


Fig. 5. Erste Morse-Pepesche vom 4. September 1837.

214 successful (gefangener)
36 experiment (Versuch)
2 with (mit)
58 telegraph
112 september
04 4th
01837 1837.

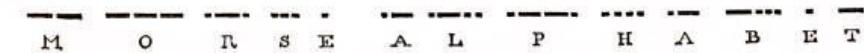


Fig. 6. Offizielles Morse-Alphabet.

