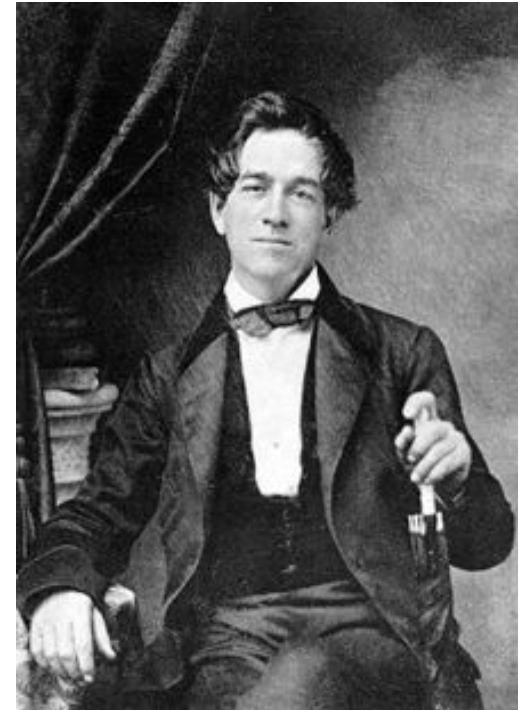# Introduction to Morse Code

Presented by

VU2RJV

Brigadier S Rajaram

Samuel Fineley Breese **Morse** is given credit as the inventor of the telegraph and the code

Alfred Vail was his Assistant

What we covered in Lesson - 1

- <u>Part - I</u> : Morse Code in the Syllabus of ASOC Exam

- <u>Part - II</u> : A brief history of Morse Code

- <u>Part - III</u> : Introduction to Morse Code

- <u>Part - IV</u> : Learning Morse Code

Part - I

Morse Code in the Syllabus of ASOC Exam

- **Section B**: National and International Telecommunication Union (ITU) Radio Regulations applicable to the operation of amateur station and those relating to the working of station generally.

  PART II – Morse (Only for General Certificate)

- **Morse reception and sending (8 wpm)**

Part - II

History of Morse Code

Antiques on the Air!!
AOTA

Before Mars
National Geographic TV series Prequel

Part - III

Introduction to Morse Code

Morse Code Symbols

- Each Morse code symbol is formed by a sequence of **dots** and **dashes**

- The **_dot duration_** is the <u>basic unit</u> of time measurement in Morse code transmission

- The duration of a **dash is three times** the duration of a dot

Introduction to Morse Code

- Each dot or dash within a character is followed by period of signal absence, called a *space*, equal to the dot duration.

- The letters of a word are separated by a space of duration equal to three dots, and

- The words are separated by a space equal to seven dots.[1] To increase the efficiency of encoding,

The 'Dit' and the 'Dah'

- To reflect the sounds of Morse code receivers, the operators began to vocalize a dot as "dit", and a dash as "dah".

- Dots which are not the final element of a character became vocalized as "di".

- For example, the letter "c" was then vocalized as "dah-di-dah-dit"

SOS

In an emergency, Morse code can be generated by improvised methods such as turning a light on and off, tapping on an object or sounding a horn or whistle, making it one of the simplest and most versatile methods of telecommunication. The most common distress signal is SOS – three dots, three dashes, and three dots – internationally recognized by treaty.

<u>Introduction to Morse Code</u>

Morse code is usually transmitted by on-off keying of an information-carrying medium such as electric current, radio waves, visible light, or sound waves

The current or wave is present during the time period of the dot or dash and absent during the time between dots and dashes

A U.S. Navy signalman sends Morse code signals in 2005.U.S. Navy signalman sends Morse code signals in 2005.

Part - IV

Learning Morse Code

- Learning the code

  - The Right way
    - Learning by sound from the start

  - The Wrong way
    - Learning visually by memorizing a code table

Learning the code

- **BIG MISTAKE** – memorizing a code table

Character	Morse Code	Character	Morse Code	Number	Morse Code
A	·—	N	—·	1	·————
B	—···	O	———	2	··———
C	—·—·	P	·——·	3	···——
D	—··	Q	——·—	4	····—
E	·	R	·—·	5	·····
F	··—·	S	···	6	—····
G	——·	T	—	7	——···
H	····	U	··—	8	———··
I	··	V	···—	9	————·
J	·———	W	·——	0	—————
K	—·—	X	—··—		
L	·—··	Y	—·——		
M	——	Z	——··		

Learning Morse Code

- Best Way to Learn – Aurally (dits & dahs)
  - Learn it by SOUND

- **NEVER** Dots and Dashes and visually

- Practice receiving first and a little at the same time.

Lesson -1

E - Dit

T - Dah

K - Dah-Di-Dah

5 - Di-di-di-di-dit

Technique of Learning

We'll start learning characters at a higher speed e.g., 12 Words Per MInute (WPM) so that you get used to recognising characters at a higher speed

We'll give more time between characters so that your brain can process the sound and associate it with the character. It will be easier to increase speed later on.

Illustration - learning a language is always done at the same speed that you'll finally speak in and not slower.
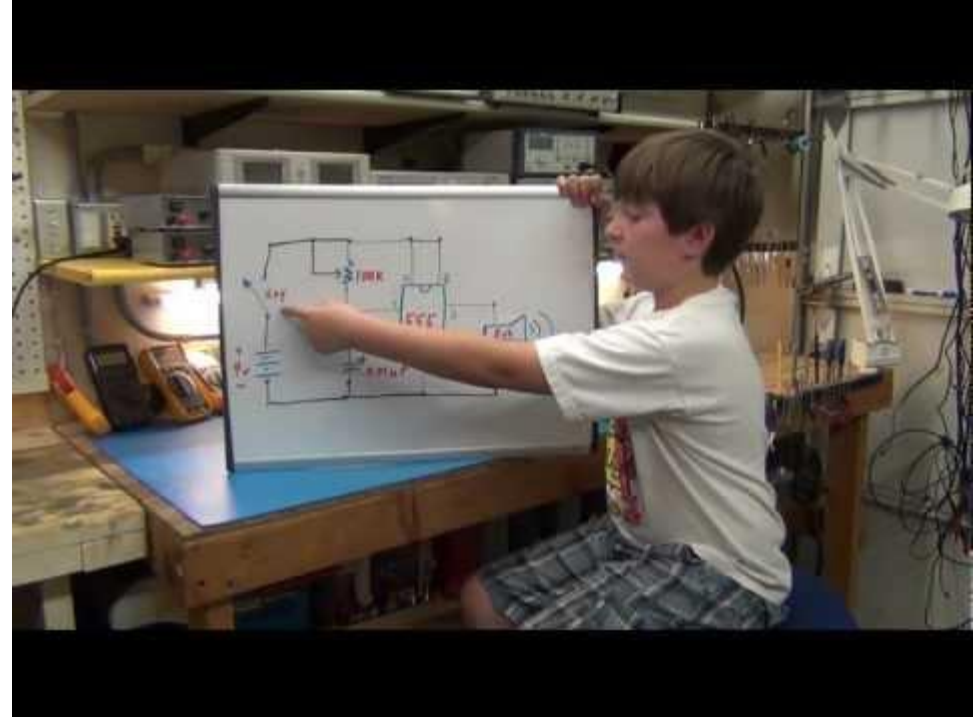
Learning Morse Code : Lesson - 2

- Revision of Lesson - 1 (Completed above)
- Construction of a Morse Key
- CPO - Code Practice Oscillator
- Desktop / Mobile Softwares and Apps

Code Practice Oscillator

- VU2LN OM Sinosh will be guiding you all through practical 'home-brewing' a CPO
- I will introduce you all to the final product and hear the sounds

Learning at 30 WPM

A demo only

16:11 Straight Key
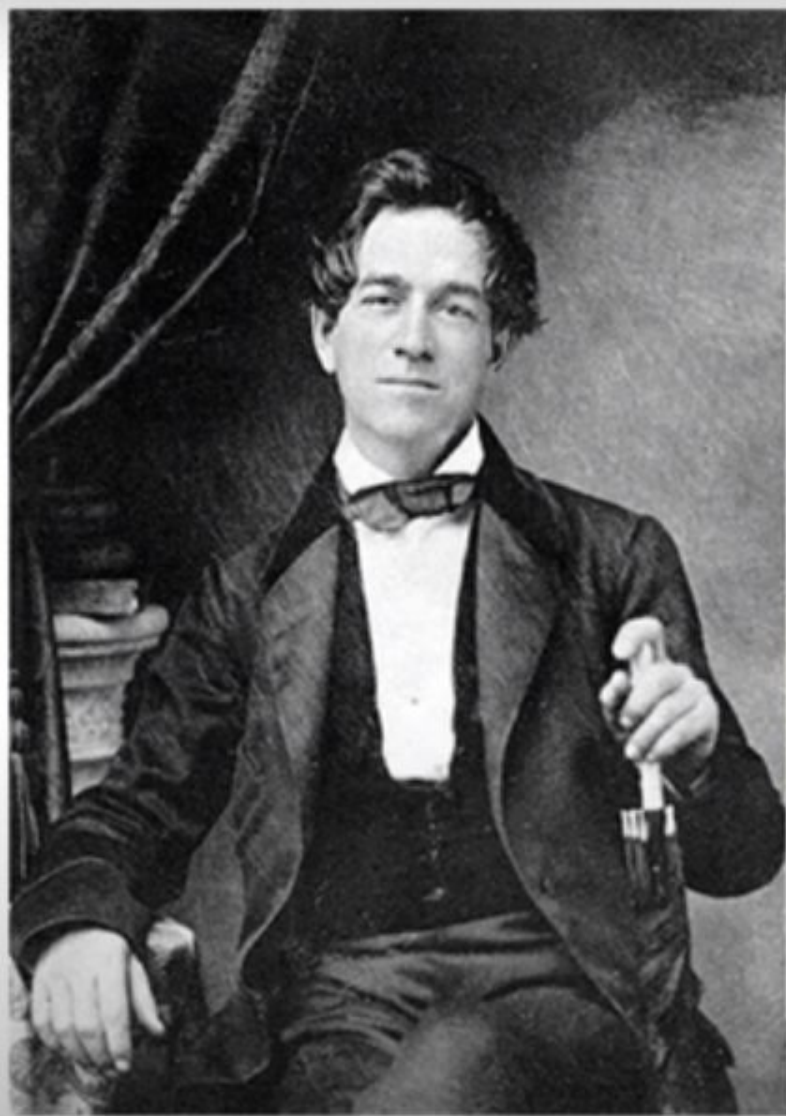
16:45 Electronic Keyer Demo

8:41 / 18:28

Pietro Begali

Precision In Mechanical Components

Officina Meccanica Begali - Via Badia 22 - 25060 Cellatica - Italy

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Limited Edition

1/3

Pearl Stainless Steel Limited Edition - "Eclipse 2016"

!!! Only 249 pcs !!!

The name of this key was inspired by discussions at the EME 2016 Conference in Venice.
The round shape of our beautiful Pearl key obviously reminded some participants of the full moon.
But since a small bite is missing from a full moon we decided to call this special version the Eclipse.
The design features an old map of the moon from 1685.

Made from polished stainless steel, with gold contacts and instrument grade bearings, this key is part of a rare breed, indeed.
The fastest operators will feel a rocket at their finger tips, and even if our Morse speed cannot propel you into orbit, you can still appreciate one of the most beautiful keys made on this earth. To make it even more

Just Learn Morse

DEsktop / Laptop Software

Method of Correcting Your Code : Lesson - 2

- Revision of previous lesson
- I will send for a few minutes : E, T, K, 5 in a pre-defined sequence
- You all and receive write it down in a note-pad (physical or on your laptop / desktop)
- Send the sequence you wrote down to me on Whatsapp Group called 'SIARS Know Code'

SIARS

Method of Correcting Your Code : Lesson - 2 (...continued)

- Then, I will correct and send the result back to you

- After you score 90% or more, we will add a character or two

- Repeat the cycle in the next class with some fun in between

- Try out Just Learn Morse before tomorrow's lesson

SIArS

Questions

Please type your Questions in the Chat Box

First Exercise : Receiving Morse

E E T T K K T E K 5 E T

ET TE K5 TK 5K TE KE

TEK ETK K5T TKE EE5

T K T E K T E K 5 T 5 E 5