# Navajo Code Talkers

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# Introduction

# How to secretly send a message?

• Steganography

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- Cryptography

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- Steganography
- Cryptography

#### But also..

• Translation of the message into an obscure language



# Code talkers appeared in the first half of 20th century

## Meeting of two conditions:

- The existence of the radio and the phone
- By that time, most of the cipher machines were too slow and fragile to be used for tactical field communications



Figure 1 – The SIGABA

#### Plan

#### Plan:

- Relation between the Navajos and the US in the late of the 19th century
- How Navajo code talkers have been recruited
- Study of the Navajo code
- Recognition and current situation of the Navajos

# Navajos and US in the late of the 19th century

#### But

- The long walk
- Boarding schools

## The long walk

#### In 1864:

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- Why they were being relocated
- How long it would take to get there

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- Why they were being relocated
- How long it would take to get there
- The journey lasted 18 days
- Nearly 2000 Navajos died

# **Boarding schools**

around 1900: many American Indian children were in church-operated boarding schools



# **Boarding schools**

## They were forced to

- Speak in English
- Give up their traditional clothing
- Drop their native names
- Become Christian

# Navajos as code talkers : how they have been recruited

- Preliminary: the code talkers during the WWI
- Pacific war and the idea of Philip Johnston
- The demonstration
- Efficiency of the Navajo code talkers

# Preliminary: the code talkers during the WWI

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• Reaction of Germany

## Pacific war and the idea of Philip Johnston

## Philip Jonhston



- 1942 : he proposed to the Marine Corps that Navajos and other tribes could be recruited as code talkers
- The major general Clayton Barney Vogel accepted to try the idea

Johnston recruited four bilingual Navajos and they went to Camp Elliott for a demonstration.



Camp Elliott, California

- Two of the Navajos translated in Navajo typical military field orders and sent it to their companions
- The companions translated the message in English

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Translation was done in 20s.

- May 1942 : 29 Navajo code talkers are recruited
- 375 to 420 Navajos participated to the program

# Navajo and Navajo code

- Why the Navajo language was a good choice
- How it works
- Evolution of the code
- Some flaws of the code
- Efficiency of the Navajo code talkers

• The largest population of Native American

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- It remained mostly "unwritten"

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- It remained mostly "unwritten"
- Complex grammar
- Imposture aren't easy to make

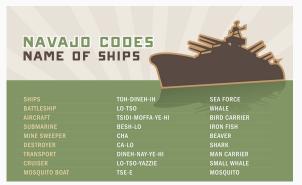
## How it works

Because of a lack of military terms, a code was needed.

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• Dictionary for common military words



https://www.cia.gov/news-information/featured-story-archive/2008-featured-story-archive/navajo-code-talkers/

## How it works

• A phonetic alphabet table

| Α | Ant    | WOL-LA-CHEE  |
|---|--------|--------------|
| В | Badger | NA-HASH-CHID |
| С | Cat    | MOASI        |
| D | Devil  | CHINDI       |
| Е | Ear    | AH-JAH       |
| F | Fox    | MA-E         |

Figure 2 – correspondance for some letters

https://www.cia.gov/news-information/featured-story-archive/2008-featured-story-archive/navajo-code-talkers/

### Evolution of the code

- The original dictionary of 211 terms has been progressively expanded to 411
- Multiple words to spell one letter

| Α | Ant   | WOL-LA-CHEE |
|---|-------|-------------|
| Α | Apple | BE-LA-SANA  |
| Α | Axe   | TSE-NILL    |

Figure 3 – multiple correspondances for one letter

https://www.cia.gov/news-information/featured-story-archive/2008-featured-story-archive/navajo-code-talkers/

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• Non uniqueness of the translations of a message

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- Non uniqueness of the translations of a message
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#### On the field:

- Different evolutions of the code appeared
- Some battalions didn't have code talkers

# Efficiency of the Navajo code talkers

## Battle of Iwo Jima (1945):

• Six Navajo Code Talkers sent more than 800 messages.

" Were it not for the Navajos, the Marines would never have taken Iwo Jima."

Major Howard Connor, signal officier of the Navajos at Iwo Jima

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• The only spoken military code never to have been deciphered.

# **Conclusion:**

- Recognition of Navajo code talkers
- Current situation

## Recognition of Navajo code talkers

Vietnam War : End of the use of Navajo code talkers

• Declassification of the program (1968)

Beginning of recognition of code talkers

• 1982 : Certificate of Recognition

2000 : they received medals from the US Congree

• 2008 : signature of the Code talkers recognition



Bronze copy of the congressional gold metal awarded to navaho code talkers

## **Current situation**

- Poor conditions life
  - Unemployment
  - Health problems
- There is still some lack of respect



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