## UNDERCOVER JOB - THE WALKTHROUGH

Method of Encryption: Substitution; modified Caesar cipher

Important Clues:
Doodles on bridge; BURN ME; red drawings on the bus schedule; dial of the radio; lettering „The new songster" on the radio; mention on the mission's introduction page that, in order to solve the mission, it is necessary to play an instrument or sing directly
form written musical notes; Name of the composition

FACE F-U-T-E-N-E-R-O

## Hidden active and clickable areas:

Scene at bridge:
second steel beam from the left;
bus at the horizon; envelope
Scene at bus stop:
radio behind the windscreen;
bus schedule;
bridge in the bottom left corner

## 1

The contact person at the bridge is holding an envelope that can be enlarged on click. When looking closely, you can tell that the stamps of the envelope are in a different order in the small and the large view - a clue towards an anagram. The writing on the envelope - BURN ME - is an anagram for Number

## 2

On the bus schedule, the following letters are circled in red: F-U-T-E-N-E-R-O. As indicated by the clues from the envelope, you are looking for a number that can be made by an anagram from these letters. The only possible solution for this is Fourteen.

## 3 Doodles on one of the bridge's steel beams

3a - „Gaius Julius" is a clue towards CAESAR CIPHER.
3b -Only the first two stick figures have eyes. The eyes can be interpreted as musical notes. The first figure's left eye is crossed by a line. In the context of musical notation, this can be read as a ledger line. The note on the first ledger line in the treble key is "C"

The first figure's right eye is similar to the first one. But next to it on the right there is the following symbol: \#. This symbol is called "SHARP" in musical notation. Applied to the right eye, we get the note "C sharp"

The two eyes of the second figure are positioned beneath a line. This line doesn't represent a ledger line, but the bottom line of the staff. Thus, the third eye represents the note "D". Again, there is a sharp-symbol next to the fourth eye, thus making it a "D SHARP".

The doodles of the first two figures give us the notes C, C SHARP, D, D SHARP.
The four remaining stick figures don't have eyes, leaving us with eight missing eyes. If we again connect the eyes to musical notes, we are missing the notes E, F, F SHARP, G, G SHARP, A, A sharp AND B. This succession is that of a chromatic scale as begun by the notes $C, C$ sharp, $D, D$ sharp

All in all, four notes are visible, the remaining eight are missing. It is notable that the composition FACE F-U-T-E-N-E-R-O's title consists of 12 letters of which only the first four make any obvious sense. The notes C, C SHARP, D, D sharp seem to have a relation to the letters $F, A, C, A N D E$.

## UNDERCDVER JOB - THE WALKTHROUGH

Assign the notes to the letters as follows:
Note C corresponds to the letter F.
Note C sharp corresponds to the letter A.
Note D corresponds to the LETTER C.
Note D sharp corresponds to the LETTER E.

The letters $F, A, C$ and $E$ can also be read to identify musical notes. The above list can thus also be interpreted as follows:

Plaintext note C corresponds to CODED NOTE F.
Plaintext note $C$ sharp corresponds to CODED NOTE A.
Plaintext note D corresponds to Coded note C.
Plaintext note D sharp corresponds to CODED NOTE E.
The remaining eight coded notes $C$ sharp, $D, F$ sharp, $G, G$ sharp, $A, A$ sharp and $B$ don't have a correlation to the remaining eight plaintext notes $E, F, F$ sharp, $G, G$ sharp, $A, A$ sharp and $B$ yet.


5
Some of the letters of the composition's title (F-U-T-E-N-E-R-O) don't exist as names for musical notes ( $U, T, N, R, O$ ), so there has to be a different way of identifying the relation to the eight remaining plaintext notes. The system in which the letters of the anagram F-U-T-E-N-E-R-O / F-O-U-R-T-E-E-N are switched comes to mind.

The letter F - the FIRST plain text letter - corresponds to the FIRST coded letter.
The letter 0 - the sECOND plain text letter - corresponds to the EIGHTH coded letter.
The letter $U$ - the THIRD plain text letter - corresponds to the SECOND coded letter.
The letter R - the fourth plain text letter - corresponds to the SEVENTH coded letter.
The letter T - the FIFTH plain text letter - corresponds to the THIRD coded letter.
The letter T - the SIXTH plain text letter - corresponds to the SIXTH coded letter.
The letter E - the SEVENTH plain text letter - corresponds to the FOURTH coded letter. The letter N - the EIGHTH plain text letter - corresponds to the FIFTH coded letter.

Graphically, this looks as follows:


The resulting constellation of lines can also be find as a doodle on the bus schedule. It is the key to the order that the remaining coded notes have to be in.

Transfer this system to the correlation of the remaining eight coded notes (see 4.)


Enter the coded arrangement of the remaining coded notes into the table from 4.

| coded notes |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F | A | C | E |  | \# G |  | \# ${ }^{\text {B }}$ | G | $F_{\#}$ | D |
| C | C. | D | D\# | E | F $F$ | G | G | A | A | B |

## 6

Now, substitute the notes from the melody of the composition FACE F-U-T-E-N-E-R-O according to this table.

The first two notes $G$ are changed into the notes $F$ sharp The third note B flat is changed into the note $G$.

Continuing this leads to the following melody:


If you now play this melody on an instrument or sing it, you might recognize melody of "Ode to Joy" by Beethoven (The composition is originally in a measure of $4 / 4$, but the coded note melody is in a measure of $3 / 4$.

The radio labelled "The new songster", its dial with the numbers and once more the anagram clue from the envelope (NUMBERS) indicate to put the LYRICS OF "OdE TO JOY" in relation to a NUMBER - NAMELY FOURTEEN - as it has been repeatedly mentioned within the mission.

The fourteenth word of "Ode to Joy"s lyrics is Zauber (German for "MAGic")

## SOLUTION:

ZAUBER

Did you notice the following?

1 - The bridge on which the mission takes place - Glienicke Bridge in Berlin - is famous for several cold-war prisoner exchanges between the Soviet Union and the USA/West Germany that took place in the 1960s and 1980s.

2 - The first stamp on the envelope depicts Glienicke Palace, which's current appearance was designed by Karl Friedrich Schinkel (he is on the second stamp), who also designed plans for alterations to the Glienicke Bridge. The third stamp depicts Rudolf Ivanovich Abel, an agent involved in one of the prisoner exchanges. Read more here.

3 - The initials bs by the doodles on the bus schedule and the bridge are Bascrobat's (see mission task).

