Left wheel is cipher wheel in entire MacArthur message, except in encipherment of key word "Chaocipher".
(I) Movement of Letters and Wheels for Encipherment

Right wheel moved one space counter-clockwise while left wheel is held in position.
Then, on right wheel, second letter at right from Zenith - at the arrow - is moved to Nadir - red mark - and the letters moved up to the right.
On left wheel, first letter at left from Zenith - at the arrow is moved to Nadir - red mark - and letters moved up to the left.

## Movement of Letters and Wheels for working backwards.

Tum wheel to bring letter, to be enciphered or deciphered, on (left)
cipher wheel to Zenith. Nove letter at Nadir to Arrow - one left of Zenith - intervening letters moved down one space. On plain txt wheel (right), bring letter at Nadir to Arrow - two places right of Zenith - intervening letters moved down. Then disengage plain text wheel and move one space clockwise.

## MacArthur Speech

Instructions to person to decipher $C$ is $Z$ in instructions and means the end of instructions. From P to C are therefore the instructions and the private code is used. Start by having both wheels set up in A B C order. Disengage wheels and turm until "I" on left wheel is at Zenith; "A" on right Wheel remaining at Zenith. No movement at this point. Then start decipherment of instructions by tuming wheels and bringing " C " on right wheel to Zenith. ( $\mathrm{CH}-\mathrm{R}$ )

CH - Right
AO left
CI right
P left
H right
E left
$R$ right
$z$ (end of instructions)
See other page for private code - a is --
b is --
Then start decipherment of message.
Turn wheels to bring "V" to Zenith on left wheel, then use encipherment method as shown above (I).

For original encipherment, at this point turn wheels to bring "B" up to Zenith on right wheel and then use encipherment method as shown above (I)

When the position on the board is taken down, it is done AFTER the movement on both wheels has been made. When reconstructing in the middle of the message, letters on wheels are arranged and right wheel is moved one space counter-clockwise as in $I$, then continue as in instructions in $I$.
Beyond pointing out these gen ..... $\frac{\mathrm{N}}{\mathrm{E}} .\left(\begin{array}{l}\text { plain text }) \\ \text { cipher })\end{array}\right.$At this point after all changes:Left: PZMYUHKINJBDAVFSOXTNLEQRCGR1ght:EUTKBZQPOSNAVGVFYRCDLXHIJM
My discussion to the generala ..... A
0

Left Rigint: GRESUWMIXXPARVZIBJLFKYODTCRight:VINDXCBQIAOSGZEKTLPFJYHRMU
Objectively assess the situati ..... $\frac{I}{B}$
Left: $2 W$ HULTDGKMRPEQFVACIYJXBONS
R1ght: XUVMWALITGEFQYJDGSKNZROBPH
Comprehend something of Asia ..... A ..... K
Lert: NZWTSHCULDKVRQFJPBIAGYXIEO
R1ght: XJCWKLHUIBGZFVPRYNOAQDSEMT

Left: AKZWUYOGXEJFTRMQCDHIBSNVLP
R1ght: KFUTSLIXXODHBZCYRGVVQIEJPAM
location to be certified
SENTZ LONGEEc.
Left: RQHCD INBVLJFTKPWMAZUGOYXES
Right: ZYRGNNITDEBKJVAMQFCLPUSOXH
EEDAW NOFNE W ..... W
T
The peoples of Asie nowsee dawn of new opportunity$Q$ and political freedom $Z$
Left: DRZEGXKMJWOPSALUMYVFCHNBEI
R1ght: IRQJUMKNNZTXSBFYHLVEDAPGCO
TICAL FREED OMZZ
K
Left: GJYMVOCFSNDALTXUKHVBQRPIZER1ght: SFMHDTGIORCYUNLKWVPBEAZJQX

## NacArthuw Olpher

## Page 2

##  of the normal nationalis <br> 8 z

 LeIt: SFIUBQLMRKJZGPDHEWXTNAOVYO R1ght: FVLGUHND GIPEIMKSBWRXJ OOXATZThese politioal and social so 0

Left: ISQNPYAUFGHGRNBOLZETSXXNTVD R1ght: REIDXBJKLVGAOSNFTHRGXPUMVZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ HIRQKJOGZSFMDWTBXAYPVEINUC

TI-CHR-A OL-C IR-P L-H R-E L-R R-Z
PMRGA/HTMRZ/ABMGA/KMAAC/


Below is notation of letters as they fall to nadirs on right and left Wheels whale enciphering
Chao in MacArthur's spee Left Wheel R1ght Wheel


Distribution of letter on both wheels after last movements and changes.
Right: LXEHIJMNOPQGRSTUKVNYZAFCD
Left: THXIWJKLADESNOQRUVYZMBGPFG

## CHAOCIPHER - THE ULTIMATE ELUSION

| Left <br> Wheel | Right <br> Wheel | Left <br> Wheel | Right <br> Wheel |
| :---: | :---: | :---: | :---: |
|  | (T) | T | U |
| H | (I) | I | W |
| I | (L) | W | L |
| (K) | N | L | Q |
| K | (O) | M | S |
| T | (Y) | V | C |
| (B) | H | C | J |
| (D) | I | E | A |
| N | (V) | O | L |
| (B) | $K$ | D | N |

Ringed letter is cipher
Position of wheels and letters at START


Above is notation of letters as they fall to nadirs on right and left wheels while enciphering THINK THINK.

Notation of letters on both wheels at end of THINK THINK Was taken after full change was made on wheels. Enciphering first line of "ALL GOOD" etc. Was then begun. All other notations of letters on both wheels made before
: full change was made on wheels.

$$
\begin{aligned}
& C H A O C \text { CHER } \\
& V Z K Y \mathbb{R} V P R R P
\end{aligned}
$$

$$
B E Y
$$

