

In reply refer to Initials  
and No.

26001

113-1

NAVY DEPARTMENT

Op-20-G/LMD  
(SC) A6-2(4)  
Serial 0421620

OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON

14 March 1944

From: Chief of Naval Operations.  
To: Commander in Chief, U. S. Pacific Fleet.  
Commander, Seventh Fleet.  
Commander, Third Fleet.  
Officer in Charge, U. S. Pacific Fleet  
Radio Unit.  
Officer in Charge, U. S. Fleet Radio Unit,  
Melbourne.

Subject: U.S. - British R.I. ("BRUSA") Circuit -  
Instructions for Use.

Enclosure: (A) Instructions for the Use of CryptO-Channel  
34 in Conjunction with British - U.S.A.  
Exchange Network (BRUSA).

1. As a result of discussions between representatives of the U. S. Navy Communication Intelligence Organization and British Communication Intelligence representatives regarding the exchange of Communication Intelligence material between U. S. and British stations, the following points have been agreed on:

- (a) A comprehensive U. S. - British circuit, to be called the "BRUSA" circuit, will be established as early as practicable between Melbourne, Pearl Harbor, Washington, London, and Colombo, joining U. S. Naval and British circuits at present used for the dissemination of Communication Intelligence material.
- (b) This circuit will carry Technical Information, Decryption Intelligence and Traffic Intelligence considered essential (by the Officer in Charge of the Communication Intelligence station originating) to transmit by dispatch from any of the five Communication Intelligence stations concerned, plus essential administrative communications between these five Communication Intelligence stations.

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- (c) Decryption Intelligence (DI) consists of Intelligence derived from the decryption and translation of enemy radio messages; Traffic Intelligence (TI) consists of Intelligence derived from enemy radio communications by all other methods than actual decryption; Technical Information consists of all information concerning code or cipher recoveries, crypto-intelligence, new methods used in obtaining recoveries and suggestions of possible methods of attack - in general, any information of value to the cryptanalyst.
- (d) DI and TI on this circuit will include, in addition to Naval Radio Intelligence, Naval Air Radio Intelligence available at the stations, and Army Air Radio Intelligence which British stations obtain from British sources.
- (e) The circuit also will be available for the transmission of such periodic summarized Radio Intelligence bulletins as the various Fleet Commanders deem necessary to send.
- (f) The function of the circuit will be the exchange of the above-mentioned types of material (as may be necessary) between the five Communication Intelligence stations. Routing, including addressing and classification of traffic, will be at the discretion of the officer in charge of the originating station, and will be achieved by complying at all stations with communication instructions in Enclosures (A) and (B). Care shall be taken to preclude transmission of messages to British stations which do not need them.
- (g) All traffic will be in CCM when any British station is in the address. The establishment of this circuit does not alter the instructions concerning use of ECM for traffic exclusively for U. S. Navy stations.
- (h) The establishment of the "BRUSA" circuit will be dependent on the provision and distribution of necessary machines and drums, which will be effected

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as soon as practicable, and on the availability of such additional communication personnel as may be necessary.

- (1) Any changes or modifications affecting the "BRUSA" circuit after it is established will be promulgated in identical messages, originated by Washington for U. S. stations and by London (Bletchley Park) for British stations, after agreement has been reached between Washington (Op-20-G) and London (GC and CS).

2. When all British and U. S. Navy stations concerned have received necessary crypto instructions and material, a dispatch will be originated at Washington designating date and time when crypto channel 34 will become effective. U. S. Navy stations will divert from the present TUNA COMB traffic in Crypto-channel 33 only such items as are considered by the originating station to be required by the British and add those items selected by the British Liaison Officer at U. S. stations, upon release by the Officer in Charge of the station. The collective calls DAZE and DISC will be used respectively, in place of TUNA and COMB on those messages intended for British as well as U. S. Navy addressees. Crypto-channel 33 will be retained for use by U. S. stations, as at present for remaining TUNA and COMB traffic.

3. Similar instructions will be issued by British authorities to those concerned in their Service.

4. Transmission of this letter by registered mail within the continental limits of the United States is authorized.

Joseph R. Redman,  
By direction.

Copy to:  
GC and CS

**INSTRUCTIONS FOR THE USE OF CRYPTO-CHANNEL 34 IN CONJUNCTION  
WITH BRITISH - U.S.A. EXCHANGE NETWORK (BRUSA)**

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**REGISTERED PUBLICATIONS**

1. Crypto-channel 34 is to be used only for the exchange of Japanese Communication Intelligence between British and U.S. units as specified herein, using only those registered publications (CCM, Key Lists, Code Wheels) assigned for use in this channel. Administrative traffic or other matters will be handled in other existing crypto-channels.

2. The basic publication for use in this channel is the Combined Cipher Machine (CCM).

3. A key list, CSP 2521 (A) containing settings for "Special" and "Secret" classifications, has been assigned for use in this channel for the purposes hereinafter specified. The "Special" setting, with the external indicator ~~FOMOF~~ <sup>JOMEK</sup>, is to be used only for the exchange of Decryption Intelligence and Technical Information, as follows:

(a) Translations of intercepted messages, direct references to such translations, and information pertinent thereto.

(b) Technical cryptanalytical information, recovered keys and values, captured cryptographic information, etc.

(c) Other Decryption Intelligence dispatches of an equally secret nature.

<sup>FOMOF</sup> 4. The "Secret" setting, with the external indicator ~~JOMEK~~, is to be used only for the exchange of Traffic Intelligence as follows:

(a) Information regarding call signs, frequencies, circuits, etc.

(b) RFP, TINA, D/F fixes, etc.

(c) Other Traffic Intelligence dispatches of an equally secret nature.

5. The code wheels (drums), CSP 2511 and CSP 2531 (modified for Typex), will be superseded at intervals of three months. The key lists, each applicable during the effective period of the code wheels, contain daily settings.

**ENCLOSURE (A)**

6. Notice of the superseding editions of all publications used in Crypto-channel 34 will be promulgated by Washington as the original issuing office. Requests for additional copies, notice of compromise, or any other matters concerning these publications, will be addressed to Washington (Op-20-G) for action. Any necessary emergency regulations affecting the use of these publications will be promulgated by Op-20-G.

7. Reserve on board editions of the code wheels and key lists will be issued with the original editions.

#### PARTICIPATING STATIONS

8. The BRUSA stations have been assigned the collective call sign DAZE. Dispatches addressed to DAZE will reach the following addressees, less the originator:

Washington (Op-20-G)	TOTO
Bletchley Park (GCCS)	BVX
Pearl Harbor, T.H. (FRUPAC)	DARE
Melbourne, Australia (FRUMEL)	T2W
Colombo, Ceylon (FRUEF)	BJJ

9. A more inclusive collective call sign, DISC, comprises the above named BRUSA stations, plus the following:

Cinc Pac  
Com Third Fleet  
Com Seventh Fleet

10. These additional units will only receive dispatches addressed to DISC. They will not originate dispatches to DAZE or DISC except through the designated BRUSA station and with the actual originator encrypted in the text. Normally, messages dealing with Technical Information and Traffic Intelligence will be sent to DAZE only, or to specific station(s) when all under DAZE are not addressed. Decryption Intelligence and Traffic Intelligence messages of Operational value will be sent to DISC or to specified station(s) when all under DISC are not addressed.

#### IMPORTANCE OF CAREFUL ENCRYPTION

11. It is essential that all coding boards exercise great care in the encryption of dispatches, not only for reasons of security, but also because the number of stations in the BRUSA network will involve a proportional number of requests for

check and repetition on faulty encryptions. Complete understanding of the use of all publications provided for this channel is also essential, and each encryption must be carefully deciphered or checked before transmission.

OPERATING INSTRUCTIONS FOR BRITISH - U.S.A.  
EXCHANGE NETWORK (BRUSA)

CHAPTER I.

Participating Stations

Operating stations in BRUSA, listed with call signs, are as follows:

<u>Location</u>	<u>Abbreviation</u>	<u>Radio Call</u>
London, England	GCCS	BVX
Washington, U.S.A.	Op-20-G	TOTO
Pearl Harbor, T.H.	FRUPAC	DAZE
Melbourne, Australia	FRUMEL	T2W
Colombo	FRUEF	BJJ
* Collective Calls		DAZE DISC

\* Collective calls include all of the listed operating stations. The call sign DAZE or DISC will be assigned by the Coding Officer prior to the transmission of the message.

CHAPTER II.

General Operations

The recognized procedure of operations is to be regulated by, and to conform with, the practices set forth in the following joint publications:

1. Combined Radio Telegraph (W/T) Procedure.  
(Short Title, CCRP-1).
2. Combined Operating Signals. (Short Title, CCRP-2).

The route for the ultimate delivery of DAZE or DISC messages or method transmission is shown for each individual BRUSA station under Chapter IV.

While BRUSA stations may or may not have smaller substations to which they will pass DAZE or DISC messages by joint pre-arrangement, this outline will not be concerned with such deliveries, and any BRUSA station having such a recognized commitment will arrange its own procedure therefor.

ENCLOSURE (B)



## CHAPTER III

### Procedure Messages

It will readily be understood that a heavy flow of traffic, all of which is addressed to multiple addressees, must necessarily be handled with a high degree of accuracy or else result in excessive procedure messages requesting corrections and repetitions. For example, if the initial transmission of a DAZE or DISC message originating in one BRUSA station is garbled, the result will be four procedure messages from the remaining BRUSA stations requesting repetition. Obviously, the eventual result would mean an amount of procedure messages that would seriously impede the proper flow of traffic.

An efficacious method of reducing the number of operating queries is the well-known practice of employing a collating staff to compare transmission copies with originals. All stations are urged to employ this method when possible and assist in reducing queries by the transmission of rapid and voluntary corrections when discovered.

Because of the number and variety of circuits and routes employed by BRUSA for the transmissions of DAZE and DISC traffic to collective addressees, the following points are to be observed when sending service messages on such traffic:

- (a) Address the procedure message or operating signal to the station that originated the message in question.
- (b) Refer to dispatches upon which a correction or repetition is desired by date/time reference primarily, which is to be inserted in the procedure message or operating signal as follows:

NR 45 GC

- T - A - TOTO T2W

QJM 131520Z AA BT

Circuit numbers relating to previously handled messages may also be used for reference purposes in the text of procedure messages or with operating signals. The date/time reference must, however, always be included because of the many routes and circuits in use.



## CHAPTER IV.

### Responsibilities of BRUSA Stations Relative to DAZE or DISC Traffic

A brief outline of the responsibilities of the five BRUSA stations is set forth for a better understanding of individual operational problems.

In the outline, it is understood that the procedure prescribed under CCBP1 and CCBP2 applies only to the five BRUSA stations and BRUSA transmissions between them.

When traffic is referred to as being "originated" by one of the five BRUSA stations, it is understood that this means that the traffic may have been re-addressed upon "entrance" to the BRUSA circuit, and therefore will be treated, for all practical operating purposes, as having been originated by the BRUSA station which starts it on the BRUSA net.

In this connection, no call signs are to be used for DAZE and DISC traffic on the BRUSA Network except the following:

DAZE - Collective  
DISC - Collective  
T2W - FRUMEL  
TOTO - Os-20-G  
DARE - FRUPAC  
BVX - GCCS  
BJJ - FRUEP

BRUSA stations will normally apply all necessary procedure from the publication (CCBP1 and 2) necessary in cases of emergency, to complete transmissions and deliveries to all BRUSA, especially when there are circuit failures.

### RESPONSIBILITY OF COLOMBO

#### ORIGINATED TRAFFIC

DAZE or DISC traffic originated by Colombo is normally to be transmitted to GCCS only, with re-transmission instructions included in the heading. (See Combined Operating Signal "QNL" - meaning "Pass to whom responsible".)

This will insure that GCCS passes to remainder of BRUSA stations via the next station in the network, normally Washington, at present.

### Received Traffic

DAZE or DISC traffic received from GCCS will normally carry no transmitting or relay instructions, and it is not incumbent upon FRUEF (Colombo) to pass traffic received from GCCS to any other BRUSA stations unless specifically directed.

NOTE: Whenever, in accordance with existing arrangement, traffic has been transmitted to Melbourne by Colombo, Colombo will so indicate in the transmission to GCCS by employment of the proper signal from CCRP1.  
Example:

(Important) - QNL - QLR - T2W - A - BJJ 131214 DAZE

(or DISC) GR\_\_\_\_\_

### Typical Message Headings

DAZE or DISC message originated by Colombo for transmission to BRUSA via GCCS:

(Important) - QNL - A - BJJ 131214 DAZE (or DISC)

GR\_\_\_\_\_

DAZE or DISC message originated by Colombo for transmission direct to Melbourne:

(Important) - A - BJJ 131215 DAZE (or DISC) GR\_\_\_\_\_

DAZE or DISC message originated by other BRUSA stations and received by Colombo:

(Important) - A - (Call) 192208 DAZE (or DISC) GR\_\_\_\_\_

### RESPONSIBILITY OF GCCS

#### Originated Traffic

DAZE or DISC traffic originated by GCCS is to be transmitted to FRUEF (Colombo) and Op-20-G, Washington. No re-transmission instructions are normally to be included in the headings of such traffic sent to FRUEF (Colombo).

The Combined Operating Signal "QNL" is to be inserted in DAZE or DISC dispatches transmitted to Op-20-G. This will indicate to Op-20-G that the message is to be "repeated to those for whom you are responsible"; in this case, other U.S. BRUSA stations, namely: FRUPAC and FRUMEL.

### Received Traffic

#### From Op-20-G in Washington:

Transmit to FRUEF (Colombo) - no Operating Signal to be inserted in such dispatches as FRUEF is not normally responsible for delivery of received DAZE or DISC traffic to other BRUSA stations.

#### From Colombo:

Transmit to Washington, retain operating signals in heading to insure delivery to all remaining BRUSA stations.

### Typical Message Headings

DAZE or DISC message originated by GCCS for transmission to FRUEF (Colombo), and Op-20-G Washington:

(TO FRUEF) (Important) - A - BVX 101530 DAZE (or DISC) GR\_\_

(To Op-20-G) P - QNL - A BVX 101530 DAZE (or DISC) GR\_\_

DAZE or DISC message originated by Colombo for transmission to Op-20-G:

(P) - QNL - A - BJJ 101620 DAZE (or DISC) GR\_\_

DAZE or DISC message originated by Colombo for transmission to Op-20-G via GCCS, already transmitted direct to Melbourne by Colombo:

(Important) - QNL - QLR - T2W - A - BJJ 181612 DAZE

(or DISC) GR\_\_

### RESPONSIBILITY OF WASHINGTON

#### Originated Traffic

DAZE or DISC traffic originated by Washington (Op-20-G) is to be transmitted to Honolulu, to Melbourne and to London (GCCS) for Colombo.

The Combined Operating Signal "QNL" is to be inserted in the headings of messages forwarded to London. No "QNL" is normally necessary on those transmitted to Honolulu or Melbourne. If communication from Washington is temporarily interrupted to either Honolulu or Melbourne the procedure sign

"T" followed by the desired call sign will be inserted in the headings of dispatches to insure delivery to either Melbourne via Honolulu or to Honolulu via Melbourne.

### Received Traffic

DAZE or DISC traffic received from London (GCCS), which will carry the Combined Operating Signal "QNL" is to be transmitted to Honolulu (FRUPAC) and Melbourne (FRUMEL). No "QNL" is necessary in such messages, in the process of re-transmission, when normal channels of communication are operative to each station from Op-20-G.

DAZE or DISC traffic received from Melbourne (FRUMEL) or Honolulu (FRUPAC) will always carry "QNL" and will be transmitted to London (GCCS) with the "QNL" intact to insure further delivery to Colombo (FRUEF). In some cases dispatches will be received from Melbourne carrying the Operating Signals QNL QLR BJJ in the heading, indicating that Melbourne has already passed the dispatch to FRUEF. In such cases, Washington is to delete the "QNL" prior to transmission. The remaining signal "QLR" BJJ will clearly indicate to London that the dispatch has already been transmitted to FRUEF and that no further BRUSA transmission is necessary.

### Typical Message Headings

DAZE or DISC message originated by Washington for transmission to Honolulu, to Melbourne and to London (GCCS) for Colombo:

Direct to Honolulu and Melbourne; P - A - TOTO 260340

DAZE (or DISC) GR\_\_

To London: (Important) - QNL - A - TOTO 260340 DAZE

(or DISC) GR\_\_

DAZE or DISC traffic originated by other BRUSA stations and requiring further relay by Washington:

P (Important) - QNL - A - (Call) 241719 DAZE (or DISC)

GR\_\_

DAZE or DISC traffic received from London, dispatch has already been transmitted to FRUEF:

(Important) - QNL - QLR BJJ - A - BVV 182134 DAZE

(or DISC) GR\_\_

## RESPONSIBILITY OF HONOLULU

### Originated Traffic

DAZE or DISC traffic originated b Honolulu (FRUPAC) is to be transmitted to Melbourne (FRUMEL) with no QNL normally in heading, and to Washington (Op-20-G), with "QNL" in the heading, in order to insure proper delivery to London (GCCS) and thence Colombo (FRUEF).

### Received Traffic

DAZE or DISC traffic received from Melbourne (FRUMEL) and which contains a "QNL" in the heading, is to be transmitted to Washington (Op-20-G) with the "QNL" (or other operating signals) intact to insure delivery to London (GCCS) and Colombo (FRUEF) unless otherwise indicated.

DAZE and DISC traffic received from Melbourne without a "QNL" is obviously not to be retransmitted to Washington.

DAZE or DISC traffic received from Washington (Op-20-G) is not normally to be retransmitted.

The receipt of a "QNL" in the heading of such traffic however, will indicate the necessity for retransmission to Melbourne (FRUMEL). In such cases the "QNL" will be deleted from the heading by Honolulu prior to transmission to Melbourne.

### Typical Message Headings

DAZE or DISC traffic originated by Honolulu for transmission to all other BRUSA stations:

Direct to Washington; - P - QNL - A - DARE 162244

DAZE (or DISC) GR\_\_

Direct to Melbourne; - P - A - DARE 162244 DAZE (or

DISC) GR\_\_

DAZE or DISC traffic received from Melbourne to be transmitted to Washington for further relay to London:

- P - QNL - A T2W 061221 DAZE (or DISC) GR\_\_

## RESPONSIBILITY OF MELBOURNE

### Originated Traffic

DAZE and DISC traffic originated by Melbourne (FRUMEL) is to be transmitted to Honolulu (FRUPAC) normally without a "QNL" and to Washington (Op-20-G) with "QNL" in the heading to insure delivery to London (GCCS) and thence to Colombo (FRUEF). If message has already been transmitted to Colombo, this is to be indicated in the transmission to Washington.

### Received Traffic

DAZE and DISC traffic received from Washington and Honolulu will normally be received without a "QNL" in the heading, indicating that no further BRUSA transmissions are desired.

In emergencies, Washington may indicate, by insertion of the proper Combined Procedure Signal in the headings, that dispatches are to be transmitted by Melbourne to Honolulu or Colombo, even though this will not normally be the case.

### Typical Message Headings

DAZE or DISC traffic originated by Melbourne for transmission to Washington and Honolulu:

To Washington; - P - QNL - A - T2W 140800 DAZE (or DISC) GR\_\_\_\_

To Honolulu; - P - A - T2W 140800 DAZE (or DISC) GR\_\_\_\_

DAZE or DISC traffic originated by Melbourne for transmission direct to Colombo, assuming transmission to Washington and Honolulu has been completed:

(Important) - A - T2W 230615 DAZE (or DISC) GR\_\_\_\_

DAZE and DISC traffic originated by Melbourne for transmission to Washington, for further relay to London, and to Honolulu; Melbourne has completed transmission direct to Colombo;

- P - QNL QLR BJJ - A - T2W 230615 DAZE (or DISC) GR\_\_\_\_

**NOTE:** All of the material and examples shown in Chapter IV have been compiled for the benefit of units that may not be immediately familiar with Combined Procedures.

It is to be understood that the examples shown have no value when BRUSA stations are unable to use their own circuits or routes and must rely upon other services to perform transmissions.

In such cases where other services must be used to forward traffic to the addressees, proper application of the procedure outlined in CCEP1 must be applied. Predicated upon this procedure, the BRUSA addressees of the collective call signs DAZE and DISC must be made known to the British and United States radio or cable stations that would necessarily handle BRUSA traffic when BRUSA circuits are inoperative.