

German Police Doppelkastenschlüssel Messages

The message below is an example of an original and authentic cipher message sent by the German Police (*Ordnungspolizei* — ORPO) network during the Second World War. The message, NR. 14, was sent by the station SQF (Mogilev¹) to the station ALQ via DQH (Berlin) on 16 June 1942. The message was transmitted on the night frequency of the Russia high frequency (HF) network at 3742 kHz². The message is enciphered with the hand cipher system the Germans called *Doppelkastenschlüssel* — DoKa. The first ciphertext group, here ARTTN, is the discriminator group for the DoKa key used. The discriminator is the last three letters, TTN, which can be in any order, such as TNT, NTT etc. Four such discriminators were allocated to each daily DoKa key. The discriminator is not part of the message and it must therefore be removed before deciphering the message.

BMRA115/16/42 2151/16/3742 POLICE
DQH V SQF C' SQF NR14 2325 228 ALQ DQH

ARTTN FMXBW OIYSU OGILL YVHPO HKALE XSALS SFITT
EDSPG HGCGP VHTVL LMCIA LWTIF FMRS G HFDAT VTDRV
SPTVR VSYSE FYABL SCKQU ECCZR EQUOT TGTOA VWYAB
NOMMY AXBTI TUVHQ BIDKO HVQWU ZVXVQ RORAE XQETV
GIEOX KCDDA DRCLL NTZHN BEVRU XEDGA EFYVV PDBZA
VXRPV QXSLW BCWYK NZKVV HNUOL PLI ++

(QRM)

CTN 1/3 OIYSU 2/1 EDSPG 2/6 FMRS G
3/4 SCKQU 3/6 EQUOT 5/6 XEDGA

TS 2249 MIC

The message is a transcript of the attached teleprinter message sent from the English intercept service (Y-service) to Bletchley Park for analysis and decoding. The message was intercepted by two different intercept stations and the corresponding Red Forms from stations No. 51 and 43 have also been attached. Here it can be seen that some of the letters have been received differently probably due to a weak signal from the transmitting station and as mentioned, due to noise and interference (QRM).

Further there is an attachment of the explanation for the layout of the standard teleprinter format for intercepted traffic.

On the next pages there follows another five German Police DoKa messages, several of them composed of two parts (*Teile*). Four of the messages are from the same day, 27 February 1942, however it appears that the first message dated 28 February 1943 also might be from the same date. The indicator, XOS, is the same as for some of the other messages.

¹ SQF was the callsign of the station at the HQ of *Höherer SS- und Polizeiführer Russland-Mitte*, whose leader was SS-Gruppenführer Erich von dem Bach.

² The German domestic police network was using low frequency (LF) with two main frequencies at 152 and 155 kHz. To extend the network into the occupied territories the network then used high frequency (HF) transmissions.

German Police Doppelkastenschlüssel Messages

BMRC43/28/2/43 0827/28/6645 POLICE
 SRS V SRS1 C' SRS1 NR4 0530 2TLE 1TL 143 SRS

SRXOS ZMOLP CSMEO SXISF SEIQW QRMKV ILTXV VMETC
 SSMNL GAFGL VHGWA LLMSO GWMUV YGGUM SEZFB FMVYF
 TEIL2 WFYZI DFSRI CWLAG YQDMR OIBXB KLSOR BNNME
 QARGH GXORN XKZIT RYCZH IMN ++

2TL SWAMPED QRM

BMRD33/27/2/42 0941/27/6890 POLICE
 SRS1 V DQH C' BERLIN NR 4 1015 79 SRS9

KFWOJ PXSXH IHVGD OLIXA DYZZT RFBLQ XPLPN MSLSB
 ZZSFP GHNHI RRRAF KVUVV MLDWW TMLVV ZRSFP QDSU ++

BMRD34/27/2/42 1310/27/6890 POLICE
 SQF V DSO C' DSO NR 11 1030 2TLE 1TL 165 SQF

DNOSX HYUPD DDLSO RFKZM KNLTB SCNLF PNXIN UTNAA
 ADOHA MZVGA LAGOI BGXMO FZDBT FVNMN IZFIP GUIZQ
 WVMKF FPYXH NLVLM LSIRM CLLGL UUEZO GELNF LKFPS
 NCSVM OVKZX RIRMS SNZHM SAPNU LZXPB KXWAF ORUIU
 ILCSA ++

2TL 91 0913

DRANR RNXRG CASFU FMYPF PPDAE RMOGV CORDH VNFVX
 NMKSV DTAFX PNMZZ QHKMP HTUEQ TPSYY LOMAT GPHII
 AFSUM NGWZL B ++

BMRE72/27/2/42 1446/27/6645 (POLICE) (31)
 SRS3 V SRS1 SRS2 NR2 1120 2TLE 1TL 183 SRS3

SBWYY CCILC DGAFS PDSAT FBNVM DROLG XOWMY FMAPT
 TUYFY ZZXSX SAOTZ NHEQF MXOAS IIOQF SPMZC BXGHA
 ZUPDD AEGMO EVQYQ GKTVZ ZVLNV APPLP QLZFG MSLZC
 OELQD SNZIZ VMSOG FGGXO PUTUQ KXSWA SCTLC KSMNP
 TAGVL LCVML MBFES COPXS GYO ++

2TL 149 (1450)
 (31B)

LENRA RESCD OMTWV HMCZP POROM VLMRT VRERU VZT..
 MPRLV FMOVR NSVDU FSNXN VORLN BRYPN MXPDD UZOLN
 VSZLO FGNMD HORGX LNOLO GISNF UPZZF KBLKE NTEZU
 FKCOL VLLKS CQKLL KNELC TKVPE XNME ++

German Police Doppelkastenschlüssel Messages

BMRD67/27/2/42 1455/27/6645 POLICE
SRS3 V SRS1 SRS2 NR3 1130 2TLE 1TL 175 - SRS3-

OWQWJ OPOP CVPMP CNHDI HEQQC HFKFE QNLXP MSESQ
DESMO SCMEF PUKTV VITFL NWMSG ZAVGQ LFSQD XNMSM
NAPMS LDMMD DBQOL UFPQO IAFIL CBVZS DZZBX PQYLY
AFSRP PEMSP LDDZG HMQZO IIXKO PCORL ZVMIP ATEKZ
RMSPM ALAPM SQXLV +++

CTN 2/6 ZAVGO 4/6 PCORL ALT 5/2 ALXPM [Editor: This group is
ALAPM or ALXPM]

2TL 163 (1457)

WNSXO EQUMV HLNPC TBMIL VBFSA FSEQX XFELY TCMQV
YFAIR UVORN NAPOR RPPRM SMEIX LGTMO IQZFP IPLKI
RBFIR GUGDW NOSTV NMYLC TMTOM OMIOF GNMEQ MREEI
IWFYY RXCOO RHYLQ VMGOL LCIHE ORRKK NXGSS MSMTC
VKE +++

Editor's note: The available copies are of relatively poor quality therefore some of the letters might have been transcribed wrongly, especially Q and O are difficult to distinguish from each other.

The callsigns for these five messages are for the following stabs and units:

DQH — Berlin
DSO — Kutten (area of Angerburg, East Prussia), KDO. Stab. RFSS
SQF — Mogilev, Reserve Police Battalion 82, HSSUPF Russland Mitte
SRS — Kiev, Police Battalions 45, 303, and 314
SRS1 — Ukraine (Rovno)
SRS2 — Brest-Litovsk
SRS3 — Proskurov

Document source:

NSA Historic Cryptographic Collection:

1. RG457, Box 1386, NR. 4417, GERMAN WWII POLICE AND SS TRAFFIC
 2. RG457, Box 202, NR. 976, STUDY OF GERMAN POLICE TRAFFIC
- US National Archives (NARA), College Park, MD

879.
16. 6. 42.
2/21.

19

BMR Y
VV

O
BMRA115/16/6/42 2151/16/3742 POLICE
DQH V SQF C' SQF NR14 2325 228 ALQ DQH

Z	ARTTN	FMXBW	OIYS ^U	OGILL	YVHPO	HKALE	XSALS	SFITT
D	ESP G	HGCGP	VHTVL	LMCIA	LWTIF	FMR ³ DC	HFDAT	VTDRV
A	SPTVR	VSYSE	FYABL	SCKQU VTORY	ECCZR	EQ ^U OT	TGTOA	VWYAB
	NOMMY	AXBTI	TUVHQ	BIDKO	HVQWU	ZVXYQ	RORAE	XQETV
	GIEOX	KCDDA	DRCLL	NTZHN	BEVRU	XEG ^{DE} OA	EFYVV	PDBZA
	VXRFV	QXSLW	BCWVK	NZKVV	HNUOL	PLI	++	

(C Q R M)
 CTN 1/3 OIYSU ✓ 2/1 EXSPXXX E.DSPG 2/6 FHRSG 2XEXXSEKQX
 3/4 SCKQU 3/6 D EQUOT 5/6 XEDGA

TS 2249 MIC

D14
W/T RED FORM.

Ship or Station.	Set	<u>C1</u>	Date.	<u>16/6</u>	Operator's Remarks
<i>Police 115. A</i>	Opr.	<u>215</u>	Time Ended	<u>21:51</u>	Q. S. A. <i>WAR OFFICE "Y" GROUP</i>
	Tot	<u>DQH</u>	Frequency & System.		
	From	<u>SQF</u>	<u>?742</u>		

All before the Text.

C SQF NR 14 2325 228 ALU - DQH -

Text, Time of Origin, Signature, etc. Write across the page, code and cypher on every third line.

ARTTN	FMXPW	O1YSU	OGILL
YVHPO	HKALE	XSALS	SFITT
EDSPB	HGCCP	VHTVL	LMCIA
LWTIF	FMRSQ	HFOAT	VTORV
SPTVR	VSYSE	FYARL	SCNQU
ECCZR	EQNOT	TGTOA	VWYAR
NOMMY	AXRTI	TUVHQ	BIDKO
HVDWU	ZVXVD	ROPRE	XQCTV

Do not use Left Margin.

G 03556/25. *Constancy and reliability of signals, quality of operating, interference, atmospherics, etc. {Name of Station; if not known leave blank. }G.M.T. to be used on Home and Mediterranean Stations, other users indicate "Zone" Time employed.
 Sta. 1/30.
 Sta. 103/31.

By <i>AM</i>	NARA Date <i>1/1/41</i>
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S.1319.

Est. May, 1925. Revd Nov., 1931

W/T RED FORM.

Ref. No. 4341

Ship or Station.	Set <u>7</u>	Date. <u>16.6.42</u>	Operator's Remarks <u>D</u> <u>U.S.A.</u> <u>2</u>
16 IN 11 5.11.11	Opr. <u>75</u>	Time Ended G.M.T. <u>2149</u>	
	To* <u>POLICE</u>	Frequency & System. <u>3742</u>	

All before
the Text.

SDH de SDF

SDH =
SDF NR 14 2225 228 ALD.

Text, Time of Origin, Signature, etc. Write across the page, code and cypher on every third line.

7/0
[Signature]

AR TTN	KM XBN	OIYCU	OGILL
YHUPO	HKALE	X ^S AYS	SPITT
E D S J G	H G C P	V H T V L	L M C I A
L W T I F	K M J G	H E D A T	V T D R V
S P T V R	V S Y S E	K Y A B L	S C K O U
E C K Z R	E D U O T	T G T O A	V N Y A B
N D A M Y	A X B T i	T U V H D	S I D K O
H V O W U	Z V Y V O	X O V A E	X O E T V

Do not use Left Margin.

03558-25. Construction and reliability of signals, quality of operating, interference, atmospherics, etc. Name of Station, if not known in text.

S.1319.

Authority [Signature]
By [Signature] NARA Date 7/1/42

S.1319.

Est. May, 1925. Revd. Nov., 1931

W/T RED FORM.

Ref No. 4372
Page.....

Ship or Station.	Set	Date.	Operator's Remarks.*
	Opr.	Time Ended G.M.T.	
	To+	Frequency & System.	
	From+		

All before
the Text.

Text, Time of Origin, Signature, etc. Write across the page, code and cypher on every third line.

<u>GI EOX</u>	<u>KCDDA</u>	<u>ORLL</u>	<u>NTZHN</u>
<u>DEVRV</u>	<u>XEDGA</u>	<u>EYVV</u>	<u>PJBJA</u>
<u>VXRPV</u>	<u>DXSLW</u>	<u>BCWVK</u>	<u>NZRVV</u>
<u>ANUOL</u>	<u>PLi</u>	<u>+</u>	

Do not use Left Margin.

G.03556/25 *Constancy and reliability of signals quality of operating, interference, atmospheric, etc. *Name of Station, if not known leave
 Sta. 1/80. blank.
 105/31.
 (5 C) Wt 3377 12-25 13 41 75-000 pads. B & B. 114 51-1277.

S.1319.

A **BMRA61/7/2/42** 1239/7/6645 B POLICE

G.P.D. 620
1

SRS V **SRS1** **SSD** **SRS8 NR 1** **0900** **155** **SRS**
C D E F G H

RFHUE RKYDX ..AXC ISZ.V ..U.. .FK.. LDTEX Y.EWX
K
LNAZL QCTEK QXOTL AUUBV CZGTE UQWK I QEGGN IWFTF
IMZDO VAOUX QIVVM RKFGD OKQHG VCTIM HOKDS FWLMX
OFMUF YWLQL XBWSX PQIRV WQFZF GICVU OMAZG +++

NOTE G

Details of preamble.

Example taken: Message Nr. 1 of G.P.D. 620.

- A. English Intercept Station Serial Number etc.
- B. Frequency on which message was intercepted.
- C. Call-Signs (if intermediary stations via which message was passed. (V = Von)
- D. SSD = "Sehr Sehr dringend" i.e. urgent message.
- E. Call-Sign of sender and serial number for the day (SRS 8 = TSCHERNIGOW).
- F. Time of origin.
- G. Number of letters.
- H. Call-Sign of recipient. (KIEW).
- K. Discriminant group. The discriminant consists of three letters - in this case HUE, which may appear in any order. There are four discriminants each day. This group is of course omitted in writing out the message for decoding. Note that subsequently (as in G.P.D. 757) the discriminant group is taken out of the message and placed in the preamble.

24.8.42 Nr. 4
Rufzeichen LYD.

5.9.42, DTD1.
DRD 2.
"I.A" Knaup LYK 5

Jan. of 7/10/42.

Authority WD 903016
By CC NARA Date 10/05/05

G. P. D. 665.

BMR043/28/2/43 0827/28/6645 POLICE

1.

SRS V SRS1 XXXXXX C' SRS1 NR4 0530 2TLE 1TL 143 SRS

SRXOS ZMOLP CSMEQ SXISF SEIQW QMRKV ILTXV VMETC

SSMNL GAFGL VHGWA LLMSO GWMUV YGGUM SEZVY FKVYF

TEILZ WFYZI DFSKI CWLAG YQDMR OIBXB KLSOR BNNME ~~SXRS~~

QARGH GXORN XKZIT KYCZH IMN ++

2TL SWAMPED QRM

SECRET

G. P. D. 665

BMR033/27/2/42 0941/27/6890 POLICE

2.

SRS1 V DOH C' REPLIN NR 4 1015 79 SRS9

KFWOJ PXSXH IHVGD OLIXA DYZZT RFRLO XPLPN MSLSB

ZZSEF GHNHI RRRAF KVUVV MLDWW TMLVV ZRSFP QDSU ++

Authority AWD 903016
By CC NARA Date 10/26/05

BMRD 34/27/2/42 1310/27/6890 POLICE G.P.D. 665
3.

SQF V DSO C' DSO NR 11 1030 2TLE 1TL 165 SQF

DNOSX HYUPD DDLSO RFKZM KNLTB SCNLF PNKIN UTNAA

ADOHA ^mNZVGA LAGOI BGXMO FZDBT FVNMN IZFIP GUIZO

WVMKE FPYXH NLVLM LSIRM CLLGL UUEZO GELNF LKFPS

NCSVM OVKZX RIRMS SNZHM SAPNU LZXPB KXWAF ORUIU

ILCSA ++

~~OPM 2/2 NZVGA~~

2TL 91 0913

SECRET

^RDFANR RNXRG CASFU FMYPF PPDAE RMOGV CORDH VNFVX

NMKSU DTAFX PNMZZ ^mQHKMP HTUEO TPSYY LOMAT GPHII

AFSUIW NGWZL B ++

Authority NWD 903016
By CC NARA Date 10/26/05

BMRE72/27/2/42 1446/27/6645 (POLICE) (31)

G.P.D. 665
H.

SRS3 V SRS1 SRS2 NR2 1120 2TLE 1TL 183 SRS3

<u>SBWYY</u>	CCILC	DGAFS	PDSAT	FBNVM	DROLG	XOWMY	FNAPT
TUYFY	ZZXSY	SAOTZ	NHEQF	MXOAS	110QF	SPMZC	BXGHA
ZIIPDD	AEGMO	EVQYQ	GKTVZ	ZVLNV	APPLP	QLZFG	MSLZC
OELQD	SNZIZ	VMSOG	FGGXO	PITUQ	KXSWA	SCTLC	KSMN P
TAGVL	LCVML	MBFES	COPXS	GYO	++		

2TL 149 (1450)

SECRET

(31B)

<u>LENRA</u>	RESCD	OMTWV	HMCZP	POROH	VL MRT	VRERU	VZT..
MPRLV	FMOVR	NSVDU	FSNXN	VORLN	BRYPN	MXPDD	UZOLN
VSZLO	FGNMD	HORGX	LNOLO	GISNF	UPZZF	KBLKE	NTEZU
FKCOL	VLLKS	COKLL	KNELC	TKVPE	XNNE	++	

Authority NWD 903016
By CC NARA Date 10/06/05

BMRD67/27/2/42 1455/27/6645 P O L I C E

G.P.D. 665
5.

SRS3 V SRS1 SPS2 NR3 1130 2TLF 1TL 175 - SRS3-

OWOWJ OPORP CVPMP CNHDI HEQOC HFKFE QNLXP MSESQ

DESMO SCMEF PUKTV VITFL NWMSG ZAVGO LFSOD XNMSH

NAPMS LDMMD DR00L UFPQO IAFIL CBVZS DZZRX POPLY

AFSRP PEMSP LDDZG HMOZO IIXKO PCORL ZVMIP ATEKZ

RMSPM ALXPM SQXLV +++

CTN 2/6 ZAVGO

4/6 RRRX PCORL

ALT 5/2 ALXPM

2TL 163 (1457)

SECRET

9

WNSXO EQUMV HLNPC TBMIL VBFSA FSEQX XFELY TCMQV

YFAIR UVORN NAPOR RPPRM SMEIX LGTMO IQZFP IPLKI

RRFIR GUGDW NOSTV NMYLC TMTOM OHIOF GNMEQ MREEI

IWFYY RXCOO RHYLO VMGOL LCIHE ORRKK NXGSS NSHTC

VKE +++