

WAR DEPARTMENT
OFFICE OF THE CHIEF SIGNAL OFFICER
WASHINGTON

September 18, 1937

MEMORANDUM FOR: Mr. David A. Salmon, Chief of Communications and
Records Division, Department of State.

Pursuant to your informal request I have just completed the study of the degree of cryptographic security afforded by the cipher machine known as the Codatype which has been installed in your division by the International Business Machines Corporation for test and determination as to possible usefulness in State Department communications. The following is a summary report of the results of that study and of the conclusions reached therein:

1. It was agreed between us as a preliminary that it is fair to assume that, in actual service, practical considerations would require that a set of plug-board connections remain the same for a whole day's traffic and that only the two-dial settings controlling the initial point of entry of the three commutators and the initial point of entry of the 12-disc program device assembly be changed from message to message within the day's traffic.

2. In this case an enemy cryptanalytic staff would not know the wiring of the commutators, the positions of the pins on the program device, or the settings of the keying dials. Nevertheless, it can be stated that one day's traffic, if it consisted of say 40 - 50 messages, can be solved, although this solution might require one or two weeks by a well organized cryptanalytic staff. Its purpose would be not so much to learn the contents of these messages as to reconstruct the cam positions on the discs of program device and wiring of the commutators.

3. When the latter data have been obtained, the analysis of messages of any subsequent day's traffic would be particularly easy and could probably be accomplished within 6 - 8 hours. The purpose of this analysis would be merely to eliminate the effects of the daily change in plug-board connections. (The various dial settings are of no particular consequence in this machine.)

4. When the latter effects have been ascertained, individual messages can be read rapidly, though of course not nearly as rapidly as the machine can decipher them.

5. Based upon the foregoing premises, only 12 messages, all enciphered by the same plug-board arrangement but with different dial

settings, were requested for study. It was thought that possibly the cam positions on the program device and the wirings of the commutators were the same as had been found from a previous study of the machine, before the addition of the plug-board. Had this been true, the subsequent study would have required less time, but it was soon noted that at least the cam positions had been changed, if not the wirings of the commutators. Upon request, and in order to conform with the assumptions set forth in Par. 1 above, the cipher equivalents of 9,000 consecutive A's were furnished and from this text the effective cam positions were readily reconstructed. It also developed that the commutator wirings were unchanged and that the internal period for the checking circuit, namely 180 letters, coincided with the external check shown at the end of every 4th line. This indicated that the program device made a complete revolution in 180 letters, whereas before this period was 360.

6. Having the cam positions and the commutator wirings, only one of the 12 messages was selected for detailed study. This was the longest in the set, namely "No. 1130 from Paris August 9, Section One." It contains 9 periods of 180 letters. Applying the principles of solution devised to meet the situation, the plain-text of the first period was recovered and is attached hereto. In this process, some time was lost because of unfamiliarity with necessary procedure. This is always to be expected of an initial solution, but it can now be stated definitely that a second trial would undoubtedly yield solution of such a first period within the time indicated in Par. 2 above. This is hardly sufficient for confidential or secret messages.

7. The following conclusions seem warranted:

a. As regards its mechanico-electrical functioning, the machine appears to be highly reliable, speedy, and efficient.

b. The degree of cryptographic security afforded by the machine is relatively low, and certainly not sufficient for governmental confidential or secret messages.

c. The cryptographic principle upon which this machine is based is quite weak. In a final analysis it consists of but three primary mixed, reciprocal sequences. It is true that these sequences are brought into play in an irregular manner for an irregular number of sequent letters, and that the complete period is 19,000 letters. But this period is a resultant period; it is relatively very short compared as cryptographic periods go; and even then it is composed of but 18 different types of primary periods of only 180 letters each. The fact that there are two dial settings for each message, one with 25 different positions and the other with 50, is of no serious consequence from a cryptanalytic viewpoint.

d. It is doubtful whether anything can be done to eliminate the more or less fatal cryptographic weakness of this model and still retain a machine and cryptographic system which will be practical for the purpose for which intended.

William F. Friedman,
Principal Cryptanalyst.

ERYJERHPYRDYXGUDXBGVJJOJKGARLF	A
111222222223333322222111113333	1
AAABCCOCCDEEEFFFGHHIIJJJKKLLMM	2
REFERENCE-EMBASSYS-ELEVEN-FOUR	

KFFOBIGDAZLCTLMWMOUYRHVQXJVWUW	A
3222223333111112222211111111	1
MNNNOOOPP PRRRSSSTTUUVVWXXXY	2
TEEN-AUGUST-FOUR-EIGHT-PM-THE	

LTMPVDNIOPNYAZYAZYZEXGPGWKOLID	A
13333311111333333333222221111	1
YYYZZZZZZZZZAAAAAABBCCOCCOCCDDDD	2
FOLLOWING-IS-AN-ANALYSIS-OF-TH	

CRGZDACTFMZVGXODATFAZNIQGOKEYM	A
1222223333222222222222111113333	1
DEEEEEFFFFFGGGGHHHHIIJJKKKKKKKL	2
E-FRENCH-OFFER-OF-AUGUST-THIRD	

HDKBTXJFWBZFSPEHXMHFAPJEBEKKEP	A
3222222222233333111112222221111	1
LLLMNNNOOOPP PRRSSSTTTTTTTT	2
-PREPARED-BY-THE-ACTING-COMMER	

JB TNZTHHYWTATEZTMCPSKQLPRVWZAY	A
1333331111111111333332222221111	1
UUUUUUUVVVVVVVWWWWWWWXXXXXYZZZ	2
CIAL-ATTACHE-AT-MY-REQUEST-PAR	

A 0 1 2 3 4 5 6 7 8 9 10

(14)

6 pencils

NO. 1130 FROM PARIS AUGUST 9 SECTION TWO.

38 NVOVU CEDNV NKIWI VUXSE LLAOD RDJDB SMXOR WJJQH WLPHO
 39 PSKPU BNIHE WOAIM XFPKG ZBZGB NRNTG MROTO ATAMM TYRGP
 40 VLTCE XRPKI OAORZ FYBRN FWFSY JRLLS DCGYM UGTAI HFUAO
 41 HVOJX KDI TN HXRHG FDGYU TUSFP VPLHL NRVUP RELPE HCUKE.
 42 ³³ SFEJO GDCIN ZQWZR APCDM UOBIL XBEMI RDAEF GUFSSZ JKTFSS
 43 JVXSV ZEXDK ZPXVT HKVKW ISBCN MUPNU LZXHH CDMTX DIVMU
 44 GKLWF LTFUD PZYNI MABST SINCL GFRZL QCSME JKLOU AIBDZ
 45 ZDMGO LWNOE PABVX FUBVF UBDGR KZPV⁶⁵ BDTFW PIUUX ERWOG.
 46 - BZKWY CWHZH DOCVJ OKBKW GCLJF ZRFAH ARKFS WOU EG YGTZN
 47 DZUNJ BFKOI HCIZB NDTAR VTMHR LHTVZ BLZGW NSXOL XVWGJ
 48 SDZVC VBKFG DWLOF JTRWR FLIYF SOBZF YGVLJ JRZIG LEZIK
 49 PJAHL ASMAO PKOJD FRNWZ YCFKM FRCOB XTWFV IIPVE HYHZL.
 50 HBVIC LND OY ZWGVU LWKTR GJERO GIVSY JLAJW ZLSGG OXENL
 51 JXDSF OKSPE HCDTJ TGGIE VLXLL ZZPVH TRRTZ EMXAP VLMYD
 52 CAECT SNBXA PCKZB SATHS WDMWR JKTLO XWDRD CPCNY MZFGT
 53 ³⁴ SHXZJ GYCLR PULXO LZGVZ IRPCD FMLHS TIMMO OBABR TMEIH.
 54 UDUOK XSXLU ZEOLT KPJMG WMVSJ WDEWI WXDEF RBYPK DBQXD
 55 OUXDG EUGCP FPFUD ⁶² OVBDC FWPCA CUDWA GPEEC XTFKL ZRJTJ
 56 ONCYZ EXLTK DAYPV NCCMK PMTOR YLENK JVDUS MLYJT LTUMR
 57 PNUOH WHITN CBRHP AHS AW RUF CZ JIIUP MDJFX RIJZM NLJHA.
 58 KJBWW CXIDJ ONCRW NCRDJ NUYNW RRGXD AHOMO LOBGZ OGESA
 59 XOXFS WFRLT YCHBB RXGRL VTEHD BKOAB SUZUW DTBDS XQLXH
 60 YOWKE MSPAH XDLBR UBR RJ

(12)

10 p. 10/10

NO. 1130 FROM PARIS AUGUST 9, SECTION FOUR.

61 GVENO SWSYF SLWMC NVMLG LBAZP IHPLY FPCZI KJYML SBSRO
 62 ISDRV XWJJY TZXCZ MLHWV NZBAG SVDFFA SIOVD BMCAH MKXWF
 63 GHOUV OWVMO VHRBW EXJUP JSUVG CKGJS ZJVLM GAYNA IXMMT
 64 IAJNG SLPRL YBAZP SGSUG IVNTD FWXBF YCVJI DFZRD FHPON.
 65 XVNYE AFWAB TZBWW EUCLM PTEGZ AYVJP VLGXJ MXOPO UHWUG
 66 WRDIL HEWFO ATZBN BNYJF WLTCG UGFND DMJLW KAZKL ATDLH
 67 QEYZB SMZFK GLNRI NLGIO CKLTZ QOBLR VXGFW BVJZC TPPAH
 68 KPYAH VANUM VRDJW HLILI DNDFG CKHEG EPPGY YYWBZ RDFGE.
 69 - VAEMI GRVIU TWJNU AEFIL SHTSM BPLRV JZDJG VYBWO XKNXC
 70 SUXNA KCRAF NHMDC VDXBO HTRIM XBTVB YONYO YFGEH YHTXO
 71 FGPNE FLYFF CFXKS FVTHK LESDZ JFEFX SATNK WLOIT OGLZW
 72 KTOHT OVRBD ZWJXT XCIZY IDZMO GVYGI HCGWU TDJBU DKEIG.
 73 HAIYS TGIUT RBHSR WONGZ CDKLU ORYXR LNZOX ETTGD ERSDA
 74 HYBWR WHJTH WEPAB YUVNJ HYOWL ZFAZA IBFYT MYAQZ JGJKA
 75 USEVJ ZFVMP SMXMN ECQPG MGCNE ZMWZK ELHJT BSNOZ DYPCB
 76 AIOKN ACVBD JWDES RWWAF SFROZ KFHTR FKNEG XGNMH JBSIG.
 77 - SIOLG SMTDR MDXXM IUTLH KAJSZ BRHHP NIUHM MPUKM AZIRV
 78 WVCMR SCYUH XJIZI FLRVT FIADX FVITN TEIAG NNPGW GOEDB
 79 DBLLF IZBSM BVREY ORNLG JPMON FZFKT AWESP ZJGJB LGCVS
 80 TBSPT ZCULG PZNOR WXJWH GYBFS JXEGJ FRGPN FHTWH CTXGT.
 81 MSDLK ZCGJZ RPHRU XSFT JYLUH TDELN NURVR WDJTF WJYRA
 82 IWPAH WDWMD UHXBY VZVRT YMHKM PCIXH BTDBI GMIIX HSYVM
 83 NJNKC JBINZ SDFCP MYFKS PYEPJ ECZLC PZBYT EPXZC OGBAZ
 84 FDIYD IYZOP JFSZM PGDMG BPZYH FYUVZ OZZYE FGDZR NJVOH.

① 85 HXWWN SZZTH URSJU FLXGD IUNDZ WDLMX RVOOH TJYGG EFSBA
 86 NWZNH CTYLC YDBZB MIIER VYSLG⁷ UGT¹³XG TMOAF KBGCK GRMKQ
 87 FBZLR YNVOM BGAHL NBDCE FPGHI CXGKY TVYDE FWIWF MIPLR
 88 GDPZY TGZKN RVAGK OMKDE CLJAL ZTOCM WDJZG IFZRD GOSIN.
 89 GBHFS AIAXU NTKSB MHNSB JIGFM KOTOP JWGJF OXAPY WTNJG
 90 IXSFO LSYRF MGJDG OBFRE IECJW GLSBG ABGJG BVYYV JHSBC
 91 ZNTNO SQESK SXORX AOCRM RVHED MMTZT YJRTF CNODT RCCJP
 92 TLKYH LULIB OGVWJ VNAAAY XNDTK CSRCH FHMF B DNONZ HGOZR.
 ① 93 MSRNE ESALH ZZIRA GKASI FNSCO YPPXB CJMVJ LXNPJ OBPJV
 94 PDAPA PMTIZ DSSTJ WZLDW FCGEU KNZTB PALIW JFIHG XUWNU
 95 FAFZP JOTBI DBXSD BBYFU CDXLD CMRYW CSREO PQXEM SCCTV
 96 BNVRK VZPAX ONXMN GJGIW MPIWL VZCLS YAFUG ZGEVF IJPOM.
 97 NHZWL CBKTY PJYYC LDCBE LBCTI BCIZH IWTWM BGUKM VBRDY
 98 MAHCD RERYX OAZOT BTNOW RXJUK GDWYA WAETS UTLUH MNWOP
 99 IWITZ PBXBS CDPNP HWNOL PEV FY JJHTX DUVVX

NO. 387 TO PARIS JULY 29.

⁵ UOEDC ¹⁰ AKMWA ¹⁵ ZMARS ²⁰ RHWBF ²⁵ AIHEK ³⁰ WRFLN ³⁵ LXTOZ ⁴⁰ OHVWI ⁴⁵ SGVBH
 BKKBE THBIW UFBUI RDXNH UKYWN XZSOY ZOVXS BVMVP VCGMG⁹⁰
 IZYAE UKDFF NSVTR ECNLF YIERN ATOLA¹²⁰ JMEHF¹²⁵ XHJXK¹³⁰ CHTTB¹³⁵
 DZGWH ETXAB GVKHJ ZKWMI VFZOV RCCZX SHHCT KAUTY OVITE.
 LKJVC PBWOO HWERE IUYHR XEWIN XRWBI FMUNA KBRWF TUPED
 SVCDJ EYZCG ZNBUO DTVMP GDXOA SPYWC LKDXI OSYKG KSMUY
 JRGJK GSPFEW EYVJV KADUT TOEYO MATEC OEVUH TECGT ZXASB
 FMBLW CUFUI WBXVI JNFIR UYUKO LBEEG HGWKI SZHXX ZZAUT.
 SLIPP SSHZR NNDLL NDPHK PNBOV FEWMR DUTLU WMBZS VXXWD
 ZZXYB NCDKN HURSO GVJHP ZNSDJ IKHAM WULZN BTAXP TLSVA
 LWHVJ KXREK NSNCW RASYA WHIZN DSYZT RFLZX LJMGV UACVA
 IFWGM WTYRL SAPBM AWHSF JSUNR SWPCO

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TO THE AMERICAN CONSUL PARIS JULY 29, 6 P.M.

UOECT EWRMH BDXMK RDZYC PBNYT UDRVM EVRAA GXMHR HVIUU
YFOTE AIREP NKEUT HMTIS FFKXM YHTRE WIBPA KHZGE GFBL5
JNFKH BKHVH BRGJH UAXBG FCYWF GNDKY RTOWB JXTMG LCUVF
UHGBW SXPUR PRWJH UJCHN DLXXG UYNJV LBGSY MHZCO WDOPK.
KJORJ XYKAX KDOFI MLKML NUOSK PPYVG DDYSO CCHXW AYHUI
DVZBN TFXKS FJNLO TXBII UTEMZ DGTWX VBBOT CASOV IVGXY
NPIZT ERGLP STKNX JLUYK XTLLD ZWOLN QRHJE YNYXD VYRBO
MPOUZ GBFCL FTXBC BMHPL FBZSN FZNEH DTVGM KDDIJ HREWT.
KXDUO ADRW VECDC NGDWO WYAXV VLAEV KMMPF OYCKA ICRDJ
KDZZE PFVEC EBTZR YWVJC DDJKL NUDAR WOMMK VBTZI MSGZW
PRKLS SVUEE WCNFV CYDFE VFSAC GDSVS NFECK JABLH AADSK
EJFMF ZTHYX MVWXD XVTIG CHHME TFXNC HTYZD VJWKF BSZEZ.
XORCK ILPYF LFWVH HDMHU ISZGG TTNSL NWCJG RSKNU JNBBH
UTAIH DZXKN UEAMH EVESG JXAPR JHJLG VYLPW WBCLP AVPAE
STSKH GFWGF ELHFZ VFGWF YJGBO RHGTU OGHZU OWSUT BCIAW
HNBSR YJIUL HRXPW DPCTN JYIMO SCIWP LKNVH MTZLY ZCKUT.
FYGPO APKDN CAMBL JVHFJ MCPXU LRVGC JSTJU CJYUX YAWGW
YUOMM WRZIQ JSBFC UDBLF LUDTD GZCNJ DSEWJ UOJIZ KWMKS
KDDGF FRMOD JPHDK ERJVA VICTD FBTOT EMRYV

3

NO. 394 TO PARIS JULY 30

UBYSP OZWEU DAIR LIDKW GBXRP EIAZN CRWWH RGOAR WIZLN
EIZKL AFFYW FRXEX DVWAH SACNV DZXHG YLHOM YJKYZ DRBMU
FWWOO NXXNR GMOPJ VOWXU LFPGC WFAVF FMVVK LPKCC RKRNA
PWDEH PBHYD JVERM ATZYN IWJHE WFKTC UBENT GUKKU KAONR.
SHUHJ FGSZJ DEJCF RKPCK GBSLU JIEYB GESFL WDGND GJIVI
FVMMS GSTSM BCTHJ KXDWS BFEKX BICGI ZGABO LLMHO DZHUI
LKZWO VCCEC TAXGL NOMEI VLULG KEJGC ORILV NWBCY SNZDN
GWXZY NFJOK ZMMUB IYAZD OKNPP ULIPA WNCEV TTSXV VSAGM.
HYNNL GYTZB JTVSM ZFCRJ PJNOE KGFMY IHSPA RJMGB GGLFS
WRSDY ABYOF TTAMT HEWBH FWWBY RBNEV XJXDS ZNIWV MNWDD
KLZWS BMIWR OXKRG DIYHI MOPTC MZROX MPOBX MMPTL PKRWN
AVRNR ORJCA MFRYU NGIEL KFOSU FTCDT AGJSC KCFBW UYSPM.
FALZH VUBXO YZZGM RWTMR AALLB PVFRK GOCMW AGZWP BHILH
SLMEA ZPNJK DTHJJ PJHKP EYCDI JVWXR HEOHR LPLSZ LXFHX
DTHM JVFFT ESSXT KREIX OBWLF TAEZF HVNXV FJBNZ EWBFY
CFXFW YBTKY HVGCP RBGAT OUPNL HEJCN NTGXZ PAXLK INXBL.
UFYUI OGMCU TGRMO



NO. 397 TO PARIS AUGUST 2

FKXVF OGRAL VAVFY NESVF SWEE0 LEXBH EOZRF XXPCE LYGCO
GTWRM CLLFJ HFWJE GOKME FHFTY LSNDE UZSEJ NJBGN TPHYU
SICND BNJYU ARMKR IUNMP BKBLM DZSCM EXHNN CYHRJ DVGDC
TCJCL BFWCF KACGI SYWGH SFCIZ LJRKJ IWPWG JYVFR JGYXR.
JVTSR DVOFC NKVYN NJIUG MAXSD IOBXF PCEYA GIPOD MDMZW
FXKGT VOJNR VEVYR MGVIL FJAPW GICWD XGDTH EYRVD WRASK
BFXEU DNUVF ZAUBT LKBFW DIFUK SVOSL CUVXM ASXRC CWUSO
GMEVL MOOHS ENZVP AXVDK XWADP HROOM PLIJD EWRRN CCDCD.
ZKEYM VGMGY BGAZD TZMRB NPSPG CPTMS GUKRW KXXAT BFJTG
LPDPF KKERO LTYSA LBEHK MWGJF UHJCD PPUNT ZMVGU CLNME
XTZND IAABT CNRWV DLRMS VHKIU EFRON KYWDO ZNRCK OPRAX
NATJB JZENM IMCOK XMGMC GBPLR OCRVE MJKDJ TANWZ FCTHY.
KZSKY VFDOT ZHZOI FSM SH KNHOP ZLZUK TUJVR WBWRJ VPAAL
PNAJU HSKOX SXGNB GOYEH MCKZT IRDNB GFIGB ZZGOT AHATR
AYINC DYSKV PAGNS WKNYZ VMLNI GFWKD LXFYL ZLGGZ EOVJL
FCXGO IHXVW PAMBE LUHPT BZBZK LIKNJ PUYAG EWURN YHWOJ.
DEMAP OUWIV WKOBT CUAKM NWTID HGAUX FSRGA XVLVS EMZWK
GOMGX BXLRR WGKAZ AFNHZ YXSFO LPGER OTKTX MMCPS MGHFO
YEUMF DXHSI IURJA HASZU LLBSX OTBNY ASVFA XWNAC WNHMC
IUKWL CSSKB HUKMD SEWMG WOXPB JPASS RBDWR IMLAB JPFTY.
TZIHR CENEX DDVRF JYRFX



NO. 40I TO PARIS AUGUST 2.

LADPX FPTTW UXTPY BGTAG IBYVG OCLTI NLEGV NIEWE KKFRU
IUFpz ERKZF YIYYT PSGOK ZJFBR BSVEF IZFGY GVWZW TIOFN
NUWDK EYMTI GRNAE YHROC BRJOU AOSUU EGPVB GFCBB ZCLYD
DWZYF KTEIJ YOAVC VTMEP XADGG HFBMY AZTYA WKIOH MRNOF.
CTXCT LFPGP MZJLF HOKEH PWCOA ELCAY HCVLL MZSGU RNFRE
GMABH DTBZA UMUWI ZAKAL MZNTA CXDPM KXXMG ZDPLY LUCMZ
DKBKW FRCAM IJCES DJPOR SZRTH KXTJV CGKAY IWTLP AYBBT
KFGWZ KOSCK XONOF USCAX LJHAL GCKXT DZNET WXIRH PIXPJ.
FCYKL XGTJG JWKYA SRJTE JXSWP SYSID YZLNW SKXRW CWBAC
INDOY RKAJS JSKTT

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NO. 405 TO PARIS AUGUST 3.

GZJUP CLBOY AOVGI PBHRA NDEVI ABSRT BRPVS FUNWK FOYMT
XPRJR HATUG DCSP0 TCVJG KOAIP LXNUL HIBRO WCWPJ FJGYM
LJV DV VKRNA JOE ZT FJVNB LEJUB NYZML NEXUY FKYIO LUFZU
YFILZ FCUDJ LBNGB PLYSA ZULGI OVVG F PYKZP HSDMG PKLAS.
WMXUB RGJWG OWRUA JDFMO UZLJV DRACZ ABBVK KJFNB CJFEM
ZOCZD LOMAI UZGIT JEOVG HMPAT EKTMO VMVRB KNWVJ RMLDL
IOYAY HHUJY VZWPG YBTLG CAYNT ZIDOS HSRJS TWYFA MEXNO
HEFAS UGYAH DWHJW RORBT NKVHE VWXPY HGAUI KNPVC RIPAM.
GWIPS RUWJA HDCND LUXBW YATYX GUFXH FNMMG BMUBM HPKSV
MBZMH VUSHJ LWKTA BDEMW RTWOV JACUE XYDCX AUXRL MJJIW
FGRLP DYDAS YMUCP YCYLI ZSVDI GYNBH KOWTE VWGRV AUOSG

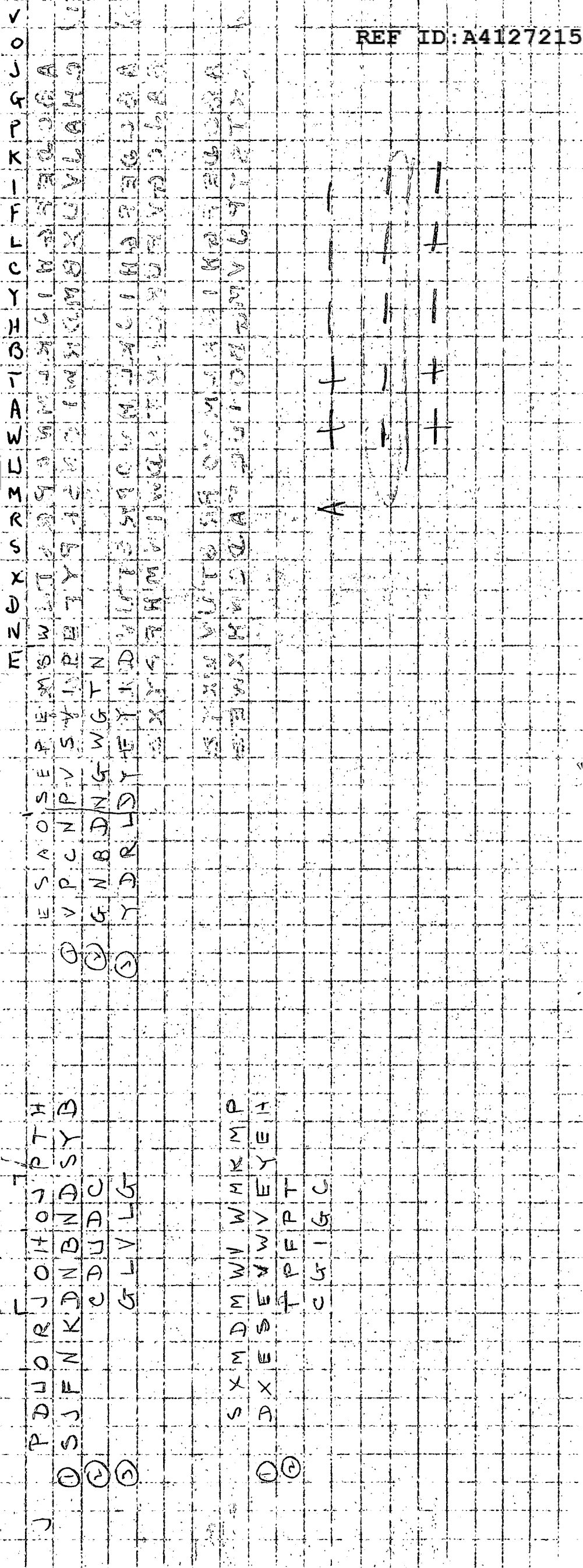
7

NO. 412 TO PARIS AUGUST 5

SFBXA TFDZY KWIGG KYAFA RVSWS HEMUN SJSES UWCCI MRWEG
FZBGV RHPIS XZWCK LKXZI PASFG RNTIU GUZLZ MLLVU LSKTV
EJFVR LNWPD WBLMT NWNVA HCNDZ KXDBS KCRYI TFKUI XRGMC
JYUJR LHLVA ZYNJS TMYWW EDWZF WXLHC SPRLU HEECD CALYR.
BFQGV MYUOD AOHML EUNKI BTOHU XZDPI PARLF CIFLR IHVPI
IKMUL UOSHE PHKEM OIZKU MBVUW HZNVW GCDCW EOLPC LHGJL
VOAEH TFKSJ ZESPJ YBAYR NTQAT OOWXF HYAIA RELMI NVINT
CAKDV PERZT ZDXSL NAJXE WDIMZ SEQFH PZNNY GCVHN CPFUR.
HIDKF JNPET OIOAO CVFXV APAKJ STOYV LIIJH NZHNS HBRBJ
HKXLA OCJLG KWIDG CYAVD YCHIK BJIAE USLAY CYCWV KSTDA
XZYRE FRGIC VBSTI HKYVN HDHCY TVISH UOWOP SVXMS RVSGU
ASCIH BETZN OLCHE YZEAM COEWT UATRY JEKHD XTMAK FMGSX.
UNNSW TTKLT UFZUD ACEUK WGVKM HNDDBR OBBBS

NO. 424 TO PARIS AUGUST II.

CRUAL DCDDT OEDSZ AYTBH KYZTN VBTZS AKMIU UTOOF AMYCK
 EMMIZ GPMDP ZDFXV UONAL RUFKO AFCSY AZNWF LCZDS WPJKR
 UFRFL IADNZ PPMHA HWPFW WHUCH ECKUE NKWGR MUCAE BITMD
 GMLRU FWMVE BUOLX VLZNE TNKEJ MHGPR YNOKR CCJLG HELBU.
 BMLPJ YDBSZ GABJK GRXNP DHWUY YJFKU CHYUS CXMFP VNOOW
 ZDZNH AAMUW GKPYR LSOFV DXOXN SNIYD KIBAH DKJAY IWLEY
 UTFJN GSBNA RAZGT FGFYE IHLUJ CHKFW ESGFR SWFNW FJDMN
 JZBYW GYEED ZNVDN VRYNV XTHOY RKJGU WJVGV CUWXN CKLIP.
 RSMDK VRLOY TJNXI VHFHO UMJZF CUDDZ UIFWJ CZEEN KKAXL
 KZVXA GYDTR GGDMW WPAWN AAHGB JUWJX ORNSN FKRYN MYRWF
 XJVAY VBHKB NSTFP NYCUA NNUBW MCWVH IUXKV EIGDC FNLRE
 IURWH OMDPH KVCWX KPOAT POPFX KZNZB EOTKM FHKBL GTBKP.
 LKFJC ZZJMU AYDYV BNIVF PSYUV CNRNI FGYPX RUNBV SUONI
 MCXHY HOPCW AEMBF KRLNZ JTEHK POGSN HXREF BKKWW



J P D U O R J O H O N P T H
① S J F N K D N B N D S Y B
② C D U D C
③ G L V L G

S X M D M W V W H K M P
① D X E S E V W V E Y E H
② T P P P T
C G I G C

E S A O S E P E M S W L T I
V P C N P V S Y I N P E T Y Q
② G N B D N G W G T N
③ Y D R L D Y E Y K D V U T E S Y Q

S Y X H M V I W D P T M A C I H A F E G J A A
S Y X H M V I W D P T M A C I H A F E G J A A
S Y X H M V I W D P T M A C I H A F E G J A A

A + + + + +
H + + + + +

Communication Operations

1) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
C H A J V U X B M D R W I O N S K P Y F E L G T Z

2) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
B A J O G V E U R C L K T S D W I N M H F A T X Z

3) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
R K T S T P J V M G B O I U L F A D C N H X W E Z

Alphabet REF ID: A4127215

ORSE YD

~~L D Y E B O A G H K R F X C N H Z V T J W P M I S~~

Answer 1150

L C Y H B T A W U M R S X D N E Z V O J G P K I F

- Old table

A 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 A

before

B 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 B

S.D.

C 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 C

Test

D 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 D

E 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 E

F 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 F

G 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 G

H 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 H

I 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 I

J 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 J

K 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 K

L 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 L

M 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 M

L C Y H B T A W U M R S X D N E Z V O J G P K I F

N 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 N

O 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 O

P 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 P

R 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 R

S 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 S

T 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 T

U 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 U

V 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 V

W 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 W

X 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 X

Y 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 Y

Z 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 Z

L C Y H B T A W U M R S X D N E Z V O J G P K I F

Alphabet 2

REF ID: A4127215

K B J U Y M T X H C A L S W F R E D Z O G I V P N

A 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 A

B 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 B

C 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 C

D 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 D

E 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 E

F 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 F

G 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 G

H 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 H

I 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 I

J 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 J

K 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 K

L 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 L

M 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 M

K B J U Y M T X H C A L S W F R E D Z O G I V P N

N 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 N

O 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 O

P 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 P

R 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 R

S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 S

T 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 T

U 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 U

V 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 V

W 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 W

X 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 X

Y 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 Y

Z 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 Z

K B J U Y M T X H C A L S W F R E D Z O G I V P N

Alphabet 2

C R V Y N F K B P U E H A T J S O X I Z M W L D G
 A 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 A
 B 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 B
 C 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 C
 D 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 D
 E 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 E
 F 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 F
 G 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 G
 H 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 H
 I 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 I
 J 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 J
 K 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 K
 L 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 L
 M 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 M
 C R V Y N F K B P U E H A T J S O X I Z M W L D G
 N 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 N
 O 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 O
 P 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 P
 R 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 R
 S 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 S
 T 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 T
 U 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 U
 V 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 V
 W 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 W
 X 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 X
 Y 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 Y
 Z 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 0 1 2 3 4 5 6 Z
 C R V Y N F K B P U E H A T J S O X I Z M W L D G

1 2 3 2 1 3 2 3 1

*Wheel No 1
Block No 1
Alpha 21*

BHBVP	MRWAA	ZCBAX	VFVCS	FNEFU	ZWAYT	NXSHU	ZFBHV	XPVDN
IFISU	PPLY	QUATH	DUANT	TODMA	YREMERGER	TANDY	QUMAY	
YCVTW	FCLWY	JKAZT	HIEGF	UZBDF	YBMOS	YBAZC	EWTXO	CRJUX
NOTPE	R110DB	UT1F1	CANMA	KEYOU	THINK	ATHOU	GHTFO	RYOUR
YULSW	FRVEN	SLKTB	PMTXT	FXHCN	JACAM	YJXII	LERTX	VBRE
SELFIC	QMMMA	HAVE	NORED	ADDED	TOYOU	RSTAT	UREPE	R10D

MESSAGE NO. 2

Wheel 1123
at start of ph
Block No 3

12321323

CHZLK VKRWY JXJZR UPTIA AMGDY VSSYO GVBUN BUEZT HFTCA
 ① THE AMERICAN PEOPLE COMMA IN COMMON WITH OTHER PEOPLE
 BBIRF XAYCW XRMGG RZEYA PTNNO SZNCS TGKRB GEZMA DHKGJ
 SO FTH EWORK DCOMM AHAVE COMMIA DURING THE ASTIN ELVEM
 IKLGM EZSSD EMORG WRJAL XWESJ FNZDL FNGRT RANKB JPZUN
 ONTHS COMMA COMET OADR WINDY REALIZ ATION OF THE NECES
 NISFY NYPGF YMIAR KJPSL TWYNM OURRM TJCAE GMHUZ EVIWU
 SITYF DRINT ERNBT IONAL ECONO MICCO OPERA TIONA STHEB
 WDNAJ GEIXK RRWZR UZMVR EIDPG PJNYR JNKFJ LGX
 ESTGU ARANT EEOFP ROSPE RITYA NDPEN CPER 103

MESSAGE NO. 1

- ALPH 1 - Black
- " 2 - Red
- " 3 - Green

Alpha 18
Wheel 2 at start but going into #3
Block #6

Wheel #1

Wheel #3

ORMIS	GBNCH	FLDIX	EODCW	VPADY	NLXIB	JMHIR	SEJDX	FVEAS
ANEXE	CUTIV	WOFAN	EWENG	LANDM	ANUYA	CTURI	NGCOM	PANIC
3	2	5	3	2	5	4	3	4
3	2	5	3	2	5	4	3	4

Wheel #2

GWING	JIBUZ	TRSWA	VXJCP	HEXBW	GZFUM	XJLRB	ANZNE	KAEAS
QIMM	NCHEC	KINIC						
3	3	5						

BFWES EWXWS ODHCK ELKMH SKLZS TGWDL KLGCL SUDKD BNJCS

SWCCY SUDTV NFMBK SDRZN KBXPW YGFYI FTFCR KSCSN SXNRW

GBBUU YKMKE YRRKE FRACI HVDJL VGSHF WCZVU

END UPON SDEFI

ZWCZR ZKMEG
NITEP ERIPD

MESSAGE NO. 3

1

Alphabet sequence:

123213231213121

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
LLLCY	HBTAA	WWUMC	ALLLS	SSWWT	JJJSS	OOXPDZ	ZZOOG	GGIV											
VVVPP	P	NNNN	NKKBC	YYYYH	HBBBT	TTTTA	AWWW	UUUM	MRREE										
EHHAT	TTJF	FREEE	EEEDD	ZZOOZ	ZMMM	WWLLD	DIIIFL	LLCCY											
YYYYH	BBBT	TAAAA	AWWU	MMMMM	RRSS	SSSXX	DDNE	EEEEZ											
ZZZV	DDZOO	OGGGG	GIIII	YKIII	FFFL	LLCRV	VVYY	HBBT											
TTTTA	AWUUU	UUUM	RRRRR	SSXXX	XXDD	NEEEE	ESOOO	OOXXI											
IIIII	ZZZMM	MWWWW	WLLDD	DDDDG	GGCC	CRRVV	VVYY	UYYMT											
XXXXX	HHCAA	ALLSS	WWWDN	NNEEZ	VVVOO	OJJGG	GGPPK	IIFFF											
LLLC	YYYY	HUUM	MMMMT	TTXXX	XXXXX	XXHHH	CAAAA	AALLS											
SSSSS	WWFF	FRSO	OOXXX	XXXXX	XXIZO	OOGGG	GGIII	VVVVV											
VVVVK	IIIFF	FLLL	CRVV	YYYYY	YYYYY	NNFFF	FFFKK	TXXXH											
HHHC	CAAAA	LLLLL	LLLLL	SSATT	TTJJJ	JSSSO	OOOOO	OOOOX											
XXIII	IIIZZ	ZZMMM	WWWWW	LLDD	DDGG	CCCLC	CCCCC	CCCY											
YHHH	HUYY	YYMM	TTTTT	TTTTT	AWWW	WUUUU	UMMMM	MMRRR											
SSSS	SSSH	AAAAA	TTTTT	TTTTD	NNNNN	EESOO	OOOXX	XIIII											
IIZZZ	ZZMMM	MMMMM	MGIII	IIVVV	VVVVP	PPPPP	PPPIF	FFFFF											
LLLLL	CCYY	YHHU	YMMM	MMTT	TXXBP	PPPPP	PPPPU	UUUEE											
EHHL	WWFF	FFRR	REEEE	ZVVVO	OOOOJ	JJJJJ	GGMMW	WWLL											
LDDD	DDDD	DGGG	CRRRR	RVVVY	YNNNN	FFFFF	FFFFF	KKBBB											
BXHH	HCCA	AAAAL	LLSS	SSWF	FFFFF	RRRRE	EEDDZ	ZZOOO											
OOGGG	GIIII	IIVVL	DDDDG	GGGGG	CCCR	VVYY	YYNN	NNFFF											
KKBBB	BPPUU	UEERS	SXXXX	DDN	NNNEE	EZZZ	ZVVVO	OOOOJ											
JGGG	VVVPP	PNNNK	KKKB	JJJJJ	UUHBB	TTTTA	AAAAW	WUUUU											
UMMR	RSSHA	AATTJ	NEEEE	ZZVVV	XIIZZ	ZMMGI	IIVVP	PIFFF											

125 pins
Disk #1

75 pins
Disk #2

100 pins
Disk #3

45
360
3
1080
6480
1

123
132
213
231
312
321

only 3
used in
the six
sheets

Section N^o

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
Wheel Sequence	→	1-2-3	2-1-3	1-2-3	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2	1-3-2		
Commutator Sequence	→	4	2	3	4	5	6	4	3	1	6	2	1	2	4	5	1	6	5

1-4-6-10-14-15

2

4
Disk No 2
75 pins

¹ LLLCC ¹² YYYYY ²⁰ HUUUM ³⁰ MMMMT ⁴⁰ TTXXX ⁵⁰ XXXXX ⁶⁰ XXHHH ⁷⁰ QUEEE ⁸⁰ EEHHS
¹³ SSSSS ¹² WWWW ¹⁰⁰ FFRRE ¹³⁰ EEDDD ¹⁴⁰ DDDDD ¹⁵⁰ DDZZO ¹⁶⁰ OOGGG ¹⁷⁰ GGPPP ¹⁸⁰ KKKKK
¹⁴⁰ KLLLL ¹⁵⁰ DPPNN ¹⁶⁰ NKKKK ¹⁷⁰ KBJJV ¹⁸⁰ YYYYY ¹⁹⁰ YYYYY ²⁰⁰ NFFFF ²¹⁰ FFFFK ²²⁰ KWWWU
²³⁰ UUUUM ²⁴⁰ MRRRR ²⁵⁰ SSSSS ²⁶⁰ SSSSS ²⁷⁰ XXXDD ²⁸⁰ DDNNN ²⁹⁰ NEEZZ ³⁰⁰ ZZZZZ ³¹⁰ ZZZZZ
³²⁰ VDZZZ ³³⁰ ZZZOO ³⁴⁰ OOGGG ³⁵⁰ IIIII ³⁶⁰ VVVPP ³⁷⁰ PIIFF ³⁸⁰ LLLCC ³⁹⁰ CCCCC ⁴⁰⁰ CCCYY
⁴¹⁰ YYHHH ⁴²⁰ HNNNN ⁴³⁰ NNNFF ⁴⁴⁰ FKKKK ⁴⁵⁰ KKKKK ⁴⁶⁰ KBBBB ⁴⁷⁰ BPPPP ⁴⁸⁰ UMMMM ⁴⁹⁰ MRRRR
⁵⁰⁰ SSSHH ⁵¹⁰ HHHHH ⁵²⁰ AAAAA ⁵³⁰ TTTTT ⁵⁴⁰ TTTTT ⁵⁵⁰ JJJJJ ⁵⁶⁰ SSSOO ⁵⁷⁰ OOOXX ⁵⁸⁰ XIIII
⁵⁹⁰ IZZZ ⁶⁰⁰ ZZMMM ⁶¹⁰ MMMGG ⁶²⁰ GGIII ⁶³⁰ IIVVV ⁶⁴⁰ VVVVP ⁶⁵⁰ PPPPP ⁶⁶⁰ PPPPN ⁶⁷⁰ NNNNN
⁶⁸⁰ LLLCY ⁶⁹⁰ HBTA ⁷⁰⁰ WUUM ⁷¹⁰ RSSSX ⁷²⁰ SSWWW ⁷³⁰ FFFRR ⁷⁴⁰ EOXXI ⁷⁵⁰ IZZM ⁷⁶⁰ MMWWL
⁷⁷⁰ LLLDD ⁷⁸⁰ PNNNN ⁷⁹⁰ NKKBB ⁸⁰⁰ JJJJU ⁸¹⁰ UYYM ⁸²⁰ MMMMT ⁸³⁰ TXXXX ⁸⁴⁰ HHHCC ⁸⁵⁰ CAAAR
⁸⁶⁰ RSSXD ⁸⁷⁰ DDNNN ⁸⁸⁰ NEZZZ ⁸⁹⁰ ZZZVV ⁹⁰⁰ OOJJJ ⁹¹⁰ JGGMW ⁹²⁰ WLLLD ⁹³⁰ DDDGC ⁹⁴⁰ CRRRV
⁹⁵⁰ JJJJU ⁹⁶⁰ YYYM ⁹⁷⁰ MTTT ⁹⁸⁰ TXXXH ⁹⁹⁰ CCCCC ¹⁰⁰⁰ AALLL ¹⁰¹⁰ LLLSS ¹⁰²⁰ WWWW ¹⁰³⁰ SSSSO
¹⁰⁴⁰ OOZVV ¹⁰⁵⁰ VVOJJ ¹⁰⁶⁰ JGGGG ¹⁰⁷⁰ GPPPP ¹⁰⁸⁰ VVPPP ¹⁰⁹⁰ NNNKK ¹¹⁰⁰ KKKBJ ¹¹¹⁰ JJUUU ¹¹²⁰ UYYMM
¹¹³⁰ MTTAA ¹¹⁴⁰ AWUUU ¹¹⁵⁰ UUUM ¹¹⁶⁰ RRRRR ¹¹⁷⁰ HAAAA ¹¹⁸⁰ AATT ¹¹⁹⁰ JSSSS ¹²⁰⁰ SSOOO ¹²¹⁰ OZVVO
¹²²⁰ OOOOO ¹²³⁰ JJJGG ¹²⁴⁰ GWWW ¹²⁵⁰ WLLDD ¹²⁶⁰ DDDDG ¹²⁷⁰ GGCCC ¹²⁸⁰ CRRVJ ¹²⁹⁰ JJJU ¹³⁰⁰ UYMMT
¹³¹⁰ XXXXX ¹³²⁰ HHCAA ¹³³⁰ ALLSS ¹³⁴⁰ WWWW ¹³⁵⁰ FFRZZ ¹³⁶⁰ VVVOO ¹³⁷⁰ OJJGG ¹³⁸⁰ GGPPK ¹³⁹⁰ IIFFF
¹⁴⁰⁰ LLLKK ¹⁴¹⁰ BBJJJ ¹⁴²⁰ JJUUU ¹⁴³⁰ YMMM ¹⁴⁴⁰ MTTT ¹⁴⁵⁰ TXXXH ¹⁴⁶⁰ HHHHH ¹⁴⁷⁰ HHHHC ¹⁴⁸⁰ QUUEE
¹⁴⁹⁰ EHHHA ¹⁵⁰⁰ TTTJJ ¹⁵¹⁰ JJJSR ¹⁵²⁰ REEEE ¹⁵³⁰ EDDDD ¹⁵⁴⁰ OOOOJ ¹⁵⁵⁰ JJJJJ ¹⁵⁶⁰ GGGPP ¹⁵⁷⁰ PPPKK
¹⁵⁸⁰ KIIII ¹⁵⁹⁰ IIIID ¹⁶⁰⁰ DGGGC ¹⁶¹⁰ CRRRR ¹⁶²⁰ RVVVY ¹⁶³⁰ YNNNN ¹⁶⁴⁰ FFFFF ¹⁶⁵⁰ MMMMM ¹⁶⁶⁰ ITBBB
¹⁶⁷⁰ BBPPP ¹⁶⁸⁰ PUUEE ¹⁶⁹⁰ EEEEH ¹⁷⁰⁰ HAAA ¹⁷¹⁰ AATTN ¹⁷²⁰ NNNNN ¹⁷³⁰ EEEZZ ¹⁷⁴⁰ ZZVVO ¹⁷⁵⁰ OOJJJ
¹⁷⁶⁰ JJGGG ¹⁷⁷⁰ GPPPP ¹⁷⁸⁰ PPKKK ¹⁷⁹⁰ PPPPN ¹⁸⁰⁰ NNNNN ¹⁸¹⁰ KKKBB ¹⁸²⁰ JJJU ¹⁸³⁰ UUUBB ¹⁸⁴⁰ BBTTT
¹⁸⁵⁰ AAWWW ¹⁸⁶⁰ WUUM ¹⁸⁷⁰ MRRRS ¹⁸⁸⁰ SXXXX ¹⁸⁹⁰ DDDJJ ¹⁹⁰⁰ JJJSS ¹⁹¹⁰ SOOOO ¹⁹²⁰ OXXXI ¹⁹³⁰ IIIIZ
¹⁹⁴⁰ ZMMM ¹⁹⁵⁰ LLLDD ¹⁹⁶⁰ DGGGC ¹⁹⁷⁰ CLLCC ¹⁹⁸⁰ YYYV ¹⁹⁹⁰ YYNN ²⁰⁰⁰ FFFFK ²⁰¹⁰ KKKKB ²⁰²⁰ BPPPP
²⁰³⁰ PUUEE ²⁰⁴⁰ EHL ²⁰⁵⁰ SSWWF ²⁰⁶⁰ FRRRR ²⁰⁷⁰ EEDDD ²⁰⁸⁰ DZZOJ ²⁰⁹⁰ JGGGP ²¹⁰⁰ PKKKI ²¹¹⁰ IIFFF

Disk No 1

5

Wheel No 3

6

(6)

No 3
Wheel N=1
(16)

¹ LLLCY HBTAA ² WWUMC ALLLS SSWWW FFF³SS OXXI IIZZM MMWWL
 LLLPP PNNNN NKKBB JJJJU HBBBT TTTTA AWWW UUPUU UEEEE
 EHAT TTJJJ JSOOO OOOXX IZZZ ZMMW WLLD DDDGC CCRRV
 VJJJU YYYM MTTT TXXH CCCC AALL LLLS WWFR RRRRE
 EEEDD DDZOO OGGGM MWWW LLDD GGGC CCCR VVYY YNNFF
 FFFKK KBPPP PPPM RRRR SSXX XDDD NEEEE EEZZ ZVVO
 OOOZZ OOOGG GIIII IVVPP PPPN NLLL LCCY YYHH HBTTA
 WWWW UUMEE EHAA DDDDN NNEEZ XXXII IZZGG GGIIV PFFFF.

No 6
(17)
Wheel N=2

¹ LLL²BB JJJJ² UUYM³ MMTT⁵ TXXX XXXX XXHH CCAA A¹EHHA
 AAAAA TTTJJ JJSSE EEDDD DDDDV VVOOJ JGGG GGPP KKKKK
 KKKKK IIFG GCCC CRVV YYYYY YYYYY NFFF MMTT TXBBP
 PPPU UEEEE HHHH HHHH AAATD DNNN NEEZ ZZZZ ZZZV
 VVOO OOOJJ JGGG PIIII VVPP PPPN KKKBB BBCC CCCY
 YHHH HHBB BBTT TAAA AA¹KK KBBB BPPP PUUU UEEE
 HHHH HHHH AAAAA TDDD DDDT JJJJ SSSO OOOX XIIII
 IZZZ ZMGG GGGG GGIII IIVV VVVI IIIII IIIIF FFFFF.

No 5
(18)
Wheel N=3

¹ LLLL⁵ CCYY² YYHH⁵ BTTT² MTTT² TXXH³ H³PPP PPPU UUUEE
 EHHH WFFF FFFR REEEE EDDZ ZZZO OOOO GGII IIVK
 KIIII IIIII IFFL LCCC CYYH HBBN FFFF FFFF KBBB
 XXHH HCCA AAAAL LLSS SSWF FFFF RRRRE EEDI IZZZ
 ZZGG GPPP PPKK IIIIF NNNN KKKBB JJJU UUUY YMMM
 TAWW WUUM MRRR SXXX TTTJJ JJSS SOOO OXXI IOOJ
 JGGP KKKI IGGC CCRR VVVV YYNN FFFT TTTX XHHH
 HCCA ALLS SSWF FRRR EEDV VOOJ JGGP PKKI IFFF.

3

This sequence for 11 letters, #3 for 8 letters, etc. as same as for block #4

Wheel #1

This seq same as for block #3

Wheel #2

This seq same as for block #1

Wheel #3

¹ LLLCY HBTAA ² WXHCC ALLLS ³ SSWWW FFFRR EEDDZ ¹³ Z¹² IZZM MMW¹² V
_{3 1 1 1 1 2 2 1 2 1 3 3}
VVVPP PNNNN NKKBB JJJJU UYYYM MMMMT TXXWU UUUMM MRRRR
RHHAT TWFFF FREEE EEEDX IZZZ ZMMW WLLD DDDGC CLCCY
YYYYH BBBBT TAAAA AWWU MMMM RRSS SSSXX DDDNE EEEZ
ZEEDD DDZOO OGGGG GIIII VVPPP NFFLL LLLCY YHHH HBBT
TTTAA ABPPP PPUU EEEEE HAAA AATT JSSS EEZZ ZVVO
OOIII ZZZMM MWWW WLLDD DDDDG GCCC CRRV VVYY YNFFK
BBBBB PUEE EHHSS WWWF FFRRE DDDZ ZOOG GGIV PPNN.
³ LLLCC ² YYYYY ⁵ HHH³ MM⁵ TTT³ XXX¹⁰ BB³ PPP² UEEEE EEHA
AAASS WWFF FFRRE EEDD VVVV VOOJ JGGG GGWW LLLL
LLLLL DDDGG GCCC CRVV YYYYY YYYYY NFFF FFFK KBBP
PHHC CAAAA LLLL LLLL SSSW WFFF FRRRE EEEEE EEEED
DDZZ ZZZO OOGM WWW LLLD DDDG CCCR RRRR RRRV
VVYY YNNN NNNT TAAAA AAAAA AWWW WUUU UMMM MRRR
SSLL LLLL SSSS WWW WWW FN NN EEEZ ZZVV VOOO
OOJJ JGMM MMMM GGPP PPKK LLLD DDDP PPPN NFFF.
¹ LLLL⁵ ¹⁰ CCYY¹⁵ ²⁰ YYHH²⁵ ³⁰ YMMM³⁵ ⁴⁰ MMTT⁴⁵ ⁵⁰ KBBB⁵⁵ ⁶⁰ PPP⁶⁵ ⁷⁰ HHH⁷⁵ ⁸⁰ HHH⁸⁵ ⁹⁰ CCAA⁹⁵
ALLS¹⁰ WWFF²⁰ FFR³⁰ EZZZ⁴⁰ ZVVV⁵⁰ OOOJ⁶⁰ JJJJ⁷⁰ GGGP⁸⁰ PPF⁹⁰ LL¹⁰⁰
LDDD¹⁰ DDD²⁰ P³⁰ PNNK⁴⁰ KBBB⁵⁰ BJJJ⁶⁰ YNNN⁷⁰ FFFF⁸⁰ FTTT⁹⁰ AAWW
WUUU UMMR RRRS SXXX XXDN NNNN EEEZ ZZVO OOJJ
JGGG GIIII IIVV PPPN NFFF LLLC YVYY YYNN BTTT
AAWW WUUM MRRS SXXX DDDN NNNE EZZZ ZXXI IIII
ZMMW LLLD DGGC CCCR VVVV YYNN FFFK KKKK XHHH
HCCA ALLS SSWF FRRE ZZVV VOOJ JGGP PKKI IFFF.
~~LLLBJ UYMT XXHC ALLS SSWW FFRR EEDD ZZOO GMWL~~

1 2 3 2 1
14-10-9-28-27

4

Same as
Block #6
Wheel N^o 1
10

¹ LLLBJ ² UYMTT XXHCC ALLLS SSWWW FFFRR EEDDZ ZZOOG ³ GMMWL
_{3 1 1 1 1 2 2}
 LLLDD DGGGG GCCRB JJJJU UYYT TTTA AWWW UUUM MRRR
 RSSXD DDNNJ JS000 OOOXX IZZZ ZMMW WLLD PPPNK KKRRV
 VVVVY NNNNF FKKKK KBBBP UUUUM RRSS SSSXX DDDNE EEEZ
 ZZZV VVOJJ JGGGG GIIII VVPPP NNNKK KKKBJ JJUHH HBBT
 TTAA AWUUU UUUM RRRRR SSXAA AATT JSSS SS00 OXXI
 IIII ZZZM MWWW WKKII IIIIG GGCC CRRV VVVY YNFFK
 BBBB PPUAA ALLSS WWWF FFRRE DDDZO OJJGG GGPPK IFFF.

Same as
Block # 2
Wheel N^o 3
11

LLLLL ₅ CCYYY ₂ YYUUU _{5 1} YMMM MMTT TXXH HHHH HHHHC CCAA
 ALLS WWFF FFFSS S000 OXXI IIZO OOOO GGGI IIVV
 VPPPI IIII IFFFL CRRR RVVY YNNN FFFF FFFF TXXX
 XXHH HCCA AAAAL LLSS SSTT JJJJJ SSSO OXXI IZZZ
 ZMMM MWWW WLLL DDDDG GGGG CCCR VVYH HHHB BBTT
 AAWW WHHC CAAAL LSSS WWFF NNNE EZZZ ZVVO OOOJ
 JGGGP KKKID DGGC CCCR VVVY HHHB TFFK KKKK BPPP
 PUUUE EHHHA AATT JRRRR EDDD DZZO OGGI IVVK IFFF.

Same as
1
Wheel N^o 2
12

LLLCC ₃ YYYYY ₅ HHHBM ₃ MMMT ³ TTXB BBBB ² BBPH CAAA ALLS
 SSSS WWFF FFRRZ ZZZV VVVV VVOO JJJG GGPP KKKL
 LLLL DDDGN NKKKK KBJJ UUUUY YYYYY NFFF FTAA AWWU
 UUUUM MRRR SSSS SSSS XXXD DDNN NEEZ ZZZZ ZZZV
 VVOO ZZO OOGG IIII VKKI IIFF LLCR RRRR CCCY
 YYHH HHHB BBTT TAAA AAAAA AWWW WUUU UUUU UEEE
 HHHH HHHH AAAAA TTTT TTTT JJJJ SSSO OOOX DZZZ
 ZZOO OOGG GGGG GGIP PPKK KKKI IIII IIIIF FFFF.



Same as
Block 52
13
Wheel #21

LLLCY HBTAA WWHCC ALLLS SSWWW FFFRR EEDDZ ZZOOG GGIIV
VVVPP PNNNN NKKRR VVVVY YNNNF FFFMT TXXXX HHHCC CAAAA
ALLSD DDNNN NEZZZ OOOXX IZZZ ZMMM WLLD DDDGC KKBBJ
JJJJU YYYM MTTT TXXH CCUU EHHH HHAA TTTJS SSSSO
OOOX XXIZZ ZMMM MWWW LLDD GGGC CCLCY YYHH HBBT
TTTAA AXHH HHHCC AAAAA LLSS XXDD NEEEE EEZZ ZVVO
OOOO JJJGM MWWW WLLD DDDF FLLL LCRV VVVY YNFFK
BBBBB PUEE EHAA TWWF FFRRE DDDZ ZOOG GGIPK IFFF.

Same as
#4

14
Wheel #3

LLLLL CCYYY YUUU YMMM MTTT TXXH HHHH H³PPU UUEA
ALLS WFFF FFRRE REEEE EDDZ ZZZO OOOJ GGGP PPPK
KDDDD DPPP PNNK KBBR RVVY YNNN FFFF FFFF KAWW
WUUU UMMR RRRS SSXX XXDN NNNN EEEZ ZVVO OOJJ
JOGG GIIII IIVV PPPN NNNN KLLC YYHH HHHB BTTT
AAWW WPUU UEEH HAAAA TTTJ JJSS S000 ZVVO OOOJ
JGMM LLLD DGGC CCCR VVVV YYNN FFFK KKKK BPPP
PUUE EHHH AATW FRRR EDDD DZZO OGGI IVVP PNNN.

not block
15
Wheel #2

LLCC YYYYY HHHBT TTTT TTTXX XXXX X³PPP UEEEE EEHA
AAAA WFFF FFRRE EDDD DDDD DZZO OGGG GGIII VVVK
KKKK IIFF FLLL LCYYY HHHH HHYY NFFF FFFK KBBB
HHHC CAAA LLLL LLLL SSSW WFFF FRRRE EEEEO OOOX
XXOO OOOJ JJGG PPPP VVPP PPPN KKKB BBBB BBBJ
JYHH HHHB BBTT TAAA KKKK KBBB BPPP PUUU UMRR
SSSS SSSS XAAA TTTT TTTT JJJJ SSSOE EEED DZZZ
ZZOO OGGG GGGG GGIII IIVK KKKI IIII IIIIF FFFF.

① | 8 | 2 | 3 | 2

123
213
23

NEWEN	GLAND	SDEAT	HTOLL	FROMR	AGING	WATER	SANDA	VALAN
VZEVJ	NRTIF	YLFMW	SRJAL	HXYZG	JVPDY	BOOLW	EZMSG	HGGIH
CHESH	MOUNTE	DTOT	TO NIGHE	VJMM	LATIE	MOS	ESTSE	FILOUS
PNEIU	FTAUZ	DYEVN	ZOHEG	SEWTJ	OYYTN	IURIB	PHMBL	TOITB
FLOOD	SINCE	THEHU	NDRED	MILLI	ONDOL	LARDI	SASTE	ROFNI
XRPV	EBLRH	ZDAZP	JCLA	PXZZT	SYUOH	HWPHX	MIOLZ	PDUOR

JOHOJ PTHGK ARCKG KFXGT AMUXL YIHYN MHBUH ANXTW ZJKIT
 WCWDX HUETW FCZVF WHREA WEFEN VEFOL PZALX DENFH FULOM
 ROYHA WRZBM XEZIL EIWRW BWLSB HTPTI KRGEZ EQZAN VENZN
 FJEEI BSRVX ZXANP XJJDK CJGDO YWRZH VDYZW JDXGH VLGND
 BCITT CNFRA HKFEZ CJBBJ YSXL LIMS CSJXG MGYPN HCEFL
 TAZOA EFFYJ JYMYA DUXOB KYBSI HPTPZ MBUHG LP IAI AMYKW
 UDDST JURZR MOGSW VANDO TCNTU UXBWA EMFWD VFXIE VZBWA
 EDBYO ENZJE PUTDA WUNMT YGPFJ SGM MY HDANJ XRLDK EITTJ
 BVOHG CPACA VSWML RVJTR FGALC UFKJL OKOSP MTXEY ITIPH
 NTPJR SXMDM WWMK MPXTT LWDXU LBLSM AWKIC JKNLO VJCHD
 IEBZG UOCCY DPNAI EAZKB GYNLV YIURW FUHDP BLULT LVKU
 WYBSA JZYNM OTJMG JUZSV GBDSM MNAWE SIMZS OVEZJ NJEEI
 CMPGY FZGJU ENALE ZCXLO XSOGV HRBWZ ZDCJS PVZ IW ZJBXP.

NEW ENGLANDS DEATH TOLL FROM RAGING WATERS AND AVALAN-
 CHES MOUNTED TO FIFTY-NINE IN THE MOST SERIOUS
 FLOODS IN THE HUNDRED MILLION DOLLAR DISASTER OF
 NINETEENTY SEVEN COMM WHEN ONE HUNDRED TWENTY FIVE
 PERSONS PERISHED PERIOD THE DEAD ARE COLON HENRY ROY
 COMM THIRTY FIVE COMM DROWNED IN PISCATAQUOG RIVER
 COMM AGOSTON COMM NEW HAMPSHIRE SEMI COLONE EUGEN
 E HILL COMM SIXTY FIVE COMM KILLED IN A NAVAL ANCHOR
 CL EN COMM NEW HAMPSHIRE SEMI COLON SERAPHIN ANARDIC
 OMMA EIGHT COMM BROCKTON COMM DROWNED WHEN A RAFT OVE
 R TURNED SEMI COLONE ZRAOBER COMM FIFTY COMM KILLE
 D IN A NAVAL ANCHOR NORTH JAY COMM NEW HAMPSHIRE SEMI
 COLON STEPHEN HART COMM THIRTY TWO COMM DROWNED AT G
 R O N COMM VERMONT PERIOD MORE THAN A SCORE WERE IN JU
 RED AS ICE HYPHEN CHOKED RIVERS AND TRIBUTARIES COMM
 FED BY RAPIDLY MELTING SNOWS AND TORRENTIAL RAINS COM.

⁵ VZFBV ¹⁰ NRTIF ¹⁵ YLFMW ²⁰ SRJAL ²⁵ HXYZG ³⁰ JVPDY ³⁵ BOOLW ⁴⁰ EZMSG ⁴⁵ HGGIH
 NEWENGLANDSDEATHTOLL

⁵⁰ PNEIU ⁵⁵ FTAUZ ⁶⁰ DYEVM ⁶⁵ ZOHEG ⁷⁰ SEWTJ ⁷⁵ OYYTN ⁸⁰ IURIB ⁸⁵ PHMBL ⁹⁰ TOITB

⁹⁵ XRBPV ¹⁰⁰ EBLRH ¹⁰⁵ ZDAZP ¹¹⁰ JCLLA ¹¹⁵ PXZZT ¹²⁰ SYUOH ¹²⁵ HWPXH ¹³⁰ MIOLZ ¹³⁵ PDUOR

¹⁴⁰ JOHOJ ¹⁴⁵ PTHGK ¹⁵⁰ ARCKG ¹⁵⁵ KFXGT ¹⁶⁰ AMUXL ¹⁶⁵ YIHYN ¹⁷⁰ MHBUE ¹⁷⁵ ANXTW ¹⁸⁰ ZJKIT

¹⁸⁵ WCWDX ¹⁹⁰ HUETW ¹⁹⁵ FCZVF ²⁰⁰ WHREA ²⁰⁵ WEFEN ²¹⁰ VEFOL ²¹⁵ PZALX ²²⁰ DENFH ²²⁵ FULOM

²³⁰ ROYHA ²³⁵ WRZBM ²⁴⁰ XEZIL ²⁴⁵ EIWWR ²⁵⁰ BWLSB ²⁵⁵ HTPTI ²⁶⁰ KRGEZ ²⁶⁵ EQZAN ²⁷⁰ VENZN

²⁷⁵ FJEEI ²⁸⁰ BSRVX ²⁸⁵ ZXANP ²⁹⁰ XJJDK ²⁹⁵ CJGDO ³⁰⁰ YWRZH ³⁰⁵ VDYZW ³¹⁰ JDXGH ³¹⁵ VLGND

³²⁰ BCITT ³²⁵ CNFRA ³³⁰ HKFEZ ³³⁵ CJBBI ³⁴⁰ YSXL ³⁴⁵ LIIMS ³⁵⁰ CSJXG ³⁵⁵ MGYPN ³⁶⁰ HCEFL.

TAZOA EFFYJ JYMYA DUXOB KYBSI HPTPZ MBUEG LPIAI AMYKW

UDDST JURZR MOGSW VANDO TCNTU UXBWA EMFWD VFXIE VZBWA

EDBYO ENZJE PUTDA WUNMT YGPFJ SGMYY HDANJ XRLDK EITTJ

BVOHG CPACA VSWML RVJTR FGALC UFKJL OKOSP MTXEV ITIPH

NTPJR SXMDM WWMK MPXTT LWDXU LBLSM AWKIC JKNLO VJCHD

IEBZG UOCCY DPNAI EAZKB GYNLV YIURW FUHDP BLULT LVIKU

WYBSA JZYNM OTJMG JUZSV GBDSM MNAWE SIMZS OVEZJ NJEEI

CMPGY FZGJU ENALE ZCXLO XSOGV HRBWZ ZDCJS PVZIW ZJBXP.

VZFBVJ NRTIF YLFMW SRJAL HXYZG JVPDY BOOLW EZMSG HGGIH
VZFBVJ NRTIF YLFMW SRJAL HXYZG JVPDY BOOLW EZMSG HGGIH
PNEIU FTAUZ DYEVM ZOHEG SEWTR OYYTN IURIB PHMBL TOITB
PNEIU FTAUZ DYEVM ZOHEG SEWTR OYYTN IURIB PHMBL
XRBPV EBLRH ZDAZP JCLLA PXZZT SYUOH HWPXH MIOLZ PDUOR

JOHOJ PTHGK ARCKG KFXGT AMUXL YIHYN MHBUE ANXTW ZJKIT
WCWDX HUETW FCZVF WHREA WEFEN VEFOL PZALX DENFH FULOM
ROYHK WRZEM XPLLN IWRRH WFSBH TGTIP MGEZE QIANV ERZYF
JEEIK SRRXZ OANPX TJLKC JGCEO YWRZH VDYZW JDXGH VLGND
BCITT CNFRA HKFEZ CJBBJ YSHEL LIIMS CSJXG MGYPN HCEFL
SAZOA EFFYJ JYMYA DUXOB KYBSI HPTPZ MBUEG LPIBI AMYKW
UDDST JURZR MOGSW VANDO TCNTU UXBWA EMFWD VFXIE VZBWA
EDBYO ENZJE PUTDA WUNMT YGPFJ SGM MY HDANJ XRLDK EITTJ
BVOHG CPACA VSWML RVJTR FGALC UFKJL OKOSP MTXEV ITIPH
NTPJR SXMDM WWMK MPXTT LWDXU LBLSM AWKIC JKLNO VJCHD
IEBZG UOCCY DPNAI EAZKB GVNLY YIURW FUHDP BLULT LVIKU
WYBSA JZYNM OTJMG JUZSV GBDSM MNAWE SIMZS OVEZJ NJEEI
CMPGY FZGJU ENALE ZCXLO XSOGV HRBWZ ZDCJS PVZIW ZJBXP.

NEW ENGLANDS DEATH TOLL FROM RAGING WATERS AND AVALAN
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E HILL COMMASIXTY FIVE COMMAMKILLED IN ANAVALANCHEAT.
CLEN COMMANEWHAMPSHIRE SEMI COLON SERAPHI NANARDIC
OMMAEIGHT COMMABROCKTON COMMADROWNED WHEN ARAFTOV
ERTURNED SEMI COLONE ZRAOBER COMMALFIFTY COMMAMKILLE
D IN ANAVALANCHEAT NORTH JAY COMMANEWHAMPSHIRE SEMI
COLON STEPHEN HART COMMATHIRTYTWO COMMADROWNED AT G
ROTON COMMAMONTVERMONT PERIOD MORE THAN A SCORE WERE IN JU
RED AS ICE HYPHEN CHOKED RIVERS AND TRIBUTARIES COMM
FED BY RAPIDLY MELTING SNOWS AND TORRENTIAL RAINS COM.

NEW ENGLANDS DEATH TOLL FROM RAGING WATERS AND AVALANCHES MOUNTED TO FIFTY-ONE IN THE MOST SERIOUS FLOODS SINCE THE HUNDRED MILLION DOLLAR DISASTER OF NINETEEN TWENTY SEVEN. COMMAD WHEN ONE HUNDRED TWENTY FIVE PERSONS PERISHED. PERIOD THE DEAD ARE COLON HENRY ROY COMMETHIRTY ONE COMMAD DROWNED IN PISCATAQUOG RIVER. COMMAG OFFSTOWN COMMANEW HAMPSHIRE SEMI COLONE EUGEN EHILL COMMASIXTY FIVE COMMAKILLED IN ANAVALANCHE AT GLEN COMMANEW HAMPSHIRE SEMI COLON SERAPHINONARDI COMM AEIGHT COMMABROCKTON COMMAD DROWNED WHEN ARAFTOVERTURNED. SEMI COLONE ZRAOBER COMMAFIFTY COMMAKILLED IN ANAVALANCHE AT NORTH JAY COMMANEW HAMPSHIRE SEMI COLON STEPHEN HART COMMATHIRTY TWO COMMADRWONED AT GROTON COMM VERMONT PERIOD MORE THAN A SCORE WERE INJURED AS ICE HYPHEN CHOKED RIVERS AND TRIBUTARIES. COMMAD FED BY RAPIDLY MELTING SNOWS AND TORRENTIAL RAINS. COM.

2

^{3 1 1 1 2 2 1 1 3 3 2 1 3 2 2 1 1 3 2 3 2}
 LLLCY HBTAA WWUMC ALLLS SSWWT JJJSS OOXD@ @@OOG GGIV
 VVVPP PNNNN NKKEC YYYYH HBBBT TTTTA AWWW UUUMM MREE
 EHHAT TTJF FREE EEEDD @@OO@ @MMW WLLD DIIFL LLCCY
 YYYYH BBBBT TAAA AWWU MMMM RRSS SSSXX DDDNE EEEE@
 @@VY DD@OO OGGGG GIIII VKIII FFLL LLCRV VVYYY HBBTT
 TTTAA AWUUU UUUMM RRRRR SSXXX XXDDD NEEEE ES000 OOXI
 TIIII @MM MWWW WLLDD DDDDG GGCC CRRV VVYY UYMT

ABC

A

XXXXX HHCAA ALLSS WWDN NEE@ VVVOO OJJGG GGPPK IFFFF.
 LLLCC YYYYY HHUYM MMMT TTTXX XXXX XXHHH CAAA AALLS

B

IIIII VVVPP PPNMW WLLL LLLL LLDJU UUYYY YMMM TTTT
 TTTTF LLLCC CYYYY FKBBB PPPPP PPPPP UEEEE EEEHH REED
 DDDD@ @O000 GGGGG GGGGG IIXII IIOO@ @MMW WWWW WWWL

1 2 3 4 5 6 7 8 9 10 @ A B C D E F G H I J K L M
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360

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W	T	Y	@	H	R	V	B	W	S	B	C	C	K	X	N		E	W	A	M	P	L	D	H		O
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T	P	R	N	@	K	P	C	@	G		J	W	M	@	U		V	X	X	Y	Y	L	H	M		V
			G	S			U	X	U		T		J						X	Y	F	E	O	J		F
			J				R																			

~~AWUMC~~

GIFLC

GIFLCYHBTAWUM

MR

CALSWTJFRED@O

///

@MWLD

MTXHCA

RSDNE[?]SOXI@MWLDGCRVYUJMTX

EHC RVYM

E R Y J E R H P Y R D Y X G U D X B G V J J O J K G A R L F	A
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R E F E R E N C E - E M B A S S Y S - E L E V E N - F O U R	

K F F O B I O D A Z L O T L M W M O U Y R H V C X J V W U W	A
3 2 2 2 2 2 3 3 3 3 3 1 1 1 1 1 2 2 2 2 2 1 1 1 1 1 1 1 1	1
M N N N O O O P P P P R R R R S S S S T T U U U V V W W X X Y Y	2
T E E N - A U G U S T - F O U R - E I G H T - P M - T H E -	

L T M P V D N I O P N Y A Z Y A Z Y Z E X G P Q W K O L I D	A
1 3 3 3 3 3 1 1 1 1 1 3 3 3 3 3 3 3 3 2 2 2 2 2 1 1 1 1	1
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C R G Z D A C T F M Z V G X D D A T F A Z N I O G O K E Y M	A
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E - F R E N C H - O F F E R - O F - A U G U S T - T H I R D	

H D K B T X J F W B Z F S P E H X M H F A P J E B E K K E P	A
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L L L M M N N N O O O O P P P P P P P R R R S S S T T T T T T	2
- P R E P A R E D - B Y - T H E - A C T I N G - C O M M E R	

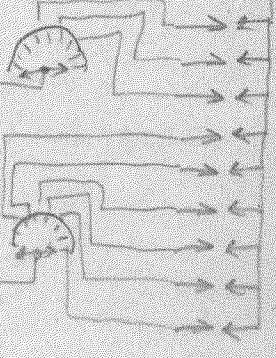
J B T N Z T H H Y W T A T E Z T M C P S K Q L P R V W Z A Y	A
1 3 3 3 3 3 1 1 1 1 1 1 1 1 1 1 3 3 3 3 2 2 2 2 2 1 1 1 1	1
U U U U U V V V V V W W W W W W W X X X X X Y Y Y Z Z Z	2
C I A L - A T T A C H E - A T - M Y - R E Q U E S T - P A R	

Main Contact

Outlets
Program
lines

Outlets
Appl Ser.

Outlets
Dom Ser.

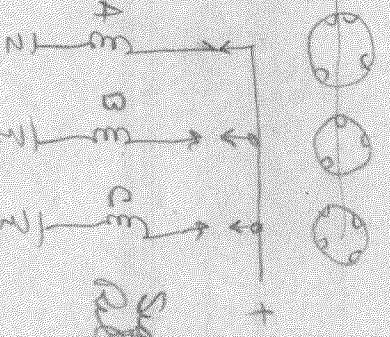


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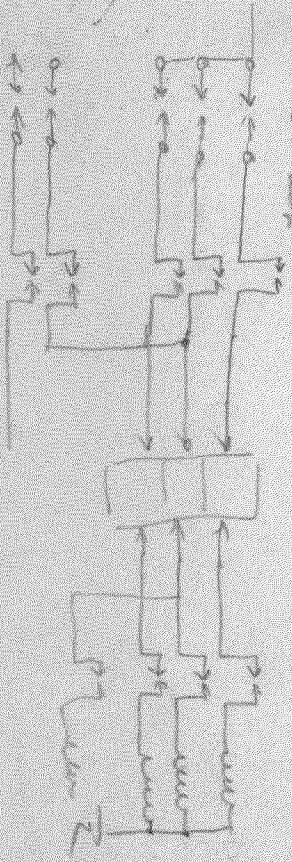
50 x 360 = 18000



Signature
Relays

V O J G P K I F L C T H B T A W U M R S X D N E
O G I V P N K B J U Y M T X H C A L S W F R E D
M W L D G C R V Y N F K B P U E H A T J S O X I

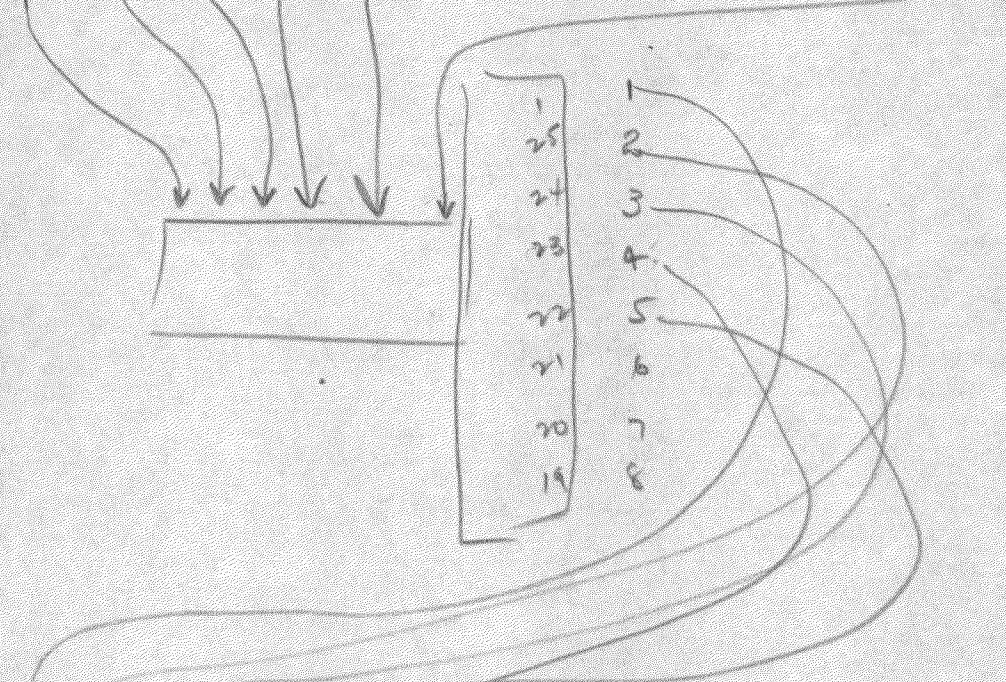
Main Contact



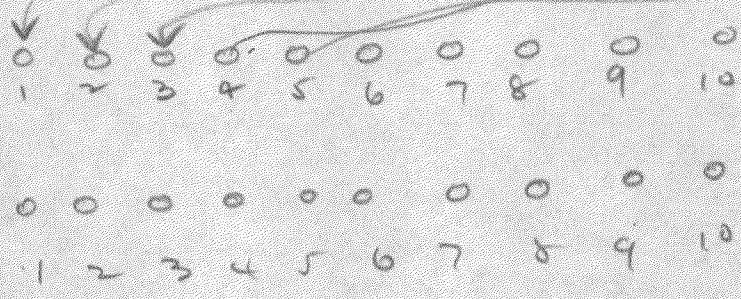
15/360

1.	V	O	J	G	-	2
2.	O	G	I	V	P	2
3.	M	W	L	D		2

Playboard



Playboard



3	M	W	L	D	2
2	O	G	I	V	2
1	V	O	J	G	2

1 2 3

Determine
type of stepping

4 5 6

Determine sequence
of commutators

Determine
starting
point of
Commutators

1
25 pos.

11 12

Determine
sequence
of wheels
1-2-3

3?

Determine
sequence
of wheels
4-5-6-7-8-9

REF ID: A41272150

0	1	2	3	4	5	6	7	8
0	$\frac{0A}{\sqrt{2}}$	$\frac{1B}{\sqrt{2}}$	$\frac{2C}{\sqrt{2}}$	$\frac{3D}{\sqrt{2}}$	$\frac{4E}{\sqrt{2}}$	$\frac{5F}{\sqrt{2}}$	$\frac{6G}{\sqrt{2}}$	$\frac{7H}{\sqrt{2}}$
1	$\frac{9I}{\sqrt{2}}$	$\frac{10J}{\sqrt{2}}$	$\frac{11K}{\sqrt{2}}$	$\frac{12L}{\sqrt{2}}$	$\frac{13M}{\sqrt{2}}$	$\frac{14N}{\sqrt{2}}$	$\frac{15O}{\sqrt{2}}$	$\frac{16P}{\sqrt{2}}$
2	$\frac{17Q}{\sqrt{2}}$	$\frac{18R}{\sqrt{2}}$	$\frac{19S}{\sqrt{2}}$	$\frac{20T}{\sqrt{2}}$	$\frac{21U}{\sqrt{2}}$	$\frac{22V}{\sqrt{2}}$	$\frac{23W}{\sqrt{2}}$	$\frac{24X}{\sqrt{2}}$
3	$\frac{25Y}{\sqrt{2}}$	$\frac{26Z}{\sqrt{2}}$	$\frac{27AA}{\sqrt{2}}$	$\frac{28AB}{\sqrt{2}}$	$\frac{29AC}{\sqrt{2}}$	$\frac{30AD}{\sqrt{2}}$	$\frac{31AE}{\sqrt{2}}$	$\frac{32AF}{\sqrt{2}}$
4	$\frac{33AG}{\sqrt{2}}$	$\frac{34AH}{\sqrt{2}}$	$\frac{35AI}{\sqrt{2}}$	$\frac{36AJ}{\sqrt{2}}$	$\frac{37AK}{\sqrt{2}}$	$\frac{38AL}{\sqrt{2}}$	$\frac{39AM}{\sqrt{2}}$	$\frac{40AN}{\sqrt{2}}$
5	$\frac{41AO}{\sqrt{2}}$	$\frac{42AP}{\sqrt{2}}$	$\frac{43AQ}{\sqrt{2}}$	$\frac{44AR}{\sqrt{2}}$	$\frac{45AS}{\sqrt{2}}$	$\frac{46AT}{\sqrt{2}}$	$\frac{47AU}{\sqrt{2}}$	$\frac{48AV}{\sqrt{2}}$
6	$\frac{49AW}{\sqrt{2}}$	$\frac{50AX}{\sqrt{2}}$	$\frac{51AY}{\sqrt{2}}$	$\frac{52AZ}{\sqrt{2}}$	$\frac{53BA}{\sqrt{2}}$	$\frac{54BB}{\sqrt{2}}$	$\frac{55BC}{\sqrt{2}}$	$\frac{56BD}{\sqrt{2}}$
7	$\frac{57BE}{\sqrt{2}}$	$\frac{58BF}{\sqrt{2}}$	$\frac{59BG}{\sqrt{2}}$	$\frac{60BH}{\sqrt{2}}$	$\frac{61BI}{\sqrt{2}}$	$\frac{62BJ}{\sqrt{2}}$	$\frac{63BK}{\sqrt{2}}$	$\frac{64BL}{\sqrt{2}}$
8	$\frac{65BM}{\sqrt{2}}$	$\frac{66BN}{\sqrt{2}}$	$\frac{67BO}{\sqrt{2}}$	$\frac{68BP}{\sqrt{2}}$	$\frac{69BQ}{\sqrt{2}}$	$\frac{70BR}{\sqrt{2}}$	$\frac{71BS}{\sqrt{2}}$	$\frac{72BT}{\sqrt{2}}$
9	$\frac{73BU}{\sqrt{2}}$	$\frac{74BV}{\sqrt{2}}$	$\frac{75BW}{\sqrt{2}}$	$\frac{76BX}{\sqrt{2}}$	$\frac{77BY}{\sqrt{2}}$	$\frac{78BZ}{\sqrt{2}}$	$\frac{79CA}{\sqrt{2}}$	$\frac{80CB}{\sqrt{2}}$
10	$\frac{81CC}{\sqrt{2}}$	$\frac{82CD}{\sqrt{2}}$	$\frac{83CE}{\sqrt{2}}$	$\frac{84CF}{\sqrt{2}}$	$\frac{85CG}{\sqrt{2}}$	$\frac{86CH}{\sqrt{2}}$	$\frac{87CI}{\sqrt{2}}$	$\frac{88CJ}{\sqrt{2}}$
11	$\frac{89CK}{\sqrt{2}}$	$\frac{90CL}{\sqrt{2}}$	$\frac{91CM}{\sqrt{2}}$	$\frac{92CN}{\sqrt{2}}$	$\frac{93CO}{\sqrt{2}}$	$\frac{94CP}{\sqrt{2}}$	$\frac{95CQ}{\sqrt{2}}$	$\frac{96CR}{\sqrt{2}}$
12	$\frac{97CS}{\sqrt{2}}$	$\frac{98CT}{\sqrt{2}}$	$\frac{99CU}{\sqrt{2}}$	$\frac{100CV}{\sqrt{2}}$	$\frac{101CW}{\sqrt{2}}$	$\frac{102CX}{\sqrt{2}}$	$\frac{103CY}{\sqrt{2}}$	$\frac{104CZ}{\sqrt{2}}$
13	$\frac{105DA}{\sqrt{2}}$	$\frac{106DB}{\sqrt{2}}$	$\frac{107DC}{\sqrt{2}}$	$\frac{108DD}{\sqrt{2}}$	$\frac{109DE}{\sqrt{2}}$	$\frac{110DF}{\sqrt{2}}$	$\frac{111DG}{\sqrt{2}}$	$\frac{112DH}{\sqrt{2}}$
14	$\frac{113DI}{\sqrt{2}}$	$\frac{114DJ}{\sqrt{2}}$	$\frac{115DK}{\sqrt{2}}$	$\frac{116DL}{\sqrt{2}}$	$\frac{117DM}{\sqrt{2}}$	$\frac{118DN}{\sqrt{2}}$	$\frac{119DO}{\sqrt{2}}$	$\frac{120DP}{\sqrt{2}}$
15	$\frac{121DQ}{\sqrt{2}}$	$\frac{122DR}{\sqrt{2}}$	$\frac{123DS}{\sqrt{2}}$	$\frac{124DT}{\sqrt{2}}$	$\frac{125DU}{\sqrt{2}}$	$\frac{126DV}{\sqrt{2}}$	$\frac{127DW}{\sqrt{2}}$	$\frac{128DX}{\sqrt{2}}$
16	$\frac{129DY}{\sqrt{2}}$	$\frac{130DZ}{\sqrt{2}}$	$\frac{131EA}{\sqrt{2}}$	$\frac{132EB}{\sqrt{2}}$	$\frac{133EC}{\sqrt{2}}$	$\frac{134ED}{\sqrt{2}}$	$\frac{135EE}{\sqrt{2}}$	$\frac{136EF}{\sqrt{2}}$
17	$\frac{137EG}{\sqrt{2}}$	$\frac{138EH}{\sqrt{2}}$	$\frac{139EI}{\sqrt{2}}$	$\frac{140EJ}{\sqrt{2}}$	$\frac{141EK}{\sqrt{2}}$	$\frac{142EL}{\sqrt{2}}$	$\frac{143EM}{\sqrt{2}}$	$\frac{144EN}{\sqrt{2}}$
18	$\frac{145EO}{\sqrt{2}}$	$\frac{146EP}{\sqrt{2}}$	$\frac{147EQ}{\sqrt{2}}$	$\frac{148ER}{\sqrt{2}}$	$\frac{149ES}{\sqrt{2}}$	$\frac{150ET}{\sqrt{2}}$	$\frac{151EU}{\sqrt{2}}$	$\frac{152EV}{\sqrt{2}}$
19	$\frac{153EW}{\sqrt{2}}$	$\frac{154EX}{\sqrt{2}}$	$\frac{155EY}{\sqrt{2}}$	$\frac{156EZ}{\sqrt{2}}$	$\frac{157FA}{\sqrt{2}}$	$\frac{158FB}{\sqrt{2}}$	$\frac{159FC}{\sqrt{2}}$	$\frac{160FD}{\sqrt{2}}$
20	$\frac{161FE}{\sqrt{2}}$	$\frac{162FF}{\sqrt{2}}$	$\frac{163FG}{\sqrt{2}}$	$\frac{164FH}{\sqrt{2}}$	$\frac{165FI}{\sqrt{2}}$	$\frac{166FJ}{\sqrt{2}}$	$\frac{167FK}{\sqrt{2}}$	$\frac{168FL}{\sqrt{2}}$
21	$\frac{169FM}{\sqrt{2}}$	$\frac{170FN}{\sqrt{2}}$	$\frac{171FO}{\sqrt{2}}$	$\frac{172FP}{\sqrt{2}}$	$\frac{173FQ}{\sqrt{2}}$	$\frac{174FR}{\sqrt{2}}$	$\frac{175FS}{\sqrt{2}}$	$\frac{176FT}{\sqrt{2}}$
22	$\frac{177FU}{\sqrt{2}}$	$\frac{178FV}{\sqrt{2}}$	$\frac{179FW}{\sqrt{2}}$	$\frac{180FX}{\sqrt{2}}$	$\frac{181FY}{\sqrt{2}}$	$\frac{182FZ}{\sqrt{2}}$	$\frac{183GA}{\sqrt{2}}$	$\frac{184GB}{\sqrt{2}}$
23	$\frac{185GC}{\sqrt{2}}$	$\frac{186GD}{\sqrt{2}}$	$\frac{187GE}{\sqrt{2}}$	$\frac{188GF}{\sqrt{2}}$	$\frac{189GG}{\sqrt{2}}$	$\frac{190GH}{\sqrt{2}}$	$\frac{191GI}{\sqrt{2}}$	$\frac{192GJ}{\sqrt{2}}$
24	$\frac{193GK}{\sqrt{2}}$	$\frac{194GL}{\sqrt{2}}$	$\frac{195GM}{\sqrt{2}}$	$\frac{196GN}{\sqrt{2}}$	$\frac{197GO}{\sqrt{2}}$	$\frac{198GP}{\sqrt{2}}$	$\frac{199GQ}{\sqrt{2}}$	$\frac{200GR}{\sqrt{2}}$
25	$\frac{201GS}{\sqrt{2}}$	$\frac{202GT}{\sqrt{2}}$	$\frac{203GU}{\sqrt{2}}$	$\frac{204GV}{\sqrt{2}}$	$\frac{205GW}{\sqrt{2}}$	$\frac{206GX}{\sqrt{2}}$	$\frac{207GY}{\sqrt{2}}$	$\frac{208GZ}{\sqrt{2}}$
26	$\frac{209HA}{\sqrt{2}}$	$\frac{210HB}{\sqrt{2}}$	$\frac{211HC}{\sqrt{2}}$	$\frac{212HD}{\sqrt{2}}$	$\frac{213HE}{\sqrt{2}}$	$\frac{214HF}{\sqrt{2}}$	$\frac{215HG}{\sqrt{2}}$	$\frac{216HH}{\sqrt{2}}$
27	$\frac{217HI}{\sqrt{2}}$	$\frac{218HJ}{\sqrt{2}}$	$\frac{219HK}{\sqrt{2}}$	$\frac{220HL}{\sqrt{2}}$	$\frac{221HM}{\sqrt{2}}$	$\frac{222HN}{\sqrt{2}}$	$\frac{223HO}{\sqrt{2}}$	$\frac{224HP}{\sqrt{2}}$
28	$\frac{225HQ}{\sqrt{2}}$	$\frac{226HR}{\sqrt{2}}$	$\frac{227HS}{\sqrt{2}}$	$\frac{228HT}{\sqrt{2}}$	$\frac{229HU}{\sqrt{2}}$	$\frac{230HV}{\sqrt{2}}$	$\frac{231HW}{\sqrt{2}}$	$\frac{232HX}{\sqrt{2}}$
29	$\frac{233HY}{\sqrt{2}}$	$\frac{234HZ}{\sqrt{2}}$	$\frac{235IA}{\sqrt{2}}$	$\frac{236IB}{\sqrt{2}}$	$\frac{237IC}{\sqrt{2}}$	$\frac{238ID}{\sqrt{2}}$	$\frac{239IE}{\sqrt{2}}$	$\frac{240IF}{\sqrt{2}}$
30	$\frac{241IG}{\sqrt{2}}$	$\frac{242IH}{\sqrt{2}}$	$\frac{243II}{\sqrt{2}}$	$\frac{244IJ}{\sqrt{2}}$	$\frac{245IK}{\sqrt{2}}$	$\frac{246IL}{\sqrt{2}}$	$\frac{247IM}{\sqrt{2}}$	$\frac{248IN}{\sqrt{2}}$
31	$\frac{249IO}{\sqrt{2}}$	$\frac{250IP}{\sqrt{2}}$	$\frac{251IQ}{\sqrt{2}}$	$\frac{252IR}{\sqrt{2}}$	$\frac{253IS}{\sqrt{2}}$	$\frac{254IT}{\sqrt{2}}$	$\frac{255IU}{\sqrt{2}}$	$\frac{256IV}{\sqrt{2}}$
32	$\frac{257IW}{\sqrt{2}}$	$\frac{258IX}{\sqrt{2}}$	$\frac{259IY}{\sqrt{2}}$	$\frac{260IZ}{\sqrt{2}}$	$\frac{261JA}{\sqrt{2}}$	$\frac{262JB}{\sqrt{2}}$	$\frac{263JC}{\sqrt{2}}$	$\frac{264JD}{\sqrt{2}}$
33	$\frac{265JE}{\sqrt{2}}$	$\frac{266JF}{\sqrt{2}}$	$\frac{267JG}{\sqrt{2}}$	$\frac{268JH}{\sqrt{2}}$	$\frac{269JI}{\sqrt{2}}$	$\frac{270JJ}{\sqrt{2}}$	$\frac{271JK}{\sqrt{2}}$	$\frac{272JL}{\sqrt{2}}$
34	$\frac{273JM}{\sqrt{2}}$	$\frac{274JN}{\sqrt{2}}$	$\frac{275JO}{\sqrt{2}}$	$\frac{276JP}{\sqrt{2}}$	$\frac{277JQ}{\sqrt{2}}$	$\frac{278JR}{\sqrt{2}}$	$\frac{279JS}{\sqrt{2}}$	$\frac{280JT}{\sqrt{2}}$
35	$\frac{281JU}{\sqrt{2}}$	$\frac{282JV}{\sqrt{2}}$	$\frac{283JW}{\sqrt{2}}$	$\frac{284JX}{\sqrt{2}}$	$\frac{285JY}{\sqrt{2}}$	$\frac{286JZ}{\sqrt{2}}$	$\frac{287KA}{\sqrt{2}}$	$\frac{288KB}{\sqrt{2}}$
36	$\frac{289KC}{\sqrt{2}}$	$\frac{290KD}{\sqrt{2}}$	$\frac{291KE}{\sqrt{2}}$	$\frac{292KF}{\sqrt{2}}$	$\frac{293KG}{\sqrt{2}}$	$\frac{294KH}{\sqrt{2}}$	$\frac{295KI}{\sqrt{2}}$	$\frac{296KJ}{\sqrt{2}}$
37	$\frac{297KK}{\sqrt{2}}$	$\frac{298KL}{\sqrt{2}}$	$\frac{299KM}{\sqrt{2}}$	$\frac{300KN}{\sqrt{2}}$	$\frac{301KO}{\sqrt{2}}$	$\frac{302KP}{\sqrt{2}}$	$\frac{303KQ}{\sqrt{2}}$	$\frac{304KR}{\sqrt{2}}$
38	$\frac{305KS}{\sqrt{2}}$	$\frac{306KT}{\sqrt{2}}$	$\frac{307KU}{\sqrt{2}}$	$\frac{308KV}{\sqrt{2}}$	$\frac{309KW}{\sqrt{2}}$	$\frac{310KX}{\sqrt{2}}$	$\frac{311KY}{\sqrt{2}}$	$\frac{312KZ}{\sqrt{2}}$

Stepping Wheel No 1

New cam position
State Dept 2nd
Determined from
9000 depression of
A, with no plywood
connections interchanged.

Stepping Wheel No 2

	0	1	2	3	4	5	6	7	8	9
0	1	1	1	2	2	2	2	3	3	
1	3	3	3	3	2	2	2	2	1	1
2	3	3	3	3	3	3	2	2	2	2
3	2	2	2	3	3	3	3	1	1	1
4	1	1	1	1	2	2	2	2	2	2
5	2	2	1	1	1	1	1	3	3	
6	3	3	3	3	3	1	1	1	1	1
7	1	3	3	3	3	3	2	2	2	2
8	2	1	1	1	1	2	2	2	2	2
9	2	2	2	2	2	2	3	2	2	2
10	2	2	2	2	2	1	1	1	3	3
11	3	3	3	2	2	2	2	2	2	2
12	3	3	3	3	3	3	1	1	1	1
13	1	1	1	1	2	2	2	2	2	2
14	2	2	1	1	1	1	1	3	3	
15	3	3	3	3	3	3	3	3	2	2
16	2	2	2	2	3	3	3	3	3	3
17	3	3	3	2	2	2	2	2	2	2
18	1	1	1	1	1	2	2	2	3	3
19	2	1	1	1	1	1	1	1	1	1
20	1	3	3	3	3	3	2	2	2	2
21	2	2	3	3	3	3	3	3	1	1
22	1	1	1	2	2	2	2	2	2	2
23	2	2	2	2	1	1	1	1	3	3
24	3	3	3	3	3	3	1	1	1	1
25	1	1	3	3	3	3	3	2	1	1
26	1	1	1	1	2	2	2	2	2	2
27	2	3	3	3	3	3	3	3	2	2
28	1	1	1	1	1	3	3	3	3	3
29	3	3	2	2	2	2	2	3	3	3
30	1	1	1	1	1	2	2	2	2	2
31	2	2	2	1	1	1	1	1	1	1
32	1	1	1	3	3	3	3	3	3	3
33	3	1	1	1	1	1	1	1	1	1
34	1	3	3	3	3	3	3	3	2	2
35	2	2	2	2	2	1	1	1	1	1
36	1	1	1	1	1	1	1	1	1	1

5A 5A

5B

5

5C

5D

5E

5F

6A

6B

6C

6D

6E

6F

Distribution of the three alphabets by block types

REF ID: A4127215

	0	1	2	3	4	5	6	7	8	9
0		1 ₂	1	2 ₁	2	2	2	3 ₀	3	3
1	3	3	3	2 ₃	2	2	1 ₅	1	1	1
2	1	3 ₃	3	3	2 ₀	2	2	2	2	2
3	3	3	1 ₆	1	1	1	1	1	2 ₉	2
4	2	2	2	2	2	2	2	1 ₇	1	1
5	1	1	1	1	3 ₀	3	3	3	3	3
6	1 ₃	1	1	3 ₁	3	3	3	3	3	3
7	2 ₃	2	2	1 ₈	1	1	1	1	1	1
8	1	2 ₇	2	2	2	2	2	2	3 ₄	3
9	3	3	2 ₉	2	2	2	2	2	2	2
10	2	1 ₈	1	1	1	1	1	1	1	3 ₀
11	3	3	3	3	3	2 ₈	2	2	2	2
12	2	2	2	3 ₁	1 ₇	1	1	1	1	1
13	1	2 ₂	2	2	2	2	2	2	2	2
14	2	2	2	1 ₆	1	1	1	1	1	3 ₇
15	3	3	3	3	3	3	1 ₇	1	1	1
16	1	1	1	3 ₇	3	3	3	3	3	3
17	2 ₉	2	2	2	2	2	2	2	1 ₃	1
18	1	1 ₁	1	1	1	2 ₃	2	2	3 ₀	3
19	3	3	2 ₅	2	2	2	2	1 ₆	1	1
20	1	1	1	3 ₀	3	3	3	3	3	2
21	2	2	2	2	3 ₆	3	3	3	3	2
22	1 ₅	1	1	1	1	2 ₉	2	2	2	2
23	2	2	2	2	1 ₆	1	1	1	1	1
24	3	1 ₀	3	3	3	3	3	3	3	3
25	1	1	1	1	1	1	1	3 ₂	3	2 ₀
26	2	2	2	2	2	1 ₅	1	1	1	1
27	2 ₄	2	2	2	2	3 ₅	3	3	3	3
28	2	2	2	2	1 ₉	1	1	1	1	1
29	1	3 ₅	3	3	3	3	2 ₂	2	3 ₁	1 ₉
30	1	1	1	1	1	1	1	1	2 ₉	2
31	2	2	2	2	2	2	1 ₅	1	1	1
32	1	3 ₉	3	3	3	3	3	3	3	3
33	1 ₈	1	1	1	1	1	1	1	3 ₀	3
34	3	3	3	3	3	3	3	3	2 ₉	2
35	2	2	2	2	2	2	1 ₅	1	1	1
36	1									

3A

3B

3

3C

3D

3E

3F

4A

4B

4

4C

4D

4E

4F

Distribution

of the 2 alphabets by blood types

REF ID: A4127215

	0	1	2	3	4	5	6	7	8	9
0		1 ₃	1	1	2 ₈	2	2	2	2	2
1	2	2	3 ₅	3	3	3	3	2 ₅	2	2
2	2	2	1 ₅	1	1	1	1	3 ₅	3	3
3	3	3	2 ₅	2	2	2	2	3 ₅	3	3
4	3	3	1 ₅	1	1	1	1	2 ₅	2	2
5	2	2	1 ₀	1	1	1	1	1	1	1
6	1	1	3 ₅	3	3	3	3	1 ₅	1	1
7	1	1	3 ₁₀	3	3	3	3	3	3	3
8	3	3	2 ₅	2	2	2	2	1 ₅	1	1
9	1	1	2 ₅	2	2	2	2	3 ₅	3	3
10	3	3	2 ₁₀	2	2	2	2	2	2	2
11	2	2	1 ₅	1	1	1	1	3 ₅	3	3
12	3	3	2 ₁₀	2	2	2	2	2	2	2
13	2	2	3 ₅	3	3	3	3	1 ₅	1	1
14	1	1	2 ₅	2	2	2	2	1 ₅	1	1
15	1	1	3 ₅	3	3	3	3	1 ₁₀	1	1
16	1	1	1	1	1	1	1	3 ₅	3	3
17	3	3	2 ₅	2	2	2	2	1 ₉	1	1
18	1	1 ₄	1	1	1	2 ₈	2	2	2	2
19	2	3 ₄	3	3	3	2 ₈	2	2	2	1 ₆
20	1	1	1	1	1	3 ₆	3	3	3	3
21	3	2 ₇	2	2	2	3 ₆	3	3	3	1 ₃
22	1	1	2 ₆	2	2	2	2	2	1 ₃	1
23	1	3 ₆	3	3	3	3	3	1 ₄	1	1
24	1	3 ₇	3	3	3	3	3	3	2 ₆	2
25	2	2	2	2	1 ₉	1	1	1	1	1
26	1	1	1	2 ₆	2	2	2	2	2	3 ₇
27	3	3	3	3	3	3	2 ₇	1 ₈	1	1
28	1	1	1	1	1	3 ₅	3	3	3	3
29	2	2	2	2	2	2	2	3 ₁₀	3	3
30	3	3	3	3	3	3	3	1 ₆	1	1
31	1	1	1	2 ₇	2	2	2	2	2	2
32	1	1	1	1	1	1	1	1	1	3 ₄
33	3	3	3	1 ₉	1	1	1	1	1	1
34	1	1	3 ₆	3	3	3	3	3	3	3
35	3	3	2 ₈	2	2	2	2	2	2	2
36	1									

3³ 3⁴

1 A

1 B

1 C

1

6

180

Handwritten signature

2 A

2 B

2

2 C

2 D

2 E

2 F

2 F

1 1
 2 2
 3 3
 4 2
 5 1
 6 3
 4 1
 3 2
 1 3
 6 1
 2 3
 1 2
 2 1
 4 3
 5 2
 3 1
 6 2
 5 3
 5 1

5 1
 1 3
 5 2
 1 1
 4 2
 6 1
 4 3
 6 2
 2 1
 6 3
 4 1
 2 2
 2 3
 1 3
 3 1
 2 3
 1 3
 2 3
 5 3

6 2
 2 1
 5 3
 4 2
 1 1
 5 2
 1 3
 3 2
 4 1
 2 3
 1 2
 3 1
 2 2
 6 3

Sequence of Base Pairs

200 per Saq

Stepping
Wheel

	1	2	3	4	5	6
1	X	X	X	X	X	X
2	X	X	X	X	X	X
3	X	X	X	X	X	X

1	11 -	19	115 -	37	26
2	22 -	20	31	38	12
3	33 -	21	25	39	35
4	24 -	22	11 -	40	24 -
5	15 -	23	24 - A	41	11 -
6	36 2	24	16 B	42	25
7	14	25	34 C	43	31
8	23	26	26 D	44	23
9	31	27	12 E	45	14
10	16	28	36 F	46	32
11	32	29	14 G	47	21
12	21 A	30	22 - H	48	13
13	12 B	31	33 - I	49	22 -
14	34 C	32	21 - J	50	36 -
15	25 D	33	13		
16	13 E	34	32		
17	26	35	23		
18	35	36	35		
19	15				

	1	2	3	4	5	6
1						
2						
3						

22/33 - 2
11/21 + 21/11

36-14

123 213 231 213 132

I

Stepping
Wheel
Alph.
Seq.

Stepping
Wheel 1

1 - LLOBJ JUYYY YFFKB HXXHC QRRRR, SATTT TWFFF TSSSO OVOOJ 45
 JOGGG GPPPP PKKKI IDGGG GLLLL LRRRR RRVVV VJJJU UHHHH 1
 HUYYY YNFFF FMMPT TTXXX HUMMM MUUEE ELLLS SSWWW WJJJJ 135
 SEREE ZEREE DVVVV OIIIZ ZJGGG GGGPP FLLLL DPPP, NFFF 160

2 - LLOJ JJUUY NFFFM TXHUU MMNME EHHAA SWWWJ JJSSE ZEEDD 225
 DZOJJ ZMMWW LKKII DDDGG GGNNN NKKLL LLLL CYJJJ JUUY 270
 YNNNN YTTTT TAAAK BBBBH HCCAA AEEEH HHHAA TDDNN MNRRR
 RRRR ZVVVO OOOII ZZJJJ JGGGG GWWW WWWWL LVVVP PENNF.

3 - LBBB JVYYY NNNYY TTTTA KKBXH HHHHU URRSS SSISS SWWWW 45
 NEEEE ZZZQX XXIZJ JGMMM WWWLV VVKII IIIIF NNNKK KBRVV 90
 VUUUU YYYYY TTTTT TAAKK KKKKH XXXXX XRFU UUMMM CGAAA 135
 AALSS SSXXX XDDJS SSSOO VVVVO OJZZM MMWVI IVVPP PPIFF 18.

4 - LLOJ JJJYN NYMMM TWUUU MMUUE EHHSS SWWTJ JJSSE ZZZVD 275
 DZQO OGGPP KKKID DDDGG GGGGG FLLLL LCKB BJJJY YHHU 270
 UYYYN NFFFM MTTAA WWWU PUUEE AAERS SSSXX DDWFF FFRRR 315
 EEEEE OXXXI IIIIO JJJJJ JGMMM MWWW WLVV VVVVP IIPFF 360

5 - LLOBJ JNNNN NFETX XXWUU UEEEE LSWWW WJJJJ JEEZZ ZVOZO 45
 OGGG GPPPP PKLLD DDGGF ELLLL QRRRR BBJJJ YYYX UUUU 90
 UUYYY NYMMM MMTA AABBB PECC CCQAE EHHHA XDDD DNNFF 135

6 - RRRRR EZZZZ VVXXX IIIIZ ZZMGG GGGW WLLLL DPPP NNNNF 160
 LLOJ JJJYU BBBB TTTTA KKBHP HHHHC QERHH HHSXX XDWWW 225
 FFRRR EEEZN VVOZZ ZMMM PPKK KLLD DDPL FFFLK KBBJJ 270
 JYYYY NNYYB TTTTT FKKKK KTTXX XBBBW WUUUH HCCC CRRR 315
 RRSS SSAAA APTJS EEEZZ VVVVO IZZZM MMWVI IVVPI IIPFF 360

1 1
 2 2
 3 3
 2 4
 1 5
 3 6

Stepping Wheel

Alphabet Sequence

7- ¹LLCC²J³ ¹JUN²NNN³ ¹NMM²TX³ ¹XWW²UM³ ¹MR²EE³E⁴ ¹HA²TWW³ ¹WW²FJJ³ JSSSZ ZV000
 OOGGG GIPPP PKKKD DDGGG GCCCC LCCCG CRVJJ JJJJH HHHHU
 UUYYN NNFFM MMAAA AAWWW PPUUU CCURR RSSSX XXWWW WFFFF

1

4

(4)

8- ¹LL²KBJ³ ¹JV²YYN³ ¹NN²MMM³ ¹AW²UUU³ ¹UU²CA³ ALLSA ADDDN NNRRR EEEDD
 DOOJJ JGGWW LLLDI IIDGG GGGGN NNLLL LLLLC BJJJJ JUYYY
 YYYYY YMMMM TAAAA WWBPP PUUEA AAAAL LLHXX DDDNN FFRRR
 RRREZ ZVVVO OOOII ZZZZZ JGGGG GPWWW WWWVV VVVVP PFFFF

2

3

(5)

9- ¹LL²QBB³ ¹JJJ²UU³ ¹YNN²NNN³ ¹FMM²MT³ TAWWU UPPPU UAALL LHAA ADDDD
 NFRRR EZZZV VVOJJ JMMMM WPPKK KLLDD DDDDG GNNKK KCCYY
 YUUUU YNNNN FMMMM MTTT TAAWW WBBBB BHHHH HHCCC CUEEE
 ERSSS SLSSS SDDNE ESSOO XVVOO OJJJG GMWWW WVVPP PIIFF

3

1

10- ¹LL²CCY³ ¹JU²YNY³ ¹BTT²AW³ ¹WW²UM³ ¹UEEE²E³ ¹LS²WW³ ¹WT²JJJ³ JSEEZ ZVZZO
 OOGGG GIIPP PKKLD DDGGG FLILL LRRRR RRJYY YYYU UUUUU
 UYNNN NMMMT TTTAA KBBBB PHCCC CUUER RSSSS SSWWW WFNNN
 EEEEE ZZOOO XXXXX OOOOJ JGGGG MMMWW WLLVV PPPPI PFFFF

1

6

X°

11- ¹LL²CCB³ ¹JJJ²UU³ ¹NN²NNY³ ¹MM²TA³ ¹AA²WP³ ¹PP²PU³ ¹CA²AL³ ¹HH²HXX³ ¹XW²WWW
 FFREE OOOOX XVOJJ ZMMMM WWIVV VVVII IIIIF FFNKK KBBVV
 VYYYY YBBBB TTTT FKKKT TTTXX XBBBB BPPPP PUMMM MAAAA
 AALLS SSXXX XDDJS SSEZZ VVVOO OZZZM MMWWW WVVPP PPNF

3

2

(6)

12- ¹LL²LBJ³ ¹JJU²UY³ ¹YN²FFF³ ¹KX²HHH³ ¹CM²MR³ ¹RH²HAA³ ¹AW²WF³ ¹FJ²SSS³ ¹OZZ²VV
 VZZOO OGGPP KKKII IDDGG GFFFF FGCCC CCCC RJJJJ JHHHH
 HYYYY YFFFF FTTTT XXXXH HMMRR REEEH HLLSS WWFFF FJSSS
 SEEBZ ZDDDZ ZOOOO JZZZZ ZGGGG GPPPP PWWWL LUVVP PIIFF

2

1

Stepping
Wheel
Ceph
Seq.

3

13- ¹LLCCJ² ¹JUYY² ¹NFFK² XXXUM MRRRE HATTT WFFFJ JSSEZ ZDZZO
 OOGGG MWWW WKKKI DDGGG GCKKK KBBCC OCYYY YJYJU UUYUY
 YNNNN YBTTT TTTAK KKBXX HHCCC CUUEE EHHHA AXDDD DNFFF
 RRRRE ZZZZZ VVVXX IIOOJ JGGGG GMMWW WLLLL DPPPP NNNNF.

1 2

7

14- ¹LLCGB² ¹JJVY² ¹NYYY² MTTTA AABBP PPPHC CAHHH HHHAX XDDDD
 FFRRR EEZZV VVOJZ ZMMMM WWLIL KKKII IDDPN NNNKL LCCYJ
 JUUYU NNNNY MMTT TAAAA KKKBB XBXWW WUUUU UCCCC CAAAA
 RRSSS HAAAA ATTJE EEEZZ VVXII IZZZM MMIII IVVPP IIIFF.

3 4

15- ¹LLLBJ² ¹JJY² ¹NNFM² ¹TXU² UUUUE ALLSS SWTTJ JNEEE ZZZDD
 DZZOO JGGPP KKLDD DDDGF FFFFF GGCCC KKKKB CYYYY JUUUU
 UYYYY NMMMM MTTTA WWBBP PUGAA AAAAH HHHAA DDDNN NNERR
 RRRRE EVVVO OOOII ZZZZZ ZMMGG GPPWW WWWL LLVVP PPNNF.

2 5

8

16- ¹LLBRJ² ¹JYNN² ¹NFMT² ¹WWUM² UEBAA LSWWT TDNNN NERRE EDZZO
 OJGGG GPPFW WLLLL IIGGG GCCCK KBCCC CCYYY JJJJU UUYUY
 YUYUY YMMMM TTTAA AAWBB PPUUC CCAA ALHSX XXDDD WFFFF
 RRREE ZZZZZ VVVXX IIIIZ JGGGG GMMWW WLLLV PPPP NNNFF.

1 3

17- ¹LLCY² ¹JJUY² ¹BBTT² ¹AWUU² UUUUE ALLSS STTTJ JNEE ZZZDD
 DZZOO OGGPP KKKDD DDDGG FFFFF FGCCC CCKLC CYYYY JUUUU
 UNNNN NFMMP TAAAA BBBBP PCAA AEEES SSSXS WWFF FFEES
 EEEZZ ZVXXI IIIII JJJJJ JGGGG MWWW WWIV VVVI IFFFF.

2 6

9

18- ¹LLCBB² ¹JJVY² ¹NNNY² ¹MMTK² KKBPP HHHHC CAHHH HSSXX XDDWW
 FFRRR ZZZZV VVIZZ ZMMMG PPPPK LLIDD PPPPN FFFLL KBBJJ
 JUUUU NYYYY MMTT TAKKK KKTXX XXXXB BPPPP UUMMM MMRAA
 AALLL LSXXX XDTJS SSSOO XXXOO OJJZM MWWW WLVVP PPPNF.

3 5

Stepping Wheel Alph Seq.

19
5

LLC²BJ J³UN³NN N²FT²TX X¹XW¹JU UEEEE LSWWW WJ²JJ JEE²EZ ZVOZO
OOGGG GPPPP PKLLD DDGGF FL²LLL CRRRR BBJ²JJ YYY²H UUUUU
UUY²YY NY²MMM M²MTA AABBB PGGG CGCAE EHHHA X²DDD DNNFF
RRRRR EZZZZ VVXXX I²LIIZ ZZMGG GGGWW WL²LLL DD²PPP NNN²FF.

1 5

20

LLCBB JJJU YNNNN FMMMT TAWWU UPPPU UAALL LH²HAA ADDDD
NFR²RR EZZZV VVOJJ J²MMM WPP²KK KL²DD DDD²DG GNN²KK KCC²YY
YUUUU YNNNN F²MMM M²TTT TA²AW WBB²BB BHH²HH H²CCC CUEEE
ERS²SS SL²SS SDDNE ESSOO X²VVO OJJ²JG GM²WW WV²VP P²IFF.

3 1

21

LLLBJ JJY²YN NNF²MM TXUUP UUUUE ALLSS SW²TTJ JNEEE ZZZDD
DZZOO JGG²PP KKL²DD DDD²GF FFFFF GG²CC KKK²KB CYY²YY JUUUU
UY²YYY N²MMM M²TTA WBB²P P²UCA AAAAH HHHAA DDD²NN NN²ERR
RRR²RE EVV²VO OIIII ZZZZZ ZMMGG GPP²WW WWW²L LLV²VP PP²NFF.

2 5

22

LLCBJ JU²YYY YFF²KB BXXHC CRRRR SAT²TT TW²FFF FSSSO OVOOJ
JOGGG GPPPP PK²KKI IDGGG GL²LLL LRRRR RRV²VV VJ²JJU UHH²HH
HU²YYY YN²FFF F²M²TT T²XXX HUMMM MU²UE ELLS SSW²WW WJ²JJ
SE²EEE ZEEEE DVV²VV OIIIZ ZJGGG GGG²PP PLL²LL D²PPP N²FFFF.

1 1

23

LLLCJ JJY²YN NY²MMM TW²UUU MMU²UE EHHSS SW²TTJ JJSSE ZZZVD
DZZOO OGG²PP KKK²ID DDD²GG GGG²GG F²LLL L²CCKB BJ²JJY YHH²HU
UY²Y²YN N²FFF²M M²TTAA WWW²U PU²UE AAERS SSS²XX DDW²FF F²RRR
EEEEZ OXX²XI I²IIIO JJ²JJJ JG²MMM M²WWW W²IIV VV²VP I²IFF.

2 4

24

LLCCY JU²YNY B²PTAW WWW²UM UEEEE LSWWW W²TJJJ JSE²EZ ZVZZO
OOGGG GI²PP PK²KLD DDGGG FL²LLL LRRRR RR²JJY YYY²YU UUUUU
UY²NNN NN²MMT T²TTAA KKB²BB PH²CC CU²ER RSS²SS SSW²WW WF²NNN
EEEEZ Z²ZOO X²XXX O²OOO J²JGGG M²MMW WL²LV P²PPPI F²FFFF.

1 6

25- LLOCB JJVYY NYYYY MTTTA AABBP PPPHC GAAKH HHHAX XDDDW
 FFRRR EEZZV VVOJZ ZMMMM WWLL KKKII IDDPN NNNKL LCCYJ
 JUUYU NNNNY MMMPT TAAAA KKKBB XXBWW WUUUU UUCOC CAAA
 RRSSS HAAAA ATTJE EEEZZ VVXII IZZZM MIIII IVVPP IIIFF.

34

(10)

26- LLLCY JJUYY BBTTT AWUUU UUUUE ALLSS STTTF JJERE ZZEED
 DZZOO OGGPP KKKDD DDDGG FFFFF FGCCO CCKLC CYYYJ JUUUU
 UNNNN NFMMP TAAAA BBBBP PCCAA AEEES SSSXS WWFFF FFEED
 EEEZZ ZVXXI IIIII JJJJJ JGGGG MWWW WWWW VVVVI IFFFF.

26

27- LLOCJ JUYYY NFFKX XXXUM MRRRE HATTT WFFFJ JSSEZ ZDZZO
 OOGGG MWWW WKKKI DDGGG GCKKK KBBCC CYYY YJJJU UUYUY
 YNNNN YTTTT TTAK KKBEX HHCCO CUUBE EHHHA AXDDD DNFFF
 RRRRE ZZZZ VVVX IIOOJ JJJGG GMMWW WLLLL DPPPP NNNNF.

12

(14)

28- LLCCO JJJYU BBBB TTTTA KKB BP HHHHC CEEHH HHSXX XDWWW
 FFRRR EERZV VVOZZ ZMMMM PPPKK KLLDD DDPIF FFFLK KBBJJ
 JYYYY NNYB TTTTT FKCKK KTTXX XBBBW WUUUH HHCCO CRRR
 RRSSS SAAAA ATTJS EEEZZ VVVOO IZZZM MMWII IVVPI IIIFF.

36

29- LLOCJ JUNNN NMMTX XWUUM MREEE HATWW WFFJJ JSSSZ ZVVOO
 OOGGG GIPPP PKKKD DDGGG GCCCO LCCO CRVJJ JJJJH HHHHU
 UUYYN NFFFM MMAA AAWWW PPUUU CCURR RSSSX XXWWW WFFFF
 EEEEE OOOO XXXXV OOOOJ JJMMM MMMWW WLVVV PPPPP FFFFF.

14

(15)

30- LLLCJ JJUUY NFFFM TXHUU MMMME EHHAA SWWWJ JJSEE ZZEED
 DZOJJ ZMMWW LKKII DDDGG GGNNN NNNKL LLLLC CYJJJ JUUYU
 YNNNN YTTTT TAAAK BBBBH HCCAA AEEEH HHHAA TDDNN NNNRR
 RRRRZ ZVVVO OOOII ZZJJJ JGGGG GWWW WWWW LVVVP PNNNF.

22

31- LLBBB JVVYY NNYYY TTTTA KKBXH HHHHU URRSS SSLSS SWWWW
 FNEEE ZZZOX XXIZJ JGMMM WWLIV VVKII IIIIF NNNKK KBRVV
 VUUUU YYYYY TTTTT TAACK KKKBX XXXXX XHPUU UUMMM CCAAA
 AALSS SSXXX XDDJS SSSOO VVVOO OJZZM MMWWI IVVPP PPIFF.

33

32- LLLBJ JJUUY YNFFF KXHHH CMMMR RHAA AWWWF FJSSS OZZVV
 VZZOO OGGPP KKKII IDDGG GFFFF FGCCC CCCC RJJJJ JHHHH
 HYYYY YFFFF FTTTT XXXXH HMMRR REEEH HLISS WWVFF FJSSS
 SEEEZ ZDDDZ ZO000 JZZZZ ZGGGG GPPPP FWWWL LVVVP PIPFF.

21

33- LLBBJ JYNNN NFMTX WWUUM UEAAA LSWWF TDNNN NERRE EDZZO
 OJGGG GPFWW WLLLI IIGGG GCOCK KBCCC CCYYY JJJJU UUYYY
 YUYYY YMMM TTTAA AAWBB PPUUC CCAA ALHSX XXDDD WFFFF
 RRREE ZZZZZ VVVXX IIIIZ JGGGG GGMWW WLLLV PPPPP NNFFF.

13

34- LLCGB JJJUU NNNNY MMTTA AAWWP PPPPU CAALH HHHXX XWWW
 FEEEE OOOOX XVOJJ ZMMM WWIVV VVVII IIIIF FFKKK KBEVV
 VYYYY YBBBB TTTTT FKKKF TTTXX XBBBB BFFFF FUMMM MAAA
 AALLS SSXXX XDDJS SSEZZ VVVOO OZZZM MMWWW WVVP PPNF.

32

35- LLKBJ JVYYN NNMMM AWUUU UUCA ALISA ADDDN NNRRR EEDD
 DOOJJ JGGWW LLLDI IIDGG GGGGN NNLLL LLLLC BJJJJ JUYYY
 YYYYY YMMM TAAAA WWVBP PUEA AAAAL LLHXX DDDNN FFRRR
 RRREZ ZVVVO OOOII ZZZZZ JGGGG GFWWW WWWV VVVVP PFFFF.

23

36- LLCBB JJVYY NNNY MMTTK KKBWP HHHHC CAEHH HSSXX XDDW
 FFRRR ZZZZV VVIZZ ZMMMG PPPPK LLLDD PPPPN FFFLL KBBJJ
 JUUUU NYYYY MMMT TAKKK KKTXX XXXXB BPPP UUMMM MMRAA
 AALLL LSXXX XDTJS SSSOO XXXOO OJJZM MMWWW WLVP PPNF.

35

7

Stepping
Wheel Alpha
Seq

37- LLLCY JJUYY BBPTT AWUUU UUUUE ALLSS STTTJ JJEER ZZEEDD
 DZZOO OGGPP KKKDD DDDGG FFFFF FGCCC CCKLC CYYYJ JUUUU
 UNNNN NFMMT TAAAA BBBBP PCCAA AEEES SSSXS WWWFF FFEER
 EEEEBZ ZVXXI IIIII JJJJJ JGGGG MWWW WWWW VVVVI IFFFF.

38- LLCCJ JUYYY NFFKX XXXUM MRRRE HATTT WWWW JSSEZ ZDZZO
 OOGGG MWWW WKKKI DDGGG GCKKK KBBCC CCYYY YYJJU UUUYY
 YNNNN YBTTT TTTAK KKBXB HHCOC CUURE EHHHA AXDDD DNFFF
 RRRRE ZZZZZ VVVXX IIOOJ JJJGG GMMWW WLLLL DPPPP NNNNF.

39- LLCBB JJVYY NNNYY MMTTK KKBEP HHHHC CAEHH HSSXX XDDWW
 FRRRR ZZZZV VVIZZ ZMMMG PPPKK LLIDD PPPPN FFFLL KBBJJ
 JUUUU NYYYY MMMMT TAKKK KKTXX XXXXB BPPPP UUMMM MMRAA
 AALLL LSXXX XDTJS SSSOO XXXOO OJJZM MWWW WLPPP PPPNF.

40- LLLCJ JJYYN NYMMM TWUUU MMUUE EHHSS SWWTJ JJSSE ZZZVD
 DZZOO OGGPP KKKID DDDGG GGGGG FLLLL LCKKB BJJJY YHHHU
 UYYYN NFFFM MTTAA WWWW PUURE AAERS SSSXX DDWFF FRRRR
 EEEEBZ OXXXI IIIIO JJJJJ JGMMM MWWW WWWW VVVVP IFFFF.

41- LLOBJ JUYYY YFPKB BXKHC CRRRR SATTT TWFFF FSSSO OVOOJ
 JOGGG GPPPP PKKKI IDGGG GLLLL LRRRR RRVVV VJJJU UHHHH
 HUYYY YNFFF FMMP TTTXX HUMMM MUURE ELLS SSWW WJJJJ
 SEEEE ZEEEE DVVVV OIIIZ ZJGGG GGGPP FLLLL DPPPP NFFFF.

42- LLLBJ JJYYN NNFMM TXUUP UUUUE ALLSS SWTTJ JNEER ZZZDD
 DZZOO JGGPP KKLDD DDDGF FFFFF GGCCC KKKKB CYYYJ JUUUU
 UYYYY NMMMM MTTTA WBBBP PUCAA AAAAH HHAA DDDNN NNERR
 RRRRE EVVVO OIIII ZZZZZ ZMMGG GPFWW WWWW LLVVP PPPNF.

26

12

35

24

11

25

Steph

43- LLOBB JJJU YNNNN FMMMM TAWWU UPPPU UAALL LHAA ADDDD
 NFRRR EZZZV VVOJJ JMMMM WPFKK KLIDD DDDDG GNNKK KGCYY
 YUUUU YNNNN FMMMM MTTTT TAAWW WBBBB BHHHH HHCCG GUEEE
 ERSSS SLSSS SDDNE ESSOO XVVOO OJJJG GMWWV WVVP PIIFF.

31

44- LLKBJ JVYYN NNNMM AWUUU UUUCA ALLSA ADDDN NNRRR EEEDD
 DOOJJ JGGWW LLLDI IIDGG GGGGN NNLLL LLLLC BJJJJ JUYYY
 YYYYY YMMMM TAAAA WWBFP PUEEA AAAAL LLHXX DDDNN FRRRR
 RRREZ ZVVVO OOOII ZZZZZ JGGGG GPWWV WWWVV VVVVP PFFFF.

23

45- LLCCJ JUNNN NMMTX XWUUM MREEE HATW WVFJJ JSSSZ ZV000
 OOGGG GIPPP PKKKD DDGGG GCCCG LCCCG CRVJJ JJJJH HHHHU
 UUYYN NNFFM MMMAA AAWWW PPUUU GCURR RSSSX XXWWW WFFFF
 EEEEE OOOOO XXXXV OOOOJ JMMMM MMMWW WLWVV PPPPP FFFFF.

14

46- LLCCB JJJU NNNNY MMMTA AAWWP PPPPU CAALH HHHXX XWWW
 FFERE OOOOX XVOJJ ZMMMM WWIVV VVVII IIIIF FFKKK KBBVV
 VYYYY YBBBB TTTTF FKKKT TTTXX XBBBB BPPPP PUMMM MMAAA
 AALLS SSXXX XDDJS SSEZZ VVVOO OZZZM MMWWW WVVP PPPNF.

32

47- LLLBJ JJUUY YNFFF KXHHH GMMMR RHAA AWWWF FJSSS OZZVV
 VZZOO OGGPP KKKII IDDGG GFFFF FGCCG CCCR RJJJJ JHHHH
 HYYYY YFFFF FTTTT XXXXH HMMRR REEEH HLLSS WWVFP FJSSS
 SEEEZ ZDDDZ ZO000 JZZZZ ZGGGG GPPPP PWWVL LVVVP PIIFF.

21

48- LLBBJ JYNNN NFMTX WWWUM UEEAA LSWWT TDNNN NERRE EDZZO
 OJGGG GPPWW WLLLI IIGGG GCCCK KBCCG CCYYY JJJJU UUYYY
 YUYYY YMMMM TTTAA AAWBB PPUUC CCCAA ALHSX XXDDD WFFFF
 RRREE ZZZZZ VVVXX IIIIZ JGGGG GGMWW WLLLV PPPPP NNFFF.

13

49- LLLCJ JJUUY NNEFFM TXHUU MMMME EHHAA SWWWJ JJSEE ZEEDD
 DZOJJ ZMMWW LKKII DDDGG GGNNN NKKLL LLLLC CYJJJ JUUY
 YNNNN YTTTT TAAAK BBBBH HCCAA AEEEH HHHAA EDDNN RRRR
 RRRRZ ZVVVO OOOII ZZJJJ JGGGG GWWWW WWWWL LVVVP PPNNF.

22

50- LLCCJ JJJYU BBBB TTTTA KKBBP HHHHC CEEHH HHSXX XDWWW
 PFRRR EEEZV VVOZZ ZMMMM PPPKK KLLDD DDPIF FFPLK KBBJJ
 JYYYY NNYBY TTTTT FKKKK KTTXX XBBEW WUUUH HCCG GRRR
 RRRSS SSAAA ATTJS EEEZZ VVVOO IZZZM MMWII IVVPI IILFF.

36

1- LLCBJ JUYYY YFFKB BXXHC CRRRR SATTT TWFFF FSSSO OVOOJ
 JOGGG GPPPP PKKKI IDGGG GLLLL LRRRR RRVVV VJJJU UHHHH
 HUYYY YNFFF PMMTP TTXXX HUMMM MUUEE ELLLS SSWWW WJJJJ
 SEEEE ZEEEE DVVVV OIIIZ ZJGGG GGGPP PLLLL DPPPP NFFFF.

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N^o 2

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The original
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 before State PPT

alph 1 - 182 letters
 " 2 - 80
 " 3 - 48

alph 1 - 87
 2 - 134
 3 - 139

N^o 3

N^o 4

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alph-107
2-120
3-133

alph-106
2-133
3-121

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Graph-120
2-152
3-88

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Graph-124
2-98
3-138

to close circuit for
 stepping 1 on Wheel #1

for Wheel No. 1

Distribution of alphabets (total) ~~omitted~~

Alphabet	Letter	No.
1	4	59, 60, 133, 134, 213, 214, 302, 303
2	5	61, 62, 63, 64, 135, 136, 137, 138, 139, 215, 216, 217, 304, 305, 306
3	6	65, 66, 140, 218, 219, 220, 221, 309, 310, 311
4	7	67, 68, 69, 141, 142, 143, 144, 222, 223, 312
5	8	70, 71, 72, 73, 74, 145, 146, 224, 225, 226, 227, 228, 313, 314
6	9	10, 75, 76, 147, 148, 149, 150, 151, 229, 230, 231, 315
7	11	12, 77, 78, 79, 80, 152, 153, 154, 232, 316, 317, 318, 319, 320
8	13	81, 82, 83, 155, 233, 234, 235, 236, 237, 238, 321, 322
9	14	15, 84, 85, 86, 156, 157, 158, 159, 160, 239, 240, 323
10	16	87, 88, 89, 90, 91, 161, 162, 241, 242, 243, 244, 245, 324, 325, 326
11	17	18, 19, 92, 93, 163, 164, 165, 166, 167, 168, 246, 247, 327, 328
12	20	21, 22, 94, 169, 170, 248, 249, 250, 251, 252, 329, 330
13	23	24, 25, 95, 96, 97, 171, 172, 173, 253, 254, 255, 331, 332, 333, 334
14	26	27, 28, 98, 99, 100, 101, 174, 256, 335, 336, 337
15	29	30, 102, 175, 176, 177, 178, 179, 257, 258, 259, 260, 261, 262, 338, 339
16	31	32, 103, 104, 105, 106, 107, 108, 180, 181, 182, 183, 263, 264, 265, 266
17	33	34, 109, 110, 184, 185, 186, 187, 268, 269, 341, 342, 343
18	35	36, 37, 111, 112, 188, 270, 271, 272, 273, 274, 275, 344, 345, 346
19	38	39, 113, 114, 115, 116, 189, 190, 191, 276, 277, 278, 347, 348
20	40	41, 42, 117, 118, 119, 192, 193, 194, 195, 196, 279, 280, 281, 349, 350
21	43	44, 120, 121, 122, 197, 198, 199, 200, 282, 283, 284, 285, 286, 351, 352
22	45	46, 47, 48, 123, 124, 201, 202, 287, 288, 353
23	49	50, 51, 125, 126, 127, 128, 203, 204, 205, 289, 290, 291, 292, 293, 294
24	52	53, 54, 55, 56, 129, 206, 207, 208, 209, 296, 297, 358, 359, 360
25	1	2, 3, 57, 58, 130, 131, 132, 209, 210, 211, 212, 298, 299, 300, 301

0	1	2	3	4	5	6	7	8	9
1	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	✓	✓	✓	✓	✓	✓	✓	✓	✓
8	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	✓	✓	✓	✓	✓	✓	✓	✓	✓
10	✓	✓	✓	✓	✓	✓	✓	✓	✓
11	✓	✓	✓	✓	✓	✓	✓	✓	✓
12	✓	✓	✓	✓	✓	✓	✓	✓	✓
13	✓	✓	✓	✓	✓	✓	✓	✓	✓
14	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	✓	✓	✓	✓	✓	✓	✓	✓	✓
16	✓	✓	✓	✓	✓	✓	✓	✓	✓
17	✓	✓	✓	✓	✓	✓	✓	✓	✓
18	✓	✓	✓	✓	✓	✓	✓	✓	✓
19	✓	✓	✓	✓	✓	✓	✓	✓	✓
20	✓	✓	✓	✓	✓	✓	✓	✓	✓
21	✓	✓	✓	✓	✓	✓	✓	✓	✓
22	✓	✓	✓	✓	✓	✓	✓	✓	✓
23	✓	✓	✓	✓	✓	✓	✓	✓	✓
24	✓	✓	✓	✓	✓	✓	✓	✓	✓
25	✓	✓	✓	✓	✓	✓	✓	✓	✓
26	✓	✓	✓	✓	✓	✓	✓	✓	✓
27	✓	✓	✓	✓	✓	✓	✓	✓	✓
28	✓	✓	✓	✓	✓	✓	✓	✓	✓
29	✓	✓	✓	✓	✓	✓	✓	✓	✓
30	✓	✓	✓	✓	✓	✓	✓	✓	✓
31	✓	✓	✓	✓	✓	✓	✓	✓	✓
32	✓	✓	✓	✓	✓	✓	✓	✓	✓
33	✓	✓	✓	✓	✓	✓	✓	✓	✓
34	✓	✓	✓	✓	✓	✓	✓	✓	✓
35	✓	✓	✓	✓	✓	✓	✓	✓	✓
36	✓	✓	✓	✓	✓	✓	✓	✓	✓

Total plus 175

Pull out (to close stepping circuit) on wheel # 2

REF ID: A4127215

Distinction of alphabets

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36	37	38	39	40	41	42	43	44	45

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4	14	15	16	17	18	19	123	124	125	126	127	128	129	130	131	132
5	18	16	17	18	19	123	124	125	126	127	128	129	130	131	132	133
6	20	21	22	129	130	131	132	133	134	135	136	137	138	139	140	141
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9	36	37	140	141	142	143	144	145	146	147	148	149	150	151	152	153
10	38	39	40	41	42	142	143	144	145	146	147	148	149	150	151	152
11	43	44	146	147	148	149	150	151	152	153	154	155	156	157	158	159
12	45	46	47	48	49	50	156	157	158	159	160	161	162	163	164	165
13	51	52	53	159	160	161	162	163	164	165	166	167	168	169	170	171
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16	60	61	62	170	171	172	173	174	175	176	177	178	179	180	181	182
17	63	64	65	66	67	68	69	70	71	72	180	181	182	183	184	185
18	73	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197
19	74	75	76	77	189	190	191	192	193	194	195	196	197	198	199	200
20	78	79	80	81	82	193	194	195	196	197	198	199	200	201	202	203
21	83	84	85	196	197	198	199	200	201	202	203	204	205	206	207	208
22	86	87	88	89	90	91	92	93	94	95	201	202	203	204	205	206
23	96	97	98	204	205	206	207	208	209	210	211	212	213	214	215	216
24	99	100	101	209	210	211	212	213	214	215	216	217	218	219	220	221
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Total 75

NO. II28 FROM PARIS AUGUST 7

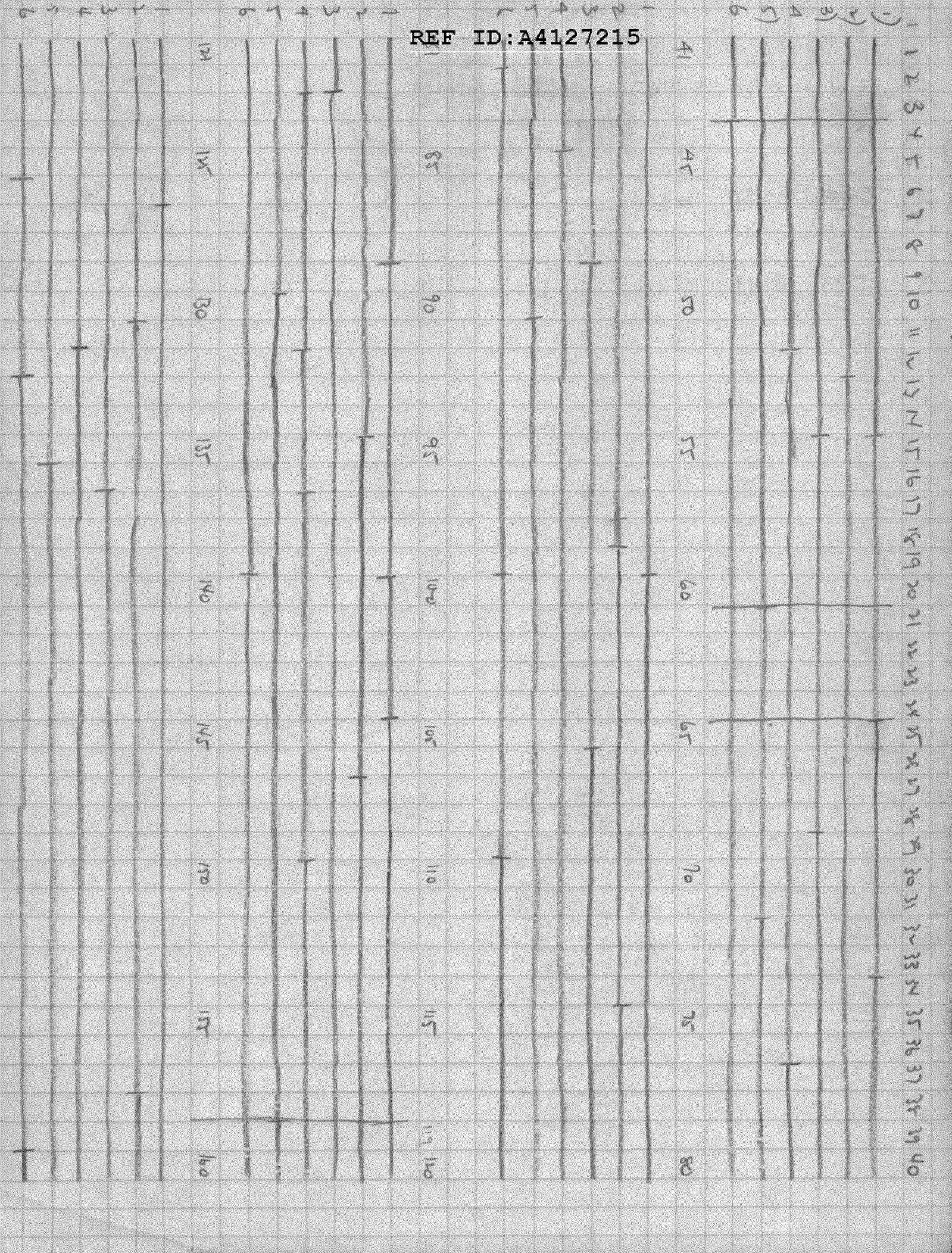
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 AAYRT OJJIB JCMFY CDMZF DFIMT PCLIM XPGCG VTZTY JTOLS.
21 ⇒ GPMGP XDRPU WMWSX IRIWE UEKZC NRXUS GVIOS ALAKM LZWGP
 YFBOU JHYHZ DKNRY JMDDD XSTBI TAKYY ZKPKR OPUTY PKFMS
 UKWJH GIJIX JUYTL AKUDY SWEYO VBRIO RYREU VLNDV KXCDW
 FWSKF IBRUA CEELY CLINE IVHWS ZHCZE HJIBW BFIST EORTN.
 WKIPP HGEKD LEFYD WPDUP ZAGVN WLTDN ONADF SKCGF ZSMKK
 JKYNJ DVPAR KDTAV VZXVU YNRIG XTLDM NUIJC PYKOW IHIYM
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 ALNIM RYWEL FXSVP FAEYC GIPYN ZBXHV NNDZB ZXIGE RGCFG.
 FXMIL PJUKI UJUKC HBROJ RIXZW FNMGL ZTEJT OWVGA TWGSH
 BIIPN EJPBF PXMAL OXHMR KECCB YSUVN INEUD XCZEG LTXFO
 CTDJL BLDRX VEVUS VYLAC RAZOD JRHXB YUXBJ YXXEH TGBZT
 YOHEO VNFUN GUUBH XYJDR KVDUP INMGB JVDMC OZRJW GUOUT.
 GPVOB KMNAM GMMBW TZCPF CVJID RFVXA AEDNB VUPWF LRBK
 KEYUR DNVAD SWZZN ERWHW AUTZJ XPMCR JZWZE CJRPG JLWCN
 WGBCG PWIRE NACHL JEOEF UPTHF EFZTB EXPEL WMGCJ NYKPI
 BNTWN IBEBI NMCSP UDACN DDSZ IEKVP GKOIA JZRWE TEXSJ.
 XMGCK IEVZL FJVDF KTSYD VMAZX TUNVD

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

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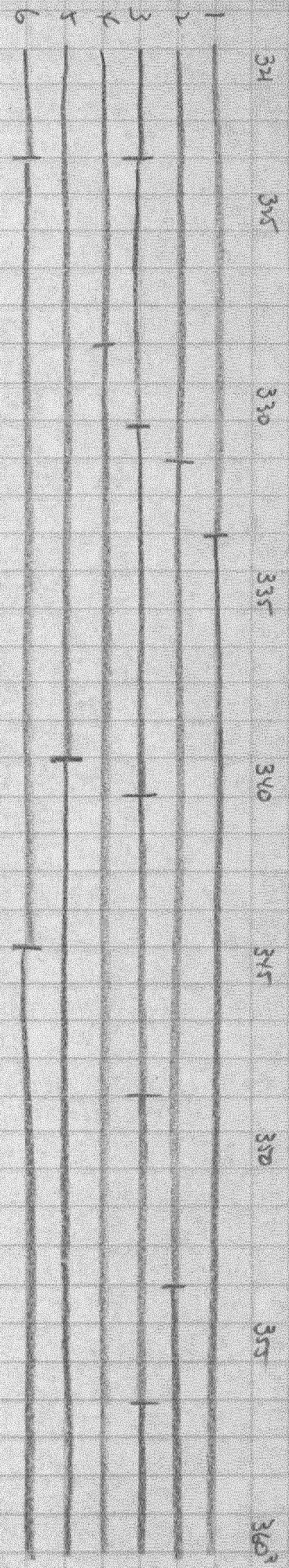
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A 1	L	C	Y	H	B	T	A	W	U	M	R	S	X	D	N	E	Z	V	O	J	G	P	K	I	F
A 2	K	B	J	U	Y	M	T	X	H	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N
A 3	C	R	V	Y	N	F	K	B	P	U	E	H	A	T	J	S	O	X	I	Z	M	W	L	D	G

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B 2	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N	K	B	J	U	Y	M	T	X	H
B 3	F	K	B	P	U	E	H	A	T	J	S	O	X	I	Z	M	W	L	D	G	C	R	V	Y	N

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C 2	B	J	U	Y	M	T	X	H	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N	K
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D 2	Z	O	G	I	V	P	N	K	B	J	U	Y	M	T	X	H	C	A	L	S	W	F	R	E	D
D 3	J	S	O	X	I	Z	M	W	L	D	G	C	R	V	Y	N	F	K	B	P	U	E	H	A	T

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F 2	I	V	P	N	K	B	J	U	Y	M	T	X	H	C	A	L	S	W	F	R	E	D	Z	O	G
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G 2	R	E	D	Z	O	G	I	V	P	N	K	B	J	U	Y	M	T	X	H	C	A	L	S	W	F
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H 2	J	U	Y	M	T	X	H	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N	K	B
H 3	R	V	Y	N	F	K	B	P	U	E	H	A	T	J	S	O	X	I	Z	M	W	L	D	G	C

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I 2	F	R	E	D	Z	O	G	I	V	P	N	K	B	J	U	Y	M	T	X	H	C	A	L	S	W
I 3	Z	M	W	L	D	G	C	R	V	Y	N	F	K	B	P	U	E	H	A	T	J	S	O	X	I

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J 2	H	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N	K	B	J	U	Y	M	T	X
J 3	D	G	C	R	V	Y	N	F	K	B	P	U	E	H	A	T	J	S	O	X	I	Z	M	W	L

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K 2	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N	K	B	J	U	Y	M	T	X	H	C
K 3	K	B	P	U	E	H	A	T	J	S	O	X	I	Z	M	W	L	D	G	C	R	V	Y	N	F

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L 2	N	K	B	J	U	Y	M	T	X	H	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P
L 3	S	O	X	I	Z	M	W	L	D	G	C	R	V	Y	N	F	K	B	P	U	E	H	A	T	J

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M 2	M	T	X	H	C	A	L	S	W	F	R	E	D	Z	O	G	I	V	P	N	K	B	J	U	Y
M 3	X	I	Z	M	W	L	D	G	C	R	V	Y	N	F	K	B	P	U	E	H	A	T	J	S	O

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 N 1 | V O J G P K I F L C Y H B T A W U M R S X D N E Z
 2 | L S W F R E D Z O G I V P N K B J U Y M T X H C A
 3 | P U E H A T J S O X I Z M W L D G C R V Y N F K B

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
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 3 | W L D G C R V Y N F K B P U E H A T J S O X I Z M

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
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 3 | N F K B P U E H A T J S O X I Z M W L D G C R V Y

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 Q 1 |
 2 |
 3 |

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 R 1 | P K I F L C Y H B T A W U M R S X D N E Z V O J G
 2 | G I V P N K B J U Y M T X H C A L S W F R E D Z O
 3 | H A T J S O X I Z M W L D G C R V Y N F K B P U E

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 S 1 | G P K I F L C Y H B T A W U M R S X D N E Z V O J
 2 | P N K B J U Y M T X H C A L S W F R E D Z O G I V
 3 | L D G C R V Y N F K B P U E H A T J S O X I Z M W

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 T 1 | C Y H B T A W U M R S X D N E Z V O J G P K I F L
 2 | Y M T X H C A L S W F R E D Z O G I V P N K B J U
 3 | G C R V Y N F K B P U E H A T J S O X I Z M W L D

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 U 1 | I F L C Y H B T A W U M R S X D N E Z V O J G P K
 2 | X H C A L S W F R E D Z O G I V P N K B J U Y M T
 3 | Y N F K B P U E H A T J S O X I Z M W L D G C R V

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 V 1 | N E Z V O J G P K I F L C Y H B T A W U M R S X D
 2 | W F R E D Z O G I V P N K B J U Y M T X H C A L S
 3 | E H A T J S O X I Z M W L D G C R V Y N F K B P U

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 W 1 | F L C Y H B T A W U M R S X D N E Z V O J G P K I
 2 | V P N K B J U Y M T X H C A L S W F R E D Z O G I
 3 | O X I Z M W L D G C R V Y N F K B P U E H A T J S

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 X 1 | J G P K I F L C Y H B T A W U M R S X D N E Z V O
 2 | U Y M T X H C A L S W F R E D Z O G I V P N K B J
 3 | M W L D G C R V Y N F K B P U E H A T J S O X I Z

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
 Y 1 | B T A W U M R S X D N E Z V O J G P K I F L C Y H
 2 | T X H C A L S W F R E D Z O G I V P N K B J U Y M
 3 | U E H A T J S O X I Z M W L D G C R V Y N F K B P

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
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 2 | D Z O G I V P N K B J U Y M T X H C A L S W F R E
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92 NA AYX
76 CVB
63 IXM
70 KCR
9 TWI
33 ZYX

6

11 NB CKM
87 DCE
25 NTL
66 NYJ
16 SYZ
52 XAP

6

57 NC BRH
56 CMK
20 FND
12 INL
44 LGF
58 RDJ
58 RWN
15 VBT
56 YZE

9

23 ND BPT
20 CJW
66 DMJ
16 EEV
68 FGC
21 JXT
50 OYZ
47 TAR
92 TKC
31 TSD
35 XZB
46 ZUN
85 ZWD

13

75 NE CQP
93 ESA
71 FLY
76 GXG
34 JTB
9 YLY
75 ZMW

7

22 NF BKY
17 CEI
80 HTW
36 JNP
16 WET
40 WFS
79 ZFK

7

88 NG BHF
26 IMH
96 JGI
64 SLP
10 YOL
73 ZCD

6

86 NH CTY
70 MDC
41 XRH
10 ZUP
97 ZWL

5

34 NI DHB
39 HEW
44 MAB
10 NPK
3 OGO
2 OPN
77 UHM
24 XXS

8

19 NJ BBE
47 BPK
89 GIX
74 HYO
21 IEJ
83 NKC
15 RFL
84 VOH
27 VWE

9

83 NK CJB
38 LWI
56 JVD
71 WLO

4

26 NL AKZ
67 GIO
79 GJP

FORM-11

452570

FORM-11

452571

6

35 NMDUN
76 HJB
33 JHU
43 UPN

4

78 NNP GW
81 URV

2

30 NO BMY
91 DTR
45 EPA
99 LPE
92 NZH
80 RWX
91 SQE
61 SWS
98 WRX
75 ZDY

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36 NPE QS
78 GWG
99 HWN
93 JOB
10 KYN
28 WUI

6

8 NRFVS
31 HPS
67 INL
17 JWW
39 NTG
88 VAG
41 VUP

7

89 NS BJI
93 COY
10 GKS
10 MUT
22 VIC
47 XOL
85 ZZT

7

64 NT DFW
78 EIA
39 GMR
89 KSB
25 LVE
91 NOS
13 PEM

7

69 NU AEF
94 FAF
43 LZX
68 MVR
57 OHW
24 OWU
81 RVR
58 YNW

8

34 NVFIY
61 MLG
38 NKI
87 OMB
24 OVK
38 OVU
96 RKV
15 URM

8

6 NWGIA
98 OPI
58 RRG
86 ZNH
49 ZYC

5

69 NXCSU
26 LKO
96 MNG
16 NBS
35 RYS
64 VNY

6

11 NYAGN
2 AZY
65 EAF
66 JFW
35 MHN
52 MZF
34 NID
70 OYF

8

52 NZPAC

FORM-11

452572

FORM-11

452573

92 HGO
42 QWZ
83 SDF
94 TBP
4 THH

7

171

59 OABSU
86 FKB
39 IMX
40 ORZ
39 TAM
66 TZB
98 ZOT

7

53 OBA BR
90 FRE
58 GZO
1 LGD
42 ILX
5 IVX
67 LRV
30 MYP
93 PJV
27 TNJ
49 XTW
10 ZBY
48 ZFY

13

FORM-11

67 OCKLT
88 MWD
91 RMR
46 VJO

452574

4

17 ODFBC
38 RDJ
91 TRC
34 XMJ

4

78 OEDBD
8 FBT
45 PAB
26 ZRY

4

70 OFGPN
48 JTR

2

83 OGBAZ
45 BZK
42 DCI
58 ESA
50 IVS
71 LZW
3 OKE
92 VWJ
72 VYG
33 YHG

10

31 OHDXF
84 HXW
85 TJY
72 TOV
70 TRI
40 VOJ
57 WHI

7

8 OIDPR
47 HCI
18 RWE
20 RWV
61 SDR
71 TOG

6

FORM-11

49 OJDFR
1 KGA
41 XKD

452575

3

46 OKBKW
3 EYM
28 IPL
8 LSK
76 NAC
51 SPE
27 URV
54 XSX

8

29 OLBEE
77 GSM
7 HHX
10 HLY
2 IDC
58 OBG
99 PEV
90 SYP

REF ID: A41272
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WNO
XVW
ZGV

12

87 OM BGA
35 EXH
88 KDE
96 NHZ
58 OLO

5

58 ON CRW
56 CYZ
31 DTS
79 FZF
73 GZC
-96 XMN
-64 XVN
11 YAG
78 YOY
92 ZHG

10

53 00 BAB
85 HTJ
36 PWC

3

452576

FORM-11

30 OPEST
98 IWI
84 JFS
89 JWG
49 KOJ
2 NYA
65 OUH
95 QXE
38 SKP
29 SLL
36 WCP

11

5 ORGFF
79 NLG
38 WJJ
25 WWK
80 WXJ
91 XAO
56 YLE
73 YXR
40 ZPY

9

88 OSING
91 QES
33 RFY
61 WSY
21 XFU
12 XWP

6

95 OT BID
22 BTC
98 BTN
11 MLT
39 OAT
89 OPJ
24 TYN

7

44 OUAIB
46 EGY
24 ETI
27 FSR
65 HWU
63 VOW
55 XDG
23 XUV
2 YRH

9

452577

FORM-11

55 OVBDC
62 DBM
63 HRB
24 KXT
72 RBD
38 UCE
32 WHG
35 XGO
6 XUY

9

74 OWLZF
17 NEC
33 OSR
98 RXJ
13 SGR
25 UDO
63 VMO

7

89 OXAPY
16 AXP
50 BNL
6 CHU
26 FIF

6 CHU
26 ELL
75 FTT
59 FSW
69 KNX
52 WDR

9

23 OY AAH
12 BWQ
70 FGE
27 LVD
93 PPX
15 WVD
50 ZWG

7

75 OZ DYP
19 IXW
76 KEH
17 KKR
20 KYP
92 RMS
22 XKD
84 ZYE

8

FORM-11

452578

180

45 PA BVX
74 BYU
67 HKP
57 HSA
82 HWD
60 HXD
94 LIW
94 PMT
96 XON

9

24 PBOUE
99 XBS

2

55 PC ACU
75 BAI
53 DMU
42 DMU
82 IXH
52 KZB
52 NYM
61 ZIK

8

94 PD APA
20 SBD
18 VBD

3

55 PEECX
51 HCD
41 HCU
3 HXM
13 MUI
36 QSB
30 STR
99 VFY

8

68 PFGYY
36 HUJ
6 HWG
55 PFU
55 UDO
6 VSM

6

FORM-11

452579

84 PGDMG
87 HIC
13 HXE
75 MGC
78 WGO
2 WKO

6

38 PHOPS
81 RUX
99 WNO

3

61 PIHPL
45 UUX
98 WIT
96 WLW

4

49 PJ AHL
4 BTN
4 EBE
83 ECZ
84 FSZ
54 MGW
93 OBP
28 OKI
8 OKL
95 OTB
63 SUV
93 VPD

93 OBP
28 OKA
95 OTB
63 SUV
93 VPD
16 WCL
89 WGJ
97 YYC

15

54 PK DBQ
39 GZB
40 IOA
47 OIH
49 OJD
10 YNH

6

41 PL HLN
87 RGD
69 RVJ
28 VGI
61 YFP

5

FORM-11

452580

57 PM DJF
30 FLR
87 IPL
79 ONF
94 TIZ
56 TOR
83 YFK

7

25 PM BNT
71 EFL
80 FHT
77 IUH
99 PHW
16 RJW
43 ULZ
57 UOH
2 YAZ

9

7 PO LHH
96 MNH
64 NXV
65 UHW
12 YBW

5

67 PP AHK
93 XBC

2

95 PQXEM

1

9 PR AFV
41 ELP
8 KJT
64 LYB
4 VWZ
29 ZTR

6

28 PS ETT
64 GSU
39 KPU
4 KQL
29 LLD
75 MXM
31 SMZ

7

FORM-11

452581

65 PT EGZ
81 JYL
23 LAK
91 LKY
6 LTF
80 ZCU

6

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44 BPZ
77 KMA
53 LXA
45 VBD
17 XAA

6

11 PV BTC
2 DNI
25 EAH
49 EHY
51 HIR
65 LGX
51 LMY
17 LRK
39 LTC
56 NCC
41 PLH
19 TBA
11 ULD
27 YHJ

30 LHW
28 UID

4

93 PXBCJ

10 GPV
36 LSC
30 RLE
43 VTH
83 ZCO

6

68 PYAHV
40 BRN
83 EPJ
22 KFU
1 RDY

89 WTN
20 ZDF

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83 PZBYT
13 DNT

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80 NOR
24 NVO
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44 YNI

24 YPZ
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165

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1

42 QWZRA

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452583

54 QXDQU

95 EMS
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3

26 QYLMY
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74 QZJGJ

1

19

70 RAFNH
9 FVM

93 GKA
81 IWP
42 PCD

29 TGT
19 TSJ

7

29 RBBTT
72 DZW

63 WEX
54 YPK

4

91 RCCJP
92 HFH

21 LCD
49 OBX

4

FORM-11

FORM-11

52 CPC
68 FCF
54 FHP
88 GOS
66 ILH
38 JDB
58 JNU
68 JWH
34 NYM
30 PWL
6 TYP
97 YMA
1 YXG

14

452584

7 RE CBG
90 IEC
41 LPE
95 OPQ
98 RYX
79 YOR

6

46 RF AHA
76 KNE
15 LCJ
48 LIY
9 LKB
90 MGJ
8 VSK
33 YUN

8

37 RG BWW
87 DPZ
5 FFD
31 JBT
50 JER
21 JUB
30 LEW
80 PNF
39 PVL
27 PVY
58 XDA
3 ZDA

12

41 RH GFD
77 HPN
11 LOT
57 PAH
31 PSS
1 PYR
73 SRW
2 VCX
35 YSG

9

57 RI JZM
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67 NLG
24 XRN

4

452585

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52 KTL
55 TJO
17 WWB

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17 IFA
33 IVZ
8 JTR
96 VZP
45 ZPU

8

30 RL EPM
1 FKF
47 HTV
40 LSD
73 NZO
59 TYC
59 VTE
64 YBA

8

77 RM DXX
86 KQF
13 LFH
91 RVH
92 SRN
36 SXA
15 TSO

7

93 RN EES
40 FWF
24 IXX
84 JVO
79 LGJ
39 TGM
49 WZY

7

FORM-11

58 GIV
18 IRW
61 ISD
21 SXF
39 TOA
35 VXG
33 WOS
76 ZKF

452586

9

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81 HRU
48 KIO
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9 RAF
53 ULX

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51 TZE
23 UEK

3

78 RSCYU
73 DAH
85 JUF

3

91 RTFCM
27 HOB
53 MEI
82 YMH
51 ZEM

5

68 RUBRR
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57 FCZ
23 LMT
25 SJY
81 XSF

6

88 RVAGK
27 FRG
91 HED
69 IUT
69 JZD
23 LCB
85 OOH
81 RWD

78 TFI
47 TMH
41 UPR
77 WVC
84 WZA
67 XGP
62 XWJ
86 YSL

16

81 RWDJT
18 EWP
74 HJT
38 JJQ
58 NCR
45 OGB
73 ONG
48 RFL
28 VGP
76 WAF
25 WKY
88 XJW
29 YYJ

13

91 RXAOC
59 GRL
87 GYL
98 JUK
13 KVI
38 ZSI

6

81 RYJER
56 LENO
87 NVO
31 OHD
35 SBH
26 VHT
95 WCS
98 XOA
73 XRL

9

48 RZIGL
44 LQC
29 PRZ
48 PYB
29 TRB

5

FORM-11

452587

452588

FORM-11

89 SA IAX
 93 LHZ
 52 THS
 71 TNK
 57 WRU
 58 XOX

6

85 SB ANW
 43 CNM
 90 CZN
 20 DHC
 90 GAB
 35 HTR
 89 JIG
 89 MHN
 61 SRO
 36 UHO
 09 YHG

11

95 SC CTV
 99 DPN
 36 HAJ
 93 OYP
 78 YUH

5

73 SD AHY
 95 BBY
 40 CGY
 31 EZD
 83 FCP
 81 LKZ
 62 RVX
 07 SXA
 71 ZJF
 48 ZVC

10

32 SE F IY
 38 LLA
 26 NLA
 19 PDL
 28 TTH
 75 VJZ

6

42 SFE JO
 31 IBA
 51 OKS
 90 OLS
 24 PBO
 81 PTJ
 41 PVP
 76 ROZ
 71 VTH

9

FORM-11

452589

21 SG CZS
 35 EHN
 50 GOX
 10 KSW
 13 RML
 64 SUG
 18 YDT

7

69 SH TSM
 53 XZJ

2

93 SIF NS
 76 GSI
 44 NCL
 88 NGB
 77 OLG
 62 OVD
 30 SYJ
 18 VUB

8

19 SJ CBE
 85 UFL
 42 VXS
 54 WDE
 28 WUC
 80 XEG
 25 YMJ

7

08 SK MDV
 08 OEF
 39 PUB
 04 QLP
 91 SXO

5

86 SL GUG
 29 LDV
 64 PRL
 61 WMC

FORM-11

49 SM AOP
 69 BPL
 79 BVR
 44 EJK
 86 LXS
 56 LYJ
 77 TDR
 10 UTN
 32 WXD
 75 XMN
 38 XOR
 67 ZFK
 31 ZUW

13

52 SN BXA
 75 OZD

2

48 SO BZF
 29 LBE
 15 YWV
 20 ZKY

4

60 SP AHX
 51 EHC
 03 EHX
 80 TZC
 17 VLR
 83 YEP
 79 ZJG

7

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92 SR CHF
 06 DTY
 95 EOP
 33 FYU
 21 GJU
 93 NEE
 61 OIS
 27 THO
 73 WON
 76 WWA

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FORM-11

31 SS MZU
 94 TJW
 34 XOD

3

79 ST BSP
 73 GIU
 53 IMM
 94 JWZ
 30 RDP
 44 SIN

6

64 SUGIV
 98 TLU
 63 VGC
 70 XNA
 59 ZUW

5

62 SV DFA
 22 ICY
 43 ZEX

3

52 SW DMW
 59 FRL
 24 HGI
 28 IXV
 10 LEN
 46 OUE
 61 SYF

7

36 SX AUG
 07 AUW
 21 FUB
 54 LUZ
 34 ODX
 47 OLX
 91 ORX
 59 QLX
 12 WPO

9

96 SY AFU
 61 FSL
 50 JLA
 40 JRL
 30 JTM
 22 LTK
 90 RFM
 82 VMN
 16 ZGN

FORM-11

82 VMN
16 7GN
77 SZ BRH
63 JVI
84 MPG
37 RGB
12 XBH
85 ZTH

9

6

165

40 TAI HF
39 MMT
47 RVT
04 TEZ
79 WES
12 ZSZ

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19 TB AXK
59 DSX
95 IDB
94 PAL
73 RHS
75 SNO
80 SPT
34 SSX
22 TCB
98 TNO
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11

22 TC BDZ
40 EXR
66 GUG
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FORM-11

65 TEG ZA
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452593

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03 TFAZN
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06 HPF
78 IAD
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03 MZV
42 SJV
81 WJY
45 WPI

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73 TG DER
51 GIE
73 IUT
39 MRO
29 TKD
08 VLX
88 ZKN

7

28 THD AB
04 HYW
71 KLE
43 KVK
27 QBT
52 SWD
85 URS
74 WEP

8

63 TIAJN
05 AYW
97 BCI
26 DLV
53 MMO
18 SIV
94 ZDS
24 ZJI

8

55 TJ ONC
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94 WZL
85 YGG
81 YLU

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FORM-11

22 TK AHN
92 CSR

452594

92 CSR
56 DAY
29 DUM
54 PJM
89 SBM

6

23 TL AKR
77 HKA
28 KSW
92 KYH
01 MWM
52 OXW
06 TFH
56 TUM
98 UHM
25 VEA

10

04 TMCPS
53 EIH
47 HRL
11 LTY
86 OAF
02 PVD
80 SDL
74 YAQ
30 YVL
19 ZDA

10

57 TNCBR
10 GYO
41 HXR
89 JGI
27 JVW
71 KWL
91 OSQ
98 OWR
78 TEI
04 ZTH

10

39 TOATA
88 CMW
71 GLZ
72 HTO
31 NDT
89 PJW
56 RYL
72 VRB

8

13 TP EMU
67 PAH
44 UBP

3

32 TQYVL

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29 TRBBT

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121

91 TRCCJ

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30 TRDPW
76 FKN
09 FLK
50 GJE
70 IMX
35 OVX
51 RTZ
48 WRF

8

31 TS DEZ
52 HXZ
44 INC
19 JCB
69 MBP
52 NBX
29 OLB
15 OYW
98 UTL
22 YLT

10

73 TTGDE
28 HDA
29 SOL
24 YNU

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56 TUMRP
07 REC
41 SFP

3

95 TVBNV

FORM-11

452595

FORM-11

452596

49 TW FVI
80 HCT
10 HZN
09 IRP
69 JNU
97 MBG

6

72 TX CIZ
43 DIV
99 DUV
80 GTM
86 GTM
03 JFW
70 OFG
24 SFP

8

59 TY CHB
11 DEJ
91 JRT
86 LCY
82 MHK
24 NUO
06 PFN
97 PJY
39 RGP
23 RIX

10

66 TZ BNB
65 BWW
21 BZR
80 CUL
51 EMX
05 FYT
46 NDZ
16 OXA
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67 QOB
91 TYJ
62 XCY

12



65

452597

69 UA EFL
44 IBD
40 OHV

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18 UB AXM
45 DGR
22 ITS

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21 UB MCC

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21 UB NDJ
39 NIH
44 PZY
60 RRJ
45 VFU

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95 UC DXL
38 EDN
65 LMP
28 PJO

4

72 UD KEI
25 ORW
55 OVB
54 UOK
55 WAG
01 XBG

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46 UE GYG
23 KZQ
24 TIZ
33 VHF

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452598

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57 CZJ
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28 SJW
27 SRT
42 XZJ

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36 UG CNF
55 CPF
66 FND
64 IVN
43 KLW
40 TAI
86 TXG

FORM-11

FORM-11

TXG
DRD
ZGE

9

77 UHMMP
98 MNW
36 OOP
81 TDE
65 WUG
82 XBY
78 XJI

7

29 UIDRW
32 FCS
06 IPT
13 YVI

4

36 UJAFD
25 BBI
05 TZF

3

41 UKESF
98 GDW
77 MAZ
97 MVB
94 NZT

5

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80 GPZ
92 IBO
23 MTY
50 WKT
53 XOL
43 ZXH

7

56 UMRPN
68 VRD
30 WOP

3

33 UNAZY
85 DZW
47 JBP
10 SGK
89 TKS
35 XRY

6

42 UOBIL
57 HWH
27 KUR
54 KXS
73 RYX
24 WUD
26 XEI

7

36 UPFHU
63 JSU
57 MDJ
43 NUL
41 REL
10 XGP

6

19 URATS
07 ECB
15 MTS
26 QYL
85 SJU
27 VFR
81 VRW

7

75 USEVJ
41 FPV
25 JYM
56 MLY

4

73 UTBRH
72 DJB
12 EUW
77 LHK
98 LUH
10 NGY
41 USF
69 WJN

8

45 UUXER

1

45 UVBDT
32 COV
63 GCK
23 MND
74 NJH
63 OWV
84 ZOZ

7

FORM-11

452599

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452600

43 UVBUI
32 CQV
23 GSK
74 MND
63 NJH
84 OWV
ZOZ

7

59 UWDTB
15 FCI
07 IYK
02 LTM
94 NUF
19 TEL
31 VSF
12 WNC

8

17 UX AAY
55 DGE
45 ERW
70 NAK
38 SEL
81 SFP
23 UVM

7

58 UYNWR
02 RHV
06 XGA

3

54 UZEOL
06 OVX
59 UWD

3

FORM-11

130

452601

69 VAEMI
88 GKO
68 NUM

3

55 VB DCF
76 DJW
45 DIE
18 DYW
15 FAE
48 KFG
95 NVR
97 RDY
15 TBX
11 TCU
70 YON

11

78 VCMRS
32 QVW
48 VBK
02 XJV

4

08 VD ANR
62 BMC
62 FAS
15 MBV
02 NIO
56 USM
28 VET
70 XBO

8

25 VE AHG
25 APV
49 HYH
61 NOS
28 TLK

5

96 VF IJP
34 IYR
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45 UBD
99 YJJ

6

FORM-11

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28 INP
20 PDS
03 XDD

4

452602

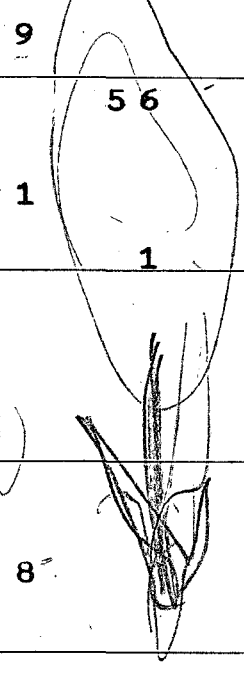
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78
69
29
CVA
PG
PV
TNT
UTW
WBR

90 VJHSB



64 VJIDF
01 JOJ
93 LXN
46 OKB
65 PVL
67 ZCT
69 ZDJ
75 ZFV

16 VKCNX
07 CXT
28 FPS
43 WIS
18 WTI
24 XTX

FORM-11

32 VL AZB
31 BRG
23 CBR
65 GXJ
48 JJR
63 MGA
51 MYD
34 NVF
17 RKI
40 TCE
08 XDE
51 **KLL**

452603

12 VMALT
09 HXZ
61 LGL
23 NDB
82 NJN
63 OVH
75 PSM
43 UGK
09 VMH

92 VNAAY
56 CCM
74 JHY
38 KIW
64 TDF
65 YEA
62 ZBA

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08 IDP
41 JXK
87 MBG
85 OHT
29 PSL
24 VKX
38 VUC
63 WVM

93 VPDAP
41 LHL

72 VRBDZ
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68 DJW
79 EYO
96 KVZ
33 OWO
82 TYM
81 WDJ

FORM-11

31 VSFIB
54 JWD
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06 MLX
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50 YJL

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59 EHD
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43 HKV
47 MHR

452604

18 VUBAX
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15 RMT
38 XSE

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33 VVHCO

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92 JVN
02 UWL
77 VCM
04 ZAY

7

05 VXFKT
45 FUB
35 GOM
67 GPW
43 SVZ
06 UYX
62 WJJ

7

FORM-11

452605

69 VYBWO
87 DEF
72 GIH
27 HJI
86 SLG
90 YVJ

6

47 VZBLZ
34 CHH
96 CLS
43 EXD
53 IRP
84 OZZ
96 PAX
82 VRT

8

109

65 WABTZ
98 ETS
76 FSF
55 GPE
18 MGF

5

17 WBKOZ
29 RAT
67 VJZ
03 ZFS
68 ZRD
19 ZUW

6

05 WCAMC
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36 PXL
95 SRE
58 XID

5

76 WDESR
54 EWI
81 JTF
88 JZG
18 KEJ
85 LMX
52 MWR
52 RDC

FORM-11

452606

59 TBD
82 WMD

10

27 WEAJA
74 PAB
79 SPZ
16 TZO
65 UCL
18 WPD
63 XJU

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94 WFCGE
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62 GH0
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66 OAT
59 RLT
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40 SYJ
49 VII

9

46 WGCLJ
6 IAW
89 JFO
47 JSD

47 JSD
 12 MJG
 78 OED
 50 VUL

8

80 WHCTX
 32 GAD
 24 GIW
 80 GYB
 57 ITN
 74 JTH
 68 LIL
 46 ZHD
 10 ZNI

9

09 WIRPR
 43 SBC
 99 TZP
 38 VUX
 87 WPM
 54 WXD
 28 XVK
 07 YKB

8

94 WJFIH
 38 JQH
 62 JYT
 69 NUA
 92 VNA
 72 XTX
 81 YRA
 25 ZUO

8

66 WKAZK
 09 BZE
 60 EMS
 16 MZN
 02 OLI
 71 TOH
 50 TRG
 25 YDC

8

97 WLCBK
 10 ENS
 30 HWN
 48 OFJ
 71 OIT
 38 PHO
 66 TCG
 02 TMP
 96 VZC
 74 ZFA

10

97 WMBGU
 61 CNV
 82 DUH
 02 OUY
 96 PIW
 54 VSI

6

12 WNCIN
 58 CRD
 22 FBK
 17 FCE
 21 JIE
 30 OBM
 45 OEP
 99 OLP
 47 SXO
 85 SZZ
 94 UFA

11

39 WOAIM
 45 GBZ
 73 NGZ
 30 PES
 98 PIW
 33 SRF
 46 UEG
 69 XKN

8

82 WPAHW
 55 CAC
 18 DVB
 45 IUU
 87 MIP
 12 OYB
 24 ZYP

7

12 WQBGW

1

66 WRDIL
 48 FLI
 52 JKT
 05 KFO
 18 OIR

FORM-11

452607

FORM-11

452608

01R
58 R G X
57 H F C
74 W H J
07 X G Y
98 X J U
13 X K V

11

13 W S G R M
61 Y F S

2

04 W T A T E
20 E L N
18 I S I
89 N J G
97 W M B

5

FORM-11

452609

28 W U C P J
25 D O R
65 G W R
29 I D R
05 J T Z
72 T D J
02 W L T

7

78 W V C M R
15 D M B
20 G P D
63 M O V
62 N Z B
31 S F I

6

76 W W A F S
17 B K O
58 C X I
65 E U C
25 K Y D
12 N C I
85 N S Z
07 R X G
37 Y Y O

9

64 W X B F Y
34 C D V
54 D E F
32 D T O
80 J W H

5

98 W Y A W A
46 C W H
20 M G R
29 Y J R

4

04 W Z A Y G
75 K E L
94 L D W
50 L S G
86 N H C
42 R A P
49 Y C F

7

FORM-11

452610

182

17 X A A Y S
91 O C R
52 P C K
51 P V L
89 P Y W
36 U G C
07 U W I
32 X C I
16 X P J

9

93 X B C J M
42 E M I
64 F Y C
01 G V J
12 H Y B
50 N L J
70 O H T
99 S C D
70 T V B
82 Y V Z

10

34 X C D V L
06 H U I
32 I N M
72 I Z Y
69 S U X
62 Y M L

6

58 X D A H O
03 D A T
54 E F R
08 E P J
55 G E U

REF ID: A4127215

43 KZP
54 OUX
51 SFO
32 TQY
99 UVV

12

80 XEGJF
26 IFA
95 MSC
45 RWO
73 TTG
13 XPZ

FORM-11

452611

6

31 XFAJB
05 KTD
39 PKG
59 SWF
21 UBM
45 UBV
78 VIT

7

06 XGAGJ
85 DIU
87 KYT
76 NMH
35 OME
02 PGW
10 PVU
67 PWB
59 RLV
07 SDS
86 TMO
80 TMS
01 UDX
07 YLE

14

82 XHBTD
35 FZX
43 HCD
82 SYV
59 YCW

5

58 XIDJO

1

03 XJFWB
15 HUW
78 IZI
27 KDO
65 MXO
98 UKG
63 UPJ
02 VWU
80 WHG

9

FORM-11

41 XKDIT
22 DOT
35 DXU
15 FNJ
19 MKD
69 NXC
13 VIL

7

452612

08 XLCFI
95 DCM
26 KOE
51 LZZ
36 SCH
56 TKD
54 UZE

7

23 XMAYB
33 BVR
04 HFA
77 IUT
34 JEB
63 MTI
75 NEC
96 NGJ
18 WDK

9

70 XNAKC
16 BSY
92 DTK
93 PJO

4

98 X0AZO
34 DXM
70 FGP
47 LXV
53 LZG
96 NXM
65 POU
38 RWJ
91 RXA
59 XFS

FORM-11

59 XQLXH

452613

1

41 XRHGF

57 IJZ
30 LEP
73 LNZ
24 NIX
40 PKI
85 VOO
35 YSB

8

71 XS ATN

95 DBB
38 ELL
90 FOL
24 FPB
81 FPT
71 FVT
06 RDT
43 VZE
24 WHG
54 XLU

11

55 XTFKL

07 URE
49 WFV
10 WHZ
72 XCI
24 XSF
21 ZBZ

7

89 XUNTK

36 PFH
23 VMN
94 WNU
06 YXG

5

28 XV KFP

65 NYE
43 THK
47 W G J

4

19 XWBZU

52 DRD
62 FGH
62 JJY
12 POY
85 WNS

6

77 XX MIU

24 SWH

2

35 XZ BFR

83 COG
53 JGY
42 JKT
33 JLB
30 SIS
09 WKB

7

169

23 YA AHY

96 FUG
11 GNB
68 HVA
22 MFZ
74 QZJ
98 WAE
32 XAX
02 ZYA
02 ZYZ

10

64 YB AZP

12 AZW
80 FSJ
23 OUX
40 RNF
69 WOX
12 WQB
74 WRW

8

49 YCFKM

34 FNY
59 HBB
97 LDC
53 LRP
64 VJI
46 WHZ
60 WKE

8

FORM-11

452614

FORM-11

86 YDBZB

452615

86 YDBZB
25 CAR
87 EFW
11 EJJ
84 IYZ
11 JEB
18 TMZ
09 ZKL

9

65 YEAFW
84 FGD
83 PJE
13 SEP

4

71 YFFCF
70 GEH
83 KSP
61 PCZ
61 SLW

5

48 YFSOB

1

95 YFUCD

1

4 YGAIK
85 GEF
72 IHC
46 TZN
48 VLJ

5

84 YHEYU
09 GIN
33 GXM
27 JIJ
92 LUL
70 TXO
49 ZLH

7

FORM-11

72 YIDZM
07 GPO

2

452616

01 YJERH
66 FWL
99 JHT
50 LAJ
40 RLL
91 RTF
29 RZP
56 TLT
30 TMY

9

07 YKBVK
22 FUB

2

86 YLCYD
07 EHY
56 ENK
27 MYU
22 TKA
81 UHT
28 VDV
09 YDZ

8

97 YMAHC
20 GRK
03 HDK
82 HKM
35 HND
25 JGP
62 LHW
61 LSB
40 UGT
52 ZFG

10

63 YNAIX
10 HZU
34 IDH
44 IMA
24 UOW
87 VOM
58 WRR

7

FORM-11

31 YOHDX
10 LHL
70 NYO
79 RNL
74 WLZ
70 YFG

6

452617

75
 86
 97
 54
 16
 93
 56
 30
 22
 20
 24

FNW
 JYY
 KDB
 NRJ
 PXB
 VNC
 XRL
 YKF
 ZKS
 ZNV

11

81
 34
 01
 90
 39
 02
 23
 23

YRAIW
 DNY
 DYX
 FMG
 GPV
 HVC
 IXR
 RUE

8

35
 35
 86
 17
 73
 36

YSBHT
 GEH
 LGU
 PVL
 TGI
 ZRG

6

83
 88
 05
 74
 87
 62

YTEPX
 GZK
 IAY
 MYA
 VYD
 ZXC

6

78
 33
 10
 27
 41
 74

YUHXJ
 NAZ
 NSG
 OKU
 TUS
 VNJ

7

26
 13

YVHTI
 IAL

2

90

YVJHS

1

65
 32
 31
 82
 82

YVJPV
 LAZ
 LBR
 MNJ
 ZVR

5

18
 68
 05
 95
 04
 89
 15

YWAMG
 BZR
 CAM
 CSR
 TAT
 TNJ
 VDM

7

06
 01
 92
 98
 73
 10
 33

YXGAG
 GUD
 NDT
 OAZ
 RLN
 TWH
 ZJL

7

97
 29
 90
 68
 68

YYCLD
 JRZ
 VJH
 WBZ
 YWB

5

67
 20
 02
 56
 16
 84
 16
 50

YZBSM
 DFO
 EXG
 EXL
 GNF
 OPJ
 VIB
 WGV

8

74
 26
 04
 65

ZAIBF
 NGI
 YGA
 YVJ

4

62
 35

ZBAGS
 ERH

8

FORM-11

452618

FORM-11

452619

62 ZB AGS
 35 FRH
 47 LZG
 86 MII
 66 NBN
 47 NDT
 77 RHH
 52 SAT
 79 SMB
 67 SMZ
 32 UVC
 65 WWE
 83 YTE
 10 YUM
 39 ZGB
 21 ZRO

16

73 ZC DKL
 81 GJZ
 34 HHY
 96 LSY
 83 OGB
 67 TPP
 80 ULG

7

03 ZD ACT
 19 AUR
 20 FOI
 69 JGV
 31 JRY
 45 MGO
 13 NTP
 94 SST
 75 YPC

9

09 ZE CFO
 22 CWN
 51 MXA
 54 OLT
 43 XDK
 02 XGP
 56 XLT

7

74 ZF AZA
 83 DIY
 52 GTS
 67 KGL
 79 KTA
 03 SPE
 75 VMP
 48 YGV
 05 YTI

9

39 ZG BNR
 96 EVF
 88 IFZ
 16 NFW
 53 VZI
 47 WNS

6

46 ZH DOC
 92 GOZ
 97 IWT

3

78 ZI FLR
 48 GLE
 61 KJY
 48 KPJ
 93 RAG
 53 RPC
 77 RVW
 19 XWB

8

71 ZJ FEF
 79 GJB
 74 GJK
 53 GYC
 57 IIU
 24 IOT
 42 KTF
 33 LBF
 63 VLM

9

75 ZK ELH
 76 FHT
 17 KRO
 66 LAT
 09 LSB
 88 NRV
 20 SGC
 20 YPZ

8

83 ZL CPZ
 01 CTL

FORM-11

452620

FORM-11

452621

48 KPJ
93 RA6
55 RPP
77 RVW
19 XWB

8

71 ZJ FEF
79 GJB
74 GJK
53 GYC
57 I IU
24 IOT
42 KTF
33 LBF
63 VLM

9

FORM-11

75 ZK ELH
76 FHT
17 KRO
66 LAT
09 LSB
88 NRV
20 SGC
20 YPZ

452621

8

83 ZL CPZ
01 CTL
94 DWF
49 HBV
44 QCS
87 RYN
50 SGG

7

57 ZM NLJ
72 OGV
84 PGD
75 WZK

4

16 ZN DEE
46 DZU
34 EJT
86 HCT
10 INP
03 IOG
80 ORW
91 TNO
24 VOV

9

58 ZO GES
84 PJF
98 TBT
06 VXU
16 XAX
73 XET
23 YAA
84 ZZY

8

96 ZP AXO
99 BXB
61 IHP
95 JOT
29 RZT
64 SGS
45 UVB
17 UXA
51 VHT
43 XVT
40 YBR

11

FORM-11

67 ZO OBL
42 WZR
23 XMA

3

42 ZR APC
68 DFG
64 DFH
88 DGO
46 FAH
37 GBW
55 JTJ
92 MSR
84 NJV
21 OSX
81 PHR
26 YVH

12

83 ZS DFC
30 ISY
21 RGJ
12 ZXB

4

94 ZT BPA
04 HHY
85 HUR
04 MCP
88 OCM
29 RBB

452622

FORM-11

99 AXU
 95 BXB
 29 JOT
 64 RZT
 45 SGS
 17 UVB
 51 UXA
 43 VHT
 40 YBR

452622

11

67 ZQOBL
 42 WZR
 23 XMA

3

42 ZR APC
 68 DFG
 64 DFH
 88 DGO
 46 FAH
 37 GBW
 55 JTJ
 92 MSR
 84 NJV
 21 OSX
 81 PHR
 26 YVH

12

83 ZS DFC
 30 ISY
 21 RGJ
 12 ZXB

4

94 ZT BPA
 04 HHY
 85 HUR
 04 MCP
 88 OCB
 29 RBB
 91 YJR

7

47 ZUNJB
 25 OXE
 10 PXG
 59 WDT
 19 WTE
 31 WVS

6

FORM-11

48 ZV CVB
 03 GXD
 16 IBY
 82 RTY

452623

4

85 ZW DLM
 12 GMJ
 50 GVV
 72 JXT
 09 KBZ
 71 KTO
 97 LCB

7

12 ZX BHY
 62 CYM
 43 HHC
 22 KDO
 35 KDX

5

02 ZY AZY
 49 CFK
 84 EFG
 84 HEY
 72 IDZ
 44 NIM
 24 PZN
 88 TGZ
 33 XZJ
 02 ZEX

10

44 ZZ DMG
 93 IRA
 51 PVH
 85 THU
 84 YEF

5

188 4329

FORM-11

452624

52

87
30
110
17
1127

ESA OSEPEMSWGU&AMM 0001
 UKOWPANIQDXQEXMYXJSPBZSEBUV&LA 0031
 CJNOVVHRTGFXEENCWBSCKPURXGTKDG 0061
 MGBLJBFJHGMMOYKQJOWCXLIIQDVQBX 0091
 PYEMOGPDWAEUBDRIVHFQDIXVCQILYG 0121
 KLOFWQAQVVS RBMBBEEQIIVIUBIVXPS 0151
 QQRHEUBJTONDB GCHI HUA FHACGAYXU 0181
 OSKHOMNBLWGLBQBDFACPYGRUJSGBO 0211
 IOPCQONFQVNNBADEGGFEWKVFCRSOTT 0241
 FWGXQVTHUCHJUWXUDYPUDCIQTWBEVY 0271
 DEHYQFUVAGRBWNKHSSJOBRRBPUEXVQX 0301
 FL5DLWS5WUYKUQVUUQRTGVTXGWXODM 0331
 LCPSIYJBLKWHSVTMSHOMRWHVAWAQTR 0361
 OHRETUKQHYTOWRKB IYUYKVPXLIOQXU 0391
 BYKGGGWXFOBHUSQMP³LG²EAXTTXKOD²C
 - "R-AS-FOLLOWS-"
 XT XK BWCFRBSAFOVXF TACHROXQEHMRY 0451
 NXUUEM&UVALOCUBKAXMNEBYFRWBQPP 0481
 CAWMNMWUQRSSMSXKHDJDSKMSTQRNRR 0511
 JUOGWADHQIYABIPODMALIARNSXIBVO 0541
 JVGQBCEXUEUFROLKXFQQDLAVGTRHWM 0571
 RFXNHTMA TUHTAENFQUAMHKBRBNIWDX 0601
 PJDGHLJFJSBOSIVBDYJDBWVUFDLPLA 0631
 SWNUTGTSBNILIHNOKPSDNBVBIGVXAC 0661
 RNRRFVBI OHGMWMPAWGICGBXOEWTI 0691
 VGN YFLFRPCERWYBGKIXFCMCLWCPQYQ 0721
 LCTJHGTHHCKMVGLBMTPEYYNPVVFNH 0751
 QCAECKDPLLGBJTCISGOKPIQQPJFBBR 0781
 KPIRUVDPNEFWFHF RSLMEOWBHOIYTMN 0811
 XPJOXPXNRGVHAPJHKSQARNYHBMAIXH 0841
 PRKUNHGUJBOSGVIVPDREVUOIDITQWF 0871
 SWKQHXRTASMTBBOCBLU1QCXOWCBK&N 0901
 SANQXAGVDTMGKJMDGTYKJHYVLDEROQ 0931
 RWWAELJNFNJNVGHKSMDWKPRWATQTHF 0961
 XYHADQXKIVTXEMUADUHIRBICSEBVSM 0991
 ENYWHYREUBKIHVVBUQNHWPYEF GFKGL 1021
 GEXMBCFJVHTOIQVRKVCQRQBVCXENXT 1051
 DUTRND DOTNUXPDRGLISHURQRRJADU 1081
 ACNJCEVB OHCTSKJHBEYEUYADWWMMYU 1111

090702

FORM-11

~~ABCDEFGHIJKLMN OPQRSTUVWXYZ~~

44-6540

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
44	63	40	40	43	37	47	51	42	32	40	33	40	42	49	40	49	53	42
T	U	V	W	X	Y	Z	1	2	3	4	5	6	7	8	9			
43	50	52	45	51	33	1			1	1	3	1	1	2	1			

3 (11) 01 TPLSS YBLNT GJOPE IQCLX A0ZSA AZ

4 (11) 01 BARWW MLAPE OCSEW NQGAT IVYKW WE

123 EOKPP FIVCU YUVIZ TQZVD XYDAV V⁴⁵⁶OMDF EWNBO VRNWL FQING PGBIU U

709 MLBEE CMRUA NIMAJ DQWRL FKAER R0

008 NWSNN RAIHD ZGRXM YQOIE VZHPO 0

11 TPLDW YLIPE FCSXF LQOJC SHDAH M

21 TPRSS YLUND FCOAR BQMFA KTZDV C

31 TPISW YDENP FCYIF MQGJC RGKDG 0

41 TPLSS YBLNT GJOPE IQCLX A0ZSA A

(1) A B Y L I P J V (2) N X R W
 (2) A H T Y J K P I O Z E F S
 (3) M L G R Y F B U H T S X Z

A B C D E F G H I J K L M N O
 P R S T U V W X Y Z

A
B
C
D
E
F
G
H

12
76

||
(

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

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ABCDEFGHIJKLMNOPQRSTUVWXYZ

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ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

ABCDEFGHIJKLMNOPQRSTUVWXYZ

A

Stepping Wheel No 1
Block type No 1

Cypher Text
Comm. #
Alph.

1	ERY JERHPYRDYXGUDXBGVJJJJKGARLF	A
	11122222222333322222111113333	1
	AABBCCDEEEEFFGHHHHIJJKKKLNNN	1 - Stepping wheel

2	KFFOBIGDAZLCTLMWMOUYRHVCXJVVWUW	A
	32222233331111122222111111111	1
	NN0000PPRRSTTUUVVVVWWWWWXXXY	1

62	LTMPVDNIOPNYAZYAZYZEXGPGWKOLID	A
	13333311111333333333222221111	1
	YYZZZZAAAABBBBBBCCCCCDDDDDD	1

3	CRGZDACTFMZVGXDDATFAZNIOGOKEYM	A
	12222233332222222222111113333	1
	DDEEEEFFFFFFFFGGGGHHHHIJJJJJJKK	1

4	HDKBTXJFWBZFSPEHXMHFAPJEBEKKEP	A
	32222222223333331111222221111	1
	KLLLLMMNNNN0000PPPPRRRRSSSS	1

101	JBTNZTHHYWTATEZTMCP SKQLPRVWZAY	A
	13333311111111133333222221111	1
	TTTTUUUVVVVVVWWWXXXYZZZZ	1

Stepping Wheel /
Block type 3

13

A

NRS
~~ERYJERHPYROYXGUDXBGVJJOJKGARLF~~ A
 112222333333222111113333222223 3
 AABBCCEEEEFFGHHHIJJKKKLLMNN 1

~~KFFOBTGDZLCTLMWMOUYRHVQXJVVUW~~ A
 3111111222222222111111113333331 3
 NN0000PPRRSTTUUVVVVWWWWWXXXY 1
 OIRWEWPDVBDYW

~~LTPVUNIOPNYAZYAZYZEZXPQGWKOLID~~ A
 1133333332221111111112222222333 3
 YZZZZAAABBBBCCDDDDDDDD 1

~~CRGZDACTFMZVQXDDATFAZNIQGOKEYM~~ A
 322222222211111111333333222222 3
 DEEEEEFFFFFGGGHHHIJJJJJJJKK 1

~~HDKBTXJFWBZFSPEHXMHFAPJEBEKKEP~~ A
 223111111222222222222211111133 3
 KLLMMNNNN0000PPPPRRRRSSSS 1

~~JBTNZTHHYWTATEZTMCPQSKQLPRVWZAY~~ A
 3333311111113333333222222222111 3
 TTTTUUVVVVVVWWWXXXYZZZZ 1
 OIRWVGPDSDHC

Stepping wheel #1
Block type #5

A

WLI
 1 2 3 4 5 6 7
 ERY JERHPYRDYXGUDXBGVJJJKGARLF A
 111222233333322221133333322222 5
 AABBBCCDEEEFFFGHHHHIJJKKKKLNNN 1

8 9 10
 KFFOBIGDAZLCTLMWMOUYRHVXCXJVVUW A
 223333111111222222222111111333 5
 NN0000PPPRRSTTUUVVVVWWWXXXY 1

1 2 3 4
 LTMPVDNIOPNYAZYAZYZEXGPGWKOLID A
 333311111133333222221111122222 5
 YYZZZZAAABBBBCCCCDDDDDD 1

5 6 7
 CRGZDACTFMZVGXDDATFAZNIOGOKEYM A
 222223222222221113333322222223 5
 DDEEEEEEFFFFFFGGGGHHHHIIJJJJJKK 1

8 9
 HDKBTXJFWBZFSPEHXMHFAPJEBEKKEP A
 3333111111122222222111111333 5
 KLLMMMNNNN0000PPPPRRRRRSSSS 1

10 11 12
 JBTNZTHHYWTATEZTMCPKQLPVWZAY A
 33333332222333333332222221 5
 TTTTUUVVVVVWWWXXXYZZZZ 1

Stopping wheel #1
Block type #6

A

¹	²	³	⁴	⁵	⁶	⁷	⁸	⁹	¹⁰	¹¹	
ERY	JER	HPY	RDY	XG	UDX	BGV	JJO	JKG	AR	LF	A
1	1	1	2	2	2	3	2	1	1	1	1
A	A	B	B	C	C	D	E	E	E	F	F

¹²	¹³									¹⁴	
KFF	OBI	GD	AZ	LCT	LM	WM	OUY	RHV	CX	JV	WU
2	3	3	3	3	1	1	1	1	2	2	2
N	N	O	O	O	P	P	P	R	R	S	T

		¹				²	³	⁴			
L	T	M	P	V	D	N	I	O	P	N	Y
3	3	3	3	3	1	1	1	1	1	3	3
Y	Y	Z	Z	Z	Z	A	A	A	B	B	B

	⁵		⁶	⁷				⁸	⁹		
C	R	G	Z	D	A	C	T	F	M	Z	V
3	3	3	3	3	2	2	1	1	1	1	1
D	D	E	E	E	E	E	F	F	F	F	F

		¹⁰	¹¹			¹²	¹³				
H	D	K	B	T	X	J	F	W	B	Z	F
1	1	1	2	2	2	2	2	2	1	1	1
K	L	L	M	M	M	N	N	N	N	O	O

						¹⁴					
J	B	T	N	Z	T	H	H	Y	W	T	A
1	1	1	1	1	1	1	1	3	3	3	3
T	T	T	T	U	U	V	V	V	V	V	W

A

1	2	3	4	5	6	7	8	9	
ERY	JERHPY	RDY	XGUDXB	GVJJO	JKGARLF				A
1111	2222	2233	3222	2111	1113	3333			2
AA	ABCC	CDDE	EEFF	FGHI	IJJJ	KKLL	MM		2

					10	11	12	13	14	
KFF	OBIGD	AZLCT	LMWMO	UYR	HV	CX	JV	WUW		A
2222	3333	1112	2222	2111	3333	3333	1111			2
MNNN	OOOP	PPRR	RRSS	STTU	UUUV	VVWW	XXXY			2

				1	2	3	4		
LTMP	VDNIO	PNYA	ZY	AZY	ZEX	GP	GWK	OLID	A
3333	3332	2222	2111	1111	1111	2222	2223		2
YYY	ZZZZ	ZZZZ	ZAAA	AAAA	ABBB	CCCC	DDDD		2

	6	5				7	8	
CRGZ	DACT	FMZ	VG	XDD	ATFA	ZNIO	GOKEYM	A
3333	3211	1111	1133	3332	2222	2223	3333	2
DEEEE	EEFFF	GGGG	HHHH	IIJJ	KKKK	KKKL		2

	8	9				10		
HDKB	TXJF	WBZ	FSPE	HXM	HFAP	JEBEK	KEP	A
3333	3311	1111	2222	2221	1111	1111	1133	2
LLL	MMNN	OOOP	PPPP	PPRR	SSST	TTTT		2

	12	11		13	14					
JB	TNZT	HHY	WT	A	TEZ	TM	CPSK	QLPR	VWZAY	A
3311	1111	1111	1333	3333	3333	2222	2222	2222	21	2
UUUU	UUUV	VVVV	VVVV	WWWW	WWWW	XXXX	XXXY	YYZZ		2

A X J G	A X G E	A Y P R
A Y U X	A X Y E	A Y M O
A X M O	A Y W C	

302

A

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52

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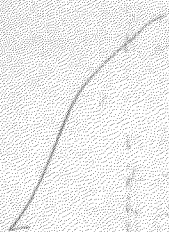
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3-1

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62

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35

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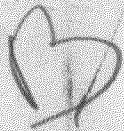
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35-34
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 34



11

¹ G	² A	³ I	⁴ K	⁵ H	⁶ R	⁷ J	⁸ C	⁹ K	¹⁰ L	¹¹ A	¹² W	¹³ U	¹⁴ J	¹⁵ T	¹⁶ Z	¹⁷ F	¹⁸ Y	¹⁹ T	²⁰ I	²¹ A	²² Y	²³ W	²⁴ C	²⁵ A	²⁶ M	²⁷ C	²⁸ W	²⁹ R	³⁰ K	B	
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A	A	B	B	C	C	D	E	E	E	E	E	F	F	G	H	H	H	H	I	J	J	K	K	K	K	L	M	N	N	N	1

⁸ F	⁹ O	¹⁰ B	¹¹ I	¹² V	¹³ X	¹⁴ F	¹⁵ K	¹⁶ T	¹⁷ D	¹⁸ O	¹⁹ R	²⁰ G	²¹ F	²² F	²³ D	²⁴ U	²⁵ Z	²⁶ O	²⁷ V	²⁸ X	²⁹ U	³⁰ Y	³¹ X	³² G	³³ A	³⁴ G	³⁵ J	³⁶ K	³⁷ C	B	
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¹ J	² O	³ X	⁴ C	⁵ H	⁶ U	⁷ I	⁸ P	⁹ T	¹⁰ L	¹¹ T	¹² F	¹³ H	¹⁴ P	¹⁵ F	¹⁶ V	¹⁷ S	¹⁸ M	¹⁹ L	²⁰ X	²¹ S	²² R	²³ D	²⁴ T	²⁵ Y	²⁶ P	²⁷ F	²⁸ N	²⁹ W	B		
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Y	Z	Z	Z	Z	A	A	A	B	B	B	B	B	B	C	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	1	

⁹ G	¹⁰ I	¹¹ A	¹² W	¹³ R	¹⁴ X	¹⁵ G	¹⁶ Y	¹⁷ L	¹⁸ E	¹⁹ H	²⁰ Y	²¹ I	²² G	²³ P	²⁴ O	²⁵ L	²⁶ H	²⁷ H	²⁸ X	²⁹ G	³⁰ S	³¹ D	³² S	³³ X	³⁴ A	³⁵ U	³⁶ W	³⁷ I	B	
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⁸ Y	⁹ K	¹⁰ B	¹¹ V	¹² K	¹³ C	¹⁴ X	¹⁵ T	¹⁶ U	¹⁷ R	¹⁸ E	¹⁹ C	²⁰ B	²¹ G	²² A	²³ A	²⁴ E	²⁵ I	²⁶ X	²⁷ L	²⁸ C	²⁹ F	³⁰ I	³¹ V	³² D	³³ A	³⁴ N	³⁵ R	³⁶ F	³⁷ V	B	
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¹ S	² K	³ O	⁴ E	⁵ F	⁶ B	⁷ T	⁸ G	⁹ V	¹⁰ L	¹¹ X	¹² D	¹³ E	¹⁴ P	¹⁵ J	¹⁶ O	¹⁷ K	¹⁸ L	¹⁹ S	²⁰ K	²¹ M	²² D	²³ V	²⁴ O	²⁵ I	²⁶ D	²⁷ P	²⁸ R	²⁹ K	³⁰ J	B	
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11

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13

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14

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B

15

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15

B

16

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B

21

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21

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22

B

23

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L L L M N N N O O O O P P P P P P R R R S S S T T T T T T	2

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
3 3 3 3 3 1 1 1 1 1 1 1 3 3 3 3 3 3 2 2 2 2 2 2 2 2 1 1 1	3
U U U U U V V V V V W W W W W W W X X X X X Y Y Y Z Z Z	2

23

B

24

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 1 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 1 3 3 3 3 3 2 2	4
A A A B C C C D D E E E F F F G H I I I J J J J K K L L M M	2

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
2 2 2 3 3 3 3 3 1 1 1 1 1 2 2 2 2 2 2 2 2 1 1 1 1 1 3	4
M N N N O O O P P P R R R S S S T T U U U V V W W X X X Y Y	2

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
3 3 3 3 3 3 3 3 1 1 1 1 1 1 1 3 3 2 2 2 2 2 1 1 1 1 1 2	4
Y Y Y Z Z Z Z Z Z Z Z Z A A A A A A A B B C C C C D D D D	2

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 1 1 1 3 3 3 3 2 2 3 1 1	4
D E E E E E F F F F F G G G G H H H H I I J J K K K K K K L	2

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 3 3 3 3 3 3 3 3 1	4
L L L M M N N N O O O O P P P P P P P R R R S S S T T T T T T	2

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
1 1 1 1 1 1 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1 1 1 1 1 1	4
U U U U U U V V V V V W W W W W W W X X X X X Y Y Y Z Z Z	2

24

B

25

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 2 2 2 2 3 3 3 3 3 2 2 2 2 1 1 3 3 3 3 3 2 2 2 2	5
A A A B C C C D D E E E F F F G H I I I J J J J K K L L M M	2

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
2 2 3 3 3 3 1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 3 3 3	5
M N N N O O O P P P R R R S S S T T U U U V V W W X X X Y Y	2

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
3 3 3 3 1 1 1 1 1 1 3 3 3 3 2 2 2 2 2 1 1 1 1 1 2 2 2 2	5
Y Y Y Z Z Z Z Z Z Z Z Z A A A A A A A B B C C C C C D D D D	2

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
2 2 2 2 2 3 2 2 2 2 2 2 2 1 1 1 3 3 3 3 2 2 2 2 2 2 2 3	5
D E E E E E F F F F F G G G G H H H H I I J J K K K K K K L	2

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
3 3 3 3 3 1 1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 3 3 3	5
L L L M M N N N O O O O P P P P P P R R R S S S T T T T T	2

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
3 3 3 3 3 3 3 2 2 2 2 2 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1	5
U U U U U U V V V V V W W W W W W W X X X X X Y Y Y Z Z Z	2

25

B

26

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	8
1 1 1 1 1 2 2 2 3 2 1 1 1 1 1 1 1 1 1 1 1 3 3 3 3 3 2 2 2 2 2	6
A A A B C C C D D E E E F F F G H I I I J J J J K K L L M M	2

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	8
2 3 3 3 3 3 3 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3 3	6
M N N N O O O P P P R R R S S S T T U U U V V W W X X X Y Y	2

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	8
3 3 3 3 3 1 1 1 1 1 1 3 3 3 3 3 2 1 1 1 1 1 2 2 2 2 2 2 2	6
Y Y Y Z Z Z Z Z Z Z Z Z A A A A A A A B B C C C C C D D D D	2

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	8
3 3 3 3 3 3 2 2 1 1 1 1 1 1 3 3 3 3 3 3 2 2 2 2 2 3 3 3 1	6
D E E E E E F F F F F G G G G H H H H I I J J K K K K K K L	2

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	8
1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 3 3 3 3 3 3 3 3	6
L L L M M N N N O O O O P P P P P P P R R R S S S T T T T T T	2

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	8
1 1 1 1 1 1 1 1 1 1 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1 1 1 1 1 1	6
U U U U U U V V V V V W W W W W W W W X X X X X Y Y Y Z Z Z	2

26

B

31

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 2 2 2 2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 1 3 3 3 3	1
A A B B B C C C D D E E E E E F F F F G G G H H I I I I J	3

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
3 2 2 2 2 3 3 3 3 3 1 1 1 1 2 2 2 2 1 1 1 1 1 1 1 1	1
J K K L L L L M M M N N N N O O P P P R R R R R S S S T U U	3

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
1 3 3 3 3 1 1 1 1 1 3 3 3 3 3 3 3 2 2 2 2 1 1 1 1	1
U V V V V W W W X X X X X Y Y Y Y Y Z Z Z Z A A A B B C C	3

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
1 2 2 2 2 3 3 3 3 2 2 2 2 2 2 2 1 1 1 1 1 3 3 3 3	1
C D D D D E E E E E F F F F F F G G G G G H H H H H H	3

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
3 2 2 2 2 2 2 2 2 3 3 3 3 1 1 1 1 2 2 2 2 1 1 1 1	1
H I I I I I I J J J J K K K K K L M M M M M M M N N O P	3

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
1 3 3 3 3 1 1 1 1 1 1 1 1 1 3 3 3 3 2 2 2 2 1 1 1 1	1
P P P R R S S S T T T U U U V V V W W W W X X Y Y Y Y Z Z	3

B

32

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 1 2 2 2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 1 1 3 3 3 3 3 3	2
A A B B B C C C D D E E E E E F F F F G G G H H I I I I J	3

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
2 2 2 2 3 3 3 3 1 1 1 2 2 2 2 2 2 1 1 1 3 3 3 3 3 3 1 1 1 1	2
J K K L L L L L M M M N N N N O O P P P R R R R R S S S T U U	3

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
3 3 3 3 3 3 2 2 2 2 2 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2 3 3	2
U V V V V W W W X X X X Y Y Y Y Y Z Z Z Z A A A B B C C	3

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
3 3 3 3 2 1 1 1 1 1 1 1 3 3 3 3 3 2 2 2 2 2 2 2 3 3 3 3	2
C D D D E E E E E F F F F F F G G G G G G H H H H H H H	3

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
3 3 3 3 3 3 1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 3 3	2
H I I I I I I J J J J K K K K K L M M M M M M M N N O P	3

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
3 3 1 1 1 1 1 1 1 1 3 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 2 1	2
P P P R R S S S T T T U U U V V V W W W W X X Y Y Y Y Y Z Z	3



33

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 2 2 2 2 3 3 3 3 3 2 2 2 1 1 1 1 1 3 3 3 2 2 2 2 2 3	3
A A B B B C C C D D E E E E E F F F F G G G G H H I I I I I J	3

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
3 1 1 1 1 1 1 2 2 2 2 2 2 2 2 1 1 1 1 1 1 1 3 3 3 3 3 3 1	3
J K K L L L L L M M M N N N N O O P P P R R R R R S S S T U U	3

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
1 1 3 3 3 3 3 3 2 2 2 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 3 3 3	3
U V V V V W W W X X X X X Y Y Y Y Y Z Z Z Z A A A B B C C	3

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
3 2 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 3 3 3 3 3 2 2 2 2 2 2	3
C D D D D E E E E E F F F F F F G G G G G G H H H H H H H	3

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
2 2 3 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 1 3 3	3
H I I I I I I J J J J K K K K K L M M M M M M M M N O P	3

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
3 3 3 3 3 1 1 1 1 1 1 1 3 3 3 3 3 3 2 2 2 2 2 2 2 1 1 1	3
P P P R R S S S T T T U U U V V V W W W X X Y Y Y Y Z Z	3

B

34

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 1 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 1 3 3 3 3 3 2 2	4
A A B B B C C C D D E E E E E F F F F G G G H H I I I I J	3

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
2 2 2 3 3 3 3 3 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 3	4
J K K L L L L L M M M N N N N O O P P P R R R R R S S S T U U	3

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
3 3 3 3 3 3 3 3 1 1 1 1 1 1 1 3 3 2 2 2 2 2 1 1 1 1 1 2	4
U V V V V W W W X X X X Y Y Y Y Y Z Z Z Z A A A B B C C	3

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
2 2 2 2 3 3 3 3 2 2 2 2 1 1 1 1 1 1 1 3 3 3 3 2 2 3 1 1	4
C D D D D E E E E E F F F F F F G G G G G H H H H H H H	3

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 3 3 3 3 3 3 3 3 1	4
H I I I I I I J J J J K K K K K L M M M M M M M M N N O P	3

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
1 1 1 1 1 1 1 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1 1 1 1 1	4
P P P R R S S S T T T U U U V V V W W W W X X Y Y Y Y Z Z	3

B

35

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 2 2 2 2 3 3 3 3 3 2 2 2 2 1 1 3 3 3 3 3 2 2 2 2 2	5
A A B B B C C C D D E E E E E F F F F G G G H H I I I I I J	3

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
2 2 3 3 3 3 1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 3 3 3	5
J K K L L L L L M M M N N N N O O P P P R R R R R S S S T U U	3

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
3 3 3 3 1 1 1 1 1 1 3 3 3 3 3 2 2 2 2 2 1 1 1 1 1 2 2 2 2 2	5
U V V V V W W W X X X X X Y Y Y Y Y Z Z Z Z A A A B B C C	3

G I A W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
2 2 2 2 3 2 2 2 2 2 2 2 1 1 1 3 3 3 3 3 2 2 2 2 2 2 2 3	5
C D D D D E E E E E E F F F F F F F G G G G G G H H H H H H H	3

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
3 3 3 3 3 1 1 1 1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 3 3 3	5
H I I I I I I J J J J J K K K K K L M M M M M M M M N N O P	3

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
3 3 3 3 3 3 3 2 2 2 2 2 3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 1	5
P P P R R S S S T T T U U U V V V W W W W X X Y Y Y Y Y Z Z	3

35

B

36

G A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K	B
1 1 1 1 2 2 2 3 2 1 1 1 1 1 1 1 1 1 1 1 3 3 3 3 2 2 2 2	6
A A B B B C C C D D E E E E E F F F F G G G H H I I I I J	3

F O B I V X F K T D O R G F F D U Z O V X U Y X G A G J K C	B
2 3 3 3 3 3 1 1 1 1 2 2 2 2 2 2 2 2 2 2 1 1 1 1 1 3 3	6
J K K L L L L M M M N N N N O O P P P R R R R R S S S T U U	3

J O X C H U I I P T L T F H P F V S M L X S R D T Y P F N W	B
3 3 3 3 3 1 1 1 1 1 1 3 3 3 3 3 2 1 1 1 1 1 2 2 2 2 2 2	6
U V V V V W W W X X X X Y Y Y Y Y Z Z Z Z A A A B B C C	3

G I A W W R X G Y L E H Y I G P O L H H X G S D S X A U W I	B
3 3 3 3 3 3 2 2 1 1 1 1 1 1 3 3 3 3 3 2 2 2 2 2 3 3 3 1	6
C D D D D E E E E E E F F F F F F G G G G G G H H H H H H H	3

Y K B V K C X T U R E C B G A A E I X L C F I V D A N R F V	B
1 1 1 1 2 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 3 3 3 3 3 3 3	6
H I I I I I J J J J K K K K K L M M M M M M M N N O P	3

S K O E F B T G V L X D E P J O K L S K M D V O I D P R K J	B
1 1 1 1 1 1 1 1 1 1 3 3 3 3 3 3 2 2 2 2 2 2 1 1 1 1 1 1	6
P P P R R S S S T T T U U U V V V W W W X X Y Y Y Y Z Z	3

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TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111222222223333322222111113333	1
AABBCCDEEEFFGHHHHIJJKKKKLLMNN	1

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
322222333331111122222111111111	1
NN0000PPRRSTTUUVVVVWWWWWXXXY	1

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG	C
133333111113333333333222221111	1
YYZZZZAAABBBBCCDDDDDD	1

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
122222333332222222222111113333	1
DDEEEEFFFFFFFFGGGGHHHIIJJJJJKK	1

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
322222222223333311111222221111	1
KLLMMMNNNN0000PPPPRRRRRSSSS	1

ALTAZSZXBHYBAZWGMJOSXWPOYBWBGB	C
1333331111111111133333222221111	1
TTTTUUUVVVVVVWWWWWXXXYZZZZ	1

TRFLKBNEYLYDZKLSBYHGINATWIRPRA C
111122222233332222111111333333 2
AABBCCDEEEFFFGHHHHIJJKKKKLMNN 1

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN C
222233331112222221113333331111 2
NN0000PPPPRRSTTUUVVVVWWWWWXXXY 1

SMUTNGYOLHLYXTWHZNINPKYNHZUPXG C
3333332222211111111122222233 2
YYZZZZAA AABBBBBBCCCCCDDDDDD 1

PVULDEDAONYAGNBCKMCJIMGYDJEBGR C
33333211111113333322222223333 2
DDEEEEEEFFFFFFFGGGGHHHHIIJJJJJJKK 1

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM C
33333311111222222211111111133 2
KLLMMNNNNNO0000PPPPPPRRRRRRSSSS 1

ALTAZSZXBHYBAZWGMJOSXWPOYBWOBG C
33111111111333333333322222221 2
TTTTUUUVVVVVVWWWWXXXYZZZZZZ 1

C

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
1122223333322211111333222223	3
AABBCCDEEEFFFGHHHHIJKKKKLMNN	1

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
31111112222222211111113333331	3
NN0000PPPRRSTTUUVVVVWWWWWXXY	1

SMUTNGYOLHLYXTWHZNI NPKYNHZUPXG	C
11333333222111111112222222333	3
YYZZZZAA AABBBBBBCCCCCDDDDDD	1

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
3222222221111111133333222222	3
DDEEEEFFFFFFGGGGHHHHIIJJJJJJKK	1

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
22311111112222222222211111133	3
KLLMMNNNNNO0000PPPPRRRRRRSSSS	1

ALTAZSZXBHYBAZWMJOSXWPOYBWQBG	C
33333111111133333322222222111	3
TTTTUUUVVVVVVWWWWWXXXYZZZZ	1

C

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TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111122233332222211111133333322	4
AABBCCDEEEFFFGHHHHIJJKKKKLMMNN	1

FVMVMHXZWKBZECF0BZBYUNSGKSWLEN	C
222333333111112222222221111113	4
NN0000PPPRRSTTUUVVVVWWWWWXXXY	1

SMUTNGYOLHLYXTWHZNPKNHZUPXG	C
33333333111111133222222111112	4
YYZZZZAAABBBBCCCCDDDDDD	1

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
222233333222211111113333322311	4
ODEEEEEFFFFFGGGGHHHIIJJJJJKK	1

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
11111112222222211111333333331	4
KLLMMNNNN0000PPPPRRRRSSSS	1

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
1111111333333333222222211111	4
TTTTUUUVVVVVVWWWWWXXXYZZZZ	1

TRFLKBNEYLYDZKLSBYHGINATWIRPRA C
 111222233333322221133333322222 5
 AABBCDEEEFFFGHHHIJJKKKKLMNNN 1

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN C
 223333111111122222222111111333 5
 NN0000PPPPRRSTTUUVVVVWWWWWXXXY 1

SMUTNGYDLHLYXTWHZNI NPKYNHZUPXG C
 333311111133333222221111122222 5
 YYZZZZAA AABBBBBBBBC C C C C C D D D D D 1

PVULDEDA ONYAGNBCKMCJIMGYDJEBGR C
 222223222222221113333322222223 5
 DDEEEEFF FFFF FGGGGHHHIJJJJJJJKK 1

HLOTMLTYDEJJPVBTGUTEUWWNCINLVM C
 333331111111122222222111111333 5
 KLLMMNNNNNO0000PPPPPPRRRRRRSSSS 1

ALTAZSZXBHYBAZWGMJOSXWPOYBWBGB C
 3333333222223333333322222221 5
 TTTTUUVVVVVVWWWWWXXXYZZZZ 1

TRF LKBNEYLYDZKLSBYHGINATWIRPRA C
 111112223211111111113333322222 6
 A ABBCCDEEEFFFGHHHHIJJKKKKLMMNN 1

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN C
 233333311111222222222221111133 6
 NN0000PPPRRSTTUUVVVVWWWWWXXXY 1

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG C
 333331111113333332111112222222 6
 YYZZZZAA AABBBBBBCCCCCDDDDDD 1

PVULDEDAONYAGNBCKMCJIMGYDJEBGR C
 3333332211111133333222223331 6
 DDEEEEFFFFFFFFGGGGHHHIIJJJJJKK 1

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM C
 11112222222111111111133333333 6
 KLLMMNNNN0000PPPPRRRRRSSSS8 1

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG C
 1111111111333333322222111111 6
 TTTTUUVVVVVVWWWX XXXYYYZZZZ 1

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C

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
11122222222333332222111113333	1
AAABCCDDEEEFFFGHHIIJJJKKLLMM	2

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
32222233331111122222111111111	1
MNNN000PPPRRRSSSTTUUVVWXXXY	2

SMUTNGYOLHLYXTWHZNI NPKYNHZUPXG	C
13333311111333333333222221111	1
YYYZZZZZZZZZAAAAAABBCCCCDDDD	2

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
1222223333222222222111113333	1
DEEEEFEEEEFFGGGGHHHHIIJJKKKKKL	2

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
322222222223333311111222221111	1
LLLMMNNN0000PPPPPPRRRSSSTTTTTT	2

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
13333311111111113333222221111	1
UUUUUVVVVVWWWWWWWXXXXYYZZZ	2

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C

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111122222233332222111111333333	2
AAABCCCDDEEEFFFGHHIIJJJKKLLMM	2

FVMVMHXZWKZECFOBZBYUNSGKSWLEN	C
222233331112222221113333331111	2
MNNN000PPPRRRSSSTTUUVVWXXXY	2

SMUTNGYOLHLYXTWHZNINPKYNHZUPXG	C
33333322222211111111122222233	2
YYYZZZZZZZZZAAAAAABBCCCCDDDD	2

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
33333211111113333322222223333	2
DEEEEEFFFFFGGGGHHHHIIJJKKKKKKL	2

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
333333111111222222211111111133	2
LLMMNNN0000PPPPPPRRSSSTTTTTT	2

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
33111111111333333333222222221	2
UUUUUUUVVVVVWWWWWWWWWXXXXXYZZZ	2

C

23

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
112222333333222111113332222223	3
AAABCCCDDEEEFFFGHIIJJJKKLLMM	2

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
31111112222222211111113333331	3
MNNN000PPPRRRSSSTTUUVVWVWXXXY	2

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG	C
113333333222111111112222222333	3
YYYZZZZZZZZZAAAAAABBCCCCCDDDD	2

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
3222222221111111133333222222	3
DEEEEFEEEEFGGGHHHHIIJJKKKKKKL	2

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
22311111112222222222211111133	3
LLMMNNN0000PPPPPPRRSSSTTTT	2

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
3333311111113333332222222111	3
UUUUUVVVVVWWWWWWWXXXXYZZZ	2

C

24

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111122233332222211111133333322	4
AAABCCCDDEEEFFFGHIIJJJKKLLMM	2

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
222333333111112222222221111113	4
MNNN000PPPRRRSSSTTUUVVWVWXXXY	2

SMUTNGYOLHLYXTWHZNINPKYNHZUPXG	C
3333333331111111133222222111112	4
YYYZZZZZZZZZZAAAAAABBCCCCCDDDD	2

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
222233333222211111113333322311	4
DEEEEEFFFFFGGGGHHHHIIJJKKKKKKL	2

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
111111122222222111113333333331	4
LLMMNNN0000PPPPPPRRSSSTTTTTT	2

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
1111111333333333222222211111	4
UUUUUVVVVVVWWWWWWWXXXXXYZZZ	2

C

25

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
1112222333332222113333322222	5
AAABCCDDEEEFFFGHIIJJJKKLLMM	2

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
22333311111122222222111111333	5
MNNN000PPPRRRSSSTTUUVVWXXXY	2

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG	C
333311111133333222221111122222	5
YYYZZZZZZZZZAAAAAABBCCCCDDDD	2

PVULDEDAONYAGNBCKMCIJMGYDJEBGR	C
222223222222221113333222222223	5
DEEEEFFFFFGGGGHHHHIIJJKKKKKKL	2

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
33333111111122222222111111333	5
LLLMMNNN0000PPPPPPRRSSSTTTTTT	2

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
3333333222223333333322222221	5
UUUUUUUVVVVVWWWWWWXXXXXYZZZ	2

Q

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111112223211111111113333322222	6
AAABCCDDEEEFFFGHHIIJJJJJKKLLMM	2

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
2333333111112222222222221111133	6
MNNN000PPPPRRRSSSTTUUVVWVWXXXY	2

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG	C
3333311111133333321111122222222	6
YYYZZZZZZZZZZAAAAAAAABBBCCCCDDDD	2

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
33333322111111333333222223331	6
DEEEEEFFFFFGGGGHHHHIIJJKKKKKKKL	2

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
111122222222111111111133333333	6
LLLMMNNN0000PPPPPPPPRRRSSSTTTTTT	2

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
111111111133333333222222111111	6
UUUUUUUVVVVVVWWWWWWWWWXXXXXYZZZ	2

C

9)

TRFLKBN EYLYDZKLSBYHGINATWIRPRA	C
1112222222333332222111113333	1
AABBBCCCDDEEEEEEFFFGGGHHIIIIJ	3

FVMVMHXZWK BZECF OBZBYUNSGKSWLEN	C
32222333331111122222111111111	1
JKKLLLLLMMMNNN OOPPPRRRRSSSTUU	3

SMUTNGYOLHLYXTWHZNI NPKYNHZUPXG	C
133333111113333333332222211111	1
UVVVVWWWXXXXXYYYYYYZZZZAAABBC	3

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
1222233333222222222111113333	1
CDDDEEEEEEFFFGGGGGGGHHHHHHH	3

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
3222222222333331111222221111	1
HIIIIIJJJJJKKKKKLMMMMMMMMNOP	3

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
13333311111111133333222221111	1
PPRRSSSTTTUUUVVVWWWXXYYYYYZZ	3

C

3v

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111122222233332222111111333333	2
AABBBCCCDDEEEEEFFFFGGGHHIIIIJ	3

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
222233331112222221113333331111	2
JKKLLLLLMMMNNNOOPPPRRRRRSSSTUU	3

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG	C
3333332222211111111122222233	2
UVVVVWWWXXXXXYYYYYYZZZZAAABBCC	3

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
3333221111111133332222223333	2
CDDDDDEEEEEFFFFFFFFFFGGGGGGGGHHHHHH	3

HLOTMLTYDEJJJPVBTUTEUWWNCINLVM	C
333333111111222222211111111133	2
HHHHHHIJJJJJKKKKKLMMMMMMMMNOP	3

ALTAZSZXBHYBAZWGMJOSXWPOYBWOBG	C
331111111111333333333322222221	2
PPRRRSSSTTTUUUVVVVWWWXXYYYYYZZ	3

33

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
1122223333322211111333222223	3
AABBBCCCDDEEEEEFFFFGGGHHIIIIJ	3

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
31111112222222211111113333331	3
JKKLLLLLMMMNNNOOPPPRRRRSSSTUU	3

SMUTNGYOLHLYXTWHZNIINPKYNHZUPXG	C
1133333322211111112222222333	3
UVVVVWWWXXXXXYYYYYZZZZAAABBC	3

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
322222222111111113333322222	3
CDDDDDEEEEEFFFFFGGGGGGHHHHHHH	3

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
223111111222222222221111133	3
HIIIIIJJJJKKKKKLMMMMMMMMNOP	3

ALTAZSZXBHYBAZWGMJOSXWPOYBWBGBG	C
33333111111333333222222111	3
PPRRRSSSTTUUVVVWWWXXYYYYYZ	3

C

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111222233333322221133333322222	5
AABBBCCCDDEEEEEFFFGGGHHIIIIJ	3

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
223333111111122222222111111333	5
JKKLLLLLMMMNNNOOPPPRRRRRSSSTUU	3

SMUTNGYOLHLYXTWHZNI NPKYNHZUPXG	C
333311111133333222221111122222	5
UVVVVWWWXXXXXYYYYYZZZZAAABBC	3

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
22222322222221113333322222223	5
CDDDEEEEEEEEEFFFGGGGGGGHHHHHH	3

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
333331111111122222222111111333	5
HIIIIIJJJJKKKKKLMMMMMMMMNOP	3

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
33333333222223333333322222221	5
PPRRRSSSTTTUUUVVVVWWWXXYYYYYZ	3

36

TRFLKBNEYLYDZKLSBYHGINATWIRPRA	C
111112223211111111113333322222	6
AABBBCCCDDEEEEEFFFGGGHHIIIIJ	3

FVMVMHXZWKBZECFOBZBYUNSGKSWLEN	C
233333311111222222222221111133	6
JKKLLLLLMMMNNNOOPPPRRRRSSSTUU	3

SMUTNGYOLHLYXTWHZNI NPKYNHZUPXG	C
333331111113333332111112222222	6
UVVVVWWWXXXXXYYYYYYZZZZAAABBCC	3

PVULDEDAONYAGNBCKMCJIMGYDJEBGR	C
33333322111111333333222223331	6
CDDDEEEEEFFFGGGGGGGHHHHHHH	3

HLOTMLTYDEJJPVBTCUTEUWWNCINLVM	C
1111222222211111111133333333	6
HIIIIIJJJJJKKKKKLMMMMMMMMNOP	3

ALTAZSZXBHYBAZWGMJOSXWPOYBWQBG	C
111111111133333333222222111111	6
PPRRRSSSTTTUUUVVVVWWWXXYYYYYZ	3

Block type No 1
Block " No 2

Stepping Wheel No 2

Z P B D O I T D W L K U F Z H F C R J K P P K P J P S W O J P G G C Z K L U E T K P V I N
O G T C I V Y R C N V A H G S N A D P I D D K D G K L T L H V C C Y P U Y H R X R D G E V
V H U G N T Y B A S I T C I P M V T W I B B F B O D H L V Z I M M U Z P V N S P K Y S B U

Z E A V I E I M C E M S P P K B F G M D V Z W X M Z H L E B L E B E V G D X D C S Z M S P
F P C B K F V H V N M A O M G V J U L S D A W R L A M K D T K D T D G Y D F D N S O J D I
P E J L Y F W F P O M B T R J T L S Y U T B I M Y B P C I U C I U I Y W S K S I P G I L X

U L E J K B R A X Y G G V L F L W U N U I C V I P I J C N U N B G N D W L G D Z B P R L A
Y N O I V Y T C B A V O I C N K X L U H K G P B K B G Y E E W Y I I E E I C L P T A W J C
S S X L I N X N A L D O Z R M W B K J P R X Y K D K O A Z Y A C X X H P H M F Z B W A Z X

O M X O I Z Y B U G M Y Y M H A P G S M G I I F J P P K X S K O C A V A _ H W J X K N F H
D Z G D S E Y K L J S U U S M J U P M L P V V B D N I K R W K B V H G X _ I C Z L G E N M
O E B O D O W S Z D M G G M L X G I V A I W W N H Z W M D J M T P C Z Y _ A R U P J X G P

REF ID: A4127215

*Stopping
Wood 2*

0	ERYU	1	RE	2	HR	3	HP	4	RY	5	RD	6	YX	7	GU	8	UD	9	XB	10	GV	11	JJ	12	JO	13	JK	14	GA	15	RL	16	FK	17	EF	18	OB	19	IG	20	DA	21	ZL	22	OT	23	LM																																																											
1	ZPBD	2	DO	3	IT	4	DW	5	LK	6	UF	7	ZH	8	FC	9	RJK	10	PKP	11	JP	12	SW	13	OP	14	GG	15	ZK	16	LJ	17	UJ	18	ET	19	KPV	20	IN																																																																			
2	OGTC	3	IV	4	YR	5	CN	6	VV	7	AH	8	GS	9	NA	10	DP	11	DD	12	KD	13	GK	14	LT	15	LHY	16	CC	17	YF	18	UT	19	HR	20	KR	21	DD	22	GE	23	EV																																																															
3	VH	4	U	5	G	6	N	7	T	8	Y	9	B	10	A	11	S	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

3 green
4 purple

Z P B D O I T D W L K U F Z H F O R J K P P K P J P S W O J P G G C Z K L U E T K P V I N
O G T C I V Y R C N V A H G S N A D P I D D K D G K L T L H V C O Y P U Y H R X R D G E V
V H U G N T Y B A S I T C I P M V T W I B B E B O D H L V Z I M M U Z P V N S P K Y S B U

Z E A V I E I M C E M S P P K B F G N D V Z W X M Z H L E B L E B E V G D X D C S Z M S P
F P C B K F V H V N M A O M G V J U L S D A W R L A M K D T K D T D G Y D F D N S O J D I
P E J L Y F W F P O M B T R J T L S Y U T B I M Y B P C I U C I U I Y W S K S I P G I L X

U L E J K B R A X Y G G V L F L W U N U I C V I P I J C N U N B G N D W L G D Z B P R L A
Y N O I V Y T G B A V O I C N K X L U H K G P B K B G Y E E W Y I I E E I O L F T A W J C
S S X L I N X N A L D O Z R M W B K J P R X Y K D K O A Z Y A C X X H P H M F Z B W A Z X

O M X O I Z Y B U G M Y Y M H A P G S M G I I F J P P K X S K O C A V A _ H W J X K N F H
D Z G D S E Y K L J S U U S M J U P M L P V V B D N I K R W K B V H G X _ I C Z L G E N M
O E B O D O W S Z D M G G M L X G I V A I W W N H Z W M D J M T P C Z Y _ A R U P J X G P

W. Knudsen 2

6
5

ZPBD01TDW LKUFZHFORJKPPKPPJPSW0JPGG0ZKLUETKPVIN
OOTOIVYR0NV AHG8NADP IDDKDGKLLTLHVCCYPUYHRXR0GGEV
VHUONTYBASITCIPMVTWIBBFBODHLVZIMMUZPVNSPKY8BU

ZEAVIEIMGEMSPPKBFGMDVZWXNZHLEBLEBEVGD0X00SZMSP
FP0BKFWHVNMAD0MGVJULSDAWRLAMKDTKDTDGYDFONS0JDI
PEJLYFWFP0MBTRJTLSTYUTBIMYBPOIUOIUIYWSK8IPGILX

ULEJKBRAXTYGGVLLFWUNUICV1PIJONUNBGNDWLG0ZBPRLLA
YNOIYVYTCBAV0ICMKXLUHKGP0K8GYEEWY1IEE10LPTAWJ0
SSXLINXNALDOZRMWBKJPRXYKDKOAZYACXKHPMHFZZ8WAZX

OMXOIZYB0GMYTNHAP08MGIIFJPPKX8SK0CAVA_HWJXKNFM
DZG0SEYKLLJSUUSMJUPMLPVVBDN1KRWK8VHGXI0ZLGENM
0EB0D0WSZDMGMLXGIVAIWNNHZZWMDJMTPOZYT_ARUPPJXGP

NO. 1130 FROM PARIS AUGUST 9

É	Y	J	E	R	H	P	Y	R	D	Y	X	G	U	D	X	B	G	V	J	J	O	J	K	G	A	R	L	F	K	F	F	O	B	I	G	D	A	Z	L	C	T	L	M	
Z	P	T	D	V	I	T	X	W	F	K	U	E	Y	I	F	W	Z	G	O	O	G	J	V	J	U	B	N	Z	O	V	V	F	D	J	K	B	X	Y	O	O	N	J	R	
O	G	X	C	G	V	Y	F	C	P	V	A	X	O	L	P	H	F	G	O	F	F	P	R	Z	P	H	U	X	M	O	T	T	J	G	K	B	Y	S	Y	L	F	D	S	Z
V	H	E	G	Y	T	Y	K	A	J	I	T	G	X	B	Z	C	E	I	O	N	N	Y	F	J	W	P	Z	D	O	S	X	X	B	O	F	G	C	A	F	V	C	A	Y	F
W	M	O	U	Y	R	H	V	C	X	J	V	W	U	W	L	T	M	P	V	D	N	I	O	P	N	Y	A	Z	Y	A	Z	Y	Z	E	X	G	P	G	W	K	O	L	I	D
D	S	H	D	J	X	J	T	P	S	B	A	V	V	O	L	P	V	T	M	N	D	B	R	W	N	C	K	D	Y	I	D	Y	D	E	O	R	M	S	F	M	N	W	R	G
L	O	T	V	I	L	Z	Y	D	G	K	M	R	B	E	Z	N	K	X	H	F	X	A	W	C	H	U	V	R	Y	P	R	Y	R	Z	J	F	L	R	V	A	D	K	E	G
F	K	H	I	G	V	X	R	Y	A	S	V	U	L	E	U	Z	A	G	F	E	N	S	I	R	F	K	L	O	B	D	O	B	O	R	Z	A	Y	T	O	K	L	O	W	O
C	R	G	Z	D	A	C	T	F	M	Z	V	G	X	D	D	A	T	F	A	Z	N	I	O	G	O	K	E	Y	M	H	D	K	B	T	X	J	F	W	B	Z	F	S	P	E
W	F	N	O	P	B	M	T	S	C	G	J	Z	F	I	I	A	W	D	A	P	I	N	G	O	G	Z	I	S	B	R	C	V	R	M	Y	G	Z	U	S	F	Z	T	G	C
U	P	Z	G	I	Y	M	H	K	C	V	Z	G	H	P	P	T	A	J	T	P	D	G	P	V	P	D	B	W	S	C	B	Z	D	S	L	E	M	T	Z	B	M	H	V	Y
J	J	O	W	X	N	O	Y	H	W	D	S	I	C	Z	Z	K	F	T	K	G	J	C	Y	M	Y	T	U	O	G	P	L	J	T	B	Y	K	O	C	J	V	O	B	J	A
H	X	M	H	F	A	P	J	E	B	E	K	K	E	P	J	B	T	N	Z	T	H	H	Y	W	T	A	T	E	Z	T	M	C	P	S	K	Q	L	P	R	V	W	Z	A	Y
D	B	U	E	J	X	K	F	H	N	H	K	K	T	L	Y	V	Z	U	A	O	G	G	K	V	J	J	G	R	P	V	C	A	Z	T	-	H	U	J	X	K	D	F	H	
S	W	E	F	H	S	N	G	T	I	T	P	P	H	J	P	N	O	J	H	I	O	O	N	R	V	O	P	W	S	N	K	V	H	O	T	-	I	A	Z	L	G	R	N	M
H	F	Y	T	Z	A	O	E	J	X	J	Z	Z	O	Z	T	M	J	G	U	O	I	I	V	U	X	Z	I	W	T	Z	A	P	C	I	V	-	A	V	U	P	J	O	G	P

REF ID: A4127215

5
6
Meal 3 - Station 1

ZPTDVITXWFKUIEYIFWZG00GGJVJUBNZOVVFDDJKBXY00NJR
OGXGGVYFCPVAXXOLPHFG0FFPRZPHUXM0TTJGKBSYSLFDSZ
VHEGYTYKAJITGXBZCEIONNYFJWPZDOSXXB0FGCAFVCAVF

OSHDJXJTPSBAVVOLPVTMNDBRWNCKDYIDYDEORMSFNWRG
LOTVILZYZDQKWRBEBZNXKHFXAWCHUVRYPRYRZJFLRVADKEG
FKHIGVXRYASVULEUZAGFENSIRFKLOB00BORZAYTOKL0W0

WFN0PBRITS0GJZFI1AWDAPINGOGZISBR0VRMYGZUSFZT00
UPZGIYMHKKCVZGHPPTAJTPO0PVYPPDBW50BZD0SLEMTZBMVY
JJOWXNOYHMDSICZKZKFTKGGJ0YMYTU00PLJTBTK00JV0BJA

DBUEJXKFFHNHKKTLTYVZUA0GGKVJJGRRPVCAZT_HUJXKDFH
SWEFHSNGTITPPHJPN0JHI00NRV0PWSNKVHOT_IJAZLGRNM
HFTYTTZAOEJXJZZOZTMJGU0IIVUXZIWTTZAP0IV_AVVUPJ0GP

Stopping wheel 3 Section 1

ZPTIDVITXWFKUIEYIFWZG00GJVVJUBNZOVVFDJKBXYOONJR
OGXCGVYFCRPVAXOLPHFGOFFPRZPHUXMOTTJGKBYSYLFDSSZ
VHEGYTYKAJITGXBZCEIONNYFJWPZDOSXXB OFGCAFVCA YF

DSHDJXJTPSBVVVOLTMTNDBRWNCCKDYIDYDEORMSFMNWRG
LOTVILZ YD GK MRBEZ NKXHF XAWCHUVRYPRYZJFLRVADKEG
FKHIGVXRYASVULEUZAGFENSIRFKLOBDOBORZAYTOKLOWO

WFNOFBMTSCGGJZFI IAWDAPINGOGZISBROVRMYGZUSFZTGCC
UPZGIYMHKCVZGH PPTAJT PDGPPV PDBWSSCBZD SLEM TZBMHVY
JJOWXNOYHWD SICZZKFTK GJCYMYTUOGPLJTB YKOCJVOBJA

DBUEJXKFNHKKKTL YVZUAOGGKVVJGRRPVCAZT_HUJXKDFH
SWEFHSNGTITRPHJPN OJHI OONRVOPWSNKVHOT_I A ZLGRNM
HFY TZA O E J X J Z Z O Z T M J G U O I I V U X Z I W T Z A P C I V _ A V U P J O G P

Handwritten: Section 1
Sheet 3

ZPTDVI TXWFKUI EYIFWZG00GJVJUBNZOVVFDJKBX Y00NJR
 OGXCGVYFCPVAXOLPHFGGFFPRZPHUXMOTTJGKBYSLFDSZ
 VHEGYTYKADJITGXBZCEIONNYFJWPZDOSXXBOFGCAFVCA YF

DSHDJXJTPSBAYVOLPVTMNDBRWNC KDYIDYDEORMSF MNWRG
 LOTVILZYZDGKMRBEZNXKHFXAWOHUVRYPRYZJFLRVADKEG
 FKHIGVXRYASVULEUZAGFENSIRFKLLODDOBBORZAYTOKLOWO

WFNOPBMTSOGJZFIIAWDAPINGOGZISBRCV RMYGZUSFZTGC
 UPZGIYMHKCVZGHPRTAJJTPDGPVPDBWSOBZDSLEM TZBMHVY
 JJOWXNOYHWDSICZZKFTKGJGYMYTUOGPLJTB YKOCJV08JA

DBUEJXKFHNHKKTLTYVZUAOGGKVJJGRRPVC AZT_HUJXKDFH
 SWEFHSNGTITPHJPNQJHIOONRVOPWSNKVHOT_IAZLGRNM
 HFY TZAOEJXJZZOZTMJGUOII VUXZIWITZAPCIV_AVUPJOGP

abel 1 - Section 2

0	G	A	K	H	R	J	C	K	L	A	W	U	J	T	Z	F	Y	T	I	A	Y	W	C	A	M	C	W	R	K	F	O	B	I	V	X	F	K	T	D	O	R	G	F	F	
1	S	L	M	R	T	I	E	M	D	R	B	B	H	O	U	K	N	S	M	V	M	N	M	E	R	U	V	X	M	K	G	C	Z	K	H	U	K	F	Z	M	B	D	B	L	C
2	R	K	R	L	Y	V	L	M	F	U	Y	J	S	F	L	N	U	W	S	P	C	E	X	L	A	E	W	A	H	P	C	Y	P	U	J	D	L	K	O	C	X	S	H	F	R
3	T	C	M	B	Y	T	R	O	E	Z	N	W	P	N	K	C	J	O	B	Y	U	Z	R	L	E	Y	G	N	G	Z	M	U	Z	P	G	U	L	W	J	F	A	Y	K	C	R

20	D	U	Z	O	V	X	U	Y	X	G	A	G	J	K	C	J	O	X	C	H	U	I	I	P	T	L	T	F	H	P	F	V	S	M	L	X	S	R	D	T	Y	P	F	N	W
21	X	V	R	U	M	N	J	L	E	W	P	U	M	A	H	R	S	O	B	Y	K	U	R	C	A	Y	U	B	S	U	E	K	F	U	P	K	I	G	B	W	D	R	G	Y	
22	S	B	S	L	H	P	U	J	N	L	I	S	M	X	N	T	F	J	K	B	T	F	F	S	Y	N	M	V	U	W	V	F	K	X	B	M	K	V	G	X	C	R	N	F	K
23	P	L	T	O	F	S	G	F	O	U	W	E	M	Y	E	W	Z	Z	H	C	V	Z	Z	N	G	S	C	P	V	F	P	H	G	Z	X	L	G	T	O	V	A	B	E	H	Z

4	G	I	A	W	W	R	X	G	Y	L	E	H	Y	I	G	P	O	L	H	H	X	G	S	D	S	X	A	U	W	I	Y	K	B	V	K	C	X	T	U	R	E	C	B	G	A
5	N	S	B	H	H	L	I	Z	M	S	P	U	M	N	V	Z	J	D	R	R	Y	J	B	Y	B	H	M	W	M	O	N	G	D	L	P	V	A	N	S	M	B	J	Z	L	N
6	Z	D	Y	B	B	N	X	G	L	Y	N	X	L	G	I	Z	V	T	C	C	L	P	X	J	X	S	C	E	X	N	E	I	G	N	V	W	R	D	G	H	X	R	P	Y	F
7	O	L	N	M	M	S	G	I	J	M	B	K	J	C	Z	E	V	L	P	P	Y	W	K	D	K	N	U	A	R	N	Z	X	O	W	I	G	B	A	O	G	S	R	Z	V	J

15	A	E	I	X	L	O	F	I	V	D	A	N	R	F	V	S	K	O	E	F	B	T	G	V	L	X	D	E	P	J	O	K	L	S	K	M	D	V	O	I	D	P	R	K	J
16	E	A	I	M	P	P	I	F	T	M	V	M	D	F	A	D	Y	A	M	C	P	G	A	M	C	N	D	S	A	U	M	A	H	V	A	G	Z	Y	S	A	V	M	G	U	S
17	R	C	Y	Z	F	D	S	M	Y	C	D	U	S	W	M	E	U	C	S	R	U	P	A	H	O	P	W	F	H	Y	S	X	I	G	X	U	E	L	F	S	D	L	O	C	X
18	S	X	U	E	F	Y	D	E	R	F	Y	C	Y	G	V	S	G	J	M	A	G	I	P	F	E	S	U	L	C	Z	X	Y	A	Z	Y	S	A	P	Z	X	C	Y	E	F	L

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Whead 1

Block 1

Block 2

Sect 1

SLMRTIEMDRBBHOUKNSSWVMNNERUVXMKGGCZKHUKFZMBDBLQ
 RKRLTYVLMFYUJSFLNUWSSPCEXLLAEWAHPQYPUJDLKOOXSHFR
 TOMBYTRROEZNWPNKCUOBYUZRLLEYGNGZMUZPGLWJFAYKCR

XVRUMNJLEWPUMAHRSOBYKUUURCA YUBSUEKFUPKIGBWD RGY
 SBSLHPUNLISMXNT FJKBTFFSYNMVUWVFKXBMKVGGXCRNFK
 PLTOFSGFOUWEMYEWZZHGVZZNNGSCPVFPHGZZX LGTOVABEHZ

NSBHHLIZMSPUMNVZJDRRYJBYBHMWMONGDLPVANSMBJZLN
 ZDYBBNXGLYXNLGIZVTCCLPXXJXSCEXNEIGNVWRDGHXRPFYF
 OLNMMSGIJMBKJ DZEVLPPTYWKDKNUARNZXOWIGBAOGSRZVJ

EAIMPPIFTMVMDFADYAMGPGAMCND SAUMAHVAGZXS AVMGUS
 RGYZFD SMYCDUSWMEUCSRUPAHOPWFHY SXIGXUELFSDLOCK
 SKUEFYDERFXCYGVS GJM RGI PFESU L CZXYAZYSAPZXCYEFL

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Wheel 3

Section V

Q A I K H R J C K L A W U J T Z F Y T I A Y W C A M C W R K F O B I V X F K T D O R G F F

D U Z O V X U Y X G A G J K C J O X O H U I I P T L T F H P F V S M L X S R D T Y P F N W

G I A W R X G Y L E H Y I G P O L H H X G S D S X A U W I Y K B V K C X T U R E C B G A

A E I X L O F I V D A N R F V S K O E F G T G V L X D E P J O K L S K M D V O I D P R K J

Week 1

Section 2

6

S L M R T I E W O R B B H O U K N S M V M N M E R U V X M K G O C Z K H U K F Z M B D B L C
 R K R L Y V L M F U Y J S F L N U W S P O E X L A E W A H P C Y P U J O L K O O X S H F R
 T O M B Y T R O E Z N W P N K C J O B Y U Z R L E Y G N G Z M U Z P G U L W J F A Y K C R

X V R U M N J L E W P U M A H R S O B Y K U U R G A Y U B S S U E K F U P K I G B W D R G Y
 S B S L H P U J N L I S M X N T F J K B T F F S Y N M V U W V F K X B M K V G X C R N F K
 P L T O F S G F O U W E M Y E W Z Z H C V Z Z N G S C P V F P H G Z X L G T O V A B E H Z

N S B H H L I Z M S P U M N V Z J D R R Y J B Y B H W W O N G O L P V A N S M B J Z L N
 Z D Y B B N X G L Y N X L G I Z V T O C L P X J X S C E X N E I G N V W R D G H X R P Y F
 O L N M W S G I J M B K J C Z E V L P P Y W K O K N U A R N Z X O W I G B A O G S R Z V J

E A I M P P I F T W V M D F A D Y A N C P G A R O N D S A U M A H V A G Z X S A V M G U S
 R O Y Z F D S M Y C D U S W M E U O S R U P A H O P W F H Y S X I G X U E L F S D L O C K
 S X U E F Y D E R F X C Y G V S G J M R G I P F E S U L C Z X Y A Z Y S A P Z X C Y E F L

Wheel 1

Section 1

Block

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S L M R T I E M D R B B H O U K N S M V M N M E R U V X M K G C Z K H U K F Z M B D B L C
 R K R L Y V L M F U Y J S F L N U W S P C E X L A E W A H P C Y P U J D L K O C X S H F R
 T C M B Y T R O E Z N W P N K C J O B Y U Z R L E Y G N G Z M U Z P G U L W J F A Y K C R

4

X V R U M N J L E W P U M A H R S O B Y K U U R C A Y U B S U E K F U P K I G B W D R G Y
 S B S L H P U J N L I S M X N T F J K B T F F S Y N M V U W V F K X B M K V G X C R N F K
 P L T O F S G F O U W E M Y E W Z Z H C V Z Z N G S C P V F P H G Z X L G T O V A B E H Z

N S B H H L I Z M S P U M N V Z J D R R Y J B Y B H M W M O N G D L P V A N S M B J Z L N
 Z D Y B B N X G L Y N X L G I Z V T C C L P X J X S C E X N E I G N V W R D G H X R P Y F
 O L N M M S G I J M B K J C Z E V L P P Y W K D K N U A R N Z X O W I G B A O G S R Z V J

E A I M P P I F T M V M D F A D Y A M C P G A M C N D S A U M A H V A G Z X S A V M G U S
 R C Y Z F D S M Y C D U S W M E U C S R U P A H O P W F H Y S X I G X U E L F S D L O C X
 S X U E F Y D E R F X C Y G V S G J M R G I P F E S U L C Z X Y A Z Y S A P Z X C Y E F L

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WMO	CYR	HVC	XJVV	WUW	LTMP	PVD	NIOP	NYAZ	YAZY	ZYZ	EXG	PGW	KOL	II	2
CRG	ZDA	CTFM	ZVVG	XDDA	TFAZ	NIOP	NYAZ	YAZY	ZYZ	EXG	PGW	KOL	II	3	
HXM	HTF	APJE	BEKE	KEPJ	BTNZ	THHY	WTATE	ZEZ	TMCP	SKQL	PRV	WZ	AY	4	
GAI	KHR	JCKL	AWU	JTZ	FYTI	AYWC	AMC	WRK	FBI	VXF	KTD	ORG		5	

DUZOVXUYXGAGJKCJOXCHUIIPTLTFHPFVSM LXSRDTYPF NW 6

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PVULDEDAONYAGNBCKMCJIMGYDJE BGRHLOTMLTYDEJJPVB 11

TCUTEUWWNCINLVMALTAZSZXBHYBAZWGMJOSXWPOYBWQBG 12

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CJFWKMZND EEVKCNXNBSYZGNFWETZOXAXPJWCLKYZVIBYP 16

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WROI RWEWPDVBDYWAMGFBMAVKWTISIVUBAXMWDKEJFSGYD 18

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 YCWKEMSPA HXDLBRUBRRJ 60

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WUI DRWYYJRZPRZTRBREF IDLA4127215 SLLDVIWBRATGTKD 29
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FBZLRYNVOMBGAHLNBDCEFP GHI CXGKYTVYDEFWIWPMIPLR 87

GDPZYTGZKNRVAGKOMKDECLJALZTOCMWDJZGIFZR DGOSIN 88

GBHFSALAXUNTKSBMHNSBJIGFMKOTOPJWGJFOXAPYWTN 89

IXSFOLSYRFMGJJDGOBFREIECJWGLSBGABGJGBVYYVJHS 90

ZNTNOSQESKXORXAOCRMRVHEDMMTZTYJRTFCNODTRCC 91

TLKYHLULIBOGVWJVNAAYXNDTKCSRCHFHMFBNDONZHGOZR 92

MSRNEESALHZZIRAGKASIFNSCOYPPXBCJMVJLXNPJOBPJV 93

Handwritten initials: JG, BC, JP

N J N K C J B I N Z S D F C P M Y F K S P Y E P J E C Z L C P Z B Y T E P X Z C O G B A Z 82

F D I Y D I Y Z O P J F S Z M P G D M G B P Z Y H E Y U V Z O Z Z Y E F G D Z R N J V O H 83

H X W W N S Z Z T H U R S J U F L X G D I U N D Z W D L M X R V O O H T J Y G G E F S B A 84

N W Z N H C T Y L C Y D B Z B M I I E R V Y S L G U G T X G T M O A F K B G C K G R M K Q 85

F B Z L R Y N V O M B G A H L N B D C E F P G H I C X G K Y T V Y D E F W I W P M I P L R 86

G D P Z Y T G Z K N R V A G K O M K D E C L J A L Z T O C M W D J Z G I F Z R D G O S I N 87

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MAHCDRERYXOAZOTBTNOWRXJUKGDWYAWAETSUTLUHMNWOP 97

IWI TZPBXBSCDPNPHWNOLPEVFYJJHTXDUVVX 98

99

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FREQUENCY A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

