

Chinese Military nets

(including M89, Q26, M95,V26,
UM03, VC01, VC03, and MC03)



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Most of these Chinese military nets are on the air for many years. The ALE transmissions were first reported in early 2012. This net is using 2G ALE to link stations and a FSK-8/PSK proprietary modem to exchange data. The ALE signals are usually transmitted in USB. Sometimes you can hear clear Chinese voice traffic. Also used is 4+4 75/1000 or 4+4 75/3000 LSB.

The well known “numbers stations” M89, V26, M95, and Q26 are also part of the military system. Messages are identical but their behavior is somewhat different. Most likely because they belong to a different branch of the military. The traffic of VC01, VC03 and MC03 is very different from the other stations mentioned here. They serve a different purpose

Contents

Chapter 1 - Background	2
Chapter 2 - Military Intelligence	2
Chapter 3 - Monitoring stations.....	2
Chapter 4 - M89	4
Chapter 5 - V26/V27, Q26 and M95.....	9
Chapter 6 - UM03.....	13
Chapter 7 - XSV and XSG	14
Chapter 8 - ALE transmissions.....	15
Chapter 9 - Q26a: Stand-alone 4+4 75/3000 LSB transmissions.....	16
Chapter 10 - People's Liberation Army 中国人民解放军.....	24
Chapter 11 - VC01 a.k.a. Chinese Robot	25
Chapter 12 - VC03, Chinese Air Defense.....	26
Chapter 13 - MC03, Chinese Air Defense.....	27
Chapter 14 - PLA Air Force / PLA Air Defense ALE	28
Sources, Contributors, Related Websites, Further Info	30

Chapter 1 - Background

The PLA is composed of three services, the Army, Navy and Air Force, and an independent arm, the Second Artillery Force which is responsible for the strategic missile unit, conventional missile unit, and other specialized units. The PLA has seven military area commands, namely, Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou and Chengdu. In addition to these services the PLA runs the Academy of Military Science, the National Defense University, and the National University of Defense Technology. The Chinese People's Armed Police Force undertakes the task of maintenance of security entrusted by the state. It is under the dual leadership of the State Council and the Central Military Commission, and has responsibility of internal security forces, and gold mine, forest, water and power, and transportation security forces.

PLA's Head Quarters are composed of the following departments:

- General Staff Department
- General Political Department
- General Logistics Department
- General Armaments Department

Note:

A large reorganization is going on in the PLA. Before the reshuffle, China had seven military area commands headquartered in Shenyang, Beijing, Jinan, Nanjing, Guangzhou, Chengdu and Lanzhou. They are replaced in early 2016 by five new theater commands, under the administration of the Central Military Commission (CMC). The theaters are Eastern Theater Command, Southern Theater Command, Western Theater Command, Northern Theater Command, Central Theater Command. In December 2015, the PLA Second Artillery Corps has been replaced by the PLA Rocket Force. Most likely the military intelligence system will also be reorganized in 2016. This document will be updated when more details are available. (UDXF/08 February 2016)

Chapter 2 - Military Intelligence

The General Staff Department carries out staff and operational functions for the PLA. Its Second Department is responsible for collecting military intelligence. Activities include military attachés at Chinese embassies abroad, clandestine special agents sent to foreign countries to collect military information, and the analysis of information publicly published in foreign countries.

The Second Department oversees military human intelligence (HUMINT) collection, human intelligence (HUMINT), signals intelligence (SIGINT), and imagery intelligence (IMINT), and disseminates finished intelligence products to the Central Military Commission and other users of intelligence products. Preliminary fusion is carried out by the Second Department's Analysis Bureau which mans the National Watch Center, the focal point for national-level indications and warning. In-depth analysis is carried out by regional bureaus.

The Third Department of the General Staff Headquarters is responsible for monitoring the telecommunications of foreign armies and producing finished intelligence based on the military information collected.

Chapter 3 - Monitoring stations

China's main SIGINT effort is in the Third Department of the General Staff Department of the Central Military Commission, with additional capabilities, primarily domestic, in the Ministry of State Security. SIGINT stations, therefore, are scattered through the country, for domestic as well as international interception. Prof. Desmond Ball, of the Australian National University, described the largest stations as the main Technical Department SIGINT net control station on the northwest outskirts of Beijing, and the large complex near Lake Kinghathu in the extreme northeast corner of China. As opposed to other major powers, China focuses its SIGINT activities on its region rather than the world. Ball wrote, in the eighties, that China had several dozen SIGINT stations aimed at Russia, Japan, Taiwan, Southeast Asia and India, as well as internally.

Of the stations apparently targeting Russia, there are sites at Jilemutu and Jixi in the northeast, and at Erlian and Hami near the Mongolian border. Further two Russian-facing sites in Xinjiang, at Qitai and Korla, probably focused on missile and space activity. Other stations aimed at South and Southeast Asia are on a net controlled by Chengdu, Sichuan. There is a large facility at Dayi, and, according to Ball, "numerous" small posts along the Indian border. Other significant facilities are located near Urumqi (see picture below), Yongxing Dao on Woody Island, Xixiang, Shenyang, near Jinan and in Nanjing and Shanghai. Additional stations

are in the Fujian and Guangdong military districts opposite Taiwan. On Hainan Island, near Vietnam, there is a naval SIGINT facility that monitors the South China sea, and a ground station targeting US and Russian satellites. China also has ship and aircraft platforms in this area, under the South Sea Fleet headquarters at Zhanjiang immediately north of the island. Targeting here seems to have an ELINT as well as COMINT flavor. There are also truck-mounted mobile ground systems, as well as ship, aircraft, and limited satellite capability. There are at least 10 intelligence-gathering auxiliary vessels. As of the late nineties, the Chinese did not appear to be trying to monitor the US Pacific Command to the same extent as does Russia. In future, this had depended, in part, on the status of Taiwan.

The Fourth Department (ECM and Radar) of the General Staff Headquarters Department has the electronic intelligence (ELINT) portfolio within the PLA's SIGINT apparatus. This department is responsible for electronic countermeasures, requiring them to collect and maintain data bases on electronic signals. 25 ELINT receivers are the responsibility of the Southwest Institute of Electronic Equipment (SWIEE). Among the wide range of SWIEE ELINT products is a new KZ900 airborne ELINT pod. The GSD 54th Research Institute supports the ECM Department in development of digital ELINT signal processors to analyze parameters of radar pulses.

Numbers & Oddities

Chapter 4 - M89

M89 is a Chinese military network. Extensive direction finding activities have pinpointed transmitter sites near Guangzhou, Qingdao and the Dalian/Lushan areas. The network also has various other locations throughout the country, like Lanzhou, Xi'an, Changping, Qinghe, and Xiang Dao. Most probably the stations belong to various PLA branches. The Second Artillery Corps is one of the main users. Looking at the locations we may assume that the navy is also connected to this vast net as Qingdao is the HQ of China's North Sea Fleet. Lushan is another major base of the North Sea Fleet and in Dalian is one of the largest training facilities of the navy. Guangzhou is one of the largest bases of the South Sea Fleet.

The Second Artillery Corps (SAC), China's strategic nuclear force, was established in Beijing on 1 July 1966. The SAC is under the operational control of the general staff, but is directly controlled by the Central Military Commission (CMC), and has been an independent arm of the Chinese armed forces since 1974. The SAC is believed to be organized into a headquarters in Qinghe near Beijing. It consists of: an early warning division, a communication regiment, a security regiment, a technical support regiment, and six ballistic missile Divisions.

The signal unit of the SAC operates communications systems to provide communications support capabilities for launch operations. The headquarters complex maintains contact with subordinate units through its own communications regiment. The SAC has its own communication regiment down to the smallest unit. All SAC units are subject to strict command and control from the CMC. Orders are passed down to operational units via a four-level chain of command: CMC, missile bases/Divisions, missile brigades, and launch battalions. Second Artillery command orders are centralized, encoded and protected, and require human authentication.

The six ballistic missile Bases/Divisions are independently deployed in different military regions throughout the country and are numbered from 51st to 56th. See the map below (courtesy of JPL). The 22nd Base, located in Baoji, Shaanxi Province is officially known as the "Training and Experimental Base". Western intelligence suggests that this base may also serve as a warhead storage facility.



The M89 HF CW communications we hear most days (Channel Markers with the odd message) are probably Divisional Level backup HF Circuits. The majority of communications supplied by the Signal Regiments in the field would use VHF/UHF systems, which provide reliable point to point communications and, since they are line-of-sight, are almost impossible to be intercepted. Occasionally, we get a flurry of activity. This activity is probably a Brigade Level exercise as the control stations work the same outstations. It would appear that exercises take place every four months, May, September, and January.



Frequencies (Note that the frequencies are +/- 2 kHz.)

3197.0	3846.0	5051.5	5636.0	7033.0	7062.0	7153.0	8301.0
3297.0	3847.0	5086.0	5636.5	7034.0	7062.5	7310.0	8308.0
3298.0	4146.0	5227.0	5643.0	7036.0	7063.0	7320.0	8318.0
3327.0	4224.0	5237.0	5643.5	7036.5	7063.5	7414.0	8321.0
3330.0	4225.0	5237.5	5644.0	7039.0	7064.0	7416.0	8378.0
3397.0	4227.0	5240.0	5645.0	7039.5	7064.5	7568.0	8437.0
3398.0	4365.0	5278.0	5696.5	7041.0	7065.0	7582.0	8438.0
3399.0	4415.0	5302.0	5719.0	7042.5	7065.5	7598.0	8442.0
3440.0	4439.0	5304.0	5725.0	7043.0	7066.0	7598.5	8455.0
3529.0	4440.0	5310.0	5727.0	7043.5	7066.5	7599.0	8457.0
3536.0	4474.0	5332.0	5728.0	7044.0	7067.0	7600.0	8728.0
3536.5	4523.0	5376.0	5756.0	7045.0	7067.5	7601.0	8787.0
3542.0	4532.0	5382.0	5873.0	7045.5	7068.0	7601.5	8802.0
3543.5	4567.0	5383.0	5875.0	7048.0	7068.5	7602.0	8876.0
3544.5	4592.0	5384.0	6458.0	7049.9	7069.0	7603.0	9071.0
3546.5	4602.0	5386.0	6506.5	7050.0	7069.5	7604.0	9220.0
3547.5	4670.0	5402.0	6508.0	7051.0	7070.0	7623.0	9422.0
3549.5	4673.0	5416.5	6509.0	7051.5	7070.5	7718.0	9435.0
3551.0	4727.0	5418.0	6509.5	7052.0	7072.0	7737.0	10475.0
3552.0	4767.0	5423.0	6510.0	7053.0	7072.5	7741.0	10588.0
3553.0	4770.0	5428.0	6667.0	7053.5	7073.0	7779.0	10640.0
3553.0	4770.5	5432.0	6668.0	7054.0	7073.5	7816.0	10643.0
3554.0	4771.5	5436.5	6773.0	7054.5	7074.0	7833.0	10779.0
3556.0	4778.0	5439.0	6785.0	7056.0	7075.5	8024.0	10822.0
3556.5	4831.0	5488.0	6788.0	7056.5	7077.0	8038.0	10830.0
3557.5	4860.0	5498.0	6789.0	7057.0	7077.5	8040.0	10831.0
3558.5	4870.0	5500.0	6840.0	7057.5	7078.0	8042.0	10864.0
3561.0	4873.0	5580.0	6925.5	7058.0	7078.5	8044.0	11083.0
3561.5	4874.0	5588.0	6982.0	7058.5	7079.0	8046.0	11084.0
3562.0	4927.0	5600.0	6982.5	7059.0	7079.5	8047.0	11432.0
3565.5	4928.0	5628.0	6985.0	7059.0	7080.0	8050.0	12585.0
3570.0	4929.0	5629.5	6992.0	7059.5	7081.5	8061.0	16663.0
3639.0	4983.0	5631.0	6995.0	7060.0	7082.0	8110.0	16720.0
3642.0	5017.0	5633.5	7000.0	7060.5	7088.0	8120.0	20589.0
3645.0	5018.0	5634.0	7025.0	7061.0	7103.0	8121.0	
3797.0	5032.0	5635.0	7030.0	7061.5	7145.0	8189.5	

Modes: CW and voice in USB

Marker tapes samples

V 3A3J 3A3J 3A3J DE B4ZJ B4ZJ	V DKSL DKSL DKSL DE ALSK ALSK	V S2LZ S2LZ S2LZ DE YBA6YBA6
V 43A 43A 43A DE A34 A34	V DP9J DP9J DP9J DE CQ CQ	V SNT9 SNT9 SNT9 DE D3MR D3MR
V 5RAB 5RAB 5RAB DE M9AB M9AB	V EI0B EI0B EI0B DE JHG2 JHG2	V SR3H SR3H SR3H DE FGH8 FGH8
V 6TRW 6TRW 6TRW DE J9NS J9NS	V FJ4B FJ4B FJ4B DE D4MR D4MR	V SXL6 SXL6 SXL6 DE 9QFZ 9QFZ
V 7NPE 7NPE 7NPE DE QV5B QV5B	V GKLO GKLO GKLO DE TYUI TYUI	V TKLO TKLO TKLO DE TYUI TYUI
V 8CPZ 8CPZ 8CPZ DE XW6W XW6W	V GKN7 GKN7 HKN7 DE F3J5 F3J5	V TY9D TY9D TY9D DE EOX2 EPX2
V 8DKB 8DKB 8DKB DE ODY8 ODY8	V H2FL H2FL H2FL DE DRV8 DRV8	V TY9D TY9D TY9D DE EPX2 EPX2
V 8PEX 8PEX 8PEX DE TISF TISF	V HER6 HER6 HER6 DE WU6L WU6L	V VTX7 VTX7 VTX7 DE TZ7B TZ7B
V A7TR A7TR A7TR DE DI9Q DI9Q	V JKDJ JKDJ JKDJ DE SLBC SLBC	V VXL1 VXL1 VXL1 DE XIW2 XIW2
V B9SR B9SR B9SR DE AL6R AL6R	V K6EN K6EN K63N DE D3MR D3MR	V WZG6 WZG6 WZG6 DE 4VTG 4VTG
V BIQ9 BIQ9 BIQ9 DE ISL2 ISL2	V M8JF M8JF M8JF DE RIS9 RIS9	V YUQW YUQW YUOQ DE ASDF ASDF
V BR3S BR3S BR3S DE JU9D JU9D	V MW3D MW3D MW3D DE 2SLC 2SLC	V ZRM7 ZRM7 ZRM7 DE LCM0 LCM0
V BRH0 BRH0 BRH0 DE 8NGG 8NGG	V N4FM5 N4FM5 N4FM5 DE DUT491 DUT491	VK6EN K6EN K63N DE D3MR D3MR
V CQ CQ CQ DE DP0491 DP4091	V N4FM5 N4FM5 N4FM5 DE NAT491 NAT491	VVV 3Z9 3Z9 3Z9 DE ZN4 ZN4
V CQ CQ CQ DE DP91 DP91	V PGG9 PGG9 PGG9 DE MI6Y MI6Y	VVV CQ CQ CQ DE UKNO UKNO
V DF4J DF4J DF4J DE D3MR D3MR	V Q5U8 Q5U8 Q5U8 DE 8QPP 8QPP	VVV Q2M Q2M Q2M DE NYZ NYZ
V DF4J DF4J DF4J DE D3MR D3MR	V QHV8 QHV8 QHV8 DE 8QPP 8QPP	VVV VVV VVV 4GN 4GN 4GN DE DE QJ7 QJ7
V DKG6 DKG6 DKG6 DE 3A7D 3A7D	V RA5J RA5J RA5J DE BP2S BP2S	VVV WNF WNF WNF DE FXM FXM
V DKSL DKSL DKSL DE ALSK ALSK	V RXP7 RXP7 RXP7 DE CZT2 CZT2	

Marker tapes variants

8TNKT 8TNKT 8TNKT DE K6WG K6WG	1)	CQMSG CQMSG CQMSG DE CQMSG CQMSG	3)
VVV Q2M Q2M Q2M DE NYZ NYZ QSA ? QSV K	2)	CQ CQ CQ DE DP91 DP91	4)
VVV WNF WNF WNF DE FXM FXM QSA ? QSV K	2)	N4FM5 N4FM5 N4FM5 DE NAT491 NAT491	2)
VVV 3Z9 3Z9 3Z9 DE ZN4 ZN4 QSA ? QSV K	2)	N4FM5 N4FM5 N4FM5 DE DUT491 DUT491	2)

1. 5 and 6-character callsigns.
2. Different format and different behavior. Call is repeated for 5 mins.
3. This test tape has been heard on 3639//4146 kHz on 16-11-2003. Both frequencies are often used by M89.
4. The DP-net is also different from the usual M89 stations. See the DP section below.

M89 uses cut numbers for 0 1 2 8 9

Cut numbers

T A U 3 4 5 6 7 D N
0 1 2 3 4 5 6 7 8 9

M89 Transcripts

Besides the above mentioned marker tapes, the network transmits coded messages like the ones below.

V MW3D MW3D MW3D DE 2SLC 2SLC (ENDLESS STRING)
V MW3D MW3D DE 2SLC 2SLC HR CQ MSG NR
MSG NR 226 CK 3T1 16 1T27 162T =
MSG NR 226 CK 3T1 16 1T27 162T =
D3N5 TDN5 AT64 43A6 7UN3 A463 U57T 4T75 TT55 TTAA
73TA 65UA UN34 A46T 6DAN DUN3 UD5N NAD6 4A6U 6535
5U6T 76UN U64D 5A3U U547 A6TN 5D3N D4A5 D53A DUA3
A6N5 6AND 3T3N UN67 4UAD DTNT 4NDU U3DA 4TD3 5N7U
6437 5TDU DAU7 745A D6T5 576U DT45 7U6T 4N5D UN6T
37T4 A67T A6DU NU6D U4AN 47NU U4T5 DTA3 3475 4T7N
NADN 4NA3 D74T D537 U36U T75N 3A4D 7T65 3A7N 4AU6
7U56 64DA 435A 73T6 5DA3 NUNT 5DT4 53A7 6347 UD7U
63D3 74TN 35DT 543N 3675 A64N 7A5N AT65 D4U7 467T
3NU4 7TDU A6T6 3N34 D67T 6AT7 ND7U 7U4T 57TA 73AN
III =
N67N AU3A 3T73 AN4T 4NA5 TD65 6N7A 5TAU TT55 TTAU
7453 4A36 ATDT A364 ADA4 ADAT 53NT N547 6DAU 73DU
U634 UA37 N536 AT~3 N7D4 TN66 DT76 U644 75U7 3TA4
UDA5 UD53 TA5A 4D47 64A7 743T 6U37 733N 3AAD N3AT
D463 TA34 T76T UTU4 54T4 3T5T 67D7 AU6U 5~U3 U365
U4ND A5U4 57D4 5N47 3A34 5T3N UD54 4ANA 5U6D 5NA3
6TD6 3D65 N6AN 5376 T373 TDT6 6D73 T46T A6U5 N~65
A763 7NUN 76DU TN76 3T5A U7A4 6TN7 DUND UD53 N7TD
NU74 7NU5 7467 N7NU T53N 5D57 6TDA D456 7ATU 5UA5
A3D7 D35U N6N5 N4D5 53D5 4TU6 NUT3 5U74 64NN DDTU
III =
4TN3 TDAA T4U6 UT7U 53NT 6U35 U6D5 6DNA TT55 TTA3
DTA7 3U63 67DT 3UD7 47T7 NAN5 4U64 734T NT47 4DUD
45D7 N3U3 TT4U 7653 4N6U 4A56 A3TN AN63 D73U 636U
NAT7 DUAT TN73 43D7 5T3T 4563 5AU6 74UA 6AU6 634T
D55T ND56 6D57 TD4U NUAU 45A5 DNA4 4ANT 567U D4N4
7N7D 7367 43AT 76DU T5D5 TAN6 73AD NTN6 UAU5 7N74
D6N6 4N4T DAD7 5N37 U5TU T75N TNT4 A7D4 A63A N474
7A45 UDAD DT5N ATAA 3D37 A4D5 U53T 5N64 53A3 3D5U
7A67 347T UTD6 ADN7 U5U3 NANT 5A4A AU4N U7N4 3N56
6UN5 73TD N35D T356 56TN 744A 65T6 UD53 U57N U436
III =
774A AR
MSG NR 226 CK 3T1 16 1T27 162T =
... (RPT RDO)
V MW3D MW3D MW3D DE 2SLC 2SLC (ENDLESS STRING)

V DKLO DKLO DKLO DE SDKL SDKL (RPTD)
MSG NR VVV
MSG NR T1T8 CK T842 22 1116 2T45 =
MSG NR T1T8 CK T842 22 1116 2T45 =
MSG NR T1T8 CK T842 22 1116 2T45 =
1P = =
A3TA T7TT 73UT UUD5 5U55 N3T7 7DD3 UUN3 AA64 3U33
4A67 NT34 56TN TT45 7N75 53N4 N33A 3TAT 5U6N TAT6
7647 3ND7 74UD AN67 TNU7 TUAN 4DTT DN44 7A7A NU7T
443D 5D33 A377 3665 66A5 6A5D 6D3A D5UA 5TU7 U55U
673N TND3 74TA 6A77 5N5A U65N 3466 D6TU 7A6N N433
U5A5 5T~N 6544 N5UA N633 DU7T 74NN 3NT5 A6T4 3DDA
5773 NATU 36NT NN5U N5TU D33D AN36 75D5 A6UD T74T
TN46 UTAN ND4D 6DD4 4DNT 5TDU 43AN 3675 5446 A6ST
UD3T 543D U7NN 3D4D 3ANA NTUU 6U43 77AU D3A4 7D36
7N66 4N5D A7TD 57T6 55DN U~55 D53A A556 D6N7 67UA
III III III
2P = =
3A7T 3A6N 757N UN76 545T N457 65TU 3UTN AA33 6NU6
6D44 76A4 T6D7 UNAT 7N6N DN55 DNTU 6DN6 33UN N6AN
U6T5 4TA5 N35T 43DA 7NT3 363D DTU7 AUD4 ATN7 3UA6
A76T 5N75 NTA4 ...

V LA5S LA5S LA5S DE NH8T NH8T (ENDLESS STRING)
UGT COMM = 361/5952/5885/58/53/8288/5/558/A AR
UGT COMM = 361/5952/5885/58/53/8288/5/558/A AR
UGT COMM = 361/5952/5885/58/53/8288/5/558/A AR
V LA5S LA5S LA5S DE NH8T NH8T (CONTINUE)

COMM/0804/LZ186/9708/9707
282/8240/8090/12/30/0340/041/A/43/45 AR
SVC 0262315 RMKS

Voice traffic example

Operators A, B and C.

A: 7003 1592	A: 19
B: 7003 1592 9722 9722	C: 13 13
A: 9722 1592	?: 60 60
B: 9722 1592 7944 7944	91 60 60
A: 7944 1592	7591 60 60
B: 7944 1592 7004 7004	7591 59
A: 7004 1592	yao yao yao yao yao yao yao yao
B: 7004 1592 9326 9326	
A: 9326 1592	2533 2533
B: 9326 1592 7944 7944	7591 7591 141282526
	7591 15658
A: 7944 1592	7591 87 7491 87 7491
B: 7944 1592 7111 7111	?? 2533
A: 7111 1592	Beep beep
B: 7111 1592 8433 8433	

DP-net

We do not have a clear picture of the “DP” sub-net yet. This net pops up on some frequencies of M89. DP91 has regular schedules at 0200 and 1000 UTC. Possibly also at 1800 UTC. The 0200 and 1000 skeds use parallel frequencies: 6719 and 8940 kHz. The parallel frequencies, for the most part have the same roundslip, but it does happen occasionally that the roundslip is different. As well, it's not uncommon for the roundslip to come up on one of the frequencies, and later on the other.

Callsigns / Marker tapes

CQ CQ CQ DE DP91 DP91 (main callsign on this net)

DP35

DP4091 DP6291 DP6991

DP7091 DP7391 DP7491 DP7691 DP7791 DP7891 P7991

DP8091

SDP7491 SDP91

SKDP

V N4FM5 N4FM5 N4FM5 DE DUT491 DUT491

V N4FM5 N4FM5 N4FM5 DE NAT491 NAT491

Notes

- 1) During a session the letter part often is omitted. Example DP7891 becomes 7891.
- 2) 5-character callsigns are often used on this net.
- 3) DP-combinations appear in the callsigns. Callsigns do not necessarily begin with DP.

Traffic examples

CQ CQ CQ DE DP91 DP91

HR HR NIL NIL SK SK GB GB

DU6E DE 7991 G (= DP7991)

CQ CQ CQ DE DP91 DP91

PSE YK ITT YK TC FREQ WN HR NIL SK GB

PSE YK IIO YK TC FREQ WA HR NIL SK GB

V N4FM5 N4FM5 N4FM5 DE NAT491 NAT491

CQ V

DE E E A

CQ DP91 V

CQ CQ CQ DE DP91 DP91 **K**

HR NIL SK GB (x6)

HR NIL SK GN

HR NIL SK GB

Chapter 5 - V26/V27, Q26 and M95

These stations are most likely naval stations. Each transmission consists of a non-stop sequence of messages sent in three different modes. The messages are sent 3x in each mode. Each transmission is usually transmitted on three parallel frequencies.

M95 uses cut numbers for four figures

T A U 3 4 5 6 7 D N
0 1 2 3 4 5 6 7 8 9

Callsigns:

XSV70, XSV85, XSV86, XSE23, 3SG, 3SY, 3SA, 3SW are believed to be land based stations. Note that these calls are sent in 4+4 as VSF70 and VSF85.

BNAB, BNEC, BNGC, BJCC, BJCQ are believed to be collective calls for navy vessels.

It is interesting that the voice callup at the beginning of the transmission sequence is not the same as used in the individual transmissions. The callsign of the addressee is often a two-character callsign, usually a noun, most often a place name. The sender uses almost always a 3-digit callsign. See the callup example below.

The sequence starts with a voice callup by a male or female operator, calling a station or using a collective call:

DingHai de 259 We have a message for you. Please copy.

DingHai de 259, the message is coming up, copy.

Then Q26 starts. It transmits in the mode 4+4 75/3000 LSB. The message is sent 3 times. When finished the station switches to Morse in USB. The Morse part has designator M95 and sends the same message again 3 times, now in Morse. Then the operator who did the callup at the beginning shows up again. The voice part has designator V26. V26 again sends the same message 3x but now in voice. V26 is also in USB.

Frequencies include

4243 4283 4444 4477 4532 4883 5111 5445 5500 5555 5588 5678 5681 5801 5924 6448 6666 6785
6813 6835 7155 7345 7553 7777 7820 8027 8041 8073 8079 8176 8194 8621 8888 9054 9102 9126
9135 9149 9153 9156 10340 13029 16666 kHz

Examples

Voice callup

DingHai de 259 We have (a message) for you. Please copy.

DingHai de 259, the message is coming up, copy (into 4+4 traffic)

V26 example 1

0602 4124 35 0716 1646
016 324 326 319 327 012
873 017 893 353 371
4958 993 45 37 ?le? 480 416 418 773
020 773 423 873 358 373 410 993 44
372 419 486 021 773 853
372 11 993 435 384 462 484 486 022 073
024 893 858 373 411 993 446 383 484
485 025 373 426 373 428
773 354 374 411
993 446 474 438 384 489
485 429 934 933
033 773 353 372 411 993 45
382 382 480 486 328 025 873 026
873 027 873 854 374 411
993 48 385 484 485 022 873
024 873 858 873 411 093 440 384 484
486 029 773 353 372 11 993 446 383 480 486 329 947 328
0716 437 End of transmission (in Chinese)

V26 example 2

8PPY

Please pay attention and copy

Please pay attention and copy

Message number 0179

Message group 134

35 35 0225 0225 1603 1603

Each message group will be sent 3 times.

025 326 319 327 012 773 017 773 023 773
356 358 404 93 445 382 480 483 018 773
019 773 020 773 353 363 417 93 445 382
480 488 021 773 012 773 024 773 026 773
027 773 029 934 033 773 352 404 93 445
382 380 486 025 773 356 403 93 446 383
389 938 417 93 445 382 480 486 328 012
73 017 73 356 385 96 358 407 93 445
382 340 938 403 93 446 383 380 483 024
73 025 73 356 37 93 445 382 341 938
403 93 BR P

Page 1 complete, here comes page 2

446 383 480 486 476 329 012 73 37 73
402 73 025 73 356 403 93 446 383 380
386 018 73 356 358 404 93 435 446 380
302 380 483 476

Message over, 8PPY contact.

Q26 example

F BNGC BNGC BNGC DE VSF85 VSF85 F BNGC BNGC BNGC DE VSF85 VSF85

F BNGC BNGC BNGC DE VSF85 VSF85 F BNGC BNGC BNGC DE VSF85 VSF85

HR MSGS GA PSE CY \$

NR1036 CK136 35 1206 0721 --

006 324 314 012 773 017 773 018 773 023
773 354 373 403 993 447 468 385 480 486
019 773 353 403 993 446 468 384 480 486
020 773 353 402 993 447 468 385 342 938
403 993 446 384 480 486 021 773 353 373
403 993 446 467 384 480 486 022 773 024
773 354 373 403 993 447 385 480 486 025
773 357 372 404 993 446 384 342 938 403
993 447 385 480 486 026 773 357 372 403
993 446 383 342 938 384 480 486 027 773-1
357 372 403 993 435 466 380 002 342 938
383 480 486 029 773 353 372 403 993 446
467 384 480 486 030 934 033 773 353 403
993 435 380 002 480 486

MSG AGN

NR1036 CK136 35 1206 0721 --

006 324 314 012 773 017 773 018 773 023
773 354 373 403 993 447 468 385 480 486
019 773 353 403 993 446 468 384 480 486
020 773 353 402 993 447 468 385 342 938
403 993 446 384 480 486 021 773 353 373
403 993 446 467 384 480 486 022 773 024

773 354 373 403 993 447 385 480 486 025
773 357 372 404 993 446 384 342 938 403
993 447 385 480 486 026 773 357 372 403
993 446 383 342 938 384 480 486 027 773-1
357 372 403 993 435 466 380 002 342 938
383 480 486 029 773 353 372 403 993 446
467 384 480 486 030 934 033 773 353 403
993 435 380 002 480 486

AHR MSG GA

NR1037 CK36 35 1206 0726 --

012 952 006 953 006 954 700 011 746 705

770 893 707 012 773 017 773 018 773 019

773 020 773 022 773 023 773 024 773 025

773 719 718 947 314 725

MSG AGN

NR1037 CK36 35 1206 0726 --

012 952 006 953 006 954 700 011 746 705

770 893 707 012 773 017 773 018 773 019

773 020 773 022 773 023 773 024 773 025

773 719 718 947 314 725

AHR CW WK \$

M95 example 1

V BNGC BNGC BNGC DE XSV85 XSV85

HR MSG GA PSE CY

NR 0842 CK 75 35 1006 0707 = =

TT6 3U4 3A4 TAU

773 TU4

773 TU5

773 353 4T3 NN3 435 466 3DT TTU 4DT 4D6 TA7

773 TAD

773 354 373 4T7 NN3 435 3DT TTU 4DT 4D6 TAN

773 TUA

773 TU3

773 357 373 4T7 NN3 445 466 3DT TTU 4DT 4D6 TUT

773 TUU

773 353 37U 4T7 NN3 445 3DU 4DT 4D6 TU6

773 TU7

773 TUN N34 T33

773 353 373 4T3 NN3 445 3DU 4DT 4D6

MSG AGN NR 0842 CK 75 35 1006 0707 =

TT6 3U4 3A4 TAU

773 TU4

773 TU5

773 353 4T3 NN3 435 466 3DT TTU 4DT 4D6 TA7

773 TAD

773 354 373 4T7 NN3 435 3DT TTU 4DT 4D6 TAN

773 TUA

773 TU3

773 357 373 4T7 NN3 445 466 3DT TTU 4DT 4D6 TUT

773 TUU

773 353 37U 4T7 NN3 445 3DU 4DT 4D6 TU6

773 TU7

773 TUN N34 T33

773 353 373 4T3 NN3 445 3DU 4DT 4D6

MSG AGN NR 0842 CK 75 35 1006 0707 =

TT6 3U4 3A4 TAU

773 TU4

773 TU5

773 353 4T3 NN3 435 466 3DT TTU 4DT 4D6 TA7
773 TAD
773 354 373 4T7 NN3 435 3DT TTU 4DT 4D6 TAN
773 TUA
773 TU3
773 357 373 4T7 NN3 445 466 3DT TTU 4DT 4D6 TUT
773 TUU
773 353 37U 4T7 NN3 445 3DU 4DT 4D6 TU6
773 TU7
773 TUN N34 T33
773 353 373 4T3 NN3 445 3DU 4DT 4D6 AR AR
AR AR AR

M95 example 2

VVV XSV86 XSV86 DE 3SY 3SY 3SY MSG (R4)
MSG GA NR O6O5 CK 215 24 O324 O9O5 = =
U545 65T7 3NT7 6TA5 67D4 6DAU 35DU TAN3 6NA4 7UTD
AT5D TU34 UN4A ~67D 7NT3 6AU7 67NU 553D DN5T A353
5DTN 7536 UN6T U74~ ~4T 3UUT 457D N~DU 637A 3~3~
73N5 A73T 74U6 NA34 56DA U456 D4T5 AT~7 DNT4 3DNT
D64N U456 7DNT AUD3 4A5N AU56 7DT3 37N6 5TU4 A37T
AT5U N74U 7NA3 456D D76~ TU63 N356 73DT 5UTD 3A4T
U34~ ~N56 UN76 D37T A3T6 A756 DNT5 D47N DA53 T64A
D65N U3ND 647N A3T5 UA75 6A5U T457 DNT6 A375 UTD4
45AD 53U4 3U45 67DT A6N5 N4TA 73A6 3NUT N~7T 7D6U
6UD3 T6UN NDTA U346 7TA3 567A T47U ND55 NA57 D354
III 2P = =
5576 ~UD4 AUN7 7T~3 5NA6 ADN~ ~463 T657 453T 4U6D
TN~5 T356 43N6 ~A3U DUT7 T5~6 4AN7 DNU4 A457 5A7N
5DN~ 3AU6 D537 ~54N 46TD UT4N TAU4 35D~ 6U7A 57TN
6UN7 534U T75A 6NT3 57AD TD47 DUA3 7643 N65U 4ATN
63~ ~TDN DTA7 ~46N U345 5~ ~TD5 67T4 53AU T6N7
DD4U N6AT D75N 76NA 34D5 ~6A7 N~ ~5TA4 A4~7 3U~
~576 53TD 7~4 D5A4 ~T~N A3~ ~5T 74AU 76N3 6D4~
63N7 A73D 5U6T T45D NU47 5N3A T6A3 TUD4 D456 TN7A
753D A34U TUA3 467N NTU6 5T7D 65DN 34UA 6TDA 547N
74DA A5UN 7DNT TU35 NA6T 5U7N 63DN 6D34 374U A465
III 3P = =
47~4 34T6 35U4 5N6A 5DTA 746D 3~5TU 73UT DAN5
D6NU TD65 A5DT D73N 35N6 U453
AR
ZNN SK ZNN SK
AR

M95 example 3

BJCQ BJCQ BJCQ DE 3SW 3SW 3SW (RPTD)
MSG NR 40O3/3O5 CK 85 O325 O91O = =
4U7T UNU7 NT5T UNU7 7547 5D47 4UN4 NAA5 N3UN U7UN
AAU7 74UN 675D NUUN 7NAU 5U74 45TT 67T5 AA7N 6T7N
UDU4 N4U6 77N4 AA5T UUA4 4334 T3UU 7T3U 5U67 DU4N
U6N4 4464 U6T4 4545 5AAN U5DU T67N U6T5 67U6 DUU6
5T3U 4UAA U67N U6U6 7UDU T7UN UDUT UNU6 T7NA T6TN
UN4U 4UUN U634 U75T 74DT 5UU6 N467 4U75 47DU U6TT
3UNT 3UU6 N334 4645 45N4 5AA5 T467 4674 7N4U UDUN
3U64 4754 DU5D 4754 67TT 5D47 U5U6 N47T NT34 7NUN
7TT5 T75U 5UUN NU7T 7NU6
AR
AGN NR 40O3/3O5 CK 85 O325 O91O = =
4U7T UNU7 NT5T UNU7 7547 5D47 4UN4 NAA5 N3UN U7UN

AAU7 74UN 675D NUUN 7NAU 5U74 45TT 67T5 AA7N 6T7N
 UDU4 N4U6 77N4 AA5T UUAA 4334 T3UU 7T3U 5U67 DU4N
 U6N4 4464 U6T4 4545 5AAN U5DU T67N U6T5 67U6 DUU6
 5T3U 4UAA U67N U6U6 7UDU T7UN UDUT UNU6 T7NA T6TN
 UN4U 4UUN U634 U75T 74DT 5UU6 N467 4U75 47DU U6TT
 3UNT 3UU6 N334 4645 45N4 5AA5 T467 4674 7N4U UDUN
 3U64 4754 DU5D 4754 67TT 5D47 U5U6 N47T NT34 7NUN
 7TT5 T75U 5UUN NU7T 7NU6
 AR SK

Chapter 6 - UM03

- This net is related to M89 and M95.
- It has several fixed schedules and can be recognized by its use of the text MSG MSG ENG ENG MSG ENG ENG and the words TIME and DATE in the messages.
- Traffic consists of messages and regular radio checks with the outstations.
- All traffic is in CW.
- Net control station is X2M.

Frequencies:

X2M net control 7920, 8250, 8410, 10462 kHz, most of the time used in parallel

Outstations	3245	3315	3362	3568	3845	3955	4065	4142	4341	5250	5840	6203	6240
	6580	6700	6710	6750	6795	6954	7086	7378	7474	7658	7750	7920	8261
	8282	8320	8397	8398	8399	8411	8616	9128	9160	9225	9251	9255	9392
	10178	10212	10217	11200 kHz									

Message examples:

CQ (x3) DE X2M (x2) VVV

MSG MSG ENG ENG MSG ENG ENG

21 21 CK 100 CK 100 TIME 1632 TIME 1632 DATE 1306 DATE 1306 =

UDN5A 4UAD5 N4T63 7U43N A7UD4 etc. AR

23 23 CK 100 CK 100 TIME 1638 TIME 1638 DATE 1306 DATE 1306 =

4T6AD A6A74 DAN46 etc.

CQ (x3) DE X2M (x2) VVV

MSG MSG ENG ENG MSG ENG ENG

13 13 CK 100 CK 100 TIME 1435 TIME 1435 DATE 2006 DATE 2006 =

KNCET CFUWL UJYAP BQSJZ WLNCF ADSUJ etc. AR

17 17 CK 100 CK 100 TIME 1446 TIME 1446 DATE 2006 DATE 2006 =

DSUJM VKMNC LODFU etc. AR

Chapter 7 - XSV and XSG

Coastal stations XSV: Tianjin Radio and, XSG: Shanghai Radio are sending the same kind of message as M95. Most likely weather reports.

8600 kHz, 09-04, 0650 UTC. XSV - Tianjin Radio

N/W XSV NR 015 CK 075 07 1450 =
76U7 5300 6UU6 =
0127 KK 5U6A KN4 KK
U5DD KN9 KK
U4DT KN02 10 KK
U5A4 5U67 KN4 KK
A5DD KN10 KK
U4DT KN1200 KK
U5A4 0554 3ADN U4T5 KN112 KK
6544 UA5A 3A4A 3D43 7463 5307 A7D3 3533 066N 3U63 5U67 7DN3 0656 3U63 UA5A A60A 4NU0 70UU KN400 KK
47A7 5300 6643 KN4 KK
4634 0T6A 0AA0 0007 0360 7DU0 6647 4D4D 5300 5DD7 KNA KK
937
= 36.0N/121 = 27.0E KK KNB KKK KN37
= 39.0N/121 = 25.4E KK KNC KK KN37
= 5818N/141 = 00.0E KK KND KK KN38
= 04.5N/200 = 27.0E KKK KNE KK KN37
= 40.5N/120 = 10.0E KK KNF KK KN37
= 39.0N/120 = 12.0E KK43
AS4... 0677 53 ... 037 5A37 =
66NN 6U45
NR 012 CK 042 07 1921 =
76U7 5300 6UU6 KN0126 KK
7DT6 3ADN U4D0 35D4 3U63 KN106 KK
57A4 35N7 3AD7 UD7A KN35
= 19 = 21.7N/119
= 35 = 15.6E KK
A57A AD63 V7DD AN73 A603 A3U7 6N06 76U7 5300 6UU6 KN0125 KK
A5D5 0687 5300 5307 5A37 AN4U
N/W XSV NR 011 CK 044 06 1731 = 0370 5300 6UU6 KN0055 KK 3U5D 3ADN UU07 A03U KN39
= 29.9N/119 = 19.8E KK
7TN6 6604 A3A7 0N6A 3055 0007 7A40 4UN3 3670 0AA0 KN39
= 29.5N/119 = 19.8E KK
3634 0N55 AD00 KN1 KK
3ADN 6D4N 3634 05D4 A777 43NA UN7U 5307 5306 665A 0354 0735 6N3A 3AU4 A5D5 0677 5300 5307 3A37 AN4U
N/W XSV NR 002 CK 054 01 1025 =
76U7 5300 6UU6 KN0020 KK
7DK5 3ADN 3AD5 3ADN KN0008 KK
6544 0060 KN2017 KK
06UD KN4 KK
U5DD KN3 KK
U4DD KN0000 KK
U5A4 5U67 KN4 KK
U5DD 98 KK
U4DT KN0000 KK
U5A4 0N6A KN844 TN34 70U0 6647 5D4D 3055 AA0D 0355 U457 A56U 0A55 UDA4 KN KKK 937
= 37.35N/122 = 17.25 KKK KNB KK KN37
= 37.30N/122 = 19.36E KK KNC KK KN37
= 29.05N/122 = 19.24E KK KND KK KN37
= 33.12N/122 = 13.12E KK
A5D5 0677 5300 5307 3A37 AN4U AR
DE XSV SK

Chapter 8 - ALE transmissions

This net uses many frequencies. This list is probably not complete:

4604.0	8096.2	10171.1	11161.7	13423.0	16759.0	20394.0
5632.7	8129.0	10207.0	11175.0	13501.0	16846.0	20452.0
5784.0	8175.0	10342.8	11171.7	13509.0	16857.0	20557.0
6673.2	8188.0	10397.0	11402.0	13967.0	17197.2	20681.0
6893.4	8269.5	10429.0	11404.0	13984.0	17453.0	20889.0
6906.0	8343.0	10432.0	11412.0	14364.0	17533.0	20993.0
7021.0	8379.0	10577.0	11532.0	14401.2	18202.5	21406.0
7628.0	8785.0	10617.0	12527.0	14469.0	18319.2	22056.0
7669.0	8794.0	10666.0	12530.4	14594.0	18552.0	23034.0
7741.5	9043.0	10676.6	12616.9	14623.0	18850.0	23172.0
7838.0	9047.0	10737.0	12671.8	14764.0	18881.0	23347.3
7852.3	9057.7	10736.7	12810.0	14987.0	19250.0	23500.5
7860.0	9110.8	10829.0	13085.2	15912.5	19303.5	
7898.8	9182.0	10888.9	13197.0	16083.0	19510.0	
7961.0	9201.6	10928.0	13196.9	16148.6	19748.0	
7988.0	9245.2	11000.0	13370.0	16457.0	19850.0	
8009.0	9311.0	11030.0	13379.0	16685.0	20228.0	
8023.0	9991.7	11128.0	13390.0	16710.0	20391.0	

Callsigns noted so far:

A01 A03 A04 A11 A14 A16 A45 A66 A76 A86 A90 A91 A92 A96 A97 A98
AA9 AF1 AF6 AK0 AMN AST
B50
C10
D50 D52 D53 D54 D66 D78
DD3
E55 E56 E58
F14 F15 F16 F17 F19
L01 L02 L03 L04 L05 L06 L07 L08 L10 L11 L64
L01L08 L02L01 L03L02 L04L03
M01 M12
MOP
N01 N10 N50 N99
OC1 OP4 OPR
W3F

ALE samples:

[NORMAL MODE][TO][L06][TO][L06][TO][L06][TO][L06][TO][L06][TO][L06][TIS][A97][EOM]
[NORMAL MODE][TO][A76][TO][A76][TO][A76][TO][A76][TO][A76][TO][A76][TIS][M01][EOM]

Modes used on this net:

PSK-8
MFSK-8 125Bd waveform
MIL-STD-188-141A/USB

Chapter 9 - Q26a: Stand-alone 4+4 75/3000 LSB transmissions

4+4 75/3000 LSB transmissions were reported on the following frequencies:

4752	8073	10236	10389	10506	10767	10878	11058	11463	13893	18351
5082	8182	10239	10398	10527	10773	10887	11061	11493	13905	18451
6798	9138	10248	10401	10533	10779	10899	11070	11514	13932	18581
6800	9174	10251	10404	10545	10812	10907	11079	12177	13938	18921
7614	9198	10263	10413	10548	10818	10914	11082	12228	13956	21125
7680	9211	10266	10422	10656	10824	10932	11085	12763	13980	21145
7701	9273	10273	10425	10664	10826	10947	11088	13160	14082	21255
7758	9306	10278	10443	10668	10836	10953	11091	13377	14280	21295
7777	10110	10302	10446	10692	10841	10959	11103	13380	14478	21365
7830	10113	10335	10449	10701	10845	10983	11109	13383	14529	21435
7896	10143	10341	10452	10704	10854	10995	11130	13428	14937	21865
7919	10146	10345	10464	10716	10860	11010	11139	13493	16373	22883
7950	10170	10365	10470	10722	10866	11018	11142	13506	16506	23613
8025	10203	10374	10473	10731	10872	11037	11145	13551	18051	13410
8031	10206	10377	10488	10761	10875	11040	11160	13872	18231	

Note:

Some transmissions include just one group of letters and numbers. It is transmitted to trigger a station into operation. Such a group looks like this: EKGB944465335 and it is sent many times in a row. The transmitting station will then go off the air. If the receiving station starts up, the message itself will be sent. However if no reply is heard, then the same procedure will start again. See sample 9.

4+4 sample messages:

Sample 1

6768 8461 3607 0581 8205 5740 0849 7675 9042 6573
1741 2493 0391 9183 2746 2684 5481 3250 5430
CY HW ? QSL ?
HR NR 84 TKS U HD WK PSE /\$
)RIQHBTGO
XYXYXYXYXYXY
OK QSL IS 2011 TKS U HD WK NIL SK HW ? PSE /\$*
XYXYXYXYXYXY
OK TKS U HD WK NIL SK AHR HR END GA GB
ENDDDDQPC

Sample 2

Voice callups in Chinese "This is 8069" and "This is 7468"; then into 4+4 traffic.

F GUIB GUIB GUIB DE HYET HYET HYET K QSA?
F GUIB GUIB GUIB DE HYET HYET HYET K QSA?
XYXYXYXYXY HR CY U QSA2-3 AHR EV MSG GA PSE AS
XYXYXYXYXY HR CY U QSA2-3 AHR EV MSG GA PSE AS
XYXYXYXYXY HR CY U QSA2-3 AHR EV MSG GA PSE AS
XYXYXYXYXY HR EV MSG GA
0496 29 18 1012 1716
2391---9783
3516 4907 9235 6798 2518 0472 7836 5790 9628 7582
4056 8973 2901 9374 7239 8620 2657 9021 6584 8376
5830 2304 6231 0268 4832 8769 9160 3197 8416
XYXYXYXYXY CY HW? QSL?QSL?QSL?QSL?
XYXYXYXYXYXYXY AHR BOZ NIL SK HW?

Sample 3

1868 0760 2646 8028 0908 9760 7381 9594 2198 6328
7349 6810 9584 5323 0151 0127 1384 6464 4126 3679
2127 2851 1832 6984 6950 4984 9430 8010 7412
QSL ?
XYXYXYXYXYXY CY HW ///JIA
CALL2669
=CGGE87158710 =CGGE87158710 =CGGE87158710 =CGGE87158710 =CGGE87158710 =CGGE87158710
=CGGE87158710 =IUQP VCGGE87158710 =CGGE87158710
=STOPSTOPSTOPSTOSTOPSTOPSTOP XYXYXYXYXYXY QSA3 QSA? ///+PSTOPSTOPR MSG GA PSE CY
HR NR W
7003---7006

Sample 4

2045 4029 1287 8019 0697 8996 2057 2387 1087 1063
4906 9815 693REOYEU QYWI WR
2426 8957 4820 40QWETPEW QUIYQ PEPIEETY ITER IEPO YRYW UTRI IEWQ
0186 3897 3974 09QR RUYE QOUT
IETQTI IUOT TWUW
6768 8461 3607 0581 8205 5740 0849 7675PRW YTUE
1741 2493 (391 9183 2746 2684 5481 3250 5430
!CY HW ? QHR NR 84 TKS U HD WK QMQX OGBZDZQFE K
XYXYXYQYXYXYE
OK TKS U HD WK NIL SK PSE /\$)\$45TLLQN
ENDDDDDENDDDDDENDDDDDDDENDDDDDDD
PM H

Sample 5

CALL2531
=XKGB64849454 =XKGB64849454 =XKGB64849454 =XKGB64849454 =XKGB64849454
=XKXB648494 VXKGB64849454 =XKGB64849454 =XKGB64849454
=XKGB64849454 STOPSTOPSTOP
STOP XYXYXYXYXYXYXY
QSA3 QSA?
///\$TO
XYXYXYXYXYXYXY
QSA3 QSA? ///\$
XYXYXYXYXYXYXY
NR 215 MSG CLS 02 ///\$#?
XYXYXY
XHCR180 499 02 0605 1930
2842 2602 5549 4741 7418 8371 7281 8076 0161 0021 etc.

Sample 6

NPLV repeats GTMI GTMI GTMI DE NLPV NLPV NLPV QSA3 OK SK

Sample 7

2122 2324 2526 2728 2920 3132 3334 3536 3738 3930

Sample 8

RKST RKST RKST DE QRXM QRXM QRXM QSA+
RKST RKST RKST DE QRXM QRXM QRXM QSA+

Sample 9

=KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944
=KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944
=KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944
=KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944
=KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944
=KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944 =KCEH65305944
STOPSTOPSTOPSTOP
XYXYXYXYXYXY
U GD QSA3 TKS /\$
XYXYXYXYXYXY
IEC 10 37 /\$-
XYXYXYXNK QSL IS 1837 AHR HR MSG GA HW ? TKS /\$
XYXYXYXYXYXY
OK MSG CLS 82 GA PSE CY
946 499 82 1029 1837
UEAAAUTQY
2369 7297 3779 6044 1549 4858 3032 1770 0301 0001
1340 0816 9584 3624 3757 8513 6121 6807 1929 6052
TTW OIPO OUQO IWRO TREW PWPO RPIE PIRE EWQE TUIT
8754 2316 0962 5721 P RWYU QRWT WROI IWWO POIT
5419 4638 1081 7646 1972 3151 5287 9578 9716 7501
6094 6218 9509 7046 4331 0932 5265 4057 6866 0142
5338 6010 8435 8128 7319 4030 3736 9587 2823 4075
RQ IWUY UPRT IYOT ERRO RP ETYE IUIU ORWP
3407 4560 7627 6784 3415 9196 8336 1684 4086 0928
7935 6763 59RYP PEWT UWRQ WQWP YRYPAQ
6342 9292 4594 4910 5749 6519 1371 4676 0301 0002
5169 262R YPTI YEUI QWQY YURQ ORUI PQPR OUYO
3585 2637 3409 4909 0407 6018 1837 2317 9420 2178
4743 7507 5978 2034 9380 8062 8283\$1093 0086 1853
6057 0396 2628 6363 3017 4558 7168 9979 3719 6710
2526 4953 0949 1084 2512 7302 9782 8721 2143 2002
6120 7254 8308 6593 4354 6682 7807 5323 3134 8152
7455 8926 5363 3129 9318 7074 8481 9854 4961 5021
8450 3549 5635 5406 5861 8528 9128 9145 2579 1824
3231 5930 6290 0173 7641 8416 0940 97TETP QYUPAW
YWYQ WROI QIRP RTRI WRYO PRQO YTQE ETYT PEPQ PPPE
7019 0829 6134 4718 7620 7547 8701 5391 0489 5294
6041 6738 8674 3530 8461 1792 9243 4352 0993 8950
5698 8148 0875 8942 3795 4925 0867 4251 3613 0524
4230 2481 2186 0818 7235 6324 1762 8173 9325 7383
6539 6290 5034 1896 4793 3847 6512 0756 75QPOT
6148 9406 9354 6286 3760 0857 7920 2139 4502 8792
9137 3874 2784 6813 0947 91&9 2305 2613 7350 2601
2015 8401 8261 7391 9794 2675 8671 9535 1278 5274
0451 8210 7580 6250 0361 8136 5934 7026 5079 8902-3
7081 9538 1786 6218 6367 6591 6848 1PR
3434 1510 5970 0108 9885 5972 3232 7202 8375 5245
7070 2640 4660 9016 0813 0753 7838 5621 0713 2031
3208 8957 9786 0692 0996 8451 4132 4237 8549 2621
8454 1951 6197 7358 4596 4816 5875 0452 1217 8349
0526 7648 9110 9697 7695 8784 4216 4238 0507 6343
7949 5325 3160 6?67 9535 5765 6716 8232 0121 7904
4071 7990 9658 9831 2312 1565 9261 3927 3468 6426
5426 0895 4972 9040 7935 2319 2375 3507 8482 4534
9103 0434 1058 6984 8303 1047 3384 8121 2940 7670-4
PEI WPER EOOT TRUY PWRY WYOQ YQOI YPTU PEPQ PPPT

7140 1829 2767 4921 8571 4238 1245 5443 7401 6821
2045 4029 1287 8019 0697 8996 2057 2387 1087 1063
4906 9815 6934 3274 4391 9637 1628 2903 9121 9734
2426 2957 4820 4001 5427 2123 9689 5032 1761 0308
5698 0618 9353 4251 7356 8534 8309 6462 7548 8321
0186 3897 3974 0951 7138 2150 1905 6754 4763 1975
3079 6326 4103 1936 0674 9363 8365 5158 8795 5272
6768 8461 3607 0581 8205 5740 0849 7675 9042 6573
1741 2493 0391 9183 2746 2684 5481 3250 5430
CY HW ? QSL ?
HR NR 84 TKS U HD WK PSE /\$
XYXYXYXYXYXY
OK TKS U HD WK NIL SK PSE /\$
ENDDDDDDDDDENDDDDDDDENDDDDDD
TC

Sample 10

HR NIL SK
MSG AGN
NR0004 CK1443 51 1211 1740
8648---4542=8680
1243 0004 0000 3913 5313 2311 2311 2311 4110 4914
4114 5310 3613 5313 3913 3113 3111 0180 2311 2311
2311 4110 2310 3210 3310 2311 2311 2311 2110 2311
2311 2311 3114 3613 5611 3113 4115 2310 2311 2311
2311 3410 2311 0180 2110 2110 3110 3110 3110 3115
4113 3310 4110 5214 2310 4113 3110 5713 3211 3115
3913 5013 3812 4114 4912 3512 3913 5313 2311 2311
2311 4110 5611 5013 4812 4115 3512 4114 3111 4110
3110 2110 4114 3111 3111 4914 3112 5012 4110 3710
3211 3113 3111 5210 3514 5710 3710 4414 4312 2310-1
4115 4812 5514 5110 4111 2310 4112 4113 5310 3613
2110 0180 2110 2110 3811 3115 2311 4114 3111 4110
3110 2110 4114 3111 3111 4914 3112 5012 4110 3710
3211 3113 3111 5210 3514 0180 3110 4111 5715 5511
3211 0180 3615 2115 5211 4815 4414 4110 3615 5412
4110 5211 4813 0180 4114 3111 4110 3110 2110 4114
3111 3111 4914 3112 5012 4110 3710 3211 3113 3111
5210 3514 0180 2110 2110 5211 2110 3115 3111 3113
3111 0180 2110 2110 5613 3915 4812 4315 3114 3712
3115 3110 3115 5211 4113 4711 4110 3110 5313 3115-2
4813 3811 5310 3612 5115 5411 3110 5111 4111 2310
3210 3110 5314 5613 3915 3110 3115 5413 5112 3610
4114 2110 4115 4214 4014 3110 5315 3512 3110 3111
3110 4110 3114 3613 5211 3512 5611 5013 3110 3111
4812 4115 2110 3412 3412 5111 4111 3112 3110 3111
3114 3610 4112 3110 3115 4414 3612 3112 3110 4413
3512 5515 3310 3011 4512 2310 3715 3112 3915 3112
3710 3112 3915 3112 4111 3115 2310 3211 5514 3613
4812 3112 3915 3113 2310 2110 0180 2110 2110 4814
4114 3114 5110 4112 5613 3711 4110 3112 5413 3110-3
3512 3114 3610 5213 3110 4315 4113 3115 4913 3512
4714 3115 4112 2310 4813 4811 4512 4711 4110 5611
5013 3110 3111 4812 4115 2311 3114 4110 3113 3111
5210 3514 4110 2311 5713 2311 2311 2311 2311 4414
5613 3915 3110 3115 4512 3315 3110 4110 3114 3613
3811 5112 3610 4114 2110 4115 4214 4014 3110 5315
3212 5314 3915 3112 3110 3111 5013 3610 5213 4011

2310 4411 4711 5213 3110 4110 5015 4512 3315 2311
2311 4515 3110 3111 3114 3613 2311 2311 3614 4113
3412 3110 4110 5611 5013 3110 3111 4812 4115 2110-4
2311 4414 4011 2310 5613 3915 3110 3115 3110 3111
3114 3613 3911 4110 2311 2311 2311 5314 4515 2311
2311 2311 2311 3614 4113 3410 3211 3110 3111 2310
4614 5613 3014 4115 4110 4114 3110 3112 4112 3114
4111 4111 3112 3110 4115 3512 3410 3211 2110 3110
3111 5013 3610 4613 3114 2310 5613 3711 5314 3212
5314 3412 4114 5013 3610 3512 3815 3815 3915 3113
3110 3115 3110 4110 3110 4110 4112 4111 3112 3512
3112 5715 3913 4111 2310 3911 4110 4110 4110 3110
3915 3112 3110 4912 4110 3512 3011 4810 5715 3315-5
4112 3911 4113 2110 0180 2110 2110 3115 4414 4011
2310 5313 3512 3915 3113 4512 3315 4711 4110 3212
3113 5413 5112 3610 4114 2110 4115 4214 4014 3110
5315 3512 3110 3111 5013 3610 2310 3710 3113 4112
3115 3110 3512 5715 5312 2310 5613 3915 4411 4711
5211 5413 3310 4113 5412 5312 3614 5613 5711 3111
5611 5013 5310 3613 3712 3410 4111 3011 4810 4115
5011 3512 4812 4115 2110 4711 4110 3113 3111 4714
3110 4113 3110 4413 4110 4711 2110 5215 3112 5013
3112 3512 4113 3514 2310 3112 5213 3510 3811 4113-6
3110 3110 3512 3114 3610 4714 3110 4812 4115 2310
3210 3112 5213 5413 3113 5210 4111 5213 3815 5713
5514 3214 2110 4114 4112 3115 4110 3512 4113 3612
5611 3113 3212 5314 3111 3113 3313 3410 3211 3112
4812 5411 3512 3114 3112 5013 3610 2110 5613 3915
3110 3115 4711 4110 3412 3412 3212 5314 5611 5013
3110 3111 4812 4115 2310 4114 4113 4112 5613 3711
3115 3110 3212 5314 3915 3112 3011 4810 4112 4115
2110 5612 4110 5313 4110 3110 4112 3114 3112 4611
3112 3513 4715 4112 3610 3512 5012 4510 4110 2110-7
0180 2110 2110 4912 4115 3113 3111 5312 5313 3613
4114 4110 3110 4111 2310 3110 3114 3112 4113 5314
3815 3915 3913 4111 3512 4113 3514 3115 5013 3215
4115 2310 5613 5413 5511 4111 5715 5613 2110 4112
3712 4912 5214 2110 5415 3115 3110 5012 2110 3113
4314 4115 4513 2110 0180 2110 2110 3615 2110 3913
5313 4113 4711 4110 5013 4413 3112 3112 4711 4110
3710 5511 0180 2110 2110 2311 2110 4814 4114 3114
3311 5715 4113 4711 4110 3113 3111 3710 4914 5511
4213 3112 3511 3510 4413 4110 2110 3114 3610 4613-8
3114 3110 3115 5013 5613 3112 3511 3510 4113 4914
3114 3610 2310 3114 4110 3113 3111 5210 3514 4110
2311 3812 4711 4110 4114 4811 4112 3112 3610 4110
4711 4110 2310 3510 3211 4112 5511 4213 3511 3510
3112 4711 4110 2310 3211 3113 3111 3710 4914 5511
4213 3112 3511 3510 4413 4110 2110 0180 2110 2110
2311 2110 4814 4114 3114 3311 5715 4113 4711 4110
3011 4810 5013 3214 2310 5213 3315 4113 3112 3011
4810 4112 3912 2310 3114 4110 3113 3111 5210 3514
4110 2311 5413 3112 4711 4110 3512 3913 4014 4111-9
5312 3711 4314 2310 5613 3915 3110 3115 5313 5112
3815 3512 5612 3612 3112 3111 4115 3110 5512 2310
5713 5311 5313 3112 4711 4110 5213 4011 4311 5313
3710 4915 3915 3112 3011 4810 4112 3912 2110 3412
3412 3111 5013 4613 3114 2310 3110 5112 3815 5715
4113 5313 3913 5612 3612 3112 3914 3711 2310 4811

3110 3111 5013 3011 4810 2110 0180 2110 2110 4815
2110 3913 5313 4113 4711 4110 3111 5013 4613 3114
5313 3913 4714 3115 0180 2110 2110 2311 2110 4814
4114 3114 3311 5715 4113 4711 4110 3412 3412 4711-10
3315 5310 3612 5115 2310 3114 3613 5113 3011 3915
3911 3312 4115 5011 2310 3114 4110 3113 3111 5210
3514 4110 2311 4614 4115 3915 3113 3614 3412 4512
4711 4110 3511 5310 3612 5115 5313 3913 3110 5315
3115 5013 5111 4111 3112 3110 3111 2310 5613 3915
3512 5715 3710 3211 4112 4113 3411 2310 5211 3211
4112 4113 4015 2110 5613 3915 3110 3115 4711 4110
5413 5310 3612 5115 5313 3913 3110 5315 5111 4111
3112 3110 3111 4613 3114 2310 3110 5112 3815 3011
5513 3915 3112 3710 5313 3913 3914 3610 5013 4111-11
3111 5013 5713 5312 4810 4015 2310 5715 5613 5113
3011 3915 3512 3112 3710 4810 5214 2110 3111 4212
3511 5211 5010 3915 3113 3512 3913 4713 2310 4113
4312 3412 4711 5211 5615 3610 5314 4115 4312 3115
5013 4112 3911 4110 2110 0180 2110 2110 2311 2110
4814 4114 3114 3311 5715 4113 4711 4110 3613 5113
3110 3915 5314 5211 3112 5713 4811 5712 5411 3110
3710 3415 4011 3811 4314 5311 4114 2310 3114 4110
3113 3111 5210 3514 4110 2311 5613 3915 3110 3115
4711 4110 5413 5310 3612 5115 5313 3913 3110 5315-12
5111 4111 3112 3110 3111 4613 3114 2310 3110 5715
4113 3915 3112 3710 5313 3913 3914 3610 2310 5715
5613 5113 3110 3915 3512 3112 3710 4810 5214 2110
0180 2110 2110 2311 2110 4814 4114 3114 3311 5715
4113 4711 4110 3815 5713 3114 4113 4115 3915 5413
5310 3612 5115 3110 5315 3110 4110 2310 4113 3110
5310 3612 5115 3110 5315 4110 4112 5012 4110 2310
5310 3612 3512 5113 3110 3915 5611 5415 4113 3115
4814 4614 5710 4115 3110 3112 4715 3110 5511 5111
4111 3112 4714 3110 4113 3110 3114 3610 2310 3114-13
4110 3113 3111 5210 3514 4110 2311 5613 3915 3110
3115 4711 4110 5413 5310 3612 5115 5313 3913 3110
5315 3115 5013 5111 4111 3114 3610 4112 5515 3310
2110 3112 3710 3512 2110 5313 3913 5611 5415 3112
4113 3815 3113 2110 0180 2110 2110 2311 2110 4814
4114 3115 3110 3115 3613 4113 4711 4110 3513 3115
5514 3214 2110 3815 5713 3114 4113 5215 3710 5313
4213 3311 5715 2310 3114 4110 3113 3111 5210 3514
4110 2311 5613 3915 3110 3115 4711 4110 5413 5310
3612 5115 5313 3913 3110 5315 3115 5013 5111 4111-14
3114 3610 4112 5515 3310 2110 3112 3710 3512 2110
4110 4115 4114 3711 5715 5613 5613 3915 5212 3710
4114 5313 3512 4810 4015 2310 3211 5210 3212 4810
4812 3112 4115 5011 4113 3110 4110 3011 4810 3512
4115 5012 5013

HR NIL SK

QOF

Sample 11

XYXYXYXYXYXY CY HW TKS ///
STOP XYXYXYXYXYXY OK TKS WK NIL SK HR END GA GB
ENDDDDENDDDDDENDDDDDENDDDDD
ZCGGK46804676 +CGGK46804676 +CGGK46804676 +CGGK46804676 +CGGK46804676 +CGGK46804676
+CGGK46804676
STOP X YXYXYXYX AGN
STOP XYXYXYXYXYXY U GD QSA3 /
XYXYXYXYXYXYXY OK
IEC 07 57 /
STOP XYXYXYXYXYXY OK QSL 1938 AHR HR MSG GA PSE CY
HR WK NR 246
5089 301 64 0106 1938
8110---8109
6864 7849 9567 8712 7104 2132 0251 3742 0335 0011
9182 2050 8454 4190 0129 8651 8730 4138 6403 8069
9672 4656 3542 6589 8279 6472 1554 9431 5804 5369
7696 8627 9348 5382 4382 9546 0671 6735 8350 6032
9591 9156 9728 9038 8732 8967 4186 3162 6041 4860
3297 0361 1821 9160 3487 0276 0412 8967 0385 2492
3527 1256 4020 7983 1649 9014 0134 1071 1931 8763
2936 5053 0945 7971 5124 7087 3106 7192 6594 1240
7139 8405 3105 8546 7323 1317 5907 7619 4539 5745
3084 5385 2754 9827 3890 2024 1695 5078 8760 7632-1
8654 7039 5458 4715 3185 2804 9621 9530 0335 0012
8769 6976 0601 8267 3424 6353 0482 4869 6735 3945
9668 0260 9181 1462 0226 1478 5123 3718 2559 3486
9833 6575 8921 0872 8727 7676 7562 8437 0920 8325
7954 4083 0391 0493 2948 3656 2515 7308 0105 5823
4932 2706 3228 5449 8002 4350 2937 1237 0840 8336
8359 1059 5771 5629 5913 4074 9564 1477 7209 2691
4934 0691 1257 4180 1978 8097 6084 7914 4519 2417
5247 7965 3183 5694 6019 4802 2654 1795 1367 3060
7816 3693 2704 8509 0613 3215 6078 4810 2382 2116-2
1279 6851 4310 6229 5208 9461 0792 8361 0335 0013
7924 2343 8435 5351 4632 4157 5842 2464 5779 7213
4018 9057 6071 6774 0731 6307 0375 5903 5129 0395
3165 6018 2421 1908 6858 9832 1916 9821 3586 6114
2953 2875 0698 0645 1293 2109 5634 3184 6703 8738
0484 4302 3259 4809 5409 1754 7280 7643 9140 6285
6785 9350 6787 9574 1625 8697 4512 9520 8271 9560
6309 6671 8013 8613 7979 0521 8029 9057 6583 7104
1627 3039 7554 3427 9208 7637 3624 6197 3240 2938
7521 8148 6742 6028 4183 3045 9568 5180 6894 4039-3
6287
QSL ?
XYXYXYXYXYXY CY HW TKS ///
#10+

Callsigns and strings

=BIKB46175394	=XKGB26144804	EXTW DE DYSJ	PQLD DE KUMH
=CGGE56615658	=XKGB33236173	FZPE DE LPTN	RHSA DE HJDE
=CGGE87158710	=XKGB72350925	HEBS DE ETLU ZBLP	SZDE DE CQYV
=EKGB94446535	=XKGB76778377	IFSV AND MUVT DE U	VIRM DE UQYP
=IDHB77307763	=XKGB82407980	JMHA DE MVQA	VKCEH44453859
=KCEC41063579	BIKB46175397	JRSH DE DVPS	VWXR DE MXHN
=KCEC41603579	BVXU DE ILEW JINM	KCEH21471551	WBHM DE AKXL
=KCEH27121126	CGGK46804676	KCEH32062610	XKGB11157906
=KCEH52470000	CGKB50025019	KCEH65305944	XKGB54293839
=KCEH65305944	CKBL DE UBWN	MWIB DE LCPN	ZSGB
=KCEH92858239	EGKB15512147	NWSE DE LKSC NWSE	

Numbers & Oddities

Chapter 10 - People's Liberation Army 中国人民解放军

PLA Air Force / Air Defense



People's Liberation Army Air Force / Air Defense

The People's Liberation Army Air Force is organized into seven Military Region Air Forces and 24 Air Divisions. The largest operational units within the Aviation Corps is the air division, which has 2 to 3 aviation regiments, each with 20 to 36 aircraft. The surface-to-air missile (SAM) Corps is organized into SAM divisions and brigades. There are also three airborne divisions manned by the PLAAF. The Second Artillery Corps (SAC) is the strategic missile forces of the PLA. It controls China's nuclear and conventional strategic missiles. China's total nuclear arsenal size is estimated to be between 100 and 400 nuclear weapons. The SAC has approximately six ballistic missile divisions (missile corps bases). The six divisions are independently deployed in different military regions and have a total of 15 to 20 missile brigades. Coordination with civilian national security groups such as the Ministry of Foreign Affairs is achieved primarily by the leading groups of the Communist Party of China. Particularly important are the leading groups on foreign affairs and Taiwan.

The Central Military Commission leads all the armed forces of the state.

The PLA general headquarters are composed of the following departments:

- General Staff Department
- General Political Department
- General Logistics Department
- General Armaments Department

Military regions:

- Shenyang Military Region
- Beijing Military Region
- Lanzhou Military Region
- Jinan Military Region
- Nanjing Military Region
- Guangzhou Military Region
- (including Hong Kong and Macau)
- Chengdu Military Region

The map is a work of a Central Intelligence Agency employee. As a Work of the United States Government, this image is in the public domain.



On Nov. 24, 2013, China expended its air defense zone. The zone includes the airspace within the area enclosed by China's outer limit of the territorial sea and the following six points: 33°11'N and 121°47'E, 33°11'N and 125°00'E, 31°00'N and 128°20'E, 25°38'N and 125°00'E, 24°45'N and 123°00'E, 26°44'N and 120°58'E. The zone covers the disputed Diaoyu and Sengagku islands.

Note:

A large reorganization is going on in the PLA. Before the reshuffle, China had seven military area commands headquartered in Shenyang, Beijing, Jinan, Nanjing, Guangzhou, Chengdu and Lanzhou. They are replaced in early 2016 by five new theater commands, under the administration of the Central Military Commission (CMC). The theaters are Eastern Theater Command, Southern Theater Command, Western Theater Command, Northern Theater Command, Central Theater Command. In December 2015, the PLA Second Artillery Corps has been replaced by the PLA Rocket Force. Most likely the military intelligence system will also be reorganized in 2016. This document will be updated when more details are available. (UDXF/08 February 2016)

Chapter 11 - VC01 a.k.a. Chinese Robot

This station is a regular guest since at least 2000. N&O has assigned designator VC01 to this station. The first UDXF log of the Chinese Robot was on 27-3-2000. It is one of the PLA Air Defense stations.

Frequencies:

The station changes its frequencies frequently, at least once a month. There are always two daytime and two nighttime frequencies. They always have two stations on the air, sending different messages. Probably beamed to different areas. One station sends in USB and the other in LSB.

Known frequencies:

3021, 3036, 3226, 3354, 3519, 3537, 3583, 3623, 3749, 3837, 4029, 4075, 4109, 4111, 4118, 4165, 4175, 4180, 4186, 4225, 4244, 4258, 4265, 4335, 4343, 4410, 4422, 4427, 4480, 4530, 4580, 4726.5, 4765, 4770, 4769.5, 4790, 4818, 4887, 4926, 5037, 5112, 5114, 5195, 5232, 5251, 5288, 5303, 5328, 5330, 5343, 5375, 5393, 5410, 5433, 5436, 5440, 5445, 5452, 5453, 5461, 5465.5, 5592, 5700, 5740, 5742, 5799, 5802, 5820, 5825, 5830, 5832, 5836, 5857, 5861.5, 5883, 5892, 5924, 5985, 6209, 6479, 6493, 6505, 6771, 6772, 6780, 6829, 6840, 6847, 6856, 6858, 6860, 6915, 6945, 6949, 6960, 6980, 7090, 7118, 7148, 7351, 7474, 7498, 7564, 7563.5, 7608, 7624, 7644, 7684, 7691, 7726, 7739, 7744, 7756, 7770, 7792, 7838, 7864, 7865, 7878, 7880, 7890, 7924, 7938, 8000, 8025, 8046, 8107, 8121, 8148, 8170, 8779, 8840, 8946, 9000, 9129, 9169, 9192, 9290, 9340, 10508, 17392 kHz, and many, many others.

Mode:

This is a typical SSB operation with RF carrier suppressed, notching of audio frequency from 300 to 1000Hz is clearly observed during its transmission, probably used to increase a possible DSP identification. The numbers are read in Chinese at high speed. The voice is synthesized female voice. The numbers represent radar plot data (bearing/range reports).

Sample messages:

74294156 75022197 74294162 75020199 74294269 75018100 74294274
75016703 74294170 75015204 74295284 75014206 74295289 75012209 ...

605548805760301142333
6055489470251260301142339
605548902760301142345
6055489470247660301142350
6055488480396760301142358
605548806260301142403
6055489470247860301142407
6055415470229660301142414
6055495470252960301142421
605548808960301142432
605548902460301142435
605548805660301142443

VC01 - CHINESE ROBOT variant

The same voice as above but read at normal speed, often long pauses between two messages. Probably used when there is not much traffic or during special events.

VC01 - CHINESE ROBOT live variant

The live variant uses male operators. They are talking at a normal speed and sometimes do radio checks. These stations do not use fixed monthly frequencies like the synthesized stations do.

Chapter 12 - VC03, Chinese Air Defense

Morse counterpart: MC03

Another Air Defense net. The voice messages were first discovered. Later the morse stations were found and in May 2014 they were linked to a net that uses ALE to make the connections. VC03 came up after two of the ALE calls.

Frequencies change regularly. Some known frequencies: 7821, 8116, 8043, 8073, 8189, 8263, 11186 kHz.

The station transmits 4FGs messages. The numbers represent radar plot data (bearing/range reports).

Check the recordings on the N&O website.

Recording: VC03_20110427_132224Z_7821kHz.mp3

.... 2715 1400 2334 5687 0397 6063 (repeats)
2590 1129 0039 3275 0354 6600 2533 1141
616 8416 5123 3051 1233 0397 7468 2087 6999 6565 2213 0021 9352 9056 0473 0008
6489 3033 3718 (last group spoken very quickly, as if not part of message)
14 9099 1467 2170 2170 (2170 spoken 3x) 6563 0033 0305 0500 0935 0560 4092
6183 4885 9919 2933 7115 3952 6112 6566 7115 3952 6112 6566 1108 1193
(short pause)
0529 3700 0725 1161 8944 4411 6071 0512 1140 7900 (pause)
7123 9297 6616 7644 3932 6239 9011 549 9 0059 9974 3718 (spoken quickly)
('549 9' may be some sort of indicator or may just have been the operator
stumbling over some numbers. '14' above may be some other 2 syllables that I
just didn't get. It looks like '3718' is an end of msg indicator.)

Recording: VC03_20110306_101618z_8189kHz.mp3

... 3580 0563 0117 5068 0836 3664 148 148 044
NOTE: '148 148' near end may just be '148' repeated like the 4-fig groups.

Recording: VC03_20110519_103635z_8043kHz.mp3

.... 0519 1830 34 306 27 304
3030 3533 1116 0216 0408 1706 2805 2502 1116 0706
0408 1706 6016 2401 2601 2913 0227 0303 0216 0705
0712 1909 (repeated 3x)
2709 1116 0216 0705 1511 1131 2407 0429 2423 2401
1823 2508 2402 0705 6015 3232 3030 (last 2 groups only spoken once,
so it actually be '32' (repeated) '30' (repeated))
16 2422 /end of clip/

Chapter 13 - MC03, Chinese Air Defense

Voice counterpart: VC03

Heard on a number of frequencies, including 3698, 4181, 4836, 4990, 5170, 5316, 5338, 5375, 5399, 5650, 6565, 7988 kHz.
Often two frequencies in parallel.

Formats:

Cut number grid tracking figures followed by a time marker in local time (UTC+8)

Cut number bearing/range reports

F+numbers messages

Test strings + time marker: AU34567DNT TU43 (UTC+8)

Below several sample messages.

Format 1:

UTA7T5 D3D5A36 TA5N
UTA7T5 D3D3A6A TUTT
UTA7T5 D3D43UN TUTU
UTA7T5 DUD4663 TUT4
UTA7T5 DUD4663 TUT6
D7A UT5DAU D6NAAD7 D77A TUT7
D7A UT5DA4 D5NA7U3 D77A TUAT
UT5DA4 D5NAD65 TUAT
UT5DA4 TUAA
UT5DA4 D5NAD34 AAU TUAA
UT5DA4 D5NAU77 TUAA

Format 2:

FF 88005752454688 0401
FF 44105762449755 0358
FF 82705762449751 0400
FF 44105772454696 0400
FF 82005772454688 0403
CQ CQ CQ CQ CQ
301456715 559100900 0408 RRRR
301456715559100900 0408

FFFF 8270509243418331
FFF 4410510245079931
FFF 8270510245461939
FFF 4410511243025531
FFFF 8200511245472635
FF 4410512245079936

or starting with AA instead of FF

AA = 538534457113
AA = 79305127310
AA = 556668308779
AA = 111055616610
AA = 436435023368
AA = 066151799242

Format 3:

NR UNN3 33N5 UT3T
NR 303N DU75 UT3T
NR 3044 3DN5 UT3T
NR 5646 NTN3 UT3T
NR 3064 33A3 UT3D
NR UNAT 65A7 UT3A
NR UNAT 65A7 UT3A
NR 5566 NT44 UT3A
NR 55D6 NT3N UT3A
NR UDDT 555N UT3A
NR 5546 NT43 UT3A
NR UD3J A5N4 UT3A
NR 3T53 4373 UT3A
NR _D6_ N3DD UT3A
NR _D6_ N3DD UT3A
NR D7_T 5376 UT3A
NR D7_T 5376 UT3A

Format 4:

U4764A 7UN34UN TND 5A
ABB U4765D 6375175 ATT 5U
NT3 U3T635 TNT5U
NT3 U3T635 73N3DN3 TD7 5U
NT3 U4765N 6U745D6 AT5 5U
NT3 U4765A 67N4U7N TDT 5U
NT3 U47647 AAU 53
NT3 U4765N AT5 53
NT3 U47656 56D3U47 AT6 53

or starting with uncut numbers

653 UA67DD 5DD6N7N AT6 UD
653 UA67NA 5ND75D6 AAU UD
653 UA67DT 66N34DU AT5 UN
653 UA6DT3 55D7736 AAU UN
653 UA6DTA 55D3N7D AT6 UN

Chapter 14 - Chinese Air Force / Chinese Air Defense ALE

ALE and digital transmissions

The PLAAF uses a huge amount of IDs/stations and frequencies. Although there is no official confirmation that this net belongs to the Air Force / Air Defense we are pretty sure that they are the main users. Following the ALE calls regularly plain Chinese voice traffic was heard with typical aero noise background. Also heard were the typical VC03 transmissions and occasionally MC03. This helped identifying this large net. But again, none of the information is officially confirmed.

Modes (All transmissions are in USB) Note: occasionally LSB is used.

MIL-STD-188-141A, MIL-STD 188-110B App B (39-tone), 2400Bd unid data mode, PSK-8, Voice

ALE idsents:

064 068	540 548
100 101 102 103 105 106 107 108 109	565
110 111 112 113 114 115 116 117 118 119	571 572 573 574 579
120 121 122 123 124 125 126 127 128 129	581 587
130 131 132 133 134 135 136 137 139	591 593
140 141 145 149	612 617
150 151 152 153 154 155 156 157	633
160 161 162 163 168	640
173 174 177 179	655
180 182 183 184 185 186 188	663
191 195 198	673 675 677 678
204 205 207	686
210 211 212 213 214 217 219	692 693 695
220 221 222 223 224 225 227 228 229	702 704 705 707
230 231 232 233 235 237 238	713 714 718 719
240 241 242 244 245 246 247 248	721 727
250 252 257 259	730
260 261 264 265	742
270 272 273 275 277 278 279	755 759
281 282 284 286 288	760 764 766 767 769
291 292 293 294 295 296 297 299	772 775 778
302 305 306 309	781 784 787
310 312 314 315 317 319	794 799
322 323 325 327 329	808
330 334 338	812 814 816
345	823 825
352 353 357	832
363	843
370 374	855
383 387	866
392 395 397	870
405	882
410 415	891 894
420 423 427	901 905
434 436 438	913
450	922 924 926 928
462 463 464	943
474 476 478	958 959
481 482 486 487	960 963 964
496 499	984 985 987
507	994 998
514	3232
521 522 526 529	

Frequencies:

3374	3579	3745												
4006	4278	4359	4677	4927	4983	4981	4989							
5031	5088	5161	5211	5307	5349	5442	5796							
6324	6459	6505	6623	6755	6819	6820	6877	6915	6926	6927	6942			
7225	7529	7548	7560	7637	7647	7671	7666	7669	7674	7683	7692	7695	7698	7710
7732	7788	7824	7827	7842	7845	7848	7857	7866	7869	7932	7946	7947	7950	7962
7966	7968	7995												
8010	8013	8018	8025	8030	8045	8083	8100	8121	8143	8177	8183	8190	8275	8331
8456	8756	8845	8850											
9042	9043	9075	9122	9124	9219	9226	9244	9257	9275	9286	9292	9325	9825	9923
10121	10197	10206	10240	10257	10281	10300	10309	10349	10369	10398	10416	10440	10449	10473
10488	10506	10521	10530	10623	10710	10713	10719	10728	10768	10770	10773	10779	10825	
10926	10947	10962												
11005	11088	11091	11142	11145	11195	11225	11354	11403	11856					
13428	13623	13875												
14127	14172	14352	14380	14430	14433	14440	14481	14688						
16344														
19000														
23263														

Sources, Contributors, Related Websites, Further Info

1. Logs and comments: Eddy Waters, JPL, Sferix, and other members of UDXF www.udxf.nl and Numbers & Oddities www.numbersoddities.nl
2. CIA World Factbook www.cia.gov/library/publications/the-world-factbook/
3. Translations by Westli and Sferix
4. The M89, M95, V26, Q26 data was derived from the many logs submitted by dxers on forums like WUN, UDXF and Spooks or sent directly to the author. Special thanks to JPL for his many logs and analyzes.
5. China's Signals Intelligence (Sigint): Satellite Programs by Desmond Ball
6. Wikipedia http://en.wikipedia.org/wiki/People's_Liberation_Army
7. Federation of American Scientists <http://www.fas.org/irp/world/china/index.html>
8. Military Power of the People's Republic of China 2009.
9. Annual report of the U.S. Office of the Secretary of Defense http://www.defense.gov/pubs/pdfs/China_Military_Power_Report_2009.pdf
10. Ministry of National Defence <http://eng.mod.gov.cn/>
11. Intelligence regions map: Central Intelligence Agency 1996.

Recordings:

Chinese-A97-L06_datas.mp3 and Chinese-8FSK-PSK.mp3 on <http://www.udxf.nl/uc5.html>
Check also the various V26, Q26, M95, VC01, VC03, MC03 recordings on Numbers & Oddities
Recordings by Linkz, Eddy Waters, JPL, Ary Boender

Disclaimer:

All information in this document was submitted by independent radio monitors or has been obtained from public available sources and public sites on the web. Wherever data was obtained via the web or elsewhere, references and/or links to these sources have been noted.

Please note that none of this information is officially confirmed but is the work of many radio monitors. The nets are still under investigation and any additional information and/or corrections are greatly appreciated.
