

THE DXER'S GUIDE TO CHINA

by Bruce Portzer

The People's Republic of China represents many things. The world's largest population. One of the world's oldest civilizations. A popular (albeit expensive) destination for tourists. The source of a popular dining cuisine. A choice target for many broadcast band DXers. And more.

China occupies an area about the size of Canada. It has very diverse geographical features. Southeastern China is much like the southeastern U.S. Southwestern China includes the Himalaya Mountains, the highest in the world. Central China is semiarid grassland, while northeastern China is similar to the prairie states and provinces of the U.S. and Canada. The vast bulk of China's population lives in eastern China in the Yellow, Yangtze, and Hsi River valleys.

The vast majority (94%) of China's population are Chinese. The rest include Mongolians, Koreans, Tibetans, Uighurs, and others. Although they represent only six percent of China's population, these minorities are politically important because they live near China's frontiers and have cultural ties with residents of neighboring countries.

Of the Chinese speaking citizens, about two thirds speak the language spoken in the Beijing area, known to us as Mandarin. The rest speak any of a dozen other Chinese languages, such as Cantonese and Amoy. The Chinese languages share the same written characters and grammar, but sound quite different from each other and are mutually unintelligible. Mandarin, also known as Standard Chinese, is the official language in China. You've probably heard it before. If not, listen to some of the shortwave frequencies listed elsewhere in this article or to Voice of America Chinese broadcasts listed in the World Radio TV Handbook.

Several methods have been developed for spelling out Chinese words in Roman letters (i.e. the kind we use). Most references more than a few years old use the Wade-Giles method. However, in recent years a more accurate method of transliteration has been adopted by the Chinese government. It is known as Pinyin. A pronunciation guide for Pinyin, with equivalent Wade-Giles lettering, appears in Table 1.

China is divided into three autonomous cities, 21 provinces, and five autonomous regions. Figure 1 shows the locations of these political subdivisions and lists some of the major cities in each province. Also shown (in parentheses) are the Wade-Giles equivalents of current spellings. If you want to know the locations of other cities, try to find a copy of Gazetteer of the People's Republic of China, published by the U.S. Department of Defense, Defense Mapping Agency, in July 1979. It includes Wade-Giles to Pinyin conversion and vice versa, in addition to listing the latitude and longitude of what seems to be nearly every city, town, and physical feature in China. I found a copy in the Seattle Public Library; maybe you can find one in your library.

Most or all of China is on GMT+8. Several references state that this time is used throughout China. However, the WRTH indicates Sichuan is on GMT+7 and Xizang (Tibet) is on GMT+6. Since most of us don't understand Chinese time checks, this discrepancy is probably academic.

In case anybody is interested, China's official holidays include January 1 (New Year's Day), May 1 (Labor Day), and October 1 and 2 (National Days).

HISTORY AND STRUCTURE OF CHINESE BROADCASTING

The first radio station in China was built in Nanking. It supposedly had a power of 500 kilowatts (which I find hard to believe) and was used mostly for newscasts. During the next decade, many other private and government stations came on the air. Some bit the dust during World War II. However, by the late 1940's there were over eighty stations in operation throughout China. After the Communists took over in 1949, these stations were reorganized into a single network known as the Central People's Broadcasting Station, with its headquarters at Peking.

Broadcasting in China has grown considerably during the past three decades. Today, there are several types of stations and program services in the People's Republic of China. They include the following.

- The Central People's Broadcasting Station. A national service originating in Beijing. Two different programs are fed throughout the country via medium wave and shortwave transmitters. There's probably some difference in the programming they offer, but to my ears the material sounds the same.

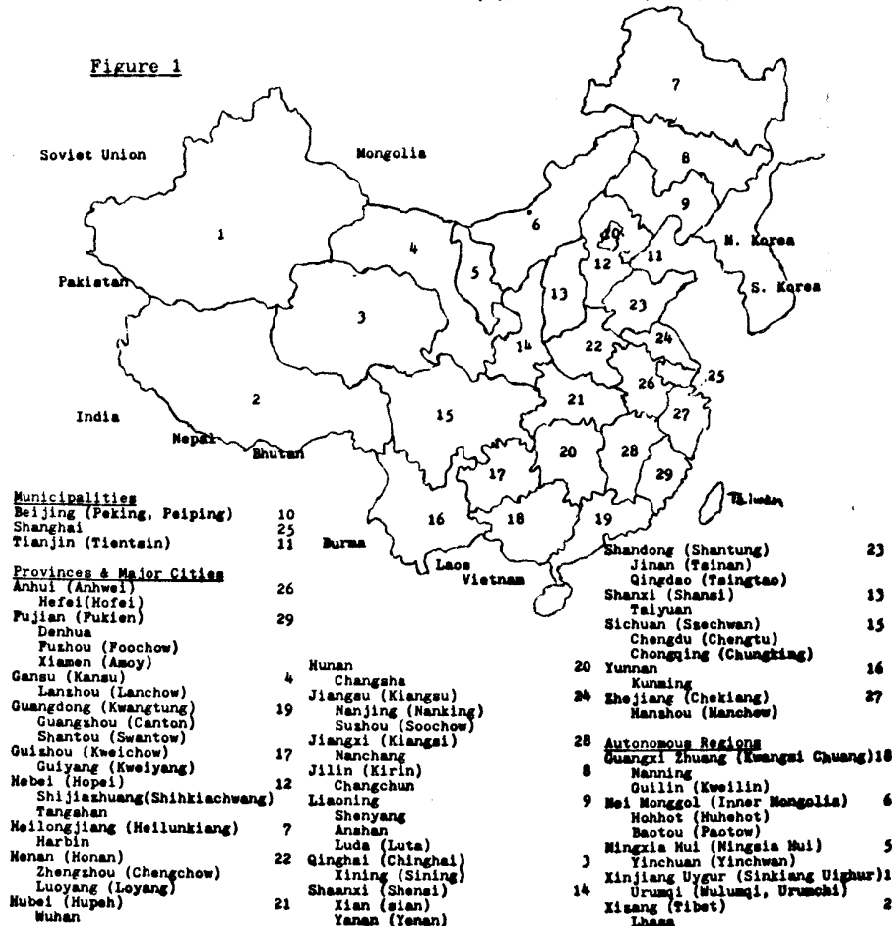
Table 1
How to Pronounce Chinese Letters

Following is a table of the Chinese phonetic alphabet showing pronunciation with approximate English equivalents. Letters in the Wade-Giles system are in brackets.

- "a" (a), a vowel, as in far;
- "b" (p), a consonant, as in be;
- "c" (ts), a consonant, as "ts" in its; and
- "ch" (ch), a consonant, as "ch" in church, strongly aspirated;
- "d" (t), a consonant, as in do;
- "e" (e), a vowel, as "er" in her, the "r" being silent, but "ie," a diphthong, as in yes and "el," a diphthong, as in way;
- "f" (f), a consonant, as in foot;
- "g" (k), a consonant, as in go;
- "h" (h), a consonant, as in her, strongly aspirated;
- "i" (i), a vowel, two pronunciations:
 - 1) as in eat
 - 2) as in sir in syllables beginning with the consonants c, ch, r, s, sh, z and zh;
- "j" (ch), a consonant, as in jeep;
- "k" (k), a consonant, as in kind, strongly aspirated;

- "l" (l), a consonant, as in land;
- "m" (m), a consonant, as in me;
- "n" (n), a consonant, as in no;
- "o" (o), a vowel, as "aw" in law;
- "p" (p), a consonant, as in par, strongly aspirated;
- "q" (ch), a consonant, as "ch" in cheek;
- "r" (j), a consonant pronounced as "r" but not rolled, or like "z" in azure;
- "s" (s, ss, sz), a consonant, as in sister; and "sh" (sh), a consonant, as "sh" in shore;
- "t" (t), a consonant, as in top, strongly aspirated;
- "u" (u), a vowel, as in too, also as in the French "u" in "tu" or the German unlaute "u" in "Muenchen;"
- "v" (v), is used only to produce foreign and national minority words, and local dialects;
- "w" (w), used as a semi-vowel in syllables beginning with "u" when not preceded by consonants, pronounced as in want;
- "x" (hs), a consonant, as "sh" in she;
- "y," used as a semi-vowel in syllables beginning with "i" or "u" when not preceded by consonants, pronounced as in yet;
- "z" (ts, tz), a consonant, as in zero; and "zh" (ch), a consonant, as "j" in "jump."

Figure 1



- The Fujian Front Station. Operated by the People's Liberation Army, this station broadcasts over a multitude of medium and short wave transmitters in Fujian province. Two networks of stations beam programs to Taiwan.
- Provincial stations. Each Province and Autonomous Region has a station in its capital or principal city. These stations carry programs over a network of medium and short wave transmitters throughout the Province or A.R. In many cases, two different programs are broadcast simultaneously over two networks. These stations may, at times, relay CPBS broadcasts.
- Local Stations. Most large cities have their own locally produced program services. It's quite likely that some of them relay Central or Provincial stations during much of the day, breaking away for their own programs for only a few hours (similar to some of the "twin" stations in Canada). In the largest cities, however, more than one local program service may be available. Shanghai, for example, has four stations broadcasting locally produced programs.
- Service to Taiwan. This service is self-explanatory. These programs originate at the CPBS studios in Beijing and are broadcast on a relatively large number of medium and short wave frequencies. Most of the medium wave transmitters are probably in Fujian, due to its proximity to Taiwan.
- Minority Programs. These programs are aimed at those politically important minority groups I told you about earlier. The languages used include Kazakh, Korean, Mongolian, Tibetan, and Uighur. The programs are broadcast mainly on shortwave, but a few are relayed on medium wave by Local or Provincial stations.
- Radio Peking. Or is it Radio Beijing? This is the CPBS External Service. Radio Peking broadcasts several hundred hours per week in about forty languages. The vast majority of these programs are on shortwave, but a few are also on medium wave.

In addition to the above services, a couple of unusual services are available in China. One is a rediffusion network. These facilities consist of speakers and amplifiers located in homes, factories, communes, and public buildings. Several such speakers are wired together and connected to a radio tuned to one of the official stations. The main reason for this service is economics --- in the past, at least, it was easier and cheaper to build millions of speakers than to build millions of radios.

Another unusual service offered in China is radio broadcasting aboard trains. The trains in China have small studios which distribute radio programs to the passenger compartments. A photograph of one such studio appears in the March, 1980, National Geographic.

Broadcasting in China is under the supervision of the Broadcasting Administration Bureau. This bureau oversees the programming and operation of China's vast radio and TV network. In turn, it is accountable to the Central Committee of the Communist Party. In addition, local and provincial stations are supervised by bureaus and agencies at their respective levels of government, with all performance subject to scrutiny and regulation from above. And you thought our system of broadcasting was overregulated!

According to the U.S. State Department, there were 713 medium wave and 307 shortwave transmitters in China in 1970. Those numbers have probably increased since then. The list at the end of this article accounts for about 350 of them. The rest are probably parallels (i.e. many CPBS outlets on the same frequency), plus whatever local and provincial outlets I've missed.

RADIO PROGRAMMING IN CHINA

Chinese radio stations carry a wide variety of radio programs. First of all, there are news and commentary features. There are also discussion programs. Few of us understand a word of what they're saying, but the discussions cover science and technology, literature and culture, agriculture, and whatever else they can come up with. Music makes up a large percentage of the program content and can include Chinese and Western orchestral music, Western pop music, Chinese folk music, classical music (such as Beethoven), choral music (generally a capella), and opera. During his visit to China last year, Pete Taylor noted stuff sounding like Hawaiian steel guitars and like Indian music. Much Chinese music sounds harsh and shrill to our ears; a few years ago, one DX Worldwide reporter described one vocal as sounding "like a wounded cat".

Also carried on Chinese radio are sports broadcasts and dramas. Language lessons have become quite common in recent years, as China seeks stronger ties with the rest of the world. In Shanghai and Beijing there are stations broadcasting nothing but English, Japanese, and French lessons. The CPBS and some Provincial and Local stations have a few hours of lessons each week. Finally, there is possibly a "National" program of sorts aired 1200-1230 daily over most Chinese stations.

DXING CHINA

China has been heard in North America during almost every month of the year. However, reception of all but the most powerful Chinese stations usually only occurs between mid-September and mid-December. Several Chinese stations can be heard regularly in western North America during this period.

Leading the pack is the Foreign Service outlet on 1044 kHz in Jiangsu, near Shanghai. This station has several things going for it: southerly location, high power, and a directional antenna aimed in our direction. It is used mainly for broadcasts to Japan, although it carries some CPBS programs as well. It is often audible, even when Asian reception in general is poor. Another frequently heard station is the Yanbian PBS in Yanji on 1206. Its Korean broadcasts often put in a good signal during the wee hours. Several CPBS outlets were heard regularly last season, including those on 756, 1251, and 1035 kHz.

Before November, 1978, China was also feasible on the east coast. The Russian Foreign Service transmitter on 1525 in Urumqi often put in a blockbuster signal around sunset in the northeastern U.S. However, the station has since moved to 1521 kHz, where it must contend with a high powered Saudi station, plus domestic stations on 1520. Still, with a Beverage antenna pointed due north, someone in the east might luck out and hear it.

As a general rule, Chinese stations, when in, will fade in about an hour after Japanese stations. During the peak reception periods, this would be around 2 a.m. PST. Depending on conditions, they may be in well all morning until your local sunrise. Or they may peak at 3 or 4 o'clock and then fade out. Or they may come in poorly until just before sunrise, then make a sharp peak in strength, and then fade out. Or they may not come in at all, even when Japan is coming in well. If that sounds discouraging, remember that changes in conditions from day to day are what makes this hobby challenging and fun....

Table 2 lists the sunset times for five major Chinese cities for September through March (reception during April through August is too rare to worry about). Sunset times are a rough indicator of when a station might fade in. It's possible for a station to fade in as much as 45 minutes before their sunset, due to darkness reaching the ionospheric control point on the signal path before it reaches the station. On the other hand, a station may not

Table 2. Sunset times (UTC) for Chinese Cities

	1/1	2/1	3/1	9/1	10/1	11/1	12/1
Beijing	0855	0929	1002	1043	0954	0909	0846
Chengdu	1012	1038	1101	1127	1049	1016	1001
Harbin	0756	0836	0917	1011	0913	0819	0748
Shanghai	0903	0929	0953	1019	0941	0907	0852
Urumqi	1040	1117	1156	1245	1150	1059	1031

fade in until well past its local sunset, depending on the state of the ionosphere at the time.

Table 3 shows the loop bearings and distances from three western cities (Seattle, Los Angeles, Denver) and one eastern city (Atlanta) to five Chinese

cities. It should give you some idea of where to point your loop or Beverage antenna for optimum reception.

Table 3. Distances and loop bearings to Chinese Cities (in miles & degrees)

	Beijing	Chengdu	Harbin	Shanghai	Urumqi
Seattle	5232 317	6264 321	4715 315	5709 309	5820 338
Los Angeles	6242 321	7177 324	5593 320	6526 313	6803 341
Denver	6233 330	7200 335	5701 327	6723 321	6587 351
Atlanta	7139 343	7908 352	6573 338	7639 337	7028 5

IDENTIFYING CHINESE STATIONS

Suppose Oriental stations are coming in well some morning. How do you know which ones are Chinese? There are several ways you can tell. The following are the most effective methods.

- Time pips. Most Far East stations broadcast a time signal at the top of the hour. As a general rule, Chinese stations have a time signal consisting of five tones, each one second long followed by a one second pause, followed by a sixth tone an octave higher than the rest, i.e. $\bar{\text{---}}\text{---}$. This time signal is not used universally, so not hearing it doesn't mean you didn't hear China. But it is unique to China and used by DXers to pinpoint the country of origin.
- Anthems. "The East is Red" and "Internationale" are played at various times on most Chinese stations. If you haven't heard them before, tune in

to Chinese shortwave broadcasts and listen for them. They are both slow, ponderous tunes and are sometimes heard on the hour, half-hour, or at sign on or sign off.

- **Station identification.** It's easier than you think to pick out IDs from Chinese stations. Generally they occur just after an anthem or time signal. Broadcasts originating from Peking ID as "Zhongyang renmin guangbo diantai", which is pronounced just like it's spelled and means "Central People's Broadcasting Station". Broadcasts originating from provincial or local stations ID with the name of the city, province, or other government entity substituted for the word "Zhongyang", such as "Shanghai renmin guangbo diantai". If you work at it, you may be able identify more than one Chinese station on a particular frequency. However, it can at times be tough to discern between similar sounding names: Hunan, Henan, Hainan, and Yunnan, for example. Or even worse, Shanxi and Shaanxi!
- **Parallel programming.** If you have two receivers, it's a simple matter to tune one to a station you know the identity of and confirm the identity of an unknown station. This way, you don't have to sit around all morning waiting for pips, anthems, and IDs.

Note that identifying the language used by a station is not sufficient to confirm its identity. Two of the most frequently heard Chinese stations do not broadcast in Chinese during most of their evening hours. And some neighboring countries, such as the Soviet Union, broadcast programs in Chinese on medium wave.

OBTAINING VERIFICATIONS

Up until a year or two ago, China rarely sent out verifications for medium wave reception. This policy has since changed. China now readily verifies reception reports for medium and short wave domestic broadcasts. They even mention the name of the station, the date of reception, and the frequency (although they still seem to be "correcting" the frequency in the report to the old 10 kHz spacing frequency. My report for 1035 kHz was verified as 1030 kc/s and Bill Harms' report for 1206 was verified as 1210). Still, it's good to get something back for one's efforts.

Reception reports should be sent to Central People's Broadcasting Station, Outside of Fu Hsin Men, Beijing, People's Republic of China. Return postage is not needed. You'll get a nice QSL card and maybe a "soft sell" magazine, a calendar, or some other token item. Reception reports for provincial and other stations can probably be sent care of the above address. Or you might try sending your report to XXXXX People's Broadcasting Station, City, Province, People's Republic of China, just to see what happens. Hopefully, someone at the station will know how to read English.

MEDIUM WAVE STATIONS IN CHINA

To conclude this article, the next few pages list all the Chinese CBW outlets I could find information on. Sources for this list include Pete Taylor (including is "DXing in Asia" article in the 2/9/80 DXM and some other unpublished information), back issues of IRCA, NRC, NZDXRL, SPEEDX, & NASWA bulletins, and the 1980 World Radio TV Handbook. The following comments apply

Freq: "*" means a Chinese station has been hrd on that frequency in N. America
 "a" means the station may vary a few kilohertz off frequency
 City: "near" means a station is audible during the day in that city. It's likely within a 150 mile radius of that location.
 Pgm: C1: Central People's Broadcasting Station (CPBS), 1st Pgm; C2: CPBS, 2nd Pgm; P1: Fujian Front Station (FFS), 1st Pgm; F2: FFS, 2nd Pgm; FS: Foreign Service; HP: Hainan PBS; L: Local PBS; L1, L2: Local PBS, 1st Pgm, 2nd Pgm, etc; MS: CPBS Minority Service; P: Provincial (or AR) PBS; P1, P2: Provincial PBS, 1st & 2nd Pgm; TS: Taiwan Service; YP: Yanbian PBS; ZP: Zhoushan (Island) PBS
 Schedule: Times are UTC; I & E means "Internationale" & "East is Red", respectively, are played at that s/on or s/off; N: No anthem is played at that s/on or s/off; NA: station plays neither anthem; LL: station carries EE, JJ, and/or FF language lessons.
 Parallels: (1) all C1 stations on the list, plus 5860 5880 6665 6750 7095 7504 9064 9080 11302 11330; (2) 603 630 678 720 747 855 882 897 899 1251 4250 5075 5163 6345 7190 7770 8320 9020 9775 10260 11040 11505 12200 15030; (3) 594 693 750 792 909 927 1035 1089 1116 1224 1431 1512 2360 3360 3820 4770 9170 11000 11100; (4) 666 846 1016 1266 2340 3640 4045 4530 5040 5240 5265 5900 6765 7504 7850; (5) 819 954 1008 1377 1539 3200 3300 3400 4380 4840 5170 5770 5900 7025 8195; (6) 720 918 1044 3960 4960 7480 11515 (7) 531 576 810 846 864 963 985 1134 1323 1404 1431 1476 2475 4785 6000 6620; (8) 612 963 1089 1260 3930 4830; (9) 738 1107 1485 1530 2960 3310

Freq	Province	City	Pgm	Schedule	Parallels
531	Zhejiang	Hangzhou	P1	2100-0515 0845-1500	(7)
	Unknown		C1	2000-1735	(1)
540	----	Shanghai	C1	2000-1735	(1)
	Various		C1	2000-1735	(1)
549	Jiangsu	Zhangzhou	C1?		
	Unknown		C1	2000-1735	(1)
558	Fujian		P1	2050-0530 0750-1600	783 1071 2340 5040
	Jiangsu	Jiayang			
	Unknown	near Hangzhou	C1	2000-1735	(1)
560	Heibei	various	C1	2000-1735	(1)
567	Yunnan	Quibei	P1	2150-0600 0920-1605N	990 2460 4760
576	Zhejiang		P1	2100-0515 0845-1500	(7)
	Unknown	near Beijing	C1	2000-1735	(1)
585	Unknown	nr Hong Kong			
593	Unknown	Wencheng	TS	2000-0610(0700Su) 0830-1900	(3)
594*	Fujian		C1	2000-0600 -1735	619 902 1201 1341
	Guangdong?		P	-1510	918 1485 1548 2350
	Shandong	Jinan	P	2230-0645 1000-1545	4750 5935 7170
603	Xizang	Lhasa	C2	2200-1600	(2)
	----	Beijing?	P	2040-0540 0740-1500	(8)
612	Liaoning		P1	2050-0530 0750-1600	558 783 2340 5040
	Fujian		C1	-0600	594 902 1201 1341
619	Guangdong?		P	2040-0630(0510Th) 0830-1530(KK 0300-0400)	900 3340 5950 4840
621	Heilongjiang	Harbin	FS	RR: 1500-1800	1521 7140 9725
	Unknown		C1	2000-1735	(1)
	Unknown(s)	near Hangzhou and Shanghai			
630	Unknown		C2	2200-1600	(2)
635	Urumqi		P1		
	Unknown		C1	2000-1735	(1)
639	----	Beijing	C1	2000-1735	(1)
	Unknown		TS	2000-0610(0700Su) 0830-1900	(3)
648	Guangdong	Guangzhou	P1	2045-2400 0250-1530	sometimes (1)
657	Henan	Zhengzhou	P1	2120-1400 0350-1515	1332
	* Unknown		C1	2000-1735	(1)
660	Unknown		C1	2000-1735	(1)
666	Fujian	Dehua	F1	1000-1800 2100-0500	(4)
	Qinghai	Xining			
675	Nei Monggol	Hohhot	P1	2145-0100 0200-0555 0900-1525(1545SaS)NA	765 1188 3970 4895 4068 6840
	Xinjiang		P2		702 685
676	Unknown		C1	2000-1735	(1)
678	Unknown		C2	2200-1600	(2)
684*	Hubei?	near Beijing			1278
	Guangdong	Halkou			
	Zhejiang	Dinghai	ZP	2135-0415	
685	Xinjiang		P2		675 702
693	Jiangsu		P1	2050-1450	
	Shaanxi	Xian	P	0900-1520I 2120-0820	6176
	Sichuan		P		
	Unknown		TS	2000-0610(0700) 0830-1900	(3)
702	Fujian			-1658	936 1476
	Jiangsu	Nanjing	P	2050-1450I 2050-2400	1314 1413(some FS?)
	Xinjiang		P2		675 685
711	Qinghai	Gonghe			
720*	----	Beijing	C2	2200-1600	(2)
	Unknown		FS	JJ: 2130-2200 0930-1530(6)	
723	Unknown		C2?	-0600 0915-1600	855 1044(sometimes)
729	Jiangxi	Jian	P	0855-1620I 0200- EKLL	1422? 5020?
	Unknown		C1	2000-1735	(1)
735	Guangdong	Guangzhou	C1	2000-1735	(1)
738	Jilin	Changchun	P	2000-0530 0850-1530	(9)
747	Unknown	near Beijing	C2	2200-1600	(2)
750	Unknown		TS	2000-0610(0700) 0830-1900	(3)
756*	Unknown		C1	2000-1735	(1)
765	Nei Monggol		P1	2145-0100 0300-0555 0900-1525(1545SaSu)NA	675 1188 3970 4068 4895 6840
	Hubei	Wuhan	P	2100-0610 0850-1605I	1179 1404 3940
774	Fujian		P1	2050-0530 0750-1600	558 882 1071 4975 2340 5040 7165
783					1278
	Hebei	Baoding	P	2115-2350 0200-0600 0840-1535	

Freq	Province	City	Pgm	Schedule	Parallels	Freq	Province	City	Pgm	Schedule	Parallels
792	-----	Shanghai	L2	2100-1600		999*	Unknown		L	2100-1605 EE/JJLL	
	Guangxi	Nanning	P1	0845-1600E 2100-0530	4915 1071 1440	999	Guangdong	Guangzhou	P2		702 675 685
	Unknown		TS	2000-0610(0700Su) 0830-1900 (3)			Xinjiang		C1	2000-1735	(1)
801	Guangdong	Beijing?	P2	2100-0600N E0900-1540	1062 (Cantonese)		Unknown		F2	0330(1000Wed)-1230	(5)
	-----		C1	2000-1735	(1)	1008	Fujian		F1	2100-0500 1000-1800	(4)
805	Unknown		C1	2000-1735	(1)	1016	Fujian		FS	KK:1100-1500	4620 5975 6955
810	Zhejiang	Hangzhou	P1	2100-0515 0845-1500	(7)	1017*	Jilin	Changchun	C1	2000-1735	(1)
819	Fujian		P2	0330(1000Wed)-1730			Unknown	near Beijing	L	EE/FPLL	
	Shanxi	Taiyuan	P	2100-0035 0230-0635	1269 846	1026	-----	Beijing	P	2130-0020 0150-0620	927 3260 7275
	Unknown	near Guangzhou		EELL 2155			Guizhou		C1	0850-1605 EELL	
828*	-----	Beijing	L			1035*	Unknown	near Beijing	TS	2000-1735	(1)
837*	Hubei	Wuhan	C1	2000-1735	(1)		Unknown		FS	2000-0610(0700Su) 0830-1900 (3)	
	Qinghai	Xining	LorP	2100-0100 0900-1520	3950 4940 6255	1044	Jiangsu	Changzhou	C1/2	JJ:2130-2200 0930-1530(6)	(1) (2)
846	Fujian		F1	1000-1800 2100-0500	(4)		Unknown	Dongchuan	L		
	Guangdong	Huizhou	P2	2130-2350 0950-1530	1161 1224	1053*	Yunnan		C1	2000-1735	(1)
	Shangxi		P	2100-0035 0330-0635	1269 819		Unknown	Guangzhou	P2	2100-0600 E0900-1540	801 Cantonese
	Zhejiang		P1	2100-0515 0845-1500	(7)	1062	Guangdong		C1	2000-1735	(1)
	Unknown	near Hangzhou				1069	Unknown		P1	2000-0530 0750-1600	558 882 5040 7165
855*	-----	Shanghai	C2	2200-1600	(2)	1071	Fujian		P1	0845-1600E 2100-0530	792 1440 4915
864	Zhejiang		P1	2100-0515 0845-1500	(7)		Guangxi	Tianjin	L	-1735	(1)
	Unknown		C1	2000-1735	(1)	1080	-----	Shantou	L	2110-1505	
873*	Gansu	Lanzhou	P	2120-0100 0220-0600	4865 5970 6155		Guangdong	near Hangzhou	P1	2100-0715 0845-1500	(7)
	Unknown			0920-1600 NA	7325	1089	Zhejiang	Shenyang	P	0720-1500 2040-0540	(8)
	Jiangsu	Nanjing	P2				Liaoning	Chengdu	P2	2220-0530 0900-1300	5900
	Unknown		C1	2000-1735	(1)		Sichuan		TS	2000-0610(0700Su) 0830-1900 (3)	
882	Fujian	Fuzhou	P1	2050-0530 0750-1600	558 783 1071 5040	1098a	Unknown	Shanghai	L	1100- Cultural Pgms	
	Nei Monggol	Hohot	L1			1107	-----		P	2050-0530 0850-1505	(9)
	Unknown		C2	2200-1600	(2)		Jilin	Hunjiang			
891	Liaoning	Dandong	P	2050-0020 0250-0530		1116*	Liaoning	Mei Xian			
	Ningxia	Yinchuan	P	2210-0150 0350-0600	1287 4830		Guangdong	Antu			
	Shandong	Jinan	P	2055-0020 0250-0530	1404 2350		Jilin	Chengdu	P1	2120-0800 0920-1505	3245
897	Guangdong		C2	2200-1600	(2)		Sichuan		C2	2200-1600	(2)
899	Unknown	near Beijing	C2	2200-1600	(2)	1125*	Unknown		TS	2000-0610(0700Su) 0830-1900 (3)	
900	Heilongjiang		P	2040-0630(0510Th) 0830-1530(KK 0300-0400)	621 3340 4840 5950	1134	Unknown		C1	2000-1735	(1)
	Guangdong	Guangzhou	C1	2000-0600 -1735	(1)	1135	Zhejiang	Linhai	P1	2100-0515 0845-1500	(7)
	-----	Tianjin	L			1143	Unknown		C1	2000-1735	(1)
913	Fujian	Wencheng	TS	2000-0610(0700Su) 0830-1900 (3)		1148	Nei Monggol	Dongsheng	P		
918	Shandong	near Hong Kong	P	-1510	594 1441 1485 1548	1152	Zhejiang	near Hangzhou	P1	2100-0515 0845-1500	(7)
	Jiangsu	Weifang	FS	JJ:2130-2200 0930-1530(6)			Hunan	Changsha	P	2105-1605	1161 1233 1584 1591 /4990
927	-----	Beijing	P	2130-0020 0150-0620	1026 3260 7275		Jilin	Tongliao			
	Guizhou			0850-1605 EELL			Liaoning	Luda	L	2045-0020 0250-1435	
932	Unknown	near Hong Kong					Unknown	Luda??	M	Mongolian:1200-1255	6430 8565
936	Anhui	Hefei		2050-0530 0730-1500	1395 1494	1161	Guangxi	Nanning	P2	2130-2350 0950-1530	5010
	Fujian			-1658	702 1476		Hunan		P	2105-1605	1152 1233 1584 1591 /4990
	Jiangsu?						Unknown	near Beijing			
	Unknown	near Beijing	C1	2000-1735	(1)		Unknown	near Hong Kong			
940	Unknown		P2	0330(1000Wed)-1730	(5)		Unknown		C1	2000-1735	(1)
954	Fujian	Hainan Island	HP	2100-0100 0250-0600	1188		Unknown		C1	2000-1735	(1)
	Guangdong			0900-1500 EELL, some Hainanese			Hubei		P	2100-0610 0850-1605	774 1404 3940 4890
	-----	Tianjin	L	-1430(1400Su)			Unknown		C1	2000-1735	(1)
958	Unknown		C1	2000-1735	(1)		Nei Monggol		P1	2145-0100 0200-0555	675 765 3970
960	Xizang	Lhasa	P2	2230-0645 1000-1600	3917 4035 5240		Yunnan	Kunming	FS	0900-1525(1545SaSu)NA	4068 4895 6840
	Liaoning	Chifeng	P	2040-0100 0250-0540	612 1089 1260		Unknown			Lao:1100-1130	11980 15115
	Zhejiang		P1	2100-0515 0845-1500	(7)		Unknown			Thai:1130-1200	9460 12450
972	Henan	Zhengzhou	P2	2150-0515 0925-1500	2200, some (1)		Unknown			Cambodian:1200-1300	1296 9440 11455
981	Fujian	Fuzhou	P2				Guangdong	Hainan Island	HP	2100-0100 0250-0600	954
	Unknown		C1	2000-1735	(1)		-----			0900-1500 EELL, some Hainanese	
985	Zhejiang		P1	2100-0515 0845-1500	(7)		Yunnan			2145-0100 0200-0555	675 765 3970
990	-----	Shanghai	L1	2030-1500, EELL			Unknown			0900-1525(1545SaSu)NA	4068 4895 6840
	Yunnan	Kunming	P1	2150-0600 0920-1605	576 2460 4760		Jilin		YP	2030-2340 0230-0540	11980 15115
							-----			0830-1430, mostly in KK	
							Guangdong	Guangzhou	C1	2000-1735	(1)
							Unknown	near Hong Kong			
							Yunnan	Yanji	FS	EE:1800-1900	12450
							-----			KK:1000-1055 0400-0455	8565 9900
							Unknown	near Beijing		Hindi:1500-1800	11455 12450

Freq	Province	City	Pgm	Schedule	Parallels	Freq	Province	City	Pgm	Schedule	Parallels
1224	Guangxi	Beihai	L	2215-2350 0245-0455	8743	1431a	----	Shanghai	LJ	2155-2300 0025-0130 0355-0500 0700-0900 0950-1455 Cultural Pgms & LL	
	Qinghai	Chengdo	P					Heilongjiang	Hailar	P	
	Unknown	near Beijing	TS	2000-0610(0700Su)	0830-1900 (3)			Zhejiang	Unknown	P1	2100-0515 0845-1500 (7)
1233	Hunan	Changsha	P	2105-1605I	1152 1161 1584 1591 4990	1437a		Jilin?	Unknown	TS	2000-0610(0700Su) 0830-1900 (3)
1238	Unknown		C1	2000-1735	(1)	1440	Guangxi	Linzhou	Unknown	PI	0845-1600E 2100-0530 792 1071 4915
1242	Yunnan	Kunming	P	2155-0100 0955-1600			Unknown		MS	Mongolian; 1200-1255	6430 8565
1251*	Qinghai	Xining	P	2230-1510	3950 4940 6500	1441	Shandong	Yantai?	P	-1510	594 918 1441 1548 2350
	Unknown		C2	2200-1600	(2)						
	Unknown		FS	Mongolian; 2300		1449	Jiangxi	Jingdezhen?	P		
1260	Liaoning	Ruxin shi	P	0720-1500 2040-0100	(8)	1453	Unknown		C1	2000-1753	(1)
	Unknown		C1	2000-1735	(1)	1458	Nei Monggol	Huhot	MS	Mongolian; 0500-0555	4070 6974
1266	Fujian	Dehua	F1	1000-0500	(4)				FS	RR; 1600-1755	621 1521
1269	Shanxi	Taiyuan	P	2100-0035 0330-0635	846 819				P2	2130-0050 0230-0500 0900-1600	
	Unknown	near Beijing		EELL 2215		1467	Fujian		P2		
1278	Hebei	Shijiazhuang	P	2115-2350 1200-0600	783	1476*	Unknown	near Beijing			
				0840-1535			Fujian	Wencheng	L	-1658	702 936
1287*	Zhejiang?						Hebei	Huangshi	L	EE/FF/JJ LL only	
	Ningxia	Yinchuan	P	2210-0350 0920-0600	891 4830		-----	Beijing	L	2100-0515 0845-1515 (7)	
	Unknown		C1	2200-1735	(1)		Zhejiang	Ningbo	P1	2200-1600	(2)
1296	-----	Shanghai	L4	2155-2330 0025-0200 0355-0530 0755-1430 EE/FF/JJ LL only		1485	Unknown		C2	2000-0530 0850-1505 (9)	
							Jilin		P	-1510	594 918 1441 1548 2350
	Liaoning	Benxi				1494	Shandong		P	2050-0100 0250-0500 0730-1500	936
	Sichuan	Xian					Anhui	Hefei			
	Yunnan	Kunming	FS	Bengali; 1500-1600 Cambodian; 1030-1130 1230-1300 1400-1500 FF; 1300-1400	9965 12450 9440 11455 11695 15125 9440 11455 11695		Honan	Zhangzhou			
1302	Unknown		C1	2000-1735	(1)	1503	Fujian	Sanming			
1314	Jiangsu	Suzhou	P	2050-1450I EELL	702 1413		Jilin	Tongliao			
	Sichuan	Chongqing					Hunan	Xiangtan	P	2130-2330 0320-0500 0950-1520	
	Unknown		FS	Mongolian; 1200-1255	5145 5850 6555			Liaoyan			
1320	Unknown		C1	2000-1735	(1)		Jilin		P		
1323	Zhejiang	Ningbo	P1	2100-0515 0845-1500	(7)	1511	Liaoning		P1	0920I-1510 2100-0515 (7)	
	Jilin	Changchun	L			1512	Zhejiang		L	2130-2350(partial sked)	
1332	Henan	Luoyang	P1	2120-1400 0350-1515	657		Guangxi	Hailar	L	2150-2400 0950-1500 4750?	
	Unknown		C1	2000-1735	(1)		* Unknown		TS	2000-0610(0700Su) 0830-1900 (3)	
1341	Guangdong	Guangzhou	FS	Tagalog; 1200-1230 Vietnamese; 1230-1430 Tagalog; 1430-1500	6520 8240 15250 9945 11725 5420 6520 11445	1521	Xinjiang	Urumqi	FS	Russian; 1000-0255	7140 9725
			C1	When not FS	(1)	1530 a	Jilin		P	2000-0530 0845-1505 (9)	
	Unknown		C1	2000-1735	(1)		Shanxi		P2	2110-0030 0250-1505	
1350	Guangdong?		C1	2000-1735	(1)	1539	Zhejiang	Hangzhou	F2	0330(1000Wed)-1730	(5)
	Yunnan	Kunming	L	2215-2400 0345-0600		1548	Fujian	Dehua		-1510	594 918 1441 1485 2350
				0955-1520; may have some P1 or P2			Shandong	Rushan			
	Unknown		C1	2000-1735	(1)	1557*	Unknown	near Beijing	L1		
1359	Unknown	near Hangzhou	C1	2000-1735	(1)	1566	Fujian	Fuzhou			
1363	Unknown		C1	2000-1735	(1)	1570	Shandong	Ya Xian	P		
1369	Unknown		C1	2000-1735	(1)	1575	Henan				
1377*	Fujian	Dehua	F2	0400-2100	(5)		Gansu	Yumen shi	L	2050-1510I	2415, some (1)
	Shandong	Qingdao	L	2100-0030 0255-0630 0855-1500		1584	Zhejiang	Wengzhou	C1	2000-1735	(1)
1386	Unknown	near Hong Kong					Unknown		P	2105-1605	1152 1161 1233 1591 4990
1395	Anhui		P	2050-0530 0730-1500	936	1591	Hunan	Pingdingshan?	P	2105-1605	1152 1161 1233 1584 4990
	Unknown		C1	2000-1735	(1)						
1404	Hubei	Yichang	P	2100-0610 0850-1605	774 1179 3940 4980	1593	Hebei	Jingshan			
	Liaoning	Dandong	P	2050-0020 0250-0530	891	1602	Xinjiang	Urumqi	L	2155-2315 0325-0435	
				0810-1435			Jiangsu	Hongze	C1	0910-1330 (some Jiangsu PBS Pgms)	
	Shandong	Jinan	P	2050-0020 0250-0530	891 2350		Unknown			2000-1735	(1)
				0810-1510							
	Zhejiang		P1	2100-0515 0845-1500	(7)						
1408	Unknown		C1	2000-1735	(1)						
1413	Jiangsu	Lianyungang	P	2050-0000 0030-0900-1450I some FS/C1/C2	702 1314						
1415	Unknown		C1	2000-1735	(1)						
1422	Jiangxi		P	-1435	729? 5020?						
	Sichuan	Zigong	L	0920- 2120-0500							
	Zhejiang?			-1435I (In Amoy)							

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Dear Bruce,

I think your China list is certainly a major effort. However, its major fault is that it contains many of the geographic errors I made in my initial report of about a year ago, plus those carried on through the years by WRTVH, and even some which are in the FERC log. It looks to me like the FERC log listings are correct, but they too, do not incorporate some boundary changes relating to Nei Monggol and Jilin.

- p.1 Under Fujian, the city s/b "Dehua"
Qinghai was "Tsinghai"; I have never seen it as "Chinghai"
- p.2 The National program is broadcast 1200-1230 on C-1, C-2, and P-1 outlets (for the most part) but not on the C-2 schedules I have seen
- p.1 Xinjiang program schedules list Beijing time in them -- but the s/off and s/on times seem to be backed up two hours (s/off on most services is 1:30am Beijing time, and possibly 1:30 in Urunqi, but apparently they treat it like 11:30pm. Who knows?)
- p.2 The C-1 and C-2 stations do have the 5+1 time pips; most provincials have the same thing, but I did note one province which differed. Some of the locals have no time pips. "East is Red" was noted on the hour only, after the pips and an announcement pertaining to the time in Beijing; never on the half-hour. "Internationale" was heard only at s/on and s/off. (That's the 1st s/on and the last s/off.)
- p.3 About half of the provinces have verified for me.
- p.3+ 549 Zhangzhou is FJ, not JS
558 Jianyang is FJ, not JS
567 s/b "Hebei"
594 Wencheng is ZJ, not FJ
684 s/b Hebei. Tangshan listed
693 Jiangsu - delete. This was my error.
Sichuan - delete. My error. S/b Xian, Shaanxi.
702 TS - I believe this is JS with TS rather than FJ. Some of the old WRTVH's indicate this. The verie in EE simply said "the stations are in our area."
720v (varies 719-723) - JS with FS//1044
750 TS - pretty well confirmed as in FJ
792 TS - I believe this is Shanghai w/TS. Indicated in old WRTVHs.
837 FERC lists Wuhan local on 873. It is certainly not impossible to have both this purported 300kw C-1 outlet and L pany. However, it was not listed in the SD newspaper programs as a C-1 freq., and 873, which certainly would not have 300kw with local programs, was/. *on 873
846 s/b Shanxi
909 Wencheng is ZJ
936 I think this is Hefei with TS, rather than FJ. Once again, old WRTVHs say so
1107 Hunjiang is JL, not LN
1224 Chengdu (not Chengdo) is in Sichuan (not QH)
1251 Xining QH is fulltime Mongolian
1314 s/b Xuzhou rather than Suzhou (both are cities in JS)
1440 s/b Liuzhou rather than Linzhou. This station carries some Mongolian programming for minorities in GX (so says the pgm. schedule)
1476 Wencheng is ZJ
Huangshi is in Hubei rather than Hebei
1503 The JL city is Liaoyuan, but this appears to be Liaoyang LN
1566 Ya Xian is in GD, not SD
1575 s/b Wenzhou
1593 Jingshan is in Hubei, not Hebei

In any case, I appreciate all the work you put in on this. WRTVH has always carried Wencheng in FJ, and who knows, perhaps a border shift did take place there, too. But it is definitely across the border in ZJ. I do have documentation on all the other stuff as well.

--- Pete Taylor