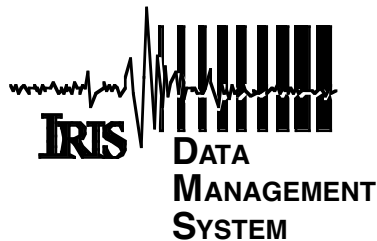


Xinjiang

Xinjiang (China) Test Sites Nuclear Explosions
1967-1996

AWE (Atomic Weapons Establishment) Blacknest

Assembled Data Set 05-006



Distributed by:
Incorporated Research Institutions for Seismology
Data Management Center
1408 NE 45th Street, Suite 201
Seattle, Washington 98105 USA
www.iris.edu

NOTES ON XINJIANG (CHINA) TEST SITES NUCLEAR EXPLOSIONS (BLACKNEST)

Version Date - 17th November 2004

The file README contains this script and other relevant notes.

The file BKNAS contains the definition of the BKNAS header and the description of the various fields within the header.

The file LIST contains all the information required to organise, process, and digest Chinese nuclear explosions.

The file LINKS contains links to generalise the naming of the nuclear explosion directories.

Each year directory contains the files to process and beam-form the seismic data for each Chinese nuclear explosion that one or more recording exists.

Each directory (Site_Date.Time) contains up to five sorts of files : -

- (a) Original data defined (Date.Time_STN) by the name of the file and converted data in BKNAS, CSS, and IMS formats,
- (b) Controlling files defined by date containing all necessary information for beam-forming by the APPLE program,
- (c) Phase files defined by the phase code @ the station containing enough information for beam-forming by the APPLE program,
- (d) PostScript files (I1_....ps,P1_....ps) containing information and the seismogram plot (output from the APPLE program),
- (e) Four files (info,info.all,plot,file) which contain further information.

Each controlling file (e.g. date_stn.input) and each phase file (e.g. P@STN.input, PcP@STN.input, etc.) contains up to 10 lines : -

- (1) The word APPLE and the sampling rate,
- (2) A title most of which is self-explanatory,
- (3) A number in col.1 which defines the form of the hypocentre,
- (4) The hypocentre information,
- (5) The station code (YKA,WRA,EKA,GBA), the sensitivity number, and the form number for the PostScript files,
- (6) The channel definition and position in the data file*,
- (7) The instrument number (Blacknest code),
- (8) Tape form number (20,21,32), number of channels, start time, and other 'useful' numbers,
- (+) Onset time (UTC) corresponding to start time (if known); critical for original analogue data, optional for digital data,
- (9) The name of the file of the original data.

Zero length controlling files indicate no data is available or is not included. Phase files which are not present indicate that either no data is available or considered not worth processing.

Of the four further information files (info,info.all,plot,file) the most useful is info which contains a summary for each explosion. The fields are; station code (YKA,WRA,EKA,GBA), date, start sample (start time * sampling rate), onset time type, picked onset time, phase, depth, distance, given Mb, amplitude, period, distance factor, estimated magnitude Mb, maximum-likelihood magnitude M*, and magnitude difference.

* Channel definition and position requires further explanation : -
(f) Each channel is defined by four characters and its position

- in the line corresponds to its position in the data file,
- (g) The first three characters define the pit code,
 - (h) The fourth character defines its use : -
 - blank for normal use,
 - * display but do not use,
 - ! glitches occur but outside arrival time window +/- 5s (say),
 - + use irrespective of glitches, etc.,
 - invert and use irrespective of glitches, etc.,
 - (j) All four characters as **** indicate an unknown, a non-SP, a grossly over-loaded, or a blank channel,
 - (k) On original analogue data (tape form 21) the time channel is usually the next channel after the last defined channel and is not displayed.

Suggested Processing : -

- (A) Select the nuclear explosion of interest,
- (B) View the selected P1_...ps file with a PostScript reader,
- (C) Get the start sample number from the info file,
- (D) Use appropriate tools to form a window and beam-form the event.

YKA (YELLOWKNIFE ARRAY) SPECIFIC NOTES

EVENT 19-DEC-1984

For this explosion the recording heads on the analogue tape deck were not aligned correctly. The APPLE program allows for this 'skewness' so correctly beamed seismograms are generated. For completeness, the original seismogram has been corrected and stored as BKNAS, CSS, and IMS format files. The original raw data file is also included.

The `BKNAS' Seismic Data Format Version 1.0

Note: This note summarizes information previously given in AG Notes 304 and 359.

1. Introduction and a Little History

Seismic data edited at Blacknest were originally written to magnetic tape as IBM format `master tape' files. The format of the data contained in these files varied, due to the separate handling of analogue, digital, broad band, long period and short period array data over the years, but the data were always written in binary form.

The files had six standard 80 character labels: four tape headers (VOL, HDR1, HDR2, and a user label), and two trailers (EOF1 and EOF2). The information contained in these labels was the only concurrent information available regarding the seismic data contained in the file. A short description of each of these data formats is given in section 4.

A new data format was developed for the Digital MicroVax at Blacknest in the early 1990's. This was the Blacknest raw data format (BKNRW), again, a binary data format but allowing for a 32000 byte header to contain array information and so on. The format is described in section 3.

The Blacknest ASCII format (BKNAS) has since been created to allow for easy transfer of data between different operating systems at Blacknest and elsewhere.

IMPORTANT POINT:

The BKNAS format is essentially a super-format, able to describe all the other edited data formats which have been used at Blacknest to create master tape files.

In the BKNAS format, the multiplexed seismic data are displayed in ascii, readable columns, one line per time sample.

Version 2.0 of the BKNAS format was developed to allow external users access to data contained in the seismic data archive (`robby') at Blacknest via an automatic data request manager (AutoDRM). It contains a different header format which excludes all local parameters. The format of the seismic data is the same as in version 1.0. For more information on this format, consult the Blacknest AutoDRM documentation.

Version 3.0 of the BKNAS format is currently being developed for the new in-house digitizer. A description of the new format will be available when the new system is implemented.

2. The BKNAS Data Format

2.0 Elements of the format

The BKNAS data format is an ascii format and has three basic structures:

1. One 80 character 'File' card; always present.
2. Header cards, either:
 - i. Three optional 80 character tape header cards, comprising:
 1. HDR1 card, copied directly from the master tape header
 2. HDR2 card, copied directly from the master tape header
 3. User label, an almost direct copy of the master tape header

The three tape header cards are only present in files which do not have the full 400 line 'BKNAS' header. For information on the data formats which use these header cards, see section 4.

or:

- ii. Optional 400 line, 80 characters per line 'BKNAS' header. For information on the 'BKNAS' header, see section 3.

3. Lines of data: one line per time sample, one column per channel

2.1 The File card

The File card format:

Columns	Format	Description
1-5	A5	Always 'BKNAS', the format type
7-10	F4.1	Version number of the format, currently 1.0
12-16	A5	Full station code name as known in-house
18-19	I2	Number of channels (thus columns) of data
21-23	I3	Number of lines of header following this one. This is normally 3, except for old BKNRW format input data, where it is 400
25-27	I3	Number of non-waveform data samples per channel (and thus the number of lines of such data) immediately following the last line of header
29-35	I7	Total number of samples per channel contained in this file, whether waveform data or not. Thus this field equates to the total number of lines of data in the file following the last line of header.

2.2 The tape header cards

These cards are only present for those files which were originally non-BKNRW format master tape files.

2.2.1 The HDR1 card (80 characters)

The HDR1 card format:

Columns	Format	Description
1-4	A4	Always 'HDR1'
5-16	A12	Origin of the data, either: 'BKNSTDATCENT' for internal use at Blacknest 'BSSPAA.BNST.' for use elsewhere
17-21	A5	(Original) data type, for instance 'BKNRW', 'SDAT', 'AD21', 'WBA'. This field may not necessarily match that in the user label. Use the user label data type in preference. See section 4 for more information.
22-27	A6	Original number of the master tape on which the file resides
32-35	A4	Original file number on master tape
43-44	I2	Last two digits of the year when the original tape file was created
45-47	I3	Day number of the year when the original tape file was created
61-80	A20	Comments (rarely used)

2.2.2 The HDR2 card (80 characters)

The HDR2 card format:

Columns	Format	Description
1-4	A4	Always 'HDR2'
6-10	I5	Number of bytes in each data record, e.g. 4012 for SDAT data, 4200 for AD21.
18-80	A63	Comments (rarely used)

2.2.3 The User Label (80 characters)

The user label format:

Columns	Format	Description
1-11	A11	Date of the event, in the form 'DD-MMM-YYYY'
13-20	A8	Time of the event, in the form 'HH:MM:SS'
22-73	A52	Comment. The information here has no fixed format, although it is often as follows: cols 22-63: Epicentre and processing data cols 64-66: Event backbearing (I3) cols 68-71: Event speed (F4.1)
74-74	A1	One character station code, which should match the full station code given in the file card and also the station code given in the data
76-80	A5	(Original) data type, for instance 'BKNRW', 'SDAT', 'AD21', 'WBA'. This field may not necessarily match that in the HDR1 card. The field here should be used in preference.

2.3 The 'BKNAS' format header

See section 3.

2.4 The seismic data

The seismic data format, one line per time sample, is as follows:

Columns	Format	Description
1-1	A1	*One character station code, which should match the full station code given in the file card and also the station code given in the user label.
2-11	A10	*Date and time of the data sample, in the form 'YDDDDHHMMSS', where 'Y' is the year of decade
12-on	<n>I6	<n> data samples, one per channel. <n> is the number of channels in the data, given in the file card.

* These fields are only present at the start of each original data block, and where the information exists in the original format (SDAT, DSASP, BSASP, SDLP, ADC4 and WBA, but not BKNRW, AD21, BAPPL, ADC1 or ADC2). Where the information is not present, the first eleven columns are left blank.

3. The BKNAS Header Format

The BKNAS format is the Blacknest raw, edited data format. A maximum of 32 channels can be written into one file. The header consists of 400 by 80 character lines, a total of 32000 bytes in all.

IMPORTANT POINT

The line containing the BKNAS information is NOT part of this header. However, some of the information is repeated in the header for use.

The line formats are as follows:

LINE NUMBERS	CONTENTS
1-7	Array name, array alias, start time, etc.
8	The tape and file numbers of the first master tape to store this file.
11-25	A copy of the APPLE controlling file (c...stn.dat) can be written here if the data has already been processed.
29-92	Up to 64 lines (2 per channel) containing channel information.
93 onwards	A listing of the poles and zeros for each different instrument number used in recording the digital data followed by blanks to line 400. The format is the instrument number, number of poles, number of zeros, constant and units on the first line followed by the poles (1 line each) followed by the zeros (1 line each). Normally there should be only 1 or 2 instrument numbers for a file of digital data.

3.1 Line formats in detail

All character data are left justified in their fields, all numeric data are right justified. The header initially contains blanks. The value stored in a field if no data are supplied are indicated by "NULL = " e.g NULL = blanks or NULL = -999.0. Some fields are now redundant and have not been described here.

```

-----
LINE 1
-----

```

CHAR	FMT	FIELD NAME	DESCRIPTION
1-5	A5	Array ID code	Identification code of the array Always present
6-10	A5	Array ID code	2nd identification code of the array Used for the 'home' arrays such as EKA, GBA, WRA, YKA, BKN, WOL, FLK, etc Also used to alias IMS codes to ISC codes
11-14	A4	Analogue data array name	Identification code for an analogue array NULL = blanks
15-17		'LAT'	
18-25	F8.4	Station latitude	Units = degrees NULL = -99.0000
26-29		'LONG'	
30-38	F9.4	Station longitude	Units = degrees NULL = -999.0000
39-43	I5	Height	Height of station NULL = blanks
44		'M'	Units = metres
46-48	A3	Current header version	This field is always present Currently = 5.0
50	A1	Start time accurate	Due to technical considerations when digitizing analogue data, the start time given is not the actual start time All analogue data is flagged 'N' However, for digital data the start time is the actual start time and flagged 'Y' except in the circumstance of a digital time error when it is flagged as 'N' Always present (Field repeated at LINE 6, Col.1)
51-80		Blank	

```

-----
LINE 2
-----

```

CHAR	FMT	FIELD NAME	DESCRIPTION
1-8	A8	Event code	Agency, event number, or other code
9-10		'Mb'	
11-13	F3.1	Magnitude	Body wave magnitude NULL = blanks
15-17		'LAT'	

18-25	F8.4	Epicentre latitude	Units = degrees	NULL = -99.0000
26-29		'LONG'		
30-38	F9.4	Epicentre longitude	Units = degrees	NULL = -999.0000
39-42	I4	Depth	Depth of event	NULL = blanks
43-44		'KM'	Units = kilometres	
45-48	I4	Flinn-Engdahl geographic region number	From 1995 'F-E Code' standard	
49-80	A32	Flinn-Engdahl geographic region name	Name of the location of the event	

 LINE 3

CHAR	FMT	FIELD NAME	DESCRIPTION
1-11	A11	Event date	Date the event in the form dd-mon-yyyy
14-15		'OT'	
17-28	A12	Origin time	Origin time of event (GMT) in the form hh:mm:ss.tt NULL = blanks
30-31	A2	Code of onset	'AT' = Arrival time as picked by the seismic analyst 'PT' = Picked time as chosen by the data processor 'ET' = Estimated time because either the event not seen or a problem with the time code NULL = blanks
33-44	A12	Start time	Start time of event (GMT) in the form hh:mm:ss.tt NULL = blanks
47-54	A8	Phase	Phase of event NULL = blanks
55-80		Blank	

 LINE 4

CHAR	FMT	FIELD NAME	DESCRIPTION
1	A1	Event type	Type of event detected C=Mine explosion E=Chemical explosion I=Collapse explosion M=Meteoritic explosion N=Nuclear explosion Q=Earthquake R=Rockburst X=Explosion NULL = blank
2	A1	Effect	Event effect C = Casualties NULL = blank

D = Damage
 F = Felt
 H = Heard
 T = Tsunami

1-2 A2 Identifier Field can be used for other identifiers
 NULL = blanks

5-7 'BAZ'
 8-14 F7.2 Back bearing Units = degrees NULL = 999.00
 Back bearing is defined as the CLOCKWISE
 angle from the station to the event

17-19 'VEL'
 20-25 F6.1 Velocity Units = Km/second NULL = 999.0

28-30 'SLN'
 31-36 F6.3 Slowness Units = Second/degree NULL = 99.000

39-43 'DELTA'
 44-50 F7.2 Angular distance Units = degrees NULL = 999.00
 This is the angle between the event
 epicentre and the detecting station

51-80 Blank

 LINE 5

CHAR	FMT	FIELD NAME	DESCRIPTION
1-20	A20	Start time	Start time of the data in the form dd-mmm-yyyy hh:mm:ss NULL = blanks
21-40	A20	End time	End time of the data in the form dd-mmm-yyyy hh:mm:ss NULL = blanks
41-48	I8	Total number of data samples	Number of channels * sample rate (Hz) * Number of minutes of data * 60 (in theory) Will vary slightly for analogue data Always present
49-50	I2	Number of data channels	Number of channels of data Always present
51-63		Digitising Offset	Offset time of samples from true digitising rate Usually blank when zero is assumed Units = Seconds
64-80		Comments	Usually blank but may contain information taken from a digitised analogue tape

 LINE 6

CHAR	FMT	FIELD NAME	DESCRIPTION
1	A1	Start time accurate	Due to technical considerations when digitizing analogue data, the start time given is not the actual start time

All analogue data is flagged 'N'
 However, for digital data the start time
 is the actual start time and flagged 'Y'
 except in the circumstance of a digital
 time error when it is flagged as 'N'
 Always present
 (Field repeated from LINE 1, Col.50)

2-9 A8 Raw data type Denotes whether the original recording
 system was ANALOGUE or DIGITAL
 Always present

10-29 A20 Original storage media The media the data were ORIGINALLY recorded
 Possible values are:
 ANALOGUE TAPE
 DIGITAL TAPE
 DIGITAL EXABYTE
 AUTODRM
 Always present

30-40 A11 Processing date Date the data were edited from raw tape
 in the form dd-mon-yyyy
 Always present

41-80 Blank

 LINE 7

CHAR	FMT	FIELD NAME	DESCRIPTION
1-80	A80	Comment	Any user comment NULL = blanks For old-style digitised analogue and digital tape this field is a copy of the user label

 LINE 8

CHAR	FMT	FIELD NAME	DESCRIPTION
1-6	I6	Original tape number	First tape the data were written
8-10	I3	Original file number	Number of file on this tape
11-80		Blank	

 LINES 11-27

A copy of the APPLE controlling file used to generate the BKNAS
 header and data can be inserted here up to 16 lines
 For a description of this file see either the APPLE subroutine INPUT1
 or the read.me file associated with the data

LINES 29-92

FORMAT OF THE 2 LINES REQUIRED FOR EACH CHANNEL DIGITIZED OR EXTRACTED

CHANNEL LINE 1

CHAR	FMT	FIELD NAME	DESCRIPTION
1-5	I5	Channel number	Channel number on the raw data tape digitized or extracted Always present
6-11	A6	Pit code	ID of the pit associated with this channel NULL = blank
12-14		'LAT'	
16-24	F9.5	Pit latitude	Units = degrees NULL = -99.00000
25-28		'LONG'	
30-39	F10.5	Pit longitude	Units = degrees NULL = -999.00000
40		'M'	
41-47	F7.1	Pit elevation	Units = meters NULL = -999.0
48		'X'	
49-56	F8.3	X coord. pit displacement	Units = km, measured from the centre of the array NULL = -999.000
57		'Y'	
58-65	F8.3	Y coord. pit displacement	Units = km, measured from the centre of the array NULL = -999.000
66-70	F5.1	Sample rate	Sample rate of the data in samples per second (Hz) Always present
71	A1	Channel sense	`+' indicates POSITIVE DIGITS or POSITIVE VOLTAGE = GROUND MOTION UP/NORTH/EAST `-' indicates POSITIVE DIGITS OR POSITIVE VOLTAGE = GROUND MOTION DOWN/SOUTH/WEST Always present
72-80		Blank	

CHANNEL LINE 2

CHAR	FMT	FIELD NAME	DESCRIPTION
1-40	A40	Seismometer name	Type of seismometer in the pit NULL = blanks
41-44	A4	Seismometer output recorded	The last letter indicates seismometer orientation NULL = blanks
50-52	I3	Instrument number	Instrument number used to record a channel NULL = INST 999

53-62	A10	Instrument code	Type of data recorded on the raw data channel NULL = blanks
63-70	F8.5	Sensitivity factor	Number by which each sampled value is multiplied by to obtain the corresponding ground motion in nanometres This is always a positive number and present The sense of the data comes from the channel sense flag in the previous line Units = nm/bit NULL = 1.00000
71-80		Blank	

 LINES 93 onwards

FORMAT OF THE POLES AND ZEROS SECTION

 POLES and ZEROS LINE 1

CHAR	FMT	FIELD NAME	DESCRIPTION
6-8	I3	Instrument number	Instrument number used to record a channel number
9-11	I3	Number of poles	
12-14	I3	Number of zeros	
15-29	E15.4	Poles/zeros constant	NULL = 0.0000E+00
30-61	A32	Units of constant	NULL = blanks
62-68	F7.3	Calibration reference	Period in seconds at which sensitivity factor (above) is valid NULL = 1.000
70-71	I2	Number of sets of poles/zeros	If no poles/zeros are inserted this field is set to zero If there are poles and zeros to insert this field is filled only in the first line of the first pole/zero set
72-80		Blank	

 LINE LISTING A POLE OR ZERO

Poles are listed first followed by zeros
 The poles and zeros are stored as real numbers WITHOUT exponents

CHAR	FMT	FIELD NAME	DESCRIPTION
1-16	E16.*	X coordinate	X coordinate of a pole or zero

17-32 E16.* Y coordinate Y coordinate of a pole or zero

33-80 Blank

Blank lines follow to line 400

N.B. Section 4 is not yet available.

XINJIANG (CHINA) TEST SITES NUCLEAR EXPLOSIONS DETAILS (BLACKNEST)

Version Date - 3rd December 2004

NOTES

EVENT numbers from "Catalog of Worldwide Nuclear Testing" by V.N. Mikhailov
Begell-Atom, LLC (1999)

Where RECORDs EXISTs there is no single channel raw data recording
available but a paper record still exists

SEEN phases are judged on the IDC Style filter 0.8 - 4.5 hz.
DETECTED phases are judged on Correlation size with varying speed.

17/06/67XINJIANG EVENT 0823 17-JUN-1967 0019

0019098 40.80N 89.40E 47 27C01321 N 18JUN17ISC1905831170667
YKA NO TAPE NOT PROCESSED RECORD EXISTS
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231664/006 PROCESSED P NOT SEEN
GBA NO TAPE NOT PROCESSED RECORD EXISTS
!LOP NOR - Yield 3300kt

27/12/68XINJIANG EVENT 0939 27-DEC-1968 0730

073002.e40.77N 89.77E 27C02321 DEC27 1968000271268
YKA AD21 TIME ESTIMATED 231664/008 PROCESSED P SEEN SMALL
WRA AD21 WITH TIME 231664/010 PROCESSED P SEEN
EKA AD21 WITH TIME 231664/007 PROCESSED P NOT SEEN
GBA AD21 WITH TIME 231664/009 PROCESSED P SEEN SMALL
!LOP NOR - Yield 3000kt

22/09/69XINJIANG EVENT 0980 22-SEP-1969 1615

1614589 41.35N 88.33E 52 27C03321 N 95SEP22ISC1909507220969
YKA AD21 TIME ESTIMATED 231921/034 PROCESSED P SEEN LARGE
YKA AD21 TIME ESTIMATED 231921/034 PROCESSED PP NOT DETECTED
WRA AD21 WITH TIME 231921/036 PROCESSED P SEEN
WRA AD21 WITH TIME 231921/036 PROCESSED PcP SEEN
WRA AD21 WITH TIME 231921/036 PROCESSED PP NOT DETECTED
EKA AD21 WITH TIME 231921/033 PROCESSED P SEEN
EKA AD21 WITH TIME 231921/033 PROCESSED PcP NOT SEEN
EKA AD21 WITH TIME 231921/033 PROCESSED PP DETECTED
GBA AD21 WITH TIME 231921/035 PROCESSED P SEEN COMPLEX
GBA AD21 WITH TIME 231921/035 PROCESSED PP DETECTED
GBA AD21 WITH TIME 231921/035 PROCESSED PcP SEEN
!SOUTHWESTERN SINGER

29/09/69XINJIANG EVENT 0982 29-SEP-1969 0840

0840262 40.72N 89.30E33. 45 27C04321 N 5SEP29ISC1909718290969
YKA AD21 TIME ESTIMATED 231921/040 PROCESSED P SEEN SMALL
WRA AD21 WITH TIME 231921/042 PROCESSED P SEEN SMALL
EKA NO TAPE NOT PROCESSED NO RECORD
GBA AD21 WITH TIME 231921/041 PROCESSED P SEEN SMALL
!LOP NOR - Yield 3000kt

14/10/70XINJIANG EVENT 1057 14-OCT-1970 0730

0729589 40.92N 89.40E 46 27C05321 N 90CT14ISC1909361141070
YKA AD21 WITH TIME 231922/006 PROCESSED P SEEN SMALL
WRA AD21 WITH TIME 231922/007 PROCESSED P SEEN SMALL
EKA NO TAPE NOT PROCESSED NO RECORD
GBA NO TAPE NOT PROCESSED NO RECORD
!LOP NOR - Yield 3400kt

18/03/72XINJIANG EVENT 1130 18-MAR-1972 0600

060000.e40.90N 89.40E 27C06321 MAR18 1972000180372
YKA AD21 WITH TIME 231610/051 PROCESSED P NOT SEEN POSSIBLE ORIGIN DISCREPANCY
WRA AD21 WITH TIME 231610/053 PROCESSED P NOT SEEN POSSIBLE ORIGIN DISCREPANCY
EKA AD21 WITH TIME 231610/050 PROCESSED P NOT SEEN POSSIBLE ORIGIN DISCREPANCY
GBA AD21 WITH TIME 231610/052 PROCESSED P NOT SEEN POSSIBLE ORIGIN DISCREPANCY
!LOP NOR - Yield 170kt - N.B. NOT used

27/06/73XINJIANG EVENT 1197 27-JUN-1973 0400

0359459 40.66N 89.68E 48 27C07321 N 33JUN27ISC1906412270673
YKA AD21 WITH TIME 231994/023 PROCESSED P SEEN SMALL
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231994/022 PROCESSED P SEEN
GBA AD21 WITH TIME 231994/024 PROCESSED P SEEN
!LOP NOR

17/06/74XINJIANG EVENT 1245 17-JUN-1974 0600

0559525 40.55N 89.64E 45 27C08321 N 9JUN17ISC1906042170674
YKA AD21 WITH TIME 231989/006 PROCESSED P SEEN SMALL
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231989/005 PROCESSED P SEEN SMALL
GBA AD21 WITH TIME 231989/007 PROCESSED P NOT SEEN SHORT RUNIN
!LOP NOR

27/10/75XINJIANG EVENT 1317 27-OCT-1975 0100

0059592 41.43N 88.40E 8. 50 27C09321 N 58OCT27ISC1911211271075
YKA AD21 WITH TIME 231965/031 PROCESSED P SEEN
YKA AD21 WITH TIME 231965/031 PROCESSED PP NOT DETECTED
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231965/016 PROCESSED P SEEN SMALL
EKA AD21 WITH TIME 231965/016 PROCESSED P cP NOT SEEN
EKA AD21 WITH TIME 231965/016 PROCESSED PP NOT DETECTED
GBA AD21 WITH TIME 231908/023 PROCESSED P SEEN COMPLEX
GBA AD21 WITH TIME 231908/023 PROCESSED PP DETECTED
GBA AD21 WITH TIME 231908/023 PROCESSED P cP SEEN SMALL
!SOUTHWESTERN SINGER

23/01/76XINJIANG EVENT 1329 23-JAN-1976 0600

060000.e40.90N 89.40E 27C10321 JAN23 1976000230176
YKA AD21 WITH TIME 231965/072 PROCESSED P NOT SEEN
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231965/055 PROCESSED P NOT SEEN
GBA AD21 WITH TIME 231965/084 PROCESSED P NOT SEEN
!LOP NOR - N.B. NOT used

26/09/76XINJIANG EVENT 1358 26-SEP-1976 0600

060000.e40.90N 89.40E 27C11321 SEP26 1976000260976
YKA AD21 WITH TIME 231965/078 PROCESSED P NOT SEEN
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231965/065 PROCESSED P NOT SEEN
GBA AD21 WITH TIME 231965/102 PROCESSED P NOT SEEN
!LOP NOR - N.B. NOT used

17/10/76XINJIANG EVENT 1361 17-OCT-1976 0500

0500038 41.64N 88.21E33. 49 27C12321 N 56OCT17ISC1912746171076
YKA AD21 WITH TIME 231953/013 PROCESSED P SEEN
YKA AD21 WITH TIME 231953/013 PROCESSED PP NOT DETECTED
WRA AD21 WITH TIME 231964/031 PROCESSED P SEEN GLITCHES

WRA AD21 WITH TIME 231964/031 PROCESSED PcP NOT SEEN NO BLUE LINE
WRA AD21 WITH TIME 231964/031 PROCESSED PP NOT DETECTED
EKA AD21 WITH TIME 231953/036 PROCESSED P SEEN
EKA AD21 WITH TIME 231953/036 PROCESSED PcP NOT SEEN
EKA AD21 WITH TIME 231953/036 PROCESSED PP NOT DETECTED
GBA AD21 WITH TIME 231964/032 PROCESSED P SEEN
GBA AD21 WITH TIME 231964/032 PROCESSED PP NOT DETECTED
GBA AD21 WITH TIME 231964/032 PROCESSED PcP NOT SEEN
!NORTHERN SINGER

17/11/76XINJIANG EVENT 1367 17-NOV-1976 0600

0600176 40.78N 89.66E33. 46 27C13321 N 25NOV17ISC1913974171176
YKA AD21 WITH TIME 231602/083 PROCESSED P SEEN SMALL
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231602/082 PROCESSED P SEEN SMALL
GBA AD21 WITH TIME 231602/084 PROCESSED P SEEN SMALL GLITCHES
!LOP NOR - Yield 4000kt

14/10/78XINJIANG EVENT 1476 14-OCT-1978 0100

0100023 41.20N 88.66E33. 49 27C14321 N 76OCT14ISC1913026141078
YKA AD21 231912/052 PROCESSED P SEEN
YKA AD21 231912/052 PROCESSED PP NOT DETECTED
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 231912/057 PROCESSED P SEEN
EKA AD21 231912/057 PROCESSED PcP NOT SEEN
EKA AD21 231912/057 PROCESSED PP NOT DETECTED
GBA AD21 231912/083 PROCESSED P SEEN SMALL COMPLEX
GBA AD21 231912/083 PROCESSED PP DETECTED
GBA AD21 231912/083 PROCESSED PcP SEEN SMALL
!EASTERN SINGER

14/12/78XINJIANG EVENT 1492 14-DEC-1978 0600

060000.e40.90N 89.40E 27C15321 DEC14 1978000141278
YKA AD21 231912/091 PROCESSED P NOT SEEN
WRA SDAT 231913/047 PROCESSED P NOT SEEN GLITCHES
EKA AD21 231912/099 PROCESSED P NOT SEEN
GBA AD21 231913/075 PROCESSED P NOT SEEN
!LOP NOR - N.B. NOT used

02/02/79XINJIANG EVENT 1502 2-FEB-1979

e41.50N 88.50E 27 321 FEB02 1979000020279
YKA NO TAPE NOT PROCESSED
WRA NO TAPE NOT PROCESSED
EKA NO TAPE NOT PROCESSED
GBA NO TAPE NOT PROCESSED
SINGER - N.B. NOT used

13/09/79XINJIANG EVENT 1538 13-SEP-1979

e40.60N 89.50E 27 321 SEP13 1979000130979
YKA NO TAPE NOT PROCESSED
WRA NO TAPE NOT PROCESSED
EKA NO TAPE NOT PROCESSED
GBA NO TAPE NOT PROCESSED
LOP NOR - N.B. NOT used

16/10/80XINJIANG EVENT 1596 16-OCT-1980 0430

0430289 41.04N 89.99E 44 27C16321 N 6OCT16ISC1916207161080
YKA AD21 WITH TIME 231672/012 PROCESSED P NOT SEEN
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 WITH TIME 231672/011 PROCESSED P SEEN SMALL
GBA SDAT 231672/010 PROCESSED P NOT SEEN

!LOP NOR - N.B. NOT used

05/10/82XINJIANG EVENT 1697 5-OCT-1982 0800

0759584 41.72N 88.76E 27C17321 OCT 5 1982000051082
YKA AD21 231927/023 PROCESSED P SEEN SMALL
WRA SDAT 231672/009 PROCESSED P SEEN SMALL SHORT RECORD
EKA AD21 231920/095 PROCESSED P NOT SEEN
GBA SDAT 231928/004 PROCESSED P NOT SEEN
!SINGER - N.B. NOT used

04/05/83XINJIANG EVENT 1720 4-MAY-1983 0500

0500020 41.63N 88.31E33. 45 27C18321 N 9MAY 4ISC1908842040583
YKA AD21 231928/044 PROCESSED P SEEN SMALL
YKA NO TAPE NOT PROCESSED PP NO RECORD
WRA SDAT 231991/049 PROCESSED P NOT SEEN NOISY
WRA SDAT 231991/049 PROCESSED PcP NOT SEEN NOISY
WRA SDAT 231991/049 PROCESSED PP NOT DETECTED
EKA AD21 231928/023 PROCESSED P SEEN SMALL
EKA AD21 231928/023 PROCESSED PcP NOT SEEN
EKA AD21 231928/023 PROCESSED PP NOT DETECTED
GBA SDAT 231939/006 PROCESSED P SEEN SMALL
GBA SDAT 231939/006 PROCESSED PP NOT DETECTED
GBA NO TAPE NOT PROCESSED PcP NO RECORD
!NORTHERN SINGER

06/10/83XINJIANG EVENT 1754 6-OCT-1983 1000

0959580 41.53N 88.72E 55 27C19321 N215OCT 6ISC1918903061083
YKA AD21 231936/038 PROCESSED P SEEN
YKA NO TAPE NOT PROCESSED PP NO RECORD
WRA NO TAPE NOT PROCESSED NO RECORD
EKA AD21 231658/033 PROCESSED P SEEN LARGE
EKA AD21 231658/033 PROCESSED PcP NOT SEEN
EKA AD21 231658/033 PROCESSED PP DETECTED
GBA SDAT 231658/019 PROCESSED P SEEN COMPLEX
GBA SDAT 231658/019 PROCESSED PP DETECTED
GBA SDAT 231658/019 PROCESSED PcP SEEN
!EASTERN SINGER

03/10/84XINJIANG EVENT 1803 3-OCT-1984 0600

0559579 41.54N 88.67E 54 27C20321 N172OCT 3ISC1919835031084
YKA AD21 231949/087 PROCESSED P SEEN
YKA NO TAPE NOT PROCESSED PP NO RECORD
WRA SDAT 231656/040 PROCESSED P SEEN LARGE
WRA SDAT 231656/040 PROCESSED PcP SEEN
WRA SDAT 231656/040 PROCESSED PP DETECTED
EKA AD21 231658/039 PROCESSED P SEEN
EKA AD21 231658/039 PROCESSED PcP NOT SEEN
EKA AD21 231658/039 PROCESSED PP DETECTED
GBA SDAT 231979/086 PROCESSED P SEEN COMPLEX GLITCHES
GBA SDAT 231979/086 PROCESSED PP DETECTED
GBA NO TAPE NOT PROCESSED PcP NO RECORD
!EASTERN SINGER

19/12/84XINJIANG EVENT 1819 19-DEC-1984 0600

0600028 41.62N 88.22E33. 47 27C21321 N 43DEC19ISC1925299191284
YKA AD21 231658/051 PROCESSED P SEEN CORRECTED
YKA AD21 231658/051 PROCESSED PP NOT DETECTED CORRECTED
WRA SDAT 231656/041 PROCESSED P SEEN
WRA SDAT 231656/041 PROCESSED PcP NOT SEEN
WRA SDAT 231656/041 PROCESSED PP NOT DETECTED
EKA NO TAPE NOT PROCESSED NO RECORD
GBA SDAT 231981/005 PROCESSED P SEEN SMALL
GBA SDAT 231981/005 PROCESSED PP NOT DETECTED

GBA NO TAPE
!NORTHERN SINGER

NOT PROCESSED PcP NO RECORD

05/06/87XINJIANG EVENT 1897 5-JUN-1987 0500

0459585 41.55N 88.72E 62 27C22321 N529JUN 5ISC1912510050687
YKA AD21 231609/001 PROCESSED P OVERLOADED
YKA AD21 231609/001 PROCESSED PP DETECTED
WRA SDAT 231631/010 PROCESSED P OVERLOADED
WRA SDAT 231631/010 PROCESSED PcP SEEN
WRA SDAT 231631/010 PROCESSED PP DETECTED
EKA AD21 [GAIN 0.7] 231926/005 PROCESSED P SEEN LARGE
EKA AD21 [GAIN 0.7] 231926/005 PROCESSED PcP SEEN
EKA AD21 [GAIN 0.7] 231926/005 PROCESSED PP DETECTED
GBA SDAT 231620/037 PROCESSED P SEEN LARGE COMPLEX
GBA SDAT 231620/037 PROCESSED PP DETECTED
GBA SDAT 231620/037 PROCESSED PcP SEEN LARGE
!EASTERN SINGER

29/09/88XINJIANG EVENT 1953 29-SEP-1988 0700

0700020 41.52N 88.15E33. 46 27C23321 N 25SEP29ISC1924909290988
YKA AD21 231635/080 PROCESSED P SEEN
YKA AD21 231635/080 PROCESSED PP DETECTED
WRA SDAT 231640/041 PROCESSED P SEEN
WRA SDAT 231640/041 PROCESSED PcP NOT SEEN
WRA SDAT 231640/041 PROCESSED PP NOT DETECTED
EKA AD21 231635/043 PROCESSED P NOT SEEN NOISY
EKA AD21 231635/043 PROCESSED PcP NOT SEEN NOISY
EKA AD21 231635/043 PROCESSED PP NOT DETECTED NOISY
GBA SDAT 231656/031 PROCESSED P NOT SEEN
GBA SDAT 231656/031 PROCESSED PP NOT DETECTED
GBA SDAT 231656/031 PROCESSED PcP NOT SEEN
!NORTHERN SINGER

26/05/90XINJIANG EVENT 1998 26-MAY-1990 0800

0759579 41.54N 88.69E 55 27C24321 N285MAY26ISC1914352260590
YKA NO TAPE NOT PROCESSED NO RECORD
WRA SDAT 231646/070 PROCESSED P SEEN LARGE
WRA SDAT 231646/070 PROCESSED PcP SEEN
WRA SDAT 231646/070 PROCESSED PP NOT DETECTED
EKA SDAT 231642/109 PROCESSED P SEEN
EKA SDAT 231642/109 PROCESSED PcP SEEN
EKA SDAT 231642/109 PROCESSED PP NOT DETECTED
GBA SDAT 231653/002 PROCESSED P SEEN COMPLEX
GBA SDAT 231653/002 PROCESSED PP DETECTED
GBA SDAT 231653/002 PROCESSED PcP SEEN
!EASTERN SINGER

16/08/90XINJIANG EVENT 2006 16-AUG-1990 0500

0459577 41.52N 88.75E 62 27C25321 N624AUG16ISC1922973160890
YKA DIGIT 231672/050 PROCESSED P SEEN LARGE
YKA DIGIT 231672/050 PROCESSED PP DETECTED
WRA SDAT 231653/039 PROCESSED P OVERLOADED
WRA SDAT 231653/039 PROCESSED PcP SEEN
WRA SDAT 231653/039 PROCESSED PP DETECTED
EKA SDAT 231655/016 PROCESSED P SEEN LARGE
EKA SDAT 231655/016 PROCESSED PcP SEEN
EKA SDAT 231655/016 PROCESSED PP DETECTED
GBA SDAT 231653/036 PROCESSED P SEEN COMPLEX
GBA SDAT 231653/036 PROCESSED PP DETECTED
GBA SDAT 231653/036 PROCESSED PcP SEEN
!EASTERN SINGER

21/05/92XINJIANG EVENT 2030 21-MAY-1992 0500

0459574 41.53N 88.81E10. 65 27C26321 N764MAY21ISC1918016210592
 YKA DIGIT 231666/053 PROCESSED P OVERLOADED
 YKA DIGIT 231666/053 PROCESSED PP DETECTED
 WRA DIGIT 231666/033 PROCESSED P OVERLOADED
 WRA DIGIT 231666/033 PROCESSED PcP SEEN
 WRA DIGIT 231666/033 PROCESSED PP DETECTED
 EKA SDAT [NOT INVERTED] 231658/008 PROCESSED P SEEN LARGE
 EKA SDAT [NOT INVERTED] 231658/008 PROCESSED PcP SEEN LARGE
 EKA SDAT [NOT INVERTED] 231658/008 PROCESSED PP DETECTED
 GBA DIGIT 231666/046 PROCESSED P SEEN LARGE COMPLEX
 GBA DIGIT 231666/046 PROCESSED PP DETECTED
 GBA DIGIT 231666/046 PROCESSED PcP SEEN LARGE
 !EASTERN SINGER

25/09/92XINJIANG EVENT 2035 25-SEP-1992 0800

 0759582 41.70N 88.32E 50 27C27321 N114SEP25ISC1937486250992
 YKA DIGIT 231666/059 PROCESSED P SEEN
 YKA DIGIT 231666/059 PROCESSED PP NOT DETECTED
 WRA DIGIT 231666/060 PROCESSED P SEEN
 WRA DIGIT 231666/060 PROCESSED PcP SEEN SMALL
 WRA DIGIT 231666/060 PROCESSED PP NOT DETECTED
 EKA SDAT [NOT INVERTED] 231659/014 PROCESSED P SEEN
 EKA SDAT [NOT INVERTED] 231659/014 PROCESSED PcP NOT SEEN
 EKA SDAT [NOT INVERTED] 231659/014 PROCESSED PP NOT DETECTED
 GBA DIGIT 231666/052 PROCESSED P SEEN SHORT RECORD GLITCHES
 GBA DIGIT 231666/052 PROCESSED PP DETECTED
 GBA DIGIT 231666/052 PROCESSED PcP NOT SEEN
 !NORTHERN SINGER

02/11/92XINJIANG EVENT 2036 2-NOV-1992

 e41.50N 88.50E 27 321 NOV02 1979000021192
 YKA NO TAPE NOT PROCESSED
 WRA NO TAPE NOT PROCESSED
 EKA NO TAPE NOT PROCESSED
 GBA NO TAPE NOT PROCESSED
 SINGER - N.B. NOT used

05/10/93XINJIANG EVENT 2037 5-OCT-1993 0200

 0159567 41.63N 88.69E 59 27C28321 N573OCT 5ISC1950621051093
 YKA DIGIT 231699/028 PROCESSED P SEEN LARGE
 YKA DIGIT 231699/028 PROCESSED PP DETECTED
 WRA DIGIT 231672/033 PROCESSED P SEEN LARGE
 WRA DIGIT 231672/033 PROCESSED PcP SEEN
 WRA DIGIT 231672/033 PROCESSED PP DETECTED
 EKA DIGIT 231674/038 PROCESSED P SEEN LARGE
 EKA DIGIT 231674/038 PROCESSED PcP SEEN
 EKA DIGIT 231674/038 PROCESSED PP DETECTED
 GBA DIGIT 231672/034 PROCESSED P SEEN LARGE COMPLEX
 GBA DIGIT 231672/034 PROCESSED PP DETECTED
 GBA DIGIT 231672/034 PROCESSED PcP SEEN
 !EASTERN SINGER

10/06/94XINJIANG EVENT 2038 10-JUN-1994 0626

 0625580 41.54N 88.74E 58 27C29321 N517JUN10ISC1921845100694
 YKA DIGIT 231676/011 PROCESSED P SEEN LARGE
 YKA DIGIT 231676/011 PROCESSED PP DETECTED
 WRA DIGIT 231676/012 PROCESSED P SEEN
 WRA DIGIT 231676/012 PROCESSED PcP SEEN
 WRA DIGIT 231676/012 PROCESSED PP NOT DETECTED
 EKA DIGIT 231676/009 PROCESSED P SEEN LARGE
 EKA DIGIT 231676/009 PROCESSED PcP SEEN
 EKA DIGIT 231676/009 PROCESSED PP DETECTED
 GBA DIGIT 231676/010 PROCESSED P SEEN COMPLEX
 GBA DIGIT 231676/010 PROCESSED PP DETECTED
 GBA DIGIT 231676/010 PROCESSED PcP SEEN

!EASTERN SINGER

07/10/94XINJIANG EVENT 2039 7-OCT-1994 0326

0325579 41.58N 88.77E 59 27C30321 N6360CT 7ISC1939479071094
YKA DIGIT 231676/056 PROCESSED P SEEN LARGE
YKA DIGIT 231676/056 PROCESSED PP DETECTED
WRA DIGIT 231676/055 PROCESSED P SEEN LARGE
WRA DIGIT 231676/055 PROCESSED PcP SEEN
WRA DIGIT 231676/055 PROCESSED PP NOT DETECTED
EKA DIGIT 231676/029 PROCESSED P SEEN LARGE
EKA DIGIT 231676/029 PROCESSED PcP SEEN
EKA DIGIT 231676/029 PROCESSED PP DETECTED
GBA DIGIT 231677/013 PROCESSED P SEEN COMPLEX
GBA DIGIT 231677/013 PROCESSED PP DETECTED
GBA DIGIT 231677/013 PROCESSED PcP SEEN
!EASTERN SINGER

15/05/95XINJIANG EVENT 2040 15-MAY-1995 0406

0405579 41.59N 88.82E 60 27C31321 N643MAY15ISC1922865150595
YKA DIGIT 231677/029 PROCESSED P SEEN LARGE
YKA DIGIT 231677/029 PROCESSED PP DETECTED
WRA DIGIT 231688/034 PROCESSED P SEEN LARGE
WRA DIGIT 231688/034 PROCESSED PcP SEEN
WRA DIGIT 231688/034 PROCESSED PP NOT DETECTED
EKA DIGIT 231677/022 PROCESSED P SEEN LARGE
EKA DIGIT 231677/022 PROCESSED PcP SEEN
EKA DIGIT 231677/022 PROCESSED PP DETECTED
GBA DIGIT 231688/014 PROCESSED P SEEN LARGE COMPLEX
GBA DIGIT 231688/014 PROCESSED PP DETECTED
GBA DIGIT 231688/014 PROCESSED PcP SEEN
!EASTERN SINGER

17/08/95XINJIANG EVENT 2041 17-AUG-1995 0100

0059579 41.56N 88.79E 59 27C32321 N707AUG17ISC1938353170895
YKA DIGIT 231680/002 PROCESSED P SEEN LARGE
YKA DIGIT 231680/002 PROCESSED PP DETECTED
WRA DIGIT 231688/035 PROCESSED P SEEN LARGE GLITCHES
WRA DIGIT 231688/035 PROCESSED PcP SEEN
WRA DIGIT 231688/035 PROCESSED PP NOT DETECTED
EKA DIGIT 231680/001 PROCESSED P SEEN LARGE
EKA DIGIT 231680/001 PROCESSED PcP SEEN
EKA DIGIT 231680/001 PROCESSED PP DETECTED
GBA DIGIT 231688/015 PROCESSED P SEEN COMPLEX
GBA DIGIT 231688/015 PROCESSED PP DETECTED
GBA DIGIT 231688/015 PROCESSED PcP SEEN
!EASTERN SINGER

08/06/96XINJIANG EVENT 2048 8-JUN-1996 0256

0255580 41.60N 88.66E 57 27C33321 N619JUN 8ISC1928954080696
YKA DIGIT 231680/105 PROCESSED P SEEN LARGE
YKA DIGIT 231680/105 PROCESSED PP DETECTED
WRA DIGIT 231688/042 PROCESSED P SEEN LARGE
WRA DIGIT 231688/042 PROCESSED PcP SEEN
WRA DIGIT 231688/042 PROCESSED PP DETECTED
EKA DIGIT 231680/109 PROCESSED P SEEN LARGE
EKA DIGIT 231680/109 PROCESSED PcP SEEN
EKA DIGIT 231680/109 PROCESSED PP DETECTED
GBA DIGIT 231688/028 PROCESSED P SEEN COMPLEX GLITCHES
GBA DIGIT 231688/028 PROCESSED PP NOT DETECTED
GBA DIGIT 231688/028 PROCESSED PcP SEEN
!EASTERN SINGER

29/07/96XINJIANG EVENT 2049 29-JUL-1996 0149

0148576 41.71N 88.33E	47	27C34321	N176JUL29ISC1938552290796
YKA DIGIT	231685/021	PROCESSED	P SEEN
YKA DIGIT	231685/021	PROCESSED	PP DETECTED
WRA DIGIT	231688/043	PROCESSED	P SEEN
WRA DIGIT	231688/043	PROCESSED	PcP NOT SEEN
WRA DIGIT	231688/043	PROCESSED	PP NOT DETECTED
EKA DIGIT	231685/005	PROCESSED	P SEEN
EKA DIGIT	231685/005	PROCESSED	PcP NOT SEEN
EKA DIGIT	231685/005	PROCESSED	PP DETECTED
GBA DIGIT	231999/040	PROCESSED	P SEEN POSSIBLE 1s TIMING ERROR
GBA DIGIT	231999/040	PROCESSED	PP NOT DETECTED
GBA DIGIT	231999/040	PROCESSED	PcP NOT SEEN

!NORTHERN SINGER

ln -fs LOP-NOR_17-JUN-1967.0019 ../china/1967/LOP-NOR_1967-06-17.0019
ln -fs LOP-NOR_17-JUN-1967.0019 ../china/1967/LOP-NOR_670617.0019
ln -fs LOP-NOR_17-JUN-1967.0019 ../china/1967/LOP-NOR_670617
ln -fs LOP-NOR_17-JUN-1967.0019 ../china/1967/670617
ln -fs LOP-NOR_27-DEC-1968.0730 ../china/1968/LOP-NOR_1968-12-27.0730
ln -fs LOP-NOR_27-DEC-1968.0730 ../china/1968/LOP-NOR_681227.0730
ln -fs LOP-NOR_27-DEC-1968.0730 ../china/1968/LOP-NOR_681227
ln -fs LOP-NOR_27-DEC-1968.0730 ../china/1968/681227
ln -fs SOUTHWESTERN-SINGER_22-SEP-1969.1615 ../china/1969/SOUTHWESTERN-SINGER_1969-09-22.1615
ln -fs SOUTHWESTERN-SINGER_22-SEP-1969.1615 ../china/1969/SOUTHWESTERN-SINGER_690922.1615
ln -fs SOUTHWESTERN-SINGER_22-SEP-1969.1615 ../china/1969/SOUTHWESTERN-SINGER_690922
ln -fs SOUTHWESTERN-SINGER_22-SEP-1969.1615 ../china/1969/690922
ln -fs LOP-NOR_29-SEP-1969.0840 ../china/1969/LOP-NOR_1969-09-29.0840
ln -fs LOP-NOR_29-SEP-1969.0840 ../china/1969/LOP-NOR_690929.0840
ln -fs LOP-NOR_29-SEP-1969.0840 ../china/1969/LOP-NOR_690929
ln -fs LOP-NOR_29-SEP-1969.0840 ../china/1969/690929
ln -fs LOP-NOR_14-OCT-1970.0730 ../china/1970/LOP-NOR_1970-10-14.0730
ln -fs LOP-NOR_14-OCT-1970.0730 ../china/1970/LOP-NOR_701014.0730
ln -fs LOP-NOR_14-OCT-1970.0730 ../china/1970/LOP-NOR_701014
ln -fs LOP-NOR_14-OCT-1970.0730 ../china/1970/701014
ln -fs LOP-NOR_18-MAR-1972.0600 ../china/1972/LOP-NOR_1972-03-18.0600
ln -fs LOP-NOR_18-MAR-1972.0600 ../china/1972/LOP-NOR_720318.0600
ln -fs LOP-NOR_18-MAR-1972.0600 ../china/1972/LOP-NOR_720318
ln -fs LOP-NOR_18-MAR-1972.0600 ../china/1972/720318
ln -fs LOP-NOR_27-JUN-1973.0400 ../china/1973/LOP-NOR_1973-06-27.0400
ln -fs LOP-NOR_27-JUN-1973.0400 ../china/1973/LOP-NOR_730627.0400
ln -fs LOP-NOR_27-JUN-1973.0400 ../china/1973/LOP-NOR_730627
ln -fs LOP-NOR_27-JUN-1973.0400 ../china/1973/730627
ln -fs LOP-NOR_17-JUN-1974.0600 ../china/1974/LOP-NOR_1974-06-17.0600
ln -fs LOP-NOR_17-JUN-1974.0600 ../china/1974/LOP-NOR_740617.0600
ln -fs LOP-NOR_17-JUN-1974.0600 ../china/1974/LOP-NOR_740617
ln -fs LOP-NOR_17-JUN-1974.0600 ../china/1974/740617
ln -fs SOUTHWESTERN-SINGER_27-OCT-1975.0100 ../china/1975/SOUTHWESTERN-SINGER_1975-10-27.0100
ln -fs SOUTHWESTERN-SINGER_27-OCT-1975.0100 ../china/1975/SOUTHWESTERN-SINGER_751027.0100
ln -fs SOUTHWESTERN-SINGER_27-OCT-1975.0100 ../china/1975/SOUTHWESTERN-SINGER_751027
ln -fs SOUTHWESTERN-SINGER_27-OCT-1975.0100 ../china/1975/751027
ln -fs LOP-NOR_23-JAN-1976.0600 ../china/1976/LOP-NOR_1976-01-23.0600
ln -fs LOP-NOR_23-JAN-1976.0600 ../china/1976/LOP-NOR_760123.0600
ln -fs LOP-NOR_23-JAN-1976.0600 ../china/1976/LOP-NOR_760123
ln -fs LOP-NOR_23-JAN-1976.0600 ../china/1976/760123
ln -fs LOP-NOR_26-SEP-1976.0600 ../china/1976/LOP-NOR_1976-09-26.0600
ln -fs LOP-NOR_26-SEP-1976.0600 ../china/1976/LOP-NOR_760926.0600
ln -fs LOP-NOR_26-SEP-1976.0600 ../china/1976/LOP-NOR_760926
ln -fs LOP-NOR_26-SEP-1976.0600 ../china/1976/760926
ln -fs NORTHERN-SINGER_17-OCT-1976.0500 ../china/1976/NORTHERN-SINGER_1976-10-17.0500
ln -fs NORTHERN-SINGER_17-OCT-1976.0500 ../china/1976/NORTHERN-SINGER_761017.0500
ln -fs NORTHERN-SINGER_17-OCT-1976.0500 ../china/1976/NORTHERN-SINGER_761017
ln -fs NORTHERN-SINGER_17-OCT-1976.0500 ../china/1976/761017
ln -fs LOP-NOR_17-NOV-1976.0600 ../china/1976/LOP-NOR_1976-11-17.0600
ln -fs LOP-NOR_17-NOV-1976.0600 ../china/1976/LOP-NOR_761117.0600
ln -fs LOP-NOR_17-NOV-1976.0600 ../china/1976/LOP-NOR_761117
ln -fs LOP-NOR_17-NOV-1976.0600 ../china/1976/761117
ln -fs EASTERN-SINGER_14-OCT-1978.0100 ../china/1978/EASTERN-SINGER_1978-10-14.0100
ln -fs EASTERN-SINGER_14-OCT-1978.0100 ../china/1978/EASTERN-SINGER_781014.0100
ln -fs EASTERN-SINGER_14-OCT-1978.0100 ../china/1978/EASTERN-SINGER_781014
ln -fs EASTERN-SINGER_14-OCT-1978.0100 ../china/1978/781014
ln -fs LOP-NOR_14-DEC-1978.0600 ../china/1978/LOP-NOR_1978-12-14.0600
ln -fs LOP-NOR_14-DEC-1978.0600 ../china/1978/LOP-NOR_781214.0600
ln -fs LOP-NOR_14-DEC-1978.0600 ../china/1978/LOP-NOR_781214
ln -fs LOP-NOR_14-DEC-1978.0600 ../china/1978/781214
ln -fs SINGER_02-FEB-1979 ../china/1979/SINGER_1979-02-02
ln -fs SINGER_02-FEB-1979 ../china/1979/SINGER_790202
ln -fs SINGER_02-FEB-1979 ../china/1979/790202
ln -fs LOP-NOR_13-SEP-1979 ../china/1979/LOP-NOR_1979-09-13
ln -fs LOP-NOR_13-SEP-1979 ../china/1979/LOP-NOR_790913
ln -fs LOP-NOR_13-SEP-1979 ../china/1979/790913

ln -fs LOP-NOR_16-OCT-1980.0430 ../china/1980/LOP-NOR_1980-10-16.0430
ln -fs LOP-NOR_16-OCT-1980.0430 ../china/1980/LOP-NOR_801016.0430
ln -fs LOP-NOR_16-OCT-1980.0430 ../china/1980/LOP-NOR_801016
ln -fs LOP-NOR_16-OCT-1980.0430 ../china/1980/801016
ln -fs SINGER_05-OCT-1982.0800 ../china/1982/SINGER_1982-10-05.0800
ln -fs SINGER_05-OCT-1982.0800 ../china/1982/SINGER_821005.0800
ln -fs SINGER_05-OCT-1982.0800 ../china/1982/SINGER_821005
ln -fs SINGER_05-OCT-1982.0800 ../china/1982/821005
ln -fs NORTHERN-SINGER_04-MAY-1983.0500 ../china/1983/NORTHERN-SINGER_1983-05-04.0500
ln -fs NORTHERN-SINGER_04-MAY-1983.0500 ../china/1983/NORTHERN-SINGER_830504.0500
ln -fs NORTHERN-SINGER_04-MAY-1983.0500 ../china/1983/NORTHERN-SINGER_830504
ln -fs NORTHERN-SINGER_04-MAY-1983.0500 ../china/1983/830504
ln -fs EASTERN-SINGER_06-OCT-1983.1000 ../china/1983/EASTERN-SINGER_1983-10-06.1000
ln -fs EASTERN-SINGER_06-OCT-1983.1000 ../china/1983/EASTERN-SINGER_831006.1000
ln -fs EASTERN-SINGER_06-OCT-1983.1000 ../china/1983/EASTERN-SINGER_831006
ln -fs EASTERN-SINGER_06-OCT-1983.1000 ../china/1983/831006
ln -fs EASTERN-SINGER_03-OCT-1984.0600 ../china/1984/EASTERN-SINGER_1984-10-03.0600
ln -fs EASTERN-SINGER_03-OCT-1984.0600 ../china/1984/EASTERN-SINGER_841003.0600
ln -fs EASTERN-SINGER_03-OCT-1984.0600 ../china/1984/EASTERN-SINGER_841003
ln -fs EASTERN-SINGER_03-OCT-1984.0600 ../china/1984/841003
ln -fs NORTHERN-SINGER_19-DEC-1984.0600 ../china/1984/NORTHERN-SINGER_1984-12-19.0600
ln -fs NORTHERN-SINGER_19-DEC-1984.0600 ../china/1984/NORTHERN-SINGER_841219.0600
ln -fs NORTHERN-SINGER_19-DEC-1984.0600 ../china/1984/NORTHERN-SINGER_841219
ln -fs NORTHERN-SINGER_19-DEC-1984.0600 ../china/1984/841219
ln -fs EASTERN-SINGER_05-JUN-1987.0500 ../china/1987/EASTERN-SINGER_1987-06-05.0500
ln -fs EASTERN-SINGER_05-JUN-1987.0500 ../china/1987/EASTERN-SINGER_870605.0500
ln -fs EASTERN-SINGER_05-JUN-1987.0500 ../china/1987/EASTERN-SINGER_870605
ln -fs EASTERN-SINGER_05-JUN-1987.0500 ../china/1987/870605
ln -fs NORTHERN-SINGER_29-SEP-1988.0700 ../china/1988/NORTHERN-SINGER_1988-09-29.0700
ln -fs NORTHERN-SINGER_29-SEP-1988.0700 ../china/1988/NORTHERN-SINGER_880929.0700
ln -fs NORTHERN-SINGER_29-SEP-1988.0700 ../china/1988/NORTHERN-SINGER_880929
ln -fs NORTHERN-SINGER_29-SEP-1988.0700 ../china/1988/880929
ln -fs EASTERN-SINGER_26-MAY-1990.0800 ../china/1990/EASTERN-SINGER_1990-05-26.0800
ln -fs EASTERN-SINGER_26-MAY-1990.0800 ../china/1990/EASTERN-SINGER_900526.0800
ln -fs EASTERN-SINGER_26-MAY-1990.0800 ../china/1990/EASTERN-SINGER_900526
ln -fs EASTERN-SINGER_26-MAY-1990.0800 ../china/1990/900526
ln -fs EASTERN-SINGER_16-AUG-1990.0500 ../china/1990/EASTERN-SINGER_1990-08-16.0500
ln -fs EASTERN-SINGER_16-AUG-1990.0500 ../china/1990/EASTERN-SINGER_900816.0500
ln -fs EASTERN-SINGER_16-AUG-1990.0500 ../china/1990/EASTERN-SINGER_900816
ln -fs EASTERN-SINGER_16-AUG-1990.0500 ../china/1990/900816
ln -fs EASTERN-SINGER_21-MAY-1992.0500 ../china/1992/EASTERN-SINGER_1992-05-21.0500
ln -fs EASTERN-SINGER_21-MAY-1992.0500 ../china/1992/EASTERN-SINGER_920521.0500
ln -fs EASTERN-SINGER_21-MAY-1992.0500 ../china/1992/EASTERN-SINGER_920521
ln -fs EASTERN-SINGER_21-MAY-1992.0500 ../china/1992/920521
ln -fs NORTHERN-SINGER_25-SEP-1992.0800 ../china/1992/NORTHERN-SINGER_1992-09-25.0800
ln -fs NORTHERN-SINGER_25-SEP-1992.0800 ../china/1992/NORTHERN-SINGER_920925.0800
ln -fs NORTHERN-SINGER_25-SEP-1992.0800 ../china/1992/NORTHERN-SINGER_920925
ln -fs NORTHERN-SINGER_25-SEP-1992.0800 ../china/1992/920925
ln -fs SINGER_02-NOV-1992 ../china/1992/SINGER_1992-11-02
ln -fs SINGER_02-NOV-1992 ../china/1992/SINGER_921102
ln -fs SINGER_02-NOV-1992 ../china/1992/921102
ln -fs EASTERN-SINGER_05-OCT-1993.0200 ../china/1993/EASTERN-SINGER_1993-10-05.0200
ln -fs EASTERN-SINGER_05-OCT-1993.0200 ../china/1993/EASTERN-SINGER_931005.0200
ln -fs EASTERN-SINGER_05-OCT-1993.0200 ../china/1993/EASTERN-SINGER_931005
ln -fs EASTERN-SINGER_05-OCT-1993.0200 ../china/1993/931005
ln -fs EASTERN-SINGER_10-JUN-1994.0626 ../china/1994/EASTERN-SINGER_1994-06-10.0626
ln -fs EASTERN-SINGER_10-JUN-1994.0626 ../china/1994/EASTERN-SINGER_940610.0626
ln -fs EASTERN-SINGER_10-JUN-1994.0626 ../china/1994/EASTERN-SINGER_940610
ln -fs EASTERN-SINGER_10-JUN-1994.0626 ../china/1994/940610
ln -fs EASTERN-SINGER_07-OCT-1994.0326 ../china/1994/EASTERN-SINGER_1994-10-07.0326
ln -fs EASTERN-SINGER_07-OCT-1994.0326 ../china/1994/EASTERN-SINGER_941007.0326
ln -fs EASTERN-SINGER_07-OCT-1994.0326 ../china/1994/EASTERN-SINGER_941007
ln -fs EASTERN-SINGER_07-OCT-1994.0326 ../china/1994/941007
ln -fs EASTERN-SINGER_15-MAY-1995.0406 ../china/1995/EASTERN-SINGER_1995-05-15.0406
ln -fs EASTERN-SINGER_15-MAY-1995.0406 ../china/1995/EASTERN-SINGER_950515.0406
ln -fs EASTERN-SINGER_15-MAY-1995.0406 ../china/1995/EASTERN-SINGER_950515


```
ln -fs EASTERN-SINGER_15-MAY-1995.0406 ../china/1995/950515
ln -fs EASTERN-SINGER_17-AUG-1995.0100 ../china/1995/EASTERN-SINGER_1995-08-17.0100
ln -fs EASTERN-SINGER_17-AUG-1995.0100 ../china/1995/EASTERN-SINGER_950817.0100
ln -fs EASTERN-SINGER_17-AUG-1995.0100 ../china/1995/EASTERN-SINGER_950817
ln -fs EASTERN-SINGER_17-AUG-1995.0100 ../china/1995/950817
ln -fs EASTERN-SINGER_08-JUN-1996.0256 ../china/1996/EASTERN-SINGER_1996-06-08.0256
ln -fs EASTERN-SINGER_08-JUN-1996.0256 ../china/1996/EASTERN-SINGER_960608.0256
ln -fs EASTERN-SINGER_08-JUN-1996.0256 ../china/1996/EASTERN-SINGER_960608
ln -fs EASTERN-SINGER_08-JUN-1996.0256 ../china/1996/960608
ln -fs NORTHERN-SINGER_29-JUL-1996.0149 ../china/1996/NORTHERN-SINGER_1996-07-29.0149
ln -fs NORTHERN-SINGER_29-JUL-1996.0149 ../china/1996/NORTHERN-SINGER_960729.0149
ln -fs NORTHERN-SINGER_29-JUL-1996.0149 ../china/1996/NORTHERN-SINGER_960729
ln -fs NORTHERN-SINGER_29-JUL-1996.0149 ../china/1996/960729
```