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khmn Holloman AFB, NM (see also HOLL)  
liss San Vito, Italy (see also SVTO)  
phff Palehua, HI (see also PALE - now closed; RSTN ops at Kaena Pt)  
tjff Ramey AFB, Puerto Rico (see also RAMY - SEON closed after 9/2002)

Following are a list of image type codes:

03934 Calcium II K line (3934 A)  
05694 Calcium XV line (5694 A)  
coron Corona  
compo Composite  
drawx Drawing (sunspot)  
05303 Iron XIV line (5303 A)  
06374 Iron X line (6374 A)  
haplh H alpha  
magne Magnetogram, 868.8 nm  
magn2 Magnetogram, Source Surface Fields (proposed 03Jan13)  
magn3 Magnetogram, Photospheric Magnetic Fields (proposed 03Jan13)  
neutl Neutral line drawings  
vmgcv Vectomagnetogram, component V  
white White light  
10830 He I line 10830 A

The miscellaneous info code can be:

fp Full disk image scanned from photograph  
ff Full disk image scanned from film  
fd Full disk image scanned from drawing  
fo Full disk image, offband  
fr Full disk image, limb darkening subtracted (BBSO)  
fs Full disk image, received from observatory  
rp Region image of the Sun scanned from photo  
rf Region image scanned from film  
ro Region image, offband  
sm Synoptic map (Carrington Rotation - see Note)

Note: For synoptic maps use the Carrington Rotation start time for the date and time. In the metadata use crxxxx where "xxxx" is the Carrington Rotation #. See table at back.

File extension name should be as informative as possible, indicating the data format of the file:

fts FITS (Flexible Image Transport System)  
gif GIF (Graphics Interchange Format)  
jpg JPEG (Joint Photographic Experts Group)  
mpg MPEG-1 (Moving Picture Experts Group Phase 1)  
pdf PDF (Portable Document Format)  
tif TIFF (Tagged Image File Format)  
txt ASCII (American Standard Code for Information Interchange)

Added notes:

1. The archive filename convention used for the Boulder H-alpha images is as follows:

"boul\_halfh\_ff\_yyyymmdd\_hhmm\_ccccc.tif"

where:

boul - Boulder Solar observatory  
halfh - H-alpha solar image  
ff - full disk image scanned from film  
yyymmdd - standard date format



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BBAND	Broadband
CAIIK	Calcium II K line
CAXVM	Calcium XV synoptic coronal map
DOPPL	Dopplergram
HALPH	H alpha
HEIMP	He I 10830, synoptic map
MAGFE	Magnetogram, Fe 5250 A
MAGMP	Magnetogram, synoptic map
IGRAM	Intensitygram
RADIO	Radio
VMGAV	Vectomagnetogram, average
VMGCI	Vectomagnetogram, component I
VMGCQ	Vectomagnetogram, component Q
VMGCU	Vectomagnetogram, component U
VMGCV	Vectomagnetogram, component V
VMGTF	Vectomagnetogram, transverse field
WHITE	White light
SOFTX	Soft X rays
HARDX	Hard X rays
00171	Fe IX/X line 171 A
00195	Fe XII line 195 A
00284	Fe XV line 284 A
00304	He II line 304 A
10830	He I line 10830 A

The miscellaneous info code can be:

FD	Full disk
RE	Region of the Sun
LM	Solar Limb Image

Observation date should be in YYYYMMDD format, and observation time should be in HHMM format.

File extension name should be as informative as possible, indicating the data format of the file:

CDF	Common Data Format
FTS	FITS
GIF	GIF
JPG	JPEG
MPG	MPEG-1 (possibly MPEG-2 as well)
PPM	Portable pixmap
YOH	Yohkoh format

In case a field is not determinable, that field should still be filled with proper number of the letter "x".

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Revised 2005-09-08 by Helen Coffey, NOAA NGDC.

#### SOLAR OBSERVATORY STATION LIST

824	ABST	ABASTUMANI, GEORGIAN SSR (ABASTUMANI)
901	ADLE	ADLER PLANATARIUM (CHICAGO)
825	ALMA	MTN OBS, ALMA-ATA, KAZAK SSR (ALMA-ATA)
512	ARCE	ARCETRI, FLORENCE, ITALY (ARCETRI)

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521 AROS AROSA, SWITZERLAND (AROSA)  
 508 (16716) ATHN NATL OBS, ATHENS, GREECE (ATHENES)  
 832 BAKO BAKOU, PIRCULI, USSR (PIRCULI)  
 843 BEOG BEOGRAD (Belgrade), SERBIA  
 549 BERN BERNE  
 902 BEYR BEYROTH  
 650 BIGB BIG BEAR CITY, CALIFORNIA (BIG BEAR)  
 647 BOUL BOULDER, COLORADO  
 560 BUCA NATL OBS, BUCHAREST, ROMANIA (BUCHAREST)  
 323 CAMB CAMBRIDGE  
 321 CANB CANBERRA  
 557 CANR GRAN CANARIA, CANARY IS. (TWO SPELLINGS AND CODES)  
 151 CAPE R.O. CAPETOWN, CAPE OF GOOD HOPE, SOUTH AFRICA CAPETOWN  
 506 CAPF ANACAPRI, ITALY {GERMAN} (CAPRI-G)  
 519 CAPS ANACAPRI, ITALY {SWEDISH} (CAPRI-S)  
 466 CART CARTER OBS, WELLINGTON, NEW ZEALAND (CARTER)  
 570 CATA CATALINA, SICILY, ITALY (CATANIA)  
 450 CHRI CHRISTCHURCH, NEW ZEALAND (CHRISTCHURCH)  
 639 CLMX HIGH ALTITUDE OBS, CLIMAX, COLORADO, USA (CLIMAX)  
 800 COOK COOK (WYNNEWOOD, MR. WYNNE COOK)  
 322 CREI CRETEIL  
 826 CRIM SIMEIS, CRIMEA, RSFSR (CRIMEE, SIMEIZ)  
 403 CRON CARNARVON, AUSTRALIA  
 471 DHRA DEHRA DUN, INDIA  
 402 CULG CULGOORA, AUSTRALIA  
 511 DUNS DUNSINK OBS, DUBLIN, IRELAND (DUNSINK)  
 536 EDIN R.O. EDINBURGH, SCOTLAND (R.O. EDINBURGH)  
 801 EWHU EWHURST (MR. EVERSLED)  
 564 FRIB FRANHOFER INST, FREIBURG, GFR (NEW SCHAUINSLAND)  
 912 GEOR GEOGIANA  
 777 GOES GEOSTATIONARY OPERATIONAL ENVIRONMENTAL SATELLITE  
 478 HALE HALEAKALA, MAUI, HAWAII, USA (HALEAKALA)  
 472 HARV HARVARD COLLEGE OBS, CAMBRIDGE, MA, USA  
 537 HERS (GREE) R. GREENWICH OBS, HERSTMONCEUX, ENGLAND (HERSTMONCEUX)  
 649 (72269) HOLL HOLLOMON AFB, N.MEX (see KHMN in USAF SEON, above - 18 Nov 2011)  
 440 HONO HONOLULU, HAWAII, USA (HAWAII)  
 646 (HOUT)? HOUS HOUSTON, TEXAS, USA  
 563 HTPR HAUTE-PROVENCE, FRANCE (HAUTE-PROVENCE)  
 718 HUAN GEOPHYSICAL INST, HUANCAYO, PERU (HUANCAYO)  
 517 HURB HURBANOVA, CZECHOSLOVAKIA  
 313 IKOM IKOMASAN OBS, KYOTO, JAPAN (KYOTO)  
 358 ISTA UNIV OBS, ISTANBUL, TURKEY (ISTANBUL)  
 831 IZMI IZMIRAN, KRASNAYA, PAKHRA, USSR (NIZMIR, KRASNAYA PAKHRA)  
 382 KAND KANDILLI OBS, ISTANBOUL  
 547 KANZ GRAZ OBS, KANZELHOHE, AUSTRIA (KANZELHOHE)  
 827 KHAR KHARKOV, UKRANIAN, SSR (KHARKOV)  
 828 KIEV KIEV, GAO, UKRANIAN, SSR (KIEV, KO)  
 829 KIKY KIEV, UNIV, UKRANIAN, SSR (KIEV, KY)  
 309 KODA KODAIKANAL, INDIA (KODAIKANAL)  
 403 (94302) LEAR LEARMONTH, WESTERN AUSTRALIA, AUSTRALIA  
 522 LOCA LOCARNO, SWITZERLAND  
 659 LOCK LOCKHEED, LOS ANGELES, CALIFORNIA, USA (LOCKHEED)  
 876 LVOV LVOV, UKRANIAN, SSR (LVOV)  
 468 (98429) MANI MANILA, PHILLIPINE ISLANDS (MANILA)  
 470 MAUR MAURITIUS  
 642 MCMA MCMATH-HULBERT, PONTIAC, MICHIGAN, USA (MCMATH)  
 473 MELB MELBOURNE, AUSTRALIA  
 505 MEUD MEUDON, FRANCE (MEUDON)  
 314 MITK MITAKA, TOKYO, JAPAN (MITAKA)  
 555 MONT MONTE MARIO OBS, ROME, ITALY (ROME)  
 830 MOSC MOSCOU, MOSCOW-GAISH, RSFSR (MOSCOW-G)

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525 MUSW MUSWELL HILL  
643 MWIL MT.WILSON,CALIFORNIA,USA (MT.WILSON)  
515 NERA NEDERHORST DEN BERG,NETHERLANDS (NERA,NEDERHORST)  
310 NIZH NIZAMIAH,HYDERBAD,INDIA (NIZAMIAH)  
504 ONDR ONDREJOV,PRAGUE,CZECHOSLAVIA (ONDREJOV)  
603 OTTA OTTAWA,ONTARIO,CANADA (OTTAWA)  
476 (91178) PALE PALEHUA,HAWAII,USA  
387 PASA PASADENA,CALIFORNIA,USA  
360 PEKG PEKING  
903 POMO POMONA COLLEGE (CLAREMONT)  
548 POTS POTSDAM,GDR (POTSDAM)  
359 PURP PURPLE MTN,NANKING,CHINA (PURPLE MT)  
648 (78514) RAMY RAMEY AFB,PUERTO RICO  
645 SACP SACRAMENTO PEAK,SUNSPOT,NEW MEXICO,USA (SAC PEAK)  
572 SALO SALONIQUE (THESSALONIKA)GREECE (THESSALONIKA)  
520 SALT SALTSJOBADEN,STOCKHOLM,SWEDEN (STOCKHOLM)  
748 SANF SAN FERNANDO, CALIFORNIA  
758 SANM SAN MIGUEL,ARGENTINA (SAN MIGUEL)  
507 SCHA SCHAUINSLAD MT,GFR (SCHAUINSLAND)  
880 SHEM SHEMAKHA (AZERBAISAN) SSR  
802 SHER SHERBORNE (2)  
862 SIBE SIBERIE (SIBERIAN IZMIR) IRKUTSK,RSFSR (IRKUTSK)  
526 SVTO SAN VITO, ITALY  
401 SYDN C.S.I.R.O.SYDNEY,AUSTRALIA (SYDNEY)  
833 TACH TACHKENT,UZBECK,SSR (TASHKENT)  
341 (40754) TEHR TEHRAN,IRAN  
342 TELV TEL AVIV,ISRAEL  
661 TONA TONANTZINTLA,MEXICO (TONANTZINTLA)  
556 TORT TORTOSA,SPAIN (TORTOSA)  
502 UCCL UCCL,R.O.BRUSSELS,BELGIUM (UCCLE)  
474 USNO US NAVAL OBSERVATORY, WASHINGTON, DC, USA  
664 USNR USNRL,WASHINGTON,D.C.,USA (USNRL)  
514 UPIC UPICE,CZECHOSLOVAKIA  
362 URUM URUMQI ASTRONOMICAL STATION, URUMQI, CHINA  
516 UTRE SONNENBORGH OBS,UTRECHT,NETHERLANDS (UTRECHT)  
834 VORO VOROSHILOV,USSR (VOROSHILOV,USSURISK)  
803 WATH WATHEROO  
671 WATU WATUKOSEK, EAST JAVA, INDONESIA  
546 WEND WENDELSTEIN,GFR (WENDELSTEIN)  
804 WHIT WHITEN (WELLESLEY)  
574 WROC WROCLAW,POLAND (WROCLAW)  
805 WORT WORTHING (MR. NEWBEGIN)  
904 YERK YERKES  
361 YUNN YUNNAN  
523 ZURI EIDGENOSSISCHE STERNWORTE,ZURICH,SWITZERLAND (ZURICH)  
324 ZOSE ZO-SE

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Additional Notes - Selected items from the Glossary of Solar-Terrestrial Terms maintained by the NOAA Space Weather Prediction Center. (<http://www.swpc.noaa.gov/info/glossary.html>)

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Corona - The outermost layer of the solar atmosphere, characterized by low densities ( $< 10^9$  cm<sup>-3</sup>) and high temperatures ( $> 10^6$  K).

Doppler Shift - A change in the perceived frequency of a radiated signal caused by motion of the source relative to the observer.

H-Alpha - The first atomic transition in the hydrogen Balmer series; wavelength = 656.3 nm. This absorption line of neutral hydrogen falls in the red part of the visible spectrum and is convenient for solar observations. The Ha line is commonly used for patrol observations of solar flares, filaments, prominences, and the fine structure of active regions.

Magnetogram - A plot showing the amplitude of one or more vector components of a magnetic field versus space or time. Solar magnetograms are a graphic representation of solar magnetic field strengths and polarity.

Neutral Line - The line that separates solar magnetic fields of opposite polarity, typically determined from solar magnetograms recording the longitudinal magnetic component.

Sunspot - An area seen as a dark spot, in contrast with its surroundings, on the photosphere of the Sun. Sunspots are concentrations of magnetic flux, typically occurring in bipolar clusters or groups. They appear dark because they are cooler than the surrounding photosphere. Larger and darker sunspots sometimes are surrounded (completely or partially) by penumbrae. The dark centers are umbrae. The smallest, immature spots are sometimes called pores.

White Light - The sum of all visible wavelengths of light (400-700 nm) so that all colors are blended to appear white to the eye. No pronounced contribution from any one spectral line (or light-emitting element) is implied.

X-ray - Radiation of extremely short wavelength (generally less than 1 nm).

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Table of Carrington Rotation Times (CMP = Central Meridian Passage)

CR	Start	CMP	End
1908	1996.04.08_00:17:51_TAI	1996.04.21_15:23:14_TAI	1996.05.05_06:18:55_TAI
1909	1996.05.05_06:18:55_TAI	1996.05.18_21:06:12_TAI	1996.06.01_11:46:52_TAI
1910	1996.06.01_11:46:52_TAI	1996.06.15_02:22:53_TAI	1996.06.28_16:56:15_TAI
1911	1996.06.28_16:56:15_TAI	1996.07.12_07:28:57_TAI	1996.07.25_22:03:01_TAI
1912	1996.07.25_22:03:01_TAI	1996.08.08_12:40:17_TAI	1996.08.22_03:22:18_TAI
1913	1996.08.22_03:22:18_TAI	1996.09.04_18:10:34_TAI	1996.09.18_09:07:15_TAI
1914	1996.09.18_09:07:15_TAI	1996.10.02_00:14:51_TAI	1996.10.15_15:34:44_TAI
1915	1996.10.15_15:34:44_TAI	1996.10.29_07:06:50_TAI	1996.11.11_22:50:20_TAI
1916	1996.11.11_22:50:20_TAI	1996.11.25_14:43:54_TAI	1996.12.09_06:45:35_TAI
1917	1996.12.09_06:45:35_TAI	1996.12.22_22:52:47_TAI	1997.01.05_15:02:24_TAI
1918	1997.01.05_15:02:24_TAI	1997.01.19_07:11:11_TAI	1997.02.01_23:15:46_TAI
1919	1997.02.01_23:15:46_TAI	1997.02.15_15:12:59_TAI	1997.03.01_07:00:26_TAI
1920	1997.03.01_07:00:26_TAI	1997.03.14_22:37:34_TAI	1997.03.28_14:04:59_TAI
1921	1997.03.28_14:04:59_TAI	1997.04.11_05:22:41_TAI	1997.04.24_20:30:18_TAI
1922	1997.04.24_20:30:18_TAI	1997.05.08_11:27:59_TAI	1997.05.22_02:16:32_TAI
1923	1997.05.22_02:16:32_TAI	1997.06.04_16:57:15_TAI	1997.06.18_07:31:54_TAI
1924	1997.06.18_07:31:54_TAI	1997.07.01_22:02:37_TAI	1997.07.15_12:31:56_TAI
1925	1997.07.15_12:31:56_TAI	1997.07.29_03:02:25_TAI	1997.08.11_17:36:32_TAI
1926	1997.08.11_17:36:32_TAI	1997.08.25_08:16:37_TAI	1997.09.07_23:05:28_TAI
1927	1997.09.07_23:05:28_TAI	1997.09.21_14:05:58_TAI	1997.10.05_05:19:42_TAI
1928	1997.10.05_05:19:42_TAI	1997.10.18_20:46:34_TAI	1997.11.01_12:25:24_TAI
1929	1997.11.01_12:25:24_TAI	1997.11.15_04:14:32_TAI	1997.11.28_20:11:49_TAI
1930	1997.11.28_20:11:49_TAI	1997.12.12_12:14:40_TAI	1997.12.26_04:20:23_TAI
1931	1997.12.26_04:20:23_TAI	1998.01.08_20:26:20_TAI	1998.01.22_12:29:58_TAI
1932	1998.01.22_12:29:58_TAI	1998.02.05_04:28:48_TAI	1998.02.18_20:20:48_TAI
1933	1998.02.18_20:20:48_TAI	1998.03.04_12:05:22_TAI	1998.03.18_03:42:43_TAI
1934	1998.03.18_03:42:43_TAI	1998.03.31_19:12:09_TAI	1998.04.14_10:32:16_TAI
1935	1998.04.14_10:32:16_TAI	1998.04.28_01:41:54_TAI	1998.05.11_16:40:38_TAI
1936	1998.05.11_16:40:38_TAI	1998.05.25_07:28:49_TAI	1998.06.07_22:07:37_TAI
1937	1998.06.07_22:07:37_TAI	1998.06.21_12:39:02_TAI	1998.07.05_03:05:46_TAI
1938	1998.07.05_03:05:46_TAI	1998.06.21_12:39:02_TAI	1998.08.01_09:43:46_TAI
1939	1998.08.01_09:43:46_TAI	1998.06.21_12:39:02_TAI	1998.08.28_16:20:13_TAI
1940	1998.08.28_16:20:13_TAI	1998.06.21_12:39:02_TAI	1998.09.24_22:56:40_TAI
1941	1998.09.24_22:56:40_TAI	1998.10.08_10:30:24_TAI	1998.10.22_02:04:07_TAI
1942	1998.10.22_02:04:07_TAI	1998.11.04_17:48:42_TAI	1998.11.18_09:41:42_TAI
1943	1998.11.18_09:41:42_TAI	1998.12.02_01:40:19_TAI	1998.12.15_17:41:56_TAI
1944	1998.12.15_17:41:56_TAI	1998.12.29_09:44:17_TAI	1999.01.12_01:45:29_TAI
1945	1999.01.12_01:45:29_TAI	1999.01.25_17:43:49_TAI	1999.02.08_09:37:50_TAI
1946	1999.02.08_09:37:50_TAI	1999.02.22_01:27:44_TAI	1999.03.07_17:12:29_TAI
1947	1999.03.07_17:12:29_TAI	1999.03.21_08:51:50_TAI	1999.04.04_00:23:34_TAI
1948	1999.04.04_00:23:34_TAI	1999.04.17_15:45:24_TAI	1999.05.01_06:55:39_TAI
1949	1999.05.01_06:55:39_TAI	1999.05.14_21:53:33_TAI	1999.05.28_12:39:20_TAI
1950	1999.05.28_12:39:20_TAI	1999.06.11_03:14:25_TAI	1999.06.24_17:41:24_TAI
1951	1999.06.24_17:41:24_TAI	1999.07.08_08:03:45_TAI	1999.07.21_22:25:15_TAI
1952	1999.07.21_22:25:15_TAI	1999.08.04_12:49:50_TAI	1999.08.18_03:21:49_TAI
1953	1999.08.18_03:21:49_TAI	1999.08.31_18:05:35_TAI	1999.09.14_09:04:03_TAI
1954	1999.09.14_09:04:03_TAI	1999.09.28_00:17:45_TAI	1999.10.11_15:45:34_TAI
1955	1999.10.11_15:45:34_TAI	1999.10.25_07:25:19_TAI	1999.11.07_23:14:11_TAI
1956	1999.11.07_23:14:11_TAI	1999.11.21_15:09:04_TAI	1999.12.05_07:07:04_TAI
1957	1999.12.05_07:07:04_TAI	1999.12.18_23:05:59_TAI	2000.01.01_15:04:16_TAI
1958	2000.01.01_15:04:16_TAI	2000.01.15_07:00:48_TAI	2000.01.28_22:54:47_TAI
1959	2000.01.28_22:54:47_TAI	2000.02.11_14:46:20_TAI	2000.02.25_06:36:08_TAI
1960	2000.02.25_06:36:08_TAI	2000.03.09_22:23:28_TAI	2000.03.23_14:05:43_TAI
1961	2000.03.23_14:05:43_TAI	2000.04.06_05:39:39_TAI	2000.04.19_21:02:17_TAI
1962	2000.04.19_21:02:17_TAI	2000.05.03_12:11:32_TAI	2000.05.17_03:06:27_TAI
1963	2000.05.17_03:06:27_TAI	2000.05.30_17:47:40_TAI	2000.06.13_08:17:20_TAI
1964	2000.06.13_08:17:20_TAI	2000.06.26_22:38:56_TAI	2000.07.10_12:56:38_TAI
1965	2000.07.10_12:56:38_TAI	2000.07.24_03:15:02_TAI	2000.08.06_17:39:12_TAI
1966	2000.08.06_17:39:12_TAI	2000.08.20_08:14:22_TAI	2000.09.02_23:04:18_TAI
1967	2000.09.02_23:04:18_TAI	2000.09.16_14:10:14_TAI	2000.09.30_05:31:25_TAI
1968	2000.09.30_05:31:25_TAI	2000.10.13_21:05:43_TAI	2000.10.27_12:50:06_TAI
1969	2000.10.27_12:50:06_TAI	2000.11.10_04:41:03_TAI	2000.11.23_20:35:19_TAI
1970	2000.11.23_20:35:19_TAI	2000.12.07_12:30:30_TAI	2000.12.21_04:25:10_TAI
1971	2000.12.21_04:25:10_TAI	2001.01.03_20:18:40_TAI	2001.01.17_12:10:51_TAI
1972	2001.01.17_12:10:51_TAI	2001.01.31_04:02:27_TAI	2001.02.13_19:54:47_TAI
1973	2001.02.13_19:54:47_TAI	2001.02.27_11:47:41_TAI	2001.03.13_03:38:35_TAI
1974	2001.03.13_03:38:35_TAI	2001.03.26_19:23:36_TAI	2001.04.09_11:16:28_TAI
1975	2001.04.09_11:16:28_TAI	2001.04.23_02:25:41_TAI	2001.05.06_17:19:05_TAI
1976	2001.05.06_17:19:05_TAI	2001.05.20_07:58:49_TAI	2001.06.02_22:28:16_TAI
1977	2001.06.02_22:28:16_TAI	2001.06.16_12:51:39_TAI	2001.06.30_03:13:27_TAI
1978	2001.06.30_03:13:27_TAI	2001.07.13_17:37:55_TAI	2001.07.27_08:08:44_TAI
1979	2001.07.27_08:08:44_TAI	2001.08.09_22:48:34_TAI	2001.08.23_13:38:55_TAI
1980	2001.08.23_13:38:55_TAI	2001.09.06_04:40:08_TAI	2001.09.19_19:51:33_TAI
1981	2001.09.19_19:51:33_TAI	2001.10.03_11:11:50_TAI	2001.10.17_02:39:28_TAI

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1982	2001.10.17_02:39:28_TAI	2001.10.30_18:13:08_TAI	2001.11.13_09:52:02_TAI
1983	2001.11.13_09:52:02_TAI	2001.11.27_01:35:56_TAI	2001.12.10_17:25:04_TAI
1984	2001.12.10_17:25:04_TAI	2001.12.24_09:19:42_TAI	2002.01.07_01:19:40_TAI
1985	2002.01.07_01:19:40_TAI	2002.01.20_17:23:58_TAI	2002.02.03_09:30:26_TAI
1986	2002.02.03_09:30:26_TAI	2002.02.17_01:35:48_TAI	2002.03.02_17:35:58_TAI
1987	2002.03.02_17:35:58_TAI	2002.03.16_09:26:42_TAI	2002.03.30_01:04:20_TAI
1988	2002.03.30_01:04:20_TAI	2002.04.12_16:26:25_TAI	2002.04.26_07:32:06_TAI
1989	2002.04.26_07:32:06_TAI	2002.05.09_22:22:19_TAI	2002.05.23_12:59:29_TAI
1990	2002.05.23_12:59:29_TAI	2002.06.06_03:27:15_TAI	2002.06.19_17:49:55_TAI
1991	2002.06.19_17:49:55_TAI	2002.07.03_08:11:56_TAI	2002.07.16_22:37:31_TAI
1992	2002.07.16_22:37:31_TAI	2002.07.30_13:10:06_TAI	2002.08.13_03:52:07_TAI
1993	2002.08.13_03:52:07_TAI	2002.08.26_18:44:51_TAI	2002.09.09_09:48:21_TAI
1994	2002.09.09_09:48:21_TAI	2002.09.23_01:01:49_TAI	2002.10.06_16:23:49_TAI
1995	2002.10.06_16:23:49_TAI	2002.10.20_07:52:51_TAI	2002.11.02_23:27:42_TAI
1996	2002.11.02_23:27:42_TAI	2002.11.16_15:07:41_TAI	2002.11.30_06:52:42_TAI
1997	2002.11.30_06:52:42_TAI	2002.12.13_22:43:00_TAI	2002.12.27_14:38:50_TAI
1998	2002.12.27_14:38:50_TAI	2003.01.10_06:39:51_TAI	2003.01.23_22:44:51_TAI
1999	2003.01.23_22:44:51_TAI	2003.02.06_14:51:23_TAI	2003.02.20_06:55:59_TAI
2000	2003.02.20_06:55:59_TAI	2003.03.05_22:54:28_TAI	2003.03.19_14:42:39_TAI
2001	2003.03.19_14:42:39_TAI	2003.04.02_06:17:04_TAI	2003.04.15_21:35:35_TAI
2002	2003.04.15_21:35:35_TAI	2003.04.29_12:37:47_TAI	2003.05.13_03:24:55_TAI
2003	2003.05.13_03:24:55_TAI	2003.05.26_17:59:43_TAI	2003.06.09_08:25:60_TAI
2004	2003.06.09_08:25:60_TAI	2003.06.22_22:48:09_TAI	2003.07.06_13:10:36_TAI
2005	2003.07.06_13:10:36_TAI	2003.07.20_03:37:27_TAI	2003.08.02_18:11:54_TAI
2006	2003.08.02_18:11:54_TAI	2003.08.16_08:56:11_TAI	2003.08.29_23:51:17_TAI
2007	2003.08.29_23:51:17_TAI	2003.09.12_14:57:02_TAI	2003.09.26_06:12:29_TAI
2008	2003.09.26_06:12:29_TAI	2003.10.09_21:36:08_TAI	2003.10.23_13:06:31_TAI
2009	2003.10.23_13:06:31_TAI	2003.11.06_04:42:31_TAI	2003.11.19_20:23:34_TAI
2010	2003.11.19_20:23:34_TAI	2003.12.03_12:09:42_TAI	2003.12.17_04:01:12_TAI
2011	2003.12.17_04:01:12_TAI	2003.12.30_19:58:12_TAI	2004.01.13_12:00:14_TAI
2012	2004.01.13_12:00:14_TAI	2004.01.27_04:05:48_TAI	2004.02.09_20:12:15_TAI
2013	2004.02.09_20:12:15_TAI	2004.02.23_12:15:54_TAI	2004.03.08_04:12:29_TAI
2014	2004.03.08_04:12:29_TAI	2004.03.21_19:57:56_TAI	2004.04.04_11:29:02_TAI
2015	2004.04.04_11:29:02_TAI	2004.04.18_02:43:60_TAI	2004.05.01_17:42:46_TAI
2016	2004.05.01_17:42:46_TAI	2004.05.15_08:26:57_TAI	2004.05.28_22:59:33_TAI
2017	2004.05.28_22:59:33_TAI	2004.06.11_13:24:33_TAI	2004.06.25_03:46:24_TAI
2018	2004.06.25_03:46:24_TAI	2004.07.08_18:09:29_TAI	2004.07.22_08:37:44_TAI
2019	2004.07.22_08:37:44_TAI	2004.08.04_23:14:11_TAI	2004.08.18_14:00:46_TAI
2020	2004.08.18_14:00:46_TAI	2004.09.01_04:58:13_TAI	2004.09.14_20:06:11_TAI
2021	2004.09.14_20:06:11_TAI	2004.09.28_11:23:32_TAI	2004.10.12_02:48:46_TAI
2022	2004.10.12_02:48:46_TAI	2004.10.25_18:20:27_TAI	2004.11.08_09:57:33_TAI
2023	2004.11.08_09:57:33_TAI	2004.11.22_01:39:42_TAI	2004.12.05_17:26:58_TAI
2024	2004.12.05_17:26:58_TAI	2004.12.19_09:19:39_TAI	2005.01.02_01:17:49_TAI
2025	2005.01.02_01:17:49_TAI	2005.01.15_17:20:47_TAI	2005.01.29_09:26:49_TAI
2026	2005.01.29_09:26:49_TAI	2005.02.12_01:32:60_TAI	2005.02.25_17:35:28_TAI
2027	2005.02.25_17:35:28_TAI	2005.03.11_09:29:58_TAI	2005.03.25_01:12:32_TAI
2028	2005.03.25_01:12:32_TAI	2005.04.07_16:40:14_TAI	2005.04.21_07:51:38_TAI
2029	2005.04.21_07:51:38_TAI	2005.05.04_22:47:03_TAI	2005.05.18_13:28:25_TAI
2030	2005.05.18_13:28:25_TAI	2005.06.01_03:59:01_TAI	2005.06.14_18:22:57_TAI
2031	2005.06.14_18:22:57_TAI	2005.06.28_08:44:42_TAI	2005.07.11_23:08:37_TAI
2032	2005.07.11_23:08:37_TAI	2005.07.25_13:38:25_TAI	2005.08.08_04:16:56_TAI
2033	2005.08.08_04:16:56_TAI	2005.08.21_19:05:51_TAI	2005.09.04_10:05:39_TAI
2034	2005.09.04_10:05:39_TAI	2005.09.18_01:15:46_TAI	2005.10.01_16:34:58_TAI
2035	2005.10.01_16:34:58_TAI	2005.10.15_08:01:42_TAI	2005.10.28_23:34:37_TAI
2036	2005.10.28_23:34:37_TAI	2005.11.11_15:12:50_TAI	2005.11.25_06:56:04_TAI
2037	2005.11.25_06:56:04_TAI	2005.12.08_22:44:29_TAI	2005.12.22_14:38:22_TAI
2038	2005.12.22_14:38:22_TAI	2006.01.05_06:37:40_TAI	2006.01.18_22:41:29_TAI
2039	2006.01.18_22:41:29_TAI	2006.02.01_14:47:50_TAI	2006.02.15_06:53:34_TAI
2040	2006.02.15_06:53:34_TAI	2006.02.28_22:54:40_TAI	2006.03.14_14:46:53_TAI
2041	2006.03.14_14:46:53_TAI	2006.03.28_06:26:26_TAI	2006.04.10_21:50:40_TAI
2042	2006.04.10_21:50:40_TAI	2006.04.24_12:58:31_TAI	2006.05.08_03:50:40_TAI
2043	2006.05.08_03:50:40_TAI	2006.05.21_18:29:23_TAI	2006.06.04_08:58:10_TAI
2044	2006.06.04_08:58:10_TAI	2006.06.17_23:21:15_TAI	2006.07.01_13:43:07_TAI
2045	2006.07.01_13:43:07_TAI	2006.07.15_04:08:01_TAI	2006.07.28_18:39:31_TAI
2046	2006.07.28_18:39:31_TAI	2006.08.11_09:20:11_TAI	2006.08.25_00:11:28_TAI
2047	2006.08.25_00:11:28_TAI	2006.09.07_15:13:34_TAI	2006.09.21_06:25:47_TAI
2048	2006.09.21_06:25:47_TAI	2006.10.04_21:46:45_TAI	2006.10.18_13:14:55_TAI
2049	2006.10.18_13:14:55_TAI	2006.11.01_04:49:02_TAI	2006.11.14_20:28:21_TAI
2050	2006.11.14_20:28:21_TAI	2006.11.28_12:12:40_TAI	2006.12.12_04:02:15_TAI
2051	2006.12.12_04:02:15_TAI	2006.12.25_19:57:20_TAI	2007.01.08_11:57:43_TAI