

Table 1

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
<b>File 1</b>								Log is written but no file exists
<b>fr89h002.fits</b>	Comet 29P/ Schwassmann- Wachmann 1	23:34:59.90	+05:34:58.8	OPEN	"Thu Dec 21 1989"	03:40:30		
<b>fr89h003.fits</b>	Comet 29P/ Schwassmann- Wachmann 1	23:35:00.16	+05:34:59.8	BLUE/ DICHR	"Thu Dec 21 1989"	04:00:07		
<b>fr89h004.fits</b>	Comet 29P/ Schwassmann- Wachmann 1	23:35:00.42	+05:35:00.7	BLUE/ DICHR	"Thu Dec 21 1989"	04:22:28		
<b>fr89h005.fits</b>	2060 Chiron (1977 UB)	07:00:32.77	+15:23:55.5	OPEN	"Thu Dec 21 1989"	04:35:07		
<b>fr89h006.fits</b>	2060 Chiron (1977 UB)	07:00:30.06	+15:23:57.1	OPEN	"Thu Dec 21 1989"	08:39:50		
<b>fr89h007.fits</b>	2060 Chiron (1977 UB)	07:00:29.83	+15:23:57.3	OPEN	"Thu Dec 21 1989"	09:04:08		
<b>File 8</b>								Log is written but no file exists
<b>fr89h009.fits</b>	2060 Chiron (1977 UB)	07:00:29.38	+15:23:57.5	BLUE/ DICHR	"Thu Dec 21 1989"	09:43:30		
<b>fr89h010.fits</b>	2060 Chiron (1977 UB)	07:00:28.92	+15:23:57.8	BLUE/ DICHR	"Thu Dec 21 1989"	10:18:05		
<b>fr89h011.fits</b>	2060 Chiron (1977 UB)	07:00:28.81	+15:23:57.8	BLUE/ DICHR	"Thu Dec 21 1989"	10:28:44		
<b>fr89h012.fits</b>	2060 Chiron (1977 UB)	07:00:28.70	+15:23:57.9	BLUE/ DICHR	"Thu Dec 21 1989"	10:39:28		
<b>fr89h013.fits</b>	2060 Chiron (1977 UB)	07:00:28.58	+15:23:58.0	BLUE/ DICHR	"Thu Dec 21 1989"	10:49:12		
<b>fr89h014.fits</b>	2060 Chiron (1977 UB)	07:00:28.47	+15:23:58.0	BLUE/ DICHR	"Thu Dec 21 1989"	11:00:14		
<b>File 15</b>								Log is written but no file exists
<b>fr89h016.fits</b>	Comet 94P/ Russell 4	07:27:16.94	+27:02:05.6	OPEN	"Thu Dec 21 1989"	11:18:51		Log indicates object not found, image useless; RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a>
<b>fr89h017.fits</b>	Comet 94P/ Russell 4	07:27:30.02	+27:01:08.0	OPEN	"Thu Dec 21 1989"	11:40:39		Log indicates object not found, image useless; RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a>
<b>fr89h018.fits</b>	Comet 94P/ Russell 4	07:27:29.59	+27:01:08.6	OPEN	"Thu Dec 21 1989"	11:49:34		Log indicates object not found, image useless; RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a>
<b>fr89h019.fits</b>	Comet 94P/ Russell 4	07:27:29.17	+27:01:09.2	OPEN	"Thu Dec 21 1989"	11:56:44		Log indicates object not found, image useless; RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a>
<b>fr89h020.fits</b>	Comet 80P/ Peters-Hartley [1990]	11:12:49.85	-29:22:45.4	OPEN	"Thu Dec 21 1989"	12:26:06		RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a> since the one from ephemeris is close but not exact in matching the star field.
<b>fr89h021.fits</b>	Comet 80P/ Peters-Hartley [1990]	11:12:49.85	-29:22:45.4	OPEN	"Thu Dec 21 1989"	12:36:24		RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a> since the one from ephemeris is close but not exact in matching the star field.
<b>fr89h022.fits</b>	157P/Tritton	22:06:06.46	-06:28:12.8	OPEN	"Fri Dec 22 1989"	01:58:15		RA/DEC updated from <a href="http://astrometry.net">astrometry.net</a> since the one from ephemeris is way off.

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h023.fits	157P/Tritton	22:06:06.10	-06:28:17.2	OPEN	"Fri Dec 22 1989"	02:23:07		RA/DEC updated from astrometry.net since the one from ephemeris is way off.
fr89h024.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:18.52	+05:36:06.2	OPEN	"Fri Dec 22 1989"	02:29:46		
fr89h025.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:18.79	+05:36:07.2	BLUE/ DICHR	"Fri Dec 22 1989"	02:45:39		
fr89h026.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:18.92	+05:36:07.2	BLUE/ DICHR	"Fri Dec 22 1989"	02:59:56		
fr89h027.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.19	+05:36:08.7	BLUE/ DICHR	"Fri Dec 22 1989"	03:16:00		
fr89h028.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.33	+05:36:09.2	BLUE/ DICHR	"Fri Dec 22 1989"	03:29:24		
fr89h029.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.46	+05:36:09.7	BLUE/ DICHR	"Fri Dec 22 1989"	03:43:57		
fr89h030.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.73	+05:36:10.7	BLUE/ DICHR	"Fri Dec 22 1989"	03:59:41		
File 31								Log is written, but no file exists
fr89h032.fits	2060 Chiron (1977 UB)	07:00:15.56	+15:24:06.0	OPEN	"Fri Dec 22 1989"	06:17:46		
fr89h033.fits	2060 Chiron (1977 UB)	07:00:15.33	+15:24:06.2	BLUE/ DICHR	"Fri Dec 22 1989"	06:37:52		
fr89h034.fits	2060 Chiron (1977 UB)	07:00:15.10	+15:24:06.3	BLUE/ DICHR	"Fri Dec 22 1989"	06:55:38		
fr89h035.fits	2060 Chiron (1977 UB)	07:00:14.88	+15:24:06.5	BLUE/ DICHR	"Fri Dec 22 1989"	07:15:22		
fr89h036.fits	2060 Chiron (1977 UB)	07:00:14.76	+15:24:06.5	BLUE/ DICHR	"Fri Dec 22 1989"	07:31:02		
fr89h037.fits	2060 Chiron (1977 UB)	07:00:14.53	+15:24:06.7	BLUE/ DICHR	"Fri Dec 22 1989"	07:53:19		
fr89h038.fits	2060 Chiron (1977 UB)	07:00:13.50	+15:24:07.3	BLUE/ DICHR	"Fri Dec 22 1989"	09:16:20		
fr89h039.fits	2060 Chiron (1977 UB)	07:00:13.39	+15:24:07.4	BLUE/ DICHR	"Fri Dec 22 1989"	09:30:08		
fr89h041.fits	2060 Chiron (1977 UB)	07:00:13.05	+15:24:07.6	BLUE/ DICHR	"Fri Dec 22 1989"	09:59:46		
fr89h042.fits	2060 Chiron (1977 UB)	07:00:12.82	+15:24:07.7	BLUE/ DICHR	"Fri Dec 22 1989"	10:16:10		
fr89h043.fits	F1N	09:16:07.85	+14:13:36.2	"V + R"	"Fri Dec 22 1989"	10:36:41	xName	Unknown object, useless
fr89h044.fits	F1N(M)	09:16:17.89	+14:15:42.6	VR	"Fri Dec 22 1989"	10:52:17	xName	Unknown object, useless

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h045.fits	F1N(M)	09:16:17.96	+14:15:41.9	IJ	"Fri Dec 22 1989"	11:06:08	xName	Unknown object, useless
fr89h046.fits	F1N	09:16:08.68	+14:13:38.6	IJ	"Fri Dec 22 1989"	11:22:16	xName	Unknown object, useless
File 47								Log is written, but no file exists
fr89h048.fits	SA 76-280	08:21:00.96	+14:45:25.2	OPEN	"Fri Dec 22 1989"	11:56:36		
fr89h049.fits	SA 76-280	08:21:00.96	+14:45:25.2	OPEN	"Fri Dec 22 1989"	11:58:47		
fr89h050.fits	SA 76-280	08:21:00.96	+14:45:25.2	VR	"Fri Dec 22 1989"	12:02:05		
fr89h051.fits	SA 76-280	08:21:00.96	+14:45:25.2	VR	"Fri Dec 22 1989"	12:03:37		
fr89h052.fits	SA 76-280	08:21:00.96	+14:45:25.2	IJ	"Fri Dec 22 1989"	12:06:40		
fr89h053.fits	SA 76-280	08:21:00.96	+14:45:25.2	IJ	"Fri Dec 22 1989"	12:07:47		
fr89h054.fits	SA 76-280	08:21:00.96	+14:45:25.2	BLUE	"Fri Dec 22 1989"	12:10:10		
fr89h055.fits	SA 76-280	08:21:00.96	+14:45:25.2	BLUE	"Fri Dec 22 1989"	12:11:19		
fr89h056.fits	SA 76-280	08:21:00.96	+14:45:25.2	RED	"Fri Dec 22 1989"	12:12:29		
fr89h057.fits	SA 76-280	08:21:00.96	+14:45:25.2	RED	"Fri Dec 22 1989"	12:13:36		
fr89h058.fits	SA 76-280	08:21:00.96	+14:45:25.2	B/ DICHROIC	"Fri Dec 22 1989"	12:15:01		
fr89h059.fits	SA 76-280	08:21:00.96	+14:45:25.2	B/ DICHROIC	"Fri Dec 22 1989"	12:16:26		
fr89h060.fits	FLAT			B/ DICHROIC	"Fri Dec 22 1989"	12:23:40		
fr89h061.fits	FLAT			B/ DICHROIC	"Fri Dec 22 1989"	12:24:32		
fr89h062.fits	FLAT			B/ DICHROIC	"Fri Dec 22 1989"	12:25:12		
fr89h063.fits	FLAT			OPEN	"Sat Dec 23 1989"	03:35:59	xFilter	
fr89h064.fits	FLAT			OPEN	"Fri Dec 22 1989"	12:31:48		
fr89h065.fits	FLAT			OPEN	"Fri Dec 22 1989"	12:32:33		

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h066.fits	FLAT			IJ	"Fri Dec 22 1989"	12:37:36	xFilter	
fr89h067.fits	FLAT			IJ	"Fri Dec 22 1989"	12:38:34	xFilter	
fr89h068.fits	FLAT			IJ	"Fri Dec 22 1989"	12:40:39	xFilter	
fr89h069.fits	FLAT			VR	"Fri Dec 22 1989"	12:43:04		
fr89h070.fits	FLAT			VR	"Fri Dec 22 1989"	12:43:56		
fr89h071.fits	FLAT			VR	"Fri Dec 22 1989"	12:44:40		
fr89h072.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:38.75	+05:37:21.4	CO+	"Sat Dec 23 1989"	02:44:01		
fr89h073.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:39.03	+05:37:22.5	CO+	"Sat Dec 23 1989"	02:58:13		
fr89h074.fits	29P/ Schwassmann- Wachmann 1	23:35:39.52	+05:37:24.3	B/ DICHROIC	"Sat Dec 23 1989"	03:35:59		
fr89h075.fits	29P/ Schwassmann- Wachmann 1	23:35:39.79	+05:37:25.4	B/ DICHROIC	"Sat Dec 23 1989"	03:54:53		
fr89h076.fits	29P/ Schwassmann- Wachmann 1	23:35:40.00	+05:37:26.2	B/ DICHROIC	"Sat Dec 23 1989"	04:10:58		
fr89h077.fits	ORT97E1	05:57:51.85	+00:01:59.9	OPEN	"Sat Dec 23 1989"	04:46:45		RA/DEC updated from astrometry.net but object unknown.
fr89h078.fits	ORT97E2	05:58:15.65	+00:01:59.8	OPEN	"Sat Dec 23 1989"	04:53:24		RA/DEC updated from astrometry.net but object unknown.
fr89h079.fits	ORT97E3	05:58:43.09	+00:01:59.9	OPEN	"Sat Dec 23 1989"	05:02:56		RA/DEC updated from astrometry.net but object unknown.
fr89h080.fits	ORT97E4	05:59:07.15	+00:01:59.4	OPEN	"Sat Dec 23 1989"	05:13:19		RA/DEC updated from astrometry.net but object unknown.
fr89h081.fits	ORT97E5	05:59:31.13	+00:01:59.1	OPEN	"Sat Dec 23 1989"	05:18:54		RA/DEC updated from astrometry.net but object unknown.
fr89h082.fits	ORT97E6	05:59:55.00	+00:01:58.3	OPEN	"Sat Dec 23 1989"	05:23:42		RA/DEC updated from astrometry.net but object unknown.
fr89h083.fits	ORT97E7	06:00:19.15	+00:01:58.1	OPEN	"Sat Dec 23 1989"	05:28:17		RA/DEC updated from astrometry.net but object unknown.
fr89h084.fits	ORT97E8	06:00:43.07	+00:01:58.3	OPEN	"Sat Dec 23 1989"	05:32:45		RA/DEC updated from astrometry.net but object unknown.
fr89h085.fits	ORT97E9	06:01:06.88	+00:01:57.1	OPEN	"Sat Dec 23 1989"	05:37:09		RA/DEC updated from astrometry.net but object unknown.

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h086.fits	ORT97E10	06:01:31.00	+00:01:57.0	OPEN	"Sat Dec 23 1989"	05:41:17		RA/DEC updated from astrometry.net but object unknown.
fr89h087.fits	2060 Chiron (1977 UB)	06:59:59.70	+15:24:16.4	OPEN	"Sat Dec 23 1989"	05:49:38		
fr89h088.fits	2060 Chiron (1977 UB)	06:59:59.13	+15:24:16.9	OPEN	"Sat Dec 23 1989"	06:40:42		
fr89h089.fits	2060 Chiron (1977 UB)	06:59:58.79	+15:24:17.1	OPEN	"Sat Dec 23 1989"	07:06:55		
fr89h090.fits	2060 Chiron (1977 UB)	06:59:58.79	+15:24:17.1	OPEN	"Sat Dec 23 1989"	07:06:55		
fr89h091.fits	2060 Chiron (1977 UB)	06:59:58.67	+15:24:17.2	B/ DICHROIC	"Sat Dec 23 1989"	07:19:40		
fr89h092.fits	2060 Chiron (1977 UB)	06:59:58.67	+15:24:17.2	B/ DICHROIC	"Sat Dec 23 1989"	07:50:19		
fr89h093.fits	2060 Chiron (1977 UB)	06:59:58.10	+15:24:17.6	B/ DICHROIC	"Sat Dec 23 1989"	08:12:13		
fr89h094.fits	2060 Chiron (1977 UB)	06:59:57.86	+15:24:17.7	B/ DICHROIC	"Sat Dec 23 1989"	08:32:43		
fr89h095.fits	2060 Chiron (1977 UB)	06:59:57.63	+15:24:17.9	B/ DICHROIC	"Sat Dec 23 1989"	08:51:48		
fr89h096.fits	ORT97E1	05:57:58.21	+00:02:24.3	OPEN	"Sat Dec 23 1989"	09:29:11		RA/DEC updated from astrometry.net but object unknown.
fr89h097.fits	ORT97E2	05:58:22.11	+00:02:23.2	OPEN	"Sat Dec 23 1989"	09:34:13		RA/DEC updated from astrometry.net but object unknown.
fr89h098.fits	ORT97E3	05:58:46.08	+00:02:18.9	OPEN	"Sat Dec 23 1989"	09:38:23		RA/DEC updated from astrometry.net but object unknown.
fr89h099.fits	ORT97E4	05:59:10.01	+00:02:16.2	OPEN	"Sat Dec 23 1989"	09:42:22		RA/DEC updated from astrometry.net but object unknown.
fr89h100.fits	ORT97E5	05:59:33.93	+00:02:14.6	OPEN	"Sat Dec 23 1989"	09:46:13		RA/DEC updated from astrometry.net but object unknown.
fr89h101.fits	ORT97E6	05:59:57.87	+00:02:12.8	OPEN	"Sat Dec 23 1989"	09:50:12		RA/DEC updated from astrometry.net but object unknown.
fr89h102.fits	ORT97E7	06:00:21.76	+00:02:11.5	OPEN	"Sat Dec 23 1989"	09:54:03		RA/DEC updated from astrometry.net but object unknown.
fr89h103.fits	ORT97E8	06:00:45.78	+00:02:09.1	OPEN	"Sat Dec 23 1989"	09:57:54		RA/DEC updated from astrometry.net but object unknown.
fr89h104.fits	ORT97E9	06:01:09.59	+00:02:08.5	OPEN	"Sat Dec 23 1989"	10:01:45		RA/DEC updated from astrometry.net but object unknown.
fr89h105.fits	ORT97E10	06:01:33.67	+00:02:07.3	OPEN	"Sat Dec 23 1989"	10:05:37		RA/DEC updated from astrometry.net but object unknown.

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h106.fits	F1N	9:16:07.27	+14:13:06.9	V+R	"Sat Dec 23 1989"	10:15:19		RA/DEC updated from <a href="#">astrometry.net</a> but object unknown.
fr89h107.fits	FIN(M)	9:16:17.07	+14:15:11.4	V+R	"Sat Dec 23 1989"	10:28:43		RA/DEC updated from <a href="#">astrometry.net</a> but object unknown.
fr89h108.fits	FIN(M)	9:16:17.07	+14:15:12.2	IJ	"Sat Dec 23 1989"	10:41:13		RA/DEC updated from <a href="#">astrometry.net</a> but object unknown.
fr89h109.fits	F1N	9:16:07.99	+14:13:13.4	IJ	"Sat Dec 23 1989"	10:55:11		RA/DEC updated from <a href="#">astrometry.net</a> but object unknown.
fr89h110.fits	Comet 94P/ Russell 4	07:26:04.71	+27:10:34.8	OPEN	"Sat Dec 23 1989"	11:11:53		Log indicates object not found, image useless; RA/DEC updated from <a href="#">astrometry.net</a>
fr89h111.fits	Comet 41P/ Tuttle-Giacobini- Kresak [1990]	13:26:52.95	-06:46:42.5	OPEN	"Sat Dec 23 1989"	11:43:13		
fr89h112.fits	Comet 41P/ Tuttle-Giacobini- Kresak [1990]	13:26:56.64	-06:46:56.9	B/ DICHROIC	"Sat Dec 23 1989"	12:01:17		
fr89h113.fits	Comet 41P/ Tuttle-Giacobini- Kresak [1990]	13:27:02.17	-06:47:18.4	B/ DICHROIC	"Sat Dec 23 1989"	12:27:21		
fr89h114.fits	Comet 41P/ Tuttle-Giacobini- Kresak [1990]	13:27:05.85	-06:47:32.7	B/ DICHROIC	"Sat Dec 23 1989"	12:45:46		
fr89h115.fits	FLAT			OPEN	"Sun Dec 24 1989"	01:30:40		
fr89h116.fits	FLAT			OPEN	"Sun Dec 24 1989"	01:32:03		
fr89h117.fits	FLAT			OPEN	"Sun Dec 24 1989"	01:33:05		
fr89h118.fits	FLAT			OPEN	"Sun Dec 24 1989"	01:38:26	No Name in header	
fr89h119.fits	FLAT			V+R	"Sun Dec 24 1989"	01:45:18		
fr89h120.fits	FLAT			V+R	"Sun Dec 24 1989"	01:47:07		
fr89h121.fits	FLAT			IJ	"Sun Dec 24 1989"	01:51:16		
fr89h122.fits	FLAT			IJ	"Sun Dec 24 1989"	01:52:21		
fr89h123.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:59.69	+05:38:41.2	B/ DICHROIC	"Sun Dec 24 1989"	03:01:37		
fr89h124.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:59.83	+05:38:41.8	B/ DICHROIC	"Sun Dec 24 1989"	03:10:32		
fr89h125.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:59.98	+05:38:42.3	B/ DICHROIC	"Sun Dec 24 1989"	03:21:54		

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h126.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.12	+05:38:42.9	B/ DICHROIC	"Sun Dec 24 1989"	03:31:11		
fr89h127.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.26	+05:38:43.5	B/ DICHROIC	"Sun Dec 24 1989"	03:44:47		
fr89h128.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.40	+05:38:44.0	B/ DICHROIC	"Sun Dec 24 1989"	03:52:27		
fr89h129.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.69	+05:38:45.1	B/ DICHROIC	"Sun Dec 24 1989"	04:06:29		
fr89h130.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.69	+05:38:45.1	B/ DICHROIC	"Sun Dec 24 1989"	04:13:29		
fr89h131.fits	2060 Chiron (1977 UB)	06:59:43.97	+15:24:27.5	OPEN	"Sun Dec 24 1989"	05:01:31		
fr89h132.fits	2060 Chiron (1977 UB)	06:59:43.63	+15:24:27.7	B/ DICHROIC	"Sun Dec 24 1989"	05:33:16		
fr89h133.fits	2060 Chiron (1977 UB)	06:59:43.40	+15:24:27.9	B/ DICHROIC	"Sun Dec 24 1989"	05:50:35		
fr89h134.fits	2060 Chiron (1977 UB)	06:59:43.17	+15:24:28.1	B/ DICHROIC	"Sun Dec 24 1989"	06:10:06		
fr89h135.fits	2060 Chiron (1977 UB)	06:59:43.82	+15:24:28.4	B/ DICHROIC	"Sun Dec 24 1989"	06:37:23		
fr89h136.fits	2060 Chiron (1977 UB)	06:59:42.13	+15:24:28.9	B/ DICHROIC	"Sun Dec 24 1989"	07:35:54		
fr89h137.fits	2060 Chiron (1977 UB)	06:59:41.89	+15:24:29.0	B/ DICHROIC	"Sun Dec 24 1989"	07:58:36		
fr89h138.fits	2060 Chiron (1977 UB)	06:59:41.78	+15:24:29.1	B/ DICHROIC	"Sun Dec 24 1989"	08:11:58		
fr89h139.fits	2060 Chiron (1977 UB)	06:59:41.55	+15:24:29.3	B/ DICHROIC	"Sun Dec 24 1989"	08:27:58		
fr89h140.fits	2060 Chiron (1977 UB)	06:59:41.55	+15:24:29.3	B/ DICHROIC	"Sun Dec 24 1989"	08:33:47		
fr89h141.fits	2060 Chiron (1977 UB)	06:59:40.97	+15:24:29.7	B/ DICHROIC	"Sun Dec 24 1989"	09:20:13		
fr89h142.fits	2060 Chiron (1977 UB)	06:59:40.85	+15:24:29.8	B/ DICHROIC	"Sun Dec 24 1989"	09:34:28		
fr89h143.fits	2060 Chiron (1977 UB)	06:59:40.62	+15:24:29.9	B/ DICHROIC	"Sun Dec 24 1989"	09:54:46		
fr89h144.fits	2060 Chiron (1977 UB)	06:59:40.39	+15:24:30.1	B/ DICHROIC	"Sun Dec 24 1989"	10:09:33		
fr89h145.fits	2060 Chiron (1977 UB)	06:59:40.27	+15:24:30.2	B/ DICHROIC	"Sun Dec 24 1989"	10:23:37		

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
fr89h146.fits	2060 Chiron (1977 UB)	06:59:40.04	+15:24:30.3	B/ DICHROIC	"Sun Dec 24 1989"	10:36:54		
sp89h001.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:00.03	+05:34:59.3		"Thu Dec 21 1989"	03:51:08		
sp89h002.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:00.16	+05:34:59.8		"Thu Dec 21 1989"	04:02:04		
sp89h003.fits	2060 Chiron (1977 UB)	07:00:29.60	+15:23:57.4		"Thu Dec 21 1989"	09:21:46		
sp89h004.fits	BS 2008	05:46:27.37	-46:35:49.9		"Thu Dec 21 1989"	10:04:58		
sp89h005.fits	BS 2008	05:46:27.37	-46:35:49.9		"Thu Dec 21 1989"	10:06:05		
sp89h006.fits	BS 2008	05:46:27.37	-46:35:49.9		"Thu Dec 21 1989"	10:06:57		
sp89h007.fits	BS 2008	05:46:27.37	-46:35:49.9		"Thu Dec 21 1989"	10:08:57		
sp89h008.fits	BS 2008	05:46:27.37	-46:35:49.9		"Thu Dec 21 1989"	10:10:44		
sp89h009.fits	BS 2008	05:46:27.37	-46:35:49.9		"Thu Dec 21 1989"	10:10:44		Image duplicate of 8
sp89h010.fits	2060 Chiron (1977 UB)	07:00:28.92	+15:23:57.8		"Thu Dec 21 1989"	10:18:18		
sp89h011.fits	2060 Chiron (1977 UB)	07:00:28.70	+15:23:57.9		"Thu Dec 21 1989"	10:40:02		
sp89h012.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:18.65	+05:36:06.7		"Fri Dec 22 1989"	02:43:40		
sp89h013.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.06	+05:36:08.2		"Fri Dec 22 1989"	03:05:38		
sp89h014.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.33	+05:36:09.2		"Fri Dec 22 1989"	03:27:32		
sp89h015.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:19.60	+05:36:10.2		"Fri Dec 22 1989"	03:50:15		
sp89h016.fits	BS 8631	22:40:52.68	+14:32:57.0		"Fri Dec 22 1989"	04:18:13		
sp89h017.fits	BS 8631	22:40:52.68	+14:32:57.0		"Fri Dec 22 1989"	04:19:53		
sp89h018.fits	BS 8631	22:40:52.68	+14:32:57.0		"Fri Dec 22 1989"	04:21:02		
sp89h019.fits	BS 560	01:55:53.83	+01:50:59.9		"Fri Dec 22 1989"	04:30:08	xName	



File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
sp89h020.fits	BS 560	01:55:53.83	+01:50:59.9		"Fri Dec 22 1989"	04:31:17	xName	
sp89h021.fits	BS 560	01:55:53.83	+01:50:59.9		"Fri Dec 22 1989"	04:32:19		
sp89h022.fits	2060 Chiron (1977 UB)	07:00:15.45	+15:24:06.1		"Fri Dec 22 1989"	06:29:33		
sp89h023.fits	2060 Chiron (1977 UB)	07:00:15.10	+15:24:06.3		"Fri Dec 22 1989"	06:59:04		
sp89h024.fits	2060 Chiron (1977 UB)	07:00:14.88	+15:24:06.5		"Fri Dec 22 1989"	07:21:17		
sp89h025.fits	2060 Chiron (1977 UB)	07:00:14.65	+15:24:06.6		"Fri Dec 22 1989"	07:42:51		
sp89h026.fits	2060 Chiron (1977 UB)	07:00:14.42	+15:24:06.8		"Fri Dec 22 1989"	08:04:01		
sp89h027.fits	BS 2067	05:56:03.43	+13:55:29.7		"Fri Dec 22 1989"	08:41:34	xName	
sp89h028.fits	BS 2067	05:56:03.43	+13:55:29.7		"Fri Dec 22 1989"	08:43:50	xName	
sp89h029.fits	BS 2067	05:56:03.43	+13:55:29.7		"Fri Dec 22 1989"	08:45:07	xName	
sp89h030.fits	BS 3626	09:08:47.33	+26:37:44.8		"Fri Dec 22 1989"	08:59:26		
sp89h031.fits	BS 3626	09:08:47.33	+26:37:44.8		"Fri Dec 22 1989"	09:00:38		
sp89h032.fits	BS 3626	09:08:47.33	+26:37:44.8		"Fri Dec 22 1989"	09:05:09		
sp89h033.fits	2060 Chiron (1977 UB)	07:00:13.62	+15:24:07.3		"Fri Dec 22 1989"	09:14:07		
sp89h034.fits	2060 Chiron (1977 UB)	07:00:13.28	+15:24:07.5		"Fri Dec 22 1989"	09:37:23		
sp89h035.fits	2060 Chiron (1977 UB)	07:00:13.05	+15:24:07.6		"Fri Dec 22 1989"	09:58:52		
sp89h036.fits	Comet 29P/ Schwassmann-Wachmann 1	23:35:39.59	+05:37:24.6		"Sat Dec 23 1989"	03:35:59		
sp89h037.fits	Comet 29P/ Schwassmann-Wachmann 1	23:35:39.86	+05:37:25.7		"Sat Dec 23 1989"	03:57:24		
sp89h038.fits	BS 448	01:33:42.84	-07:01:31.2		"Sat Dec 23 1989"	04:26:52		
sp89h039.fits	BS 448	01:33:42.84	-07:01:31.2		"Sat Dec 23 1989"	04:28:09		

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
sp89h040.fits	BS 448	01:33:42.84	-07:01:31.2		"Sat Dec 23 1989"	04:30:50		
sp89h041.fits	2060 Chiron (1977 UB)	06:59:58.67	+15:24:17.2		"Sat Dec 23 1989"	07:19:50		
sp89h042.fits	2060 Chiron (1977 UB)	06:59:58.56	+15:24:17.2		"Sat Dec 23 1989"	07:31:35		
sp89h043.fits	2060 Chiron (1977 UB)	06:59:58.33	+15:24:17.4		"Sat Dec 23 1989"	07:53:26		
sp89h044.fits	2060 Chiron (1977 UB)	06:59:58.10	+15:24:17.6		"Sat Dec 23 1989"	08:14:51		
sp89h045.fits	2060 Chiron (1977 UB)	06:59:57.75	+15:24:17.8		"Sat Dec 23 1989"	08:35:59		
sp89h046.fits	BS 3626	09:08:47.33	+26:37:44.8		"Sat Dec 23 1989"	09:01:55		
sp89h047.fits	BS 3626	09:08:47.33	+26:37:44.8		"Sat Dec 23 1989"	09:03:57		
sp89h048.fits	BS 3626	09:08:47.33	+26:37:44.8		"Sat Dec 23 1989"	09:05:10		
sp89h049.fits	BS 3626	09:08:47.33	+26:37:44.8		"Sat Dec 23 1989"	09:06:05		
sp89h050.fits	BS 3314	08:25:39.63	-03:54:23.1		"Sat Dec 23 1989"	09:17:04		
sp89h051.fits	BS 3314	08:25:39.63	-03:54:23.1		"Sat Dec 23 1989"	09:18:26		
sp89h052.fits	BS 3314	08:25:39.63	-03:54:23.1		"Sat Dec 23 1989"	09:19:46		
sp89h053.fits	BS 3314	08:25:39.63	-03:54:23.1		"Sat Dec 23 1989"	09:21:05		
sp89h054.fits	Comet 41P/ Tuttle-Giacobini-Kresak [1990]	13:26:58.48	-06:47:04.0		"Sat Dec 23 1989"	12:06:06		
sp89h055.fits	Comet 41P/ Tuttle-Giacobini-Kresak [1990]	13:27:02.17	-06:47:18.4		"Sat Dec 23 1989"	12:27:53		
sp89h056.fits	BS 8931	23:31:31.50	-04:05:14.6		"Sun Dec 24 1989"	02:34:58		
sp89h057.fits	BS 8931	23:31:31.50	-04:05:14.6		"Sun Dec 24 1989"	02:39:20		
sp89h058.fits	BS 8931	23:31:31.50	-04:05:14.6		"Sun Dec 24 1989"	02:42:09		
sp89h059.fits	BS 8931	23:31:31.50	-04:05:14.6		"Sun Dec 24 1989"	02:43:01		

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
sp89h060.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:59.55	+05:38:40.7		"Sun Dec 24 1989"	02:51:11		
sp89h061.fits	Comet 29P/ Schwassmann- Wachmann 1	23:35:59.83	+05:38:41.8		"Sun Dec 24 1989"	03:12:28		
sp89h062.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.12	+05:38:42.9		"Sun Dec 24 1989"	03:33:25		
sp89h063.fits	Comet 29P/ Schwassmann- Wachmann 1	23:36:00.40	+05:38:44.0		"Sun Dec 24 1989"	03:54:31		
sp89h064.fits	BS 560	01:55:53.83	+01:50:59.9		"Sun Dec 24 1989"	04:23:22		
sp89h065.fits	BS 560	01:55:53.83	+01:50:59.9		"Sun Dec 24 1989"	04:25:53		
sp89h066.fits	BS 560	01:55:53.83	+01:50:59.9		"Sun Dec 24 1989"	04:29:16		
sp89h067.fits	BS 560	01:55:53.83	+01:50:59.9		"Sun Dec 24 1989"	04:30:12		
sp89h068.fits	Above output obtained by running: <code>hselect fr*.fits \$l,object,ra,dec,filter,date,ut-strt yes &gt; 89h_hselect</code> The <b>Log Differences</b> and <b>Comments</b> columns are the observations noted after comparing the FITS header with log sheets.							
sp89h069.fits	BS 718	02:28:09.54	+08:27:36.2		"Sun Dec 24 1989"	04:43:57		
sp89h070.fits	BS 718	02:28:09.54	+08:27:36.2		"Sun Dec 24 1989"	04:46:10		
sp89h071.fits	BS 718	02:28:09.54	+08:27:36.2		"Sun Dec 24 1989"	04:47:05		
sp89h072.fits	2060 Chiron (1977 UB)	06:59:43.28	+15:24:28.0		"Sun Dec 24 1989"	05:57:52		
sp89h073.fits	2060 Chiron (1977 UB)	06:59:43.05	+15:24:28.2		"Sun Dec 24 1989"	06:19:32		
sp89h074.fits	2060 Chiron (1977 UB)	06:59:41.89	+15:24:29.0		"Sun Dec 24 1989"	07:59:10		
sp89h075.fits	BS 2251	06:17:16.14	+05:06:00.4		"Sun Dec 24 1989"	09:06:55	xName	
sp89h076.fits	BS 2251	06:17:16.14	+05:06:00.4		"Sun Dec 24 1989"	09:09:38	xName	
sp89h077.fits	BS 2251	06:17:16.14	+05:06:00.4		"Sun Dec 24 1989"	09:10:46	xName	
sp89h078.fits	BS 2251	06:17:16.14	+05:06:00.4		"Sun Dec 24 1989"	09:14:45	xName	
sp89h079.fits	2060 Chiron (1977 UB)	06:59:40.97	+15:24:29.7		"Sun Dec 24 1989"	09:22:42		

File	Object	RA set	DEC set	Filter	Date	UT-STRT	Log Differences	Comments (N left E up, rotate 90 CCW)
sp89h080.fits	2060 Chiron (1977 UB)	06:59:40.85	+15:24:29.8		"Sun Dec 24 1989"	09:34:17		
sp89h081.fits	2060 Chiron (1977 UB)	06:59:40.50	+15:24:30.0		"Sun Dec 24 1989"	09:55:48		
sp89h082.fits	2060 Chiron (1977 UB)	06:59:40.27	+15:24:30.2		"Sun Dec 24 1989"	10:17:09		