JADE LOGBOOK XXI Run 29617 – end

Ein Brunnen-Erzeugnis

JADE LOGBOOK

XXI

Run 29617

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_0 Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 2 2T. Ev. ≥ 2 TR	Processors on/off NSO	MIP	TOF	FAN

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$. Exp. Energy	IBM Tape Output	At Run Start TOF [V]	At Run Start ID [mA]	Online Reject Sum mirror T_2 %	Online Reject NORDSO T_1/T_2 %	Σ Bhabha	M/H	E_{beam}	Mag Field -1 * C	Remarks

7. 10. 1986

5^{00} Bartel on shift

6^{55} 'Error in opening file for Read 00034 2' on TTY no action taken

08^{00} Owen Davies on shift.

Gas check done - Ok.

0835 IBM-PC VTX-Wire Mag Deviation 1 - Spike In Jetc Mean A^+, A^- Histogram

0920 " " " " 2

Reload J68k As Advised. - Ok

1130 YSPY Error 4 - Lead Glass Energy/Event Error >20, Repeated 5 Minutes Later.

Look At Hist 131. Dip Between Bins 0-10 ($\sim 0.2 \times 10^3$)

1154 Check 131 For Present Run, Dip Disappeared ($\sim 1.5 \times 10^5$).

12^{00} Hagemann on shift

13^{21} JOAS error 53 - System crate watchdog flag PKRMS 000002 177777

14^{57} All chambers tripped - beams lost.

16^{00} Zimme on shift Gas check done O.k.

17:09 IBM down → Stop Run new Run on Tape

Run 29634 Started but no Data written due to "bad tape probably Eom (Tape JOAS06)

tried to Stop Run → Console gives no response so I had to reload the NORD

reloaded Tape (JOAS06) and took next one (JOAS07)

Run 29635 Started → Seems to be a bad Tape

17^{35} IBM up again

19^{30} Greenshaw on shift

8.10.86 0^{00} H. Mills on shift

Gas check done. Ok

Deadtime rises as fill progresses.

2:15 MOP crash exception 804 at use address $74872

4^{00} Eckerlin on shift

4:06 J68K-load

4:58 hard trip of [redacted] chamber and Jetch.

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records IN	Records OUT	All $*10^6$	T_ϕ Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 12 2T. Et. ≥ 2 TR	Processors ON/OFF NSO	MIP	TOF	FAMP
29617	7.10.	4:49	5:32	8.74	8.79	19.9	2499	8002	4936	650	129	5429	4836	1219	32	ON	ON	ON	OFF
29618	"	5:33	6:17	7.28	7.22	19.2	2595	8002	4696	675	130	5460	4940	1195	29	"	"	"	"
29619	"	6:18	6:20	5.83	5.90	10.0	84	281	167	22	4	168	171	39	1	"	"	"	"
29620	"	6:53	7:36	10.01	10.34	19.6	2510	8002	5196	653	128	5348	4975	1345	29	"	"	"	"
29621	"	7:36	8:19	8.37	8.63	19.6	2502	8002	4895	650	127	5402	4919	1289	28	"	"	"	"
29622	"	8:20	9:02	7.11	7.35	19.7	2548	8002	4694	662	130	5487	4834	1202	37	"	"	"	"
29623	"	9:03	9:32	5.94	6.19	18.9	1740	5348	3101	452	85	3589	3306	751	23				
29624	"	10:51	11:31	10.32	10.89	20.3	2391	8002	5324	622	126	5317	4700	1306	23	"	"	"	"
29625	"	11:31	12:11	7.41	7.86	22.2	2340	8002	5104	608	134	5310	4941	1380	49	"	"	"	"
29626	"	12:12	12:34	7.35	7.81	22.6	1311	4513	2828	341	77	3014	2764	742	18	"	"	"	"
29627	"	12:36	12:59	6.63	7.14	22.1	1387	4670	2926	361	80	3164	2837	734	24	"	"	"	"
29628	"	13:00	13:28	5.94	6.47	21.3	1662	5371	3275	433	92	3564	3416	880	17	"	"	"	"
29629	"	14:09	14:47	10.76	10.78	22.1	2297	8002	5286	597	132	5328	4741	1420	30	"	"	"	"
29630	"	14:48	14:57	9.08	9.10	22.4	547	1907	1266	142	32	1294	1126	335	7	"	"	"	"
29631	"	15:45	16:24	10.64	10.92	21.2	2352	8002	5245	611	129	5273	4809	1355	151	"	"	"	"
29632	"	16:25	17:03	9.00	9.26	22.8	2261	8002	5099	588	133	5401	4706	1378	42	"	"	"	"
29633	"	17:03	17:09	7.62	7.87	24.2	347	1221	755	90	21	794	763	187	6	"	"	"	"
29634																			
29635	"	17:31	18:11	6.91	7.15	23.4	2390	8002	4938	621	145	5319	5048	1343	53	"	"	"	"
29636	"	18:13	18:29	5.70	5.92	21.7	928	3022	1818	241	52	1988	1937	476	10	"	"	"	"
29637	"	19 26	20 06	10.13	10.35	22.4	2309	8002	5172	601	134	5254	4785	1333	40	"	"	"	"
29638	"	20 06	20 44	8.59	8.80	23.4	2283	8002	4978	598	134	5368	4816	1368	41	"	"	"	"
29639	"	20 44	21 23	7.27	7.46	24.8	2296	8002	4941	697	148	5316	4919	1350	34	"	"	"	"
29640	"	21 23	21 51	6.14	6.36	23.0	1582	5368	3227	412	94.7	3526	3367	806	21	"	"	"	"
29641	"	22 30	23 09	10.75	10.64	22.2	2292	8002	5323	596	133	5324	4742	1427	33	"	"	"	"
29642	"	23 09	23 47	9.08	8.99	23.1	2271	8002	4972	590	136	5307	4879	1311	36	"	"	"	"
29643	"	23 47	0 27	7.69	7.61	24.1	2319	8002	4964	602	145	5299	5016	1296	34	"	"	"	"
29644	8.x10.86	0 27	0 44	6.52	6.44	23.0	1259	4339	2637	326	75	2574	2642	690	22	"	"	"	"
29645	"	1 27	2 06	10.55	10.72	23.2	2260	8002	5240	587	136	5284	4876	1415	32	"	"	"	"
29646	"	2.06	2 45	8.95	9.11	24.1	2275	8002	4947	591	142	5287	4972	1334	31	"	"	"	"
29647	"	2 45	3 23	7.59	7.73	25.1	2240	8002	4856	582	146	5262	5005	1292	34	"	"	"	"
29648	"	3 23	3 57	6.47	6.61	26.3	1994	6992	4149	518	136	4649	4549	1097	32	"	"	"	"
29649	"	4:35	5:16	10.58	10.69	21.6	2114	7213	4654	550	119	4808	4.274	1235	31	"	"	"	"
29650	"	5:30	6:07	8.40	8.51	27.7	2245	8002	5006	584	162	5219	5156	1307	49	"	"	"	"

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$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int L dt$ nb^{-1}	$\int L dt$. Exp. Energy	IBM Tape Output	At Run Start TOF [V]	At Run Start ID [μA]	Online Reject Sum MIP T_2 %	Online Reject NSO T_1+T_2 %	Σ Bhabha	M/H	E_{beam}	MAG FIELD -1 * G	REMARKS
6.99	19.87	71899.01	IBM	1.0	0.1	52	39	349	2	17.500	4840	
4.93	16.68	71915.69	"	1.0	0.1	54	42	293	2	"	"	
3.94	0.46	71916.15	"	1.0	0.1	46	44	8	0	"	"	beams dumped
8.19	25.22	71941.37	"	1.3	0.2	52	36	443	4	"	"	
6.68	19.99	71961.36	"	1.1	0.1	52	40	351	7	17.503	4841	
5.03	16.69	71978.05	"	1.1	0.15	53	43	293	4	17.503	4841	
3.90	8.77	71986.82	"	1.1	0.15	52	43	154	1	17.503	4840	BEAMS DUMPED
9.06	27.27	72014.09	"	1.2	0.20	48	34	479	6	17.500	4840	
8.07	22.54	72036.63	"	1.2	0.20	50	37	396	5	17.500	4840	
6.88	11.50	72048.13	"	1.2	0.20	52	39	202	3	17.500	4843	
5.86	9.68	72057.81	JDA505	1.2	0.20	52	38	170	4	17.503	4843	
4.91	9.85	72067.66	IBM	1.2	0.20	52	40	173	5	17.500	4844	beams dumped
10.04	29.90	72097.56	"	1.4	0.2	49	35	525	10	17.503	4844	
8.71	6.83	72104.39	"	1.4	0.2	51	35	120	3	17.500	4844	beams lost
3.40	27.05	72131.44	"	1.2	0.2	49	35	475	9	17.503	4844	
8.00	24.25	72155.69	"	1.35	0.2	50	37	426	6	17.500	4843	
6.91	3.02	72158.71	"	1.50	0.2	50	40	54	0	17.500	4844	
				1.40	0.2							Run lost due to bad Tape (JDA506)
5.43	17.37	72176.08	JDA506	1.40	0.2	53	45	305	2	17.503	4844	
4.55	5.18	72181.26	IBM	1.40	0.2	53	41	91	2	17.500	4843	beams dumped
8.77	24.72	72206.03	IBM	1.5	0.2	49	36	435	8	17.500	4842	
2.74	21.58	72227.61	"	1.5	0.2	51	39	379	9	"	"	
5.88	17.08	72244.69	"	1.6	0.2	51	39	300	9	"	"	
4.56	8.14	72252.83	"	1.5	0.2	51	41	143	3	"	"	Beams dumped
9.61	27.45	72280.28	"	1.5	0.2	50	34	482	10	"	"	
7.47	20.27	72300.55	"	1.4	0.2	51	39	356	7	"	"	
5.95	18.96	72319.51	"	1.6	0.25	52	39	333	7	"	"	
4.93	7.40	72326.91	"	1.65	0.2	51	40	130	2	"	"	Beams dumped
9.10	27.84	72354.80	"	1.5	0.2	50	36	490	8	"	4837	
6.90	18.79	72373.59	"	1.5	0.2	52	39	330	2	"	4839	
5.32	14.01	72387.60	"	~~1.7~~	~~0.25~~	51	40	246	4	"	"	
4.40	12.19	72399.79	"	1.7	0.25	55	42	214	2	"	"	Beams dumped
8.34	22.04	72421.83	"	1.3	0.20	49	37	387	9	17.503	4836	
6.13	15.54	72437.37	"	1.8	0.25	51	39	273	2	17.500	4837	

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Run	Date	Start	Stop	At run start I^+	At run start I^-	Dead time %	Time (secs)	Records IN	Records OUT	All $*10^6$	T_ϕ Raj. $*10^6$	T_1 Acc SUM	T_2 Acc SUM	T_1 Bit 2 $E_{L6}>6$ GeV	T_2 Bit 2T. Et. ≥ 2 TR	Processors on/off NSO	MIP	TOF	FAMP
29651	8.10.	6:08	6:48	7.13	7.23	27.6	2248	8002	4326	585	161	5181	5071	1265	30	ON	ON	ON	OFF
29652	"	6:49	7:07	5.95	6.04	27.3	1078	3824	2317	281	77	2507	2380	602	27	"	"	"	"
29653	"	7.35	8.12	10.30	10.29	29.8	2158	8002	5362	561	167	5153	4893	1351	37	"	"	"	"
29654	"	8.11	8.49	8.34	8.36	26.1	2229	8002	4900	580	151	5219	5143	1304	43	"	"	"	"
29655	"	9.21	9.23	5.91	5.92	23.4	106	434	259	28	6	298	192	71	2	"	"	"	"
29656	"	9.50	10.28	10.64	10.62	24.4	2239	8002	5145	583	142	5232	4853	1395	34	"	"	"	"
29657	"	10.29	11.05	9.01	9.00	26.1	2168	8002	5013	564	147	5289	5016	1328	40	"	"	"	"
29658	"	11.05	11.42	7.60	7.59	30.4	2164	8002	4935	563	171	5220	5205	1341	36	"	"	"	"
29660	"	11.43	12.17	6.38	6.37	30.2	1974	7335	4538	513	155	4748	4793	1222	33	"	"	"	"
29661	"	12.18	12.36	5.44	5.44	29.1	961	3429	2068	250	72	2199	2331	511	20	"	"	"	"
29662	"	13.02	13.37	10.65	10.71	25.0	1998	7250	4639	520	129	4800	4467	1188	38	"	"	"	"
29663	"	13.38	14.20	9.14	9.19	26.5	429	8002	5058	554	147	5305	5084	1320	35	"	"	"	"
29664	"	14.20	15.13	7.54	7.59	28.9	2090	8002	4866	543	157	5339	5069	1367	32	"	"	"	"
29665	"	15.14	15.21	5.90	5.95	33.5	408	1543	911	106	35	990	936	235	8	"	"	"	"
29666	"	16:16	16:53	10.86	10.91	26.2	1488	5886	3587	388	102	3628	3420	934	28	"	"	"	"
29667	"	17.55	18:19	6.89	6.85	33.6	1125	4382	2787	292	98	2922	2690	657	20	"	"	"	"
29668	"	18.45	19:13	5.44	5.49	29.9	1634	6031	3581	425	127	3992	4035	931	22	"	"	"	"
29669	"	19:49	20.27	10.99	10.96	25.3	2190	8002	5230	570	144	5361	4827	1323	32	"	"	"	"
29670	"	20.27	20.53	9.39	9.37	28.3	1549	6027	3851	403	114	4079	3625	1022	35	"	"	"	"
29671	"	21.00	21:39	8.06	8.04	32.9	2068	8002	5029	538	177	5359	4976	1300	33	"	"	"	"
29672	"	21.40	22:15	6.68	6.66	32.5	2081	8002	4800	541	176	5347	5199	1313	42	"	"	"	"
29673	"	22:53	23:29	10.68	10.85	26.0	2149	8002	5178	559	145	5302	5019	1292	28	"	"	"	"
29674	"	23.29	0:04	9.11	9.27	29.9	2074	8002	4936	539	161	5317	5009	1323	30	"	"	"	"
29675	9/10/86	0:07	0:41	7.65	7.77	32.2	2043	8002	4910	531	171	5287	5106	1287	35	"	"	"	"
29676	"	0:41	0:57	6.43	6.55	33.2	894	3612	2196	232	77	2384	2302	591	18	"	"	"	"
29677	"	01.35	2:11	10.6	10.65	26.1	2138	8002	5182	556	145	5312	4979	1328	34	"	"	"	"
29678	"	2:19	2:53	8.20	8.74	32	2037	8002	4934	529	169	5289	5046	1313	41	"	"	"	"
29679	"	2:59	3:02	6.03	6.27	39.8	216	843	507	56	22	536	547	139	4	"	"	"	"
29680	"	3:35	4:10	9.27	9.39	30.3	2068	8002	5024	538	163	5344	5007	1288	43	"	"	"	"
29681	"	4.14	4:48	7.79	7.84	33.1	2018	8002	4866	525	174	5291	5136	1282	30	"	"	"	"
29682	"	4:48	5.19	6.49	6.58	35.5	1840	7282	4389	479	170	4762	4730	1204	44	"	"	"	"
29683	"	5.49	6.25	10.72	10.69	26.7	2124	8002	5236	552	148	5367	4973	1281	28	"	"	"	"
29684	"	6.25	6:58	9.08	9.06	31.7	1958	8002	4901	509	161	5372	4940	1385	35	"	"	"	"
29685	"	6:59	7:32	7.72	7.70	37.6	1987	8002	4986	517	194	5243	5084	1370	29	"	"	"	"
29686	"	7:32	7.55	6.47	6.45	38.5	1332	5403	3325	347	134	3514	3523	873	20	"	"	"	"

$\langle L \rangle$ 10^{30} cm^{-2}s^{-1}	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$ Exp. energy	IBM tape output	At run start TOF [V]	At run start ID [mA]	Online reject sum mpc T_2 %	Online reject NOROSO T_1+T_2 %	Σ Bhabha	M/H	E_{beam}	Mag field -1*G	Remarks
4.59	13.21	72450.58	IBM	2.0	0.25	51	40	232	4	17.503	4837	
3.86	6.04	72456.62	"	1.9	0.25	51	41	106	2	"	4835	beams changed
8.18	21.69	72478.31	"	2.2	0.25	49	34	381	3	17.500	4835	
5.53	15.88	72494.19	"	2.2	0.25	53	40	279	4	17.500	4835	
4.81	0.80	72494.99	"	2.0	0.20	44	43	14	0	17.500	4835	beams dumped
8.89	25.85	72520.84	"	1.5	0.20	49	37	454	6	17.503	4835	
7.18	18.56	72539.40	"	2.0	0.20	51	38	326	7	17.503	4835	
5.39	14.41	72553.86	"	2.1	0.20	52	40	254	9	17.500	4836	
3.96	10.76	72564.62	"	2.3	0.25	52	39	189	5	17.500	4836	MOP reload
3.20	3.30	72567.92	"	2.4	0.25	54	41	58	2	17.503	4835	beams dumped
8.13	20.84	72588.76	"			51	37	366	4	17.503	4836	
6.86	17.53	72606.29	"	2.0	0.25	53	39	308	4	17.500	4837	
5.18	13.50	72619.79	"	2.3	0.25	53	40	237	1	17.503	"	
3.86	2.11	72621.90	"	2.5	0.25	49	42	37	2	"	"	beams lost
8.98	16.62	72638.52	"	1.9	0.3	51	36	292	6	"	4838	Stopped by HV input alarm trip
4.62	6.61	72645.13	"	2.8	0.3	53	38	116	2	17.500	4836	Stopped for repair work for jet chamber
3.20	6.32	72651.45	"	2.8	0.25	56	42	111	2	17.503	4836	Beams dumped.
8.33	22.03	72673.48	"	2.0	0.25	51	36	387	4	17.500	4835	
7.35	14.35	72687.83	"	2.1	0.20	53	37	252	2	"	"	
5.51	12.98	72700.81	"	2.5	0.30	54	38	228	3	"	4836	
4.14	9.79	72710.60	"	2.95	0.35	55	41	172	3	"	4835	beams dumped after run terminated
7.56	20.04	72730.64	"	2.1	0.30	52	36	352	9	17.500	4834	
6.59	16.62	72747.26		2.1	0.30	53	39	292	6	17.500	4835	
4.96	13.61	72760.87	"	2.8	0.3	54	40	239	4	17.503	4836	
3.96	5.47	72766.34	"	3.1	0.3	54	41	96	1	17.503	4835	BEAMS DUMPED (IBM ERROR 54)
7.86	21.86	72788.20	TAPE/JDAS 20	2.1	0.2	52	36	384	2	17.500	4835	TAPE 20
5.84	15.32	72803.52	TAPE JDAS 21	2.6	0.25	53	34	269	6	17.503	4835	TAPE 21
3.49	1.37	72804.89	TAPE JDAS 22	3.5	0.25	53	42	24	0	17.503	4835	TAPE 22, BEAMS DUMPED, AFTER ½ LOST.
6.63	16.86	72821.75	JDAS 22 TAPE	2.5	0.2	53	38	296	2	"	4836	Tape 22
4.67	11.36	72833.11	JDAS 23	3.0	0.25	54	40	200	2	"	4834	Tape 23
3.43	9.23	72842.34	JDAS 24	3.3	0.30	54	41	162	0	"	4836	Tape 23, beams dumped
7.79	19.01	72861.35	IBM	2.2	0.2	53	36	334	7	17.500	"	
6.81	15.26	72876.61	"	2.5	0.2	54	40	268	3	17.500	4835	
4.84	12.69	72889.30	"	3.5	0.3	54	39	223	3	"	4837	
3.89	6.55	72895.85	"	3.8	0.4	54	40	115	0	17.503	4835	beams dumped

Run	DATE	START	STOP	AT RUN START I+	AT RUN START I-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL *10^6	T0 Raj. *10^6	T1 ACC SUM	T2 ACC SUM	T1 Bit 2 E_LG > 6 GeV	T2 Bit 2 2T. Ev. ≥ 2TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAM

5.15 MISSING LAM AT FEP READY (JDAS - ERROR 32) continuously
stopped run and reload J68K - Processors
failed: in Crate 20 FADC # 369 has a broken -5V fuse
after exchanging FADC-Module J68K Load ok
6.00 JDAS - Readout error 32 - MISSING LAM AT FEP READY once again
6.25 BP-CH error : wirenmap deviation > 50%.
6.27 soft trip of BP-CH and Jet chamber
7.42 JDAS - Readout error 33 - Missing LAM branch 2 crate 6 : Leadglass FADCs
8.00 Hoarth on Shift
8.10 JDAS Readout Error 74 - wrong LAM branch 5 crate 1 : Beampipe Chamber
Background conditions very high. CELLO asked PKR to dump beams and start a new fill, but PKR said that they preferred to keep the beams as they were of the problem (which regarded the vacuum) and wished to investigate further.
8.27 Hard trip - everything tripped, including gas valve error - just my luck!
8.50 Hard trip " " - this is getting me frustrated!
9.05 Hard trip
9.27 Hard trip
9.40 Hard trip
11.25 JDAS readout error 33 - Missing LAM br. 3 cr. 4 : 2-chamber Part 1
11.32 IBMPC inactive - reactivated
11.42 Run 29659 ended abruptly after only 2 pedestale counts - I think this was because I tried to start the new run too quickly.
13.59 Hard trip
14.41 Hard trip
14.49 Hard trip
14.56 Hard trip - phoned CELLO to see if they also had a high background - they did not so I guess we'll just have to hope for better conditions next run!
15.06 Hard trip
15.20 SX missing LAM at FEP ready. Reload MOP after beam loss for safety. Again background (TOF rate) increases towards run end. Talk to PKR again. They know nothing, of course. While we talk, Sendewan fail and beams lost.
15.51 ID trip without beams (?!?!)
16.00 Olsson ID trip with beam at once and again Ch 123 repeatedly
16.50 ID HV Input alarm, a HV supply is broken, being replaced by Bethke / Eckerlin
18.00 Faulty HV-supply for ID-Up exchanged. Taking data again.
We hope that continuous anode-current alarm was connected with that!
19.00 Wire group 123_8 has now reduced sensitivity, to counteract the tripping observed previously

<L> 10^{38} cm^{-2} s^{-1}	BHABHA $\int L dt$ nb^{-1}	$\int L dt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MUON T_2 %	ONLINE REJECT NOISO T_1/T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1*C	REMARKS

20.00 Atkinson's last stand!
20.55 Hard trip. Set chamber, Z chamber + gas valve. Wire 123 again - I thought this had been fixed!
21.18 Same again, but gas valve didn't trip.
21.50 Talking with Matsumura! The alarm from 123_8 is a real alarm, something not OK in the Inner Detector. The alarm can therefore not be desensitized more. The alternative is to break the HV supply of a cell (16 wires). For the time being we have to keep resetting. The shiftcrew is asked to make carefully in the alarm list every alarm, indicating adress and date. If it goes worse during night, call first M. Zimmer (Eurobeeper)!
note
Further note from M. Zimmer: Only contact M. Zimmer (by telephone - he has no beeper) if it is impossible to start up the detector - it will be very difficult to cure the problem tonight. So if the system trips one has to reset in the rucksack each time - even if this is every five minutes.
23.23 Standard histograms show spike in bin 401 histogram 23. Will try reloading MOP before next run.
23.56 It's too warm in the hall. ID already has 28°C, as in summertimes.
So: leave open the door of the hall during night! Two of the big roof fans switched to full power.
24.00 J68K RELOAD.
DAVIES ON SHEFT.
9.10.86 STUCK IN BIN 401 HIST 23 GONE.
'259 IBM ERROR. 54 LINK WILL BE RESTORED - WHEN ??
0001 BEAMS DUMPED - GAS VALVE FAILURE - RESET OK
0035 LOAD TAPE START NEW RUN - SEEMS OK. (TAPE 2[illegible])
0036 SOFT TRIP MUON CRATES 6 AND 11
0219 LOAD TAPE 21, IBM LINK DOWN.
4:00 Smith on shift
5:30 IBM-Link available again (# 29683)

8.00 Hagemann, Fest on shift
gas check O.K.
9.25 JDAS error 44 - DMA timeout 177777 000003 000000 — error 37, IOA error
" " " - " " br. 2 cr. 1 : Latches + address: 103266, level 8_{10}
" " 53 - System crate watchdog flag Parms = 000002 030300 — System console
run continued
10.07 JDAS error 53 - System crate watchdog flag PARMS = 000002 177777
10.08 Message on system console : error in opening file for READ 00034 2, run continued
10.20 Missing LAM at FEP ready, stop run 29690
10.23 Reload J68K, run # 29691

Run	DATE	START	STOP	AT RUN START I+	AT RUN START I−	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL *10^6	Tφ Raj. *10^6	T1 ACC SUM	T2 ACC SUM	T1 Bit 2 E_Lo > 6 GeV	T2 Bit 2 2T. Et. ≥ 2TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAM
29687	9/10/86	8:24	8:58	10.57	10.71	29.9	2069	8002	5256	538	161	5196	5077	1252	36	ON	ON	ON	OFF
29688	"	8 59	9 32	8.96	9.10	36.1	1482	8002	5167	515	186	5088	5015	1377	32	"	"	"	"
29689	"	9 32	10:05	7.55	7.68	40.9	1978	8002	5096	514	210	5196	5205	1307	32	"	"	"	"
29690	"	10:06	10:22	6.32	6.44	45.8	955	3683	2304	249	114	2341	2342	611	14	"	"	"	"
29691	"	10:24	10:42	5.72	5.84	41.5	1066	4263	2639	278	115	2759	2749	683	23	"	"	"	"
29692	"	11:28	11:29	11.05	10.98	26.6	47	214	153	12	3	130	100	31	1	"	"	"	"
29693	"	11:31	12:07	10.83	10.88	27.4	2118	8002	5068	551	151	5233	4939	1291	31	"	"	"	"
29695	"	12 14	12 48	9.13	9.02	35.0	2012	8002	5087	523	183	5209	5077	1251	43	"	"	"	"
29696	"	12 49	13 05	7.56	7.47	41.6	909	3698	2365	236	98	2405	2322	606	18	"	"	"	"
29697	"	13 05	13 36	6.84	6.85	43.0	1795	7220	4450	467	200	4732	4556	1151	30	"	"	"	"
29698	"	14 07	14 41						1056										
29699	"	15 13	16 02	10.62	10.70	19.5	2479	8002	5212	645	126	5233	4841	1326	28	"	"	"	"
29700	"	16 02	16 47	8.98	9.07	16.7	2672	8002	5006	695	116	5436	4620	1295	31	"	"	"	"
29701	"	16 47	17 35	7.57	7.66	15.4	2847	8002	4826	741	114	5436	4703	1241	36	"	"	"	"
29702	"	17 36	18 25	6.40	6.48	14.6	2967	7885	4705	772	113	5422	4700	1228	21	"	"	"	"
29703	"	19 10	19 21	10.34	10.43	20.4	319	1015	660	83	17	643	626	142	2	"	"	"	"
29704	"	19 27	19 34	9.65	9.73	18.4	214	677	457	56	10	445	398	99	4	"	"	"	"
29705	"	19 47	20 37	8.92	9.00	17.2	1592	4816	3018	414	71	3256	2808	758	19	"	"	"	"
29706	"	20 50	21 12	6.96	7.04	16.6	842	2444	1462	219	36	1662	1428	393	13	"	"	"	"
29707	"	21 40	21 53	5.81	5.95	14.2	1161	3171	1785	301	42	2108	1860	482	16	"	"	"	"
29708	"	22 37	23 16	10.38	10.63	23.1	2220	8002	5360	602	129	5261	4682	1278	26	"	"	"	"
29709	"	23 17	23 53	8.86	9.16	20.2	1941	6385	4070	504	102	4238	3777	974	24	"	"	"	"
29710	10/10/86	00 32	01 10	10.82	10.98	23.1	2255	8002	5358	586	135	5205	4811	1270	26	"	"	"	"
29711	"	01 11	01 51	9.28	9.44	20.3	2421	8002	5152	629	127	5304	4861	1216	32	"	"	"	"
29712	"	01 52	02 58	7.98	8.13	18.2	2624	8002	4878	682	124	5402	4868	1216	23	"	"	"	"
29713	"	02 59	03 32	6.30	6.49	16.4	1996	5721	3441	519	84	3821	3558	765	19	"	"	"	"
29714	"	04:03	4:46	10.76	10.82	23.4	2228	8002	5319	579	135	5272	4806	1294	34	"	"	"	"
29715	"	04:48	5:22	9.29	9.36	20.6	2388	8002	5142	621	127	5395	4750	1251	35	"	"	"	"
29716	"	5:22	6:05	8.03	8.09	20.8	2518	8002	5076	655	136	5249	5067	1243	24	"	"	"	"
29717	"	6:06	6:34	6.93	7.01	24.4	1383	3994	2455	359	87	2657	2434	579	15	"	"	"	"
29718	"	07 19	7.57	10.46	10.64	24.4	2238	8002	5329	582	141	5192	4700	1219	29	"	"	"	"
29719	"	7.57	8 38	9.08	9.25	20.9	2428	8002	5222	632	132	5302	4919	1188	32	"	"	"	"
29720	"	8 41	9 25	7.79	7.96	17.1	2635	8002	4757	686	118	5480	4669	1229	33	"	"	"	"
29721	"	9 25	10 05	6.62	6.78	16.1	2365	6835	3992	616	99	4653	4045	1099	36	"	"	"	"

<L> 10^30 cm^-2 s^-1	BHABHA ∫Ldt nb^-1	∫Ldt. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MIPR T2 %	ONLINE REJECT NORD50 TOTT2 %	Σ BHABHA	M/H	E_BEAM	MAG FIELD -1*G	REMARKS
7.94	18.17	72914.02	IBM	2.2	0.2	51	35	319	3	17.503	4838	
6.44	16.17	72930.19	"	3.0	0.2	52	36	284	4	"	4837	
4.81	10.76	72940.95	"	3.8	0.3	53	36	189	3	17.503	4836	
3.33	4.04	72944.99	"	4.0	0.35	51	39	71	1	17.500	4836	JGK-problem, run stopped
3.08	4.21	72949.20	"	4.0	0.35	53	40	74	2	17.503	4837	beams dumped
9.63	0.68	72949.88	"	1.9	0.2	37	31	12	0	17.503	4837	IBM down
7.81	17.65	72967.53	JDAS11	2.0	0.2	50	38	310	3	17.503	4838	run # 29694 stopped after 2 weeks
5.84	11.75	72979.28	JDAS09	2.6	0.3	52	38	257	3	"		
4.40	4.27	72983.55	"	3.8	0.4	52	37	75	1	"	"	
3.48	6.49	72990.04	IBM	4.0	0.4	54	40	114	1	"	"	beams dumped
				1.5								cosmic runs with reduced Up
8.99	27.28	73017.32	IBM	1.5	0.2	47	36	479	6	17.503	4841	
7.99	25.40	73042.72	"	0.7	0.1	49	38	446	11	17.503	4840	
6.15	20.27	73062.99	"	0.6	0.1	50	41	356	4	17.503	4840	
4.56	17.59	73080.58	"	0.5	0.05	52	41	309	2	17.500	4840	beams dumped
9.43	3.36	73083.94	"	1.3	0.05	48	37	59	0	17.500	4840	ID HV IUMI error
10.00	1.48	73085.42	"	1.0	~0	50	34	26	1	17.503	4840	"
8.07	14.24	73099.66	"	0.8	~0	49	38	250	3	17.503	4841	"
6.46	6.72	73106.38	"	0.7	0	51	42	118	3	17.503	4841	"
4.86	7.92	73114.30	"	0.6	0	48	45	133	5	"	4840	beams dumped
9.52	24.36	73138.66	"	1.7	0.2	47	34	428	10	17.500	4840	
7.17	17.08	73155.74	"	1.5	0.1	48	37	300	6	17.503	4840	beams lost
9.40	24.14	73179.88	"	2.0	0.2	47	34	424	9	17.500	4838	
7.90	21.75	73201.63	"	1.5	0.1	49	37	382	5	17.500	4840	
5.94	18.96	73220.59	"	1.3	0.1	51	40	333	3	17.500	4839	
4.48	8.99	73229.58	"	1.0	0.05	51	41	158	0	17.500	4838	
8.90	24.39	73254.17	"	2.2	0.2	48	35	432	10	17.500	4838	
7.64	21.47	73275.64	"	1.5	0.2	50	37	377	10	17.503	4840	
5.91	18.22	73293.86	"	1.5	0.2	51	38	320	6	17.500	4838	
4.30	7.40	73301.26	"	1.15	0.15	51	40	130	4	17.500	4839	beams dumped
8.67	20.61	73321.87	"	2.1	0.25	46	35	362	8	17.503	4838	
7.12	20.10	73341.97	"	1.6	0.25	50	36	353	7	"	"	
6.87	21.46	73363.43	"	0.9	0.1	51	42	377	10	"	"	
5.84	18.16	73381.59	"	0.8	< 0.1	51	43	319	7	17.500	"	beams dumped

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_0 Raj. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 Bit 2 $E_{LG} > 6$ GeV	T_2 Bit 2 Tr. Et. ≥ 2 TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAM

10

12:15 Run # 29694 stopped after 2 events watchdog error during LG pedestal events
12:22 JDAS error 64 - AC2099 TOF-2, Q, X missing stn 7, subaddr 5
13⁰⁰ TOF 40V, dead time 40%, Vacuum leak near NW, repair scheduled for afternoon
13⁴⁰ Beams dumped, short break, magnet 500 A
13⁵⁰ magnet back to 75007 for cosmic runs with reduced Up
run 29698 was cosmic-run
14⁵⁰ switched back to normal Edelin ← 16⁰⁰ Hagenau / Bruner on shift
18²⁰ LG problem AL BLOCKS/EVENT > 20 last 1000 events
19¹⁶ All chambers tripped + ID HV INPUT error
19²⁴ again
20⁰³ "
20²¹ "
20⁶⁷ "
21⁴⁰ Problem was due to a broke thyristor in the ID-HV Control System. → replaced by Hebrard / Bruner
10.10.86.
24⁰⁰ Hughes + Hedgecock on shift.
Gas Check Done.
Beams lost — HV Down
Gas Error — cleared in gas house.
02⁵⁰ soft trips
03¹¹ JDAS error 64 - AC2099 TOF-2 Q, X Missing Stn 13 Subaddr 1
03³⁷ Allo propose new filling immediately.
HV Run down, Gas Alarm BRA Beams Dumped
04⁰⁰ R. Hedgecock & M. Talibzadeh on shift
06²⁸ ERRO MESSAGE running Lamb 32 jet chamber (FEP). Reloaded The MOP.

Shifts	10/10/86 → 13/10/86
G Hughes	IV 14
Barlocher	
Tel: 2794	0:00 → 8:00

8⁰⁰ U. Schneekloth
7⁵⁰ gas check done
11¹⁸ JDAS READOUT ERROR 33 Missing LAM br. 3 cr. 2 μ ch.
12⁰⁰ Matsumura on shift
16⁰⁰ Magnussen on shift, Eisen 20%
16⁰⁰ Gas o.k.
19³⁰ Short Break
19⁵⁰ Start of COSMIC-run with reduced Up
23²⁰ PKR request "Switch off HV". End cosmic runs. Switch everything to normal data taking.

<L> 10^{30} cm^{-2}s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MUBOX T_2 %	ONLINE REJECT NOISO T_1/T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1 * C	REMARKS

11

Note from J. Olsson: Since 1900 this evening we are reading z-trigger data too. The new readout pattern is therefore 77777B. In case of problems one can go back to the old standard pattern with the command:
O-R-P 77775B.
The present non-standard readout will always cause a message on the teletype at the beginning of a run.
"Initing LAM at 4 current" may indicate problems with the z-trigger readout. E.C.

October 11th 1986
00⁰⁰ Hughes + (Greenslaw @ 04⁰⁰)
23⁴⁵ Gas Check Done.
00²⁴ Error 36 Missing lam JDAK Brand. 17777 etc. — Run 29736
00⁵² " same error. with "Illegal CONT RECORD" Run 29737
on Colour TV
02¹⁹ Beams to be dumped at ~ 2³⁰.
02³⁰ Stop Run HV Down
05¹⁸ Small amount of positron current lost, but nothing trips!
06⁰⁰ Zimmoni crashed, restarted successfully
06⁰⁸ Y-spy error - several muon digitizers missing. Upon investigation this turns out to be due to failure of the HV power supply to the chambers read out through crates 10 and 14. This in turn is due to chamber 610 drawing a very large current. This chamber disconnected for now (New no. of dead μ chambers in standard list = 11)
07²⁰ More HV problems with μ-system, again PSU for crates 10 and 14 but this time also that for crate 4. What could be affecting both these PSU's? Gas mixture is OK so chambers should not be drawing excessive currents, backgrounds ~ normal. It's misty outside and the main hall doors are open, perhaps moisture condensing inside cool PSU's? (The two which are faulty are those nearest the door.) I shut the main doors and stabilize the HV supplies again. (Must disconnect chamber 608 to achieve this, now 12 μ chambers off)

8⁰⁰ Dieckmann on shift
9¹⁰ Gas check ok.
12⁰⁰ Magnet Trip. Called MK 1: Problems with cooling.

Run	Date	Start	Stop	At run start I^+	At run start I^-	Dead time %	Time (secs)	Records IN	Records OUT	ALL $*10^6$	T_0 Rej. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 17 2T. Ev. ≥ 2 TR	Processors ON/OFF N50	MIP	TOF	FAM
12																			
29722	10.10.86	1040	1121	10.47	10.70	20.1	2410	8002	5171	627	126	5341	4678	1355	40	ON	ON	ON	OFF
29723	"	11:22	12:05	8.92	9.13	18.7	2559	8002	4992	556	125	5340	4769	1311	26	"	"	"	"
29724	"	12:05	12:40	7.57	7.77	18.3	2071	6362	3982	539	99	4175	3870	975	23	"	"	"	"
29725	"	12:40	13:24	6.66	6.84	44.3	2597	4777	2838	676	300	3185	3132	712	19	"	"	"	"
29726	"	13:27	13:30	5.70	5.87	35.2	144	368	227	38	13	240	209	49	1	"	"	"	"
29727	"	13:34	13:51	5.56	5.73	38.3	1007	1952	1101	262	100	1303	1223	284	7	"	"	"	"
29728	"	14:52	15:31	10.82	10.96	21.0	2346	8002	5350	610	128	5355	4591	1396	47	"	"	"	"
29729	"	15:32	16:15	9.15	9.23	18.0	2579	8002	5024	662	119	5447	4473	1331	34	"	"	"	"
29730	"	16:15	17:00	7.72	7.79	16.9	2678	8002	4848	696	117	5441	4654	1285	26	"	"	"	"
29731	"	17:00	17:32	6.52	6.60	15.4	1922	5335	3054	500	77	3597	3946	789	21	"	"	"	"
29732	"	18:47	19:20	10.85	10.68	19.9	1935	6555	4246	503	100	4404	3607	1027	26	"	"	"	"
29733	"	19:54	22:06						8002										
29734	"	22:14	22:49						90						COSMICS				
29735	"	22:59	23:19						602										
29736	11/10.86	23^{59}	00^{39}	10.30	10.49	21.3	2326	8002	5295	605	128	5406	4598	1270	31	"	"	"	"
29737	11.10.86	00^{41}	01^{22}	8.80	8.95	19.4	2450	8002	5165	637	123	5473	4469	1304	36	"	"	"	"
29738	"	01^{23}	02^{05}	7.53	7.68	18.3	2559	8002	5131	665	121	5451	4561	1257	32	"	"	"	"
29739	"	02^{07}	02^{31}	6.45	6.59	17.4	1362	4091	2510	354	61	2765	2353	620	21	"	"	"	"
29740	"	03^{06}	03^{42}	10.86	10.86	22.6	2182	8002	5572	576	128	5591	4270	1235	31	"	"	"	"
29741	"	03^{42}	04^{23}	9.36	9.36	20.1	2775	8002	5154	618	124	5505	4375	1273	31	"	"	"	"
29742	"	04^{23}	05^{09}	8.05	8.05	19.6	2679	8002	5105	674	124	5514	4430	1251	52	"	"	"	"
29743	"	05^{09}	05^{18}	6.97	6.97	19.0	745	2166	1323	194	36.9	1465	1229	344	13	"	"	"	"
29744	"	05^{50}	06^{30}	10.40	10.55	22.8	2237	8002	5693	582	132	5422	4471	1298	32	"	"	"	"
29745	"	06^{30}	07^{11}	9.31	9.28	19.7	2399	8002	5141	624	123	5441	4538	1257	24	"	"	"	"
29746	"	07^{11}	07^{57}	7.99	7.96	18.1	2569	8002	5210	669	121	5522	4502	1284	38	"	"	"	"
29747	"	07^{57}	8:45	6.77	6.75	16.4	2811	8002	4828	611	119	5400	4786	1167	27	"	"	"	"
29748	"	09:03	09:16	5.25	5.23	15.6	750	2175	1229	195	30	1492	1218	313	10	"	"	"	"
29749	"	9:48	10:23	10.48	10.95	21.4	2313	8002	5486	601	128	5490	4512	1379	25	"	"	"	"
29750	"	10:28	11:10	8.89	9.34	18.6	2476	8002	5472	674	119	5460	4407	1298	40	"	"	"	"
29751	"	11:10	11:57	7.53	7.95	17.8	2253	6845	4255	586	104	4625	3991	1084	27	"	"	"	"
29752	"	12:59	13:39	10.61	10.82	21.6	2318	8002	5472	602	130	5462	4538	1327	35	"	"	"	"
29753	"	13:39	13:58	8.97	9.18	18.5	1055	3446	2295	274	50	2379	1905	603	15	"	"	"	"
29754	"	14:17	15:04	7.72	7.92	17.6	2602	8002	5002	676	119	5416	4598	1300	34	"	"	OFF	"
29755	"	15:08	15:52	6.40	6.58	16.6	2613	~~6800~~ 7604	4556	680	113	5163	4528	1170	31	"	"	ON	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int L dt$ nb^{-1}	$\int L dt$ Exp. Energy	IBM Tape Output	At run start TOF [V]	At run start ID [MA]	Online reject Sum MIPPED	Online reject NORDSC T_1+T_2 %	Σ Bhabha	M/H	E_{BEAM}	MAG FIELD ±1 * G	Remarks
12													13
29722	9.45	26.02	73,407.61	IBM	1.4	0.1	48	36	457	5	17.503	4840	
29723	7.95	23.23	430.84	"	1.1	0.1	49	39	408	5	17500	"	
29724	6.71	17.36	448.20	"	1.1	0.1	49	39	305	3	"	4843	
29725	3.48	10.48	458.68	"	1.0	0.1	54	47	184	3	17503	"	Test Run Not Standard
29726	3.59	0.34	459.02	"	0.9	0.1	50	41	6	1	"	"	"
29727	3.05	4.27	463.29	"	0.9	0.1	52	45	75	2	"	4844	" beams dumped
29728	10.15	29.78	493.07	"	1.6	0.2	48	34	423	7	17503	4844	
29729	8.28	24.48	517.55	"	1.1	0.1	48	38	430	7	17500	"	
29730	6.45	21.01	538.56	"	0.8	0.05	50	40	369	6	17503	"	
29731	5.09	10.87	549.43	"	0.7	0.05	51	44	191	2	17500	"	Beams dumped
29732	8.68	21.07	73 570.50	"	1.4	0.1	47	36	370	8	17503	4841	Beams dumped after partial beam loss
29733												4841	Cosmic run with reduced Up = 2108
29734												4841	— " — Up = 1908
29735												4840	Up = 2008
29736	8.69	24.15	73594.65	"	2.0	0.2	49	35	434	7	17.503	4838	
29737	7.93	22.03	73616.68	"	1.2	0.05	49	37	387	11	17.500	4838	
29738	6.20	19.70	73636.38	"	0.9	0.05	50	37	346	5	17.500	4838	
29739	5.17	8.65	73645.03	"	0.8	0.03	50	40	152	3	17.500	4838	Beams dumped
29740	9.85	24.20	73669.23	"	1.4	0.1	48	31	425	7	17.503	4839	
29741	8.21	22.72	73691.95	"	1.3	0.05	51	34	399	5	"	"	
29742	6.56	19.48	73711.43	"	1.0	0.05	50	37	342	8	"	"	
29743	4.53	3.81	73715.24	"	1.0	0.05	50	41	67	2	17.500	"	Beams dumped after partial loss (no trips!)
29744	10.06	25.50	73740.74	"	1.9	0.15	48	70	448	7	"	4838	
29745	8.16	21.70	73762.44	"	1.25	0.05	50	37	381	5	"	"	
29746	6.70	21.18	73783.62	"	1.0	0.05	51	36	372	4	"	4840	
29747	5.07	17.93	73801.55	"	0.8	0.05	51	41	315	2	"	4839	
29748	3.93	4.10	73805.65	"	0.7	0.05	51	45	72	1	"	4839	Beam dumped
29749	10.08	28.63	73834.28	"	1.5	0.15	50	32	503	5	"	4840	
29750	8.36	24.49	73858.77	"	1.0	0.15	48	36	430	4	"	"	
29751	6.43	17.76	73876.53	"	0.8	0.1	49	39	312	6	"	"	Magnet trip
29752	9.88	29.32	73905.85	"	1.6	0.2	50	33	515	10	"	4847	
29753	8.88	10.71	73916.56	"	1.1	0.2	49	34	188	4	"	"	
29754	6.41	20.61	73937.17	"	0.9	0.15	49	39	362	3	"	"	
29755	4.88	15.83	73953.00	"	0.8	0.1	51	39	278	6	17.500	4849	beam dumped

Run	DATE	START	Stop	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_0 Raj. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 Bit 2 $E_{LG} > 6$ GeV	T_2 Bit 17 2T. Et. ≥ 2 TR	PROCESSORS ON/OFF NSO	MIP	TGF	FAN

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12:00 Kuhlen on shift

12:15 There are holes (but not completely empty) in the TOF mean ADC map (std. histogram run 29745 from 7 o'clock this morning) for channels ≈ 30-37 and 72-73. Now they recovered a bit, but are still visible (run 29751)

12:26 Broken cooling pump repaired by magnet people, magnet runs up

13:20 TOF ~~bits~~ holes back again, Frau Narodka will come

14:00 missing LAM Cr.3 Cr.1 ID current caused by F. Narodka, who removed a spurious (!) cable coming out of the trigger box running across the whole hardware room. Since we do not know where to put it back, we switched the Z-trigger off.

16:00 U. Schmeckloth on shift

16:00 gas check done

18:54 Z ch. tripped

19:40 vtx ch. valve failure

19:47 M. Takhzadh, R. Hedgecock on shift

19:50 Z-trigger back in readout, Cable now under floor (Krehbiel's work) and labelled. Please leave in place! (CH-R-P : to 77777B, standard is 77775B) J.O.

20:04 reloaded JETC68K, there was a small dip in the wire map in Run 29759

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0:00 Becker
Gas desk completed.

04:00 Hughes

05:40 Lecroy Power Supply #61 (Taggy) off Reset manually in Hall.

06:58 Standard Histograms printed. Z ch wire map shows wire 53 High Hit rate + low A+ A-. Run 29773 thin not present - run 29764

8:00 Smolik

8:30 gas check done

09:50 The spike in the Z-chamber hit map is caused by an oscillating amplifier. I can cure it by switching off the 6V P/supply and back on but this is our only cure short of taking the wire out of the read-out which I may yet have to do. Our best course is to live with it and a Z-chamber person will look from time to time to keep it running up to the final shutdown. CH.

12:00 Heinzelmann

12:20 JETC68K Reload

16:00 Krehbiel, Kuies

16:50 Gas alarm, valve failure

17:10 YSPY Error: Muon digitizer missing 162

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MIRROR T2 %	ONLINE REJECT NO@SO T1+T2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1 * C	REMARKS

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18:20 JDAS Read out error 64 - AC2099 TOF -2, Q,X missing, stn = 3, subaddr. = 0

18:55 YSPY LG error

19:35 JDAS READ-OUT ERROR 35, Wrong length of J68K Bank

20:00 " " " " 36, Missing LAM, J68K Bank

23:00 YSPY Error MUON Digitizer missing 162

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0:00 Schmidt on shift.

0:27 JDAS ~~ERROR~~ READOUT ERROR 33 Missing LAM Drano54 crate 1 JETC point 401

1:01 JDAS READ-OUT ERROR 53 System crate watchdog flag PARTS = 000001 177777

3:20 Hard trip VTXC.

3:35 Z-Chamber hard trip ID + VTXC soft trip. large beam loss.

3:52 Hughes on Shift
Gas Check Done

4:03 Cello Called. — the large beam loss was caused by the CELLO magnet/liquefier problems. They will take ~ 2hrs to fix it. Meanwhile refill PETRA. Beam currents seem to be limited to ≤ 9.0 ma.

8:00 W. Bartel & S. Cartwright
gas check ok

8:08 JDAS readout error 74 - missing LAM for 5 cr 1 : VXC

8:52 " " " 36 - missing LAM J68K. Could pitter up to it old tricks, delivered run summary for run 29803 as mangled mess.

9:41 JDAS readout error 33 - missing LAM for 3 cr 2 : μ chr

10:07 " " " " " " " " "
" " " 64 - AC2099 TOF-2 Q,X missing stn = 14 subaddr = 7
Mark I phone to say new fill soon, & they want a short (5 min) access after beams dumped.

12:25 Z-chamber trip

16:00 Smolik on shift

16:46 Soft trip VTX and Jet chamber

17:36 Gas check ok

19:59 Jetc68k reloaded

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	TØ Rej. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 Bit 2 $E_{LG}>6$ GeV	T_2 Bit 17 2T. Et. ≥ 2TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAMP
29756	11.10.86	1652	1734	10.75	10.67	19.2	2433	8002	5349	633	122	5372	4634	1358	45	ON	ON	ON	OFF
29757	"	1734	1818	9.08	9.01	17.1	2597	8002	5139	676	116	5490	4488	1318	32	"	"	"	"
29758	"	1818	1903	7.65	7.59	17.7	2680	8002	5034	697	123	5448	4632	1329	40	"	"	"	"
29759	"	1904	1938	6.50	6.44	16.3	2031	5809	3489	529	86	3936	3393	877	24	"	"	"	"
29760	11/10/86	20:12	20:33	10.34	10.78	20.0	2392	8002	5317	621	124	5414	4505	1370	27	"	"	"	"
29761	"	20:33	21:37	8.92	9.14	17.9	2579	8002	5092	671	120	5483	4446	1312	39	"	"	"	"
29762	"	21:37	22:22	7.51	7.72	18.1	2686	8002	4933	698	126	5336	4753	1281	25	"	"	"	"
29763	"	22:22	22:45	6.31	6.30	16.0	1293	3664	2228	336	53	2453	2186	565	15	"	"	"	"
29764	"	23:16	23:58	10.34	10.82	19.2	2455	8002	5242	638	122	5416	4480	1371	30	"	"	"	"
29765	"	23:58	0:41	8.81	9.08	17.8	2561	8002	5292	666	118	5480	4509	1363	26	"	"	"	"
29766	12/10/86	0:42	1:27	7.34	7.59	17.3	2695	8002	4845	701	121	5387	4615	1264	34	"	"	"	"
29767	"	1:28	1:51	6.13	6.35	16.6	1304	3668	2155	335	56	2461	2182	581	13	"	"	"	"
29768	"	2:35	3:16	10.41	10.48	18.4	2420	8002	5260	629	122	5384	4583	1333	44	"	"	"	"
29769	"	3:17	4:00	8.71	8.78	18.5	2530	8002	5070	657	121	5375	4580	1372	43	"	"	"	"
29770	"	4:01	4:45	7.31	7.38	18.4	2659	8002	5024	691	127	5349	4723	1350	46	"	"	"	"
29771	"	4:46	5:11	6.12	6.19	16.7	1471	4222	2566	389	63	2806	2528	616	15	"	"	"	"
29772	"	5:40	6:21	10.12	11.15	19.2	2449	8002	5223	637	122	5405	4610	1351	27	"	"	"	"
29773	"	6:21	7:04	8.48	9.44	18.8	2533	8003	5095	658	123	5392	4643	1358	40	"	"	"	"
29774	"	7:04	7:49	7.13	8.01	18.2	2648	8002	4988	688	125	5376	4723	1258	35	"	"	"	"
29775	"	7:49	8:21	6.00	6.81	16.8	1908	8002	3310	497	83	3668	3201	795	22	"	"	"	"
29776	"	8:52	9:34	10.25	10.18	18.6	2496	8002	5220	649	120	5463	4538	1307	31	"	"	"	"
29777	"	9:35	10:19	8.57	8.51	17.6	2615	8002	5020	680	120	5416	4573	1299	28	"	"	"	"
29778	"	10:19	11:04	7.20	7.15	17.3	2628	8002	4873	700	121	5440	4627	1290	28	"	"	"	"
29779	"	11:35	12:17	10.59	10.78	18.7	2518	8002	5211	655	123	4689 ↔	5357	1250	37	"	"	"	"
29780	"	12:18	12:19	8.89	9.06	13.7	19	127	92										
29781	"	12:27	13:18	8.59	8.75	18.9	2644	8002	5101	662	125	5314	4653	1309	35	"	"	"	"
29782	"	13:19	13:38	6.40	6.54	17.2	1139	3343	1992	296	51	2189	2060	504	11	"	"	"	"
29783	"	14:13	14:57	10.10	9.61	17.1	2424	7146	4446	630	483	4811	4176	1078	42	"	"	"	"
29784	"	15:28	16:11	10.22	10.32	~~19.8~~ 19.5	2532	8002	5120	659	131	5317	4645	1257	43	"	"	"	"
29785	"	16:11	16:55	8.39	8.49	~~8.18~~ 19.5	2608	8002	5067	678	132	5299	4915	1273	46	"	"	"	"
29786	"	16:56	17:36	6.90	6.98	18.0	2050	6129	3684	533	96	4025	3606	918	33	"	"	"	"
29787	"	18:17	19:00	10.82	10.71	22.1	2437	8002	5345	634	140	5321	4637	1313	30	"	"	"	"
29788	"	19:03	19:46	8.79	8.69	18.3	2567	8002	5012	668	122	5358	4651	1266	29	"	"	"	"
29789	"	19:47	20:31	7.33	7.24	18.4	2660	8002	4870	692	127	5375	4727	1287	37	"	"	"	"

RUN	$\langle L \rangle$ $10^{30}\,cm^{-2}s^{-1}$	BHABHA $\int L dt$ nb^{-1}	$\int L dt$ EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [μA]	ONLINE REJECT SUM MIPROC T_2 [%]	ONLINE REJECT NORD 50 T_1+T_2 [%]	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1*G	REMARKS
	9.98	30.01	73983.01	IBM	1.5	0.2	48	34	527	12	17.503	4848	
	8.18	23.86	74006.87	"	0.82	0.1	49	37	419	10	"	"	
	6.31	21.52	74028.39	"	0.8	0.1	50	38	378	5	17.500	"	
	5.00	12.30	74040.69	"	0.7	0.1	50	41	216	2	"	"	beams dumped
	9.56	29.44	74070.13	"	1.3	0.15	48	35	517	6	17.503	4.847	
	7.78	23.29	74093.42	"	0.9	0.1	49	37	409	6	17.303	4.838	
	6.30	19.41	74112.83	"	0.8	0.05	49	40	341	8	17.300	4.838	
	5.33	7.86	74120.63		0.72	0.05	50	40	137	1	17.300	4.837	beams dumped
	9.67	29.72	74150.35	"	1.15	0.05	48	36	522	9	17.300	4.837	
	8.30	26.37	74176.72	"	0.8	0.05	49	35	463	7	17.503	4.837	
	6.18	19.02	74195.74	"	0.8	0.05	49	41	334	6	"	"	
	5.00	8.88	74204.62	"	0.7	0.02	50	43	156	3	"	"	Beams dumped
	8.52	27.79	74232.41	"	1.2	0.05	48	35	488	8	"	"	
	7.94	25.11	74257.52	"	0.8	0.03	48	38	441	5	"	"	
	6.34	21.70	74279.22	"	0.8	0.02	49	38	381	8	"	"	
	5.15	8.77	74287.99	"	0.7	0.02	50	41	154	3	17500	"	Beams dumped
	8.42	29.32	74317.31	"	1.2	0.1	49	36	515	9	"	4838	
	7.72	24.65	74341.96	"	1.0	0.07	49	37	433	4	"	4837	
	6.21	20.55	74362.51	"	0.85	0.05	50	39	361	6	"	"	
	4.98	11.33	74373.84	"	0.8	0.03	50	41	199	5	17502	"	Beams dumped.
	9.39	28.12	74401.96	"	1.1	0.05	49	36	494	9	17500	"	
	7.51	24.08	74426.04	"	0.8	0.03	48	38	423	5	"	"	
	6.14	20.96	74447.00	"	0.7	0.03	50	40	668	4	17503	4837	Beams dumped
	8.40	25.28	74472.28	"	1.2	0.15	49	36	444	4	17508	4838	
		0.40	74472.68	"	1.0	0.1					17500	4838	FETC68K Reload
	7.16	22.72	74495.40	"	0.9	0.1	48	37	399	5	17503	4838	
	5.45	6.95	74502.35	"			49	42	122	2	17503	4840	Beams dumped
	6.65	26.84	74523.19		1.1	0.2	49	39	366	8	17503	4840	Beams dumped after lon
	7.85	23.28	74546.47	"	1.2	0.2	48	37	409	4	17500	"	
	7.06	23.06	74569.53	"	0.94	0.17	50	38	405	11	17503	"	
	5.39	13.55	74582.61	"	0.85	0.15	47	41	238	2	"	"	Beams dumped
	9.44	28.99	74611.60	"	1.3	0.2	48	34	509	9	"	"	
	7.41	22.55	74634.15	"	0.9	0.18	48	39	396	9	"	4841	
	5.96	21.06	74655.21	"	0.8	0.15	50	40	370	5	17500	4840	

RUN #	DATE	START	STOP	At run start I^+	At run start I^-	DEAD TIME %	TIME (sec)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_0 Raj. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 bit 2 $E_{LG}>6GeV$	T_2 bit 17 2T.Eu. $\geq 2TR$	PROCESSORS ON/OFF N50	MIP	TOF	FAN
29790	~~12/10/86~~ 12/10	20:32	20:46	6.12	6.04	17.3	837	2485	1487	218	38	1634	1481	371	10	on	on	on	off
29791	12/10/86	21:17	21:57	~~7.74~~ 10.45	~~9.03~~ 8.80	20.5	2361	8002	5324	614	126	5332	4517	1334	43	"	"	"	"
29792	"	21:57	22:43	8.74	9.03	17.9	2574	8002	5088	670	120	5390	4529	1303	35	"	"	"	"
29793	"	22:43	23:29	7.18	7.44	17.0	2737	8002	4864	712	121	5375	4738	1209	38	"	"	"	"
29794	"	23:29	23:48	5.96	6.20	16.2	1084	3153	1773	282	46	2102	1833	472	12	"	"	"	"
29795	13/10/86	0:18	0:58	10.68	10.83	21.4	2335	8002	5380	607	130	5316	4484	1325	42	"	"	"	"
29796	"	0:58	1:40	8.88	9.12	19.3	2490	8002	5021	648	125	5384	4537	1258	45	"	"	"	"
29797	"	1:40	2:25	7.38	7.60	17.7	2659	8002	4821	682	123	5400	4634	1188	38	"	"	"	"
29798	"	2:26	2:44	6.15	6.34	12.0	1074	3127	1844	278	48	2073	1781	452	10	"	"	"	"
29799	"	3:15	4:05	11.13	11.12	18.8	2150	6438	4047	559	105	4194	3907	953	30	"	"	"	"
29800	"	5:10	5:55	9.00	9.11	17.8	2683	8002	4960	697	124	5224	4936	1102	26	"	"	"	"
29801	"	5:56	6:49	7.70	7.80	16.8	2828	8002	4631	735	123	5278	4897	1034	35	"	"	"	"
29802	"	6:50	7:12	6.45	6.53	16.2	1196	3281	1880	311	50	2177	2032	413	9	"	"	"	"
29803	"	8:07	8:51	9.06	9.12	17.3	2656	8002	5054	692	120	5371	4665	1237	30	"	"	"	"
29804	"	8:52	9:38	7.54	7.59	17.3	2741	8002	4823	714	124	5357	4669	1180	35	"	"	"	"
29805	"	9:38	10:14	6.28	6.33	16.1	2134	5937	3536	556	89	4017	3431	851	26	"	"	"	"
29806	"	11:35	12:19	9.40	10.01	17.7	2625	8002	5115	683	121	5360	4704	1247	41	"	"	"	"
29807	"	12:19	13:06	7.80	8.36	16.6	2743	8002	4836	714	118	5358	4631	1172	30	"	"	"	"
29808	"	13:06	13:55	6.48	6.99	15.5	2885	8002	4625	751	116	5344	4743	1189	37	"	"	"	"
29809	"	13:55	14:06	5.40	5.87	14.7	589	1555	872	154	23	1040	955	206	9	"	"	"	"
29810	"	14:46	15:23	11.31	11.36	22.4	2054	7109	4765	535	120	4701	4047	1150	43	"	"	"	"
29811	"	15:34	16:17	9.21	9.25	19.4	2590	8002	4932	674	131	5244	4863	1207	50	"	"	"	"
29812	"	16:18	17:05	7.86	7.90	17.9	2683	8002	4926	698	125	5375	4679	1323	37	"	"	"	"
29813	"	17:06	17:33	6.48	6.51	16.7	1598	4493	2697	416	70	3014	2704	716	19	"	"	"	"
29814	"	18:35	19:17	10.59	10.61	19.2	2527	8002	5302	657	126	5352	4599	1306	35	"	"	"	"
29815	"	19:18	20:03	8.83	8.87	17.3	2632	8002	4940	685	118	5441	4492	1292	37	"	"	"	"
29816	"	20:04	20:50	7.29	7.33	16.1	2775	8002	4894	722	116	5429	4573	1276	29	"	"	"	"
29817	"	20:51	21:16	6.05	6.09	15.1	1492	4202	2467	388	59	2850	2410	636	18	"	"	"	"
29818	"	21:47	22:28	10.47	10.98	19.8	2423	8002	5424	630	124	5379	4525	1391	25	"	"	"	"
29819	"	22:30	23:13	8.66	9.12	17.5	2578	8002	5026	670	117	5451	4472	1328	28	"	"	"	"
29820	"	23:13	23:54	7.19	7.62	16.9	2720	8002	4812	707	119	5418	4572	1237	29	"	"	"	"
29821	"	23:54	0:14	5.99	6.38	16.3	850	2473	1469	221	36	1668	1406	357	10	"	"	"	"
29822	14/10/86	0:43	1:24	10.40	10.89	17.9	2424	8002	5198	630	126	5339	4540	1264	29	"	"	"	"
29823	"	1:24	2:07	8.77	9.17	18.3	2569	8002	5063	668	122	5407	4606	1242	33	"	"	"	"

RUN #	$\langle L \rangle$ $10^{30} cm^{-2} s^{-1}$	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$ Energy	IBM/TAPE OUTPUT	At run start TOF [V]	At run start ID [μA]	Online reject SUM HIPROC T_2 %	Online reject NORD50 T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1*G	REMARX
29790	4.82	5.07	74660.28	IBM	A2	—	49	42	89	1	17503	4839	Beams dumped
29791	9.73	27.67	74687.95	"	1.2	0.2	47	35	486	5	17500	4840	
29792	7.51	24.20	74712.15	"	0.9	0.2	48	38	425	5	17503	4838	
29793	5.91	18.05	74730.20	"	0.75	0.18	50	40	317	5	"	4837	
29794	4.99	7.18	74737.38	"	0.7	0.16	48	45	126	1	"	"	Beams dumped
29795	8.40	28.35	74765.73	"	1.25	0.2	46	34	488	6	17500	4838	
29796	7.77	21.52	74781.25	"	1.0	0.2	48	38	378	4	"	4837	
29797	6.14	18.22	74805.47	"	0.8	0.15	49	41	320	5	"	"	
29798	5.02	7.06	74812.53	"	0.75	0.1	48	43	124	2	"	4838	Beams dumped
29799	5.52	15.66	74828.19	"	1.25	0.2	49	39	275	3	17503	4837	Beams dumped; 50% Beam lost Cello magnet trip.
29800	5.74	18.68	74846.87	"	1.05	0.15	49	39	338	4	17503	4838	
29801	4.13	14.98	74861.85	"	0.90	0.15	49	44	263	4	"	4837	} Cello Magnet off.
29802	3.07	3.87	74865.72	"	0.80	0.15	51	44	68	0	"	"	Beams dumped
29803	7.73	24.71	74890.43	"	0.85	0.15	49	38	434	2	17500	"	
29804	6.23	19.48	74909.91	"	0.7	0.1	49	41	342	2	17503	4838	
29805	5.19	13.15	74923.06	"	0.65	0.05	50	42	231	2	17500	4837	Beams dumped
29806	8.33	28.92	74951.98	"	0.95	0.2	49	37	508	8	17300	4837	
29807	6.54	19.76	971.74	"	0.72	0.2	48	41	347	5	"	4838	
29808	4.92	17.99	74989.73	"	0.62	0.1	49	43	316	6	"	"	
29809	4.23	3.19	74992.92	"	0.6	0.1	52	45	56	0	17503	4840	Beams dumped
29810	9.60	22.84	75015.76	"	1.3	0.2	47	34	401	7	17503	4840	
29811	5.41	17.20	75032.96	"	1.3	0.2	49	40	302	4	17503	4840	
29812	8.07	21.24	75054.20	"	0.7	0.2	49	40	373	6	"	"	
29813	4.93	11.04	75065.24	"	0.7	0.15	51	41	194	2	17500	"	Beams dumped
29814	8.59	27.61	75092.85	"	1.1	0.2	48	35	485	7	"	4838	
29815	7.65	25.79	75118.64	"	0.75	0.15	48	39	453	3	"	4840	
29816	5.90	21.69	75140.33	"	0.7	0.1	49	40	387	3	"	4837	
29817	4.94	8.54	75148.87	"	0.6	<0.05	49	43	150	2	"	4838	beams dumped
29818	9.41	28.59	75177.46	"	1.1	0.1	48	33	502	5	17503	4837	
29819	7.94	26.48	75203.94	"	0.75	<0.05	48	38	465	4	"	"	
29820	6.06	21.24	75225.18	"	0.7	<0.05	47	41	373	8	"	"	
29821	4.91	5.24	75230.42	"	0.6	≈0	48	42	92	2	17500	4838	beams dumped
29822	8.68	25.33	75255.75	"	1.1	0.1	48	36	445	5	"	"	
29823	7.08	21.35	75277.10	"	0.8	<0.05	49	38	375	9	17503	"	

Run	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T0 Raj. $*10^6$	T1 ACC SUM	T1 ACC SUM	T1 Bit 2 $E_{L0}>6$ GeV	T1 Bit 7 2T. E4. ≥ 2 TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAW

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20:00 Kado on shift

14.10.86

0:00 Kado still on shift

0:35 gas check done

2:48 color TV shows "magnet fluctuation" → digital display in hardwar room reads ~ 6600 A
not possible to set magnet current to 7500 A by computer / push buttons also not functioning
Then I discovered the analog current meter being off scale (> 8000 A) !!

magnet current set manually to 7500 A (analog meter), digital display shows 6377 A

3:00 magnet trips completely → "Pumpuncutfall 1+2" / MK1 informed

3:29 magnet on again, but: digital display is wrong. Magnet current has to be set by hand according to the analog current meter (it was checked by MK1 people that this one is correct)

therefore: current reading and field calculation by the computer are wrong.

*** DO NOT operate the magnet by computer until this problem is fixed ***

Somehow it is fixed.

4:00 Barthel on shift
5:30 Magnet trip outgoing temperature > 80° call MKK
5:10 Magnet trip temp > 80°
something is wrong with the cooling system.
We have to wait until water experts come in at 8°°

8:00 Elsen on shift
Gas check done
8:40 Pihat and Larsen were here. A 5V power unit for the control of the cooling water had failed. Pihat claims that everything is working well again. However we had 3 magnet fluctuations in the last 5 minutes...
9:10 IBM link (operators claim for ten minutes) write to tape.
PETRA telegramm down, too.

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MIRR T2 %	ONLINE REJECT NOISO T1+T2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD ±1 * G	REMARKS

21

9:45 Magnet walks away to high values. Reset by computer ok.

13:00 IBM back again
13:20 New fill attempted, but soon "Short Break". Magnet set to 1000 A.
Mark I says: "Trouble with Tassa Magnet Power Supply." Duration ca 30-40 min."
14:10 Magnet started to run up.
14:16 Injection
15:15 Beams up again.

If Magnet fluctuates, pause run at set by computer control to 7500.

16:00 Becker
Gas check done.
20:00 Helgeroth
15.10.86 0:00 Ambrus, Walker
Gas check O.K.
00:40 JDAS Error 33 - Missing event br. 3 or 4: zero pack 1.
5:00 DETC68K reboot because of a spike in "MEAN A+ & A-" - HISTO → O.K
next run = 29852

8:00 Kado on shift
gas check done
10:00 Cartwright
11:09 JDAS readout error 36 - missing LAM JD8K bank
11:20 μ-chambers 608 and 610 reconnected. If Y-ipy reports either T7 trigger error or missing digitizer phone me or (preferably!) Jan Chen, Tin Geschen.
12:00 Kado again
14:00 Cartwright again
Just before I arrived there was a hard 1) trip & soft rec trip caused by the loss of half of each beam. Energy also changed, to 17.532 GeV → transmitter lost, probably. Shortly after SWITCH OFF HV. Did so, just as HV down to zero, message changed to SWITCH ON HV. Phonecall from TASSO saying PWR any DESY broken, hey this fill (what's left of it!).
15:00 Oh joy! The Gould plotter has run out of paper. Install new paper with usual reflections of probable ancestry of designer of said device. Since box says "use within six months" it's a little worrying that the inside packet is stamped "Nov 84" .....

Run	Date	Start	Stop	at run start I^+	at run start I^-	Dead time %	Time (secs)	Records IN	Records OUT	ALL $*10^6$	$T\phi_{rej}$ $*10^6$	T1 Acc SUM	T2 Acc SUM	T1 bit 2 $E_{LG} > 6GeV$	T2 bit 17 2T·E4 ≥ 2Tr	Processors ON/OFF N50	MIP	TOF	FAMP
22				[mA]	[mA]	[%]	[sec]												
29824	14/10	2:08	2:57	7.28	7.69	17.2	2754	8002	4837	716	123	5332	4749	1159	41	ON	ON	ON	OFF
29825	"	2:57	3:28	6.[illegible]	6.42	14.4	37	114	69	10	1	73	59	13	1	"	"	"	"
29826	"	4:02	4:43	10.53	10.84	20.6	2344	8002	5309	623	128	5337	4544	1272	37	"	"	"	"
29827	"	4:43	5:26	8.83	9.12	19.1	2531	8002	5248	658	126	5371	4572	1294	40	"	"	"	"
29828	"	5:27	5:51	7.32	7.59	19.6	322	1060	684	87	17	692	617	173	5	"	"	"	"
29829	"	8:38	9:07	7.37	7.22	16.9	1639	4631	2817	426	72	3102	2694	650	19	"	"	"	"
29830	"	9:11	9:47	6.66	6.51	15.5	2080	5742	3592	541	84	3846	3354	822	32	"	"	"	"
29831	"	10:42	11:25	10.96	11.42	20.7	2387	8003	5323	621	128	5276	4558	1240	33	"	"	"	"
29832	"	11:27	12:11	8.91	9.07	17.3	2577	8002	5043	670	116	5437	4529	1274	32	"	"	"	"
29833	"	12:14	13:02	7.33	7.48	16.0	2831	8002	4849	736	118	5331	4681	1220	39	"	"	"	"
29834	"	13:02	13:14	6.07	6.21	15.0	630	1757	1011	164	25	1178	1020	233	3	"	"	"	"
29835	"	15:16	16:00	10.56	10.61	18.6	2541	8002	5218	667	123	5353	4579	1250	33	"	"	"	"
29836	"	16.01	16:47	8.84	8.90	17.0	2681	8002	4890	697	118	5381	4558	1241	36	"	"	"	"
29837	"	16:48	17:36	7.41	7.46	15.7	2846	8002	4672	740	116	5398	4613	1144	37	"	"	"	"
29838	"	17:36	18:18	6.22	6.27	15.3	2506	6802	3869	652	100	4542	4119	938	26	"	"	"	"
29839	"	19:14	19:56	10.68	10.56	18.8	2481	8002	5292	645	121	5359	4447	1234	36	"	"	"	"
29840	"	19:56	20:41	9.00	8.90	16.8	2656	8002	4976	691	116	5414	4493	1289	40	"	"	"	"
29841	"	20:41	21:28	7.54	7.45	16.1	2808	8002	4881	730	117	5423	4999	1198	36	"	"	"	"
29842	"	21:28	21:54	6.32	6.24	15.3	1479	4059	2361	384	59	2738	2351	623	12	"	"	"	"
29843	"	22:37	23:19	10.56	10.84	14.7	2537	8002	5233	659	123	5331	4626	1215	39	"	"	"	"
29844	"	23:20	24:00	8.87	9.14	17.6	2615	8002	4996	679	119	5397	4517	1265	33	"	"	"	"
29845	15/10	0:04	0:51	7.41	7.66	16.1	2918	8002	4783	732	118	5460	4642	1230	32	"	"	"	"
29846	"	0:53	1:14	6.15	6.35	15.1	1221	3445	1912	317	46	2324	1774	489	8	"	"	"	"
29847	"	1:48	2:29	10.82	10.92	19.6	2409	8002	5268	634	124	5390	4616	1326	34	"	"	"	"
29848	"	2:31	3:15	9.01	9.10	17.5	2623	8002	4866	682	119	5429	4674	1302	30	"	"	"	"
29849	"	3:16	4:02	7,52	7,60	16,4	2771	8002	4755	721	118	5336	4806	1192	35	"	"	"	"
29850	"	4:03	4:22	6,31	6,38	15,8	1122	3117	1830	292	46	2101	1849	509	11	"	"	"	"
29851	"	—																	
29852	"	4:58	5:39	10,42	10,57	19,2	2433	8002	5257	633	122	5251	4543	1317	39	"	"	"	"
29853	"	5:40	6:24	8,75	8,90	17,0	2663	8002	4887	693	118	5390	4607	1259	32	"	"	"	"
29854	"	6:25	7:16	7,31	7,44	16,4	2745	8002	4679	714	117	5359	4625	1184	35	"	"	"	"
29855	"	7:16	7:38	6,03	6,16	15,7	1306	3645	2047	340	53	2474	2245	540	17	"	"	"	"
29856	"	8:24	9:04	10.73	10.54	20.4	2409	8002	5277	627	128	5328	4517	1326	43	"	"	"	"
29857	"	9:05	9:47	9.05	8.88	19.4	2499	8002	4985	650	126	5369	4539	1281	38	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$ Exp. Energy	IBM/Tape output	at run start TOF [V]	at run start ID [mA]	online rejection sum MIP T2 [%]	online rejection N50 T1+T2 [%]	Σ Bhabha	muha	E_{beam} [GeV]	Mag. Field [-1*G]	Remarks
22	[10^{30} cm^{-2} s^{-1}]	[nb^{-1}]	Exp. Energy [nb^{-1}]	IBM/Tape									Remarks
29824	5.20	17.65	75294.75	IBM	0.75	<0.05	49	41	370	8	17500	4838	
29825	4.25	0.17	75294.92	"	0.80	≈0	58	46	3	0	"	-?-	magnet trip beams dumped
29826	9.16	25.11	320.03	"	1.1	0.1	47	35	421	8	"	4858	< wrong >
29827	7.47	22.88	342.91	"	1.0	0.1	44	36	402	5	"		
29828	6.09	2.90	345.81	"	1.0	0.1	48	37	51	0	"		Magnet trip
29829	6.84	12.01	357.82	IBM	0.75	0	50	41	211	1	"	4856	
29830	5.17	13.10	370.92	IDAS11	0.70	0	49	42	250	2	17503	4860	beams dumped
29831	8.17	23.54	75394.46	IDAS07	1.20	0.1	46	35	466	6	16485?	4847	
29832	7.83	26.58	75421.04	IDAS09	0.80	0.05	48	38	467	6	17500	4847	
29833	6.10	20.96	75442.00	IDAS23	0.70	0.02	48	47	368	5	17503	4841	
29834	4.77	3.76	75445.76	IBM	0.60	"	50	44	66	0	17500	4843	IBM up again. Beams dumped
29835	8.74	26.98	75472.74	"	1.0	0.1	47	36	474	8	"	4840	
29836	7.21	22.66	75495.40	"	0.75	0.06	48	40	398	5	"	4847	
29837	5.95	20.16	75515.56	"	1.6	0.04	49	43	354	3	"	4851	
29838	4.80	14.41	75529.97	"	1.4	0.02	51	45	253	3	17503	4856	beams dumped
29839	8.80	24.99	75554.96	"	1.0	0.1	47	35	439	7	17500	4856	
29840	7.53	23.62	75578.58	"	0.7	0.1	48	39	415	6	-"-	4837	
29841	6.04	21.69	75600.27	"	0.65	0.05	50	40	381	2	-"-	4838	
29842	4.98	11.22	75611.49	"	0.6	0.03	49	43	197	2	17503	-"-	BEAMS DUMPED.
29843	8.56	23.97	75635.46	"	1.05	0.1	48	36	421	7	-"-	-"-	
29844	7.48	23.12	75658.58	"	0.8	0.1	48	39	405	8	"	"	
29845	5.92	20.90	75679.48	"	0.65	0.1	51	42	367	3	"	4837	
29846	4.57	6.55	75686.03	"	0.6	0.1	49	46	115	1	"	4840	Beams dumped
29847	9.11	27.61	75713.64	"	1.2	0.2	48	35	485	5	17500	4838	
29848	7.51	25.10	75738.74	"	1.0	0.2	50	40	441	3	"	"	
29849	5,68	18,62	75757.36	"	0.8	0.15	50	42	327	7	"	4836	
29850	4,56	8,54	75765.90	"	0.8	0.15	51	43	150	1	17503	4838	beams dumped
29851													empty
29852	8,70	26,20	75792.10	"	1,0	0,2	46	35	460	5	"	4840	DETC684 reload
29853	7,11	21,23	75813.33	"	0,8	0,15	49	40	373	5	17500	"	
29854	5,26	17,88	75831.21	"	0,7	0,1	48	43	314	2	"	4844	
29855	4,29	7,51	75838.72	"	0,6	0,1	51	47	132	2	"	4847	beams dumped
29856	8.64	26.25	75864.97	"	1.1	0.2	47	35	451	7	17503	4846	
29857	6.95	20.84	75885.81	"	0.9	0.2	48	39	366	7	17500	4847	

Run	Date	Start	Stop	At run start I^+	At run start I^-	Dead time %	Time (secs)	Records IN	Records OUT	All $\times 10^6$	T_0 Rej. $\times 10^6$	T_1 Acc SUM	T_2 Acc SUM	T_1 Bit 2 $E_{L6} > 6$ GeV	T_2 Bit 17 2T. Ev. ≥ 2TR	Processors ON/OFF NSO	MIP	TOF	FAMP
24																			
29858	15/10/86	9^{48}	10^{33}	7.62	7.48	18.2	2694	8002	4970	701	127	5310	4790	1197	39	ON	ON	ON	OFF
29859	15/10/86	10^{54}	11^{18}	6.47	6.34	17.3	2613	7395	4333	680	117	4924	4520	1080	40	"	"	"	"
29860	"	12:12	12:54	10.66	10.56	19.3	2477	8002	5181	645	125	5338	4542	1328	27	"	"	"	"
29861	"	12:54	13:38	8.87	8.79	17.4	2603	8002	4906	678	118	5412	4500	1374	28	"	"	"	"
29862	"	13^{39}	14^{06}	7.44	7.36	14.6	408	3810	2116	366	53	2654	2117	556	15	"	"	"	"
29863	"	14^{15}	14^{23}	2.64!	2.77!	9.7	463	902	395	120	12	513	608	72	3	"	"	"	"
29864	"	15^{09}	15^{52}	10.27	10.57	18.3	2529	8002	5160	658	120	5245	4607	1286	38	"	"	"	"
29865	"	15^{53}	16^{37}	8.56	8.65	16.9	2634	8002	4883	685	116	5393	4865	1292	38	"	"	"	"
29866	"	16^{38}	17^{25}	7.18	7.26	15.5	2851	8002	4717	742	114	5370	4629	1276	45	"	"	"	"
29867	"	17^{26}	17^{70}	6.01	6.09	15.7	236	642	383	61	9	419	367	96	2	"	"	"	"
29868	"	18^{10}	18^{51}	10.85	11.06	20.2	2455	8002	5269	638	128	5280	4651	1300	31	"	"	"	"
29869	"	18^{51}	19^{32}	9.13	9.33	20.4	2430	8002	5186	632	128	5346	4516	1381	31	"	"	"	"
29870	"	19^{33}	20^{00}	7.62	7.87	18.2		4339	2684							"	"	"	"
29871	"	20^{53}	21:33	9.54	9.95	23.4	2358	8002	5331	613	143	5167	4683	1316	35	"	"	"	"
29872	"	21:34	22:17	8.11	8.49	19.0	2570	8002	4996	668	127	5383	4552	1305	41	"	"	"	"
29873	"	22:17	23:03 ~~22:48~~	6.84	7.20	16.6	2728	7699	4630	709	118	5191	4535	1222	41	"	"	"	"
29874	"	23:33	0:15	10.59	10.96	20.0	2491	8002	5166	648	129	5289	4665	1324	45	"	"	"	"
29875	16/10/86	0:15	0:59	8.77	9.25	18.3	2598	8002	4987	676	124	5262	4779	1316	45	"	"	"	"
29876	"	0:59	1:46	7.50	7.82	16.6	2773	8002	4723	721	120	5368	4619	1221	34	"	"	"	"
29877	"	1:46	1:58	6.37	6.61	14.8	698	1974	1079	182	27	1368	1131	274	7	"	"	"	"
29878	"	2:25	3:06	10.35	10.72	19.8	2474	8002	5237	644	127	5262	4671	1254	46	"	"	"	"
29879	"	3:07	3:50	8.69	9.22	18.5	2582	8002	4874	671	124	5274	4674	1291	24	"	"	"	"
29880	"	3:53	4:36	7.28	7.77	17.3	2554	7548	4533	664	115	5091	4374	1252	25	"	"	"	"
29881	"	5:07	5:46	10.35	10.59	26.1	2296	8003	5472	597	155	5186	4694	1316	40	"	"	"	"
29882	"	5:46	6:27	8.84	9.06	22.3	2390	8002	5284	621	138	5236	4651	1247	29	"	"	"	"
29883	"	6:27	7:13	7.58	7.78	17.0	2747	8002	4731	714	121	5377	4673	1301	28	"	"	"	"
29884	"	7:14	7:17	6.41	6.60	16.2	170	525	299	44	7	345	256	75	2	"	"	"	"
29885	"	16.04	16.44	10.30	9.91	20.7	2401	8002	5284	624	129	5362	4564	1312	33	"	"	"	"
29886	"	16.43	17.27	8.86	8.49	19.5	2549	8002	5217	663	129	5335	4711	1255	39	"	"	"	"
29887	"	17.27	18.12	7.62	7.18	18.7	2656	8002	4995	691	129	5304	4677	1297	44	"	"	"	"
29888	"	18.13	18.35	6.58	6.27	17.2	1337	3853	2320	348	59	2568	2248	592	20	"	"	"	"
29889	"	19.19	19.37	9.62	8.20	17.9	1065	3280	2121	276	49	2157	1897	506	12	"	"	"	"
29890	"	20:10	20:50	10.54	11.08	20.7	2390	8002	5286	621	128	5312	4623	1220	47	"	"	"	"
29891	"	20:50	21:34	9.01	9.52	18.4	2574	8002	5042	669	123	5411	4650	1269	50	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int L dt$ nb^{-1}	$\int L dt$ exp. energy nb^{-1}	IBM tape output	At run start TOF V	At run start ID μA	Online reject sum MIP % T_2	Online reject NSO % (T_1+T_2)	Σ Bhabha	MH	E_{beam}	Mag field ~1×G	Remarks
24													25
29858	5.13	16.91	75902.72	IBM	0.85	0.15	50	39	297	6	17.5	4846	
29859	3.97	12.81	75915.53	"	0.8	0.15	51	43	225	3	"	4847	Beams dumped
29860	9.32	28.12	75943.65	"	1.1	0.2	47	36	494	4	"	4851	
29861	7.22	26.02	75969.67	"	0.8	0.15	48	40	457	6	17.503	4850	
29862	5.15	9.00	75978.67	"	0.65	0.15	51	43	158	3	"	"	PKR said SWITCH OFF HV, so we did, then changed their minds because DESY u/s
29863	0.99!	0.80	75979.47	"	0.3	0.1	56	59	14	0	17.529	4853	Beams finally dumped!
29864	8.34	26.13	76005.60	"	1.0	0.2	47	37	459	3	17.5	4856	
29865	6,81	22,95	76028,55	"	0.75	0.15	48	40	403	9	17.503	4832	
29866	6,19	19,48	76048,03	"	0,6	0,15	48	42	342	6	"	4839	
29867	4,31	1,48	76049,51	"	0,575	0,1	49	43	26	0	17.500	4844	Beams dumped.
29868	8.52	26,31	76075,82	"	1,3	0,2	47	35	462	6	17.503	4841	
29869	7,68	25,74	76101,46	"	1,2	0,2	47	36	452	8	"	4840	
29870	6,67	10,59	76112,05	"	0,8	0,2					"	4841	Disk transfer error - word reloaded - beams dumped
29871	7.32	20.90	76132.95	"	1.0	0.2	46	35	367	4	"	4837	
29872	6.32	19.36	76152.31	"	0.9	0.15	48	39	340	5	17.500	"	
29873	5.12	17.08	76169.39	"	0.8	0.1	50	41	300	11	17.503	"	beams dumped
29874	8.16	24.94	76194.33	"	1.2	0.2	48	37	438	2	"	"	
29875	6.86	21.12	76215.45	"	0.9	0.15	48	39	371	5	17.500	4838	
29876	5.64	18.84	76234.29	"	0.75	0.1	49	42	331	3	"	4835	
29877	5.17	4.70	76238.39	"	0.7	0.1	52	47	72	3	17.503	4836	beams dumped
29878	8.39	24.02	76262.41	"	1.2	0.2	47	36	422	8	17.500	4837	
29879	6.73	20.84	76283.25	"	0.9	0.15	48	40	366	7	17.503	4838	
29880	5.30	17.25	76300.50	"	0.75	0.1	49	41	305	5	"	4840	beams dumped
29881	8.08	20.10	76320.60	"	1.6	0.3	47	33	353	1	17.500	4840	
29882	6.63	17.70	76338.30	"	1.2	0.2	47	35	311	8	"	"	
29883	5.50	19.81	76358.11	"	0.8	0.1	49	42	348	5	"	"	
29884	4.95	0.97	76359.08	"	0.7	0.05	41	46	17	0	"	"	beams dumped
29885	8.95	25,79	76384.87	"	1.05	0.2	48	35	453	5	"	4849	
29886	7.22	21.58	406.45	"	0.95	0.2	49	36	399	7	"	4852	
29887	5.52	18.28	424.73	"	0.90	0.2	48	39	321	7	"	"	
29888	4.45	7.46	432.19	"	0.80	0.15	49	41	131	3	"	"	dump
29889	7.18	10.19	442.38	"	0.95	0.20	48	37	179	1	"	"	dump
29890	8.65	24.09	466.47	"	1.3	0.25	48	35	423	5	17.503	4857	
29891	7.41	23.57	490.04	"	0.9	0.2	50	38	412	6	17.500	4856	

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	Tφ Raj. $*10^6$	T1 ACC SUM	T2 ACC SUM	T1 Bit 2 $E_{LG}>6$ GeV	T2 Bit 2 2T. E.A. $\geq 2T_R$	PROCESSORS ON/OFF NSO	MIP	TOF	FAMU

15^{20} JDAS readout error 36 — missing LAM in J68K bank
15^{30} onwards persistent small magnet fluctuations (must be just outside tolerances). Not important but irritating!

16^{00} Hill on shift.
Gas check done.
18^{21} JDAS readout error 33 missing lam bn 3 or 4. Zch part 1.
18^{49} JDAS readout error 36 missing lam J68K bank.
18^{51} " " " " " " " "
20^{00} Soft trip ID + Vtx ch reset OK. – but no response from any NORD terminals – reload NORD but it doesn't get further than LOAD – call JO. He avoid the problem by running down the disk + back up again. Nord now reloads successfully.
No runsummary for #29870. Errors caused by mains fluctuations?
In the middle of all of this they dumped the beams.
U. Schneekloth on shift
23^{33} after start of run 29874 error message: ERROR 24 IN 34727 AT 73777; ILL. INSTR.
↳ what action taken? non

16/10/86

0:00 Kado on shift
gas check done
1:40 muon crate 8 frequently missing
3:50 message from 23:33 at every run start ~ rebuild YMAGNT → ok – NOT ok – you did not read the error msg during RELOAD : NO magnet pros!
4:00 Kuhlen on shift
4:04 YSPY: Trigger 3 I/P missing, st 28 gp 4. Histogram looks okay
4:20 JDAS readout error 35 – wrong length of J68K bank
4:25 JDAS " " 36 : missing LAM, J68K bank
7:26 Beams dumped, there will be machine studies until 15:00. PKR does not need our magnet. ? switched it off and go home.

8:00 Chin
Gas check done.

YMAGNT not working – reason – task not rebuilt – during the night YMAGNT was rebuilt but an error occurred during this. The reason is that PIOLIB is corrupt!

$\angle L >$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM number T_2 %	ONLINE REJECT NORD50 T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD $-1*G$	REMARKS

PIOLIB:BRF copied to system disc from backup via magtape – hey presto! – it now rebuilds YMAGNT.
ZDAS & YPAROT altered so that z-trigger is part of std readout

Disc backup made, followed by regeneration of directory & backup repeated. File (DAS) OLD-ZDAS lost. HEM

15^{35} Injection, magnet raised to 7500 Amps.
16.00 Narodna
Gas check ok.
16.21 Missing LAM J68K Bank
Muon Crate 8 reset
Check STD Histograms
16.39 Miss. LAM J68K Bank
17.00 " " " "
19.19 20 min after start of datataking, Petra decided to throw away the filling because they didn't like it. They could not optimize the filling because they lost some current on their way up (?!?).
Tasso properly, they had lost some current on their way up (?!?).
20.00 Magnussen
17.10. 0.00 U. Schneekloth
1.08 Vtx ch. trip
1.55 "
2.05 gas check done
2.14 Vtx ch. alarm, soft trip, alarm register 2 is on, −1800 drift is on high voltage is off, no run!
2.54 Jet ch. + Vtx ch. soft trip
4.00 Cartwright
4.20 Beams lost. All chambers trip.
6.38 After twice losing the beams during injection, PETRA announces SHORT BREAK. Magnet → 1000A
8.00 Becker
Gas check done
8.30 Magnet → 7500A for COSMIC runs
starting run with any test not successfull (unknown error message in response of Trig. Source 3000A)
J. Olsson said: Rebuilding ZDAS may help.
rebuilding just finished as PETRA starts injection
run 29902 was junk, switched everything back to normal. Schelin

28 RUN	Date	START	STOP	At Run Start I^+	At Run Start I^-	DEAD TIME %	TIME (sec)	RECORDS IN	RECORDS OUT	ALL $*10^6$	Tø Rej. $*10^6$	T_1 Acc SUM	T_2 Acc SUM	T_1 Bit 2 $E_{L6}>6$ GeV	T_2 Bit 17 2T. Ev. $\geq 2TR$	Processors ON/OFF NSO	MIP	TOF	FAM
29892	16/10/86	21:34	22:21	7.62	8.10	16.5	2792	8002	4818	726	119	5430	4618	1212	38	ON	ON	ON	OFF
29893	"	22:21	22:42	6.93	6.87	15.2	1212	3379	1984	315	47	2248	1991	483	12	"	"	"	"
29894	"	23:14	23:16	10.83	10.86	24.0	119	487	338	30	74	310	235	74	2	"	"	"	"
29895	"	23:16	23:56	10.70	10.74	21.2	2360	8002	5260	613	129	5334	4632	1212	41	"	"	"	"
29896	"	23^{56}	039	9.15	9.20	18.7	2561	8002	4949	666	124	5412	4689	1254	28	"	"	"	"
29897	17/10.86	040	125	7.82	7.86	18.1	2720	8002	4902	708	128	5353	4832	1186	47	"	"	"	"
29898	"	126	202	6.68	6.72	16.2	2143	6044	3513	558	90	3994	3678	843	30	"	"	"	"
29899	"	230	310	10.65	10.86	24.6	2233	8002	5485	581	143	5296	4491	1249	36	"	"	"	"
29900	"	310	353	9.09	9.28	19.6	2524	8002	5133	657	129	5361	4667	1243	44	"	"	"	"
29901	"	353	4^{20}	7.69	7.87	18.5	1554	4685	2853	405	75	3181	2753	731	24	"	"	"	"
29902	"																		
29903	"	10:02	10:52	10.87	11.05	18.8	2536	8002	5158	660	125	5319	4654	1187	28	"	"	"	"
29904	"	10:53	11:42	8.58	7.81	16.6	2719	8002	4843	708	118	5392	4543	1169	31	"	"	"	"
29905	"	11:45	12:30	7.12	6.41	15.1	2469	6610	3924	623	97	4435	3959	961	27	"	"	"	"
29906	"	13:16	13:55	10.86	10.92	20.2	2365	8002	5334	616	125	5371	4452	1317	34	"	"	"	"
29907	"	13:56	14:40	9.20	9.26	17.5	2591	8002	5023	674	118	5444	4615	1329	30	"	"	"	"
29908	"	14:40	15:27	7.71	7.77	15.9	2829	8002	4841	736	117	5382	4806	1149	40	"	"	"	"
29909	"	15:28	15:52	6.49	6.54	15.9	1216	3352	1940	317	50	2240	1938	450	15	"	"	"	"
29910	"	16^{35}	16^{44}	10.31	10.45	21.0	61	240	146	16	3	143	113	31	0	"	"	"	"
29911	"	17^{52}	18^{35}	10.29	9.87	18.7	2564	8002	5117	667	124	5330	4652	1189	29	"	"	"	"
29912	"	18^{35}	18^{44}	8.76	8.34	16.7	366	1160	740	95	17	752	641	190	7	"	"	"	"
29913	"	19^{19}	19^{59}	11.04	11.11	22.8	1324	6292	4247	474	108	4426	3640	920	26	"	"	"	"
29914	"	22^{26}	23^{07}	10.47	10.42	20.6	2402	8002	5360	625	129	5242	4652	1204	36	"	"	"	off
29915	"	23^{08}	235'	8.76	8.71	18.2	2571	7852	4851	670	122	5192	4557	1149	25	"	"	"	"
29916	"	23 52	0.22	7.30	7.27	15.9	1770	4897	2748	460	73	3181	2986	599	25	"	"	"	"
29917	18.10.86	0:51	1:32	10.60	10.84	22.3	2384	8002	5324	620	139	5223	4684	1248	45	"	"	"	"
29918	"	1:23	1:49	8.92	9.14	20.4	938	3117	2021	244	50	2036	1798	460	17	"	"	"	"
29919	"	1:51	2:33	8.25	8.47	20.0	2549	8002	5020	663	153	5175	4638	1157	84	"	"	"	"
29920	"	2:33	3:19	6.90	7.10	18.3	2722 ~~8002~~	8002	4676	708	150	5219	4675	1105	32	"	"	"	"
29921	"	3:20	3:41	5.78	5.97	17.3	1249	3534	2046	325	66	2314	2159	499	19	"	"	"	"
29922	"	4^{22}	4^{50}	11.14	11.05	24.9	2238	8002	5401	582	145	5037	4570	1185	27	"	"	"	"
29923	"	4^{50}	5^{20}	9.35	9.21	21.8	1753	5988	3855	456	99	3867	3398	978	19	"	"	"	"
29924	"	7^{02}	7^{46}	7.87	9.33	19.2	2608	8002	5129	679	130	5212	4751	1100	37	"	"	"	"
29925	"	7.45	8.32	6.53	7.68	18.5	2693	8002	4838	701	129	5198	4756	1136	41	"	"	"	"
29926	"	8.31	8.49	5.42	6.64	17.7	1020	3022	1788	265	46	1960	1797	404	15	"	"	"	"
29927	"	8.51	9.40	5.01	6.19	17.4	2866	8004	4442	746	129	5151	4941	1024	37	"	"	"	"

29 RUN	$\langle L \rangle$ $10^{30}\,cm^{-2}s^{-1}$	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$ EXP. ENERGY	IBM/TAPE OUTPUT	At Run Start TOF [V]	At Run Start ID [μA]	Online Reject SUM MIROC T_2 %	Online Reject NORSO T_1+T_2 %	Σ BHABHA	Y/H	E_{BEAM}	MAG FIELD $-1*G$	REMARKS
29892	6.02	19.18	76509.22	IB17	0.8	0.15	50	41	337	10	17.500	4856	
29893	4.88	7.23	516.45	"	0.7	0.15	49	43	127	2	17.503	"	Beams dumped
29894	9.65	1.54	517.99	"	1.3	0.25	39	33	27	0	"	"	Stopped to reinitialise L6-pedestals
29895	8.66	20.96	538.95	"	1.3	0.25	48	35	368	4	"	4857	
29896	6.82	18.85	557.80	"	1.0	0.2	50	39	331	4	"	"	
29897	5.25	17.76	575.56	"	0.9	0.1	51	40	312	6	17.500	4859	
29898	4.11	9.40	584.90	"	0.8	<0.1	49	43	165	5	17.503	4860	beams dumped
29899	8.07	23.06	607.96	"	1.6	0.2	46	33	405	6	"	4858	
29900	7.55	20.72	628.68	"	1.1	0.1	49	37	364	4	17.500	4860	
29901	5.84	10.71	76639.39	"	0.9	0.1	51	41	188	3	17.503	4859	Beams lost
29902													Cosmic run U_p=2008V no trigger!
29903	8.11	24.19	76663.58	"	1.2	0.1	48	36	425	4	17.500	4837	
29904	6.85	22.32	76685.80	"	0.7	0.1	48	41	382	5	"	4840	
29905	5.30	14.63	76700.53	"	0.6	0.1	51	42	257	4	"	"	beams dumped
29906	10.37	28.19	76728.72	"	1.0	0.2	47	34	495	9	17.503	4839	
29907	8.46	26.81	76755.53	"	0.7	0.2	49	38	471	6	17.500	"	
29908	6.41	21.29	76776.72	"	0.7	0.15	50	41	374	3	"	4841	
29909	4.99	8.09	76784.81	"	0.6	0.15	49	44	142	1	17.503	4840	beams dumped
29910	5.62	0.06	76785.49	"	1.2	0.2	34	42	12	0	17.500	"	Beams lost.
29911	9.66	23.40	76808.89	"	1.1	0.25	48	34	411	7	"	"	
29912	3.82	4.10	76812.99	"	1.0	0.2	45	38	72	1	17.500	4839	½ lost – ½ dumped!
29913	11.32	19.13	76832.12	"	1.4	0.3	47	34	336	6	"	4838	60% lost, 40% dumped.
29914	10.47	27.10	76859.22	"	1.2	0.3	47	34	476	4	17.500	4841	
29915	8.25	21.58	76880.80	"	0.9	0.25	47	39	379	5	17.500	4840	first 100 events have slightly higher energy
29916	5.24	8.63	76889.43	"	0.8	0.6!	48	45	151	4	17.538	4838	beams dumped
29917	10.44	25.10	76914.53	"	1.2	0.4	47	35	441	6	17.560	4837	
29918	9.74	8.57	76922.90	"	1.0	0.4	46	37	147	3	17.500	4840	
29919	8.60	21.63	76944.53	"	0.8	0.4	45	39	380	6	17.500	4841	
29920	6.08	15.95	76960.48	"	0.75	0.4	46	43	280	2	17.503	4841	
29921	5.30	6.66	76967.14	"	0.75	0.3	49	47	117	0	17.500	4840	beams dumped
29922	11.26	24.13	991.33	"	1.4	0.5	42	34	425	9	17.500	4837	
29923	10.07	18.79	77010.12	"	1.2	0.4	44	37	330	4	"	"	beams lost
29924	8.58	22.14	77032.26	"	1.1	0.4	47	37	399	4	"	4844	
29925	6.55	18.67	050.93	"	0.8	0.3	47	41	328	6	"	4847	
29926	5.23	4.95	055.88	"	0.8	0.3	47	42	87	1	"	4847	Reload TOP
29927	4.14	11.73	77067.61	"	0.75	0.25	48	46	206	2	"	"	

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_ϕ Raj. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 17 2T. Ev. ≥ 2TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAM

12.00 Ambrus

12.25 JDAS READOUT ERROR 36 – MISSING LAM, 768K Bank

13.34 " " " "

16.00 Walter Gas check OK

16.41 All chambers trip during "optimization", ~~[illegible]~~ beams lost shortly afterwards.

18.11 JDAS error 36 as at 12.25 and 13.34

18.41 All chambers trip – both beams lost ~5 nA, i.e. end of fill imminent.

18.43 Beams dumped.

19.19 JDAS error 36 again

19.37 All chambers hard trip.

19.53 JDAS error 33: missing LAM 6, 3 or 4 : z-ch part!

19.56 Both beams lost ~6 nA, all chambers ~~[illegible]~~ hardly. End of fill.

20.00 R. Meinke on shift

"short" break

22.25 restart

23.40 missing lam branch 3 crate 2 : Muon chambers

23.49 energy has changed to 17.522 GeV , ID current has increased to 0.6 !

23.55 energy now 17.539 GeV shortly after back to 17.500 GeV

18/10/86

0:00 Esser on shift, gas check done

1:20 missing LAM at ID current.

1:48 missing LAM at FEP Ready. Reload 768K-System.

2:30 missing LAM at ID current.

2:55 missing LAM 768K Bank

4.00 Felst

5.20 beams lost, all chambers trip, valve failure

5.40 short break magnet → 1000 A

6.20 injection magnet → 7500 A

18.10. 8.00 Narsoian

Gas check ok

Submitted 2 REFORM JOBS (149/150)

8.25 2x JDAS RO ERROR 64 AC2099 TOF-2 Q,X missing Stn 15 and 3

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int L dt$ nb^{-1}	$\int L dt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM HIBOR T_2 %	ONLINE REJECT NORSO T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD $\cdot 1 * G$	REMARKS

8.37 Called TASSO to ask for a new fill. Desy kaputt (bottom magnet). So we have to stay with this lousy filling

8.50 Continuous "Missing LAM at FEP ready", Stop run, reload NOP

9.50 Several times (3) JDAS RO ERROR 36 Missing LAM 768 K Bank

10.09 Once more

11.00 Stop this miserable run to allow MARK J access.

Call Ambrus for cosmic run

— Call from PETRA: no beams probably before 12.30h.

11.27 – 12.37 cosmic runs for dE/dx – threshold determination U. Ambrus

12.00 Weber

13.50 ID current is 0.5 and does not seem to go down; Call Eckerlin, either there was any changes of ID voltages during cosmic ray run which need to be reset. He says no! So we keep running with ID current = 0.5

13.58 JDAS read out error 33 system crate watchdog flag PARTS = 000062 177777 (oct)

14.20 a ventilation unit in rack #6 (hard core room) is very noisy. Since it belongs to Pb system, I try to call Klagmann without success. Maybe this unit should be changed during the next filling procedure

Eckerlin came in to check whether ID voltages are as before cosmic run. They are! call PKR about reduction of our background. They manage to get the current below 0.2 μA

14.43 JDAS read out error 33 – Missing lam 768K Bank 177777 040204 177777 000 460.

15.16 Histograms checked: o.k.

18.00 Felst, gas check O.K.

17.00 2 reform jobs submitted

20.00 Eckerlin (18:33, 19:45, 19:47)

20.05 three times Error 14 in 34727 at 76045; outside segment bounds, so I decided to rebuilt YMAGNT

20.20 finally beams but impossible background (TOF > 5V)

20.25 TOF ~2V during stating run: during pedal trigger soft trip of Jet ch and BP-CH so I stopped run. waiting for better conditions.

20.30 TOF ~1.5 V: after ~300 Triggers soft trip of BP-CH only

20.43 again soft trip of Jet-Ch and BP-CH

21.15 once more: BP-CH soft trip

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_0 Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 17 2T. Et. ≥ 2TR	Processors ON/OFF NSO	MIP	TOF	FAN
32																			
Run	date	start	stop	I^+	I^-	dead time	time	records in	records out	all	T_0 rej.	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2	T_2 Bit 17	Und 50	MIP	TOF	FAN
29928	18.10.	9.40	10.31	4.20	5.27	16.4	3018	8002	4409	785	129	5178	5021	931	38	ON	ON	ON	OFF
29929	"	10.50	11.00	3.55	4.52	14.7	1661	4144	2179	432	63	2658	2653	459	14	"	"	"	"
29930	"	11:25	11:52						232										
29931	"	11:55	11:58						27										
29932	"	12:01	12:37						2552										
29933	"	13:16	13:55	11.09	10.90	24.3	2325	8002	5223	605	148	5078	4597	1134	29	"	"	"	"
29934	"	13:56	14:39	9.56	9.32	19.8	2548	8002	4966	663	131	5264	4624	1180	36	"	"	"	"
29935	"	14:39	15:23	8.08	7.92	17.2	2647	8002	4958	689	119	5400	4458	1191	38	"	"	"	"
29936	"	15^{24}	16^{12}	6.80	6.66	16.3	2870	8002	4682	746	122	5402	4672	1099	41	"	"	"	"
29937	"	16^{52}	17^{32}	10.56	10.41	22.4	2404	8002	5114	625	140	5129	4723	1095	24	"	"	"	"
29938	"	17^{33}	18^{16}	9.03	8.87	19.6	2548	8002	4925	663	130	5210	4756	1158	32	"	"	"	"
29939	"	18^{16}	19^{01}	7.70	7.56	18.8	2674	8002	4836	695	131	5223	4760	1086	27	"	"	"	"
29940	"	19^{02}	19^{32}	6.57	6.44	18.4	1752	5120	2869	456	84	3388	3067	720	15	"	"	"	"
29941	"						junk												
29942	"	20^{30}	21^{20}	10.58	10.41	23.2	2380	8002	5032	619	144	5069	4750	1109	37	"	"	"	"
29943	"	21^{20}	22^{02}	8.73	8.56	20.7	2500	8002	4931	650	134	5198	4646	1140	32	"	"	"	"
29944	"	22^{02}	22^{49}	7.45	7.29	18.8	2625	8002	4709	683	129	5277	4674	1091	30	"	"	"	"
29945	"	22^{50}	23^{17}	6.31	6.12	17.2	1578	4608	2657	411	71	2957	2738	639	19	"	"	"	"
29946	19.10.	0:05	0:44	10.42	10.14	24.1	2320	8002	5145	609	145	5041	4594	1156	36	"	"	"	"
29947	"	0:44	1:26	8.92	8.65	19.9	2498	8002	5046	649	129	5270	4620	1187	34	"	"	"	"
29948	"	1:26	2:10	7.55	7.29	19.6	2601	8002	4851	677	133	5275	4647	1164	36	"	"	"	"
29949	"	2:10	2:37	6.39	6.16	17.9	1209	3631	2122	314	56	2415	2055	511	20	"	"	"	"
29950	"	3:08	3:46	10.54	10.62	24.1	2296	8002	5257	597	144	5164	4545	1217	48	"	"	"	"
29951	"	3:47	4^{28}	8.93	8.98	20.5	2485	8002	5070	667	133	5264	4662	1217	34	"	"	"	"
29952	"	4^{28}	5"	7.51	7.56	19.9	2547	8002	4867	663	132	5241	4654	1170	36	"	"	"	"
29953	"	5"	5^{02}	6.38	6.43	18.3	1788	5349	3131	466	85.3	3502	3142	727	26	"	"	"	"
29954	"	6^{40}	7"	10.29	10.39	21.5	1540	5155	3462	401	86.3	3510	2966	810	12	"	"	"	"
29955	"	7:42	8.25	10.80	10.69	23.3	2300	8002	5115	588	141	5124	4516	1208	29	"	"	"	"
29956	"	8:26	9:08	9.06	8.92	17.9	2518	8002	5051	655	117	5462	4416	1241	31	"	"	"	"
29957	"	9:09	9:59	7.63	7.51	16.7	2737	8002	4757	712	119	5427	4546	1217	41	"	"	"	"
29958	"	10:00	10:27	6.32	6.22	14.9	1631	4471	2498	423	63	3038	2628	620	12	"	"	"	"
29959	"	11:05	11:38	10.33	9.70	20.6	1762	5803	3738	458	84	3884	3208	815	33	"	"	"	"
29960	"	12:51	13:37	10.18	10.09	18.9	2029	6482	4206	528	100	4332	3695	973	20	"	"	"	"
29961	"	13:36	14:23	8.24	8.11	16.2	2702	8002	4702	702	114	5445	4529	1192	35	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int L dt$ nb^{-1}	$\int L dt$ Exp. Energy	IBM Tape Output	At Run Start TOF [V]	At Run Start ID [MA]	Online Reject Sum Hitmap T_2 %	Online Reject Nr of SO T_1+T_2 %	Σ Bhabha	M/H	E_{beam}	Mag Field $-1*G$	Remarks
32													
Run	$\langle L \rangle$	Bhabha $\int L dt$	$\int L dt$ Exp	IBM/Tape	TOF	ID	Sum HITR	Nr of T_1+T_2	Σ Bhabha	HH	E_{beam}	Mag Field	
29928	3.10	8.77	77076.38	IBM	0.65	0.2	49	46	154	4	17.503	4847	
29929	2.51	3.99	080.37	"	0.6	0.2	49	49	70	2	"	4849	dump
29930													Cosmic run $U_p = 240P$ (standard)
29931													" "
29932													" "
29933	9.65	20.78	77101.15	"	1.35	0.5	44	36	365	9	"	4850	new fill
29934	8.38	23.34	77124.49	"	1.1	0.5	47	39	410	2	17.503	4851	
29935	7.77	20.10	77144.59	"	0.72	0.2	47	39	353	9	"	4850	
29936	5.72	16.17	160.76	"	0.65	0.2	50	43	294	3	17.500	4850	beams dumped
29937	8.95	19.70	180.46	"	1.4	0.6	46	37	346	3	"	"	
29938	7.72	18.33	198.79	"	1.0	0.4	47	40	322	4	"	"	
29939	6.26	17.99	216.78	"	0.9	0.3	48	41	316	5	"	"	
29940	5.14	9.73	226.51	"	0.8	0.2	50	44	171	5	"	"	beams dumped
29941													soft trap during pedestals
29942	8.99	19.70	77246.21	"	1.5	0.6	45	38	346	4	17.500	4847	
29943	7.67	19.25	77265.46	"	1.0	0.6	46	40	338	7	17.503	4845	
29944	6.22	15.48	77280.94	"	0.8	0.4	48	43	272	2	17.500	4847	
29945	5.34	8.03	77288.97	"	0.8	0.3	47	44	141	1	17.503	4845	beams dumped
29946	9.02	22.04	77311.00	"	2.5	1.0	43	37	387	3	17.503	4846	
29947	8.29	20.50	77331.51	"	1.0	0.6	47	38	360	5	17.503	4851	
29948	6.74	18.68	77350.19	"	0.8	0.4	47	41	328	3	17.503	4849	
29949	5.46	6.38	77356.57	"	0.8	0.3	47	43	112	2	17.500	4850	beams dumped
29950	10.38	25.28	77381.85	"	1.3	0.4	44	36	444	8	17.500	4850	
29951	8.92	23.97	77405.82	"	1.0	0.5	47	38	421	2	"	"	
29952	6.92	18.56	77434.38	"	0.8	0.4	47	41	326	3	"	"	
29953	5.40	9.73	77444.12	"	0.75	0.3	47	43	171	3	"	"	Beams dumped
29954	10.09	17.60	77461.72	"	1.1	0.5	44	37	309	5	"	"	Beams lost
29955	10.37	24.15	77485.87	"	1.35	0.5	43	37	424	6	17.503	"	
29956	9.34	24.08	77509.95	"	0.9	0.2	48	38	423	11	17.500	4851	
29957	7.08	22.03	77531.98	"	0.7	0.15	49	42	387	6	"	4850	
29958	5.54	9.51	77541.49	"	0.6	0.15	51	45	167	5	"	4852	Beams dumped
29959	10.11	19.13	77560.52	"	1.1	0.2	49	37	336	3	"	"	Beams lost
29960	9.96	20.22	77580.74	"	1.3	0.2	48	36	355	2	17.503	4851	
29961	7.71	21.80	77602.54	"	1.2	0.2	49	43	383	4	17.500	"	

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_ϕ Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 17 2T. Et. ≥ 2 TR	Processors on/off NSO	MIP	TOF	FAN

34

21.20 JDAS Readout error 36 – Missing LAM, J68K bank
21.45 valve failure
22.30 JDAS Readout error 33 – Missing LAM br 3 cr 1 : ID-Current
22.35 Jet-chamber and BP-CH software

19.10.86

0:00 Heinzelmann
1:00 Gas check done
04.00 Greenhan.
04.16 Zimmeni restarted
05.55 Z chamber gas problem – valve failure.

8:00 Schmidt on shift
8:00 Gas check done
8:07 VTEC trip
8:30 Z-Chamber HV fader
11:25 JDAS READOUT ERROR 33 – Missing LAM branch 3 crate 2 : Muon chamber 10 times
12:00 P. Steffen on shift
14:30 histograms checked : 1 wire in Z-chamber is very noisy

16:00 M. Kuhlen on shift, gas check okay
17:51 Beams again, TOF > 3 V and unstable, wait for optimization
18:57 VTXC valve failure. It needed to operate valve V2 to reset.
20:00 Howard Mills on shift.
Spike in beampipe chamber hit map – expert says "it can happen".
Next fill – spike gone away.

20.10.86

0:00 Matsumura on shift, gas check done
0:53 JDAS Read Out Error 33 Missing Lam B = 3 C = 4 Z Ch Part 1
2:43 " " " " B = 3 C = 2 Muon Ch # 3
2:46 " " " " " " " " #3
2:50 Muon Crate Missing 14
4:00 Olsson 4:15 Miss. LAM J68K
4:50 Start new fill: high JETC current observed, normal TOF. Deadtimes correspondingly high.
ID current improves soon.
5:35 Miss-Lam J68K
7:15 All chambers trip 7.20 K. Ambrus on shift. No dump of beams for transmitter repair yet.

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int L dt$ nb^{-1}	$\int L dt$ Exp. Energy	IBM Tape Output	At Run Start TOF [V]	At Run Start ID [MA]	Online Reject Sum Hitbox T_2 %	Online Reject NoRSO T_1+T_2 %	Σ Bhabha	M/H	E_{beam}	Mag Field $-1*C$	Remarks

35

8.00 Becker
Gas check done
8.30 Ambrus : cosmic runs with reduced U_p : $U_p \to 2008$ V, MIPROC off, REDUCTION FLAGS changed
11.00 Exchanged noisy LG-fan N.H.
11.42 During start of a Cosmic Run :
ERROR 90 in 34441 at 73724 ; Fortran Runtime Error 403
Rebuild ZDAS By H. Hills
1600 Chr. Hearth on shift. Gas check done
16.15 $U_p \to 2408$, MIPROC on, JETC68K-LOAD (next run 29995) K. Ambrus
REDUCTION FLAGS reset
MAGNET TO 500 AMPS
18.05 Magnet to 7500 A. 18.20 – 18.45 Z-trigger + I.D. pulser runs.
19.21 Vertex chamber trip
19.27 YSPY Error – Muon digitizers missing : 162
19.45 Missing LAM branch 3 crate 2 : Muon Chambers
19.48 Missing LAM branch 3 crate 4 : Z-Chamber Part 1
19.50 Missing LAM branch 3 crate 2 : Muon Chambers (occurred twice)
19.58 "
20.00 Hagemann
20.00 several times missing LAM B. 3 cr. 2 : Muon chambers
20.11 "again
21.00 several tasks get (possibly?) corrupt, impossible to stop run, many informations are lost
Node restart by J. Olsson and rebuild of several tasks + beams lost, all chambers tripped
(ZDBS, ZMONX, YCLETV, YRUNSH)

Run 30003 has possibly a lot of junk, trigger running wild?

23.24 JDAS error 36 – Missing LAM – J68K-bank
177777 040204 000341 177777 000442 S x 177777
0 223 000357 3 006000 177777 177777 948S 177777

21/10/86 0.00 Hagemann on shift

0.11 Z-chamber trip
0.40 VTXC had trip + 0.55 + 1.25
1.45 Gas check OK (but P18 and P22 lower than on other days)
2.00 new fill, spikes on chamber currents, one VTXC-trip follows the other ⇒ VTXC off for run # 30013
PKR sees nothing but they had deviations from the "spikehunt" half an hour ago.
2.33 Z-chamber trip

Run	Date	Start	Stop	At run start I+	At run start I−	Dead time %	Time (secs)	Records in	Records out	All *10^6	T0 Raj. *10^6	T1 Acc Sum	T2 Acc Sum	T1 bit 2 E_Lo > 6 GeV	T2 bit 17 2T. Eq. ≥ 2TR	Processors ON/OFF NSO	MIP	TOF	FAM
36																			
RUN																			
29962	19.10.86	14:22	15:02	6.95	6.82	15.5	2277	6432	3690	592	92			922	21	ON	ON	ON	OFF
29963	"	17:57	18:47	6.34	6.95	15.6	2997	8002	4582	779	121	5335	4858	1078	35	"	"	"	"
29964	"	18:48	18:53	5.26	5.82	15.0	272	720	407	70	10	474	438	91	2	"	"	"	"
29965	"	19:27	20:06	10.83	10.87	22.2	2263	8002	5314	588	130	5443	4331	1191	34	"	"	"	"
29966	"	20:06	20:48	9.19	9.26	18.8	2498	8002	4994	649	121	5379	4521	1155	20	"	"	"	"
29967	"	20:48	21:32	7.75	7.82	18.1	2607	8002	4852	677	122	5452	4551	1153	30	"	"	"	"
29968	"	21:32	22:10	6.52	6.59	17.3	2230	6656	3710	579	100	4449	3893	856	29	"	"	"	"
29969	"	22.50	23:30	10.34	10.35	21.3	2313	8002	5253	601	127	5367	4481	1153	34	"	"	"	"
29970	"	23.30	0:12	8.80	8.81	19.0	2467	8002	4973	641	122	5445	4400	1246	28	"	"	"	"
29971	20.10.86	0:11	0:56	7.38	7.39	17.6	2642	8002	4705	686	121	5377	4525	1096	33	"	"	"	"
29972	"	0:57	1:17	6.19	6.21	16.2	1204	3424	1995	313	51	2292	1973	466	9	"	"	"	"
29973	"	1:53	2:31	10.27	10.34	22.4	2315	8002	5184	602	135	5397	4386	1207	27	"	"	"	"
29974	"	2:32	3:13	8.69	8.75	18.9	2485	8002	4997	646	128	5437	4433	1189	35	"	"	"	"
29975	"	3:14	3:58	7.33	7.38	18.9	2655	8002	4730	690	130	5378	4591	1092	41	"	"	"	"
29976	"	3:57	4:17	6.17	6.22	17.5	1064	3038	1798	276	48	2019	1907	401	12	"	"	"	"
29977	"	4.51	5.30	10.49	10.36	22.8	2281	8002	5312	593	135	5297	4496	1218	37	"	"	"	"
29978	"	5.30	6.11	8.90	8.77	19.5	2446	8002	4958	636	124	5473	4360	1194	29	"	"	"	"
29979	"	6.11	6.56	7.52	7.41	18.1	2649	8002	4797	689	124	5396	4599	1158	42	"	"	"	"
29980	"	6.56	7:48	6.36	6.26	16.1	2821	8002	4517	734	118	5465	4599	1074	36	"	"	"	"
29981	"	7.47	8:18	5.31	5.22	14.7	1614	4276	2284	420	62	2923	2580	571	20	"	"	"	"
29982	"	—							—										
29983	"	8:38	9:58						2213										
29984	"	10:12	10,41						8002										
29985	"	10:42	11:16						8002										
29986	"	11:20	11:42						6314										
29987	"	11:54	12:23						8002										
29988	"	12:24	12:53						8002										
29989	"	12:56	13:26						8002										
29990	"	13:28	13:58						8002										
29991	"	14:14	14:33						8002										
29992	"	14:34	15:03						8002										
29993	"	15:07	15:38						8002										
29994	"	15:39	16:10						8002										
29995									junk										

Run	L (10^30 cm^-2 s^-1)	Bhabha ∫Ldt nb^-1	∫Ldt. EXP. ENERGY	IBM TAPE output	At run start TOF [V]	At run start ID [MA]	Online REJECT SUM MIRROR T2 %	Online REJECT NSO T1+T2 %	Σ Bhabha	M/H	E_beam	Mag Field -1*G	Remarks
36													37
RUN													Remarks
29962	6.05	14.74	77617.28	IBM	1.0	0.15	49	44	269	2	17500	4850	beams dumped
29963	5.77	19.41	77636.69	"	0.7	0.15	50	44	341	6	"	"	beams partially lost
29964	4.55	1.31	77638.00	"	0.6	0.1	53	46	23	0	"	"	beams dumped
29965	10.81	24.09	77662.09	"	1.3	0.2	47	35	423	5	"	4850	
29966	9.01	21.63	77683.72	"	[illegible]		48	37	380	6	"	4836	
29967	7.10	18.22	77701.94	"	0.75	0.15	49	41	320	5	"	"	
29968	5.54	11.67	77713.61	"	0.7	0.1	49	45	205	4	"	4837	beams dumped
29969	9.93	22.04	77735.66	"	1.4	0.2	47	35	387	10	"	4837	
29970	8.74	23.58	77759.23	"	1.0	0.2	48	39	414	5	"	4839	
29971	6.84	17.03	77776.26	"	0.8	0.15	48	43	291	7	17503	"	
29972	5.62	5.75	77782.01	"	0.65	0.1	49	43	101	5	17500	"	beams dumped
29973	9.68	23.85	77805.86	"	1.7	0.25	47	36	419	6	"	"	
29974	8.11	20.96	77826.82	"	1.0	0.2	48	39	368	7	17503	"	
29975	6.07	17.71	77844.53	"	0.8	0.2	50	42	311	4	"	"	
29976	5.17	5.01	77849.54	"	0.75	0.15	50	42	88	2	"	"	Beams dumped.
29977	10.04	24.25	77873.79	"	1.8	0.7	46	35	426	8	17500	4838	
29978	8.66	21.23	77895.02	"	1.0	0.25	48	39	373	5	"	"	
29979	6.58	18.51	77913.53	"	0.8	0.15	49	41	325	3	17503	"	
29980	4.85	14.41	77927.94	"	0.7	0.10	50	45	253	5	"	4839	
29981	3.80	7.06	77935.00	"	0.6	0.1	53	48	124	2	"	4840	beams dumped
29982													cosmic run $U_p = 2008V$
29983				"									$U_p = 2008V$
29984				"									cosmic run $U_p = 1908V$ (10B)
29985													" "
29986													cosmic run $U_p = 1858$ "
29987													" with ID raw data
29988													" "
29989													Cosmic run $U_p = 2008V$ "
29990													"
29991													cosmic run $U_p = 1908V$ "
29992													" "
29993													cosmic run $U_p = 2108V$ "
29994													" "
29995				"									

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_0 Raj. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 BIT 2 $E_{LG}>6$ GeV	T_2 BIT 2 2T. Ex. $\geq$ 2TR	PROCESSORS ON/OFF N50	MIO	TOF	FAM
99996 -99999	20/10-86	~18[20]						~ 4x1000											
30000	"	18:58	19:42	7.68	8.21	44.2	2299	8002	5618	598	264	4896	4832	1136	66	ON	ON	ON	OFF
30001	"	19:42	20:25	6.20	6.67	35.5	2516	8002	5327	655	233	4981	4993	1126	41	"	"	"	"
30002	"	20:26	20:27	5.28	5.70	16.2	42	151	85	11	2	98	61	16	1	"	"	"	"
30003	"	21:02	21:09	9.92	10.71				~600										
30004-30007	"																		
30008	"	22:07	22:45	10.62	10.86	22.3	2288	8002	5486	595	132	5303	4520	1192	32	"	"	"	"
30009	"	22:46	23:26	8.69	8.91	19.7	2436	8002	4985	633	125	5360	4435	1194	35	"	"	"	"
30010	"	23:27	0:12	7.19	7.40	17.7	2691	8002	4876	700	124	5339	4620	1115	33	"	"	"	"
30011	21/10/86	0:14	1:02	5.96	6.15	16.0	2858	8002	4478	744	119	5313	4678	1033	34	"	"	"	"
30012	"	1:02	1:36	4.99	5.18	27.3	2018	4452	2402	525	143	2977	2729	527	16	"	"	"	"
30013	"	2:06	2:36	9.47	10.46	20.9	1696	5861	3782	441	92	3890	3436	896	29	"	"	"	"
30014	"	2:37	3:22	8.20	9.13	25.1	2736	8002	4898	712	179	5382	4567	1169	36	"	"	"	"
30015	"	3^{23}	4^{00}	6.73	7.57	35.9	2198	4978	2970	572	205	3398	2859	722	14	"	"	"	"
30016	"	4^{05}	4^{43}	5.21	5.93	14.5	2196	5873	3238	571	83	3971	3464	769	23	"	"	"	"
30017	"	5^{16}	5^{20}	9.89	10.83	22.5	240	886	611	68	14	565	486	128	5	"	"	"	"
30018	"	5^{21}	6^{03}	9.65	10.58	20.6	2379	8002	5245	619	127	5878	4598	1227	35	"	"	"	"
30019	"	6^{04}	6^{46}	7.88	8.45	17.7	2524	8002	5059	664	118	5479	4588	1266	40	"	"	"	"
30020	"	6^{47}	7^{16}	6.60	7.11	16.5	1121	3274	1871	292	48	2175	1930	450	13	"	"	"	"
30021	"	7^{46}	8^{31}	8.42	10.41	23.4	2453	8002	5788	638	149	5320	5629	1218	39	"	"	"	"
30022	"	8^{31}	8^{39}	7.70	8.60	18.4	424	1396	879	110	21	846	752	181	4	"	"	"	"
30023	"	10:24	11:04	9.23	9.63	27.2	2008	5901	3823	522	142	3975	3294	872	20	"	"	"	"
30024	"	11:04	11^{50}	7.69	7.44	16.8	2673	8002	4831	687	117	5523	5578	1226	38	"	"	"	"
30025	"	11:51	12:26	6.42	6.69	15.7	2085	6050	3494	542	85	4153	3462	863	21	"	"	"	"
30026	"	12:27	12:36	5.61	5.89	15.4	539	1461	830	140	21	967	880	181	9	"	"	"	"
30027	"	13:10	13:46	9.67	10.23	32.0	2078	8002	5580	540	73	5217	4530	1269	48	"	"	"	"
30028	"	13:48	14:25	8.22	8.73	33.5	2144	8002	5520	558	186	5118	4681	1198	50	"	"	"	"
30029	"	14:24	15:02	7.07	7.55	36.2	2215	8002	5665	576	208	5039	4304	1273	52	"	"	"	"
30030	"	15:03	15:23	6.11	6.54	36.5	946	3395	2357	246	89	2164	2063	526	26	"	"	"	"
30031	"	16:04	16:28	10.84	10.69	22.8	1348	4703	3187	351	80	3111	2553	772	18	"	"	"	"
30032	"	18:04	18:22	10.60	10.83	24.3	688	2440	1617	179	43	1631	1304	387	9	"	"	"	"
30033	"	19:16	20:03	10.21	10.47	20.9	2412	8002	5297	626	130	5324	4558	1218	24	"	"	"	"

RUN	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$ EXP. ENERGY	IBM/TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MIRROR T_2 %	ONLINE REJECT NORDS0 T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1*G	REMARKS
99996 -99999				16/1									Z-trigger + ID pulser Runs. Not for Reduct 1!
30000	4.77	10.42	77945.42	"	3.0	0.4	45	31	183	2	17.500	4847	
30001	3.33	8.25	77953.67	"	2.5	0.4	47	35	145	4	17.500	4849	
30002	5.08	0.06	77953.73	"	1.1	0.2	41	49	1	0	17.503	4850	beams dumped
30003		2.85	77956.58	"	1.4	0.3					17.503	4840	several tracks got corrupt, beams lost
30004-30007				" "									Z-trigger + ID pulser Runs Not for Reduct 1!
30008	10.64	22.88	77979.46	"	1.5	0.4	47	33	402	7	17.500	4840	
30009	8.65	21.29	78000.75	"	1.0	0.3	46	39	374	6	17.500	4838	
30010	6.49	17.02	78017.77	"	0.8	0.25	48	40	299	4	17.500	4835	
30011	4.82	13.95	78031.72	"	0.6	0.2	49	46	245	6	17.500	4840	
30012	3.20	6.83	78038.55	"	0.5	0.2	51	48	120	0	17.500	4840	beams dumped
30013	9.73	18.34	78056.89	"	1.2	0.3	47	36	322	4	17.503	4840	VTXC off
30014	7.30	19.76	78076.65	"	1.0	0.25	49	40	347	7	17.503	4840	VTXC back in readout again
30015	4.65	11.39	78088.04	"	0.8	0.2	50	42	200	5	17.500	4840	Stopped because of permanent VXC trips
30016	4.02	8.20	78096.24	"	0.6	0.15	49	46	144	7	"	"	VTXC off Beams dumped
30017	11.19	2.73	78098.97	"	1.3	0.3	41	32	48	1	"	4838	VTXC in readout, but continuous trip
30018	9.98	22.84	78121.81	"	1.4	0.35	47	35	401	9	17.503	4840	VTXC off
30019	7.43	20.10	78141.91	"	0.9	0.25	48	35	353	6	"	"	VTXC off
30020	5.73	5.35	78147.26	"	0.75	0.2	49	44	94	5	17.500	"	" " Beams dumped and good riddance too
30021	9.13	22.72	169.98	"	1.1	0.3	48	36	399	7	17.503	4838	VTXC ON
30022	7.98	3.64	173.62	"	0.8	0.3	47	39	64	4	"	"	beams lost
30023	8.76	16.45	78190.07	"	1.1	0.3	48	36	289	7	17.500	4838	~~VTXC off~~ frequent VTXC trips
30024	7.84	21.47	211.54	"	0.75	0.2	51	40	377	5	17.500	4838	VTXC off
30025	6.25	13.95	78225.49	"	0.8	0.1	49	43	245	7	"	4837	" "
30026	5.28	2.79	78228.28	"	0.6	0.1	50	45	49	0	"	"	VTXC ON - Q3 off beams dumped
30027	8.83	19.13	78247.41	"	2.2	0.4	44	31	336	6	"	4838	VTXC ON - Q3 off
30028	6.97	15.31	78262.72	"	1.7	0.4	45	32	269	5	"	4839	VTXC ON - Q3 ON
30029	5.56	11.61	78274.33	"	1.7	0.4	46	31	204	4	"	4838	
30030	4.49	4.61	78278.94	"	1.7	0.4	46	32	81	1	"	4838	Beam dumped
30031	10.85	15.43	78294.27	"	1.3	0.4	45	33	271	8	"	4834	Beams lost
30032	10.68	7.35	78301.62	"	1.3	0.3	45	35	129	4	17.503	4841	Beams lost
30033	10.34	24.76	78326.38	"	1.3	0.4	47	35	435	9	"	"	

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records IN	Records OUT	All $*10^6$	T_0 Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{LC} > 6$ GeV	T_2 Bit 2 2T. E4. ≥ 2 TR	Processors ON NSO	MIP	TOF	FAST

21/10/86

2^{48} Missing LAM, J68K bank

177777 040204 001661 177777 000713 5x 177777
0 943 001657 3 006000 177777 17777 2878 177777

3^{05} JDAS error 64 - AC 2099 TOF-2 Q,X missing stn = 4 subaddr = 1

3^{06} VTXC anode peak current fluctuating, spoke with PKR, they try to do something, after 15 minutes situation improved

3^{30} Missing LAM, J68K bank

177777 040204 000756 177777 000660 5x 177777
0 492 000754 3 006000 177777 177777 1859 177777

4^{00} Cotrinight

4^{20} JDAS readout error 33 — missing LAM br 2 cr 6 : LG ADCs

4^{42} VXC valve failure

5^{16} Tried VTXC again at start of new fill but impossible to run up. Taken out of readout again.

5^{43} ID hard trip

6^{20} Standard histograms done. Two spikes in μ-chambers. Will call Jan Chim at a more civilised hour (ie 7^{55})!
Lots of static around today — walking past Tektronix tends to cause hard copy!

6^{57} ID hard trip } VXC valve failure
7^{00} ID soft trip } half a mA of electrons lost
7^{02} ID hard trip }

7^{13} ID soft trip. TASSO phone to suggest a new fill. Agree wholeheartedly!

7^{16} "Switch off HV" Yet another VXC valve failure.

7^{50} VTXC in readout again (run 30021). Phoned Jan Chim re μ-chamber spikes
spikes disappear upon arrival! ejc.

8^{00} R. Felst, gas check O.K.

8^{10}, 8^{20}, 8^{30} VTX - chamber trip, 8^{35}, 8^{40} beams lost

10^{15} injection starts, asked for background optimisation

10^{30} new fill ready, backgrounds seem to have improved

10^{35} VTX chamber trip

11^{00} many VTX CH Trips not possible to switch on HV. Stop run. Take VTX out of Readout.
call VTX Expert.

12:29 VTXC back in readout (anode voltage from quadrant 3 temporary removed — needs further investigation)

14:02 Q3 reconnected via 33MΩ to HV — no problems at the moment

$L > 10^{30}$ cm^{-2} s^{-1}	BHABHA $\int$Ldt nb^{-1}	$\int$Ldt. Exp. Energy	IBM TAPE output	At Run Start TOF [V]	At Run Start ID [MA]	Online Reject Sum Hitbox T_2 %	Online Reject NoDSO T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1 * C	!	Remarks

15^{00} The high deadtime + Background is due to a broken Power Supply at PETRA. Will be replaced soon.

16^{00} D. Schmitt on shift

Gas check alone

16^{28} Beams lost, hard trip.

18^{14} 2-Ch. + VTXC + ID hard trip. Beams lost

18.22 2-Ch. + VTXC + ID hard trip.

20^{00} U Mills on shift

20^{10} NEWLIB REFORM CLIST problems - it says that a tape already exists - call W. Bartel/L. Becker. I call the latter who says he will deal with it in the morning. Currently there is no JADE account left anyway. | Problem solved!
I replace the ink bottle in the Gould printer/plotter FOR THE LAST TIME. Run summary readable!

20^{45} RZ chamber HV trip

21^{50} CAMAC clock corrected - was 2 mins 6 secs fast

00^{00} Olsson Gas check, OK.

00^{30} 2-ch. trip, Miss Lam J68K 00^{40} Missing LAM μ-ch.

4^{00} Eckerlin

5^{12} Missing LAM br 3 cr 2 : Muon chamber

5^{27} JDAS readout error 64 - AC 2099 TOF-2 Q,X missing stn 6 subaddr = 1

5^{28} " stn 8 subaddr = 1

stopped run and reloaded processors

7^{32} Missing LAM br. 2 cr. 6 : leadglass ADC's
this was my last shift to JADE. Good luck for the last 12 days GE

8.00 C. Haworth on shift

8.00 Gas check done

8.30 Jetch High Current warning followed by loss of beams

10.38 2-ch + VTXC + ID hard trip

11.05 JDAS error 64 - AC2099 TOF-2 Q,X missing stn = 15 subaddr = 6.

12.00 U. Schneekloth on shift

1235 beams dumped VTX ch. Valve failure

16^{00} Elsen on shift

16^{20} Missing LAM Br 3 Cr 2 μ-chambers (>25). In fact every 2nd event or so.
Try to reach μ-chamber expert. Finally did succeed. J. Chim will come.
Tightening the connection screws and pushing the CAMAC modules firmly into place seems to cure problem at least temporarily, TJG.

16^{55} Gas check OK

Run	Date	Start	Stop	At run start I+	At run start I−	Dead time %	Time (secs)	Records IN	Records OUT	All *10^6	T0 Raj. *10^6	T1 Acc Sum	T2 Acc Sum	T4 Bit 2 E_L6 > 6 GeV	T4 Bit 2 & T.E.4 ≥ 2 TR	Processors on: NSO	MIP	TOF	FAN
30034	21/10/86	20.04	20:47	8.20	8.39	18.5	2549	8002	4968	663	122	5311	4523	1176	37	ON	ON	ON	ON
30035	"	20.47	21.37	6.91	7.07	17.0	2752	8002	4733	715	121	5301	4704	1101	33	"	"	"	
30036	"	21.37	21.41	5.81	5.98	16.8	406	1176	661	105	17	797	650	160	4	"	"	"	
30037	"	22.23	23.02	11.28	10.83	23.9	2250	8002	5362	585	139	5297	4623	1225	31	"	"	"	
30038	"	23.02	23.43	9.34	9.00	19.6	2420	8002	4969	629	123	5347	4525	1208	38	"	"	"	
30039	"	23.43	0027	7.94	7.59	18.0	9641	8002	4779	687	124	5370	4600	1202	32	"	"	"	
30040	22/10-86	0,27	0.49	6,72	6,39	17,2	1229	3540	2049	320	55	2381	2030	490	16	"	"	"	
30041–30043	"								~3×1000							"	"	"	
30044	"	1,21	2,01	9,27	10,61	21,2	2320	8002	5152	604	128	5838	4409	1256	40	"	"	"	
30045	"	2,01	2,44	7,77	9,01	18,3	2554	8002	4889	664	121	5455	4440	1177	31	"	"	"	
30046	"	2,44	3,17	6,48	7,61	17,0	1986	5704	3324	516	88	3863	3340	840	25	"	"	"	
30047									~1000										
30048	"	4:36	5:46	10.20	10.54	21.1	2334	8002	5234	623	131	5405	4477	1251	27	"	"	"	
30049	"	5:17	5:28	8.52	8.81	18.8	657	2055	1284	171	32	1401	1185	320	11	"	"	"	
30050	"	5:30	6:14	8.09	8.38	17.2	2668	8002	4845	694	119	5456	4537	1216	28	"	"	"	
30051	"	6:15	6:45	6.81	7.08	16.2	1773	5077	2944	462	75	3502	2852	708	17	"	"	"	
30052	"	7:27	8:04	9.28	9.48	23.8	2228	8002	5385	580	138	5345	4495	1242	30	"	"	"	
30053	"	8:04	8:28	9.23	9.44	20.0	1333	4388	2817	347	69	2948	2520	709	15	"	"	"	
30054	"	10:09	10:57	11:04	11:16	24.0	2252	8002	5394	586	141	5309	4612	1219	38	"	"	"	
30055	"	10:56	11:39	8.78	8.87	19.2	2497	8002	5085	650	125	5400	4561	1257	25	"	"	"	
30056	"	11.39	1225	7.37	7.45	17.2	2689	8002	4786	700	120	5455	4661	1190	29	"	"	"	
30057	"	1225	1235	6.18	6.26	17.3	549	1636	964	142	25	1096	975	240	5	"	"	"	
30058	"	1315	1358	11.30	11.19	23.4	2208	~~5313~~ 5002	5713	580	136	5336	4657	1258	29	"	"	"	
30059	"	1352	1435	9.42	9.34	19.4	2467	8002	5163	642	124	5323	4591	1253	45	"	"	"	
30060	"	1435	1519	7.87	7.81	18.0	2604	8002	4859	678	122	5437	4590	1226	37	"	"	"	
30061	"	1519	1531	6.58	6.53	17.8	~~1975~~ 656	~~1453~~ 1475	1153	171	30	1291	1171	283	7	"	"	"	
30062	"	16 02	17 05	10.14	10.85	48.1	3522	8002	5212	916	441	5230	4719	206	32	"	"	"	
30063	"	17 06	17 49	7.69	8.30	19.4	2560	8002	4866	666	129	5368	4593	1222	34	"	"	"	
30064	"	17 50	18 35	6.57	6.92	17.5	2651	7728	4679	690	121	5175	4553	1129	26	"	"	"	
30065	"	19 08	19 45	10.15	10.57	25.0	2235	8002	5289	581	145	5164	4580	1244	36	"	"	"	
30066	"	19:47	20:31	8.36	8.73	21.0	2446	8002	4996	636	133	5311	4606	1158	34	"	"	"	
30067	"	20:34	20:42	6.92	7.26	19.1	603	1843	1141	157	30	1252	1097	259	6	"	"	"	
30068	"	21.59	22:41	10.08	9.99	22.2	2314	8002	5110	602	144	5238	4495	1210	29	"	"	"	

Run	<L> 10^30 cm^-2 s^-1	BHABHA ∫Ldt nb^-1	∫Ldt. exp. energy	IBM tape output	At run start TOF [V]	At run start ID [μA]	Online reject: sum multiplic. T1 %	Online reject: NOBSO T1+T2 %	Σ BHABHA	M/H	E beam	Mag field -1*G	Remarks
30034	8.04	22.09	78348.47	IBM	0.8	0.25	46	39	388	3	17.503	4838	
30035	6.18	16.28	78364.75	"	0.7	0.2	48	42	286	3	"	"	
30036	5.19	2.56	78367.31	"	0.6	0.2	48	45	45	0	"	"	beams dumped.
30037	11.07	22.72	78390.03	"	1.5	0.4	47	34	399	6	"	"	
30038	9.03	21.58	78411.61	"	1.1	0.3	46	39	374	3	"	"	
30039	6,73	18,39	78430.00	"			48	41	393	3	"	4840	
30040	5,47	6,09	78436,09	"	0,7	0,2	49	44	107	1	"	"	beams dumped.
30041–30043				"									Ztrg + I.D. Pulser runs Not for Reduct!
30044	9.94	23,69	78459.78	"	1,2	0,3	45	37	416	7	17500	4840	
30045	8,21	22,04	78481,82	"	0,8	0,25	48	40	387	8	"	"	
30046	6,52	13,09	78494.91	"	0,7	0,2	50	43	230	4	17501	"	beams dumped.
30047													ZTRG + I.D. Pulser Run, Not for Reduct!
30048	10.38	26.53	78521.44	"	1.5	0.4	47	36	466	6	17.500	4839	
30049	8.34	6.21	78527.65	"	0.8	0.2	51	39	109	3	"	4840	stopped due to TOF-proc. error
30050	7.56	22.72	78550.37	"	0.8	0.2	50	41	399	7	17503	4839	
30051	5.90	10.48	78560.85	"	0.6	0.15	50	43	184	3	"	"	beams dumped
30052	10.86	25.84	78586.69	"	1.5	0.4	46	34	454	3	17.500	4838	
30053	9.71	13.55	78600.24	"	1.0	0.3	48	37	237	2	17.500	4840	beams lost
30054	10.80	23.91	78624.15	"	1.6	0.4	47	34	420	6	"	4837	
30055	9.11	25.34	78649.49	"	1.0	0.2	48	38	445	7	17.507	4837	
30056	6.92	20.16	78669.65	"	0.8	0.2	50	41	354	5	"	4838	
30057	5.78	3.42	78673.07	"	0.7	0.1	51	43	60	1	17.500	4837	beams dumped
30058	10.89	26.71	78699.78	"	1.7	0.25	48	35	469	6	17.503	4836	
30059	9.52	23.91	78723.69	"	1.0	0.2	47	36	420	6	17.500	4837	
30060	7.56	21.18	78744.87	"	0.8	0.2	49	40	372	5	17503	"	
30061	6.36	4.67	78749.54	"	0.7	0.1	47	43	82	1	17500	"	beams dumped
30062	6.51	22.78	78772.32	"	1.05	0.25	48	36	400	3	17503	"	missing μ-LAMs
30063	7.38	21.18	78793.50	"	0.9	0.25	48	40	572	4	17500	"	
30064	5.49	16.06	78809.56	"	0.7	0.2	50	41	282	6	17505	"	beams dumped
30065	10.02	24.71	78834.27	"	1.3	0.4	44	35	434	5	17501	"	
30066	7.89	17.03	78851.30	"	1.1	0.4	47	39	299	7	17503	4838	
30067	6.58	3.93	78855.23		0.9	0.3	49	41	69	1	17500	4837	beams dumped
30068	9.58	22.26	78877.49		1.5	0.9	44	37	391	8	17500	4834	

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records IN	Records OUT	All $\times 10^6$	T_0 Raj. $\times 10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 17 2T. E.+. $\geq$ 2TR	Processors ON N50	Processors ON MP	Processors ON TOF	Processors OFF FAHP
30069	22.10.86	22:41	22:51	8.27	8.19	22.2	566	1879	1197	147	93	1201	1100	276	6	ON	ON	ON	OFF
30070	"	23:33	0:12	10.08	10.56	22.2	2292	8002	5308	596	133	5338	4399	1236	28	"	"	"	"
30071	23/10/86	0:20	1:03	8.14	8.56	18.5	2561	8002	4803	666	123	5445	4516	1207	32	"	"	"	"
30072	"	1:03	1:51	6.76	7.15	16.5	2692	7970	4449	701	116	5273	4723	1125	25	"	"	"	"
30073	"	2:35	3:17	10.68	10.57	21.5	2300	8002	5260	598	129	5325	4706	1211	40	"	"	"	"
30074	"	3:18	4:01	8.75	8.67	19.1	2468	"	4991	642	123	5424	4621	1238	36	"	"	"	"
30075	"	4:01	4:47	7.28	7.21	16.8	2713	"	4646	706	119	5383	4765	1141	34	"	"	"	"
30076	"	5:58	6:40	10.27	10.75	23.3	2256	"	5251	587	137	5271	4733	1207	36	"	"	"	"
30077	"	7:02	7:28	7.57	7.99	17.9	1474	4662	2962	383	69	3154	3669	676	13	"	"	"	"
30078	"							8002								"	"	"	"
30079	"	8:17																	
30080	"	11:56	12:35	9.83	10.40	21.4	2318	8002	5698	603	129	5480	4512	1243	35	"	"	"	"
30081	"	12:36	13:18	8.19	8.72	19.3	2490	8002	5062	648	124	5392	4686	1243	39	"	"	"	"
30082	"	13:18	14:03	6.80	7.29	17.6	2656	8002	4783	691	121	5407	4864	1149	45	"	"	"	"
30083	"	14:03	14:35	5.64	6.08	16.3	1856	5241	2968	483	79	3548	3211	718	26	"	"	"	"
30084	"	15:22	16:07	10.1	9.49	20.0	2732	8002	4996	633	127	5401	4680	1121	34	"	"	"	"
30085	"	16:10	16:58	8.18	8.05	18.8	2502	8002	4991	651	129	5415	4696	1163	47	"	"	"	"
30086	"	16:55	17:39	6.73	6.62	19.0	2602	8002	4945	677	129	5367	4799	1156	44	"	"	"	"
30087	"	17:40	17:40	5.66	5.56	22.6	16	74	51	4	1	33	32	10	0	"	"	"	"
30088	"	18:43	19:22	9.95	10.03	23.8	2303	8002	5371	456	143	5246	4661	1186	38	"	"	"	"
30089	"	19:22	20:04	8.28	8.34	19.8	2497	8002	4995	649	128	5354	4732	1233	44	"	"	"	OFF
30090	"	20:04	20:11	6.90	6.96	19.0	1380	1219	773	99	18	797	743	185	3	"	"	"	"
30091	"	20:45	20:53	6.62	6.68	18.6	323	1059	647	83	15	721	591	143	5	"	"	"	"
30092	"	———	———	———	Jump														
30093	"	20:55	20:59	6.35	6.38	18.1	1298	3884	2301	338	61	2591	2400	543	20	"	"	"	"
30094	"	21:33	21:37	10.14	10.43	25.0	255	1058	730	66	16	724	577	146	1	"	"	"	"
30095	24/10/86	00:13	0:22	10.47	10.17	22.3	1134	3988	2683	294	65	2635	2428	540	25	"	"	"	"
30096	"	02:32	03:15	10.20	10.27	22.1	2374	8002	5218	616	136	5239	4757	1116	31	"	"	"	"
30097	"	03:15	03:58	8.41	8.47	18.6	2571	8002	4955	668	124	5376	4702	1198	30	"	"	"	"
30098	"	03:59	4:40	7.02	7.08	17.9	2462	7231	4249	640	114	4754	4429	977	36	"	"	"	"
30099	"	5:56	6:49	10.02	10.57	22.1	2451	8002	5152	637	140	5310	4712	1168	32	"	"	"	"
30100	"	6:50	7:33	7.93	8.41	18.7	2561	8002	4955	666	124	5342	4339	1099	37	"	"	"	"
30101	"	7:37	8:21	6.51	6.95	18.4	2660	8002	4815	691	127	5366	4786	1112	48	"	"	"	"
30102	"	9:07	9:47	10.32	10.70	22.0	2356	8002	5411	612	134	5343	4822	1260	31	"	"	"	"
30103	"	9:47	10:29	8.51	8.86	19.8	2474	8002	5054	576	127	5314	4838	1206	33	"	"	"	"
30104	"	10:29	11:02	7.06	7.38	18.8	1653	5072	3037	430	80	3446	3024	760	23	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$ Exp. Energy	IBM/Tape output	At Run Start TOF [V]	At Run Start ID [μA]	Online Reject Sum Hadr. T_2 %	Online Reject Nokso T_1+T_2 %	Σ Bhabha	M/H	E_{Beam}	Mag Field ~1 * G	Remarks
30069	8.25	461	78 882.10	IBM	1.0	0.6	45	38	81	0	17.500	4834	beams lost
30070	10.30	24.19	78 906.29	"			45	35	425	5	17.500	4834	
30071	7.90	20.15	78926.44	"	0.8	0.3	48	41	354	7	"	4835	
30072	5.76	17.59	78944.03	"	0.75	0.25	48	45	309	2	"	"	VTAC OFF beams dumped
30073	10.32	22.43	78966.46	"	1.6	0.4	47	35	394	7	"	4834	
30074	8.00	20.44	78 986.90	"	1.0	0.3	48	38	359	9	"	4835	
30075	6.51	17.93	79 004.83	"	.8	.25	49	43	315	6	"	4834	beams dumped — Cutoms plots dead, no summary printed
30076	9.87	22.72	79 027.55	"	1.6	0.35	46	35	399	9	17.503	4835	
30077	7.83	10.93	79 038.48	"	0.8	.25	48	37	192	5	"	4834	
30078		~20		"	0.7	0.2							Run summary lost
30079		~10	79 068.48	"	0.6	0.2							Beam lost due to pipe failure, Run summary lost
30080	10.35	24.89	93.37	"	1.3	0.25	48	33	437	13	17503	4840	
30081	8.56	20.21	113.58	"	0.9	0.2	48	38	355	5	17500	4840	
30082	6.26	16.28	129.86	"	0.7	0.2	50	41	286	8	"	4838	
30083	4.76	10.02	139.88	"	0.6	0.2	51	44	176	4	17503	4837	beams dumped
30084	8.63	22.43	162.31	"	1.3	0.25	48	38	394	8	17.500	4837	
30085	7.41	17.65	179.96	"	1.0	0.20	49	38	310	9	17.507	4837	
30086	5.36	13.89	193.85	"	1.0	0.2	49	40	244	10	17.500	"	
30087	3.24	0.11	193.96	"	1.0	0.2	22	40	2	0	17.507	"	beams dumped
30088	9.38	23.52	217.48	"	1.75	0.25	46	34	413	15	17.503	4837	
30089	7.43	21.07	238.55	"	1.1	0.2	50	39	370	10	"	4837	
30090	6.03	2.68	241.23	"	1.1	0.2	48	37	47	0	17.500	4840	
30091	5.48	1.99	243.22	"	1.0	0.15	49	40	35	0	"	"	
30092			243.22										
30093	5.05	6.72	249.94	"	1.0	0.15	50	42	112	4	17.505	4839	beams dumped
30094	10.64	2.28	252.22	"	2.0	0.35	43	32	40	0	17.500	4838	beams lost
30095	10.26	10.99	74263.21	"	1.8	0.35	48	33	193	4	17.503	4841	beams lost
30096	9.15	22.20	79285.41	"	1.6	0.55	46	36	390	7	17.500	4840	
30097	7.51	21.47	79306.88	"	1.0	0.35	48	39	377	12	17.503	4841	
30098	5.64	13.61	79320.49	"	0.8	0.3	46	42	239	8	17.500	"	beams dumped.
30099	8.66	22.55	79343.04	"	1.3	0.35	49	36	396	11	17.503	4840	
30100	7.09	18.39	79361.43	"	0.95	0.3	49	39	323	5	17.500	4841	
30101	5.77	16.45	377.88	"	0.8	0.3	49	41	289	5	"	4839	dump
30102	10.37	25.84	403.72	"	1.7	0.3	48	33	454	16	"	4844	
30103	7.97	20.22	423.94	"	1.4	0.25	48	38	355	4	"	"	
30104	6.30	10.93	79 434.87	"	1.0	0.2	51	41	192	2	"	"	dump

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_0 Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0} > 6$ GeV	T_1 Bit 2 2T. Ev. ≥ 2 TR	Processors on/off NSO	MIP	ToF	FAM

22.10.86
20:00 Heinzelmann on shift

23/10/86
0:00 Kado on shift

when trying to reset a valve failure at 22:09, G. Heinzelmann managed to flush water into the Vertexchamber by operating the wrong valve (V1 instead of V2).

→ * Vertexchamber disconnected from gas system and HV switched off.

* HV system locked (will give an immediate alarm if ON-Button is pressed).

* valve failure- and pressure wrong-alarm disabled.

* large flow of pure argon established to dry out the gas-pipes and flowmeters.

day shift: please inform D. Hagemann about this catastophe

Jörg: wenn die Leitungen wieder trocken sind, kannst Du die Ar/Ethan Flasche anschließen (liegt in der Halle). Aber Vorsicht! die Durchflußregler in den Leitungen vom Kühlschrank sind verstellt!

Hallendreimt muß noch zu schließen
Herr Kraatzer wird sich mit
Herrn Kado in Verbindung setzen.

by the way: gas check done

1:17 Z-chamber trip
2:59 " "
3:05 " "
3:47 " "
4:00 P. Steffen on shift.
4:20 Plotter stopped working with cracking noise during printout of standard histograms.
'INTLK'-lamp is flashing, paper was close to the end and jammed.
paper changed but still flashing 'INTLK'-lamp. No possibility of getting out a plot.
day shift call Magbänder for plotter repair.
6:30 YSPY: too many lead glass blocks : New run started
8:00 Fehst Matsumura
8:30 printer failure due paper not properly inserted, now O.K
during the repair procedure and tests managed somehow the loss run summary 30078

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. Exp. Energy	IBM Tape Output	At Run Start ToF [V]	At Run Start ID [mA]	Online Reject Sum Mirror T_2 %	Online Reject NSO T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	Mag Field -1 * C	Remarks

8:40 yes O.K
8:50 short pause Prelim, Teams lost, Hvd Fang up, lead glass trigger pulse impulse alarm,
9:00 reset O.K if the Auth lost Run summary 30077 also lost
10:45 still no beam, short break announced, magnet 1000A
11:25 injection magnet → 7500
12 35 IDAS Read Error 33 Missing LAH B=2 C=6 Lead Glass
" " " " B=3 C=4 Z Chamber Port 1
38 " B=3 C=2 Muon Chambers
15 30 ID Trip
16:00 Finish
16:52 Z-chamber tripped
20:22 h HAIDT on shift
20:32 IDAS Readout error 52 : control word 600
22:32 Problem with PIA : expected break ½ hour

24/10/86

00:00 Chin on shift. Gas check done.

1:55 Short break :- Petra has vacuum problems - a break of about hour is forcast.

2:25 New Fill Already.

No, someone had switched it off (probably by accident) - or doing"

4:00 whether on alarm (in the morning) Phone buzzer kaputt, but only for #2503, not work better apparently!
4:10 IDAS error 33 : in 3 or 4 Z-ch. port 1.
6:00 JETC ~~[illegible]~~
6:21 " "
6:26 IDAS error 32 ~~[illegible]~~ Missing LAH or FEP Ready (with L) - reload
8.00 Narasher
Gas check done.
10.56 ID trip → TOF rate large than 10. Call PKR.
Pause run 30104 Some beam had been lost.
10.58 TOF normal again, run up ID.
11.50 Short break (Transmitter East Left has problems)

Run	Date	Start	Stop	At run start I+	At run start I−	Dead time %	Time (secs)	Records In	Records Out	All ×10^6	Tφ Raj. ×10^6	T1 Acc Sum	T2 Acc Sum	T1 bit 2 E_L > 6 GeV	T2 bit 17 2T. Eq. ≥ 2TR	Processors on/off NSO	MIP	TOF	FAM
30105	24.	12^23	13^02	10.28	10.53	22.3	2327	8002	5315	605	185	5296	4848	1166	44	ON	ON	ON	OFF
30106	10. "	13^02	13^38	8.49	8.72	19.7	917	3054	1881	239	47	2100	1747	437	11	"	"	"	"
30107	"	13^21	14^04	7.76	7.98	19.7	2547	8002	5046	662	130	5305	4841	1142	34	"	"	"	"
30108	"	14^04	14^49	6.41	6.61	19.2	2691	8002	4725	700	134	5261	5038	1107	44	"	"	"	"
30109	"	14^50	15^05	5.31	5.50	16.9	876	2559	1453	228	39	1756	1537	368	8	"	"	"	"
30110	"	15^37	16^15	11.08	10.95	23.8	2266	8002	5327	589	140	5309	4734	1244	33	"	"	"	"
30111	"	16^16	16^56	9.15	9.04	21.9	2376	8002	5101	618	135	5332	4739	1253	43	"	"	"	"
30112	"	16^57	17^38	7.62	7.52	20.6	2395	8002	5010	649	133	5380	4844	1213	32	"	"	"	"
30113	"	17^39	18^02	6.33	6.25	18.6	1360	4159	2509	353	65	2769	2501	580	17	"	"	"	"
30114	"	18^09	18^44	5.14	5.55	17.8	2044	5818	3537	531	94	3808	3726	737	27	"	"	"	"
30115	"	19^25	19^43	11.27	11.32	28.6	1108	4132	2865	288	82	2633	2512	592	20	"	"	"	"
30116	"	19^49	20^07	10.08	10.14	26.6	1091	4018	2720	284	75	1623	416	611	23	"	"	"	off
30117	"	20^11	20^51	9.05	9.11	21.5	2372	8002	5301	617	133	5340	4771	1209	38	"	"	"	"
30118	"	20^52	21^33	7.52	7.57	20.2	2489	8002	5056	648	131	5408	4823	1253	39	"	"	"	"
30119	"	21^34	21^50	6.24	6.29	17.7	929	2781	1676	242	43	1845	1699	400	11	"	"	"	"
30120	"	22^30	23^15	10.39	10.18	21.0	2521	8002	4941	656	137	5324	5089	1084	44	"	"	"	"
30121	"	23^16	23^27	8.76	8.58	20.2	101	343	203	26	5	217	207	39	2	"	"	"	"
30122	25.	0^02	0^35	10,31	10,53	25,9	2210	8002	5457	547	148	5293	4618	1212	37	"	"	"	"
30123	"	0^40	1^23	8,59	8,76	21,5	2355	8002	5140	623	134	5385	4679	1260	35	"	"	"	"
30124	"	1^23	2^06	7,01	7,16	19,0	2524	8002	4928	657	124	5354	4801	1204	40	"	"	"	"
30125	"	2^06	2^15	5,81	5,95	18,1	498	1505	912	129	23	974	911	229	8	"	"	"	"
30126	"	2^47	3^29	10,84	10,70	24,7	2217	8002	5447	576	142	5290	4746	1253	25	"	"	"	"
30127	"	3.29	4.09	8.89	8.77	21.9	2374	8002	5209	618	136	5363	4675	1235	32	"	"	"	"
30128	"	4.09	4.52	7.38	7.28	19.5	2545	8002	4908 ~~5347~~	662	139	5347	4760	1179	40	"	"	"	"
30129	"	4.53	5.20	6.10	6.02	18.0	1628	4846	2906	423	76	3250	2990	699	23	"	"	"	"
30130	"	5.51	6.28	10.66	10.41	24.1	2223	8002	5376	578	139	5340	4675	1241	30	"	"	"	"
30131	"	6.28	7.08	8.88	8.66	21.8	2377	8002	5042	618	135	5366	4713	1196	34	"	"	"	"
30132	"	7.08	7.52	7.37	7.17	18.8	2587	8002	4985	673	127	5386	4797	1160	39	"	"	"	"
30133	"	7.52	8:26	6.10	5.93	17.9	1857	5612	3315	483	86	3799	3336	793	19	"	"	"	"
30134	"	9:19	9:20	10.21	10.51			118	97										
30135	"	9:20	9:59	10.11	10.41	21.7	2341	8002	5293	608	132	5313	4709	1237	36	"	"	"	"
30136	"	10:00	10:42	8.37	8.67	21.2	2196	6637	4061	571	120	4476	3827	957	19	"	"	"	"
30137	"	11:23	11:54	10.49	10.30	24.9	1310	4554	2911	371	85	2965	2673	634	15	"	"	"	"

<L> 10^30 cm^-2 s^-1	Bhabha ∫Ldt nb^-1	∫Ldt Exp.	IBM/TAPE output	At run start TOF [V]	At run start ID [μA]	Online reject NPROC T2 (%)	Online reject NSO T1+T2 (%)	Σ Bhabha	MH	E_beam	Mag field [G]	Remarks
10.21	21.98	79456.85 (79456.87)	IBM	1.5	0.3	48	34	386	9	17.5	4841	
9.15	7.40	79464.25	"	1.2	0.2	49	39	130	2	"	4842	Stopped to reload FADCs – hung up (MISSING LAM AT PETRA READY)
7.86	18.62	79482.87	"	1.05	0.2	48	38	327	8	"	4841	
5.51	14.58	79497.45	"	1.0	0.2	49	42	256	6	"	4841	
4.51	4.16	79501.61	"	0.9	0.2	52	37	73	2	"	4843	Beams dumped
9.99	23.63	79525.24	"	1.6	0.35	47	35	415	6	"	4844	
8.98	21.13	79546.37	"	1.3	0.38	48	37	371	5	"	4843	
6.68	16.12	79562.49	"	1.1	0.25	50	38	283	0	"	4844	
5.30	5.92	79568.41	"	1.0	0.2	49	41	105	3	"	4843	~~beams dumped~~ dark night!
4.28	8.60	79577.01	"	0.9	0.2	50	42	157	5	"	4844	beams dumped
9.62	11.16	79588.17	"	1.9	0.4	45	34	196	7	"	"	stopped for reload MOP
9.63	10.42	79598.59	"	1.7	0.5	46	33	182	3	"	4845	Stopped to reset 2 chambers HV
8.78	21.58	79620.17	"	1.55	0.3	48	34	379	8	"	4844	
6.96	16.23	79636.40	"	1.10	0.4	50	38	285	7	12.503	4844	
4.94	4.61	79641.01	"	.90	0.2	49	41	81	2	17.500	"	beams dumped
5.59	14.43	79655.64	"	1.60	0.35	51	39	257	5	"	"	
4.91	0.57	79656.21	"	1.25	0.3	50	44	10	0	"	4845	subsid. beam loss, rest dumped
~~2.74~~ 9.76	22,14	79678,35	"	1.7	0.4	46	33	389	9	"	4844	
8,18	20,90	79699,25	"	1,25	0,35	48	36	367	7	17503	"	
6,30	17,08	79716,35	"	1,0	0,3	49	39	300	3	"	4847	
4,88	3,02	79719,37	"	0,7	0,2	47	41	53	1	"	4847	Beams dumped.
9,67	23,23	79742,60	"	1,8	0,4	47	33	408	10	"	"	
?	18,91	79772.51	"	1,25	0,3	48	36	332	9	"	"	
6,39	16,23	79788.74	"	1.0	0.25	48	40	285	4	"	"	
~~5.03~~	9.05	79797.79	"	0.8	0.2	50	41	159	8	"	"	beams dumped
9.76	22.66	79820.45	"	1.5	0.4	47	34	398	4	17500	"	
8.13	19.98	79840.43	"	1.2	0.3	48	38	351	6	"	"	
6.34	16.28	79856.71	"	1.0	0.25	49	39	286	3	"	"	
4.39	9.28	865.99	"	0.8	0.2	50	42	163	6	17.503	4848	Beams dumped
8.10	0.40	866.39	"	1.5	0.35			7		"	4847	stopped to reinitialize LG pedestals
9.77	21.80	888.19	"	1.5	0.35	47	35	383	14	17.500	4847	
6.59	15.48	903.67	"	1.1	0.25	51	40	272	10	"	"	dumped after partial beam loss
8.70	11.78	915.45										dumped after partial beam loss
	(21.20)	79936.74										

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	Tφ Raj. $*10^6$	T1 ACC SUM	T2 ACC SUM	T1 Bit 2 $E_{L0}>6$ GeV	T2 Bit 2 2T. Ev. ≥2TR	PROCESSORS ON/OFF NSO	MIP	TOF	FAM

17^{00} Catinight
12^{05} INJECTION
12^{26} JDAS readout error 64 – AC2099 TOF-2 Q,X missing stn=16 subaddr=1

13:15 gas-pipes and flowmeters of Vertexchamber gas-system are dry again. Vertex chamber reconnected to gas system. (pure Argon) Valve failure and pressure wrong alarm enabled again.

leave Vertexchamber OFF – but do not ignore any alarm! (→↑) (HK)

13^{20} Continuous MISSING LAM AT FEP READY. FADC µs reloaded.

16^{00} Spitzer
Gas ok
17^{04} " Error 64 – AC2099 TOF-2 Q,X missing stn 13 subaddr 1 !
18^{08} Cello asked for dump. Message: switch off, then switch on again, "BITTE WETERMESSEN DESY 2 BETRIEB" (?)

18^{00} Vertex chamber gas system modified:
1) "Gaswanne" installed + 1 detector for flammable gas
2) gas system connected to Argon (50%) / Ethane (50%)

LEAVE VERTEX CHAMBER OFF (until further notice) J.H. / C.K.

1944 JDAS ERROR 33 Missing LAM br. 4 cr 1 : 768K Bank Stop run. Reload Map
1950 — " — 64 AC2099 TOF-2 Q,X missing stn = 4 subaddr = 1
20^{00} Heinke
20^{10} Z-chamber trip HV reset
21^{10} JDAS error 64 AC2099 TOF-2 - - - - - stat.=0 subaddr.=0
23^{00} Z-chamber trip HV reset
23^{26} % of beam intensities lost, both chambers tripped
— 25-Oct-86 —
0^{00} Hill on shift.
Gas check done.
1^{10} Z ch. trip.
2^{05} Vtx ch valve failure other beams dumped.
2^{52} Zch trip + Vtx ch valve failure.
4^{00} G. Kalos on shift : my last JADE shift!

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MUON T_2 %	ONLINE REJECT NOISO T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1 * C	REMARKS

4.45 JDAS reset

8^{00} Magnussen on shift
8^{05} Gas check done
9^{35} VTX chamber valve failure. Reset ok.
10^{25} —— " —— " ——
10^{40} —— " —— " ——
11^{00} —— " —— " ——
11^{20} There were lots of Z-chamber trips this morning!

11^{56} FINCH ON SHIFT
Pushal beam lost beams dumped
11^{59} Matsuura has switched off air conditioning in pit desks due to rush at ~15:00
12^{51} JDAS Ex 33 Missing LAM br 3 cr 2 : Muon chamber
13^{27} " " " " " " " x2
13^{52} Zchamber trip (no audible alarm)
13^{56} " (followed by ID trip)
14^{05} JDAS E. 64 AC2099 TOF-2 Q,X missing stn=16 subaddr=1
14^{22} LOUD PLOTTER SEEMS SICK During 'Std. Hists' first 'INTLK' started flashing, then after some fiddling, POWER flashes erratically.
14^{45} SHORT BREAK -
15^{03} 'Air conditioning' back in pit.

16^{00} Becker
Gas check done

17^{00} Message from PETRA: Restart 6 pm - Error with Transmitter

Magnet → 500 A
17^{48} Magnet → 7500 A

20^{00} Kleinert on shift
22^{10} Run 30 147 stopped due to Nord Sony up, no run summary

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records IN	Records OUT	All $*10^6$	T_0 Raj. $*10^6$	T_1 Acc SUM	T_2 Acc SUM	T_1 Bit 2 $E_{LG}>6$ GeV	T_2 Bit 17 2T.E.$_1$ ≥ 2TR	Processors ON/OFF N50	MIP	TOF	FAIN
52																			
30138	25/10/86	12 41	13.20	10.07	10.44	23.9	2311	8002	5241	601	143	5191	4686	1212	31	ON	ON	ON	OFF
30139	"	13.20	14.00	8.37	8.70	20.9	2397	7710	4807	493	130	5132	4604	1147	38	"	"	"	"
30140	"	15:12	15:58	6.83	7.57	17.5	2720	8002	4765	707	124	5291	4851	1115	40	"	"	"	"
30141	"	15:58	16:26	5.70	6.27	16.1	1635	4614	2583	425	68	3062	2832	636	28	"	"	"	"
30142	"	17:52	18:35	11.01	10.85	25.0	2282	8002	5309	586	149	5287	4784	1211	48	"	"	"	"
30143	"	18:36	18:18	9.01	8.97	20.3	2457	8002	5187	639	130	5334	4816	1255	[illegible]	"	"	"	"
30144	"	19:20	20:03	7.37	7.34	18.7	2550	8002	4884	663	121	5344	4646	1178	[illegible]	"	"	"	"
30145	"	20:03	20:34	6.12	6.10	18.2	1802	5233	2989	469	85	3311	3095	739	[illegible]	"	"	"	"
30146	"	21:03	21:41	11.08	10.83	23.9	2270	8002	5347	590	141	5277	4779	1221	[illegible]	"	"	"	"
30147	"	21:42		9.29	9.11	21.1		942	622										
30148	"	22:18	23:18	7.87	7.69	18.2	2539	7862	4736	661	120	5269	4693	1180	46	"	"	"	"
30149	"	23:58	0.09	10.38	10.52	25.4	2435	2337	1618	164	41	1547	1356	385	13	"	"	"	"
30150	26/10/86	0.09	0.49	9.80	9.95	23.3	2305	8002	5160	594	139	5256	4816	1220	42	"	"	"	"
30151	"	0.49	1.29	8.17	8.30	20.4	2452	8002	4976	637	129	5277	4837	1254	36	"	"		
30152	"	1.30	2.00	6.82	6.95	18.6	1767	5374	3280	441	85	3584	3262	784	24	"			
30153	"	2.27	3.04	11.08	10.90	25.4	2174	8002	5339	565	143	5318	4653	1284	43	"			
30154	"	3.04	3.45	9.27	9.11	20.9	2407	8002	5076	626	130	5400	4739	1266	33	"	"		
30155	"	3.45	4.31	7.71	7.57	19.4	2583	8002	4913	672	130	5430	4766	1228	30	"	"	"	"
30156	"	4.31	4.48	6.35	6.23	18.0	960	2797	1649	250	45	1846	1749	398	15	"	"	"	"
30157	"	5.16	5.54	10.90	10.66	24.3	2267	8002	5349	590	143	5268	4808	1315	43	"	"	"	"
30158	"	5.55	6.37	9.07	8.88	20.4	2485	8002	5011	646	132	5380	4842	1223	35	"	"	"	"
30159	"	6.37	7.21	7.54	7.37	18.0	2648	8002	4805	688	124	5386	4808	1240	27	"	"	"	"
30160	"	7.22	7.49	6.26	6.11	16.4	1597	4582	2628	415	68	3086	2820	677	13	"	"	"	"
30161	"	8.22	9.02	10.90	10.97	25.3	2245	8002	5437	584	148	5230	4869	1288	42	"	"	"	"
30162	"	9.02	9.40	9.11	9.17	22.0	2374	8002	5153	618	136	5265	4884	1225	35	"	"	"	"
30163	"	9.41	10.24	7.56	7.62	20.0	2513	8002	4923	654	131	5340	4871	1197	41	"	"	"	"
30164	"	10.24	11.10	6.31	6.37	18.2	2728	8002	4753	710	129	5350	5057	1140	49	"	"	"	"
30165	"	11.10	11.26	5.28	5.33	16.8	911	2540	1461	237	40	1688	1641	328	6	"	"	"	"
30166	"	12.01	12.37	10.83	10.87	25.9	2181	8002	5392	567	156	5255	4680	1310	38	"	"	"	"
30167	"	12.38	13.18	9.01	9.04	22.6	2362	8002	5223	615	138	5357	4700	1219	44	"	"	"	"
30168	"	13.18	14.00	7.57	7.50	19.9	2487	8002	4936	646	128	5402	4653	1151	47	"	"	"	"
30169	"	14.00	14.45	6.23	6.27	18.3	2687	8002	4948	699	128	5382	4786	1149	43	"	"	"	"
30170	"	14.46	14.58	5.22	5.25	17.2	735	2151	1278	191	32	1444	1237	280	9	"	"	"	"

Run	$\angle L >$ 10^{30} cm^{-2} s^{-1}	BHABHA $\int L dt$ nb^{-1}	$\int L dt$. EXP. ENERGY	IBM/TAPE output	At Run Start TOF [V]	At Run Start ID [μA]	Online Reset SUM MIPROC T_2 %	Online Reset NAD50 T_1/T_2 %	Σ BHABHA	MH	E_{BEAM}	MAG FIELD -1 * G	REMARKS
30138	9.39	27.29	79 936.74	IBM	1.5	0.4	45	35	374	3	17.500	4847	
30139	7.82	18.28	79 955.02	"	1.1	0.2	48	39	321	11	17.503	4847	beams dumped
30140	6.60	16.74	79 971.76	"	0.9	0.2	48	41	284	11	"	4849	
30141	5.51	9.05	79 980.81	"	0.7	0.2	48	45	158	5	"	4848	beams dumped
30142	9.77	21.87	80 002.68	"	1.4	0.3	47	34	384	14	"	4844	
30143	8.88	22.72	80 025.40	"	1.2	0.3	48	36	388	6	"	4846	
30144	6.65	16.95	80042.35	"	0.8	0.3	47	40	331	4	17.500	4847	
30145	5.04	9.05	80051.40	"	0.8	0.2	48	44	159	6	"	4849	beams dumped
30146	9.41	21.64	80073.04	"	1.5	0.4	47	34	380	7	17.503	4844	
30147		1.59	80074.63	"	1.2	0.3							Not long run
30148	6.46	17.31	80091.94	"	1.0	0.25	49	41	304	4	"	"	beams dumped
30149	11.36	7.29	80098.23	"	1.5	0.4	47	32	129	2	17.500	4844	run stopped. Event size > max tape block!
30150	9.31	20.84	80119.07	"	1.4	0.4	47	36	366	7	"	"	
30151	7.17	19.93	80139.00	"	1.1	0.35	48	39	350	6	"	4839	
30152	5.64	11.10	80150.10	"	0.9	0.25	49	40	195	4	"		beams dumped
30153	10.39	23.40	80173.50	"	1.7	0.4	47	34	411	9	"	"	
30154	8.47	20.10	80193.60	"	1.5	0.35	49	37	353	8	"	"	
30155	6.18	17.70	80212.30	"			50	39	311	8	"	"	
30156	5.09	4.50	80216.80	"	0.85	0.3	50	42	79	0	17.503	4838	beams dumped
30157	9.80	23.92	80240.72	"	1.5	0.35	47	34	420	7	17.503	4838	
30158	7.67	18.79	80259.51	"	1.2	0.25	50	38	330	4	17.503	4838	
30159	5.95	17.25	80276.76	"	0.95	0.2	49	41	303	7	17.500	4838	
30160	4.73	8.08	80284.84	"	0.8	0.2	51	44	142	4	17.500	4837	beams dumped
30161	9.44	20.33	80305.17	"	1.7	0.4	47	38	357	7	17.503	4839	
30162	7.73	17.37	80322.54	"	1.3	0.35	48	36	305	4	17.503	4840	
30163	5.96	13.50	80336.04	"	1.1	0.20	49	39	237	4	17.503	4838	
30164	4.27	11.90	80347.94	"	1.0	0.20	52	42	209	6	17.500	4838	
30165	3.80	3.19	80351.13	"	0.8	0.10	51	44	56	5	"	4837	beams dumped
30166	9.76	23.86	80374.99	"	1.8	0.4	45	32	417	9	"	4841	
30167	8.40	20.44	80395.43	"	1.8	0.2	47	35	359	9	"	4840	
30168	6.27	16.00	80411.43	"	1.1	0.15	48	39	281	2	"	"	
30169	4.50	12.75	80415.18	"	1.0	0.1	49	39	245	9	"	"	
30170	4.11	3.47	80418.85	"	0.8	0.05	49	42	61	2	"	4841	beams dumped

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	Tø Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{L0}>6$ GeV	T_2 Bit 2 2T. E4. ≥ 2TR	Processors ON/OFF NSO	MIP	TOF	FAN

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26/10/96 0" H. Mills on shift

Gas check - my last - OK

2^{20} During last fill the patterns on the MOP looked rather unfamiliar - reload before run 30153.

4^{00} Rieseberg

5^{19} FADC Processor Request time out for all FEPs 0 through 31

5^{54} For Run # 30137 the E^+, E^- timing test 1,2 - histograms are rather broad, but within the allowed shift.

6^{37} New error: 1 DAY/Month zero in head bank, Run 30158, also 1 in Run 30157

7^{40} Look Tasso for a new fill, but their "conditions are good". 7^{49} stop for refilling

8^{00} Eisen - Gas check ok.

9^{00} It is warm in the hall. Open ½ gate

9^{10} Reload FADC processors to get fresh statistics (last reload > 30 h)

12^{00} Spitzer

13^{13} FDAS READOUT ERROR 33 Missing LAM br. 3 cr. 2 : Main Chamber

16^{00} Chin on shift for the last time! - Gas check ok.

20^{00} Kuhlen on shift

21^{16} Threw the whole package of paper in the Gould plotter away. It stuck together at the edges and blocked the plotter at every copy.

October 27

0^{00} Haidt on shift

4^{00} Fried on shift

4^{11} Gas check done. Resistant too high, admission valve 72

4^{14} Missing LAM br 4 cr 1 JETC point 701
'Illegal Jetc data' on TV very often

4^{24} Starting new run doesn't clear JETC problem so beeper expert.

4^{31} Mans Eickhart E, he advises me to reload M.O.P. This clears problem

4^{40} "Missing LAM at FEP ready (JETCH)" - continuously - try new run - it clears it

5^{28} FDAS ERROR 64 - AC2099 TOF-2 Q,X missing stn = 14 subaddr = 3

5^{57} Missing LAM br 3 cr 2 : Main + Missing daughter 14

8^{00} Barth & Spitzer
gas check ok

9^{20} FDAS READOUT ERROR 53 - System or watchdog flag PARAMS = 2 177777 (oct)

$\mathcal{L}$ > 10^{30} cm^{-2} s^{-1}	Bhabha $\int$Ldt nb^{-1}	$\int$Ldt. Exp. Energy	IBM Tape output	At Run Start TOF [V]	At Run Start ID [MA]	Online Reset Sum Mirror T_2 %	Online Reset NORDSO T_1+T_2 %	Σ Bhabha	M/H	E_{beam}	Mag Field -1 * C	Remarks

55

13^{30} Vertex chamber switched on again. Anode voltage now +1800 V.
Since run # 30201 back in read-out. So switch it on from now on.
Quadrant 3 disconnected from HV ⇒ ignore YSPY messages: missing BP-chamber wires 160 - 252

16^{00} Cartwright

16^{05} Gas check done

16^{42} MOP terminal found to be asleep - resurrected with RUN ZIMMONI

Beampipe chamber trips: 16^{30}, 16^{35}, 16^{41}, 16^{48}, 16^{55}, 17^{02}, 17^{09}, 17^{15}, 17^{22}, 18^{24} Q1, 18^{34}, 18^{40}, 18^{53} Q1, 18^{59} Q1, 19^{06}, 19^{13}, 19^{20} Q1, 19^{35}

17^{01} FDAS readout error 64 - AC2099 TOF2 Q,X missing stn = 4 subaddr = 3

17^{33} YSPY complaining about noisy lendglass - but Tasso have just phoned to suggest a new fill, so not worth starting a new run now.

18^{30} Green PETRA disco lamp suddenly went out. Replaced bulb.

19^{12} μ cr 14 continuously missing + missing LAM in many messages, + another VTXC trip (groan!)
Jan Chin playing football! However, reset at crate works for now.

19^{19} Crate 14 gone again. What a fun shift.
Reset crate 14 at crate - get back to find VXC tripped - reset VXC - get back and cr 14 is missing again. Decide to leave crate 14 for Jan who will be home by 20^{00} according to Janine.

19^{40} Beams lost. All chambers trip. A fitting end to my last shift.

20^{00} Hill takes over reset duty.
After consultations with Jan Chin I changed the CAMAC module for CM14 in the hardware room. After initial testing problems it seems to be OK.

Beampipe chamber trips: 20^{58} Q1, 21^{07} Q1, 21^{09}, 21^{31}, 21^{35} Q1, 21^{45} Q1, 22^{23} Q1, 22^{40}, 22^{58}, 23^{15} Q2, 23^{38}, 23^{49}, 23^{58}

21^{12} FDAS readout error 74: wrong lam br 5 cr 1 : Bpch.

0.00 Horowitz on shift

" Gas check done

0.05 B-P. CH ~~[illegible]~~ deactivated and run 30213 stopped due to incessant trips.

1.58 FDAS Error 1C8K - JETC micros reloaded

4.00 Magnussen on shift

4.07 10 x Missing LAM at FEP Ready (JETCH) → reloaded JETCH micros → does not help → new run

4.13 FDAS Error 64 : AC2099 TOF-2 Q,X missing stn = 5 subad. = 0

Run	Date	Start	Stop	At run start I^+	At run start I^-	Dead time %	Time (secs)	Records in	Records out	All $*10^6$	T_0 Rej. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{LG}>6$ GeV	T_2 Bit 17 2T. Ev. $\geq$ 2TR	Processors on/off NSO	MIP	TOF	FAN
30171	26/10/82	15:29	16:06	10.61	11.13	25.3	2205	8002	5416	573	145	5337	4691	1265	41	ON	ON	ON	OFF
30172	"	16:06	16:45	8.85	9.31	22.1	2296	8002	5287	597	131	5354	4701	1283	48	"	"	"	"
30173	"	16:45	17:30	7.36	7.78	19.7	2523	8002	4996	656	128	5349	4791	1214	45	"	"	"	"
30174	"	17:30	18:17	5.98	6.36	17.0	2805	8002	4692	730	123	5418	4881	1179	37	"	"	"	"
30175	"	18:56	19:34	11.08	11.02	22.6	2288	8002	5506	594	134	5442	4545	1361	42	"	"	"	"
30176	"	19:34	20:15	9.17	9.12	20.7	2394	8002	5136	622	128	5465	4630	1312	45	"	"	"	"
30177	"	20:15	20:59	7.60	7.56	19.0	2586	8002	5003	675	128	5464	4747	1297	33	"	"	"	"
30178	"	20:59	21:38	6.29	6.26	16.8	2291	6679	3877	595	100	4550	3934	961	36	"	"	"	"
30179	"	22:09	22:47	11.17	11.13	23.9	2212	8002	5420	575	137	5331	4602	1350	30	"	"	"	"
30180	"	22:47	23:30	9.29	9.27	20.6	2396	8002	5233	622	128	5387	4701	1316	34	"	"	"	"
30181	"	23:30	0^{14}	7.59	7.57	18.1	2629	8002	4853	683	123	5407	4783	1249	35	"	"	"	"
30182	27/10/86	0^{15}	0^{39}	6.28	6.26	16.6	1403	4011	2367	364	60	2707	2401	617	21	"	"	"	"
30183	"	1^{09}	1^{43}	10.68	10.56	22.8	2297	8002	5398	597	136	5303	4653	1332	32	"	"	"	"
30184	"	1^{49}	2^{21}	8.89	8.80	20.0	2479	8002	5204	644	128	5472	4712	1346	37	"	"	"	"
30185	"	2^{31}	3^{19}	7.41	7.33	18.5	2707	8002	4838	704	120	5304	5116	1192	46	"	"	"	"
30186	"	3^{17}	3^{26}	6.24	6.17	16.1	1111	3053	1655	289	46	2013	1945	403	17	"	"	"	"
30187	"	4^{06}	4.15	10.67	10.73	24.0	519	1893	1288	135	32	1263	1105	294	8	"	"	"	"
30188	"	4.16	4.29	10.22	10.32	23.8	760	2923	1885	198	50	1814	1556	460	14	"	"	"	"
30189	"	4.31	4.39	9.50	9.60	23.3	453	1603	1041	118	26	1077	908	248	5	"	"	"	"
30190	"	4.41	5.22	9.05	9.16	20.5	2442	8002	5353	635	130	5376	4789	1344	42	"	"	"	"
30191	"	5.23	6.07	7.49	7.59	19.2	2635	8002	4820	685	131	5316	4900	1220	45	"	"	"	"
30192	"	6.07	6.43	6.20	6.29	17.0	2144	6166	3563	558	95	4144	3780	883	42	"	"	"	"
30193	"	7.15	7.53	10.60	10.51	22.4	2286	8002	5371	594	135	5290	4749	1336	39	"	"	"	"
30194	"	7.54	8.35	8.76	9.04	20.1	2429	8002	5178	632	126	5319	4596	1356	23	"	"	"	"
30195	"	8.35	9.06	7.25	7.50	17.7	1855	5396	3135	379	85	3555	3368	780	32	"	"	"	"
30196	"	9.56	10.15	10.70	10.63	23.5	2291	8002	5384	595	137	5306	4677	1282	46	"	"	"	"
30197	"	10.35	10.47	8.82	8.72	21.9	671	2336	1483	174	38	1588	1317	373	12	"	"	"	"
30198	"	11.23	12.01	10.68	10.75	23.9	2256	8002	5312	587	130	5284	4756	1319	45	"	"	"	"
30199	"	12.02	12.43	8.85	8.91	21.0	2449	8002	5194	637	133	5435	4739	1337	27	"	"	"	"
30200	"	12.44	13.28	7.26	7.32	20.1	2605	8002	4925	677	136	5265	4886	1239	28	"	"	"	"
30201	"	13.28	13.50	5.82	5.87	18.4	177	2275	1331	202	37	1484	1376	328	16	"	"	"	"
30202	"	15:00	15:40	10.80	10.71	25.6	2349	8002	5390	610	156	5269	4646	1249	52	"	"	"	"
30203	"	15.41	16^{22}	8.89	8.81	21.9	2429	8002	5270	632	138	5320	4669	1261	43	"	"	"	"
30204	"	16^{22}	17^{07}	7.36	7.29	19.0	2667	8002	4965	694	132	5324	4875	1175	36	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$ exp. energy	IBM tape output	At run start TOF [V]	At run start ID [μA]	Online reject SUM MIPROC T_2 %	Online reject NOD SO T_1T_2 %	Σ Bhabha	M/H	E_{beam}	Mag. field $-1*G$	Remarks
30171	9.98	22.15	80441.00	IBM	1.8	0.2	47	33	389	10	17.503	4841	
30172	8.63	21.18	80462.18	"	1.4	0.2	47	35	372	4	17.500	"	
30173	6.94	16.74	80478.92	"	1.1	0.1	49	38	294	5	17.503	4840	
30174	4.94	14.69	80493.61	"	0.9	0.1	51	42	258	8	"	4847	beams dumped
30175	11.45	27.38	80520.99	"	1.6	0.2	47	32	481	15	17.500	4838	
30176	9.06	23.58	80544.57	"	1.2	0.2	49	37	414	5	17.503	4840	
30177	9.00	19.53	80564.10	"	1.0	0.2	50	38	343	10	17.500	4841	
30178	5.23	14.29	80578.39	"	0.8	0.2	50	43	251	3	"	4842	beams dumped
30179	11.60	25.62	80604.01	"	1.5	0.2	46	33	450	13	"	4841	
30180	9.41	23.62	80627.63	"	1.2	0.2	48	35	415	7	"	4842	
30181	7.05	18.56	80646.19	"	1.0	0.2	49	40	326	7	"	4844	
30182	5.51	7.91	80654.10	"	1.0	0.2	50	42	139	2	"	4843	beams dumped
30183	10.15	24.60	80678.70	"	1.5	0.3	46	33	432	12	17.503	4844	
30184	8.06	22.21	80700.91	"	1.1	0.2	49	36	390	10	"	"	
30185	5.10	14.92	80715.83	"	1.0	0.2	51	40	262	4	"	4848	
30186	2.57	3.64	80719.47	"	1.0	0.15	51	47	64	2	"	4844	beams dumped
30187	10.06	6.09	80725.56	"	1.5	0.25	48	33	106	0	"	"	
30188	11.00	8.08	80733.64	"	1.25	0.25	46	32	142	3	17.500	4842	
30189	10.17	4.21	737.85	"	1.25	0.25	47	36	74	1	"	4841	
30190	8.39	20.27	758.12	"	1.20	0.25	49	34	358	10	"	4843	
30191	6.49	18.34	776.46	"	1.0	0.2	49	41	322	6	"	4842	
30192	4.90	11.28	787.74	"	0.85	0.1	50	43	198	4	"	4844	beams dumped
30193	10.75	24.20	811.94	"	1.5	0.25	47	34	425	10	-	4843	
30194	8.47	20.84	832.78	"	1.3	0.20	47	36	366	9	"	"	
30195	5.76	9.68	842.46	"	1.0	0.2	47	43	170	3	"	4845	beams dumped
30196	10.32	22.49	864.95	"	1.5	0.3	47	33	395	11	17.500	4844	
30197	8.84	5.81	80870.76	"	1.2	0.25	48	37	102	2	17.503	"	beams lost
30198	10.95	25.96	80896.72	"	1.6	0.35	47	34	455	10	17.500	4843	
30199	8.69	21.69	80918.41	-	1.2	0.25	50	36	381	8	-	4844	
30200	6.00	16.34	80934.75	-	1.0	0.20	48	39	287	9	"	-	
30201	4.31	3.87	80938.62	-	1	0.2	49	43	68	1	-	-	VTXL on beams dumped
30202	10.41	23.74	80962.36	-	1.5	0.4	46	34	417	6	-	4844	↓
30203	8.45	21.29	80983.65	"	1.3	0.3	48	35	374	6	"	"	
30204	6.29	17.03	81000.68		1.0	0.2	50	39	299	1	17.503	"	

Run	Date	Start	Stop	At run start I^+	At run start I^-	Dead time %	Time (secs)	Records in	Records out	All $\times 10^6$	T_0 Rej. $\times 10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{LG} > 6$ GeV	T_2 Bit 17 Zt. Eq. $\geq 2\pi R$	Processors on/off NSO	MIP	TOF	FAV
30205	27/10/86	17^{08}	17^{39}	6.06	6.00	19.4	1854	5316	3269	483	94	3548	3236	742	26	ON	ON	ON	OFF
30206	"	18^{15}	18^{47}	10.19	10.48	26.1	2291	8002	5594	696	156	5309	4633	1326	26	"	"	"	"
30208	"	18^{56}	19^{39}	8.34	8.60	26.1	2551	7853	5112	664	173	5257	4694	1261	42	"	"	"	"
30209	"	20^{47}	21^{51}	7.91	8.06	20.1	2585	8002	4999	672	134	5287	4900	1196	47	"	"	"	"
30210	"	21^{51}	21^{53}	5.95	6.09	22.7	166	542	322	43	9	341	330	67	2	"	"	"	"
30211	"	22.31	23^{09}	10.73	10.66	25.2	2214	8002	5465	575	144	5325	4585	1247	29	"	"	"	"
30212	"	23^{09}	23^{50}	8.85	8.79	22.7	2419	8002	5186	628	142	5408	4558	1333	49	"	"	"	"
30213	"	23^{50}	0^{04}	7.24	7.18	27.0	816	2636	1685	272	167	1738	1559	381	17	"	"	"	"
30214	27/10/86	0:05	0:29	6.76	6.71	19.9	1427	4528	2779	371	74	3034	2649	611	14	"	"	"	"
30215	"	1:07	1.48	11.42	11.14	25.0	2201	8002	5475	573	143	5260	4813	1288	30	"	"	"	"
30216	"	1.51	1:54	9.33	8.96	24.2	447	366	238	23	0.2	233	185	65	2	"	"	"	"
30217	"	1.58	2.39	9.04	8.61	21.5	2420	8002	5153	630	135	5373	4815	1325	32	"	"	"	"
30218	"	2.39	3.13	7.43	7.05	17.4	1999	6238	3868	520	101	4223	3750	966	37	"	"	"	"
30219	"	3.44	4:14	10.52	10.79	26.7	1654	5413	3638	430	114	3584	3225	888	31	"	"	"	"
30220	"	4:17	4:58	9.04	9.28	20.3	2450	8002	5711	637	129	5312	4849	1244	37	"	"	"	"
30221	"	4:58	5:42	7.47	7.68	18.4	2609	8002	4848	678	125	5380	4763	1199	33	"	"	"	"
30222	"	5:42	5:52	6.18	6.37	18.5	457	1350	795	119	21	886	843	204	8	"	"	"	"
30223	"	6:44	7.21	11.45	11.21	24.7	2207	8002	5613	573	141	5360	4622	1324	44	"	"	"	"
30224	"	7:21	8:01	9.42	9.22	20.7	2384	8002	5270	620	128	5439	4578	1360	38	"	"	"	"
30225	"	8:01	8:45	7.78	7.60	18.3	2588	8002	5014	674	123	5387	4758	1206	41	"	"	"	"
30226	"	8:46	9:25	6.41	6.25	17.5	2354	6830	4127	613	107	4743	4040	1013	36	"	"	"	"
30227	"	9:58	10:37	10.61	10.78	24.6	2254	8002	5543	587	145	5334	4672	1372	32	"	"	"	"
30228	"	10:42	10:58	8.62	8.77	22.4	1014	3748	2586	264	58	2586	2013	624	24	"	"	"	"
30229	"	10:58	11:40	7.82	8.07	21.4	2418	8002	5496	630	135	2558	4614	1216	37	"	"	"	"
30230	"	11:41	12:27	6.54	6.67	18.8	2665	8002	4911	688	129	5235	4815	1220	40	"	"	"	"
30231		12:29	12:30	5.40	5.52	20.9	65	219	134	17	3	142	115	46	1				
30232	"	13.09	13:49	10.79	10.99	24.5	2273	8002	5359	591	145	5359	4594	1359	44	"	"		
30233		13.49	14:00	8.97	9.17	23.4	821	2768	1777 (-9)	213	163	1937	1590	423	15				
30234		14.03	14.45	8.42	8.62	21.4	2510	8002	4925	653	139	5273	4827	1176	29				
30235		14.48	15:33	7.14	7.32	18.6	2710	8002	4932	705	131	5217	4918	1158	47				
30237		15.37	16:26	6.02	6.19	18.9	2358	8002	4705	717	135	5171	5005	1065	42	"	"	"	"
30238	"	16.27	16.51	5.01	5.15	17.5	1305	3614	2037	339	594	2369	2231	453	16	"	"	"	"
30239	"	17:22	17:59	10.87	10.97	24.4	2793	8002	5504	577	139	5252	4666	1346	37	"	"	"	"
30240	"	18:00	18:44	9.09	9.13	27.7	2473	8002	5708	628	133	5374	4648	1272	57	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2}s^{-1}	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$ exp. energy nb^{-1}	Output IBM/Tape	At run start TOF V	At run start ID μA	Online Rej. Σ Marec % T_2	Online Rej. NSO % (T_1T_2)	Σ Bhabha	M/H	E_{Beam}	Mag field -1 * G	Remarks
30205	4.61	9.28	81009.96	IBM	0.85	0.2	49	39	163	5	17.5	4846	Beams dumped
30206	10.15	25.67	81035.63	"	1.6	0.35	47	31	451	6	"	"	Run 30207 junk: μ-ch error in peletch.
30208	7.29	19.30	81054.93	"	1.25	0.25	49	36	339	9	"	"	Beams lost
30209	6.77	18.62	81073.55	"	1.25	0.2	49	39	327	7	17.503	"	
30210	5.31	7.08	81074.63	"	0.75	0.2	47	43	19	1	17.5	"	Beams dumped
30211	11.07	23.51	81098.14	"	1.5	0.25	47	33	413	12	"	"	
30212	8.47	21.18	81119.32	"	1.1	0.2	48	36	372	4	17.503	"	
30213	7.36	5.47	81124.79	"	0.75	0.2	48	37	94	2	"	"	Run stopped. Batch taken out of readout
30214	1.35	9.28	81134.07	"	1.0	0.2	48	40	163	4	"	"	Beams dumped
30215	9.97	23.45	81157.52	"	1.6	0.25	47	32	412	8	17.500	"	
30216	9.12	1.59	81159.11	"	1.3	0.20	39	37	28	0	17.503	"	Run stopped + JETC micro reloaded
30217	7.05	21.35	81180.46	"	1.3	0.20	49	36	375	8	17.500	"	
30218	6.17	14.07	81194.53	"	1.0	0.2	50	39	247	4	17.503	"	Beams dumped
30219	9.29	15.14	81209.67	"	1.6	0.25	48	34	266	6	17.500	4844	Stopped to reload JETC micros
30220	7.95	17.25	81226.92	"	1.2	0.25	48	37	303	6	17.503	4842	
30221	5.75	16.06	81242.98	"	1.0	0.2	49	40	282	4	"	4843	
30222	5.01	2.56	81245.54	"	0.9	0.2	51	43	45	1	17.500	4844	Beams dumped
30223	11.00	26.94	81272.48	"	1.7	0.35	47	30	473	9	17.503	4842	
30224	9.23	22.20	81294.68	"	1.5	0.25	48	35	380	10	17.500	4843	
30225	6.84	17.03	81311.71	"	1.0	0.2	48	38	255	7	17.503	4844	
30226	4.88	13.38	81325.09	"	0.8	0.2	50	41	235	5	"	"	Beams dumped.
30227	10.75	25.97	81351.06	"	1.5	0.2	47	31	456	9	"	4842	
30228	3.09	9.85	81360.91	"	1.3	0.2	47	31	173	0	"	4843	stop run 3
30229	7.45	18.91	81379.82	"	1.1	0.2	47	36	332	4	"	"	VTXC on
30230	5.42	13.89	81393.71	"	1.0	0.2	49	41	244	4	"	"	
30231	4.81	.63	81394.34		0.8	0.2	55	44	11	0	"	"	
30232	10.24	25.34	81419.68	"	1.5	0.3	48	34	465	9	"	4837	
30233	8.57	6.26	81425.94	"	1.2	0.25	48	37	110	5	"	"	IBM went off
30234	5.70	14.52	81440.46	JDA507	1.1	0.2	49	40	255	3	"	"	
30235	4.33	11.61	81452.07	JDA509	1.0	0.2	49	41	204	2			30236
30237	3.03	9.79	81461.86	JDA511	0.9	0.2	49	43	172	1	"	4839	30236 lost
30238	2.74	3.70	81465.56	IBM	0.8	0.15	50	45	65	1	"	4838	
30239	10.85	23.91	81489.47	"	1.5	0.3	46	32	420	8	17.500	4836	
30240	8.57	19.82	81509.29	"	1.7	0.2	48	37	348	6	17.503	4847	

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_ϕ Raj. $*10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{LG}>6$ GeV	T_2 Bit 2 Zt. Ex. ≥ 2 TR	Processors ON/OFF NSO	MIP	TOF	FAN

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28.10.86 8^{00} Becher

Gas check done : P4 = 10 (normal : 30), Aethan, primary side
→ T. Greenshaw called.

10^{50} VTXC back in readout. Ignore YSPY messages about missing wires (169 - 250).
Leave it in readout.

12^{00} H. Mills – my last shift!
Using SPY-MASTER I stop the SPY monitoring of BP-chamber.

13^{19} BP-CH trip
13^{45} " " "
16^{00} IBII down — write to tape.
15^{30} During start of run 30235 YPARA gave error but run seemed OK.
Before run 30237 YPARA was rebuilt. YSPY also needed rebuilding (could not read constants)

16^{00} M. Zimmer on shift
Gas check done
16^{35} Soft trip
17^{25} BP-CH trip

18:00 H. Kado on shift (my last one!)
18:39 ID trip (chain current)
19:31 Z-chamber trip
20:37 Vertex chamber trip Yeah! I think I've got them all! – or which chamber will trip at 27:30?
21:25 " " very strange – since 16:30 exactly one HV-trip every hour!
23:20 " "
23:50 " "

29/10/86 0^{00} Dieckmann on shift Gas check done
0^{42} VTXC Trip
3^{48} " "
4^{00} Klüwer on shift
5^{30} no e^+, keep filling (I ≈ 6 mA)
6^{15} Message from TASSO: no e^+ expected in the next few hours

$\angle L >$ $10^{30}\,cm^{-2}s^{-1}$	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	IBM TAPE OUTPUT	At Run Start TOF [V]	At Run Start ID [MA]	Online Reject SUM MIRAC T_2 %	Online Reject NWPSO T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD $-1*C$	REMARKS

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08^{00} CHH on shift. Gas check completed.

11^{00} Fan-failure in VTXC HT-MH-crate causes trips of VTXC and Z-chamber.
Module exchanged from spare on the balcony.

12^{00} Hill on shift for the last time (sniff, – a sad day for Ireland)
15^{15} BP. ch trip. (Wouldn't have been quite the same without one!)
15^{50} Don't think it wasn't wonderful....
↑ Schuß. Paul Hill.

16^{00} U. Schneekloth
16^{30} run summary 30265 incomplete $I_e=0$, $E_B=0$, Lumi=0 ?
16^{33} VTX ch. trip
16^{41} Z ch. trip
16^{48} JDAS READOUT ERROR 32 – missing LAM at FEP Ready (JETCW), paused run and reloaded JETC
17^{45} gas check done
18^{18} run 30268 YVOLTS : TAG MFR 61 all channels 0, switched HV on by hand
18^{25} VTX ch. trip
19^{50} " "
20^{00} " " (FINCH ON LAST SHIFT) (SCHNEEKLOTH RECORDS THIS HISTORIC MOMENT PHOTOGRAPHICALLY)
$2^{0\,45}$ Error 30 missing LAM JG8K Back
20^{54} TOF voltage fluctuating wildly, for a while.
22^{27} Error 4 AC2 TOF-2 Q,X missing stn = 3 subaddr = 4
23^{29} Missing LAM JG8K back
23^{50} And so my last shift draws quietly to a close, so long JADE been nice to know you... A.C. Finch

30/10/86
0000 Slöplan on Shift
0005 Gas check completed.
0127 VTX ch trip
356 " " "
4^{00} P. Steffen on shift.
5^{00} continuous missing LAM in Fetchmbr : reloaded
8^{00} Rieseberg
Gas check done
8^{01} SHORT BREAK Prepare separated beams for CELLO
Four Reform Jobs submitted
Magnet → 1500 A
Reload JG8K There were many Processor Request Timeouts (all processors) and 'abort event'

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records IN	Records OUT	All $\times 10^6$	T_0 Rej. $\times 10^6$	T_1 Acc Sum	T_2 Acc Sum	T_1 Bit 2 $E_{LC} > 6$ GeV	T_2 Bit 17 2T. Ev. $\geq 2T_R$	Processors ON/OFF NSO	MIP	TOF	FAST
30241	28/10/86	18:45	19:29	7.41	7.45	18.8	2607	8002	4933	677	127	5376	4621	1229	40	ON	ON	ON	OFF
30242	"	19:29	19:53	6.75	6.79	17.9	1383	4049	2430	360	64	2653	2432	565	19	"	"	"	"
30243	"	20:28	21:06	10.85	10.89	23.2	2279	8002	5478	593	138	5321	4628	1344	47	"	"	"	"
30244	"	21:06	21:48	9.01	9.04	21.1	2467	8002	5242	642	135	5363	4666	1307	47	"	"	"	"
30245	"	21:48	22:33	7.46	7.49	18.6	2640	8002	4800	686	128	5332	4727	1244	32	"	"	"	"
30246	"	22:33	22:39	6.17	6.19	17.3	336	1062	593	87	15	695	615	151	6	"	"	"	"
30247	"	22:17	23:54	11.01	11.55	25.8	2188	8002	5502	568	146	5268	4635	1373	47	"	"	"	"
30248	"	23:54	0:33	10.09	9.66	22.4	2288	8002	5284	595	133	5358	4501	1343	38	"	"	"	"
30249	29/10/86	0:33	1:16	8.44	8.06	19.9	2546	8002	5054	662	131	5428	4686	1290	48	"	"	"	"
30250	"	1:16	1:56	7.01	6.66	17.5	2336	6966	4048	608	106	4685	4052	1064	33	"	"	"	"
30251	"	2:53	3:31	11.87	11.27	25.2	2173	8002	5519	565	142	5188	4710	1304	45	"	"	"	"
30252	"	3:31	4:11	9.99	9.44	22.4	2335	8002	5260	608	136	5239	4690	1325	45	"	"	"	"
30253	"	4:11	4:53	8.39	7.90	20.1	2541	8002	4951	661	133	5318	4697	1243	30	"	"	"	"
30254	"	4:54	5:40	7.09	5.96	17.8	2737	8002	4692	712	127	5297	4877	1215	32	"	"	"	"
30255	"	5:40	6:29	5.96	5.55	16.2	2925	8002	4373	761	123	5387	4862	1182	36	"	"	"	"
30256	"	6:29	7:21	4.92	4.50	14.6	3105	8002	4427	808	118	5298	4917	1061	41	"	"	"	"
30257	"	07:22	08:17	4.16	3.75	13.3	3298	8002	4203	855	114	5380	4782	1093	23	"	"	"	"
30258	"	08:17	08:25	3.52	3.18	12.9	414	981	476	108	14	638	623	126	5	"	"	"	"
30259	"	10:20	10:57	10.92	10.49	21.7	2005	6793	4574	521	113	4444	3990	1068	32	"	"	"	"
30260	"	11:59	12:39	10.44	10.40	22.1	2354	8002	5434	612	135	5357	4614	1278	26	"	"	"	"
30261	"	12:40	13:22	8.78	9.10	19.8	2527	8002	5071	655	129	5367	4660	1288	39	"	"	"	"
30262	"	13:22	14:07	7.35	7.65	18.3	2668	8002	4856	694	127	5394	4656	1208	45	"	"	"	"
30263	"	14:07	14:32	6.13	6.40	17.7	1461	4243	2543	380	69	2863	2474	581	31	"	"	"	"
30264	"	15:09	15:48	10.48	10.81	22.7	2310	8002	5397	607	136	5245	4708	1349	32	"	"	"	"
30265	"	15:49	16:30	8.68	?	21.6	2408	8002	5271	627	136	5365	4669	1354	47	"	"	"	"
30266	"	16:30	17:17	7.20	7.47	23.6	2699	8002	4990	702	166	5339	4704	1236	40	"	"	"	"
30267	"	17:17	17:45	5.89	6.13	18.5	1662	4969	2968	433	80	3295	2942	703	28	"	"	"	"
30268	"	18:18	18:57	11.16	10.75	24.6	2297	8002	5418	598	147	5185	4760	1365	26	"	"	"	"
30269	"	18:57	19:39	9.03	8.96	21.3	2442	8002	5216	635	135	5375	4693	1311	35	"	"	"	"
30270	"	19:39	20:22	7.55	7.51	21.0	2529	8002	5152	658	138	5292	4798	1279	41	"	"	"	"
30271	"	20:22	20:50	6.28	6.24	20.0	1622	4922	2990	422	84	3268	3001	785	23	"	"	"	"
30272	"	22:33	23:13	10.20	9.79	22.0	2356	8002	5352	613	148	5273	4672	1311	36	"	"	"	"
30273	"	23:19	23:55	8.49	8.11	20.2	2475	8002	5095	647	130	5339	4735	1284	51	"	"	"	"
30274	"	23:57	0.35	7.01	6.67	18.6	2258	6847	4195	587	109	4583	4016	1011	30	"	"	"	"

Run	$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	$\int L dt$ Bhabha nb^{-1}	$\int L dt$ Exp. Energy nb^{-1}	Output IBM/Tape	At run start TOF [V]	At run start ID [nA]	Online reject Sum T_2 [%]	Online reject NORD 50 $T_1 \cdot T_2$ [%]	Σ Bhabha	M/Ha	E_{beam} [GeV]	Mag. Field [-scaP]	Remarks
30241	6.45	17.82	81527.11	IBM	1.0	0.2	48	39	373	7	17503	4840	
30242	4.79	8.37	81535.42	IBM	0.8	0.2	49	41	146	3	"	"	beams dumped
30243	10.74	27.10	81562.52	"	1.6	0.3	48	32	476	17	17,500	4838	
30244	8.68	22.49	81585.01	"	1.2	0.2	49	35	395	8	17.503	4838	
30245	6.66	18.27	81603.28	"	0.9	0.2	48	41	321	9	17.500	4838	
30246	5.53	1.65	81604.93	"	0.8	0.2	46	46	29	0	"	"	beams dumped
30247	10.86	24.88	81629.81	"	1.7	0.35	46	32	437	12	"	"	
30248	9.69	23.92	81653.73	"	1.2	0.25	47	35	420	7	"	"	
30249	7.45	19.87	81673.60	"	1.0	0.25	50	38	349	5	"	"	
30250	5.63	15.43	81689.03	"	0.8	0.2	49	43	271	5	"	"	beams dumped
30251	11.32	26.65	81715.68	"	1.6	0.35	46	32	468	4	"	"	
30252	9.70	23.41	81739.09	"	1.3	0.3	46	35	411	5	17503	"	
30253	7.40	18.96	81758.05	"	1.0	0.2	49	39	333	8	17.500	4839	
30254	5.44	17.02	81775.07	"	0.85	0.2	50	43	299	6	"	4838	
30255	4.08	13.43	81788.50	"	0.7	0.2	51	44	236	3	"	4840	
30256	3.19	10.82	81799.37	"	0.6	0.15	51	46	191	2	"	"	
30257	2.34	8.03	81807.40	"	0.5	0.1	52	49	141	3	17503	-"-	
30258	1.92	0.91	81808.31	"	0.4	0.05	52	54	16	0	-"-	-"-	BEAMS DUMPED
30259	10.63	20.15	81828.46	"	1.3	0.25	48	34	354	7	17500	4837	BEAMS LOST
30260	10,09	24,65	81853.11	"	1.3	0.25	48	33	433	14	"	"	
30261	8,40	22,20	81875,31	"	1,0	0,2	49	38	330	5	"	"	
30262	6,33	19,13	81894,44	"	0,8	0,2	50	41	336	8	17503	4838	
30263	5,28	7,80	81902,24	"	0,75	0,15	50	41	137	0	17500	4836	Beams dumped
30264	10,64	23,85	81926,09	"	1,5	0,25	47	33	419	10	"	"	
30265	?	?	81947.09	"	1,1	0,2	49	35	386	6	17 500	"	
30266	6.09	17.31	81964.40	"	1.0	0.2	50	39	304	2	"	4837	
30267	4.90	8.54	81972.94	"	0.9	0.2	49	42	150	6	"	4836	beams dumped
30268	8.64	27.15	82000.09	"	1.6	0.3	46	33	477	6	"	4835	
30269	7.92	21.01	82021.10	"	1.3	0.2	49	36	369	3	17.503	4836	
30270	6.85	17.53	82038.63	"	1.1	0.2	49	37	308	4	17.500	"	
30271	5.57	9.28	82047.91	"	1.0	0.2	51	41	163	3	"	4834	Beams dumped
30272	10.12	25.16	82072.07	"	1.4	0.25	47	34	442	5	"	4835	
30273	8.76	21.07	82093.14	"	1.0	0.2	48	37	320	8	17.503	"	
30274	6.30	14.57	82107.71	"	0.9	0.2	49	40	256	10	17 500	"	Beam dumped

Run	Date	Start	Stop	At run start I+	At run start I−	Dead time %	Time (secs)	Records in	Records out	All *10^6	Tφ Raj. *10^6	T1 Acc Sum	T2 Acc Sum	T1 Bit 2 E_LG > 6 GeV	T2 Bit 17 2T. E4 ≥ 2TR	Processors on/off NSO	MIP	TOF	FAN
30275	30/10/86	1.19	1.58	10.82	10.55	23.7	2268	8002	5462	590	140	5313	4636	1234	46	ON	ON	ON	OFF
30276	"	1.58	2.22	9.07	8.83	20.7	1393	4718	3082	363	75	3137	2686	725	22	"	"	"	"
30277	"	3.00	3.38	10.66	10.32	24.3	2259	8002	5779	588	143	5324	4627	1335	31	"	"	"	"
30278	"	3.36	4.18	8.89	8.58	21.2	2372	"	5181	617	137	5435	4416	1284	26	"	"	"	"
30279	"	4.19	5.01	7.42	7.15	18.9	2498	7671	4271	650	123	5216	4403	1197	30	"	"	"	"
30280	"	5.43	6.22	11.01	10.37	23.6	2284	8002	5492	594	141	5275	4635	1326	42	"	"	"	"
30281	"	6.22	7.02	9.16	8.59	21.3	2351	"	5129	612	130	5408	4533	1293	32	"	"	"	"
30282	"	7.02	7.49	7.66	7.14	19.1	2624	"	4968	682	131	5451	4630	1241	37	"	"	"	"
30283	"	7.56	7.57	6.19	5.72	17.6	63	218	134	17	3	135	124	31	1	"	"	"	"
30284	"	10.10	10.53	10.06	10.26	20.1	2574	8002	4956	670	135	5241	5034	1044	42	"	"	"	"
30285	"	10.54	11.39	8.73	8.91	19.3	2657	8002	4880	691	133	5337	4822	1081	39	"	"	"	"
30286	"	11.39	12.33	7.51	7.66	18.8	2710	8002	4754	704	132	5322	4742	1107	41	"	"	"	"
30287	"	12.35	12.36	6.20	6.31	17.6	37	122	80	9	1	77	63	18	1	"	"	"	"
30288	"	13.12	13.54	11.28	10.78	21.9	2465	8002	5049	641	146	5202	4990	1107	41	"	"	"	"
30289	"	13.55	14.38	9.77	9.32	20.5	2575	8002	4984	669	137	5266	5027	1137	36	"	"	"	"
30290	"	14.39	15.24	8.37	7.98	19.6	2667	8002	4771	693	136	5202	5071	1045	38	"	"	"	"
30291	"	15.24	15.54	7.20	6.85	19.7	1734	5173	3084	451	88	3344	3214	696	34	"	"	"	"
30292	"	16.57	17.38	10.74	10.65	26.7	2405	8002	5283	626	167	5101	5120	1107	34	"	"	"	"
30293	"	17.38	18.20	9.08	9.00	23.6	2480	8002	5008	646	152	5188	5110	1082	42	"	"	"	"
30294	"	18.20	19.03	7.69	7.61	22.4	2570	8002	4902	669	150	5094	5104	1089	43	"	"	"	"
30295	"	19.04	19.36	6.48	6.42	20.5	1919	5739	3434	500	103	3696	3640	781	32	"	"	"	"
30296	"	20.06	20.45	11.00	10.94	27.5	2273	8002	5795	591	162	5163	4919	1172	49	"	"	"	"
30297	"	20.45	21.25	9.22	9.18	25.1	2367	8002	5225	616	155	5247	4843	1235	43	"	"	"	"
30298	"	21.25	22.07	7.70	7.67	22.5	2515	8002	5001	654	147	5214	4851	1155	33	"	"	"	"
30299	"	22.07	22.33	6.43	6.41	21.2	1654	6452	2763	379	80.1	2951	2733	648	25	"	"	"	"
30300	"	23.17	23.58	11.10	10.92	22.7	2263	8002	5382	588	163	5157	4854	1215	51	"	"	"	"
30301	31/10/86	23.58	0:40	8.96	8.94	23.9	2416	8002	5150	629	150	5232	4853	1264	37	"	"	"	"
30302	"	0:40	0:57	7.48	7.46	22.5	982	3244	2078	255	57	2096	1960	461	16	"	"	"	"
30303	"	3:00	3:11	10.63	10.53	25.5	570	2041	1324	148	37	1297	1213	295	10	"	"	"	"
30304	"	3:36	4:16	11.42	11.26	25.1	2313	8002	5296	601	166	5132	4914	1112	40	"	"	"	"
30305	"	4:17	4:57	9.7	9.5	24.0	2388	8002	5100	621	153	5163	4905	1161	46	"	"	"	"
30306	"	4:58	5:39	8.25	8.15	23.5	2463	8002	5041	640	150	5112	4907	1105	43	"	"	"	"
30307	"	5:40	6:17	6.97	6.92	21.1	2241	6778	4195	583	123	4376	4198	929	46	"	"	"	"
30308	"	6:46	7:24	11.77	11.08	26.7	2270	8002	5195	590	157	5141	4937	1163	44	"	"	"	"
30309	"	7:25	8:05	9.99	9.39	23.5	2392	8002	5114	623	146	5230	4862	1127	41	"	"	"	"

Run	<L> 10^30 cm^-2 s^-1	Bhabha ∫Ldt nb^-1	∫L dt Exp. energy	IBM/Tape output	At run start TOF [V]	At run start ID [mA]	Online reject sum mirror T2 %	Online reject NOR50 T1+T2 %	Σ Bhabh.	M/H	E_beam	Mag field ±1 * G	Remarks
30275	10.12	24.54	82132.25	IBM	1.6	0.35	47	33	431	11	17503	4835	
30276	8.71	11.67	82163.92	"	1.25	0.25	47	36	205	5	17500	4834	beams lost
30277	10.53	26.36	82170.28	"	1.5	0.35	47	34	463	13	17500	4835	
30278	8.66	22.26	82192.54	"	1.15	0.2	47	36	391	"	"	4834	
30279	6.63	17.42	82109.96	"	0.9	0.15	50	39	308	7	"	"	beams dumped
30280	10.80	24.09	82134.05	"	1.4	.25	47	32	424	7	17503	"	
30281	8.71	22.32	82156.37	"	1.1	.25	48	37	392	8	"	"	
30282	6.17	16.62	82172.99	"	0.9	.20	50	39	292	4	17500	"	~~beams dumped~~
30283	5.98	0.57	82173.56	"	.8	.15	47	42	10	0	17500	4844	beams dumped
30284	5.95	15.09	82188.65	"	1.3	0.2	50	39	265	2	17500	4840	Separated beams for CELLO
30285	5.50	15.71	82204.36	"	1.15	0.2	50	40	276	6	17500	4840	
30286	5.01	13.38	82217.74	"	0.9	0.15	49	42	235	5	17501	4841	
30287	3.99	0.17	82217.91	"	0.8	0.15	55	40	3	0	17500	"	beams dumped
30288	5.30	16.74	82234.65	"	1.4	0.3	49	38	294	6	17503	"	
30289	5.30	13.26	82247.91	"	1.3	0.2	51	39	233	5	17500	4840	
30290	4.16	8.83	82256.74	"	1.2	0.15	50	42	155	2	17503	4840	
30291	3.37	5.35	82262.09	"	1.0	0.15	49	42	94	0	"	4841	beams lost
30292	5.34	12.75	82274.84	"	1.7	0.4	49	35	224	4	17500	4841	
30293	4.27	10.02	82284.86	"	1.5	0.3	50	39	176	3	17502	4842	
30294	3.52	8.48	82293.34	"	1.2	0.25	48	40	149	2	17500	4841	
30295	3.17	6.66	82300.00	"	1.1	0.2	49	41	117	1	17502	4841	beams dumped
30296	6.88	15.54	82315.54	"	1.8	0.4	48	34	273	2	17500	4841	
30297	5.92	15.65	82331.19	"	1.45	0.3	49	36	265	6	"	"	
30298	4.11	10.53	82341.72	"	1.3	0.3	50	39	185	2	"	"	
30299	3.22	5.24	82346.96	"	1.1	0.2	51	39	92	0	"	"	beams dumped
30300	7.03	15.88	82362.84	"	1.9	0.4	47	34	273	2	"	"	
30301	5.93	16.05	82378.89	"	1.45	0.3	48	37	281	6	"	"	
30302	5.65	6.04	82384.93	"	1.15	0.2	47	37	106	2	17503	4840	beams lost
30303	7.33	4.78	82389.71	"	1.5	0.3	45	37	84	3	17.500	4840	beams lost
30304	6.82	16.40	406.11	"	1.6	0.4	47	35	288	4	"	"	
30305	6.00	14.41	420.52	"	1.4	0.3	48	36	253	11*	"	"	
30306	4.74	12.41	432.93	"	1.2	0.4	47	38	218	4	"	"	
30307	3.36	8.60	441.53	"	1.1	0.3	49	40	151	1	"	"	beams dumped
30308	7.29	18.16	459.69	"	1.6	0.4	48	36	319	4	"	"	
30309	5.72	13.15	82472.84	"	1.4	0.3	49	37	231	1	17503	"	

Run	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_ϕ Raj. $*10^6$	T_1 ACC SUM	T_1 ACC SUM	T_1 Bit 2 $E_{LG} > 6$ GeV	T_2 Bit 17 2T. E4. $\geq$ 2TR	PROCESSORS ON NSO	MIP	TOF	OFF FAN

66 30.10.86

9.12 Magnet → 7500

10.07 New Filling ready
Run 30284. Two LG Pedestals >500 though test runs before
Table will be taken out of the Gas house today. I ask Mr. Seidel for a small table

10.58 Missing LAM J68K Bank

11.04 VTXC Q1 trip

11.21 " "

12.00 Schlein on shift

12.17 JDAS readout error 64, TOF-2 Q,X missing ntr=16 subaddr=3

13.15 Logging mainframe 61 no HV, reset by hand

16.00 Matsumura on shift, Gas check done

17.07 Beam Pipe Ch Trip Soft

17.13 JDAS readout error 33 Missing LAM B=4 C=1 JETC point 701
" 64 AC 2097 TOF 2 OX Missing N=14 A=6

17 Beam Pipe Ch Trip Soft

18.08 " "

18.24 JDAS Error 33 Missing LAM B=3 C=2 Muon Chambers

20.00 Greenhow

31.10.86

0.20 Zimmer
Gas check done o.k.

0.57 all chambers trip due to beam loss

1.10 'Short break' PLR says for about half an hour
magnet to 1500 A

2.10 magnet to 7500 A

2.50 Beam ready run 30303 stats

3.10 next beam loss

3.45 BP-chamber trip

4.00 Feldt on shift
3 x VTX chamber trip
1 x Z-chamber "

8.00 Kleinwort on his last shift for JADE
Gas check done

12.00 Walker on (his last) shift

12.45 Very frequent Missing JETC Card 123 Rbg

LL > 10^{30} cm^{-2} s^{-1}	BHABHA $\int$Ldt nb^{-1}	$\int$Ldt. EXP. ENERGY	TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MODE T_2 %	ONLINE REJECT NORDSO T_1/T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD -1 * G	REMARKS

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14.30 NSO batch job time out. NSO refuses to restart. Reload computer, kick it a couple of times + everything OK (I hope)

14.38 VTX-ch. trip.

15.44 Continuous missing LAM 0 FERRARI (SETUP). Reload JOBS.

15.46 2 " " "

15.47 JET-ch. + BP ch. trip.

15.51 2 more missing LAMS 0 FERRARI. Energy → 17.532 GeV.

15.59 Bye-bye JADE - is it "Aus Wiedersehen"? (No)

16.00 Naroska (replacing Wehr)
Gascheck ok.

16.49 VTX-CH trip

16.55 Schlein

17.00 Y-SPY 4) - ERROR MESSAGE quite often!

18.12 Test-run before starting run 30321 seems to have stopped the Y-SPY 4) (Pb-glass) problem

19.30 VTX-chamber anode peak current meter, which under present conditions is reading negative values, shows occasional current spikes up to 80 μA.

Note: TASSO had announced a new filling at ~18.30, but there is trouble with the injection system ~~[illegible]~~

20.00 Stephens last shift
22.30 finally get beam
22.50 VTX ch. trip.
23.10 " " "
23.12 Magnet Trip call HKI
DOWN
Well at least → finished with a bang (almost)

0.00 Saturday 1/11/86 Fred Loebinger
00.10 Magnet fixed
00.20 Gas check done.
01.45 Vertex chamber trip.
01.55 All chamber trip — beam lost.
03.15 Vertex chamber trips
+ 03.20
+ 03.30

Run	Date	Start	Stop	At run start I+	At run start I−	Dead time %	Time (secs)	Records in	Records out	All *10^6	Tφ Raj. *10^6	T1 Acc Sum	T2 Acc Sum	T1 bit 2 E_Lg > 6 GeV	T2 bit 17 2T. Ex. ≥ 2TR	Processors on NSO	MIP	TOF	off FAW
30310	31/10/86	8:05	8:48	8.48	7.95	22.6	2577	8002	4835	671	151	5135	5051	1086	52	ON	ON	ON	OFF
30311	"	8:49	9:44	7.18	6.72	20.5	2599	7807	4680	676	139	5078	4896	1096	39	"	"	"	"
30312	"	10:22	11:01	10.81	10.95	23.4	2305	8002	5238	600	152	5136	4856	1166	47	"	"	"	"
30313	"	11:02	11:42	9.22	9.35	23.4	2429	8002	4973	632	148	5132	4918	1113	52	"	"	"	"
30314	"	11:43	12:26	7.71	7.90	21.8	2573	8002	5148	669	146	5259	4962	1109	47	"	"	"	"
30315	"	12:26	13:03	6.58	6.68	21.3	2164	6534	3934	563	120	4235	4065	914	36	"	"	"	"
30316	"	13:35	14:14	10.77	10.82	25.9	2322	8002	5229	604	156	5174	4610	1204	50	"	"	"	"
30317	"	14:15	14:25	9.04	9.07	24.0	2527	2015	1295	154	37	1315	1162	276	11	"	"	"	"
30318	"	14:42	15:27	8.06	8.09	23.9	2461	8002	5038	640	152	5245	4813	1146	37	"	"	"	"
30319	"	15.26	16.02	6.67	5.70	25.0	1851	7006	3450	482	120	3577	3403	804	25	"	"	"	"
30320	"	16.39	17.21	10.42	9.47	28.2	2438	8002	5466	634	177	5166	4963	1180	46	"	"	"	"
30321	"	17.22	18.03	8.74	7.91	23.6	2450	8002	5219	638	151	5141	5066	1116	48	"	"	"	"
30322	"	18.07	18.50	7.26	6.54	22.1	2576	8002	5007	670	148	5172	5069	1187	47	"	"	"	"
30323	"	18.51	19.36	6.09	5.48	20.0	2692	8002	4596	701	140	5213	5037	1121	49	"	"	"	"
30324	"	19.37	19.44	5.11	4.58	21.3	394	1207	671	103	22	762	713	157	4	"	"	"	"
30325	"	22.36	23:12	10.35	10.53	24.7	1968	6777	4461	512	127	4331	4067	1030	39	"	"	"	"
30326	1/11/86	0.48	1.26	11.14	10.73	26.4	2292	8002	5423	596	157	5176	4924	1162	58	"	"	"	"
30327	"	1.29	1.56	9.28	8.92	24.5	1596	5329	3581	415	102	3450	3260	773	31	"	"	"	"
30328	"	3.10	3.50	10.47	10.25	24.6	2408	8002	5200	626	154	5159	4951	1168	49	"	"	"	"
30329	"	3.50	4.33	8.79	8.60	21.9	2518	8002	4895	660	146	5188	5103	1137	38	"	"	"	"
30330	"	4.33	5.17	7.39	7.23	21.2	2683	8002	4987	687	145	5181	5111	1085	47	"	"	"	"
30331	"	5.17	5.80	6.23	6.09	19.5	1266	3828	2277	329	66.3	2515	2301	520	16	"	"	"	"
30332	"	6.07	6.57	10.85	10.20	24.8	2366	8002	5112	613	152	5122	5036	1100	50	"	"	"	"
30333	"	6.57	7.39	9.16	8.59	23.2	2470	8002	5044	643	149	5241	4917	1173	48	"	"	"	"
30334	"	7.39	8.13	7.22	7.23	21.5	2579	8002	4913	671	144	5189	5013	1147	50	"	"	"	"
30335	"	8.13	8.44	6.50	6.08	20.6	1623	4861	2935	423	87	3170	2994	697	24	"	"	"	"
30336	"	9.36	10.16	10.07	9.84	23.8	2391	8002	5260	622	148	5134	4878	1178	46	"	"	"	"
30337	"	10.18	11.00	8.40	8.20	22.1	2506	8002	4999	652	144	5232	4987	1153	41	"	"	"	"
30338	"	11.00	11.45	7.10	6.93	20.6	2680	8002	4859	698	143	5212	5052	1112	34	"	"	"	"
30339	"	11.46	11.46	—	—	—	—	—	—	—	—	—	—	—	only pedestal events				
30340	"	12.02	12.17	5.53	5.46	20.8	872	2669	1619	227	47	1737	1589	363	14	"	"	"	"
30341	"	12.52	13.31	10.55	10.45	27.5	2324	8002	5313	604	166	5128	5034	1170	46	"	"	"	"
30342	"	13.31	14.11	8.94	8.85	27.0	2403	8002	5130	625	168	5094	4996	1138	45	"	"	"	"
30343	"	14.12	14.54	6.49 / 7.61	7.53	23.6	2499	8002	5047	650	153	5111	5062	1174	34	"	"	"	"

⟨L⟩ 10^30 cm^-2 s^-1	Bhabha ∫Ldt nb^-1	∫Ldt Exp. Energy	IBM/Tape output	At run start TOF [V]	At run start ID [MA]	Online reject Sum M/Mrec T2 %	Online reject NSO/SO T1/T2 %	Σ Bhabha	M/H	E_Beam	Mag field −1*G	Remarks
4.19	11.04	82483.88	IBM	1.2	0.25	49	41	194	3	17500	4841	
3.87	10.59	82494.47	"	1.0	0.2	50	41	186	7	"	"	beams dumped
6.42	16.46	82510.93	"	1.6	0.35	47	36	289	7	17503	4840	
4.81	10.82	82521.75	"	1.4	0.3	47	39	190	3	"	4841	
3.96	10.19	82531.94	"	1.2	0.2	50	37	179	3	"	4843	
3.12	7.69	82539.63	"	1.0	0.2	50	41	135	3	17.500	4842	Beams dumped.
6.78	17.14	82556.77	"	1.7	0.3	47	36	301	4	"	4841	
5.76	2.62	82559.39	"	1.4	0.3	48	38	46	2	17.503	4840	NSO problems.
4.76	11.33	82570.72	"	1.3	0.3	49	38	199	3	"	"	
3.48	5.87	82576.59	"	1.2	0.2	49	39	103	2	"	"	dump
5.25	12.24	82588.83	"	1.7	0.3	49	33	215	7	17501	4841	
4.62	11.50	82600.33	"	1.4	0.2	49	36	202	1	17.500	4841	
3.48	8.94	82609.27	"	1.3	0.2	50	39	167	8	17.500	4841	
2.77	8.54	82617.81	"	1.2	0.2	50	44	150	2	17.503	4841	
2.45	1.37	82621.18	"	0.85	0.15					17.503	4840	beams dumped
7.01	13.21	82634.39	"	1.5	0.3	45	35	232	5	17.503	4841	magnet trip.
7.24	15.32	82649.71	"	1.8	0.35	48	33	269	4	17.502	4841	
5.58	9.22	82658.93	"	1.5	0.3	48	34	162	1	17.499	4844	Beams lost.
5.66	14.91	82673.84	"	1.6	0.3	48	36	262	8	17.500	4843	
4.47	11.45	82685.29	"	1.4	0.3	50	40	201	2	"	"	
3.22	8.54	82693.83	"	1.15	0.2	51	39	150	2	"	"	
2.82	3.47	82697.30	"	1.05	0.2	48	42	61	1	"	"	Beams dumped
5.69	12.86	82710.16	"	1.7	0.35	48	35	226	2	"	"	
4.69	11.29	82722.45	"	1.4	0.3	49	38	216	4	"	"	
3.33	10.30	82732.75	"	1.2	0.25	49	40	181	4	"	"	
2.71	4.44	82737.19	"	1.1	0.2	50	41	78	3	17.499	4844	beams dumped
6.32	15.60	82752.79	"	1.5	0.4	47	36	274	4	17.503	4844	
4.27	10.59	82763.38	"	1.4	0.3	50	39	186	1	17.500	4844	
3.63	9.05	82772.43	"	1.[illegible]	0.2	50	41	159	3	17.503	4844	
events				1.1	0.2							168K events at run start
2.88	2.85	82775.28	"	1.0	0.2	48	41	50	1	17.500	"	reload DETC 68K; beams dumped
5.70	14.86	82790.14	"	1.6	0.4	48	35	261	3	"	"	
4.42	10.93	82801.07	"	1.5	0.3	47	37	192	2	"	"	
3.72	8.56	82810.63	"	1.4	0.3	49	38	168	4	"	"	

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_ϕ Raj. $*10^6$	T_1 Acc Sum	T_1 Acc Sum	T_1 Bit 2 $E_{LG} > 6$ GeV	T_2 Bit 2 2T. Ev. ≥ 2 TR	Processors ON NSO	MIP	TGF	FAW	OFF

3.10 onwards: Many messages: Missing JETC CELL, faulty part 123

4^{00} Greenshaw

4^{00} Vertex chamber pen recorder going again. (Had run out of paper at ~ 2'15)

5^{35} MOP says "Exception $88 at user address $0000877C. Aborted." and dies. Zamorano restarted

6^{30} There are an awful lot of "Jetc missing cell" (frequently number 127). Trigger 2 input looks unhealthy too. Considering time (of day and in life of JADE) I have responsibility of informing jet chamber expert to drop shift (if they consider it necessary). Concord!

7^{20} Mainframe 13 channel 9 voltage ~ 0.2, reset successfully.

8^{00} Hagemann

8^{10} Gas check OK.

8^{34} All chambers tripped.

9^{41} VTXC softtrip Q1 + 10^{44}

10^{24} JDAS error 33 - missing LAM Br. 3 cr. 4 : Z-chamb. Part 1

11^{46} J68K-problem at run start of run 30339. Run stopped. Reloading was not successful.

11^{50} DL305 (Nr. 582, CRATE 13, WIRE 5461547) -5V missing

→ exchanged DL305 (Nr. 369) K. Ambrus

→ reload JETCHK, next run = 30340

12^{00} Ambrus

16^{10} D. Schmidt

Gas check done: OK

18.00 ; 18:05 ; 18,10 ; 18,15 ; 18,17 Z-Chamber hard trips (gas failure)

19.30 VTXC + BPC hard trip.

20^{00} Spitzer

2/11/86 0^{00} Ambrus

0^{00} Gas check OK.

0^{40} BP-CH TRIP

0^{40} "

0^{55} "

4:00 Bartel

4:15 BP-CH trip

5:05 BP-Ch trip. Nord hung up. no reaction from any of the keys

Not possible to reload Nord.

After Stop, Master Clear, Load nothing happens. Rise is ok

<L> 10^{30} cm^{-2} s^{-1}	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$. EXP. ENERGY	TAPE OUTPUT	At Run Start TGF [V]	At Run Start ID [MA]	Online Reject SUM NORM T_2 %	Online Reject NORPSO T_1/T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD $-1*G$	REMARKS

5:20 beam loss chamber trips.

5:30 Wake up J. Olsson 1½ hour earlier than he wanted

Run disk down and up again

Now Load works ok

Reloaded JDAS

Do LG - test run looks ok.

6:15 BP-Ch trip

6:25 "

6:58 Z-ch trip

7:10 BP-ch trip

7:18 Z-ch trip BP-ch gas alarm, valve failure

8:00 I would have preferred a quiet shift as last JADE shift.

OLSSON & HEDGECOCK

Gas check completed.

08 58 JADE MAGNET TRIPS OFF. Technician arrives. Water pump had tripped off.

09 30 Magnet back to normal current. Start new run.

09 33 MFR 63 decides to switch OFF.

09 35 VTXCH " " " " . I now discover where my bruises shoulder and lip come from!!!

VTXCH SOFT TRIP. !!! Z-chamber trip !!!

12 45 All trip, partial beam loss.

And a Watchdog error! 13 20 all trip again, Jetc chain current alarm.

13 40 YSPY detected error, but no message on YSPY screen! And Magnet Protection.

Stand. histograms reveal no problem...

~14 00 Z-trigger pulser runs YPARA rebuilt, after giving error.

14 40 Z-CH. Trip. "

YSPY terminal was not online. Zu

16 27 Murphy Gas check done (my last!)

1705 VTXCH trip.

1707 Same again.

1715 And again!

18 00 Again.

20.00 Naroska

21.00 VTX Chamber trip

23.00 Finally beams are dumped (filling lasted 6 hours).

23.42 Beams lost at 17.5 GeV. 5 Heidelberger were here.

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_0 REJ. $*10^6$	T_1 ACC SUM	T_2 ACC SUM	T_1 BIT 2 $E_{LG}>6GeV$	T_2 BIT 17 2T.E.4. $\geq 2TR$	PROCESSORS ON N50	MIP	TOF	OFF FAN
30344	1/11/86	14.54	15.38	6.48	6.41	22.0	2628	8002	4758	684	150	5160	4988	1117	54	ON	ON	ON	
30345	"	15.38	16.03	5.41	5.46	20.6	1358	3888	2355	353	73	2584	2554	570	18	"	"	"	
30346	"	16.48	17.31	10.06	10.02	23.1	2435	8002	5105	634	147	5201	4946	1187	50	"	"	"	
30347	"	17.32	18.15	8.50	8.46	21.6	2562	8002	4929	667	144	5165	4928	1179	39	"	"	"	
30348	"	18.21	19.06	7.13	7.10	20.6	2713	8002	4806	706	143	5229	4998	1108	40	"	"	"	
30349	"	19.07	19.54	6.09	6.06	18.1	2705	7736	4334	704	127	5118	4861	1102	37	"	"	"	
30350	"	21:07	21:48	10.32	9.95	23.9	2440	8002	5225	634	151	5136	4938	1078	34	"	"	"	
30351	"	21:49	22:33	8.80	8.58	26.6	2636	8002	4921	685	182	5197	4990	1122	48	"	"	"	
30352	"	22:34	23:17	7.45	7.17	21.0	2562	8002	4840	666	140	5284	4969	1195	43	"	"	"	
30353	"	23:17	23:57	6.35	6.11	19.8	2384	7064	4205	621	123	4627	4416	1025	43	"	"	"	
30354	2/11/86	0:31	1:14	10.40	10.46	25.9	2445	8002	5046	635	164	5129	4929	1146	50	"	"	"	
30355	"	1:15	1:56	8.71	8.76	22.1	2469	8002	4856	642	142	5236	4816	1119	40	"	"	"	
30356	"	1:57	2:52	7.41	7.45	20.5	2619	8002	4749	681	140	5244	4835	1112	40	"	"	"	
30357	"	2:53	2:59	6.03	6.07	18.1	347	1043	608	90	16	673	633	139	7	"	"	"	
30358	-	4:05	4:46	10.57	10.42	23.2	2455	8002	5127	638	148	5193	5089	1148	39	-	-	-	
30359	"	4:46		~0		run	summary				lost	due	to	Nord	crash				
30360	-	6:03	6:44	10.11	8.84	27.2	2374	8002	5240	617	168	5161	5102	1146	46	"	"	"	
30361	-	6:45	7:27	8.60	7.53	26.2	2407	8002	5016	626	164	5092	4967	1113	46	"	"	"	
30362	"	07:28	08:13	7.29	6.35	21.0	2654	8002	4804	690	145	5281	4925	1169	44	"	"	"	
30363	"	08:17	08:25	6.09	5.29	18.7	444	1322	788	115	22	847	785	170	9	"	"	"	
30364	"	08:57	08:59	10.32	10.23	—	—	223	133	—	—	—	—	—	—	"	"	"	
30365	"	09:29	10:12	8.97	8.89	24.1	2498	8002	5092	650	156	5280	4942	1140	46	"	"	"	
30366	"	10:12	10:55	7.57	7.50	21.7	2520	8002	4968	656	144	5128	4959	1192	51	"	"	"	
30367	"	10:55	11:43	6.41	6.35	20.9	2677	8002	4869	697	146	5193	5065	1112	30	"	"	"	
30368	"	11:43	11:47	5.23	5.19	18.7	-	388	242	—	—	—	—	—	—	"	"	"	
30369	"	12:42	13:33	9.09	7.59	22.7	2627	8002	5072	683	155	5102	5181	1086	36	"	"	"	
30370	"	13:33	14:02	7.32	5.47	21.9	1667	5113	3133	434	95	3957	3167	724	22	"	"	"	
30371 -	"							~ 4 x 500											
30374	"																		
30375	"	14:34	15:16	10.04	10.01	25.6	2445	8002	5255	636	163	5092	5064	1128	33	"	"	"	
30376	"	15:16	15:57	8.33	8.31	25.1	2414	8002	5204	628	158	5165	4943	1124	53	"	"	"	
30377	"	15:57	16:22	6.90	6.88	23.5	1456	4718	2948	379	89	3042	2832	674	28	"	"	"	
30378 -	"							~ 4 x 500											
30381																			

$\langle L \rangle$ $10^{30} cm^{-2} s^{-1}$	BHABHA $\int Ldt$ nb^{-1}	$\int Ldt$ EXP. ENERGY	IBM/TAPE OUTPUT	AT RUN START TOF (V)	AT RUN START ID (μA)	ONLINE REJECT SUM MUPROC T_2 %	ONLINE REJECT NORD 50 T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG. FIELD -1 * G	REMARKS
2.78	6.89	82817.52	IBM	1.2	0.2	49	42	121	3	17583	4844	
2.27	3.42	82820.94	"	1.1	0.2	50	43	60	3	17501	"	Beams dumped.
5.71	17.42	82838.36	"	1.4	0.3	49	37	306	7	17.502	4845	
4.82	12.24	82850.60	"	1.2	0.25	49	40	215	4	17.499	4844	
3.63	10.48	82861.08	"	1.1	0.2	51	41	184	0	17.502	"	
3.15	9.05	82870.13	"	0.9	0.2	51	45	159	1	"	"	Beams dumped
5.73	14.23	82884.36	"	1.5	0.3	48	36	250	4	17.500	4844	
4.57	11.45	82895.81	"	1.3	0.3	49	40	201	6	17.501	"	
3.93	12.36	82908.17	"	1.1	0.2	51	41	217	3	"	"	
3.17	7.97	82916.14	"	1.0	0.2	50	42	140	5	17.500	"	beams dumped
5.91	14.46	82930.60	"	1.5	0.3	47	38	254	4	17.499	"	
4.48	12.24	82942.84	"	1.3	0.25	48	41	215	2	17.502	4843	
3.41	9.96	82952.80	"	1.1	0.2	50	42	175	0	17.494	"	
3.03	1.25	82954.05	"	1.0	0.2	48	43	22	0	"	4844	beams dumped
5.63	14.35	82968.40	"	1.5	0.4	50	37	252	5	17.494	4844	
			"	1.3	0.3					"	"	beams lost
5.06	13.55	82981.95	"	1.5	0.4	50	36	238	0	"	"	
3.90	9.79	82991.74	"	1.3	0.3	48	39	172	1	"	"	
3.02	9.62	83001.36	"	1.1	0.2	51	41	169	3	"	"	
2.68	1.25	83002.71	"	1.0	0.2	47	42	22	0	"	"	Beams dumped.
—	0.28	83002.99	"	1.75	0.45	—	—	5	0	17.58	4838	MAGNET TRIPS (SAME)
4.14	12.07	83015.06	"	1.35	0.3	51	37	212	3	17.499	- " -	
3.84	10.19	83025.25	"	1.2	0.25	48	39	179	6	"	4840	
2.91	7.80	83033.05	"	1.1	0.2	51	41	137	6	17.502	4840	
2.10	0.34	83033.39	"	1.0	0.2	—	—	6	0	17.499	4841	Beams dumped.
3.68	9.96	83043.35	"	1.4	0.25	50	38	175	6	17.500	4840	
2.74	4.55	83047.90	"	1.2	0.25	47	40	80	2	17.500	4839	Beams dumped.
			"									2 trigger + I.D pulser runs not for Reduc 7
			"									
4.99	11.67	83059.57	"	1.75	0.3	49	36	205	4	17.503	4840	
4.11	11.23	83070.85	"	1.70	0.3	49	36	198	3	"	- " -	
3.29	5.24	83076.09	"	1.30	0.25	47	39	92	2	17.500	4837	Beams dumped.
												2 trigger + I.D. pulser runs Not for Reduc 7

Run	Date	Start	Stop	At Run Start I^+	At Run Start I^-	Dead Time %	Time (secs)	Records In	Records Out	All $*10^6$	T_ϕ Rej. $*10^6$	T_1 Acc Sum	T_1 Acc Sum	T_1 Bit 2 $E_{L_0} > 6$ GeV	T_1 Bit 2 2T. Eq. $\geq$ 2TR	Processors ON/OFF NSO	MIP	TOF	FAN
30382	2 Nov 86	1656	1744	9.09	8.95	29.7	2579	8002	5203	671	200	5136	4988	1104	50	ON	ON	ON	
30383	"	1745	1828	7.26	7.15	23.0	2572	8002	4890	669	154	5172	5127	1109	53	"	"	"	
30384	"	1829	1913	5.99	5.90	20.7	2665	8002	4882	694	144	5182	5069	1114	41	"	"	"	
30385	"	1914	2002	4.93	4.85	18.2	2842	8002	4615	740	135	5303	5007	1059	43	"	"	"	
386	"	20.02	20.52	4.04	3.98	16.7	2993	8002	4529	778	129	5249	4995	1085	44	"	"	"	
387	"	20.54	21.45	3.29	3.23	15.3	3051	8002	4153	793	121	5480	4826	1378	41	"	"	"	
388	"	21.46	22.39	2.69	2.65	13.6	3175	8002	4035	826	112	5439	4809	1370	24	"	"	"	
389	"	22.39	22.52	2.22	2.17	13.2	747	1905	934	194	25	1297	1103	376	5	"	"	"	
30390	3.11.86	0^{07}	0^{48}	10.28	10.30	29.9	2363	8002	5266	614	183	5042	5165	1079	43	"	"	"	
30391	"	0^{48}	1^{29}	8.50	8.53	24.5	2486	8002	5106	631	154	5158	5022	1104	46	"	"	"	
30392	"	1^{30}	2^{12}	7.06	7.08	23.7	2506	8002	5081	651	154	5192	4928	1178	60	"	"	"	
30393	"	2^{12}	2^{34}	5.86	5.88	23.1	1311	4034	2482	341	78	2640	2515	563	24	"	"	"	
30394	"	3^{01}	3^{42}	10.54	9.84	26.9	2375	8002	5314	617	166	5082	5083	1118	59	"	"	"	
30395	"	3^{41}	4^{22}	8.38	7.61	24.8	2385	8002	5099	619	153	5171	4810	1146	40	"	"	"	
30396	"	4^{23}	5^{05}	6.98	6.32	23.5	2540	8002	4942	660	155	5214	4889	1195	53	"	"	"	
30397	"	5^{06}	5^{51}	5.77	5.20	19.8	2681	8002	4784	699	134	5236	4958	1159	54	"	"	"	
30398																			
-30401								~	4x500										
30402								2000	VTX	C	pulser	run							
30403								2000	"		"	"							

$\langle L \rangle$ $10^{30} cm^{-2} s^{-1}$	Bhabha $\int Ldt$ nb^{-1}	$\int Ldt$ Exp. Energy	IBM/Tape Output	At Run Start TOF [V]	At Run Start ID [MA]	Online Reject Sum MIPRoc T_2 %	Online Reject NRD50 T_1+T_2 %	Σ Bhabha	M/H	E_{beam}	Mag Field $-1*G$	Remarks
4.00	11.33	83087.42	IBM	1.65	0.25	48	36	199	2	17.503	4837	
3.60	8.82	83096.24	"	1.4	0.20	50	40	155	1	17.500	"	
2.99	7.18	83103.42	"	1.15	0.20	50	40	126	2	17.503	"	
2.23	6.66	38110.08	"	1.00	0.20	51	44	117	1	17.500	"	
2.02	6.38	16.46	"	0.6	0.10	50	45	112	2	17.500	4838	
1.37	5.12	21.58	"			53	50	90	3	"	"	
0.95	2.85	24.43	"			53	51	50	1	"	"	
0.62	0.06	83124.49	"	0.45	0.05	51	53	1	1	"	"	dump
5.33	12.64	83137.13	"	2.0	0.6	48	35	222	3	17.503	4837	
4.44	10.25	83147.38	"	1.5	0.25	49	37	180	2	17.499	4838	
3.59	8.71	83156.09	"	1.4	0.2	49	38	154	3	17.502	4839	
2.86	3.99	83160.08	"	1.3	0.2	50	40	70	3	"	"	beam dumped
4.90	11.84	83171.92	"	1.8	0.35	48	35	208	6	17.499	"	
4.17	9.91	181.83	"	1.5	0.25	47	38	174	2	17.502	4838	
3.19	8.77	190.60	"	1.3	0.20	49	40	154	5	17.499	4837	
2.52	7.23	83197.83	"	1.1	0.20	49	41	127	0	"	4836	beam dumped
												Ztrigger + ID pulser runs not for Reduc 7
												VTXC pulser run not for REDUC 1
												"

RUN	DATE	START	STOP	AT RUN START I^+	AT RUN START I^-	DEAD TIME %	TIME (SECS)	RECORDS IN	RECORDS OUT	ALL $*10^6$	T_0 Raj. $*10^6$	T_1 ACC SUM	T_1 ACC SUM	T_1 Bit 2 $E_{L0} > 6$ GeV	T_2 Bit 2 2T. E4. ≥ 2TR	PROCESSORS ON NSO	MIP	TOF	FAN

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3.11.86 0:00 Hubler on shift
Gas check done, I won't miss it
0:45 Numerous BRH trips for the last half hour, high background
3:51 VTXC trip
4:00 Felst on shift
4:40 Z-chamber trip
5:12 TASSO (J. Fischer) planned to say that the final filling is dumped at 5:45 (cost)
5:45 the PETRA screen says: "in fifty ~~yes~~ minutes are eight years over"
(took them 10 minutes to get it onto the screen)
5:50 still the 5 minutes according to screen
5:52 "switch off the high-voltage" appears
6:05 magnet down, injector off

this ends the XXI Bonker story

14:00 Dish dumped
16:00 Temp. OK. All electronics off, but computer and disc left on J.O.

$\langle L \rangle$ 10^{30} cm^{-2} s^{-1}	BHABHA Sldt nb^{-1}	Sldt. EXP. ENERGY	IBM TAPE OUTPUT	AT RUN START TOF [V]	AT RUN START ID [MA]	ONLINE REJECT SUM MIBBA T_2 %	ONLINE REJECT NOLPSO T_1+T_2 %	Σ BHABHA	M/H	E_{BEAM}	MAG FIELD $-1*C$	REMARKS

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The Following Jadites were at the Farewell party

Howard Mills
Norbert Magnussen
Claus Klein wort
Ulrike Schmelloth
Hubert Drumm
Fred Lieberg
Yu Chen
Lutz Becker
Wolfgang Lehmann
Eckhard Elsen
Jan Olsen
Ivar Walter
Michael Mulhearn
Jörg Hagemann
Reinir Rambe
J. Hirsch
Peter Schiffer
Paul Murphy
Gustav Weber
Kenny Cho
Kaike Steplers
J.v. Krogh
Andreas Friedrich
Siegfried Bethke
Rolf Felst
Hans Riesebergs
Rolf Marshall
P. Olsen
Hansfred Zimmer
Jörg Eppler