#120

APOLLO PASSIVE SEISMIC EVENT

69-099C-03A (Apollo 12)
71-008C-04B (Apollo 14)
71-063C-01B (Apollo 15)
72-031C-01B (Apollo 16)

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1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM:

http://nssdc.gsfc.nasa.gov/nmc/

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

a. Associated Documents To find associated documents you will need to know the document ID number and then click here. http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/

b. Core Catalog Materials

APOLLO 12 LM/ALSEP

SEISMIC EVENT TAPE

69-099C-03A

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY THERE WERE 340 7-TRACK, 800 BPI TAPES WRITTEN IN BINARY. THERE ARE 30 RESTORED TAPES. THE DR TAPES ARE 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. FOR THE MOST PART THE TAPES ARE STACKED IN TIME SEQUENTIAL ORDER, BUT THERE ARE A FEW THAT ARE NOT. THE ORIGINAL TAPES WERE CREATED ON A PDP-15 COMPUTER AND WERE RESTORED ON THE MRS COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN	
DR005540	DS005540	D008120	1	11/20/69 - 12/14/69	
		D008121	2	12/14/69 - 01/07/70	(a)
		D008122	3	01/07/70 - 01/29/70	(b)
		D008123	4	01/29/70 - 02/07/70	
		D008124	5	02/10/70 - 02/21/70	
		D008125	6	02/21/70 - 03/06/70	
		D013616	7	02/24/70 - 03/08/70	
		D008126	8	03/06/70 - 03/26/70	
DR005541	DS005541	D008127	1	03/29/70 - 04/05/70	
		D008128	2	04/06/70 - 04/15/70	
		D008129	3	04/16/70 - 04/27/70	(c)
		D008172	4	04/27/70 - 05/20/70	
		D008173	5	05/21/70 - 06/12/70	
		D008174	6	06/13/70 - 07/02/70	
		D008175	7	07/03/70 - 07/18/70	(d)
		D008176	8	07/18/70 - 08/05/70	
DR005542	DS005542	D008177	1	08/05/70 - 08/17/70	(e)
		D008178	2	08/17/70 - 08/31/70	(f)
		D008179	3	08/31/70 - 09/17/70	(g)
		D008180	4	09/17/70 - 10/06/70	
		D008181	5	10/06/70 - 10/24/70	(h)
		D013610	6	10/24/70 - 11/12/70	
		D013611	7	11/15/70 - 12/11/70	
		D013612	8	12/13/70 - 12/31/70	
DR005543	DS005543	D013613	1	01/03/71 - 01/21/71	
		D013614	2	01/21/71 - 02/04/71	
		D013615	3	02/06/71 - 02/19/71	
		D013617	4	02/19/71 - 02/24/71	
		D013624	5	03/08/71 - 03/13/71	
		D013625	6	03/14/71 - 03/21/71	
		D013626	7	03/21/71 - 03/25/71	
		D013627	8	03/25/71 - 04/02/71	

DR#	DS#	D#	FILES	TIME SPAN	
DR005544	DS005544	D013623	1	04/02/71 - 04/05/71	(i)
		D013622	2	04/05/71 - 04/14/71	
		D013621	3	04/14/71 - 04/17/71	(j)
		D013620	4	04/17/71 - 04/28/71	
		D013619	5	04/28/71 - 05/02/71	
		D013618	6	05/02/71 - 05/12/71	
		D013602	7	05/12/71 - 05/16/71	
		D013605	8	05/27/71 - 05/31/71	(k)
DR005545	DS005545	D013604	1	05/25/71 - 05/27/71	
		D013603	2	05/16/71 - 05/25/71	(l)
		D013606	3	06/01/71 - 06/07/71	
		D013630	4	06/07/71 - 06/09/71	
		D013631	5	06/10/71 - 06/12/71	
		D013632	6	06/12/71 - 06/24/71	
		D013629	7	06/24/71 - 06/27/71	
		D013628	8	06/27/71 - 07/03/71	
DR005546	DS005546	D013685	1	07/05/71 - 07/09/71	(m)
		D013686	2	07/10/71 - 07/21/71	
		D013687	3	07/21/71 - 07/31/71	
		D013688	4	08/02/71 - 08/17/71	
		D013689	5	08/17/71 - 08/22/71	(n)
		D013690	6	08/25/71 - 08/31/71	(o)
		D013691	7	08/31/71 - 09/13/71	
		D013692	8	09/13/71 - 09/20/71	
DR005547	DS005547	D013609	1	09/20/71 - 09/26/71	
		D013608	2	09/26/71 - 09/30/71	
		D013607	3	09/30/71 - 10/05/71	(p)
		D013739	4	10/06/71 - 10/15/71	
		D013740	5	10/15/71 - 10/16/71	
		D013741	6	10/16/71 - 10/19/71	(q)
		D013742	7	10/19/71 - 10/22/71	
		D013818	8	10/24/71 - 10/25/71	(r)
		D013819	9	10/25/71 - 10/28/71	(s)
		D013820	10	10/28/71 - 10/31/71	
		D013869	11	10/31/71 - 11/05/71	
		D013821	12	11/05/71 - 11/09/71	
DR005548	DS005548	D013822	1	11/09/71 - 11/16/71	
		D013823	2	11/16/71 - 11/17/71	
		D013814	3	11/17/71 - 11/20/71	
		D013813	4	11/20/71 - 11/22/71	
		D013812	5	11/22/71 - 11/26/71	
		D013827	6	11/26/71 - 12/03/71	
		D013826	7	12/03/71 - 12/07/71	
		D013825	8	12/08/71 - 12/15/71	
		D013824	9	12/15/71 - 12/17/71	
		D013815	10	12/17/71 - 12/20/71	
		D013816	11	12/20/71 - 12/26/71	
		D013817	12	12/27/71 - 12/31/71	
		D013872	13	01/01/72 - 01/06/72	
		D013873	14	01/07/72 - 01/13/72	
		D013874	15	01/13/72 - 01/20/72	

DR#	DS#	D#	FILES	TIME SPAN	
DR005549	DS005549	D013864	1	01/20/72 - 01/31/72	
		D013865	2	01/31/72 - 02/10/72	
		D013866	3	02/10/72 - 02/21/72	
		D013867	4	02/06/72 - 03/06/72	(t)
		D014093	5	03/07/72 - 03/15/72	
		D014094	6	03/15/72 - 03/23/72	
		D014095	7	03/23/72 - 04/04/72	
		D013863	8	04/04/72 - 04/12/72	
		D013862	9	04/12/72 - 04/18/72	
		D014096	10	04/18/72 - 04/27/72	
		D013868	11	04/27/72 - 04/30/72	
		D013696	12	04/30/72 - 05/05/72	
		D013695	13	05/05/72 - 05/09/72	
		D013694	14	05/09/72 - 05/12/72	
DR005550	DS005550	D013693	1	05/12/72 - 05/14/72	(u)
		D013871	2	05/14/72 - 05/16/72	
		D013870	3	05/16/72 - 05/19/72	
		D013591	4	05/19/72 - 05/25/72	
		D013590	5	05/26/72 - 05/29/72	
		D013589	6	05/29/72 - 06/03/72	
		D013601	7	06/03/72 - 06/06/72	(v)
		D013598	8	06/06/72 - 06/09/72	
		D013584	9	06/09/72 - 06/12/72	
		D013585	10	06/12/72 - 06/16/72	
		D013586	11	06/16/72 - 06/23/72	
		D013587	12	06/23/72 - 06/25/72	
		D013588	13	06/26/72 - 06/28/72	
		D013596	14	06/28/72 - 07/04/72	
DR005551	DS005551	D013600	1	07/04/72 - 07/08/72	
		D013595	2	07/08/72 - 07/11/72	
		D013599	3	07/11/72 - 07/18/72	(w)
		D013597	4	07/18/72 - 07/21/72	
		D013594	5	07/21/72 - 07/25/72	
		D013593	6	07/25/72 - 08/04/72	
		D013592	7	08/04/72 - 08/11/72	
		D014091	8	08/11/72 - 08/15/72	
		D014092	9	08/16/72 - 08/18/72	
		D014088	10	08/18/72 - 08/22/72	
		D014089	11	08/22/72 - 08/26/72	
		D014090	12	08/27/72 - 09/04/72	
		D014097	13	09/06/72 - 09/16/72	
		D014098	14	09/16/72 - 09/16/72	

DR#	DS#	D#	FILES	TIME SPAN
DR005552	DS005552	D014238	1	09/23/72 - 09/30/72 (x)
		D014239	2	09/30/72 - 10/14/72 (y)
		D015890	3	10/15/72 - 10/21/72
		D014240	4	10/21/72 - 10/26/72
		D015891	5	10/26/72 - 11/05/72
		D015895	6	11/05/72 - 11/09/72
		D015896	7	11/09/72 - 11/13/72
		D015897	8	11/13/72 - 11/17/72
		D015769	9	11/17/72 - 11/25/72
		D015768	10	11/25/72 - 12/05/72
		D015767	11	12/05/72 - 12/09/72
		D015894	12	12/09/72 - 12/14/72
		D015893	13	12/14/72 - 12/21/72 (z)
DR005553	DS005553	D015892	1	12/21/72 - 12/31/72
		D016118	2	01/01/73 - 01/05/73
		D016117	3	01/05/73 - 01/12/73
		D016181	4	01/12/73 - 01/21/73
		D016182	5	01/22/73 - 02/01/73
		D016183	6	02/01/73 - 02/10/73
		D016184	7	02/10/73 - 02/17/73 (aa)
		D017568	8	02/17/73 - 03/08/73
		D016186	9	03/09/73 - 03/20/73 (bb)
		D016624	10	03/20/73 - 03/27/73
		D016623	11	03/27/73 - 04/03/73
		D016770	12	04/03/73 - 04/13/73 (cc)
DR005554	DS005554	D016771	1	04/13/73 - 04/28/73 (dd)
		D016772	2	04/28/73 - 05/03/73
		D016769	3	05/03/73 - 05/19/73
		D016783	4	05/19/73 - 05/28/73
		D016788	5	05/28/73 - 05/29/73
		D016775	6	06/02/73 - 06/14/73 (ee)
		D016776	7	06/14/73 - 06/25/73 (ff)
		D016793	8	06/25/73 - 06/28/73
		D016794	9	06/28/73 - 07/03/73
		D016792	10	07/03/73 - 07/10/73
		D016782	11	07/10/73 - 07/18/73 (gg)
		D016781	12	07/19/73 - 07/24/73 (hh)
		D016785	13	07/24/73 - 07/30/73
		D016784	14	07/30/73 - 08/02/73 (ii)
DR005555	DS005555	D016795	1	08/02/73 - 08/09/73
		D016789	2	08/09/73 - 08/16/73
		D016790	3	08/16/73 - 08/29/73
		D016780	4	08/29/73 - 09/02/73 (jj)
		D016779	5	09/02/73 - 09/10/73 (kk)
		D016791	6	09/10/73 - 09/19/73 (ll)
		D016774	7	09/19/73 - 10/03/73
		D016773	8	10/03/73 - 10/09/73
		D017565	9	10/10/73 - 10/16/73
		D023619	10	10/05/73 - 10/20/73 (mm)
		D017566	11	10/16/73 - 10/30/73
		D016787	12	10/30/73 - 11/09/73

DR#	DS#	D#	FILES	TIME SPAN	
DR005556	DS005556	D016786	1	11/09/73 - 11/22/73	
		D016777	2	11/22/73 - 12/01/73	
		D016778	3	12/01/73 - 12/08/73	
		D017567	4	12/09/73 - 12/20/73	
		D017552	5	12/20/73 - 12/24/73	
		D016881	6	12/24/73 - 12/31/73	
		D017551	7	01/01/74 - 01/07/74	
		D017550	8	01/07/74 - 01/19/74	(nn)
		D017559	9	01/19/74 - 01/29/74	
		D017560	10	01/29/74 - 02/06/74	
		D017561	11	02/15/74 - 02/15/74	
		D017547	12	02/15/74 - 02/22/74	
		D017546	13	02/24/74 - 03/01/74	
		D017558	14	03/02/74 - 03/11/74	
DR005557	DS005557	D017557	1	03/11/74 - 03/20/74	
		D017556	2	03/21/74 - 03/30/74	(oo)
		D017555	3	03/30/74 - 04/16/74	(pp)
		D017554	4	04/16/74 - 04/25/74	
		D017553	5	04/25/74 - 05/10/74	
		D017544	6	05/11/74 - 05/20/74	
		D017545	7	05/21/74 - 06/02/74	
		D017569	8	06/03/74 - 06/16/74	(qq)
		D017570	9	06/16/74 - 06/28/74	
		D017564	10	06/28/74 - 07/03/74	
		D017563	11	07/03/74 - 07/14/74	(rr)
		D017562	12	07/14/74 - 07/20/74	
		D017548	13	07/21/74 - 08/06/74	
DR005558	DS005558	D017549	1	08/06/74 - 08/11/74	
		D019067	2	08/11/74 - 08/22/74	
		D019066	3	08/22/74 - 08/29/74	
		D019073	4	08/29/74 - 09/08/74	
		D019072	5	09/09/74 - 09/17/74	
		D019071	6	09/17/74 - 09/24/74	
		D019163	7	09/25/74 - 10/06/74	
		D019079	8	11/04/74 - 11/12/74	(ss)
		D019162	9	10/07/74 - 10/16/74	
		D019080	10	11/12/74 - 11/19/74	
		D019161	11	10/17/74 - 10/26/74	
		D019075	12	11/19/74 - 11/27/74	
		D019074	13	11/27/74 - 12/09/74	

DR#	DS#	D#	FILES	TIME SPAN	
DR005559	DS005559	D019078	1	10/27/74 - 11/04/74	
		D019068	2	12/09/74 - 12/14/74	(tt)
		D019070	3	12/14/74 - 12/25/74	
		D019069	4	12/25/74 - 12/31/74	
		D019077	5	01/02/75 - 01/12/75	
		D019076	6	01/12/75 - 01/24/75	
		D019365	7	01/24/75 - 01/30/75	
		D019364	8	01/31/75 - 02/12/75	(uu)
		D019363	9	02/12/75 - 02/22/75	
		D022093	10	02/23/75 - 03/08/75	(vv)
		D022094	11	03/08/75 - 03/24/75	
		D022184	12	03/25/75 - 04/05/75	(ww)
		D022185	13	04/06/75 - 04/14/75	
		D022186	14	04/14/75 - 04/23/75	
DR005560	DS005560	D022190	1	04/23/75 - 05/07/75	
		D022183	2	05/07/75 - 05/16/75	(xx)
		D022189	3	05/17/75 - 06/02/75	
		D022188	4	06/03/75 - 06/16/75	
		D022187	5	06/16/75 - 06/22/75	
		D022454	6	06/22/75 - 06/26/75	
		D022647	7	06/27/75 - 07/07/75	(yy)
		D022648	8	07/07/75 - 07/30/75	(zz)
		D022649	9	07/30/75 - 08/09/75	
		D022650	10	08/09/75 - 08/20/75	
		D022651	11	08/20/75 - 09/02/75	
		D023016	12	09/02/75 - 09/12/75	(aaa)
		D023017	13	09/12/75 - 09/27/75	
DR005561	DS005561	D023618	1	09/27/75 - 10/05/75	
		D023620	2	10/21/75 - 10/31/75	(bbb)
		D023621	3	10/31/75 - 11/11/75	(ccc)
		D023622	4	11/13/75 - 11/26/75	
		D023623	5	11/26/75 - 12/02/75	
		D023713	6	12/02/75 - 12/11/75	
		D023715	7	12/11/75 - 12/23/75	
		D023714	8	12/24/75 - 12/31/75	
		D028102	9	01/01/76 - 01/13/76	
		D028103	10	01/13/76 - 02/03/76	(ddd)
		D028104	11	02/04/76 - 02/16/76	
		D028105	12	02/16/76 - 02/29/76	
DR005562	DS005562	D031825	1	03/01/76 - 03/05/76	
		D031931	2	03/05/76 - 03/11/76	(eee)
		D031932	3	03/11/76 - 03/16/76	
		D031933	4	03/16/76 - 03/31/76	
		D031957	5	03/31/76 - 04/11/76	(fff)
		D031958	6	04/11/76 - 04/23/76	(ggg)
		D031959	7	04/23/76 - 05/01/76	
		D031960	8	05/01/76 - 05/11/76	
		D031961	9	05/11/76 - 05/23/76	(hhh)
		D031962	10	05/23/76 - 05/27/76	(iii)
		D031977	11	05/28/76 - 06/04/76	(jjj)
		D031978	12	06/04/76 - 06/10/76	
		D031979	13	06/10/76 - 06/21/76	
		D032038	14	06/21/76 - 06/25/76	

DR#	DS#	D#	FILES	TIME SPAN	
DR005563	DS005563	D032039	1	06/25/76 - 07/02/76	
		D032040	2	07/02/76 - 07/10/76	
		D032041	3	07/10/76 - 07/21/76	
		D032042	4	07/21/76 - 07/28/76	
		D032043	5	07/29/76 - 07/31/76	(kkk)
		D032277	6	07/31/76 - 08/10/76	
		D032278	7	08/11/76 - 08/19/76	
		D032279	8	08/19/76 - 08/26/76	
		D032280	9	08/26/76 - 08/31/76	(lll)
		D032281	10	08/31/76 - 09/11/76	
		D032282	11	09/11/76 - 09/20/76	
		D032283	12	09/20/76 - 09/23/76	
		D032284	13	09/24/76 - 10/05/76	
		D032285	14	10/05/76 - 10/18/76	
DR005564	DS005564	D032286	1	10/19/76 - 10/22/76	
		D032287	2	10/23/76 - 11/04/76	
		D032288	3	11/04/76 - 11/15/76	
		D032289	4	11/15/76 - 11/19/76	
		D032336	5	11/19/76 - 11/28/76	
		D032337	6	11/28/76 - 12/06/76	(mmm)
		D032338	7	12/06/76 - 12/15/76	(nnn)
		D032926	8	12/15/76 - 12/26/76	(ooo)
		D032927	9	12/26/76 - 12/31/76	(ppp)
		D032883	10	01/01/77 - 01/07/77	
		D032884	11	01/08/77 - 01/13/77	(qqq)
		D032885	12	01/13/77 - 01/22/77	
		D032886	13	01/22/77 - 01/28/77	(rrr)
		D032887	14	01/28/77 - 02/07/77	
DR005565	DS005565	D032888	1	02/07/77 - 02/20/77	(sss)
		D032889	2	02/20/77 - 03/02/77	
		D032890	3	03/02/77 - 03/06/77	
		D033667	4	03/07/77 - 03/20/77	(ttt)
		D032891	5	03/20/77 - 03/31/77	
		D032938	6	03/31/77 - 04/01/77	
		D032939	7	04/01/77 - 04/05/77	(uuu)
		D032940	8	04/05/77 - 04/14/77	
		D032941	9	04/14/77 - 04/18/77	
		D032942	10	04/18/77 - 04/26/77	
		D032943	11	04/26/77 - 04/28/77	
		D032944	12	04/28/77 - 05/01/77	
		D032945	13	05/02/77 - 05/05/77	
		D033677	14	07/03/77 - 07/11/77	

DR#	DS#	D#	FILES	TIME SPAN
DR005566	DS005566	D033794	1	08/27/77 - 09/06/77 (vvv)
		D033687	2	02/13/77 - 05/17/77
		D033686	3	05/29/77 - 09/13/77
		D033685	4	05/23/77 - 05/17/78
		D033675	5	06/15/77 - 06/23/77
		D033674	6	06/12/77 - 06/15/77
		D033673	7	06/06/77 - 06/12/77
		D033672	8	05/27/77 - 06/05/77
		D033671	9	05/23/77 - 05/27/77
		D033670	10	05/17/77 - 05/22/77
		D033669	11	05/12/77 - 05/16/77 (www)
		D033668	12	05/05/77 - 05/12/77
		D033684	13	08/17/77 - 08/27/77 (xxx)
		D033683	14	08/13/77 - 08/17/77 (yyy)
DR005567	DS005567	D033682	1	06/10/77 - 08/13/77
		D033681	2	07/24/77 - 08/02/77
		D033680	3	07/20/77 - 07/24/77
		D033679	4	01/06/77 - 07/20/77
		D033678	5	07/11/77 - 07/16/77 (zzz)
		D033676	6	06/23/77 - 07/06/77
DR005568	DS005568	D057810	1	02/16/70 - 10/02/75
		D057811	2	02/22/71 - 05/21/72
		D057812	3	02/13/75 - 05/16/75
DR005618	DS005618	D057813	1	05/23/75 - 05/16/76
		D057815	2	05/28/76 - 11/15/76
		D057814	3	08/18/76 - 05/15/77
		D033795	4	09/08/77 - 09/11/77
		D033796	5	09/11/77 - 09/16/77
		D033797	6	09/16/77 - 09/30/77

(a) D008121 - 8 ERRORS, REC. 42, 151-155, 244, 1164, FILE 1
(b) D008122 - 1 ERROR, REC. 962, FILE 1
(c) D008129 - 3 ERRORS, REC. 51, 164, 173, FILE 1
(d) D008175 - 17 ERRORS, REC. 119, 126, 132, 1195, 1197, 1201-1212, FILE 1
(e) D008177 - 2 ERRORS, REC. 320, 418, FILE 1
(f) D008178 - 2 ERRORS, REC. 633, 1489, FILE 1
(g) D008179 - 1 ERROR, REC. 27, FILE 1
(h) D008181 - 1 ERROR, REC. 4, FILE 1
(i) D013623 - 4 ERRORS, REC. 51, 57, 77, 86, FILE 1
(j) D013621 - 4 ERRORS, REC. 48, 49, 56, 58, FILE 1
(k) D013605 - 1 ERROR, REC. 104, FILE 1
(l) D013603 - 1 ERROR, REC. 8, FILE 1
(m) D013685 - 9 ERRORS, REC. 4-11, 14, FILE 1
(n) D013689 - 1 ERROR, REC. 79, FILE 1
(o) D013690 - 1 ERROR, REC. 141, FILE 1
(p) D013607 - 1 ERROR, REC. 71, FILE 1
(q) D013741 - 1 ERROR, REC. 831, FILE 1
(r) D013818 - 1 ERROR, REC. 402, FILE 1

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(s) D013819 - 6 ERRORS, REC. 7, 202, 262, 1075, 1505, 1526, FILE 1
(t) D013867 - 2 ERRORS, REC. 948, 949, FILE 1
(u) D013693 - 7 ERRORS, REC. 611, 615, 616, 619, 620, 623, 624, FILE 1
(v) D013601 - 4 ERRORS, REC. 270, 418, 419, 830, FILE 1
(w) D013599 - 1 ERROR, REC. 216, FILE 1
(x) D014238 - 4 ERRORS, REC. 37, 39, 41, 42, FILE 1
(y) D014239 - 2 ERRORS, REC. 212, 213, FILE 1
(z) D015893 - 1 ERROR, REC. 1562, FILE 1
(aa) D016184 - 1 ERROR, REC. 64, FILE 1
(bb) D016186 - 2 ERRORS, REC. 5, 6, FILE 1
(cc) D016770 - 2 ERRORS, REC. 1305, 1306, FILE 1
(dd) D016771 - 3 ERRORS, REC. 1543, 1547, 1586, FILE 1
(ee) D016775 - 12 ERRORS, REC. 686, 691, 718, 738, 742, 746, 750, 754, 766, 782, 786, 790, FILE 1
(ff) D016776 - 1 ERROR, REC. 168, FILE 1
(gg) D016782 - 19 ERRORS, REC. 909, 1925-1942, FILE 1
(hh) D016781 - 4 ERRORS, REC. 3, 9, 10, 33, FILE 1
(ii) D016784 - 1 ERROR, REC. 349, FILE 1
(jj) D016780 - 4 ERRORS, REC. 145-147, 149, FILE 1
(kk) D016779 - 1 ERROR, REC. 195, FILE 1
(ll) D016791 - 1 ERROR, REC. 19, FILE 1
(mm) D023619 - 1 ERROR, REC. 727, FILE 1
(nn) D017550 - 2 ERRORS, REC. 459, 461, FILE 1
(oo) D017556 - 2 ERRORS, REC. 41, 61, FILE 1
(pp) D017555 - 1 ERROR, REC. 106, FILE 1
(qq) D017569 - 1 ERROR, REC. 1529, FILE 1
(rr) D017563 - 2 ERRORS, REC. 506, 507, FILE 1
(ss) D019079 - 1 ERROR, REC. 856, FILE 1
(tt) D019068 - 1 ERROR, REC. 145, FILE 1
(uu) D019364 - 1 ERROR, REC. 822, FILE 1
(vv) D022093 - 13 ERRORS, REC. 62, 79, 80, 94, 111, 121, 171, 183, 285, 324, 629, 1032, 1194, FILE 1
(ww) D022184 - 1 ERROR, REC. 101, FILE 1
(xx) D022183 - 1 ERROR, REC. 4, FILE 1
(yy) D022647 - 1 ERROR, REC. 41, FILE 1
(zz) D022648 - 4 ERRORS, REC. 49, 67, 156, 198, FILE 1
(aaa) D023016 - 19 ERRORS, REC. 1554, 1565-75, 1582-88, FILE 1
(bbb) D023620 - 1 ERROR, REC. 221, FILE 1
(ccc) D023621 - 1 ERROR, REC. 982, FILE 1
(ddd) D028103 - 2 ERRORS, REC. 53, 54, FILE 1
(eee) D031931 - 11 ERRORS, REC. 43, 79, 167, 562, 743, 1202, 1295, 1297, 1344, 1400, 1483, FILE 1
(fff) D031957 - 11 ERRORS, REC. 6, 11, 47, 59, 69, 84, 91, 104, 113, 117, 126, FILE 1
(ggg) D031958 - 2 ERRORS, REC. 1537, 1603, FILE 1
(hhh) D031961 - 8 ERRORS, REC. 811-818, FILE 1
(iii) D031962 - 7 ERRORS, REC. 7-10, 19, 27, 39, FILE 1
(jjj) D031977 - 39 ERRORS, REC. 466, 896, 1078, 1093, 1103, 1105, 1160, 1163, 1165, 1168, 1172, 1173, 1175, 1185, 1187, 1190, 1195, 1197, 1205, 1212, 1215, 1220, 1260, 1265, 1270, 1275, 1305, 1372, 1407, 1417, 1472, 1497, 1504, 1517, 1522, 1569, 1591, 1592, 1594, FILE 1
(kkk) D032043 - 2 ERRORS, REC. 57, 82, FILE 1
(lll) D032280 - 3 ERRORS, REC. 99, 110, 112, FILE 1
(mmm) D032337 - 2 ERRORS, REC. 238, 240, FILE 1
(nnn) D032338 - 1 ERROR, REC. 245, FILE 1
(ooo) D032926 - 1 ERROR, REC. 309, FILE 1
(ppp) D032927 - 6 ERRORS, REC. 191, 208, 216, 224, 237, 245, FILE 1
(qqq) D032884 - 6 ERRORS, REC. 207, 212, 228, 232, 237, 241, FILE 1
(rrr) D032886 - 4 ERRORS, REC. 52, 244, 248, 252, FILE 1

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(sss) D032888 - 1 ERROR, REC. 242, FILE 1
(ttt) D033667 - 1 ERROR, REC. 28, FILE 1
(uuu) D032939 - 1 ERROR, REC. 176, FILE 1
(vvv) D033794 - 5 ERRORS, REC. 99, 103, 107, 163, 220, FILE 1
(www) D033669 - 1 ERROR, REC. 106, FILE 1
(xxx) D033684 - 27 ERRORS, REC. 16, 29, 33, 37, 42, 46, 50, 54, 63, 71, 75, 88, 92, 96, 100, 105, 113, 117, 121, 134, 138, 159, 163, 167, 188, 213, 242, FILE 1
(yyy) D033683 - 108 ERRORS, REC. 500-607, FILE 1
(zzz) D033678 - 1 ERROR, REC. 117, FILE 1

APOLLO 14 LM/ALSEP

SEISMIC EVENT TAPES

71-008C-04B

THIS DATA SET HAS BEEN RESTORED. IT ORIGINALLY CONTAINED 307 7-TRACK 800 BPI TAPES, WRITTEN IN BINARY. THERE ARE 37 RESTORED TAPES. TWO OF THE ORIGINAL TAPES WERE NOT RESTORABLE, THEY ARE D013744 AND D013745. THE DR TAPES ARE 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK 6250 BPI. FOR THE MOST PART THE TAPES WERE STACKED IN TIME SEQUENTIAL ORDER, BUT THE LAST FEW DR/DS TAPES ARE A LITTLE OUT OF ORDER. THE ORIGINAL TAPES WERE CREATED ON A PDP15 COMPUTER AND WERE RESTORED ON THE MRS. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005742	DS005742	D013653	1	02/06/71 - 02/19/71
		D057816	2	02/07/71 - 04/20/72
		D013652	3	02/19/71 - 02/24/71 (a)
		D013641	4	02/24/71 - 03/08/71
DR005743	DS005743	D013640	1	03/08/71 - 03/13/71
		D013639	2	03/14/71 - 03/21/71
		D013638	3	03/21/71 - 03/25/71 (b)
		D013642	4	03/25/71 - 04/02/71
		D013658	5	04/02/71 - 04/05/71
		D013657	6	04/05/71 - 04/14/71
		D013656	7	04/14/71 - 04/17/71 (c)
		D013655	8	04/17/71 - 04/28/71
DR005744	DS005744	D013654	1	04/28/71 - 05/02/71 (d)
		D013643	2	05/02/71 - 05/12/71
		D013644	3	05/12/71 - 05/16/71 (e)
		D013647	4	05/16/71 - 05/25/71
		D013645	5	05/25/71 - 05/27/71
		D013646	6	05/27/71 - 05/31/71 (f)
		D013635	7	06/01/71 - 06/07/71
		D013634	8	06/07/71 - 06/09/71
DR005745	DS005745	D013633	1	06/10/71 - 06/12/71 (g)
		D013637	2	06/12/71 - 06/24/71 (h)
		D013636	3	06/24/71 - 06/27/71
		D013697	4	06/27/71 - 07/05/71
		D013698	5	07/05/71 - 07/09/71
		D013699	6	07/10/71 - 07/21/71 (i)
		D013700	7	07/21/71 - 07/31/71
		D013701	8	08/02/71 - 08/17/71

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DR#	DS#	D#	FILES	TIME SPAN
DR005746	DS005746	D013702	1	08/17/71 - 08/24/71
		D013703	2	08/25/71 - 08/31/71
		D013704	3	08/31/71 - 09/13/71
		D013650	4	09/13/71 - 09/20/71
		D013649	5	09/20/71 - 09/26/71 (j)
		D013648	6	09/26/71 - 09/30/71
		D013651	7	09/30/71 - 10/05/71 (k)
		D013743	8	10/06/71 - 10/15/71
DR005747	DS005747	D013835	1	10/23/71 - 10/25/71
		D013836	2	10/25/71 - 10/28/71
		D013837	3	10/28/71 - 10/31/71 (l)
		D013838	4	10/31/71 - 11/05/71 (m)
		D013839	5	11/05/71 - 11/09/71
		D013840	6	11/09/71 - 11/16/71
		D013841	7	11/16/71 - 11/17/71
		D013830	8	11/17/71 - 11/20/71
DR005748	DS005748	D013829	1	11/20/71 - 11/22/71
		D013828	2	11/22/71 - 11/26/71
		D018344	3	11/26/71 - 12/03/71
		D013843	4	12/03/71 - 12/07/71
		D013842	5	12/08/71 - 12/15/71
		D013831	6	12/15/71 - 12/17/71
		D013832	7	12/17/71 - 12/20/71
		D013833	8	12/20/71 - 12/27/71
DR005749	DS005749	D013834	1	12/27/71 - 12/31/71
		D013886	2	01/01/72 - 01/06/72 (n)
		D013887	3	01/07/72 - 01/13/72
		D013888	4	01/13/72 - 01/20/72 (o)
		D013878	5	01/20/72 - 01/31/72
		D013879	6	01/31/72 - 02/10/72
		D013880	7	02/10/72 - 02/21/72
		D013883	8	02/21/72 - 03/06/72 (p)
DR005750	DS005750	D014104	1	03/07/72 - 03/15/72 (q)
		D014105	2	03/15/72 - 03/23/72 (r)
		D014106	3	03/23/72 - 04/04/72
		D057817	4	04/20/72 - 06/23/73
		D013877	5	04/04/72 - 04/12/72
		D013876	6	04/12/72 - 04/18/72
		D013875	7	04/18/72 - 04/27/72
		D013882	8	04/27/72 - 04/30/72
DR005751	DS005751	D013707	1	04/30/72 - 05/05/72
		D013706	2	05/05/72 - 05/09/72
		D013705	3	05/09/72 - 05/12/72
		D013881	4	05/12/72 - 05/14/72
		D013885	5	05/14/72 - 05/16/72
		D013884	6	05/16/72 - 05/19/72
		D013556	7	05/19/72 - 05/25/72
		D013555	8	05/26/72 - 05/29/72

DR#	DS#	D#	FILES	TIME SPAN
DR005752	DS005752	D013554	1	05/29/72 - 06/03/72
		D013561	2	06/03/72 - 06/06/72 (s)
		D013560	3	06/06/72 - 06/09/72
		D013549	4	06/09/72 - 06/12/72
		D013550	5	06/12/72 - 06/16/72
		D013551	6	06/16/72 - 06/23/72
		D013552	7	06/23/72 - 06/25/72
		D013553	8	06/26/72 - 06/28/72
DR005753	DS005753	D013564	1	06/28/72 - 07/04/72
		D013563	2	07/04/72 - 07/08/72
		D013562	3	07/08/72 - 07/11/72
		D013566	4	07/11/72 - 07/18/72
		D013565	5	07/18/72 - 07/21/72
		D013559	6	07/21/72 - 07/25/72
		D013558	7	07/25/72 - 08/04/72 (t)
		D013557	8	08/04/72 - 08/11/72
DR005754	DS005754	D014102	1	08/11/72 - 08/15/72 (u)
		D014103	2	08/16/72 - 08/18/72
		D014099	3	08/18/72 - 08/22/72
		D014100	4	08/22/72 - 08/26/72
		D014101	5	08/27/72 - 09/06/72 (v)
		D014107	6	09/06/72 - 09/16/72
		D014108	7	09/16/72 - 09/23/72
		D014241	8	09/23/72 - 09/30/72 (w)
		D014242	9	09/30/72 - 10/14/72 (x)
DR005755	DS005755	D015898	1	10/15/72 - 10/21/72
		D014243	2	10/21/72 - 10/26/72
		D015899	3	10/26/72 - 11/05/72 (y)
		D015902	4	11/05/72 - 11/09/72 (z)
		D015903	5	11/09/72 - 11/13/72
		D015904	6	11/13/72 - 11/17/72
		D015772	7	11/17/72 - 11/25/72
		D015771	8	11/25/72 - 12/05/72
DR005756	DS005756	D015770	1	12/05/72 - 12/09/72
		D015901	2	12/09/72 - 12/14/72
		D015900	3	12/14/72 - 12/21/72 (aa)
		D016121	4	12/21/72 - 12/31/72
		D016120	5	01/01/73 - 01/05/73
		D016119	6	01/05/73 - 01/12/73
		D016187	7	01/12/73 - 01/21/73
		D016188	8	01/22/73 - 02/01/73
DR005757	DS005757	D016189	1	02/01/73 - 02/10/73
		D016190	2	02/10/73 - 02/17/73
		D016191	3	02/17/73 - 03/08/73
		D016628	4	03/09/73 - 03/20/73 (bb)
		D016627	5	03/20/73 - 03/27/73 (cc)
		D016626	6	03/27/73 - 04/03/73 (dd)
		D016811	7	04/03/73 - 04/13/73
		D016796	8	04/13/73 - 04/28/73 (ee)

DR#	DS#	D#	FILES	TIME SPAN	
DR005758	DS005758	D016812	1	04/28/73 - 05/03/73	(ff)
		D016810	2	05/03/73 - 05/19/73	
		D016802	3	05/19/73 - 05/28/73	
		D016815	4	05/28/73 - 06/02/73	
		D016816	5	06/02/73 - 06/14/73	(gg)
		D016817	6	06/14/73 - 06/25/73	(hh)
		D016809	7	06/25/73 - 06/27/73	
		D016808	8	06/28/73 - 07/03/73	
DR005759	DS005759	D016807	1	07/03/73 - 07/10/73	(ii)
		D016823	2	07/10/73 - 07/18/73	(jj)
		D016822	3	07/19/73 - 07/24/73	(kk)
		D016799	4	07/24/73 - 07/30/73	(ll)
		D016798	5	07/30/73 - 08/02/73	
		D016797	6	08/02/73 - 08/09/73	
		D016803	7	08/09/73 - 08/16/73	(mm)
		D016804	8	08/16/73 - 08/29/73	(nn)
DR005760	DS005760	D016821	1	08/29/73 - 09/02/73	(oo)
		D016806	2	09/02/73 - 09/10/73	(pp)
		D016805	3	09/10/73 - 09/19/73	(qq)
		D016814	4	09/19/73 - 10/03/73	
		D016813	5	10/03/73 - 10/09/73	(rr)
		D017591	6	10/10/73 - 10/16/73	
		D016801	7	10/16/73 - 10/30/73	
		D016800	8	10/30/73 - 11/09/73	(ss)
DR005761	DS005761	D016818	1	11/09/73 - 11/22/73	
		D016819	2	11/23/73 - 12/01/73	(tt)
		D016820	3	12/01/73 - 12/08/73	
		D017592	4	12/09/73 - 12/20/73	
		D016882	5	12/20/73 - 12/24/73	
		D016883	6	12/24/73 - 12/31/73	
		D017576	7	01/01/74 - 01/07/74	
		D017575	8	01/07/74 - 01/19/74	
		D017585	9	01/19/74 - 01/29/74	
DR005815	DS005815	D017586	1	01/29/74 - 02/06/74	
		D017587	2	02/06/74 - 02/15/74	
		D017572	3	02/15/74 - 02/22/74	
		D017571	4	02/24/74 - 03/01/74	
		D017584	5	03/02/74 - 03/11/74	(uu)
		D017583	6	03/11/74 - 03/20/74	(vv)
		D017582	7	03/21/74 - 03/30/74	(ww)
		D017581	8	03/30/74 - 04/16/74	
		D017580	9	04/16/74 - 04/25/74	
DR005816	DS005816	D017579	1	04/25/74 - 05/10/74	(xx)
		D017578	2	05/11/74 - 05/20/74	(yy)
		D017577	3	05/21/74 - 06/02/74	
		D017593	4	06/03/74 - 06/16/74	
		D017594	5	06/16/74 - 06/28/74	
		D017590	6	06/28/74 - 07/03/74	
		D017589	7	07/03/74 - 07/14/74	
		D017588	8	07/14/74 - 07/20/74	

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DR#	DS#	D#	FILES	TIME SPAN	
DR005817	DS005817	D017573	1	07/21/74 - 08/06/74	
		D017574	2	08/06/74 - 08/11/74	
		D019083	3	08/11/74 - 08/22/74	
		D019082	4	08/22/74 - 08/29/74	
		D019081	5	08/29/74 - 09/08/74	
		D019088	6	09/09/74 - 09/17/74	
		D019087	7	09/17/74 - 09/24/74	
		D019166	8	09/25/74 - 10/06/74	
		D019165	9	10/07/74 - 10/16/74	(zz)
DR005818	DS005818	D019164	1	10/17/74 - 10/26/74	
		D019094	2	10/27/74 - 11/04/74	
		D019095	3	11/04/74 - 11/12/74	
		D019084	4	11/12/74 - 11/19/74	
		D019090	5	11/19/74 - 11/26/74	
		D019089	6	11/27/74 - 12/09/74	
		D019086	7	12/09/74 - 12/14/74	
		D019085	8	12/14/74 - 12/25/74	(aaa)
		D019093	9	12/25/74 - 12/31/74	
DR005819	DS005819	D019092	1	01/02/75 - 01/12/75	
		D019091	2	01/12/75 - 01/24/75	
		D019368	3	01/24/75 - 01/30/75	
		D019367	4	01/31/75 - 02/12/75	
		D019366	5	02/12/75 - 02/22/75	
		D057819	6	02/13/75 - 03/08/76	
		D022095	7	02/23/75 - 03/08/75	
		D022096	8	03/08/75 - 03/24/75	(bbb)
		D022195	9	03/25/75 - 04/05/75	
DR005820	DS005820	D022196	1	04/06/75 - 04/14/75	
		D022192	2	04/14/75 - 04/23/75	
		D022193	3	04/23/75 - 05/07/75	
		D022194	4	05/07/75 - 05/16/75	
		D022191	5	05/17/75 - 06/02/75	
		D057818	6	05/22/75 - 01/13/76	
		D022197	7	06/03/75 - 06/16/75	
		D022455	8	06/16/75 - 06/22/75	
		D022456	9	06/22/75 - 06/26/75	
DR005821	DS005821	D022652	1	06/27/75 - 07/07/75	(ccc)
		D022653	2	07/07/75 - 07/30/75	
		D022654	3	07/30/75 - 08/09/75	
		D022655	4	08/09/75 - 08/20/75	(ddd)
		D023018	5	08/20/75 - 09/02/75	(eee)
		D023019	6	09/02/75 - 09/12/75	
		D023020	7	09/12/75 - 09/27/75	(fff)
		D023624	8	09/27/75 - 10/05/75	(ggg)
		D023625	9	10/05/75 - 10/20/75	

DR#	DS#	D#	FILES	TIME SPAN
DR005822	DS005822	D023626	1	10/21/75 - 10/31/75
		D023627	2	10/31/75 - 11/11/75
		D023628	3	11/13/75 - 11/26/75
		D023629	4	11/26/75 - 12/02/75 (hhh)
		D023718	5	12/02/75 - 12/11/75 (iii)
		D023717	6	12/11/75 - 12/23/75
		D023716	7	12/24/75 - 12/31/75
		D028106	8	01/01/76 - 01/13/76
		D028107	9	01/13/76 - 01/17/76 (jjj)
DR005823	DS005823	D028108	1	02/19/76 - 02/29/76
		D031826	2	03/01/76 - 03/05/76
		D031934	3	03/05/76 - 03/11/76
		D031935	4	03/11/76 - 03/16/76
		D031936	5	03/16/76 - 03/17/76
		D031963	6	05/23/76 - 05/27/76
		D057821	7	05/28/76 - 09/13/77
		D031980	8	05/28/76 - 06/04/76
		D031981	9	06/04/76 - 06/08/76
DR005824	DS005824	D032044	1	06/10/76 - 06/21/76 (kkk)
		D032045	2	06/21/76 - 06/25/76
		D032046	3	06/25/76 - 07/02/76 (lll)
		D032047	4	07/02/76 - 07/10/76
		D032048	5	07/10/76 - 07/21/76
		D032049	6	07/21/76 - 07/28/76
		D032050	7	07/29/76 - 07/31/76 (mmm)
		D032290	8	07/31/76 - 08/10/76 (nnn)
		D057820	9	08/08/76 - 05/15/77
DR005825	DS005825	D032291	1	08/11/76 - 08/19/76
		D032292	2	08/19/76 - 08/26/76 (ooo)
		D032293	3	08/26/76 - 08/31/76
		D032294	4	08/31/76 - 09/11/76
		D032295	5	09/11/76 - 09/20/76 (ppp)
		D032296	6	09/20/76 - 09/23/76
		D032297	7	09/24/76 - 10/05/76
		D032298	8	10/05/76 - 10/08/76 (qqq)
		D032299	9	11/12/76 - 11/15/76
DR005826	DS005826	D032300	1	11/15/76 - 11/19/76
		D032301	2	11/19/76 - 11/28/76
		D032302	3	11/28/76 - 12/06/76
		D032303	4	12/06/76 - 12/15/76
		D032928	5	12/15/76 - 12/26/76
		D032929	6	12/26/76 - 12/31/76 (rrr)
		D032892	7	01/01/77 - 01/07/77
		D032893	8	01/08/77 - 01/13/77
		D032894	9	01/13/77 - 01/22/77

DR#	DS#	D#	FILES	TIME SPAN	
DR005827	DS005827	D032895	1	01/22/77 - 01/28/77	
		D032896	2	01/28/77 - 02/07/77	
		D032897	3	02/07/77 - 02/20/77	
		D032898	4	02/20/77 - 03/02/77	
		D032899	5	03/02/77 - 03/06/77	
		D032900	6	03/07/77 - 03/20/77	
		D033688	7	03/20/77 - 03/31/77	(sss)
		D032946	8	03/31/77 - 04/01/77	(ttt)
		D032947	9	04/01/77 - 04/05/77	
DR005828	DS005828	D032948	1	04/05/77 - 04/14/77	
		D032949	2	04/14/77 - 04/18/77	(uuu)
		D032950	3	04/18/77 - 04/26/77	
		D032951	4	04/26/77 - 04/28/77	
		D032952	5	04/28/77 - 05/02/77	(vvv)
		D032953	6	05/02/77 - 05/05/77	
		D033798	7	08/27/77 - 09/06/77	(www)
		D033799	8	09/08/77 - 09/11/77	
		D033800	9	09/11/77 - 09/16/77	
DR005829	DS005829	D033801	1	09/16/77 - 09/30/77	
		D032924	2	03/20/77 - 03/31/77	
		D033696	3	06/05/77 - 06/23/77	
		D033695	4	06/12/77 - 06/15/77	
		D033708	5	02/13/77 - 03/09/77	
		D033707	6	05/29/77 - 09/13/77	
		D033706	7	05/22/77 - 01/13/78	
		D033705	8	08/17/77 - 08/27/77	
		D033704	9	08/13/77 - 08/17/77	
DR005830	DS005830	D033703	1	08/04/77 - 08/13/77	
		D033702	2	07/24/77 - 07/30/77	(xxx)
		D033701	3	07/20/77 - 07/24/77	
		D033700	4	07/17/77 - 07/20/77	
		D033699	5	07/11/77 - 07/16/77	
		D033698	6	07/03/77 - 07/11/77	
		D033697	7	06/23/77 - 06/30/77	
		D033690	8	05/12/77 - 05/16/77	(yyy)
		D033692	9	05/23/77 - 05/27/77	(zzz)
DR005831	DS005831	D033693	1	05/27/77 - 06/05/77	
		D033694	2	06/06/77 - 06/12/77	
		D033691	3	05/17/77 - 05/22/77	
		D033689	4	05/05/77 - 05/12/77	

(a) D013652 - 2 ERRORS, REC. 12, 15, FILE 1
(b) D013638 - 1 ERROR, REC. 343, FILE 1
(c) D013656 - 2 ERRORS, REC. 62, 64, FILE 1
(d) D013654 - 1 ERROR, REC. 1562, FILE 1
(e) D013644 - 9 ERRORS, REC. 129, 445, 447, 573-575, 886-888, FILE 1
(f) D013646 - 1 ERROR, REC. 14, FILE 1
(g) D013633 - 2 ERRORS, REC. 127, 128, FILE 1
(h) D013637 - 1 ERROR, REC. 89, FILE 1

(i) D013699 - 1 ERROR, REC. 369, FILE 1
(j) D013649 - 2 ERRORS, REC. 862, 863, FILE 1
(k) D013743 - 15 ERRORS, REC. 4, 29, 30, 60, 66, 73, 193, 239, 319, 589, 776, 1028, 1401, 1412, 1428, FILE 1
(l) D013837 - 1 ERROR, REC. 71, FILE 1
(m) D013838 - 18 ERRORS, REC. 8-12, 14-16, 18-26, 144, FILE 1
(n) D013886 - 2 ERRORS, REC. 70, 79, FILE 1
(o) D013888 - 1 ERROR, REC. 216, FILE 1
(p) D013883 - 1 ERROR, REC. 59, FILE 1
(q) D014104 - 1 ERROR, REC. 352, FILE 1
(r) D014105 - 3 ERRORS, REC. 11, 30, 32, FILE 1
(s) D013561 - 1 ERROR, REC. 168, FILE 1
(t) D013558 - 4 ERRORS, REC. 1-4, FILE 1
(u) D014102 - 1 ERROR, REC. 8, FILE 1
(v) D014101 - 1 ERROR, REC. 163, FILE 1
(w) D014241 - 1 ERROR, REC. 50, FILE 1
(x) D014242 - 1 ERROR, REC. 180, FILE 1
(y) D015899 - 6 ERRORS, REC. 252, 558, 560, 561, 565, 1452, FILE 1
(z) D015902 - 14 ERRORS, REC. 239, 254, 257, 259, 275, 432, 442, 450, 473, 502, 550, 560, 581, 588, FILE 1
(aa) D015900 - 23 ERRORS, REC. 303, 305, 309, 318, 319, 322, 325-327, 331, 333, 344, 352, 360, 361, 369, 378, 379, 382-384, 732, 851, FILE 1
(bb) D016628 - 3 ERRORS, REC. 139, 140, 182, FILE 1
(cc) D016627 - 5 ERRORS, REC. 13, 15, 16, 235, 1054, FILE 1
(dd) D016626 - 6 ERRORS, REC. 154-157, 281, 282, FILE 1
(ee) D016796 - 3 ERRORS, REC. 1-3, FILE 1
(ff) D016812 - 1 ERROR, REC. 3, FILE 1
(gg) D016816 - 1 ERROR, REC. 1181, FILE 1
(hh) D016817 - 2 ERRORS, REC. 6, 1430, FILE 1
(ii) D016807 - 3 ERRORS, REC. 659, 660, 1264, FILE 1
(jj) D016823 - 1 ERROR, REC. 1511, FILE 1
(kk) D016822 - 9 ERRORS, REC. 1409-1412, 1467-1469, 1471, 1536, FILE 1
(ll) D016799 - 15 ERRORS, REC. 7, 236-240, 539, 667, 826, 938, 1103, 1120, 1164, 1248, 1553, FILE 1
(mm) D016803 - 1 ERROR, REC. 119, FILE 1
(nn) D016804 - 6 ERRORS, REC. 3, 6, 16, 1011, 1103, 1131, FILE 1
(oo) D016821 - 7 ERRORS, REC. 98, 105, 107, 116, 121, 123, 132, FILE 1
(pp) D016806 - 4 ERRORS, REC. 6, 373, 411, 1295, FILE 1
(qq) D016805 - 1 ERROR, REC. 410, FILE 1
(rr) D016813 - 8 ERRORS, REC. 182, 187, 191, 221, 250, 1219, 1351, 1352, FILE 1
(ss) D016800 - 16 ERRORS, REC. 502, 826-829, 832-842, FILE 1
(tt) D016819 - 1 ERROR, REC. 1234, FILE 1
(uu) D017584 - 1 ERROR, REC. 229, FILE 1
(vv) D017583 - 1 ERROR, REC. 264, FILE 1
(ww) D017582 - 11 ERRORS, REC. 394-404, FILE 1
(xx) D017579 - 3 ERRORS, REC. 196-198, FILE 1
(yy) D017578 - 1 ERROR, REC. 391, FILE 1
(zz) D019165 - 1 ERROR, REC. 736, FILE 1
(aaa) D019085 - 1 ERROR, REC. 271, FILE 1
(bbb) D022096 - 1 ERROR, REC. 155, FILE 1
(ccc) D022652 - 7 ERRORS, REC. 23, 213, 670, 784, 928, 1055, 1531, FILE 1
(ddd) D022655 - 1 ERROR, REC. 135, FILE 1
(eee) D023018 - 1 ERROR, REC. 116, FILE 1
(fff) D023020 - 1 ERROR, REC. 91, FILE 1
(ggg) D023624 - 1 ERROR, REC. 45, FILE 1
(hhh) D023629 - 8 ERRORS, REC. 5, 41, 69, 71, 73, 75, 76, 85, FILE 1
(iii) D023718 - 2 ERRORS, REC. 58, 103, FILE 1
(jjj) D028107 - 1 ERROR, REC. 19, FILE 1
(kkk) D032044 - 12 ERRORS, REC. 111, 112, 181, 201, 234, 1447, 1518, 1533,

1537, 1549, 1553, 1566, FILE 1
(lll) D032046 - 14 ERRORS, REC. 125, 186, 289, 416, 469, 480, 507, 508, 535, 537, 919, 923, 941, 946, FILE 1
(mmm) D032050 - 5 ERRORS, REC. 499-501, 503, 505, FILE 1
(nnn) D032290 - 2 ERRORS, REC. 511, 1449, FILE 1
(ooo) D032292 - 1 ERROR, REC. 52, FILE 1
(ppp) D032295 - 3 ERRORS, REC. 164, 436, 438, FILE 1
(qqq) D032298 - 1 ERROR, REC. 40, FILE 1
(rrr) D032929 - 16 ERRORS, REC. 620, 798, 867-872, 920, 1206-1212, FILE 1
(sss) D033688 - 5 ERRORS, REC. 29-32, 443, FILE 1
(ttt) D032946 - 1 ERROR, REC. 122, FILE 1
(uuu) D032949 - 1 ERROR, REC. 16, FILE 1
(vvv) D032952 - 1 ERROR, REC. 70, FILE 1
(www) D033798 - 4 ERRORS, REC. 7, 54, 55, 60, FILE 1
(xxx) D033702 - 1 ERROR, REC. 924, FILE 1
(yyy) D033690 - 1 ERROR, REC. 22, FILE 1
(zzz) D033692 - 1 ERROR, REC. 221, FILE 1

APOLLO 15 LM/ALSEP

SEISMIC EVENT TAPES

71-063C-01B

This data set has been restored. There were originally 288 7-track, 800 BPI tapes written in Binary. There are 33 restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The original tapes were created on a PDP11 computer and the restored tapes were created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D numbers are as follows:

DR#	DS#	D#	FILES	TIME SPAN
DR004476	DS004476	D013709	1	08/02/71 - 08/17/71
		D013708	2	08/17/71 - 08/24/71
		D013710	3	08/25/71 - 08/31/71
		D013711	4	08/31/71 - 09/13/71
		D013661	5	09/13/71 - 09/20/71
		D013660	6	09/20/71 - 09/26/71
		D013659	7	09/26/71 - 09/30/71
		D013746	8	09/30/71 - 10/05/71
		D013747	9	10/06/71 - 10/15/71
DR004477	DS004477	D013748	1	10/15/71 - 10/19/71 (a)
		D013852	2	10/19/71 - 10/23/71
		D013853	3	10/23/71 - 10/25/71
		D013854	4	10/25/71 - 10/28/71
		D013856	5	10/31/71 - 11/05/71
		D013857	6	11/05/71 - 11/09/71
		D013858	7	11/09/71 - 11/16/71
DR004478	DS004478	D013848	1	11/16/71 - 11/17/71
		D013847	2	11/17/71 - 11/20/71
		D013846	3	11/20/71 - 11/22/71
		D013845	4	11/22/71 - 11/26/71
		D013861	5	11/26/71 - 12/03/71
		D013860	6	12/03/71 - 12/07/71
		D013859	7	12/08/71 - 12/15/71
		D013849	8	12/15/71 - 12/17/71
		D013850	9	12/17/71 - 12/20/71
DR004479	DS004479	D013851	1	12/20/71 - 12/27/71
		D013901	2	12/27/71 - 12/31/71
		D013902	3	01/01/72 - 01/06/72
		D013903	4	01/07/72 - 01/13/72
		D013904	5	01/13/72 - 01/20/72
		D013893	6	01/20/72 - 01/31/72
		D013894	7	01/31/72 - 02/10/72
		D013895	8	02/10/72 - 02/21/72
		D013898	9	02/21/72 - 03/06/72

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DR#	DS#	D#	FILES	TIME SPAN	
DR004480	DS004480	D014114	1	03/07/72 - 03/15/72	
		D014115	2	03/15/72 - 03/23/72	
		D013892	3	03/23/72 - 04/04/72	
		D013891	4	04/04/72 - 04/12/72	
		D013890	5	04/12/72 - 04/18/72	
		D013889	6	04/18/72 - 04/27/72	
		D013897	7	04/27/72 - 04/30/72	
		D013714	8	04/30/72 - 05/05/72	
		D013713	9	05/05/72 - 05/09/72	
DR004481	DS004481	D013712	1	05/09/72 - 05/12/72	
		D013896	2	05/12/72 - 05/14/72	
		D013900	3	05/14/72 - 05/16/72	
		D013899	4	05/16/72 - 05/19/72	
		D013573	5	05/19/72 - 05/25/72	
		D013572	6	05/26/72 - 05/29/72	
		D013578	7	05/29/72 - 06/03/72	
		D013577	8	06/03/72 - 06/06/72	(b)
DR004482	DS004482	D013576	1	06/06/72 - 06/09/72	
		D013567	2	06/09/72 - 06/12/72	
		D013568	3	06/12/72 - 06/16/72	
		D013569	4	06/16/72 - 06/23/72	
		D013570	5	06/23/72 - 06/25/72	
		D013571	6	06/26/72 - 06/28/72	
		D013580	7	06/28/72 - 07/04/72	
		D013579	8	07/04/72 - 07/08/72	
		D013583	9	07/08/72 - 07/11/72	
DR004483	DS004483	D013582	1	07/11/72 - 07/18/72	
		D013581	2	07/18/72 - 07/21/72	
		D013575	3	07/21/72 - 07/25/72	
		D013574	4	07/25/72 - 08/04/72	
		D014111	5	08/04/72 - 08/11/72	
		D014112	6	08/11/72 - 08/15/72	
		D014113	7	08/16/72 - 08/18/72	
		D014109	8	08/18/72 - 08/22/72	(c)
DR004594	DS004594	D014110	1	08/22/72 - 08/26/72	
		D014116	2	08/27/72 - 09/06/72	
		D014117	3	09/06/72 - 09/16/72	
		D014118	4	09/16/72 - 09/23/72	(d)
		D014244	5	09/23/72 - 09/30/72	
		D015905	6	09/30/72 - 10/14/72	
		D015906	7	10/15/72 - 10/21/72	
		D014245	8	10/21/72 - 10/26/72	(e)
		D013855	9	10/27/72 - 10/30/72	

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DR#	DS#	D#	FILES	TIME SPAN	
DR004484	DS004484	D015907	1	10/26/72 - 11/05/72	
		D015910	2	11/05/72 - 11/09/72	
		D015911	3	11/09/72 - 11/13/72	
		D015775	4	11/13/72 - 11/17/72	
		D015776	5	11/17/72 - 11/25/72	
		D015774	6	11/25/72 - 12/05/72	
		D015773	7	12/05/72 - 12/09/72	
		D015909	8	12/09/72 - 12/14/72	
		D015908	9	12/14/72 - 12/21/72	
DR004485	DS004485	D016124	1	12/21/72 - 12/31/72	
		D016123	2	01/01/73 - 01/05/73	
		D016122	3	01/05/73 - 01/12/73	
		D016192	4	01/12/73 - 01/21/73	
		D016193	5	01/22/73 - 02/01/73	
		D016194	6	02/01/73 - 02/10/73	
		D016195	7	02/10/73 - 02/17/73	
		D016196	8	02/17/73 - 03/08/73	
DR004595	DS004595	D016630	1	03/09/72 - 03/20/72	
		D016629	2	03/20/73 - 03/27/73	(f)
		D017616	3	03/27/73 - 04/03/73	
		D016829	4	04/03/73 - 04/13/73	
		D017615	5	04/13/73 - 04/28/73	
		D016837	6	04/28/73 - 05/03/73	
		D016828	7	05/03/73 - 05/19/73	
		D016827	8	05/19/73 - 05/28/73	(g)
		D016841	9	05/28/73 - 06/02/73	
DR004596	DS004596	D016842	1	06/02/73 - 06/14/73	(h)
		D016843	2	06/14/73 - 06/25/73	
		D016834	3	06/25/73 - 06/28/73	
		D017617	4	06/28/73 - 07/03/73	
		D016850	5	07/03/73 - 07/10/73	
		D016849	6	07/10/73 - 07/18/73	
		D016848	7	07/19/73 - 07/24/73	
		D016836	8	07/24/73 - 07/30/73	
		D016835	9	07/30/73 - 08/02/73	
DR004597	DS004597	D016830	1	08/02/73 - 08/09/73	
		D016831	2	08/09/73 - 08/16/73	
		D016832	3	08/16/73 - 08/29/73	
		D016847	4	08/29/73 - 09/02/73	
		D016833	5	09/02/73 - 09/10/73	
		D016840	6	09/10/73 - 09/19/73	
		D016839	7	09/19/73 - 10/03/73	
		D016838	8	10/03/73 - 10/09/73	
		D016826	9	10/10/73 - 10/16/73	

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DR#	DS#	D#	FILES	TIME SPAN	
DR004598	DS004598	D016825	1	10/16/73 - 10/30/73	
		D016824	2	10/30/73 - 11/09/73	
		D016844	3	11/09/73 - 11/22/73	
		D016845	4	11/22/73 - 12/01/73	
		D016846	5	12/01/73 - 12/08/73	
		D016884	6	12/09/73 - 12/20/73	(i)
		D017603	7	12/20/73 - 12/24/73	
		D016885	8	12/24/73 - 12/31/73	
		D017602	9	01/01/74 - 01/07/74	
DR004488	DS004488	D017601	1	01/07/74 - 01/19/74	
		D017611	2	01/19/74 - 01/29/74	
		D017612	3	01/29/74 - 02/06/74	
		D017597	4	02/06/74 - 02/15/74	
		D017596	5	02/15/74 - 02/22/74	
		D017595	6	02/24/74 - 03/01/74	
		D017610	7	03/02/74 - 03/11/74	
		D017609	8	03/11/74 - 03/20/74	
		D017608	9	03/21/74 - 03/30/74	
DR004489	DS004489	D017607	1	03/30/74 - 04/16/74	
		D017606	2	04/16/74 - 04/25/74	
		D017605	3	04/25/74 - 05/10/74	
		D017604	4	05/11/74 - 05/20/74	
		D017618	5	05/21/74 - 06/02/74	
		D017619	6	06/03/74 - 06/16/74	
		D017620	7	06/16/74 - 06/28/74	
		D017614	8	06/28/74 - 07/03/74	
		D017613	9	07/03/74 - 07/14/74	
DR004490	DS004490	D017598	1	07/14/74 - 07/20/74	
		D017599	2	07/21/74 - 08/06/74	
		D017600	3	08/06/74 - 08/11/74	
		D019098	4	08/11/74 - 08/22/74	
		D019097	5	08/22/74 - 08/29/74	
		D019103	6	08/29/74 - 09/08/74	
		D019102	7	09/09/74 - 09/17/74	
		D019101	8	09/17/74 - 09/24/74	
		D019167	9	09/25/74 - 10/06/74	
DR004491	DS004491	D019168	1	10/07/74 - 10/16/74	
		D019109	2	10/17/74 - 10/26/74	
		D019110	3	10/27/74 - 11/04/74	
		D019111	4	11/04/74 - 11/12/74	
		D019096	5	11/15/74 - 11/19/74	
		D019105	6	11/19/74 - 11/26/74	
		D019104	7	11/27/74 - 12/09/74	
		D019100	8	12/09/74 - 12/14/74	
		D019099	9	12/14/74 - 12/25/74	

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DR#	DS#	D#	FILES	TIME SPAN	
DR004492	DS004492	D019108	1	12/25/74 - 12/31/74	
		D019107	2	01/02/75 - 01/12/75	
		D019106	3	01/12/75 - 01/24/75	
		D019370	4	01/24/75 - 01/30/75	
		D019369	5	01/31/75 - 02/12/75	
		D022097	6	02/12/75 - 02/22/75	
		D022098	7	02/23/75 - 03/08/75	
		D022099	8	03/08/75 - 03/24/75	
		D022201	9	03/25/75 - 04/05/75	
DR004493	DS004493	D022202	1	04/06/75 - 04/14/75	
		D022198	2	04/14/75 - 04/23/75	
		D022199	3	04/23/75 - 05/07/75	
		D022200	4	05/07/75 - 05/16/75	
		D022203	5	05/17/75 - 06/02/75	
		D022204	6	06/03/75 - 06/16/75	(j)
		D022457	7	06/16/75 - 06/22/75	
		D022458	8	06/22/75 - 06/26/75	
		D022656	9	06/27/75 - 07/07/75	(k)
DR004494	DS004494	D022657	1	07/07/75 - 07/30/75	(l)
		D022658	2	07/30/75 - 08/09/75	
		D022659	3	08/09/75 - 08/20/75	
		D023021	4	08/20/75 - 09/02/75	(m)
		D023022	5	09/02/75 - 09/12/75	
		D023023	6	09/12/75 - 09/27/75	
		D023630	7	09/27/75 - 10/05/75	
		D023631	8	10/05/75 - 10/20/75	
		D023632	9	10/21/75 - 10/31/75	
DR004495	DS004495	D023633	1	10/31/75 - 11/11/75	
		D023634	2	11/13/75 - 11/26/75	
		D023635	3	11/26/75 - 12/02/75	
		D023721	4	12/02/75 - 12/11/75	(n)
		D023720	5	12/11/75 - 12/23/75	(o)
		D023719	6	12/24/75 - 12/31/75	
		D028109	7	01/01/76 - 01/13/76	
		D028110	8	01/13/76 - 02/04/76	
		D028112	9	02/04/76 - 02/16/76	
DR004496	DS004496	D028111	1	02/16/76 - 02/29/76	(p)
		D031827	2	03/01/76 - 03/05/76	
		D031937	3	03/05/76 - 03/11/76	
		D031938	4	03/11/76 - 03/16/76	
		D031964	5	03/16/76 - 03/31/76	
		D031965	6	03/31/76 - 04/11/76	(q)
		D031966	7	04/11/76 - 04/23/76	
		D031967	8	04/23/76 - 05/01/76	
		D031968	9	05/01/76 - 05/11/76	

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DR#	DS#	D#	FILES	TIME SPAN
DR004497	DS004497	D031969	1	05/11/76 - 05/23/76
		D031970	2	05/23/76 - 05/27/76
		D031982	3	05/28/76 - 06/04/76
		D031983	4	06/04/76 - 06/10/76
		D032051	5	06/10/76 - 06/21/76
		D032052	6	06/21/76 - 06/25/76
		D032053	7	06/25/76 - 07/02/76
		D032054	8	07/02/76 - 07/10/76
		D032055	9	07/10/76 - 07/21/76
DR004599	DS004599	D032056	1	07/21/76 - 07/28/76
		D032057	2	07/29/76 - 07/31/76
		D032304	3	07/31/76 - 08/10/76
		D032305	4	08/11/76 - 08/19/76
		D032306	5	08/19/76 - 08/26/76
		D032307	6	08/26/76 - 08/31/76
		D032308	7	08/31/76 - 09/11/76
		D032309	8	09/11/76 - 09/20/76
		D032310	9	09/20/76 - 09/23/76
DR004600	DS004600	D032311	1	09/24/76 - 10/05/76
		D032312	2	10/05/76 - 10/18/76
		D032313	3	10/19/76 - 10/22/76
		D032314	4	10/22/76 - 11/03/76
		D032315	5	11/04/76 - 11/15/76
		D032316	6	11/15/76 - 11/19/76
		D032317	7	11/19/76 - 11/28/76
		D032318	8	11/28/76 - 12/06/76
		D032930	9	12/06/76 - 12/15/76
DR004601	DS004601	D032931	1	12/15/76 - 12/26/76
		D032932	2	12/26/76 - 12/31/76
		D032901	3	01/01/77 - 01/07/77
		D032902	4	01/08/77 - 01/13/77
		D032903	5	01/13/77 - 01/22/77
		D032904	6	01/22/77 - 01/28/77
		D032905	7	01/28/77 - 02/07/77
		D032906	8	02/07/77 - 02/20/77
		D032907	9	02/20/77 - 03/02/77

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DR#	DS#	D#	FILES	TIME SPAN
DR004602	DS004602	D032908	1	03/02/77 - 03/06/77
		D032909	2	03/07/77 - 03/20/77
		D032910	3	03/20/77 - 03/31/77
		D032954	4	03/31/77 - 04/01/77
		D032955	5	04/01/77 - 04/05/77
		D032956	6	04/05/77 - 04/14/77
		D032957	7	04/14/77 - 04/18/77
		D032958	8	04/18/77 - 04/26/77
		D032959	9	04/26/77 - 04/29/77
DR004603	DS004603	D032960	1	04/28/77 - 05/02/77
		D033709	2	05/02/77 - 05/05/77
		D033710	3	05/05/77 - 05/12/77
		D033711	4	05/12/77 - 05/16/77
		D033712	5	05/17/77 - 05/22/77
		D033713	6	05/23/77 - 05/27/77
		D033714	7	05/27/77 - 06/05/77
		D033715	8	06/06/77 - 06/12/77
		D033716	9	06/12/77 - 06/15/77
DR004604	DS004604	D033717	1	06/15/77 - 06/23/77
		D033718	2	06/23/77 - 06/30/77
		D033719	3	07/03/77 - 07/11/77
		D033720	4	07/11/77 - 07/16/77
		D033721	5	07/16/77 - 07/20/77 (r)
		D033722	6	07/20/77 - 07/24/77
		D033723	7	07/24/77 - 08/02/77
		D033724	8	08/02/77 - 08/13/77
		D033725	9	08/13/77 - 08/17/77
DR004605	DS004605	D033726	1	08/17/77 - 08/27/77
		D033802	2	08/27/77 - 09/06/77
		D033803	3	09/08/77 - 09/11/77
		D033804	4	09/11/77 - 09/16/77
		D033805	5	09/16/77 - 09/30/77
DR004606	DS004606	D057822	1	08/03/71 - 11/11/76
		D057823	2	11/11/72 - 06/23/73
		D057824	3	02/13/75 - 05/16/76
		D033729	4	02/13/75 - 05/16/76
		D033727	5	05/23/75 - 05/16/76
		D057825	6	05/23/75 - 05/16/77
		D057826	7	08/08/76 - 05/15/77 (s)
		D033728	8	05/28/77 - 09/13/77
		D057827	9	05/28/77 - 09/13/77

(a) D013748: Read errors occurred in records 155, 195, 200, & 310 of file 1.
(b) D013577: Read error occurred in record 8 of file 1.

(c) D014109: Read errors occurred in records 277, 283, 953, 955, & 958 of file 1.
(d) D014118: Read errors occurred in records 689, 1203, 1206, 1385, & 1580 of file 1.
(e) D014245: Read errors occurred in records 5 & 6 of file 1.
(f) D016629: Read errors occurred in records 296, 1123, & 1126 of file 1.
(g) D016827: Read errors occurred in records 10, 248, 250, & 252 of file 1.
(h) D016842: Read errors occurred in records 717, 1389, & 1624 of file 1.
(i) D016884: Read errors occurred in records 971 & 974 of file 1.
(j) D022204: Read error occurred in record 645 of file 1.
(k) D022656: Read error occurred in record 3 of file 1.
(l) D022657: Read errors occurred in records 3, 6, 12, 15, 29, 36, 38, 59, 66, & 352 of file 1.
(m) D023021: Read error occurred in record 1577 of file 1.
(n) D023721: Read errors occurred in records 116, 118, 121, 123, & 125 of file 1.
(o) D023720: Read error occurred in record 58 of file 1.
(p) D028111: Read errors occurred in records 122, 139, 140, 142, 147, 149, & 342 of file 1.
(q) D031965: Read error occurred in record 1586 of file 1.
(r) D033721: Read errors occurred in records 602 & 603 of file 1.
(s) D057826: Read errors occurred in records 278, 280, & 289 of file 1.

APOLLO 16 LM/ASLEP

SEISMIC EVENT TAPES

72-031C-01B

THIS DATA SET HAS BEEN RESTORED. IT ORIGINALLY CONTAINED 248 7-TRACK, 800 BPI TAPES WRITTEN IN BINARY. THERE ARE 29 RESTORED TAPES. THE DR TAPES ARE 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. SOME OF THE TAPES ARE NOT IN TIME SPAN ORDER. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON THE MRS. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN	
DR005702	DS005702	D013905	1	04/21/72 - 04/27/72	
		D013909	2	04/27/72 - 04/30/72	
		D013908	3	04/30/72 - 05/05/72	
		D039825	4	05/02/72 - 06/23/72	
		D013907	5	05/05/72 - 05/09/72	
		D013906	6	05/09/72 - 05/12/72	(a)
		D014124	7	05/12/72 - 05/14/72	
		D013911	8	05/14/72 - 05/16/72	(b)
		D013910	9	05/16/72 - 05/19/72	
DR005703	DS005703	D013538	1	05/19/72 - 05/25/72	
		D013537	2	05/26/72 - 05/29/72	
		D013543	3	05/29/72 - 06/03/72	
		D013542	4	06/03/72 - 06/06/72	(c)
		D013541	5	06/06/72 - 06/09/72	
		D013532	6	06/09/72 - 06/12/72	
		D013533	7	06/12/72 - 06/16/72	
		D013534	8	06/16/72 - 06/23/72	
DR005704	DS005704	D013535	1	06/23/72 - 06/25/72	
		D013536	2	06/26/72 - 06/28/72	
		D013544	3	06/28/72 - 07/04/72	
		D013548	4	07/04/72 - 07/08/72	
		D013547	5	07/08/72 - 07/11/72	
		D013546	6	07/11/72 - 07/18/72	
		D013545	7	07/18/72 - 07/20/72	
		D013540	8	07/21/72 - 07/25/72	
		D013539	9	07/25/72 - 08/04/72	

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DR#	DS#	D#	FILES	TIME SPAN	
DR005705	DS005705	D014121	1	08/04/72 - 08/11/72	
		D014122	2	08/11/72 - 08/15/72	(d)
		D014123	3	08/16/72 - 08/18/72	
		D014119	4	08/18/72 - 08/22/72	(e)
		D014120	5	08/22/72 - 08/26/72	
		D014125	6	08/27/72 - 09/06/72	(f)
		D014126	7	09/06/72 - 09/16/72	
		D014127	8	09/16/72 - 09/23/72	(g)
		D014246	9	09/23/72 - 09/30/72	(h)
DR005706	DS005706	D015912	1	09/30/72 - 10/14/72	
		D015913	2	10/15/72 - 10/21/72	
		D014247	3	10/21/72 - 10/26/72	
		D015914	4	10/26/72 - 11/05/72	
		D015918	5	11/05/72 - 11/09/72	
		D015919	6	11/09/72 - 11/13/72	(i)
		D015778	7	11/13/72 - 11/17/72	(j)
		D015779	8	11/17/72 - 11/25/72	
		D015777	9	11/25/72 - 12/05/72	
DR005707	DS005707	D015917	1	12/05/72 - 12/09/72	
		D015916	2	12/09/72 - 12/14/72	(k)
		D015915	3	12/14/72 - 12/21/72	
		D016126	4	12/21/72 - 12/31/72	
		D016125	5	01/01/73 - 01/05/73	
		D016127	6	01/05/73 - 01/12/73	
		D016197	7	01/12/73 - 01/21/73	
		D016198	8	01/22/73 - 02/01/73	(l)
DR005708	DS005708	D016199	1	02/01/73 - 02/10/73	
		D016200	2	02/10/73 - 02/17/73	
		D016201	3	02/17/73 - 03/08/73	
		D016632	4	03/09/73 - 03/20/73	(m)
		D016631	5	03/20/73 - 03/27/73	
		D017640	6	03/27/73 - 04/03/73	
		D016866	7	04/03/73 - 04/13/73	
		D016867	8	04/13/73 - 04/28/73	(n)
DR005709	DS005709	D016865	1	04/28/73 - 05/03/73	(o)
		D016852	2	05/03/73 - 05/19/73	
		D016851	3	05/19/73 - 05/28/73	(p)
		D016871	4	05/28/73 - 06/02/73	
		D016872	5	06/02/73 - 06/14/73	
		D016863	6	06/14/73 - 06/25/73	(q)
		D016862	7	06/25/73 - 06/28/73	
		D016861	8	06/28/73 - 07/03/73	

DR#	DS#	D#	FILES	TIME SPAN
DR005710	DS005710	D016877	1	07/03/73 - 07/10/73
		D016876	2	07/10/73 - 07/18/73 (r)
		D039826	3	07/10/73 - 06/23/75
		D016878	4	07/19/73 - 07/24/73
		D016853	5	07/24/73 - 07/30/73 (s)
		D016864	6	07/30/73 - 08/02/73 (t)
		D016857	7	08/02/73 - 08/09/73 (u)
		D016858	8	08/09/73 - 08/16/73 (v)
		D016859	9	08/16/73 - 08/29/73
DR005711	DS005711	D016875	1	08/29/73 - 09/02/73 (w)
		D016860	2	09/02/73 - 09/10/73 (x)
		D016870	3	09/10/73 - 09/19/73
		D016869	4	09/19/73 - 10/03/73 (y)
		D016868	5	10/03/73 - 10/09/73 (z)
		D016856	6	10/10/73 - 10/16/73 (aa)
		D016855	7	10/16/73 - 10/30/73 (bb)
		D016854	8	10/30/73 - 11/09/73
		D016873	9	11/09/73 - 11/22/73 (cc)
DR005712	DS005712	D016874	1	11/22/73 - 12/01/73 (dd)
		D016886	2	12/01/73 - 12/08/73
		D016887	3	12/09/73 - 12/20/73 (ee)
		D016888	4	12/20/73 - 12/24/73 (ff)
		D016889	5	12/24/73 - 12/31/73
		D017628	6	01/01/74 - 01/07/74
		D017627	7	01/07/74 - 01/19/74
		D017636	8	01/19/74 - 01/29/74 (gg)
		D017637	9	01/29/74 - 02/06/74
DR005713	DS005713	D017623	1	02/06/74 - 02/15/74
		D017622	2	02/15/74 - 02/22/74 (hh)
		D017621	3	02/24/74 - 03/01/74
		D017635	4	03/02/74 - 03/11/74
		D017634	5	03/11/74 - 03/20/74
		D017633	6	03/21/74 - 03/30/74
		D017632	7	03/30/74 - 04/16/74 (ii)
		D017631	8	04/16/74 - 04/25/74
		D017630	9	04/25/74 - 05/10/74
DR005714	DS005714	D017629	1	05/11/74 - 05/20/74 (jj)
		D017641	2	05/21/74 - 06/02/74
		D017642	3	06/03/74 - 06/16/74
		D017643	4	06/16/74 - 06/28/74
		D017639	5	06/28/74 - 07/03/74
		D017638	6	07/03/74 - 07/14/74
		D017624	7	07/14/74 - 07/20/74
		D017625	8	07/21/74 - 08/06/74
		D017626	9	08/06/74 - 08/11/74

DR#	DS#	D#	FILES	TIME SPAN	
DR005715	DS005715	D019112	1	08/11/74 - 08/22/74	
		D019122	2	08/22/74 - 08/29/74	
		D019120	3	08/29/74 - 09/08/74	
		D019119	4	09/09/74 - 09/17/74	
		D019118	5	09/17/74 - 09/24/74	
		D019170	6	09/25/74 - 10/06/74	
		D019169	7	10/07/74 - 10/16/74	(kk)
		D019125	8	10/17/74 - 10/26/74	
		D019126	9	10/27/74 - 11/04/74	
DR005716	DS005716	D019127	1	11/04/74 - 11/12/74	
		D019121	2	11/12/74 - 11/19/74	
		D019114	3	11/19/74 - 11/26/74	
		D019117	4	11/27/74 - 12/08/74	
		D019116	5	12/09/74 - 12/14/74	
		D019115	6	12/14/74 - 12/25/74	
		D019124	7	12/25/74 - 12/31/74	
		D019123	8	01/02/75 - 01/12/75	
		D019113	9	01/12/75 - 01/24/75	
DR005717	DS005717	D019372	1	01/24/75 - 01/30/75	
		D019371	2	01/31/75 - 02/12/75	
		D022100	3	02/12/75 - 02/22/75	(ll)
		D057828	4	02/13/75 - 05/16/76	(mm)
		D022101	5	02/23/75 - 03/08/75	
		D022102	6	03/08/75 - 03/24/75	
		D022206	7	03/25/75 - 04/05/75	
		D022208	8	04/06/75 - 04/14/75	(nn)
		D022205	9	04/14/75 - 04/23/75	
DR005718	DS005718	D022211	1	04/23/75 - 05/07/75	
		D022207	2	05/07/75 - 05/16/75	
		D022210	3	05/17/75 - 06/02/75	
		D057829	4	05/21/75 - 05/16/76	(oo)
		D022209	5	06/03/75 - 06/16/75	
		D022459	6	06/16/75 - 06/22/75	
		D022460	7	06/22/75 - 06/26/75	
		D022660	8	06/27/75 - 07/07/75	
DR005719	DS005719	D022661	1	07/07/75 - 07/30/75	
		D022662	2	07/30/75 - 08/09/75	
		D022663	3	08/09/75 - 08/20/75	
		D023024	4	08/20/75 - 09/02/75	
		D023025	5	09/02/75 - 09/12/75	
		D023026	6	09/12/75 - 09/27/75	(pp)
		D023636	7	09/27/75 - 10/05/75	
		D023637	8	10/05/75 - 10/20/75	
		D023638	9	10/21/75 - 10/31/75	

DR#	DS#	D#	FILES	TIME SPAN	
DR005720	DS005720	D023639	1	10/31/75 - 11/11/75	
		D023640	2	11/13/75 - 11/26/75	
		D023641	3	11/26/75 - 12/02/75	
		D023724	4	12/02/75 - 12/11/75	(qq)
		D023723	5	12/11/75 - 12/23/75	(rr)
		D023722	6	12/24/75 - 12/31/75	
		D028113	7	01/01/76 - 01/13/76	
		D028115	8	01/13/76 - 02/04/76	
		D028116	9	02/04/76 - 02/16/76	
DR005721	DS005721	D028114	1	02/16/76 - 02/29/76	
		D031828	2	03/01/76 - 03/05/76	
		D031939	3	03/05/76 - 03/11/76	(ss)
		D031940	4	03/11/76 - 03/16/76	
		D031971	5	03/16/76 - 03/31/76	
		D031972	6	03/31/76 - 04/11/76	(tt)
		D031973	7	04/11/76 - 04/23/76	
		D031974	8	04/23/76 - 05/01/76	
		D031975	9	05/01/76 - 05/11/76	
DR005722	DS005722	D031976	1	05/11/76 - 05/23/76	
		D031984	2	05/23/76 - 05/27/76	
		D031985	3	05/28/76 - 06/04/76	
		D057831	4	05/28/76 - 09/13/77	
		D031986	5	06/04/76 - 06/10/76	(uu)
		D032058	6	06/12/76 - 06/21/76	
		D032059	7	06/23/76 - 06/27/76	
		D032060	8	06/25/76 - 07/02/76	
		D032061	9	07/02/76 - 07/10/76	(vv)
DR005723	DS005723	D032062	1	07/10/76 - 07/21/76	(ww)
		D032063	2	07/21/76 - 07/28/76	
		D032064	3	07/29/76 - 07/31/76	
		D032319	4	07/31/76 - 08/10/76	(xx)
		D057830	5	08/08/76 - 05/15/77	(yy)
		D032320	6	08/11/76 - 08/19/76	(zz)
		D032321	7	08/19/76 - 08/26/76	
		D032322	8	08/26/76 - 08/31/76	
		D032323	9	08/31/76 - 09/11/76	
DR005724	DS005724	D032324	1	09/11/76 - 09/20/76	
		D032325	2	09/20/76 - 09/23/76	
		D032326	3	09/24/76 - 10/05/76	
		D032327	4	10/05/76 - 10/18/76	(aaa)
		D032328	5	10/19/76 - 10/22/76	
		D032329	6	10/23/76 - 11/04/76	
		D032330	7	11/04/76 - 11/15/76	(bbb)
		D032331	8	11/15/76 - 11/19/76	
		D032332	9	11/19/76 - 11/28/76	

DR#	DS#	D#	FILES	TIME SPAN
DR005725	DS005725	D032333	1	11/28/76 - 12/06/76
		D032933	2	12/06/76 - 12/15/76
		D032934	3	12/15/76 - 12/26/76
		D032935	4	12/26/76 - 12/31/76
		D032911	5	01/01/77 - 01/07/77
		D032912	6	01/08/77 - 01/13/77
		D032913	7	01/13/77 - 01/22/77 (ccc)
		D032914	8	01/22/77 - 01/28/77 (ddd)
		D032915	9	01/28/77 - 02/07/77
DR005726	DS005726	D032916	1	02/07/77 - 02/20/77
		D032917	2	02/20/77 - 03/02/77
		D032918	3	03/02/77 - 03/06/77
		D032919	4	03/07/77 - 03/20/77
		D032920	5	03/20/77 - 03/31/77
		D032961	6	03/31/77 - 04/01/77
		D032962	7	04/01/77 - 04/05/77
		D032963	8	04/05/77 - 04/14/77
		D032964	9	04/14/77 - 04/18/77
DR005727	DS005727	D032965	1	04/18/77 - 04/26/77
		D032966	2	04/26/77 - 04/28/77
		D032967	3	04/28/77 - 05/02/77
		D033730	4	05/02/77 - 05/05/77 (eee)
		D033740	5	07/03/77 - 07/11/77
		D033806	6	08/27/77 - 09/06/77
		D033807	7	09/08/77 - 09/11/77
		D033808	8	09/11/77 - 09/16/77 (fff)
		D033809	9	09/16/77 - 09/30/77
DR005728	DS005728	D033734	1	05/23/77 - 05/27/77
		D033736	2	06/06/77 - 06/12/77 (ggg)
		D033738	3	06/15/77 - 06/23/77 (hhh)
		D033737	4	06/12/77 - 06/15/77
		D033750	5	02/13/77 - 05/17/77
		D033749	6	05/29/77 - 09/13/77
		D033748	7	05/22/77 - 05/17/78
		D033747	8	08/17/77 - 08/27/77
		D033746	9	08/13/77 - 08/17/77
DR005729	DS005729	D033745	1	08/02/77 - 08/13/77 (iii)
		D033744	2	07/24/77 - 08/02/77
		D033743	3	07/20/77 - 07/24/77
		D033742	4	05/18/77 - 07/20/77
		D033741	5	07/11/77 - 07/16/77
		D033739	6	06/23/77 - 06/30/77
		D033735	7	05/27/77 - 06/05/77
		D033733	8	05/17/77 - 05/22/77
		D033731	9	05/05/77 - 05/12/77
DR005730	DS005730	D033732	1	05/12/77 - 05/16/77

(a) D013906 - 1 ERROR, REC. 23, FILE 1
(b) D013911 - 1 ERROR, REC. 57, FILE 1
(c) D013542 - 1 ERROR, REC. 482, FILE 1
(d) D014122 - 3 ERRORS, REC. 120, 143, 634, FILE 1
(e) D014119 - 12 ERRORS, REC. 31-36, 38, 45, 54, 55, 61, 73, FILE 1
(f) D014125 - 1 ERROR, REC. 31, FILE 1
(g) D014127 - 1 ERROR, REC. 251, FILE 1
(h) D014246 - 1 ERROR, REC. 1, FILE 1
(i) D015919 - 3 ERRORS, REC.35, 48, 49, FILE 1
(j) D015778 - 1 ERROR, REC. 49, FILE 1
(k) D015916 - 9 ERRORS, REC. 24, 35, 38, 339, 1489, 1525, 1561, 1563, 1583, FILE 1
(l) D016198 - 2 ERRORS, REC. 1577, 1578, FILE 1
(m) D016632 - 3 ERRORS, REC. 59, 140, 174, FILE 1
(n) D016867 - 3 ERRORS, REC. 9, 50, 52, FILE 1
(o) D016865 - 2 ERRORS, REC. 1526, 1527, FILE 1
(p) D016851 - 2 ERRORS, REC. 1607, 1608, FILE 1
(q) D016863 - 4 ERRORS, REC. 18, 50, 51, 500, FILE 1
(r) D016876 - 4 ERRORS, REC. 1528 - 1531, FILE 1
(s) D016853 - 1 ERROR, REC. 125, FILE 1
(t) D016864 - 1 ERROR, REC. 30, FILE 1
(u) D016857 - 4 ERRORS, REC. 8, 1533 - 1535, FILE 1
(v) D016858 - 4 ERRORS, REC. 6, 7, 1429, 1430, FILE 1
(w) D016875 - 1 ERROR, REC. 1532, FILE 1
(x) D016860 - 1 ERROR, REC. 999, FILE 1
(y) D016869 - 5 ERRORS, REC. 1569-1571, 1575, 1576, FILE 1
(z) D016868 - 4 ERRORS, REC. 254, 1526-28, FILE 1
(aa) D016856 - 2 ERRORS, REC. 1325, 1448, FILE 1
(bb) D016855 - 2 ERRORS, REC. 30, 31, FILE 1
(cc) D016873 - 3 ERRORS, REC. 12, 1297, 1298, FILE 1
(dd) D016874 - 1 ERROR, REC. 1500, FILE 1
(ee) D016887 - 3 ERRORS, REC. 5, 17, 159, FILE 1
(ff) D016888 - 1 ERROR, REC. 93, FILE 1
(gg) D017636 - 1 ERROR, REC. 405, FILE 1
(hh) D017622 - 1 ERROR, REC. 426, FILE 1
(ii) D017632 - 4 ERRORS, REC. 445, 447, 449, 450, FILE 1
(jj) D017629 - 1 ERROR, REC. 220, FILE 1
(kk) D019169 - 1 ERROR, REC. 213, FILE 1
(ll) D022100 - 1 ERROR, REC. 1446, FILE 1
(mm) D057828 - 1 ERROR, REC. 169, FILE 1
(nn) D022208 - 1 ERROR, REC. 192, FILE 1
(oo) D057829 - 4 ERRORS, REC. 226, 453, 455, 1024, FILE 1
(pp) D023026 - 1 ERROR, REC. 135, FILE 1
(qq) D023724 - 1 ERROR, REC. 104, FILE 1
(rr) D023723 - 6 ERRORS, REC. 11-16, FILE 1
(ss) D031939 - 2 ERRORS, REC. 3, 113, FILE 1
(tt) D031972 - 2 ERRORS, REC. 1341, 1400, FILE 1
(uu) D031986 - 1 ERROR, REC. 1, FILE 1
(vv) D032061 - 3 ERRORS, REC. 1-3, FILE 1
(ww) D032062 - 1 ERROR, REC. 96, FILE 1
(xx) D032319 - 5 ERRORS, REC. 4, 570-573, FILE 1
(yy) D057830 - 2 ERRORS, REC. 90, 96, FILE 1
(zz) D032320 - 1 ERROR, REC. 26, FILE 1
(aaa) D032327 - 16 ERRORS, REC. 4, 36, 40, 43, 47, 49 ,51, 54, 58, 60, 65, 90, 104, 106, 131, 978, FILE 1
(bbb) D032330 - 1 ERROR, REC. 137, FILE 1
(ccc) D032913 - 1 ERROR, REC. 8, FILE 1

(ddd) D032914 - 1 ERROR, REC. 1537, FILE 1
(eee) D033730 - 1 ERROR, REC. 28, FILE 1
(fff) D033808 - 3 ERRORS, REC. 54-56, FILE 1
(ggg) D033736 - 1 ERROR, REC. 57, FILE 1
(hhh) D033738 - 14 ERRORS, REC. 160-173, FILE 1
(iii) D033745 - 1 ERROR, REC. 88, FILE 1

REQ. AG.	RASH NO	ACQ. AGENT
PAR ROP	RA9247	WSC

APOLLO 12, 14, 15, 16

PASSIVE SEISMIC EVENT

69-099C-03A, 71-008C-04B, 71-063C-01B, 72-031C-01B

This data set consists of [redacted], 800 BPI, Binary, 7-track tapes created on an PDP-15 computer. Each tape contains one file of Seismic data. The first two records of each tape are header records. The data records that follow contain 18 word logical records with 90 logical records per physical record.

The time spans for the tapes are as follows:

APOLLO 12 69-099C-03A

D#	C#	EVENT#	TIME SPAN
D-08120	C-06188	1	11/20/69 - 12/14/69
D-08121	C-06189	2	12/14/69 - 1/07/70
D-08122	C-06190	3	1/07/70 - 1/29/70
D-08123	C-06191	4	1/29/70 - 2/07/70
D-08124	C-06192	5	2/10/70 - 2/21/70
D-08125	C-06242	6	2/21/70 - 3/04/70
D-08126	C-06243	7	3/05/70 - 3/26/70
D-08127	C-06244	8	3/29/70 - 4/05/70
D-08128	C-06245	9	4/06/70 - 4/15/70
D-08129	C-06246	10	4/16/70 - 4/27/70
D-08172	C-08103	11	4/27/70 - 5/20/70
D-08173	C-08104	12	5/21/70 - 6/13/70
D-08174	C-08105	13	6/13/70 - 7/02/70
D-08175	C-08106	14	7/03/70 - 7/18/70
D-08176	C-08107	15	7/18/70 - 8/05/70
D-08177	C-08108	16	8/05/70 - 8/17/70
D-08178	C-08109	17	8/17/70 - 8/31/70

D#	C#	EVENT#	TIME SPAN
D-08179	C-08110	18	8/31/70 - 9/17/70
D-08180	C-08111	19	9/17/70 - 10/06/70
D-08181	C-08112	20	10/06/70 - 10/24/70
D-13610	C-10833	21	10/24/70 - 11/12/70
D-13611	C-10834	22	11/15/70 - 12/11/70
D-13612	C-10835	23	12/13/70 - 12/31/70
D-13613	C-10836	24	1/03/71 - 1/21/71
D-13614	C-10837	25	1/21/71 - 2/04/71
D-13615	C-10838	26	2/06/71 - 2/19/71
D-13617	C-10839	27	2/19/71 - 2/24/71
D-13616	C-11382	28	2/24/71 - 3/08/71
D-13624	C-11023	29	3/08/71 - 3/13/71
D-13625	C-10846	30	3/14/71 - 3/21/71
D-13626	C-10847	31	3/21/71 - 3/25/71
D-13627	C-10848	32	3/25/71 - 4/02/71
D-13623	C-10849	33	4/02/71 - 4/05/71
D-13622	C-10844	34	4/05/71 - 4/14/71
D-13621	C-10843	35	4/14/71 - 4/17/71
D-13620	C-10842	36	4/17/71 - 4/28/71
D-13619	C-10841	37	4/28/71 - 5/02/71
D-13618	C-10840	38	5/02/71 - 5/12/71
D-13602	C-10826	39	5/12/71 - 5/16/71
D-13605	C-10829	40	5/16/71 - 5/25/71
D-13604	C-10828	41	5/25/71 - 5/27/71
D-13603	C-10827	42	5/27/71 - 6/01/71
D-13606	C-10830	43	6/01/71 - 6/07/71
D-13630	C-10851	44	6/07/71 - 6/09/71
D-13631	C-10852	45	6/10/71 - 6/12/71
D-13632	C-10853	46	6/12/71 - 6/24/71
D-13629	C-10850	47	6/24/71 - 6/27/71

D#	C#	EVENT#	TIME SPAN
D-13628	C-10849	48	6/27/71 - 7/03/71
D-13685	C-10869	49	7/05/71 - 7/09/71
D-13686	C-10870	50	7/10/71 - 7/21/71
D-13687	C-10871	51	7/21/71 - 7/31/71
D-13688	C-10872	52	8/02/71 - 8/17/71
D-13689	C-10873	53	8/17/71 - 8/22/71
D-13690	C-10874	54	8/25/71 - 8/31/71
D-13691	C-10875	55	8/31/71 - 9/13/71
D-13692	C-10876	56	9/13/71 - 9/20/71
D-13609	C-11383	57	9/20/71 - 9/26/71
D-13608	C-10877	58	9/26/71 - 9/30/71
D-13607	C-10831	59	9/30/71 - 10/05/71
D-13739	C-10893	60	10/06/71 - 10/15/71
D-13740	C-10894	61	10/15/71 - 10/16/71
D-13741	C-10895	61	10/16/71 - 10/19/71
D-13742	C-10896	62	10/19/71 - 10/22/71
D-13818	C-10903	63	10/24/71 - 10/25/71
D-13819	C-10904	64	10/25/71 - 10/28/71
D-13820	C-10905	65	10/28/71 - 10/31/71
D-13869	C-10920	66	10/31/71 - 11/05/71
D-13821	C-10906	67	11/05/71 - 11/09/71
D-13822	C-10907	68	11/09/71 - 11/16/71
D-13823	C-10908	69	11/16/71 - 11/17/71
D-13814	C-10899	70	11/17/71 - 11/20/71
D-13813	C-10898	71	11/20/71 - 11/22/71
D-13812	C-10897	72	11/22/71 - 11/26/71
D-13827	C-10912	73	11/26/71 - 12/03/71
D-13826	C-10911	74	12/03/71 - 12/07/71
D-13825	C-10910	75	12/08/71 - 12/15/71
D-13824	C-10909	76	12/15/71 - 12/17/71

D#	C#	EVENT#	TIME SPAN
D-13815	C-10900	77	12/17/71 - 12/20/71
D-13816	C-10901	78	12/20/71 - 12/26/71
D-13817	C-10902	79	12/27/71 - 12/31/71
D-13872	C-10923	80	1/01/72 - 1/06/72
D-13873	C-10924	81	1/07/72 - 1/13/72
D-13874	C-10925	82	1/13/72 - 1/20/72
D-13864	C-10915	83	1/20/72 - 1/31/72
D-13865	C-10916	84	1/31/72 - 2/10/72
D-13866	C-10917	85	2/10/72 - 2/21/72
D-13867	C-10918	86	2/21/72 - 3/06/72
D-14093	C-11132	87	3/07/72 - 3/15/72
D-14094	C-11132	88	3/15/72 - 3/23/72
D-14095	C-11134	89	3/23/72 - 4/04/72
D-13863	C-10914	90	4/04/72 - 4/12/72
D-13862	C-10913	91	4/12/72 - 4/18/72
D-14096	C-11135	92	4/18/72 - 4/27/72
D-13868	C-10919	93	4/27/72 - 4/30/72
D-13696	C-10892	94	4/30/72 - 5/05/72
D-13695	C-10891	95	5/05/72 - 5/09/72
D-13694	C-10878	96	5/09/72 - 5/12/72
D-13693	C-10877	97	5/12/72 - 5/14/72
D-13871	C-10923	98	5/14/72 - 5/16/72
D-13870	C-10921	99	5/16/72 - 5/19/72
D-13591	C-10306	100	5/19/72 - 5/25/72
D-13590	C-10305	101	5/26/72 - 5/29/72
D-13589	C-10304	102	5/29/72 - 6/03/72
D-13601	C-10825	103	6/03/72 - 6/06/72
D-13598	C-10822	104	6/06/72 - 6/09/72

D#	C#	EVENT#	TIME SPAN
D-13584	C-10299	105	6/09/72 - 6/12/72
D-13585	C-10300	106	6/12/72 - 6/16/72
D-13586	C-10301	107	6/16/72 - 6/23/72
D-13587	C-10302	108	6/23/72 - 6/25/72
D-13588	C-10303	109	6/26/72 - 6/28/72
D-13596	C-10820	110	6/28/72 - 7/04/72
D-13600	C-10824	111	7/04/72 - 7/08/72
D-13595	C-10819	112	7/08/72 - 7/11/72
D-13599	C-10823	113	7/11/72 - 7/18/72
D-13597	C-10821	114	7/18/72 - 7/21/72
D-13594	C-10818	115	7/21/72 - 7/25/72
D-13593	C-10817	116	7/25/72 - 8/04/72
D-13592	C-10816	117	8/04/72 - 8/11/72
D-14091	C-11136	118	8/11/72 - 8/15/72
D-14092	C-11137	119	8/16/72 - 8/18/72
D-14088	C-11138	120	8/18/72 - 8/22/72
D-14089	C-11139	121	8/22/72 - 8/26/72
D-14090	C-11140	122	8/27/72 - 9/06/72
D-14097	C-11141	123	9/06/72 - 9/16/72
D-14098	C-11142	124	9/16/72 - 9/23/72
D-14238	C-11384	125	9/23/72 - 9/30/72
D-14239	C-11385	126	10/01/72 - 10/15/72
D-15890	C-12066	127	10/15/72 - 10/21/72
D-14240	C-11386	128	10/21/72 - 10/26/72
D-15891	C-12067	129	10/26/72 - 11/05/72
D-15895	C-12068	130	11/05/72 - 11/09/72
D-15896	C-12069	131	11/09/72 - 11/13/72
D-15897	C-12070	132	11/13/72 - 11/17/72
D-15769	C-12071	133	11/17/72 - 11/25/72
D-15768	C-12072	134	11/25/72 - 12/05/72

D#	C#	EVENT#	TIME SPAN
D-15767	C-12073	135	12/05/72 - 12/09/72
D-15894	C-12074	136	12/09/72 - 12/14/72
D-15893	C-12075	137	12/14/72 - 12/21/72
D-15892	C-12076	138	12/21/72 - 12/31/72
D-16118	C-12198	139	1/01/73 - 1/05/73
D-16117	C-12199	140	1/05/73 - 1/12/73
D-16181	C-12713	141	1/12/73 - 1/21/73
D-16182	C-12714	142	1/22/73 - 2/01/73
D-16183	C-12715	143	2/01/73 - 2/10/73
D-16184	C-12716	144	2/10/73 - 2/17/73
D-17568	C-13995	145	2/17/73 - 3/08/73
D-16186	C-12717	146	3/09/73 - 3/20/73
D-16624	C-12719	147	3/20/73 - 3/27/73
D-16623	C-12720	148	3/22/73 - 4/03/73
D-16770	C-13065	149	4/03/73 - 4/13/73
D-16771	C-13066	150	4/13/73 - 4/28/73
D-16772	C-13067	151	4/28/73 - 5/03/73
D-16769	C-13068	152	5/03/73 - 5/19/73
D-16783	C-13069	153	5/19/73 - 5/28/73
D-16788	C-13070	154	5/28/73 - 6/02/73
D-16775	C-13071	155	6/02/73 - 6/14/73
D-16776	C-13072	156	6/14/73 - 6/25/73
D-16793	C-13073	157	6/25/73 - 6/28/73
D-16794	C-13074	158	6/28/73 - 7/03/73
D-16792	C-13075	159	7/03/73 - 7/10/73
D-16782	C-13076	160	7/10/73 - 7/19/73
D-16781	C-13077	161	7/19/73 - 7/24/73
D-16785	C-13078	162	7/24/73 - 7/30/73
D-16784	C-13079	163	7/30/73 - 8/02/73
D-16795	C-13080	164	8/02/73 - 8/09/73

D#	C#	EVENT#	TIME SPAN
D-16789	C-13081	165	8/09/73 - 8/16/73
D-16790	C-13082	166	8/16/73 - 8/29/73
D-16780	C-13083	167	8/29/73 - 9/02/73
D-16779	C-13084	168	9/02/73 - 9/10/73
D-16791	C-13085	169	9/10/73 - 9/19/73
D-16774	C-13086	170	9/19/73 - 10/03/73
D-16773	C-13087	171	10/03/73 - 10/08/73
D-17565	C-13996	172	10/10/73 - 10/16/73
D-17566	C-13997	173	10/16/73 - 10/30/73
D-16787	C-13088	174	10/30/73 - 11/09/73
D-16786	C-13089	175	11/09/73 - 11/22/73
D-16777	C-13090	176	11/22/73 - 12/01/73
D-16778	C-13091	177	12/01/73 - 12/08/73
D-17567	C-13998	178	12/09/73 - 12/20/73
D-17552	C-13999	179	12/20/73 - 12/24/73
D-16881	C-13092	180	12/24/73 - 12/31/73
D-17551	C-14000	181	1/01/74 - 1/07/74
D-17550	C-14001	182	1/07/74 - 1/19/74
D-17559	C-14002	183	1/19/74 - 1/29/74
D-17560	C-14003	184	1/29/74 - 2/06/74
D-17561	C-14004	185	2/14/74 - 2/15/74
D-17547	C-14005	186	2/15/74 - 2/22/74
D-17546	C-14006	187	2/24/74 - 3/01/74
D-17558	C-14007	188	3/02/74 - 3/11/74
D-17557	C-14008	189	3/11/74 - 3/20/74
D-17556	C-14009	190	3/21/74 - 3/30/74
D-17555	C-14010	191	3/30/74 - 4/16/74
D-17554	C-14011	192	4/16/74 - 4/25/74
D-17553	C-14012	193	4/25/74 - 5/10/74
D-17544	C-14013	194	5/11/74 - 5/20/74
D-17545	C-14014	195	5/21/74 - 6/02/74

D#	C#	EVENT#	TIME SPAN
D-17569	C-14015	196	6/03/74 - 6/16/74
D-17570	C-14016	197	6/16/74 - 6/28/74
D-17564	C-15335	198	6/28/74 - 7/03/74
D-17563	C-14017	199	7/03/74 - 7/14/74
D-17562	C-14018	200	7/14/74 - 7/20/74
D-17548	C-14019	201	7/21/74 - 8/06/74
D-17549	C-14020	202	8/06/74 - 8/11/74
D-19067	C-15336	203	8/11/74 - 8/22/74
D-19066	C-15337	204	8/22/74 - 8/29/74
D-19073	C-15338	205	8/29/74 - 9/08/74
D-19072	C-15339	206	9/09/74 - 9/17/74
D-19071	C-15340	207	9/17/74 - 9/24/74
D-19163	C-15341	208	9/25/74 - 10/06/74
D-19162	C-15342	209	10/07/74 - 10/16/74
D-19161	C-15343	210	10/17/74 - 10/26/74
D-19078	C-15344	211	10/27/74 - 11/04/74
D-19079	C-15345	212	11/04/74 - 11/12/74
D-19080	C-15346	213	11/12/74 - 11/19/74
D-19075	C-15347	214	11/19/74 - 11/26/74
D-19074	C-15348	215	11/26/74 - 12/09/74
D-19068	C-15349	216	12/09/74 - 12/14/74
D-19070	C-15350	217	12/14/74 - 12/25/74
D-19069	C-15351	218	12/25/74 - 12/31/74
D-19077	C-15352	219	1/02/75 - 1/12/75
D-19076	C-15353	220	1/12/75 - 1/24/75
19365	C-15548	221	1/24/75 - 1/30/75
D-19364	C-15549	222	1/31/75 - 2/12/75
D-19363	C-15550	223	2/12/75 - 2/22/75

D#	C#	EVENT#	TIME SPAN
D-22093	C-17340	224	2/23/75 - 3/08/75
D-22094	C-17040	225	3/08/75 - 3/24/75
D-22184	C-17095	226	3/25/75 - 4/05/75
D-22185	C-17096	227	4/06/75 - 4/14/75
D-22186	C-17097	228	4/14/75 - 4/23/75
D-22190	C-17098	229	4/23/75 - 5/07/75
D-22183	C-17099	230	5/07/75 - 5/16/75
D-22189	C-17100	231	5/17/75 - 6/02/75
D-22188	C-17101	232	6/03/75 - 6/16/75
D-22187	C-17102	233	6/16/75 - 6/22/75
D-22454	C-17523	234	6/22/75 - 6/26/75
D-22647	C-17524	235	6/27/75 - 7/07/75
D-22648	C-17525	236	7/07/75 - 7/30/75
D-22649	C-17526	237	7/30/75 - 8/09/75
D-22650	C-17527	238	8/09/75 - 8/20/75
D-22651	C-17528	239	8/20/75 - 9/02/75
D-23016	C-17805	240	9/02/75 - 9/12/75
D-23017	C-17806	241	9/12/75 - 9/27/75
D-23618	C-17961	242	9/27/75 - 10/05/75
D-23619	C-18590	243	10/05/75 - 10/20/75
D-23620	C-17962	244	10/21/75 - 10/31/75
D-23621	C-17963	245	10/31/75 - 11/11/75
D-23622	C-17964	246	11/13/75 - 11/26/75
D-23623	C-17965	247	11/26/75 - 12/02/75
D-23713	C-17966	248	12/02/75 - 12/11/75
D-23715	C-17967	249	12/11/75 - 12/23/75
D-23714	C-17968	250	12/24/75 - 12/31/75
D-28102	C-18586	251	1/01/76 - 1/13/76
D-28103	C-18587	252	1/13/76 - 2/03/76

D#	C#	EVENT#	TIME SPAN
D-28104	C-18588	253	2/04/76 - 2/16/76
D-28105	C-18589	254	2/16/76 - 2/28/76
D-31825	C-20112	255	3/02/76 - 3/06/76
D-31931	C-20113	256	3/06/76 - 3/12/76
D-31932	C-20114	257	3/12/76 - 3/17/76
D-31933	C-20115	258	3/17/76 - 4/01/76
D-31957	C-20256	259	4/01/76 - 4/12/76
D-31958	C-20116	260	4/12/76 - 4/24/76
D-31959	C-20117	261	4/24/76 - 5/02/76
D-31960	C-20118	262	5/02/76 - 5/12/76
D-31961	C-20119	263	5/12/76 - 5/24/76
D-31962	C-20120	264	5/24/76 - 5/28/76
D-31977	C-20121	265	5/29/76 - 6/05/76
D-31978	C-20122	266	6/05/76 - 6/10/76
D-31979	C-20123	267	6/10/76 - 6/21/76
D-32038	C-20453	268	6/21/76 - 6/25/76
D-32099	C-20454	269	6/25/76 - 7/02/76
D-32040	C-20455	270	7/02/76 - 7/10/76
D-32041	C-20456	271	7/10/76 - 7/21/76
D-32042	C-20457	272	7/21/76 - 7/28/76
D-32043	C-20458	273	7/28/76 - 7/31/76
D-32277	C-20459	274	7/31/76 - 8/10/76
D-32278	C-20460	275	8/11/76 - 8/19/76
D-32279	C-20461	276	8/19/76 - 8/26/76
D-32280	C-20462	277	8/26/76 - 8/31/76
D-32281	C-20463	278	8/31/76 - 9/11/76
D-32282	C-20464	279	9/11/76 - 9/20/76
D-32283	C-20465	280	9/20/76 - 9/23/76

D#	C#	EVENT#	TIME SPAN
D-32284	C-20466	281	9/24/76 - 10/05/76
D-32285	C-20467	282	10/05/76 - 10/18/76
D-32286	C-20368	283	10/19/76 - 10/22/76
D-32287	C-20469	284	10/23/76 - 11/03/76
D-32288	C-20470	285	11/04/76 - 11/15/76
D-32289	C-20471	286	11/15/76 - 11/19/76
D-32336	C-20472	287	11/19/76 - 11/28/76
D-32337	C-20473	288	11/28/76 - 12/06/76
D-32338	C-20474	289	12/06/76 - 12/15/76
D-32926	C-20475	290	12/15/76 - 12/26/76
D-32927	C-20476	291	12/26/76 - 12/31/76
D-32883	C-20477	292	1/01/77 - 1/07/77
D-32884	C-20478	293	1/08/77 - 1/13/77
D-32885	C-20479	294	1/13/77 - 1/22/77
D-32886	C-20480	295	1/22/77 - 1/28/77
D-32887	C-20481	296	1/28/77 - 2/07/77
D-32888	C-20482	297	2/07/77 - 2/20/77
D-32889	C-20483	298	2/20/77 - 3/02/77
D-32890	C-20484	299	3/02/77 - 3/06/77
D-33667	C-20559	300	3/07/77 - 3/20/77
D-32891	C-20485	301	3/20/77 - 3/31/77
D-32938	C-20486	302	3/31/77 - 4/01/77
D-32939	C-20487	303	4/01/77 - 4/05/77
D-32940	C-20488	304	4/05/77 - 4/14/77
D-32941	C-20489	305	4/14/77 - 4/18/77
D-32942	C-20490	306	4/18/77 - 4/26/77
D-32943	C-20491	307	4/26/77 - 4/28/77
D-32944	C-20492	308	4/28/77 - 5/01/77
D-32945	C-20493	309	5/02/77 - 5/05/77

D#	C#	EVENT#	TIME SPAN
D-33668		310	5/05/77 - 5/12/77
D-33669		311	5/12/77 - 5/16/77
D-33670		312	5/17/77 - 5/22/77
D-33671		313	5/23/77 - 5/27/77
D-33672		314	5/27/77 - 6/05/77
D-33673		315	6/06/77 - 6/12/77
D-33674		316	6/12/77 - 6/15/77
D-33675		317	6/15/77 - 6/23/77
D-33676		318	6/23/77 - 6/30/77
D-33677	C-20560	319	7/03/77 - 7/11/77
D-33678		320	7/11/77 - 7/16/77
D-33679		321	7/16/77 - 7/20/77
D-33680		322	7/20/77 - 7/24/77
D-33681		323	7/24/77 - 8/02/77
D-33682		324	8/02/77 - 8/13/77
D-33683		325	8/13/77 - 8/17/77
D-33684		326	8/17/77 - 8/27/77
*D-33685		20006	5/23/75 5/16/76
*D-33686		20007	5/28/77 - 9/12/77
*D-33687		30002	2/13/75 - 5/16/76
D-33794	C-20496	327	8/27/77 - 9/06/77
D-33795		328	9/08/77 - 9/11/77
D-33796		329	9/11/77 - 9/16/77
D-33797		330	9/16/77 - 9/30/77

*Special event tapes

D#	C#	EVENT#	TIME SPAN
D-57810	C-	334	02/16/70 - 10/02/75
D-57811	C-	335	02/22/71 - 05/21/72
D-57812	C-	30002*	02/13/75 - 05/16/76
D-57813	C-	20006*	05/23/75 - 05/16/76
D-57814	C-	333	08/18/76 - 05/15/77
D-57815	C-	20007*	01/18/76 - 09/13/77

*May be dublicates

(P/O in back of Catalog)

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D#	C#	EVENT#	TIME SPAN
D-13653	C-10880	26	2/06/71 - 2/19/71
D-13652	C-10879	27	2/19/71 - 2/24/71
D-13641	C-10861	28	2/24/71 - 3/08/71
D-13640	C-10860	29	3/08/71 - 3/13/71
D-13639	C-10859	30	3/14/71 - 3/21/71
D-13638	C-11027	31	3/21/71 - 3/25/71
D-13642	C-10862	32	3/25/71 - 4/01/71
D-13658	C-10885	33	4/02/71 - 4/05/71
D-13657	C-10884	34	4/05/71 - 4/14/71
D-13656	C-10883	35	4/14/71 - 4/17/71
D-13655	C-10882	36	4/17/71 - 4/28/71
D-13654	C-10881	37	4/28/71 - 5/02/71
D-13643	C-10863	38	5/02/71 - 5/12/71
D-13644	C-10864	39	5/12/71 - 5/16/71
D-13647	C-11028	40	5/16/71 - 5/25/71
D-13645	C-10865	41	5/25/71 - 5/27/71
D-13646	C-10866	42	5/27/71 - 5/31/71
D-13635	C-10856	43	6/01/71 - 6/07/71
D-13634	C-10855	44	6/07/71 - 6/09/71
D-13633	C-10854	45	6/10/71 - 6/12/71
D-13637	C-10858	46	6/12/71 - 6/24/71
D-13636	C-10857	47	6/24/71 - 6/27/71
D-13697	C-10926	48	6/27/71 - 7/05/71
D-13698	C-10927	49	7/05/71 - 7/09/71
D-13699	C-10928	50	7/10/71 - 7/21/71
D-13700	C-10929	51	7/21/71 - 7/31/71
D-13701	C-11029	52	8/02/71 - 8/17/71
D-13702	C-10930	53	8/17/71 - 8/24/71

D#	C#	EVENT#	TIME SPAN
D-13703	C-10931	54	8/25/71 - 8/31/71
D-13704	C-10932	55	8/31/71 - 9/13/71
D-13650	C-11025	56	9/13/71 - 9/20/71
D-13649	C-11024	57	9/20/71 - 9/26/71
D-13648	C-10867	58	9/26/71 - 9/30/71
D-13651	C-10868	59	9/30/71 - 10/05/71
D-13743	C-10936	60	10/06/71 - 10/15/71
D-13744	C-10937	61	10/15/71 - 10/19/71
D-13745	C-10938	62	10/19/71 - 10/23/71
D-13835	C-10946	63	10/23/71 - 10/24/71
D-13836	C-10947	64	10/25/71 - 10/28/71
D-13837	C-10948	65	10/28/71 - 10/31/71
D-13838	C-10949	66	10/31/71 - 11/05/71
D-13839	C-10950	67	11/05/71 - 11/09/71
D-13840	C-10951	68	11/09/71 - 11/16/71
D-13841	C-10952	69	11/16/71 - 11/17/71
D-13830	C-10941	70	11/17/71 - 11/20/71
D-13829	C-10940	71	11/20/71 - 11/22/71
D-13828	C-10939	72	11/22/71 - 11/26/71
D-13844	C-10955	73	11/26/71 - 12/03/71
D-13843	C-10954	74	12/03/71 - 12/07/71
D-13842	C-10953	75	12/08/71 - 12/15/71
D-13831	C-10942	76	12/15/71 - 12/17/71
D-13832	C-10943	77	12/17/71 - 12/20/71
D-13833	C-10944	78	12/20/71 - 12/27/71
D-13834	C-10945	79	12/27/71 - 12/31/71
D-13886	C-10967	80	1/01/72 - 1/06/72
D-13887	C-10968	81	1/07/72 - 1/13/72
D-13888	C-10969	82	1/13/72 - 1/20/72

D#	C#	EVENT#	TIME SPAN
D-13878	C-10959	83	1/20/72 - 1/31/72
D-13879	C-10960	84	1/31/72 - 2/10/72
D-13880	C-10961	85	2/10/72 - 2/17/72
D-13883	C-10964	86	2/21/72 - 3/06/72
D-14104	C-11143	87	3/07/72 - 3/15/72
D-14105	C-11144	88	3/15/72 - 3/23/72
D-14106	C-11145	89	3/23/72 - 4/04/72
D-13877	C-10958	90	4/04/72 - 4/12/72
D-13876	C-10957	91	4/12/72 - 4/18/72
D-13875	C-10956	92	4/18/72 - 4/27/72
D-13882	C-10963	93	4/27/72 - 4/30/72
D-13707	C-10935	94	4/30/72 - 5/05/72
D-13706	C-10934	95	5/05/72 - 5/09/72
D-13705	C-10933	96	5/09/72 - 5/12/72
D-13881	C-10962	97	5/12/72 - 5/14/72
D-13885	C-10966	98	5/14/72 - 5/16/72
D-13884	C-10965	99	5/16/72 - 5/19/72
D-13556	C-10314	100	5/19/72 - 5/25/72
D-13555	C-10313	101	5/26/72 - 5/29/72
D-13554	C-10312	102	5/29/72 - 6/03/72
D-13561	C-10318	103	6/03/72 - 6/06/72
D-13560	C-11387	104	6/06/72 - 6/08/72
D-13549	C-10307	105	6/09/72 - 6/12/72
D-13550	C-10308	106	6/12/72 - 6/16/72
D-13551	C-10309	107	6/10/72 - 6/23/72
D-13552	C-10310	108	6/23/72 - 6/25/72
D-13553	C-10311	109	6/26/72 - 6/28/72
D-13564	C-10321	110	6/28/72 - 7/04/72
D-13563	C-10320	111	7/04/72 - 7/08/72
D-13562	C-10319	112	7/08/72 - 7/11/72
D-13566	C-10323	113	7/11/72 - 7/18/72

D#	C#	EVENT#	TIME SPAN
D-13565	C-10322	114	7/18/72 - 7/21/72
D-13559	C-10317	115	7/21/72 - 7/25/72
D-13558	C-10316	116	7/25/72 - 8/04/72
D-13557	C-10315	117	8/04/72 - 8/11/72
D-14102	C-11146	118	8/11/72 - 8/15/72
D-14103	C-11147	119	8/16/72 - 8/18/72
D-14099	C-11148	120	8/18/72 - 8/22/72
D-14100	C-11149	121	8/22/72 - 8/26/72
D-14101	C-11150	122	8/27/72 - 9/06/72
D-14107	C-11151	123	9/06/72 - 9/16/72
D-14108	C-11152	124	9/10/72 - 9/23/72
D-14241	C-11388	125	9/23/72 - 9/30/72
D-14242	C-11389	126	10/01/72 - 10/15/72
D-15898	C-12078	127	10/15/72 - 10/21/72
D-14243	C-11390	128	10/21/72 - 10/26/72
D-15899	C-12078	129	10/26/72 - 11/05/72
D-15902	C-12079	130	11/05/72 - 11/09/72
D-15903	C-12080	131	11/09/72 - 11/13/72
D-15904	C-12081	132	11/13/72 - 11/17/72
D-15772	C-12082	133	11/17/72 - 11/25/72
D-15771	C-12083	134	11/25/72 - 12/05/72
D-15770	C-12084	135	12/05/72 - 12/09/72
D-15901	C-12085	136	12/09/72 - 12/14/72
D-15900	C-12086	137	12/14/72 - 12/21/72
D-16121	C-12200	138	12/21/72 - 12/31/72
D-16120	C-12201	139	1/01/73 - 1/05/73
D-16119	C-12202	140	1/05/73 - 1/12/73

D#	C#	EVENT#	TIME SPAN
D-16187	C-12721	141	1/12/73 - 1/21/73
D-16188	C-12722	142	1/22/73 - 2/01/73
D-16189	C-12723	143	2/01/73 - 2/10/73
D-16190	C-12724	144	2/10/73 - 2/17/73
D-16191	C-12725	145	2/17/73 - 3/08/73
D-16628	C-12726	146	3/09/73 - 3/20/73
D-16627	C-12727	147	3/20/73 - 3/27/73
D-16626	C-12728	148	3/27/73 - 4/03/73
D-16811	C-13174	149	4/13/73 - 4/28/73
D-16796	C-13175	150	4/13/73 - 4/28/73
D-16812	C-13176	151	4/28/73 - 5/03/73
D-16810	C-13177	152	5/03/73 - 5/19/73
D-16802	C-13178	153	5/19/73 - 5/28/73
D-16815	C-13179	154	5/28/73 - 6/02/73
D-16816	C-13180	155	6/02/73 - 6/14/73
D-16817	C-13181	156	6/14/73 - 6/25/73
D-16809	C-13182	157	6/25/73 - 6/27/73
D-16808	C-13183	158	6/28/73 - 7/03/73
D-16807	C-13184	159	7/03/73 - 7/10/73
D-16823	C-13185	160	7/10/73 - 7/18/73
D-16822	C-13186	161	7/19/73 - 7/24/73
D-16799	C-13187	162	7/24/73 - 7/30/73
D-16798	C-13188	163	7/30/73 - 8/02/73
D-16797	C-13189	164	8/02/73 - 8/09/73
D-16803	C-13190	165	8/09/73 - 8/16/73
D-16804	C-13191	166	8/10/73 - 8/29/73
D-16821	C-13192	167	8/29/73 - 9/02/73
D-16806	C-13193	168	9/02/73 - 9/10/73

D#	C#	EVENT#	TIME SPAN
D-16805	C-13194	169	9/10/73 - 9/19/73
D-16814	C-13195	170	9/19/73 - 10/03/73
D-16814	C-13196	171	10/03/73 - 10/09/73
D-17591	C-14125	172	10/10/73 - 10/16/73
D-16801	C-13197	173	10/16/73 - 10/30/73
D-16800	C-13198	174	10/30/73 - 11/09/73
D-16818	C-13199	175	11/09/73 - 11/22/73
D-16819	C-13200	176	11/22/73 - 12/01/73
D-16820	C-13201	177	12/01/73 - 12/08/73
D-17592	C-14126	178	12/09/73 - 12/20/73
D-16882	C-13202	179	12/20/73 - 12/24/73
D-16883	C-13203	180	12/24/73 - 12/31/73
D-17576	C-14127	181	1/01/74 - 1/07/74
D-17575	C-14128	182	1/07/74 - 1/19/74
D-17585	C-14129	183	1/19/74 - 1/29/74
D-17586	C-14130	184	1/29/74 - 2/06/74
D-17587	C-14131	185	2/06/74 - 2/15/74
D-17572	C-14132	186	2/15/74 - 2/22/74
D-17571	C-14133	187	2/24/74 - 3/01/74
D-17584	C-14134	188	3/02/74 - 3/11/74
D-17583	C-14135	189	3/11/74 - 3/20/74
D-17582	C-14136	190	3/21/74 - 3/30/74
D-17581	C-14137	191	3/30/74 - 4/16/74
D-17580	C-14138	192	4/16/74 - 4/25/74
D-17579	C-14139	193	4/25/74 - 5/10/74
D-17578	C-14140	194	5/11/74 - 5/20/74
D-17577	C-14141	195	5/21/74 - 6/02/74
D-17593	C-14142	196	6/03/74 - 6/16/74
D-17594	C-14143	197	6/16/74 - 6/28/74
D-17590	C-14144	198	6/28/74 - 7/03/74

D#	C#	EVENT#	TIME SPAN
D-17589	C-14145	199	7/03/74 - 7/14/74
D-17588	C-14146	200	7/14/74 - 7/20/74
D-17573	C-14147	201	7/21/74 - 8/06/74
D-17574	C-14148	202	8/06/74 - 8/11/74
D-19083	C-15354	203	8/11/74 - 8/22/74
D-19082	C-15355	204	8/22/74 - 8/29/74
D-19081	C-15356	205	8/29/74 - 9/08/74
D-19088	C-15357	206	9/09/74 - 9/17/74
D-19087	C-15358	207	9/17/74 - 9/24/74
D-19166	C-15359	208	9/25/74 - 10/06/74
D-19165	C-15360	209	10/07/74 - 10/16/74
D-19164	C-15361	210	10/17/74 - 10/26/74
D-19094	C-15362	211	10/27/74 - 11/04/74
D-19095	C-15363	212	11/04/74 - 11/12/74
D-19084	C-15364	213	11/12/74 - 11/19/74
D-19090	C-15365	214	11/19/74 - 11/26/74
D-19089	C-15366	215	11/27/74 - 12/09/74
D-19086	C-15367	216	12/09/74 - 12/14/74
D-19085	C-15368	217	12/14/74 - 12/25/74
D-19093	C-15369	218	12/25/74 - 12/31/74
D-19092	C-15370	219	1/02/75 - 1/12/75
D-19091	C-15371	220	1/12/75 - 1/24/75
D-19368	C-15551	221	1/24/75 - 1/30/75
D-19367	C-15552	222	1/31/75 - 2/12/75
D-19366	C-15553	223	2/12/75 - 2/22/75
D-22095	C 17341	224	2/23/75 3/08/75

D#	C#	EVENT#	TIME SPAN
D-22096	C-17041	225	3/08/75 - 3/24/75
D-22195	C-17103	226	3/25/75 - 4/05/75
D-22196	C-17104	227	4/06/75 - 4/14/75
D-22192	C-17105	228	4/14/75 - 4/23/75
D-22193	C-17106	229	4/23/75 - 5/07/75
D-22194	C-17107	230	5/07/75 - 5/16/75
D-22191	C-17122	231	5/17/75 - 6/02/75
D-22197	C-17108	232	6/03/75 - 6/16/75
D-22455	C 17342	233	6/16/75 6/22/75
D 22456	C-17343	234	6/22/75 6/26/75
D-22652	C-17529	235	6/27/75 - 7/07/75
D-22653	C-17530	236	7/07/75 - 7/30/75
D-22654	C-17531	237	7/30/75 - 8/09/75
D-22655	C-17532	238	8/09/75 - 8/20/75
D-23018	C-17807	239	8/20/75 - 9/02/75
D-23019	C-17808	240	9/02/75 - 9/12/75
D-23020	C-17809	241	9/12/75 - 9/27/75
D-23624	C-17969	242	9/27/75 - 10/05/75
D-23625	C-17970	243	10/05/75 - 10/20/75
D-23626	C-17971	244	10/21/75 - 10/31/75
D-23627	C-17972	245	10/31/75 - 11/11/75
D-23628	C-17973	246	11/13/75 - 11/26/75
D-23629	C-17974	247	11/26/75 - 12/02/75
D-23718	C-17975	248	12/02/75 - 12/11/75
D-23717	C-17976	249	12/11/75 - 12/23/75
D-23716	C-17977	250	12/24/75 - 12/31/75

D#	C#	EVENT#	TIME SPAN
D-28106	C-18591	251	1/01/76 - 1/13/76
D-28107	C-18592	252	1/13/76 - 1/17/76
		253	
D-28108	C-18593	254	2/19/76 - 2/29/76
D-31826	C-20234	255	3/02/76 - 3/06/76
D-31934	C-20235	256	3/06/76 - 3/12/76
D-31935	C-20236	257	3/12/76 - 3/17/76
D-31936	C-20237	258	3/17/76 - 3/18/76
	NO EVENT TAPES FOR EVENT	#259	
		#260	
		#261	
		#262	
		#263	
D-31963	C-20238	264	5/24/76 - 5/28/76
D-31980	C-20239	265	5/29/76 - 6/05/76
D-31981	C-20240	266	6/05/76 - 6/09/76
D-32044	C-20362	267	6/10/76 - 6/21/76
D-32045	C-20363	268	6/21/76 - 6/25/76
D-32046	C-20364	269	6/25/76 - 7/02/76
D-32047	C-20365	270	7/02/76 - 7/10/76
D-32048	C-20366	271	7/10/76 - 7/21/76
D-32049	C-20367	272	7/21/76 - 7/28/76
D-32050	C-20368	273	7/29/76 - 7/31/76
D-32290	C-20369	274	7/31/76 - 8/10/76
D-32291	C-20370	275	8/11/76 - 8/19/76
D-32292	C-20371	276	8/19/76 - 8/26/76
D-32293	C-20372	277	8/26/76 - 8/31/76
D-32294	C-20373	278	8/31/76 - 9/11/76

D#	C#	EVENT#	TIME SPAN
D-32295	C-20374	279	9/11/76 - 9/20/76
D-32296	C-20563	280	9/20/76 - 9/23/76
D-32297	C-20564	281	9/24/76 - 10/05/76
D-32298	C-20375	282	10/05/76 - 10/08/76
	NO EVENT TAPES FOR EVENT #283		
		#284	
D-32299	C-20376	285	11/12/76 - 11/15/76
D-32300	C-20377	286	11/15/76 - 11/19/76
D-32301	C-20378	287	11/18/76 - 11/28/76
D-32302	C-20379	288	11/28/76 - 12/06/76
D-32303	C-20380	289	12/06/76 - 12/15/76
D-32928	C-20381	290	12/15/76 - 23/26/76
D-32929	C-20382	291	12/26/76 - 12/31/76
D-32892	C-20383	292	1/01/77 - 1/07/77
D-32893	C-20384	293	1/08/77 - 1/13/77
D-32894	C-20385	294	1/13/77 - 1/22/77
D-32895	C-20386	295	1/22/77 - 1/28/77
D-32896	C-20387	296	1/28/77 - 2/07/77
D-32897	C-20388	297	2/07/77 - 2/20/77
D-32898	C-20389	298	2/20/77 - 3/02/77
D-32899	C-20390	299	3/02/77 - 3/06/77
D-32900	C-20391	300	3/07/77 - 3/20/77
D-33688	C-20561	301	3/20/77 - 3/31/77
D-32946	C-20392	302	3/31/77 - 4/01/77
D-32947	C-20393	303	4/01/77 - 4/05/77
D-32948	C-20394	304	4/05/77 - 4/14/77
D-32949	C-20395	305	4/14/77 - 4/18/77
D-32950	C-20396	306	4/18/77 - 4/26/77

D#	C#	EVENT#	TIME SPAN
D-32951	C-20397	307	4/26/77 - 4/28/77
D-32952	C-20398	308	4/28/77 - 5/02/77
D-32953	C-20399	309	5/02/77 - 5/05/77
D-33689		310	5/05/77 - 5/12/77
D-33690		311	5/12/77 - 5/16/77
D-33691		312	5/17/77 - 5/22/77
D-33692		313	5/23/77 - 5/27/77
D-33693		314	5/27/77 - 6/05/77
D-33694		315	6/06/77 - 6/12/77
D-33695		316	6/12/77 - 6/15/77
D-33696		317	6/15/77 - 6/23/77
D-33697	C-20561	318	6/23/77 - 6/30/77
D-33698		319	7/03/77 - 7/11/77
D-33699		320	7/11/77 - 7/16/77
D-33700		321	7/16/77 - 7/20/77
D-33701		322	7/20/77 - 7/24/77
D-33702		323	7/24/77 - 7/29/77
D-33703		324	8/03/77 - 8/12/77
D-33704		325	8/13/77 - 8/17/77
D-33705		326	8/17/77 - 8/27/77
*D-33706		20006	5/23/75 - 1/13/76
*D-33707		20007	5/28/77 - 9/12/77
*D-33708		30002	2/13/75 - 3/08/76
D-33798	C-20597	327	8/27/77 - 9/06/77
D-33799		328	9/08/77 - 9/11/77
D-33800		329	9/11/77 - 9/16/77
D-33801		330	9/16/77 - 9/30/77

*Special Event tapes

D#	C#	EVENT#	TIME SPAN
D-57816	C-	334	02/07/71 - 04/20/72
D-57817	C-	335	04/02/72 - 06/23/73
D-57818	C-	20006*	05/22/75 - 01/13/75
D-57819	C-	30002*	02/13/75 - 03/08/76
D-57820	C-	333	08/08/76 - 05/15/77
D-57821	C-	20007*	05/28/76 - 09/13/77

*May be dublicates

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D#	C#	EVENT#	TIME SPAN
D-13709	C-10971	52	8/02/71 - 8/17/72
D-13708	C-10970	53	8/17/71 - 8/24/71
D-13710	C-10972	54	8/25/71 - 8/31/71
D-13711	C-10973	55	8/31/71 - 9/13/71
D-13661	C-10888	56	9/13/71 - 9/20/71
D-13660	C-10887	57	9/20/71 - 9/26/71
D-13659	C-10886	58	9/26/71 - 9/30/71
D-13746	C-10977	59	9/30/71 - 10/05/71
D-13747	C-10978	60	10/06/71 - 10/15/71
D-13748	C-10979	61	10/15/71 - 10/19/71
D-13852	C-10987	62	10/19/71 - 10/23/71
D-13853	C-10988	63	10/23/71 - 10/25/71
D-13854	C-10989	64	10/25/71 - 10/28/71
D-13855	C-11391	65	10/28/71 - 10/31/71
D-13856	C-10990	66	10/31/71 - 11/05/71
D-13857	C-10991	67	11/05/71 - 11/09/71
D-13858	C-10992	68	11/09/71 - 11/16/71
D-13848	C-10983	69	11/16/71 - 11/17/71
D-13847	C-10982	70	11/17/71 - 11/20/71
D-13846	C-10981	71	11/20/71 - 11/22/71
D-13845	C-10980	72	11/22/71 - 11/26/71
D-13861	C-10995	73	11/26/71 - 12/03/71
D-13860	C-10994	74	12/03/71 - 12/07/71
D-13859	C-10993	75	12/08/71 - 12/15/71
D-13849	C-10984	76	12/15/71 - 12/17/71
D-13850	C-10985	77	12/17/71 - 12/20/71
D-13851	C-10986	78	12/20/71 - 12/27/71
D-13901	C-11008	79	12/27/71 - 12/31/71

D#	C#	EVENT#	TIME SPAN
D-13902	C-11009	80	1/01/72 - 1/06/72
D-13903	C-11010	81	1/07/72 - 1/13/72
D-13904	C-11011	82	1/13/72 - 1/20/72
D-13893	C-11000	83	1/20/72 - 1/31/72
D-13894	C-11001	84	1/31/72 - 2/10/72
D-13895	C-11002	85	2/10/72 - 2/21/72
D-13898	C-11005	86	2/21/72 - 3/06/72
D-14114	C-11166	87	3/07/72 - 3/15/72
D-14115	C-11167	88	3/15/72 - 3/23/72
D-13892	C-10999	89	3/23/72 - 4/04/72
D-13891	C-10998	90	4/04/72 - 4/12/72
D-13890	C-10997	91	4/12/72 - 4/18/72
D-13889	C-10996	92	4/18/72 - 4/27/72
D-13897	C-11004	93	4/27/72 - 4/30/72
D-13714	C-10976	94	4/30/72 - 5/05/72
D-13713	C-10975	95	5/05/72 - 5/09/72
D-13712	C-10974	96	5/09/72 - 5/13/72
D-13896	C-11003	97	5/13/72 - 5/14/72
D-13900	C-11007	98	5/14/72 - 5/16/72
D-13899	C-11006	99	5/16/72 - 5/19/72
D-13573	C-10330	100	5/19/72 - 5/25/72
D-13572	C-10329	101	5/25/72 - 5/29/72
D-13578	C-11392	102	5/29/72 - 6/03/72
D-13577	C-10334	103	6/03/72 - 6/06/72
D-13576	C-10333	104	6/06/72 - 6/09/72
D-13567	C-10324	105	6/09/72 - 6/12/72
D-13568	C-10325	106	6/12/72 - 6/16/72
D-13569	C-10326	107	6/16/72 - 6/23/72
D-13570	C-10327	108	6/23/72 - 6/25/72
D-13571	C-10328	109	6/20/72 - 6/28/72

D#	C#	EVENT#	TIME SPAN
D-13580	C-11030	110	6/28/72 - 7/04/72
D-13579	C-10335	111	7/04/72 - 7/08/72
D-13583	C-10338	112	7/08/72 - 7/11/72
D-13582	C-10339	113	7/11/72 - 7/18/72
D-13581	C-10336	114	7/18/72 - 7/21/72
D-13575	C-10332	115	7/21/72 - 7/25/72
D-13574	C-10331	116	7/25/72 - 8/04/72
D-14111	C-11168	117	8/04/72 - 8/11/72
D-14112	C-11169	118	8/11/72 - 8/15/72
D-14113	C-11170	119	8/16/72 - 8/18/72
D-14109	C-11171	120	8/18/72 - 8/22/72
D-14110	C-11172	121	8/22/72 - 8/26/72
D-14116	C-11173	122	8/27/72 - 9/06/72
D-14117	C-11174	123	9/06/72 - 9/16/72
D-14118	C-11175	124	9/16/72 - 9/23/72
D-14244	C-11393	125	9/23/72 - 9/30/72
D-15905	C-12087	126	9/30/72 - 10/14/72
D-15906	C-12088	127	10/15/72 - 10/21/72
D-14245	C-11394	128	10/21/72 - 10/26/72
D-15907	C-12089	129	10/26/72 - 11/05/72
D-15910	C-12090	130	11/05/72 - 11/09/72
D-15911	C-12091	131	11/09/72 - 11/13/72
D-15775	C-12092	132	11/13/72 - 11/17/72
D-15776	C-12093	133	11/17/72 - 11/25/72
D-15774	C-12094	134	11/25/72 - 12/05/72
D-15773	C-12095	135	12/05/72 - 12/09/72
D-15909	C-12096	136	12/09/72 - 12/14/72

D#	C#	EVENT#	TIME SPAN
D-15908	C-12097	137	12/14/72 - 12/21/72
D-16124	C-12203	138	12/21/72 - 12/31/72
D-16125	C-12204	139	1/01/73 - 1/05/73
D-16122	C-12205	140	1/05/73 - 1/12/73
D-16192	C-12729	141	1/12/73 - 1/21/73
D-16193	C-12730	142	1/22/73 - 2/01/73
D-16194	C-12731	143	2/01/73 - 2/10/73
D-16195	C-12732	144	2/10/73 - 2/17/73
D-16196	C-12733	145	2/17/73 - 3/08/73
D-16630	C-12734	146	3/09/73 - 3/20/73
D-16629	C-12735	147	3/20/73 - 3/27/73
D-17616	C-14204	148	3/27/73 - 4/03/73
D-16829	C-13265	149	4/03/73 - 4/13/73
D-17615	C-14205	150	4/13/73 - 4/28/73
D-16837	C-13266	151	4/28/73 - 5/03/73
D-16828	C-13267	152	5/03/73 - 5/19/73
D-16827	C-13268	153	5/19/73 - 5/28/73
D-16741	C-13269	154	5/28/73 - 6/02/73
D-16842	C-13270	155	6/02/73 - 6/14/73
D-16843	C-13271	156	6/14/73 - 6/25/73
D-16834	C-13272	157	6/25/73 - 6/28/73
D-17617	C-14206	158	6/28/73 - 7/03/73
D-16850	C-13273	159	7/03/73 - 7/10/73
D-16849	C-13274	160	7/10/73 - 7/18/73
D-16848	C-13275	161	7/19/73 - 7/24/73
D-16836	C-13276	162	7/24/73 - 7/30/73
D-16835	C-13277	163	7/30/72 - 8/02/73
D-16830	C-13278	164	8/02/73 - 8/09/73
D-16831	C-13279	165	8/09/73 - 8/16/73
D-16832	C-13280	166	8/16/73 - 8/29/73
D-16847	C-13281	167	8/29/73 - 9/02/73

D#	C#	EVENT#	TIME SPAN
D-16833	C-13282	168	9/02/73 - 9/10/73
D-16840	C-13283	169	9/10/73 - 9/19/73
D-16839	C-13284	170	9/19/73 - 10/03/73
D-16838	C-13285	171	10/03/73 - 10/09/73
D-16826	C-13286	172	10/01/73 - 10/16/73
D-16825	C-13287	173	10/16/73 - 10/30/73
D-16824	C-13288	174	10/30/73 - 11/09/73
D-16844	C-13289	175	11/09/73 - 11/22/73
D-16845	C-13290	176	11/22/73 - 12/01/73
D-16846	C-13291	177	12/01/73 - 12/08/73
D-16884	C-13292	178	12/09/73 - 12/20/73
D-17603	C-14207	179	12/20/73 - 12/24/73
D-16885	C-13293	180	12/24/73 - 12/31/73
D-17602	C-14208	181	1/01/74 - 1/07/74
D-17601	C-14209	182	1/07/74 - 1/19/74
D-17611	C-14210	183	1/19/70 - 1/29/74
D-17612	C-14211	184	1/29/74 - 2/06/74
D-17597	C-14212	185	2/06/74 - 2/15/74
D-17596	C-14213	186	2/15/74 - 2/22/74
D-17595	C-14214	187	2/24/74 - 3/01/74
D-17610	C-14215	188	3/02/74 - 3/11/74
D-17609	C-14216	189	3/11/74 - 3/20/74
D-17608	C-14217	190	3/21/74 - 3/30/74
D-17607	C-14218	191	3/30/74 - 4/16/74
D-17606	C-14219	192	4/16/74 - 4/25/74
D-17605	C-14220	193	4/26/74 - 5/11/74
D-17604	C-14221	194	5/11/74 - 5/20/74
D-17618	C-14222	195	5/21/74 - 6/02/74
D-17619	C-14223	196	6/03/74 - 6/16/74

D#	C#	EVENT#	TIME SPAN
D-17620	C-14224	197	6/16/74 - 6/28/74
D-17614	C-14225	198	6/28/74 - 7/03/74
D-17613	C-14226	199	7/03/74 - 7/14/74
D-17598	C-14227	200	7/14/74 - 7/20/74
D-17599	C-14228	201	7/21/74 - 8/06/74
D-17600	C-14229	202	8/06/74 - 8/11/74
D-19098	C-15372	203	8/11/74 - 8/22/74
D-19097	C-15373	204	8/22/74 - 8/29/74
D-19103	C-15374	205	8/29/74 - 9/08/74
D-19102	C-15375	206	9/09/74 - 9/17/74
D-19101	C-15376	207	9/17/74 - 9/24/74
D-19167	C-15377	208	9/25/74 - 10/06/74
D-19168	C-15378	209	10/07/74 - 10/16/74
D-19109	C-15379	210	10/17/74 - 10/26/74
D-19110	C-15380	211	10/27/74 - 10/04/74
D-19111	C-15381	212	11/04/74 - 11/12/74
D-19096	C-15382	213	11/12/74 - 11/19/74
D-19105	C-15383	214	11/19/74 - 11/26/74
D-19104	C-15384	215	11/27/74 - 12/09/74
D-19100	C-15385	216	12/09/74 - 12/14/74
D-19099	C-15386	217	12/14/74 - 12/25/74
D-19108	C-15387	218	12/25/74 - 12/31/74
D-19107	C-15388	219	1/02/75 - 1/12/75
D-19106	C-15389	220	1/12/75 - 1/24/75
D-19370	C-15554	221	1/24/75 - 1/30/75
D-19369	C-15555	222	1/31/75 - 2/12/75

D#	C#	EVENT#	TIME SPAN
D-22097	C-17042	223	2/12/75 - 2/22/75
D-22098	C-17043	224	2/23/75 - 3/08/75
D-22099	C-17044	225	3/08/75 - 3/24/75
D-22201	C-17109	226	3/25/75 - 4/05/75
D-22202	C-17110	227	4/06/75 - 4/14/75
D-22198	C-17533	228	4/14/75 - 4/23/75
D-22199	C-17111	229	4/23/75 - 5/07/75
D-22200	C-17112	230	5/07/75 - 5/16/75
D-22203	C-17113	231	5/17/75 - 6/02/75
D-22204	C-17114	232	6/03/75 - 6/16/75
D-22457	C 17344	233	6/16/75 - 6/22/75
D-22458	C 17345	234	6/22/75 - 6/26/75
D-22656	C-17978	235	6/27/75 - 7/07/75
D-22657	C-18599	236	7/07/75 - 7/30/75
D-22658	C-17535	237	7/30/75 - 8/09/75
D-22659	C-17536	238	8/09/75 - 8/20/75
D-23021	C-17810	239	8/20/75 - 9/02/75
D-23022	C-17811	240	9/02/75 - 9/12/75
D-23023	C-17812	241	9/12/75 - 9/27/75
D-23630	C-18598	242	9/27/75 - 10/04/75
D-23631	C-17979	243	10/05/75 - 10/20/75
D-23632	C-17980	244	10/21/75 - 10/31/75
D-23633	C-17981	245	10/31/75 - 11/11/75
D-23634	C-17982	246	11/13/75 - 11/26/75
D-23635	C-17983	247	11/26/75 - 12/02/75
D-23721	C-17984	248	12/02/75 - 12/11/75
D-23720	C-17985	249	12/11/75 - 12/23/75
D-23719	C-17986	250	12/24/75 - 12/31/75

D#	C#	EVENT#	TIME SPAN
D-28109	C-18594	251	1/01/76 - 1/13/76
D-28110	C-18595	252	1/13/76 - 2/04/76
D-28112	C-18597	253	2/04/76 - 2/16/76
D-28111	C-18596	254	2/16/76 - 2/29/76
D-31827	C-20241	255	3/02/76 - 3/06/76
D-31937	C-20242	256	3/06/76 - 3/12/76
D-31938	C-20243	257	3/12/76 - 3/17/76
D-31964	C-20244	258	3/17/76 - 4/01/76
D-31965	C-20245	259	4/01/76 - 4/12/76
D-31966	C-20246	260	4/12/76 - 4/24/76
D-31967	C-20247	261	4/24/76 - 5/02/76
D-31968	C-20248	262	5/02/76 - 5/12/76
D-31969	C-20249	263	5/12/76 - 5/24/76
D-31970	C-20250	264	5/24/76 - 5/28/76
D-31982	C-20251	265	5/29/76 - 6/05/76
D-31983	C-20252	266	6/05/76 - 6/10/76
D-32051	C-20408	267	6/10/76 - 6/21/76
D-32052	C-20409	268	6/21/76 - 6/25/76
D-32053	C-20410	269	6/25/76 - 7/02/76
D-32054	C-20411	270	7/02/76 - 7/10/76
D-32055	C-20412	271	7/10/76 - 7/21/76
D-32056	C-20413	272	7/21/76 - 7/28/76
D-32057	C-20414	273	7/28/76 - 7/31/76
D-32304	C-20415	274	7/31/76 - 8/10/76
D-32305	C-20416	275	8/11/76 - 8/19/76
D-32306	C-20417	276	8/19/76 - 8/26/76
D-32307	C-20418	277	8/26/76 - 8/31/76
D-32308	C-20419	278	8/31/76 - 9/11/76

D#	C#	EVENT#	TIME SPAN
D-32309	C-20420	279	9/11/76 - 9/20/76
D-32310	C-20421	280	9/20/76 - 9/23/76
D-32311	C-20422	281	9/24/76 - 10/05/76
D-32312	C-20423	282	10/05/76 - 10/18/76
D-32313	C-20424	283	10/19/76 - 10/22/76
D-32314	C-20425	284	10/23/76 - 11/03/76
D-32315	C-20426	285	11/04/76 - 11/15/76
D-32316	C-20427	286	11/15/76 - 11/19/76
D-32317	C-20428	287	11/19/76 - 11/28/76
D-32318	C-20429	288	11/28/76 - 12/06/76
D-32930	C-20430	289	12/06/76 - 12/15/76
D-32931	C-20431	290	12/15/76 - 12/26/76
D-32932	C-20432	291	12/26/76 - 12/31/76
D-32901	C-20433	292	1/01/77 - 1/07/77
D-32902	C-20434	293	1/08/77 - 1/13/77
D-32903	C-20435	294	1/13/77 - 1/22/77
D-32904	C-20436	295	1/22/77 - 1/28/77
D-32905	C-20437	296	1/28/77 - 2/07/77
D-32906	C-20438	297	2/07/77 - 2/20/77
D-32907	C-20439	298	2/20/77 - 3/02/77
D-32908	C-20440	299	3/02/77 - 3/06/77
D-32909	C-20441	300	3/07/77 - 3/20/77
D-32910	C-20442	301	3/20/77 - 3/31/77
D-32954	C-20443	302	3/31/77 - 4/01/77
D-32955	C-20444	303	4/01/77 - 4/05/77
D-32956	C-20445	304	4/05/77 - 4/14/77
D-32957	C-20446	305	4/14/77 - 4/18/77
D-32958	C-20447	306	4/18/77 - 4/26/77

D#	C#	EVENT#	TIME SPAN
D-32959	C-20448	307	4/26/77 - 4/28/77
D-32960	C-20449	308	4/28/77 - 5/02/77
D-33709	C-20565	309	5/02/77 - 5/05/77
D-33710		310	5/05/77 - 5/12/77
D-33711		311	5/12/77 - 5/16/77
D-33712		312	5/17/77 - 5/22/77
D-33713		313	5/23/77 - 5/27/77
D-33714		314	5/27/77 - 6/05/77
D-33715		315	6/06/77 - 6/12/77
D-33716		316	6/12/77 - 6/12/77
D-33717		317	6/15/77 - 6/23/77
D-33718		318	6/23/77 - 6/30/77
D-33719		319	7/03/77 - 7/11/77
D-33720		320	7/11/77 - 7/16/77
D-33721		321	7/16/77 - 7/20/77
D-33722		322	7/20/77 - 7/24/77
D-33723		323	7/24/77 - 8/02/77
D-33724		324	8/02/77 - 8/13/77
D-33725		325	8/13/77 - 8/17/77
D-33726		326	8/17/77 - 8/27/77
*D-33727		20006	5/23/75 - 5/16/76
*D-33728		20007	5/28/77 - 9/12/77
*D-33729		30002	2/13/75 - 5/16/76
D-33802	C-20598	327	8/27/77 - 9/06/77
D-33803		328	9/08/77 - 9/11/77
D-33804		329	9/11/77 - 9/16/77
D-33805		330	9/16/77 - 9/30/77

*Special event tapes

D#	C#	EVENT#	TIME SPAN
D-57822	C-	334	08/03/71 - 11/11/76
D-57823	C-	335	11/11/72 - 06/23/73
D-57824	C-	30002*	02/13/75 - 05/16/76
D-57825	C-	20006*	05/23/75 - 05/16/76
D-57826	C-	333	08/08/76 - 05/15/77
D-57827	C-	20007*	05/28/76 - 09/13/77

*May be dublicates

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D#	C#	EVENT#	TIME SPAN
D-13905	C-11012	92	4/21/72 - 4/27/72
D-13909	C-11016	93	4/27/72 - 4/30/72
D-13908	C-11015	94	4/30/72 - 5/05/72
D-13907	C-11014	95	5/05/72 - 5/09/72
D-13906	C-11013	96	5/09/72 - 5/12/72
D-14124	C-11176	97	5/12/72 - 5/14/72
D-13911	C-11018	98	5/14/72 - 5/16/72
D-13910	C-11017	99	5/16/72 - 5/19/72
D-13538	C-11395	100	5/19/72 - 5/25/72
D-13537	C-10343	101	5/26/72 - 5/29/72
D-13543	C-10348	102	5/29/72 - 6/03/72
D-13542	C-10347	103	6/03/72 - 6/06/72
D-13541	C-10346	104	6/06/72 - 6/09/72
D-13532	C-11026	105	6/09/72 - 6/12/72
D-13533	C-10339	106	6/12/72 - 6/16/72
D-13534	C-10340	107	6/16/72 - 6/23/72
D-13535	C-10341	108	6/23/72 - 6/25/72
D-13536	C-10342	109	6/26/72 - 6/28/72
D-13544	C-10349	110	6/28/72 - 7/04/72
D-13548	C-10353	111	7/04/72 - 7/08/72
D-13547	C-10352	112	7/08/72 - 7/11/72
D-13546	C-10351	113	7/11/72 - 7/18/72
D-13545	C-10350	114	7/18/72 - 7/20/72
D-13540	C-10345	115	7/21/72 - 7/25/72
D-13539	C-10344	116	7/25/72 - 8/04/72
D-14121	C-11177	117	8/04/72 - 8/11/72
D-14122	C-11178	118	8/11/72 - 8/15/72
D-13123	C-11179	119	8/16/72 - 8/18/72

D#	C#	EVENT#	TIME SPAN
D-14119	C-11180	120	8/18/72 - 8/22/72
D-14120	C-11181	121	8/22/72 - 8/26/72
D-14125	C-11182	122	8/27/72 - 9/06/72
D-14126	C-11183	123	9/06/72 - 9/16/72
D-14127	C-11184	124	9/16/72 - 9/23/72
D-14246	C-11396	125	9/23/72 - 9/30/72
D-15912	C-12098	126	9/30/72 - 10/14/72
D-15913	C-12099	127	10/15/72 - 10/21/72
D-14247	C-11397	128	10/21/72 - 10/26/72
D-15914	C-12100	129	10/26/72 - 11/05/72
D-15918	C-12101	130	11/05/72 - 11/09/72
D-15919	C-12102	131	11/09/72 - 11/13/72
D-15778	C-12103	132	11/13/72 - 11/17/72
D-15779	C-12104	133	11/17/72 - 11/25/72
D-15777	C-12105	134	11/25/72 - 12/05/72
D-15917	C-12106	135	12/05/72 - 12/09/72
D-15916	C-12107	136	12/09/72 - 12/14/72
D-15915	C-12108	137	12/14/72 - 12/21/72
D-16126	C-12206	138	12/21/72 - 12/31/72
D-16125	C-12207	139	1/01/73 - 1/05/73
D-16127	C-12208	140	1/05/73 - 1/12/73
D-16197	C-12736	141	1/12/73 - 1/21/73
D-16198	C-12737	142	1/22/73 - 2/01/73
D-16199	C-12738	143	2/01/73 - 2/10/73
D-16200	C-12739	144	2/10/73 - 2/17/73
D-16201	C-12740	145	2/17/73 - 3/08/73
D-16632	C-12741	146	3/09/73 - 3/20/73
D-16631	C-12742	147	3/20/73 - 3/27/73
D-17640	C-14230	148	3/27/73 - 4/03/73

D#	C#	EVENT#	TIME SPAN
D-16866	C-13403	149	4/03/73 - 4/13/73
D-16867	C-13404	150	4/13/73 - 4/28/73
D-16865	C-13405	151	4/28/73 - 5/03/73
D-16852	C-13406	152	5/03/73 - 5/19/73
D-16851	C-13407	153	5/19/73 - 5/28/73
D-16871	C-13408	154	5/28/73 - 6/02/73
D-16872	C-13409	155	6/02/73 - 6/14/73
D-16863	C-13410	156	6/14/73 - 6/25/73
D-16862	C-13411	157	6/25/73 - 6/28/73
D-16861	C-13412	158	6/28/73 - 7/03/73
D-16877	C-13413	159	7/03/73 - 7/10/73
D-16876	C-13414	160	7/10/73 - 7/18/73
D-16878	C-13415	161	7/19/73 - 7/24/73
D-16853	C-13416	162	7/24/73 - 7/30/73
D-16864	C-13417	163	7/30/73 - 8/02/73
D-16857	C-13418	164	8/02/73 - 8/09/73
D-16858	C-13419	165	8/09/73 - 8/16/73
D-16859	C-13420	166	8/16/73 - 8/29/73
D-16875	C-13421	167	8/29/73 - 9/02/73
D-16860	C-13422	168	9/02/73 - 9/10/73
D-16870	C-13423	169	9/10/73 - 9/19/73
D-16869	C-13424	170	9/19/73 - 10/03/73
D-16868	C-13425	171	10/03/73 - 10/09/73
D-16856	C-13426	172	10/10/73 - 10/16/73
D-16855	C-13427	173	10/16/73 - 10/30/73
D-16854	C-13428	174	10/30/73 - 11/09/73
D-16873	C-13429	175	11/09/73 - 11/22/73
D-16874	C-13430	176	11/22/73 - 12/01/73

D#	C#	EVENT#	TIME SPAN
D-16886	C-13431	177	12/01/73 - 12/08/73
D-16887	C-13432	178	12/09/73 - 12/20/73
D-16888	C-13433	179	12/20/73 - 12/24/73
D-16889	C-13434	180	12/24/73 - 12/31/73
D-17628	C-14231	181	1/01/74 - 1/07/74
D-17627	C-14232	182	1/07/74 - 1/19/74
D-17636	C-14233	183	1/19/74 - 1/29/74
D-17637	C-14234	184	1/29/74 - 2/06/74
D-17623	C-14235	185	2/06/74 - 2/15/74
D-17622	C-14236	186	2/15/74 - 2/22/74
D-17621	C-14237	187	2/24/74 - 3/01/74
D-17635	C-14238	188	3/02/74 - 3/11/74
D-17634	C-14239	189	3/11/74 - 3/20/74
D-17633	C-14240	190	3/21/74 - 3/30/74
D-17632	C-14241	191	3/30/74 - 4/16/74
D-17631	C-14242	192	4/16/74 - 4/25/74
D-17630	C-14243	193	4/25/74 - 5/10/74
D-17629	C-14244	194	5/11/74 - 5/20/74
D-17641	C-14245	195	5/21/74 - 6/02/74
D-17642	C-14246	196	6/03/74 - 6/16/74
D-17643	C-14247	197	6/16/74 - 6/28/74
D-17639	C-14248	198	6/28/74 - 7/03/74
D-17638	C-14249	199	7/03/74 - 7/14/74
D-17624	C-14250	200	7/14/74 - 7/20/74
D-17625	C-14251	201	7/21/74 - 8/06/74
D-17626	C-14252	202	8/06/74 - 8/11/74

D#	C#	EVENT#	TIME SPAN
D-19112	C-15390	203	8/11/74 - 8/22/74
D-19122	C-15391	204	8/22/74 - 8/29/74
D-19120	C-15392	205	8/29/74 - 9/08/74
D-19119	C-15393	206	9/09/74 - 9/17/74
D-19118	C-15394	207	9/17/74 - 9/24/74
D-19170	C-15395	208	9/25/74 - 10/06/74
D-19169	C-15396	209	10/07/74 - 10/16/74
D-19125	C-15397	210	10/17/74 - 10/26/74
D-19126	C-15398	211	10/27/74 - 11/04/74
D-19127	C-15399	212	11/04/74 - 11/12/74
D-19121	C-15400	213	11/12/74 - 11/19/74
D-19114	C-15401	214	11/19/74 - 11/26/74
D-19117	C-15402	215	11/27/74 - 12/09/74
D-19116	C-15403	216	12/09/74 - 12/14/74
D-19115	C-15404	217	12/14/74 - 12/25/74
D-19124	C-15405	218	12/25/74 - 12/31/74
D-19123	C-15406	219	1/02/75 - 1/12/75
D-19113	C-15407	220	1/12/75 - 1/24/75
D-19372	C-15556	221	1/24/75 - 1/30/75
D-19371	C-15557	222	1/31/75 - 2/12/75
D-22100	C 17346	223	2/12/75 - 2/22/75
D-22101	C-17045	224	2/23/75 - 3/08/75
D-22102	C-17046	225	3/08/75 - 3/24/75
D-22206	C-17115	226	3/25/75 - 4/05/75
D-22208	C-17116	227	4/06/75 - 4/14/75
D-22205	C-17117	228	4/14/75 - 4/23/75
D-22211	C-17118	229	4/23/75 - 5/07/75
D-22207	C-17119	230	5/07/75 - 5/16/75
D-22210	C-17120	231	5/17/75 - 6/02/75

D#	C#	EVENT#	TIME SPAN
D-22459	C 17347	233	6/16/75 - 6/22/75
D-22460	C-17348	234	6/22/75 - 6/26/75
D-22660	C-17538	235	6/27/75 - 7/07/75
D-22661	C-17539	236	7/07/75 - 7/30/75
D-22662	C-17540	237	7/30/75 - 8/09/75
D-22663	C-17541	238	8/09/75 - 8/20/75
D-23024	C-17813	239	8/20/75 - 9/02/75
D-23025	C-17814	240	9/02/75 - 9/12/75
D-23026	C-17815	241	9/12/75 - 9/27/75
D-23636	C-17987	242	9/27/75 - 10/05/75
D-23637	C-17988	243	10/05/75 - 10/20/75
D-23638	C-17989	244	10/21/75 - 10/31/75
D-23639	C-17990	245	10/31/75 - 11/11/75
D-23640	C-17991	246	11/13/75 - 11/26/75
D-23641	C-17992	247	11/26/75 - 12/02/75
D-23724	C-17993	248	12/02/75 - 12/11/75
D-23723	C-17994	249	12/11/75 - 12/23/75
D-23722	C-17995	250	12/24/75 - 12/31/75
		251	
D-28114	C-18601	252	1/13/76 - 2/04/76
D-28115	C-18602	253	2/04/76 - 2/16/76
D-28116	C-18600	254	2/16/76 - 2/29/76
D-31828	C-20137	255	3/01/76 - 3/05/76
D-31939	C-20138	256	3/05/76 - 3/11/76
D-31940	C-20139	257	3/11/76 - 3/16/76
D-31971	C-20140	258	3/16/76 - 3/31/76
D-31972	C-20141	259	3/31/76 - 4/11/76
D-31973	C-20142	260	4/11/76 - 4/23/76

D#	C#	EVENT#	TIME SPAN
D-31974	C-20143	261	4/23/76 - 5/01/76
D-31975	C-20144	262	5/01/76 - 5/11/76
D-31976	C-20145	263	5/11/76 - 5/23/76
D-31984	C-20146	264	4/23/76 - 5/27/76
D-31985	C-20147	265	5/28/76 - 6/04/76
D-31986	C-20569	266	6/04/76 - 6/10/76
D-32058	C-20315	267	6/12/76 - 6/23/76
D-32059	C-20316	268	6/23/76 - 6/27/76
D-32060	C-20570	269	6/25/76 - 7/02/76
D-32061	C-20317	270	7/01/76 - 7/12/76
D-32062	C-20318	271	7/12/76 - 7/23/76
D-32063	C-20319	272	7/23/76 - 7/30/76
D-32064	C-20320	273	7/31/76 - 8/02/76
D-32319	C-20321	274	8/02/76 - 8/12/76
D-32320	C-20322	275	8/13/76 - 8/21/76
D-32321	C-20323	276	8/21/76 - 8/28/76
D-32322	C-20324	277	8/28/76 - 9/02/76
D-32323	C-20325	278	9/02/76 - 9/13/76
D-32324	C-20326	279	9/13/76 - 9/22/76
D-32325	C-20327	280	9/22/76 - 9/25/76
D-32326	C-20328	281	9/26/76 - 10/07/76
D-32327	C-20329	282	10/07/76 - 10/20/76
D-32328	C-20330	283	10/21/76 - 10/24/76
D-32329	C-20331	284	10/25/76 - 11/06/76
D-32330	C-20332	285	11/06/76 - 11/17/76
D-32331	C-20333	286	11/17/76 - 11/21/76
D-32332	C-20334	287	11/21/76 - 11/30/76
D-32333	C-20335	288	11/30/76 - 12/08/76
D-32933	C-20336	289	12/08/76 - 12/17/76

D#	C#	EVENT#	TIME SPAN
D-32934	C-20337	290	12/17/76 - 12/28/76
D-32935	C-20338	291	12/28/76 - 12/31/76
D-32911	C-20339	292	1/01/77 - 1/07/77
D-32912	C-20340	293	1/08/77 - 1/13/77
D-32913	C-20341	294	1/13/77 - 1/22/77
D-32914	C-20342	295	1/22/77 - 1/28/77
D-32915	C-20343	296	1/28/77 - 2/07/77
D-32916	C-20344	297	2/07/77 - 2/20/77
D-32917	C-20345	298	2/20/77 - 3/02/77
D-32918	C-20346	299	3/02/77 - 3/06/77
D-32919	C-20347	300	3/07/77 - 3/20/77
D-32920	C-20348	301	3/20/77 - 3/31/77
D-32961	C-20353	302	3/31/77 - 4/01/77
D-32962	C-20354	303	4/01/77 - 4/05/77
D-32963	C-20355	304	4/05/77 - 4/14/77
D-32964	C-20356	305	4/14/77 - 4/18/77
D-32965	C-20357	306	4/18/77 - 4/26/77
D-32966	C-20358	307	4/26/77 - 4/28/77
D-32967	C-20359	308	4/28/77 - 5/02/77
D-33730	C-20567	309	5/02/77 - 5/05/77
D-33731		310	5/05/77 - 5/12/77
D-33732		311	5/12/77 - 5/16/77
D-33733		312	5/17/77 - 5/22/77
D-33734		313	5/23/77 - 5/27/77
D-33735		314	5/27/77 - 6/05/77
D-33736		315	6/06/77 - 6/12/77
D-33737		316	6/12/77 - 6/15/77
D-33738		317	6/15/77 - 6/23/77
D-33739		318	6/23/77 - 6/30/77

D#	C#	EVENT#	TIME SPAN
D-33740	C-20568	319	7/03/77 - 7/11/77
D-33741		320	7/11/77 - 7/16/77
D-33742		321	7/16/77 - 7/20/77
D-33743		322	7/20/77 - 7/24/77
D-33744		323	7/24/77 - 8/02/77
D-33745		324	8/02/77 - 8/13/77
D-33746		325	8/13/77 - 8/17/77
D-33747		326	8/17/77 - 8/27/77
*D-33748		20006	5/23/75 - 5/16/76
*D-33749		20007	5/28/77 - 9/12/77
*D-33750		30002	2/13/75 - 5/16/76
D-33806	C-20599	327	8/27/77 - 9/06/77
D-33807		328	9/08/77 - 9/11/77
D-33808		329	9/11/77 - 9/16/77
D-33809		330	9/16/77 - 9/30/77
D-39825	C-	331	5/02/72 - 6/24/73
D-39826	C-	332	7/10/73 6/23/75

*Special event tapes

D#	C#	EVENT#	TIME SPAN
D-57828	C-	30002*	02/13/75 - 05/16/76
D-57829	C-	20006*	05/21/75 - 05/16/76
D-57830	C-	333	08/08/76 - 05/15/77
D-57831	C-	20007*	05/28/76 - 09/13/77

*May be dublicates

P/O in back of Catalog

APOLLO 12

PASSIVE SEISMIC EVENT

69-099C-03A

HEADER RECORD FORMAT

WORD	DESCRIPTION	TYPE
1	Experiment Identification (PS EXP)	BCD
2	ALSEP Number (ALSEPX)	BCD
3	Mission Identification (A/Sxxx)	BCD
4	Spare	BCD

APOLLO 12
69-099C-03A
PASSIVE SEISMIC EVENT
DATA RECORD FORMAT

WORD 1

1-36
ELAPSED TIME, MSEC

WORD 2

1-4	5-10	11	12	13-22	23-24	25-36
STATION ID	BIT ERROR RATE	DATA RATE	BLANK	MAGNETO-METER DATA	0	SPARE

WORD 3

1-10	11-12	13-22	23-24	25-34	35-36
CONTROL WORD	0	CONTROL WORD	0	CONTROL WORD	0

WORD 4

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 5

1-10	11-12	13-22	23-24	25-34	35-36
LONG PERIOD SEISMIC (X)	0	SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (Y)	0

WORD 6

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 7

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 8

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (X)	0

WORD 9

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (Y)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 10

1-10	11-12	13-22	23-24	25-34	35-36
LONG PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 11

1-10	11-12	13-22	23-24	25-34	35-36
HOUSE-KEEPING DATA	0	SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD TOTAL	0

WORD 12

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	SENSOR UNIT TEMPER-ATURE	0	SHORT PERIOD SEISMIC (Z)	0

WORD 13

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (X)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 14

1-10	11-12	13-22	23-24	25-34	35-36
LONG PERIOD SEISMIC (Y)	0	SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (Z)	0

WORD 15

1-10	11-12	13-22	23-24	25-34	35-36
COMMAND VERIFI-CATION	0	SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 16

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (X)	0

WORD 17

1-10	11-12	13-22	23-24	25-34	35-36
SHORT PERIOD SEISMIC (Z)	0	LONG PERIOD SEISMIC (Y)	0	SHORT PERIOD SEISMIC (Z)	0

WORD 18

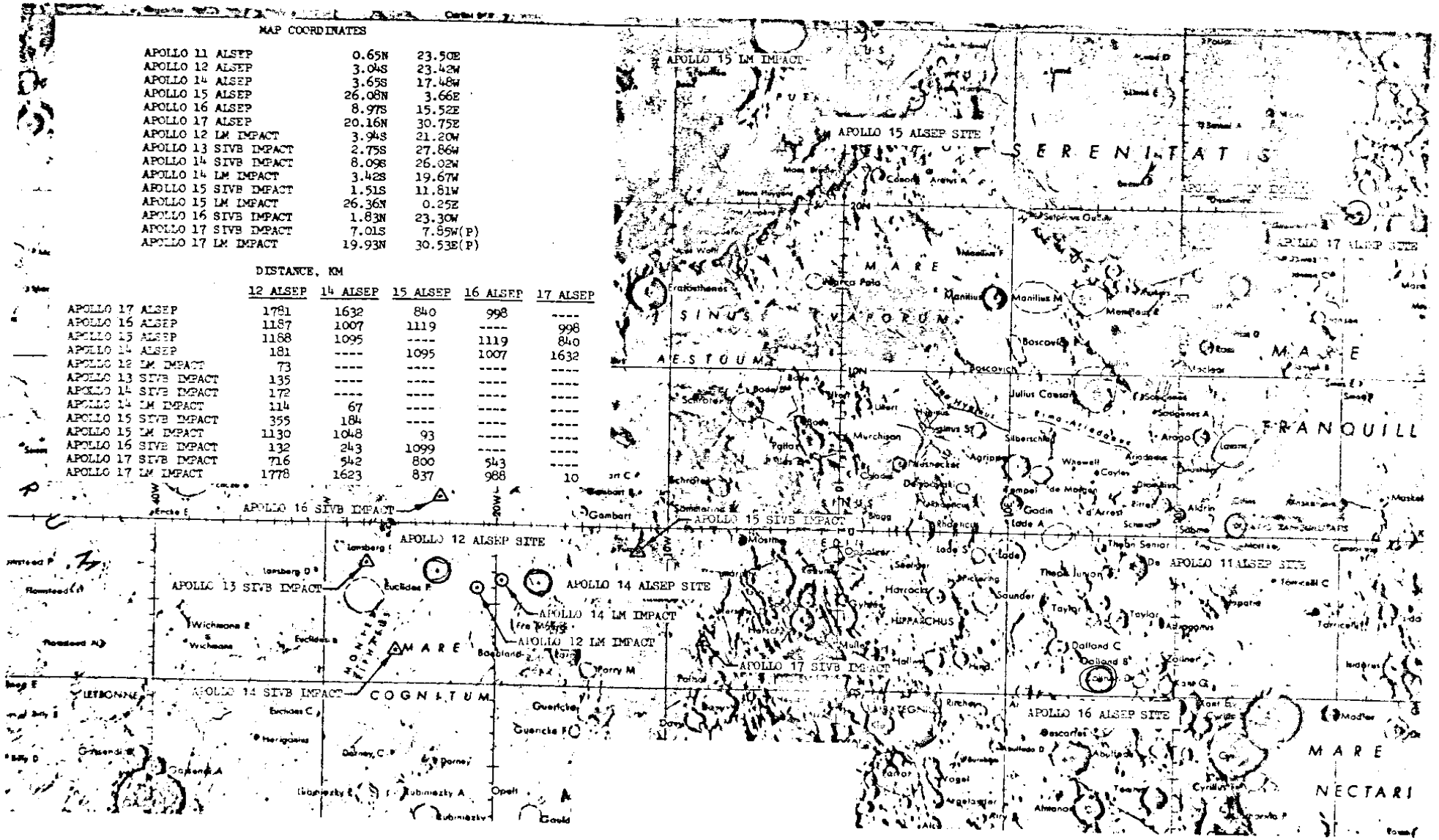
1-10	11-12	13-22	23-24	25-34	35-36
LONG PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0	SHORT PERIOD SEISMIC (Z)	0

PASSIVE SEISMIC EXPERIMENT

NASA EXPERIMENT NO. S-031

NSSDC IDENTIFICATION NO. APOLLO 12 69-099C-03
APOLLO 14 71-008C-04
APOLLO 16 72-031C-01

Apollo 15 71-063C-01


MAP COORDINATES
APOLLO 11 ALSEP 0.65N 23.50E
APOLLO 12 ALSEP 3.04S 23.42W
APOLLO 14 ALSEP 3.65S 17.48W
APOLLO 15 ALSEP 26.08N 3.66E
APOLLO 16 ALSEP 8.97S 15.52E
APOLLO 17 ALSEP 20.16N 30.75E
APOLLO 12 LM IMPACT 3.94S 21.20W
APOLLO 13 SIVB IMPACT 2.75S 27.86W
APOLLO 14 SIVB IMPACT 8.09S 26.02W
APOLLO 14 LM IMPACT 3.42S 19.67W
APOLLO 15 SIVB IMPACT 1.51S 11.81W
APOLLO 15 LM IMPACT 26.36N 0.25E
APOLLO 16 SIVB IMPACT 1.83N 23.30W
APOLLO 17 SIVB IMPACT 7.01S 7.85W(P)
APOLLO 17 LM IMPACT 19.93N 30.53E(P)
DISTANCE, KM
12 ALSEP 14 ALSEP 15 ALSEP 16 ALSEP 17 ALSEP
APOLLO 17 ALSEP 1781 1632 840 998 ----
APOLLO 16 ALSEP 1187 1007 1119 ---- 998
APOLLO 15 ALSEP 1168 1095 ---- 1119 840
APOLLO 14 ALSEP 181 ---- 1095 1007 1632
APOLLO 12 LM IMPACT 73 ---- ---- ---- ----
APOLLO 13 SIVB IMPACT 135 ---- ---- ---- ----
APOLLO 14 SIVB IMPACT 172 ---- ---- ---- ----
APOLLO 14 LM IMPACT 114 67 ---- ---- ----
APOLLO 15 SIVB IMPACT 355 184 ---- ---- ----
APOLLO 15 LM IMPACT 1130 1048 93 ---- ----
APOLLO 16 SIVB IMPACT 132 243 1099 ---- ----
APOLLO 17 SIVB IMPACT 716 542 800 543 ----
APOLLO 17 LM IMPACT 1778 1623 837 988 10
APOLLO 15 LM IMPACT
APOLLO 15 ALSEP SITE
APOLLO 17 ALSEP SITE
APOLLO 16 SIVB IMPACT
APOLLO 15 SIVB IMPACT
APOLLO 12 ALSEP SITE
APOLLO 14 ALSEP SITE
APOLLO 11 ALSEP SITE
APOLLO 13 SIVB IMPACT
APOLLO 14 LM IMPACT
APOLLO 12 LM IMPACT
APOLLO 17 SIVB IMPACT
APOLLO 14 SIVB IMPACT
APOLLO 16 ALSEP SITE
SERENITATIS
MARE
SINUS
VAPORUM
AESTUUM
TRANQUILL
MARE
COGNITUM
NECTARI
HIPPARCHUS
Manilius
Bonpland
Julius Caesar
Agrippa
Taylor
Dollond C
Dollond B
Theon Senior
Theon Junior
Lade
Gambart
Lamberg
Euclides
Wichmann
Harry M
Guericke
Opelt
Gould
Letronne
Goldschmidt
Rubinowicz
Pons
Vogel
Vogelsang
Pastor
Escartes
Abulfeda
Almanon
Cyrillus
Modler
Mastal
Aldrin
Sabine
Arago
Aryadaeus
Boscovich
Schroter
Murchison
Silbershlag
Wrottesley
Cayley
Descartes
Fabricius
Zollner
Kaiser
Gruithuisen
Lohrmann
Schmidt
Rhaeticus
Lade A
Lade B
Lade C
Lade D
Lade E
Lade F
Lade G
Lade S
Sander
Harrocks
Cysatus
Mutus
Hall
Hind
Parsch
Dawes
Richter
Vogel
Wargentin
Almanon
Cyrillus
Modler
Mastal
Aldrin
Sabine
Arago
Aryadaeus
Boscovich
Julius Caesar
Agrippa
Taylor
Dollond C
Dollond B
Theon Senior
Theon Junior
Lade
Gambart
Lamberg
Euclides
Wichmann
Harry M
Guericke
Opelt
Gould
Letronne
Goldschmidt
Rubinowicz
Pons
Vogel
Wargentin
Pastor
Escartes
Abulfeda

P.R. Barnes

AUG 15 1973

Apollo Passive Seismic Experiment

Data File

Preface:

This report contains information necessary to use the lunar seismic data file available at Goddard Space Flight Center. No attempt is made to describe the data itself, but only the instruments, historical background, and the formats in which data are stored.

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Section 1 - Operational History

Seismic stations were installed on the lunar surface by the astronauts of Apollo missions 11, 12, 14, 15, and 16. The locations and installation dates of the seismic stations are listed in Table 1. Station 11 operated only 16 days before loss of the command uplink terminated operation. The four remaining stations constitute the Apollo Seismic Network. This network spans the near side of the Moon in an approximate equilateral triangle with 1100 km spacing between stations (stations 12 and 14 are 181 km apart at one corner of the triangle as shown in Figure 1).

Four seismometers are included at each station: Three long-period components forming a triaxial set (one sensitive to vertical motion and two sensitive to horizontal motion), with sensitivity to ground motion sharply peaked at 0.45 Hz (peaked-response mode); and a fourth seismometer sensitive to vertical motion with peak sensitivity at 8 Hz (short period component). These instruments can detect vibrations of the lunar surface as small as one-half angstrom at maximum sensitivity. Of the sixteen separate seismometers, all but two are presently operating properly. The short period component at station 12 has failed to operate since initial activation, and one of the long period seismometers at station 14 (vertical component) became unstable after one year.

Unless otherwise indicated in the Operation History listing, Table 2, the instruments have been operated at maximum sensitivity with the long-period seismometers in the peaked-response mode. This configuration is designated as the "standard mode" in Table 2. The various operating modes are described in Section 2. Although not noted in Table 2, all seismometers at a given station were operated at reduced gain while the astronauts remained on the surface.

In addition to signals from natural sources (moonquakes and meteoroid impacts), signals were recorded from nine man-made impacts. These were provided by two types of space vehicles: the LM (Lunar Module) ascent stage and the third, or S-IVB, stage of the Saturn booster. The LM's were guided to impact following the return of the surface crew to the CSM (Command Service Module) in lunar orbit. The S-IVB stages were directed by remote control from Earth to planned impact points following separation from the Apollo spacecraft. Seismic signals from these impacts were recorded at ranges of from 67 to 1750 km. Data pertinent to the impacts are given in Section 3.

Table I: LUNAR PASSIVE SEISMIC STATION STATISTICS

STATION	Date of Deployment Yr.	Day	Location[a] Lat.	Long.	Distance from LM (m)	Azimuth of Components[b] +X	+Y	Distance and Azimuths from other stations 12	14	15	16
11	'69	208	1.75°N	23.45°W	16.8	0°	90°	---	---	---	---
12	'69	323	3.04°S	23.42°E	130	180°	270°	---	181 km 276°	1188 km 226°	1187 km 276°
14	'71	036	3.65°S	17.48°W	178	0°	90°	181 km 96°	---	1095 km 218°	1007 km 277°
15	'71	212	26.08°N	3.66°E	110	0°	90°	1188 km 40°	1095° 33°	---	1119 km 342°
16	'72	109	8.97°S	15.51°E	95	334.5°	64.5°	1187 km 100°	1007 km 101°	1119 km 160°	---

a. Listed coordinates are derived from the Manned Space Flight Network Apollo tracking data. Locations based on these data are referenced to a mean spherical surface and may differ by several kilometers from coordinates referenced to surface features.

b. Upward ground motion produces positive-going output signal for the vertical components. The listed azimuths for the horizontal-component seismometers are the directions of ground motion that give positive-going output signal (0° = North, 90° = East, 180° = South, 270° = West).

Table 2 Operational History

DATE Yr.	Day	Station	EVENT
69	208	11	Deployment: Flat response mode
69	215	11	Station turned off for lunar night
69	230	11	Station turned on for 2nd lunar day
69	237	11	Long period components drift off scale, station overheating and not accepting commands
69	239	11	Loss of all data
69	323	12	Deployment: Flat response mode Short period component not operating LPZ operating with abnormal long period response
	326	12	Changed long period response to standard mode to bring LPZ back into operation.
70	105	12	Reduce LP gain to -10 db during S4B13 impact (01 hrs 24 min)
70	105	12	Increase LP gain to 0 db (02 hrs 30 min)
71	036	14	Deployment: standard mode
71	210	14	Reduce LP gain to -10 db during S4B 15 impact (21 hrs 00 min)
71	210	14	Increase LP gain to 0 db (21 hrs 47 min)
71	212	15	Deployment: standard mode
71 72	330 to 030	14	LPZ axis anomalously noisy affecting LPX and LPY. After mid-January LPZ is usually dead but occasionally has periods of normal operation.
72	109	16	Deployment: standard mode
72	343	16	LPY anomalous noise and reduced gain
72	345	14	Reduce LP again to -10 db during S4B17 impact (20 hrs 35 min)
	345	14	Increase LP gain to 0 db (20 hrs 55 min)
72	348	16	LPY back to normal

Section 2 INSTRUMENT CHARACTERISTICS

A seismometer consists of a mass free to move in one direction that is suspended by means of springs and/or hinges from a framework. The suspended mass is supplied with damping to suppress vibrations at the natural period of the system. The framework rests on and moves with the surface. The suspended mass tends to remain fixed in space and the resulting relative motion between the mass and the framework can be recorded and used to calculate the original ground motion.

The Apollo seismic stations consist of two main subsystems: the sensor unit and the electronics module. The sensor unit, shown schematically in figures 2 and 3 contain three matched long period (LP) seismometers aligned orthogonally to measure vertical and horizontal ground motions. The unit also contains a vertical short period (SP) seismometer. The instrument is constructed principally of beryllium and weighs 11.5 kg, including the electronics module and thermal insulation. Without insulation, the sensor unit is 23 cm in diameter and 29 cm high. The total power drain varies between 4.3 and 7.4 W.

Instrument temperature control is provided by a 6-W heater, a proportional controller and except for station 11, an aluminized Mylar insulation. The insulating shroud is spread over the local surface to reduce temperature variations in the surface material.

The seismic response curves are shown in (fold out) figure 4. The LP seismometers have a useful frequency range from 0.004 to 2 Hz. The SP seismometers cover a band from 0.05 to 20 Hz. Two modes of operation, flat and peaked response, are possible for the LP seismometers. In the flat response mode, the LP seismometers have natural periods of 15 sec. In the peaked response mode, the seismometers act like underdamped pendulums with natural periods of 2.2 sec. Maximum

sensitivity is increased by a factor of 5.6 in the peaked response mode, but sensitivity to low frequency signals is reduced. Calibration of each sensor is accomplished by applying a step of current to each coil by command from Earth. At tidal frequencies, gravitational acceleration is measured by monitoring the feedback current used to center the seismometer mass. The tidal sensitivity of the instruments is 8×10^{-3} milligals per digital unit.

The LP horizontal seismometers (LPX and LPY) are very sensitive to tilts and must be leveled to high accuracy. This is accomplished by means of a two-axis, motor-driven gimbal. A third motor adjusts the LPZ seismometer in the vertical direction. Motor operation is controlled by command.

A caging system is provided to secure all critical elements of the instrument against damage during transport and deployment phases. A pneumatic system is used in which pressurized bellows expand and clamp fragile parts in place. Uncaging is accomplished by piercing the connecting lines.

The seismometer systems are controlled from earth by a set of 15 commands that govern functions such as leveling, instrument gain (adjustable in 10 db steps), and calibration.

Seismic disturbances are observed on the long-period seismometers of each station throughout the daytime period of each lunar day. These disturbances are most intense near times of sunrise and sunset, and are believed to be due to thermal contraction and expansion of the Mylar shroud that covers the seismometers, or the cable connecting the seismometers to the central station, or both.

Time codes recorded on PSE tapes are normally those generated from time codes on range tapes, and are believed to be accurate within a few tens of milliseconds of GMT when signal is received at a range station.

However, when it is difficult to extract time information from range tapes, time codes generated from an "internal clock", a clock internal to a computer at Johnson Spacecraft Center, is substituted. Since this internal clock is not synchronized with tape speed during range tape playback, the time codes thus generated are only as accurate as the accuracy of the speed of the tape transport. The time codes thus generated may drift as much as several tens of seconds from true GMT if allowed to continue for several hours. Users of the PSE tapes should be aware of possible time code errors in situations where relative time between stations is important. The reader is directed to the section on PSE tape irregularities for further discussion of errors occurring on PSE tapes.

The reader is directed to the bibliography for more detailed discussions of instrumentation, especially Latham, et al., 1969, Breseke and Lewko, 1971, and Sutton and Latham, 1964.

Section 3: Data Set Descriptions

1. Compressed Scale Playouts

The compressed scale playouts yield a complete time history of the lunar seismic data. Data from each station are read from tape (Passive Seismic Experiment (PSE) tapes supplied by NASA, Johnson Spacecraft Center) and plotted synchronously in compressed form. To enhance the signal-to-noise ratio for higher frequency events, a difference method is employed in reduction of the data. The absolute value of the difference between consecutive data points is summed over 40 points for long-period data (320 points for short period data) and this value is plotted yielding one value for each six seconds of data. Consecutive points are plotted with opposite polarity to yield a line with the appearance of a seismogram. A horizontal scale of 20 minutes per inch and vertical scales of 400 digital units per inch (long period) and 3200 digital units per inch (short period) are used. Components at each station are arranged LPX, LPY, LPZ, SPZ with long period X at the top and short period Z at the bottom. Time tics are displayed every ten minutes and each hour (GMT) is labeled. The year and day are displayed every six hours.

2. Event Tapes

Seismic events (see data set #6) detected on the long period components by routine manual search of the compressed scale playouts (data set #1) are copied from the original PSE tapes to event tapes containing only time periods when seismic events are observed. Each event tape contains data from one station only; the same time periods are copied in chronological order onto separate tapes for each station. Thus, intervals which may contain no detectable signal at one station are on event tapes because an event was detected at another station.

FIGURE 2

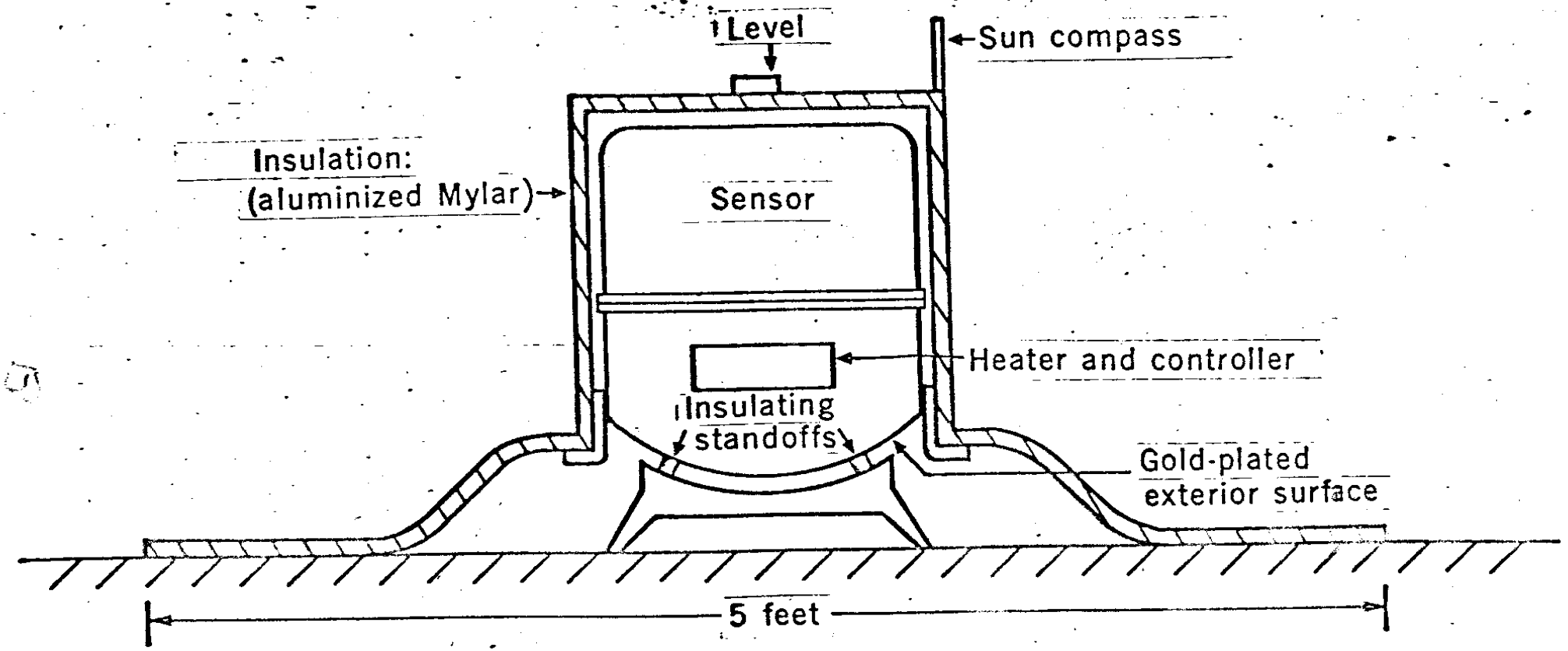
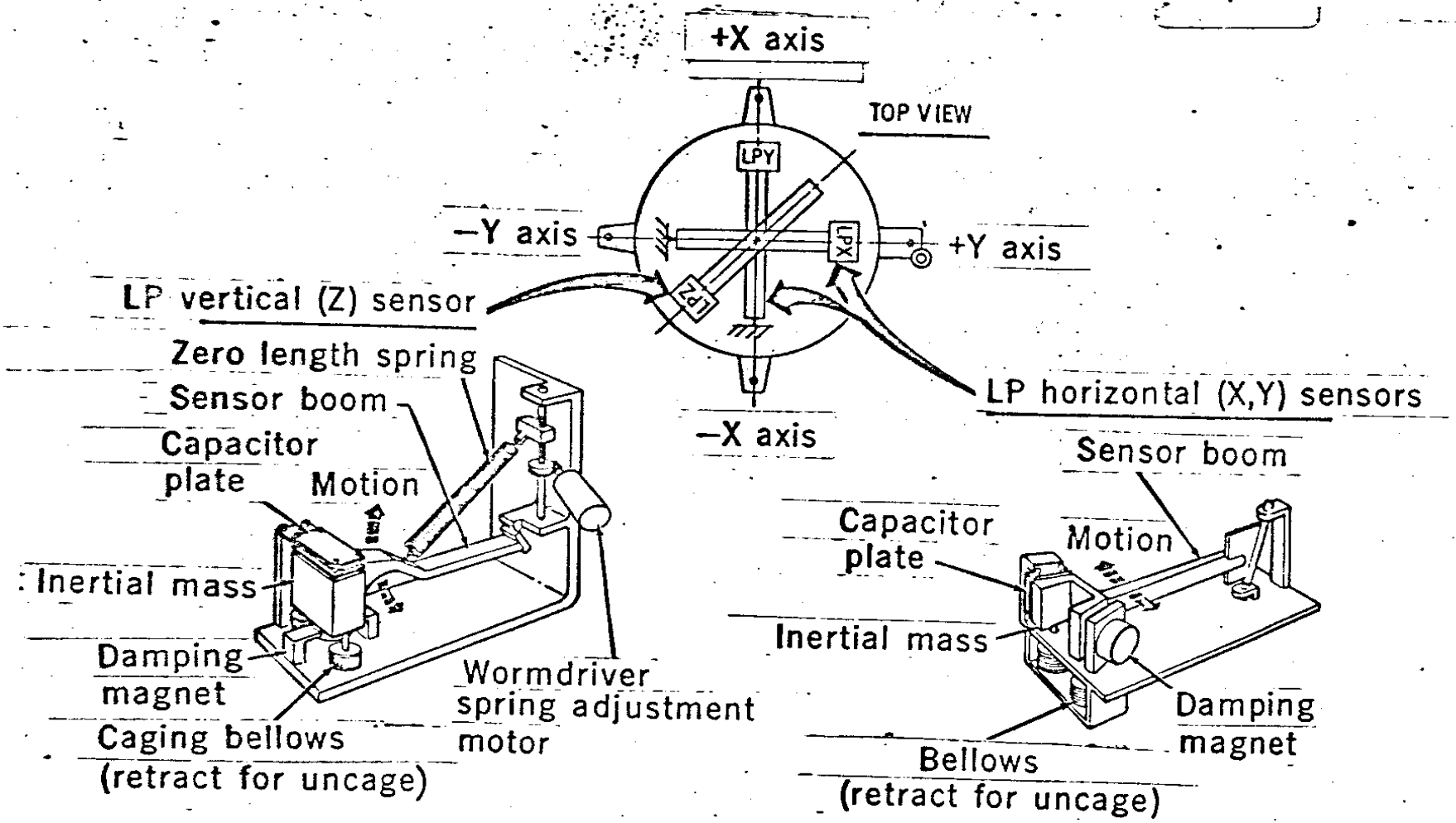

Level
Sun compass
Insulation:
(aluminized Mylar)
Sensor
Heater and controller
Insulating
standoffs
Gold-plated
exterior surface
5 feet

FIGURE 3


+X axis
TOP VIEW
LPY
LPX
LPZ
−Y axis
+Y axis
LP vertical (Z) sensor
LP horizontal (X,Y) sensors
−X axis
Zero length spring
Sensor boom
Capacitor plate
Motion
Inertial mass
Damping magnet
Caging bellows (retract for uncage)
Wormdriver spring adjustment motor
Sensor boom
Capacitor plate
Motion
Inertial mass
Damping magnet
Bellows (retract for uncage)

Event tapes are numbered serially and are in chronological order. All tapes are labeled with the event tape number, station number, tape number, and total time interval covered by the tape. Listings of the time intervals covered on each tape are supplied with the tapes and can also be found using the next data set (#3). The format with which event tapes are read is described in the section on tape formats.

3. Event Compressed Scale Playouts

Each event tape (data sets #2 and #4) has been plotted in compressed scale to provide a visual display of the contents of each event tape. These playouts have the same format as data set #1 with the exceptions that time is not continuous and an amplitude scale twice that of data set #1 is used.

4. Artificial Impact Event Tapes

Each impact of man-made origin (artificial impacts) has been recorded on a special set of event tapes. These tapes are identical in format to the event tapes (data set #2). Table 3 shows data pertinent to each of the impacts. The reader is directed to the brief station history for information concerning the status of each station at times of impacts. Compressed scale playouts of these events are supplied as part of data set #3.

5. Expanded Playouts

A. Method of Selection: Expanded time scale playouts (usually ten minutes in length) have been generated for the following long-period seismic events.

1. All events observed at station 12 (data set #6) during the period November 20, 1969 to February 5, 1971 with peak-to-peak signal amplitudes of two or more digital units.

Table 3: ARTIFICIAL IMPACT DATA

EVENT	Year, day	hr min sec	Lat.	Long.	Distances (km) and Azimuth from stations 12	14	15	16	Impact Angle from Horizontal	Impact Heading	Impact Energy, ergs
Apollo 12 LM	1969, 324	22 17 17.7	3.94°S	21.21°W	73 112°	-	-	-	3.7°	306°	3.36×10^{16}
Apollo 13 SIVB	1970, 105	01 09 41.0	2.75°S	27.86°W	135 274°	-	-	-	76°	78°	4.63×10^{17}
Apollo 14 SIVB	1971, 035	07 40 55.4	8.09°S	26.02°W	172 207°	-	-	-	69°	103°	5.54×10^{17}
Apollo 14 LM	1971, 038	00 45 25.7	3.42°S	19.67°W	114 96	67 276°	-	-	3.6°	282°	3.25×10^{16}
Apollo 15 SIVB	1971, 210	20 58 42.9	1.51°S	11.81°W	355 83°	184 69°	-	-	62°	97°	4.61×10^{17}
Apollo 15 LM	1971, 215	03 03 37.0	26.36°N	0.25°N	1130 36°	1048 29°	93 276°	-	3.2°	284°	3.43×10^{16}
Apollo 16 SIVB	1972, 110	21 02 04±4*	2.24±.33°N	24.49±.33°W*				-	79° (?)	78°	4.59×10^{17}
Apollo 17 SIVB	1972, 345	20 32 42.3	4.21°S	12.31°W	338 96°	157 96°	1032 209°	850 278°	55°	97°	4.71×10^{17}
Apollo 17 LM	1972, 350	06 50 20.8	19.96°N	30.50°E	1750 64°	1598 61°	770 98°	985 27°	4.9°	283°	3.14×10^{16}

* tracking signal lost before impact. The origin time was obtained by interpretation of seismic data, and the location was extrapolated from the early trajectory.

2. Most of the events observed at two or three stations during the period February 5, 1971 to April 21, 1972.

B. Annotation Formats

1. Events occurring during the years of 1969 and 1970 were detected by station 12 only. The long-period components (X,Y,Z) have been played out for each event. The annotation is as follows:

YEAR

SKIP X MAG (C)

DAY HR MN SECOND

YEAR = year in which the playout begins

SKIP = tape identification numbers which can be ignored

MAG = multiplicative factor which adjusts the signal amplitude of an event for plotting; this number can be ignored.

C = long-period component, e.g. X = long period X component (LPX)
Y = long period Y component (LPY)
Z = long period Z component (LPZ)

DAY = Julian day of the year on which the playout begins

HR, MN, SECOND = universal time at which the playout begins

Time marks are placed at one minute intervals. The first tick mark indicates the time DAY:HR:MIN+1.

2. Playouts of events occurring during the years of 1971 and 1972 are annotated as follows:

YEAR DAY HR MIN

YEAR = year in which the playout begins

DAY = Julian day of the year on which playout begins

HR MIN = time at which the first minute mark is placed; minute marks are indicated by the vertical tick marks superposed upon the seismic traces.

ST = seismic station at which the signal was detected, e.g., 12, 14, 15, 16.

N = 1, 2, 3, or 4, where,

1 = long-period X component (LPX)
2 = long-period Y component (LPY)
3 = long-period Z component (LPZ)
4 = short-period Z component (SPZ)

General Remarks:

1. In almost all cases the data represented by the expanded time scale playouts are taken directly from the PSE tapes and are not processed in any way (e.g., no filtering, smoothing, signal averaging, etc.).
2. Notations on the seismograms such as phase picks (e.g., P, S,) event classification (e.g., A, B, C, M), etc. are not primary data but interpretations of the data and should be recognized and used as such.
3. Time marks are not corrected for possible clock errors.

6. Event Catalog

The event catalog has been compiled from the log of long period events observed on the compressed scale playouts (data set #1). Only events of apparent or probable seismic origin are included. Noise events, such as tilts and thermal noise are not included, nor are events observed exclusively on the short period components. The card deck (or tape in card-image format) contains the same set of events as included on the event tapes (data sets #2 and #4). The cards are arranged in chronological order.

Card format:

columns	format	data
3, 4	I2	year
6,7,8	I3	Julian day
10-13	2I2	start hour-minute

columns	format	data
15-18	2I2	stop hour-minute (9999 for overlaps)
37-40	4I1	playout log, = 1, if expanded scale playout is available at station 12 (col. 37) station 14 (col. 38) station 15 (col. 39) station 16 (col. 40)
42-45	4I1	Quality factor[1] = blank: normal quality = 1 no data = 2 type 6 time error (see section on tape irregularities) = 3 noisy = 4 masked for station: 12 (col. 42) 14 (col. 43) 15 (col. 44) 16 (col. 45)
77	A1	event type* A: classified moonquake M: suspected moonquake C: suspected impact Z: mostly short period X: special type L: LM impact S: SIVB impact
79, 80	I2	Moonquake class[2] (only used in conjunction with type 'A' events)

1 Priority given to smallest number

2 Note that these data are interpretive rather than primary data.

7. PSE TAPES

PSE tapes covering continuous operation of the lunar passive seismic system for a period of one month (April, 1973) are supplies. These tapes are labeled in sequential order from the day of deployment of the instrument as well as with the Julian day and universal start and stop times. The station number and date of tape generation also appear on the tapes. Format for reading of PSE tapes is found in the section on tape formats.

Section 4: Tape Formats and Irregularities

FORMATS

Data sets #2 (event tapes), #4 (artificial impact tapes) and #7 (PSE-tapes, one ~~year~~ burst of data) formats are described below. All tapes are 7 track, 1/2 inch binary, 800 bpi, odd parity, with standard IBM EOF on 2400 foot reels.

Data is transmitted from the Moon in 64 word frames, one frame every 0.60375 seconds. The ALSEP words are assigned to meet the needs of the scientific instruments in the Apollo Lunar Surface Experiment Package. Those assigned to the Passive Seismic Experiment are given in Table 4. Each ALSEP word is ten bits, or a range from 0 to 1023 digital units. Sensor equilibrium data values are near 500 digital units. Missing ALSEP words in the short period data (2,46, etc.) should be replaced to obtain equal spacing of data points.

Each frame of data is recorded on tape in a logical record consisting of eighteen 36 bit words for format A and nine 36 bit words for format B. The first three of these words contain timing, synchronization, and error information as described below. The remaining words containing the data are described in Table 5 A and B.

Word 1 contains time at the start of the frame in milliseconds from the beginning of the year starting in bit 1 and ending in bit 35 right justified in binary. The time on January 01 at 00 hours 00 minutes 00 seconds is reset to 8.64×10^7 msec so that the year starts on day 1 rather than day 0.

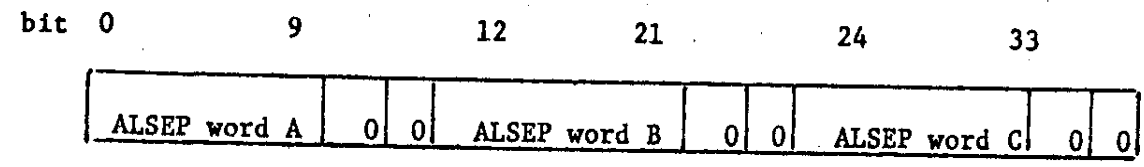
Word 2 contains a range station I. D. code in bits 0-3, a bit error rate in bits 4-9, and, starting on day 183, 1973, a time source indicator in bit 35 (last bit); if this bit is set, then computer clock time rather than G. M. T. was used for updating the time code. Several tens of seconds of error in time codes have been noted when the computer clock is used.

Word 3 contains synchronization codes and a frame counter. This word should contain the following in bits 0-9, 12-21 and 24-25.

bit:	0	1	2	3	4	5	6	7	8	9	12	13	14	15	16	17	18	19	20	21	24	25
value:	1	1	1	0	0	0	1	0	0	1	0	0	0	0	1	1	1	0	1	1	0	1

If this is not the case, then sync has been lost with the data and errors may be present. Bits 26-32 contain a frame counter which steps once per frame resetting to zero after 89 frames. A break in the sequence may indicate timing errors.

ALSEP words arranged as shown in Table 5 are packed in the 36 bit words as shown below:



Note that in FORMAT B (Table 5-B) the data is compressed by a factor of 2 as all SP ALSEP words are missing. This was done as a cost-saving procedure since the station 12 short period component is not operating.

Each tape begins with two identical label records written in BCD. These records contain four words each as described below:

Word	Parameter
1	experiment I.D. (PS EXP or PSEXPB)
2	ALSEP I. D.
	Sta. 12 = A
	Sta. 14 = B
	Sta. 15 = C
	Sta. 16 = D

Word	Parameter
3	Mission I.D.:
	Sta. 12 = A/S507
	Sta. 14 = A/S509
	Sta. 15 = A/S510
	Sta. 16 = A/S511
4	None or Year (bcd blanks or year)

Event tapes, data sets #2 and #4, differ from normal PSE tapes in that time is not continuous since gaps occur between events. All events are recorded in chronological order. Further information regarding tape encoding and formats is available in NASA documents MSC-00119 and MSC-004434.

TABLE 4

P.S.E. ALSEP Words

ALSEP Word(s)	Description
even words (except 2, 24*, 46, 56)	short period (SP) vertical data
9, 25, 41, 57	long period X component (LPX)
11, 27, 43, 59	long period Y component (LPY)
13, 29, 45, 61	long period Z component (LPZ)
35 (even frames)	X axis tidal
35 (odd frames)	Z axis tidal
37 (even frames)	Y axis tidal
37 (odd frames)	instrument temperature

*Apollo 15 only

TABLE 5-A

ALSEP WORD LOCATIONS

FORMAT A[1]

36 bit word	ALSEP word	USE
4	4, 6, 8	SP, SP, SP
5	9, 10, 11	LPX, SP, LPY
6	12, 13, 14	SP, LPZ, SP
7	16, 18, 20	SP, SP, SP
8	22, 24, 25	SP, SP*, LPX
9	26, 27, 28	SP, LPY, SP
10	29, 30, 32	LPZ, SP, SP
11	33, 34, 35	-, SP, TDLX/Z
12	36, 37, 38	SP, TEMP/TDLY, SP
13	40, 41, 42	SP, LPX, SP
14	43, 44, 45	LPY, SP, LPZ
15	46, 48, 50	-, SP, SP
16	52, 54, 57	SP, SP, LPX
17	58, 59, 60	SP, LPY, SP
18	61, 62, 64	LPZ, SP, SP

* not for Apollo 15

1 used for all tapes (except station 12 tapes after day 288, 1971)

TABLE 5-B

ALSEP WORD LOCATIONS

FORMAT B*

36 bit word	ALSEP WORD	USE
4	9, 11, 13	LPX, LPY, LPZ
5	25, 27, 29	LPX, LPY, LPZ
6	33, 35, 37	-, TDLX/Z, TEMP/TDLY
7	41, 43, 45	LPX, LPY, LPZ
8	46, 57, 59	-, LPX, LPY
9	61, -, -	LPZ

*used only for station 12 starting on day 289, 1971

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PSE Tape Irregularities

The following is a list of types of irregularities, other than tape reading errors and data glitches, found in PSE tapes. The user of PSE tapes is urged to be aware of their existence.

1. Data gap

   A normal data gap is represented by a time increment from one logical record to the next by an amount that is an exact multiple of the normal frame rate (603.75 ± 0.05 ms) and an increment of the frame count corresponding to the time increment. Small data gaps, a few seconds in duration, are quite common, occurring at a rate of several to a few tens of times per day.

2. Data overlap

   A normal data overlap is represented by a time decrement from one logical record to the next by an amount that is an exact multiple of the normal frame rate and a decrement of the frame count corresponding to the time decrement. Data overlaps are rare, but they do occur in earlier tapes.

3. Clock offset due to range station switch

   When the range station receiving data from the Moon is switched from one to another, a slight offset in time is observed, which is normally less than 20 milliseconds.

4. Sync error

   When data from the Moon are not correctly translated onto PSE tapes because of errors in synchronization, it is reflected on the Barker code which is included in each logical record. A data gap of a few frames normally follows a sync error.

5. Zero record

Some logical records are filled with all zeroes. A data gap may or may not occur at the same time.

6. Clock rate error

This occurs when time information based on a computer internal clock is substituted. It can be identified by an abnormal time increment from one frame to the next. The normal time increment per frame is 603 or 604 milliseconds, with 90-frame average in the range of 603.70 to 603.80 milliseconds. The abnormal clock rate is usually less than 0.5% off normal, but larger anomalies are found. The duration of this error is from a few minutes to as much as 6 to 8 hours. An anomalous period usually starts with a small offset in frame count and ends with a large offset in frame count, representing a large clock adjustment. Multiple clock adjustments are found in some cases. The amount of clock adjustment ranges from a fraction of a second to several tens of seconds. The time information on tapes are nearly continuous, thus generating a data gap or a data overlap without clear indication of their existence when the clock is adjusted.

7. Time/frame count error

Simultaneous discontinuities in time and frame count which do not agree with each other occur rather frequently without abnormal clock rate. They occur in pairs or multiples so that the net offset in time and/or frame count is always zero. The offset in time at a discontinuity is often either an exact multiple of the normal frame rate or even seconds. When it is an exact multiple of the normal frame rate, whether the error is in time or in frame count cannot be determined. When it

is not an exact multiple of the normal frame rate, including offsets of even seconds, a time error is indicated.

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2 December 1971

To Users of Passive Seismic Experiment Event Tapes

The tapes written at NASA Manned Spacecraft Center, Houston, containing data of the Apollo Passive Seismic Experiment (PSE) are being processed by the PSE group at LDGO to extract the time segments containing identified seismic events. These event data are written on a series of event tapes described herein.

The original file of PSE tapes contains one 2400 foot reel of tape per day per lunar station. Lunar seismic events are identified on compressed time-scale playouts (3 inches per hour) of the entire data stream which are made at LDGO. Start and end times of each event are picked. Copying of the event begins 10 minutes before the start time and terminates five minutes after the end time. Overlapping time intervals appear as continuous data on the tapes.

Each event tape contains data from one lunar station only, as with the PSE tapes. The same time intervals are copied in chronological order for all stations. Thus an interval which may contain no detectable signal at one station was placed on the tape because an event was identified during that interval at another station. The number of records on tapes which cover the same time interval at different stations may vary slightly due to differences in the original PSE tapes.

Tapes are numbered serially. Tapes 1 through 25 cover Apollo 12 events from its deployment up to the time of Apollo 14 deployment. Station 14 tapes begin with tape 26. Each tape has a label on its nub giving station number, event tape number, the total time interval covered by that tape and the total number of data records on the tape. A list of tapes and time intervals covered is attached.

The records on the Event tapes are binary records, 800 BPI, odd parity, standard EOF.

Also attached is a portion of the writeup of the program (EVENTP) used at LDGO for writing event tapes. It further describes the formats and conventions used in writing event tapes.

Documentation on each event tape consisted of 1) a listing of the start and end times of each event copied (not including the 10-minute leader and 5-minute following intervals); 2) a serial listing of the data records on each tape giving the final time code in each record. This serial listing contains five pertinent data words referring to each record written on the Event tape. Column one is the record number (the first two records are the header label records); column two is the number of data frames in the record referred to. This number is a good indicator of data gaps - any number less than 90 implies missing data and time gaps found on the MSC input tape within that record; columns 3, 4, and 5 are time code (days, minutes, milleseconds) from the last frame of the specific record referred to by the number in column one.

The main consideration in placing events on the event tapes is that every probable event, no matter how weak, is picked. Visibility of an event depends upon the signal to noise ratio as well as the playout characteristics of the traces used.

Regarding signal to noise ratio, when sunlight falls on the instrument the traces are noisier by perhaps a factor of two than during the night. This is probably mechanical noise induced by temperature changes in nearby ALSEP equipment and the natural surroundings. Also, large impulsive tilts apparently caused by thermal popping of the seismometer shroud are quite frequent. Shortly after sunset, temperatures stabilize at their night time values and these noise sources are absent until the following sunrise. Therefore, weaker events are probably detectable during the night than during the day.

The compressed time scale playout used for picking events consists of a processed velocity-sensitive trace for each seismometer component. Since the weakest events appear as an increase in the background frequency rather than in displacement amplitude, the compressed playouts seem favorable for detection of weak events. All natural events identified by the current criteria as well as events of doubtful and unusual type are included, providing they appear to be of probable natural origin rather than due to instrumental causes.

All picks are made on the long-period components only. Therefore, signals which appear to be natural events on the short-period components are not included unless they are also detectable on the long-period components. However, the short-period data accompanying the long-period picks are included on the event tapes, since all records are standard PSE records containing the same data as found on the PSE tapes. Apollo 12 short-period data reflects the failure of that component.

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Lamont-Doherty Geological Observatory Technical Note

SUBJECT: Long-Period Data Storage Tapes from APOLLO XII

DATE: 10 February 1971

PREPARED BY: Bruce Charles Auld

This report is a description of the data processing plan for Apollo XII long-period seismic data storage tapes, and the accompanying listing compiled at Lamont-Doherty Geological Observatory for distribution to the National Space Science Data Center. The first section is a description of the data format for the LP storage tapes. Following this is a discussion of the mechanics of writing these tapes. The last section is a brief description of the Apollo XII long-period seismometers, their response curve, and the method by which these data are transmitted from the moon to the earth. Any modifications and/or additions to this data processing plan will be published as addenda when required.

Contents

Introduction

1. Data Format on Storage Tapes
2. Mechanics of Writing Storage Tapes
3. Instrumental Response and Data Transmission from the Apollo XII Passive Seismic Experiment

Appendix A - Elapsed Time and the Three-Word Time Code

Appendix B - Two Problems Regarding Apollo XII Long-Period Data

Introduction

The data contained on the long-period event storage tapes are compiled from the ALSEP 1 PSE* data tapes which are distributed by the Manned Spacecraft Center, MSC, in Houston to the Principal Investigators for the Passive Seismic Experiment. All long-period data of seismologic interest contained on the MSC tapes are condensed and transferred to the long-period event storage tapes. These storage tapes are then made available to other interested investigators.

*ALSEP 1 PSE = Apollo Lunar Surface Experiments Package #1, Passive Seismic Experiment. This package was deployed during the Apollo XII flight.

1. Data Format of Storage Tapes

Each storage tape contains all long-period event data for a time interval specified on the label attached to the face of the tape reel. The data on a storage tape is divided into a series of events which are written in chronological order. Each event is numbered, starting with event number 1, and subdivided into data records which are also numbered, starting with data record number 0, for each event. Each data record is made up of data frames with 16 data words per frame. The data for each event begin approximately 5 minutes before the start of the event and continue 10 minutes after the event has disappeared into the background.

To simplify numbering of the events and data records, each data record is preceded by a 9-word list record. This list record contains all information pertinent to the following data record. The 9 words of the list record contain the following information:

LIST(1) = Event number

LIST(2) = Tape number

LIST(3) = Data record number for the event

LIST(4) - LIST(7) = Start time in days, hours, mins, and secs for the event (not the record).

LIST(8) = relative maximum amplitude of the event (15 is a very small event, 100 is a large, natural event). This is useful only as a guide, and has no quantitative significance. Some list records for events in 1970 do not contain a meaningful number in LIST(8).

LIST(9) = number of words in the data record which follows

The data record which follows is of variable length, but the last list record word gives the number of words to be read in the data record.

Data records are a maximum of 2048 words and a minimum of 16 words in length. They are divided into frames with 16 words per frame. The frame contains the three-word time code, the bit error rate, and four words each of long-period X, Y, and Z data in the following order:

DATA(1) - DATA(3) = three-word time code corresponding to total elapsed time from the first of the year to the beginning of the first data words in the frame (see Appendix A for an explanation of the three-word time code).

DATA(4) = bit error rate. (This is usually zero, but for a frame with erroneous data it may be non-zero).

DATA(5) - DATA(8) = long-period X data

DATA(9) - DATA(12) = long-period Y data

DATA(13) - DATA(16) = long-period Z data

DATA(17) - DATA(32) = second frame

.

.

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DATA(16 * N-15) - DATA(16 * N) = N th frame where N = 1, 2, ... NN; and NN is LIST(9)/16.

Each frame is supposed to be 0.603773 secs in duration so that a full data record of 128 frames contains 77.283 seconds of long-period data. However, there are occasional data records for which erroneous time has been read from the MSC original tapes and the total elapsed time may be either too long or too short, e.g., tape 1, event 8, batches 4 and 5. See Appendix B for a brief discussion of problems arising from erroneous data contained on the long-period event storage tapes. It is important to point out that erroneous data are usually caused by transmission difficulties between the moon and receiving facilities on earth. These

erroneous data have not been corrected on either the MSC original tapes or the storage tapes and consequently must be eliminated by the individual user.

The dynamic range of the long-period data is 0 to + 1023 with an average D.C. value for each channel of approximately 512 digital units. The expected values of the three-word time code are 0 to 27 for the first word and 0 to 32,767 for words 2 and 3. Erroneous data may cause the first word of the time code to exceed 27, but these data may be ignored.

Accompanying each data storage tape sent to the Space Science Data Center at Goddard is a computer generated listing which gives start, end, and elapsed times for each data record on that tape. The start and end times are calculated from the three-word time codes at the beginning and end frames of each data record and correspond to the start time of these frames. The elapsed time is the difference between the start and end times. Note that the actual elapsed time for the data record is the calculated elapsed time plus 0.604 seconds for the duration of the last frame. A normal calculated elapsed time is 76.678 secs for a full record or actual elapsed time of 77.282 secs, i.e., 128 frames x 0.603773 secs per frame. Variations of $\pm$ 2 or 3 milliseconds are acceptable, but frames which contain larger deviations from the elapsed time than this will usually be found to contain a data drop-out or some other form of erroneous data.

2. Mechanics of Writing Storage Tapes

Data records are written on magnetic tape via an unformatted subroutine* with data convert on and data translate off, (see IBM form A22-6866-4, Component Description of Magnetic Tape Units, 2400-Series, for a discussion of conversion and translation features). A seven-track head with odd parity and 800 b.p.i. density are employed. The storage tapes are generated on an IBM 2415 Model 1 tape drive connected to an IBM 1130 computer. All words in a data record are 16-bit one word integers written in standard BCDIC.

A data record is written as follows:

1.) the data array is entered, starting at the high order bit of the last word in the array, into a data channel, 2.) data convert takes the first three 8-bit bytes and converts them into four 6-bit tape characters, 3.) these four tape characters are then written on the magnetic tape, 4.) the next 24 bits are converted as in step 2 and written as in step 3, etc. Note that since the 1130 has a 16-bit word, the first data word is written on the next 2 2/3 tape characters, and the third data word is written on the next 2 2/3 tape characters, i.e., three data words for every eight tape characters or six bytes.

The flow of data is illustrated in Figure 1. Figure 1A shows the nine list record words constituting the first record on ALSEP 1 long-period event storage #1 as they appear in core in the 1130. Figure 1B shows how the bits for the last three data words of this array are written on tape as eight tape characters or six bytes. The next three data words are written in the next eight tape characters. After all nine list record words have been written on tape, there is an inter-record gap before the next data record. Note that since LIST(9) = 2048, the next data record will contain 2048 words. The data record is written in the same manner

the same manner as the list record.

*This subroutine (MAGTA) writes a data record in reverse order, i.e., the last data word is written first and the first data word is written last.

Core Location*	Binary Contents (16 bits/wd)	Hex	Decimal	Word No. (LIST coefficients)
01FE	0000 1000 0000 0000	0800	2048	9
01FF	0000 0000 0000 0000	0000	0	8
0200	0000 0000 0001 1110	001E	30	7
0201	0000 0000 0000 1100	000C	12	6
0202	0000 0000 0001 0110	0016	22	5
0203	0000 0001 0100 0100	0144	324	4
0204	0000 0000 0000 0000	0000	0	3
0205	0000 0000 0000 0001	0001	1	2
0206	0000 0000 0000 0001	0001	1	1

Figure 1A. 1130 Data Array as It Appears In Core for the First List Record on Tape #ALSEP1LP01.

[0000 1000 0000 0000][0000 0000 0000 0000][0000 0000 0001 1110] 3X16 = 48 bits
1130 wd. 1 1130 wd. 2 1130 wd. 3

[0000 1000][0000 0000][0000 0000][0000 0000][0000 0000][0001 1110] 6X8 = 48 bits
byte 1 byte 2 byte 3 byte 4 byte 5 byte 6

[000010][000000][000000][000000][000000][000000][000000][011110] 8X6 = 48 bits
t.c.1 t.c.2 t.c.3 t.c.4 t.c.5 t.c.6 t.c.7 t.c.8

Figure 1B. Conversion of First Three 1130 Words from Core, (i.e., LIST(9)-LIST(7)), into 6 Bytes and 8 Tape Characters

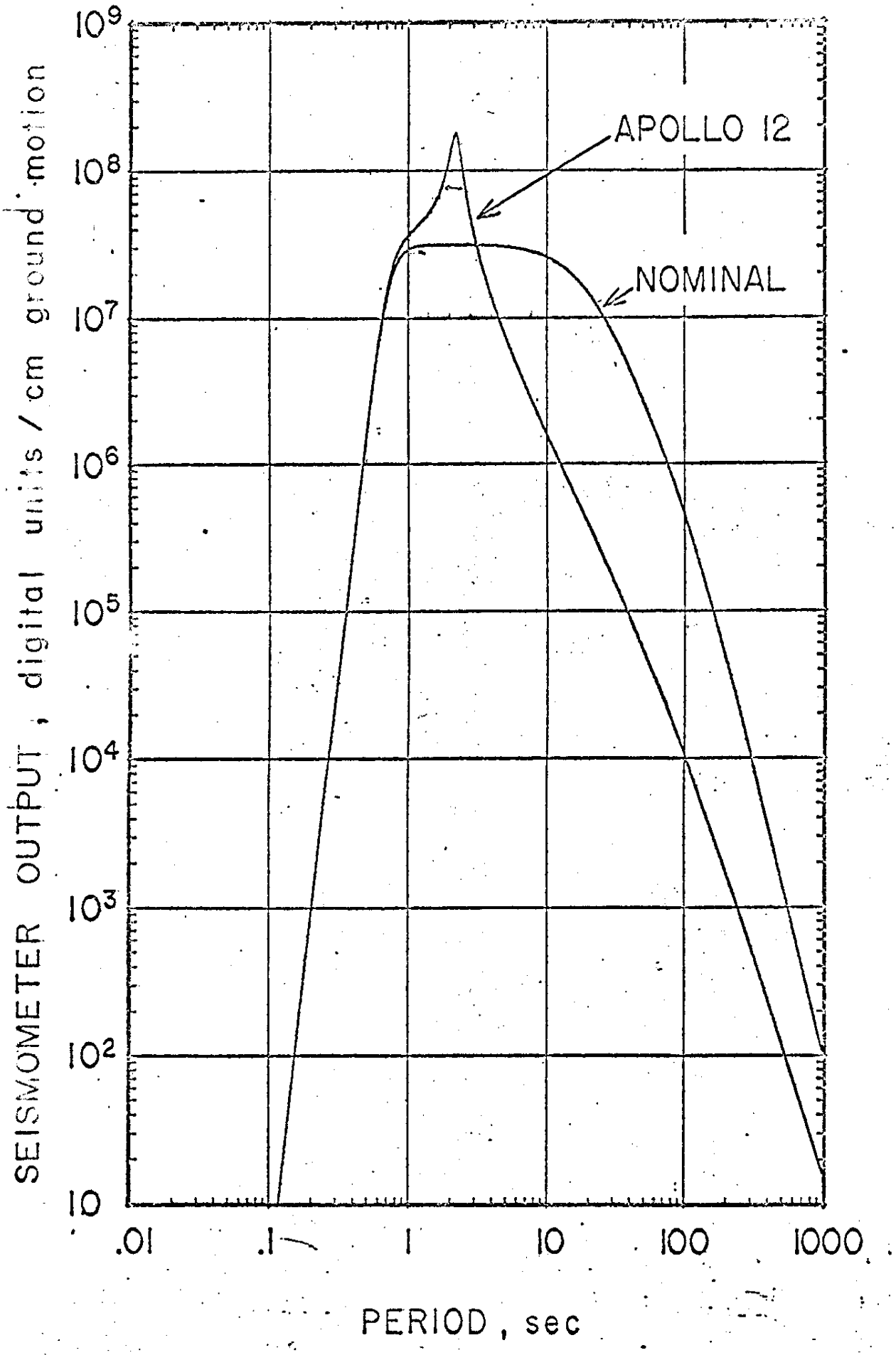
*Core start is arbitrarily chosen

3. Data Transmission from the ALSEP 1 PSE

This brief description of the ALSEP 1 seismometers and the method of data transmission from the APOLLO 12 site to MSC in Houston is given so that users of these data may understand the relationship between actual ground motion on the moon and the digital numbers which appear on the data tapes.

A response curve which is applicable to all three long-period seismometers is given in Figure 2. This curve gives ground displacement in digital units for periods from 0.1 seconds to 1000 seconds on a log-log scale. The peaked curve labelled APOLLO 12 is the mode in which these long-period data are recorded. The ALSEP 1 is unstable in the nominal mode and consequently this mode has not been used since the early days of the experiment. The ALSEP 1 amplifiers may be commanded to reduce the gains by -10, -20, and -30 db from the magnification shown. However, normal operation is at 0 db and any reductions in gain will be noted in the tape event listings supplied with ALSEP 1 event storage tapes.

The ALSEP data transmitter generates an S-Band carrier frequency which is received at any of several NASA recording stations on earth. The r.f. bit stream and time-of-day (GMT) are recorded on range tapes. The time is generated at the range station and represents the time which the signal was received on earth. The range tapes are converted to computer compatible tapes at the Manned Spacecraft Center in Houston. This computer compatible tape is used to produce the PSE tapes which are distributed to Lamont-Doherty Geological Observatory. The tapes supplied to L-DGO have been corrected for some data drop outs; however, there still remain some erroneous data on these tapes.


APOLLO 12
NOMINAL
SEISMOMETER OUTPUT, digital units / cm ground motion
10^9
10^8
10^7
10^6
10^5
10^4
10^3
10^2
10
.01
.1
1
10
100
1000
PERIOD, sec

—figure 2

The event storage tapes supplied to the National Space Science Data Center contain selected intervals of data copied at Lamont from the PSE tapes. Accompanying the event storage tapes sent to the data center at Goddard is a computer generated listing which gives the start, end, and elapsed times of each data record and event on the tapes.

APPENDIX A

Elapsed Time and the Three-Word Time Code

NOTE: This explanation of the three-word time code was written for internal use at Lamont-Doherty Geological Observatory, and the example used is inaccessible to users of the storage tapes. However, the technique for deriving total elapsed time is still applicable to data obtained from the ALSEP1 long-period storage tapes. Total elapsed time is begun at 0000 hours GMT, 01 Jan and is restarted each year.

Elapsed Time and the Three-Word Time Code:

Total elapsed time in milliseconds is stored in Houston as a single 36-bit 7090 word. The three-word (1130) time code is derived from the 36-bit (7090) word. The procedure is as follows:

1) Take the 7090 word, e.g.,

0011 1100 0000 1111 0011 0111 0000 1111 0011...(1-7090 word)*

and store as three 16-bit words on tape by placing two zeros before each 6 bits, left to right, e.g.,

```
  0    F    0    0
0000 1111 0000 0000 = 3840
  3    C    3    7
0011 1100 0011 0111 = 15415     three 16-bit (1130) words
  3    3    3    3
0000 0011 0011 0011 = 0819
```

(Underlined zeros are artificially introduced and are not part of the original 36-bit 7090 word.) These three 16-bit words are written on ALSEP storage tapes and can be read with the 1130 by either EDIT1 or MAGTA**

2.) The first word of the three-word time code is obtained from the first six non-underlined bits of the first (top) 1130 word. The second word of the three-word time code is obtained from the next 15 non-underlined bits, counting left to right, top to bottom. The third word is obtained from the last 15 non-underlined bits. Thus, the three-word time code in the 1130 would be

```
  0    0    0    F
0000 0000 0000 1111 = 15
```

```
  0    1    E    6
0000 0001 1110 0110 = 486
  7    0    F    3
0111 0000 1111 0011 = 28915
```

(Underlined bits are artificially introduced and should all be zeros.)

3.) The three-word time code is converted back to total elapsed time in milliseconds by multiplying the first word by $(2^{15})^2$, the second word by (2^{15}), and adding these to the third word, e.g.,

$$15 * 32768^2 = 16106127360$$
$$486 * 32768 = 15925248$$
$$28915 * 1 = 28915$$
$$16122081523 = \text{elapsed time in milliseconds}$$

4.) The time in days, hours, minutes, and seconds is found by finding the largest day which will fit into the elapsed time, then the largest hour, and finally the largest minute. The remainder is in milliseconds, e.g.,

$$\begin{array}{rrl} & 16122081523 & \\ 186 * 24 * 60 * 60 * 1000 = & \underline{16070400000} & = \text{day } 186 \\ & 51681523 & \\ 14 * 60 * 60 * 1000 = & \underline{50400000} & = \text{hour } 14 \\ & 1281523 & \\ 21 * 60 * 1000 = & \underline{1260000} & = \text{min. } 21 \\ & 21523 & = \text{sec. } 21.523 \end{array}$$

i.e., $186^{D}14^{H}21^{M}21.523^{S}$

A Fortran routine called EDIT3 has been written to convert the three 16-bit 1130 words (read backwards from ALSEP tape with MAGTA, data convert off) into the three-word time code.

*The example is taken from the start of the third physical record on ALSEP tape 51571 (first physical record after the two header records).

**The output from EDIT1 is the three-word time code. The output from MAGTA is the three 16-bit 1130 words described in step 1.) Note that the data array from a MAGTA read is backward when compared to an EDIT1 read. Also note that data convert is set off for a MAGTA read.

APPENDIX B

Two Problems Regarding ALSEP Long-Period Data

NOTE: This explanation of erroneous data and incorrect times was written for internal use at Lamont-Doherty Geological Observatory and the examples used are inaccessible to users of the storage tapes supplied to the Space Science Data Center. However, the principles involved remain the same and do apply to the long-period event storage tapes.

Two Problems Regarding the Digital Plotting of ALSEP Long-Period Data

SUMMARY. This report outlines the minimum techniques necessary to eliminate erroneous data points and incorrect times from ALSEP long-period digital data for the purpose of digital plotting. It is recommended that data be checked point by point and that each frame time be used to calculate time difference between frames.

Erroneous Data Points. Erroneous LP data have been found in four places: 1) in the frame before a frame with a non-zero B.E.R. (see example 1), 2) in a frame full of zeros, including zero time and zero B.E.R. (see example 2), 3) in a frame full of zeros, including zero B.E.R., but with a correct time (see example 3), and 4) as an isolated erroneous value (see example 4).

The simplest and most effective way to eliminate these erroneous data is to compare each data value with its predecessor. It has been found that if these two values differ by less than 13, the result will be, with two exceptions, an acceptable data stream. The two exceptions to this are 1) during gain changes, and 2) during extremely large events (see example 7). In the latter case, a difference of 30 generally will produce acceptable data. The first exception occurs so rarely that it need not be incorporated into a general comparison routine.

Incorrect Times. Incorrect times have been found in three places: 1) as zeros in a frame full of zeros, including zero B.E.R. (see example

2), 2) as a repeated time (see example 5), and 3) where data and time have been deleted without any zeros showing in the data (see example 6). In this last case, the time is actually correct, but as a consequence, the data cannot be assumed always continuous in time.

The persistence of incorrect times on the tape make it necessary to calculate time before every frame is plotted, i.e., every 12 long-period words. Needless to say, this will consume a great deal of computer time.

PAGE 2 07 JULNA

CART TO DUBA DB ADDR 4943 DB CNT 0007

// XEQ AULIS

3 word time code

1 2 3	B.E.R.	LPX				LPY				LPZ			
2724650 1774	0	522	522	522	522	494	494	494	494	496	496	496	497
2724650 2378	0	522	522	521	521	494	494	494	494	497	497	497	497
2724650 214	0	522	522	554	522	494	494	493	493	497	497	497	496
2724650 817	0	521	521	521	521	494	494	494	494	496	496	496	496
2724650 1421	0	522	522	522	522	493	493	493	493	496	497	497	497
2724650 2025	0	522	522	521	521	493	494	494	494	497	497	497	497
2724650 2629	0	521	521	521	521	493	493	493	493	497	497	496	496
2724650 3233	0	521	521	521	521	494	494	493	493	496	496	496	497
2724650 3838	0	522	522	522	522	494	494	494	494	497	497	497	497
2724650 4440	0	522	522	522	522	494	494	494	493	497	497	497	497
2724650 5044	0	522	522	522	522	493	493	493	493	497	497	496	496
2724650 5647	0	522	522	521	521	493	494	494	494	496	496	497	497
2724650 6251	0	521	521	521	521	494	494	493	493	497	497	497	497
2724650 6855	0	521	522	522	522	493	494	493	493	497	497	496	496
2724650 7459	0	522	522	522	522	494	494	493	494	496	496	497	497
2724650 8063	0	522	521	521	521	494	494	494	494	497	497	497	497
2724650 8666	0	521	521	521	521	494	494	494	494	497	497	497	497
2724650 9270	0	522	522	521	521	493	494	494	494	497	497	497	497
2724650 9874	0	521	522	522	522	494	494	494	494	497	497	497	497
2724650010478	0	522	522	522	522	494	494	493	493	497	497	497	497
2724650011081	0	522	522	521	521	493	493	493	493	497	497	497	497
2724650011685	0	521	521	521	521	493	494	494	494	497	497	497	496
2724650012287	0	521	521	522	522	494	494	494	494	496	496	496	496
2724650012893	0	522	522	522	522	494	493	493	493	497	497	497	497
2724650013496	0	522	521	521	521	493	494	494	494	497	497	497	497
2724650014100	0	521	521	521	521	494	494	494	494	497	497	497	497
2724650014704	0	522	522	522	522	494	494	493	493	497	497	496	496
2724650015307	0	522	522	522	521	493	493	493	493	496	496	496	497
2724650015911	0	521	521	521	521	493	494	494	494	497	497	497	497
2724650016515	0	521	521	521	521	494	494	494	493	497	497	497	497
2724650017119	0	521	521	521	521	493	493	493	493	497	496	496	496
2724650017722	0	521	521	521	521	493	493	493	494	496	496	496	497
2724650018326	0	522	522	521	522	494	494	494	494	497	497	497	497
2724650018929	0	522	522	522	501	494	494	494	529	497	497	497	526
2724650019532	10	522	522	521	522	494	494	494	493	497	497	496	496
2724650020137	0	522	522	521	521	494	494	493	493	496	496	496	496
2724650020740	0	522	522	522	521	494	494	494	494	497	497	497	497
2724650021344	0	521	521	521	521	494	494	494	494	497	497	497	496
2724650021948	0	521	521	521	521	494	494	493	493	496	496	496	497
2724650022552	0	521	521	521	521	493	494	494	494	497	497	497	497
2724650023155	0	522	522	522	522	494	494	493	493	497	497	497	497
2724650023759	0	522	522	521	521	493	493	494	494	497	497	496	496
2724650024363	0	521	521	521	521	494	493	493	493	496	497	497	497
2724650024966	0	522	522	522	522	494	494	494	494	497	497	497	497
2724650025570	0	522	522	522	521	494	494	494	494	497	497	496	496
2724650026174	0	521	521	521	521	494	494	493	493	496	496	497	497
2724650026778	0	522	521	521	521	494	494	494	494	497	497	497	497
2724650027382	0	521	521	522	522	494	494	494	493	497	497	497	497
2724650027985	0	521	521	521	521	493	493	493	493	496	496	496	496
2724650028589	0	522	521	521	521	493	493	493	493	497	497	497	497
2724650029193	0	521	521	521	521	494	494	494	494	497	497	497	497
2724650029796	0	521	522	522	522	494	494	494	494	497	497	497	497

← 1 ALSEP FRAME (TIME, B.E.R., + L.P. data only).

example #01

2724695 0000	0	524	523	521	521	494	494	495	495	496	496	496	496		
2724695 1404	0	520	520	519	519	494	493	492	492	496	497	497	498		
2724695 2007	0	519	519	520	522	492	493	494	496	498	497	495	494		
2724695 2611	0	524	525	526	525	497	497	496	495	494	496	498	500		
2724696 447	0	524	522	521	519	494	493	493	493	500	499	498	497		
2724696 1051	0	519	505	771	260	493	530	758	758	496	243	247	759		
2724696 1654	10	522	524	525	525	492	492	494	496	494	495	495	495		
2724696 2258	0	524	522	521	519	497	497	496	495	496	497	498	500		
2724696 2862	0	519	519	519	520	494	493	492	492	501	501	500	498		
2724696 3466	0	521	522	523	525	492	492	493	494	496	495	494	495		
2724696 4069	0	525	524	523	521	494	495	495	496	495	495	495	496		
2724696 4673	0	520	520	519	519	495	495	494	493	497	498	499	498		
2724696 5277	0	519	520	522	523	493	493	492	492	498	497	496	496		
2724696 5880	0	524	524	523	522	493	494	495	495	497	497	497	497		
2724696 6484	0	521	521	520	519	495	494	494	494	497	496	496	496		
2724696 7088	0	519	519	519	521	494	494	494	493	495	495	496	496		
2724696 7692	0	522	523	524	524	492	493	493	494	497	498	498	498		
2724696 8296	0	524	523	522	522	495	494	493	493	499	498	497	496		
2724696 8899	0	521	521	520	519	493	493	494	495	495	494	494	495		
2724696 9503	0	519	527	520	521	497	498	497	495	496	497	499	499		
2724696 10107	0	522	523	523	524	493	492	490	490	499	498	497	496		
2724696 10711	0	524	524	523	522	490	491	493	496	496	496	496	496		
2724696 11314	0	520	519	519	519	497	498	497	495	496	496	495	495		
2724696 11918	0	520	522	523	523	493	491	490	491	496	496	498	498		
2724696 12522	0	523	522	522	522	491	493	495	496	499	499	498	498		
2724696 13126	0	522	522	522	522	497	497	496	495	497	497	496	495		
2724696 14729	0	522	522	521	520	492	491	491	492	494	494	495	496		
2724696 14333	0	520	519	518	518	494	496	497	499	497	498	499	499		
2724696 14937	0	516	520	523	524	805	500	499	497	390	499	497	495		
2724696 15541	0	525	525	524	523	494	492	491	491	496	495	494	494		
2724696 16144	0	762	522	520	519	267	492	494	496	458	495	497	498		
2724696 16748	0	505	770	771	259	525	762	762	762	524	761	250	762		
2724696 17351	11	521	522	522	522	499	496	433	490	499	498	496	494		
2724696 17956	0	522	523	523	523	489	489	491	493	492	492	493	494		
2724696 18559	0	522	520	519	519	496	498	499	500	496	497	499	500		
2724696 19163	0	519	519	519	520	499	497	495	494	501	501	500	498		
2724696 19767	0	522	523	523	523	493	493	493	493	496	494	493	493		
2724696 20371	0	524	522	522	522	493	494	495	496	493	495	496	498		
2724696 20974	0	522	521	520	519	497	497	497	496	499	499	498	498		
2724696 21578	0	519	519	520	521	495	494	493	493	498	497	497	496		
2724696 22182	0	522	523	523	522	492	493	494	495	496	496	496	496		
2724696 22786	0	522	521	521	520	496	497	498	497	496	497	497	498		
2724696 23389	0	520	520	519	519	497	496	495	493	498	498	498	497		
2724696 23993	0	519	519	520	521	492	492	492	493	496	495	494	494		
2724696 24597	0	522	522	522	523	494	495	496	496	494	495	496	497		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		
0 0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		

example # 02

```
272465411634    0  522  522  522  522  493  494  494  494  497  497  497  497
272465412231    0  522  522  522  522  494  494  494  494  497  497  497  497
272465412841    0  522  522  522  522  494  493  493  493  497  497  496  497
272465413445    0  522  522  522  521  493  493  493  494  497  497  497  497
272465414049    0  521  521  521  521  494  494  494  494  497  497  497  497
272465414652    0  521  521  522  522  494  494  494  494  497  497  497  497
272465415256    0  522  522  522  522  494  493  493  493  496  497  497  497
272465415860    0  522  522  522  522  493  493  493  493  497  497  497  497
272465416464    0  521  521  521  521  494  494  494  494  497  497  496  496
272465417067    0  521  521  521  521  494  494  494  494  497  497  497  497
272465417671    0  521  522  522  522  494  493  493  493  497  497  497  497
272465418275    0  522  522  522  522  493  493  493  493  497  497  497  497
272465418879    0  522  521  521  521  493  493  494  494  496  496  496  497
272465419482    0  521  521  521  521  494  494  494  494  497  497  497  497
272465420086    0  522  522  522  522  494  493  493  493  497  497  497  497
272465420690    0  522  522  521  521  493  493  493  493  497  503  496  496
272465421294    0  521  521  521  521  493  494  494  494  496  496  496  496
272465421897    0  521  521  521  522  494  494  493  493  496  497  497  497
272465422501    0  522  522  522  522  493  493  493  493  497  497  497  497
272465423105    0  522  521  521  521  494  494  494  494  497  496  497  497
272465423709    0  521  521  521  521  494  494  494  494  497  497  497  497
272465424312    0  521  521  521  521  494  493  493  493  497  497  497  497

10    3    2  344   21   26    0      2048
272465424916    0  521  522  521  522  494  494  494  494  497  497  497  497
272465425520    0  522  522  522  522  494  494  494  494  497  497  497  497
272465426124    0  522  522  522  522  494  494  493  493  497  497  497  497
272465426727    0  522  522  522  522  493  493  493  493  497  497  497  497
272465427331    0  522  522  521  521  494  494  494  494  497  497  497  497
272465427935    0  521  522  522  521  494  494  494  494  497  497  497  497
272465428539    0  521  521  521  522  493  493  493  493  497  497  497  496
272465429142    0  522  522  522  522  493  493  493  493  496  496  496  496
272465429746    0    0    0    0    0    0    0    0    0    0    0    0    0
272465430349    0    0    0    0    0    0    0    0    0    0    0    0    0
272465430952    0    0    0    0    0    0    0    0    0    0    0    0    0
272465431558    0  521  521  521  521  493  493  493  494  496  496  496  496
272465432161    0  521  521  521  521  494  494  494  494  497  497  497  497
272465432765    0  521  522  522  522  494  494  494  494  497  497  497  497
2724655  601    0  522  522  521  521  494  494  493  493  497  497  497  497
2724655 1204    0  521  521  521  521  494  494  494  494  497  497  497  496
2724655 1808    0  521  522  522  522  494  494  493  493  497  497  497  497
2724655 2412    0  522  522  522  521  493  493  494  494  497  497  497  497
2724655 3015    0  521  521  521  521  494  494  494  494  497  497  496  496
2724655 3619    0  521  521  522  522  494  494  494  494  497  497  497  497
2724655 4223    0  522  522  522  521  494  494  493  493  497  497  497  497
2724655 4827    0  521  521  521  521  494  494  494  494  497  497  497  496
2724655 5431    0  521  522  522  522  494  494  494  494  496  496  496  497
2724655 6034    0  522  522  522  522  494  494  494  494  497  497  497  497
2724655 6638    0  522  522  521  521  494  494  494  494  497  497  497  497
2724655 7242    0  521  521  521  521  494  494  494  493  497  497  496  496
2724655 7845    0  521  522  522  522  493  493  493  493  496  496  496  496
2724655 8449    0  522  522  522  522  494  494  494  494  496  497  497  497
2724655 9053    0  522  522  522  521  494  494  494  494  497  497  497  497
2724655 9657    0  521  521  521  521  494  494  494  494  497  497  496  496
272465510260    0  522  522  522  522  494  494  494  494  496  496  496  497
272465510863    0  522  522  522  522  494  494  494  494  497  497  497  497
272465511467    0  522  522  522  522  494  494  494  494  497  497  497  497
272465512071    0  521  521  521  521  494  494  494  493  497  497  497  496
272465512674    0  521  521  521  521  493  493  493  493  496  496  496  496
272465513278    0  521  522  522  522  494  494  494  494  497  497  497  497
```

example #03

272465928911	0	521	521	521	521	494	495	494	494	498	498	497	497
272465929519	0	521	522	522	522	493	493	493	494	497	497	496	496
272465930119	0	522	522	522	522	494	494	494	494	496	496	496	496
272465930723	0	522	522	522	522	493	493	493	493	496	497	498	498
272465931326	0	522	522	521	521	493	493	493	494	499	498	497	497
272465931930	0	521	521	521	521	494	494	494	494	496	496	496	496
272465932534	0	521	522	522	522	495	494	494	493	496	496	496	496
2724660 369	0	522	522	522	522	493	493	493	493	497	497	497	497
2724660 973	0	522	522	522	522	493	493	493	494	498	498	497	497
2724660 1577	0	521	521	521	521	494	495	495	495	497	497	497	496
2724660 2181	0	521	522	522	522	495	494	493	492	496	496	496	496
2724660 2784	0	521	521	521	522	493	493	493	494	496	497	498	498
2724660 3388	0	522	523	523	522	494	493	493	493	498	497	496	496
2724660 3992	0	522	521	521	521	494	494	494	494	496	497	497	497
2724660 4598	0	521	521	522	522	494	493	493	493	497	496	496	496
2724660 5199	0	522	523	523	523	493	492	493	493	497	497	497	497
2724660 5803	0	522	522	521	521	494	494	495	495	497	497	496	496
2724660 6407	0	521	521	521	521	495	494	494	494	496	496	497	497
2724660 7011	0	521	522	522	523	493	493	493	494	497	497	497	497
2724660 7614	0	523	523	522	522	494	494	493	493	497	498	497	497
2724660 8218	0	522	521	521	520	493	493	494	495	497	497	496	496
2724660 8822	0	521	521	522	522	495	494	494	494	496	496	496	496
2724660 9426	0	522	522	522	522	494	494	494	493	497	497	498	498
272466010029	0	522	522	522	522	493	493	493	493	498	498	497	497
272466010633	0	521	521	521	521	493	493	494	494	496	496	496	496
272466011237	0	521	521	521	522	494	494	494	493	496	496	497	497
272466011841	0	522	523	523	523	493	493	493	493	497	497	497	497
272466012445	0	522	521	520	520	494	494	495	495	497	496	496	496
272466013048	0	520	520	521	521	495	495	494	493	497	497	497	497
272466013652	0	665	521	522	522	493	493	493	492	497	497	497	497
272466014256	0	523	523	523	522	492	492	493	494	497	497	497	496
272466014859	0	521	521	521	521	495	495	495	495	496	496	496	496
272466015463	0	521	521	520	520	495	494	493	492	497	497	497	497
272466016067	0	521	521	522	522	492	492	492	492	497	497	498	498
272466016670	0	521	521	521	522	493	494	494	494	498	497	496	496
272466017274	0	522	522	522	522	494	494	494	494	496	496	495	495
272466017878	0	522	521	521	521	494	494	494	493	496	496	497	497
272466018482	0	521	522	522	522	493	492	492	492	498	498	498	498
272466019086	0	522	522	522	522	493	494	494	494	498	498	497	496
272466019689	0	522	522	521	522	495	495	495	494	495	495	495	496
272466020293	0	522	521	521	521	494	494	494	493	496	496	496	497
272466020897	0	521	521	522	522	493	493	492	493	498	498	498	498
272466021501	0	522	522	522	523	493	494	494	494	497	497	496	495
272466022105	0	522	522	521	521	494	494	494	494	496	496	497	498
272466022708	0	520	520	521	521	494	494	493	493	498	497	497	497
272466023312	0	522	522	521	522	493	493	493	493	497	496	496	496
272466023916	0	522	522	522	522	494	494	495	495	496	496	496	496
272466024519	0	522	522	522	521	495	494	494	493	497	497	498	498
272466025123	0	521	521	521	521	493	493	494	494	497	497	496	496
272466025727	0	521	522	522	522	494	494	493	493	496	496	497	497
272466026331	0	522	522	521	521	493	494	494	494	497	497	497	497
272466026934	0	521	521	521	521	494	494	494	493	496	496	496	496
272466027538	0	522	522	521	521	493	494	494	494	497	497	497	497
272466028142	0	522	523	523	522	494	493	493	493	497	497	497	496
272466028746	0	521	521	521	521	493	494	494	494	496	496	496	496
272466029349	0	522	522	522	522	494	494	494	494	496	497	497	497
272466029953	0	522	522	522	521	494	494	494	493	498	498	498	497
272466030557	0	521	521	521	521	493	493	493	494	497	496	496	496
272466031161	0	522	522	522	522	494	494	494	493	496	496	497	497
272466031764	0	522	522	522	522	493	493	493	494	497	496	496	497
272466032368	0	521	521	521	521	494	494	494	495	497	497	497	497
2724661 204	0	521	521	521	521	494	494	494	493	497	496	495	495

Header for example #04

2724662 30??	0	524	523	523	523	496	494	493	494	496	499	500	500
2724662 3?	0	522	521	520	518	495	494	492	491	498	496	494	493
2724662 4264	0	518	519	522	524	492	493	495	495	493	495	497	498
2724662 4867	0	524	521	522	520	494	494	495	496	499	499	498	497
2724662 5411	0	520	521	521	522	496	494	492	491	497	498	498	497
2724662 6074	0	523	521	522	522	493	494	496	496	496	495	495	496
2724662 6619	0	521	521	522	522	496	494	493	492	496	497	498	497
2724662 7282	0	523	523	521	519	491	492	494	496	497	496	496	496
2724662 7806	0	518	519	521	524	497	496	494	491	498	499	499	498
2724662 8490	0	526	527	525	520	491	492	493	494	496	495	495	494
2724662 9094	0	516	516	518	521	494	494	494	494	495	496	498	498
2724662 9697	0	523	523	524	524	495	495	495	493	498	497	497	497
2724662 10301	0	523	523	523	523	492	491	490	490	496	496	496	496
2724662 10905	0	522	520	519	519	492	496	499	500	497	497	497	497
2724662 11509	0	520	522	524	499	500	497	492	535	497	496	496	760
2724662 12111	10	523	521	520	518	486	486	489	493	497	497	497	496
2724662 12716	0	518	518	520	522	496	498	499	498	496	496	497	498
2724662 13320	0	524	525	525	524	496	494	494	493	498	498	497	496
2724662 13923	0	523	522	522	521	493	492	491	491	496	497	496	496
2724662 14527	0	520	520	521	522	492	493	493	494	496	496	497	497
2724662 15131	0	522	522	521	520	495	496	496	495	497	496	496	497
2724662 15735	0	519	519	520	521	495	495	494	492	498	498	497	496
2724662 16339	0	523	524	524	524	491	491	492	494	497	498	498	497
2724662 16942	0	524	524	523	522	495	495	495	495	495	495	496	497
2724662 17546	0	520	519	519	520	495	494	493	492	496	494	493	495
2724662 18150	0	521	521	520	520	493	495	496	496	498	500	500	499
2724662 18753	0	521	522	523	523	494	493	492	493	497	497	497	497
2724662 19357	0	519	519	519	520	496	495	494	493	498	499	498	498
2724662 21168	0	520	521	521	521	492	493	494	495	497	498	498	497
2724662 21772	0	521	521	52?	554	495	493	492	493	496	496	496	495
2724662 22376	0	522	522	523	523	494	494	494	493	495	496	496	496
2724662 22980	0	523	523	523	523	492	493	494	494	495	495	495	497
2724662 23583	0	523	521	519	517	494	494	495	495	500	502	503	501
2724662 24187	0	518	520	522	524	495	494	494	495	498	496	495	495
2724662 24791	0	524	521	520	520	496	495	495	494	494	493	492	493
2724662 25395	0	521	523	524	523	494	493	491	491	495	497	499	500
2724662 25998	0	522	522	522	522	493	495	495	494	501	501	500	497
2724662 26602	0	521	521	521	521	493	492	492	493	495	494	495	496
2724662 27206	0	522	522	521	520	494	496	496	496	497	496	495	494
2724662 27810	0	520	521	521	521	496	494	492	492	496	498	499	500
2724662 28413	0	519	519	520	521	492	493	494	495	499	497	495	494
2724662 29017	0	524	524	524	524	495	494	493	493	494	495	496	499
2724662 29621	0	523	522	522	522	494	494	493	492	499	499	497	496
2724662 30225	0	521	522	522	522	491	491	492	493	496	497	497	496
2724662 30828	0	521	520	519	518	495	497	499	500	495	496	496	497
2724662 31432	0	518	519	522	524	499	496	492	489	498	498	498	391
2724662 32036	1	524	523	521	521	489	489	490	492	496	495	495	496
2724662 32640	0	522	523	523	523	493	495	496	497	497	499	499	499
2724663 475	0	523	523	521	519	498	497	494	492	497	495	494	494
2724663 1079	0	517	517	518	520	491	492	493	492	494	495	495	496
2724663 1683	0	523	525	524	522	491	492	493	495	498	500	501	500
2724663 2287	0	522	522	522	521	495	495	496	498	498	497	497	497
2724663 2891	0	521	521	521	522	499	497	494	491	497	495	494	492
2724663 3494	0	522	521	520	520	490	491	492	492	492	495	497	499
2724663 4098	0	520	521	521	521	491	490	492	496	499	499	499	499
2724663 4702	0	521	521	521	523	500	501	500	497	498	496	495	495
2724663 5305	0	524	525	524	523	493	491	489	490	496	496	496	496
2724663 5909	0	523	522	520	518	491	492	492	492	496	495	496	498
2724663 6513	0	519	519	520	520	492	493	493	495	500	501	500	498
2724663 7117	0	520	521	521	523	497	498	499	498	496	494	493	494
2724663 7720	0	524	525	524	523	495	493	491	492	495	495	495	496
2724663 8324	0	522	522	521	520	492	493	494	495	497	499	500	501

21,168
-18.75-3
2,415

32,767
-18.75-3
14,019

example #05

272[illegible]	0	520	522	524	525	493	494	495	497	497	498	497	496	
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272466412384	0	519	518	519	520	492	492	491	490	497	500	501	501	
272466412988	0	522	523	522	521	490	492	494	496	498	495	493	493	
272466413590	0	521	522	523	522	498	498	498	497	494	495	496	498	
272466414194	0	524	522	523	523	495	492	490	490	500	501	499	496	
272466414800	0	523	523	522	520	493	495	495	493	493	493	494	496	
272466415417	0	518	518	520	522	493	492	492	493	496	496	496	496	
272466416015	0	523	524	524	524	493	494	494	495	497	499	499	499	
272466416619	0	524	524	522	519	495	494	494	495	500	500	499	497	
272466417221	0	516	515	516	519	496	496	494	492	495	493	493	494	
272466417827	0	523	527	527	526	491	493	495	496	495	495	496	497	
272466418431	0	524	522	521	520	495	493	492	492	499	500	499	497	
272466419034	0	520	521	522	522	491	491	491	494	495	494	495	497	
272466419638	0	520	518	517	518	498	499	499	496	499	500	499	497	
272466420241	0	521	525	527	527	492	490	489	490	496	497	498	498	
272466420845	0	524	521	520	520	492	495	496	495	496	494	494	495	
272466421449	0	521	522	521	520	494	494	496	497	496	496	496	495	
272466422053	0	519	520	521	522	496	493	490	488	495	494	496	499	
272466422657	0	523	523	522	521	489	492	495	496	503	505	504	501	
272466423260	0	520	520	520	520	495	493	493	494	497	495	493	491	
272466423864	0	520	521	523	524	496	498	497	496	492	493	494	494	
272466424468	0	524	524	522	520	495	494	493	493	494	495	496	498	
272466425072	0	519	520	521	521	494	495	494	492	500	501	502	502	
272466425675	0	522	521	521	522	490	488	489	492	500	498	496	496	
272466426279	0	523	524	525	524	496	499	498	496	496	495	495	494	
272466426883	0	522	519	515	513	494	493	492	492	494	494	494	495	
272466427487	0	515	519	522	525	492	493	493	495	497	500	500	500	
272466428090	0	527	527	526	523	495	495	494	493	498	497	496	495	
272466428694	0	522	521	521	520	493	493	492	492	495	496	497	499	
272466429298	0	520	519	519	520	494	496	497	497	499	499	497	496	
272466429902	0	521	522	522	521	495	493	492	492	496	496	496	494	
272466430505	0	521	521	522	523	493	493	494	494	493	493	495	499	
272466431109	0	522	520	519	519	493	493	492	493	502	502	498	495	
272466431713	0	520	521	522	523	493	493	492	493	494	495	496	498	
272466432316	0	524	524	523	522	495	497	498	498	499	498	497	496	
2724665 152	0	520	519	518	519	496	493	491	489	496	497	497	496	
2724665 756	0	522	524	526	525	489	490	493	495	496	495	495	496	
2724665 1360	0	524	523	520	518	496	496	495	494	494	497	498	497	496
2724665 1964	0	517	517	520	523	496	498	497	494	496	496	497	498	
2724665 2567	0	524	523	522	521	492	491	491	492	499	499	499	499	
2724665 3171	0	520	521	521	521	492	494	495	495	499	497	494	491	
2724665 3775	0	521	521	522	522	495	494	495	496	490	491	494	496	
2724665 4379	0	522	522	523	525	497	497	494	491	499	501	501	500	
2724665 4982	0	526	526	521	521	488	486	487	491	499	497	496	494	
2724665 5586	0	519	518	516	515	495	498	499	499	494	495	496	497	
2724665 6190	0	517	520	521	524	498	496	495	495	498	499	499	497	
2724665 6794	0	523	523	524	526	496	495	491	488	496	495	496	496	
2724665 7397	0	527	527	524	520	487	489	492	496	496	495	495	495	
2724665 8001	0	517	516	516	517	498	497	495	493	497	500	503	503	
2724665 8605	0	519	521	521	522	494	495	495	494	501	498	495	493	
2724665 9209	0	525	527	529	529	494	495	494	494	492	491	491	492	
2724665 9812	0	527	522	517	514	494	494	494	493	494	497	500	502	
272466510416	0	513	513	515	519	493	492	491	491	503	501	500	498	
272466511020	0	524	528	528	527	492	494	496	498	498	497	496	494	
272466511624	0	526	525	500	260	499	499	525	760	493	492	758	758	
272466512226	10	519	518	517	516	492	490	488	488	495	498	500	500	
272466512831	0	516	518	521	524	489	492	494	495	499	498	497	497	
272466513435	0	526	527	526	525	495	496	497	498	498	498	498	498	
272466514039	0	523	522	521	521	497	494	492	492	497	496	496	495	
272466514642	0	520	519	518	518	493	493	493	491	494	494	495	496	
272466515246	0	517	517	518	521	490	491	493	495	496	496	497	498	

δ = 0.614

example # 0.6

14.194

13.590

.604

14.806

14.194

.614

334 12 1970 dy = 47

Apollo 12 D-57810

TRANSLATE AND CONVERT MUST BOTH BE OFF ON INPUT DEVICEFOR PROPER PRINTOUT. IGNORE THIS MESSAGE IF PROPER DEVICE WAS SPECIFIED.

RECORD 000001, LENGTH 00024 , FILE 00001.

256525456360 000516000014 003662000000 036422777424

RECORD 000002, LENGTH 00024 , FILE 00001.

256525456360 000516000014 003662000000 036422777424

RECORD 000003, LENGTH 09720 , FILE 00001.

036422777424	200277740000	704403542630	377437743774	374037703660	376437503764	377037743774	377437743740
377036603764	375037643770	000037746234	377440203774	377437403770	366037743750	000037743774	377437703740
376436603764	375037643770	036423000560	200277740000	704403542640	377437743774	374037643664	376437503764
377037743774	377437743740	377036643764	375037643770	164037742254	377432743774	377437403770	366037743744
000037743774	377437703744	376436603764	374437643770	036423001714	200277740000	704403542650	377437743774
374437703660	376437443764	377037743774	377437703750	377036603764	375037643770	001437706234	377440203774
377437503774	366037743750	000037743774	377437703750	376436603764	374437643770	036423003050	200277740000
704403542660	377437743774	375037703660	376437443764	377037743774	377437743750	377036603764	374437643770
067437742254	377432743774	377437443774	366037743744	000037743774	377437743744	376436603764	375037643770
036423004203	200277740000	704403542670	377437743774	374037643660	376437503764	377037743774	377437703740
376436603764	375037643770	000037746234	377440203774	377437343770	366037743750	000037743774	377437743734
376436603764	375037643770	036423005337	200277740000	704403542700	377437743774	373037703660	376437503764
377037743774	377437743730	377036603764	375037643770	121037742254	377432743774	377437303774	366037743744
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373437703660	376437443764	377037743774	377437743740	377036543764	374437643770	000037746234	377440203774
377437403774	365437743744	000037743774	377437743740	376436543764	374437643770	036423007627	200277740000
704403542720	377437743774	374437703660	376437443764	377037743774	377437743744	377036603764	374437643770
027437742254	377432743774	377437443774	366037743744	000037743774	377437703744	376436603764	375037643770
036423010762	200277740000	704403542730	377437743774	374037703660	376437503764	377037743774	377437743740
377036603764	375037643770	135437746234	377440203774	377437403770	366037743750	000037743774	377437703740
376436603764	375037643770	036423012116	200277740000	704403542740	377437743774	373437703660	376437503764
377037743774	377437743734	377036603764	375037643770	120037742254	377432743774	377437343770	366037743744
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035037742254	377432743774	377437543774	365437743744	000037743774	377437743750	377036603764	375037643770
036423015541	200277740000	704403542770	377437743774	375037703660	376437503764	377037743774	377437743750
377036603764	375037643770	055037746234	377440203774	377437503774	366037743750	000037743774	377437703750
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000037743774	377437743740	377036603764	374437643770	036423024610	200277740000	704403543050	377437743774
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Apollo 12 D-57811

RECORD 1 OF FILE 1
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Event 335

1(1) 256525456360 000517000014 003663000001 042522525516

RECORD 1833 OF FILE 1
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105(625)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
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153(913)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
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169(1009)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
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185(1105)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
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553(3313)	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111
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569(3409)	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111	11111111111
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1833 RECORDS IN FILE 1 OF TAPE

Apollo 12 D-57812

TRANSLATE AND CONVERT MUST BOTH BE OFF ON INPUT DEVICEFOR PROPER PRINTOUT. IGNORE THIS MESSAGE IF PROPER DEVICE WAS SPECIFIED.

RECORD 000001, LENGTH 00024 , FILE 00001.

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RECORD 000002, LENGTH 00024 , FILE 00001.

256525456360	072462000014	003667000001	034722656261

RECORD 000003, LENGTH 04860 , FILE 00001.

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Apollo 12 D-57813

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Apollo 12 D-57814

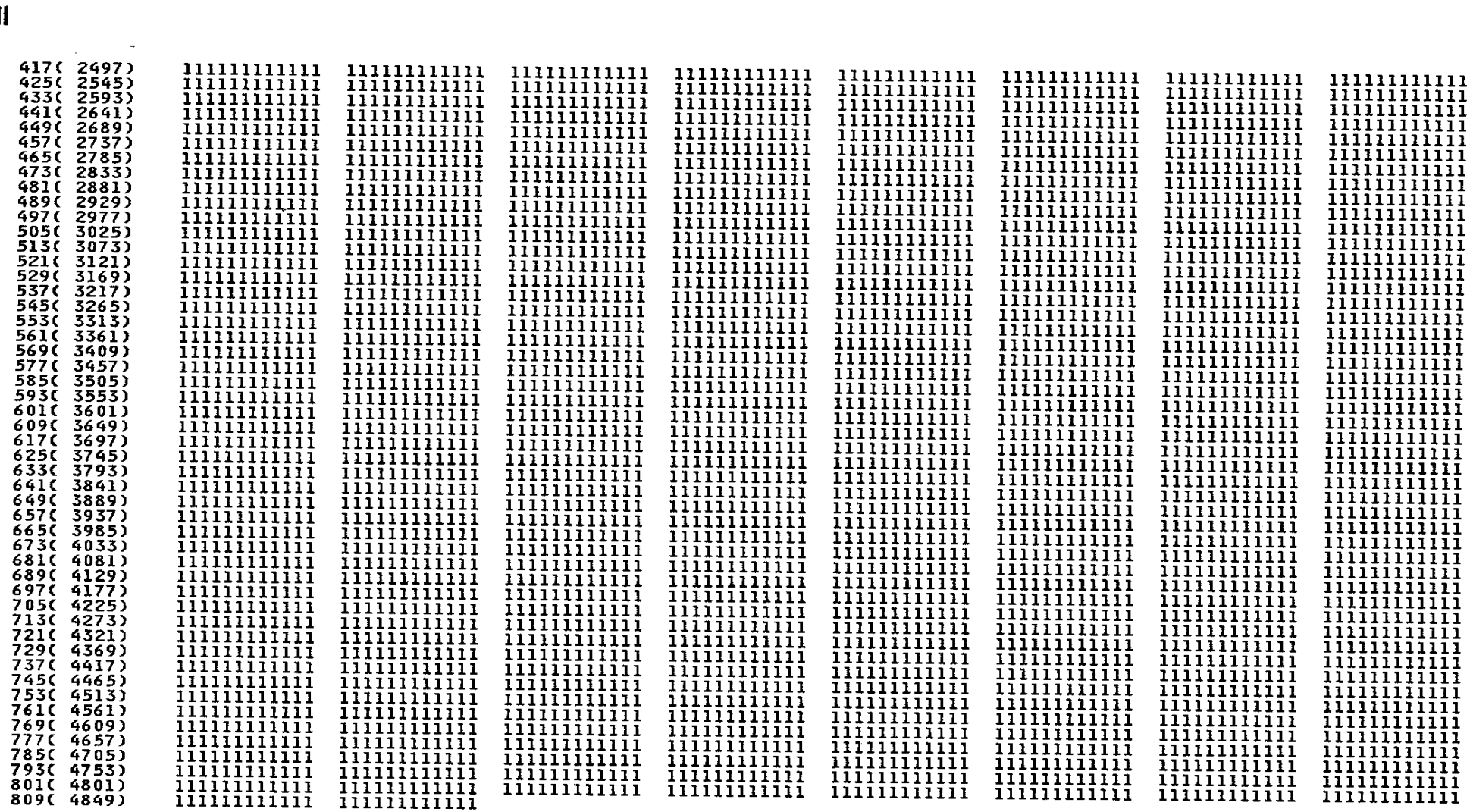
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EVENT 333 12 1176

1(1) 256525456360 000515000014 003670000000 216214216214

RECORD 292 OF FILE 1
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17(97)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
25(145)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
33(193)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
41(241)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
49(289)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
57(337)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
65(385)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
73(433)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
81(481)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
89(529)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
97(577)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
105(625)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
113(673)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
121(721)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
129(769)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
137(817)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
145(865)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
153(913)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
161(961)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
169(1009)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
177(1057)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
185(1105)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
193(1153)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
201(1201)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
209(1249)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
217(1297)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
225(1345)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
233(1393)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
241(1441)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
249(1489)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
257(1537)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
265(1585)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
273(1633)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
281(1681)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
289(1729)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
297(1777)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
305(1825)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
313(1873)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
321(1921)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
329(1969)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
337(2017)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
345(2065)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
353(2113)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
361(2161)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
369(2209)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
377(2257)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
385(2305)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
393(2353)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
401(2401)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111
409(2449)	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111	1111111111111



292 RECORDS IN FILE 1 OF TAPE

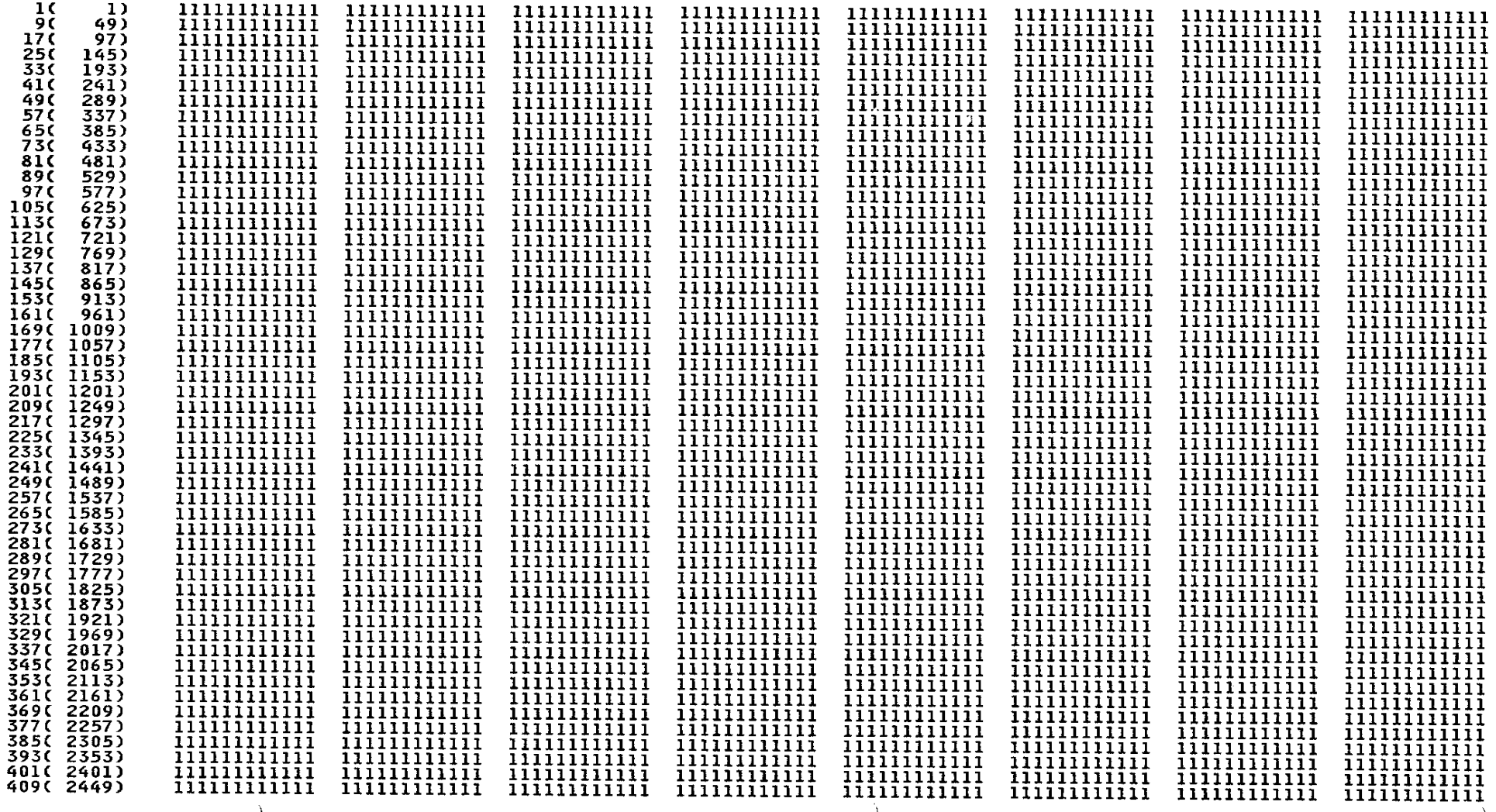
Apollo 13 D-57815

RECORD 1 OF FILE 1
LENGTH = 24 BYTES

Event 2007 12 day 149

1(1) 256525456360 047047000014 003670000001 140045532773

RECORD 1188 OF FILE 1
LENGTH = 4860 BYTES



417(2497)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
425(2545)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
433(2593)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
441(2641)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
449(2689)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
457(2737)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
465(2785)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
473(2833)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
481(2881)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
489(2929)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
497(2977)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
505(3025)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
513(3073)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
521(3121)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
529(3169)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
537(3217)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
545(3265)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
553(3313)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
561(3361)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
569(3409)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
577(3457)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
585(3505)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
593(3553)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
601(3601)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
609(3649)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
617(3697)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
625(3745)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
633(3793)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
641(3841)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
649(3889)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
657(3937)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
665(3985)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
673(4033)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
681(4081)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
689(4129)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
697(4177)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
705(4225)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
713(4273)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
721(4321)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
729(4369)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
737(4417)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
745(4465)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
753(4513)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
761(4561)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
769(4609)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
777(4657)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
785(4705)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
793(4753)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
801(4801)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
809(4849)	111111111111	111111111111							

1188 RECORDS IN FILE 1 OF TAPE

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$ASS IN MS5 SI TY
$EXEC DPHEX7 BS
 INPUT TAPE ON MS5
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  (      0)  575565CF  0003EC00  0C01EE00  00100677  23E6
  FILE   1       RECORD    2       LENGTH   18   BYTES
  (      0)  575565CF  0003EC00  0C01EE00  00100677  23E6
  FILE   1       RECORD    3       LENGTH  3645  BYTES
  (      0)  00677236  6A02FFC0  00E240EC  50082C7A  C7A88347  AC7A8060  2EC82482  C7AC7A80  0082C7AC  7A800000
  (     40)  00067726  42A02FFC  000E240E  C50882C7  AC7A882C  7AC7A804  080C0008  2C7AC7AC  00082C7A  87A80000
  (     80)  00006772  89EA02FF  C000E240  EC51082C  7A87A882  C7A47A80  642EC824  82C7A47A  80008347  A07A8000
  (    120)  00000677  2AF9A02F  FC000E24  0EC51883  47A07A88  2C78C7A8  35480C00  082C78C7  A800082C  78C7A800
  (    160)  00000067  72D55A02  FFC000E2  40EC5208  2C78C7A8  82C78C7A  81BC2EC8  2482C78C  7A800082  C78C7A80
  (    200)  00000006  772F31A0  2FFC000E  240EC528  82C78C7A  882C78C7  A418080C  00082C78  C7A40008  2C78C7A4
  (    240)  00000000  67732CDA  02FFC000  E240EC53  082C7887  A482C788  7A400C2E  C82882C7  887A4000  82C7847A
  (    280)  40000000  06773469  A02FFC00  0E240EC5  3882C784  7A482C78  47A400C8  0C00082C  7847A400  082C7847
  (    320)  A0000000  0067736C  4A02FFC0  00E240EC  54082C78  47A082C7  847A0000  2EC82482  C7847A00  0082C784
  (    360)  7A000000  00067739  20A02FFC  000E240E  C54882C7  807A082C  7807A000  080C0008  2C7807A0  00082C78
  (    400)  07A00000  00006773  B7CA02FF  C000E240  EC550838  7807A083  87807A00  682F4824  8387807A  00008387
  (    440)  807A0000  00000677  3DD7A02F  FC000E24  0EC55883  876C7A08  2C76C7A0  04080C00  083876C7  A000082C
  (    480)  76C7AC00  00000067  74033A02  FFC000E2  40EC5608  2C76C7A0  83C77C7A  00002EC8  2482C76C  7A000082
  (    520)  C76C7A20  00000006  77428FA0  2FFC000E  240EC568  82C76C7A  083C77C7  A0000810  00083C77  C7A00008
  (    560)  3C77C7A0  00000000  67744EBA  02FFC000  E240EC57  083877C7  A083C77C  7A003C2E  C82482C7  6C7A0000
  (    600)  82C76C7A  00000000  06774747  A02FFC00  0E240EC5  7882C780  7A083878  07A00448  10000838  7807A000
  (    640)  082C7847  A0000000  0067749A  2A02FFC0  00E240EC  58082C78  47A082C7  847A003C  2EC82482  C7847A00
  (    680)  0082C788  7A000000  00067746  FEA02FFC  000E240E  C5882C7  887A082C  7887A004  080C0008  2C7887A0
  (    720)  00082C78  C7A00000  00006774  E5AA02FF  C000E240  EC59082C  78C7A082  C78C78C3  342EC824  82C78C7A
  (    760)  000082C7  8C7A0000  00000677  5036A02F  FC000E24  0EC59882  C78C7A08  2C78C7A0  00080C00  082C78C7
  (    800)  A000082C  78C7A000  00000067  75311A02  FFC000E2  40EC5A08  307987A0  83079C7A  03782F48  2483078C
  (    840)  7A000082  C78C7A00  00000006  77556DA0  2FFC000E  240EC5A8  82C7A07A  082C7A07  A00E080C  00082C7A
  (    880)  47A00008  2C7A47A0  00000000  67757C9A  02FFC000  E240EC5B  08287A87  A08287A8  7A02A02E  C8248287
  (    920)  AC7A0000  8287AC7A  00000000  06775A24  A02FFC00  0E240EC5  B88287AC  7A48247A  C7A40008  0C000820
  (    960)  7AC7A400  08207AC7  A4000000  00677SC8  0A02FFC0  00E240EC  5C081C7A  C7A480C7  AC7A43FC  2EC82480
  ( 1000)  C7AC7A40  0080C7AC  7A400000  0006775E  DCA02FFC  000E240E  C5C880C7  AC7A4810  7A87A400  08100008
  ( 1040)  0C7B47A8  00080C7A  C7A80000  00006776  138A02FF  C000E240  EC5D0808  7AC7A880  47AC7A80  3C2EC824
  ( 1080)  8047AC7A  80008047  AC7A8000  00000677  6394A02F  FC000E24  0EC5D880  07AC7A88  007AC7A8  11480C00
  ( 1120)  08007AC7  A800007C  7B87A800  00000067  765EFA02  FFC000E2  40EC5E07  FC7B87A8  7FC7B87A  82382EC8
  ( 1160)  247EC7AC  7A80007E  C7AC7A80  00000006  77684BA0  2FFC000E  240EC5E8  7FC7B87A  87EC7AC7  A804080C
  ( 1200)  0007EC7A  C7A80007  EC7AC7A8  00000000  6776AA7A  02FFC000  E240EC5F  08007B47  A88007AC  7A804C2F
  ( 1240)  88248007  B47A8000  8007B07A  C0000000  06776D02  A02FFC00  0E240EC5  F88007AC  7AC8007A  C7AC08C8
  ( 1280)  0C000804  7AC7AC00  08047AC7  AC000000  006776F5  EA02FFC0  00E240EC  6008047A  87AC8087  A87AC064
  ( 1320)  2EC82480  87A47AC0  0080C7A4  7AC00000  00067771  BAA02FFC  000E240E  C60880C7  A47AC80C  7A07AC35
  ( 1360)  880C0008  0C7A07AC  00080C78  C7AC0000  00006777  416A02FF  C000E240  EC61080C  78C7AC80  C78C7AC0
  ( 1400)  C82EC824  80C78C7A  C0008007  8C7AC000  00000677  7671A02F  FC000E24  0EC61880  C78C7AC8  0C78C7AC
  ( 1440)  00080C00  080C78C7  AC00080C  78C7AC00  00000067  778CDA02  FFC000E2  40EC6208  0C7887AC  80C7887A
  ( 1480)  C1B82EC8  2480C784  7AC00080  C7807AC0  00000006  777B29A0  2FFC000E  240EC628  80C76C7A  C80C76C7
  ( 1520)  AC19880C  00082076  C7AC0008  2076C7AC  00000000  6777D85A  02FFC000  E240EC63  08207607  AC82476C
  ( 1560)  7AC0542E  C8248287  6C7AC000  82876C7A  C0000000  06777FE0  A02FFC00  0E240EC6  3882C768  7AC82C76
  ( 1600)  47AC0445  10000820  7647AC00  082C7607  AC000000  00677823  CA02FFC0  00E240EC  64082C76  07AC82C7
  ( 1640)  4C7AC16C  2EC82482  C74C7AC0  0082C74C  7AC00000  00067784  98A02FFC  000E240E  C64882C7  4C7AC82C
  ( 1680)  74C7AC00  080C0008  2C74C7AC  00082C74  C7AC0000  00006778  6F4A02FF  C000E240  EC65082C  74C7AC84
  ( 1720)  074C7AC0  D02EC824  84074C7A  C0008407  4C7AC000  00000677  894FA02F  FC000E24  0EC65884  474C7AC8
  ( 1760)  4474C7AC  00080C00  084474C7  AC000844  74C7AC00  00000067  78BABA02  FFC000E2  40EC6608  4474C7AC
  ( 1800)  84474C7A  C0542EC8  24848760  7AC00084  47607AC0  00000006  778E08A0  2FFC000E  240EC668  8487647A
  ( 1840)  C8487647  AC080C0C  00084876  87AC0008  4476C7AC  00000000  6779063A  02FFC000  E240EC67  084476C7
  ( 1880)  AC84476C  7AC0542E  C8248447  6C7AC000  84476C7A  C0000000  067792BF  A02FFC00  0E240EC6  7884476C
  ( 1920)  7AC84076  C7AC1E05  0C000840  76C7AC00  08407807  AC000000  00677951  AA02FFC0  00E240EC  68084078
  ( 1960)  47AC8407  887AC0FC  2EC82484  07887AC0  0084078C  7AC00000  00067797  76A02FFC  000E240E  C68882C7
  ( 2000)  8C7AC82C  78C7AC00  080C0008  2C78C7AC  00082C78  C7AC0000  00006779  9D2A02FF  C000E240  EC69082C
  ( 2040)  78C7AC82  C79C7A82  282EC824  82C78C7A  80008207  8C7A8000  00000677  9C2DA02F  FC000E24  0EC69882
  ( 2080)  C7EC7A88  2C7A07A8  3FC80C00  082C7A07  A8000820  7A47A800  00000067  79E89A02  FFC000E2  40EC6A08
  ( 2120)  2C7A47A8  82C7A47A  40002EC8  2482C7A4  7A400082  C7A87A40  00000006  77A0E5A0  2FFC000E  240EC6A8
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* USE APOLLO TIMES PROGRAM TO GET TIME

APOLLO 12
PASSIVE SEISMIC EVENT
69-099C-03A
01/01/76 - 01/13/76

0-28102

#

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(  2160)  82C7A87A  482C7A87  A4000080  0008C2C7A  87A40008  2C7A87A4  00000000  677A341A  02FFC000  E240EC6B
(  2200)  082C7A87  A482C7A8  7A40002E  C82482C7  A87A4000  8287A87A  40000000  0677A59C  A02FFC00  0E240EC6
(  2240)  888287A8  7A4582C7A  87A41188  0C000828  7A87A400  08247A87  A4000000  00677A7F  8A02FFC0  00E240EC
(  2280)  6C08247A  87A48247  A87A4124  2EC82482  47A87A40  008207A8  7A400000  000677AA  54A02FFC  000E240E
(  2320)  C0C88207  A87A4820  7A87A000  080C0008  207A87A0  00081C7A  87A00000  0000677A  CB0A02FF  C000E240
(  2360)  EC400800  7A87A080  C7A87A00  002EC824  80C7A87A  0000800C7  A87A0000  00000677  AF0BA02F  FC000E24
(  2400)  0EC40C80  C7A87A08  0C7A47A0  2F480C00  080C7A47  A0000820  7A47A000  00000067  7B167A02  FFC000E2
(  2440)  40EC4108  207A47A0  8207A47A  00342EC8  248207A4  7A000080  C7A47A00  00000006  77B3C3A0  2FFC000E
(  2480)  240EC418  8207A47A  08207A87  A03CC80C  0008207A  87A00008  207A87A0  00000000  677B61FA  02FFC000
(  2520)  E240EC42  48207A87  A08207A8  7A004C2E  C8248207  A87A0000  8207A87A  00000000  0677B87A  A02FFC00
(  2560)  0E240EC4  288207A8  7A08207A  87A02988  0C000820  7A87A000  08247A87  A0000000  00677BAD  6A02FFC0
(  2600)  00E240EC  4308247A  87A08247  A87A0348  2EC82482  47A87A00  008287A8  7A000000  000677BD  32A02FFC
(  2640)  000E240E  C4388287  A87A0828  7A87A03F  C80C0008  287A87A0  0008287A  87A00000  0000677B  F8EA02FF
(  2680)  C000E240  EC44082C  7A87A082  C7A87A02  902EC824  82C7A87A  000082C7  A87A4000  00000677  C1EAA02F
(  2720)  FC000E24  0EC44882  C7AC7A48  2C7AC7A4  38880C00  082C7AC7  A4000820  7AC7A400  00000067  7C445A02
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(  3640)  07A40000  00
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9F2C15DE7463C959D1471C85007C30C30C30                                  REC    2, LENGTH   18

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APOLLO 12
PASSIVE SEISMIC EVENT

D-8120

11/20/69 - 12/14/69

9F2C15DE7463C959D1471C85007C30C30C30 REC 1. LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 36 chw REC 2. LENGTH 18

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FFC000E240EC4187D47DC7D08287CC7B47CC7C07CC7D07D07D08287CC7B47CC7C07CC7D03CC7D09DC7D400C7DC7D08
287D07B47D07C00007D47D47D07D08287CC7B47CC7C07CC7D0701157875402FFC000E240EC4247D07D07D08287CC7B47CC7C
07CC7D07D07D07D07D08287CC7B47CC7C07CC7D0098 7D06287D09647D07D08287D07B47D07C00007D07D07D07D08287CC7B4
7CC7C07CC7CC701157AD2402FFC000E240EC4287D07D07D08287CC7B47CC7C07CC7CC7D07D07D07D08287CC7B47CC7C07CC7
CC35C7D0SDC7D0007D07D08287D07B47D07C00007D47D47D07D08287CC7B47CC7C07CC7D0701157D2C402FFC000E240EC43
07D07D07D08287CC7B47CC7C07CC7DC7D07D07DC8287CC7B47CC7C07CC7CC2E87D06287D09647D07D08287DC7B47DC7C0
0007D07DC7D07D08287CC7B47CC7C07CC7D0701157F88402FFC000E240EC4387D07D07D08287CC7B47CC7C07CC7DC7DC7D07
D07D08287CC7B47CC7C07CC7D00507D09DC7D00007D07D08287D07B47D07C00007D47D47D07D08287CC7B47CC7C07CC7D070
11581E4402FFC000E240EC4407D07DC7D08287CC7B47CC7C07CC7CC7D07D07D07D08287CC7B47CC7C07CC7CC1F87D0E287D0
9647D07D08287D07B47DC7C00007DC7D07D07D08287CC7B47CC7C07CC7CC701158440402FFC000E240EC4487D07DC7DCE287
CC7B47CC7C07CC7CC7D07D07D07D08287CC7B47CC7C07CC7CC3D87D09DC7D00007D07D08287CC7B47D07C00007D07DC7D07D
08287CC7B47CC7C07CC7CC701158698402FFC000E240EC4507D07D07D08287CC7B47CC7C07CC7CC7D07D07D07D08287CC7B4
7CC7C07CC7D00007D062E7D09647D07D08287D07B47D07C00007D07D07D07D08287CC7B47CC7C07CC7D0701158EF402FFC0
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7D07D07D07D07D08287CC7B47CC7C07CC7D00007D06287D09647D07D08287D07B47D07C00007D47D47D07DC8287CC7B47CC7
C07CC7D07011588DB402FFC000E240EC4687D07D07D08287CC7B47CC7C07CC7D07D07D07D08287CC7B47CC7C07CC7DC000
47D09DC7D00007D07DC8287D07B47DC7C00007D47D47D07D08287CC7B47CC7C07CC7D07011590 0A402FFC000E240EC4707D0
7D07D08287CC7B47CC7CC7CC7D07D07D07D07D08287CC7B47CC7C07CC7D00007D06287D09647D07D08287D07B47DC7C0C007
D07D07D07D08287CC7B47CC7CC7CC7D07D07D07D07D08287CC7B47CC7C07CC7D000

9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

02666DAC4902FFC000E240EC618800EC0800828007B88007C0804804804800800800828807B88007C08C4804000C8048F48 REC 3, LENGTH 7290
00000800800828807B8E047C00008C0800800800828807B88047C4804804002666DD1F902FFC000E240EC6208C080C80082
88007B88007C48048048C48C08CC8C8288007B88047C4804804000C8045E0800ADC800800828807B88007C00CC8C48CC800
800828807B88007C0804804026666DF7B902FFC000E240EC62880080080082480077B88047C0804804804804800800824807
B88047C0804804218804EF480CC0080C800824807B88047C0000800800800800828807B88007C0804804026666E1D7902FF
C000E240EC6308008008CC8288007B88007C0804804804804800800828807B88007C0804804000804 5E0800ADC8C08CC828
8007B88047C000C80080C80080082 88C07B88007C0804804026666E433902FFC000E240EC6388008008008288007B88C47C08
0484804800800800828E007B8804 7C8048040808048F48000008008008288007B88047C0000800800800800828E047B880
47C0804804026666E68E9C2FFC000E240EC64080080080082880077B88007C0804804804804800800800828807B88C07C0804804
18C8045E0800ADC80080C828807B88047C0000800800800800828807B88007C0804804026666E8EA902FFC000E240EC6488
008008008248007B88007C0804804804800800800824807B88007C0804804000804 8F4800000800800824807B88047C000
0800800800800824807B8804 7C0804804026666EB46902FFC000E240EC650804800800824807B88047C0804804 8C48CC800
80082480C7B88007C0804804000804 5E0800ADC800800824807B88007C0000800800800800828807B88007C0804804026 66
6EDA2902FFC000E240EC658800800800C828807B48047C0804804804804804800800828807B88007C0804804026666
0800800828804 7B88047C0000800800C824807B88047C0000800800800800828807B88007C0804804000804 6F48C000
7BC8007C0804804804804C8008008288007BC8007C0804804 0AC8045E0800ADC800800828807B88047C000C8048CC8CC8008
288007B88047C0804804 C2666F259902FFC000E240EC6688008008008288007B88047C0804804804800800800828807B880
07C0804804 1808048F48C000080080082480077B88047C0000800800800800824807B88047C0804804026666F4B59C2FFC000
E240EC67C804800800828807B8804 7C0804804804804800800828807B88047C0804804 0B8045E0800ADC800800828807
B88047C000080080080082880077B88047C0804804804804800800828807B88047C0000800800800800828807B88047C0C
4804800800800828807B88C47C0804804 1E08048F4800000800800828807B88047C0000800800800800828807B88047C0
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045E08C0ADC800800828E007B88047C0000E0048008008008288007B88047C0804804026666FBC8902FFC000E240EC68880080
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8008008288007B880C7C0800804026666FE24902FFC000E240EC690804800800824807B88047C0804804804804CCE008
2480C7B88047C0804804234804 5E0804ADC8008008248007B88047C0000804804800800828807B88007C0804804C2667007
F902FFC000E240EC6988008008008288007B8804 7C0804804804800800800828807B88047C08048043FC8C48F48C0C00800
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047C0804804804800800E0C828807B8804 7C0804804000804 5E0800ADC8008008288007B88047C0000804800800828807B8880
07B880C7C0804804026670537902FFC000E240EC6A8800800800828807B88047C0804804804800800800828807B88CC7C0
8048040008048F480000C80C800828807B88047C0000800800800800828807B88047C0804804026670793902FFC00E240
EC6B08C0800800828800 7B8804 7C0804804 E048008008008288007B88047C0804804000804 5E0804ADC800800828807B880
47C0000800800800800828807B88007C0804804026670 9EE902FFC000E240EC6B8804800800828807B88047C0804E04804
800800800828807B88047C0804804 1448048F4800000800828807B88047C0000800800800800828807B88007CCE048
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8288007B88047C0804804804804800800800828807B88007C000C8CC8008
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FFC000E240EC40C800800C800828807B88007C0804804804800800800828807B48007C0804804 2FC8048F4804000C8CC8008
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8047C0804804026671815902FFC000E240EC4188048008008288007BC8047C0804804804804804800800828807B88047CC8048
043CC8048F4804000800800828807B88047C0000800800800800828807B88047C0804804026671A71902FFC000E240EC42
4804800800828807B88C47C0804804804 8C0800800828807B48047C0804804098804 5E0800ADC8008008288007B48C47C0
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008008288007B88007C0E0480435C8048F48000008008008288007B8804 7C0000800800800800828807BCE007C0800800002
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ADC8008008288007B88047C0000800800800800828807B88007C0804804026672184902FFC000E240EC43880480080CC8288
007B88047C0804804804804800800800828807B88007C0804804026672 63E0902FFC000E240EC4408048008008288007B4800 7C
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47B88047C0000800800800C0800828807B88047C480480402667289 7902FFC000E240EC450804800800828807B88047C4804
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C0804804026672AF3902FFC000E240EC458800800800828807B88047C0804804804804804800800828807B88047C0804804
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800800828807B88007C0804804804804800800800828807B88007C0804804000804 5E0800ADC8008008288007B88047C00008
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9F2C15DE7463C959D1471C85007C30C30C30 REC 1. LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2. LENGTH 18

09A5579F1502FFC000E240EC5A87F47F07EC8247E88187E87F87EC7F07F47F47F07EC8247E88187E87F87EC7F00EC7F478C7 REC 3. LENGTH 7290
F4E707F07EC8247EC8187EC7F80007F07F07F07F08247E88187E87F87EC7F009A557C4D502FFC000E240EC5B07F47FC7EC82
07E88187E87F87EC7FC7F47F47F07EC6207E88187E87F87EC7F02A07F09F07F446C7F07EC8247EC8187EC7F80007F47F47F4
7F08247E88187E87F87EC7F009A557EA8502FFC000E240EC5B87F47F07EC8247E88187E87F87EC7F07F07F47F07EC8247E88
147E87F87EC7EC0007F078C7F4E707FC7EC8247EC8147EC7F80007F07F47F47F08247E88147E87F87EC7F009A558104502FF
C000E240EC5C07F47F07EC8247E88147E87F87EC7F07F47F47F07EC8247E88147E87F87EC7F03FC7F49F07F446C7F07EC824
7EC8147EC7F800C7F07F47F47F08247E88187E87E87F87E87EC09A558360502FFC000E240EC5C87F47F07EC8247E8816E87F87
EC7EC7F07F47F07EC8247E88187E87F87EC7F00007F478C7F4E707F07EC8207EC8187EC7F80007F07F07F07F08247E88187E
87F87EC7EC09A5585BC5C2FFC000E240EC5D07F47F07EC8247E88187E87F87EC7F07F07F47F07EC8247E88147E87F87EC7EC
1187F49F07F446C7F07EC8247EC8147EC7F80007F47F47F47F08247E88147E87F87EC7F009A558817502FFC000E240EC5D87
F47F07EC8247E88147E87F87EC7F07F47F47F07EC8247E88147E87F87EC7F02887F478C7F4E6C7F07EC8247EC8147EC7F800
07F07F47F47F08247E88147E87F87EC7EC09A558A73502FFC000E240EC5E07F47F07EC8247E88187E87F87EC7F07F07F47F0
7EC8207E88187E87F87EC7EC2A07F09F07F446C7F07EC8247EC8187EC7F80007F07F47F07EC8247E88187E87F87EC7F009A5
58CCF502FFC000E240EC5E87F47F07EC8247E88147E87F87EC7EC7F07F47F07EC8247E88147E87F87EC7F01347F478C7F4E7
07F07EC8247EC8147EC7F80007F07F47F47F08247E88147E87F87EC7F009A558F2B502FFC000E240EC5F07F47FC7EC8247E8
8147E87F87EC7F07F47F47F07EC8247E88147E87F87EC7F01607F49F07F446C7F07EC8247EC8147EC7F80007F47F47F47F08
247E88147E87F87EC7F009A5591875O2FFC000E240EC5F87F47F07EC8247E88147E87F87EC7F07F47F47F07EC8247E88147E
87F87EC7F01F87F478C7F4E707F07EC8247EC8147EC7F80007F07F47F47F08247E88147E87F87EC7F009A5593E25C2FFC000
E240EC6007F47F07EC8247E88147E87F87EC7F07F47F47F07EC8207E88147E87F87EC7F01C07F49F07F446C7F07EC8247EC8
147EC7F80007F47F47F47F08207E88147E87F87EC7F009A55963E502FFC000E240EC6087F47F07EC8247E88147E87F87EC7F
07F47F47F07EC8247E88147E87F87EC7F03647F478C7F4E6C7F07EC8247EC8147EC7F80007F07F47F07F08247E88147E87F8
7EC7F009A55989A502FFC000E240EC6107F47F07EC8247E88147E87F87EC7F07F47F47F07EC8247E88147E87F87EC7F00007
F49F07F446C7F07EC8247EC8147EC7F80007F47F47F47F08247E88147E87F87EC7F009A559AF6502FFC000E240EC6187F47F
07EC8247E88147E87F87EC7F07F47F47F07EC8247E88147E87F87EC7F00C87F478C7F4E707F07EC8207EC8147EC7F80007F0
7F47F47F08247E88147E87F87EC7EC09A559D51502FFC000E240EC6207F47F07EC8247E88147E87F87E87EC7F07F47FC7EC8
247E88147E87F87EC7F000C7F49F07F446C7F07EC8247EC8147EC7F80007F47F47F47F08247E88147E87F87EC7EC09A559FA
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E87F87EC7F07F47F47F07EC8247E88187E87F87EC7F007C7F09F07F446C7F07EC8207EC8147EC7F80007FC7F47F47F082C7E
88147E87F87EC7F009A55A465502FFC000E240EC6387F47F07EC8207E88147E87F87EC7F07F07F47F07EC8207E88147E87F8
7EC7F01447F478C7F4E6C7F07EC8207EC8147EC7F80007F07F47F47F08207E88147E87F87EC7F009A55A6C0502FFC000E240
EC6407F47F07EC8207E8E147E87F87EC7F07F47F47F07EC8247E88147E87F87EC7F02A87F49F07F446C7F07EC8247EC8107E
C7F80007F47F47F47F08247E88147E87F87EC7EC09A55A91C502FFC000E240EC6487F47F07EC8247E88147E87F87EC7F07F4
7F47F07EC8247E8814 7E87F87EC0007F478C7F4E6C7F07EC8247EC8187EC7F80007F07F47F07F08247E88187E87F87EC7
F009A55AB78502FFC000E240EC6507F47F07EC8247E88187E87F87EC7F07F07F47F07EC8247E88187E87F87EC7EC00C7F09F
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8207E88147E87F87EC7FC7F47F47F07EC8207E8814 7E87F87EC7F00007F478C7F4E707F07EC8207EC8147EC7F80007FC7F47
F07F08247E88147E87F87EC7F009A55B02F502FFC000E240EC6607F47F07EC8247E88147E87F87EC7F07F47F47F07EC8247E
88147E87F87EC7F01947F49F07F446C7F07EC8247EC8147EC7F80007F07F47F07F08247E88147E87F87EC7F009A55B28B502
FFC000E240EC6687F47FC7EC8247E88147E87F87EC7EC7F07F47F07EC8247E88147E87F87EC2A07F078C7F4E7C7FC7EC8
247EC8147EC7F80007F07F07F07EC8247E88187E87F87EC7F009A55B4E7502FFC000E240EC6707F47F07EC8247E88187E87F
87EC7EC7F07F47F07EC8207E88147E87F87EC7F01A47F09F07F446C7F07EC8207EC8147EC7F80007F47F47F47F08207E8814
7E87F87EC7EC09A55B743502FFC000E240EC6787F47F07EC8207E88147E87F87E87EC7F07F47F07EC8207E88147E87F87E87
EC1DC7F478C7F4E6C7F07EC8207EC8147EC7F80007F07F07F07F08207E88147E87F87E87F009A55B99E502FFC000E240EC68
07F47F07EC8247E88107E87F87E87EC7F47F47F07EC8247E88147E87F87EC7EC0F87F09F07F446C7F07EC8247EC8147EC7F8
0007F07F47F07F08247E88147E87F87E87EC09A55BBFA502FFC000E240EC6887F47F07EC8247E88147E87F87E87EC7F07F47
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A55BE56502FFC000E240EC6907F47FC7EC8247E88147E87F87EC7F07F47F47F07EC8207E88187E87F87EC7EC22C7F09F07F4
46C7F07EC8207EC8187EC7F80007F07F07F07EC8207E8814 7E87F87E87EC09A55C0B2502FFC000E240EC6987F47FC7EC8207
E88147E87F87E87EC7F47F47F07EC8207E88147E87F87EC7F01AC7F478C7F4E707F07EC8207EC8107EC7F80007F07F47F47F
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7E87F87E87EC3607F09FC7F446C7F07EC8247EC8107EC7F80007F07F47F07F08247E88147E87F87E87EC09A55C5695O2FFC0
00E240EC6A87F47F07EC8247E88147E87F87E87EC7F07F47F07EC8207E88187E87F87E87EC06C7F078C7F4E6C7F07EC8207E
C8187EC7F80007F07FC7F07F08207E88187E87F87E87EC09A55C7C502FFC000E240EC6B07F47F07EC82C7E8818 7E87F87EC
7EC7F07F47F07EC8207E81C7E87FC7EC7F00007F09F07F446C7F07EC8207EC8187EC7F80007F07F47F07FC82C7E81187E87
F87EC7F009A55CA21502FFC000E240EC6B87F47F07EC8207E88187E87F87EC7F07F07F47F07EC8207E88147E87F87EC7F032
87F47887F4E6C7F07EC82C7EC8147EC7F80007F07F47F47F08247E88147E87F87E87EC09A55CC7C502FFC000E240EC6CC7F4
7F07EC8247E88107E87E87EC7F07F07F47F07EC8247E8810 7E87F87EC7F03647F49F07F446C7F07EC8247EC8107EC7F80007
F47F47F47F08247E88147E87F87EC7FC09A55CED8502FFC000E240EC6C87F47F07EC8247E88147E87F87EC7F07F47F47FC7E

APOLLO 12
PASSIVE SEISMIC EVENT

D-8123

29 - 38
1/29/70 - 2/7/70

9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

0D4AE3283502FFC000E240EC5E87D47D47D08307D07C07D07BC7D07D47D47D47D47D08307D07BC7D07BC7D07C7D40747D4S507
D48447D47D082C7D07BC7D473C0007D87D87D47D082C7CC7BC7CC7BC7D07D40D4AE34DF502FFC000E240EC5F07D47D47D082
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9F2C15DE7463C959D1471C85007C30C30C30

REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30

REC 2, LENGTH 18

REC 3, LENGTH 7290

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881481881C00C81C9AC81CE5881C818830818824818814000 81C81C81C81C818830818824818810818 1C81C81C81C81883081882481
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9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

14F0FA1BF402FFC000E240EC5B87D47D47D08347D07C07D07C47D07D47D47D47D08347D07C07D07C07D07D400C7D47D47 REC 3, LENGTH 7290
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C07D07C07D07D40007D47D47D485C7D47D08347D07C07D07C40007D47D47D47D48347D07C07D07C47D07D414F0FA8D2402FF
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D07D47D47D47D47D0830 7D07C07D07C07D07D01407D47D47D485C7D47D48347D07C07D07C00007D47D47D47D48347DC7C07D
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48347D07C07D07C47D07D014F0FEADB402FFC000E240EC6B07D47D47D08347D07C07D07C07D07D47D47D47D47D08347D07C0
7D07C07D07D40007D495 87D491 07D47D48347D07C07D47C00007D47D47D47D48347D07C07D07C07D07D014F0FED37402FFC0
00E240EC6B87D47D47D0830 7D07C07D07C07D07D07D47D47D47D08347D07CC7C07D07D01447D47D47D4 5C7D47D C8347D
07C07D07C00007D47D47D47D48347D07C07D07C4 7D07D014F0FEF93402FFC000E240EC6C07D47D47D08347D07C07D07C47D0
7D07D47D47D47D08347D C7C07D07C47D07D41B87D49587D49107D47D08347D07C07D47C40007D47D47D47D48347D07C C7D07
C47D07D014F0FF1EE402FFC000E240EC6C87D47D47D08347D07C07D07C47D07D47D47D47D47D08347D07C07D07C07D C7D400
07D47D47D485C7D47D48347D07C07D07C07C00007D47D47D47D48347D07C07D07C07D07D414F0FF44A402FFC000E240EC4007D4
7D47D48347D07C07D07C 07D07D47D47D47D47D4834 7D07C07D07C07D07D00007D49587D49107D47D48347D C7C 07D47C00007
D47D47D47D48347D07C0 7D07C07D07D414F0FF6A6402FFC000E240EC40C7D47D47D08347D07C07CC7C07D07D07D47D47D47D

9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

1C5B89406902FFC000E240EC6307F47F47EC8247E88247E88087E87F07F47F47F47EC8247E88247E880876C7EC00C7F49747
F46B07F47F08207EC8247EC8080007F07F47F47F48207E88287E88087E87EC1C5B8966290 2FFC000E240EC6387F47F47EC82
07E88287E88087E87EC7FC7F47F47EC8207E88247E88087E87EC1747F0C3C7F4FB07F47F08207EC8247EC8080007F07F07F4
7F08207E88287E48087E87EC1C5B898BE902FFC000E240EC6407F47F47EC8207E88287E480C7E87EC7F07F47F47EC82C7E88
287E480C7E87EC2C07F09787F46B07F47F08247EC8287EC80C0007F07F07F47F08247E88287E480C7E87EC1C5B89B1A902FF
C000E240EC6487F47F47EC8247E88287E880C7E87EC7F47F47F47EC8247E88287E48087E87EC0007F4C3C7F4FB07F47FC820
7EC8247EC8080007F07FC7F47F08207E88287E88087E87EC1C5B89D76902FFC000E240EC6507F47F07EC8207E88287E88087
E87EC7F07F47F47EC8207E88247E88C87E87EC0007F09787F46B07F47F08207E88247E88087EC7F07F47F47F47F08207E8824 7E
48087E87EC1C5B89FD1902FFC000E240EC6587F47F47EC8207E88247E88087EC7F07F47F47F47F08207E88247E88087EC7F0
0007F4C3C7F4FB07F47F08207EC8247EC8080007F07F47F47F48247E88247E880C7E87EC1C5B8A22D902FFC000E240EC6607
F47F47EC8247E88247E880C7E87EC7F07F47F47EC8247E88247E880C7E87EC1C07F09747F46B07F47F08247EC8247EC80C00
07F07F47F47F08247E88247E880C7E87EC1C5B88A489902FFC000E240EC6687F47F47EC8247E88247E880C7E87EC7F47F47F4
7EC8247E88247E88087E87EC2C87F4C3C7F4FB07F47F08247EC8247EC8080007F07F07F47F48207E88247E48087E87EC1C5B
8A6E5902FFC000E240EC6707F87F47F08207E88247E88087E87EC7F47F47F47EC8207E88247E88047E87EC1D07F49747F468
07F47F08207EC8247EC8C40007F07F47F47F48207E88247E88087E87EC1C5B8A940902FFC000E240EC6787F47F47F082C7E8
8247E88087E87EC7F47F47F47EC8207E88247E88087E87EC1E07F4C3C7F4FB07F47F08247EC8247EC8080007F07FC7F47F48
247E88287E48087E87EC1C5B8AB9C902FFC000E240EC6807F47F47EC8247E88247E880C7E87EC7F47F47F47EC8247E88247E
880C7E87EC0F87F49747F46B07F47FC8247EC8247EC80C0007F07F47F47F08247E88247E48087E87EC1C5B8ADF8902FFC000
E240EC6887F87F47EC8247E88247E48C87E87EC7F47F47F47F08207E88247E88087E87EC0007F4C3C7F4FB07F47F082C7EC8
247EC8080007F07F47F47F48207E88247E88087E87EC1C5B8B054902FFC000E240EC6907F47F47EC8207E88287E88047E87E
C7F07F47F47EC8207E88287E88047E87EC2287F49787F46B07F47F08207EC8287EC8040007F07F47F47F08207E88287E8808
7E87EC1C5B8B2AF902FFC000E240EC6987F47F47EC8207E88287E88087E87EC7F07F47F07EC8207E88287E48087E87EC1507
F4C3C7F4FB07F47EC8207EC8247EC8080007F07F07F47F08207E88287E880C7E87EC1C5B8B50902FFC000E240EC6A07F47F
47EC8247E88247E880C7E87EC7F47F47F47EC8247E88247E880C7E87EC3087F49747F46B07F47EC8247EC8247EC80C0007F4
7F47F47F08247E88247E48087E87EC1C5B8B767902FFC000E240EC6A87F47F47F08207EC8287EC8087EC7EC7F07F47F47EC8
207E88287E48087E87EC0007F4C3C7F8FB07F87F08207E88287E88080007EC7F07F47F08207EC8287E88047EC7EC1C5B8B9C
3902FFC000E240EC6B07F47F47EC8207E88287E88087E87EC7F47F47F07EC8207E88287E88087E87EC0007F09747F46BC7F4
7F08207EC8287EC80800C7F07F47F47F08207E88287E88087E87EC1C5B8BC1E902FFC000E240EC6B87F47F47F082C7E88287
E88087E87EC7F47F47F47F47EC8207E88287E88087E87EC33C7F0C3C7F4FB07F47EC8207EC8287EC8080007F07F07F47F08207E
88287E88087E87EC1C5B8BE7A902FFC000E240EC6C07F47F47EC8247E88287E88087E87EC7F47F47F47EC8207E88287E8808
7E87F03847F49787F46BC7F47F08207EC8287EC8080007F07F47F47F08207E88287E88087E87EC1C5B8C0D6902FFC000E240
EC6C87F47F47EC8207E8E287E88087E87EC7F47F47F47EC8207E88287E88087E87EC0007F0C3C7F4FB07F07EC8207EC8287E
C8080007F07F07F47F08207E88287E88087E87EC1C5B8C332902FFC000E240EC4007F47F07EC8207E88287E88087E87EC7F0
7F47F07EC8207E88287E8047E87EC0007F49747F46B07F47F08207EC8287EC8080007F07F07F47F08207E8828 7E8C87E87
EC1C5B8C58D902FFC000E240EC40C7F47F47EC8207E88287E88087E87EC7F47F47F47EC8207E88287E48087E87EC2F87F4C3
C7F4FB07F47F08207EC8287EC80C0007F07F07F47F08207E88287E480C7E87EC1C5B8C7E9902FFC000E240EC4107F47F47EC
8207E88287E480C7E87EC7F47F47F47EC8207E88287E88087E87EC0347F49747F46B07F47F08207EC8287EC8080007F07F07
F47F08247E88287E4808 7E87EC1C5B8CA45902FFC000E240EC4187F87F47EC8207E88287E48087E87EC7F47F47F47EC8207E
88287E88C87E87EC3CC7F0C3C7F4FB07F47F08207EC8287EC8080007F07F47F47F48207E88287E48087E87F01C5B8CCA1902
FFC000E240EC4247F47F47EC8207E88287E88087E87EC7F47F47F47F08207E88287E88087E87EC1A07F49747F46BC7F47F08
207EC8287EC8080007F07F47F47F08207E88287E48087E87F01C5B8CEFC902FFC000E240EC4287F47F07EC8207E88287E880
87EC7EC7F07F47F47EC8207E88287E88087E87EC3587F0C3C7F4FB07F47F08207EC8287E88080007F07F47F47F08207E8828
7E48087E87EC1C5B8D15E902FFC000E240EC4307F87F47EC8207E48287E48087EC7F47F47F47F07E88207E88287E88C87E87
EC3CC7F49787F86B07F87F08207E88287E88080007EC7F47F87F4820 7E88287E48087E47E81C5B8D3B4902FFC000E240EC43
87F87FC7F48207EC8287E08087E07E87F07F47F47F08207EC8287E88087E87EC1BC7F0C3C7F8FB07F87F08207EC82C7E8808
0007EC7F07F47F8824 7E88287E48087E47EC1C5B8D610902FFC000E240EC4407F87F47F08207E88287E48C87E87EC7F47F87
F47EC8207E88287E88C87E87EC1107F09747F46B07F47F08207F08287EC8080007F07F07F47F08207E88287E88C87E87EC1C
5B8D86B902FFC000E240EC4487F47F47F08207E88287E48087E87F07F47F87F47EC8207E88287E88087EC7EC2EC7F0C3C7F4
FB07F47F08207EC8287EC8080007F07F07F47F48207E88287E48087E87EC1C5B8DAC7902FFC000E240EC4507F87F47EC8207
E88287E88087E87EC7F07F47F47EC8207E88287E88087E87EC0007F09747F46B07F47F08207EC8287EC8080007F07F47F47F
08207E88287E88C87E87EC1C5B8DD23902FFC000E240EC4587F47F47F08207E88287E48087E87EC7F47F47F47F08207E8828
7E88087E87EC0007F4C3C7F4FB07F47F08207EC8247EC8080007F07F07F47F48247E88287E88087E87EC1C5B8DF7F902FFC0
00E240EC4607F47F47F0824 7EC8247E88087E87EC7F07F47F47F08207E88247E88087E87EC0007F09747F46B07F47F C8207E
C8247EC8080007EC7F47F87F4820 7E48087E87F01C5B8E1DA902FFC000E240EC4687F47F47EC8207E88287E88C87E87E8
7EC7F47F47F47EC8207E88287E88087EC7F00047F4C3C7F4FB07F47F08207EC8287EC8080007F07F47F47F48207E88287E88
087E87EC1C5B8E436902FFC000E240EC4707F47F47EC8207E88287E88087E87EC7F07F47F07EC8207E88287E88C87E87EC00
07F09747F46B07F47EC82C7EC8287EC8080007F07F07F47F08207E88287E88087E87EC1C5B8E692902FFC000E240EC4787F4
7F47EC8207E88287E880E7E87EC7F47F47F47EC8207E8828 7E88087E87EC2F87F4C3C7F4FB07F47F08207EC8287EC8C80007
E07F07F47F08207E88287E88087E87EC1C5B8E8EE902FFC000E240EC4807F47F07EC8207E88287E88087E87EC7F47F47F47E

U.S. GOVERNMENT PRINTING OFFICE: 1971 414 190

APOLLO 12
PASSIVE SEISMIC EVENT

D-8127

88-95

9F2C15DE7463C959D1471C85007C30C30C30

REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30

REC 2, LENGTH 18

REC 3, LENGTH 7290

1F0BEAA6A902FFC000E240EC6387D47D47D08307D07C07D07C47D07D47D47D47D08307D07C07D07C47D07D4C8C7D49447
D48587D47D48307D07C07D47C40007D87D47D48307D07C07D07C47D07D41F0BEACC6902FFC000E240EC6407D47D47D083
07D07C07D07C47D07D47D47D47D47D08307D07BC7D07C47D07D418C7D4BB87D49087D47D08307D07BC7D07C40007D47D47D4
7D48347D07BC7D07C47D07D01F0BEAF22902FFC000E240EC6487D47D47D08347D07BC7D07C47D07D07D47D47D47D08347D07
BC7D07C47D07D40007D4544 7D48587D47D08347D07BC7D47C00007D47D47D47D48347D07BC7D07C07D07D41F0BEB17D902FF
C000E240EC6507D47D47D0834 7D07BC7D07C07D07D47D47D47D08 347D07BC7D07C47D07D40007D48B87D49087D47D0834
7D07BC7D07C40007D47D47D47D48347D07BC7D07C07D07D41F0BEBAEC902FFC000E240EC6707D47D47D08347D07BC7D07C47D07D47D47D47D4
7D08347D07BC7D07C47D07D40B07D4BB87D49087D47D0834 7D07BC7D07C00007D47D47D47D48347D07BC7D07C07D07D01F0B
EBD48902FFC000E240EC6787D47D47D08307D07BC7D07C07D07D47D47D47D08307D07BC7D07C47D07D01E07D49447D485
87D47D08307D07BC 7D47C40C07D87D47D47D08307D07C07D07C47D07D41F0BEBFA4902FFC000E240EC6807D47D47D083C7D0
7C07D07C47D07D07D47D 47D47D08307D07BC7D07C47D07D40F87D4BB87D49087D47D0 8307D07BC7D07C4000 7D47D47D47D48
307D07BC7D07C47D07D01F0BEC1FF902FFC000E240EC6887D47D47D08 307D07BC7D07C47D07D47D47D47D47D08307D07BC7D
07C47D07D00007D49447D48587D47D48307D47BC7D47C00007D47D47D47D48307D07BC7D07C07D07D01F0BEC458902FFC000
E240EC6907D47D47D083 C7D07BC 7D07C07D07D47D4 7D47D47D08307D07BC7D07C07D07D42347D4BB87D4906 7D47D483C7D07
BC7D07C00007D47D47D4 7D48307D07BC7D07C47D07D41F0BEC6B7902FFC000E240 EC6987D47D47D08307D07BC7D07C47D07D
07D47D47D47D08307D07C07D07C47D07D03FC7D494 47D48587D47D48 307D07C07D47C4000 7D47D47D47D48307D07C07D07C4
7D07D01F0BEC913902FFC000E240EC6A07D47D47D08307D07BC7D07C47D07D07D47D47D47D08307D07BC7D07C47D07D00007
D4BB87D49087D47D0830 7D07BC7D07C40007D47D47D47D08307D07BC7D07C47D07D41F0BECB6E902FFC000E240EC6A87D47D
47D08307D07BC7D07C47D07D07D47D47D47D08307D07BC7CC7C47D07D00007D49447D48587D47D08307D07BC7D47C4C0C7D4
7D47D47D08307D07BC 7D07C47D07D01F0BECDCA902FFC000E240EC6B07D47D47D08307D07BC7D07C47D07D0C7D47D47D47D08
307D07BC 7D07C07D07D0C007D4BB87D49087D47D08307D07BC7D07C00007D47D47D47D08347D07BC7D07C07D07D41F0BED02
6902FFC000E240EC6B87D47D47D08347D07BC7D07C07D07D47D47D47D47D08347D07BC7D07C07D07D413C7D49447D4E587D4
7D48347D47BC7D47C00007D87D47D47D48307D07BC7D07C47D07D41F0BED282902FFC000E240EC6C07D47D47D083C7D7BC7
D07C47D07D47D47D47D47D4 7D0834 7D07BC7D07C47D07D41B07D4BB87D49087D47D08307D07BC7D07C40007D47D47D47D48307D
07BC7D07C47D07D41F0BED4DD902FFC000E240EC6C87D47D47D08307D07BC7D07C47D07D47D47D47D47D08307D07BC7D07C4
7D07D40007D49447D4858 7D47D48307D47BC7D47C40007D87D47D47D48307D07BC7D07C47D07D41F0BED739902FFC000E240
EC4007D47D47D08307D07BC 7D07C47D07D47D47D47D47D08307D07C07D07C07D07D40007D4BB87D49087D47D48307D07C07D
07C40007D47D47D47D483C7D07C07D07C47D07D01F0BED995902FFC000E240EC40C7D47D47D08307D07C07D07C47D07D47D4
7D47D47D08347D07BC 7D 07C47D07D42FC7D49447D48587D47D08347D07BC7D47C40007D47D47D48347D07BC 7D07C47D07
D01F0BEDBF1902FFC000E240EC4107D47D47D08347D07BC7D07C47D07D47D47D47D47D08347D07BC7D07C47D07D00347D4BB
87D49087D47D48307D07BC7D07C40007D47D47D47D48307D07BC7D07 C47D07D41F0BEDE4C902FFC000E240EC4187D47D47D0
8307D07BC7D07C47D07D C7D47D47D47D08307D07BC7D07C47D07D43CC7D49447D48587D47D48307D47BC7D47C000C7D47D47
D47D4830 7D07BC7D07C47D07D C7D47D47D47D08307D07BC7D07C47D07D41F0BEE0A8902FFC000E240EC4247D47D47D08307D07BC7D07C47D07D47D47D47D47D08307D
07BC7D07C47D07D40947D4BB87D49087D47D08307D07BC7D07C47D07D47D47D47D47D08347D07BC7D07C47D07D00007D4BB
87D49087D47D48307D07BC7D07C40007D47D47D47D48307D07BC7D07 C47D07D41F0BEE304902
FFC000E240EC4287D47D 47D08307D07BC7D07C47D07D47D47D47D08307D07BC7D07C47D07D43587D49447D485 87D47D08
307D07BC7D47C40007D8 7D47D47D08307D07BC7D07C47D07D01F0BEE560902FFC000E240EC4307D47D47D08307D07BC7D07C
07D07D47D47D47D47D08307D07BC7D C7C07D07D42C47D4BB87D49087D47D08307D07BC7D47C00007D47D47D47D48307D07BC
7D07C07D07D01F0BEE 7B8902FFC000E240EC4387D47D47D08307D07BC7D07C07D07D47D47D47D47D08307D07BC7D C7C C7D07
D40647D49447D48587D47D48307D47BC7D47C00007D87D47D47D48307D07BC7D07C47D07D01F0BEEA17902FFC000E240EC44
07D47D47D08307D07BC7D07C47D07D47D47D47D4 7D08307D07BC7D07C47D07D42587D4BB87D49087D47D08307D07BC 7D07C4
0007D47D47D47D48307D C7BC7D07C47D07D41F0BEEC73902FFC000E240EC4487D47D47D08307D07BC 7D07C47D07D47D47D47
D47D08307D07BC7D07C4 7D07D436C7D4944 7D485 87D47D48307D47 BC7D47C00007D47D47D47D48307D07BC7D07C07D C7D41F
0BEEECF902FFC000E240EC4507D47D47D08307D07BC7D07C07D07D47D47D47D08307D07BC7D07C07D07D40007D4BB87D4
9087D47D48307D07BC7D 07C00007D47D47D47D48307D07BC7D07C07D07D01F0BEF128902FFC000E240EC4587D47D47D08307
D07BC7D07C47D07D47D4 7D47D47D08347D07BC7D07C47D07D40007D49447D48587D47D08347D07BC7D47C40007D47D47D47D
48307D07BC7D07C47D07D41F0BEF386902FFC000E2 40EC4607D47D47D08307D07BC7D07C47D07D47D47D47D47D08307D07BC
7D07C47D07D00007D4B3 87D49087D47D08307D07BC7D07C40007D47D47D47D48307D07BC7D07C47D07D01F0BEF5E2902FFC0
00E240EC4687D47D47D0 8307D07BC7D C7C47D07D07D47D47D47D08307D07BC7D07C47D07D00007D49447D4858 7D47D C8307D
07BC7D47C00007D47D 47D47D08347D07BC7D07C07D07D01F0BEF83E902FFC000E240EC4707D47D47D08347D07B87CC7C C7D0
7D07D47D47D47D08347D C7B87CC7C07D07D00007D4BB87D49087D47D08347D07B87D07C00007D47D47D47D08387D07B87D07
C07D07D01F0BEFA99902FFC000E240EC4787D47D47D08347D07B87D07C47D07D07D47D47D47D08347D07B87D07C47D C7D015
07D49447D48587D47D08347D07B87D47C40007D47D47D47D4834 7D07BC7D07C47D07D01F0BEFCF5902FFC000E240EC48C7D4
7D47D083 07D07BC7D07C 47D07D07D47D47D47D08307D07BC7D07C47D07D00007D4BB87D49087D47D08307D07BC7D C7C40007
D47D47D47D48307D07BC 7D07C47D07D01F0BEFF51902FFC000E240EC4887D47D47D08307D07BC7D07C47D C7D7D47D47D47D

APOLLO 12
PASSIVE SEISMIC EVENT

D-8128

96-105

* U.S. GOVERNMENT PRINTING OFFICE: ... 414-196

9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

222D8051EB02FFC000E240EC5187F07F07EC8147E875C7E87E07E87EC7F07F07F07EC8147E875C7E87E07E87EC3587FC8B87 REC 3, LENGTH 7290
F08707F07EC8187EC75C7EC7E00007F07F07F07F081C7E875C7E87E07E87EC222D8077AB02FFC000E240EC5207F07FC7EC81
C7EC75C7E87E07EC7EC7F07F07F07EC81C7EC75C7E87DC7EC7EC2D47F0D287F01547F07EC81C7EC75C7F07DC0007F47FC7F0
7EC81C7E87607E87E07EC7EC222D809D5B02FFC000E240EC5287F47F07EC81C7EC7607E87E07EC7EC7F07F07F07EC81C7EC7
607E87DC7EC7EC1947F0EB87F08707F07EC81C7EC7607F07E00007F07F07F07F08187E87607E87E07EC7EC222D80C318C2FF
C000E240EC5307F47F07EC8187EC76C7E87E07EC7EC7F07F07F07EC8187EC75C7E87E07E87EC00C7F0D287F01587F07EC814
7EC75C7EC7E0000F07FC7F07F08147E875C7E87E07EC7EC222D80E8DB02FFC000E240EC5387F47F07EC8147EC76C7E87E07
EC7EC7F07F07F07EC8187E87607E87E07EC7EC222D815A0B02FFC000E240EC5507F07F07EC8187EC7607E87E07EC7EC7F07F47F0
7EC8147EC7607E87E07EC7EC1FC7F0D287F41547F07F08147EC7607F07E00007F47F47F07F08147E87607E87E07EC7EC222D
817FCB02FFC000E240EC5587F47F07EC8187EC7607E87E07EC7EC7F07F07F07EC8187EC7607E87DC7EC7EC0AC7F08B87FC87
07F07EC8187EC7607EC7DC0007F07F07F07F081C7E87607E87DC7EC7EC222D81A58B02FFC000E240EC5607F07F07EC81C7E8
7607E87DC7EC7EC7F07F07F07EC81C7E87607E87DC7E87EC0007F0D287F01547F07F081C7EC7607EC7DC0007F07F47FC7F08
1C7E87607E87DC7EC7EC222D81CB3B02FFC000E240EC5687F07F07EC81C7EC7607E87DC7EC7EC7F07F07F07EC81C7E87607E
87E07EC7EC0007F08B87F48747FC7F08187E87607E87E07EC7EC0007F07F07F07F08147E87607E87E07EC7F0222D81F0FB02FFC000
E240EC5707F47F07EC8147E87607E87E07EC7EC7F07F47F07EC8147EC7607E87E07E87EC0B07F0D287F41547F07F08147EC7
607EC7E00007F07F07F07F08147E87607E87E07E87EC222D8216BB02FFC000E240EC5787F47F07EC8147E87607E87DC7EC7E
C7F07F07F07EC8187E87607E87DC7EC7EC0D87F08B87F08707F07EC8187EC7607EC7DC0007F07F07F07EC81C7E87607E87DC
7EC7EC222D823C7B02FFC000E240EC5807F07F07EC81C7E87607E87E07E87EC7F07F07F07EC81C7E87607E87E07EC7EC0A87
F0D287F01547F07F081C7EC7607EC7DC0007F07F07EC81C7E87607E87DC7E87EC222D82622B02FFC000E240EC5887F07F
07EC81C7E87607E87DC7E87EC7F07F07FC7F07EC8187E87607E87DC7E87EC0AC7F08B87F08707F07EC8187EC7607EC7E00007F0
7F07F07F08187E87607E87E07E87EC222D8287EB02FFC000E240EC5907F07F07EC8187EC7607E87E07EC7EC7F07F07FC7F07EC8
187E87607E87E07E87EC334F0D287F01547F07EC8187EC7607EC7E00007F07F07F07F08187E87607E87E07E87EC222D82AD
AB02FFC000E240EC5987FC7F07EC8187E87607E87E07E87EC7F07F07F07EC8187E87607E87DC7E87EC0007F08B87F08747F0
7EC81C7EC7607EC7DC0007F07F07F081C7E87607E87DC7E87EC222D82D36B02FFC000E240EC5A07F07F07EC81C7E87607
E87DC7E87EC7F07F07FC7F07EC81C7E87607E87DC7E87EC38C7F0D287F01547F07EC8187EC7607EC7DC0007F07F07F07EC8187E
87647E87DC7E87EC222D82F91B02FFC000E240EC5A87F07F07EC8187E87647E87DC7EC7EC7F07F07F07EC8187E87647E87E0
7E87EC0E47F08B87F08707F07EC8187EC7607EC7DC0007F07F07F07F08187E87607E87E07E87EC222D831EDB02FFC000E240
EC5B07F07F07EC8187E87607E87E07E87EC7F07F07F07EC8187E875C7E87E07EC7EC1BC7F0D287F01547F07EC8187EC75C7F
07E00007F47F07F07F08187E875C7E87E07EC7EC222D83449B02FFC000E240EC5B87F07F07EC8187E875C7E87E07E87EC7F0
7F07F07EC81C7EC75C7E87E07E87EC0007F08B87F08747F07EC81C7EC75C7EC7E0000F07F07F07F07EC81C7E87607E87E07E87
EC222D836A5B02FFC000E240EC5C07F47F07EC81C7EC7607E87E07EC7EC7F07F07F07EC81C7EC7647E87DC7EC7EC3487F0D2
87F01547F07EC81C7EC7647EC7DC0007F07F07F07F081C7EC7647E87DC7EC7EC222D83900B02FFC000E240EC5C87F07FC7EC
8187EC7647E87DC7E87EC7F07F07F07EC8187E87607E87E07EC7EC0007F08B87F08747F07F08187EC7607EC7E00007F07F07
F07F08187E875C7E87DC7E87EC222D83B5CB02FFC000E240EC5D07F07F07EC81C7E875C7E87DC7E87EC7FC7F07F07EC8187E
875C7E87DC7EC7EC0AC7F0D287F01547F07EC81C7EC75C7EC7DC0007F07F07F07EC81C7E875C7E87E07E87EC2B07F08B87F08747FC7EC8
1C7EC7607EC7E00007F07F07F07F081C7E87607E87E07E87EC222D84014B02FFC000E240EC5E07F07F07EC81C7E87607E87E
07E87EC7F07F07F07EC81C7E87607E87E07E87EC2787F0D287F01547F07EC81C7EC7607EC7E00007F07F07F07F081C7E87607
7E87E07E87EC222D8426FB02FFC000E240EC5E87F07F07EC81C7E87607E87E07E87EC7F07F07F07EC8187E87607E87E07EC7
EC0B87F08B87F08747F07F0818 7EC7607EC7DC0007F07F07F07F081C7E87607E87DC7EC7EC222D844CBB02FFC000E240EC5F
07F07F07EC8187E87607E87DC7EC7EC7F07F07F07EC81C7E875C7E87DC7EC7EC0D87F0D287F01547F07EC81C7EC75C7F07DC
0007F47F07F07EC81C7E875C7E87DC7EC7EC222D84727B02FFC000E240EC5F87F07F07EC81C7E875C7E87DC7EC7EC7FC7F07
F07EC81C7EC75C7E87DC7EC7EC1547F08B87F08707F07EC81C7EC7607EC7DC0007F07F07F07F081C7E87607E87DC7E87EC22
2D84983B02FFC000E240EC6007F07F07EC8187E87607E87DC7EC7EC7F07F07F07EC8187E87607E87E07EC7EC1287F0D287F0
1547F07F08187EC7607EC7E00007F07F07F07F081C7E87607E87E07E87EC222D84BDE802FFC000E240EC6C87F07FC7EC81C7
E87607E87E07E87EC7F07F07F07EC81C7E87607E87E07E87EC3607F08B87F08707F07EC81C7EC7607EC7E0000 7F07F07F07F
081C7E87607E87E07E87EC222D84E3AB02FFC000E240EC6107F07F07EC81C7E875C7E87DC7E87EC7F07F07F07EC8207E875C
7E87DC7E87EC07C7F0D287F01547F07EC81C7EC75C7EC7DC0007F07F07F07EC81C7E875C7E87DC7EC7EC222D85096BC2FFC0
00E240EC6187F07F07EC81C7E875C7E87DC7E87EC7F07F07F07EC81C7E87607E87DC7E87EC0E47F08B87FC8707F07EC81C7E
C7607EC7DC0007F07F07F07F081C7E87607E87E07E87EC222D852F2B02FFC000E240EC6207F07F07EC81C7E87607E87E07E8
7EC7F07F07F07EC81C7E87607E87E07E87EC00C7F0D287F01507F07EC81C7EC7607EC7E0007F07F07F07F081C7E87607E87
E07E87EC222D8554DB02FFC000E240EC6287F07F07EC81C7E87607E87E07E87EC7F07F07F07EC81C7E87607E87E07E87EC21
87F08B87F08747F07F081C7EC7607EC7E00007F07F07F07F081C7E875C7E87DC7EC7EC222D857A9B02FFC000E240EC6307F0
7F07EC81C7EC75C7E87DC7EC7F07F07F47F07EC81C7E875C7E87DC7EC7EC1887F0D287F01507F07EC81C7EC75C7F07DC0007
F47F07F07EC81C7E875C7E87E07EC7EC222D85A05B02FFC000E240EC6387F07F07EC81C7EC75C7E87E07EC7EC7F07F07FC7F07E

APOLLO 12
PASSIVE SEISMIC EVENT

D-8129

106 - 117

* U.S. GOVERNMENT PRINTING OFFICE: 1971 414 190

9F2C15DE7463C959D1471C65007C30C30C30

REC 1. LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30

REC 2. LENGTH 18

25F1FBE64E02FFC000E240EC4987EC7E87E48207E08207E07FC7E47E87EC7EC7E87E48247E08247E07EC7E47E800C7EC8B87 REC 3. LENGTH 7290
ECF807EC7E88247E48247E47FC0007E87EC7EC7E88247E08247E07FC7E47E825F1FC1C0E02FFC000E240EC4A07EC7E87E482
47E08247E07FC7E47E87EC7EC7E87E48247E08247E07FC7E47E83447EC7187ECE787EC7E48247E48247E47FC0007E87E87EC
7E88247E08247E07FC7E47E825F1FC418E02FFC000E240EC4A87EC7E87E48207E08247E07F87E47E87EC7EC7EC7E48207E08
247E07F87E47E80B47EC8BC7ECF807E87E48207E48247E47F80007E87EC7EC7E88207E08207E07F87E07E425F1FC677E02FF
C000E240EC4807EC7EC7E48207E0820 7E07F87E47E47EC7EC7E87E48207E08207E07F87E47E41F87EC7187ECE787EC7E8820
7E48207E47FC0007E87E87E88207E08207E07EC7E07E825F1EC8D3E02FFC000E240EC4887EC7E87E48207E08247E07EC7
E07E87EC7EC7EC7E48207E08247E07FC7E47E40087EC8887ECF807EC7E88207E48247E47FC0007E87EC7EC7E88207E08247E
07FC7E07E825F1FCB2FE C2FFC000E240EC4C07EC7EC7EA8207E08247E07FC7E47E87EC7EC7E87E48207E08247E07FC7E47E8
00C7EC7187ECE787EC7E48207E48247E47FC0007E87EC7EC7E88207E08247E07FC7E47E825F1FCD8AE02FFC000E240EC4C87
EC7E87E48207E08247E07FC7E47E87EC7EC7E87E48207E08247E07F87E47E80007EC8B87ECF807E87E48207E48207E47F800
07E87EC7EC7E88207E08207E07F87E47E825F1FCFE6E02FFC000E240EC4D07EC7EC7E48207E08207E07F87E47E87EC7EC7E8
7E48207E08207E07E87E47E81887EC7187ECE787E87E48207E48207E47FC0007E87EC7EC7E88207E08247E07FC7E47E825F1
FD242E02FFC000E240EC4D87EC7EC7E48207E08247E07FC7E47E87EC7EC7E87E48207E08247E07FC7E47E82947EC8BC7ECF8
07E87E48207E48247E47FC0007E87EC7EC7E88207E08207E07EC7E07E825F1FD49EE02FFC000E240EC4E07EC7E87E48207E0
8207E07FC7E47E87EC7EC7EC7E48207E08207E07FC7E47E811C7EC7187ECE787EC7E48207E48247E47FC0007E87EC7EC7E88
207E08247E07FC7E07E825F1FD6F9E02FFC000E240EC4E87EC7EC7E48207E08247E07FC7E47E87EC7EC7E87E48207E08207E
07F87E07E80007EC8B87ECF807E87E48207E48207E47F80007E87EC7EC7E88207E08207E07FC7E07E425F1FD955E02FFC000
E240EC4F07EC7EC7E48207E08207E07FC7E47E87EC7EC7EC7E48207E08207E07EC7E47E830C7EC7187ECE787EC7E48207E48
207E47FC0007E87EC7EC7E88247E08207E07FC7E47E825F1FDBB1E02FFC000E240EC4F87EC7EC7E48247E08207E07FC7E47E
87EC7EC7EC7E48247E48207E47FC7E47E81E87EC8B87ECF807EC7E48207E48207E47FC0007E87EC7EC7E88207E08207E07FC
7E47E825F1FDE0DE02FFC000E240EC5007EC7E87E48207E08207E07FC7E07E87EC7EC7EC7E48207E08207E07F87E47E81847
EC7187ECE787EC7E48207E48207E47F80007E87EC7EC7E88207E08247E07F87E07E825F1FE069E02FFC000E240EC5087EC7E
C7E48207E08247E07F87E47E87EC7EC7E87E48207E08207E07FC7E47E812C7EC8B87ECF807E87E48207E48207E47FC0007E8
7EC7EC7E88207E08207E07FC7E47E825F1FE2C4E02FFC000E240EC5107EC7E87E48207E08207E07FC7E47E87EC7EC7E87E48
207E08207E07FC7E47E818C7EC7187ECE787EC7E48247E48207E47FC0007E87EC7EC7E88247E08207E07FC7E47E825F1FE52
0E02FFC000E240EC5187EC7E87E4824 7E08207E07FC7E47E87EC7EC7E87E48247E08207E07FC7E47E835C7EC8B87ECF807EC
7E48247E48207E47FC00C7E87EC7EC7E88207E08207E07FC7E07E825F1FE77CE02FFC000E240EC5207EC7E87E482C7E08207
E07FC7E47E87EC7EC7E87E48207E082C7E07FC7E47E83087EC7187ECE787E87E48207E48247E47FC0007E87EC7EC7E88207E
08247E07FC7E07E825F1FE9D7E02FFC000E240EC5287EC7E87E48207E08207E07FC7E47E87EC7EC7EC7E48207E08207E07FC
7E47E81A87EC8B87ECF807EC7E48207E48207E47FC0007E87EC7EC7E88207E08247E07FC7E47E825F1FEC33E02FFC000E240
EC5307EC7EC7E48207E08207E07FC7E47E87EC7EC7E87E48247E08207E07FC7E07E800C7EC7187ECE787E87E48247E48207E
47FC0007E87EC7EC7E88247E082C7E07FC7E07E825F1FEE8FE02FFC000E240EC5387EC7E87E48247E08207E07FC7E47E87EC
7EC7E87E48247E08207E07FC7E47E800C7EC8BC7ECF807EC7E48247E48207E47FC0007E87EC7EC7E88207E08247E07FC7E47
E825F1FF0EBE02FFC000E240EC5407EC7E87E48207E08247E07FC7E47E87EC7EC7E87E48207E08247E07F87E47E800C7EC71
87ECE787E87E481C7E48207E47F80007E87EC7EC7E881C7E08207E07F87E47E825F1FF347E02FFC000E240EC5487EC7E87E4
81C7E082C7E07E87E47E87EC7EC7EC7E48207E08207E07EC7E47E80147EC8BC7ECF807E87E48207E48207E47FC0007E87EC7
EC7E88207E08207E07FC7E47E825F1FF5A2E02FFC000E240EC5507EC7E87E48207E08247E07FC7E47E87EC7EC7E87E48207E
08247E07FC7E47E82907EC7187ECE787E87E48247E48207E47FC0007E87EC7EC7E88247E08207E07FC7E07E825F1FF7EEE02
FFC000E240EC5587EC7EC7E48247E08207E07FC7E47E87EC7EC7E87E48247E08207E07FC7E47E81247EC8B87ECF8C7EC7E88
247E48207E47FC0007E87EC7EC7E882C7E08207E07EC7E07E825F1FFA5AE02FFC000E240EC5607EC7E87E48207E08207E07F
C7E47E87EC7EC7E87E482C7E08207E07F87E47E80007EC7187ECE787E87E48207E48207E47F80007E87EC7EC7E88207E0820
7E07EC7EC7E825F1FFCB6E02FFC000E240EC5687EC7E87EA8207E08207E07EC7E47E87EC7EC7E87E48207E08207E07EC7E47
E80007EC8B87ECF807E87E48207E482C7E4 7FC0007E87EC7EC7E88207E08207E07EC7E47E825F1FFF11E02FFC000E240EC57
07EC7EC7EA8207E08207EC7EC7E47E87EC7EC7E87E48207E08207E07EC7E47E81207EC7187ECE787E87E48207E48207E47FC
0007E87EC7EC7E88247E C82C7E07FC7E47E825F20016DE02FFC000E240EC5787EC7E87E48247E08207E07FC7E47E87EC7EC7
EC7E48247E08207E07FC 7E47E81607EC8B87ECF807E87E48207E48207E47F80007E87EC7EC7E88207E08207E07F87E47E825
F2003C9E02FFC000E240EC5807EC7E87E48207E081C7E07F87E47E47EC7EC7E87E48207E08207E07F87E47E81147EC7187EC
E787E87E48207E48207E47F80007E87EC7EC7E88207E08207E07F87E47E825F20062 5E02FFC000E240EC5887EC7EC7E48207
E08207E07FC7E47E87EC7EC7EC7E48207E08207EC7EC7E47E87EC7EC7E87E48207E48207E47FC0007E87EC7EC7E
88207E08207E07EC7E47E825F20088 0E02FFC000E240EC5907EC7E87E48207E08207E07EC7E47E87EC7EC7E87E48207E0820
7E07FC7E47E83347EC7187ECE787EC7E48207E48207E47FC0007E87EC7EC7E88207E08207E07FC7E47E825F200ADCE02FFC0
00E240EC5987EC7EC7E4 E207E08207E07FC7E47E87EC7EC7EC7E48207E08207E07F87E47E80007EC8B87ECF807EC7E48207E
481C7E47F80007E87EC7EC7E88207E081C7E07F87E47E825F200D38E02FFC000E240EC5A07EC7E87E48207E081C7E07F87E4
7E87EC7EC7E87E48207E C8207E07F87E47E83CC7EC7187ECE787EC7E48207E48207E47FC0007E87EC7EC7E88207E08247E07
FC7E47E825F200F94E02FFC000E240EC5A87EC7EC7E481C7E08247E07FC7E47E87EC7EC7E87E48207E08247E07FC7E47E80E
C7EC8B87ECF807E87E48207E48247E47FC0007EC7EC7EC7E88207E08247E07FC7E47E825F2011EFE02FFC000E240EC5BC7EC
7E87E48207E08207E07FC7E47E87EC7EC7E87E48207E08207E07F87E47E81BC7EC7187ECE787E87E48207E481C7E47F80007
E87EC7EC7E88207E08207E07F87E47E825F20144BE02FFC000E240EC5B87EC7EC7E48207E08207E07FC7E47E87EC7EC7EC7E

APOLLO 12
PASSIVE SEISMIC EVENT

D-8172

117-140

9F2C15DE7463C959D1471C85007C30C30C30 REC 1. LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2. LENGTH 18

2D821C4FB402FFC000E240EC57081C81C81C8308188288188 1C81C81C81C81C81C8308188 2C8188 1C81C81C1948 1C8108 REC 3. LENGTH 7290

1C00081C81C83081C82C E1C81C00082081C81C81C83081C82C81C81C81C81C2D821C75740 2FFC000E240EC E7881C81C81C83
081C82C81C81C81C E1C82C82081C81C83081C82C81C81C81C8201E882093482086C81C81C83081C82C8208 1C00C81C81C820
81C83081C82C81C81C81C81C82D821C9B2402FFC000E240EC58082081C81C83081C82C81C81C82082082081C81C83081C8
2C81C81C81C81C18C820 E1C82000081C81C83081C82C82081C0008208208208208 3081C82C81C81C8202D821CC0E4 02FF
C000E240EC5888208208 1C83081C82C81C81C82082 082082082081C8 3081C82C81C81C8208 2019C8209348206B6C82081C830
82082C82081C00082082C82082082083081C82C81C81C81C8202D821CE6A402FFC000E240EC5908208 1C81C83081C82C81C81C8
1C81C8208 2081C81C830 E1C82C81C81C81C3348 208108 2000081C81C83081C82C8 2081C0008208208 2C8 2083081C82881
C81C81C8202D821D0C64 42FFC000E240EC59882082 081C82C81C82881C81C82C81C82881C81C81C820
0008209348206B6C81C81C E3081C82881C81C00081C81C8208 1C83081C82881C81C81C81C2D821D321402FFC000E240EC5A 08
2081C81C83081C82C81C E1C81C82082 082081C81C8 3081C82C81C81C81C8203DC8208 1082000082082083082082C82C81C00
08208208208208 3081C82C81C81C81C8202D821D57D402FFC000E240EC5A882081C81C83081C82C81C81C81C81C8208 2081C
81C83081C82C81C81C81C81C00C82093482086C81C81C8308 1C82881C81C00081C81C81C81C8308 1C82881C81C81C81C2D82
1D7D9402FFC000E240EC 5B082081C81C83081C82881C81C81C8208 2081C81C82C81C82881C81C81C81C1BC82081C81C00
081C81C82C81C82C82081C00C082082081C81C82C81C82C81C81C81C81C2D821DA3540 2FFC000E240EC5B881C81C81C82C81C
82C81C81C81C81C82082C81C81C82C81C82C81C81C81C81C820 000820934820B6C82081C83081C82C81C81C00081C81C8208208
3081C82C81C81C81C8202D821DC90402FFC000E240EC5C082081C81C82C81C82C81C81C81C81C8208 2081C81C83081C82881
C81C81C8201788208108 2000081C81C83082082882081C00082082082082083081C82881C81C81C8202D821DEEC402FFC000
E240EC5C882081C81C83C81C82881C81C81C8208 2082081C81C83081C82881C81C81C81C00082093482086C81C81C82C81C8
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9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

34CAE469BC02FFC000E240CEC6C87D47D47D08307D07BC7D07C07D07D47D47D47D47D08307D07BC7D07C07DC7D40007D472C7 REC 3, LENGTH 7290
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APOLLO 12
PASSIVE SEISMIC EVENT

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9F2C15DE7463C959D1471C85007C30C30C30 REC 1, LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30 REC 2, LENGTH 18

3B508DA87302FFC000E240EC4007D87D87D48307D07BC7D07C07D07D07D47D87D87D48307D47BC7D07CC7DC7D400C7D486C7 REC 3, LENGTH 7290
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REC 1. LENGTH 18

9F2C15DE7463C959D1471C85007C30C30C30C30

REC 2. LENGTH 18

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APOLLO 12
PASSIVE SEISMIC EVENT

D-8176

199 - 217

APOLLO 14 LM/ALSEP

SEISMIC EVENT TAPES

71-008C-04B

THIS DATA SET HAS BEEN RESTORED. IT ORIGINALLY CONTAINED 307 7-TRACK 800 BPI TAPES, WRITTEN IN BINARY. THERE ARE 37 RESTORED TAPES. TWO OF THE ORIGINAL TAPES WERE NOT RESTORABLE, THEY ARE D013744 AND D013745. THE DR TAPES ARE 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK 6250 BPI. FOR THE MOST PART THE TAPES WERE STACKED IN TIME SEQUENTIAL ORDER, BUT THE LAST FEW DR/DS TAPES ARE A LITTLE OUT OF ORDER. THE ORIGINAL TAPES WERE CREATED ON A PDP15 COMPUTER AND WERE RESTORED ON THE MRS. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN	
DR005742	DS005742	D013653	1	02/06/71 - 02/19/71	
		D057816	2	02/07/71 - 04/20/72	
		D013652	3	02/19/71 - 02/24/71	(a)
		D013641	4	02/24/71 - 03/08/71	
DR005743	DS005743	D013640	1	03/08/71 - 03/13/71	
		D013639	2	03/14/71 - 03/21/71	
		D013638	3	03/21/71 - 03/25/71	(b)
		D013642	4	03/25/71 - 04/02/71	
		D013658	5	04/02/71 - 04/05/71	
		D013657	6	04/05/71 - 04/14/71	
		D013656	7	04/14/71 - 04/17/71	(c)
		D013655	8	04/17/71 - 04/28/71	
DR005744	DS005744	D013654	1	04/28/71 - 05/02/71	(d)
		D013643	2	05/02/71 - 05/12/71	
		D013644	3	05/12/71 - 05/16/71	(e)
		D013647	4	05/16/71 - 05/25/71	
		D013645	5	05/25/71 - 05/27/71	
		D013646	6	05/27/71 - 05/31/71	(f)
		D013635	7	06/01/71 - 06/07/71	
		D013634	8	06/07/71 - 06/09/71	
DR005745	DS005745	D013633	1	06/10/71 - 06/12/71	(g)
		D013637	2	06/12/71 - 06/24/71	(h)
		D013636	3	06/24/71 - 06/27/71	
		D013697	4	06/27/71 - 07/05/71	
		D013698	5	07/05/71 - 07/09/71	
		D013699	6	07/10/71 - 07/21/71	(i)
		D013700	7	07/21/71 - 07/31/71	
		D013701	8	08/02/71 - 08/17/71	

* Ref. to 69-099C-03A for further Documentation

DR#	DS#	D#	FILES	TIME SPAN	
DR005746	DS005746	D013702	1	08/17/71 - 08/24/71	
		D013703	2	08/25/71 - 08/31/71	
		D013704	3	08/31/71 - 09/13/71	
		D013650	4	09/13/71 - 09/20/71	
		D013649	5	09/20/71 - 09/26/71	(j)
		D013648	6	09/26/71 - 09/30/71	
		D013651	7	09/30/71 - 10/05/71	(k)
		D013743	8	10/06/71 - 10/15/71	
DR005747	DS005747	D013835	1	10/23/71 - 10/25/71	
		D013836	2	10/25/71 - 10/28/71	
		D013837	3	10/28/71 - 10/31/71	(l)
		D013838	4	10/31/71 - 11/05/71	(m)
		D013839	5	11/05/71 - 11/09/71	
		D013840	6	11/09/71 - 11/16/71	
		D013841	7	11/16/71 - 11/17/71	
		D013830	8	11/17/71 - 11/20/71	
DR005748	DS005748	D013829	1	11/20/71 - 11/22/71	
		D013828	2	11/22/71 - 11/26/71	
		D018344	3	11/26/71 - 12/03/71	
		D013843	4	12/03/71 - 12/07/71	
		D013842	5	12/08/71 - 12/15/71	
		D013831	6	12/15/71 - 12/17/71	
		D013832	7	12/17/71 - 12/20/71	
		D013833	8	12/20/71 - 12/27/71	
DR005749	DS005749	D013834	1	12/27/71 - 12/31/71	
		D013886	2	01/01/72 - 01/06/72	(n)
		D013887	3	01/07/72 - 01/13/72	
		D013888	4	01/13/72 - 01/20/72	(o)
		D013878	5	01/20/72 - 01/31/72	
		D013879	6	01/31/72 - 02/10/72	
		D013880	7	02/10/72 - 02/21/72	
		D013883	8	02/21/72 - 03/06/72	(p)
DR005750	DS005750	D014104	1	03/07/72 - 03/15/72	(q)
		D014105	2	03/15/72 - 03/23/72	(r)
		D014106	3	03/23/72 - 04/04/72	
		D057817	4	04/20/72 - 06/23/73	
		D013877	5	04/04/72 - 04/12/72	
		D013876	6	04/12/72 - 04/18/72	
		D013875	7	04/18/72 - 04/27/72	
		D013882	8	04/27/72 - 04/30/72	
DR005751	DS005751	D013707	1	04/30/72 - 05/05/72	
		D013706	2	05/05/72 - 05/09/72	
		D013705	3	05/09/72 - 05/12/72	
		D013881	4	05/12/72 - 05/14/72	
		D013885	5	05/14/72 - 05/16/72	
		D013884	6	05/16/72 - 05/19/72	
		D013556	7	05/19/72 - 05/25/72	
		D013555	8	05/26/72 - 05/29/72	

DR#	DS#	D#	FILES	TIME SPAN	
DR005752	DS005752	D013554	1	05/29/72 - 06/03/72	
		D013561	2	06/03/72 - 06/06/72	(s)
		D013560	3	06/06/72 - 06/09/72	
		D013549	4	06/09/72 - 06/12/72	
		D013550	5	06/12/72 - 06/16/72	
		D013551	6	06/16/72 - 06/23/72	
		D013552	7	06/23/72 - 06/25/72	
		D013553	8	06/26/72 - 06/28/72	
DR005753	DS005753	D013564	1	06/28/72 - 07/04/72	
		D013563	2	07/04/72 - 07/08/72	
		D013562	3	07/08/72 - 07/11/72	
		D013566	4	07/11/72 - 07/18/72	
		D013565	5	07/18/72 - 07/21/72	
		D013559	6	07/21/72 - 07/25/72	
		D013558	7	07/25/72 - 08/04/72	(t)
		D013557	8	08/04/72 - 08/11/72	
DR005754	DS005754	D014102	1	08/11/72 - 08/15/72	(u)
		D014103	2	08/16/72 - 08/18/72	
		D014099	3	08/18/72 - 08/22/72	
		D014100	4	08/22/72 - 08/26/72	
		D014101	5	08/27/72 - 09/06/72	(v)
		D014107	6	09/06/72 - 09/16/72	
		D014108	7	09/16/72 - 09/23/72	
		D014241	8	09/23/72 - 09/30/72	(w)
		D014242	9	09/30/72 - 10/14/72	(x)
DR005755	DS005755	D015898	1	10/15/72 - 10/21/72	
		D014243	2	10/21/72 - 10/26/72	
		D015899	3	10/26/72 - 11/05/72	(y)
		D015902	4	11/05/72 - 11/09/72	(z)
		D015903	5	11/09/72 - 11/13/72	
		D015904	6	11/13/72 - 11/17/72	
		D015772	7	11/17/72 - 11/25/72	
		D015771	8	11/25/72 - 12/05/72	
DR005756	DS005756	D015770	1	12/05/72 - 12/09/72	
		D015901	2	12/09/72 - 12/14/72	
		D015900	3	12/14/72 - 12/21/72	(aa)
		D016121	4	12/21/72 - 12/31/72	
		D016120	5	01/01/73 - 01/05/73	
		D016119	6	01/05/73 - 01/12/73	
		D016187	7	01/12/73 - 01/21/73	
		D016188	8	01/22/73 - 02/01/73	
DR005757	DS005757	D016189	1	02/01/73 - 02/10/73	
		D016190	2	02/10/73 - 02/17/73	
		D016191	3	02/17/73 - 03/08/73	
		D016628	4	03/09/73 - 03/20/73	(bb)
		D016627	5	03/20/73 - 03/27/73	(cc)
		D016626	6	03/27/73 - 04/03/73	(dd)
		D016811	7	04/03/73 - 04/13/73	
		D016796	8	04/13/73 - 04/28/73	(ee)

DR#	DS#	D#	FILES	TIME SPAN	
.005758	DS005758	D016812	1	04/28/73 - 05/03/73	(ff)
		D016810	2	05/03/73 - 05/19/73	
		D016802	3	05/19/73 - 05/28/73	
		D016815	4	05/28/73 - 06/02/73	
		D016816	5	06/02/73 - 06/14/73	(gg)
		D016817	6	06/14/73 - 06/25/73	(hh)
		D016809	7	06/25/73 - 06/27/73	
		D016808	8	06/28/73 - 07/03/73	
DR005759	DS005759	D016807	1	07/03/73 - 07/10/73	(ii)
		D016823	2	07/10/73 - 07/18/73	(jj)
		D016822	3	07/19/73 - 07/24/73	(kk)
		D016799	4	07/24/73 - 07/30/73	(ll)
		D016798	5	07/30/73 - 08/02/73	
		D016797	6	08/02/73 - 08/09/73	
		D016803	7	08/09/73 - 08/16/73	(mm)
		D016804	8	08/16/73 - 08/29/73	(nn)
DR005760	DS005760	D016821	1	08/29/73 - 09/02/73	(oo)
		D016806	2	09/02/73 - 09/10/73	(pp)
		D016805	3	09/10/73 - 09/19/73	(qq)
		D016814	4	09/19/73 - 10/03/73	
		D016813	5	10/03/73 - 10/09/73	(rr)
		D017591	6	10/10/73 - 10/16/73	
		D016801	7	10/16/73 - 10/30/73	
		D016800	8	10/30/73 - 11/09/73	(ss)
DR005761	DS005761	D016818	1	11/09/73 - 11/22/73	
		D016819	2	11/23/73 - 12/01/73	(tt)
		D016820	3	12/01/73 - 12/08/73	
		D017592	4	12/09/73 - 12/20/73	
		D016882	5	12/20/73 - 12/24/73	
		D016883	6	12/24/73 - 12/31/73	
		D017576	7	01/01/74 - 01/07/74	
		D017575	8	01/07/74 - 01/19/74	
		D017585	9	01/19/74 - 01/29/74	
DR005815	DS005815	D017586	1	01/29/74 - 02/06/74	
		D017587	2	02/06/74 - 02/15/74	
		D017572	3	02/15/74 - 02/22/74	
		D017571	4	02/24/74 - 03/01/74	
		D017584	5	03/02/74 - 03/11/74	(uu)
		D017583	6	03/11/74 - 03/20/74	(vv)
		D017582	7	03/21/74 - 03/30/74	(ww)
		D017581	8	03/30/74 - 04/16/74	
		D017580	9	04/16/74 - 04/25/74	
DR005816	DS005816	D017579	1	04/25/74 - 05/10/74	(xx)
		D017578	2	05/11/74 - 05/20/74	(yy)
		D017577	3	05/21/74 - 06/02/74	
		D017593	4	06/03/74 - 06/16/74	
		D017594	5	06/16/74 - 06/28/74	
		D017590	6	06/28/74 - 07/03/74	
		D017589	7	07/03/74 - 07/14/74	
		D017588	8	07/14/74 - 07/20/74	

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DR#	DS#	D#	FILES	TIME SPAN	
DR005817	DS005817	D017573	1	07/21/74 - 08/06/74	
		D017574	2	08/06/74 - 08/11/74	
		D019083	3	08/11/74 - 08/22/74	
		D019082	4	08/22/74 - 08/29/74	
		D019081	5	08/29/74 - 09/08/74	
		D019088	6	09/09/74 - 09/17/74	
		D019087	7	09/17/74 - 09/24/74	
		D019166	8	09/25/74 - 10/06/74	
		D019165	9	10/07/74 - 10/16/74	(zz)
DR005818	DS005818	D019164	1	10/17/74 - 10/26/74	
		D019094	2	10/27/74 - 11/04/74	
		D019095	3	11/04/74 - 11/12/74	
		D019084	4	11/12/74 - 11/19/74	
		D019090	5	11/19/74 - 11/26/74	
		D019089	6	11/27/74 - 12/09/74	
		D019086	7	12/09/74 - 12/14/74	
		D019085	8	12/14/74 - 12/25/74	(aaa)
		D019093	9	12/25/74 - 12/31/74	
DR005819	DS005819	D019092	1	01/02/75 - 01/12/75	
		D019091	2	01/12/75 - 01/24/75	
		D019368	3	01/24/75 - 01/30/75	
		D019367	4	01/31/75 - 02/12/75	
		D019366	5	02/12/75 - 02/22/75	
		D057819	6	02/13/75 - 03/08/76	
		D022095	7	02/23/75 - 03/08/75	
		D022096	8	03/08/75 - 03/24/75	(bbb)
		D022195	9	03/25/75 - 04/05/75	
DR005820	DS005820	D022196	1	04/06/75 - 04/14/75	
		D022192	2	04/14/75 - 04/23/75	
		D022193	3	04/23/75 - 05/07/75	
		D022194	4	05/07/75 - 05/16/75	
		D022191	5	05/17/75 - 06/02/75	
		D057818	6	05/22/75 - 01/13/76	
		D022197	7	06/03/75 - 06/16/75	
		D022455	8	06/16/75 - 06/22/75	
		D022456	9	06/22/75 - 06/26/75	
DR005821	DS005821	D022652	1	06/27/75 - 07/07/75	(ccc)
		D022653	2	07/07/75 - 07/30/75	
		D022654	3	07/30/75 - 08/09/75	
		D022655	4	08/09/75 - 08/20/75	(ddd)
		D023018	5	08/20/75 - 09/02/75	(eee)
		D023019	6	09/02/75 - 09/12/75	
		D023020	7	09/12/75 - 09/27/75	(fff)
		D023624	8	09/27/75 - 10/05/75	(ggg)
		D023625	9	10/05/75 - 10/20/75	

DR#	DS#	D#	FILES	TIME SPAN	
DR005822	DS005822	D023626	1	10/21/75 - 10/31/75	
		D023627	2	10/31/75 - 11/11/75	
		D023628	3	11/13/75 - 11/26/75	
		D023629	4	11/26/75 - 12/02/75	(hhh)
		D023718	5	12/02/75 - 12/11/75	(iii)
		D023717	6	12/11/75 - 12/23/75	
		D023716	7	12/24/75 - 12/31/75	
		D028106	8	01/01/76 - 01/13/76	
		D028107	9	01/13/76 - 01/17/76	(jjj)
DR005823	DS005823	D028108	1	02/19/76 - 02/29/76	
		D031826	2	03/01/76 - 03/05/76	
		D031934	3	03/05/76 - 03/11/76	
		D031935	4	03/11/76 - 03/16/76	
		D031936	5	03/16/76 - 03/17/76	
		D031963	6	05/23/76 - 05/27/76	
		D057821	7	05/28/76 - 09/13/77	
		D031980	8	05/28/76 - 06/04/76	
		D031981	9	06/04/76 - 06/08/76	
DR005824	DS005824	D032044	1	06/10/76 - 06/21/76	(kkk)
		D032045	2	06/21/76 - 06/25/76	
		D032046	3	06/25/76 - 07/02/76	(lll)
		D032047	4	07/02/76 - 07/10/76	
		D032048	5	07/10/76 - 07/21/76	
		D032049	6	07/21/76 - 07/28/76	
		D032050	7	07/29/76 - 07/31/76	(mmm)
		D032290	8	07/31/76 - 08/10/76	(nnn)
		D057820	9	08/08/76 - 05/15/77	
DR005825	DS005825	D032291	1	08/11/76 - 08/19/76	
		D032292	2	08/19/76 - 08/26/76	(ooo)
		D032293	3	08/26/76 - 08/31/76	
		D032294	4	08/31/76 - 09/11/76	
		D032295	5	09/11/76 - 09/20/76	(ppp)
		D032296	6	09/20/76 - 09/23/76	
		D032297	7	09/24/76 - 10/05/76	
		D032298	8	10/05/76 - 10/08/76	(qqq)
		D032299	9	11/12/76 - 11/15/76	
DR005826	DS005826	D032300	1	11/15/76 - 11/19/76	
		D032301	2	11/19/76 - 11/28/76	
		D032302	3	11/28/76 - 12/06/76	
		D032303	4	12/06/76 - 12/15/76	
		D032928	5	12/15/76 - 12/26/76	
		D032929	6	12/26/76 - 12/31/76	(rrr)
		D032892	7	01/01/77 - 01/07/77	
		D032893	8	01/08/77 - 01/13/77	
		D032894	9	01/13/77 - 01/22/77	

DR#	DS#	D#	FILES	TIME SPAN	
DR005827	DS005827	D032895	1	01/22/77 - 01/28/77	
		D032896	2	01/28/77 - 02/07/77	
		D032897	3	02/07/77 - 02/20/77	
		D032898	4	02/20/77 - 03/02/77	
		D032899	5	03/02/77 - 03/06/77	
		D032900	6	03/07/77 - 03/20/77	
		D033688	7	03/20/77 - 03/31/77	(sss)
		D032946	8	03/31/77 - 04/01/77	(ttt)
		D032947	9	04/01/77 - 04/05/77	
DR005828	DS005828	D032948	1	04/05/77 - 04/14/77	
		D032949	2	04/14/77 - 04/18/77	(uuu)
		D032950	3	04/18/77 - 04/26/77	
		D032951	4	04/26/77 - 04/28/77	
		D032952	5	04/28/77 - 05/02/77	(vvv)
		D032953	6	05/02/77 - 05/05/77	
		D033798	7	08/27/77 - 09/06/77	(www)
		D033799	8	09/08/77 - 09/11/77	
		D033800	9	09/11/77 - 09/16/77	
DR005829	DS005829	D033801	1	09/16/77 - 09/30/77	
		D032924	2	03/20/77 - 03/31/77	
		D033696	3	06/05/77 - 06/23/77	
		D033695	4	06/12/77 - 06/15/77	
		D033708	5	02/13/77 - 03/09/77	
		D033707	6	05/29/77 - 09/13/77	
		D033706	7	05/22/77 - 01/13/78	
		D033705	8	08/17/77 - 08/27/77	
		D033704	9	08/13/77 - 08/17/77	
DR005830	DS005830	D033703	1	08/04/77 - 08/13/77	
		D033702	2	07/24/77 - 07/30/77	(xxx)
		D033701	3	07/20/77 - 07/24/77	
		D033700	4	07/17/77 - 07/20/77	
		D033699	5	07/11/77 - 07/16/77	
		D033698	6	07/03/77 - 07/11/77	
		D033697	7	06/23/77 - 06/30/77	
		D033690	8	05/12/77 - 05/16/77	(yyy)
		D033692	9	05/23/77 - 05/27/77	(zzz)
DR005831	DS005831	D033693	1	05/27/77 - 06/05/77	
		D033694	2	06/06/77 - 06/12/77	
		D033691	3	05/17/77 - 05/22/77	
		D033689	4	05/05/77 - 05/12/77	

(a) D013652 - 2 ERRORS, REC. 12, 15, FILE 1
(b) D013638 - 1 ERROR, REC. 343, FILE 1
(c) D013656 - 2 ERRORS, REC. 62, 64, FILE 1
(d) D013654 - 1 ERROR, REC. 1562, FILE 1
(e) D013644 - 9 ERRORS, REC. 129, 445, 447, 573-575, 886-888, FILE 1
(f) D013646 - 1 ERROR, REC. 14, FILE 1
(g) D013633 - 2 ERRORS, REC. 127, 128, FILE 1
(h) D013637 - 1 ERROR, REC. 89, FILE 1

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(i) D013699 - 1 ERROR, REC. 369, FILE 1
(j) D013649 - 2 ERRORS, REC. 862, 863, FILE 1
(k) D013743 - 15 ERRORS, REC. 4, 29, 30, 60, 66, 73, 193, 239, 319, 589, 776, 1028, 1401, 1412, 1428, FILE 1
, D013837 - 1 ERROR, REC. 71, FILE 1
(m) D013838 - 18 ERRORS, REC. 8-12, 14-16, 18-26, 144, FILE 1
(n) D013886 - 2 ERRORS, REC. 70, 79, FILE 1
(o) D013888 - 1 ERROR, REC. 216, FILE 1
(p) D013883 - 1 ERROR, REC. 59, FILE 1
(q) D014104 - 1 ERROR, REC. 352, FILE 1
(r) D014105 - 3 ERRORS, REC. 11, 30, 32, FILE 1
(s) D013561 - 1 ERROR, REC. 168, FILE 1
(t) D013558 - 4 ERRORS, REC. 1-4, FILE 1
(u) D014102 - 1 ERROR, REC. 8, FILE 1
(v) D014101 - 1 ERROR, REC. 163, FILE 1
(w) D014241 - 1 ERROR, REC. 50, FILE 1
(x) D014242 - 1 ERROR, REC. 180, FILE 1
(y) D015899 - 6 ERRORS, REC. 252, 558, 560, 561, 565, 1452, FILE 1
(z) D015902 - 14 ERRORS, REC. 239, 254, 257, 259, 275, 432, 442, 450, 473, 502, 550, 560, 581, 588, FILE 1
(aa) D015900 - 23 ERRORS, REC. 303, 305, 309, 318, 319, 322, 325-327, 331, 333, 344, 352, 360, 361, 369, 378, 379, 382-384, 732, 851, FILE 1
(bb) D016628 - 3 ERRORS, REC. 139, 140, 182, FILE 1
(cc) D016627 - 5 ERRORS, REC. 13, 15, 16, 235, 1054, FILE 1
(dd) D016626 - 6 ERRORS, REC. 154-157, 281, 282, FILE 1
(ee) D016796 - 3 ERRORS, REC. 1-3, FILE 1
(ff) D016812 - 1 ERROR, REC. 3, FILE 1
(gg) D016816 - 1 ERROR, REC. 1181, FILE 1
(hh) D016817 - 2 ERRORS, REC. 6, 1430, FILE 1
i) D016807 - 3 ERRORS, REC. 659, 660, 1264, FILE 1
jj) D016823 - 1 ERROR, REC. 1511, FILE 1
(kk) D016822 - 9 ERRORS, REC. 1409-1412, 1467-1469, 1471, 1536, FILE 1
(ll) D016799 - 15 ERRORS, REC. 7, 236-240, 539, 667, 826, 938, 1103, 1120, 1164, 1248, 1553, FILE 1
(mm) D016803 - 1 ERROR, REC. 119, FILE 1
(nn) D016804 - 6 ERRORS, REC. 3, 6, 16, 1011, 1103, 1131, FILE 1
(oo) D016821 - 7 ERRORS, REC. 98, 105, 107, 116, 121, 123, 132, FILE 1
(pp) D016806 - 4 ERRORS, REC. 6, 373, 411, 1295, FILE 1
(qq) D016805 - 1 ERROR, REC. 410, FILE 1
(rr) D016813 - 8 ERRORS, REC. 182, 187, 191, 221, 250, 1219, 1351, 1352, FILE 1
(ss) D016800 - 16 ERRORS, REC. 502, 826-829, 832-842, FILE 1
(tt) D016819 - 1 ERROR, REC. 1234, FILE 1
(uu) D017584 - 1 ERROR, REC. 229, FILE 1
(vv) D017583 - 1 ERROR, REC. 264, FILE 1
(ww) D017582 - 11 ERRORS, REC. 394-404, FILE 1
(xx) D017579 - 3 ERRORS, REC. 196-198, FILE 1
(yy) D017578 - 1 ERROR, REC. 391, FILE 1
(zz) D019165 - 1 ERROR, REC. 736, FILE 1
(aaa) D019085 - 1 ERROR, REC. 271, FILE 1
(bbb) D022096 - 1 ERROR, REC. 155, FILE 1
(ccc) D022652 - 7 ERRORS, REC. 23, 213, 670, 784, 928, 1055, 1531, FILE 1
(ddd) D022655 - 1 ERROR, REC. 135, FILE 1
(eee) D023018 - 1 ERROR, REC. 116, FILE 1
(fff) D023020 - 1 ERROR, REC. 91, FILE 1
gg) D023624 - 1 ERROR, REC. 45, FILE 1
hh) D023629 - 8 ERRORS, REC. 5, 41, 69, 71, 73, 75, 76, 85, FILE 1
(iii) D023718 - 2 ERRORS, REC. 58, 103, FILE 1
(jjj) D028107 - 1 ERROR, REC. 19, FILE 1
(kkk) D032044 - 12 ERRORS, REC. 111, 112, 181, 201, 234, 1447, 1518, 1533,

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1537, 1549, 1553, 1566, FILE 1
(lll) D032046 - 14 ERRORS, REC. 125, 186, 289, 416, 469, 480, 507, 508, 535, 537, 919, 923, 941, 946, FILE 1
(mmm) D032050 - 5 ERRORS, REC. 499-501, 503, 505, FILE 1
(nnn) D032290 - 2 ERRORS, REC. 511, 1449, FILE 1
(ooo) D032292 - 1 ERROR, REC. 52, FILE 1
(ppp) D032295 - 3 ERRORS, REC. 164, 436, 438, FILE 1
(qqq) D032298 - 1 ERROR, REC. 40, FILE 1
(rrr) D032929 - 16 ERRORS, REC. 620, 798, 867-872, 920, 1206-1212, FILE 1
(sss) D033688 - 5 ERRORS, REC. 29-32, 443, FILE 1
(ttt) D032946 - 1 ERROR, REC. 122, FILE 1
(uuu) D032949 - 1 ERROR, REC. 16, FILE 1
(vvv) D032952 - 1 ERROR, REC. 70, FILE 1
(www) D033798 - 4 ERRORS, REC. 7, 54, 55, 60, FILE 1
(xxx) D033702 - 1 ERROR, REC. 924, FILE 1
(yyy) D033690 - 1 ERROR, REC. 22, FILE 1
(zzz) D033692 - 1 ERROR, REC. 221, FILE 1

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RECORD 1 OF FILE 1
LENGTH = 24 BYTES

1(1) 256525456360 000516000016 003663000000 031064756041

RECORD 1682 OF FILE 1
LENGTH = 9720 BYTES

1(1)	107562435514	240200000000	704403543210	407040704070	377040703704	407437644074	407040744074	407440743764
9(49)	407437044074	376040704070	113440744010	407441304074	407437644074	370440743760	407440744074	407040703764
17(97)	407037044070	376440704070	107562436647	240200000000	704403543220	407040704070	376440703704	407037644070
25(145)	407040704070	407040703764	407037044070	376440704070	002440706310	407014504070	407037644070	370440703764
33(193)	407040704070	406440643764	406437044064	376440644070	107562440003	240200000000	704403543230	407040644070
41(241)	377040643704	407037644064	407040704064	407040703770	407037044070	376040704070	022040704010	407041304070
49(289)	407037704070	370440703764	407040704070	407040703764	407037044070	376440704070	107562441137	240200000000
57(337)	704403543240	407040704070	377040703704	407037604070	407040704070	407040703770	407037044070	376440704070
65(385)	000440706310	407014504070	407037644070	370440703764	407040704070	406440703770	407037044070	376040704070
73(433)	107562442272	240200000000	704403543250	407040704070	377040703704	407037604070	407040704070	407040703764
81(481)	407037044070	376440704070	000040704010	407041304070	407037644070	370440703764	407040704070	407040703764
89(529)	407037044070	376440704070	107562443426	240200000000	704403543260	407040704070	376440703704	407037604070
97(577)	407040704070	407040703770	407037004070	376440704070	000040706304	407014504064	407037704070	370040703764
105(625)	407040704070	407040703764	407037004070	376440704070	107562444562	240200000000	704403543270	407040704070
113(673)	377040703704	407037644070	407040704070	407040703764	407037044070	376440704070	052440704010	407041304070
121(721)	407037644070	370440703764	407040704070	407040703764	407037044070	376440704070	107562445716	240200000000
129(769)	704403543300	407040704070	376440703704	407037604070	407040704070	407040703764	407037044070	376040704070
137(817)	074440706304	407014504070	407037704070	370440703764	407040704070	407040703764	407037044070	376440704070
145(865)	107562447051	240200000000	704403543310	407040704070	377040703704	407037604070	407040704070	407040703770
153(913)	407037044070	376440704070	000040704010	407041304070	407037644070	370440703764	407040704070	407040703764
161(961)	407037004070	376440744070	107562450205	240200000000	704403542000	407040704070	376440703700	407037644070
169(1009)	407040704070	407040703764	407037004070	376440704070	000040706310	407014504064	407037644070	370440703764
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1249(7489)	407040704064	406440703770	407037044070	376440704070	116040706310	407014504064	407037704070	370440703764	
1257(7537)	407040704070	407040703770	407037044070	376440704070	107562560141	240200000000	704403542750	407040704070	
1265(7585)	376440703704	407037604070	407040704070	407040743764	407437004070	376440704070	030440704010	407041304070	
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1393(8353)	407040704070	407040703764	407037044070	376040704070	002040706304	407014504064	407037644070	370440703764
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TRANSLATE AND CONVERT MUST BOTH BE OFF ON INPUT DEVICEFOR PROPER PRINTOUT. IGNORE THIS MESSAGE IF PROPER DEVICE WAS SPECIFIED.

RECORD 000001, LENGTH 00024 , FILE 00001.

256525456360 000517000016 003664000000 107777517673

RECORD 000002, LENGTH 00024 , FILE 00001.

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RECORD 000003, LENGTH 09720 , FILE 00001.

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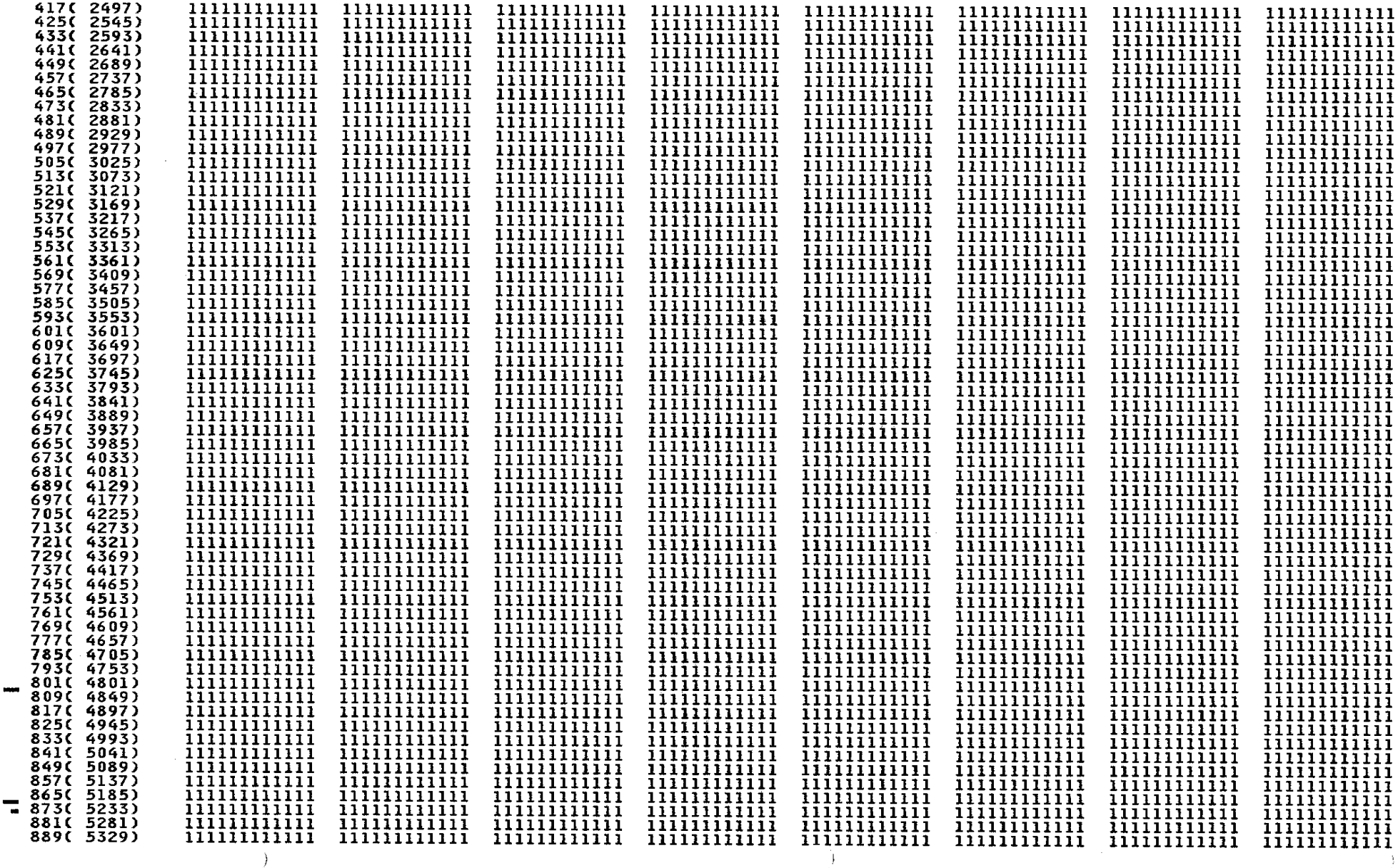
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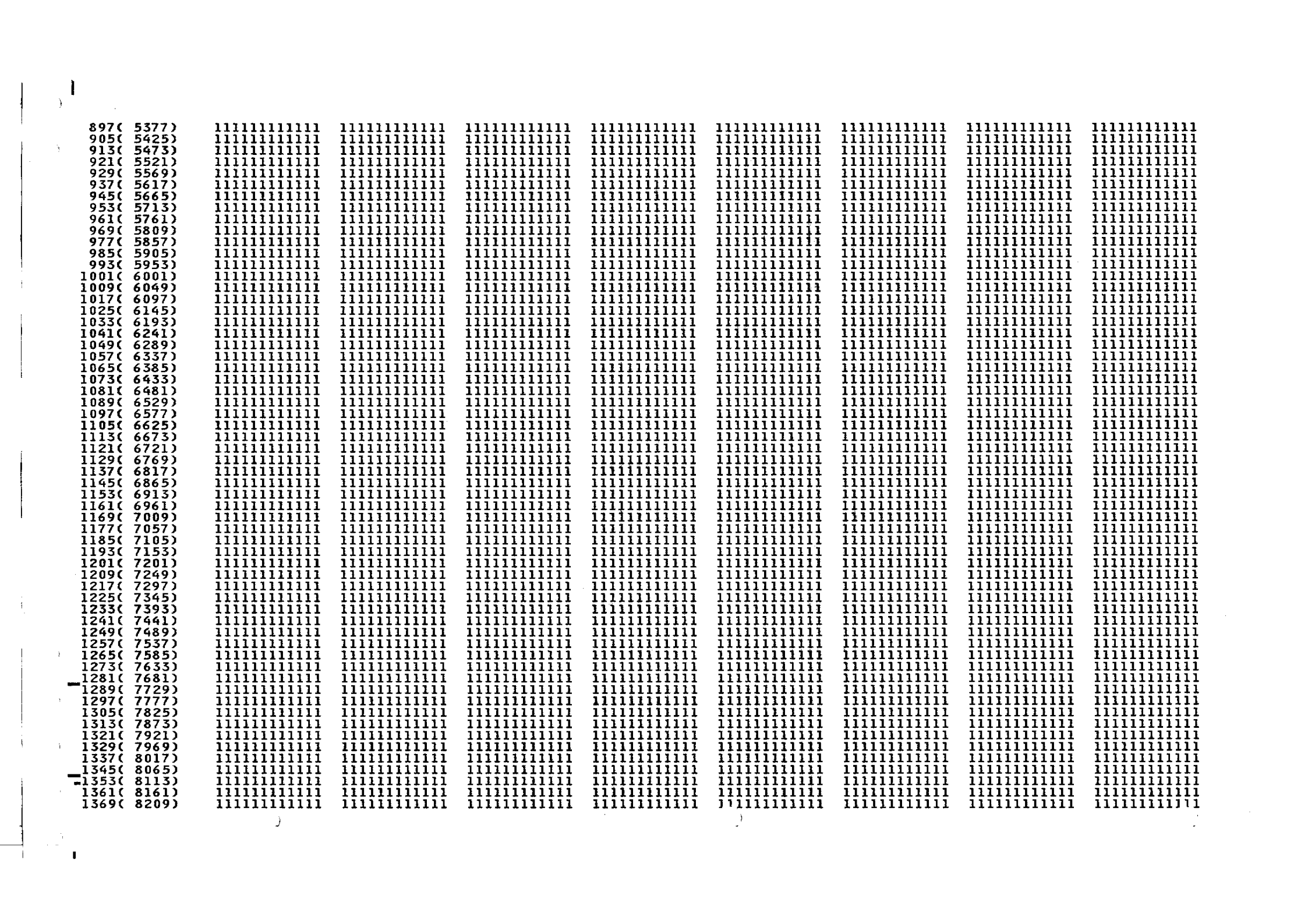
Event 20006 ICI

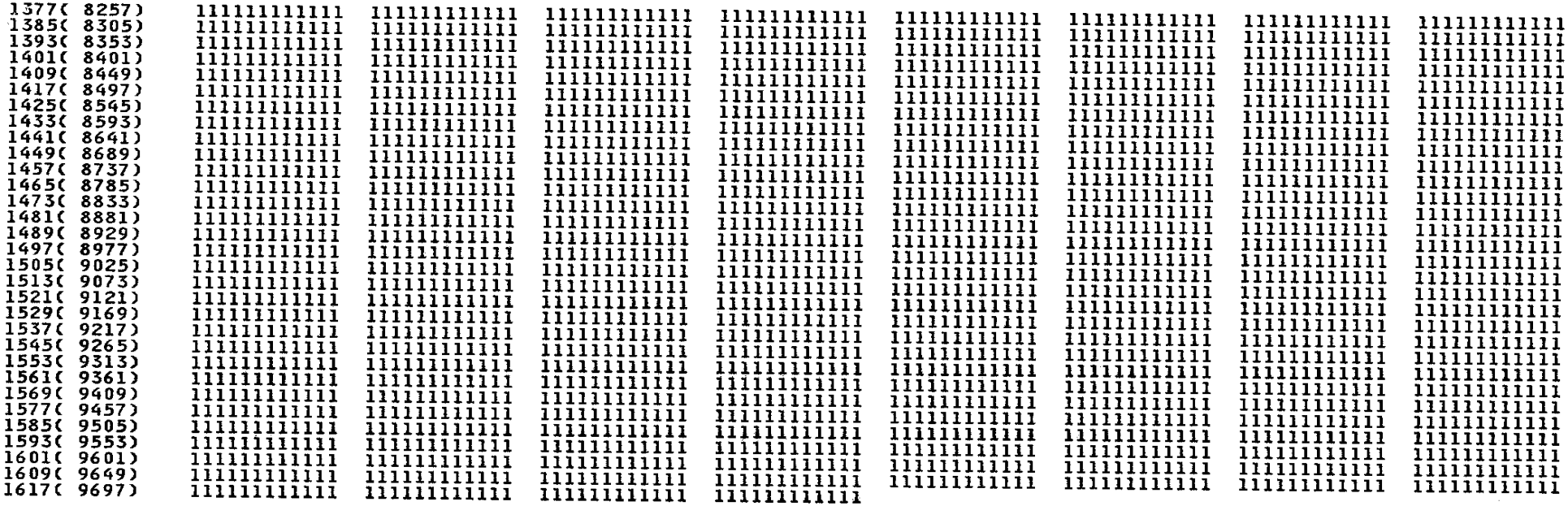
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881(5281) 111111111111 111111111111 111111111111 111111111111 111111111111 111111111111 111111111111 111111111111
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1105 RECORDS IN FILE 1 OF TAPE

Apollo 14 D-57819

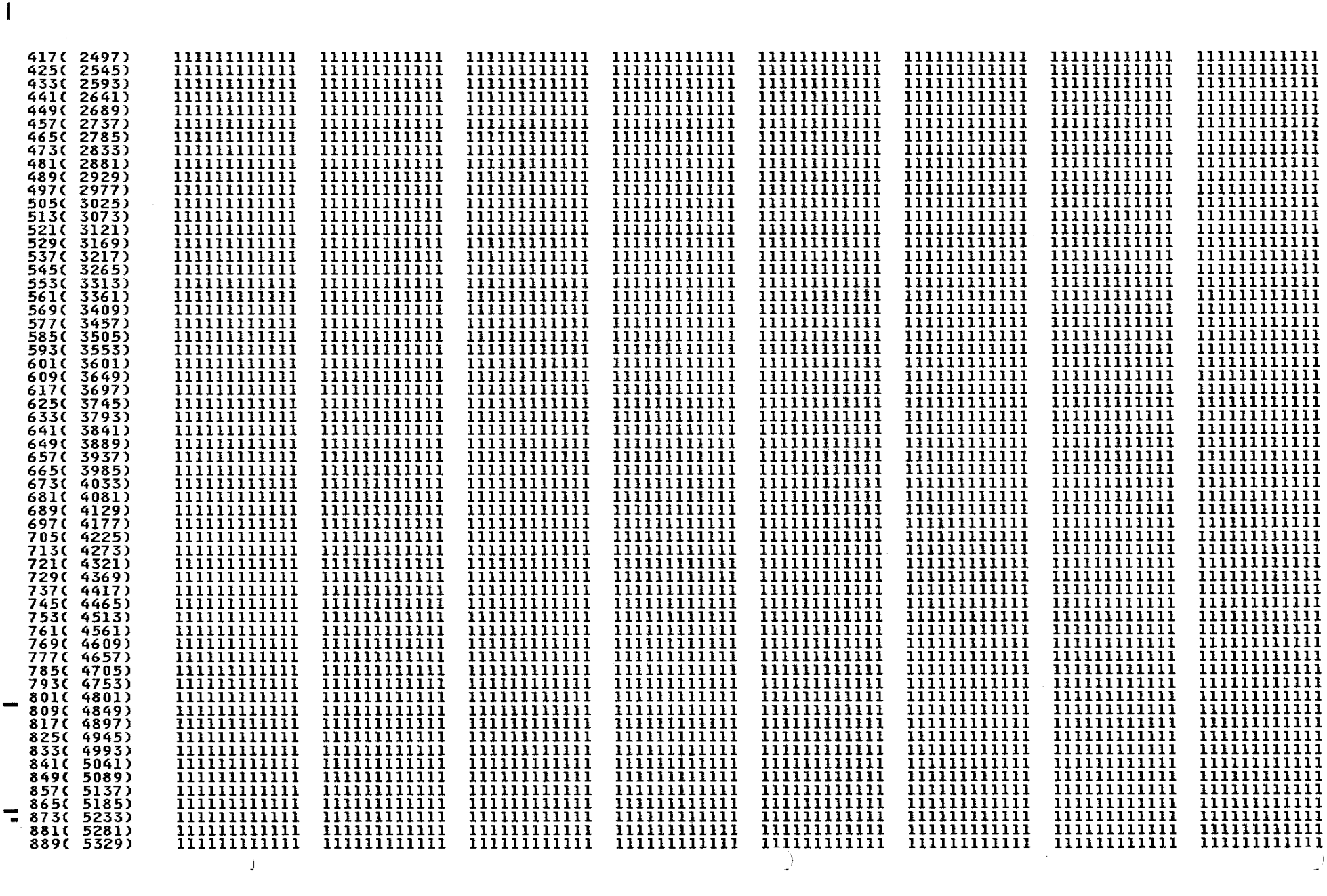
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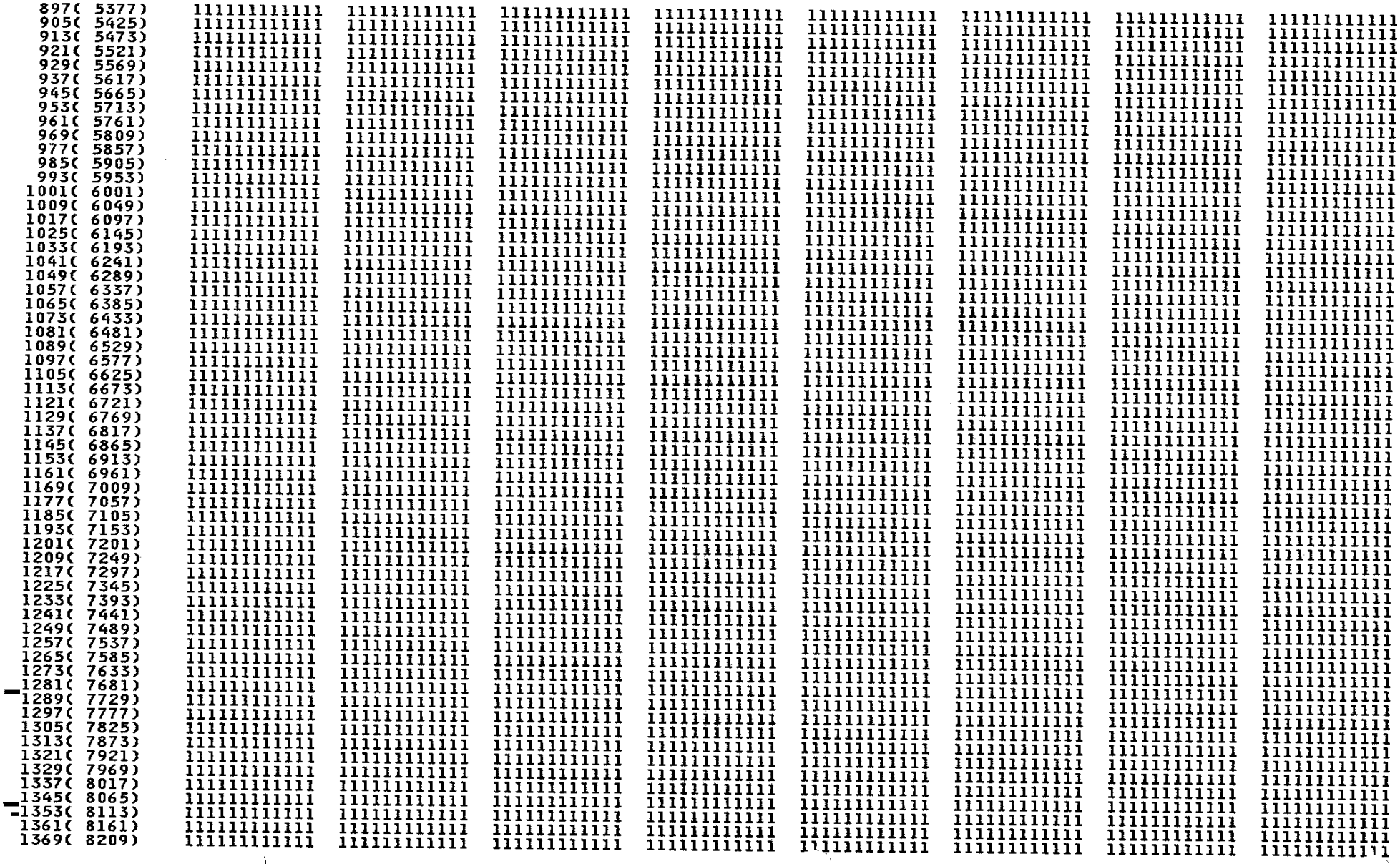
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41(241)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
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137(817)	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111	111111111111
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627 RECORDS IN FILE 1 OF TAPE

Apollo 14 D-57821

TRANSLATE AND CONVERT MUST BOTH BE OFF ON INPUT DEVICEFOR PROPER PRINTOUT. IGNORE THIS MESSAGE IF PROPER DEVICE WAS SPECIFIED.

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RECORD 000002, LENGTH 00024 , FILE 00001.

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RECORD 000003, LENGTH 09720 , FILE 00001.

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405436544054	376440544054	140045556644	350140000000	704403542240	405440544054	377440543650	405437644054
405440544054	405440543774	405436444054	376440544054	150040545400	405450544054	405437744054	364040543764
405440504050	405040503774	405036444050	376440504050	140045560000	350140000000	704403542250	405040504050
377040503650	405037644050	405040504050	405040503770	405036544050	376440504050	045440504000	405041004050
405037704050	365440503764	405040504050	405040503774	405436504054	376440544050	140045561133	350140000000
704403542260	405040504054	377440543640	405437644054	405040504050	405040503774	405036344050	376440504050
123040505400	405050544050	405037744054	364040543764	405440544054	405040503774	405036504054	376440544054
140045562267	350140000000	704403542270	405440544054	377440543654	405437644054	405440544054	405440543774
405436604050	376440504050	001440504000	405441004054	405437704054	365040504054	405040504050	405040503770
405036444050	376440504050	140045563423	350140000000	704403542300	405040504054	377040543640	405437644054
405440544050	405040503774	405036404050	376440504050	002040505400	405050544050	405037744054	364440543764
405040504050	405040503774	405436504054	376440544054	140045564556	350140000000	704403542310	405440504054
377440543650	405437644054	405440544050	405040503770	405036504050	376440504050	164040504000	405041004050
405037704050	364440503764	405440544050	405040503774	405036444050	376440504050	140045565712	350140000000
704403542320	405440544054	377440543644	405437644054	405440544054	405040503774	405036504050	376440504050
000040505400	405450544050	405037744050	365040503764	405040544054	405440543774	405436504050	376440504050

APOLLO 15 LM/ALSEP

SEISMIC EVENT TAPES

71-063C-01B

This data set has been restored. There were originally 288 7-track, 800 BPI tapes written in Binary. There are 33 restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The original tapes were created on a PDP11 computer and the restored tapes were created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D numbers are as follows:

DR#	DS#	D#	FILES	TIME SPAN
DR004476	DS004476	D013709	1	08/02/71 - 08/17/71
		D013708	2	08/17/71 - 08/24/71
		D013710	3	08/25/71 - 08/31/71
		D013711	4	08/31/71 - 09/13/71
		D013661	5	09/13/71 - 09/20/71
		D013660	6	09/20/71 - 09/26/71
		D013659	7	09/26/71 - 09/30/71
		D013746	8	09/30/71 - 10/05/71
		D013747	9	10/06/71 - 10/15/71
DR004477	DS004477	D013748	1	10/15/71 - 10/19/71 (a)
		D013852	2	10/19/71 - 10/23/71
		D013853	3	10/23/71 - 10/25/71
		D013854	4	10/25/71 - 10/28/71
		D013856	5	10/31/71 - 11/05/71
		D013857	6	11/05/71 - 11/09/71
		D013858	7	11/09/71 - 11/16/71
DR004478	DS004478	D013848	1	11/16/71 - 11/17/71
		D013847	2	11/17/71 - 11/20/71
		D013846	3	11/20/71 - 11/22/71
		D013845	4	11/22/71 - 11/26/71
		D013861	5	11/26/71 - 12/03/71
		D013860	6	12/03/71 - 12/07/71
		D013859	7	12/08/71 - 12/15/71
		D013849	8	12/15/71 - 12/17/71
		D013850	9	12/17/71 - 12/20/71
DR004479	DS004479	D013851	1	12/20/71 - 12/27/71
		D013901	2	12/27/71 - 12/31/71
		D013902	3	01/01/72 - 01/06/72
		D013903	4	01/07/72 - 01/13/72
		D013904	5	01/13/72 - 01/20/72
		D013893	6	01/20/72 - 01/31/72
		D013894	7	01/31/72 - 02/10/72
		D013895	8	02/10/72 - 02/21/72
		D013898	9	02/21/72 - 03/06/72

* Ref. to 69-099C-03A for further documentation

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DR#	DS#	D#	FILES	TIME SPAN	
DR004480	DS004480	D014114	1	03/07/72 - 03/15/72	
		D014115	2	03/15/72 - 03/23/72	
		D013892	3	03/23/72 - 04/04/72	
		D013891	4	04/04/72 - 04/12/72	
		D013890	5	04/12/72 - 04/18/72	
		D013889	6	04/18/72 - 04/27/72	
		D013897	7	04/27/72 - 04/30/72	
		D013714	8	04/30/72 - 05/05/72	
		D013713	9	05/05/72 - 05/09/72	
DR004481	DS004481	D013712	1	05/09/72 - 05/12/72	
		D013896	2	05/12/72 - 05/14/72	
		D013900	3	05/14/72 - 05/16/72	
		D013899	4	05/16/72 - 05/19/72	
		D013573	5	05/19/72 - 05/25/72	
		D013572	6	05/26/72 - 05/29/72	
		D013578	7	05/29/72 - 06/03/72	
		D013577	8	06/03/72 - 06/06/72	(b)
DR004482	DS004482	D013576	1	06/06/72 - 06/09/72	
		D013567	2	06/09/72 - 06/12/72	
		D013568	3	06/12/72 - 06/16/72	
		D013569	4	06/16/72 - 06/23/72	
		D013570	5	06/23/72 - 06/25/72	
		D013571	6	06/26/72 - 06/28/72	
		D013580	7	06/28/72 - 07/04/72	
		D013579	8	07/04/72 - 07/08/72	
		D013583	9	07/08/72 - 07/11/72	
DR004483	DS004483	D013582	1	07/11/72 - 07/18/72	
		D013581	2	07/18/72 - 07/21/72	
		D013575	3	07/21/72 - 07/25/72	
		D013574	4	07/25/72 - 08/04/72	
		D014111	5	08/04/72 - 08/11/72	
		D014112	6	08/11/72 - 08/15/72	
		D014113	7	08/16/72 - 08/18/72	
		D014109	8	08/18/72 - 08/22/72	(c)
DR004594	DS004594	D014110	1	08/22/72 - 08/26/72	
		D014116	2	08/27/72 - 09/06/72	
		D014117	3	09/06/72 - 09/16/72	
		D014118	4	09/16/72 - 09/23/72	(d)
		D014244	5	09/23/72 - 09/30/72	
		D015905	6	09/30/72 - 10/14/72	
		D015906	7	10/15/72 - 10/21/72	
		D014245	8	10/21/72 - 10/26/72	(e)
		D013855	9	10/27/72 - 10/30/72	

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DR#	DS#	D#	FILES	TIME SPAN	
DR004484	DS004484	D015907	1	10/26/72 - 11/05/72	
		D015910	2	11/05/72 - 11/09/72	
		D015911	3	11/09/72 - 11/13/72	
		D015775	4	11/13/72 - 11/17/72	
		D015776	5	11/17/72 - 11/25/72	
		D015774	6	11/25/72 - 12/05/72	
		D015773	7	12/05/72 - 12/09/72	
		D015909	8	12/09/72 - 12/14/72	
		D015908	9	12/14/72 - 12/21/72	
DR004485	DS004485	D016124	1	12/21/72 - 12/31/72	
		D016123	2	01/01/73 - 01/05/73	
		D016122	3	01/05/73 - 01/12/73	
		D016192	4	01/12/73 - 01/21/73	
		D016193	5	01/22/73 - 02/01/73	
		D016194	6	02/01/73 - 02/10/73	
		D016195	7	02/10/73 - 02/17/73	
		D016196	8	02/17/73 - 03/08/73	
DR004595	DS004595	D016630	1	03/09/72 - 03/20/72	
		D016629	2	03/20/73 - 03/27/73	(f)
		D017616	3	03/27/73 - 04/03/73	
		D016829	4	04/03/73 - 04/13/73	
		D017615	5	04/13/73 - 04/28/73	
		D016837	6	04/28/73 - 05/03/73	
		D016828	7	05/03/73 - 05/19/73	
		D016827	8	05/19/73 - 05/28/73	(g)
		D016841	9	05/28/73 - 06/02/73	
DR004596	DS004596	D016842	1	06/02/73 - 06/14/73	(h)
		D016843	2	06/14/73 - 06/25/73	
		D016834	3	06/25/73 - 06/28/73	
		D017617	4	06/28/73 - 07/03/73	
		D016850	5	07/03/73 - 07/10/73	
		D016849	6	07/10/73 - 07/18/73	
		D016848	7	07/19/73 - 07/24/73	
		D016836	8	07/24/73 - 07/30/73	
		D016835	9	07/30/73 - 08/02/73	
DR004597	DS004597	D016830	1	08/02/73 - 08/09/73	
		D016831	2	08/09/73 - 08/16/73	
		D016832	3	08/16/73 - 08/29/73	
		D016847	4	08/29/73 - 09/02/73	
		D016833	5	09/02/73 - 09/10/73	
		D016840	6	09/10/73 - 09/19/73	
		D016839	7	09/19/73 - 10/03/73	
		D016838	8	10/03/73 - 10/09/73	
		D016826	9	10/10/73 - 10/16/73	

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DR#	DS#	D#	FILES	TIME SPAN	
DR004598	DS004598	D016825	1	10/16/73 - 10/30/73	
		D016824	2	10/30/73 - 11/09/73	
		D016844	3	11/09/73 - 11/22/73	
		D016845	4	11/22/73 - 12/01/73	
		D016846	5	12/01/73 - 12/08/73	
		D016884	6	12/09/73 - 12/20/73	(i)
		D017603	7	12/20/73 - 12/24/73	
		D016885	8	12/24/73 - 12/31/73	
		D017602	9	01/01/74 - 01/07/74	
DR004488	DS004488	D017601	1	01/07/74 - 01/19/74	
		D017611	2	01/19/74 - 01/29/74	
		D017612	3	01/29/74 - 02/06/74	
		D017597	4	02/06/74 - 02/15/74	
		D017596	5	02/15/74 - 02/22/74	
		D017595	6	02/24/74 - 03/01/74	
		D017610	7	03/02/74 - 03/11/74	
		D017609	8	03/11/74 - 03/20/74	
		D017608	9	03/21/74 - 03/30/74	
DR004489	DS004489	D017607	1	03/30/74 - 04/16/74	
		D017606	2	04/16/74 - 04/25/74	
		D017605	3	04/25/74 - 05/10/74	
		D017504	4	05/11/74 - 05/20/74	
		D017618	5	05/21/74 - 06/02/74	
		D017619	6	06/03/74 - 06/16/74	
		D017620	7	06/16/74 - 06/28/74	
		D017614	8	06/28/74 - 07/03/74	
		D017613	9	07/03/74 - 07/14/74	
DR004490	DS004490	D017598	1	07/14/74 - 07/20/74	
		D017599	2	07/21/74 - 08/06/74	
		D017600	3	08/06/74 - 08/11/74	
		D019098	4	08/11/74 - 08/22/74	
		D019097	5	08/22/74 - 08/29/74	
		D019103	6	08/29/74 - 09/08/74	
		D019102	7	09/09/74 - 09/17/74	
		D019101	8	09/17/74 - 09/24/74	
		D019167	9	09/25/74 - 10/06/74	
DR004491	DS004491	D019168	1	10/07/74 - 10/16/74	
		D019109	2	10/17/74 - 10/26/74	
		D019110	3	10/27/74 - 11/04/74	
		D019111	4	11/04/74 - 11/12/74	
		D019096	5	11/15/74 - 11/19/74	
		D019105	6	11/19/74 - 11/26/74	
		D019104	7	11/27/74 - 12/09/74	
		D019100	8	12/09/74 - 12/14/74	
		D019099	9	12/14/74 - 12/25/74	

DR#	DS#	D#	FILES	TIME SPAN
DR004492	DS004492	D019108	1	12/25/74 - 12/31/74
		D019107	2	01/02/75 - 01/12/75
		D019106	3	01/12/75 - 01/24/75
		D019370	4	01/24/75 - 01/30/75
		D019369	5	01/31/75 - 02/12/75
		D022097	6	02/12/75 - 02/22/75
		D022098	7	02/23/75 - 03/08/75
		D022099	8	03/08/75 - 03/24/75
		D022201	9	03/25/75 - 04/05/75
DR004493	DS004493	D022202	1	04/06/75 - 04/14/75
		D022198	2	04/14/75 - 04/23/75
		D022199	3	04/23/75 - 05/07/75
		D022200	4	05/07/75 - 05/16/75
		D022203	5	05/17/75 - 06/02/75
		D022204	6	06/03/75 - 06/16/75 (j)
		D022457	7	06/16/75 - 06/22/75
		D022458	8	06/22/75 - 06/26/75
		D022656	9	06/27/75 - 07/07/75 (k)
DR004494	DS004494	D022657	1	07/07/75 - 07/30/75 (l)
		D022658	2	07/30/75 - 08/09/75
		D022659	3	08/09/75 - 08/20/75
		D023021	4	08/20/75 - 09/02/75 (m)
		D023022	5	09/02/75 - 09/12/75
		D023023	6	09/12/75 - 09/27/75
		D023630	7	09/27/75 - 10/05/75
		D023631	8	10/05/75 - 10/20/75
		D023632	9	10/21/75 - 10/31/75
DR004495	DS004495	D023633	1	10/31/75 - 11/11/75
		D023634	2	11/13/75 - 11/26/75
		D023635	3	11/26/75 - 12/02/75
		D023721	4	12/02/75 - 12/11/75 (n)
		D023720	5	12/11/75 - 12/23/75 (o)
		D023719	6	12/24/75 - 12/31/75
		D028109	7	01/01/76 - 01/13/76
		D028110	8	01/13/76 - 02/04/76
		D028112	9	02/04/76 - 02/16/76
DR004496	DS004496	D028111	1	02/16/76 - 02/29/76 (p)
		D031827	2	03/01/76 - 03/05/76
		D031937	3	03/05/76 - 03/11/76
		D031938	4	03/11/76 - 03/16/76
		D031964	5	03/16/76 - 03/31/76
		D031965	6	03/31/76 - 04/11/76 (q)
		D031966	7	04/11/76 - 04/23/76
		D031967	8	04/23/76 - 05/01/76
		D031968	9	05/01/76 - 05/11/76

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DR#	DS#	D#	FILES	TIME SPAN
DR004497	DS004497	D031969	1	05/11/76 - 05/23/76
		D031970	2	05/23/76 - 05/27/76
		D031982	3	05/28/76 - 06/04/76
		D031983	4	06/04/76 - 06/10/76
		D032051	5	06/10/76 - 06/21/76
		D032052	6	06/21/76 - 06/25/76
		D032053	7	06/25/76 - 07/02/76
		D032054	8	07/02/76 - 07/10/76
		D032055	9	07/10/76 - 07/21/76
DR004599	DS004599	D032056	1	07/21/76 - 07/28/76
		D032057	2	07/29/76 - 07/31/76
		D032304	3	07/31/76 - 08/10/76
		D032305	4	08/11/76 - 08/19/76
		D032306	5	08/19/76 - 08/26/76
		D032307	6	08/26/76 - 08/31/76
		D032308	7	08/31/76 - 09/11/76
		D032309	8	09/11/76 - 09/20/76
		D032310	9	09/20/76 - 09/23/76
DR004600	DS004600	D032311	1	09/24/76 - 10/05/76
		D032312	2	10/05/76 - 10/18/76
		D032313	3	10/19/76 - 10/22/76
		D032314	4	10/22/76 - 11/03/76
		D032315	5	11/04/76 - 11/15/76
		D032316	6	11/15/76 - 11/19/76
		D032317	7	11/19/76 - 11/28/76
		D032318	8	11/28/76 - 12/06/76
		D032930	9	12/06/76 - 12/15/76
DR004601	DS004601	D032931	1	12/15/76 - 12/26/76
		D032932	2	12/26/76 - 12/31/76
		D032901	3	01/01/77 - 01/07/77
		D032902	4	01/08/77 - 01/13/77
		D032903	5	01/13/77 - 01/22/77
		D032904	6	01/22/77 - 01/28/77
		D032905	7	01/28/77 - 02/07/77
		D032906	8	02/07/77 - 02/20/77
		D032907	9	02/20/77 - 03/02/77

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DR#	DS#	D#	FILES	TIME SPAN
DR004602	DS004602	D032908	1	03/02/77 - 03/06/77
		D032909	2	03/07/77 - 03/20/77
		D032910	3	03/20/77 - 03/31/77
		D032954	4	03/31/77 - 04/01/77
		D032955	5	04/01/77 - 04/05/77
		D032956	6	04/05/77 - 04/14/77
		D032957	7	04/14/77 - 04/18/77
		D032958	8	04/18/77 - 04/26/77
		D032959	9	04/26/77 - 04/29/77
DR004603	DS004603	D032960	1	04/28/77 - 05/02/77
		D033709	2	05/02/77 - 05/05/77
		D033710	3	05/05/77 - 05/12/77
		D033711	4	05/12/77 - 05/16/77
		D033712	5	05/17/77 - 05/22/77
		D033713	6	05/23/77 - 05/27/77
		D033714	7	05/27/77 - 06/05/77
		D033715	8	06/06/77 - 06/12/77
		D033716	9	06/12/77 - 06/15/77
DR004604	DS004604	D033717	1	06/15/77 - 06/23/77
		D033718	2	06/23/77 - 06/30/77
		D033719	3	07/03/77 - 07/11/77
		D033720	4	07/11/77 - 07/16/77
		D033721	5	07/16/77 - 07/20/77 (r)
		D033722	6	07/20/77 - 07/24/77
		D033723	7	07/24/77 - 08/02/77
		D033724	8	08/02/77 - 08/13/77
		D033725	9	08/13/77 - 08/17/77
DR004605	DS004605	D033726	1	08/17/77 - 08/27/77
		D033802	2	08/27/77 - 09/06/77
		D033803	3	09/08/77 - 09/11/77
		D033804	4	09/11/77 - 09/16/77
		D033805	5	09/16/77 - 09/30/77
DR004606	DS004606	D057822	1	08/03/71 - 11/11/76
		D057823	2	11/11/72 - 06/23/73
		D057824	3	02/13/75 - 05/16/76
		D033729	4	02/13/75 - 05/16/76
		D033727	5	05/23/75 - 05/16/76
		D057825	6	05/23/75 - 05/16/77
		D057826	7	08/08/76 - 05/15/77 (s)
		D033728	8	05/28/77 - 09/13/77
		D057827	9	05/28/77 - 09/13/77

(a) D013748: Read errors occurred in records 155, 195, 200, & 310 of file 1.
(b) D013577: Read error occurred in record 8 of file 1.

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(c) D014109: Read errors occurred in records 277, 283, 953, 955, & 958 of file 1.
(d) D014118: Read errors occurred in records 689, 1203, 1206, 1385, & 1580 of file 1.
(e) D014245: Read errors occurred in records 5 & 6 of file 1.
(f) D016629: Read errors occurred in records 296, 1123, & 1126 of file 1.
(g) D016827: Read errors occurred in records 10, 248, 250, & 252 of file 1.
(h) D016842: Read errors occurred in records 717, 1389, & 1624 of file 1.
(i) D016884: Read errors occurred in records 971 & 974 of file 1.
(j) D022204: Read error occurred in record 645 of file 1.
(k) D022656: Read error occurred in record 3 of file 1.
(l) D022657: Read errors occurred in records 3, 6, 12, 15, 29, 36, 38, 59, 66, & 352 of file 1.
(m) D023021: Read error occurred in record 1577 of file 1.
(n) D023721: Read errors occurred in records 116, 118, 121, 123, & 125 of file 1.
(o) D023720: Read error occurred in record 58 of file 1.
(p) D028111: Read errors occurred in records 122, 139, 140, 142, 147, 149, & 342 of file 1.
(q) D031965: Read error occurred in record 1586 of file 1.
(r) D033721: Read errors occurred in records 602 & 603 of file 1.
(s) D057826: Read errors occurred in records 278, 280, & 289 of file 1.

Apollo 15 D 57822

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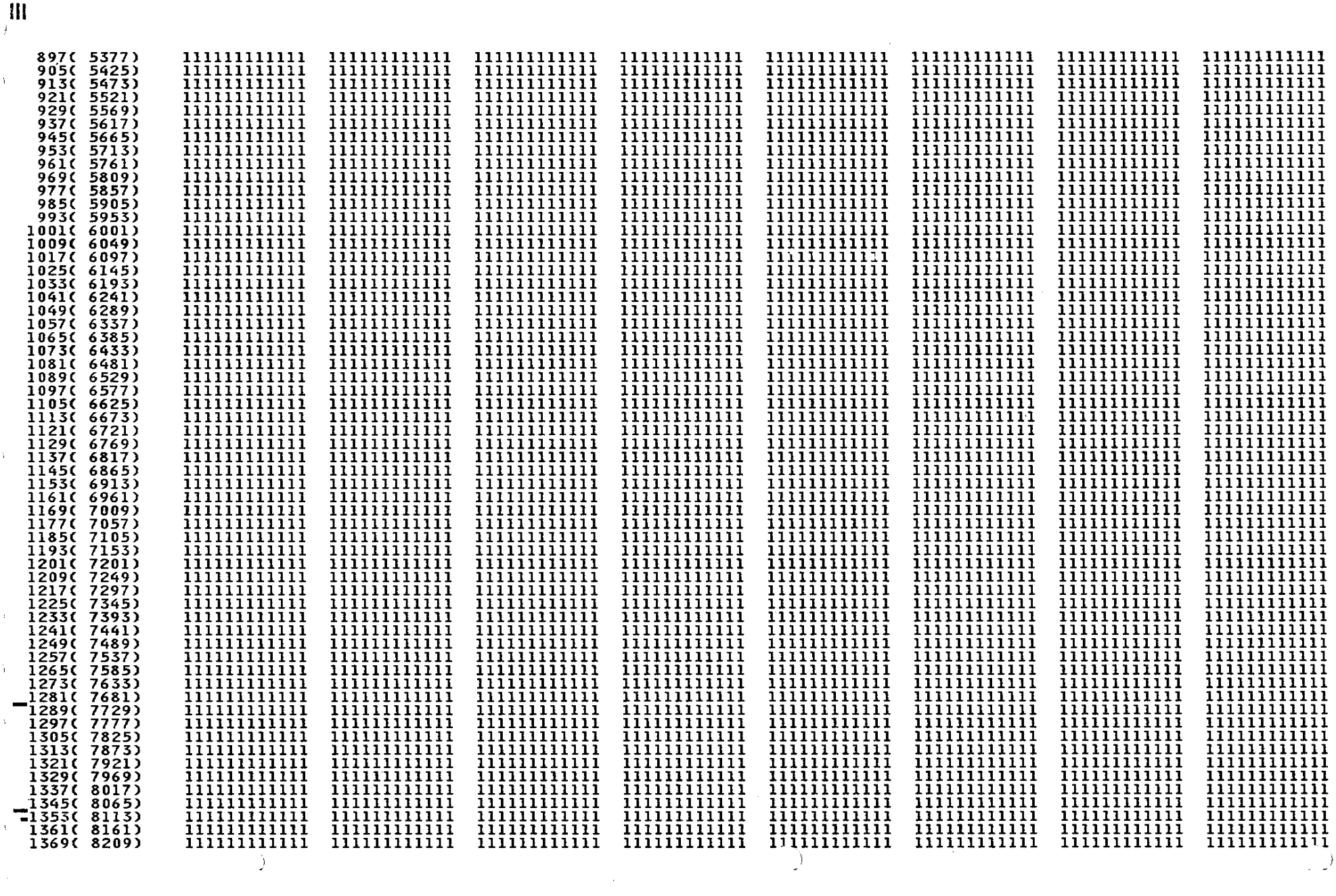
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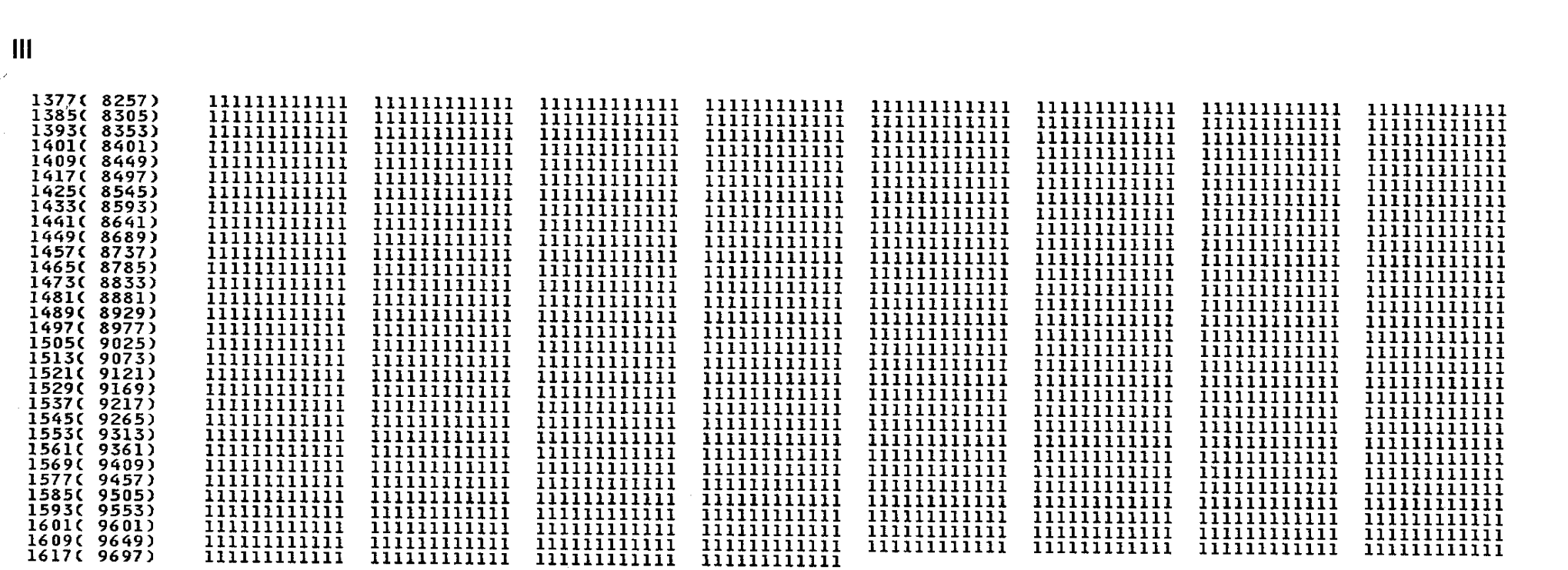
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1577 RECORDS IN FILE 1 OF TAPE

Apollo15 D-57823

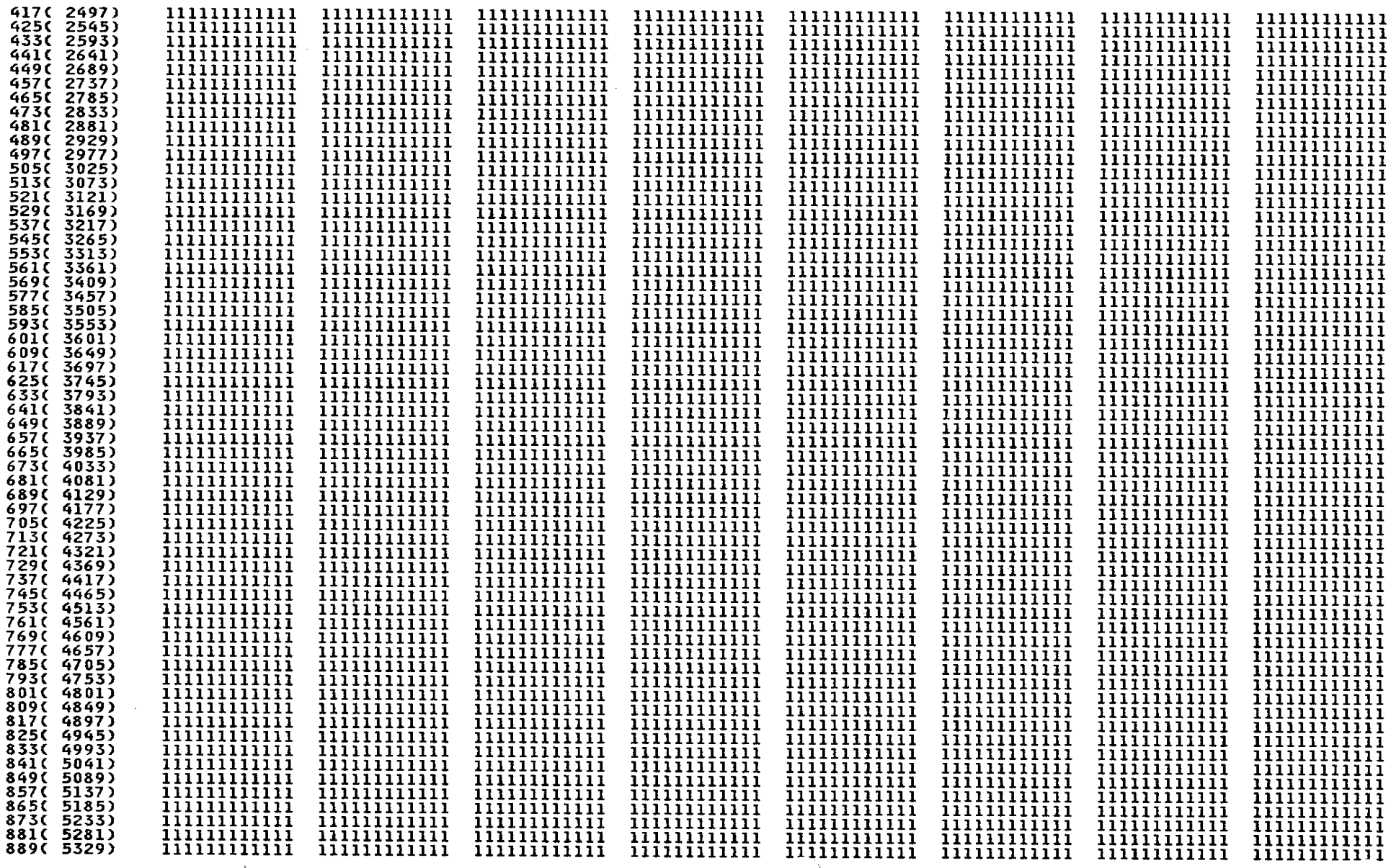
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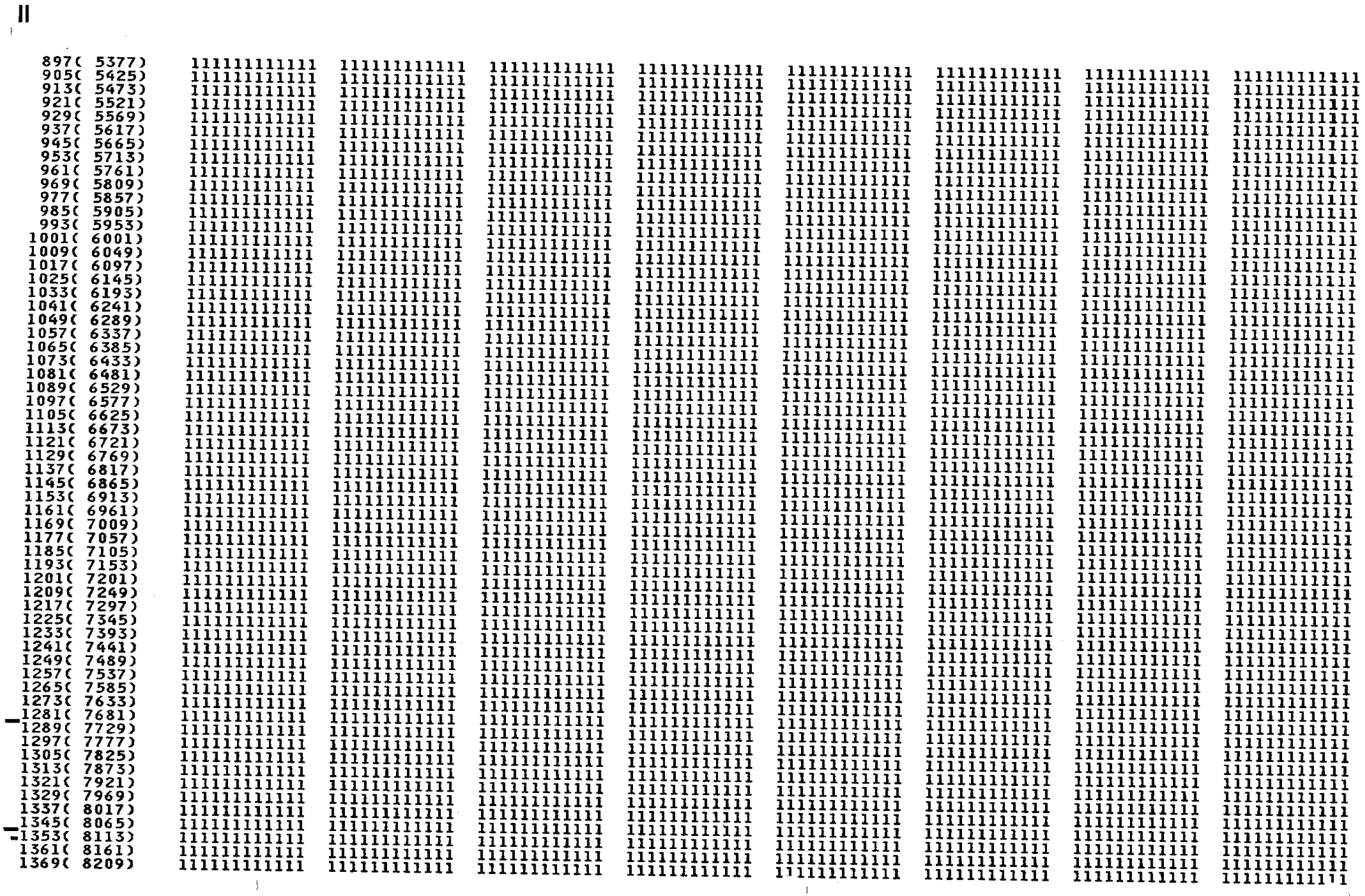
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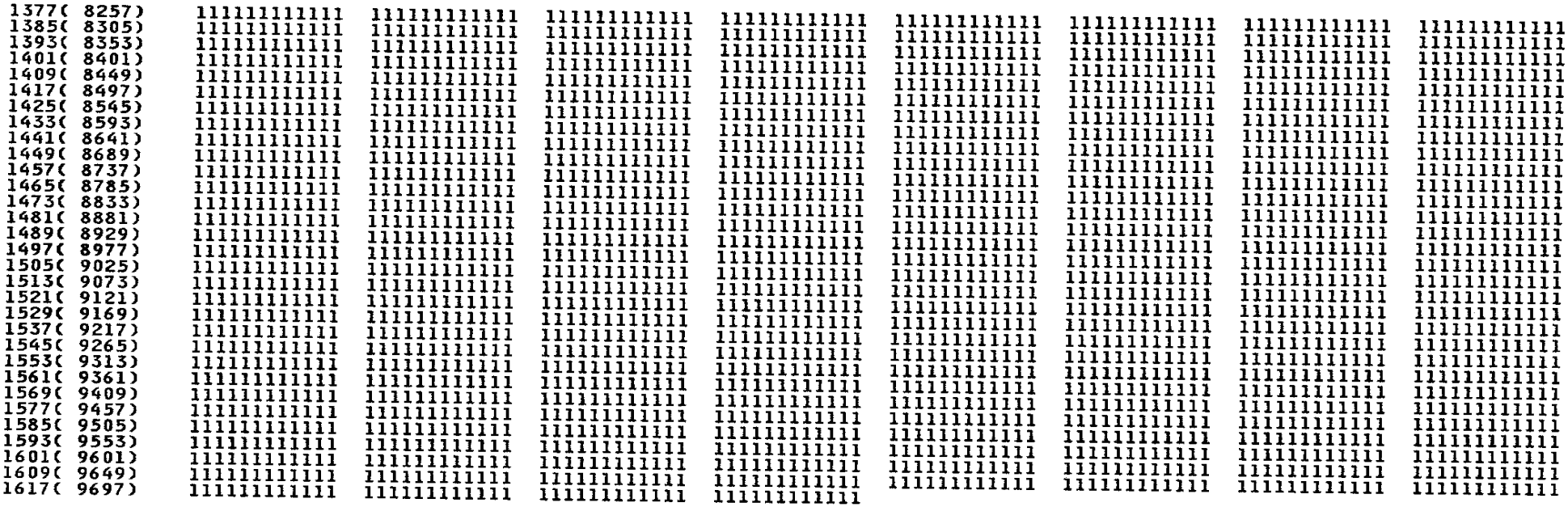
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381 RECORDS IN FILE 1 OF TAPE

Apollo 15 D-57824

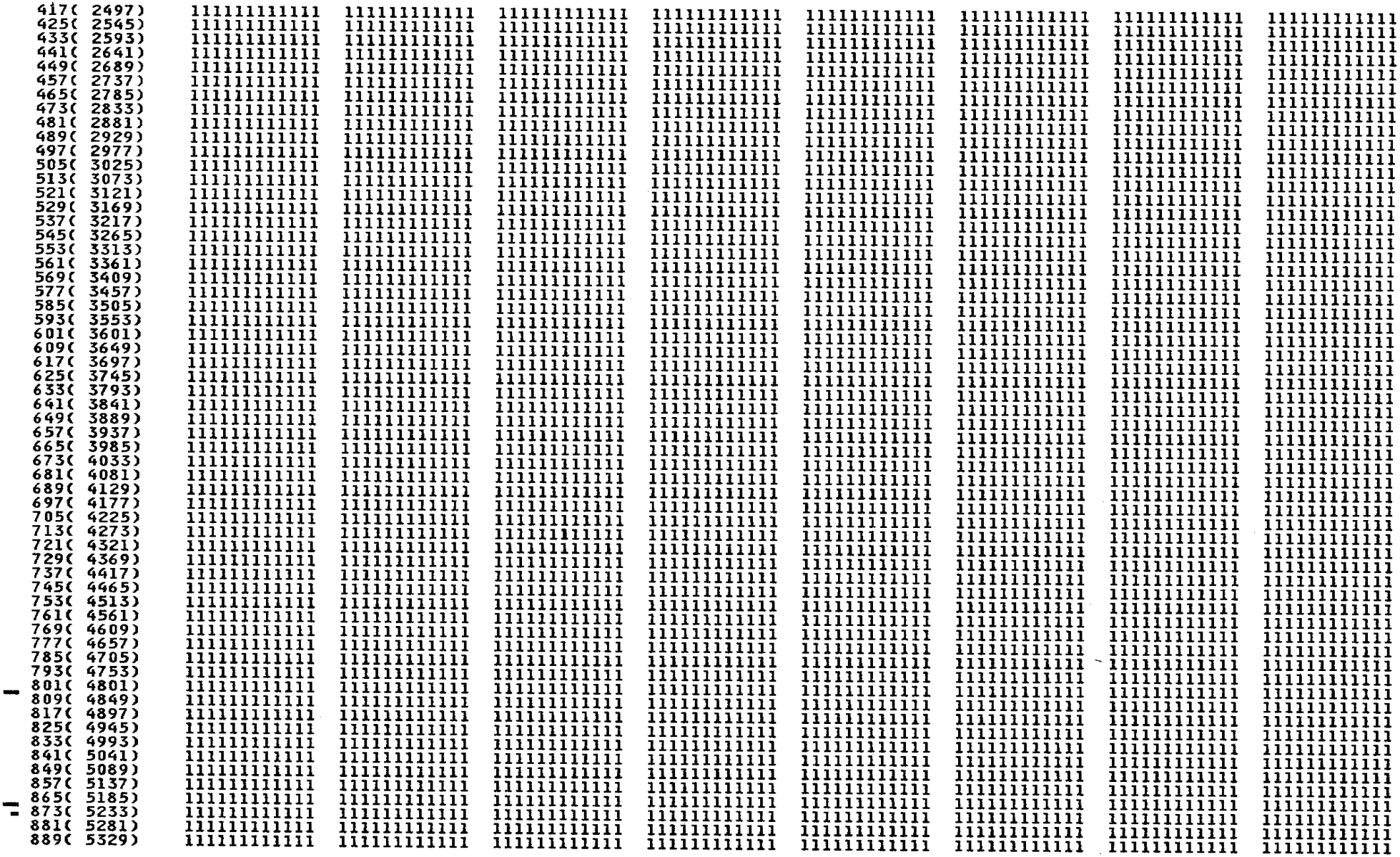
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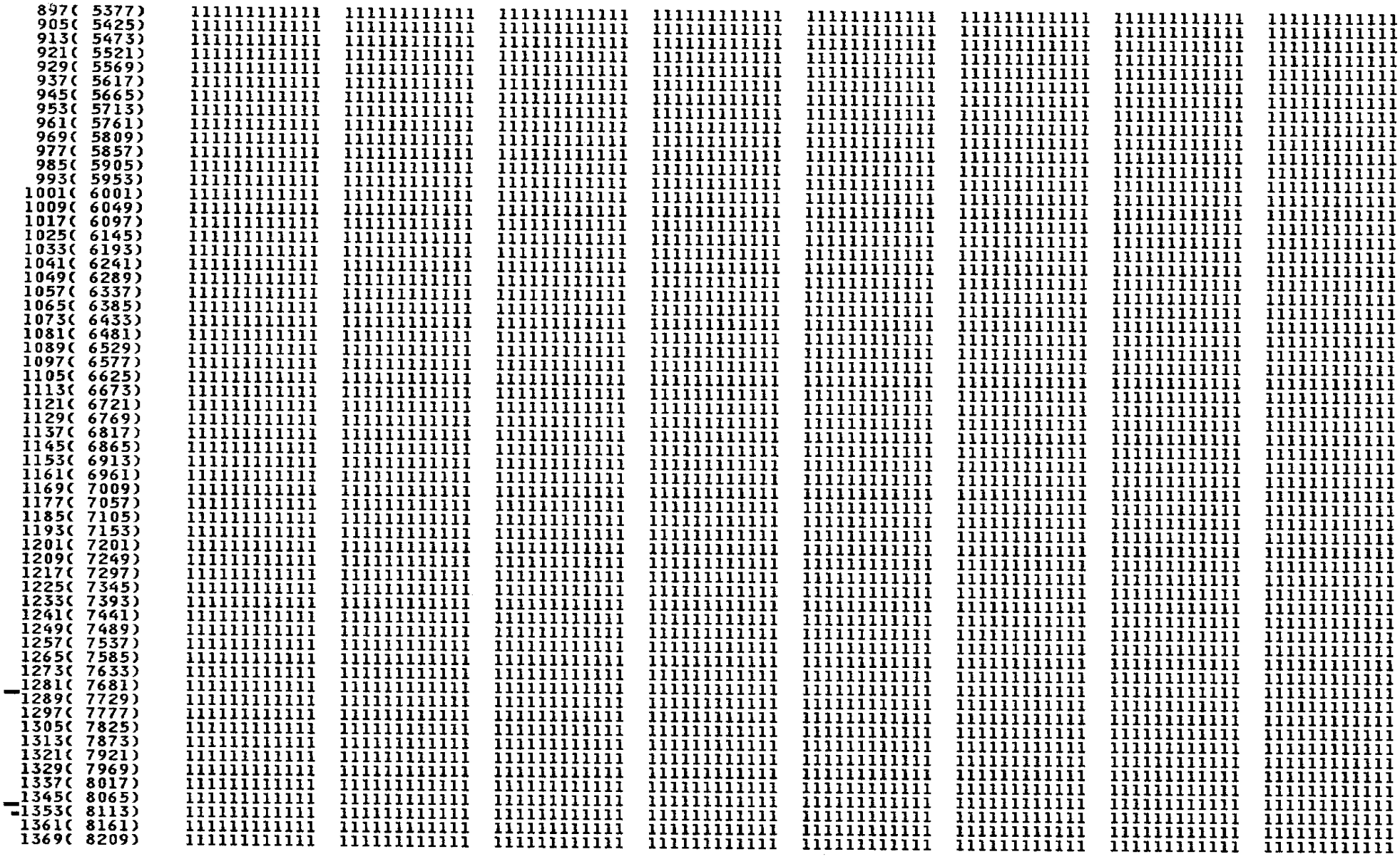
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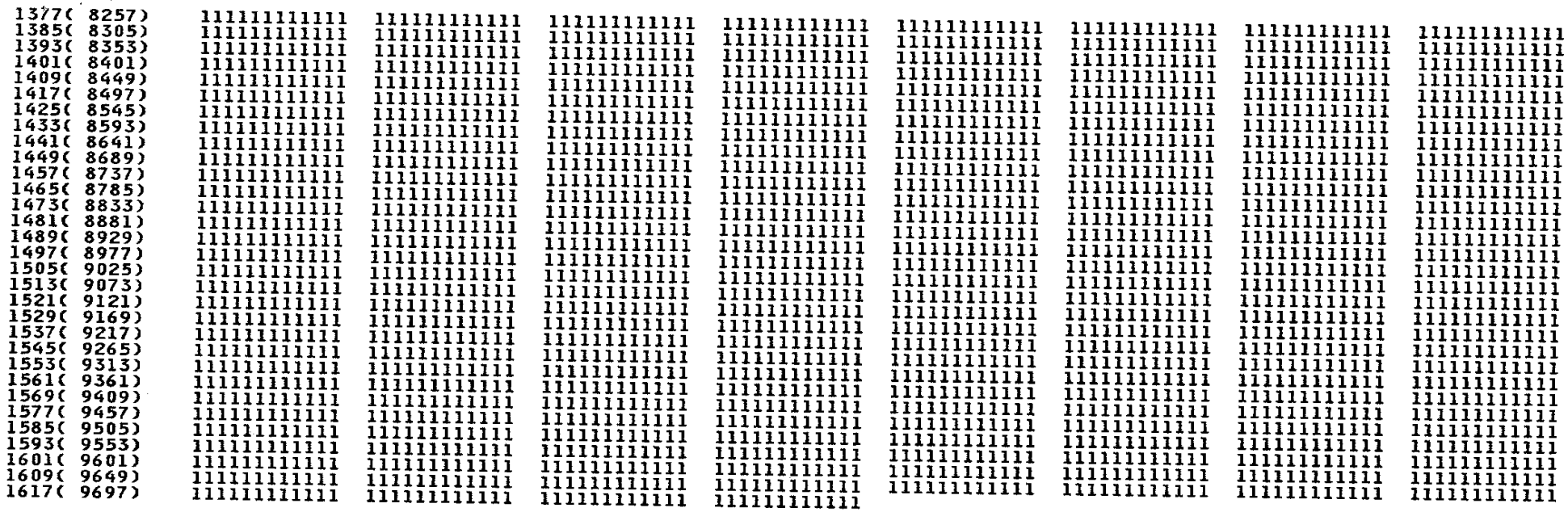
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660 RECORDS IN FILE 1 OF TAPE

Apollo 15 D-57825

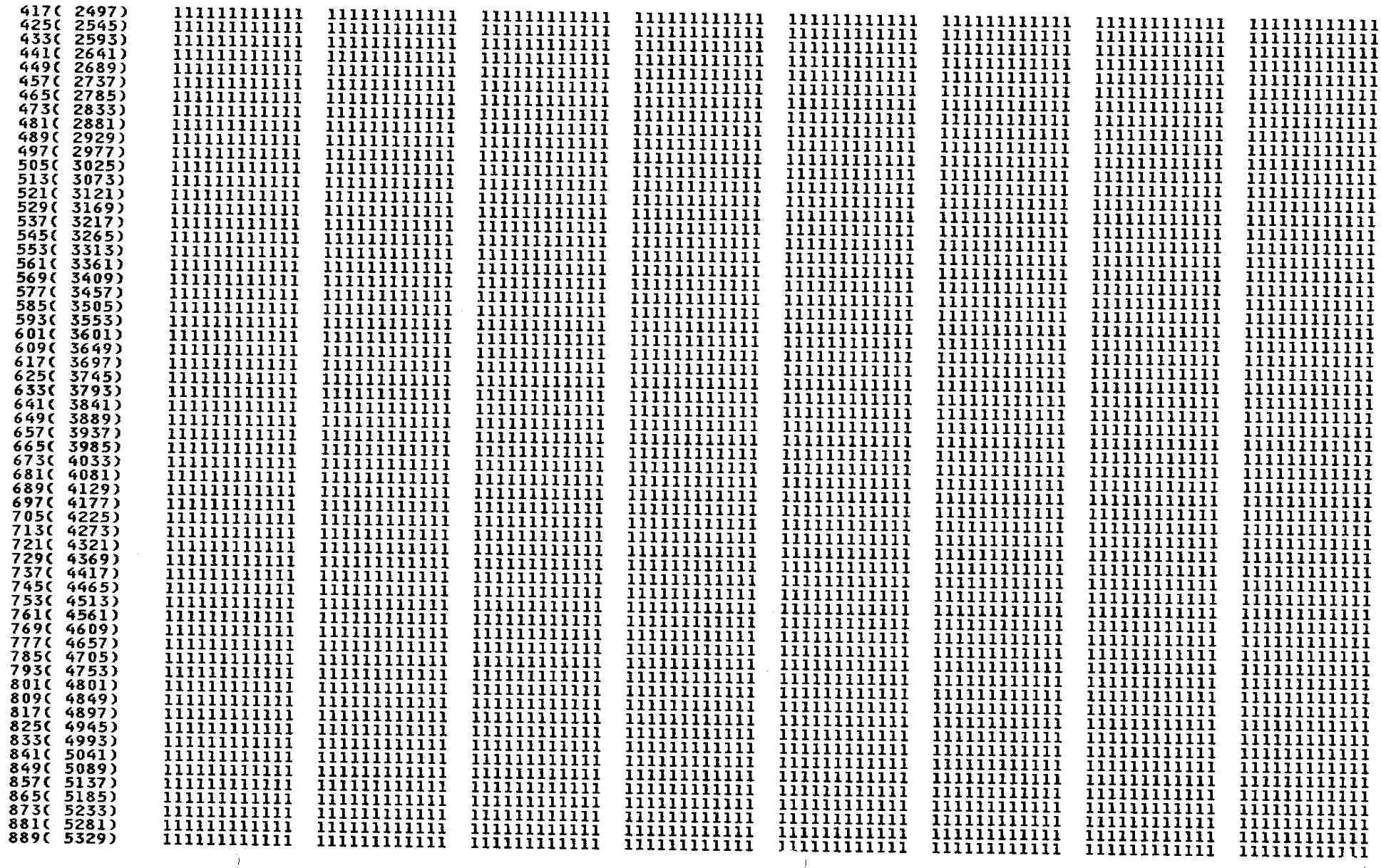
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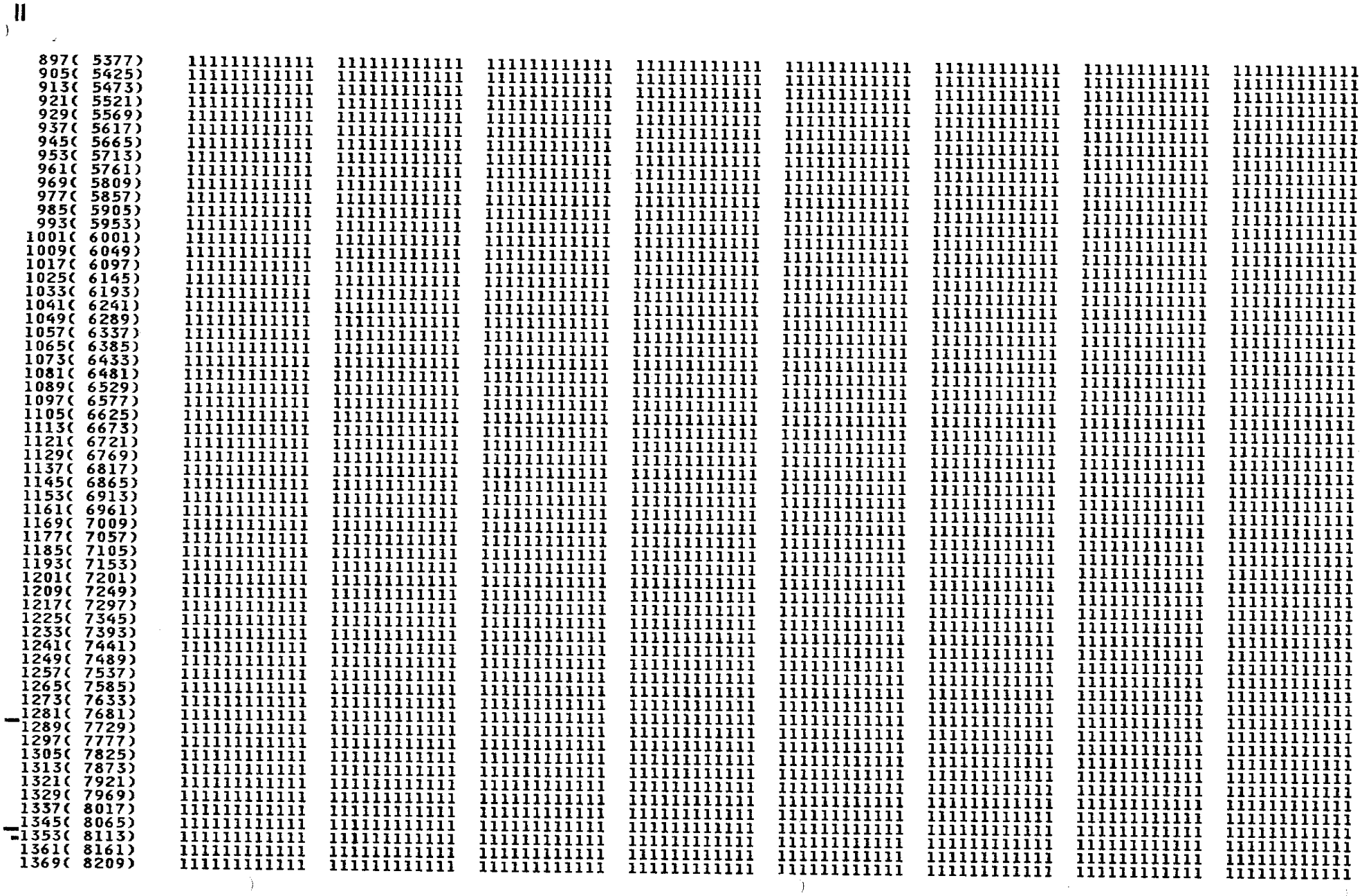
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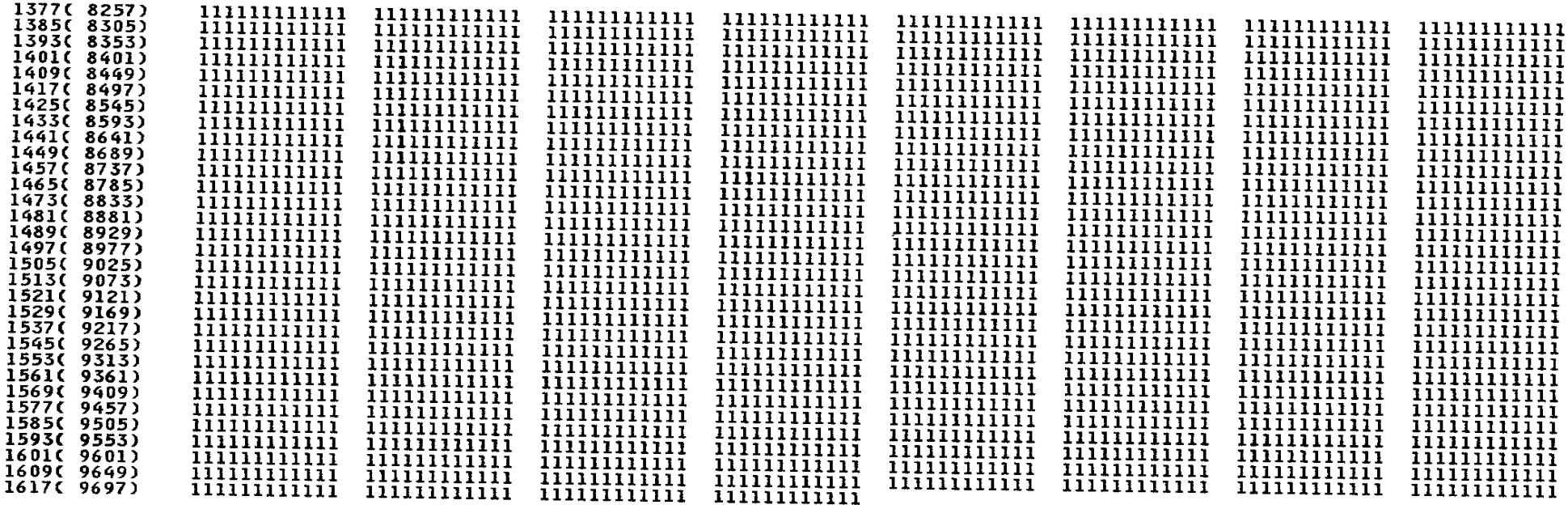
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1615 RECORDS IN FILE 1 OF TAPE

Apollo 15 D-57826

event 333 15 1176

TRANSLATE AND CONVERT MUST BOTH BE OFF ON INPUT DEVICEFOR PROPER PRINTOUT. IGNORE THIS MESSAGE IF PROPER DEVICE WAS SPECIFIED.

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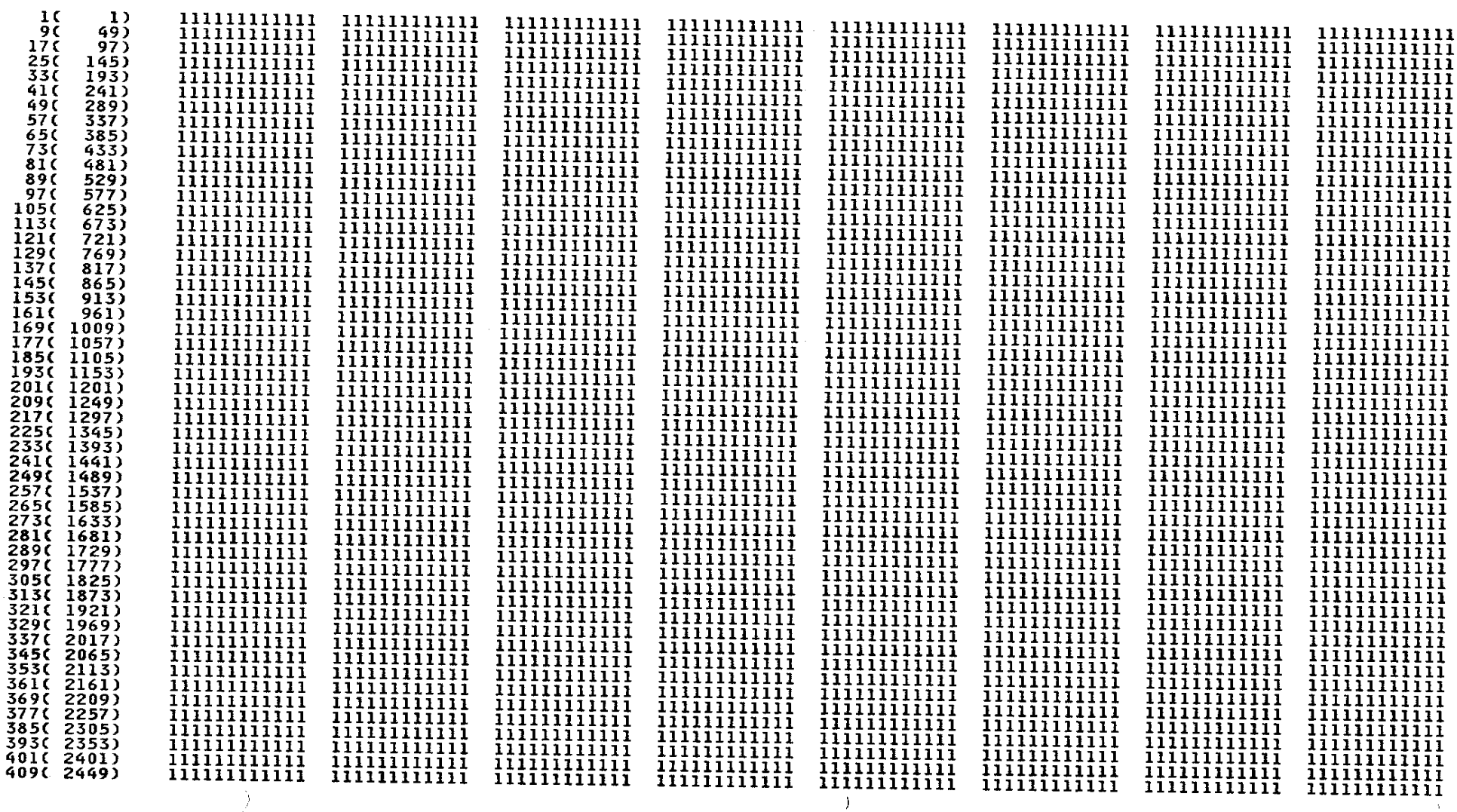
Apollo 15 D-57827

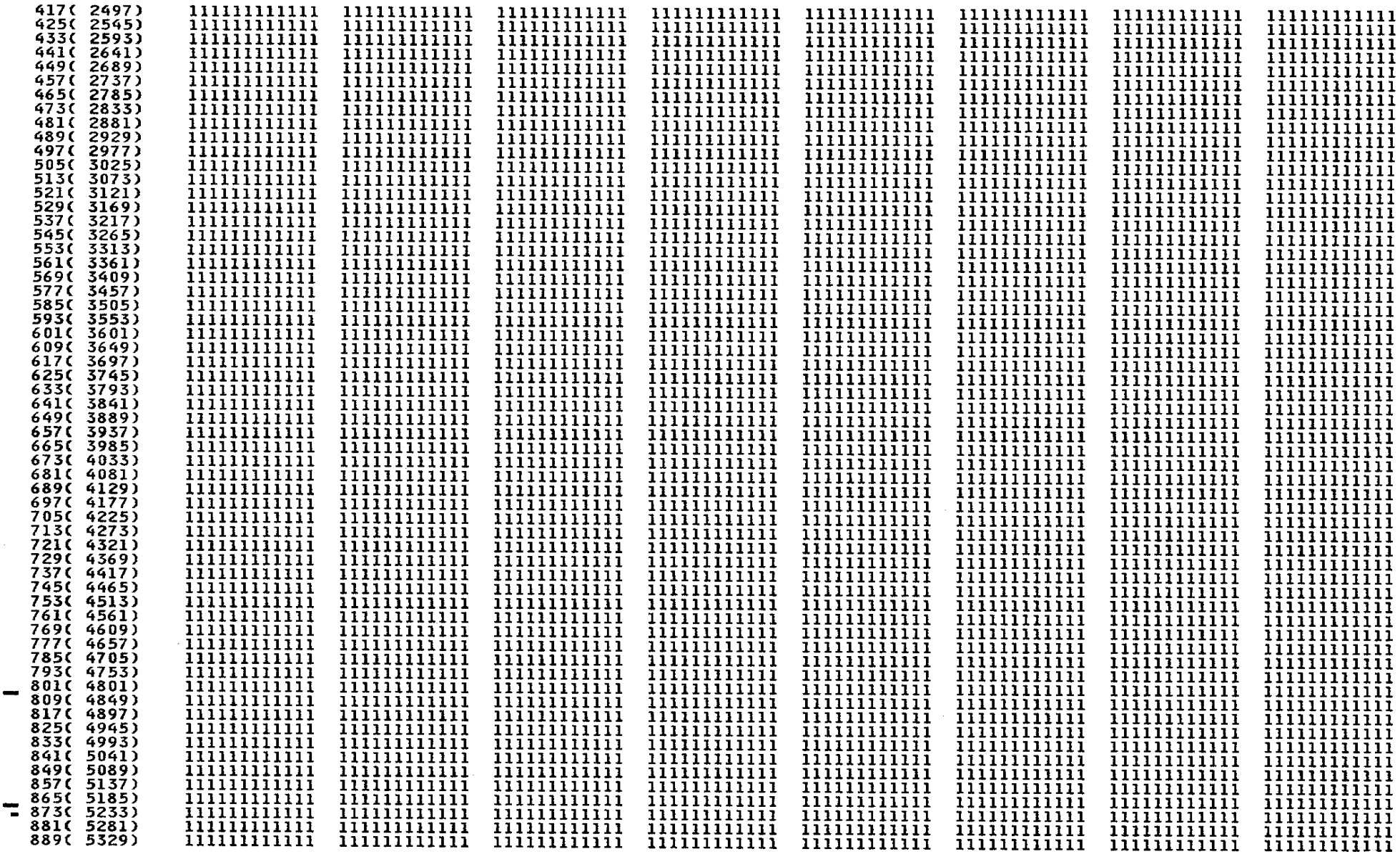
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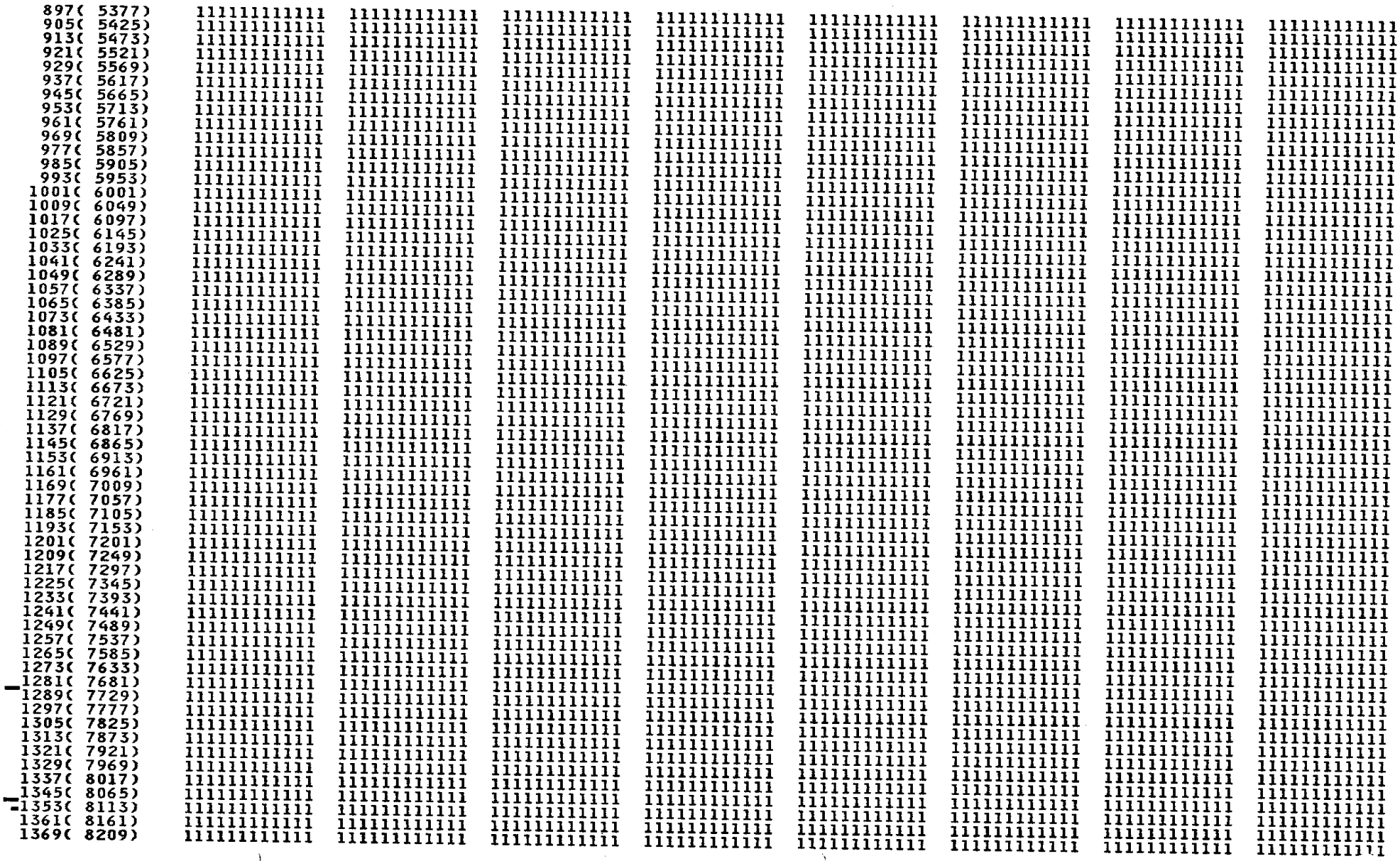
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RECORD 1188 OF FILE 1
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1188 RECORDS IN FILE 1 OF TAPE

event 30002 16 1975 day 114 Apollo 16 D-57828

TRANSLATE AND CONVERT MUST BOTH BE OFF ON INPUT DEVICEFOR PROPER PRINTOUT. IGNORE THIS MESSAGE IF PROPER DEVICE WAS SPECIFIED.

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023036545700	365455143654	365437603654	377036503560	000036503654	366036603760	365437703654	356036543654
034722632474	200217540000	704403542610	365436543654	376036543770	365435603650	365036543654	365436543760
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Apollo 16 D-57829

RECORD 1 OF FILE 1
LENGTH = 24 BYTES

Event 20005 16 75

1(1) 256525456360 047046000020 003667000000 134031035031

APOLLO 16 LM/ASLEP

SEISMIC EVENT TAPES

72-031C-01B

THIS DATA SET HAS BEEN RESTORED. IT ORIGINALLY CONTAINED 248 7-TRACK, 800 BPI TAPES WRITTEN IN BINARY. THERE ARE 29 RESTORED TAPES. THE DR TAPES ARE 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. SOME OF THE TAPES ARE NOT IN TIME SPAN ORDER. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON THE MRS. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN	
DR005702	DS005702	D013905	1	04/21/72 - 04/27/72	
		D013909	2	04/27/72 - 04/30/72	
		D013908	3	04/30/72 - 05/05/72	
		D039825	4	05/02/72 - 06/23/72	
		D013907	5	05/05/72 - 05/09/72	
		D013906	6	05/09/72 - 05/12/72	(a)
		D014124	7	05/12/72 - 05/14/72	
		D013911	8	05/14/72 - 05/16/72	(b)
		D013910	9	05/16/72 - 05/19/72	
DR005703	DS005703	D013538	1	05/19/72 - 05/25/72	
		D013537	2	05/26/72 - 05/29/72	
		D013543	3	05/29/72 - 06/03/72	
		D013542	4	06/03/72 - 06/06/72	(c)
		D013541	5	06/06/72 - 06/09/72	
		D013532	6	06/09/72 - 06/12/72	
		D013533	7	06/12/72 - 06/16/72	
		D013534	8	06/16/72 - 06/23/72	
DR005704	DS005704	D013535	1	06/23/72 - 06/25/72	
		D013536	2	06/26/72 - 06/28/72	
		D013544	3	06/28/72 - 07/04/72	
		D013548	4	07/04/72 - 07/08/72	
		D013547	5	07/08/72 - 07/11/72	
		D013546	6	07/11/72 - 07/18/72	
		D013545	7	07/18/72 - 07/20/72	
		D013540	8	07/21/72 - 07/25/72	
		D013539	9	07/25/72 - 08/04/72	

* Ref. to 69-099C-03A for further Documentation

DR#	DS#	D#	FILES	TIME SPAN	
DR005705	DS005705	D014121	1	08/04/72 - 08/11/72	
		D014122	2	08/11/72 - 08/15/72	(d)
		D014123	3	08/16/72 - 08/18/72	
		D014119	4	08/18/72 - 08/22/72	(e)
		D014120	5	08/22/72 - 08/26/72	
		D014125	6	08/27/72 - 09/06/72	(f)
		D014126	7	09/06/72 - 09/16/72	
		D014127	8	09/16/72 - 09/23/72	(g)
		D014246	9	09/23/72 - 09/30/72	(h)
DR005706	DS005706	D015912	1	09/30/72 - 10/14/72	
		D015913	2	10/15/72 - 10/21/72	
		D014247	3	10/21/72 - 10/26/72	
		D015914	4	10/26/72 - 11/05/72	
		D015918	5	11/05/72 - 11/09/72	
		D015919	6	11/09/72 - 11/13/72	(i)
		D015778	7	11/13/72 - 11/17/72	(j)
		D015779	8	11/17/72 - 11/25/72	
		D015777	9	11/25/72 - 12/05/72	
DR005707	DS005707	D015917	1	12/05/72 - 12/09/72	
		D015916	2	12/09/72 - 12/14/72	(k)
		D015915	3	12/14/72 - 12/21/72	
		D016126	4	12/21/72 - 12/31/72	
		D016125	5	01/01/73 - 01/05/73	
		D016127	6	01/05/73 - 01/12/73	
		D016197	7	01/12/73 - 01/21/73	
		D016198	8	01/22/73 - 02/01/73	(l)
DR005708	DS005708	D016199	1	02/01/73 - 02/10/73	
		D016200	2	02/10/73 - 02/17/73	
		D016201	3	02/17/73 - 03/08/73	
		D016632	4	03/09/73 - 03/20/73	(m)
		D016631	5	03/20/73 - 03/27/73	
		D017640	6	03/27/73 - 04/03/73	
		D016866	7	04/03/73 - 04/13/73	
		D016867	8	04/13/73 - 04/28/73	(n)
DR005709	DS005709	D016865	1	04/28/73 - 05/03/73	(o)
		D016852	2	05/03/73 - 05/19/73	
		D016851	3	05/19/73 - 05/28/73	(p)
		D016871	4	05/28/73 - 06/02/73	
		D016872	5	06/02/73 - 06/14/73	
		D016863	6	06/14/73 - 06/25/73	(q)
		D016862	7	06/25/73 - 06/28/73	
		D016861	8	06/28/73 - 07/03/73	

DR#	DS#	D#	FILES	TIME SPAN	
DR005710	DS005710	D016877	1	07/03/73 - 07/10/73	
		D016876	2	07/10/73 - 07/18/73	(r)
		D039826	3	07/10/73 - 06/23/75	
		D016878	4	07/19/73 - 07/24/73	
		D016853	5	07/24/73 - 07/30/73	(s)
		D016864	6	07/30/73 - 08/02/73	(t)
		D016857	7	08/02/73 - 08/09/73	(u)
		D016858	8	08/09/73 - 08/16/73	(v)
		D016859	9	08/16/73 - 08/29/73	
DR005711	DS005711	D016875	1	08/29/73 - 09/02/73	(w)
		D016860	2	09/02/73 - 09/10/73	(x)
		D016870	3	09/10/73 - 09/19/73	
		D016869	4	09/19/73 - 10/03/73	(y)
		D016868	5	10/03/73 - 10/09/73	(z)
		D016856	6	10/10/73 - 10/16/73	(aa)
		D016855	7	10/16/73 - 10/30/73	(bb)
		D016854	8	10/30/73 - 11/09/73	
		D016873	9	11/09/73 - 11/22/73	(cc)
DR005712	DS005712	D016874	1	11/22/73 - 12/01/73	(dd)
		D016886	2	12/01/73 - 12/08/73	
		D016887	3	12/09/73 - 12/20/73	(ee)
		D016888	4	12/20/73 - 12/24/73	(ff)
		D016889	5	12/24/73 - 12/31/73	
		D017628	6	01/01/74 - 01/07/74	
		D017627	7	01/07/74 - 01/19/74	
		D017636	8	01/19/74 - 01/29/74	(gg)
		D017637	9	01/29/74 - 02/06/74	
DR005713	DS005713	D017623	1	02/06/74 - 02/15/74	
		D017622	2	02/15/74 - 02/22/74	(hh)
		D017621	3	02/24/74 - 03/01/74	
		D017635	4	03/02/74 - 03/11/74	
		D017634	5	03/11/74 - 03/20/74	
		D017633	6	03/21/74 - 03/30/74	
		D017632	7	03/30/74 - 04/16/74	(ii)
		D017631	8	04/16/74 - 04/25/74	
		D017630	9	04/25/74 - 05/10/74	
DR005714	DS005714	D017629	1	05/11/74 - 05/20/74	(jj)
		D017641	2	05/21/74 - 06/02/74	
		D017642	3	06/03/74 - 06/16/74	
		D017643	4	06/16/74 - 06/28/74	
		D017639	5	06/28/74 - 07/03/74	
		D017638	6	07/03/74 - 07/14/74	
		D017624	7	07/14/74 - 07/20/74	
		D017625	8	07/21/74 - 08/06/74	
		D017626	9	08/06/74 - 08/11/74	

DR#	DS#	D#	FILES	TIME SPAN	
DR005715	DS005715	D019112	1	08/11/74 - 08/22/74	
		D019122	2	08/22/74 - 08/29/74	
		D019120	3	08/29/74 - 09/08/74	
		D019119	4	09/09/74 - 09/17/74	
		D019118	5	09/17/74 - 09/24/74	
		D019170	6	09/25/74 - 10/06/74	
		D019169	7	10/07/74 - 10/16/74	(kk)
		D019125	8	10/17/74 - 10/26/74	
		D019126	9	10/27/74 - 11/04/74	
DR005716	DS005716	D019127	1	11/04/74 - 11/12/74	
		D019121	2	11/12/74 - 11/19/74	
		D019114	3	11/19/74 - 11/26/74	
		D019117	4	11/27/74 - 12/08/74	
		D019116	5	12/09/74 - 12/14/74	
		D019115	6	12/14/74 - 12/25/74	
		D019124	7	12/25/74 - 12/31/74	
		D019123	8	01/02/75 - 01/12/75	
		D019113	9	01/12/75 - 01/24/75	
DR005717	DS005717	D019372	1	01/24/75 - 01/30/75	
		D019371	2	01/31/75 - 02/12/75	
		D022100	3	02/12/75 - 02/22/75	(ll)
		D057828	4	02/13/75 - 05/16/76	(mm)
		D022101	5	02/23/75 - 03/08/75	
		D022102	6	03/08/75 - 03/24/75	
		D022206	7	03/25/75 - 04/05/75	
		D022208	8	04/06/75 - 04/14/75	(nn)
		D022205	9	04/14/75 - 04/23/75	
DR005718	DS005718	D022211	1	04/23/75 - 05/07/75	
		D022207	2	05/07/75 - 05/16/75	
		D022210	3	05/17/75 - 06/02/75	
		D057829	4	05/21/75 - 05/16/76	(oo)
		D022209	5	06/03/75 - 06/16/75	
		D022459	6	06/16/75 - 06/22/75	
		D022460	7	06/22/75 - 06/26/75	
		D022660	8	06/27/75 - 07/07/75	
DR005719	DS005719	D022661	1	07/07/75 - 07/30/75	
		D022662	2	07/30/75 - 08/09/75	
		D022663	3	08/09/75 - 08/20/75	
		D023024	4	08/20/75 - 09/02/75	
		D023025	5	09/02/75 - 09/12/75	
		D023026	6	09/12/75 - 09/27/75	(pp)
		D023636	7	09/27/75 - 10/05/75	
		D023637	8	10/05/75 - 10/20/75	
		D023638	9	10/21/75 - 10/31/75	

DR#	DS#	D#	FILES	TIME SPAN	
DR005720	DS005720	D023639	1	10/31/75 - 11/11/75	
		D023640	2	11/13/75 - 11/26/75	
		D023641	3	11/26/75 - 12/02/75	
		D023724	4	12/02/75 - 12/11/75	(qq)
		D023723	5	12/11/75 - 12/23/75	(rr)
		D023722	6	12/24/75 - 12/31/75	
		D028113	7	01/01/76 - 01/13/76	
		D028115	8	01/13/76 - 02/04/76	
		D028116	9	02/04/76 - 02/16/76	
DR005721	DS005721	D028114	1	02/16/76 - 02/29/76	
		D031828	2	03/01/76 - 03/05/76	
		D031939	3	03/05/76 - 03/11/76	(ss)
		D031940	4	03/11/76 - 03/16/76	
		D031971	5	03/16/76 - 03/31/76	
		D031972	6	03/31/76 - 04/11/76	(tt)
		D031973	7	04/11/76 - 04/23/76	
		D031974	8	04/23/76 - 05/01/76	
		D031975	9	05/01/76 - 05/11/76	
DR005722	DS005722	D031976	1	05/11/76 - 05/23/76	
		D031984	2	05/23/76 - 05/27/76	
		D031985	3	05/28/76 - 06/04/76	
		D057831	4	05/28/76 - 09/13/77	
		D031986	5	06/04/76 - 06/10/76	(uu)
		D032058	6	06/12/76 - 06/21/76	
		D032059	7	06/23/76 - 06/27/76	
		D032060	8	06/25/76 - 07/02/76	
		D032061	9	07/02/76 - 07/10/76	(vv)
DR005723	DS005723	D032062	1	07/10/76 - 07/21/76	(ww)
		D032063	2	07/21/76 - 07/28/76	
		D032064	3	07/29/76 - 07/31/76	
		D032319	4	07/31/76 - 08/10/76	(xx)
		D057830	5	08/08/76 - 05/15/77	(yy)
		D032320	6	08/11/76 - 08/19/76	(zz)
		D032321	7	08/19/76 - 08/26/76	
		D032322	8	08/26/76 - 08/31/76	
		D032323	9	08/31/76 - 09/11/76	
DR005724	DS005724	D032324	1	09/11/76 - 09/20/76	
		D032325	2	09/20/76 - 09/23/76	
		D032326	3	09/24/76 - 10/05/76	
		D032327	4	10/05/76 - 10/18/76	(aaa)
		D032328	5	10/19/76 - 10/22/76	
		D032329	6	10/23/76 - 11/04/76	
		D032330	7	11/04/76 - 11/15/76	(bbb)
		D032331	8	11/15/76 - 11/19/76	
		D032332	9	11/19/76 - 11/28/76	

DR#	DS#	D#	FILES	TIME SPAN	
DR005725	DS005725	D032333	1	11/28/76 - 12/06/76	
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		D032934	3	12/15/76 - 12/26/76	
		D032935	4	12/26/76 - 12/31/76	
		D032911	5	01/01/77 - 01/07/77	
		D032912	6	01/08/77 - 01/13/77	
		D032913	7	01/13/77 - 01/22/77	(ccc)
		D032914	8	01/22/77 - 01/28/77	(ddd)
		D032915	9	01/28/77 - 02/07/77	
DR005726	DS005726	D032916	1	02/07/77 - 02/20/77	
		D032917	2	02/20/77 - 03/02/77	
		D032918	3	03/02/77 - 03/06/77	
		D032919	4	03/07/77 - 03/20/77	
		D032920	5	03/20/77 - 03/31/77	
		D032961	6	03/31/77 - 04/01/77	
		D032962	7	04/01/77 - 04/05/77	
		D032963	8	04/05/77 - 04/14/77	
		D032964	9	04/14/77 - 04/18/77	
DR005727	DS005727	D032965	1	04/18/77 - 04/26/77	
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		D032967	3	04/28/77 - 05/02/77	
		D033730	4	05/02/77 - 05/05/77	(eee)
		D033740	5	07/03/77 - 07/11/77	
		D033806	6	08/27/77 - 09/06/77	
		D033807	7	09/08/77 - 09/11/77	
		D033808	8	09/11/77 - 09/16/77	(fff)
		D033809	9	09/16/77 - 09/30/77	
DR005728	DS005728	D033734	1	05/23/77 - 05/27/77	
		D033736	2	06/06/77 - 06/12/77	(ggg)
		D033738	3	06/15/77 - 06/23/77	(hhh)
		D033737	4	06/12/77 - 06/15/77	
		D033750	5	02/13/77 - 05/17/77	
		D033749	6	05/29/77 - 09/13/77	
		D033748	7	05/22/77 - 05/17/78	
		D033747	8	08/17/77 - 08/27/77	
		D033746	9	08/13/77 - 08/17/77	
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		D033744	2	07/24/77 - 08/02/77	
		D033743	3	07/20/77 - 07/24/77	
		D033742	4	05/18/77 - 07/20/77	
		D033741	5	07/11/77 - 07/16/77	
		D033739	6	06/23/77 - 06/30/77	
		D033735	7	05/27/77 - 06/05/77	
		D033733	8	05/17/77 - 05/22/77	
		D033731	9	05/05/77 - 05/12/77	
DR005730	DS005730	D033732	1	05/12/77 - 05/16/77	

N2-031C-01B

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(b) D013911 - 1 ERROR, REC. 57, FILE 1
(c) D013542 - 1 ERROR, REC. 482, FILE 1
(d) D014122 - 3 ERRORS, REC. 120, 143, 634, FILE 1
(e) D014119 - 12 ERRORS, REC. 31-36, 38, 45, 54, 55, 61, 73, FILE 1
(f) D014125 - 1 ERROR, REC. 31, FILE 1
(g) D014127 - 1 ERROR, REC. 251, FILE 1
(h) D014246 - 1 ERROR, REC. 1, FILE 1
(i) D015919 - 3 ERRORS, REC.35, 48, 49, FILE 1
(j) D015778 - 1 ERROR, REC. 49, FILE 1
(k) D015916 - 9 ERRORS, REC. 24, 35, 38, 339, 1489, 1525, 1561, 1563, 1583, FILE 1
(l) D016198 - 2 ERRORS, REC. 1577, 1578, FILE 1
(m) D016632 - 3 ERRORS, REC. 59, 140, 174, FILE 1
(n) D016867 - 3 ERRORS, REC. 9, 50, 52, FILE 1
(o) D016865 - 2 ERRORS, REC. 1526, 1527, FILE 1
(p) D016851 - 2 ERRORS, REC. 1607, 1608, FILE 1
(q) D016863 - 4 ERRORS, REC. 18, 50, 51, 500, FILE 1
(r) D016876 - 4 ERRORS, REC. 1528 - 1531, FILE 1
(s) D016853 - 1 ERROR, REC. 125, FILE 1
(t) D016864 - 1 ERROR, REC. 30, FILE 1
(u) D016857 - 4 ERRORS, REC. 8, 1533 - 1535, FILE 1
(v) D016858 - 4 ERRORS, REC. 6, 7, 1429, 1430, FILE 1
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(ff) D016888 - 1 ERROR, REC. 93, FILE 1
(gg) D017636 - 1 ERROR, REC. 405, FILE 1
(hh) D017622 - 1 ERROR, REC. 426, FILE 1
(ii) D017632 - 4 ERRORS, REC. 445, 447, 449, 450, FILE 1
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(kk) D019169 - 1 ERROR, REC. 213, FILE 1
(ll) D022100 - 1 ERROR, REC. 1446, FILE 1
(mm) D057828 - 1 ERROR, REC. 169, FILE 1
(nn) D022208 - 1 ERROR, REC. 192, FILE 1
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(pp) D023026 - 1 ERROR, REC. 135, FILE 1
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Apollo 16 D-57830

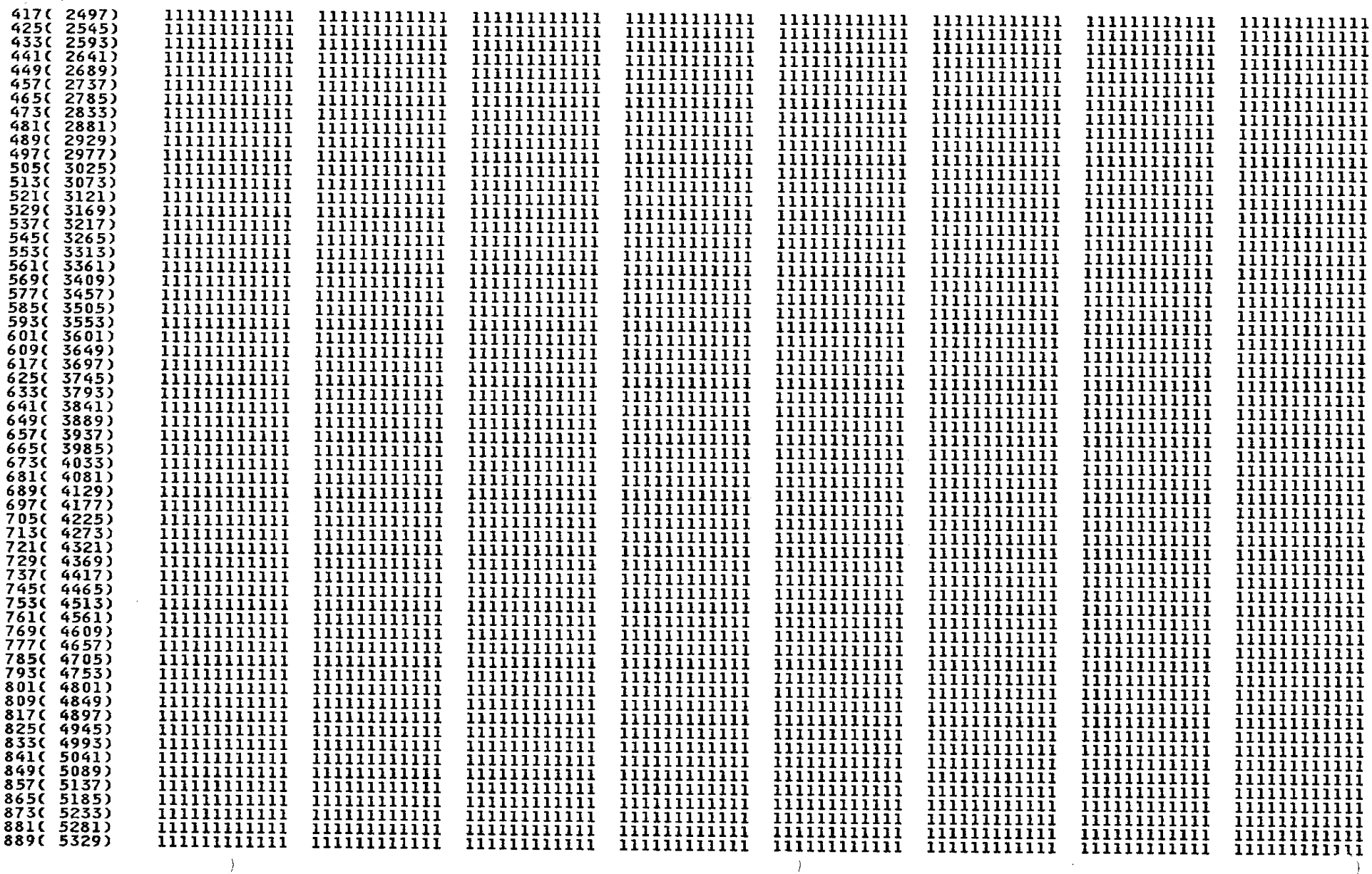
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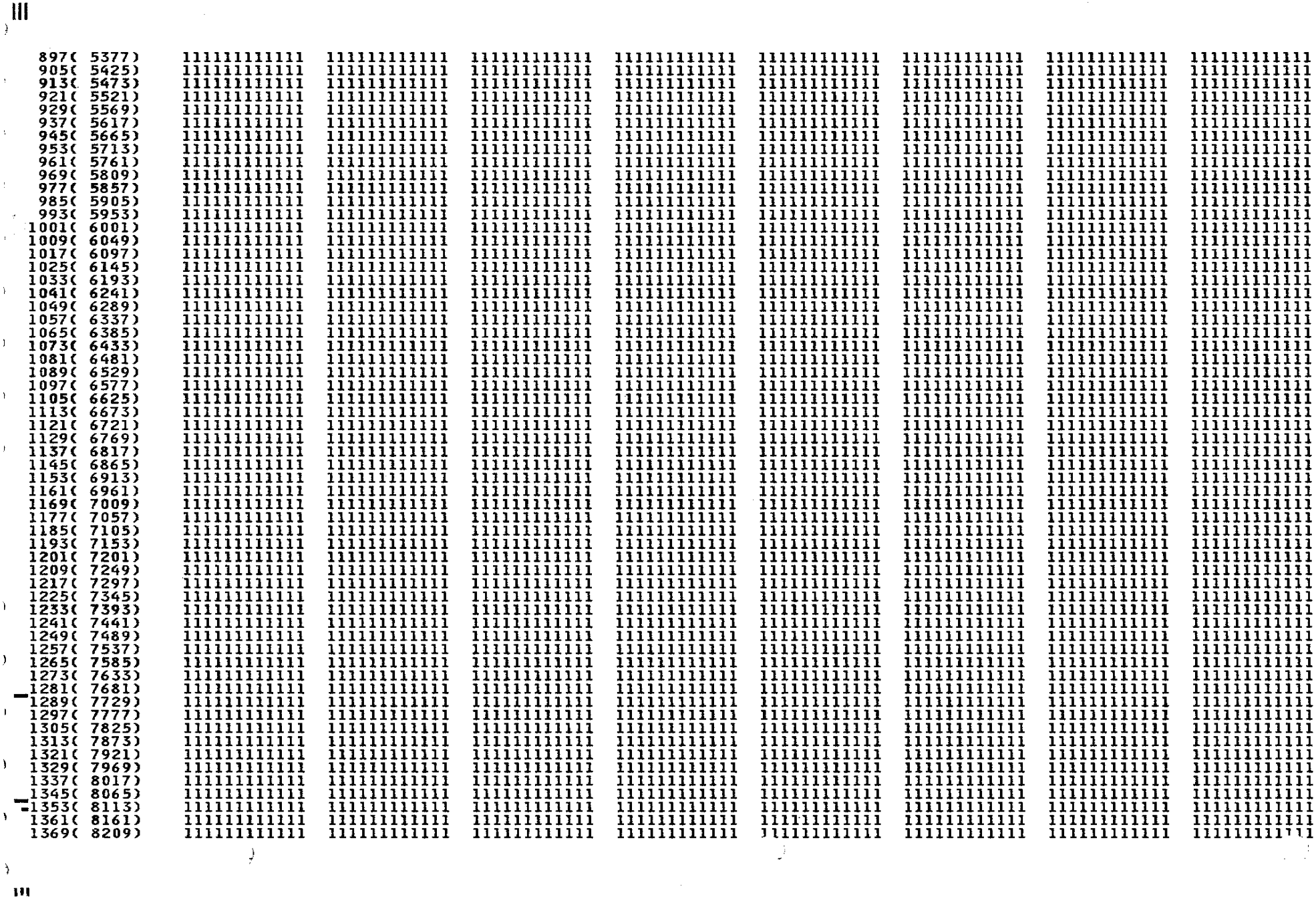
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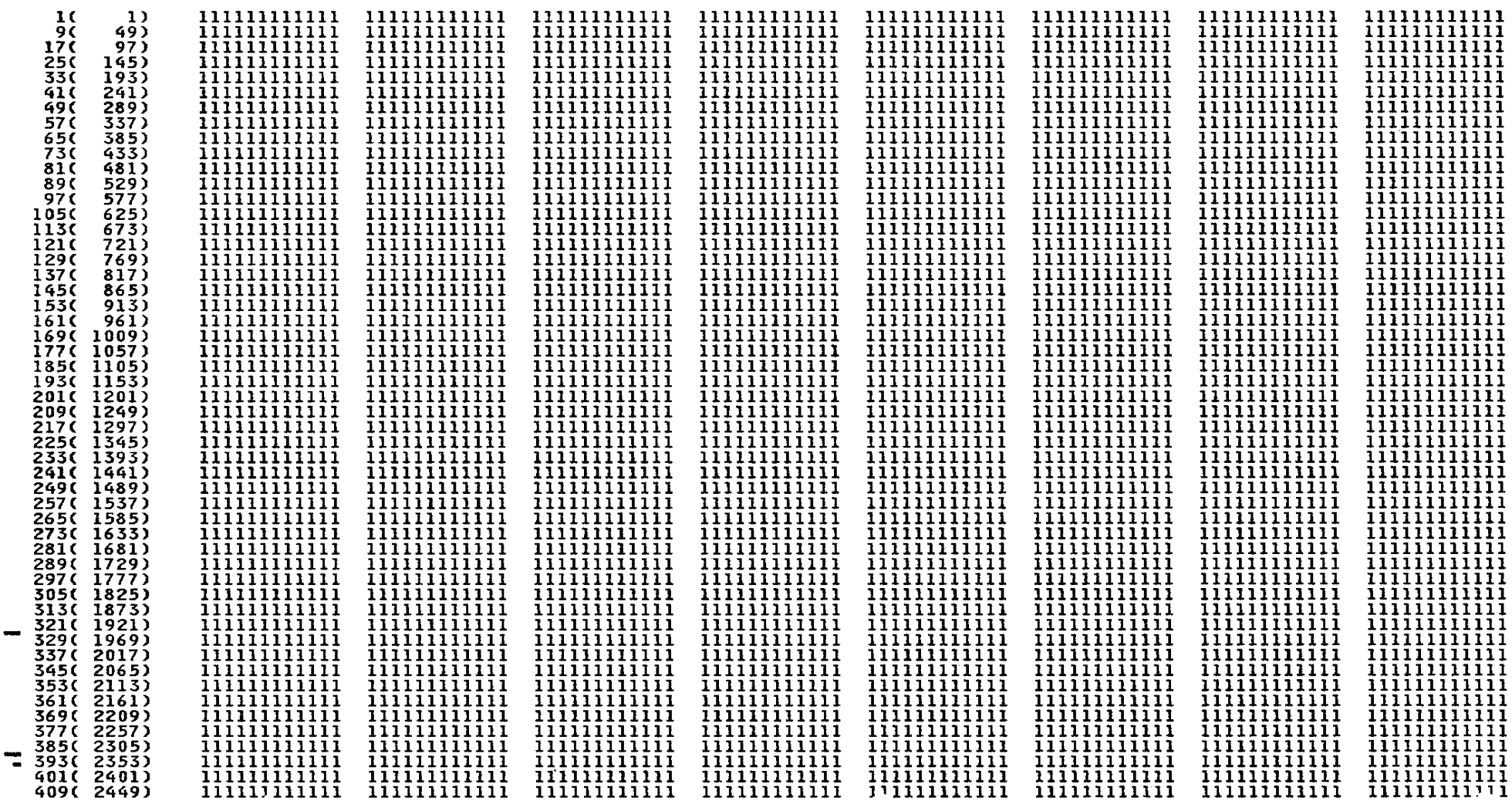
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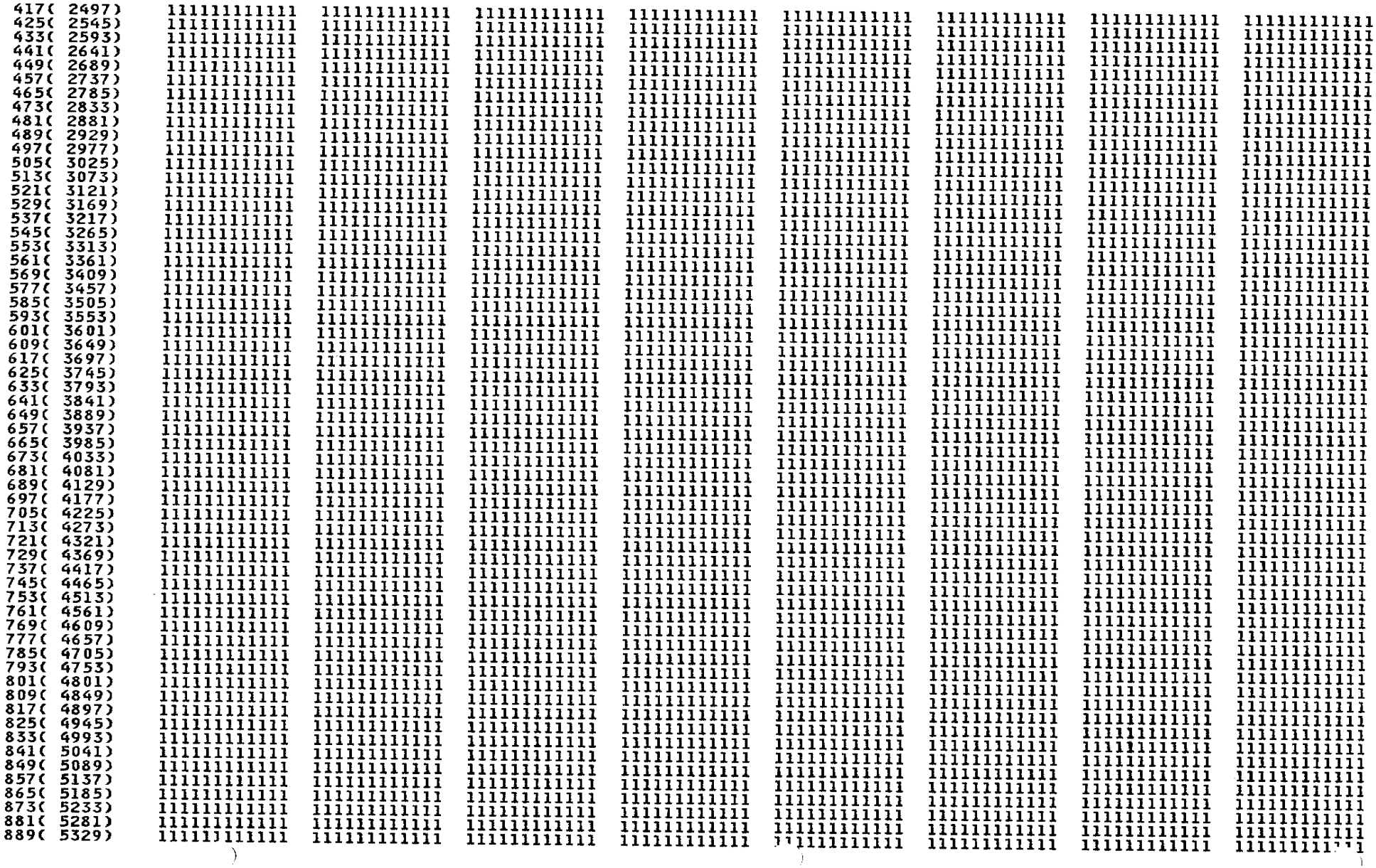
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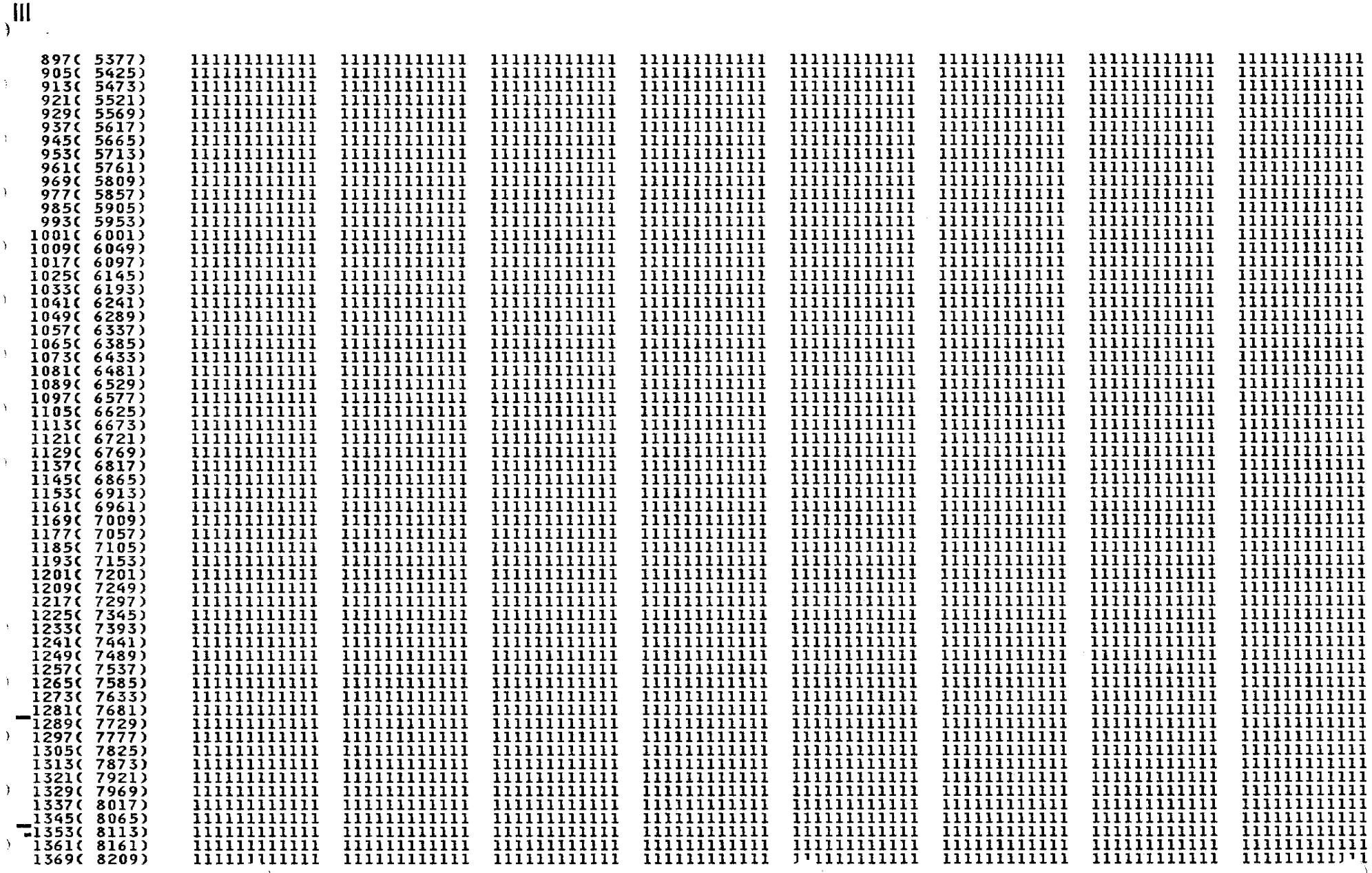
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