

Data Set Catalog # 209

Apollo - 15
71-063A-10A

Apollo - 16
72-063A-09A

Channel Pulse Height Analyzer

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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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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 15 CSM
256 CHAN PULSE-HGT ANALYZER, TAPE
71-063A-10A

This data set has been restored. There were originally two 7-track, 800 BPI tapes written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tapes were created on an IBM 360 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
-----	-----	-----	-----	-----
DR005647	DS005647	D011418	1	07/29/71 - 08/02/71
		D011419	2	08/02/71 - 08/05/71

APOLLO 16 CSM

256 CHAN PULSE-HGT ANALYZER, TAPE

72-031A-09A

This data set has been restored. There were originally two 7-track, 800 BPI tapes written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tapes were created on an IBM 360 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
-----	-----	-----	-----	-----
DR005596	DS005596	D010856	1	04/21/72 - 04/23/72 (a)
		D010857	2	04/23/72 - 04/25/72

(a) D010856: Read errors occurred in records 26, 1256, 1258 of file 1.

71-063A-10A

APOLLO-15

PULSE-HEIGHT ANALYZER DATA

This data set consists of 2 800 BPI, binary data tapes. Both tapes were produced on the IBM/360 where the 'D' tapes are 9 track and the 'C' tapes 7 track. Each tape contains one file of data where the time is found in the 1st word of each logical record and is ground elapsed time in milliseconds.

<u>D#</u>	<u>C#</u>	<u>START</u>	<u>STOP</u>
D-11418	C-08547	7/29/71	8/02/71
D-11419	C-08659	8/02/71	8/05/71

PROCESSED TELEMETRY FILE

Apollo 15 Apollo 16
71-063A-10A 72-031A-07A

This is a sequential file, with fixed length records. The record length is 48 and the block length is 960. Each record corresponds to one second of telemetry; that is to one of the "good" records in the raw telemetry tape. A "good" raw telemetry record is one that has time in reasonable sequence, and that has no more than 19 bad data flags set. Any show that was detected in the raw tape has been corrected. Each record can be represented by a PL/1 structure as follows:

01 RECORD ALIGNED,
02 TIME FIXED BINARY (31, 0),
02 TEMPERS (3) FIXED BINARY (15, 5),
02 IBADCT,
02 ICOUNT (10) BIT (8),
02 ICHANNEL (10) BIT (8),
02 CTRATE (10) BIT (8),
02 HSKP (5) BIT (3)
02 STATUS BIT (8):

9-track TEM 360

where

TIME is ground elapsed time in milliseconds, given as a fullword (4 byte) binary integer.

TEMPERS are the three temperatures, in degrees centigrade, given as half-word (2 bytes) binary fractions with 5 bits after the binary point. The three temperatures are respectively, #1, #2, and LVPS.

IBADCT is the number of bad data flags set in the original raw telemetry record. All 47 meaningful (non-spare) data flags are counted.

ICOUNT is an array of 10 8 bit bytes, giving data derived from the 10 counter readouts in the raw telemetry record. Each byte is arranged as follows:

- a. The first three bits indicate whether the three data items-counter id, channel, and count rate - were flagged (or if flagged) in the raw telemetry record.
- b. The remaining 5 bits contain a binary integer giving counter id (0 to 10, of which 0 indicates no valid data)

ICHANNEL is an array of 10 8-bit bytes, maintained parallel to ICOUNT (that is ICOUNT (1) corresponds to ICHANNEL (1), etc.). Each byte contains an unsigned binary integer giving channel number (0-255) for the data readout whose counter id was given in the corresponding ICOUNT.

CTRATE is an array of 10 8-bit bytes, never used at present, but parallel to ICOUNT and ICHANNEL. Each byte contains the "count rate" raw telemetry value from the raw telemetry tape.

HSKP is an array of 5 3-bit fields. Each field gives the status of one of the

FILE 1 COPIED	570	RECORDS FROM	114:43:30.409	TO	114:52:57.926
FILE 1 COPIED	794	RECORDS FROM	114:53:00.935	TO	115:06:13.280
FILE 1 COPIED	2517	RECORDS FROM	115:25:05.044	TO	116:06:59.030
FILE 1 COPIED	3547	RECORDS FROM	116:07:02.245	TO	117:06:07.295
FILE 1 COPIED	2603	RECORDS FROM	117:21:36.531	TO	118:04:56.370
FILE 1 COPIED	1800	RECORDS FROM	118:11:01.056	TO	118:40:58.560
FILE 1 COPIED	1347	RECORDS FROM	118:40:59.558	TO	119:03:24.449
FILE 1 COPIED	1800	RECORDS FROM	119:14:29.357	TO	119:44:26.363
FILE 1 COPIED	993	RECORDS FROM	119:44:27.861	TO	120:00:59.037
FILE 1 COPIED	493	RECORDS FROM	120:00:59.578	TO	120:09:11.165
FILE 1 COPIED	1651	RECORDS FROM	120:09:11.167	TO	120:36:39.792
FILE 1 COPIED	703	RECORDS FROM	120:51:40.048	TO	121:03:21.472
FILE 1 COPIED	2696	RECORDS FROM	121:10:49.091	TO	121:55:41.862
FILE 1 COPIED	203	RECORDS FROM	121:55:43.862	TO	121:59:05.684
FILE 1 COPIED	1	RECORDS FROM	122:04:18.426	TO	122:04:18.426
FILE 1 COPIED	7	RECORDS FROM	122:04:21.423	TO	122:04:27.418
FILE 1 COPIED	812	RECORDS FROM	122:04:37.410	TO	122:13:07.732
FILE 1 COPIED	2703	RECORDS FROM	122:19:00.687	TO	123:04:00.448
FILE 1 COPIED	504	RECORDS FROM	123:18:20.192	TO	123:26:42.775
FILE 1 COPIED	2107	RECORDS FROM	124:15:48.859	TO	124:50:53.109
FILE 1 COPIED	31	RECORDS FROM	124:52:07.454	TO	124:52:37.488
FILE 1 COPIED	498	RECORDS FROM	124:52:39.487	TO	125:00:55.074
FILE 1 COPIED	32	RECORDS FROM	126:33:25.989	TO	126:33:59.962
FILE 1 COPIED	9	RECORDS FROM	126:34:01.960	TO	126:34:13.950
FILE 1 COPIED	1	RECORDS FROM	126:34:15.948	TO	126:34:15.948
FILE 1 COPIED	2	RECORDS FROM	126:34:19.146	TO	126:34:20.944
FILE 1 COPIED	13	RECORDS FROM	126:34:22.942	TO	126:34:35.931
FILE 1 COPIED	4	RECORDS FROM	126:34:37.930	TO	126:34:40.927
FILE 1 COPIED	124	RECORDS FROM	126:34:42.926	TO	126:36:50.820
FILE 1 COPIED	209	RECORDS FROM	126:36:52.818	TO	126:40:21.645
FILE 1 COPIED	454	RECORDS FROM	126:40:23.643	TO	126:47:56.269
FILE 1 COPIED	572	RECORDS FROM	126:56:08.859	TO	127:05:39.362
FILE 1 COPIED	1217	RECORDS FROM	127:05:41.360	TO	127:25:56.365
FILE 1 COPIED	417	RECORDS FROM	127:40:56.629	TO	127:47:52.279
FILE 1 COPIED	1808	RECORDS FROM	127:49:35.198	TO	128:19:40.693
FILE 1 COPIED	2185	RECORDS FROM	128:19:44.688	TO	128:56:09.881
FILE 1 COPIED	4541	RECORDS FROM	129:29:11.661	TO	130:44:49.453
FILE 1 COPIED	693	RECORDS FROM	130:44:51.452	TO	130:56:22.878
FILE 1 COPIED	1	RECORDS FROM	132:52:44.070	TO	132:52:44.070
FILE 1 COPIED	2	RECORDS FROM	132:52:46.069	TO	132:52:47.068
FILE 1 COPIED	6	RECORDS FROM	132:52:49.066	TO	132:52:54.062
FILE 1 COPIED	8	RECORDS FROM	132:52:57.041	TO	132:53:03.055
FILE 1 COPIED	5	RECORDS FROM	132:53:05.053	TO	132:53:09.050
FILE 1 COPIED	1	RECORDS FROM	132:53:11.048	TO	132:53:11.048
FILE 1 COPIED	1	RECORDS FROM	132:53:13.046	TO	132:53:13.046
FILE 1 COPIED	1	RECORDS FROM	132:53:15.045	TO	132:53:15.045
FILE 1 COPIED	51	RECORDS FROM	132:53:17.043	TO	132:54:07.002
FILE 1 COPIED	1712	RECORDS FROM	133:07:31.804	TO	133:36:01.382
FILE 1 COPIED	526	RECORDS FROM	133:48:42.278	TO	133:57:26.839
FILE 1 COPIED	897	RECORDS FROM	134:00:11.700	TO	134:15:09.951
FILE 1 COPIED	1884	RECORDS FROM	134:15:12.948	TO	134:46:34.390
FILE 1 COPIED	1206	RECORDS FROM	135:38:46.787	TO	135:53:50.780
FILE 1 COPIED	399	RECORDS FROM	135:58:50.781	TO	136:05:23.449
FILE 1 COPIED	4375	RECORDS FROM	136:05:30.448	TO	137:13:22.285
FILE 1 COPIED	703	RECORDS FROM	137:18:25.284	TO	137:30:06.701
FILE 1 COPIED	296	RECORDS FROM	137:46:22.407	TO	137:51:13.157
FILE 1 COPIED	3073	RECORDS FROM	137:51:20.156	TO	138:42:29.604
FILE 1 COPIED	2950	RECORDS FROM	138:42:57.067	TO	139:32:04.616
FILE 1 COPIED	665	RECORDS FROM	139:44:26.513	TO	139:55:27.756
FILE 1 COPIED	879	RECORDS FROM	139:56:10.922	TO	140:10:40.181

Apollo 15A

71-063A-10A
~~72-031A-09A~~

O GET = 13:34 UT
7/26/71

Apollo 16A

72-031A-09A

O GET = 17:54 UT
4/16/72

AMERICAN SCIENCE AND ENGINEERING APOLLO ALPHA EXPERIMENT DATA REDUCTION SYSTEM

FILE 1 COPIED	900	RECORDS FROM	74:09:35.045	TO	74:24:33.177
FILE 1 COPIED	900	RECORDS FROM	74:24:34.177	TO	74:39:32.312
FILE 1 COPIED	281	RECORDS FROM	74:39:33.311	TO	74:44:13.043
FILE 1 COPIED	802	RECORDS FROM	74:44:14.043	TO	74:57:34.276
FILE 1 COPIED	900	RECORDS FROM	75:12:36.417	TO	75:27:34.562
FILE 1 COPIED	900	RECORDS FROM	75:27:35.561	TO	75:42:33.710
FILE 1 COPIED	111	RECORDS FROM	75:42:34.709	TO	75:44:24.604
FILE 1 COPIED	791	RECORDS FROM	75:44:24.605	TO	75:57:33.361
FILE 1 COPIED	1800	RECORDS FROM	75:57:34.859	TO	76:27:32.172
FILE 1 COPIED	970	RECORDS FROM	76:27:33.171	TO	76:43:41.262
FILE 1 COPIED	900	RECORDS FROM	76:44:22.229	TO	76:59:20.396
FILE 1 COPIED	900	RECORDS FROM	76:59:21.395	TO	77:14:19.563
FILE 1 COPIED	522	RECORDS FROM	77:14:33.551	TO	77:23:14.071
FILE 1 COPIED	799	RECORDS FROM	79:10:59.734	TO	79:24:17.064
FILE 1 COPIED	101	RECORDS FROM	79:24:23.059	TO	79:26:02.976
FILE 1 COPIED	75	RECORDS FROM	79:26:03.975	TO	79:27:17.914
FILE 1 COPIED	824	RECORDS FROM	79:27:21.909	TO	79:41:04.273
FILE 1 COPIED	900	RECORDS FROM	79:41:05.222	TO	79:56:03.476
FILE 1 COPIED	899	RECORDS FROM	79:56:04.475	TO	80:11:01.733
FILE 1 COPIED	511	RECORDS FROM	80:11:03.731	TO	80:19:34.304
FILE 1 COPIED	3	RECORDS FROM	80:19:37.302	TO	80:19:39.300
FILE 1 COPIED	2	RECORDS FROM	80:19:41.298	TO	80:19:43.257
FILE 1 COPIED	897	RECORDS FROM	81:11:16.718	TO	81:26:11.969
FILE 1 COPIED	900	RECORDS FROM	81:26:12.967	TO	81:41:11.217
FILE 1 COPIED	240	RECORDS FROM	81:41:12.216	TO	81:45:11.018
FILE 1 COPIED	835	RECORDS FROM	81:45:12.016	TO	81:59:05.325
FILE 1 COPIED	899	RECORDS FROM	81:59:06.324	TO	82:14:03.581
FILE 1 COPIED	221	RECORDS FROM	82:14:04.580	TO	82:17:44.396
FILE 1 COPIED	4	RECORDS FROM	82:17:46.394	TO	82:17:49.392
FILE 1 COPIED	6	RECORDS FROM	82:17:51.390	TO	82:17:56.426
FILE 1 COPIED	2	RECORDS FROM	82:18:33.355	TO	82:18:34.355
FILE 1 COPIED	108	RECORDS FROM	82:18:36.353	TO	82:20:23.267
FILE 1 COPIED	84	RECORDS FROM	82:20:25.265	TO	82:21:43.196
FILE 1 COPIED	1800	RECORDS FROM	83:46:04.090	TO	84:16:03.593
FILE 1 COPIED	116	RECORDS FROM	84:16:04.592	TO	84:17:59.387
FILE 1 COPIED	744	RECORDS FROM	84:17:59.487	TO	84:30:21.794
FILE 1 COPIED	783	RECORDS FROM	84:30:22.792	TO	84:43:24.037
FILE 1 COPIED	115	RECORDS FROM	84:43:42.070	TO	84:45:35.966
FILE 1 COPIED	900	RECORDS FROM	84:45:36.965	TO	85:00:35.139
FILE 1 COPIED	29	RECORDS FROM	85:00:36.137	TO	85:01:04.111
FILE 1 COPIED	899	RECORDS FROM	90:59:35.429	TO	91:14:32.630
FILE 1 COPIED	900	RECORDS FROM	91:14:33.679	TO	91:29:31.933
FILE 1 COPIED	519	RECORDS FROM	91:29:32.932	TO	91:33:10.503
FILE 1 COPIED	724	RECORDS FROM	91:38:11.502	TO	91:50:13.905
FILE 1 COPIED	141	RECORDS FROM	105:47:15.703	TO	105:49:35.586
FILE 1 COPIED	188	RECORDS FROM	105:49:45.578	TO	105:52:52.422
FILE 1 COPIED	1059	RECORDS FROM	106:06:55.268	TO	106:24:32.373
FILE 1 COPIED	1	RECORDS FROM	107:02:56.450	TO	107:02:56.450
FILE 1 COPIED	2703	RECORDS FROM	107:02:59.448	TO	107:48:00.648
FILE 1 COPIED	2820	RECORDS FROM	107:48:02.647	TO	108:35:04.330
FILE 1 COPIED	1853	RECORDS FROM	108:35:07.827	TO	109:05:53.287
FILE 1 COPIED	445	RECORDS FROM	109:06:00.286	TO	109:13:23.913
FILE 1 COPIED	2038	RECORDS FROM	112:08:04.195	TO	112:41:57.496
FILE 1 COPIED	1362	RECORDS FROM	112:42:00.495	TO	113:04:40.370
FILE 1 COPIED	900	RECORDS FROM	113:27:57.172	TO	113:42:55.411
FILE 1 COPIED	900	RECORDS FROM	113:42:57.437	TO	113:57:55.705
FILE 1 COPIED	572	RECORDS FROM	113:57:56.704	TO	114:07:27.226
FILE 1 COPIED	440	RECORDS FROM	114:09:15.124	TO	114:15:33.756
FILE 1 COPIED	891	RECORDS FROM	114:28:30.158	TO	114:43:...

FILE 1 COPIED	570	RECORDS FROM	114:43:30.409	TO	114:52:57.926
FILE 1 COPIED	794	RECORDS FROM	114:53:00.935	TO	115:06:13.280
FILE 1 COPIED	2517	RECORDS FROM	115:25:05.044	TO	116:06:59.030
FILE 1 COPIED	3547	RECORDS FROM	116:07:02.245	TO	117:06:07.295
FILE 1 COPIED	2603	RECORDS FROM	117:21:36.531	TO	118:04:56.370
FILE 1 COPIED	1800	RECORDS FROM	118:11:01.056	TO	118:40:58.560
FILE 1 COPIED	1347	RECORDS FROM	118:40:59.558	TO	119:03:24.449
FILE 1 COPIED	1800	RECORDS FROM	119:14:29.357	TO	119:44:26.363
FILE 1 COPIED	993	RECORDS FROM	119:44:27.861	TO	120:00:59.037
FILE 1 COPIED	493	RECORDS FROM	120:00:59.578	TO	120:09:11.165
FILE 1 COPIED	1651	RECORDS FROM	120:09:11.167	TO	120:36:39.792
FILE 1 COPIED	703	RECORDS FROM	120:51:40.048	TO	121:03:21.472
FILE 1 COPIED	2696	RECORDS FROM	121:10:49.091	TO	121:55:41.862
FILE 1 COPIED	203	RECORDS FROM	121:55:43.862	TO	121:59:05.684
FILE 1 COPIED	1	RECORDS FROM	122:04:18.426	TO	122:04:18.426
FILE 1 COPIED	7	RECORDS FROM	122:04:21.423	TO	122:04:27.418
FILE 1 COPIED	812	RECORDS FROM	122:04:37.410	TO	122:13:07.732
FILE 1 COPIED	2703	RECORDS FROM	122:19:00.687	TO	123:04:00.448
FILE 1 COPIED	504	RECORDS FROM	123:18:20.192	TO	123:26:42.775
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FILE 1 COPIED	498	RECORDS FROM	124:52:39.487	TO	125:00:55.074
FILE 1 COPIED	32	RECORDS FROM	126:33:25.989	TO	126:33:59.962
FILE 1 COPIED	9	RECORDS FROM	126:34:01.960	TO	126:34:13.950
FILE 1 COPIED	1	RECORDS FROM	126:34:15.948	TO	126:34:15.948
FILE 1 COPIED	2	RECORDS FROM	126:34:19.146	TO	126:34:20.944
FILE 1 COPIED	13	RECORDS FROM	126:34:22.942	TO	126:34:35.931
FILE 1 COPIED	4	RECORDS FROM	126:34:37.930	TO	126:34:40.927
FILE 1 COPIED	124	RECORDS FROM	126:34:42.926	TO	126:36:50.820
FILE 1 COPIED	209	RECORDS FROM	126:36:52.818	TO	126:40:21.645
FILE 1 COPIED	454	RECORDS FROM	126:40:23.643	TO	126:47:56.269
FILE 1 COPIED	572	RECORDS FROM	126:56:08.859	TO	127:05:39.362
FILE 1 COPIED	1217	RECORDS FROM	127:05:41.360	TO	127:25:56.365
FILE 1 COPIED	417	RECORDS FROM	127:40:56.629	TO	127:47:52.279
FILE 1 COPIED	1808	RECORDS FROM	127:49:35.198	TO	128:19:40.693
FILE 1 COPIED	2185	RECORDS FROM	128:19:44.688	TO	128:56:09.881
FILE 1 COPIED	4541	RECORDS FROM	129:29:11.661	TO	130:44:49.453
FILE 1 COPIED	693	RECORDS FROM	130:44:51.452	TO	130:56:22.878
FILE 1 COPIED	1	RECORDS FROM	132:52:44.070	TO	132:52:44.070
FILE 1 COPIED	2	RECORDS FROM	132:52:46.069	TO	132:52:47.068
FILE 1 COPIED	6	RECORDS FROM	132:52:49.066	TO	132:52:54.062
FILE 1 COPIED	8	RECORDS FROM	132:52:57.041	TO	132:53:03.055
FILE 1 COPIED	5	RECORDS FROM	132:53:05.053	TO	132:53:09.050
FILE 1 COPIED	1	RECORDS FROM	132:53:11.048	TO	132:53:11.048
FILE 1 COPIED	1	RECORDS FROM	132:53:13.046	TO	132:53:13.046
FILE 1 COPIED	1	RECORDS FROM	132:53:15.045	TO	132:53:15.045
FILE 1 COPIED	51	RECORDS FROM	132:53:17.043	TO	132:54:07.002
FILE 1 COPIED	1712	RECORDS FROM	133:07:31.804	TO	133:36:01.382
FILE 1 COPIED	526	RECORDS FROM	133:48:42.278	TO	133:57:26.839
FILE 1 COPIED	897	RECORDS FROM	134:00:11.700	TO	134:15:09.951
FILE 1 COPIED	1884	RECORDS FROM	134:15:12.948	TO	134:46:34.390
FILE 1 COPIED	1206	RECORDS FROM	135:38:46.787	TO	135:53:50.780
FILE 1 COPIED	399	RECORDS FROM	135:58:50.781	TO	136:05:23.449
FILE 1 COPIED	4375	RECORDS FROM	136:05:30.448	TO	137:13:22.285
FILE 1 COPIED	703	RECORDS FROM	137:18:25.284	TO	137:30:06.701
FILE 1 COPIED	296	RECORDS FROM	137:46:22.407	TO	137:51:13.157
FILE 1 COPIED	3073	RECORDS FROM	137:51:20.156	TO	138:42:29.604
FILE 1 COPIED	2950	RECORDS FROM	138:42:57.067	TO	139:32:04.616
FILE 1 COPIED	665	RECORDS FROM	139:44:26.513	TO	139:55:27.756
FILE 1 COPIED	879	RECORDS FROM	139:56:10.922	TO	140:10:40.181

FILE 1 COPIED	1839 RECORDS FROM	140:10:53.187 TO	140:41:30.665
FILE 1 COPIED	2603 RECORDS FROM	140:41:49.136 TO	141:25:07.973
FILE 1 COPIED	2593 RECORDS FROM	141:37:29.874 TO	142:20:40.715
FILE 1 COPIED	1321 RECORDS FROM	142:20:45.710 TO	142:42:44.620
FILE 1 COPIED	500 RECORDS FROM	142:42:49.100 TO	142:51:07.605
FILE 1 COPIED	399 RECORDS FROM	142:51:09.684 TO	142:57:47.353
FILE 1 COPIED	900 RECORDS FROM	142:57:52.349 TO	143:12:50.602
FILE 1 COPIED	899 RECORDS FROM	143:12:52.601 TO	143:27:49.855
FILE 1 COPIED	170 RECORDS FROM	143:27:51.853 TO	143:30:40.713
FILE 1 COPIED	4583 RECORDS FROM	143:31:45.178 TO	144:48:05.850
FILE 1 COPIED	2408 RECORDS FROM	144:48:07.849 TO	145:28:12.849
FILE 1 COPIED	888 RECORDS FROM	145:39:59.783 TO	145:54:56.000
FILE 1 COPIED	1798 RECORDS FROM	145:54:58.033 TO	146:24:54.543
FILE 1 COPIED	504 RECORDS FROM	146:38:47.329 TO	146:47:12.908
FILE 1 COPIED	1269 RECORDS FROM	146:47:14.907 TO	147:08:21.853
FILE 1 COPIED	21 RECORDS FROM	147:27:32.897 TO	147:27:52.880
FILE 1 COPIED	157 RECORDS FROM	147:40:26.773 TO	147:43:02.642
FILE 1 COPIED	1640 RECORDS FROM	147:43:04.641 TO	148:10:22.276
FILE 1 COPIED	1476 RECORDS FROM	148:10:25.273 TO	148:35:00.054
FILE 1 COPIED	72 RECORDS FROM	148:35:04.051 TO	148:36:14.992
FILE 1 COPIED	2341 RECORDS FROM	148:36:18.989 TO	149:15:18.025
FILE 1 COPIED	3 RECORDS FROM	149:32:16.192 TO	149:32:18.190
FILE 1 COPIED	4686 RECORDS FROM	149:32:21.187 TO	150:50:23.777
FILE 1 COPIED	1800 RECORDS FROM	150:50:37.765 TO	151:20:35.271
FILE 1 COPIED	1799 RECORDS FROM	151:25:23.549 TO	151:55:20.048
FILE 1 COPIED	2304 RECORDS FROM	151:55:22.047 TO	152:33:44.140
FILE 1 COPIED	1349 RECORDS FROM	152:37:16.445 TO	152:59:43.326
FILE 1 COPIED	879 RECORDS FROM	152:59:52.317 TO	153:14:29.588
FILE 1 COPIED	2155 RECORDS FROM	153:31:02.280 TO	154:06:54.487
FILE 1 COPIED	54 RECORDS FROM	154:06:56.485 TO	154:07:50.442
FILE 1 COPIED	1267 RECORDS FROM	154:07:52.440 TO	154:28:57.391
FILE 1 COPIED	2577 RECORDS FROM	154:45:50.031 TO	155:28:43.891
FILE 1 COPIED	3413 RECORDS FROM	155:29:01.389 TO	156:25:51.555
FILE 1 COPIED	2533 RECORDS FROM	156:39:35.356 TO	157:21:45.253
FILE 1 COPIED	3435 RECORDS FROM	157:26:24.530 TO	158:23:36.681
FILE 1 COPIED	2569 RECORDS FROM	158:41:29.276 TO	159:24:15.462
FILE 1 COPIED	1778 RECORDS FROM	159:24:16.650 TO	159:53:55.168
FILE 1 COPIED	843 RECORDS FROM	160:02:00.763 TO	160:16:02.068
FILE 1 COPIED	20 RECORDS FROM	160:28:09.955 TO	160:28:28.939
FILE 1 COPIED	2572 RECORDS FROM	160:34:48.623 TO	161:17:38.389
FILE 1 COPIED	2184 RECORDS FROM	161:37:39.995 TO	162:14:03.184
FILE 1 COPIED	2 RECORDS FROM	162:14:05.183 TO	162:14:06.182
FILE 1 COPIED	2260 RECORDS FROM	162:39:39.908 TO	163:17:17.031
FILE 1 COPIED	2637 RECORDS FROM	163:21:47.787 TO	164:05:42.594
FILE 1 COPIED	673 RECORDS FROM	165:21:20.148 TO	165:32:32.581
FILE 1 COPIED	2244 RECORDS FROM	165:44:38.974 TO	166:22:00.116
FILE 1 COPIED	801 RECORDS FROM	166:41:23.653 TO	166:54:42.987
FILE 1 COPIED	153 RECORDS FROM	167:15:35.437 TO	167:18:07.310
FILE 1 COPIED	2223 RECORDS FROM	167:18:18.301 TO	167:55:19.453
FILE 1 COPIED	1289 RECORDS FROM	167:55:22.448 TO	168:16:49.386
FILE 1 EOF			

182014 RECORDS WRITTEN ON OUTPUT FILE

AMERICAN SCIENCE AND ENGINEERING APOLLO ALPHA EXPERIMENT DATA REDUCTION SYSTEM

FILE 1 COPIED	6 RECORDS FROM	178:59:41.901 TO	178:59:46.897
FILE 1 COPIED	4112 RECORDS FROM	178:59:51.623 TO	180:08:17.468
FILE 1 COPIED	2053 RECORDS FROM	180:35:29.613 TO	181:09:40.904
FILE 1 COPIED	2838 RECORDS FROM	181:11:54.280 TO	181:59:58.873
FILE 1 COPIED	5 RECORDS FROM	182:00:00.878 TO	182:00:04.874
FILE 1 COPIED	2709 RECORDS FROM	182:00:24.858 TO	182:45:31.604
FILE 1 COPIED	1182 RECORDS FROM	183:02:36.747 TO	183:22:16.759
FILE 1 COPIED	1422 RECORDS FROM	183:22:18.757 TO	183:45:58.673
FILE 1 COPIED	754 RECORDS FROM	183:46:01.573 TO	183:58:33.950
FILE 1 COPIED	4406 RECORDS FROM	184:53:46.941 TO	186:12:12.786
FILE 1 COPIED	890 RECORDS FROM	186:27:32.021 TO	186:42:20.281
FILE 1 COPIED	283 RECORDS FROM	186:58:20.972 TO	187:03:02.737
FILE 1 COPIED	58 RECORDS FROM	187:03:04.735 TO	187:04:01.637
FILE 1 COPIED	1359 RECORDS FROM	187:04:03.686 TO	187:26:40.555
FILE 1 COPIED	1 RECORDS FROM	187:26:42.872 TO	187:26:42.872
FILE 1 COPIED	213 RECORDS FROM	187:27:34.491 TO	187:31:06.315
FILE 1 COPIED	1579 RECORDS FROM	187:31:09.312 TO	187:57:28.003
FILE 1 COPIED	898 RECORDS FROM	187:57:29.528 TO	188:12:26.782
FILE 1 COPIED	899 RECORDS FROM	188:12:28.780 TO	188:27:26.033
FILE 1 COPIED	1160 RECORDS FROM	188:27:28.032 TO	188:46:46.068
FILE 1 COPIED	2420 RECORDS FROM	188:46:59.533 TO	189:27:16.511
FILE 1 COPIED	1632 RECORDS FROM	189:27:19.508 TO	189:54:29.686
FILE 1 COPIED	6 RECORDS FROM	189:54:35.681 TO	189:54:40.677
FILE 1 COPIED	1724 RECORDS FROM	189:54:42.676 TO	190:23:24.244
FILE 1 COPIED	283 RECORDS FROM	190:38:24.495 TO	190:43:06.260
FILE 1 COPIED	3010 RECORDS FROM	190:54:37.157 TO	191:44:43.653
FILE 1 COPIED	774 RECORDS FROM	191:44:45.652 TO	191:57:38.540
FILE 1 COPIED	564 RECORDS FROM	191:57:40.539 TO	192:07:03.071
FILE 1 COPIED	899 RECORDS FROM	192:54:33.172 TO	193:09:30.422
FILE 1 COPIED	1118 RECORDS FROM	193:09:34.419 TO	193:28:10.493
FILE 1 COPIED	4276 RECORDS FROM	193:28:46.462 TO	194:40:02.435
FILE 1 COPIED	1179 RECORDS FROM	194:44:31.690 TO	195:04:03.708
FILE 1 COPIED	1606 RECORDS FROM	195:04:10.706 TO	195:30:55.375
FILE 1 COPIED	237 RECORDS FROM	195:31:19.357 TO	195:35:15.153
FILE 1 COPIED	3037 RECORDS FROM	195:51:36.346 TO	196:42:11.342
FILE 1 COPIED	3846 RECORDS FROM	196:42:45.796 TO	197:46:51.594
FILE 1 COPIED	2703 RECORDS FROM	197:47:40.073 TO	198:32:40.027
FILE 1 COPIED	237 RECORDS FROM	198:32:42.826 TO	198:36:38.630
FILE 1 COPIED	3010 RECORDS FROM	198:41:36.861 TO	199:31:43.354
FILE 1 COPIED	335 RECORDS FROM	199:31:45.353 TO	199:37:21.073
FILE 1 COPIED	3546 RECORDS FROM	199:37:24.071 TO	200:36:29.624
FILE 1 COPIED	5 RECORDS FROM	200:36:30.743 TO	200:36:35.589
FILE 1 COPIED	13 RECORDS FROM	200:37:04.620 TO	200:37:16.610
FILE 1 COPIED	2923 RECORDS FROM	200:37:18.608 TO	201:25:58.652
FILE 1 COPIED	2490 RECORDS FROM	201:26:01.651 TO	202:07:31.107
FILE 1 COPIED	5661 RECORDS FROM	202:07:33.106 TO	203:41:52.877
FILE 1 COPIED	2108 RECORDS FROM	204:00:07.489 TO	204:35:13.737
FILE 1 COPIED	297 RECORDS FROM	204:35:15.736 TO	204:40:11.490
FILE 1 COPIED	3344 RECORDS FROM	204:42:20.856 TO	205:38:04.072
FILE 1 COPIED	2415 RECORDS FROM	205:38:33.527 TO	206:40:17.965
FILE 1 COPIED	3409 RECORDS FROM	206:40:17.965 TO	207:37:05.131
FILE 1 COPIED	1414 RECORDS FROM	207:52:04.918 TO	208:15:37.742
FILE 1 COPIED	1243 RECORDS FROM	208:15:39.742 TO	208:36:20.710
FILE 1 COPIED	3437 RECORDS FROM	208:38:41.058 TO	209:35:56.203
FILE 1 COPIED	2627 RECORDS FROM	209:50:56.871 TO	210:34:40.690
FILE 1 COPIED	2020 RECORDS FROM	210:35:17.242 TO	211:03:54.563
FILE 1 COPIED	1632 RECORDS FROM	211:03:54.563 TO	211:03:54.563

FILE 1 COPIED	3696 RECORDS FROM	214:39:35.037 TO	215:41:11.516
FILE 1 COPIED	2251 RECORDS FROM	215:41:13.515 TO	216:18:41.646
FILE 1 COPIED	4117 RECORDS FROM	216:29:51.539 TO	217:38:24.668
FILE 1 COPIED	2593 RECORDS FROM	217:38:26.668 TO	218:21:33.359
FILE 1 COPIED	3255 RECORDS FROM	218:35:57.250 TO	219:30:10.552
FILE 1 COPIED	1275 RECORDS FROM	219:30:20.085 TO	219:51:35.025
FILE 1 COPIED	971 RECORDS FROM	219:51:37.024 TO	220:07:46.218
FILE 1 COPIED	3425 RECORDS FROM	220:18:41.134 TO	221:15:42.288
FILE 1 COPIED	2621 RECORDS FROM	222:18:34.008 TO	223:02:12.815
FILE 1 COPIED	900 RECORDS FROM	224:46:07.624 TO	225:01:00.875
FILE 1 COPIED	275 RECORDS FROM	225:01:03.872 TO	225:05:37.644
FILE 1 COPIED	1696 RECORDS FROM	225:05:39.642 TO	225:33:53.231
FILE 1 COPIED	1800 RECORDS FROM	225:33:55.229 TO	226:03:52.731
FILE 1 COPIED	899 RECORDS FROM	226:03:55.729 TO	226:13:52.991
FILE 1 COPIED	903 RECORDS FROM	226:18:54.980 TO	226:33:57.229
FILE 1 COPIED	901 RECORDS FROM	226:34:03.224 TO	226:49:02.475
FILE 1 COPIED	1797 RECORDS FROM	226:49:04.474 TO	227:18:58.979
FILE 1 COPIED	73 RECORDS FROM	227:19:01.977 TO	227:20:13.714
FILE 1 COPIED	3378 RECORDS FROM	227:20:20.912 TO	228:16:35.103
FILE 1 COPIED	734 RECORDS FROM	228:26:59.582 TO	228:40:01.931
FILE 1 COPIED	109 RECORDS FROM	228:40:08.924 TO	228:41:56.835
FILE 1 COPIED	901 RECORDS FROM	228:52:00.332 TO	229:06:59.582
FILE 1 COPIED	837 RECORDS FROM	229:17:12.071 TO	229:31:09.363
FILE 1 COPIED	50 RECORDS FROM	229:31:10.372 TO	229:31:59.331
FILE 1 COPIED	870 RECORDS FROM	229:42:21.812 TO	229:56:51.078
FILE 1 COPIED	871 RECORDS FROM	230:07:22.552 TO	230:21:51.827
FILE 1 COPIED	821 RECORDS FROM	230:32:57.273 TO	230:46:36.591
FILE 1 COPIED	840 RECORDS FROM	230:58:13.019 TO	231:12:11.321
FILE 1 COPIED	876 RECORDS FROM	231:23:29.756 TO	231:38:04.027
FILE 1 COPIED	866 RECORDS FROM	231:48:24.511 TO	232:02:43.790
FILE 1 COPIED	835 RECORDS FROM	232:14:10.223 TO	232:28:03.529
FILE 1 COPIED	888 RECORDS FROM	232:38:45.994 TO	232:53:34.244
FILE 1 COPIED	887 RECORDS FROM	233:04:16.709 TO	233:19:01.973
FILE 1 COPIED	859 RECORDS FROM	233:30:09.417 TO	233:44:25.703
FILE 1 COPIED	905 RECORDS FROM	233:55:32.160 TO	234:10:35.403
FILE 1 COPIED	861 RECORDS FROM	234:21:34.860 TO	234:35:54.146
FILE 1 COPIED	849 RECORDS FROM	234:47:15.580 TO	235:01:22.875
FILE 1 COPIED	942 RECORDS FROM	235:11:06.390 TO	235:26:46.603
FILE 1 COPIED	2 RECORDS FROM	235:37:22.080 TO	235:37:23.079
FILE 1 COPIED	891 RECORDS FROM	235:37:25.077 TO	235:52:16.017
FILE 1 COPIED	837 RECORDS FROM	236:02:44.814 TO	236:16:40.121
FILE 1 COPIED	470 RECORDS FROM	236:26:53.610 TO	236:34:42.221
FILE 1 COPIED	106 RECORDS FROM	236:34:51.214 TO	236:36:36.126
FILE 1 COPIED	3 RECORDS FROM	236:36:38.125 TO	236:36:40.123
FILE 1 COPIED	1 RECORDS FROM	236:36:42.121 TO	236:36:42.121
FILE 1 COPIED	1037 RECORDS FROM	236:39:22.987 TO	236:57:28.066
FILE 1 COPIED	3182 RECORDS FROM	236:57:55.068 TO	237:50:55.398
FILE 1 COPIED	103 RECORDS FROM	237:51:00.394 TO	237:52:42.309
FILE 1 COPIED	236 RECORDS FROM	237:52:44.307 TO	237:56:38.860
FILE 1 COPIED	626 RECORDS FROM	237:56:42.109 TO	238:07:06.588
FILE 1 COPIED	1893 RECORDS FROM	238:23:47.755 TO	238:55:20.180
FILE 1 EOF			

169675 RECORDS WRITTEN ON OUTPUT FILE

