



#311

IMP-D

82 SEC. AVGD. VECTORS

5.12 SEC. MAG. VECTORS

82 SEC. AVGD. VECTORS, (REBLOCKED)

66-058A-03C

66-058A-03D

66-058A-03F

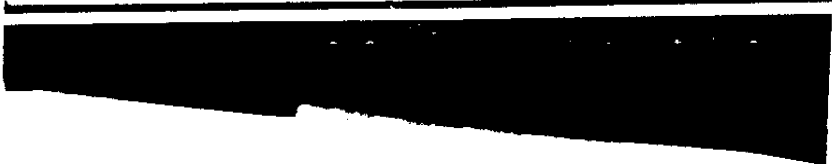


Table of Contents

1. Introduction
2. Errata/Change Log
3. LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC
INFORMATION SYSTEM
4. Catalog Materials
 - a. Associated Documents
 - b. Core Catalog Materials

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

IMP-D

82 SEC. AVERAGED VECTORS, DSC TAPES

66-058A-03C

SPHE-00475

This data set has been restored. There were originally 20 Binary 7-Track, 556 BPI tapes. The original tapes were padded. There are two restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The original tapes were created on an IBM 7094 computer, and restored on the MODCOMP computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	D#	FILES	TIME SPAN
DR03109	DS03109	D18961	1-10	07/01/66 - 09/09/66
		D19862	11-20	09/10/66 - 11/19/66
		D19863	21-32	11/19/66 - 01/28/67
		D18964	33-42	01/28/67 - 04/08/67
		D18965	43-52	04/08/67 - 06/17/67
		D18966	53-65	06/17/67 - 08/26/67
		D18968	66-76	11/04/67 - 01/13/68
		D18967	77-86	08/26/67 - 11/04/67
		D18969	87-96	01/13/68 - 03/23/68
		D18970	97-106	03/24/68 - 06/01/68
DR03110	DS03110	D18971	1-10	06/02/68 - 08/10/68
		D18972	11-20	08/11/68 - 10/19/68
		D18973	21-31	10/20/68 - 12/28/68
		D18974	32-41	12/29/68 - 03/08/69
		D18975	42-51	03/08/69 - 05/17/69
		D18976	52-61	05/17/69 - 10/04/69
		D18977	62-71	07/26/69 - 10/04/69
		D18978	72-81	10/04/69 - 12/13/69
		D18979	82-87	12/13/69 - 01/13/70
		D18980	88-96	02/23/70 - 09/14/70

REQ. AGENT
VJP

RAND NO.
RC3750

ACQ. AGENT
JHK

IMP-D

82 SEC. AVGD. VECTORS

5.12 SEC. MAG. VECTORS

66-058A-03C

66-058A-03D

This data set catalog contains 20 82 Second Averaged Vectors and 195 5.12 Second Magnetic Field Vectors data tapes. The tapes are 556 BPI, Binary, 7-track. The 82 Sec. data are multi-filed and the 5.12 Sec. data are 1 file each. These tapes were written on an IBM 7094 computer. In determining the start and stop times consider Jan. 1 = day 0.

Time spans are as follows:

82 Second Averaged Vectors

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>TIME SPAN</u>
D-18961	C-15261	10	07/01/66 - 09/09/66
D-18962	C-15262	10	09/10/66 - 11/19/66
D-18963	C-15263	12	11/19/66 - 01/28/67
D-18964	C-15264	11	01/28/67 - 04/08/67
D-18965	C-15265	10	04/08/67 - 06/17/67
D-18966	C-15266	13	06/17/67 - 08/26/67
D-18968	C-15268	11	08/26/67 - 11/04/67
D-18967	C-15267	11	11/04/67 - 01/13/67
D-18969	C-15269	10	01/13/68 - 03/23/68
D-18970	C-15270	10	03/23/68 - 06/01/68
D-18971	C-15271	10	06/01/68 - 08/10/68
D-18927	C-15272	10	08/10/68 - 10/19/68
D-18928	C-15273	11	10/19/68 - 12/28/68

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>TIME SPAN</u>
D-18929	C-15274	11	12/28/68 - 3/08/69
D-18930	C-15275	10	3/08/69 - 5/17/69
D-18931	C-15276	11	5/17/69 - 7/26/69
D-18932	C-15277	10	7/26/69 - 10/04/69
D-18933	C-15278	10	10/04/69 - 12/13/69
D-18934	C-15279	6	12/13/69 - 1/13/69
D-18935	C-15280	9	2/23/70 - 9/14/70

5.12 Second Magnetic Field Vectors

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19171	C-15589	01	7/01/66 - 7/09/66
D-19172	C-15590	02	7/09/66 - 7/16/66
D-19173	C-15591	03	7/16/66 - 7/23/66
D-20485	C-16393	04	7/23/66 - 7/30/66
D-20487	C-16395	05	7/30/66 - 8/07/66
D-19608	C-16005	06	8/06/66 - 8/13/66
D-19607	C-16004	07	8/13/66 - 8/20/66
D-19606	C-16003	09	8/27/66 - 9/03/66
D-19605	C-16002	10	9/03/66 - 9/09/66
D-19604	C 16001	11	9/10/66 - 9/17/66
D-19603	C-15947	12	9/17/66 - 9/23/66
D-19602	C-15946	13	9/24/66 - 10/01/66
D-19610	C-16007	14	10/01/66 - 10/08/66
D-19174	C-15592	15	10/08/66 - 10/15/66
D-19175	C-15593	16	10/15/66 - 10/22/66
D-19176	C-15594	17	10/22/66 - 10/29/66
D-19177	C-15595	18	10/29/66 - 11/05/66

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19178	C-15596	19	11/05/66 - 11/12/66
D-19179	C-15597	20	11/12/66 - 11/19/66
D-19609	C-16006	21	11/19/66 - 11/26/69
D-19180	C-15598	23	12/03/66 - 12/10/66
D-19550	C-15872	24	12/10/66 - 12/17/66
D-19181	C-15599	25M	12/21/66 - 12/22/66
D-19182	C-15600	26	12/24/66 - 12/31/66
D-19184	C-15602	27	12/31/66 - 1/06/67
D-19187	C-15605	28	1/07/67 - 1/14/67
D-19185	C-15603	29A	1/14/67 - 1/21/67
D-19186	C-15604	29B	1/18/67 - 1/21/67
D-19188	C-15606	30	1/21/67 - 1/28/67
D-19189	C-15607	31A	1/28/67 - 2/02/67
D-19183	C-15601	31B	2/02/67 - 2/04/67
D-19190	C-15608	32	2/04/67 - 2/11/67
D-19191	C-15609	33	2/11/67 - 2/18/67
D-19192	C-15610	34	2/18/67 - 2/25/67
D-19193	C-15611	35	2/25/67 - 3/01/67
D-19194	C-15612	36	3/04/67 - 3/11/67
D-19195	C-15613	37	3/11/67 - 3/18/67
D-19196	C-15614	38	3/18/67 - 3/25/67
D-19197	C-15615	39	3/25/67 - 4/01/67
D-19198	C-15616	44	4/29/67 - 5/06/67
D-19199	C-15617	45	5/06/67 - 5/13/67
D-19200	C-15618	46	5/13/67 - 5/20/67
D-19201	C-15730	47	5/20/67 - 5/27/67
D-19202	C-15731	48	5/27/67 - 6/03/67
D-19203	C-15732	49	6/03/67 - 6/10/67
D-19204	C-15733	50	6/10/67 - 6/17/67

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19205	C-15734	51	6/17/67 - 6/24/67
D-19206	C-15735	52A	6/24/67 - 6/29/67
D-20492	C-16400	52B	6/30/67 - 6/30/67
D-19207	C-15736	53A	7/01/67 - 7/06/67
D-19208	C-15737	53B	7/06/67 - 7/08/67
D-19209	C-15738	54	7/08/67 - 7/15/67
D-19210	C-15739	55	7/15/67 - 7/22/67
D-19211	C-15240	56A	7/22/67 - 7/26/67
D-19212	C-15741	57	7/29/67 - 8/05/67
D-19213	C-15742	58	8/05/67 - 8/12/67
D-19214	C-15743	59	8/12/67 - 8/19/67
D-19215	C-15744	60	8/19/67 - 8/26/67
D-19216	C-15745	61	8/26/67 - 9/02/67
D-19217	C-15746	62	9/02/67 - 9/09/67
D-19560	C-15882	63A	9/09/67 - 9/11/67
D-19559	C-15881	63B	9/11/67 - 9/16/67
D-19558	C-15880	64	9/16/67 - 9/23/67
D-19557	C-15879	65	9/23/67 - 9/30/67
D-19556	C-15878	66	9/30/67 - 10/07/67
D-19555	C-15877	67	10/07/67 - 10/14/67
D-19554	C-15876	68	10/14/67 - 10/21/67
D-19553	C-15875	69	10/21/67 - 10/28/67
D-19552	C-15874	70	10/28/67 - 11/04/67
D-19551	C-15873	71	11/04/67 - 11/11/67
D-19600	C-15944	72	11/11/67 - 11/18/67
D-19549	C-15871	73	11/18/67 - 11/25/67
D-19548	C-15870	74	11/25/67 - 12/02/67
D-120484	C-16391	75	12/02/67 - 12/09/67
D-19547	C-15869	76A	12/09/67 - 12/10/67

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19546	C-15868	76B	12/10/67 - 12/16/67
D-19545	C-15867	77	12/16/67 - 12/23/67
D-19544	C-15866	78	12/23/67 - 12/30/67
D-19570	C-15892	79	12/30/67 - 1/06/68
D-19569	C-15891	80	1/06/68 - 1/13/68
D-19568	C-15890	81	1/13/68 - 1/20/68
D-19567	C-15889	82	1/20/68 - 1/27/68
D-19566	C-15888	83	1/27/68 - 2/03/68
D-19565	C-15887	84	2/03/68 - 2/10/68
D-19564	C-15886	85	2/10/68 - 2/17/68
D-19563	C-15885	86	2/17/68 - 2/23/68
D-19562	C-15884	87	2/24/68 - 3/02/68
D-19561	C-15883	88	3/02/68 - 3/09/68
D-19571	C-15893	89	3/09/68 - 3/16/68
D-19572	C-15894	90	3/16/68 - 3/23/68
D-19672	C-16088	91	3/23/68 - 3/29/68
D-19573	C-15895	92	3/30/68 - 4/06/68
D-19574	C-15918	93	4/06/68 - 4/13/68
D-19575	C-15919	94	4/13/68 - 4/20/68
D-19576	C-15920	95	4/20/68 - 4/27/68
D-19577	C-15921	96	4/27/68 - 5/04/68
D-19578	C-15922	97	5/04/68 - 5/11/68
D-19579	C-15923	98	5/11/68 - 5/18/68
D-19580	C-15924	99	5/18/68 - 5/25/68
D-19590	C-15934	100	5/25/68 - 6/01/68
D-19589	C-15933	101	6/01/68 - 6/08/68
D-20486	C-16394	102	6/08/68 - 6/15/68
D-19588	C-15932	103	6/15/68 - 6/22/68
D-19587	C-15931	104	6/22/68 - 6/29/68

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19586	C-15930	105	6/29/68 - 7/06/68
D-19585	C-15929	106	7/06/68 - 7/13/68
D-19584	C-15928	107	7/13/68 - 7/20/68
D-19583	C-15927	108	7/20/68 - 7/27/68
D-19582	C-15926	109	7/27/68 - 8/03/68
D-19581	C-15925	110	8/03/68 - 8/10/68
D-20488	C-16396	111	8/10/68 - 8/17/68
D-19601	C-15945	112	8/17/68 - 8/24/68
D-19673	C-16089	113	8/24/68 - 8/31/68
D-20489	C-16398	114	8/31/68 - 9/07/68
D-19674	C-16090	115	9/07/68 - 9/14/68
D-19675	C-16091	116	9/14/68 - 9/21/68
D-19676	C-16092	117	9/21/68 - 9/28/68
D-19677	C-16093	118	9/28/68 - 10/05/68
D-19678	C-16094	119	10/05/68 - 10/12/68
D-19679	C-16095	120	10/12/68 - 10/19/68
D-19599	C-15943	121	10/19/68 - 10/26/68
D-19651	C-16048	122	10/26/68 - 11/02/68
D-19652	C-16049	123	11/02/68 - 11/09/68
D-19653	C-16050	124	11/09/68 - 11/16/68
D-19654	C-16051	125	11/16/68 - 11/23/68
D-19655	C-16052	126	11/23/68 - 11/30/68
D-19656	C-16053	127	11/30/67 - 12/07/68
D-19657	C-16057	128	12/07/68 - 12/14/68
D-19658	C-16055	129	12/14/68 - 12/21/68
D-19659	C-16056	130	12/21/68 - 12/23/68
D-19660	C-16061	131A	12/23/68 - 12/28/68
D-19640	C-16037	132	1/04/69 - 1/11/69
D-19639	C-16036	133	1/11/69 - 1/18/69

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19638	C-16035	134	1/18/69 - 1/25/69
D-19637	C-16034	135	1/25/69 - 2/01/69
D-19636	C-16033	136	2/01/69 - 2/07/69
D-19671	C-16087	137	2/08/69 - 2/15/69
D-19635	C-16032	138	2/15/69 - 2/22/69
D-19634	C-16031	139	2/22/69 - 3/01/69
D-19633	C-16030	140A	3/01/69 - 3/03/69
D-19632	C-16029	140B	3/03/69 - 3/08/69
D-20483	C-16391	142	3/15/69 - 3/22/69
D-19631	C-16028	143	3/22/69 - 3/29/69
D-19644	C-16041	144	3/29/69 - 4/05/69
D-19645	C-16042	145	4/05/69 - 4/12/69
D-19646	C-16043	146	4/12/69 - 4/19/69
D-19647	C-16044	147	4/19/69 - 4/26/69
D-19648	C-16045	148	4/26/69 - 5/03/69
D-19649	C-16046	149	5/03/69 - 5/10/69
D-19650	C-16047	150	5/10/69 - 5/17/69
D-19630	C-16027	151	5/17/69 - 5/24/69
D-19629	C-16026	152	5/24/69 - 5/31/69
D-19598	C-15942	153	5/31/69 - 6/07/69
D-19596	C-15940	154B	6/07/69 - 6/14/69
D-19597	C-15941	154A	6/13/69 - 6/14/69
D-19595	C-15939	155	6/14/69 - 6/21/69
D-19594	C-15938	156	6/21/69 - 6/28/69
D-19593	C-15937	157	6/28/69 - 7/05/69
D-19592	C-15936	158	7/05/69 - 7/12/69
D-19591	C-15935	159	7/12/69 - 7/19/69
D-19670	C-16086	160	7/19/69 - 7/26/69

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-19669	C-16085	161	7/26/69 - 8/02/69
D-19667	C-16083	163	8/09/69 - 8/16/69
D-19666	C-16082	164	8/16/69 - 8/23/69
D-19665	C-16081	165	8/23/69 - 8/30/69
D-19664	C-16080	166	8/30/69 - 9/06/69
D-19663	C-16060	167	9/06/69 - 9/12/69
D-19662	C-16059	168	9/13/69 - 9/19/69
D-19661	C-16058	169	9/20/69 - 9/26/69
D-19619	C-16016	170	9/27/69 - 10/04/69
D-19618	C-16015	171	10/04/69 - 10/11/69
D-19617	C-16014	172	10/11/69 - 10/17/69
D-19616	C-16013	173	10/18/69 - 10/25/69
D-19615	C-16012	174	10/25/69 - 11/01/69
D-19620	C-16017	175	11/01/69 - 11/08/69
D-19614	C-16011	176	11/08/69 - 11/15/69
D-19613	C-16010	177	11/15/69 - 11/22/69
D-20493	C-16401	178	11/22/69 - 11/28/69
D-19612	C-16009	179	11/29/69 - 12/06/69
D-19611	C-16008	180	12/06/69 - 12/13/69
D-20491	C-16399	181	12/13/69 - 12/20/69
D-19641	C-16035	182	12/20/69 - 12/27/69
D-19642	C-16039	183A	12/27/69 - 12/31/69
D-19643	C-16040	183B	1/01/70 - 1/03/70
D-19680	C-16096	184	1/03/70 - 1/10/70
D-19624	C-16021	185	1/10/70 - 1/13/70
D-19623	C-16020	200	2/23/70 - 2/28/70
D-19622	C-16019	201	2/28/70 - 3/03/70

<u>D#</u>	<u>C#</u>	<u>WEEK</u>	<u>TIME SPAN</u>
D-20489	C-16397	223	8/01/70 - 8/08/70
D-19621	C-16018	225	8/15/70 - 8/22/70
D-19628	C-16025	226	8/22/70 - 8/27/70
D-19627	C-16024	227	8/29/70 - 9/05/70
D-19626	C-16023	228	9/05/70 - 9/12/70
D-19625	C-16022	229	9/12/70 - 9/14/70

Project 1064-3 - Technical Note 122

Originator: Sharone Lathrop

Date: March 8, 1972

Subject: Documentation of a FORTRAN Package to Read DCS
Blocked Explorer Individual Vector Tapes

0110110

TABLE OF CONTENTS

		<u>Page</u>
Section	1 PROGRAM DESCRIPTION	1-1
	1.1 Purpose	1-1
	1.2 Input/Output	1-1
	1.3 Method	
Section	2 SUBROUTINE DESCRIPTION	2-1
	2.1 Subroutine IVREAD	2-1
	2.1.1 Purpose	2-1
	2.1.2 Calling Sequence	2-1
	2.1.3 Key Variables	2-2
	2.1.4 Method	2-3
	2.1.5 Comments	2-3
	2.2 Subroutine CNVTCP	2-8
	2.2.1 Purpose	2-8
	2.2.2 Calling Sequence	
	2.2.3 Key Variables	2-8
	2.2.4 Method	2-10
	2.2.5 Comments	2-10
	2.3 Function ALPHA	2-12
	2.3.1 Purpose	2-12
	2.3.2 Calling Sequence	2-12
	2.3.3 Key Variables	2-12
	2.3.4 Method	2-12
	2.3.5 Comments	2-12
Section	3 USAGE INSTRUCTIONS	3-1
	3.1 Description	3-1

3.2	System and Equipment	3-1
3.3	Control C	3-1
3.4	Calling the Routine	3-1
3.5	Restrictions	3-3
Appendix A	DESCRIPTION OF THE EXPLORER INDIVIDUAL VECTOR TAPE	A-1
Appendix B	AMES, IBM/360 RE-READ CAPABILITY	B-1
Appendix C	PROGRAM LISTING	C-1

Section 1

PROGRAM DESCRIPTION

1.1 PURPOSE

This set of three FORTRAN subprograms is used to read the Explorer 33 and Explorer 35 Magnetometer Individual Vector tapes on the IBM/360. The tapes are blocked for the IBM 7040/7094 DCS which makes them directly unreadable by other systems.

1.2 INPUT/OUTPUT

Input is an Explorer Magnetometer Individual Vector tape. A complete tape description is included as Appendix A. Output is one logical record, that is one individual vector for each call to the subroutine IVREAD. The exact amount of data returned depends on whether the vector is the first in a sequence as described under method.

1.3 METHOD

The program is written in FORTRAN IV for use on the IBM 360/67. The program makes use of a re-read capability which may not be available on other machines. The Ames write-up for this feature is included as Appendix B. Essentially, an array is defined to be also a buffer area. Each time a physical record is read it is placed in this array, starting at any desired place in the array. The array is then treated as an external device which may be read many times. The procedure is to read one physical record into the array in A format, then locate and read successive logical records in the appropriate integer and floating point formats.

The re-read approach is used because there are two vector formats. The first vector of each sequence contains time information, data and a count of the number of vectors in the sequence. The rest of the vectors in a sequence have blanks instead of time information and are six characters shorter because they do not have the vector count. The number of vectors in a sequence ranges from eight to fourteen. Each physical record contains a fixed number of characters, 2760, including control words. There are about twenty-one vectors then in a physical record.

Section 2

SUBROUTINE DESCRIPTION

2.1 SUBROUTINE IVREAD

2.1.1 Purpose

This subroutine reads standard Explorer Individual Vector tapes and returns one vector for each subroutine call.

2.1.2 Calling Sequence

CALL IVREAD (ITIME, L, VECTOR, NVEC)

All four quantities are output; NVEC is also input and should not be changed by the calling program.

ITIME is an integer array of dimension five containing sequence number, day, hour, minute, second.

L is vector position.

VECTOR is a real array containing the magnitude, angles and vector components in three coordinate systems. The dimension is sixteen.

The dimension is sixteen.

NVEC is the number of vectors in the sequence.

L and VECTOR are set on every call, but ITIME and NVEC are changed only when the first vector of a sequence is read.

2.1.3 Key Variables

<u>Variable</u>	<u>Description</u>
A	The array into which the data is read, and which serves as a buffer to be re-read, 721 words
BLANK	An integer containing four blank characters for resetting formats.
FIRST	A logical flag set to true before the first entry to IVREAD and false after
FMT	The format for reading all vectors except the first in a sequence (integer).
FMT1	The format for reading the first vector in a sequence (integer)
FMT3, FMT4	The integer words for initializing the third and fourth words of FMT and FMT1.
INDEX	The character position inside the word array A where the previous vector ended. The position of the last character of the six character control word
IREAD	A logical word set to true if a physical record will be read on the next subroutine call, i. e. if there is less than a complete vector left in the buffer
IVEC	A counter of the number of vectors read in this sequence
J	A counter of the number of words moved from the end to the start of the buffer
N1	The number of multiples of 255 characters to be skipped with format FMT or FMT1
N2	The number of remaining characters to skip, $0 < N2 \leq 255$.

2.1.4 Method

We start by declaring that A is a buffer area of 2884 characters. This size is one physical record, 2748 characters, (the twelve character control word is skipped) plus the longest vector, 132 characters, plus four characters.

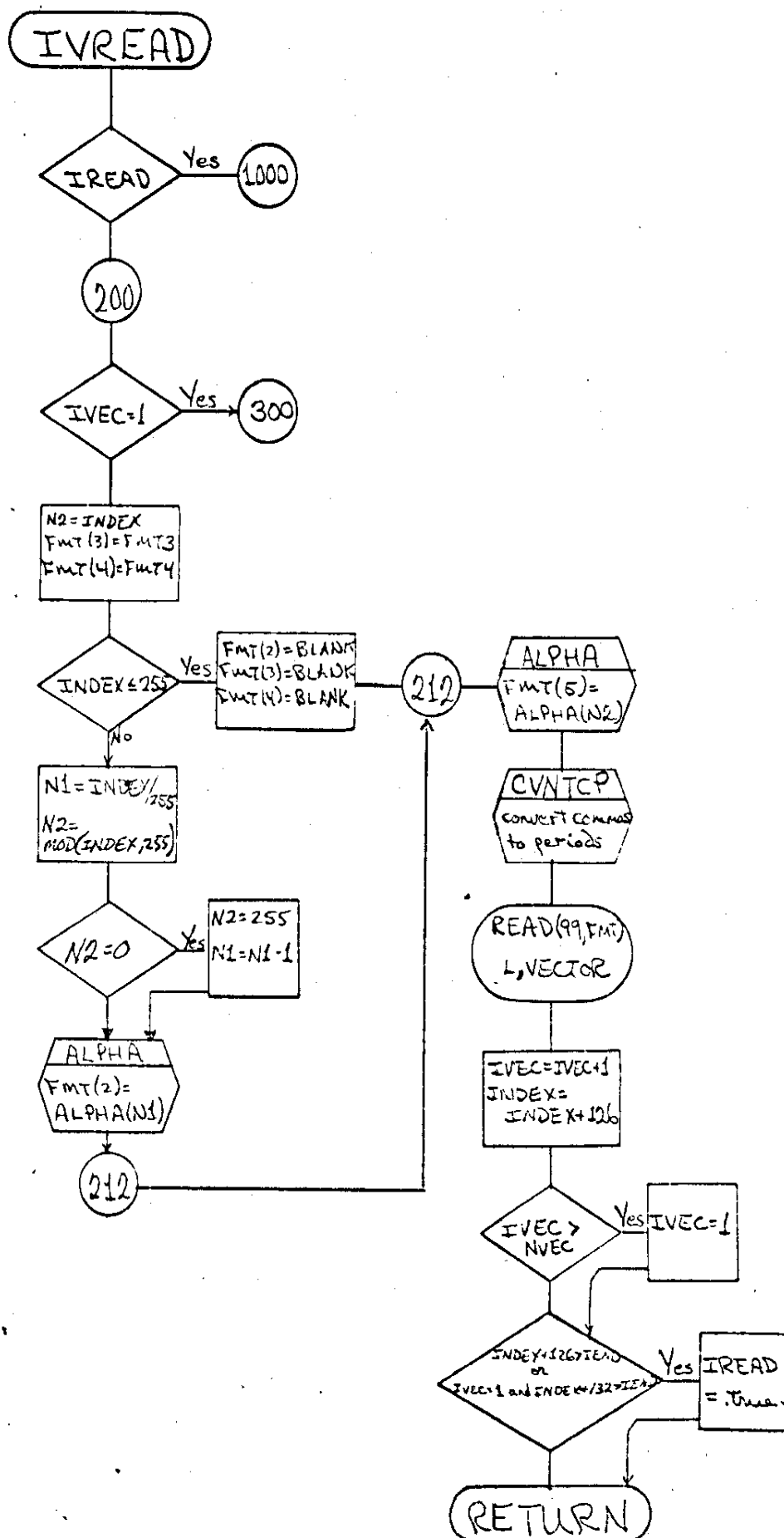
Next, one physical record is read in A format skipping the twelve character control word. On the first read the data is placed at the beginning of the buffer. Before subsequent reads any partial vector at the end of the buffer is moved to the beginning of the buffer. This transfer is on a word basis. To avoid trying to move zero words an extra four characters (one word) are moved.

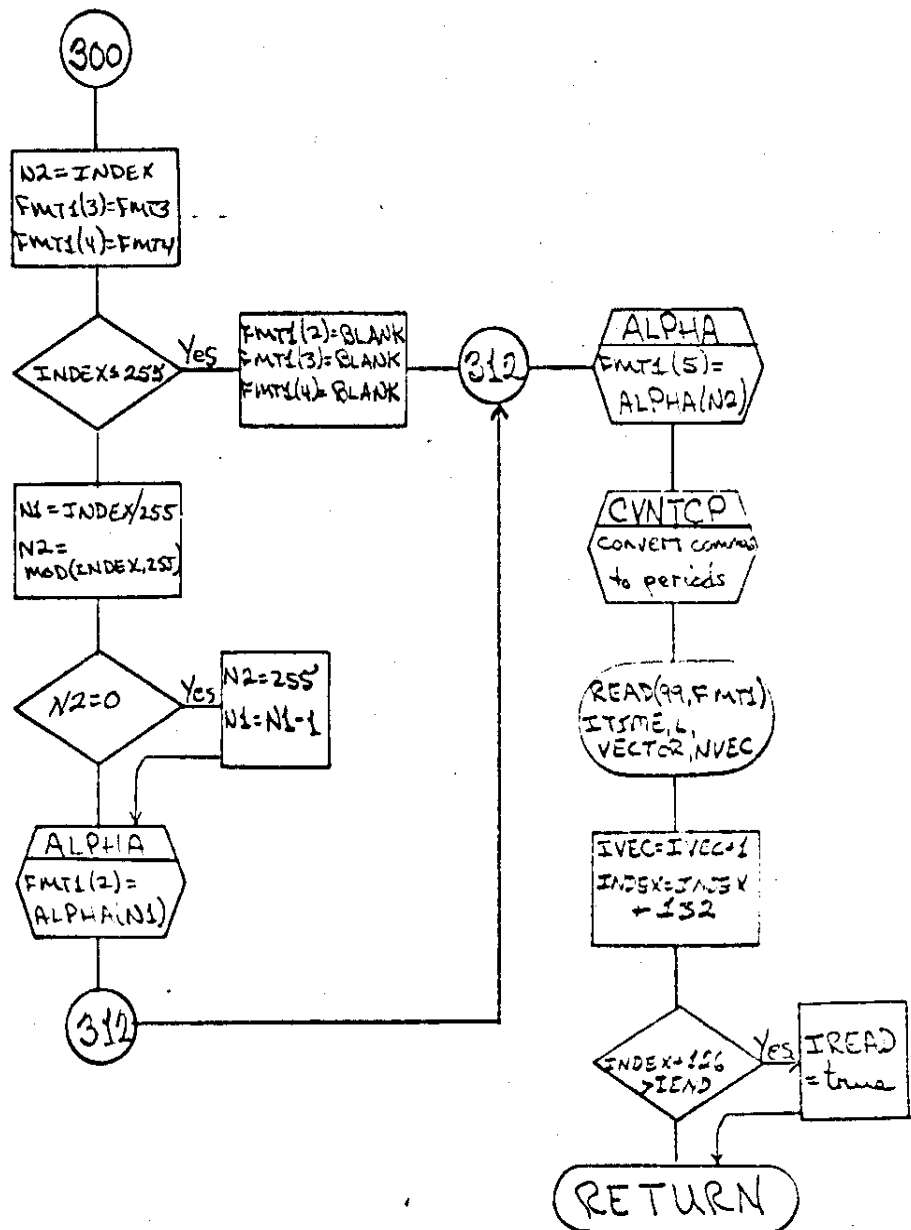
A vector is re-read from the buffer area using an execution time format. The format is referenced to the beginning of the buffer area, so a variable number of characters must be skipped. On the very first read the control word of six characters must be skipped. The second read skips 138 characters, the first vector and another control word. Soon more than 255 characters must be skipped. However Fortran limits you to 255X. Thus we code 2558x as 10(255X), 8X. The ten and eight are N1 and N2 listed under Key Variables. Likewise, 2550x would be coded 9(255x), 255x to avoid the error of reading 0x. The execution time formats are setup by determining N1 and N2 then using function ALPHA to obtain their character representation in the appropriate place in the format.

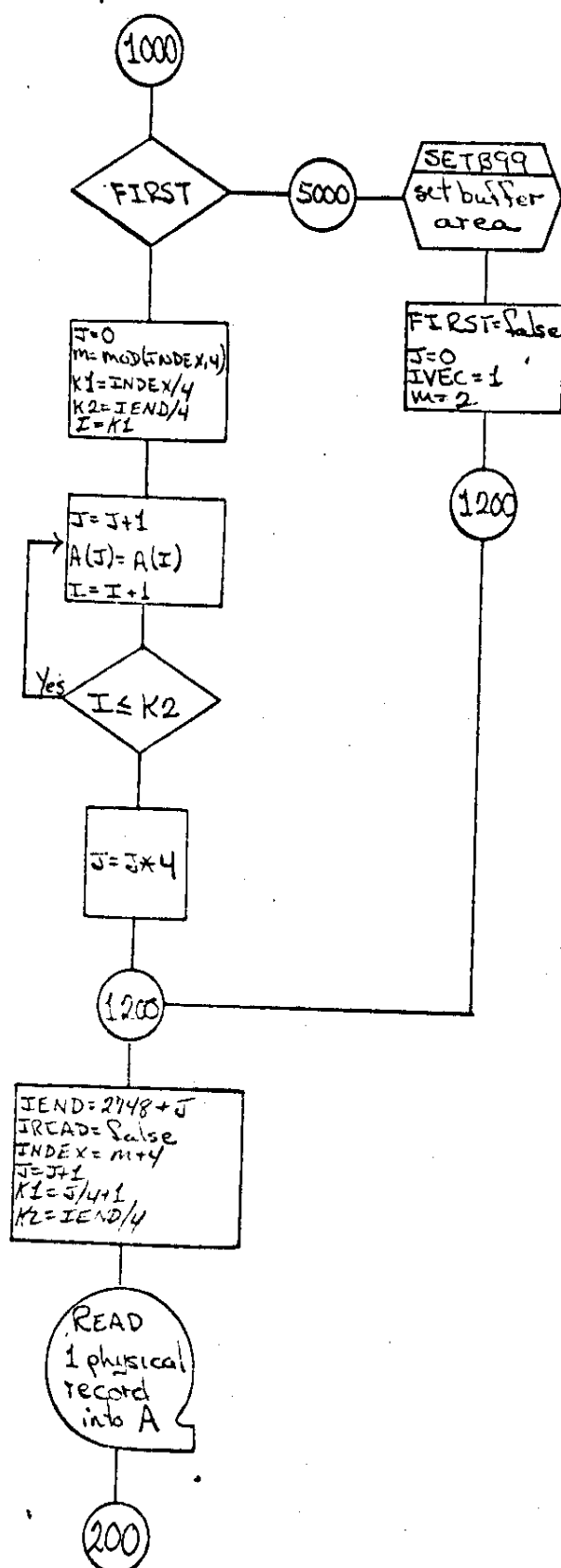
2.1.5 Comments

There is extensive use of the number four in this routine. There are four characters per word on the IBM/360. A machine such as a CDC 6600 which has ten characters per word would need to change these

fours to tens. Also, a CDC 6600 would probably not have the Read (99) feature, but the CDC DECODE routine is similar.







2.2 SUBROUTINE CNVTCP

2.2.1 Purpose

When the IBM 7040/7094 DCS writes a blocked tape it does not translate characters from internal Storage format to tape format (Table 2-1). Numbers have the same code, except for zero which seems to read satisfactorily. Blanks show up as ampersands, which read correctly, but periods show up as commas. This subroutine converts the commas to periods.

2.2.2 Calling Sequence

CALL CNVTCP (A, INDEX)

where A is the array containing the data, INDEX is the byte of A where the last vector ended.

2.2.3 Key Variables

CHAR	Array of masks to select one character from a word
COMMA	Array of masks to check for comma in any of the four character positions
I	Index of word in A being checked or changed
J	Position of character in word of A being checked or changed
K1	Index of first word of A to be checked
PERIOD	Array of masks to change comma to period in any of four character positions

APPENDIX B — TABLE OF SOURCE PROGRAM CHARACTERS

CHARACTER	CARD	BCD TAPE	STORAGE	CHARACTER	CARD	BCD TAPE	STORAGE	CHARACTER	CARD	BCD TAPE	STORAGE	CHARACTER	CARD	BCD TAPE	STORAGE
1	1	01	01	A	12 1	61	21	J	11 1	41	41	/	0 1	21	61
2	2	02	02	B	12 2	62	22	K	11 2	42	42	S	0 2	22	62
3	3	03	03	C	12 3	63	23	L	11 3	43	43	T	0 3	23	63
4	4	04	04	D	12 4	64	24	M	11 4	44	44	U	0 4	24	64
5	5	05	05	E	12 5	65	25	N	11 5	45	45	V	0 5	25	65
6	6	06	06	F	12 6	66	26	O	11 6	46	46	W	0 6	26	66
7	7	07	07	G	12 7	67	27	P	11 7	47	47	X	0 7	27	67
8	8	10	10	H	12 8	70	30	Q	11 8	50	50	Y	0 8	30	70
9	9	11	11	I	12 9	71	31	R	11 9	51	51	Z	0 9	31	71
blank	blank	20	60	+	12 60	20	-	11 40	40	40	- 0	0 0	12	60	-
=	8-3	13	13	.	12 8-3	73	33	\$	11 8-3	53	53	,	0 8-3	33	73
-	8-4	14	14	)	12 8-4	74	34	*	11 8-4	54	54	(	0 8-4	34	74

NOTE: There are two - signs. Only the 11-punch minus sign can be used in FORTRAN source program cards. Either minus sign may be used in input data to the object program; object program output uses the 11-punch minus sign.

The character \$ can be used in FORTRAN only as Hollerith text in a FORMAT statement.

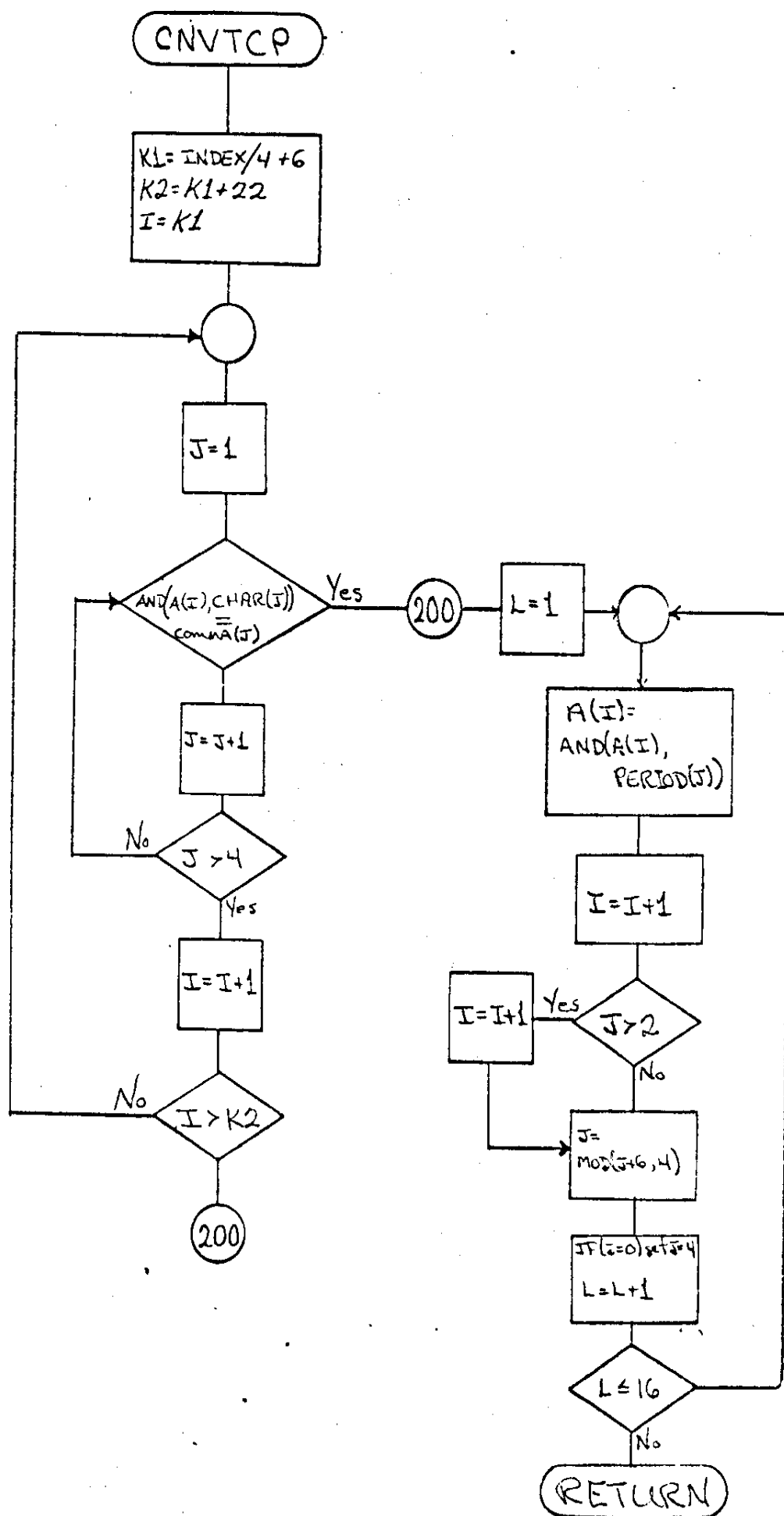
2.2.4 Method

The first word to be checked is the word containing the vector position (time words or blanks are skipped). The four characters in each word are checked until a comma is found. That character is changed to a period and every sixth character for fifteen more times is changed to a period.

The tests are performed on integers because the numbers are not really floating point and test as zero despite their bit configuration when floating point tests are used.

2.2.5 Comments

This method of course pre-supposes that the data is in core in EBCDIC. If the in core format is different, the masks at least must be different.



2.3 FUNCTION ALPHA

2.3.1 Purpose

This function generates the EBCDIC representation of an integer with four or fewer decimal digits.

2.3.2 Calling Sequence

KI = ALPHA(I)

where I is the integer to be converted and KI is the resulting characters right adjusted in the word.

2.3.3 Key Variables

J1	The left most digit
J2	The next digit
J3	The third digit from the left
ZONES	A mask to set the zone bits

2.3.4 Method

The digits are isolated by integer division. Then the characters are constructed by moving the digits to the appropriate positions (by multiplying by powers of two) and inserting the zone bits.

2.3.5 Comments

There is a faster way to accomplish the purpose of ALPHA. This alternate method is to make ALPHA an array of dimension 255 which is initialized with the character representations of the indices.

For example, ALPHA(10) would contain ' 10'.

Both methods are of course machine dependent.

Section 3

USAGE INSTRUCTIONS

3.1 DESCRIPTION

This set of three subprograms can be used to read logical records from a standard Explorer 33 or Explorer 35 Individual Vector tape.

3.2 SYSTEM AND EQUIPMENT

The program is written in FORTRAN IV for use on the IBM/360. The cards are punched in EBCDIC. As discussed elsewhere in this document, this program may not be usable on other machines. One seven-track tape drive is required.

3.3 CONTROL CARDS

The program expects the input tape to be mounted on FORTRAN logical unit 7. Thus for the IBM/360, data definition cards should have the form:

Col 1	Col 16	Col 72
//GO. FT07F001	DD UNIT=TAPE, DISP=(OLD, KEEP), LABEL=(1, BLP),	X
//	DCB=(TRTCH=T, RECFM=F, DEN=1, LRECL=2760, BLKSIZE	
	=2760),	X
//	VOLUME=SER=EXPIV	

3.4 CALLING THE ROUTINE

The calling sequence is:

CALL IVREAD (ITIME, L, VECTOR, NVEC).

all of these variables are output from IVREAD.

ITIME is an integer array of size five which will contain the sequence number and time when return is made to the calling program after reading the first vector of a sequence. Reading other vectors does not reset ITIME.

L is the position of the vector in the original sequence (1-14). The first vector is not necessarily position 1, but positions are in ascending order.

VECTOR is a real array of size sixteen containing the data.

NVEC is the number of vectors in the sequence and is returned only by the first vector of a sequence. However it must have the correct value on subsequent calls since it is used internally by IVREAD. Figure 3-1 is the listing of a sample program which reads and prints thirty sequences.

```
0001 DIMENSION ITIME(5), VECTOR(16)
0002 DO 100 I=1,30
0003 CALL IVREAD(ITIME,L,VECTOR,NVEC)
0004 WRITE(6,10) ITIME,L,VECTOR,NVEC
0005 10 FORMAT(1X,I6,I4,3I3,I3,16F6.1,I6)
0006 N = NVEC
0007 DO 50 J=2,N
0008 CALL IVREAD(ITIME,L,VECTOR,NVEC)
0009 WRITE(6,11) L,VECTOR
0010 11 FORMAT(20X,I3,16F6.1)
0011 50 CONTINUE
0012 100 CONTINUE
0013 STOP
0014 END
```

Figure 3-1
Sample Program to Read and Print 30 Sequences

3.5 · RESTRICTIONS

A complete tape descriptions is given in Appendix A.

If the tape should develop a bad record (parity error, redundant record, etc.) the program will not detect it or compensate for it in any way. The exact treatment will depend on the computer operating system.

No test for end of data (end of file) is made in the reading routine.

Appendix A

DESCRIPTION OF THE EXPLORER INDIVIDUAL VECTOR TAPE

Box 8

TAPE S0010			
EXPLORER 33			
SEQUENCE AVERAGES			
1968			
WELL	WELL	DECIMAL DAYS	PERCENT
1	1	181.7-189.1	319
2	2	189.1-196.1	304
3	3	196.1-203.1	326
4	4	203.1-210.1	328
5	5	210.1-217.1	325
6	6	217.1-224.1	332
7	7	224.1-231.1	345
8	8	231.1-238.0	325
9	9	238.0-245.1	341
10	10	245.1-252.0	324

TAPE S0110			
EXPLORER 33			
SEQUENCE AVERAGES			
1966			
WELL	WELL	DECIMAL DAYS	PERCENT
11	1	252.0-259.1	343
12	2	259.1-266.1	330
13	3	266.3-273.0	308
14	4	273.0-280.1	316
15	5	280.1-287.1	333
16	6	287.1-294.1	345
17	7	294.1-301.1	345
18	8	301.1-308.1	341
19	9	308.1-315.0	351
20	10	315.0-322.1	353

TAPE S0210			
EXPLORER 33			
SEQUENCE AVERAGES			
1966-1967			
WELL	WELL	DECIMAL DAYS	PERCENT
21	1	322.1-329.2	360
22	2	329.2-336.1	340
23	3	336.1-343.2	329
24	4	343.2-350.0	352
25	5	350.0-357.0	316
26	6	357.0-364.0	306
27	7	364.0-371.1	348
28	8	371.1-378.2	177
29	9	378.2-385.3	351
30	10	385.3-392.4	118
31	11	392.4-399.5	354

TAPE S0310			
EXPLORER 33			
SEQUENCE AVERAGES			
1967			
WELL	WELL	DECIMAL DAYS	PERCENT
31	1	027.1-032.1	252
32	2	032.0-037.1	99
33	3	037.0-041.1	343
34	4	041.1-048.1	345
35	5	048.1-055.0	357
36	6	055.0-062.0	356
37	7	062.0-069.1	355
38	8	069.1-076.2	364
39	9	076.1-083.1	339
40	10	083.0-090.1	358
41	11	090.1-097.2	342

TAPE S0410			
EXPLORER 33			
SEQUENCE AVERAGES			
1967			
WELL	WELL	DECIMAL DAYS	PERCENT
41	1	077.2-104.1	334
42	2	104.0-111.0	355
43	3	111.0-118.0	348
44	4	118.0-125.1	357
45	5	125.0-132.2	350
46	6	132.2-139.0	323
47	7	139.0-146.1	307
48	8	146.0-153.2	358
49	9	153.1-160.1	349
50	10	160.1-167.0	341

TAPE S0510			
EXPLORER 33			
SEQUENCE AVERAGES			
1967			
WELL	WELL	DECIMAL DAYS	PERCENT
51	1	167.0-174.2	346
52	2	174.2-179.2	254
53	3	179.2-186.0	48
54	4	186.0-193.5	271
55	5	193.5-200.1	70
56	6	200.1-207.1	354
57	7	207.1-214.0	353
58	8	214.0-221.0	218
59	9	221.0-228.1	122
60	10	228.1-235.0	354
61	11	235.0-242.0	343
62	12	242.0-249.0	343
63	13	249.0-256.0	362

Box 8

Tape 50610			
Explorer 33			
Seismic Displays			
1967			
Wells	W	DECIMAL DAYS	W
61	1	237.0-244.0	360
62	2	244.0-251.0	358
63	3	251.0-253.1	112
63A	4	253.1-258.1	250
64	5	258.1-265.1	350
65	6	265.1-272.1	359
66	7	272.1-276.0	344
67	8	276.0-284.1	336
68	9	284.1-293.1	354
69	10	293.1-300.1	352
70	11	300.1-307.1	362

Tape 80810			
Explorer 33			
Seismic Displays			
1968			
Wells	W	DECIMAL DAYS	W
81	1	012.1-019.1	357
82	2	019.1-026.1	360
83	3	026.1-033.1	356
84	4	033.1-040.0	352
85	5	040.0-047.1	354
86	6	047.1-054.0	353
87	7	054.0-061.1	353
88	8	061.1-068.1	362
89	9	068.1-075.1	351
90	10	075.1-082.1	349

Tape 80710			
Explorer 33			
Seismic Displays			
1967 + 1968			
Wells	W	DECIMAL DAYS	W
71	1	307.1-314.0	342
72	2	314.0-321.1	358
73	3	321.1-328.0	355
74	4	328.1-335.0	332
75	5	335.0-342.1	345
76A	6	342.1-343.5	67
76B	7	343.7-349.1	280
77	8	349.1-356.2	350
78	9	356.2-363.0	355
79	10	363.1-005.0	313
80	11	005.0-012.0	345

Tape 80910			
Explorer 33			
Seismic Displays			
1968			
Wells	W	DECIMAL DAYS	W
91	1	083.1-089.1	357
92	2	089.1-096.1	356
93	3	096.0-103.0	357
94	4	103.0-110.1	360
95	5	110.1-117.0	349
96	6	117.0-124.1	346
97	7	124.1-131.1	356
98	8	131.1-138.1	346
99	9	138.0-145.2	361
100	10	145.2-152.2	357

Box 9

Tape S1010			
EXPLORER 33			
SEQUENCE AVERAGES			
1968			
WELL	RECEIVING DAYS		
101	1	152.1-159.0	352
102	2	159.0-166.1	358
103	3	166.1-173.1	351
104	4	173.1-180.0	358
105	5	180.0-187.1	358
106	6	187.1-194.2	356
107	7	194.1-201.1	352
108	8	201.1-208.0	338
109	9	208.0-215.1	358
110	10	215.1-222.1	352

Tape S1310			
EXPLORER 33			
SEQUENCE AVERAGES			
1968 & 1969			
WELL	RECEIVING DAYS		
131	1	36.20-003.1	347
132	2	003.1-010.1	331
133	3	010.1-017.1	331
134	4	017.1-024.1	331
135	5	024.1-031.0	317
136	6	031.0-038.0	297
137	7	038.0-045.1	244
138	8	045.1-052.1	247
139	9	052.1-059.1	257
140	10	059.1-066.1	167
141	11	066.1-073.0	231

Tape S1110			
EXPLORER 33			
SEQUENCE AVERAGES			
1968			
WELL	RECEIVING DAYS		
111	1	222.1-229.0	333
112	2	229.0-236.0	351
113	3	236.0-243.0	347
114	4	243.0-250.0	354
115	5	250.0-257.1	355
116	6	257.1-264.0	343
117	7	264.0-271.1	350
118	8	271.1-278.0	321
119	9	278.0-285.2	357
120	10	285.2-292.0	338

Tape S1410			
EXPLORER 33			
SEQUENCE AVERAGES			
1969			
WELL	RECEIVING DAYS		
141	1	046.1-073.0	307
142	2	073.0-080.1	295
143	3	080.1-087.2	303
144	4	087.2-094.1	302
145	5	094.1-101.1	322
146	6	101.1-108.0	333
147	7	108.0-115.1	302
148	8	115.1-122.1	304
149	9	122.1-129.0	200
150	10	129.0-136.1	306

Tape S1210			
EXPLORER 33			
SEQUENCE AVERAGES			
1968 & 1969			
WELL	RECEIVING DAYS		
121	1	292.1-299.1	320
122	2	299.1-306.1	352
123	3	306.1-313.1	349
124	4	313.1-320.0	336
125	5	320.0-327.0	350
126	6	327.0-334.1	333
127	7	334.1-341.0	325
128	8	341.0-348.1	344
129	9	348.1-355.2	341
130	10	355.2-362.0	84
131	11	362.0-369.1	193

Tape S1510			
EXPLORER 33			
SEQUENCE AVERAGES			
1969			
WELL	RECEIVING DAYS		
151	1	136.1-143.2	330
152	2	143.1-150.0	342
153	3	150.0-157.1	341
154	4	157.1-164.1	322
155	5		21
156	6	164.1-171.1	312
157	7	171.1-178.1	321
158	8	178.1-185.1	311
159	9	185.1-192.1	322
160	10	192.1-199.1	293
161	11	199.1-206.1	272

Box 9

Tape S1610				Tape S2000				Tape S1810			
Explorer 33				Explorer 33				Explorer 33			
Signature Average				Signature Average				Signature Average			
1967				1970				1971-72-73			
No.	W	Recency Days	No.	W	Recency Days	No.	W	Recency Days	No.	W	Recency Days
161	1	204.1-213.1	311	200	1	253.0-058.0	244	181	1	346.0-353.1	345
162	2	313.1-220.0	333	201	2	058.0-062.0	181	182	2	353.1-360.0	314
163	3	220.0-227.1	263	225	3	312.0-217.0	352	183	3	360.0-002.1	265
164	4	227.1-234.0	270	224	4	217.0-226.2	354	184	4		97
165	5	234.1-241.1	283	225	5	226.1-233.0	303	184	5	002.1-009.0	310
166	6	241.0-248.0	330	226	6	233.0-240.1	302	185	6	009.0-017.9	184
167	7	248.0-255.0	316	227	7	240.1-247.0	283				
168	8	255.0-262.0	273	228	8	247.0-254.0	277				
169	9	262.0-268.9	283	229	9	254.0-257.0	151				
170	10	268.0-276.1	295	230	10						

Tape S1710			
Explorer 33			
Signature Average			
1967			
No.	W	Recency Days	No.
171	1	276.1-283.0	330
172	2	283.0-290.0	289
173	3	290.0-297.1	280
174	4	297.1-304.0	293
175	5	304.1-311.0	277
176	6	311.0-318.0	329
177	7	318.0-325.1	333
178	8	325.1-332.0	300
179	9	332.0-339.0	293
180	10	339.1-346.0	332

The Explorer 33 and Explorer 35 sequence summary tapes have the following physical characteristics:

one file

density: 556 bpi

7-track

parity: odd

physical record length: 2760 characters (nominal)

BCD characters

The first twelve characters of each physical record contain the physical record count and tape number of the original tape. These twelve characters are skipped by the SAREAD routine. The first six characters are binary, the second six are BCD.

Each logical record is a sequence summary. The format of a sequence summary is shown in Figure A-1. Preceding every logical record is a six character word which contains binary information describing the preceding logical record (if any) and the following logical record.

We could view the final tape format as having been created in the following manner. All logical records are stored in order each preceded by its six character control word. Then a group of 2748 characters is picked off, prefixed by a twelve character physical record control word and placed on tape followed by an inter-record gap. The second physical record would contain the second 2748 characters prefixed by twelve control characters and followed by an inter-record gap. At the end of the data, the last physical record will contain however many characters remain less than or equal to 2742, suffixed by a six character logical record control

Sequence Number	Day	Hour	Min	Sec	Magnitude	SOLAR				EQUATORIAL				SOLAR				
						Theta	Phi	Y	Z	Dev. Y	Dev. Z	Theta	Psi	X	Y	Z		
1	4	3	3	3	5	6	6	5	5	5	5	6	6	5	5	5	5	5
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
7	11	17	17	20	25	31	31	42	47	52	57	63	69	74	79	84	89	94

length
representable
character

PHONE NUMBER				SOLAR				ECLIPTIC			
Dev. X	Dev. Y	Dev. Z	Theta	Phi	Y	Z	Dev. Y	Dev. Z			
5	5	5	6	6	5	5	5	5			
I	I	I	I	I	I	I	I	I			
81	94	99	105	111	116	121	126	131			
								135			

length
representable
character

FIGURE A-1
SEQUENCE SUMMARY FORMAT

word and preceded by a twelve character control word then followed by a single end of file. A schematic representation of this concept is shown in Figure A-2.

Figure A-3 shows the twenty three formats which a physical record may have. These twenty three formats are also shown in the listing of the block data subprogram, but that form is hard to read.

Record 1

LC = Logical Control Word
PC = Physical Control Word

Record 2

FIGURE A-2
SCHEMATIC REPRESENTATION OF LOGICAL RECORDS
WITHIN PHYSICAL RECORDS



No 31

—

FILE 0001 REC 0001 CT 276C

D-19593

6/28/69 - 7/65/69

004-178
4R-67

HE

004-185
4R-69

FILE 0001 REC 0002 CT 276C

0001 002040000001	606001110607	000000000025	C11107040604	600107106060	178	026004106060	046060010660	601133036060
0049 600633036001	061133066060	401133016060	600133076060	600133006060		600733116001	070033106060	401133016060
0097 600133056060	600133026060	600733046001	070033046060	401133016060		600133056060	600133026060	600601046060
0145 000025000024	606060606060	606060606060	606060606060	606060606060		601133106060	600633056001	070133026060
0193 401133076060	600133056060	600133016060	600733116001	600133046060		000024000024	600133036060	600133036060
0241 600733056001	070233066060	401133076060	600133046060	600133036060		000024000024	600133036060	600133036060
0285 606060606060	606060606060	601133046060	600633046001	070133116060		401133036060	600133036060	600133036060
0337 600733076001	070333016060	401133066060	600133066060	600133066060		600606060606	600606060606	600606060606
0385 600133026060	600133026060	000024000024	606060606060	606060606060		600733076001	070333016060	401133036060
0433 600633046001	070133116060	401133036060	600133036060	600133016060		600733076001	070333016060	401133036060
0481 600133016060	600133036060	600733076060	070233076060	401133036060		600133026060	600133026060	600133026060
0525 606060606060	606060606060	606060606060	606060606060	606060606060		600133056060	600133056060	600133056060
0577 600133036060	600033076060	600633036001	070233106060	600033076060		600133046060	600133046060	600133046060
0625 070233066060	401133046060	600133026060	600033106060	000024000024		606060606060	606060606060	606060606060
0673 606060606060	601133056060	600433016001	070233006060	401133046060		600133066060	600133066060	600133066060
0721 070233106060	401133046060	600133026060	600033116060	600533066001		606060606060	606060606060	606060606060
0765 600033106060	000024000024	606060606060	606060606060	606060606060		600033106060	600033106060	600033106060
0817 070433036060	401133056060	600133066060	600033076060	600533016001		600033106060	600033106060	600033106060
0865 600033116060	600433116001	606060606060	600133066060	600333116001		600033116001	600033116001	600033116001
0913 606060606060	606060606060	606060606060	606060606060	606060606060		600033116001	600033116001	600033116001
0961 600033066060	600533056001	600133066060	070033056060	401133026060		606060606060	606060606060	606060606060
1009 401133026060	600133066060	600033106060	000024000024	606060606060		606060606060	606060606060	606060606060
1057 601133056060	600433016001	600133026060	600133046060	600133036060		600133036060	600133036060	600133036060
1105 401133046060	600133026060	600033116060	600533006001	070233066060		600133046060	600133046060	600133046060
1153 000024000024	606060606060	606060606060	606060606060	606060606060		600133056060	600133056060	600133056060
1201 401133076060	600133056060	600033076060	600533066001	070233016060		600133076060	600133076060	600133076060
1245 600533026001	070133116060	600133076060	600133046060	600033116001		600024000024	606060606060	606060606060
1297 606060606060	606001016060	601133036060	600633036001	061133066060		401133016060	600133076060	600133076060
1345 600733116001	070033106060	401133016060	600133056060	600133036060		600733046001	070033046060	600733046060
1393 600133056060	600133026060	000024000024	606060606060	606060606060		601033016001	070033016001	601033016001
1441 600633046001	061033116060	401133056060	600133116060	600133016060		601033016001	600133016001	600133016001
1489 600133076060	600133046060	600733066001	061133106060	401133056060		600133016060	600133016060	600133016060
1537 606060606060	606060606060	606060606060	606060606060	606060606060		600133036060	600133036060	600133036060
1585 600133076060	600133066060	600733116001	070033106060	600133036060		600133036060	600133036060	600133036060
1633 070033046060	401133016060	600133056060	600133026060	000024000024		606060606060	606060606060	606060606060
1681 606001046060	601133046060	600633046001	070133116060	401133036060		600133036060	600133036060	600133036060
1729 070333016060	401133026060	600133016060	600133026060	000024000024		600133026060	600133026060	600133026060
1777 600133026060	000024000025	011107040605	600107106060	600133066060		600133066060	600133066060	600133066060
1825 060733036060	401133066060	600133066060	600133066060	600133066060		600133066060	600133066060	600133066060
1873 600133036060	600733056001	061033006060	401133006060	600133066060		600133066060	600133066060	600133066060
1921 606060606060	606060606060	606060606060	606060606060	606060606060		600133046060	600133046060	600133046060
1969 600133036060	600133016060	600733076001	070333016060	401133036060		600133016060	600133016060	600133016060
2017 070233076060	401133036060	600133026060	600133026060	000024000024		606060606060	606060606060	606060606060
2065 606060606060	601133046060	600633046001	070133116060	401133036060		600133036060	600133036060	600133036060
2113 070333016060	401133036060	600133016060	600133036060	600733036001		070233076060	401133036060	600133036060
2161 600133026060	000024000024	606060606060	606060606060	606060606060		606060606060	606060606060	606060606060
2209 070133116060	401133056060	600133036060	600733076001	070333036060		600133036060	600133036060	600133036060
2257 600133036060	600733036001	070233076060	401133036060	600133026060		600133026060	600133026060	600133026060
2305 606060606060	606060606060	606060606060	606060606060	606060606060		606060606060	606060606060	606060606060
2353 600133016060	600733076001	070333016060	401133036060	600133016060		600133016060	600133016060	600133016060
2401 401133036060	600133026060	600133026060	000024000024	606060606060		606060606060	606060606060	606060606060
2449 601133046060	600633046001	070133116060	401133036060	600133036060		600133036060	600133036060	600133036060
2497 401133036060	600133016060	600133036060	600733036001	070233076060		401133036060	401133036060	401133036060
2545 000024000024	606060606060	606060606060	606060606060	606060606060		606060606060	606060606060	606060606060
2593 401133016060	600133076060	600133046060	010033036001	070133066060		600133066060	600133066060	600133066060
2641 601133106001	070033066060	401133016060	600133056060	600133066060		000024000024	606060606060	606060606060
2689 606060606060	606060106060	601133076060	601033076001	061033106060		401133046060	600133046060	600133046060
2737 010033046001	070033046060	401133046060	600133066060	600133066060				
0001 002040000002	606001110607	600133106060	601133116001	061133116060		401133046060	600133046060	600133046060
0049 400024000024	606060606060	606060606060	606060606060	606060606060		601133036060	601133036060	601133036060
0097 401133016060	600133076060	600133046060	010033036001	070133006060		401133016060	600133016060	600133016060

5.12 SEC MAG VECTORS ON MAG TAPE

66-058A-03D

SPHE-00129

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY 195 9-TRACK, 1600 BPI TAPES, WRITTEN IN BINARY. THERE ARE 19 RESTORED TAPES. THE TIME SPANS ARE NOT IN SEQUENTIAL ORDER. THE DR TAPES ARE ON 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. THE TAPES WERE CREATED ON AN IBM 360 COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	DD#	FILES	TIME SPAN
DR03652	DS03652	D19171	1	07/01/66 - 07/09/66
		D19172	2	07/09/66 - 07/16/66
		D19173	3	07/16/66 - 07/23/66
		D19174	4	10/08/66 - 10/15/66
		D19175	5	10/15/66 - 10/22/66
		D19176	6	10/22/66 - 10/29/66
		D19177	7	10/29/66 - 11/05/66
		D19178	8	11/05/66 - 11/12/66
		D19179	9	11/12/66 - 11/19/66
		D19180	10	12/03/66 - 12/10/66
DR03653	DS03653	D19181	1	12/21/66 - 12/22/66
		D19182	2	12/24/66 - 12/31/66
		D19183	3	02/02/67 - 02/04/67
		D19184	4	12/31/66 - 01/06/67
		D19185	5	01/14/67 - 01/21/67
		D19186	6	01/18/67 - 01/21/67
		D19187	7	01/07/67 - 01/14/67
		D19188	8	01/21/67 - 01/28/67
		D19189	9	01/28/67 - 02/02/67
		D19190	10	02/04/67 - 02/11/67
		D19191	11	02/11/67 - 02/18/67
		D19192	12	02/18/67 - 02/25/67
		D19193	13	02/25/67 - 03/01/67
DR03654	DS03654	D19194	1	03/04/67 - 03/11/67
		D19195	2	03/11/67 - 03/18/67
		D19196	3	03/18/67 - 03/25/67
		D19197	4	03/25/67 - 04/01/67
		D19198	5	04/29/67 - 05/06/67
		D19199	6	05/06/67 - 05/13/67
		D19200	7	05/13/67 - 05/20/67
		D19201	8	05/20/67 - 05/27/67
		D19202	9	05/27/67 - 06/03/67
		D19203	10	06/03/67 - 06/10/67

DR#	DS#	DD#	FILES	TIME SPAN
DR03655	DS03655	D19204	1	06/10/67 - 06/17/67
		D19205	2	06/17/67 - 06/24/67
		D19206	3	06/24/67 - 06/29/67
		D19207	4	07/01/67 - 07/06/67
		D19208	5	07/06/67 - 07/08/67
		D19209	6	07/08/67 - 07/15/67
		D19210	7	07/15/67 - 07/22/67
		D19211	8	07/22/67 - 07/26/67
		D19212	9	07/29/67 - 08/05/67
		D19213	10	08/05/67 - 08/12/67
		D19214	11	08/12/67 - 08/19/67
		D19215	12	08/19/67 - 08/29/67
DR03656	DS03656	D19216	1	08/29/67 - 09/02/67
		D19217	2	09/02/67 - 09/09/67
		D19544	3	12/23/67 - 12/30/67
		D19545	4	12/16/67 - 12/23/67
		D19546	5	12/10/67 - 12/16/67
		D19547	6	12/09/67 - 12/10/67
		D19548	7	11/25/67 - 12/02/67
		D19549	8	11/18/67 - 11/25/67
		D19550	9	12/10/66 - 12/17/66
		D19551	10	11/04/67 - 11/11/67
DR03657	DS03657	D19552	1	10/28/67 - 11/04/67
		D19553	2	10/21/67 - 10/28/67
		D19554	3	10/14/67 - 10/21/67
		D19555	4	10/07/67 - 10/14/67
		D19556	5	09/30/67 - 10/07/67
DR03658	DS03658	D19557	1	09/23/67 - 09/30/67
		D19558	2	09/16/67 - 09/23/67
		D19559	3	09/11/67 - 09/16/67
		D19560	4	09/09/67 - 09/11/67
		D19561	5	03/02/68 - 03/09/68
		D19562	6	02/24/68 - 03/02/68
		D19563	7	02/17/68 - 02/23/68
		D19564	8	02/10/68 - 02/17/68
		D19565	9	02/03/68 - 02/10/68
		D19566	10	01/27/68 - 02/03/68
DR03659	DS03659	D19567	1	01/20/68 - 01/27/68
		D19568	2	01/13/68 - 01/20/68
		D19569	3	01/06/68 - 01/13/68
		D19570	4	12/30/67 - 01/06/68
		D19571	5	03/09/68 - 03/16/68
		D19572	6	03/16/68 - 03/23/68
		D19573	7	03/30/68 - 04/06/68
		D19574	8	04/06/68 - 04/13/68
		D19575	9	04/13/68 - 04/20/68
		D19576	10	04/20/68 - 04/27/68

66-058A-03D

DR#	DS#	DD#	FILES	TIME SPAN
DR03660	DS03660	D19577	1	04/27/68 - 05/04/68
		D19578	2	05/04/68 - 05/11/68
		D19579	3	05/11/68 - 05/18/68
		D19580	4	05/18/68 - 05/25/68
		D19581	5	08/03/68 - 08/10/68
		D19582	6	07/27/68 - 08/03/68
		D19583	7	07/20/68 - 07/27/68
		D19584	8	07/13/68 - 07/20/68
		D19585	9	07/06/68 - 07/13/68
		D19586	10	06/29/68 - 07/06/68
DR03661	DS03661	D19587	1	06/22/68 - 06/26/68
		D19588	2	06/15/68 - 06/22/68
		D19589	3	06/01/68 - 06/08/68
		D19590	4	05/25/68 - 06/01/68
		D19591	5	07/12/69 - 07/19/69
		D19592	6	07/05/69 - 07/12/69
		D19593	7	06/28/69 - 07/05/69
		D19594	8	06/21/69 - 06/28/69
		D19595	9	06/14/69 - 06/21/69
		D19596	10	06/07/69 - 06/14/69
DR03662	DS03662	D19597	1	06/13/69 - 06/14/69
		D19598	2	05/31/69 - 06/07/69
		D19599	3	10/19/68 - 10/26/68
		D19600	4	11/11/67 - 11/18/67
		D19601	5	08/17/68 - 08/24/68
		D19602	6	09/24/66 - 10/01/66
		D19603	7	09/17/66 - 09/23/66
		D19604	8	09/10/66 - 09/17/66
		D19605	9	09/03/66 - 09/09/66
		D19606	10	08/27/66 - 09/03/66
DR03663	DS03663	D19607	1	08/13/66 - 08/20/66
		D19608	2	08/06/66 - 08/13/66
		D19609	3	11/19/66 - 11/26/66
		D19610	4	10/01/66 - 10/08/66
		D19611	5	12/06/66 - 12/13/66
		D19612	6	11/29/66 - 12/06/66
		D19613	7	11/15/66 - 11/22/66
		D19614	8	11/08/66 - 11/15/66
		D19615	9	10/25/66 - 11/01/66
		D19616	10	10/18/66 - 10/25/66

DR#	DS#	DD#	FILES	TIME SPAN
DR03664	DS03664	D19617	1	10/11/66 - 10/17/66
		D19618	2	10/04/66 - 10/11/66
		D19619	3	09/27/66 - 10/04/66
		D19620	4	11/01/66 - 11/08/66
		D19621	5	08/15/70 - 08/22/70
		D19622	6	02/28/70 - 03/03/70
		D19623	7	02/23/70 - 02/28/70
		D19624	8	01/10/70 - 01/13/70
		D19625	9	09/12/70 - 09/14/70
		D19626	10	09/05/70 - 09/12/70
		D19627	11	08/29/70 - 09/05/70
		D19628	12	08/22/70 - 08/27/70
DR03665	DS03665	D19629	1	05/24/69 - 05/31/69
		D19630	2	05/17/69 - 05/24/69
		D19631	3	03/22/69 - 03/29/69
		D19632	4	03/03/69 - 03/08/69
		D19633	5	03/01/69 - 03/03/69
		D19634	6	02/22/69 - 03/01/69
		D19635	7	02/15/69 - 02/22/69
		D19636	8	02/01/69 - 02/07/69
		D19637	9	01/25/69 - 02/01/69
		D19638	10	01/18/69 - 01/25/69
DR03666	DS03666	D19639	1	01/11/69 - 01/18/69
		D19640	2	01/04/69 - 01/11/69
		D19641	3	12/20/69 - 12/27/69
		D19642	4	12/27/69 - 12/31/69
		D19643	5	01/01/69 - 01/03/69
		D19644	6	03/29/69 - 04/05/69
		D19645	7	04/05/69 - 04/12/69
		D19646	8	04/12/69 - 04/19/69
		D19647	9	04/19/69 - 04/26/69
		D19648	10	04/26/69 - 05/03/69
		D19649	11	05/03/69 - 05/10/69
		D19650	12	05/10/69 - 05/17/69
DR03667	DS03667	D19651	1	10/26/68 - 11/02/68
		D19652	2	11/02/68 - 11/09/68
		D19653	3	11/09/68 - 11/16/68
		D19654	4	11/16/68 - 11/23/68
		D19655	5	11/23/68 - 11/30/68
		D19656	6	11/30/68 - 12/07/68
		D19657	7	12/07/68 - 12/14/68
		D19658	8	12/14/68 - 12/21/68
		D19659	9	12/21/68 - 12/23/68
		D19660	10	12/23/68 - 12/28/68
		D19661	11	09/20/69 - 09/26/69
		D19662	12	09/13/69 - 09/19/69

DR#	DS#	DD#	FILES	TIME SPAN
DR03668	DS03668	D19663	1	09/06/69 - 09/12/69
		D19664	2	08/30/69 - 09/06/69
		D19665	3	08/23/69 - 08/30/69
		D19666	4	08/16/69 - 08/23/69
		D19667	5	08/09/69 - 08/16/69
		D19668	6	08/02/69 - 08/09/69
		D19669	7	07/26/69 - 08/02/69
		D19670	8	07/19/69 - 07/26/69
		D19671	9	02/08/69 - 02/15/69
		D19672	10	03/23/69 - 03/29/69
		D19673	11	08/24/69 - 08/31/69
DR03669	DS03669	D19674	1	09/07/69 - 09/14/69
		D19675	2	09/14/69 - 09/21/69
		D19676	3	09/21/69 - 09/28/69
		D19677	4	09/28/69 - 10/05/69
		D19678	5	10/05/69 - 10/12/69
		D19679	6	10/12/69 - 10/19/69
		D19680	7	01/03/70 - 01/10/70
		D20483	8	03/15/69 - 03/22/69
		D20484	9	12/02/67 - 12/09/67
		D20485	10	07/23/66 - 07/30/66
DR03670	DS03670	D20486	1	06/08/68 - 06/15/68
		D20487	2	07/30/66 - 08/07/66
		D20488	3	08/10/68 - 08/17/68
		D20489	4	08/01/70 - 08/08/70
		D20490	5	08/31/68 - 09/07/68
		D20491	6	12/13/69 - 12/20/69
		D20492	7	06/30/67 - 06/30/67
		D20493	8	11/22/69 - 11/28/69

82 SEC. AVGD. VECTORS. (REBLOCKED)

66-058A-03F

SPHE-00251

THIS DATA SET HAS BEEN RESTORED. THE ORIGINAL TAPES WERE 9-TRACK,
1600 BPI CONTAINING ONE FILE EACH. THE RESTORED TAPES ARE 9-TRACK,
6250 BPI CONTAINING MULTIPLE FILES. THE TAPES WERE CREATED ON AN
IBM 360 COMPUTER. THE ORIGINAL TAPES WERE CREATED FROM DATA SET
66-058A-03C. THE DR TAPES ARE SQUARE AND THE DS TAPES ARE ROUND.
THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE
TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR02670	DS02670	D28119	1	07/01/66 - 09/09/66
		D28120	2	09/10/66 - 11/19/66
		D28121	3	11/19/66 - 01/28/67
		D28122	4	01/28/67 - 04/08/67
		D28123	5	04/08/67 - 06/17/67
		D28124	6	06/17/67 - 08/26/67
		D28125	7	08/26/67 - 11/04/67
		D28126	8	11/04/67 - 01/13/68
		D28127	9	01/13/68 - 03/23/68
		D28128	10	03/23/68 - 06/01/68
		D28129	11	06/01/68 - 08/10/68
		D28130	12	08/10/68 - 10/19/68
		D28131	13	10/19/68 - 12/28/68
		D28132	14	12/28/68 - 03/08/69
		D28133	15	03/08/69 - 05/17/69
		D28134	16	05/17/69 - 07/26/69
		D28135	17	07/26/69 - 10/04/69
		D28136	18	10/04/69 - 12/13/69
DR02671	DS02671	D28137	1	12/13/69 - 01/13/70
		D28138	2	02/23/70 - 09/14/70

REQ. AGENT
VJP

RAND NO.
RC6568

ACQ. AGENT
JHK

IMP-D

82 SEC. AVGD. VECTORS, (REBLOCKED)

66-058A-03F

This data set consists of 20 IMP-E data tapes. The tapes are ~~Binary~~^{EBCDIC}, 9 track, 1600 BPI, and contains 1 file each. The tape were created on the IBM/360 computer. These tapes were created from data set 66-058A-03C.

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-28119	C-18463	7/01/66 - 9/09/66
D-28120	C-18464	9/10/66 - 11/19/66
D-28121	C-18465	11/19/66 - 1/28/67
D-28122	C-18466	1/28/67 - 4/08/67
D-28123	C-18467	4/08/67 - 6/17/67
D-28124	C-18468	6/17/67 - 8/26/67
D-28125	C-18469	8/26/67 - 11/04/67
D-28126	C-18470	11/04/67 - 1/13/68
D-28127	C-18471	1/13/68 - 3/23/68
D-28128	C-18472	3/23/68 - 6/01/68
D-28129	C-18473	6/01/68 - 8/10/68
D-28130	C-18474	8/10/68 - 10/19/68
D-28131	C-18475	10/19/68 - 12/28/68
D-28132	C-18476	12/28/68 - 3/08/69
D-28133	C-18477	3/08/69 - 5/17/69
D-28134	C-18478	5/17/69 - 7/26/69
D-28135	C-18479	7/26/69 - 10/04/69

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-28136	C-18480	10/04/69 - 12/13/69
D-28137	C-18481	12/13/69 - 1/13/70
D-28138	C-18482	2/23/70 - 9/14/70

FORMAT OF REBLOCKED IMP-D

66-058A-03F.

The reblocked tape is an unlabelled 9-track, 1600 bpi, binary tape created on an IBM/360 computer. Each logical record consists of 6 control bytes and 132 bytes of data. There are 200 logical records in a physical record. DCB statement to create tape was

DCB=(DEN=3,RECFM=FB,LRECL=2760,BLKSIZE=27600)

FORMAT OF LOGICAL RECORD

<u>BYTES</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>	
1- 6	6	A	7094 Control characters	
7-13	7	I	Sequence Number	
14-17	4	I	Day	
18-20	3	I	Hour	
21-23	3	I	Minute	
24-26	3	I	Second	
27-31	5	I	Magnitude	
32-37	6	I	Theta	Solar Equatorial
38-43	6	I	PHI	
44-48	5	I	Y	
49-53	5	I	Z	
54-58	5	I	Dev Y	
59-63	5	I	Dev Z	
64-69	6	I	Theta	Solar Magmetospheric
70-75	6	I	PHI	
76-80	5	I	X	
81-85	5	I	Y	
86-90	5	I	Z	

<u>BYTES</u>	<u>LENGTH</u>	<u>TYPE</u>	<u>DESCRIPTION</u>	
91-95	5	I	Dev X	}
96-100	5	I	Dev Y	
101-105	5	I	Dev Z	
106-111	6	I	Theta	}
112-117	6	I	PHI	
118-122	5	I	Y	
123	5	I	Z	
128-132	5	I	Dev Y	
133-137	5	I	Dev Z	}
138	1	X	Blank	

Solar

Ecliptic

(22200)	40F26440	4040F240	404040F1	40404040	F140F1F7	40F1F1F7	F9F0F440	F2F3F140	F2F140F4
(22240)	F340F2F8	404040F9	F5404040	40F2F1F4	40F1F7F2	F4404040	4040F440	404040F1	40404040
(22280)	F1404040	40F1F740	F94040F7	F9F34040	F9F34040	404040F3	40404040	F2404040	40404040
(22320)	40404040	404040F2	F14040F1	F7F3F440	404040F2	40404040	40404040	40404040	F0F0C6F0
(22360)	F3C040F1	F1F7F9F3	F540F2F5	F140F2F1	40F3F740	F5F04040	404040F1	F74040F1	F7F8F340
(22400)	404040F2	40404040	F2404040	40F1F240	4040F140	404040F1	404040F1	F7F7F940	40404040
(22440)	F3404040	40F24040	40404040	404040F1	40404040	40F1F7F8	40F1F7F8	F3404040	40F24040
(22480)	40404040	404040F1	40404040	F140F0F0	C0F0F0C6	40F1F1F7	F3404040	F3404040	40F24040
(22520)	40404040	40F1F740	40F1F740	40F1F7F8	F4404040	404040F2	404040F2	F2F3F140	F40F1F2
(22560)	40F1F340	40F1F7F8	F1404040	F9F44040	4040F340	404040F2	404040F2	40404040	F1404040
(22600)	404040F1	F74040F1	F7F8F440	404040F2	4040F340	404040F2	404040F2	40404040	40404040
(22640)	F1F2F9F0	F74040F1	F74040F1	F74040F1	F74040F1	F74040F1	404040F1	404040F1	F0C040F1
(22680)	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9
(22720)	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9
(22760)	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9	F9F9F9F9
(22800)	F5404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(22840)	40F1F7F7	F1404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(22880)	F14040F1	F74040F1	F74040F1	F74040F1	F74040F1	F74040F1	F74040F1	F74040F1	F74040F1
(22920)	F440F2F5	F140F2F2	404040F3	40404040	40404040	40404040	40404040	40404040	40404040
(22960)	F4404040	40F04040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23000)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23040)	40404040	F140F0F0	F140F0F0	F140F0F0	F140F0F0	F140F0F0	F140F0F0	F140F0F0	F140F0F0
(23080)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23120)	F7404040	F9F44040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23160)	F7404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23200)	F140F2F2	40F1F340	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23240)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23280)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23320)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23360)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23400)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(23440)	40404040	40404040	40404040	40404040	40				

Reblock Program
page 2

TAPE JJ0020:

TAPE JJ0020 HAS SUCCESSFULLY BEEN LABELED NL

```

IEF1421 - STEP WAS EXECUTED - COND CODE 0000
IEF2851 SYS76303.T094509.SV000.YZJRJJBM.R0001182 SYSOUT
IEF2851 VOL SER NOS= K3SCR3.
IEF2851 SYS76303.T094509.SV000.YZJRJJBM.DSN PASSEG
IEF2851 VOL SER NOS= JJ0020.
IEF2851 SYS76303.T094509.SV000.YZJRJJBM.R0001183 DELETED
IEF2851 VOL SER NOS= K3SCR4.
IEF3731 STEP LABEL / START 76303.1935
IEF3741 STEP LABEL / STOP 76303.1941 CPU QMIN 00.17SEC MAIN 16K LCS 0K
- STEP 01 - RETURN CODE = 0000 IO IN SECS. DISK= .40.DRUM= .06.TAPE= .00 MINS=(CPU=.00,IO=.00,OTHR=.00)

```

```

// EXEC FORTTRANH
XXDEFAULT PROC FORTTRAN=IEKAA00,NBLK=40,CUT=4,BLKSIZE=7265 FORTTRANH
XXSOURCE EXEC PGM=EFORTTRAN,REGION=250K,PARM=OPT=2,
IEF531 SUBSTITUTION JCL - PGM=IEKAA00,REGION=250K,PARM=OPT=2,
XXSTEPLIB CC CSN=SYS1.FORTH,DISP=SHR
XXSYSLIN DO DSN=IEKAA00,DISP=(MOD,PASS),UNIT=SYSSEA,
SPACE=(3200,(6,NBLK,10)),ROUND=,
IEF6531 SUBSTITUTION JCL - SPACE=(3200,(40,10)),ROUND=,
DGN=,RECFM=FB,LRECL=80,BLKSIZE=3200,
XXSYSPRINT DD SYSOUT=OUT,DCB=(RECFM=FB,LRECL=137,BLKSIZE=3200)
IEF6531 SUBSTITUTION JCL - SYSOUT=VBA,LRECL=137,BLKSIZE=7265,
XXSYSRUNCH DD SYSOUT=V,DCB=(RECFM=FB,BLKSIZE=7280,LRECL=80),
XXSYSUT1 DD SPACE=(TRK,(0,5)),UNIT=(DISK,SEPI(SYSLIN,SYSPRINT)),
XXSYSUT2 DD SPACE=(TRK,(4,2)),UNIT=(DISK,SEPI(SYSLIN,SYSPRINT,
XX SYSUT1))
XXSYSAREND DD SYSOUT=A
//SOURCE.SYSIN DD *

```

```

IEF2361 ALLLOC. FCR YZJRJJBM SOURCE
IEF2371 322 ALLOCATED TO STEPLIB
IEF2371 331 ALLOCATED TO SYSLIN
IEF2371 331 ALLOCATED TO SYSPRINT
IEF2371 331 ALLOCATED TO SYSRUNCH
IEF2371 332 ALLOCATED TO SYSUT1
IEF2371 332 ALLOCATED TO SYSUT2
IEF2371 332 ALLOCATED TO SYSAREND
IEF2371 231 ALLOCATED TO SYSIN

```

LEVEL 21.6 (DEC 72)

OS/360 FORTTRAN H

DATE 76.303/19.55.43

```

//SOURCE.SYSIN DD *
//SOURCE.ERCDIC,NOLIST,NODECK,LOAD,MAP,NOE DIT,IO,NOXREF
C RC 5209
C PROGRAM TO REBLOCK DATA TAPES FOR DATA SET 67-070A-03C
C REBLOCKED TAPES ARE F3 20RECORDS/BLOCK
C EACH LOGICAL RECORD 6C CONTROL CHARACTERS + 132 DATA CHARACTERS
C OUTPUT DATA PUT IN ONE FILE
C THE FOLLOWING CARDS ARE USED IN THE SWIFT DECK PUNCHED IN COLS 1,10 20
C PARAM (BUF,LEN)
C MACHINE (M7094)
C CONVT
C ENTER
C PUTIN
C SKIPWD N=2
C CTUC VAR=LEN
C EXIT CONVT
C END
C SWIFT USFO 16 CONVERT 7654 CHARACTERS TO 360 CHARACTERS
C
C LOGICAL X1 BUF(2760),BUFO(5520),BLANK
C DATA BLANK/,
C NREC = 0
C NRECO = 0
C IBUFF = 1
C NPAR = 0
C
C ISN 0003
C ISN 0004
C ISN 0005
C ISN 0006
C ISN 0007
C ISN 0008
C ISN 0009
C ISN 0010
C ISN 0011
C
C 10 FORMAT(12,X,12)
C NFIL = NUMF1
C CALL INIT(BUF,LEN)

```

Reblock Program
page 3

```

13N 0012      CALL SPCSN(2,9,NFILE)
13N 0013      900 CALL SPCSN(1,9,NFILE)
13N 0014      1000 CALL SPCSN(8,LEN,9000,93000)
13N 0015      LEN = 4*(LEN-9)/3
13N 0016      CALL CGNVT
13N 0017      NREC = NRFC + 1
13N 0018      N2 = IBUF + LEN - 1
13N 0019      K = 0
13N 0020      DO 2000 I=IBUF,N2
13N 0021      K = K + 1
13N 0022      2000 BUFO(I) = BUFO(K)
13N 0023      IBUF = N2 + 1
13N 0024      IF(IBUF-1,2760,1) GO TO 1000
13N 0025      CALL SWRITE(BUFO(1),9,2760)
13N 0026      NREC = NREC + 1
13N 0027      IBUF = IBUF + 1
13N 0028      DO 3000 I=1,IBUF
13N 0029      3000 BUFO(I) = BUFO(I+2760)
13N 0030      GO TO 1000
13N 0031

```

C PARITY ERROR

```

13N 0032      8000 CONTINUE
13N 0033      WRITE(5,90) NFILE, NREC, NPAR, NRECO
13N 0034      80 FORMAT(10X,'PARITY ERROR READING FILE ',12,' RECORD ',13)
13N 0035      NPAR = NPAR + 1
13N 0036      GO TO 1000

```

C EOF

```

13N 0037      5000 CONTINUE
13N 0038      WRITE(6,90) NFILE, NREC, NPAR, NRECO
13N 0039      90 FORMAT(10X,'FILE ',12,' # INPUT BLOCKS ',13,' # READ ERRORS ',13)
13N 0040      * IF(NFILE.EQ.NUMF2) GO TO 9100
13N 0041      NFILE = NFILE + 1
13N 0042      NREC = 0
13N 0043      NPAR = 0
13N 0044      NRECO = 0
13N 0045      IBUF = 1
13N 0046      IBUFID = IBUF + 2
13N 0047      IF(BUFO(1).EQ.BLANK) IBUF = IBUF - 66
13N 0048      IF(13UHF,LT,1) IBUF = 1
13N 0049      9010 CONTINUE
13N 0050      IF(13UHF,LT,1) IBUF = 1
13N 0051      GO TO 9000
13N 0052      9100 CONTINUE
13N 0053      IF(13UHF,LT,1) GO TO 9050
13N 0054      CALL SWRITE(BUFO,9,13UHF)
13N 0055      NREC = NREC + 1
13N 0056      5050 CONTINUE
13N 0057      CALL SLEAVE(9)
13N 0058

```

PAGE 002

```

13N 0061      WRITE(5,91) NFILE
13N 0062      91 FORMAT(10X,'EOJ, NUMBER OF FILE PROCESSED ',12)
13N 0063      CALL SREWD(8)
13N 0064      CALL SREWD(9)
13N 0065      STOP
13N 0066      END

```

SIZE OF PROGRAM 002520 HEXADECEMAL BYTES PAGE 003

NAME	I	SF	TAG	TYPE	ADD.	NAME	K	SF	TAG	TYPE	ADD.	NAME	N2	SF	TAG	TYPE	ADD.	NAME	BUF	SFA	TAG	TYPE	ADD.	
LEN	SFA	1	4	0001B4	3UFD	SFA	L	1	4	0001C0	INIT	SF	XF	XF	XF	1	4	000000	NPAR	SFA	1	4	0001C4	
NREC	SF	1	4	0001C8	BLANK	SFA	L	1	4	0001B0	CONVT	SF	XF	XF	XF	1	4	000000	IBUFP	SFA	1	4	0001CC	
NFILE	SFA	1	4	0001D0	NRECO	SF	XF	XF	XF	1	4	0001D4	NUMF1	SF	XF	XF	1	4	0001D8	NUMF2	S	1	4	0001DC
SPCSN	SFA	1	4	000000	SREWD	SF	XF	XF	XF	1	4	000000	IBCOM#	SF	XF	XF	1	4	000000	IBUFD	S	1	4	0001E0

PAGE 004

LABEL	ADDR	LABEL	ADDR	LABEL	ADDR
900	0022C0	1000	0022E8	2000	00234A
8000	0023E2	9000	0023E6	9010	00246A
9050	0024A8			3000	00239A
				9100	002482

*OPTIONS IN EFFECT: NAME= MAIN,OPT=0.2,LINENCT=92,SIZE=0000K.