Earth Sc #600

NIMBUS 7

ERB SAVER DATA

(SEASONAL AVERAGE)

78-098A-07I

ESRB-00042

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

REQ. AGENT	RAND NO.	ACQ. AGENT
BER	V0148	CYN
SAR	V0322	CYN

NIMBUS 7

ERB SAVER (SEASONAL AVERAGE)

78-098A-07I ESRB-00042

THIS DATA SET CATALOG CONSISTS OF 17 MAGNETIC TAPES. YEARS 1-3 WERE PROCESSED WITH AN OBSOLETE ALGORITHM AND WERE RELEASED; SO NO REPLACEMENTS ARE EXPECTED. THEY ARE 9-TRACK, 1600 BPI AND WERE CREATED ON AN IBM 3081 COMPUTER. THEY CONTAIN 3 FILES EACH, THE FIRST IS AN EBCDIC HEADER FILE, THE SECOND A BINARY DATA FILE FOLLOWED BY AN EBCDIC TRAILER FILE. DOCUMENTATION FOR THIS DATA SET CAN BE FOUND IN THE FILING CABINET. THE TIME SPANS ALONG WITH THE D AND C NUMBERS FOLLOW:

D#	C#	TIME SPAN
D-64806	C-24390	12/02/81 - 03/01/82
D-64807	C-24391	03/01/82 - 06/01/82
D-64808	C-24392	06/01/82 - 09/01/82
D-64809	C-24393	09/01/82 - 11/30/82
D-64894	C-24478	12/01/82 - 03/01/83
D-64895	C-24479	03/01/83 - 06/01/83
D-64896	C-24480	06/01/83 - 09/01/83
D-64897	C-24481	09/01/83 - 12/01/83
D-73428	C-25848	12/01/83 - 03/01/84
D-72979	C-25654	03/01/84 - 05/31/84
D-72980	C-25655	06/01/84 - 08/31/84
D-73427	C-25847	09/01/84 - 12/01/84
D-72981	C-25656	12/31/84 - 02/29/85
D-73471	C-25914	03/01/85 - 06/01/85
D-73472	C-25915	06/01/85 - 09/01/85
D-74118	C-26122	09/01/85 - 12/01/85
D-74304	C-26178	12/01/85 - 03/01/86

* THESE TAPES WERE REPLACED ON 09/15/87

B R I E F D E S C R I P T I O N
Seasonal Avg Radn Budget (SAVER)
78-098A-07I

The Seasonal Average Tape (SAVER) data set contains earth radiation budget parameters such as outgoing longwave radiation (OLR), albedo, and net radiation on a 3-month seasonal basis derived from the Earth Radiation Budget (ERB) experiment on the Nimbus-7. The SAVER dataset is similar to the ERB MATRIX (78-098A-07C) dataset. The seasonal intervals are December through February, March through May, June through August, and September through November. Separate wide-field-of-view and narrow-field-of-view scanner data (when available) are presented globally for 2070 fixed target areas, each approximately 500 x 500 km. In addition to the world grids, data are also given in the form of Mercator/polar stereographic projection matrices. The SAVER dataset covers the period from December 1980 (year 3) through December 1985 (year 7) and part of year 8 (through February 1986).

M A T E R I A L S F O R D I S T R I B U T I O N
78-098A-07I
Seasonal Avg Radn Budget (SAVER)

Tape specification T134071, Rev A, year 6 (2/85), B42240-000A.

D A T A S E T R E M A R K S
78-098A-07I
Seasonal Avg Radn Budget (SAVER)

Some of the tapes in this data set were released.

A C K N O W L E D G E M E N T S

When using the data in any reports, publications, or presentations, please acknowledge the National Space Science Data Center and the following individuals or groups:

78-098A-07I
Dr. H. L. Kyle, Nasa/Gsfc, Dr. Herbert Jacobowitz, Noaa/Nesdis, And Members Of The Erb Nimbus Experiment And Information Processing Teams

78-098A-07I
B#42240

NIMBUS-7

NIMBUS OBSERVATION PROCESSING SYSTEM (NOPS)

TAPE SPECIFICATION NO. T134071

ERB SAVER TAPE

REVISION A

FEBRUARY 1985

Prepared For:

National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

Prepared By:

SASC Technologies, Inc.
5809 Annapolis Road, Suite 414
Hyattsville, Maryland 20784

(Under Contract NAS5-28446)

SASC Document No. SASC-T-5-5094-017-85

NIMBUS-7

NIMBUS OBSERVATION PROCESSING SYSTEM (NOPS)

TAPE SPECIFICATION NO. T134071

ERB SAVER TAPE

REVISION A

FEBRUARY 1985

PREPARED BY: Sheldon T. Nutter 2/8/85
Sheldon T. Nutter/SASC (02/08/85)

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Prepared For:

National Aeronautics and Space Administration
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Prepared By:

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(Under Contract NAS5-28446)

SASC Document No. SASC-T-5-5094-017-85

REVISIONS

REV A (02/08/85): New parameters 38, 39 and 40 were added to the data file in Map and World Grid record formats.

ABSTRACT

The ERB SAVER (Seasonal Average) tape is a quarterly tape produced from three monthly MATRIX tapes and it contains values of ERB monthly parameters averaged over a three-month season. The ERB SAVER tape is generated by an IBM 3081 computer program and is a 9-track, 1600 BPI tape. The gross format of the tape, given on Page 2, shows an initial standard header file followed by one data file. A trailing documentation file will be present as the last file on the tape. Pages 5 through 9 describe, in detail, the trailing documentation file.

The standard header file contains two standard header records. These are described on Pages 4 through 12.

The data file contains data for 25 different ERB parameters and has data based on a seasonal (three-month) time interval. The seasonal intervals are December - February, March - May, June - August, and September - November. There are two types of physical records in the data file, namely, Documentation Mercator/Polar Map Projection physical record and the World Grid physical record. The manner in which the data for the ERB parameters are stored in the physical records comprising the data file, is given in the Gross Format section.

I. REQUIREMENT IDENTIFICATION

ERB SAVER Tape Specification Number T134071.

II. INPUT DATA SOURCE

ERB MATRIX Tape Specification Number T134031.

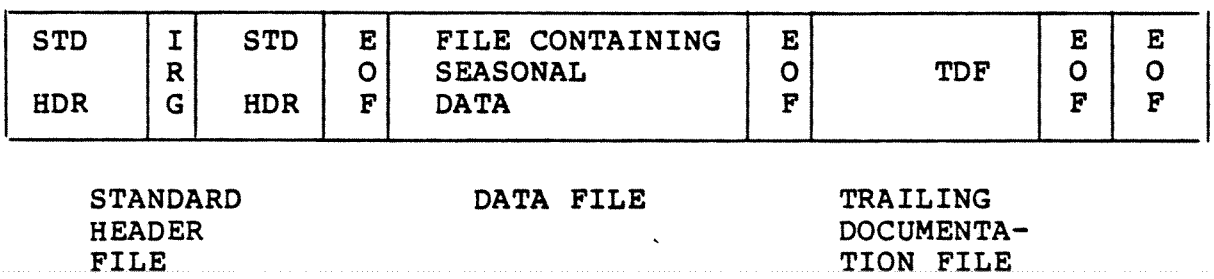
III. OPERATING MODE

1) Data is available only when the ERB instrument is ON.

2) Prior to June, 1980 records consisting of the actual data values for all of the seasonal NFOV parameters will be written to the output SAVER tape. However, starting with June 1980, data will not be available for NFOV parameters 17 through 25, 27, and 35. This is due to the ERB instrument NFOV scanner failure in June, 1980. For each of these NFOV parameters, data records consisting of the fill value -10000 will be written to the SAVER tape.

IV. GROSS FORMAT

The Gross Format of the tape is illustrated below:



There are three portions of the tape: (1) the Standard Header file, (2) the Data file, and (3) a Trailing Documentation file. The Standard Header file is described on Pages 4 through 12. Written in both Standard Header records is the SAVER program version date. The Trailing Documentation file is further defined in Pages 5 through 9.

The Seasonal Data file portion of tape, illustrated on Page 3, consists of one file for the three months of ERB MATRIX data being processed. Data is processed for each ERB electronics ON day of the season and is stored on tape on only a seasonal basis (not on a daily, 6-day cyclic, or monthly basis as on a MATRIX tape). The seasonal averages

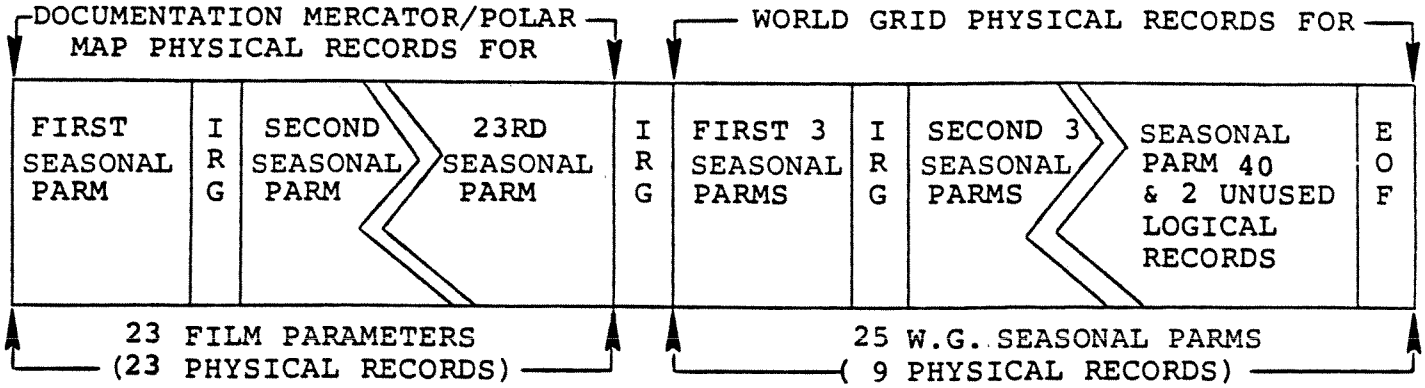
are based entirely on the monthly data of each MATRIX tape processed. A seasonal period starts at the beginning of a calendar month and ends with the last day of the calendar month. The data file contains 25 ERB parameters, of which only 23 parameters are in the microfilm format. Parameter descriptions and the format in which the data is saved (i.e., world gridded or film mapping) is given in Table VI-1.

Two types of physical records comprise the data in the data file portion of the tape. These are the World Grid (WG) physical record, and the Documentation Mercator/Polar Map Projection (Map) physical record. The WG physical record has global data for up to three parameters. The Map physical record contains data for a single parameter and is used to generate mercator and polar stereographic microfilm products. The ERB Map film specifications list is given in Table VI-3. Typical contour intervals and limits on the Map film products are given in Table VI-4. All physical records have 117,792 bits (14,724 8-bit bytes) of information.

In order to distinguish between the WG and Map records, a record ID word is present in each physical record which identifies the physical record. The record ID is 34 for seasonal WG records and 37 for seasonal Map records.

The following is a breakdown of the Data file portion of the tape:

DATA FILE ON THE TAPE



V. STANDARD HEADER

All magnetic tapes used as interfaces within NOPS will require some form of identification. A standardized series of records in the initial file on each tape will be used and will be called a NOPS "Standard Header File". Some tapes used within a NOPS facility, which do not pass an interface, will be exempt from this requirement, although it is a recommended procedure.

The Standard Header will contain the spec number of the tape generated. The interface spec numbering system is shown in Table V-1.

Each Standard Header will be written in EBCDIC so that it can be easily printed for quick identification of the tape. Figure V-1 shows the standard header format using 24-bit words.

Because of the real possibility of an original tape being damaged in handling (resulting in the loss of many computations) each processing facility within NOPS will generate duplicate copies of master tapes. These duplicates will be delivered to IPD for data product generation or user copy generation and will be indicated by the character 2 added to the sequence number in the Standard Header. The original will be indicated by the character 1 and will be retained in a secure environment at the originating facility. When IPD returns Copy No. 2 due to tape errors, a new copy will be sent to IPD with the redo character revised from "-" to "A," or "A" to "B", etc.

IPD will include a shipping letter with every tape distributed. The shipping letter will be printed directly from the Standard Header on the tape. In the case of copies made from tapes not generated in IPD, the original tapes Standard Header will be copied into a group of 126 characters in each record provided for that purpose and normally left blank.

STANDARD HEADER SPECIFICATION AND TAPE DOCUMENTATION

V.1 GENERAL

All computer compatible tapes (CCTs) that are used as interfaces within NOPS, require some form of identification. This applies to all CCTs that are currently defined by a NOPS tape specification, and that are also used for distribution or archiving purposes.

In addition to defining a "latest" product, data relating to previous products that went into the making of the "latest" product provides useful information when system problems occur.

The purpose of this revision to existing NOPS tape specifications is to define a scheme that allows the recording of the genealogy of a "latest" product, and in general, adheres to existing tape documentation standards.

In brief, the system is as follows:

1) A documentation file that consists of a string of physical records follows the data on any tape defined by a current NOPS tape specification. This will be referred to as a Trailing Documentation File (TDF), and will be the last file on a tape when it exists.

2) The standard NOPS header file remains as defined, with minor modifications to the Standard Header record that reflect both the existence of a TDF and adherence to the IPD standard for sequence numbers.

The following sections define the NOPS Standard Header records and file, and the TDF. Data files as currently defined in NOPS tape specification remain unchanged.

V.2 STANDARD HEADER RECORD (SHR)

The SHR will consist of one physical record that consists of five logical records of 126 EBCDIC characters. The first 126 characters will remain as previously defined with the exception of CHARACTER 1, and those characters that define the sequence number (40-45). CHARACTER 1 will contain an asterisk (*) and serves to notify all systems that a TDF is likely to follow the main data files and that the next logical record contains information relevant to complete identification. As of the implementation date of this specification, all sequence numbers will have the following form that is an IPD standard:[1]

---

[1] This does not apply to CZCS data. For CZCS data, Characters 40 to 45 represent a 6-digit sequence number.

CHARACTER 40 = The last digit of the year in which the data were acquired.

CHARACTERS 41-43 = Julian day of the year in which the data were acquired.

CHARACTER 44 = Sequence number for this particular product (usually a 1) (eg., CLDTs will have a 1 and 2, as there are 2 products per day).

CHARACTER 45 = The existing hyphen remains unless there is a remake of the tape for any reason. In this case, an ascending alpha character will replace the hyphen, and the most recent reasons for remake will be recorded in logical record 4 of the header.

CHARACTER 47 = This will remain as a blank unless it is needed to remove ambiguities in CHARACTER 40. This may occur if data are being acquired on October 24, 1988.

This scheme will uniquely identify any tape when used in conjunction with the tape specification number, the PDFC code, and the subsystem identification.

The second logical record consisting of 126 characters will contain information that is required to complete the history of the product.

CHARACTERS 1-12 = Software program name and version number.

CHARACTERS 13-18 = Program documentation reference number, if it exists.

CHARACTERS 20-126 = User defined comments that may be more relevant to the user than the preceding ones.

The NOPS Standard Header File will continue to consist of two records, the second being a duplicate of the first. Logical records 3 and 4 may be used for anything desired if no remake information is required.[2]

---

[2] In the case of CZCS, these logical records are used to define the genealogy of the image rather than the method of V.3.

The Standard Header will contain the following:

Two identical records (physical) of 630 characters (8-bits each) followed by an End-Of-File (EOF).

The first 126 characters of the first record will consist of:

*NIMBUS-7$_b$NOPS$_b$SPEC$_b$NO$_b$T	(1, 24 CHAR)
XXXXXX (6-Digit Spec Number)	(25, 30 CHAR)
$_b$SQ$_b$NO$_b$	(31, 37 CHAR)
AIXXXXX (PDFC & 5-Digit Sequence Number)	(38, 44 CHAR)

NOTE: If sequence number is zero, tape is not a finished product (i.e., definitive ephemeris not used, artificial VIP data, etc.).[1]

-X (Copy Number 1 or 2) ↑ └(Redo Character)	(45, 46 CHAR)
$_b$YYYY$_b$ (4-Character Subsystem ID)	(47, 52 CHAR)
YYYY (Generation Facility ID)	(53, 56 CHAR)
$_b$TO$_b$YYYY (4-Character Designation Facility ID)	(57, 64 CHAR)
$_b$START$_b$19XX$_b$DDD$_b$HHMMSS	(65, 86 CHAR)
(Start year, day of year, hours, minutes and seconds)	
$_b$TO$_b$19XX$_b$DDD$_b$HHMMSS$_b$	(87, 106 CHAR)
(End data and time of data)	
GEN$_b$19XX$_b$DDD$_b$HHMMSS$_b$	(107, 126 CHAR)
(Date and time tape was generated)	

The second group of 126 characters will contain continuation documentation of the original 126 characters when required.

---

[1]For CZCS, Characters 40 to 45 are a 6-digit sequence number.

The third, fourth, and fifth groups of 126 characters each are intended for the use of the Subsystem Analyst for further identifications of their data. They may contain blanks, EBCDIC, BDC, or binary characters or zeros.

The second record in the file is a duplicate of the first record of redundancy.

The PDFC codes are as defined in Table V-2.

EXAMPLE: An ERB MATRIX tape covering the month of February, 1979 is generated by SACC and sent to IPD for production of contour maps on 16mm microfilm. The NOPS Standard Header file on the tape that IPD receives would contain two of the following records:

*NIMBUS-7$_b$NOPS$_b$SPEC$_b$NO$_b$T134031$_b$SQ$_b$NO$_b$

First day of time period

AA90321-2$_b$ERB$_{bb}$SACC$_b$TO$_b$IPD$_b$START$_b$1979$_b$

032$_b$000432$_b$TO$_b$1979$_b$059$_b$235742$_b$GEN$_b$

1979$_b$104$_b$094500$_b$followed by 504 blanks

First day of time period may not be first data day in the event of multiday-stacked products that are based on an ILT week.

V.3 TRAILING DOCUMENTATION FILE (TDF)

The TDF will consist of all NOPS Standard Header records (non-duplicated) that relate to products that have gone into the making of the current product. Documentation records will be sequenced in accordance with their access; that is, first in is the first recorded. Every TDF is 630 bytes in length.

The first record of this file will serve to identify the file as a TDF. This will be accomplished by placing asterisks in CHARACTERS 1 to 10 followed by a NOPS TRAILER DOCUMENTATION FILE FOR TAPE PRODUCT T [SPEC NO. (6 digits)] GENERATED ON DDD HH MM. The exact spacing of this comment is noncritical as long as it is less than 116 characters. The second physical record will be a repeat of the header file NOPS Standard Header record for this type with the proviso that data referring to the end-time are correct for the data set. Following physical records will be an accumulation of TDFs of all input tapes. For those products that require more than one tape, the TDF will appear on the last tape only as well as the warning asterisk.

V.4 TAPE DUPLICATION

It has been determined that the duplication of master tapes is neither time nor cost effective, thus the requirement of duplication implied in the preceding specification is rescinded. However, some tapes that require a great deal of effort to produce in terms of manpower and computer time should be duplicated.

If a redo is required due to tape errors or algorithm changes, this will be noted both on the CCT (HEADER C-45) and on the canister.

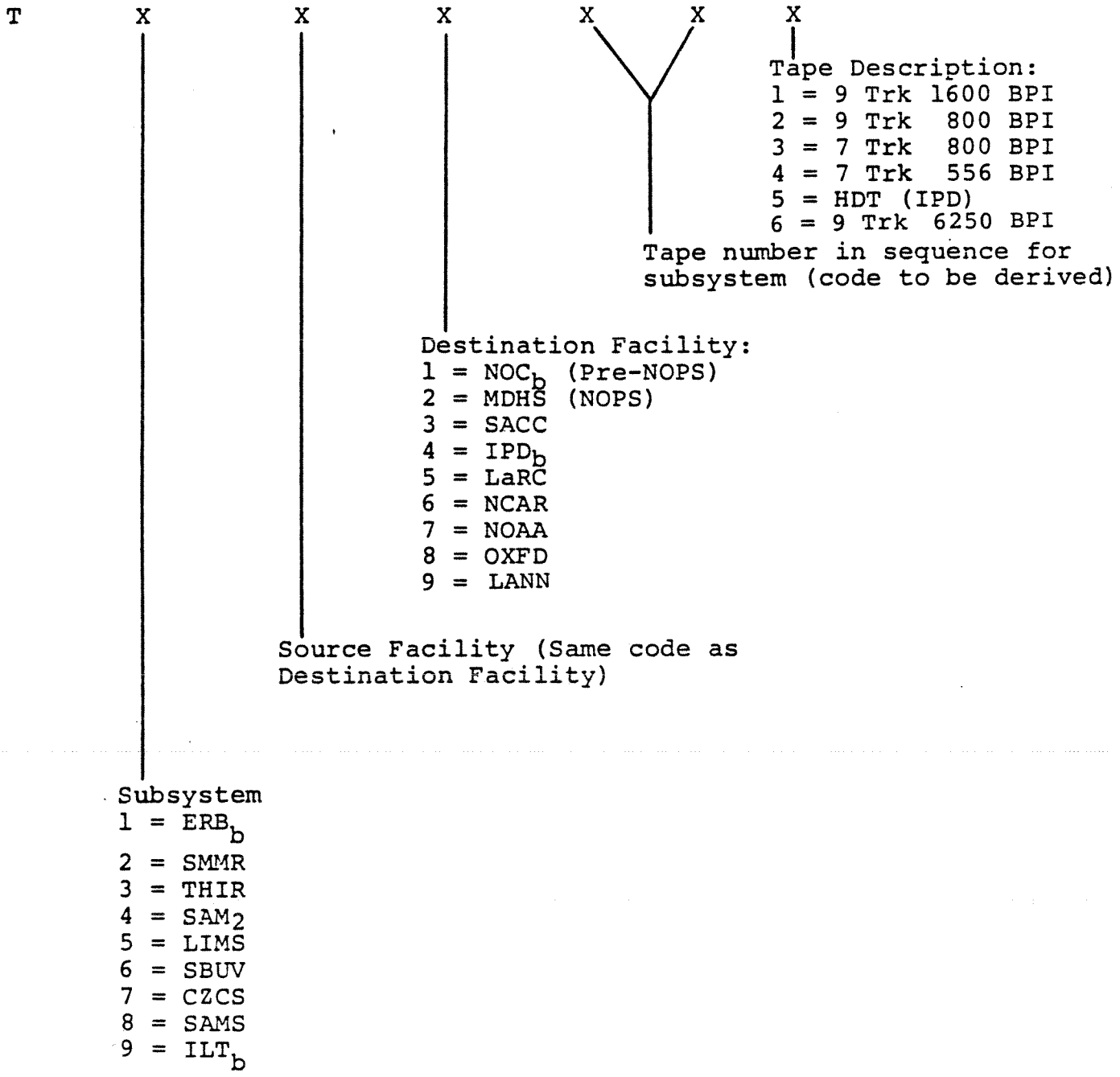
V.5 SHIPPING LETTERS

IPD will include a shipping letter with every tape distributed. The shipping letter will be printed directly from the first 126 (or 138) characters of the first physical record of SHF. In the event of copies made from CCTs that are not generated in IPD, a new physical record reflecting IPD as the source and the Nimbus experimentor to whom the tape is being sent as the destination, will be added as the second record of the TDF. All existing records in the TDF will be pushed down, but none will be lost. This record should also replace those in the SHF.

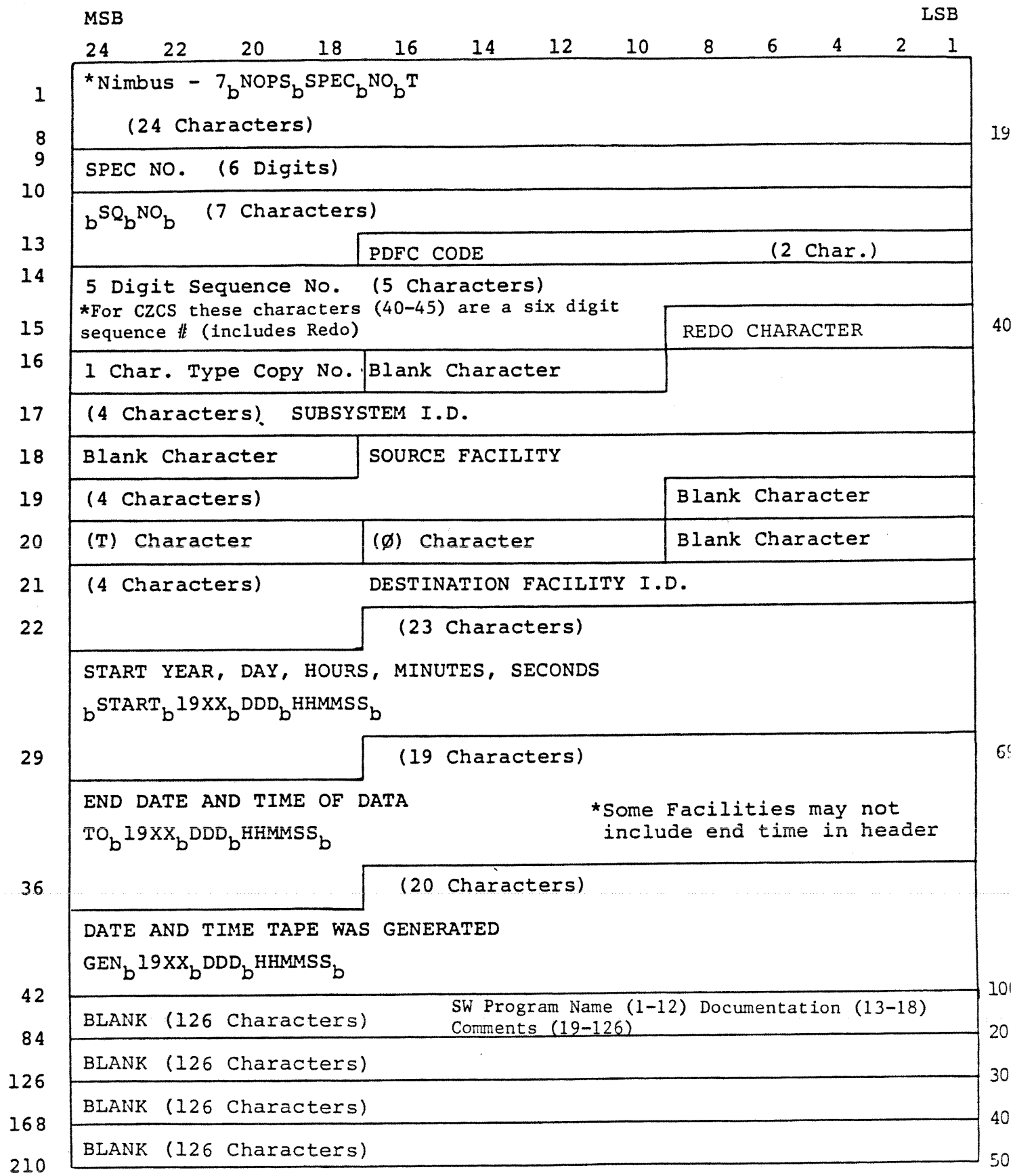
TABLE V-1

NOPS SPECIFICATION NUMBERING CODE

TAPES: A six digit number prefixed with a T to denote TAPE will be used.



STANDARD HEADER (PHYSICAL RECORD FORMAT)



EBCDIC TAPE FORMAT

Figure V-1

TABLE V-2

ERB PDF Codes

TAPE ID	PDF	DATA TYPE
MAT	AC	MTAC
SEFDT	AD	SEAD
MATRIX	AA	MAAA
DELMAT	AJ	DEAJ
SAVER	AI	SEAI
TABLES	AB	TAAB
ZMT	AE	ZMAE
EMST	AL	MSAL

VI. DATA RECORDS

This section describes the two types of physical records written in the data file portion of the tape. The manner in which the physical records comprise the data file portion of the tape is given in the Gross Format on Page 1.

Seasonal data are stored on tape in the Documentation Mercator/Polar Projections physical record format and also in the World Grid physical record format. All physical records are 14,724 8-bit bytes in length and are distinguished by the record code I.D. word in each physical record. Unless otherwise specified, all negative numbers are 2's complement.

A. Documentation Mercator/North and South Polar Stereographic Projection Physical Record Format

Each Documentation Mercator/North and South Polar Stereographic Projection physical record contains data for a single ERB parameter. This data is used by IPD to create mercator and polar projection maps on microfilm.

The columns marked MAP in Table VI-1 indicate which parameters are output to tape in Documentation Mercator/Polar Map physical records on a seasonal basis and also as microfilm map products.

The order in which the parameters appear on tape is in the Gross Format section on Page 1.

The format of the Documentation Mercator/North and South Polar Stereographic Projection physical record is given in Figure VI-1.

(1) PHYSICAL RECORD NO. (12 Bits) - This is the number of this record within a file.

(2) RECORD I.D. (8 Bits) - Six LSB of 8 bits identifies record type: 37 = Seasonal Map Record. The MSB of this word indicates last data record in the file (1 = last record). The second MSB indicates this data record is in the last data record in the file (1 = record in last file). NOTE: If record I.D. = 34, see Page 22.

(3) RECORD PER FRAME (12 Bits) - Identifies the number of records needed for one frame of three map projections. Set to 1 for ERB.

(4) RECORD NO. WITHIN FRAME (12 Bits) - Identifies in which part of the frame this record is contained. Set to 1 for ERB. The Documentation Mercator/North and South Polar Stereographic Projections are all in one record.

(5) PARAMETER NO. (8 Bits) - The ERB parameter number that is mapped and presented on this record (see Table VI-1).

(6) FRAME NO. (24 Bits) - Identifies a complete Documentation Mercator and Polar Stereographic map set. All records with the same frame number apply to the set of maps used to generate one frame of microfilm output. This number is assigned by SACC/ERB and is used by IPD for film accounting.

(7) FILM SPEC NO. (24 Bits) - Film specification defines the output format for the data frame (see TABLE VI-3).

(8) DATA COVERAGE CODE (6 Bits) - A code to indicate length of data period in this record (63 = Seasonal).

(9) START DAY (12 Bits) - The day number for the beginning of the data period contained in this physical record.

(10) START SECOND (24 Bits) - Integer seconds of the beginning of the data period contained in this physical record.

(11) END SECONDS (24 Bits) - Integer seconds at the end of the data period contained in this physical record.

(12) END DAY (12 Bits) - The day number for the end of the data period contained in this physical record.

(13) ANNOTATION START YEAR (12 Bits) - This is the start year for the annotation period in this record.

(14) ANNOTATION END YEAR (12 Bits) - This is the end year for the annotation period in this record.

(15) ANNOTATION START DAY (12 Bits) - The start day for the annotation period in this record.

(16) ANNOTATION END DAY (12 Bits) - The end day for the annotation period in this record.

(17) SCALING COEFFICIENTS (48 Bits) - Four 12-bit words. The first word is the signed integer value, the second word is the base 10 exponent for Word 1. Word 3 is the second integer value followed by its exponent (Word 4). The second pair is the slope. These scaling coefficients are to be applied to data to obtain correct reading.

(18) START ORBIT NO. (24 Bits) - The start orbit number for the data span in this record.

(19) END ORBIT NO. (24 Bits) - The end orbit number for the data span in this record.

(20) DATA DISTRIBUTION (96 Bits) - Describes data distribution within a data period. Information is coded to indicate the days contributing to the average, and whether or not data is available for a given day (1 = data that day, 0 = no data day). Position is chronological from most significant bit of Word 16 to LSB of Word 19 using format as shown in Figure VI-1.

(21) CONTOUR CONTROL WORDS (21, 12-Bit Words) - NOTE: The option code will remain set to 20, thus the contour intervals in Table VI-4 are always used.

The contour control words will require scaling, using the scaling coefficients as described above. Two options will be available:

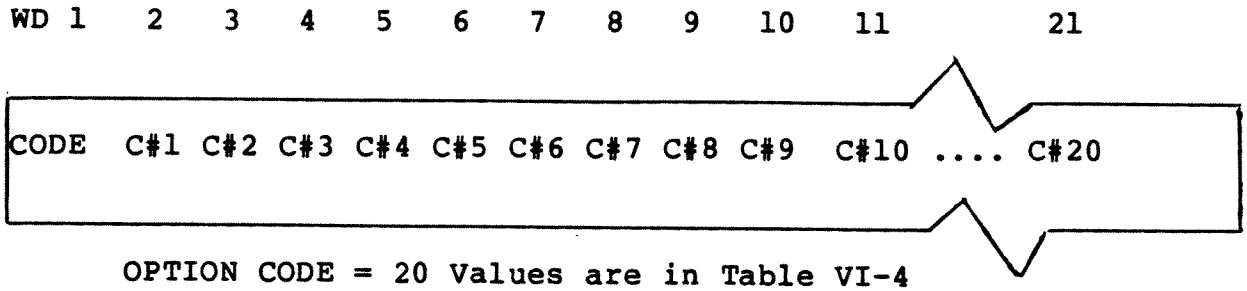
a) An option which provides evenly spaced contour intervals with contour base, contour top, and contour interval words (Words 2, 3, and 4).

b) An option to provide up to 20 contour levels (Words 2 through 21, inclusive), and will be in ascending numerical order.

NOTE: Any contour word not used will be set to 4095.

The first word of the 21 will be set to 1000 for option one and will be followed by three additional words which are the contour base level, contour top level, and contour interval. The remaining 17 words will be set to 4095.

If the first word is set to a number between 1 and 20, the option will be for 1 to 20 independent contour levels, respectively (i.e., Option number = 5 : There are 5 levels). Any unused words will be set to 4095.



OPTION CODE = 20 Values are in Table VI-4

(22) UNIT CODE (6 Bits) - A coded number as shown in Table VI-5 which will indicate the units uded on the maps or grids.

(23) UNIT SCALE CODE (6 Bits) - This number is the exponent to the base 10 that has been applied to the units used above in Item 22. A negative exponent is expressed using a 2's complement.

(24) GENERATION DATE (12 Bits) - MAP MATRIX generation date in SACC/ERB processing facility.

(25) ANNOTATION CHANNELS AND ANCILLRY DATA (384 Bits) Describes the ERB channels used for annotation and ancillary data such as THIR that was used.

(26) MAP MATRIX (14,892 Bits) - This matrix is made up of 73 values along the horizontal axis (Longitudinal) and 17 values along the vertical axis. The latitude limits are defined in the 73 values in longitude, each longitudinal interval will be 5 degrees. The vertical or latitudes will vary in resolution depending on latitude limits specified in Item 28. In any case, the output will be arranged by row and column, with Row 1, Column 1 in the upper left hand corner of the matrix, which is the Northernmost and Westernmost point in the map, and proceeding to Row 17, Column 73 in the lower right hand corner at the Southern latitude limit and Eastern longitude limit.

	MSB		LSB
	24		1
WORD			
48	ROW 1, COLUMN 1 (12 BITS)	ROW 1, COLUMN 2 (12 BITS)	
49	↓	↓	
	ROW 17, COLUMN 73 (12 BITS)	SPARE (12 BITS)	
668			

(27) MERCATOR AND POLAR MAPS ORIENTATION DEFINITION WORDS (All words are 12 Bits) - The following 12 bit words define the maps in the following order:

A. Mercator List

Word 1 - Upper latitude (0 degree = South Pole and 180 degrees = North Pole) is 122 degrees.

Word 2 - Lower latitude (0 degree = South Pole and 180 degrees = North Pole) is 58 degrees.

Word 3 - East Longitude of left side of map is 110 degrees.

Word 4 - Number of mesh intervals of longitude. Number = 72 (one less than grid points).

Word 5 - Degrees per mesh interval of longitude using a scale factor of x 100. All ERB maps use 5 degrees x 100 = 500.

Word 6 - Total number of horizontal map rid/values. Total number = 73.

Word 7 - Total number of vertical map grid/values. Total number = 17.

B. Polar List

Word 8 - Upper latitude. 180 Degrees if Northern Hemisphere; Map perimeter if Southern Hemisphere = 90 degrees.

Word 9 - Lower latitude. 0 Degree if Southern Hemisphere; Map perimeter if Northern Hemisphere = 90 degrees.

Word 10 - Orientation of Greenwich (number of degrees CW from the vertical meridian (100 degrees if Northern Hemisphere; 80 degrees if Southern Hemisphere).

Word 11 - Number of mesh intervals between pole and equator. Intervals = 32.

Word 12 - Horizontal index of pole (from left of the map). Intervals = 33.

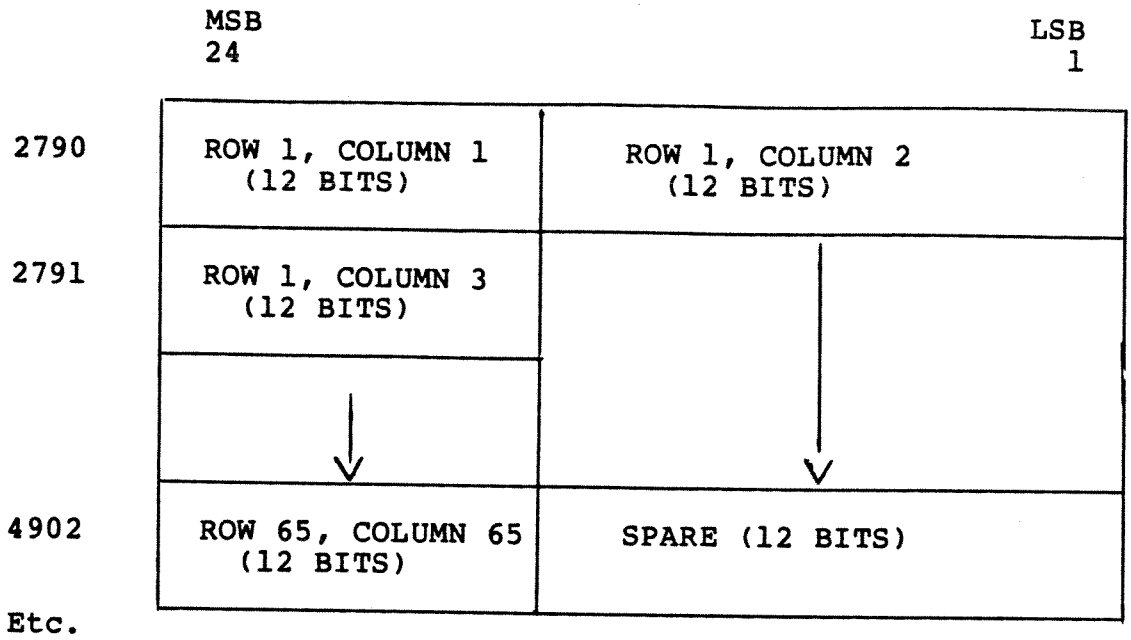
Word 13 - Vertical index of the pole (from the top of the map). Index = 33.

Word 14 - Total number of horizontal map grid/values. Total number of map grids = 65.

Word 15 - Total number of vertical map grid/values. Total number of map grids = 65.

(28) NORTHERN HEMISPHERE (50,700 Bits) - This is a 65 x 65 Northern Hemisphere Polar Stereographic projection. Data is arranged as described below for Southern Hemisphere.

(29) SOUTHERN HEMISPHERE (50,700 Bits) - This is a 65 x 65, (4225 12-bit words) matrix for a polar stereographic map. There will be 32 values on either side of the vertical meridian and the horizontal meridian. The upper left hand corner of the matrix, is numbered Row 1, Column 1 and proceeding to the upper right corner to Row 1, Column 65. The pole will then be Row 33, Column 33 and finally the last data point will be Row 65, Column 65. They will be arranged in the output as shown below:



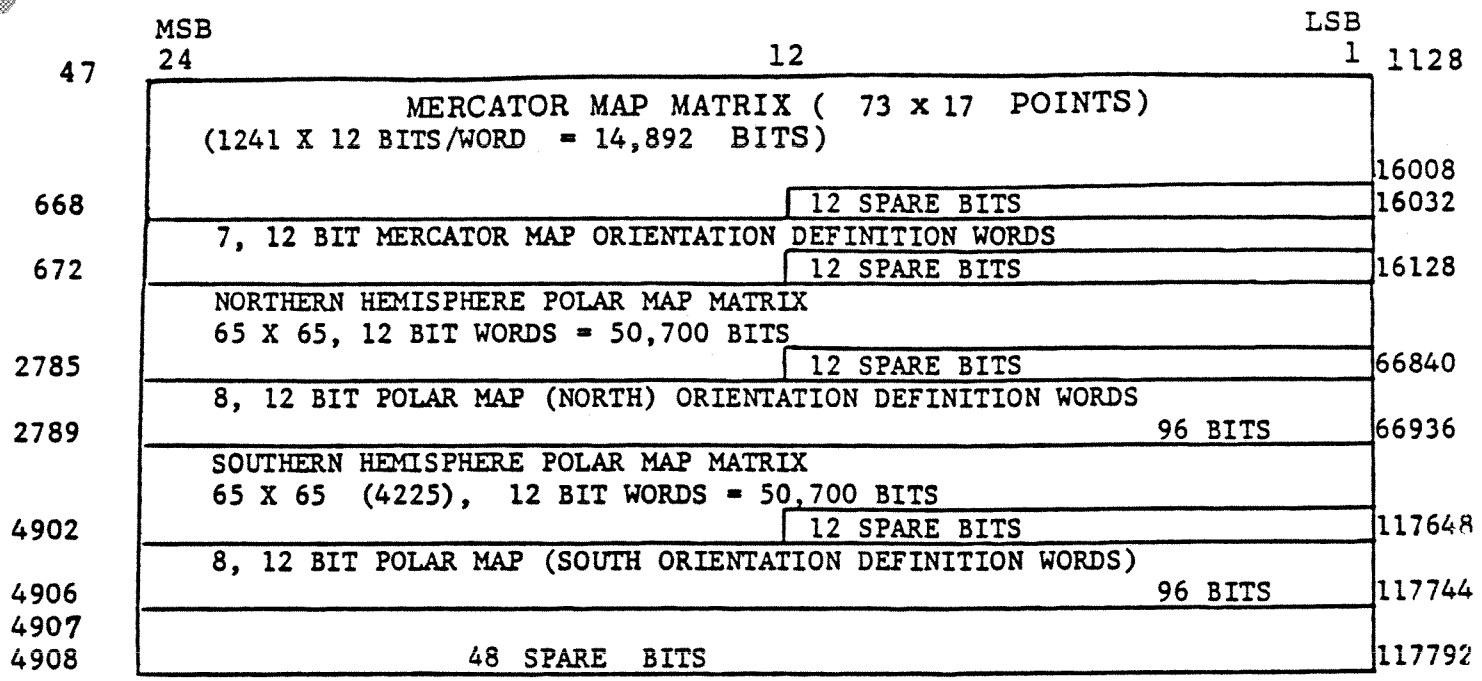
The Northern Hemisphere data is arranged similarly except for the vertical meridian longitude (Greenwich Map orientation) which is defined in Item 28.

(30) SPARES (Bits) - Used to fill the record to standard physical record size.

FIGURE VI-1 Documentation-Mercator/North and South Polar Stereographi
Projection Physical Record Format

Word #	MSB 24 22 20 18 16 14 12 10 8 6 4 2 LSB 1	BITS
1	PHYSICAL RECORD NO. (12) | SPARE (4) | RECORD I.D. (8)	
2	SPARES (12) | RECORDS PER FRAME (12)	
3	RECORD NO. IN FRAME (12) | SPARE (4) | PARAMETER NO. (8)	
4	FRAME NO. (24 BITS)	
5	FILM SPEC NO. (24 BITS)	
6	DATA COVERAGE CODE (6) | SPARES (6) | START DAY OF DATA (12)	
7	START SECOND (24 BITS)	
8	END SECOND (24 BITS)	
9	END DAY NO. OF DATA (12) | ANNOTATION START YEAR (12)	
10	ANNOTATION END YEAR (12) | ANNOTATION START DAY (12)	
11	ANNOTATION END DAY (12) | SPARE 12 BITS	
12-13	(48 BITS) SCALING COEFFICIENTS	312
14	START ORBIT NO. (24 BITS)	
15	END ORBIT NO. (24 BITS)	
16 ↓ 19	DATA DISTRIBUTION (96 BITS)	
20 ↓ 30	21 CONTOUR CONTROL WORDS 12 BITS EACH (252 BITS) — APPLIES TO ALL 3 MAPS: UNIT CODE (6) | UNIT SCALE (6)	720
31	SAVER ALGORITHM ID # (12 BITS) | MAP MATRIX GEN. DATE (12)	744
39	ERB CHANNELS USED FOR ANNOTATION (192 BITS) (24 Characters)	936
47	ANCILLARY DATA USED (192 BITS) (24 Characters)	1128

FIGURE VI-1 Documentation-Mercator/North and South Polar Stereographic Projection Physical Record Format (Continued)



3272, 36 BIT WORDS
3681, 32 BIT WORDS
4908, 24 BIT WORDS

14724 BYTES
117792 BITS

B. World Grid Physical Record Description

Each World Grid physical record holds world gridded data for up to three ERB parameters. The definition of each parameter and its time coverage is given in Table VI-1. The world gridded data for each parameter consists of 2070 points (elements) of the ERB target areas (see Table VI-2). World Grid physical records are written for ERB parameters on a seasonal basis (see Gross Format section).

The physical record format is provided in Figure VI-2. Each physical record consists of three logical records, one for each parameter. Unused World Grid logical records are zero filled.

(1) PHYSICAL RECORD NO. (12 Bits) - This is the number of this record within a file. The same number is repeated in all three logical records if data is available; otherwise it is zeroed.

(2) RECORD I.D. (8 Bits) - Six LSB of 8 bits identifies ecord type: 34 = Seasonal World Grid. NOTE: If record I.D. = 37, see Page 13

The MSB of this 8-bit word indicates last data record in a file (1 = last record). The second MSB (i.e., bit 7 of the 8-bit word) indicates this data record is in the last data file on tape (1 = record in last file). This applies specifically to the first word in the first logical record of the first physical record of file. These two bits will be identical in logical records 2 and 3, if data is present.

(3) LOGICAL RECORD NO. (8 Bits) - Each logical record of World Grid data will be assigned a logical record number starting at 1 for the first in that file and incrementing by 1 for each additional World Grid data logical record in the file. Filled logical records excluded.

(4) RECORDS PER FRAME (12 Bits) - Identifies the number of records needed for one World Grid (always set to 1 for ERB).

(5) RECORD NO. WITHIN FRAME (12 Bits) - Only one Record/World Grid - set to 1.

(6) PARAMETER NO. (8 Bits) - The ERB parameter number that is presented on this record (see Table VI-1).

(7) DATA COVERAGE CODE (6 Bits) - A code to indicate length of data period in this record (63 = seasonal).

(8) START DAY (12 Bits) - The day number for the beginning of the data period contained in this physical record.

(9) START SECONDS (24 Bits) - Integer seconds of the beginning of the data period contained in this physical record.

(10) END SECONDS (24 Bits) - Integer seconds at the end of the data period contained in this physical record.

(11) END DAY (12 Bits) - The day number for the end of the data period contained in this physical record.

(12) ANNOTATION START YEAR (12 Bits) - This is the start year for the annotation period in this record.

(13) ANNOTATION END YEAR (12 Bits) - This is the end year for the annotation period in this record.

(14) ANNOTATION START DAY (12 Bits) - The start day for the annotation period in this record.

(15) ANNOTATION END DAY (12 Bits) - The end day for the annotation period in this record.

(16) SCALING COEFFICIENTS (48 Bits) - Four 12-bit words. The first word is the signed integer value, thee signed integer value, the second word is the base 10 exponent for Word 1. Word 3 is the second integer value followed by its exponent (Word 4). The second pair is the slope. These scaling factors are already applied to data.

(17) START ORBIT NO. (24 Bits) - the orbit number for the beginning of the data span in this record.

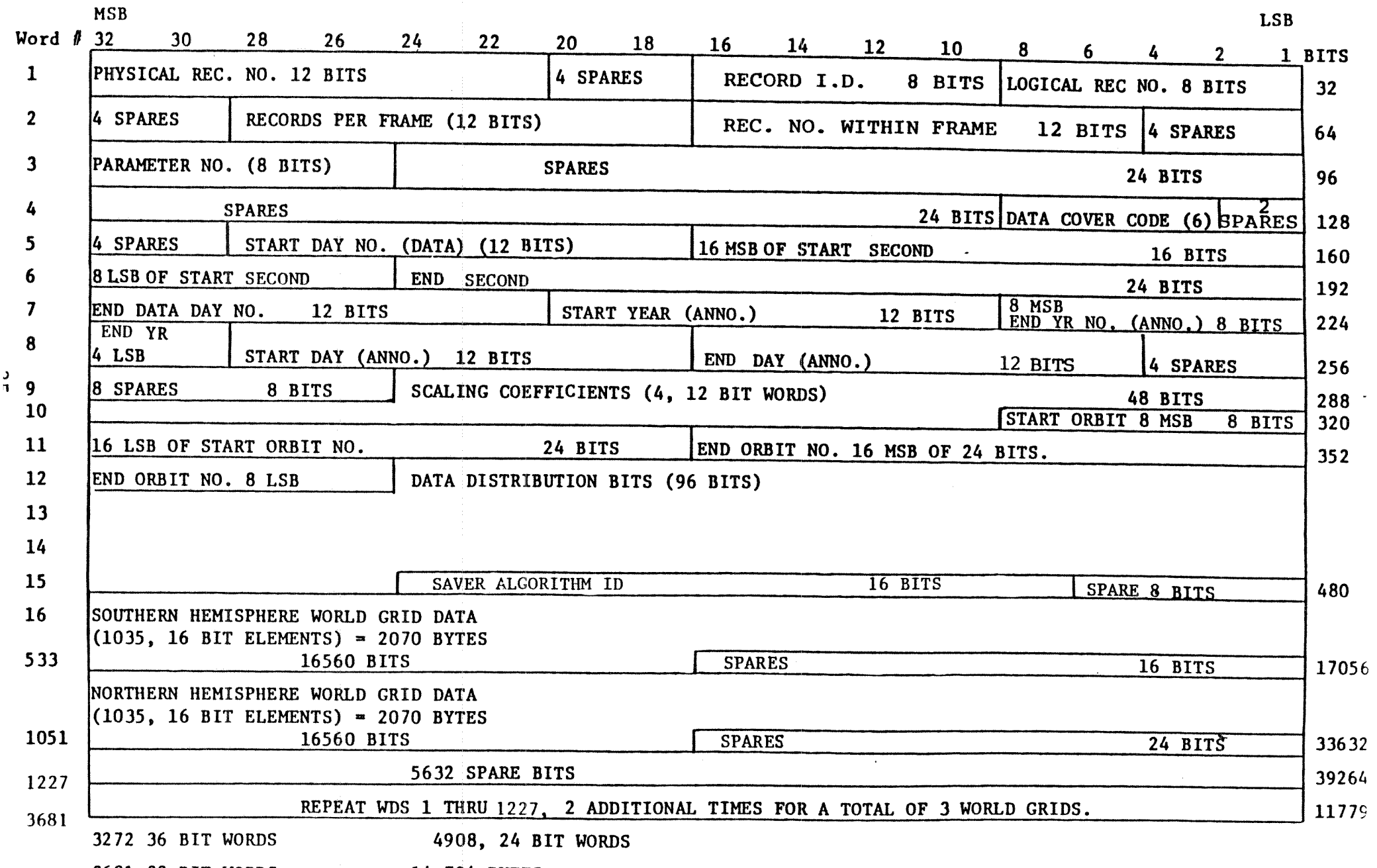
(18) END ORBIT NO. (24 Bits) - The orbit number for the end of the data span in this record.

(19) DATA DISTRIBUTION (96 Bits) - Describes data distribution within a data period. Information is coded to indicate the days contributing to the average, and whether or not data is available for a given day (1 - data that day, 0 = no data that day). Position is chronological from the most significant bit of Word 16 to LSB of Word 19 using format as shown in Figure VI-2. The position of this field is identical on both formats except that the Figure VI-1 is on a 24-bit format.

(20) WORLD GRID DATA (2070 Bytes, 1035 16-Bit Elements) - Each physical record will contain two hemispheres of World Grid data.

The World Grid data will be arranged in target area numbered order (1 through 1035 inclusive for Southern Hemisphere data, and 1036 through 2070 inclusive for Northern Hemisphere data) and each target area number has one 16-bit data word associated with it. See Table VI-2 for definition of target areas and numbering system.

FIGURE VI-2. World Grid Physical Record Format for Seasonal Data



3272 36 BIT WORDS 4908, 24 BIT WORDS

3681 32 BIT WORDS 14,724 BYTES

TABLE VI-1

ERB Parameters

Only twenty-five (25) of the forty-two (42) ERB parameters have meaningful seasonal values. Therefore, seasonal values for only the 25 parameters listed below will appear on a SAVER tape. The 25 parameters processed by the SAVER program correspond exactly to those processed by MATRIX. For example, Parameter #1 is the data population of WFOV observations on both the MATRIX and the SAVER tapes, and Parameter #23 is the NFOV Net Radiation on both tapes.

PARAMETER # (TAPE SPEC)	DESCRIPTIONS
1	Data Population (number of months) of WFOV Observations - A.N.
2	Data Population (number of months) of WFOV Observations - D.N.
3	L.W. Terrestrial Flux from WFOV Observations - A.N.
4	L.W. Terrestrial Flux from WFOV Observations - D.N.
13*	Earth Albedo from WFOV Observations (0.2 - 4.0 m) Using Solar Zenith Angle Correction
14*	Earth Albedo from WFOV Observations (0.2 - 0.7 m) Using Solar Zenith Angle Correction
15*	Earth Albedo from WFOV Observations (0.7 - 3.0 m) Using Solar Zenith Angle Correction
16	Net Radiation from WFOV Observations
17	S.W. Data Population (number of months) of NFOV Observations - A.N.
18	S.W. Data Population (number of months) of NFOV Observations - D.N.
19	L.W. Terrestrial Flux from NFOV Observations - A.N.

*Caution: the daily albedo calculation did not use the solar zenith angle correction; whereas monthly albedo calculations did use the solar zenith angle correction.

TABLE VI-1

ERB Parameters
(Continued)

PARAMETER # (TAPE SPEC)	DESCRIPTIONS
20	L.W. Terrestrial Flux from NFOV Observations - D.N.
21	Average L.W. Terrestrial Flux from NFOV Observations (Weighted Average of A.N. and D.N. Data)
22	Earth Albedo from NFOV Observations
23	Net Radiation from NFOV Observations
24	L.W. Data Population (number of months) of NFOV Observations - A.N.
25	L.W. Data Population (number of months) of NFOV Observations - D.N.
26	Data Population of WFOV Averaged L.W. Flux (Incremented on a Monthly Basis)
27	Data Population of NFOV Averaged L.W. Flux (Incremented on a Monthly Basis)
28	Averaged L.W. Terrestrial Flux from WFOV Observations (Average of A.N. and D.N. Data)
35	Minimum Earth Albedo from NFOV Observations
36	Average Solar Insolation
38	Total Exitant Flux from WFOV Observations - A.N. (without TOA adjustment)
39	Total Exitant Flux from WFOV Observations - D.N. (without TOA adjustment)
40	Orbital Net Radiation from WFOV Observations (without solar zenith angle correction for albedo)

A.N. = Ascending Node
D.N. = Descending Node
TOA = Top of Atmosphere

TABLE VI-1

Parameters Used in Seasonal World Grids and Maps

(Continued)

PARM NUMBER	SEASONAL WG	SEASONAL MAP
1	X	X
2	X	X
3	X	X
4	X	X
13	X	X
14	X	X
15	X	X
16	X	X
17	X	X
18	X	-
19	X	X
20	X	X
21	X	X
22	X	X
23	X	X
24	X	X
25	X	X
26	X	X
27	X	X
28	X	X
35	X	X
36	X	-
38	X	X
39	X	X
40	X	X
	25	23

X = A Record Is Output
- = No Record Is Output

TABLE VI-2

ERB SCANNING CHANNEL TARGET AREAS

TARGET NO. SOUTH HEM.	TARGET NO. NORTH HEM.	LATITUDE LIMITS Lower Limit	LATITUDE LIMITS Upper Limit	LONGITUDE INTERVAL *	TARGET SUBDIVISION SIZES DEG. LAT.	TARGET SUBDIVISION SIZES DEG. LONG.
956-1035	1036-1115	EQ. 0.0	4.5	4.5	1.5°	1.5°
876-955	1116-1195	4.5	9.0	4.5		
796-875	1196-1275	9.0	13.5	4.5		
716-795	1276-1355	13.5	18.0	4.5		
644-715	1356-1427	18.0	22.5	5.0		1.666°
572-643	1428-1499	22.5	27.0	5.0		
500-571	1500-1571	27.0	31.5	5.0		
428-499	1572-1643	31.5	36.0	5.0		
368-427	1644-1703	36.0	40.5	6.0		2.0°
308-367	1704-1763	40.5	45.0	6.0		
248-307	1764-1823	45.0	49.5	6.0		
200-247	1824-1871	49.5	54.0	7.5		2.5°
155-199	1872-1916	54.0	58.5	8.0		2.666°
115-154	1917-1956	58.5	63.0	9.0		3.0°
79-114	1957-1992	63.0	67.5	10.0		3.333°
49-78	1993-2022	67.5	72.0	12.0		4.0°
29-48	2023-2042	72.0	76.5	18.0		6.0°
13-28	2043-2058	76.5	81.0	22.5		7.5°
4-12	2059-2067	81.0	85.5	40.0		13.333°
1-3	2068-2070	85.5	Pole	120.0		40.0

* For each latitude band the longitude intervals start at the 0 degree meridian and progress West by the increments listed.

The sequential numbering system assigns a number, between 1 and 2070, to each target area starting from the South Pole. Within each latitude belt the numbers increase westward from the 0° meridian and continue to increase within the adjacent latitude belt to the North.

In each hemisphere there will be 1035 target areas.

TABLE VI-3

ERB Map Film Spec List

FILM SPEC NUMBER	ERB PARAMETER NUMBER	TYPE
F133801	3	Seasonal
F133802	4	Seasonal
F133804	1	Seasonal
F133805	2	Seasonal
F133807	13	Seasonal
F133809	14	Seasonal
F133810	16	Seasonal
F133811	19	Seasonal
F133812	20	Seasonal
F133813	21	Seasonal
F133814	17	Seasonal
F133817	22	Seasonal
F133819	23	Seasonal
F133828	24	Seasonal
F133829	25	Seasonal
F133806	26	Seasonal
F133816	27	Seasonal
F133803	28	Seasonal
F133808	15	Seasonal
F133818	35	Seasonal
F133830	38	Seasonal
F133831	39	Seasonal
F133832	40	Seasonal

TABLE VI-4

Typical Contour Limits and Intervals for ERB Maps

MAPPED QUANTITY	UNITS	BASE	TOP	CONTOUR INTERVAL
Average Longwave Terrestrial Flux	Wm^{-2}	100	400	25
Average Earth Albedo	%	0	100	10
Average Net Radiation	Wm^{-2}	-200	400	50
Total Exitant Flux	Wm^{-2}	100	700	25

TABLE VI-5

UNITS CODE Numbers in the Tape Record and their Corresponding Word Variable for Film Display

UNITS CODE	DISPLAY	UNITS CODE	DISPLAY
0	W/m^2	33	
1	Points/Target	34	
2	Percent	35	
3	None	36	
4	Dobson Units	37	
5	PPM	38	
6	PPB	39	
7	GM/MICROGM	40	
8	GM/NANOGM	41	
9	Degrees K	42	
10	W/m^2 STER	43	
11	W/m^2 STER/CM	44	
12	Kilometers	45	
13	GM/LITER	46	
14	KM^{-1}	47	
15	Number per CM^3	48	
16	Meters	49	
17	Km	50	
18	K	51	
19	M-ATM-CM	52	
20	Counts for CM^2	53	
21		54	
22		55	
23		56	
24		57	
25		58	
26		59	
27		60	
28		61	
29		62	
30		63	
31			
32			

DUMP OF TAPE BR-8

INPUT TAPE BR-8 ON TM0
DATA INPUT MS NF 2 SR 2 1 1 SR 1 LAST 1

MT-098A-07I

FILE	INPUT RECS. 1	2	DATA RECORDS INPUT		MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
	2		2		14724BYTES	0	0	0	0	0	0

FILE	2 RECORD	3 1 LENGTH	4 (RECS)	5	6	7	8	9	10	11	12
(0)	00146500	00010100	01(RECS)	C20AADFC	00F40006	26000AFA	15005009	00F61500	00000000	00100000
(40)	24A80029	80477777	74300000	DCEEEEEE	EC3E8000	01F001FF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(80)	FFFFFFFF	FFFFFFFF	F0403C30	EC404040	40404040	40404040	40404040	40404040	40404040	40404040
(120)	40404040	40404040	40404040	40404040	40404040	40003003	00300300	30010020	02003003	00300300
(160)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(200)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003
(240)	00300300	20030030	03003003	00300300	30030030	03003003	00300300	20030030	03003003	00300300
(280)	30030030	03003003	00300300	30030030	03003003	00300300	30030020	03003003	00300300	30030030
(320)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003
(360)	00300300	30030030	03002011	00200300	30030030	03003003	00300300	30030030	03003003	00300300
(400)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(440)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30020030	02003003
(480)	00200300	30020020	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300
(520)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(560)	03003003	00300300	30030030	03003003	00300300	30030020	03003002	00100100	30020030	02003003
(600)	00300300	30030030	03003003	00200300	30030030	03003003	00300300	30030030	03003003	00300300
(640)	30030030	03003003	00300300	20030030	03003003	00300300	30030020	03003003	00300300	30030030
(680)	03002003	00300300	30030030	03003003	00300300	20010030	03002003	00300300	30030030	03003003
(720)	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300
(760)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(800)	03003003	00300300	30020020	03003003	00200300	30030030	03003003	00300300	30030030	03003003
(840)	00300300	30030030	03003003	00300300	30030030	03003002	00300300	30030030	03003003	00300300
(880)	30030030	03003002	00300300	30030030	03003003	00200300	30020030	03003003	00300300	20030020
(920)	02002002	00300200	30030030	03003002	00300300	30030030	03003003	00300300	30030030	03003003
(960)	00300300	30030030	03003003	00300200	30030030	03003003	00300300	30030030	03003003	00300300
(1000)	30030030	03003003	00300300	20030030	03003003	00300300	30030020	02002002	00200200	30030030
(1040)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003
(1080)	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300
(1120)	30030020	03003003	00300300	30030030	02001001	00300300	20020030	03003003	00300300	30030030
(1160)	03002003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003
(1200)	00200300	30030030	03003003	00300300	20030030	03003003	00300300	30030020	02003003	00300300
(1240)	30030030	03003003	00300300	30020020	03003003	00300300	30030030	03003003	00300300	30030030
(1280)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003
(1320)	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00100200
(1360)	10030020	03002003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30020030
(1400)	03003003	00300300	30030030	02003003	00300300	30030030	03003003	00300300	30030030	02003003
(1440)	00300300	30030030	03002003	00300300	30030030	02003003	00200300	20020020	02003002	00300300
(1480)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300200	30030030
(1520)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30020030	03003003
(1560)	00300300	30020030	03003003	00300200	30030010	03003002	00200300	30030030	03003003	00300300
(1600)	30030030	03003003	00200300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(1640)	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30020030	03003003
(1680)	00300300	30020010	02003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300
(1720)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(1760)	03003003	00200300	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03001003
(1800)	00200200	30020030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300
(1840)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(1880)	03003002	00300300	30030030	03003002	00300300	30030030	03002002	00300200	30030030	03003003
(1920)	00300300	30030030	03003003	00300300	30030030	03003003	00300200	30030030	03003003	00300300
(1960)	30030030	03003003	00300300	30030030	03003003	00300300	30030030	03003003	00300300	30030030
(2000)	03003000	07A03A06	E0481F40	49011000	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(2040)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	003FFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(2080)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF

```
$ASS IN TBO
$NOP
DATA IGNORED
$NOP
$NOP ********** ERB-8 **************
$EXE TPLIST BS

INPUT PARAMETERS ARE:  ED AL 1

 TAPE NO.   1              FILE NO.   1
 RECORD   1                LENGTH   630
*NIMBUS-7 NOPS SPEC NO T134071 SG NO AI09731A3 ERB  IPD  TO 28   START 1980 246 002614 TO 1980 336
005106 GEN 1984 103 211354 *NIMBUS-7 NOPS SPEC NO T134071 SG NO AI09731A2 ERB  SACC TO IPD  START 1
980 246 002614 TO 1980 336 005106 GEN 1983 236 142944 SAVER   2 08/12/83
   SAVER  VERSION 2243     NAME: SAVRSG2C
                  SAVER FIXED FOR UNIT CODE


 TAPE NO.   1              FILE NO.   1
 RECORD   2                LENGTH   630
*NIMBUS-7 NOPS SPEC NO T134071 SG NO AI09731A3 ERB  IPD  TO 28   START 1980 246 002614 TO 1980 336
005106 GEN 1984 103 211354 *NIMBUS-7 NOPS SPEC NO T134071 SG NO AI09731A2 ERB  SACC TO IPD  START 1
980 246 002614 TO 1980 336 005106 GEN 1983 236 142944 SAVER   2 08/12/83
   SAVER  VERSION 2243     NAME: SAVRSG2C
                  SAVER FIXED FOR UNIT CODE


***** JOB DONE.
$WEO LP8
```

```
$$
$EXE TPDUMP BS
```

```
$NOP
$NOP **** LIST OF BC1 *******
$EXE TPLIST BS

INPUT PARAMETERS ARE:  ED AL

 TAPE NO.   1              FILE NO.   1
 RECORD   1                LENGTH   630
*NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI83361B3 ERB  IPD  TO 28   START 1978 336 003211 TO 1979 060
011406 GEN 1984 103 181811 *NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI83361B2 ERB  SACC TO IPD  START 1
978 336 003211 TO 1979 060 011406 GEN 1982 299 095753 SAVER   2 10/27/82
   SAVER  VERSION 3002     NAME: SAVRG02B                                    SAVER FIXED FOR MA
P REC. FRM. NUM.   SAVER FIXED FOR UNIT CODE


 TAPE NO.   1              FILE NO.   1
 RECORD   2                LENGTH   630
*NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI83361B3 ERB  IPD  TO 28   START 1978 336 003211 TO 1979 060
011406 GEN 1984 103 181811 *NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI83361B2 ERB  SACC TO IPD  START 1
978 336 003211 TO 1979 060 011406 GEN 1982 299 095753 SAVER   2 10/27/82
   SAVER  VERSION 3002     NAME: SAVRG02B                                    SAVER FIXED FOR MA
P REC. FRM. NUM.   SAVER FIXED FOR UNIT CODE


***** JOB DONE.
$WEO LPS
```

ERB SAVER

Header dump for each of the 8 tapes

```
$$
$ASS IN TB1 OUT TA0
$EXE TPNDCS.BS
```

```
$NOP
$NOP ***** LIST OF B02 *******
$EXE TPLIST HS

INPUT PARAMETERS ARE:  ED AL

 TAPE NO.   1              FILE NO.   1
 RECORD   1                LENGTH   65
*NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI90601B3 ERB  IPD  TO 28   START 1979 060 011510 TO 1979 152
000554 GEN 1984 103 205218 *NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI90601B2 ERB  SACC TO IPD  START 1
979 060 011510 TO 1979 152 000554 GEN 1982 300 131837 SAVER   2 10/27/82
   SAVER  VERSION 3002     NAME: SAVRG02B
P REC. FRM. NUM.   SAVER FIXED FOR UNIT CODE                                    SAVER FIXED FOR MA


 TAPE NO.   1              FILE NO.   1
 RECORD   2                LENGTH   630
*NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI90601B3 ERB  IPD  TO 28   START 1979 060 011510 TO 1979 152
000554 GEN 1984 103 205218 *NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI90601B2 ERB  SACC TO IPD  START 1
979 060 011510 TO 1979 152 000554 GEN 1982 300 131837 SAVER   2 10/27/82
   SAVER  VERSION 3002     NAME: SAVRG02B
P REC. FRM. NUM.   SAVER FIXED FOR UNIT CODE                                    SAVER FIXED FOR MA


***** JOB DONE.
$WEO LPS
```

```
$$
$AVR CI 8
$END OC
```

```
$NOP
$NOP ************ BC-8 **********
$EXE TPLIST BS

INPUT PARAMETERS ARE:  ED AL 1

 TAPE NO.   1              FILE NO.   1
 RECORD    1               LENGTH    63
*NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI09731A3 ERB  IPD  TO 28   START 1980 246 002614 TO 1980 336
005106 GEN 1984 103 211354 *NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI09731A2 ERB  SACC TO IPD  START 1
980 246 002614 TO 1980 336 005106 GEN 1983 236 142944 SAVER   2 08/12/83
   SAVER  VERSION 2243     NAME: SAVRG02C
                  SAVER FIXED FOR UNIT CODE


 TAPE NO.   1              FILE NO.   1
 RECORD    2               LENGTH    63
*NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI09731A3 ERB  IPD  TO 28   START 1980 246 002614 TO 1980 336
005106 GEN 1984 103 211354 *NIMBUS-7 NOPS SPEC NO T134071 SQ NO AI09731A2 ERB  SACC TO IPD  START 1
980 246 002614 TO 1980 336 005106 GEN 1983 236 142944 SAVER   2 08/12/83
   SAVER  VERSION 2243     NAME: SAVRG02C
                  SAVER FIXED FOR UNIT CODE


***** JOB DONE.
$WEO LPS


$$
```