

**NASA
Reference
Publication
1233, Vol. 2**

January 1990

Satellite Radar Altimetry Over Ice

*Volume 2—Users' Guide for
Greenland Elevation Data
From Seasat*

H. Jay Zwally,
Judith A. Major,
Anita C. Brenner,
Robert A. Bindschadler,
and Thomas V. Martin

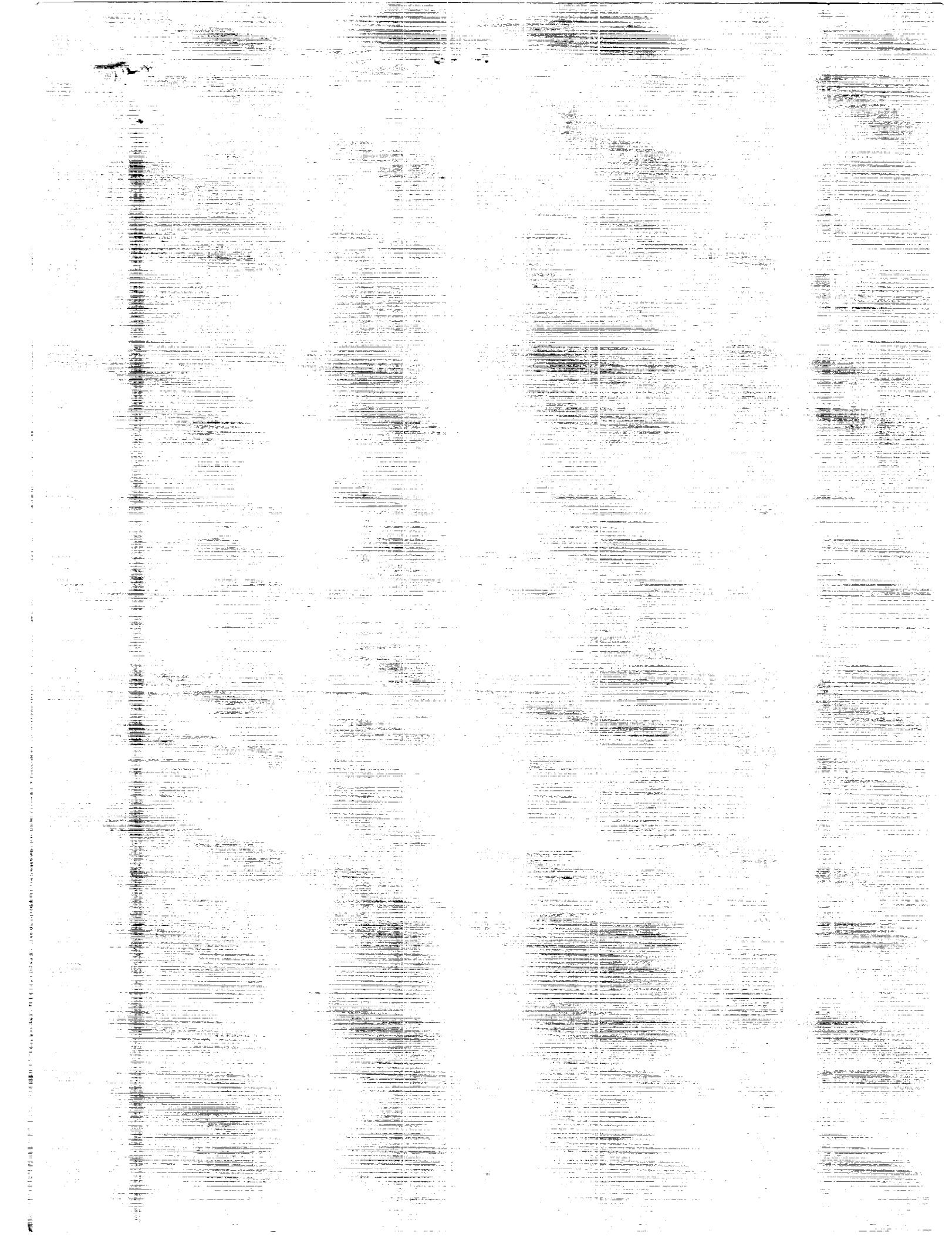
CATA-NASA-REF-1233-VOL-2
ALTIMETRY OVER ICE, VOLUME 2: USERS' GUIDE
FOR GREENLAND ELEVATION DATA FROM SEASAT
(CATA) — 6-0

CSLL 060

ONCL 25

H1746 0701597

NASA



**NASA
Reference
Publication
1233, Vol. 2**

1990

Satellite Radar Altimetry Over Ice

*Volume 2—Users' Guide for
Greenland Elevation Data
From Seasat*

H. Jay Zwally
*Goddard Space Flight Center
Greenbelt, Maryland*

Judith A. Major and Anita C. Brenner
*ST Systems Corporation
Lanham, Maryland*

Robert A. Bindschadler
*Goddard Space Flight Center
Greenbelt, Maryland*

Thomas V. Martin
*Van Martin Consulting, Inc.
Rockville, Maryland*



National Aeronautics and
Space Administration
Office of Management
Scientific and Technical
Information Division

TABLE OF CONTENTS

	<u>Page</u>
PREFACE	v
1.0 INTRODUCTION	1
2.0 GEO-REFERENCED DATA BASE	5
3.0 POLAR STEREOGRAPHIC ELEVATION GRID	13
4.0 GEOID GRID	17
TABLES	19
APPENDIX	77
REFERENCES	82

PREFACE

A gridded surface-elevation data set and a geo-referenced data base for the Seasat radar altimeter data over Antarctica are described in this volume. It is intended to be a "user's guide" to accompany the data provided to data centers and other users. The grid points are on a polar stereographic projection with a nominal spacing of 20 km. The gridded elevations are derived from the elevation data in the geo-referenced data base by a weighted fitting of a surface in the neighborhood of each grid point. The gridded elevations are useful for the creating of large-scale contour maps, and the geo-referenced data base is useful for regridding, creating smaller-scale contour maps, and examining individual elevation measurements in specific geographic areas. Tape formats are described, and a FORTRAN program for reading the data tape is listed and provided on the tape. For more details of the data processing procedures and corrections that were derived and applied to the data, see Volume 3 of this series.



SECTION 1.0

INTRODUCTION

This volume is the fourth in a series documenting the data-processing methods and ice data products derived from satellite radar altimeter measurements over the ice sheets of Greenland and Antarctica and surrounding sea ice. A gridded elevation data set and a geo-referenced data base for the Seasat radar altimeter data over Antarctica are described in this volume. It is intended to be a "user's guide" to accompany the data provided to data centers and distributed to various users on a magnetic tape. The gridded elevations are useful for creating large-scale contour maps, and the geo-referenced data base is useful for regridding, creating smaller-scale contour maps, and examining individual elevation measurements in specific geographic areas. For more details of the data processing procedures and corrections that were derived and applied to the data, see Volume 3 of this series.

The gridded elevations are on a polar stereographic projection with a nominal spacing of 20 km between grid points. The gridded elevation value for each grid point is derived from the geo-referenced data base by a weighted fitting of a biquadratic function (or a bilinear function) to the elevation data that fall within a certain radius of the grid location. The geo-referenced data base contains surface elevations ordered in geographic bins.

The input Seasat radar altimeter data, in the form of Geophysical Data Records (GDR's) and Sensor Data Records (SDR's) produced by NASA's Seasat project at the Jet Propulsion Laboratory, was obtained from the NOAA Environmental Satellite Data and Information Service (EDIS) archive on about 1000 magnetic tapes. Development of the data processing methods, the production of higher-level geophysical data products, and analysis and evaluation of the data have been supported at the Goddard Space Flight Center by funding for research and data analysis, provided primarily by NASA's Ocean Processes Program and by the Climate program. Computer programming and technical assistance has been provided by the EG&G Washington Analytical Services Center, Inc. through December 1988 and by ST Systems Corporation since January 1989. Numerous other individuals have provided valuable assistance.

Results have been reported in refereed scientific literature (e.g., Brenner et al., 1983; Martin et al., 1983; Zwally et al., 1983; Thomas et al., 1983; and Gundestrup et al., 1986). In addition, elevation data in various forms have been provided to other scientists and placed in the National Snow and Ice Data Center (NSIDC) and the National Space Science Data Center (NSSDC). The purpose of this series of reports is to document technical details and provide guidance to users of the ice data products.

While all reasonable quality-control efforts have been made to eliminate erroneous data, some data of questionable quality is likely to have persisted, particularly in the lower-level data products. Users should apply normal standards of scientific caution in their use of the data.

The current list of reports is:

Satellite Radar Altimetry over Ice, Volume 1: Processing and Corrections of Seasat Data over Greenland, July 1989. NASA Ref. Publ. _____.

Satellite Radar Altimetry over Ice, Volume 2: User's Guide for Greenland Elevation Data from Seasat, July 1989. NASA Ref. Publ. _____.

Satellite Radar Altimetry over Ice, Volume 4: User's Guide for Antarctica Elevation Data from Seasat, July 1989. This volume.

Volume 3 will be the Antarctic equivalent of Volume 1. Additional volumes will include descriptions of the data sets being produced by NASA from the radar altimeter data acquired by the U.S. Navy's GEOSAT, using methods similar to those for the Seasat data.

The Seasat spacecraft (e.g., Lame and Born, 1982 and Lame et al., 1980) was launched in late June 1978, and during its brief, 110-day lifetime, collected 90 days of nearly continuous radar altimeter data from July 9 through October 10 between the latitudes of 72°S and 72°N. Although designed only for measurements over water, the Seasat radar altimeter (MacArthur, 1978; Tapley et al., 1982; and Townsend, 1980), acquired more than 600,000 useful altimeter range measurements over the continental ice sheets of Greenland and Antarctica.

Over sloping and undulating surfaces, such as ice covered land, or surfaces with highly variable reflecting characteristics, such as in regions of sea ice, the range to the surface and the characteristics of the received radar pulse changed faster than the response capability of the altimeter electronics. Consequently, it has been necessary to correct each range value for lags of the altimeter range servo-tracking circuitry by a procedure called retracking (Martin et al., 1983). The retracking correction typically had a mean value of + 1.4 m as applied to the surface elevation, a standard deviation of 2.9 m, and maximum and minimum values of ± 15 m. In addition, the pulse-limited footprint (1.6 km minimum diameter), which was located near the satellite nadir point over the relatively flat ocean, was in general located anywhere within the beam-limited footprint (22 km in diameter) over sloping surfaces. The resulting slope-induced error, which was nearly 80 m over slopes of 0.8 degree, can be partially corrected using the procedures described in Brenner et al., 1983. Corrections are also made for errors in orbit determination, atmospheric propagation path-length variations, and earth and ocean tides.

Elevation measurements were obtained at 0.1-sec intervals, corresponding to 662 m intervals along the subsatellite ground track. The precision of the corrected range measurements is about 1.6 m overall with a minimum of about 0.25 m in the smoothest regions of the ice sheets (Zwally et al., 1983). The 5- to 10-cm precision over the ocean is for 1-sec data averages. The absolute accuracy of the elevations is primarily determined by the limitations on the correction methods for the slope-induced errors and by uncertainties in the geoid reference level.

The principal ice data sets produced and retained are:

Level 4: Contour maps and gridded elevations with respect to earth ellipsoid and sea level (e.g., this volume and Volume 4).

Level 3: Geo-referenced data base including all individual elevation measurements (including time, latitude/longitude positions, and slope-correction estimates) accessible by geographic cells (e.g., this volume and Volume 4).

Level 2: Ice Data Records (IDR's). Orbital-format data records including altimeter parameters, corrected elevations, latitude/longitude positions, AGC, applied corrections, retracking beta parameters, and estimates of along-track and cross-track slope corrections. (See Volumes 1 and 3.)

Level 1: Waveform Data Records (WDR's). Orbital-format data records including waveform amplitudes by gate, ranges, AGC, and latitude/longitude positions. (See Volumes 1 and 3.)

Altimeter Sensor Data Records (SDR's)

The magnetic tape with the gridded elevation and geo-referenced data base was generated on an IBM 3081. The data sets are contained on several files of this unlabeled, 6250-bpi tape. The geo-referenced data base is written on the first two files (see Tables 2 and 3). A FORTRAN program, which can be used to unload and read the data base on files 1 and 2 on the IBM 3081 is written on file 3 in ASCII. A listing of this source may also be found in the Appendix. The elevation grid over the Greenland ice sheet is written on files 4 and 5 (see Tables 4 and 5). It is important to note that the elevations in the data base are relative to the ellipsoid, while the grid elevations are relative to sea level. The Goddard Earth Model 10-B (GEM10-B) geoid grid which

was used to obtain elevations relative to sea level is written on files 6 and 7 (see Tables 6 and 7). File 8 contains detailed information in ASCII concerning the location of various revs and the number of points in the geo-referenced data base in order of geographical area. File 9 contains a narrative description of the tape including the version number, dates of the data and specific information on the sources used to reduce the raw data to surface measurements and grid values (see Table 8). All files except files 3, 8 and 9 have been written in IBM binary integer format. Blocksizes vary for each file and are given in the tables of file descriptions.

SECTION 2.0
GEO-REFERENCED DATA BASE

The geo-referenced data base contains surface height measurements derived from Seasat altimetry data, ordered by geographic areas or "bins". The distribution of the Seasat data used in the data base is shown in Figure 1. Figure 2 shows the configuration of the 4,300 bins in the vicinity of Greenland. Bin sizes vary in order to compensate for the higher data density near Seasat's maximum extent in latitude. Each bin is assigned a number starting with 1 in the southwestern-most corner. Bin numbers increment first from west to east and then from south to north. The starting bin numbers for each row are indicated in the left margin of the map in Figure 2, while the number of data points is printed within the appropriate bin. Table 1 is a sample page of the information contained on file 8 of the tape and summarizes the number of points and the rev numbers found in each bin, along with the geo-referenced coordinates of the southwestern-most corner of the bin. Only bins which contain data are listed on file 8 of the tape. The table is written as fixed block in ASCII with a record length of 132 bytes and blocksize of 19,008 bytes.

The geo-referenced data base is structured such that the data are ordered first by bin number and then by time within each bin. Each data point within each bin contains information relating to the position, rev number, surface height relative to the ellipsoid, slope correction and orbit adjustment. Corrections which have been applied to the surface elevations are indicated by the altimetry data status word in the data base header record found on file 1 of the accompanying tape. A detailed explanation of all the corrections may be found in Reference 5. The orbit adjustment has been applied to the surface elevation when it was available. Records for which the orbit adjustment is unavailable (as indicated by a value of -999999999 in bytes 21-24) have the unadjusted surface elevation in bytes 9-12. The user should be aware that using all the surface elevation values without checking if the orbit adjustment was valid or not will result in an inconsistent data set. The slope correction values are supplied on each data record but have not been applied to the surface elevation. The orbit adjustment will improve on the radial accuracy of the orbit. The slope correction will compensate for the fact that the original altimeter height is measured to the closest point within the radar beam, which is not necessarily the subsatellite point. When the slope correction is unavailable a value of -999999999 is placed in that field. In order to obtain a slope-corrected surface elevation relative to the ellipsoid the following algorithm would be used:

$$\Delta H_{COR} = H_{DB} - \Delta H_{SLOPE} \quad (1)$$

**ORIGINAL PAGE IS
OF POOR QUALITY**

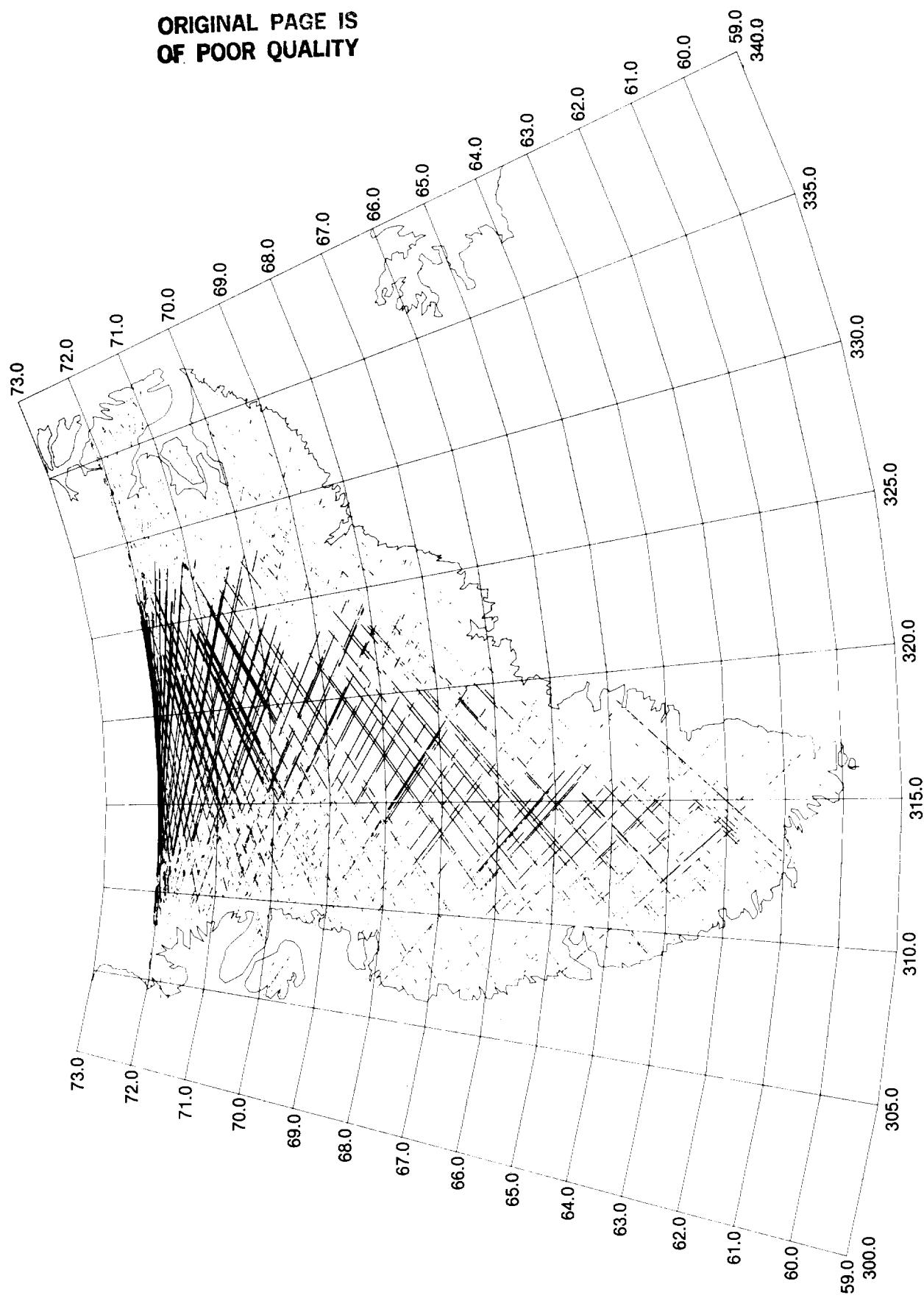


Figure 1. Seasat Greenland Groundtracks.

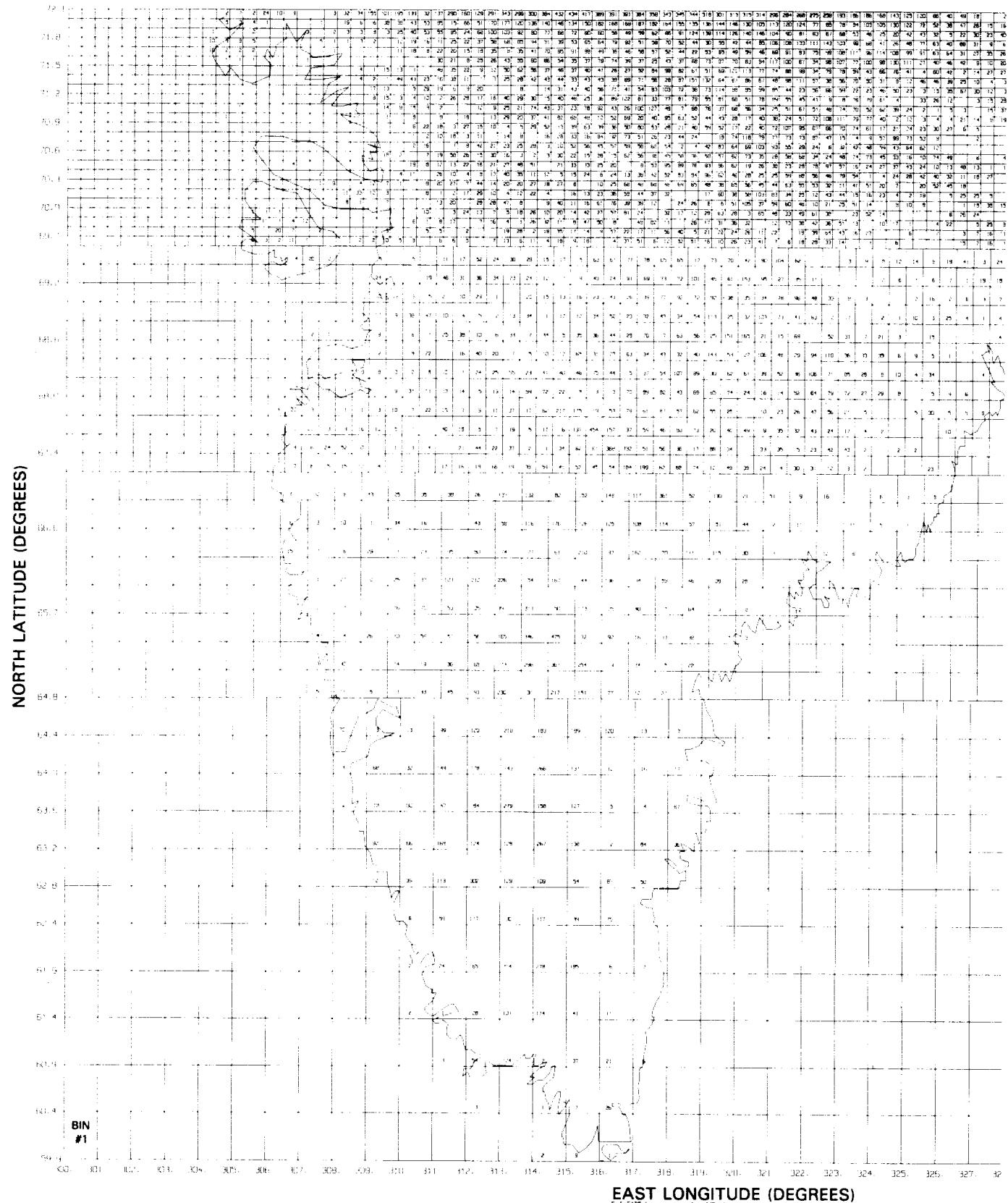
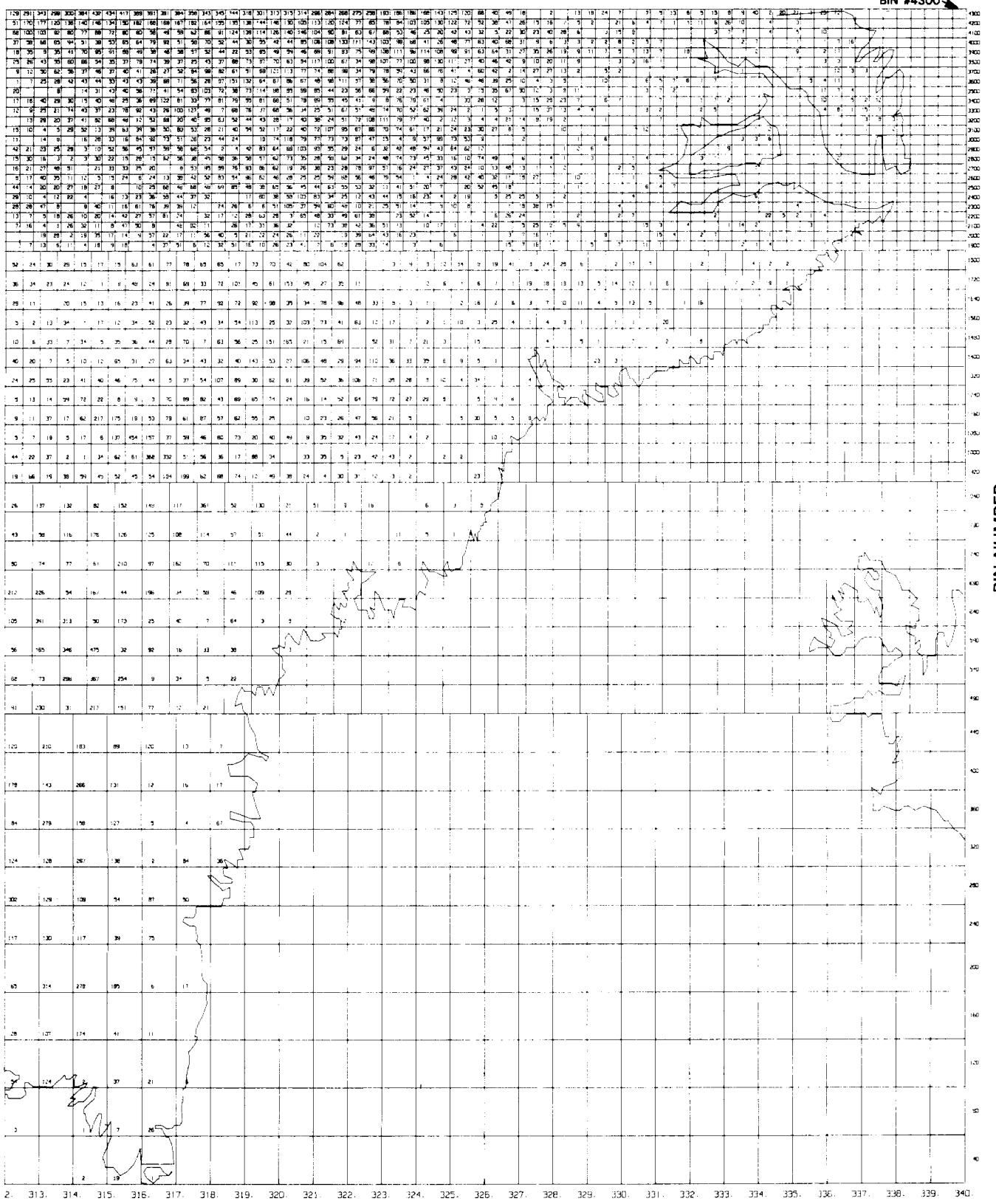


Figure 2. Greenland Data Base Configuration.

BIN #4300



EAST LONGITUDE (DEGREES)

ORIGINAL PAGE IS
OF POOR QUALITY

where

ΔH_{COR}	is the surface elevation with the slope correction applied
H_{DB}	is the surface elevation in the data base
ΔH_{SLOPE}	is the slope correction.

To remove the orbit adjustment, the following algorithm should be used:

$$\Delta H_{UNADJ} = H_{DB} + \Delta H_{ORB} \quad (2)$$

where

H_{UNADJ}	is the surface elevation without the orbit adjustment
H_{DB}	is the surface elevation in the data base
ΔH_{ORB}	is the orbit adjustment.

The data base is designed to be used on a direct-access device, so that data from one or several bins may be accessed without the need to read all the records prior to the location desired. This is achieved by dividing the data base into three sections.

The first section of the data base, a header which may be found on file 1 of the accompanying tape, gives a summary of its configuration: the locations of the corners of the data base, the number of latitude rows, the width in degrees of each of these rows, and the number of longitude divisions in each row. These pieces of information give the layout of the data base, as depicted in Figure 2. Information pertaining to the size of the data base, the starting record of the bin directory, and the corrections applied to the data are also contained in this header.

Following the header and contained on file 2 of the tape are the altimetry data ordered by bin number and within each bin by time. The altimetry data are subdivided into two subgroups for each bin which contains data. The first subgroup consists of one logical record which indicates the number of data points contained in the bin. The second subgroup consists of the actual altimetry data (position, rev number, surface height, orbit adjustment and slope correction), with each record corresponding to a data point.

The final section, a bin directory also contained on file 2, starts at the logical record indicated in the data base header. The directory contains an entry for each bin, and starting with the first bin, indicates the record number in the data base at which the start of the data from a particular bin may be found. Bins which contain no data have a zero entered in the directory. Tables 2 and 3 summarize the structure of the data base header and data base in greater detail.

The data base may be used to locate data within any desired area. The following example demonstrates how this may be done. The limits of the desired area are used in conjunction with the header information to determine exactly which bin numbers contain the data. Using the southernmost latitude of the desired area along with the width of the latitude rows, establishes the southernmost row which contains the data. Longitude limits of the desired area are then checked in conjunction with the size and location of the longitude divisions in that row. When the longitude limit of the desired area for that latitude group is exceeded, the process starts again with the next latitude row to the north. These steps are repeated until the northernmost boundary limit of the desired area is reached.

Equipped with the bin numbers which contain the data, the directory, which gives the logical record on the direct-access disk at which each bin begins, is read. If the directory value for the bin is non-zero, this logical record is then read to determine the number of records which follow and are contained in the same bin. The subsequent data is then read for each bin.

Software has been developed for use on the IBM 3081 which reads the geo-referenced data base on the first two files. A program which reads and prints out the contents of every bin given the southeastern and northwestern latitude-longitude limits of a desired area is listed in the Appendix and may be found on file 3 of the accompanying tape. The file is in ASCII, is fixed-blocked with a record length of 80 bytes, and is blocked at 3,200 bytes. Latitudes should be input in degrees North and longitudes in positive degrees East. The subroutine RANDRD along with its entry point RANDWR read and write one logical record of data, respectively, utilizing a system supplied direct access FORTRAN I/O package which includes DREAD and DWRITE. The entry points BLKRD and BLKWR read and write blocks of data at a time.

SECTION 3.0
POLAR STEREOGRAPHIC ELEVATION GRID

A grid was generated using the corrected and adjusted surface elevations in the geo-referenced data base after applying the slope correction. Data for which either the orbit adjustment or slope correction were unavailable were not used for the grid. Elevations in the grid were obtained by taking data located in the vicinity of each grid point and fitting them to a bilinear or biquadratic surface to determine the surface height at the grid point. GEM 10-B geoid values were subtracted from the elevations so that they are relative to sea level (see Section 4.0).

The accompanying grid was generated in a tangent polar stereographic projection where the plane of projection is located at the geographic North Pole (the projection latitude) and is normal to the earth's axis. Figure 3a depicts the concept behind this type of projection. A straight line is drawn from the South Pole (pole of projection), through a point of the earth's surface, Q, to the projection plane which is tangential to the North Pole. The projection plane is in turn divided into square grids from the pole to the Equator with the North Pole at the center. Three projection parameters define the size of the plane and the orientation of the plane and grid size:

S - a conversion factor from half-inch grids at the projection latitude to the desired grid size;

ϕ_p - the minimum latitude extent of the map perimeter for the projection latitude located at the North Pole; the maximum latitude extent for the projection latitude located at the South Pole;

G - the Greenwich orientation in degrees.

In the case of Greenland, where 20 km grid cells were decided as being optimum for the data distribution, values of S=1.65, $\phi_p = 50^\circ$, and G=45° were chosen.

These three parameters are sufficient to define a grid of the northern hemisphere, from the North Pole to 50° latitude where the number of grids of desired size from the pole to the Equator may be represented by:

$$D = \frac{2R}{S \times 10^6} . \quad (3)$$

where R is the radius of the earth measured in one half-inch grid cells and was chosen to be consistent with polar stereographic projections described in other documents.

The integer number of grids of desired size from the pole to the map perimeter is:

$$N = D \times \tan \frac{90 - |\phi_p|}{2} . \quad (4)$$

The grid, defined by I and J axes, with the origin in the upper left corner (see Figure 3b), represents the coordinates of the North Pole as:

$$\begin{aligned} I_p &= N + 1 \\ J_p &= N + 1 . \end{aligned} \quad (5)$$

Any point with latitude ϕ and longitude λ which is located in the northern hemisphere north of ϕ_p is positioned at the following I, J coordinates:

$$\begin{aligned} I &= \text{INT}[d \times A \times \cos(X) + I_p + 0.5] \\ J &= \text{INT}[d \times \sin(X) + J_p + 0.5] \end{aligned} \quad (6)$$

where

$$d \text{ is } D \times \tan \frac{90 - |\phi_p|}{2}$$

$$X \text{ is } \lambda + G$$

$$A \text{ is } +1 \text{ if } \phi_p \geq 0$$

$$A \text{ is } -1 \text{ if } \phi_p < 0 .$$

The included grid was generated such that smoothed heights relative to the ellipsoid are located at each of the I, J coordinates within Greenland. Grid locations outside Greenland and any undefined points within Greenland are indicated by a -100000000. Figure 4 depicts a topographic map obtained from this grid contoured at 100-m intervals.

File 4 of the accompanying tape contains a grid header which gives information defining the polar stereographic projection used. File 5 contains the grid points which were obtained using either a biquadratic or bilinear fit. Details concerning the gridding procedure may be found in Reference 5. Data are stored on file 5 such that the information for ten grid points is contained in one block of data. The order of grid points is first from decreasing to increasing I, then from decreasing to increasing J. Tables 4 and 5 give detailed description of files 4 and 5.

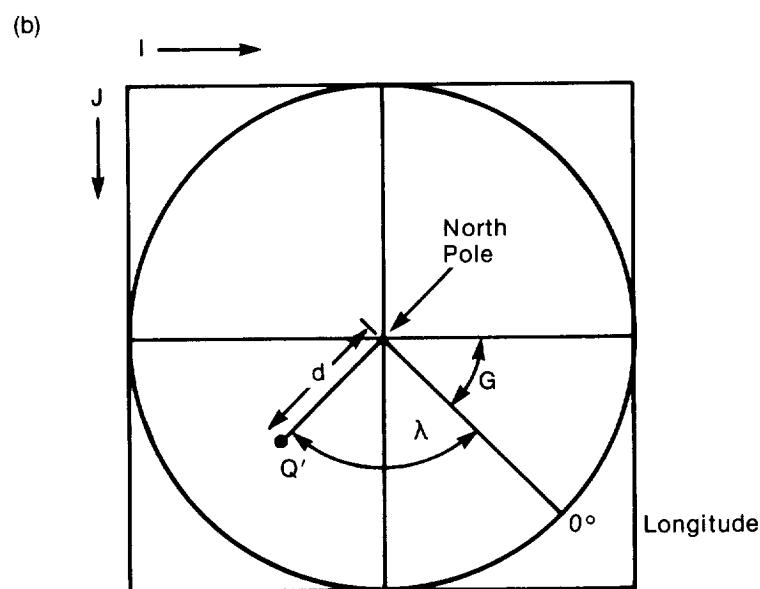
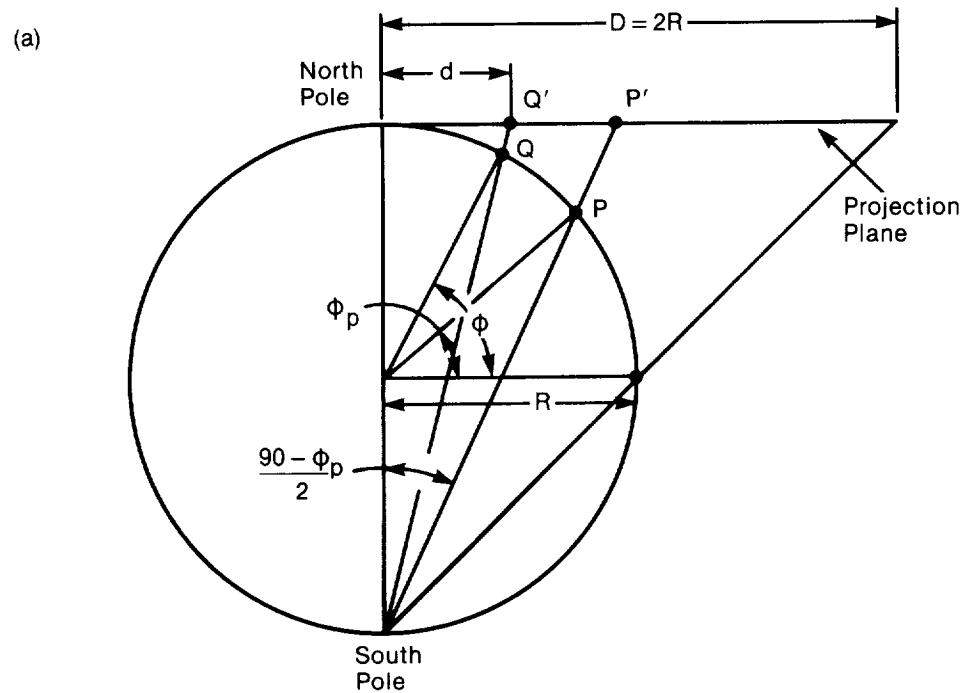


Figure 3. Polar Stereographic Projection of Point Q with Latitude ϕ and Longitude λ .

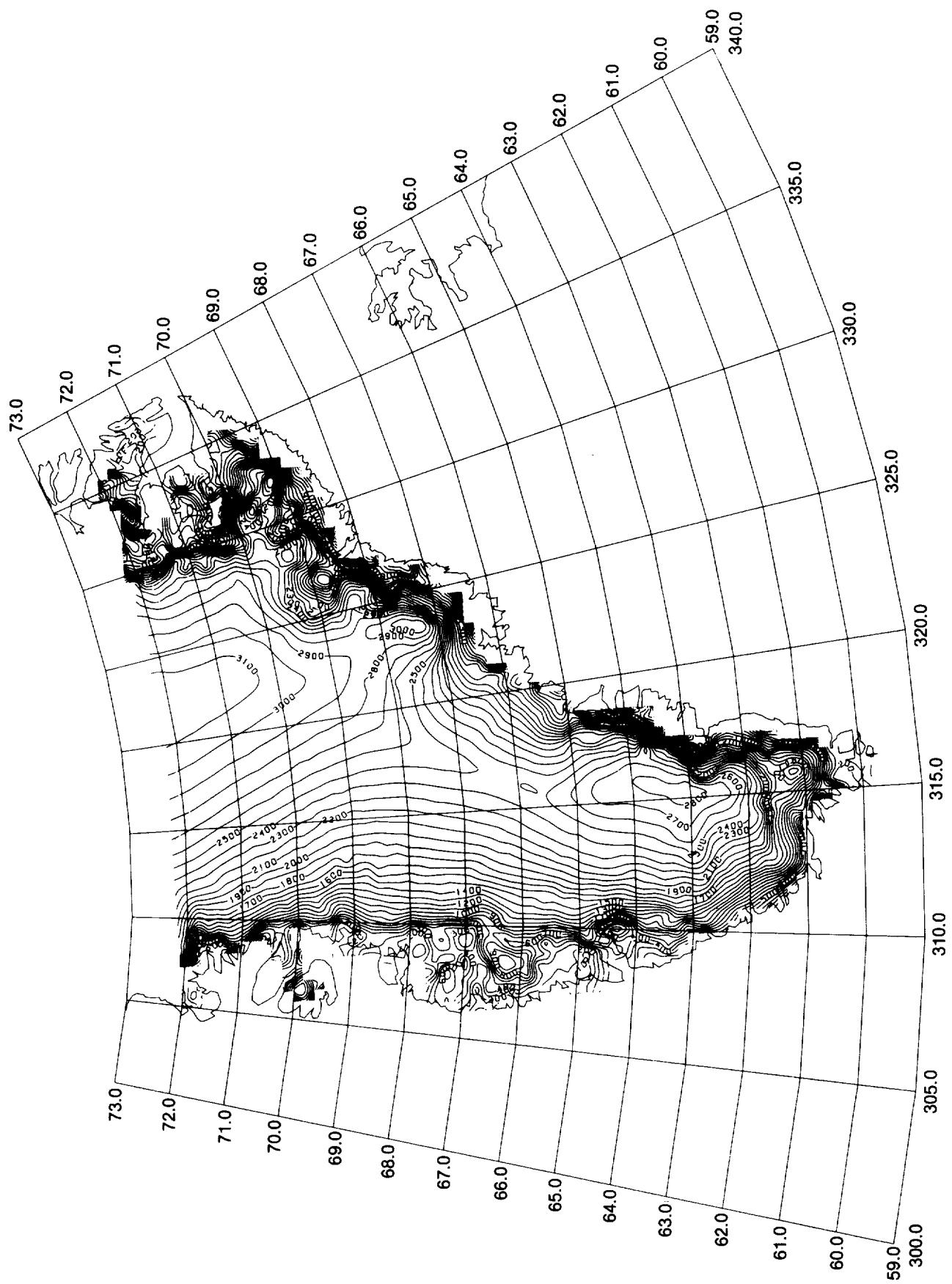


Figure 4. Seasat Greenland Topographic Map Contoured in 100-Meter Intervals.
(Data Less Reliable Where Dashed Lines Appear.)

SECTION 4.0

GEOID GRID

In order to obtain ice sheet elevations relative to sea level, the geoid was subtracted from each grid elevation. Geoid values were bilinearly interpolated from the 1x1-degree GEM10-B (Goddard Earth Model 10-B) geoid grid. Figure 5 shows a contour of this geoid in the vicinity of Greenland. Files 6 and 7 of the accompanying tape contain the header information and GEM 10-B 1x1-degree grid. Tables 6 and 7 give detailed descriptions of these files. Any values of the geoid not located on the map in Figure 4 are set equal to -100000000 in the grid.

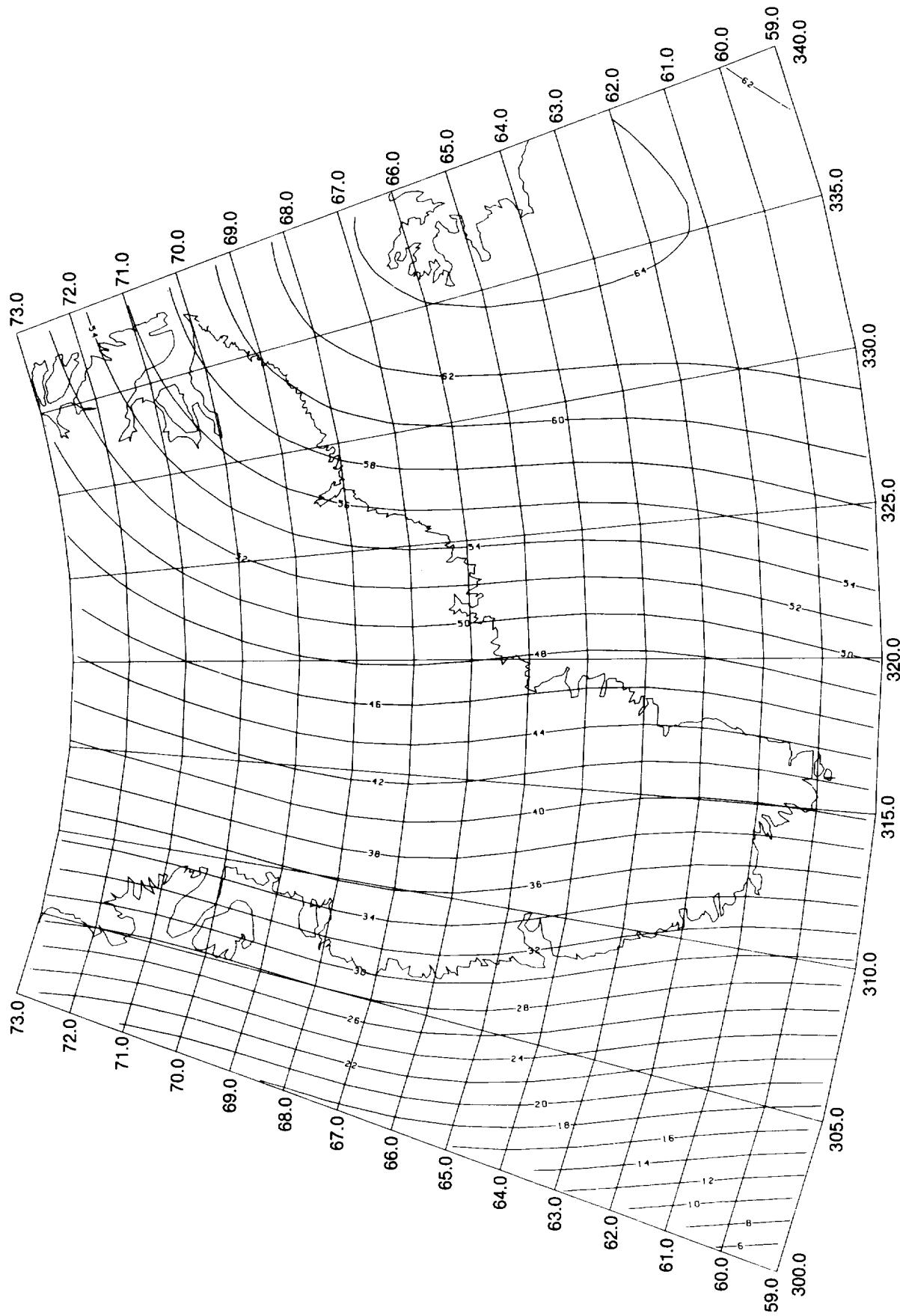


Figure 5. GEM10-B Geoid in Vicinity of Greenland Contoured in Meters.

TABLES

Table 1. Seasat Greenland Geo-referenced Data Base

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
15	2	59.90 314.00	529(2)
16	19	59.90 315.00	529(12)
17	1	59.90 316.00	529(1)
53	3	60.40 312.00	572(3)
55	1	60.40 314.00	1361(3)
56	7	60.40 315.00	835(1)
57	26	60.40 316.00	146(2)
92	3	60.90 311.00	529(2)
93	54	60.90 312.00	529(2)
94	124	60.90 313.00	529(2)
95	2	60.90 314.00	1308(9)
96	37	60.90 315.00	1351(6)
97	21	60.90 316.00	1394(9)
98	6	60.90 317.00	792(3)
131	2	61.40 310.00	591(5)
132	1	61.40 311.00	1351(7)
133	28	61.40 312.00	687(6)
134	107	61.40 313.00	400(39)
135	174	61.40 314.00	1361(10)
136	41	61.40 315.00	1361(10)
137	11	61.40 316.00	1361(10)
171	2	61.90 310.00	558(1)
172	24	61.90 311.00	591(2)
173	65	61.90 312.00	591(8)
174	314	61.90 313.00	146(5)
175	278	61.90 314.00	1179(24)
176	185	61.90 315.00	1437(2)
177	6	61.90 316.00	1017(6)
178	17	61.90 317.00	1437(12)
211	6	62.40 310.00	591(5)
212	59	62.40 311.00	146(6)
213	117	62.40 312.00	146(11)
214	130	62.40 313.00	1222(4)
215	117	62.40 314.00	189(20)
216	39	62.40 315.00	1265(24)
217	75	62.40 316.00	232(29)
249	1	62.80 308.00	1189(3)
250	12	62.80 309.00	1476(1)
			429(2)
			472(7)
			716(3)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
251	39	62.80 310.00	146(7) 228(20) 634(11) 716(1) 759(9) 878(19)
252	113	62.80 311.00	146(13) 271(19) 515(25) 677(5) 1351(2) 1394(3)
253	302	62.80 312.00	1437(1) 1179(4) 1222(4) 271(17) 515(5) 558(12) 677(1) 759(1) 1351(47)
254	129	62.80 313.00	146(1) 189(5) 232(3) 476(16) 558(33) 677(11) 759(1) 1351(47)
255	109	62.80 314.00	1394(46) 1179(9) 1222(4) 232(3) 476(16) 558(33) 677(11) 759(1) 1351(47)
256	54	62.80 315.00	156(5) 275(17) 519(15) 601(67) 720(33) 802(13)
257	87	62.80 316.00	156(2) 400(6) 888(14) 644(16) 763(6) 845(8)
258	50	62.80 317.00	1275(2) 1318(5) 1447(7) 1017(10) 1490(2) 1189(13) 1232(2) 1189(13) 1361(13) 1447(1)
290	92	63.20 309.00	1490(17) 1490(17) 634(1) 634(1) 673(7) 874(3) 1175(10) 1218(4)
291	66	63.20 310.00	1261(10) 1228(18) 1222(2) 1265(4) 1476(14) 1472(14) 634(2) 716(14) 878(10)
292	168	63.20 311.00	1189(9) 1179(35) 1232(1) 1232(25) 1228(13) 1222(16) 677(19) 716(9) 878(6)
293	124	63.20 312.00	1271(45) 1271(45) 1271(7) 1271(25) 1265(22) 1265(22) 515(20) 720(4) 759(47)
294	128	63.20 313.00	1271(8) 1271(8) 1271(7) 1271(25) 1271(7) 1271(5) 519(1) 558(46) 720(36)
295	267	63.20 314.00	1275(38) 1275(38) 1275(38) 1275(38) 558(39) 601(5) 763(75) 802(55)
296	138	63.20 315.00	1275(1) 1275(1) 1275(1) 1275(1) 562(52) 601(55) 763(11) 802(19)
297	2	63.20 316.00	1275(1) 1275(1) 1275(1) 1275(1) 644(1) 644(1) 644(1) 644(1) 1189(5) 1232(12) 1275(15) 1318(11)
298	84	63.20 317.00	1275(2) 1275(2) 1275(2) 1275(2) 644(12) 1447(4) 1490(14) 1189(1) 1275(14) 1318(1) 1361(8) 1447(5)
299	36	63.20 318.00	1275(5) 1275(5) 1275(5) 1275(5) 1275(1) 1275(1) 1275(1) 1275(1) 1275(1) 1318(1) 1361(8) 1447(5)
329	2	63.60 308.00	1490(2) 1490(2) 1490(2) 1490(2) 1490(1) 1490(1) 1490(1) 1490(1) 1490(1) 1351(2) 1394(5) 1175(5)
330	18	63.60 309.00	1630(2) 1630(2) 1630(2) 1630(2) 1630(1) 1630(1) 1630(1) 1630(1) 1630(1) 1351(2) 1394(5) 1175(5)
331	80	63.60 310.00	1630(5) 1630(5) 1630(5) 1630(5) 1630(4) 1630(4) 1630(4) 1630(4) 1630(4) 1351(2) 1394(5) 1175(5)
332	47	63.60 311.00	1218(4) 1218(4) 1218(4) 1218(4) 1218(3) 1218(3) 1218(3) 1218(3) 1218(3) 1351(2) 1394(5) 1175(5)
333	84	63.60 312.00	1394(7) 1394(7) 1394(7) 1394(7) 1394(6) 1394(6) 1394(6) 1394(6) 1394(6) 1351(2) 1394(5) 1175(5)
334	279	63.60 313.00	1228(9) 1228(9) 1228(9) 1228(9) 1228(8) 1228(8) 1228(8) 1228(8) 1228(8) 1351(2) 1394(5) 1175(5)
335	158	63.60 314.00	1271(2) 1271(2) 1271(2) 1271(2) 1271(1) 1271(1) 1271(1) 1271(1) 1271(1) 1351(2) 1394(5) 1175(5)
336	127	63.60 315.00	1275(25) 1275(25) 1275(25) 1275(25) 1275(24) 1275(24) 1275(24) 1275(24) 1275(24) 1351(2) 1394(5) 1175(5)
337	5	63.60 316.00	1275(2) 1275(2) 1275(2) 1275(2) 1275(1) 1275(1) 1275(1) 1275(1) 1275(1) 1351(2) 1394(5) 1175(5)
338	4	63.60 317.00	1275(2) 1275(2) 1275(2) 1275(2) 1275(1) 1275(1) 1275(1) 1275(1) 1275(1) 1351(2) 1394(5) 1175(5)
339	67	63.60 318.00	1275(2) 1275(2) 1275(2) 1275(2) 1275(1) 1275(1) 1275(1) 1275(1) 1275(1) 1351(2) 1394(5) 1175(5)
369	4	64.00 308.00	1447(3) 1447(3) 1447(3) 1447(3) 1447(2) 1447(2) 1447(2) 1447(2) 1447(2) 1351(2) 1394(5) 1175(5)
370	68	64.00 309.00	1447(3) 1447(3) 1447(3) 1447(3) 1447(2) 1447(2) 1447(2) 1447(2) 1447(2) 1351(2) 1394(5) 1175(5)
371	32	64.00 310.00	1447(1) 1447(1) 1447(1) 1447(1) 1447(0) 1447(0) 1447(0) 1447(0) 1447(0) 1351(2) 1394(5) 1175(5)
372	149	64.00 311.00	1447(15) 1447(15) 1447(15) 1447(15) 1447(14) 1447(14) 1447(14) 1447(14) 1447(14) 1351(2) 1394(5) 1175(5)
373	178	64.00 312.00	1447(22) 1447(22) 1447(22) 1447(22) 1447(21) 1447(21) 1447(21) 1447(21) 1447(21) 1351(2) 1394(5) 1175(5)
374	143	64.00 313.00	1447(2) 1447(2) 1447(2) 1447(2) 1447(1) 1447(1) 1447(1) 1447(1) 1447(1) 1351(2) 1394(5) 1175(5)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
375	266	64.00 314.00	562(45) 605(2)
376	131	64.00 315.00	759(4) 806(40)
377	12	64.00 316.00	558(3) 849(1)
378	16	64.00 317.00	691(3) 1279(7)
379	17	64.00 318.00	644(7) 845(2)
409	70	64.40 308.00	189(1) 1179(3)
410	3	64.40 309.00	1394(29) 1437(15)
411	13	64.40 310.00	587(3) 571(2)
412	99	64.40 311.00	271(58) 515(54)
413	120	64.40 312.00	558(43) 605(44)
414	210	64.40 313.00	874(15) 849(8)
415	183	64.40 314.00	429(52) 1236(52)
416	189	64.40 315.00	806(63) 673(35)
417	120	64.40 316.00	160(20) 673(10)
418	13	64.40 317.00	271(20) 673(10)
419	7	64.40 318.00	160(44) 673(10)
450	5	64.80 307.20	1236(2) 673(10)
451	11	64.80 308.00	1179(3) 673(10)
452	5	64.80 309.80	1236(2) 673(10)
453	3	64.80 310.60	544(5) 587(3)
454	33	64.80 311.40	275(1) 519(10)
455	45	64.80 311.20	630(15) 831(30)
456	91	64.80 312.00	562(39) 630(32)
457	230	64.80 312.80	429(58) 605(31)
458	231	64.80 313.60	429(10) 605(10)
459	217	64.80 314.40	160(18) 228(18)
460	151	64.80 315.20	160(57) 648(41)
461	77	64.80 316.00	1236(17) 1279(11)
462	12	64.80 316.80	1691(12) 1759(6)
463	21	64.80 317.60	1322(8) 1365(14)
500	3	65.10 307.20	558(12) 587(14)
501	30	65.10 308.00	720(3) 257(10)
502	1	65.10 308.80	232(15) 720(5)
503	14	65.10 309.60	275(3) 544(4)
504	19	65.10 310.40	562(1) 587(4)
505	36	65.10 311.20	562(24) 587(7)
506	68	65.10 312.00	605(11) 630(4)
507	73	65.10 312.80	605(35) 673(6)
508	296	65.10 313.60	160(18) 429(6)
509	367	65.10 314.40	160(58) 429(11)
510	254	65.10 315.20	1150(35) 1193(35)
511	9	65.10 316.00	673(31) 691(3)
512	34	65.10 316.80	490(17) 759(3)
513	5	65.10 317.60	558(2) 558(10)
514	22	65.10 318.40	289(2) 777(10)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
550	4	65.40 307.20	720(4)
551	4	65.40 308.00	257(3)
552	26	65.40 308.80	257(9)
553	10	65.40 309.60	564(2)
554	59	65.40 310.40	564(10)
555	51	65.40 311.20	587(11)
556	56	65.40 312.00	587(12)
557	165	65.40 312.80	160(22)
558	346	65.40 313.60	160(16)
559	475	65.40 314.40	1150(39)
560	32	65.40 315.20	1150(39)
561	92	65.40 316.00	1150(39)
562	16	65.40 316.80	228(8)
563	33	65.40 317.60	429(59)
564	38	65.40 318.40	1193(37)
565	5	65.40 320.00	802(14)
600	12	65.70 307.20	519(2)
601	7	65.70 308.00	275(3)
603	16	65.70 309.60	257(16)
604	70	65.70 310.40	544(15)
605	53	65.70 311.20	544(15)
606	105	65.70 312.00	160(17)
607	391	65.70 312.80	160(39)
608	313	65.70 313.60	1150(42)
609	50	65.70 314.40	1236(30)
610	173	65.70 315.20	490(22)
611	125	65.70 316.00	429(42)
612	40	65.70 316.80	429(17)
613	7	65.70 317.60	228(5)
614	64	65.70 318.40	777(7)
615	3	65.70 319.20	271(2)
616	8	65.70 320.00	820(3)
618	2	65.70 321.59	1035(2)
619	11	66.00 307.20	1204(7)
650	27	66.00 308.00	562(6)
651	10	66.00 308.80	562(3)
652	25	66.00 309.60	501(2)
653	37	66.00 310.40	257(13)
654	103	66.00 311.20	160(3)
655	212	66.00 312.00	160(9)
656			544(24)
657	226	66.00 312.80	1021(29)
658	54	66.00 313.60	1494(7)
659	167	66.00 314.40	1494(47)
660	44	66.00 315.20	630(47)
661	196	66.00 316.00	289(38)
662	34	66.00 316.80	429(25)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont..)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
663	58	66.00 317.60	472(26)
664	46	66.00 318.60	472(3)
665	109	66.00 319.20	472(5)
666	28	66.00 320.00	472(4)
668	2	66.00 321.59	472(1)
669	15	66.30 306.40	515(1)
699	15	66.30 307.20	515(1)
700	7	66.30 308.00	515(1)
701	6	66.30 308.80	515(1)
702	29	66.30 309.60	515(1)
703	1	66.30 310.40	515(1)
704	23	66.30 311.20	515(1)
705	95	66.30 312.00	515(1)
706	80	66.30 312.00	515(1)
707	74	66.30 312.80	515(1)
708	77	66.30 313.60	515(1)
709	61	66.30 314.40	515(1)
710	210	66.30 315.20	515(1)
711	97	66.30 316.00	515(1)
712	162	66.30 316.80	515(1)
713	170	66.30 317.60	515(1)
714	111	66.30 318.40	515(1)
715	115	66.30 319.20	515(1)
716	30	66.30 320.00	515(1)
717	3	66.30 320.79	515(1)
719	12	66.30 322.39	515(1)
720	6	66.30 323.19	515(1)
749	6	66.60 306.40	515(1)
750	10	66.60 307.20	515(1)
751	10	66.60 308.00	515(1)
752	1	66.60 308.80	515(1)
753	34	66.60 309.60	515(1)
754	16	66.60 310.40	515(1)
756	43	66.60 312.00	515(1)
757	58	66.60 312.80	515(1)
758	116	66.60 313.60	515(1)
759	176	66.60 314.40	515(1)
760	126	66.60 315.20	515(1)
761	125	66.60 316.00	515(1)
762	108	66.60 316.80	515(1)
763	114	66.60 317.60	515(1)
764	157	66.60 318.40	515(1)
765	51	66.60 319.20	515(1)
766	44	66.60 320.00	515(1)
767	2	66.60 320.79	515(1)
768	11	66.60 321.59	515(1)
770	11	66.60 323.19	515(1)
771	15	66.60 323.99	515(1)
772	1	66.60 324.79	515(1)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
799	6	66.90 306.40	573(3)
800	32	66.90 307.20	605(3)
801	6	66.90 308.00	573(32)
802	43	66.90 308.80	648(2)
803	25	66.90 309.60	1021(10)
804	35	66.90 310.40	1021(7)
805	38	66.90 311.20	1150(4)
806	26	66.90 312.00	1150(2)
807	137	66.90 312.80	1193(7)
808	132	66.90 313.60	1193(2)
809	82	66.90 314.40	1032(20)
810	152	66.90 315.20	1032(1)
811	148	66.90 316.00	1161(4)
812	117	66.90 316.80	1032(18)
813	361	66.90 317.60	289(24)
814	52	66.90 318.40	289(58)
815	130	66.90 319.20	544(55)
816	21	66.90 320.00	544(29)
817	51	66.90 320.79	587(62)
818	9	66.90 321.59	619(53)
819	16	66.90 322.39	619(13)
820	6	66.90 323.99	788(13)
821	6	66.90 324.79	820(20)
822	3	66.90 325.59	820(27)
823	8	66.90 326.39	601(38)
824	7	66.90 327.19	501(9)
825	6	66.90 327.99	576(10)
826	5	66.90 328.79	576(25)
827	15	67.20 307.50	587(5)
828	12	67.20 308.00	587(1)
829	4	67.20 309.50	1021(2)
830	17	67.20 311.00	1150(2)
831	16	67.20 311.50	1150(5)
832	19	67.20 312.00	1150(12)
833	66	67.20 312.50	1150(7)
834	19	67.20 313.00	1150(13)
835	38	67.20 313.50	1150(19)
836	59	67.20 314.00	1150(31)
837	45	67.20 314.50	1150(15)
838	52	67.20 315.00	1250(1)
839	45	67.20 315.50	1250(1)
840	54	67.20 316.00	1250(1)
841	184	67.20 316.50	1250(2)
842	45	67.20 317.00	1250(1)
843	52	67.20 317.50	1250(1)
844	62	67.20 318.00	1250(1)
845	68	67.20 318.50	1250(1)
846	74	67.20 319.00	1250(1)
847	12	67.20 319.50	1250(1)
848	49	67.20 319.50	1250(1)
849	199	67.20 317.00	1250(1)
850	62	67.20 317.50	1250(1)
851	67	67.20 318.00	1250(1)
852	67	67.20 318.50	1250(1)
853	67	67.20 319.00	1250(1)
854	67	67.20 319.50	1250(1)
855	67	67.20 320.00	1250(1)
856	67	67.20 320.50	1250(1)
857	67	67.20 321.00	1250(1)
858	67	67.20 321.50	1250(1)
859	67	67.20 322.00	1250(1)
860	67	67.20 322.50	1250(1)
861	67	67.20 323.00	1250(1)
862	67	67.20 323.50	1250(1)
863	67	67.20 324.00	1250(1)
864	67	67.20 324.50	1250(1)
865	67	67.20 325.00	1250(1)
866	67	67.20 325.50	1250(1)
867	67	67.20 326.00	1250(1)
868	67	67.20 326.50	1250(1)
869	67	67.20 327.00	1250(1)
870	67	67.20 327.50	1250(1)
871	67	67.20 328.00	1250(1)
872	67	67.20 328.50	1250(1)
873	67	67.20 329.00	1250(1)
874	67	67.20 329.50	1250(1)
875	199	67.20 317.00	1250(1)
876	62	67.20 317.50	1250(1)
877	68	67.20 318.00	1250(1)
878	74	67.20 318.50	1250(1)
879	12	67.20 319.00	1250(1)
880	49	67.20 319.50	1250(1)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
881	38	67.20 320.00	429(3)
882	24	67.20 320.50	429(19)
883	4	67.20 321.00	547(4)
884	30	67.20 321.50	472(6)
885	31	67.20 322.00	228(13)
886	12	67.20 322.50	228(13)
887	3	67.20 323.00	590(12)
888	2	67.20 323.50	515(1)
892	23	67.20 325.50	759(2)
934	4	67.40 306.50	432(5)
935	6	67.40 307.00	648(2)
936	24	67.40 307.50	530(2)
937	52	67.40 308.00	286(2)
938	10	67.40 308.50	1494(6)
940	1	67.40 309.50	774(6)
941	3	67.40 310.00	573(1)
942	4	67.40 310.50	616(3)
944	21	67.40 311.50	289(4)
945	44	67.40 312.00	289(5)
946	22	67.40 312.50	576(11)
947	37	67.40 313.00	576(37)
948	2	67.40 313.50	576(2)
949	1	67.40 314.00	820(1)
950	34	67.40 314.50	501(2)
951	62	67.40 315.00	257(39)
952	61	67.40 315.50	418(19)
953	368	67.40 316.00	174(36)
954	332	67.40 316.50	1207(26)
955	51	67.40 317.00	1465(2)
956	56	67.40 317.50	461(12)
957	36	67.40 318.00	461(22)
958	17	67.40 318.50	504(8)
959	88	67.40 319.00	260(22)
960	34	67.40 319.50	260(2)
962	33	67.40 320.50	429(6)
963	35	67.40 321.50	429(14)
964	23	67.40 322.00	590(3)
965	42	67.40 322.50	590(19)
966	43	67.40 323.00	228(9)
967	2	67.40 324.50	633(28)
968	2	67.40 325.00	1221(2)
970	2	67.40 325.50	558(2)
971	2	67.60 306.50	160(1)
972	1	67.60 307.00	160(5)
1014	21	67.60 307.50	1021(2)
1015	23	67.60 308.00	530(9)
1016	9	67.60 308.50	530(6)
1017	16	67.60 308.50	774(10)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1019	10	67.60 309.00	774(10)
1020	5	67.60 309.50	690(1)
1021	7	67.60 310.00	573(7)
1023	40	67.60 311.00	289(2)
1024	18	67.60 311.50	616(1)
1025	5	67.60 312.00	777(17)
1026	7	67.60 312.50	576(5)
1027	19	67.60 313.00	576(2)
1028	5	67.60 313.50	659(3)
1029	17	67.60 314.00	659(12)
1030	6	67.60 314.50	1032(2)
1031	137	67.60 315.00	619(3)
1032	454	67.60 315.50	619(17)
1033	157	67.60 316.00	174(17)
1034	37	67.60 316.50	136(8)
1035	59	67.60 317.00	136(39)
1036	46	67.60 317.50	1379(8)
1037	80	67.60 318.00	1257(18)
1038	73	67.60 318.50	1422(39)
1039	20	67.60 319.00	1466(37)
1040	40	67.60 319.50	1250(3)
1041	49	67.60 320.00	461(37)
1042	9	67.60 320.50	544(20)
1043	35	67.60 321.00	260(21)
1044	32	67.60 321.50	260(32)
1045	43	67.60 322.00	504(22)
1046	24	67.60 322.50	547(6)
1047	17	67.60 323.00	587(14)
1048	4	67.60 323.50	1293(13)
1049	2	67.60 324.00	1336(12)
1050	10	67.60 326.00	1379(9)
1053	4	67.80 306.00	1231(10)
1054	22	67.80 306.50	1279(4)
1055	23	67.80 307.00	1250(1)
1057	1	67.80 308.00	1279(1)
1058	1	67.80 308.50	490(1)
1059	3	67.80 309.00	530(1)
1060	10	67.80 309.50	74(10)
1101	17	67.80 310.00	573(1)
1102	22	67.80 310.50	289(10)
1103	15	67.80 311.00	573(5)
1104	7	67.80 311.50	576(4)
1105	9	67.80 312.00	616(6)
1106	11	67.80 312.50	820(6)
1107	37	67.80 313.00	619(5)
1108	17	67.80 313.50	659(15)
1109	62	67.80 314.00	418(15)
1110	67	67.80 314.50	1250(24)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1111	175	67.80 315.00	1293(16) 1035(7) 1164(23) 1207(18) 1112
1113	19	67.80 315.50	1293(18) 1336(15) 1379(21) 1422(15) 1465(22) 1250(19)
1114	53	67.80 316.00	461(19) 501(14) 501(14) 501(39)
1115	79	67.80 316.50	257(38) 461(22) 260(22) 260(22) 501(7) 504(22)
1116	61	67.80 317.00	257(22) 260(39) 504(29) 544(19)
1117	87	67.80 317.50	260(11) 544(11) 544(38) 544(38) 788(8)
1118	57	67.80 318.00	544(32) 547(32) 547(28) 547(28) 788(31)
1119	62	67.80 318.50	547(32) 587(32) 587(10) 587(10) 788(13)
1120	55	67.80 319.00	587(23) 791(23) 791(22) 791(22) 831(33)
1121	25	67.80 319.50	630(7) 630(7) 630(7) 630(7) 831(33)
1122	10	67.80 320.50	630(11) 630(11) 630(11) 630(11) 831(12)
1123	23	67.80 321.00	633(2) 633(2) 633(2) 633(2) 834(8)
1124	26	67.80 321.50	629(16) 633(16) 633(16) 633(16) 874(16)
1125	47	67.80 322.00	629(35) 673(35) 673(62) 673(62) 874(12)
1126	56	67.80 322.50	629(35) 673(62) 673(62) 673(62) 874(8)
1127	21	67.80 323.00	629(42) 877(42) 877(22) 877(22) 1264(15)
1128	25	67.80 323.50	432(3) 716(2) 716(2) 716(2) 874(8)
1129	30	67.80 325.00	231(4) 271(4) 271(1) 271(1) 874(8)
1130	35	67.80 325.50	271(19) 515(9) 515(9) 515(9) 874(8)
1131	5	67.80 326.00	518(5) 518(5) 518(5) 518(5) 874(8)
1132	5	67.80 326.50	274(1) 518(1) 518(1) 518(1) 874(8)
1133	5	67.80 327.00	558(1) 558(1) 558(1) 558(1) 874(8)
1134	5	67.80 327.50	1405(1) 1405(1) 1405(1) 1405(1) 874(8)
1135	1	68.00 306.50	200(1) 200(1) 200(1) 200(1) 874(8)
1176	11	68.00 307.50	490(1) 490(1) 490(1) 490(1) 874(8)
1177	19	68.00 308.00	289(4) 576(4) 576(4) 576(4) 874(8)
1180	31	68.00 310.00	530(4) 576(4) 576(4) 576(4) 874(8)
1181	13	68.00 310.50	286(2) 573(2) 573(2) 573(2) 874(8)
1182	14	68.00 311.00	573(2) 573(14) 573(14) 573(14) 874(8)
1183	14	68.00 311.50	619(14) 619(14) 619(14) 619(14) 874(8)
1184	15	68.00 312.00	616(9) 616(9) 616(9) 616(9) 874(8)
1185	13	68.00 312.50	616(9) 616(9) 616(9) 616(9) 874(8)
1186	14	68.00 313.00	418(1) 616(2) 662(2) 662(2) 874(8)
1187	59	68.00 313.50	418(9) 662(10) 1035(18) 1035(18) 874(8)
1188	72	68.00 314.00	174(3) 418(15) 659(10) 659(10) 874(8)
1189			1250(12) 1250(12) 1250(12) 1250(12) 874(8)
1190	22	68.00 314.50	461(4) 659(18) 659(18) 659(18) 874(8)
1191	8	68.00 315.00	461(6) 1032(2) 1032(2) 1032(2) 874(8)
1192	9	68.00 315.50	461(9) 504(3) 504(3) 504(3) 874(8)
1193	3	68.00 316.00	260(33) 504(37) 504(37) 504(37) 874(8)
1194	70	68.00 317.00	257(16) 260(16) 260(16) 260(16) 874(8)
1195	89	68.00 317.50	257(38) 501(31) 501(31) 501(31) 547(13)
1196	82	68.00 318.00	257(7) 547(36) 547(36) 547(36) 874(8)
1197	43	68.00 318.50	544(32) 544(26) 544(26) 544(26) 791(29)
1198	69	68.00 319.00	544(26) 590(16) 590(16) 590(16) 788(23)
1199	65	68.00 319.50	587(2) 590(38) 590(38) 590(38) 788(34)
1200	74	68.00 320.00	587(23) 590(1) 590(1) 590(1) 874(8)
1201	24	68.00 320.50	834(8) 834(8) 834(8) 834(8) 874(8)
1202	16	68.00 321.00	834(5) 834(5) 834(5) 834(5) 874(8)
1203	14	68.00 321.50	834(11) 834(11) 834(11) 834(11) 874(8)
1204	52	68.00 322.00	834(18) 676(13) 676(13) 676(13) 874(8)
1205	64		877(9) 877(9) 877(9) 877(9) 874(8)

Table 1. Seasat Greenland Georeferenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1206	79	68.00 322.50	432(7) 673(6) 676(13) 874(32)
1207	72	68.00 323.00	1264(10) 429(17) 432(7) 673(20) 874(28)
1208	27	68.00 323.50	231(3) 475(20) 475(11) 719(13)
1209	29	68.00 324.00	231(20) 475(6) 719(3)
1210	8	68.00 324.50	472(2) 716(6)
1212	5	68.00 325.50	515(5) 762(6)
1213	9	68.00 326.00	271(3) 762(6)
1214	6	68.00 326.50	271(6)
1258	8	68.20 308.50	777(9)
1259	8	68.20 309.00	777(8)
1260	8	68.20 309.50	263(8)
1261	2	68.20 310.00	576(2)
1262	8	68.20 310.50	286(3) 530(5)
1263	10	68.20 311.00	286(4) 530(2)
1264	1	68.20 311.50	286(1)
1265	24	68.20 312.00	573(24)
1266	25	68.20 312.50	174(7) 418(9) 573(2) 662(6)
1267	55	68.20 313.00	174(5) 418(11) 616(1) 1035(1)
1268	23	68.20 313.50	1207(1) 1250(1) 616(6) 1164(1)
1269	41	68.20 314.00	461(29) 616(12) 1035(11) 1207(4) 1164(21)
1270	40	68.20 314.50	461(28) 659(12) 1032(13)
1271	46	68.20 315.00	659(33) 1032(13) 504(18) 659(6) 1032(30)
1272	75	68.20 315.50	260(21) 1032(9)
1273	44	68.20 316.00	260(43) 547(1)
1274	5	68.20 316.50	260(43) 547(1)
1275	37	68.20 317.00	567(37)
1276	54	68.20 317.50	501(7) 547(24) 791(23)
1277	107	68.20 318.00	257(30) 501(35) 590(5) 791(37)
1278	189	68.20 318.50	32(32) 590(18) 590(37) 791(2)
1279	30	68.20 319.00	564(11) 590(19)
1280	62	68.20 319.50	564(37) 788(22) 834(23)
1281	61	68.20 320.00	564(14) 633(7) 788(33) 834(7)
1282	39	68.20 320.50	587(16) 788(23)
1283	52	68.20 321.00	32(32) 877(20) 676(9) 831(2)
1284	36	68.20 321.50	432(16) 587(9) 676(9) 831(37) 1221(14)
1285	106	68.20 322.00	432(24) 630(19) 831(37) 1221(14)
1286	171	68.20 322.50	475(4) 630(34) 719(10) 831(23)
1287	85	68.20 323.00	231(28) 475(33) 719(23) 874(1)
1288	28	68.20 323.50	23(23) 518(5) 673(2)
1289	8	68.20 324.00	429(5) 518(1) 673(2)
1290	10	68.20 324.50	274(1) 518(9) 716(1)
1291	4	68.20 325.00	472(3) 561(10) 716(2)
1292	34	68.20 325.50	472(22) 561(10) 716(2)
1295	4	68.20 327.00	805(4)
1339	2	68.40 309.00	200(1)
1341	8	68.40 310.00	243(8) 688(1)
1342	22	68.40 310.50	243(9) 619(13)
1344	16	68.40 311.50	174(2) 286(8) 418(2) 530(4)
1345	40	68.40 312.00	174(16) 286(9) 418(3) 1035(6)
1346	20	68.40 312.50	174(3) 418(3) 1164(7) 1207(2) 1250(2)
1347	7	68.40 313.00	573(7) 573(3) 1164(7) 1207(2) 1250(2)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1348	5	68.40 313.50	573(4)
1349	10	68.40 314.00	616(9)
1350	12	68.40 314.50	616(7)
1351	65	68.40 315.00	504(3)
1352	31	68.40 315.50	616(6)
1353	27	68.40 316.00	659(12)
1354	63	68.40 316.50	
1355	34	68.40 317.00	1032(27)
1356	43	68.40 317.50	1032(22)
1357	32	68.40 318.00	1791(14)
1358	40	68.40 318.50	
1359	143	68.40 319.00	501(19)
1360	153	68.40 319.50	834(16)
1361	27	68.40 320.00	590(32)
1362	106	68.40 320.50	501(36)
1363	48	68.40 321.00	676(35)
1364	29	68.40 321.50	676(11)
1365	94	68.40 322.00	676(12)
1366	110	68.40 322.50	544(32)
1367	136	68.40 323.00	676(32)
1368	33	68.40 323.50	587(13)
1369	35	68.40 324.00	231(27)
1370	6	68.40 324.50	788(8)
1371	9	68.40 325.00	231(22)
1372	5	68.40 325.50	788(2)
1373	1	68.40 326.00	231(22)
1379	23	68.40 329.00	788(2)
1380	3	68.40 329.50	558(2)
1381	22	68.40 330.00	558(2)
1415	6	68.60 307.00	1321(33)
1416	19	68.60 307.50	1777(22)
1419	6	68.60 309.00	1777(11)
1421	6	68.60 310.00	619(22)
1422	1	68.60 310.50	619(22)
1423	25	68.60 311.00	1147(7)
1424	38	68.60 311.50	688(2)
1425	10	68.60 312.00	
1426	6	68.60 312.50	619(19)
1427	33	68.60 313.00	286(15)
1428	7	68.60 313.50	286(15)
1429	34	68.60 314.00	573(5)
1430	5	68.60 314.50	573(5)
1431	35	68.60 315.00	573(5)
1432	36	68.60 315.50	547(5)
1433	44	68.60 316.00	547(8)
1434	28	68.60 316.50	590(22)
1435	70	68.60 317.00	590(36)
1436	7	68.60 317.50	590(5)
1437	63	68.60 318.00	1032(22)
1438	56	68.60 318.50	834(27)
1439	25	68.60 319.00	633(36)
1440	151	68.60 319.50	633(1)
1441	165	68.60 320.00	257(15)
1442	21	68.60 320.50	432(35)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1443	15	68.-60 321.00	544(4)
1444	69	68.-60 321.50	475(9)
1446	52	68.-60 322.50	587(24)
1447	31	68.-60 323.00	518(25)
1448	7	68.-60 323.50	518(1)
1449	21	68.-60 324.00	630(15)
1450	3	68.-60 324.50	630(3)
1452	15	68.-60 325.50	805(10)
1456	5	68.-60 327.50	874(5)
1458	17	68.-60 328.50	1020(4)
1459	2	68.-60 329.00	515(1)
1461	1	68.-60 330.00	489(7)
1463	8	68.-60 331.00	802(2)
1465	5	68.-60 332.00	776(8)
1498	17	68.-80 308.50	645(3)
1499	9	68.-80 309.00	401(13)
1500	38	68.-80 309.50	401(5)
1501	47	68.-80 310.00	200(5)
1502		68.-80 310.50	174(5)
1503	10	68.-80 311.00	1164(7)
1504	4	68.-80 311.50	200(10)
1505	5	68.-80 312.00	243(4)
1506	2	68.-80 312.50	243(2)
1507	13	68.-80 313.00	260(30)
1508	34	68.-80 313.50	504(4)
1509	1	68.-80 314.00	747(1)
1510	17	68.-80 314.50	547(13)
1511	12	68.-80 315.00	573(9)
1512	34	68.-80 315.50	590(12)
1513	52	68.-80 316.00	590(32)
1514	23	68.-80 316.50	590(11)
1515	32	68.-80 317.00	633(11)
1516	43	68.-80 317.50	633(27)
1517	34	68.-80 318.00	633(7)
1518	54	68.-80 318.50	632(17)
1519	113	68.-80 319.00	632(35)
1520	125	68.-80 319.50	632(15)
1521	32	68.-80 320.00	676(4)
1522	103	68.-80 320.50	231(7)
1523	73	68.-80 321.00	231(35)
1524	41	68.-80 321.50	257(4)
1525	63	68.-80 322.00	274(6)
1526	12	68.-80 322.50	518(8)
1527	17	68.-80 323.00	561(17)
1528	2	68.-80 324.00	587(2)
1530	10	68.-80 324.50	831(1)
1531	10	68.-80 325.00	630(5)
1532	3	68.-80 325.50	831(2)
1533	25	68.-80 326.00	673(4)
1534	4	68.-80 326.50	848(2)
1535	1	68.-80 327.00	673(1)
1536	4	68.-80 327.50	891(4)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.).

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1537	3	68.80 328.00	228(3)
1538	1	68.80 328.50	228(1)
1540	1	68.80 329.50	225(1)
1541	1	68.80 330.00	271(1)
1543	20	68.80 331.00	776(20)
1579	10	69.00 309.00	662(5)
1580	19	69.00 309.50	645(2)
1581	3	69.00 310.00	645(3)
1582	5	69.00 310.50	1276(5)
1583	21	69.00 311.00	200(9)
1584	10	69.00 311.50	200(2)
1585	29	69.00 312.00	200(11)
1586	11	69.00 312.50	243(4)
1588	20	69.00 313.00	243(5)
1589	15	69.00 314.00	286(8)
1590	13	69.00 314.50	286(1)
1591	16	69.00 315.00	286(6)
1592	23	69.00 315.50	573(19)
1593	41	69.00 316.00	573(34)
1594	26	69.00 316.50	616(3)
1595	39	69.00 317.00	616(25)
1596	77	69.00 317.50	632(15)
1597	92	69.00 318.00	632(33)
1598	72	69.00 318.50	432(18)
1599	98	69.00 319.00	659(35)
1600	98	69.00 319.50	659(6)
1601	35	69.00 320.00	231(32)
1602	34	69.00 320.50	231(26)
1603	78	69.00 321.00	274(10)
1604	96	69.00 321.50	274(34)
1605	48	69.00 322.00	274(24)
1606	33	69.00 322.50	257(3)
1607	8	69.00 323.00	561(33)
1608	3	69.00 323.50	561(8)
1609	1	69.00 324.00	788(1)
1611	2	69.00 325.00	788(1)
1612	16	69.00 325.50	848(2)
1613	12	69.00 326.00	831(7)
1614	6	69.00 326.50	630(2)
1615	3	69.00 327.00	646(4)
1616	7	69.00 327.50	874(3)
1617	10	69.00 328.00	673(4)
1618	11	69.00 328.50	929(7)
1619	4	69.00 329.00	245(11)
1620	5	69.00 329.50	228(4)
1621	13	69.00 330.00	776(13)
1622	15	69.00 330.50	776(5)
1624	16	69.00 331.00	759(1)
1625	16	69.00 332.00	558(16)
1659	24	69.20 309.00	461(4)
1662	19	69.20 310.50	846(19)
1663	46	69.20 311.00	260(4)
1664	31	69.20 311.50	260(9)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1665	36	69.20 312.00	444(1) 688(4) 889(7)
1666	34	69.20 312.50	444(2) 547(16) 688(2)
1667	23	69.20 313.00	200(13) 547(8)
1668	24	69.20 313.50	200(24) 688(2)
1669	12	69.20 314.00	243(10) 590(2)
1670	1	69.20 314.50	243(1) 590(2)
1671	9	69.20 315.00	286(2) 633(7)
1672	48	69.20 315.50	286(16) 530(19)
1673	24	69.20 316.00	286(14) 633(8)
1674	91	69.20 316.50	432(9) 573(2)
1675	69	69.20 317.00	432(6) 573(7)
1676	33	69.20 317.50	432(19) 573(2)
1677	72	69.20 318.00	432(18) 573(2)
1678	101	69.20 318.50	231(34) 475(16)
1679	65	69.20 319.00	231(28) 475(16)
1680	61	69.20 319.50	274(12) 659(7)
1681	153	69.20 320.00	274(34) 518(3)
1682	195	69.20 320.50	274(24) 518(33)
1683	27	69.20 321.00	561(27) 518(12)
1684	35	69.20 321.50	561(34) 805(1)
1685	11	69.20 322.00	561(9) 805(2)
1686	2	69.20 324.00	647(1) 848(1)
1687	6	69.20 324.50	891(6)
1688	6	69.20 325.00	788(1)
1689	1	69.20 325.50	587(2) 788(3)
1690	1691	69.20 326.00	587(2) 788(3)
1692	7	69.20 326.50	587(2) 788(3)
1693	1	69.20 327.00	831(1)
1694	19	69.20 327.50	489(10) 831(9)
1695	18	69.20 328.00	245(9) 630(5)
1696	13	69.20 328.50	245(5) 629(2)
1697	18	69.20 329.00	673(13) 673(5)
1698	13	69.20 329.50	288(13) 776(4)
1699	15	69.20 330.00	716(22) 776(12)
1700	14	69.20 330.50	716(22) 776(12)
1701	12	69.20 331.00	228(22) 472(10)
1702	1	69.20 331.50	228(12) 819(4)
1703	6	69.20 332.00	228(22) 819(4)
1704	7	69.20 332.50	558(22)
1705	2	69.20 333.00	802(22)
1706	19	69.20 333.50	802(22)
1707	1	69.20 334.00	460(11) 1421(11)
1708	4	69.20 334.50	460(11) 1421(11)
1709	19	69.20 335.00	460(11) 1464(7)
1710	1	69.20 335.50	460(11) 1464(7)
1711	4	69.20 336.00	662(43)
1712	20	69.40 307.00	662(43) 1164(7)
1713	2	69.40 307.50	174(2) 1379(5)
1714	22	69.40 309.00	174(2) 1465(5)
1715	1739	69.40 309.50	559(5)
1716	5	69.40 310.00	260(5)
1717	11	69.40 311.00	547(7) 846(4)
1718	17	69.40 311.50	547(5) 846(11)
1719	52	69.40 312.00	645(5) 846(10)
1720	24	69.40 312.50	401(7) 547(7)
1721	30	69.40 313.00	401(2) 547(3)
1722	29	69.40 313.50	444(6) 645(3)
1723	15	69.40 314.00	200(4) 644(4)
1724	17	69.40 314.50	200(4) 688(10)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1751	15	69.40 315.00	243(15)
1752	63	69.40 315.50	243(13)
1753	61	69.40 316.00	286(15)
1754	77	69.40 316.50	432(7)
1755	78	69.40 317.00	432(7)
1756	65	69.40 317.50	231(9)
1757	65	69.40 318.00	231(6)
1758	17	69.40 318.50	231(26)
1759	73	69.40 319.00	475(4)
1760	70	69.40 319.50	475(4)
1761	62	69.40 320.00	561(32)
1762	80	69.40 320.50	659(33)
1763	104	69.40 321.00	561(34)
1764	62	69.40 321.50	659(34)
1765	3	69.40 323.00	848(3)
1766	9	69.40 323.50	501(2)
1767	8	69.40 324.00	690(1)
1768	12	69.40 324.50	257(5)
1769	14	69.40 325.00	446(8)
1770	8	69.40 325.50	544(6)
1771	19	69.40 326.00	544(7)
1772	41	69.40 326.50	489(9)
1773	3	69.40 327.00	245(2)
1774	24	69.40 327.50	489(24)
1775	28	69.40 328.00	288(11)
1776	6	69.40 328.50	288(1)
1777	2	69.40 329.00	429(2)
1778	17	69.40 330.00	429(13)
1779	7	69.40 330.50	819(4)
1780	2	69.40 331.00	1034(22)
1781	2	69.40 331.50	460(4)
1782	2	69.40 332.00	460(22)
1783	4	69.40 332.50	558(2)
1784	2	69.40 333.00	1391(5)
1785	2	69.40 333.50	1391(5)
1786	11	69.40 334.00	186(1)
1787	11	69.40 334.50	186(1)
1788	17	69.40 335.00	1336(7)
1789	6	69.40 335.50	1336(3)
1790	6	69.40 336.00	1434(1)
1814	3	69.60 305.60	186(1)
1815	2	69.60 306.00	166(1)
1816	2	69.60 306.40	1336(7)
1817	11	69.60 306.80	1336(3)
1818	17	69.60 308.40	2516(2)
1822	2	69.60 308.80	504(2)
1823	2	69.60 309.20	260(5)
1824	10	69.60 309.60	260(5)
1825	5	69.60 310.00	504(5)
1826	8	69.60 310.40	559(8)
1827	6	69.60 310.80	547(6)
1828	6	69.60 311.20	791(5)
1829	6	69.60 311.60	791(5)
1830	5	69.60 312.00	645(6)
1831	7	69.60 312.40	846(5)
1832	13	69.60 312.80	889(6)
1833	6	69.60 313.20	633(3)
1834	11	69.60 313.60	633(4)
1835	14	69.60 314.00	633(4)
1836	18	69.60 314.40	200(4)
1837	9	69.60 314.80	200(1)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.).

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1839	18	69.60 315.20	432(12)
1841	4	69.60 316.00	243(4)
1842	37	69.60 316.40	475(17)
1843	51	69.60 316.80	231(16)
1844	6	69.60 317.20	231(6)
1845	12	69.60 317.60	286(3)
1846	32	69.60 318.00	279(11)
1847	51	69.60 318.40	274(11)
1848	16	69.60 318.80	573(12)
1849	10	69.60 319.20	573(14)
1850	26	69.60 319.60	561(10)
1851	23	69.60 320.00	561(26)
1852	41	69.60 320.40	561(11)
1853	7	69.60 320.79	616(15)
1854	6	69.60 321.19	805(2)
1855	18	69.60 321.59	659(6)
1856	28	69.60 321.99	647(17)
1857	33	69.60 322.39	647(4)
1858	14	69.60 322.79	647(21)
1860	3	69.60 323.59	446(3)
1862	6	69.60 324.39	501(3)
1867	15	69.60 326.39	564(5)
1868	17	69.60 326.79	788(7)
1869	16	69.60 327.19	587(7)
1870	15	69.60 327.59	587(11)
1873	7	69.60 328.79	630(5)
1875	11	69.60 329.59	819(7)
1877	11	69.60 330.39	429(23)
1878	2	69.60 330.79	673(9)
1884	14	69.60 333.19	460(2)
1885	14	69.60 333.59	271(4)
1886	14	69.60 333.99	503(4)
1889	0	69.60 335.59	802(1)
1891	1	69.60 335.99	802(1)
1914	15	69.70 305.20	662(5)
1916	20	69.70 306.00	174(2)
1917	7	69.70 306.40	1336(7)
1919	2	69.70 307.20	461(1)
1920	1	69.70 307.60	473(1)
1923	2	69.70 308.80	473(2)
1924	3	69.70 309.20	504(2)
1927	5	69.70 310.40	260(5)
1928	5	69.70 310.80	791(2)
1930	2	69.70 311.60	559(3)
1931	19	69.70 312.80	633(2)
1933	28	69.70 313.20	633(18)
1934	2	69.70 313.60	645(10)
1935	19	69.70 314.00	846(1)
1936	35	69.70 314.40	877(1)
1937	17	69.70 314.80	876(2)
1938	14	69.70 315.20	432(3)
1939	14	69.70 315.60	200(5)
1940	9	69.70 316.00	444(9)
1941	57		676(5)
			1018(9)
			688(6)
			719(26)
			475(17)
			475(14)
			719(17)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
1942	22	69.70 316.40	231(5)
1943	17	69.70 316.80	243(3)
1944	11	69.70 317.20	243(17)
1945	56	69.70 317.60	518(11)
1946	40	69.70 318.00	274(26)
1947	5	69.70 318.40	274(11)
1948	21	69.70 318.80	774(5)
1949	22	69.70 319.20	561(21)
1950	24	69.70 319.60	573(16)
1951	26	69.70 320.00	573(9)
1952	11	69.70 320.40	604(4)
1953	22	69.70 320.79	616(11)
1954	19	69.70 321.59	573(6)
1955	39	69.70 321.99	805(15)
1956	64	69.70 322.39	805(22)
1957	43	69.70 322.79	616(22)
1958	16	69.70 323.19	616(11)
1959	23	69.70 323.59	446(22)
1960	6	69.70 324.79	446(23)
1963	7	69.70 325.59	489(6)
1965	3	69.70 326.39	257(3)
1967	7	69.70 326.79	532(3)
1968	16	69.70 327.19	288(3)
1969	11	69.70 327.59	575(11)
1970	8	69.70 329.19	819(8)
1974	15	69.70 330.79	417(13)
1978	4	69.70 331.19	429(4)
1979	2	69.70 331.99	460(2)
1981	2	69.70 332.39	460(2)
1982	7	69.70 333.99	472(5)
1986	1	69.70 336.39	503(1)
1992	1	69.80 305.20	802(1)
2014	1	69.80 305.60	662(1)
2015	1	69.80 306.00	1336(5)
2016	1	69.80 306.40	1336(1)
2017	12	69.80 306.80	875(4)
2018	6	69.80 310.00	461(12)
2026	1	69.80 310.40	272(6)
2027	18	69.80 310.80	791(13)
2028	17	69.80 311.20	559(8)
2029	16	69.80 312.40	834(7)
2031	14	69.80 312.80	633(8)
2032	1	69.80 313.20	633(4)
2033	26	69.80 313.60	877(12)
2034	32	69.80 314.00	676(13)
2035	11	69.80 314.40	432(22)
2036	8	69.80 314.80	432(3)
2037	47	69.80 315.20	1018(8)
2038	50	69.80 315.60	444(9)
2039	8	69.80 316.00	200(5)
2040	48	69.80 316.80	444(2)
2043	82	69.80 317.20	243(9)
2044			274(17)
			274(26)
			518(14)
			518(25)
			518(14)
			1221(5)
			846(6)
			846(10)
			676(13)
			676(11)
			444(26)
			444(2)
			475(2)
			475(13)
			475(11)
			688(19)
			688(6)
			675(6)
			719(4)
			719(6)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2045	11	69.80 317.60	243(3)
2047	26	69.80 318.40	286(4)
2048	17	69.80 318.80	286(2)
2049	31	69.80 319.20	774(10)
2050	36	69.80 319.60	561(22)
2051	32	69.80 320.00	561(5)
2053	12	69.80 320.79	805(11)
2054	73	69.80 321.19	573(17)
2055	38	69.80 321.59	805(22)
2056	42	69.80 321.99	604(10)
2057	36	69.80 322.39	573(11)
2058	51	69.80 322.79	647(2)
2059	13	69.80 323.19	647(21)
2061	10	69.80 323.59	647(26)
2062	17	69.80 324.39	647(26)
2063	1	69.80 324.79	647(26)
2065	4	69.80 325.59	647(26)
2066	22	69.80 325.99	647(26)
2068	25	69.80 326.79	575(5)
2069	8	69.80 327.19	575(25)
2070	5	69.80 327.59	575(8)
2071	5	69.80 327.99	788(3)
2072	9	69.80 328.39	819(2)
2077	15	69.80 330.39	819(7)
2078	3	69.80 330.79	417(15)
2080	4	69.80 331.59	173(2)
2083	14	69.80 332.79	1034(1)
2084	14	69.80 333.19	716(1)
2085	12	69.80 333.59	472(1)
2089	3	69.80 335.19	228(1)
2114	11	69.90 330.520	271(3)
2115	11	69.90 330.600	1379(1)
2116	11	69.90 330.600	631(1)
2127	10	69.90 330.400	631(1)
2129	3	69.90 331.200	272(6)
2130	24	69.90 331.600	559(3)
2131	13	69.90 332.000	559(23)
2132	7	69.90 332.400	633(6)
2133	5	69.90 332.800	516(4)
2134	18	69.90 333.200	559(3)
2135	26	69.90 333.600	834(1)
2136	20	69.90 334.000	846(10)
2137	20	69.90 334.400	803(7)
2138	14	69.90 334.800	803(5)
2139	42	69.90 335.200	877(5)
2140	27	69.90 335.600	676(6)
2141	57	69.90 336.000	889(7)
2142	81	69.90 336.400	200(1)
2143	24	69.90 336.800	274(6)
2145	32	69.90 337.600	200(1)
2146	17	69.90 338.000	274(25)
2147	12	69.90 338.400	561(9)
2148	28	69.90 338.800	274(13)
			518(12)
			518(25)
			518(8)
			762(7)
			688(22)
			688(3)
			805(13)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2149	63	69.90 319.20	286(26)
2150	28	69.90 319.60	286(6)
2151	3	69.90 320.00	573(3)
2152	65	69.90 320.40	573(26)
2153	48	69.90 320.79	573(10)
2154	33	69.90 321.19	891(25)
2155	49	69.90 321.59	616(11)
2156	61	69.90 321.99	446(10)
2157	38	69.90 322.39	446(24)
2159	23	69.90 323.19	659(23)
2160	52	69.90 323.59	245(13)
2161	14	69.90 323.99	489(14)
2166	6	69.90 325.99	501(6)
2167	26	69.90 326.39	501(25)
2168	24	69.90 326.79	501(8)
2172	2	69.90 328.29	788(2)
2175	2	69.90 329.59	587(2)
2176	7	69.90 329.99	1034(7)
2182	2	69.90 332.39	429(2)
2186	22	69.90 333.39	472(18)
2187	5	69.90 334.39	790(5)
2188	2	69.90 334.79	790(2)
2189	14	69.90 335.19	271(1)
2190	8	69.90 335.59	271(4)
2221	7	70.00 308.00	186(1)
2222	2	70.00 308.40	186(1)
2224	13	70.00 309.20	717(1)
2226	8	70.00 310.80	272(3)
2229	20	70.00 311.20	516(4)
2231	28	70.00 312.00	272(7)
2232	28	70.00 312.40	559(18)
2233	47	70.00 312.80	559(15)
2234	8	70.00 313.20	432(13)
2236	9	70.00 314.00	432(5)
2237	40	70.00 314.40	719(4)
2238	11	70.00 314.80	475(22)
2239	16	70.00 315.20	231(3)
2240	61	70.00 315.60	645(4)
2241	76	70.00 316.00	274(15)
2242	39	70.00 316.40	518(17)
2243	39	70.00 316.80	444(8)
2244	12	70.00 317.20	200(2)
2246	24	70.00 318.00	444(4)
2247	26	70.00 318.40	561(8)
2248	6	70.00 318.80	805(16)
2249	6	70.00 319.20	243(6)
2250	51	70.00 319.60	530(6)
2251	105	70.00 320.00	286(19)
2252	37	70.00 320.40	647(10)
2253	59	70.00 320.79	573(15)
2254	60	70.00 321.19	446(4)
2255	48	70.00 321.59	446(22)
2256	10	70.00 321.99	446(10)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2257	21	70.00 322.39	616(21)
2258	25	70.00 322.79	489(22)
2259	51	70.00 323.19	489(25)
2260	14	70.00 323.59	245(26)
2262	8	70.00 324.39	489(12)
2263	10	70.00 324.79	532(8)
2264	8	70.00 325.19	532(7)
2267	1	70.00 326.39	776(8)
2268	18	70.00 326.79	575(1)
2269	38	70.00 327.19	501(18)
2270	15	70.00 327.59	618(15)
2275	14	70.00 329.59	587(4)
2288	4	70.00 334.79	228(4)
2321	11	70.10 308.00	791(3)
2322	33	70.10 308.40	186(9)
2323	12	70.10 308.80	186(5)
2324	13	70.10 309.20	186(3)
2327	8	70.10 310.40	229(1)
2328	1	70.10 310.80	834(1)
2329	2	70.10 311.20	877(2)
2330	17	70.10 311.60	277(10)
2331	29	70.10 312.00	676(5)
2332	10	70.10 312.40	432(10)
2333	14	70.10 312.80	559(4)
2334	12	70.10 313.20	559(12)
2335	22	70.10 313.60	231(3)
2336	4	70.10 314.00	231(4)
2338	16	70.10 314.80	274(4)
2339	13	70.10 315.20	274(1)
2340	23	70.10 315.60	274(4)
2341	36	70.10 316.00	401(11)
2342	58	70.10 316.40	401(3)
2343	44	70.10 316.80	561(15)
2344	37	70.10 317.20	200(1)
2345	32	70.10 317.60	200(3)
2348	17	70.10 318.80	243(15)
2349	60	70.10 319.20	243(15)
2350	38	70.10 319.60	647(20)
2351	58	70.10 320.00	286(4)
103	103	70.10 320.40	286(26)
2352	83	70.10 320.79	286(11)
2353	34	70.10 321.19	446(21)
2354	25	70.10 321.59	573(25)
2355	12	70.10 321.99	689(11)
2356	43	70.10 322.39	245(18)
2357	44	70.10 322.79	489(23)
2358	15	70.10 323.19	616(15)
2359	16	70.10 323.59	532(11)
2360	23	70.10 323.99	532(23)
2361	4	70.10 324.39	288(2)
2362	2	70.10 324.79	776(2)
2363	19	70.10 325.19	1032(19)
2364	15	70.10 325.99	819(5)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2367	25	70.10 326.39	819(18)
2368	25	70.10 326.79	618(7)
2369	5	70.10 327.19	618(25)
2371	4	70.10 327.99	618(5)
2376	6	70.10 329.99	257(1)
2385	6	70.10 333.59	460(4)
2419	1	70.20 307.20	629(6)
2420	9	70.20 307.60	791(1)
2422	4	70.20 308.40	791(9)
2423	12	70.20 308.80	875(4)
2424	1	70.20 309.20	1219(6)
2425	8	70.20 309.60	430(1)
2427	20	70.20 310.40	673(3)
2428	27	70.20 311.80	717(5)
2429	7	70.20 311.20	717(4)
2430	44	70.20 311.60	229(3)
2431	14	70.20 312.00	432(5)
2432	14	70.20 312.40	272(16)
2433	29	70.20 312.80	475(9)
2434	20	70.20 313.20	231(9)
2435	27	70.20 313.60	475(4)
2436	18	70.20 314.00	231(4)
2437	27	70.20 314.40	559(23)
2438	8	70.20 314.80	518(9)
2440	10	70.20 315.60	274(6)
2441	25	70.20 316.00	561(10)
2442	68	70.20 316.40	645(1)
2443	48	70.20 316.80	645(8)
2444	68	70.20 317.20	604(3)
2445	48	70.20 317.60	644(15)
2446	69	70.20 318.00	604(15)
2447	65	70.20 318.40	200(19)
2448	48	70.20 318.80	644(23)
2449	38	70.20 319.20	647(25)
2450	65	70.20 319.60	243(9)
2451	56	70.20 320.00	891(23)
2452	45	70.20 320.40	446(11)
2453	44	70.20 320.79	446(25)
2454	63	70.20 321.19	286(14)
2455	55	70.20 321.59	446(20)
2456	53	70.20 321.99	245(25)
2457	32	70.20 322.39	446(7)
2458	11	70.20 322.79	573(25)
2459	41	70.20 323.19	532(5)
2460	51	70.20 323.59	532(16)
2461	20	70.20 323.99	532(11)
2462	7	70.20 324.39	616(20)
2464	20	70.20 324.79	575(7)
2465	52	70.20 325.19	659(20)
2466	45	70.20 325.59	659(11)
2467	18	70.20 325.99	618(24)
2468	1	70.20 326.39	618(18)
2469	1	70.20 326.79	173(1)
2472	1	70.20 328.39	1034(1)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2477	6	70°.20' 330°.39'	788(6)
2478	4	70°.20' 330°.79'	503(4)
2479	7	70°.20' 331°.19'	587(7)
2519	2	70°.30' 307°.20'	791(2)
2522	4	70°.30' 309°.60'	430(2)
2526	11	70°.30' 310°.00'	875(2)
2528	10	70°.30' 310°.80'	1219(3)
2529	10	70°.30' 311°.20'	432(2)
2530	4	70°.30' 311°.60'	676(18)
2531	8	70°.30' 312°.00'	717(2)
2532	17	70°.30' 312°.40'	229(5)
2533	17	70°.30' 312°.80'	231(16)
2534	40	70°.30' 313°.20'	272(17)
2535	35	70°.30' 313°.60'	274(7)
2536	12	70°.30' 314°.00'	518(1)
2537	5	70°.30' 314°.40'	559(5)
2538	15	70°.30' 314°.80'	561(11)
2539	24	70°.30' 315°.20'	803(4)
2540	6	70°.30' 315°.60'	803(22)
2541	24	70°.30' 316°.00'	805(5)
2542	13	70°.30' 316°.40'	805(13)
2543	38	70°.30' 316°.80'	645(14)
2544	42	70°.30' 317°.20'	846(24)
2545	52	70°.30' 317°.60'	846(19)
2546	83	70°.30' 318°.00'	645(23)
2547	84	70°.30' 318°.40'	647(24)
2548	96	70°.30' 318°.80'	1018(8)
2549	62	70°.30' 319°.20'	848(25)
2550	46	70°.30' 319°.60'	848(19)
2551	28	70°.30' 320°.00'	200(1)
2552	25	70°.30' 320°.40'	1018(10)
2553	25	70°.30' 320°.79'	200(25)
2554	59	70°.30' 321°.19'	444(10)
2555	68	70°.30' 321°.59'	444(15)
2556	56	70°.30' 321°.99'	446(22)
2557	46	70°.30' 322°.39'	446(24)
2558	79	70°.30' 322°.79'	200(25)
2559	54	70°.30' 323°.19'	446(15)
2560	1	70°.30' 323°.59'	446(20)
2561	24	70°.30' 323°.99'	245(25)
2562	28	70°.30' 324°.39'	245(14)
2563	42	70°.30' 324°.79'	286(21)
2564	40	70°.30' 325°.19'	530(10)
2565	32	70°.30' 325°.59'	530(21)
2566	11	70°.30' 326°.39'	774(12)
2567	18	70°.30' 326°.79'	532(20)
2568	27	70°.30' 327°.19'	573(16)
2569	10	70°.30' 328°.39'	776(24)
2572	1	70°.30' 329°.99'	774(25)
2576	5	70°.30' 330°.79'	503(1)
2577	4	70°.40' 306°.40'	791(4)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2626	19	70.40 310.00	1264(8)
2627	8	70.40 310.40	1219(2)
2628	12	70.40 310.80	1219(1)
2629	13	70.40 311.20	432(5)
2630	22	70.40 311.60	430(3)
2631	16	70.40 312.00	719(11)
2632	21	70.40 312.40	475(10)
2633	27	70.40 312.80	229(6)
2634	48	70.40 313.20	473(2)
2635	51	70.40 313.60	717(5)
2637	21	70.40 314.40	473(11)
2638	33	70.40 314.80	518(15)
2639	33	70.40 315.20	274(5)
2640	25	70.40 315.60	274(2)
2641	8	70.40 316.00	516(7)
2643	53	70.40 317.20	516(19)
2644	95	70.40 317.60	559(21)
2645	89	70.40 318.00	559(14)
2646	89	70.40 318.40	803(5)
2647	76	70.40 318.80	604(10)
2648	93	70.40 319.20	647(24)
2649	86	70.40 319.60	846(5)
2650	62	70.40 320.00	846(24)
2651	19	70.40 320.40	645(23)
2652	26	70.40 320.79	646(11)
2653	38	70.40 321.19	688(24)
2654	23	70.40 321.59	200(8)
2655	28	70.40 321.99	200(24)
2656	78	70.40 322.39	444(20)
2657	97	70.40 322.79	444(24)
2658	57	70.40 323.19	444(24)
2659	16	70.40 323.59	444(24)
2660	24	70.40 323.99	288(8)
2661	27	70.40 324.39	288(24)
2662	37	70.40 324.79	288(24)
2663	43	70.40 325.19	530(5)
2664	24	70.40 325.59	575(10)
2665	10	70.40 325.99	575(24)
2666	13	70.40 326.39	573(20)
2667	48	70.40 326.79	618(13)
2668	13	70.40 327.19	618(9)
2669	11	70.40 327.59	616(17)
2670	12	70.40 327.99	616(10)
2671	2	70.40 329.59	616(10)
2675	2	70.40 329.99	632(1)
2676	5	70.40 333.59	632(1)
2685	1	70.40 333.59	660(1)
2690	18	70.50 309.20	432(1)
2691	2	70.50 309.60	1221(6)
2695	2	70.50 310.40	1264(1)
2707	7	70.50 310.80	475(4)
2728	19	70.50 311.20	475(2)
2729	58	70.50 311.60	430(5)
2730	26	70.50 311.60	430(19)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2731	15	70.50 312.00	186(3)
2732	30	70.50 312.40	473(12)
2733	16	70.50 312.80	229(3)
2734	5	70.50 313.20	229(3)
2735	2	70.50 313.60	561(2)
2736	3	70.50 314.00	272(2)
2737	30	70.50 314.40	561(1)
2738	22	70.50 314.80	516(7)
2739	15	70.50 315.20	604(8)
2740	28	70.50 315.60	559(20)
2741	15	70.50 316.00	559(12)
2742	62	70.50 316.40	848(3)
2743	56	70.50 316.80	647(22)
2744	38	70.50 317.20	647(23)
2745	45	70.50 317.60	891(29)
2746	58	70.50 318.00	690(7)
2747	86	70.50 318.40	446(17)
2748	58	70.50 318.80	446(23)
2749	57	70.50 319.20	401(6)
2750	62	70.50 319.60	489(16)
2751	73	70.50 320.00	488(12)
2752	35	70.50 320.40	200(12)
2753	28	70.50 320.79	200(25)
2754	58	70.50 321.19	288(8)
2755	68	70.50 321.59	243(24)
2756	34	70.50 321.99	243(23)
2757	24	70.50 322.39	575(24)
2758	48	70.50 322.79	286(8)
2759	74	70.50 323.19	286(25)
2760	73	70.50 323.59	286(13)
2761	45	70.50 323.99	573(5)
2762	33	70.50 324.39	573(22)
2763	16	70.50 324.79	573(16)
2764	10	70.50 325.19	417(10)
2765	69	70.50 325.59	173(17)
2766	46	70.50 326.79	460(6)
2767	64	70.50 327.59	659(4)
2768	64	70.50 327.99	1032(12)
2770	16	70.50 328.79	503(3)
2771	64	70.50 329.99	501(1)
2776	7	70.50 330.39	790(4)
2777	14	70.50 331.99	544(3)
2778	13	70.50 332.39	788(1)
2782	12	70.50 335.99	1476(2)
2791	3	70.60 308.80	432(2)
2823	2	70.60 310.00	631(2)
2826	2	70.60 310.40	631(8)
2827	16	70.60 311.20	274(3)
2829	8	70.60 311.60	430(5)
2830	42	70.60 312.00	186(13)
2831	21	70.60 312.40	274(6)
2832	21	70.60 312.80	186(20)
2833	23		186(5)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont..)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2834	25	70.60 313.20	561(11) 717(6)
2835	28	70.60 313.60	473(4) 717(13) 805(1)
2836	3	70.60 314.00	229(8) 229(10) 229(3)
2837	10	70.60 314.40	604(10) 516(24)
2838	52	70.60 314.80	604(10) 516(24) 272(24)
2839	56	70.60 315.20	516(10) 516(24) 272(10)
2840	45	70.60 315.60	647(9) 647(24) 559(10)
2841	57	70.60 316.00	647(24) 647(24) 559(24)
2842	59	70.60 316.40	647(2) 647(2) 559(13)
2843	58	70.60 316.80	690(6) 690(21) 690(24)
2844	68	70.60 317.20	690(2) 690(17) 690(17)
2845	54	70.60 317.60	646(2) 646(2) 646(2)
2846	24	70.60 318.00	646(2) 646(2) 646(2)
2847	42	70.60 318.40	649(4) 649(4) 649(4)
2848	83	70.60 318.80	649(4) 649(4) 649(4)
2849	66	70.60 319.20	401(18) 401(24) 645(18)
2850	69	70.60 319.60	401(24) 645(24) 645(18)
2851	103	70.60 320.00	401(5) 532(24) 532(24)
2852	93	70.60 320.40	288(4) 288(24) 288(24)
2853	95	70.60 320.79	200(16) 288(19) 288(19)
2854	55	70.60 321.19	200(24) 444(8) 444(8)
2855	29	70.60 321.59	200(22) 575(22) 575(22)
2856	24	70.60 321.99	575(2) 575(2) 575(2)
2857	6	70.60 322.39	819(6) 819(6) 819(6)
2858	32	70.60 322.79	618(9) 618(9) 618(9)
2859	42	70.60 323.19	819(24) 819(24) 819(24)
2860	48	70.60 323.59	286(11) 286(23) 530(23)
2861	59	70.60 323.99	286(24) 530(24) 530(24)
2862	42	70.60 324.39	286(11) 417(7) 417(7)
2863	64	70.60 324.79	173(20) 417(24) 573(5)
2864	62	70.60 325.19	173(24) 417(14) 1034(24)
2865	12	70.60 325.59	173(3) 1034(9) 1034(9)
2871	12	70.60 327.99	259(1) 259(1) 259(1)
2872	6	70.60 328.39	659(2) 659(2) 659(2)
2873	1	70.60 328.79	1032(6) 1032(6) 1032(6)
2883	5	70.60 332.79	588(1) 588(1) 588(1)
2926	10	70.70 310.00	274(4) 274(4) 274(4)
2927	12	70.70 310.40	274(4) 274(4) 274(4)
2928	18	70.70 311.20	274(2) 274(2) 274(2)
2929	18	70.70 311.60	561(2) 561(2) 561(2)
2930	3	70.70 312.00	875(2) 875(2) 875(2)
2931	11	70.70 312.80	186(4) 430(4) 430(4)
2933	14	70.70 313.20	186(3) 430(3) 430(3)
2934	8	70.70 313.60	473(2) 473(2) 473(2)
2936	16	70.70 314.00	229(2) 229(2) 229(2)
2937	23	70.70 314.40	717(3) 717(3) 717(3)
2938	33	70.70 314.80	848(2) 848(2) 848(2)
2939	16	70.70 315.20	647(1) 647(1) 647(1)
2940	84	70.70 315.60	272(14) 516(24) 516(24)
2941	92	70.70 316.00	272(24) 516(22) 516(22)
2942	73	70.70 316.40	446(10) 446(10) 446(10)
2943	51	70.70 316.80	446(12) 559(9) 559(9)
2944	26	70.70 317.20	446(18) 559(23) 559(23)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
2945	23	70.70 317.60	559(13)
2946	44	70.70 318.00	803(21)
2947	24	70.70 318.40	803(7)
2949	18	70.70 319.20	532(14)
2950	74	70.70 319.60	645(5)
2951	118	70.70 320.00	776(8)
2952	79	70.70 320.40	776(23)
2953	77	70.70 320.79	645(23)
2954	73	70.70 321.19	846(15)
2955	73	70.70 321.59	776(24)
2956	87	70.70 321.99	889(14)
2957	67	70.70 322.39	889(14)
2958	15	70.70 322.79	1018(23)
2959	4	70.70 323.19	688(10)
2960	9	70.70 323.59	688(23)
2961	57	70.70 323.99	819(24)
2962	99	70.70 324.39	819(24)
2963	73	70.70 324.79	819(24)
2964	53	70.70 325.19	819(24)
2965	9	70.70 325.59	819(24)
2966	2	70.70 326.79	819(24)
2968	21	70.70 328.39	819(24)
2972	6	70.70 329.19	819(24)
2974	6	70.70 329.59	819(24)
2976	3	70.70 333.19	819(24)
2978	3	70.70 333.59	819(24)
2984	6	70.70 333.99	819(24)
2985	6	70.70 334.39	819(24)
2986	6	70.70 334.79	819(24)
3026	6	70.80 310.00	518(4)
3027	22	70.80 310.40	588(22)
3028	18	70.80 310.80	588(18)
3029	3	70.80 311.20	561(3)
3030	27	70.80 311.60	631(3)
3031	15	70.80 312.00	631(3)
3032	10	70.80 312.40	631(3)
3033	4	70.80 312.80	875(6)
3034	5	70.80 313.20	430(5)
3035	29	70.80 313.60	186(4)
3036	52	70.80 314.00	186(20)
3037	13	70.80 314.40	186(8)
3038	39	70.80 314.80	473(2)
3039	63	70.80 315.20	690(2)
3040	39	70.80 315.60	446(4)
3041	36	70.80 316.00	446(23)
3042	50	70.80 316.40	272(13)
3043	80	70.80 316.80	489(24)
3044	53	70.80 317.20	272(13)
3045	28	70.80 317.60	489(18)
3046	21	70.80 318.00	559(10)
3047	40	70.80 318.40	288(7)
3048	59	70.80 318.80	489(23)
3049	52	70.80 319.20	288(19)
3050	17	70.80 319.60	575(2)
3051	22	70.80 320.00	575(22)
3052	40	70.80 320.40	645(5)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3053	72	70.80 320.79	819(8)
3054	107	70.80 321.19	846(23)
3055	95	70.80 321.59	819(24)
3056	67	70.80 321.99	645(24)
3057	66	70.80 322.39	618(24)
3058	70	70.80 322.79	618(17)
3059	74	70.80 323.19	889(23)
3060	61	70.80 323.59	1018(15)
3061	117	70.80 323.99	1018(23)
3062	21	70.80 324.39	644(14)
3063	24	70.80 324.79	688(23)
3064	23	70.80 325.19	1018(12)
3065	30	70.80 325.59	444(12)
3066	27	70.80 325.99	444(11)
3067	6	70.80 326.39	417(11)
3068	5	70.80 326.79	417(10)
3071	10	70.80 327.99	200(23)
3077	12	70.80 330.39	173(23)
3085	12	70.80 333.59	200(22)
3086	12	70.80 333.99	173(21)
3093	1	70.80 336.79	200(20)
3095	2	70.80 337.59	173(19)
3112	2	70.90 304.40	417(19)
3124	8	70.90 309.20	258(19)
3126	8	70.90 310.00	286(19)
3128	8	70.90 312.40	286(18)
3130	13	70.90 312.60	286(17)
3132	29	70.90 312.80	286(16)
3133	20	70.90 313.20	286(15)
3134	37	70.90 313.60	286(14)
3135	41	70.90 314.00	286(13)
3136	62	70.90 314.40	286(12)
3137	68	70.90 314.80	286(11)
3138	48	70.90 315.20	286(10)
3139	12	70.90 315.60	272(19)
3140	52	70.90 316.00	288(23)
3141	52	70.90 316.40	288(16)
3142	69	70.90 316.80	229(23)
3143	20	70.90 317.20	229(5)
3144	40	70.90 317.60	272(19)
3145	95	70.90 318.00	288(13)
3146	63	70.90 318.40	532(23)
3147	52	70.90 318.80	532(6)
3148	44	70.90 319.20	559(24)
3149	43	70.90 319.60	575(23)
3150	28	70.90 320.00	575(21)
3151	17	70.90 320.40	803(3)
3152	40	70.90 320.80	803(7)
3153	38	70.90 321.20	819(16)
3154	24	70.90 321.59	618(11)
3155	51	70.90 321.99	645(5)
3156	72	70.90 322.39	417(5)
3157	108	70.90 322.79	173(23)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3158	111	70.90 322.79	417(24) 688(11) 889(18)
3159	79	70.90 323.19	444(12) 460(3) 688(24)
3160	77	70.90 323.59	200(24) 444(15) 688(17)
3161	40	70.90 323.99	200(16) 460(24)
3162	2	70.90 324.39	460(2) 243(1) 259(1)
3163	12	70.90 324.79	243(11) 503(1)
3164	3	70.90 325.19	259(2) 503(4)
3165	4	70.90 325.59	530(4) 546(2) 774(17)
3166	4	70.90 325.99	286(2) 790(1)
3167	21	70.90 326.39	774(13) 790(8)
3168	14	70.90 326.79	790(1) 790(11)
3169	8	70.90 327.19	833(1)
3170	19	70.90 327.59	573(8) 790(11)
3171	21	70.90 327.99	790(2)
3172	17	70.90 329.19	833(1)
3173	3	70.90 330.79	431(1)
3174	3	70.90 336.79	587(3)
3175	8	70.90 337.19	603(8)
3176	14	70.90 337.59	603(3) 617(1)
3177	14	71.00 304.80	561(14)
3178	14	71.00 309.20	258(3) 561(1)
3179	15	71.00 309.60	805(12)
3180	15	71.00 310.00	805(9)
3181	15	71.00 310.40	805(2)
3221	2	71.00 310.80	647(3) 848(9)
3222	12	71.00 312.00	538(9) 647(3) 848(1)
3223	12	71.00 312.40	538(13) 647(10) 848(1)
3224	25	71.00 312.80	832(4) 891(4) 1020(1)
3225	21	71.00 313.20	446(12) 631(17) 832(13)
3226	43	71.00 313.60	446(20) 631(17) 832(4)
3227	37	71.00 314.00	446(17) 631(9) 875(4)
3228	23	71.00 314.40	875(23) 690(7)
3229	78	71.00 314.80	875(23) 690(7)
3230	92	71.00 315.20	186(10) 430(19) 489(23)
3231	43	71.00 315.60	186(21) 430(23) 489(23)
3232	26	71.00 316.00	186(22) 430(11) 489(9)
3233	37	71.00 316.40	473(6) 532(7) 674(1)
3234	23	71.00 316.80	229(18) 288(17) 717(13)
3235	78	71.00 317.20	229(23) 288(19) 717(13)
3236	92	71.00 317.60	229(13) 288(10) 473(2)
3237	43	71.00 318.00	272(11) 776(6) 674(1)
3238	26	71.00 318.40	272(19) 516(14) 575(16)
3239	100	71.00 318.80	272(23) 516(15) 575(15)
3240	127	71.00 319.20	272(3) 559(3) 618(3)
3241	149	71.00 319.60	559(23) 618(22) 819(22)
3242	7	71.00 320.00	559(6) 618(6) 803(22)
3243	68	71.00 320.40	559(23) 618(22) 819(22)
3244	76	71.00 320.80	559(6) 618(6) 803(22)
3245	37	71.00 321.20	559(23) 618(22) 819(22)
3246	68	71.00 321.60	559(6) 618(6) 803(22)
3247	76	71.00 322.00	559(23) 618(22) 819(22)
3248	76	71.00 322.40	559(6) 618(6) 803(22)
3249	34	71.00 322.80	559(23) 618(22) 819(22)
3250	56	71.00 323.20	559(6) 618(6) 803(22)
3251	34	71.00 323.60	559(23) 618(6) 803(22)
3252	25	71.00 324.00	559(6) 618(6) 803(22)
3253	51	71.00 324.40	559(23) 618(6) 803(22)
3254	67	71.00 324.80	559(6) 618(6) 803(22)
3255	51	71.00 325.20	559(23) 618(6) 803(22)
3256	48	71.00 325.60	559(6) 618(6) 803(22)
3257	74	71.00 326.00	559(6) 618(6) 803(22)
3258		71.00 326.40	559(6) 618(6) 803(22)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3259	70	71.00 323.19	645(20) 846(2)
3260	52	71.00 323.59	688(20) 889(23)
3261	62	71.00 323.99	889(6) 1018(14)
3262	39	71.00 324.39	200(7) 503(23)
3263	24	71.00 324.79	200(23) 688(14)
3264	2	71.00 325.19	200(23) 688(14)
3265	1	71.00 325.59	243(1) 546(1)
3266	5	71.00 325.99	243(5) 546(1)
3267	3	71.00 326.39	243(3) 546(1)
3268	15	71.00 326.79	286(9) 774(6)
3269	37	71.00 327.19	286(18) 530(4)
3270	13	71.00 327.59	286(5) 774(6)
3271	14	71.00 327.99	286(1) 833(3)
3272	4	71.00 328.39	573(4) 833(3)
3273	3	71.00 328.79	573(4) 833(3)
3274	2	71.00 329.19	616(5) 833(3)
3275	2	71.00 329.59	616(5) 833(3)
3281	2	71.00 330.79	187(2) 659(2)
3282	5	71.00 331.99	659(2) 1032(5)
3283	2	71.00 332.39	659(2) 1032(5)
3290	8	71.00 335.59	603(4) 805(9)
3291	1	71.00 336.19	603(1) 805(9)
3292	15	71.00 336.79	788(15) 805(9)
3293	15	71.00 337.19	788(15) 805(9)
3294	4	71.00 337.79	646(5) 788(2)
3295	8	71.00 338.39	646(8) 805(9)
3322	10	71.00 339.20	459(8) 805(9)
3324	15	71.00 339.60	459(5) 805(9)
3325	15	71.00 340.00	459(4) 805(9)
3326	4	71.10 331.40	258(10) 848(1)
3327	10	71.10 331.80	647(4) 848(15)
3328	2	71.10 331.20	258(4) 647(7)
3329	26	71.10 331.60	647(5) 848(23)
3330	28	71.10 332.00	647(4) 848(33)
3331	17	71.10 332.40	647(4) 891(10)
3332	16	71.10 332.80	891(13) 1020(3)
3333	40	71.10 333.20	446(21) 690(3)
3334	29	71.10 333.60	446(20) 588(6)
3335	30	71.10 334.00	446(9) 588(21)
3336	15	71.10 334.40	489(10) 832(5)
3337	40	71.10 334.80	489(21) 631(3)
3338	48	71.10 335.20	489(23) 832(16)
3339	25	71.10 335.60	631(20) 832(21)
3340	36	71.10 336.00	288(2) 532(14)
3341	89	71.10 336.00	186(1) 288(18)
3342	122	71.10 316.40	875(22) 430(12) 532(18) 674(5) 776(13)
3343	81	71.10 316.80	875(13) 288(23) 430(22) 532(15) 674(4) 776(23)
3344	33	71.10 317.20	186(23) 288(3) 430(23) 575(4) 674(9) 776(19)
3345	77	71.10 317.60	186(10) 575(18) 717(5) 575(23) 717(23)
3346	81	71.10 318.00	229(23) 473(21) 575(23) 717(23)
3347	79	71.10 318.40	229(23) 473(13) 618(13) 717(7) 819(10)
3348	55	71.10 318.80	229(1) 516(8) 618(23) 819(23)
3349	81	71.10 319.20	272(20) 516(23) 618(20) 760(22)
3350	68	71.10 319.60	272(22) 516(23) 618(20) 760(23)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3351	51	71.1.10 320.00	417(14) 516(3)
3352	78	71.1.10 320.40	417(22) 559(17)
3353	89	71.1.10 320.79	417(21) 559(22)
3354	55	71.1.10 321.19	559(17) 803(12)
3355	45	71.1.10 321.59	460(22) 803(18)
3356	41	71.1.10 321.99	460(23) 803(18)
3357	9	71.1.10 322.39	460(9)
3358	8	71.1.10 322.79	503(8)
3359	76	71.1.10 323.19	259(20) 503(23)
3360	79	71.1.10 323.59	259(21) 401(22)
3361	61	71.1.10 323.99	259(13) 645(22)
3362	4	71.1.10 324.39	546(4)
3364	33	71.1.10 325.19	200(10) 546(1)
3365	26	71.1.10 325.59	200(16) 444(2)
3366	12	71.1.10 325.99	200(12) 444(2)
3368	3	71.1.10 326.79	243(3)
3369	15	71.1.10 327.19	632(11) 833(4)
3370	28	71.1.10 327.59	530(5) 632(23)
3371	23	71.1.10 327.99	286(9) 530(4)
3372	7	71.1.10 328.39	876(7)
3374	7	71.1.10 329.19	573(6)
3375	7	71.1.10 329.59	573(7)
3378	17	71.1.10 330.79	474(6)
3381	17	71.1.10 331.99	659(12) 718(1)
3382	2	71.1.10 332.39	517(5) 659(4)
3383	10	71.1.10 332.79	517(2) 659(4)
3390	10	71.1.10 333.59	257(5) 603(7)
3392	5	71.1.10 336.39	646(5)
3393	2	71.1.10 336.79	646(1) 847(1)
3394	12	71.1.10 337.19	646(2) 788(6)
3423	17	71.1.20 308.80	172(5) 1205(6)
3424	13	71.1.20 309.20	172(7) 1162(12)
3426	15	71.1.20 310.00	459(4) 647(4)
3427	29	71.1.20 310.40	647(21) 848(6)
3428	19	71.1.20 311.80	647(10) 848(1)
3429	6	71.1.20 311.20	891(6) 848(1)
3430	9	71.1.20 311.60	496(5) 891(3)
3431	20	71.1.20 312.00	258(3) 1020(4)
3434	8	71.1.20 313.20	489(8) 446(7)
3436	14	71.1.20 314.00	489(5) 502(5)
3437	31	71.1.20 314.40	532(8) 502(5)
3438	43	71.1.20 314.80	532(22) 588(21)
3439	40	71.1.20 315.20	288(6) 532(13)
3440	56	71.1.20 315.60	631(20) 776(14)
3441	71	71.1.20 316.00	575(19) 631(23)
3442	41	71.1.20 316.40	575(22) 631(11)
3443	54	71.1.20 316.80	575(19) 674(10)
3444	83	71.1.20 317.20	186(12) 430(23)
103	72	71.1.20 317.60	186(20) 430(22)
3445	38	71.1.20 318.00	186(23) 430(15)
3446	38	71.1.20 318.40	186(3) 473(9)
3447	73	71.1.20 318.80	229(21) 417(6)
3448	114	71.1.20 319.20	229(25) 417(17)
			717(21) 1034(9)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3450	88	71.20 319.60	173(21)
3451	85	71.20 320.00	173(20)
3452	89	71.20 320.40	272(23)
3453	85	71.20 320.79	272(22)
3454	44	71.20 321.19	272(7)
23	71.20 321.59	559(23)	
56	71.20 321.99	503(13)	
3456	66	71.20 322.39	259(23)
3458	59	71.20 322.79	259(22)
22	71.20 323.19	259(3)	
3459	23	71.20 323.59	546(23)
3460	46	71.20 323.99	546(23)
3461	50	71.20 324.39	790(14)
3462	23	71.20 324.79	401(6)
3463	3	71.20 325.19	790(23)
3464	15	71.20 325.59	790(1)
3465	35	71.20 325.99	889(15)
3466	67	71.20 326.39	200(10)
3467	30	71.20 326.79	200(20)
3468	12	71.20 327.19	632(12)
3469	3	71.20 327.59	243(1)
3470	8	71.20 327.99	243(1)
3471	11	71.20 328.39	431(4)
3472	13	71.20 328.79	675(8)
3473	7	71.20 330.19	573(3)
3474	2	71.20 330.59	573(2)
3475	17	71.20 335.99	158(5)
3490	17	71.20 336.39	646(7)
3491	7	71.20 336.79	1320(1)
3492	4	71.30 308.40	1492(5)
3522	4	71.30 308.80	617(4)
3523	2	71.30 309.20	647(2)
3524	1	71.30 309.60	891(1)
3525	49	71.30 310.00	647(12)
3526	43	71.30 310.40	848(14)
3527	23	71.30 310.80	172(4)
3528	16	71.30 311.20	446(2)
3529	38	71.30 311.60	459(6)
3530	11	71.30 312.00	459(9)
3531	1	71.30 312.40	489(11)
3532	7	71.30 312.80	258(16)
3533	25	71.30 313.20	258(5)
3534	28	71.30 313.60	258(22)
3535	42	71.30 314.00	258(1)
3536	43	71.30 314.40	288(10)
3537	44	71.30 314.80	288(16)
3538	33	71.30 315.20	575(20)
3539	43	71.30 315.60	575(21)
3540	43	71.30 316.00	575(4)
3541	39	71.30 316.40	618(20)
3542	69	71.30 316.80	618(21)
71	71.30 317.20	618(17)	

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3545	28	71.30 317.60	631(9)
3546	87	71.30 318.00	674(15)
3547	151	71.30 318.40	875(22)
		173(14)	430(8)
		173(22)	430(22)
		186(19)	417(22)
		186(22)	674(22)
3548	132	71.30 318.80	186(23)
3549	64	71.30 319.20	186(21)
		173(5)	430(11)
		1034(14)	460(23)
3550	67	71.30 319.60	229(6)
3551	86	71.30 320.00	229(23)
3552	67	71.30 320.40	229(20)
3553	48	71.30 320.79	229(13)
3554	98	71.30 321.19	259(22)
3555	111	71.30 321.59	259(23)
3556	157	71.30 321.99	259(9)
3557	38	71.30 322.39	272(4)
3558	56	71.30 322.79	272(4)
3559	70	71.30 323.19	546(22)
3560	50	71.30 323.59	546(14)
3561	31	71.30 323.99	559(6)
3562	8	71.30 324.39	790(6)
3563	12	71.30 324.79	803(8)
3564	46	71.30 325.19	833(12)
3565	66	71.30 325.59	632(21)
3566	39	71.30 325.99	401(1)
3567	25	71.30 326.39	632(19)
3568	10	71.30 326.79	645(3)
3569	14	71.30 327.19	876(6)
3570	3	71.30 327.59	187(1)
3571	5	71.30 327.99	200(2)
3574	10	71.30 329.19	494(1)
3577	6	71.30 330.39	494(1)
3578	5	71.30 330.79	494(1)
3579	7	71.30 331.19	494(1)
3580	6	71.30 331.59	573(7)
3581	7	71.30 331.99	560(1)
3582	7	71.30 332.39	573(7)
3589	5	71.30 335.19	603(7)
3590	4	71.30 335.59	1492(5)
3591	11	71.30 335.99	1492(4)
3622	14	71.40 308.40	1320(3)
3623	1	71.40 308.80	1020(4)
3624	15	71.40 309.20	1020(1)
3625	13	71.40 309.60	891(7)
3626	1	71.40 310.00	1235(1)
3628	48	71.40 310.80	1235(13)
3629	35	71.40 311.20	172(13)
3630	22	71.40 311.60	172(11)
3631	9	71.40 312.00	459(1)
3632	12	71.40 312.40	459(12)
3633	50	71.40 312.80	288(8)
3634	62	71.40 313.20	459(3)
3635	56	71.40 313.60	258(20)
			489(1)
			489(17)
			489(17)
			489(1)
			532(10)
			532(14)
			575(14)
			776(20)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3636	37	71.40 314.00	575(16)
3637	46	71.40 314.40	575(21)
3638	37	71.40 314.80	575(22)
3639	40	71.40 315.20	575(4)
3640	41	71.40 315.60	618(20)
3641	26	71.40 316.00	618(20)
3642	27	71.40 316.40	588(5)
3643	52	71.40 316.80	588(5)
3644	84	71.40 317.20	417(23)
3645	99	71.40 317.60	417(14)
3646	82	71.40 318.00	1034(22)
3647	61	71.40 318.40	417(22)
3648	51	71.40 318.80	460(22)
3649	69	71.40 319.20	460(1)
3650	121	71.40 319.60	430(12)
3651	113	71.40 320.00	259(12)
3652	77	71.40 320.40	186(22)
3653	74	71.40 320.79	186(22)
3654	88	71.40 321.19	473(22)
3655	99	71.40 321.59	229(22)
3656	34	71.40 321.99	473(23)
3657	79	71.40 322.39	229(4)
3658	78	71.40 322.79	272(18)
3659	59	71.40 323.19	272(23)
3660	63	71.40 323.59	272(22)
3661	66	71.40 323.99	559(22)
3662	76	71.40 324.39	559(22)
3663	41	71.40 324.79	632(8)
3664	44	71.40 325.19	632(1)
3665	60	71.40 325.59	876(3)
3666	42	71.40 325.99	187(14)
3667	2	71.40 326.39	431(14)
3668	14	71.40 326.79	846(2)
3669	27	71.40 327.19	718(14)
3670	27	71.40 327.59	474(4)
3671	13	71.40 327.99	230(3)
3672	2	71.40 328.39	474(1)
3673	52	71.40 329.19	557(2)
3674	117	71.40 329.59	603(1)
3675	12	71.40 330.40	646(1)
3676	125	71.40 330.80	201(3)
3677	13	71.40 331.20	1376(12)
3678	2	71.40 331.59	1161(12)
3679	11	71.40 331.99	1492(4)
3680	1	71.40 332.39	244(1)
3681	12	71.40 332.79	1376(1)
3682	125	71.40 333.19	1406(1)
3683	3	71.40 333.59	201(1)
3684	11	71.40 334.00	244(1)
3685	1	71.40 334.40	1161(1)
3686	12	71.40 334.80	532(16)
3687	1	71.40 335.20	617(9)
3688	1	71.40 335.60	532(3)
3689	1	71.40 336.00	776(1)
3690	1	71.40 336.40	288(8)
3691	1	71.40 336.80	532(8)
3692	1	71.40 337.20	311(60)
3693	1	71.40 337.60	311(60)
3712	1	71.50 304.80	1406(8)
3713	1	71.50 305.20	201(1)
3714	1	71.50 306.80	244(1)
3715	1	71.50 310.80	288(9)
3716	1	71.50 311.20	532(5)
3717	1	71.50 311.60	617(9)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont..)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3731	25	71.50 312.00	776(6)
3732	26	71.50 312.40	575(18)
3733	43	71.50 312.80	575(21)
3734	55	71.50 313.20	459(17)
3735	60	71.50 313.60	575(22)
3736	66	71.50 314.00	459(22)
3737	54	71.50 314.40	459(11)
3738	35	71.50 314.80	618(22)
3739	37	71.50 315.20	258(18)
3740	79	71.50 315.60	173(3)
3741	74	71.50 316.00	173(22)
3742	39	71.50 316.40	173(21)
3743	37	71.50 316.80	417(17)
3744	25	71.50 317.20	460(22)
3745	43	71.50 317.60	460(21)
3746	37	71.50 318.00	460(9)
3747	68	71.50 318.40	259(21)
3748	73	71.50 318.80	259(22)
3749	87	71.50 319.20	259(22)
3750	70	71.50 319.60	503(10)
3751	63	71.50 320.00	546(10)
3752	84	71.50 320.40	430(9)
3753	117	71.50 320.79	186(15)
3754	100	71.50 321.19	186(22)
3755	67	71.50 321.59	186(22)
3756	34	71.50 321.99	229(8)
3757	98	71.50 322.39	229(22)
3758	107	71.50 322.79	229(21)
3759	77	71.50 323.19	229(11)
3760	100	71.50 323.59	272(17)
3761	98	71.50 323.99	187(12)
3762	130	71.50 324.39	187(22)
3763	111	71.50 324.79	187(22)
		71.50 325.19	760(15)
3764	27	71.50 325.59	187(22)
3765	40	71.50 325.99	187(8)
3766	46	71.50 326.39	230(22)
3767	42	71.50 326.79	230(21)
3768	9	71.50 327.19	761(10)
3769	10	71.50 327.59	761(20)
3770	20	71.50 327.99	761(11)
3771	11	71.50 328.39	401(12)
3772	9	71.50 328.79	1018(12)
3773	3	71.50 329.19	876(15)
3774	3	71.50 329.59	559(4)
3775	3	71.50 329.99	559(4)
3776	16	71.50 330.39	230(10)
3777	1	71.50 330.79	474(1)
3778	3	71.50 335.59	718(9)
3779	3	71.50 335.99	803(2)
3780	1	71.50 336.39	560(7)
3781	16	71.60 304.00	1018(3)
3812	2	71.60 304.40	603(5)
3813	2	71.60 304.80	804(8)
3814	2	71.60 305.20	805(2)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3820	1	71.60 307.60	489(1)
3825	11	71.60 309.60	776(1)
3826	18	71.60 310.00	775(7)
3827	8	71.60 310.40	288(4)
3828	22	71.60 310.80	532(8)
3829	20	71.60 311.20	532(3)
3830	15	71.60 311.60	575(12)
3831	18	71.60 312.00	575(10)
3832	35	71.60 312.40	618(10)
3833	8	71.60 312.80	618(14)
3834	35	71.60 313.20	617(14)
3835	41	71.60 313.60	617(21)
3836	70	71.60 314.00	172(22)
3837	95	71.60 314.40	172(22)
3838	91	71.60 314.80	172(21)
3839	88	71.60 315.20	172(21)
3840	49	71.60 315.60	173(22)
3841	38	71.60 316.00	173(19)
3842	46	71.60 316.40	459(22)
3843	58	71.60 316.80	459(22)
3844	57	71.60 317.20	459(22)
3845	52	71.60 317.60	459(22)
3846	44	71.60 318.00	459(22)
3847	22	71.60 318.40	459(21)
3848	53	71.60 318.80	459(20)
3849	65	71.60 319.20	546(21)
3850	49	71.60 319.60	546(7)
3851	59	71.60 320.00	546(20)
3852	46	71.60 320.40	588(20)
3853	69	71.60 320.79	588(21)
3854	91	71.60 321.19	588(21)
3855	83	71.60 321.59	588(21)
3856	75	71.60 321.99	588(21)
3857	99	71.60 322.39	631(22)
3858	108	71.60 322.79	631(21)
3859	111	71.60 323.19	631(21)
3860	96	71.60 323.59	186(22)
3861	114	71.60 323.99	186(22)
3862	108	71.60 324.39	187(22)
3863	99	71.60 324.79	187(22)
3864	91	71.60 325.19	187(3)
3865	63	71.60 325.59	187(2)
3866	64	71.60 325.99	187(2)
3867	31	71.60 326.39	187(2)
3868	27	71.60 326.79	187(2)
3869	35	71.60 327.19	187(2)
3870	26	71.60 327.59	187(2)
3871	19	71.60 327.99	187(2)
3872	9	71.60 328.39	187(2)
3873	11	71.60 328.79	187(2)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3874	7	71.60 329.19	645(7) 846(2) 889(2)
3875	5	71.60 329.59	646(1) 846(6) 889(1)
3876	7	71.60 329.99	645(1) 846(3) 646(6) 889(1)
3877	13	71.60 330.39	401(3) 646(7) 445(6) 890(4)
3878	7	71.60 330.79	646(1) 201(6) 244(2)
3880	18	71.60 331.59	244(2) 775(9)
3885	2	71.60 333.59	775(2) 573(17)
3888	9	71.60 335.79	573(17) 1321(1) 804(22)
3890	2	71.60 335.59	804(1) 804(7) 804(12)
3891	10	71.70 304.00	690(1) 603(1) 603(1) 1019(1)
3912	3	71.70 304.40	603(1) 689(1) 891(3)
3913	8	71.70 304.80	603(1) 489(4) 1019(1)
3914	11	71.70 305.20	603(1) 618(8) 775(3)
3919	3	71.70 307.60	603(1) 775(2) 618(2)
3920	11	71.70 308.00	603(1) 287(2) 618(2)
3921	13	71.70 308.40	603(1) 201(1) 776(1)
3922	2	71.70 308.80	603(1) 244(2) 575(6)
3923	12	71.70 309.60	603(1) 575(11) 819(8)
3925	19	71.70 310.00	603(1) 244(6) 287(1)
3926	16	71.70 310.40	603(1) 618(8) 775(3)
3927	11	71.70 310.80	603(1) 618(8) 775(11)
3928	25	71.70 311.20	603(1) 287(2) 618(2)
3929	22	71.70 311.60	603(1) 618(17) 819(5)
3930	37	71.70 312.00	603(1) 173(22) 417(17)
3931	58	71.70 312.40	603(1) 173(22) 417(17)
3932	68	71.70 312.80	603(1) 173(21) 417(22)
3933	85	71.70 313.20	603(1) 173(21) 417(22)
3934	94	71.70 313.60	603(1) 173(22) 417(22)
3935	51	71.70 314.00	603(1) 173(21) 460(22)
3936	39	71.70 314.40	603(1) 173(21) 460(22)
3937	53	71.70 314.80	603(1) 172(17) 460(22)
3938	65	71.70 315.20	603(1) 172(22) 259(22)
3939	64	71.70 315.60	603(1) 172(21) 259(22)
3940	79	71.70 316.00	603(1) 172(22) 259(22)
3941	92	71.70 316.40	603(1) 172(13) 259(21)
3942	51	71.70 316.80	603(1) 172(5) 459(21)
3943	58	71.70 317.20	603(1) 172(21) 259(21)
3944	70	71.70 317.60	603(1) 172(21) 258(13)
3945	52	71.70 318.00	603(1) 172(21) 258(22)
3946	44	71.70 318.40	603(1) 172(21) 258(22)
3947	44	71.70 318.80	603(1) 172(21) 258(21)
3948	30	71.70 319.20	603(1) 172(21) 258(18)
3949	55	71.70 319.60	603(1) 172(21) 258(18)
3950	42	71.70 320.00	603(1) 172(21) 258(18)
3951	44	71.70 320.40	603(1) 172(21) 258(19)
3952	85	71.70 320.79	603(1) 172(6) 187(6)
106	106	71.70 320.79	603(1) 172(6) 187(6)
108	108	71.70 321.19	603(1) 172(6) 187(6)
133	133	71.70 321.59	603(1) 172(6) 187(6)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
3956	111	71.70 321.99	431(22) 588(3) 631(11) 675(11)
3957	143	71.70 322.39	474(22) 876(10) 832(19) 718(22)
3958	103	71.70 322.79	431(21) 431(15) 832(21) 875(12)
3959	99	71.70 323.19	474(21) 631(14) 718(21) 875(21)
3960	68	71.70 323.59	474(21) 674(20) 630(16) 718(22)
3961	41	71.70 323.99	474(21) 674(20) 674(16) 718(21)
3962	26	71.70 324.39	474(21) 674(21) 674(16) 761(15)
3963	48	71.70 324.79	474(10) 674(11) 717(17) 761(20)
3964	77	71.70 325.19	474(13) 517(4) 560(18) 717(21)
3965	63	71.70 325.59	474(10) 560(21) 717(21) 761(21)
3966	40	71.70 325.99	474(10) 560(21) 717(19) 761(11)
3967	68	71.70 326.39	229(2) 272(11) 516(22) 717(21)
3968	31	71.70 326.79	272(4) 516(9) 560(13) 603(3) 804(1)
3969	9	71.70 327.19	272(9) 560(6) 559(3) 803(1)
3970	6	71.70 327.59	272(6) 559(3) 803(1)
3971	33	71.70 327.99	646(22) 803(1)
3972	33	71.70 328.39	646(22) 803(1)
3973	22	71.70 328.79	158(2) 803(1)
3974	22	71.70 329.19	646(1) 803(1)
3975	88	71.70 329.59	646(5) 803(1)
3976	25	71.70 329.99	445(2) 645(3)
3977	7	71.70 330.39	689(5) 645(4)
3978	7	71.70 330.79	445(4) 645(3)
3979	2	71.70 331.19	200(2) 775(6)
3980	7	71.70 331.59	200(1) 775(1)
3981	7	71.70 331.99	200(1) 775(1)
3982	11	71.70 332.39	200(1) 775(1)
3983	11	71.70 332.79	200(1) 775(1)
3984	11	71.70 333.19	200(1) 775(1)
3985	7	71.70 333.59	200(1) 775(1)
3986	11	71.70 333.99	200(1) 775(1)
3987	11	71.70 334.39	200(1) 775(1)
3988	7	71.70 334.79	200(1) 775(1)
3989	17	71.70 335.19	200(1) 775(1)
3990	16	71.70 335.59	200(1) 775(1)
3991	11	71.70 335.99	200(1) 775(1)
3992	11	71.70 336.39	200(1) 775(1)
4011	12	71.80 304.00	273(1)
4014	8	71.80 305.20	804(2)
4018	3	71.80 306.80	776(3)
4020	22	71.80 307.60	666(2)
4021	33	71.80 308.00	1191(3)
4022	33	71.80 308.40	646(3)
4023	8	71.80 308.80	575(4)
4024	3	71.80 309.20	1019(1)
4025	25	71.80 309.60	1148(2)
4026	40	71.80 310.00	417(8)
4027	53	71.80 310.40	201(15)
4028	55	71.80 310.80	173(14)
4029	85	71.80 311.20	201(21)
4030	24	71.80 311.60	244(14)
4031	68	71.80 312.00	1249(10)
4032	100	71.80 312.40	1034(2)

Table 1. Seasat Greenland Georeferenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4033	103	71.80 312.80	259(4) 287(22) 460(22) 503(19) 775(22)
4034	92	71.80 313.20	259(19) 287(21) 460(13) 503(20) 775(19)
4035	80	71.80 313.60	259(22) 287(21) 503(16) 775(21)
4036	77	71.80 314.00	259(21) 287(10) 503(21) 546(8) 775(17)
4037	68	71.80 314.40	259(21) 503(21) 546(21) 775(5) 790(14)
4038	72	71.80 314.80	259(17) 503(8) 546(22) 617(15) 790(21)
4039	60	71.80 315.20	546(21) 574(3) 617(15) 790(21)
4040	60	71.80 315.60	546(21) 617(18) 790(21)
4041	58	71.80 316.00	546(20) 617(16) 790(22)
4042	49	71.80 316.40	172(8) 546(1) 617(19) 790(21)
4043	59	71.80 316.80	172(21) 617(7) 632(3) 790(17)
4044	62	71.80 317.20	172(22) 632(19) 833(21)
4045	66	71.80 317.60	172(19) 459(5) 632(21)
4046	91	71.80 318.00	172(21) 459(21) 632(21)
4047	124	71.80 318.40	172(21) 431(5) 459(21) 833(21)
4048	139	71.80 318.80	172(22) 431(15) 431(21) 876(7)
4049	114	71.80 319.20	187(16) 833(16) 876(21) 632(22)
4050	126	71.80 319.60	187(21) 258(4) 431(21) 459(21)
4051	140	71.80 320.00	187(22) 258(4) 431(21) 459(21)
4052	146	71.80 320.40	187(21) 258(4) 431(21) 459(21)
4053	104	71.80 320.79	187(21) 258(21) 431(21) 459(21)
4054	90	71.80 321.19	187(15) 258(21) 431(21) 459(21)
4055	81	71.80 321.59	187(21) 258(5) 474(14) 517(19)
4056	63	71.80 321.99	187(22) 258(4) 474(4) 517(17)
4057	67	71.80 322.39	187(21) 258(6) 517(21) 588(21)
4058	68	71.80 322.79	187(22) 258(4) 517(21) 588(21)
4059	53	71.80 323.19	187(10) 517(10) 560(10) 588(12)
4060	46	71.80 323.59	187(22) 517(10) 560(10) 588(12)
4061	25	71.80 323.99	187(20) 517(10) 560(10) 588(12)
4062	20	71.80 324.39	187(21) 517(10) 560(10) 588(12)
4063	42	71.80 324.79	187(22) 517(10) 560(10) 588(12)
4064	43	71.80 325.19	187(21) 517(10) 560(10) 588(12)
4065	32	71.80 325.59	187(22) 517(10) 560(10) 588(12)
4066	5	71.80 325.99	187(23) 517(10) 560(10) 588(12)
4067	22	71.80 326.39	187(22) 517(10) 560(10) 588(12)
4068	30	71.80 326.79	187(23) 517(10) 560(10) 588(12)
4069	23	71.80 327.19	187(22) 517(10) 560(10) 588(12)
4070	40	71.80 327.59	187(23) 517(10) 560(10) 588(12)
4071	28	71.80 327.99	187(22) 517(10) 560(10) 588(12)
4072	6	71.80 328.39	187(23) 517(10) 560(10) 588(12)
4074	3	71.80 329.19	187(23) 517(10) 560(10) 588(12)
4075	15	71.80 329.59	187(23) 517(10) 560(10) 588(12)
4076	8	71.80 329.99	187(23) 517(10) 560(10) 588(12)
4082	3	71.80 332.39	187(23) 517(10) 560(10) 588(12)
4083	7	71.80 332.79	187(23) 517(10) 560(10) 588(12)
4084	7	71.80 333.19	187(23) 517(10) 560(10) 588(12)
4086	4	71.80 333.99	187(23) 517(10) 560(10) 588(12)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4088	5	71.80 334.79	1405(1) 1491(4) 1377(3)
4090	10	71.80 335.59	1291(3) 1291(4)
4112	5	71.90 304.40	644(5) 776(2)
4113	3	71.90 304.80	230(2) 776(1)
4114	4	71.90 305.20	273(1) 776(3)
4115	1	71.90 305.60	273(1)
4119	1	71.90 307.20	273(1)
4121	19	71.90 308.00	273(8) 417(4) 517(7)
4122	6	71.90 308.40	460(2) 1034(2)
4123	16	71.90 308.80	804(12) 460(3)
4124	38	71.90 309.20	417(3) 560(7)
4125	38	71.90 309.60	847(5) 417(3) 259(1)
4126	43	71.90 310.00	804(21) 460(1) 503(1)
4127	53	71.90 310.40	1034(4) 646(3) 847(3)
4128	85	71.90 310.80	1158(11) 1191(18) 173(3)
4129	15	71.90 311.20	1158(15) 1191(18) 503(2)
4130	66	71.90 311.60	1019(3) 1148(18) 1191(6)
4131	51	71.90 312.00	460(6) 646(1) 1019(1)
4132	170	71.90 312.40	158(6) 201(1) 1234(1)
		847(20) 890(4) 847(2)	158(10) 201(21) 847(20) 1191(10) 1191(10) 1234(2)
		259(10) 646(21) 890(4) 1019(6) 1019(6) 1191(10)	259(21) 646(10) 689(11) 790(11) 790(11) 1191(10)
		158(18) 546(17) 646(18) 890(18) 890(18) 890(18)	546(9) 1234(9) 1234(9) 1234(9) 1234(9) 1234(9)
4133	177	71.90 312.80	1234(9) 201(19) 244(17)
4134	120	71.90 313.20	1234(9) 201(18) 244(18)
4135	136	71.90 313.60	1019(1) 1201(21) 244(21)
4136	140	71.90 314.00	1234(9) 201(21) 244(21)
4137	146	71.90 314.40	1019(1) 1201(21) 244(21)
4138	134	71.90 314.80	1234(9) 201(21) 244(21)
4139	150	71.90 315.20	1234(9) 201(21) 244(21)
4140	182	71.90 315.60	1234(9) 201(21) 244(21)
4141	168	71.90 316.00	1234(9) 201(21) 244(21)
4142	169	71.90 316.40	1234(9) 201(21) 244(21)
4143	167	71.90 316.80	1234(9) 201(21) 244(21)
4144	182	71.90 317.20	1234(9) 201(21) 244(21)
4145	164	71.90 317.60	1234(9) 201(21) 244(21)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4146	155	71.90 318.00	187(21) 431(21) 474(21) 617(15) 675(21)
4147	135	71.90 318.40	718(21) 230(21) 431(16) 474(21) 517(9) 617(17)
4148	136	71.90 318.80	675(9) 172(20) 187(6) 230(21) 474(21) 517(21) 617(15)
4149	144	71.90 319.20	718(21) 172(21) 230(21) 474(21) 517(21) 617(18) 718(21)
4150	146	71.90 319.60	761(21) 172(21) 230(21) 474(21) 517(21) 617(20) 718(21)
4151	130	71.90 320.00	761(21) 172(21) 230(19) 459(21) 517(21) 560(21) 560(15)
4152	105	71.90 320.40	718(7) 172(21) 459(21) 517(21) 560(21) 761(21) 804(8)
4153	113	71.90 320.79	761(21) 172(21) 459(21) 502(4) 517(21) 560(21) 603(3)
4154	120	71.90 321.19	761(21) 172(21) 804(8) 459(21) 502(4) 517(21) 560(21) 603(3)
4155	124	71.90 321.59	172(13) 258(16) 459(21) 502(17) 517(2) 560(17)
4156	77	71.90 321.99	603(19) 761(19) 459(21) 502(3) 560(15) 603(17)
4157	85	71.90 322.39	258(21) 459(21) 560(21) 603(19) 804(3)
4158	78	71.90 322.79	258(21) 459(21) 560(16) 603(17) 646(20) 646(3)
4159	84	71.90 323.19	258(21) 603(17) 646(21) 804(4) 847(21)
4160	103	71.90 323.59	158(3) 258(21) 603(21) 646(21) 847(20) 890(17)
4161	105	71.90 323.99	258(21) 588(3) 603(21) 646(21) 847(20) 890(18)
4162	130	71.90 324.39	158(2) 201(4) 258(18) 445(15) 588(21) 1019(18)
4163	122	71.90 324.79	646(21) 890(21) 1019(19) 445(21) 588(15) 646(21) 646(1)
4164	72	71.90 325.19	847(3) 890(16) 1019(21) 646(21) 689(4) 890(1)
4165	52	71.90 325.59	158(6) 588(15) 646(5) 689(11) 689(11) 890(7)
4166	38	71.90 325.99	488(6) 588(21) 646(5) 689(11) 689(11) 890(7)
4167	47	71.90 326.39	244(1) 445(1) 588(1) 631(4) 631(4) 689(13) 890(10)
4168	26	71.90 326.79	1019(5) 689(5) 689(21) 445(1) 689(13) 890(13) 890(10)
4169	15	71.90 327.19	201(12) 445(1) 689(13) 890(13) 890(13) 890(13)
4170	16	71.90 327.59	186(3) 244(2) 287(9) 875(2)
4171	7	71.90 327.99	430(7) 631(1) 473(13) 717(5)
4172	5	71.90 328.39	430(4) 631(1) 473(13) 717(1)
4173	2	71.90 328.79	186(2) 430(5) 473(4) 473(1) 473(1)
4175	21	71.90 329.59	430(3) 473(1) 473(1) 473(1) 473(1)
4176	6	71.90 330.39	430(5) 473(4) 473(1) 473(1) 473(1)
4177	4	71.90 330.79	430(4) 473(4) 473(1) 473(1) 473(1)
4178	7	71.90 331.19	430(3) 473(4) 473(1) 473(1) 473(1)
4179	11	71.90 331.59	430(2) 473(1) 473(1) 473(1) 473(1)
4180	11	71.90 331.99	430(1) 473(1) 473(1) 473(1) 473(1)
4181	16	71.90 332.39	430(5) 473(1) 473(1) 473(1) 473(1)
4182	26	71.90 332.79	430(5) 473(1) 473(1) 473(1) 473(1)
4183	10	71.90 333.19	430(5) 473(1) 473(1) 473(1) 473(1)
4184	14	71.90 333.59	430(5) 473(1) 473(1) 473(1) 473(1)
4185	3	71.90 333.99	430(5) 473(1) 473(1) 473(1) 473(1)
4212	2	72.00 304.40	430(4) 473(1) 473(1) 473(1) 473(1)
4213	7	72.00 304.80	430(2) 473(1) 473(1) 473(1) 473(1)
59			

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4214	2	72.00 305.20	1435(1)
4215	24	72.00 305.60	1220(2) 1306(1) 1392(5) 1478(4)
4216	10	72.00 306.00	1206(3) 1220(2) 1306(1) 1392(5) 1478(4)
4217	9	72.00 306.40	1306(3) 1349(3) 1392(5) 1478(4)
4220	3	72.00 307.60	1435(3) 1435(2) 1517(5) 546(5) 675(2)
4221	32	72.00 308.00	187(9) 503(11) 517(5) 546(5) 675(2)
4222	34	72.00 308.40	187(2) 259(2) 273(3) 503(7) 517(2) 632(1)
4223	155	72.00 308.80	1220(10) 1435(7) 259(3) 273(7) 431(11) 474(9) 503(3)
4224	101	72.00 309.20	187(14) 259(12) 675(11) 1349(8) 761(11) 790(11)
4225	195	72.00 309.60	833(12) 876(13) 1306(14) 1349(8) 761(11) 790(11)
4226	139	72.00 310.00	187(17) 259(13) 273(12) 431(19) 632(22) 675(20)
4227	32	72.00 310.40	187(18) 259(14) 273(13) 431(17) 1306(11) 1349(16)
4228	137	72.00 310.80	187(19) 259(15) 273(14) 431(18) 273(9) 431(17) 474(20)
4229	290	72.00 311.20	187(20) 259(16) 273(15) 431(19) 273(10) 431(18) 474(20)
4230	160	72.00 311.60	187(21) 259(17) 273(16) 431(19) 273(11) 431(18) 474(20)
4231	129	72.00 312.00	187(22) 259(18) 273(17) 431(19) 273(12) 431(18) 474(20)
4232	291	72.00 312.40	187(23) 259(19) 273(18) 431(20) 431(19) 474(19) 517(6)
4233	343	72.00 312.80	187(24) 259(20) 273(19) 431(20) 431(18) 474(21) 517(5)
4234	299	72.00 313.20	187(25) 259(21) 273(20) 431(21) 431(19) 474(21)
4235	300	72.00 313.60	187(26) 259(22) 273(21) 431(20) 431(19) 474(21)
4236	384	72.00 314.00	187(27) 259(23) 273(22) 431(21) 431(19) 445(5)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4237	432	72.00 314.40	158(21) 230(20) 431(21) 445(21) 501(17) 603(21) 675(21) 517(21) 603(20) 876(21) 517(21) 604(21)
4238	434	72.00 314.80	158(21) 230(21) 431(21) 445(21) 501(21) 603(20) 675(19) 517(21) 604(19) 876(20) 517(20) 804(20)
4239	417	72.00 315.20	158(20) 230(21) 431(21) 445(21) 501(20) 603(21) 675(21) 517(21) 604(21) 876(21) 517(21) 804(21)
4240	389	72.00 315.60	158(21) 230(21) 431(21) 431(3) 494(21) 494(4) 603(21) 646(21) 488(15) 847(20) 890(21) 718(21) 158(21) 230(21) 273(4) 474(21) 488(19) 517(21) 689(21) 718(21) 761(21)
4241	391	72.00 316.00	1019(21) 201(21) 230(21) 158(21) 488(21) 517(21) 689(21) 718(21) 761(18) 1019(21) 201(21) 230(20) 474(21) 488(21) 517(21) 689(21) 718(21) 761(21)
4242	391	72.00 316.40	1019(21) 201(21) 230(21) 158(20) 488(21) 517(21) 689(21) 718(17) 761(19) 1019(21) 201(21) 230(20) 474(21) 488(21) 517(21) 689(21) 718(21) 761(18)
4243	384	72.00 316.80	158(20) 201(21) 230(21) 474(17) 488(21) 517(21) 689(21) 718(14) 761(19) 1019(21) 201(21) 230(5) 445(21) 488(21) 517(20) 689(20) 761(21) 775(7)
4244	358	72.00 317.20	158(21) 201(21) 230(21) 445(21) 488(21) 517(20) 689(20) 761(21) 775(7) 1019(20) 201(20) 244(20) 445(21) 488(20) 517(20) 689(20) 761(21) 804(21)
4245	343	72.00 317.60	158(21) 201(20) 244(20) 445(20) 488(20) 517(20) 689(20) 761(19) 775(17) 1019(20) 201(20) 244(20) 445(21) 488(20) 517(20) 689(20) 761(21) 804(21)
4246	345	72.00 318.00	158(21) 201(20) 244(20) 517(21) 560(21) 603(18) 775(21) 804(21) 847(21) 1019(20) 201(20) 244(20) 517(21) 560(21) 603(19) 775(21) 804(21) 847(21)
4247	344	72.00 318.40	158(21) 201(21) 244(20) 517(12) 560(21) 603(19) 775(21) 804(21) 847(20) 1019(21) 201(21) 244(20) 517(21) 560(21) 603(19) 775(21) 804(21) 847(20)
4248	318	72.00 318.80	158(21) 201(21) 244(20) 560(21) 603(21) 646(21) 804(21) 847(21) 890(21) 158(20) 804(21) 847(20) 560(21) 603(21) 646(21) 804(21) 847(21) 890(20)
4249	301	72.00 319.20	158(21) 201(20) 244(19) 560(21) 603(20) 646(20) 847(21) 890(20) 1019(21) 158(21) 201(21) 244(20) 560(20) 603(21) 646(21) 804(21) 847(21) 890(21)
4250	313	72.00 319.60	158(21) 201(21) 244(21) 560(21) 603(21) 646(21) 847(21) 890(21) 1019(21) 158(21) 201(21) 244(21) 560(21) 603(21) 646(21) 804(21) 847(21) 890(21)
4251	315	72.00 320.00	158(21) 201(21) 244(21) 560(21) 603(21) 646(21) 847(21) 890(21) 1019(21) 158(21) 201(21) 244(21) 560(21) 603(21) 646(21) 804(21) 847(21) 890(21)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4252	314	72.00 320.40	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 689(21) 775(21) 488(21) 617(21) 690(21) 1019(21) 244(19) 287(21) 445(21) 847(21) 890(21) 1019(21) 646(20) 689(21) 775(21) 488(20)
4253	296	72.00 320.79	158(21) 244(21) 287(21) 445(21) 603(20) 646(18) 1019(21) 646(20) 689(21) 775(21) 488(20) 617(19) 847(21) 890(20) 1019(20) 244(20) 287(20) 445(20)
4254	284	72.00 321.19	158(21) 244(21) 287(21) 445(21) 603(21) 646(20) 1019(21) 646(21) 689(20) 775(21) 488(21) 617(16) 617(16) 617(18) 646(21) 689(20) 775(20) 847(20)
4255	268	72.00 321.59	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 847(20)
4256	275	72.00 321.99	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 847(21)
4257	258	72.00 322.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 847(21)
4258	193	72.00 322.79	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 488(21)
4259	186	72.00 323.19	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 488(21)
4260	186	72.00 323.59	158(22) 244(22) 287(21) 445(21) 617(17) 775(20) 201(21) 617(17) 775(20) 1019(19) 445(20) 617(18) 775(20) 201(21) 617(17) 775(20) 1019(19) 445(20)
4261	168	72.00 323.99	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 488(21)
4262	143	72.00 324.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 488(21)
4263	125	72.00 324.79	158(20) 244(20) 287(21) 445(21) 603(20) 646(20) 1019(20) 646(20) 688(21) 775(21) 459(20)
4264	120	72.00 325.19	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4265	66	72.00 325.59	158(20) 244(20) 287(21) 445(21) 603(20) 646(20) 1019(20) 646(20) 688(21) 775(21) 459(20)
4266	40	72.00 325.99	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4267	49	72.00 326.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4268	18	72.00 326.79	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4270	2	72.00 327.59	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4272	15	72.00 328.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4273	18	72.00 328.79	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4274	24	72.00 329.19	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4275	7	72.00 329.59	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4277	13	72.00 330.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4278	5	72.00 330.79	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4279	13	72.00 331.19	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4280	6	72.00 331.59	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4281	5	72.00 331.99	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4282	15	72.00 332.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4283	8	72.00 332.79	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4284	9	72.00 333.19	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4285	40	72.00 333.59	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4286	2	72.00 333.99	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4287	20	72.00 334.39	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)
4288	21	72.00 334.79	158(21) 244(21) 287(21) 445(21) 603(21) 646(21) 1019(21) 646(21) 689(20) 775(20) 459(20)

Table 1. Seasat Greenland Geo-referenced Data Base (Cont.)

BIN NUMBER	NUMBER PTS	LAT-LONG SW CORNER	REV (NUMBER PTS)
4289	1	72.00 335.19	473(1)
4290	25	72.00 335.59	186(1) 1439(1) 186(4)
4291	12	72.00 335.99	272(2) 1477(6) 272(2) 631(2) 1391(3) 1477(1)

Table 2. Seasat Geo-referenced Data Base Header Description

FILE 1:

GEO-REFERENCED DATA BASE HEADER RECORD

Record Format: One logical record corresponds to one physical record
 Blocksize: 480 Bytes

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
1-4	I*4	Number of latitude rows in the data base (56)
5-8	I*4	Northwestern-most latitude of data base in degrees North (x 10 ⁵) (7210000)
9-12	I*4	Northwestern-most longitude of data base in degrees East (x 10 ⁵) (30000000)
13-16	I*4	Southeastern-most latitude of data base in degrees North (x 10 ⁵) (5990000)
17-20	I*4	Southeastern-most longitude of data base in degrees East (x 10 ⁵) (34000000)
21-244	I*4	Width of each latitude row in degrees (x 10 ⁵), starting with the southernmost row. This is dimensioned by the number of latitude rows in the data base.
245-468	I*4	The number of longitude divisions in each latitude row, starting with the southern-most row. This is dimensioned by the number of latitude rows in the data base.
469-472	I*4	Logical record in data base at which directory starts.
473-476	I*4	Size of the data base, including the directory, in blocks.
477-480	I*4	Status word for altimetry data.



Table 2. Seasat Geo-referenced Data Base Header Description (Cont.)

(477-480 cont.)	<u>Bits</u>	<u>Value</u>	<u>Description</u>
	0-23	0	Unused
	24	1	Slope correction applied
		0	Slope correction not applied
	25	1	Orbit adjustment applied
		0	Orbit adjustment not applied
	26	1	Solid tides removed
		0	Solid tides not removed
	27	1	Retracking correction applied
		0	Retracking correction not applied
	28	1	Center of gravity bias applied
		0	Center of gravity bias not applied
	29	1	Tropospheric correction applied
		0	Tropospheric correction not applied
	30	1	Ionospheric correction applied
		0	Ionospheric correction not applied
	31	1	Time bias applied
		0	Time bias not applied

Table 3. Seasat Geo-referenced Data Base Description

FILE 2: GEO-REFERENCED DATA BASE
 Record Format: 595 logical records correspond to one physical record
 Blocksize: 19040 Bytes

Subgroup 1: One logical record for each bin containing data

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
1-4	I*4	Indicates the number of logical records which follow which are located in the bin
5-32		Unused

Subgroup 2: One logical record for each data point in the bin

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
1-4	I*4	North latitude of datum point in degrees ($\times 10^6$)
5-8	I*4	East longitude of datum point in degrees ($\times 10^6$)
9-12	I*4	Surface height relative to the ellipsoid in cm.
13-16	I*4	Height sigma, arbitrary value of 1.0 m used ($\times 10^5$)
17-18	I*2	Rev number
19-20	I*2	Used for temporary flags when gridding the data
21-24	I*4	Orbit adjustment in meters ($\times 10^5$) (-999999999 if unavailable)
25-28	I*4	RMS of orbit adjustment in meters ($\times 10^5$) (-999999999 if unavailable)
29-32	I*4	Slope correction in meters ($\times 10^5$) (-999999999 if unavailable)

NOTE: Subgroups 1 and 2 are repeated for as many bins with data.

Table 3. Seasat Geo-referenced Data Base Description (Cont.)

Subgroup 3: Directory

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
1-4	I*4	Record number at which data for bin 1 starts
5-8	I*4	Record number at which data for bin 2 starts
9-12	I*4	Record number at which data for bin 3 starts
13-16	I*4	Record number at which data for bin 4 starts
17-20	I*4	Record number at which data for bin 5 starts
21-24	I*4	Record number at which data for bin 6 starts
25-28	I*4	Record number at which data for bin 7 starts
29-32	I*4	Record number at which data for bin 8 starts

NOTE: The directory contains as many 32-byte logical records as necessary to designate the record locations of all bins.

Table 4. Elevation Grid Header Description

FILE 4: ELEVATION GRID HEADER RECORD
 Record Format: One logical record corresponds to one physical record
 Blocksize: 80 Bytes

<u>Bytes</u>	<u>FORTRAN Variable</u>	<u>Type</u>	<u>Description</u>
1-4		I*4	Number of latitude increments in the grid for a non-polar stereographic grid (140)
5-8		I*4	Number of longitude increments in the grid for a non-polar stereographic grid (152)
9-12		I*4	Starting north latitude of grid in degrees North ($\times 10^6$) (this will be approximate for a polar stereographic grid) (50000000)
13-16		I*4	Starting east longitude of grid in degrees East ($\times 10^6$) (this will be approximate for a polar stereographic grid) (300000000)
17-20		I*4	Ending north latitude of grid in degrees North ($\times 10^6$) (this will be approximate for a polar stereographic grid) (73000000)
21-24		I*4	Ending east longitude of grid in degrees East ($\times 10^6$) (this will be approximate for a polar stereographic grid) (340000000)
25-28		I*4	Status word for data used to generate grid. A zero in any bit position indicates that the correction is not applied.
			————— 0 31
<u>Bits</u>	<u>Value</u>	<u>Description</u>	
0-23		Unused	
24	1	Slope correction applied	
	0	Slope correction not applied	
25	1	Orbit adjustment applied	
	0	Orbit adjustment not applied	
26	1	Solid tides removed	
	0	Solid tides not removed	
27	1	Retracking correction applied	
	0	Retracking correction not applied	
28	1	Center of gravity bias applied	
	0	Center of gravity bias not applied	
29	1	Tropospheric correction applied	
	0	Tropospheric correction not applied	
30	1	Ionospheric correction applied	
	0	Ionospheric correction not applied	
31	1	Time bias applied	
	0	Time bias not applied	

Table 4. Elevation Grid Header Description (Cont.)

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
29-32	I*4	Polar stereographic grid size conversion and scaling factor from half-inch grids on projection plane to the desired grid size ($\times 10^6$) (1650000)
33-36	I*4	The number of grids of desired size from the pole to the equator based on the grid size conversion and scaling factor ($\times 10^6$) (608754894)
37-40	I*4	Latitude of the map perimeter in degrees North ($\times 10^6$) (500000000)
41-44	I*4	Greenwich orientation in degrees ($\times 10^6$) (450000000)
45-48	I*4	Polar stereographic switch (1) =0, grid has constant increment in latitude and longitude =1, grid is in polar stereographic projection
49-52	I*4	Number of I-axis divisions to the extent of the map perimeter (445)
53-56	I*4	Number of J-axis divisions to the extent of the map perimeter (445)
57-60	I*4	J coordinate of the projected pole (223)
61-64	I*4	I coordinate of the projected pole (223)
65-68	I*4	Minimum J index of the grid (166)
69-72	I*4	Maximum J index of the grid (317)
73-76	I*4	Minimum I index of the grid (305)
77-80	I*4	Maximum I index of the grid (444)

Table 5. Elevation Grid Description

FILE 5: ELEVATION GRID DATA RECORD		
Record Format: 10 logical records correspond to one physical record		
Blocksize: 1800 Bytes		
FORTRAN Variable		
Bytes	Type	Description
1-4	I*4	Condition number of the matrix used in the least squares solution to the function ($x 10^6$)
5-8	I*4	Capsize in degrees latitude - radius from grid location defining area from which data was used to define grid ($x 10^6$)
9-12	I*4	North latitude of grid point in degrees ($x 10^6$)
13-16	I*4	East longitude of grid point in degrees ($x 10^6$)
17-20	I*4	Height values of the grid at location relative to sea level in meters ($x 10^5$)
21-24	I*4	Number of data values that were used to calculate grid value
25-28	I*4	Number of parameters used to define function, NPT, (equals 0, 3, or 6)
29-52	I*4	Six gridding function coefficients. If NPT is < 6 then the rest of the coefficients are initialized to zero. ($x 10^5$)
53-76	I*4	Set of null coefficients associated with any negligible singular values (see SVD reference). If NPT is < 6 then rest of coefficients are initialized to zero ($x 10^6$)
77-80	I*4	Distance in km from grid locations to closest data point ($x 10^6$)
81-84	I*4	North latitude of closest data point to grid location in degrees ($x 10^6$)
85-88	I*4	East longitude of closest data point to grid location in degrees ($x 10^6$)
89-92	I*4	Height associated with closest data point to grid location in meters ($x 10^5$)
93-96	I*4	Standard deviation of the data with respect to the gridding function in meters ($x 10^6$)
97-180	I*4	Correlation matrix from solution. This is a symmetrical 6 X 6 matrix so only the upper triangular portion is stored. The order of storage is elements 1-6 are the first row elements, 7-11 columns 2-6 of second row etc. ($x 10^5$)

NOTE: Ten of the above-mentioned 180-byte logical records make up one block of data.

Table 6. Geoid Grid Header Description

FILE 6:	GEOID GRID HEADER RECORD	
		Record Format: One logical record corresponds to one physical record
		Blocksize: 80 Bytes
	FORTRAN Variable	
Bytes	Type	Description
1-4	I*4	Number of latitude increments in the grid for a non-polar stereographic grid (24)
5-8	I*4	Number of longitude increments in the grid for a non-polar stereographic grid (41)
9-12	I*4	Starting north latitude of grid in degrees ($\times 10^6$) (this will be approximate for a polar stereographic grid) (50000000)
13-16	I*4	Starting east longitude of grid in degrees ($\times 10^6$) (this will be approximate for a polar stereographic grid) (300000000)
17-20	I*4	Ending north latitude of grid in degrees North ($\times 10^6$) (this will be approximate for a polar stereographic grid) (73000000)
21-24	I*4	Ending east longitude of grid in degrees East ($\times 10^6$) (this will be approximate for a polar stereographic grid) (340000000)
25-28	I*4	Unused
29-32	I*4	Polar stereographic grid size conversion and scaling factor from half-inch grids on projection plane to the desired grid size ($\times 10^6$)
33-36	I*4	The number of grids of desired size from the pole to the equator based on the grid size conversion and scaling factor ($\times 10^6$)
37-40	I*4	Latitude of the map perimeter in degrees North ($\times 10^6$) (50000000)
41-44	I*4	Greenwich orientation in degrees East ($\times 10^6$) (450000000)
45-48	I*4	Polar stereographic switch (1) =0, grid has constant increment in latitude and longitude =1, grid is in polar stereographic projection
49-52	I*4	Number of I-axis divisions to the extent of the map perimeter (445)

Table 6. Geoid Grid Header Description (Cont.)

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
53-56	I*4	Number of J-axis divisions to the extent of the map perimeter (445)
57-60	I*4	J coordinate of the projected pole (223)
61-64	I*4	I coordinate of the projected pole (223)
65-68	I*4	Minimum J index of the grid (166)
69-72	I*4	Maximum J index of the grid (317)
73-76	I*4	Minimum I index of the grid (305)
77-80	I*4	Maximum I index of the grid (444)

Table 7. Geoid Grid Description

FILE 7: **GEOID GRID RECORD**
Record Format: 200 logical records correspond to one physical record
Blocksize: 2400 Bytes

<u>Bytes</u>	<u>FORTRAN Variable</u>	<u>Type</u>	<u>Description</u>
1-4		I*4	North latitude of grid point in degrees North (x 10 ⁶)
5-8		I*4	East longitude of grid point in degrees East (x 10 ⁶)
9-12		I*4	Value of geoid in meters (x 10 ⁵)

NOTE: Two hundred of the above-mentioned 12-byte logical records make up one block of data.

Table 8. Narrative Description of Tape

FILE 9: **NARRATIVE DESCRIPTION**
 Record Format: One logical record corresponds to one physical record
 Blocksize: 80 Bytes

Record 1:

<u>Bytes</u>	FORTRAN Variable <u>Type</u>	<u>Description</u>
1-8	A*8	Satellite name
9-11	A*3	Version number of this tape
12-17	A*6	Date of release of this data (YYMMDD)
18-80	A*63	Differences between this data release and previous versions

Record 2:

<u>Bytes</u>	FORTRAN Variable <u>Type</u>	<u>Description</u>
1-80	A*80	Continuation of differences between this data release and previous versions

Record 3:

<u>Bytes</u>	FORTRAN Variable <u>Type</u>	<u>Description</u>
1-10	A*10	Orbit used to compute surface elevations
11-20	A*10	Geoid used to compute elevations relative to sea level
21-40	A*20	Source of ocean tides
41-60	A*20	Source of troposphere correction
61-80	A*20	Source of ionosphere correction

Table 8. Narrative Description of Tape (Cont.)

Record 4:

<u>Bytes</u>	<u>FORTRAN Variable Type</u>	<u>Description</u>
1-10	A*10	Surface used for orbit adjustment
11-40	A*30	NASA publication number and title for documentation describing data on tape
41-46	A*6	Beginning day of data (YYMMDD)
47-52	A*6	End day of data (YYMMDD)
53-80	A*28	Name of mission

APPENDIX

Program to Load Data Base onto Direct Access Device and Read Data for Specific Area.

```
C FUNCTION: GIVEN THE LATITUDE AND LONGITUDE LIMITS OF A RECTANGULAR AREA,  
C THIS PROGRAM DETERMINES WHICH DATA BASE BINS ARE CONTAINED IN  
C THE AREA AND PRINTS OUT THE CONTENTS OF THOSE BINS.  
C  
C INPUT - UNITS : FIELD FORMAT DESCRIPTION  
C 1-10 F10.3 SOUTHEASTERN LATITUDE OF AREA  
C 11-20 F10.3 SOUTHEASTERN LONGITUDE OF AREA  
C 21-30 F10.3 NORTHWESTERN LATITUDE OF AREA  
C 31-40 F10.3 NORTHWESTERN LONGITUDE OF AREA  
C UNIT 12 - SCRATCH DISK FOR DATA BASE (U/19040 - 3350 DISK)  
C UNIT 20 - DATA BASE HEADER (1ST FILE OF TAPE)  
C UNIT 21 - DATA BASE ENTires AND DIRECTORY (2ND FILE OF TAPE)  
C  
C REVISED-12/17/86 FOR WDCG TAPE PGMR - J.A. MAJOR  
C  
C DOUBLE PRECISION XLAT,XLON  
C INTEGER*2 IPASS,IFLAGS  
C DIMENSION IDIR(4300),LONDIV(56),WIDLAT(56),IWDLAT(56),IDRD(8),  
C IHEAD(120),NRECNO(100),SIZE(56),IIBIN(100)  
C COMMON/RANBLK/LAT,LON,IHT,ISIG,IPASS,IFLAGS,IORB,IORBR,ISLCR,  
C IREC  
C COMMON/CHEAD/IG,IWNLAT,IWNLON,ISELAT,ISELON,IWDLAT,LONDIV,DRREC,  
C NBUF,IPRFLG  
C EQUIVALENCE (IDRD(1),LAT),(IHEAD(1),IG)  
C DATA IFIL1/20/,IFIL2/21/,IOUT6/6/,NBINS/4300/,IN5/5/,  
C N100/100/  
C  
C READ LIMITS OF DESIRED AREA  
C READ(IN5,10002) GSELAT,GSELON,GNWLAT,GNWLON  
C WRITE(IOUT6,10003) GSELAT,GSELON,GNWLAT,GNWLON  
C  
C READ HEADER FROM DATA BASE TAPE  
C READ(IFIL1,10001) IHEAD  
C CONVERT PROPER HEADER VALUES TO FLOATING POINT  
C WNLAT = IWNLAT*1.E-5  
C WNLON = IWNLON*1.E-5  
C SELAT = ISELAT*1.E-5  
C SELON = ISELON*1.E-5  
C DO 50 I=1,IG  
C WIDLAT(I) = IWDLAT(I)*1.E-5  
50 CONTINUE  
C WRITE(IOUT6,10000) WNLAT,WNLON,SELAT,SELON,IG,WIDLAT,LONDIV,  
C NBUF,DRREC,IPRFLG  
C COMPUTE THE SIZE OF THE LONGITUDE DIVISIONS FOR EACH BIN GROUP  
C DO 100 I=1,IG  
C SIZE(I) = (SELON-WNLON) / LONDIV(I)  
100 CONTINUE  
C WRITE(IOUT6,10004) SIZE  
C DUMP REMAINING DATA TO DIRECT ACCESS DISK  
C REWIND IFIL1  
C CALL BLKRD(IFIL2,NBUF)  
C  
C READ DIRECTORY AND PRINT OUT ITS CONTENTS  
C DO 200 I=1,NBINS  
C IREC = (I-1)/8 + DRREC  
C CALL RANDRD  
C IWICH = MOD(I-1,8) + 1  
C IDIR(I) = IDRD(IWICH)  
200 CONTINUE  
C WRITE(IOUT6,2210)  
C WRITE(IOUT6,2220) IDIR
```

Program to Load Data Base onto Direct Access Device and Read Data for Specific Area.

```
C DETERMINE BIN NUMBER LOCATED AT SOUTHWEST CORNER OF DESIRED AREA
C AND STORE THE START RECORD OF THAT BIN
    NBIN = 0
    IF(GNWLAT.LE.SELAT .OR. GSELAT.GE.WNLAT .OR. GNWLON.GE.SELON
     .OR. GSELON.LE.WNLON) GO TO 900
    DIF = GSELAT - SELAT
    ADD = 0.0
    DO 320 IB=1,IG
    ADD = ADD + WIDLAT(IB)
    IBGRP = IB
    IF(DIF .LT. ADD) GO TO 325
320  CONTINUE
    IBGRP = IG
325  CLAT = ADD - WIDLAT(IBGRP)
    CNWLAT = GNWLAT
    IF(GNWLAT .GT. WNLAT) CNWLAT = WNLAT
    CSELON = GSELON
    IF(GSELON .GT. SELON) CSELON = SELON
    CNWLON = GNWLON
    IF(GNWLON .LT. WNLON) CNWLON = WNLON
    DIF = CNWLON - WNLON
330  IBIN = 0
    IF(IBGRP .EQ. 1) GO TO 345
    IFIN = IBGRP - 1
    DO 340 J=1,IFIN
340  IBIN = IBIN + LONDIV(J)
345  IBIN = IBIN + DIF/SIZE(IBGRP) + 1.0
    IF(IBIN .GT. NBINS) GO TO 360
    NBIN = NBIN + 1
    IF(NBIN .GT. N100) GO TO 980
    IIBIN(NBIN) =IBIN
    NRECNO(NBIN)=IDIR(IBIN)
C LOCATE ALL BINS WITHIN LATITUDE GROUP WHICH ARE CONTAINED IN DESIRED AREA
    NLON = DIF/SIZE(IBGRP)
    CLON = WNLON + NLON*SIZE(IBGRP)
350  CLON = CLON + SIZE(IBGRP)
    IF(CLON .GT. CSELON) GO TO 360
    IF(CLON .EQ. SELON) GO TO 360
    IBIN = IBIN + 1
    IF(IBIN .GT. NBINS) GO TO 360
    NBIN = NBIN + 1
    TF(NBIN .GT. N100) GO TO 980
    IIBIN(NBIN) =IBIN
    NRECNO(NBIN)=IDIR(IBIN)
    GO TO 350-
C PROCEED TO NEXT BIN GROUP AND DETERMINE IF OUTSIDE DESIRED AREA
360  CLAT = CLAT + WIDLAT(IBGRP)
    TOTLAT = SELAT + CLAT + .0001
    IBGRP = IBGRP + 1
    IF(IBGRP .GT. IG) GO TO 390
    IF(TOTLAT .LT. CNWLAT) GO TO 330
390  CONTINUE
    WRITE(IOUT6,30000) NBIN,(IIBIN(J),J=1,NBIN)
C
C STORE RECORD NUMBER OF BIN TO BE READ; IF ZERO, THEN BIN CONTAINS
C NO DATA...PROCEED TO NEXT BIN
    DO 550 I=1,NBIN
    IREC = NRECNO(I)
    IF(IREC .NE. 0) GO TO 460
    WRITE(IOUT6,40000) IIBIN(I)
    GO TO 550
C FIRST RECORD OF BIN TELLS HOW MANY RECORDS IN THE BIN
460  CONTINUE
    CALL RANDRD
    IEND = LAT
    WRITE(IOUT6,2400) IIBIN(I),NRECNO(I),LAT
    WRITE(IOUT6,2100)
```

Program to Load Data Base onto Direct Access Device and Read Data for Specific Area.

```
C PRINT OUT CONTENTS OF ONE ENTIRE BIN
    DO 500 J=1,IEEND
    IREC = IREC + 1
    CALL RANDRD
    ORBIT = IORB*1.E-5
    ORBITR = IORBR*1.E-5
    SLPCOR = ISLCR*1.E-5
    SIGH = ISIG*1.E-5
    XLAT = LAT*1.D-6
    XLONG = LON*1.D-6
    WRITE(IOUT6,2200) IREC,XLAT,XLONG,IHT,IPASS,ORBIT,ORBITR,SLPCOR,
    .      SIGH
500  CONTINUE
550  CONTINUE
STOP
C
C AREA REQUESTED OUTSIDE OF DATA BASE AREA
900  WRITE(IOUT6,90000)
STOP
C TOO MANY BINS FOR ARRAY WHICH STORES DIRECTORY
980  WRITE(IOUT6,81000) N100
STOP
C
2200 FORMAT(I10,2F10.4,I10,I8,2F10.3,F10.3,F11.3)
2100 FORMAT(/4X,'IREC',5X,'LAT',9X,'LONG',7X,'HEIGHT',3X,'REV #',
.        4X,'ORB ADJ',2X,'ORB RMS',2X,'SLOPE CORR',4X,'SIGMA')
2210 FORMAT(///' DIRECTORY FOR DATA BASE (IDIR):/')
2220 FORMAT(10I10)
2300 FORMAT(///' DIRECTORY STARTS AT LOGICAL RECORD',I10,
.        3X,'NUMBER OF BUFFERS:',I6//)
2400 FORMAT(/' FOR BIN NUMBER',I6,2X,' LOGICAL RECORD STARTS AT',I10,
.        2X,' # RECS IN BIN:',I10)
10000 FORMAT(///' HEADER INFORMATION FROM DATA BASE TAPE'
.        2X,'NW LATITUDE & LONGITUDE (WNLAT, WNLON):',2F10.4/
.        2X,'SE LATITUDE & LONGITUDE (SELAT, SELON):',2F10.4/
.        2X,'LAT WIDTH OF EACH OF THE',I4,' BIN GROUPS:'
.        7(1X,8F9.3)/2X,'LONGITUDE DIVISIONS IN EACH BIN GROUP',
.        '(LONDIV):'7(1X,8I6)/2X,'NUMBER OF BUFFERS:',I6,3X,
.        'LOGICAL RECORD AT WHICH DIRECTORY STARTS:',I10//'
.        ' ALTIMETRY DATA STATUS WORD',Z10//)
10001 FORMAT(120A4)
10002 FORMAT(4F10.3)
10003 FORMAT(//' SOUTHEASTERN CORNER OF DESIRED AREA (LAT,LON):',2F10.3
.        //' NORTHWESTERN CORNER OF DESIRED AREA (LAT,LON):',2F10.3//)
10004 FORMAT(//' SIZE OF EACH BIN GROUP AS DETERMINED FROM HEADER:'
.        7(1X,8F9.3//))
30000 FORMAT(//' THE FOLLOWING ',I6,' BINS CONTAIN DATA IN THE DESIRED'
.        ' AREA:'10(10I10//))
40000 FORMAT(//' BIN ',I6,' CONTAINS NO DATA')
81000 FORMAT(//' ** NUMBER OF BINS CONTAINED IN AREA EXCEEDS',I5,
.        ' INCREASE SIZE OF NRECNO ARRAY'/' PROGRAM TERMINATING')
90000 FORMAT(//' AREA SELECTED IS OUTSIDE DATA BASE AREA'
.        ' PROGRAM TERMINATING')
END
```

```

CC Program to Load Data Base onto Direct Access Device and Read Data for Specific Area.
CC
CC      SUBROUTINE RANDRD
C
C FUNCTION: THIS ROUTINE USES THE DIRECT ACCESS I/O PACKAGE (DAIO)
C           AND ENTRY POINTS TO ACHIEVE SEVERAL THINGS:
C           1) RANDRD - READS THE IREC TH LOGICAL RECORD FROM DISK
C           2) RANDWR - WRITES THE IREC TH LOGICAL RECORD TO DISK
C           3) BLKRD - TRANSFERS THE DESIRED PHYSICAL RECORDS
C                         OR BLOCKS FROM UNIT NIN TO DISK
C           4) BLKWR - TRANSFERS THE DESIRED PHYSICAL RECORDS
C                         OR BLOCKS FROM DISK TO UNIT NOUT
C
C COMMON/FERMSG/IMES(26)
C REAL A,BUF(8,595),TBUF(8,595)
C INTEGER DISK
C COMMON/RANBLK/A(8),IREC
C EQUIVALENCE (TBUF(1,1),BUF(1,1))
C DATA NREC/595/,NWORDS/8/,KBUF/1/,DISK/12/
C LOGICAL WSWTCH
C K=1
C GO TO 10
C ENTRY RANDWR
C WSWTCH=.TRUE.
C K=2
C 10 IBUF=(IREC-1)/NREC+1
C     IF (IBUF.NE.KBUF) GO TO (50,90),K
C 20 JREC=IREC-(IBUF-1)*NREC
C     GO TO (30,70),K
C 30 DO 40 I=1,NWORDS
C 40 A(I)=BUF(I,JREC)
C     RETURN
C 50 IF (WSWTCH) CALL DWRITE(DISK,KBUF,BUF)
C     KBUF=IBUF
C     WSWTCH=.FALSE.
C     CALL DREAD(DISK,KBUF,BUF,&60)
C     GO TO 20
C 60 PRINT 1000,IMES
C     STOP
C 70 DO 80 I=1,NWORDS
C 80 BUF(I,JREC)=A(I)
C     RETURN
C 90 CALL DWRITE(DISK,KBUF,BUF)
C     KBUF=IBUF
C     GO TO 20
C 1000 FORMAT(1H0,Z8,I6,20A4,4(1X,Z8))
C ENTRY BLKRD(NIN,NBUF)
C KBUF=NBUF
C DO 205 J=1,NBUF
C     READ(NIN,1200,END=204) TBUF
C 205 CALL DWRITE(DISK,J,BUF)
C 204 WRITE(6,1100) J
C 1100 FORMAT(' NUMBER OF BUFFERS READ ',I5)
C 1200 FORMAT(18(255A4),170A4)
C     RETURN
C ENTRY BLKWR(NOUT,NBUF)
C DO 200 J=1,NBUF
C     CALL DREAD(DISK,J,BUF,&60)
C 200 WRITE(NOUT) BUF
C     RETURN
C END

```

REFERENCES

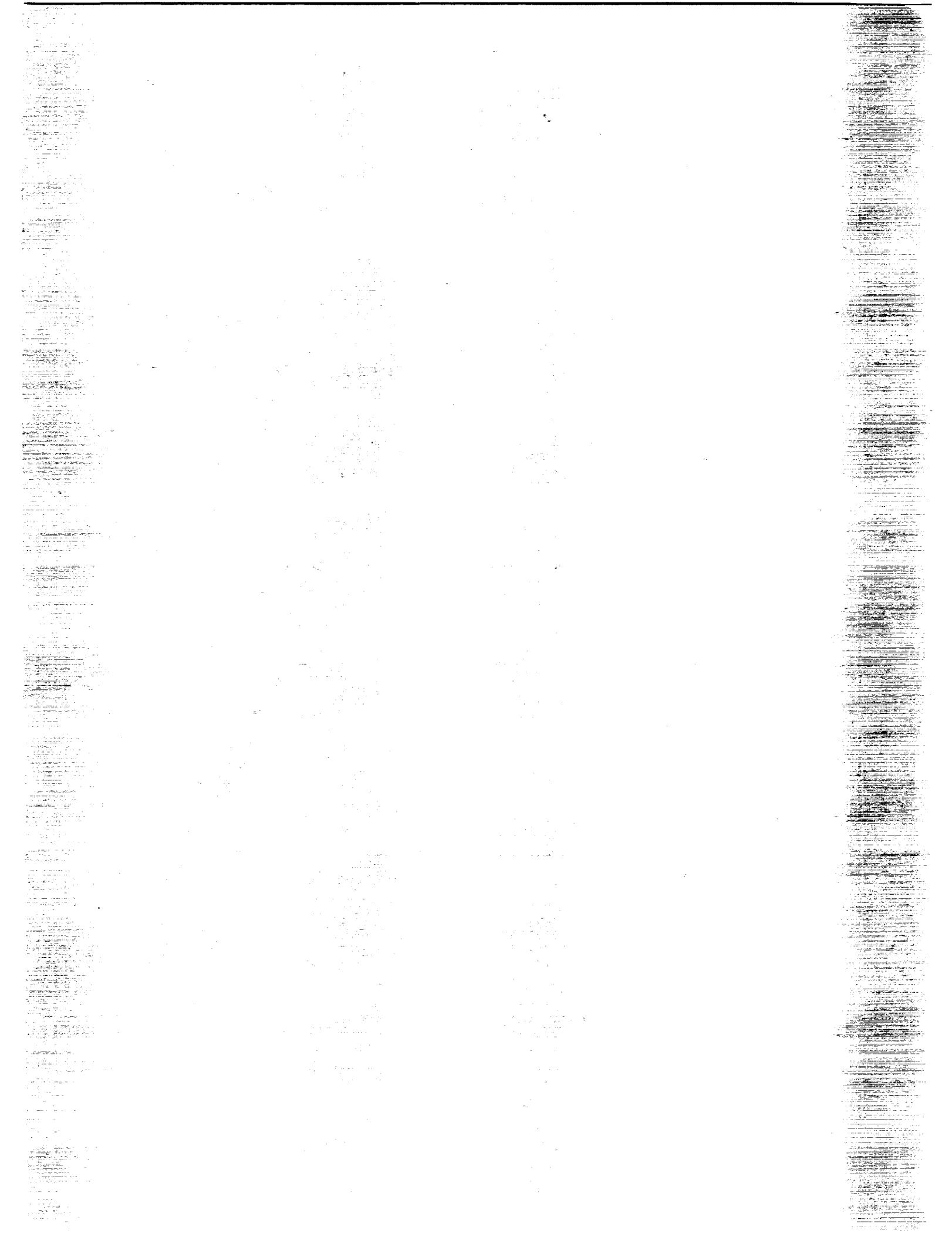
1. Bindschadler, R.A., H.J. Zwally, J.A. Major, A.C. Brenner, T.V. Martin, "Surface Topography of the Greenland Ice Sheet from Seasat Radar Altimetry," NASA Special Publication in preparation.
2. Brenner, A.C., R.A. Bindschadler, R.H. Thomas, H.J. Zwally, "Slope-Induced Errors in Radar Altimetry Over Continental Ice Sheets", Journal of Geophysical Research, Vol. 88, 1617-1623, 1983.
3. Gundestrup, N.S., R.A. Bindschadler, H.J. Zwally, "Seasat Measurements Verified on a 3-D Ice Sheet", Annals of Glaciology 5, 1986.
4. Lame, D.B., G.H. Born, J.A. Dunne, A.J. Spear, C.A. Yamarone, "Seasat Performance Evaluation: The First Two Steps", IEEE Journal of Oceanic Engineering, Vol. OE-5, No. 2, 72-73, April 1980.
5. Lame, D.B., G.H. Born, "Seasat Measurement System Evaluation: Achievements and Limitations", Journal of Geophysical Research, Vol. 87, No. C5, 3175-3178, April 30, 1982.
6. MacArthur, J.L., "Seasat-A Radar Altimeter Design Description", The Johns Hopkins University Applied Physics Laboratory, Doc. SDO-5232, Nov. 1978.
7. Martin, T.V., H.J. Zwally, A.C. Brenner, R.A. Bindschadler, "Analysis and Retracking of Continental Ice Sheet Radar Altimeter Waveforms", Journal of Geophysical Research, Vol. 88, 1608-1616, 1983.
8. Tapley, B.D., G.H. Born, M.E. Parke, "The Seasat Altimeter Data and Its Accuracy Assessment", Journal of Geophysical Research, Vol. 87, No. C5, 3179-3188, April 30, 1982.
9. Townsend, W.F., "An Initial Assessment of the Performance Achieved by the Seasat-1 Radar Altimeter", IEEE Journal of Oceanic Engineering, Vol. OE-5, No. 2, 80-92, April 1980.
10. Thomas, R.H., T.V. Martin, H.J. Zwally, "Mapping Ice-Sheet Margins from Radar Altimetry Data", Annals of Glaciology 4, 283-288, 1983.
11. Zwally, H.J., R.A. Bindschadler, A.C. Brenner, T.V. Martin, R.H. Thomas, "Surface Elevation Contours of Greenland and Antarctic Ice Sheets," Journal of Geophysical Research, Vol. 88, 1589-1596, 1983.
12. Zwally, H.J., A.C. Brenner, J.A. Major, T.V. Martin, R.A. Bindschadler, "Satellite Altimetry Data Over Ice: Vol. 1: Processing and Corrections of Seasat Data over Greenland," NASA Reference Publication in preparation.





Report Documentation Page

1. Report No. NASA RP-1233, Vol. 2	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Satellite Radar Altimetry Over Ice Volume 2 - Users' Guide for Greenland Elevation Data From Seasat		5. Report Date January 1990	
7. Author(s) H. Jay Zwally, Judith A. Major, Anita C. Brenner, Robert A. Bindschadler, and Thomas V. Martin		6. Performing Organization Code 671.0	
9. Performing Organization Name and Address Goddard Space Flight Center Greenbelt, Maryland 20771		8. Performing Organization Report No. 89B00240	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D.C. 20546-0001		10. Work Unit No.	
		11. Contract or Grant No.	
		13. Type of Report and Period Covered Reference Publication	
		14. Sponsoring Agency Code	
15. Supplementary Notes H. Jay Zwally - Oceans and Ice Branch, NASA-GSFC, Greenbelt, MD; Judith A. Major and Anita C. Brenner - ST Systems Corporation, 4400 Forbes Blvd., Lanham, MD; Robert A. Bindschadler - Oceans and Ice Branch, NASA-GSFC, Greenbelt, MD; and Thomas V. Martin - Van Martin Consulting, Inc., P.O. Box 2203, Rockville, MD.			
16. Abstract A gridded surface elevation data set and a geo-referenced data base for the Seasat radar altimeter data over Greenland are described in this volume. It is intended to be a "user's guide" to accompany the data provided to data centers and other users. The grid points are on a polar stereographic projection with a nominal spacing of 20 km. The gridded elevations are derived from the elevation data in the geo-referenced data base by a weighted fitting of a surface in the neighborhood of each grid point. The gridded elevations are useful for the creating of large-scale contour maps, and examining individual elevation measurements in specific geographic areas. Tape formats are described, and a FORTRAN program for reading the data tape is listed and provided on the tape. For more details of the data processing procedures and corrections that were derived and applied to the data, see Volume 1 of this series.			
17. Key Words (Suggested by Author(s)) Radar Altimetry, Ice Sheets, Sea Ice, Data Processing, Retracking Algorithm, Seasat		18. Distribution Statement Unclassified - Unlimited Subject Category 46	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of pages 92	22. Price A05



**National Aeronautics and
Space Administration**

Code NTT-4

Washington, D.C.

20546-0001

Official Business
Penalty for Private Use: \$100

**BULK RATE
POSTAGE & FEES PAID**
NASA
Permit No. G-27

NASA

POSTMASTER: **If Undeliverable (Section 158
Postal Manual) Do Not Return**
