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Alaska SAR Facility

RADARSAT Geophysical Processor System

Product Specification

Version 2.0

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DOCUMENT CHANGE CONTROL

DATE	PAGE NO.	STATUS	REVISED BY
January, 1997	ALL	Rev 1.0, Original	G. Cunningham
October 1, 1997	ALL	Rev 1.1	L. Nguyen
	New section included:		
	1.2 File Name Convention		
January 29, 1998	ALL	Rev 1.2	G. Cunningham
	Changes included:		
	Converting all fractional areas from real*4 to integer*2		
	Converting freezing-degree-day ranges from real*4 to complex*8		
	Deleted entries for first-year ice fractional areas		
	Converted all locations to kilometers		
	Changed definitions of number of age and thickness categories		
	Added a ridge flag		
	Converted the 50km grid map locations from real*8 to real*4		
February 13, 1998	2,34,35	Rev 1.2	G. Cunningham
	Changed Eulerian Ice Motion Product:		
	Increased image product identifier lengths		
	Changed image corner values from lat/lon to x/y double precision		
	Added npix/nrec for image B		
	Defined algo_type as character*8		
May 12, 1998	8,9,10,11	Rev 1.3	G. Cunningham
	Changed 50km Gridded Products:		
	Added cell size		
	Made product start and end times consistent		
	Removed entries for corners of grid cells		
	Added ridge thickness fractional areas to 50km Ice Thickness Product		
Feb 24, 1999	1	Rev 1.31	R. Kwok
	Updated product sizes		
May 6, 1999	38	Rev 1.32	G. Cunningham
	Changed Ice Deformation Product description and frequency estimate.		
March 8, 2000	ALL	Rev 2.00	G. Cunningham
	Removed 50km Gridded Ice Products		
	Removed 3-day Interpolated Ice Age Histogram Product		
	Combined Ice Age and Ice Thickness Histogram Products		
	Converted Ice Age/Thickness and Backscatter Histogram Products to be monthly collections of all cell observations		
	Changed all ice product frequencies to once per month		
	Removed MYKEEP multiyear ice concentrations from the Ice Age/Thickness Product		
	Changed the Product Code values to be more intuitive		

1.0 Introduction

This document specifies the content and format of the products generated by the Radarsat Geophysical Processor System.

1.1 Notes on the Data

- All fractional areas, other than the Backscatter Histogram values, referred to in the product descriptions are normalized to the initial area of that cell, so that fractional area values may be greater than one in some cases.
- For space considerations, all fractional areas are given as 2-byte integers that must be multiplied by 0.001 to retrieve the proper value.
- Cell areas, and other areas calculated from the cell area, may be negative in certain situations.
- Data are defined as one of the following types:

  Cnn : character string of byte length nn
  I2 : 2-byte integer
  I4 : 4-byte integer
  R4 : 4-byte floating point
  R8 : 8-byte floating point
  CX8 : 8-byte complex number

1.2 Product File naming Convention

File Name: PnpppSYYDDDddd.TF

where

Pn: Platform and number (“R1”, “E1”, “E2”)
ppp: Product ID (1-999)
S: Data stream ID (a-z, A-Z)
YY: Start year of the product
DDD: Start julian day of the product
ddd: Duration (in days) that the product spans
T: Product type, according to the code described on the following table
F: File type (“P” for product, “M” for metadata)

1.3 Summary (Frequency and Size)

The following table summarizes the production frequency and size of each of the products. The asterisked entries have variable length sizes and are explained in the following notes. These records contain histograms where the number of entries are related to the cumulative number of observations of a particular quantity. Therefore, as a season progresses, the sizes of the products increase. The noted size estimates assume the existence of 45,000 cells in the full histograms. The yearly size estimates assume nine months of observation for the winter products. It is also assumed that there will optimally be 10 observations per month for each cell.

Product Type	Code	Frequency	Size (MB)	Size(GB/yr)
Lagrangian Ice Motion	L	1/mth	15	0.675
Backscatter Histogram	B	1/mth	40	0.36
Ice Age/Thickness Histogram	T	1/mth	* (note 1)	0.53
Ice Deformation	D	1/mth	32.2	0.29
Area/Open Water Fraction (summer only)	C	1/mth	21.6	0.08
Eulerian Ice Motion	E	variable	0.2	N/A
Melt Onset/Freeze Up	F	2/yr	9	0.02
Wind/Temp/Pressure Fields (50km grid)	M	1/day	0.2	0.07
			Total	**2.0/yr**

(note 1): 22.5MB + (8.1MB x Number of ice ages) + (0.9 x Number of ice thickness bins) + (12.6MB x Number of ridges).

2.0 Lagrangian Ice Motion Product

Description

This product contains the trajectories of all grid points within an initial datatake over a time interval between time $T_{start} + n\Delta T$. The last observations are added at $T_{start} + n\Delta T = T_{end}$. For example, the starting time T_{start} could be at fall freeze-up or at the spring-summer transition. Here, $1/\Delta T$ is the frequency of product generation and n is an integer greater than or equal to 1. T_{end} is typically at the end of the season of ice tracking.

Frequency/Size Estimate

The production frequency is once per month. Each product file grows as more observations are added each month. Assuming that an average datatake contains 3,000 grid points, the initial product file is approximately 1.0 MB and increases by 1.0MB per month.

2.1 Lagrangian Ice Motion Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_IMAGES Number of images used in the creation of this product	I2	N/A	1	N/A	N/A	N/A
N_TRAJECTORIES Number of trajectories	I4	N/A	1	N/A	N/A	N/A
PROD_TYPE Product type	C8	N/A	N/A	N/A	N/A	“winter” “summer”
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datatake	R4	Deg	-90.0	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datatake	R4	Deg	-90.0	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datatake	R4	Deg	-90.0	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A

2.2 Lagrangian Ice Motion Product: Image Description Data

The image description data contain one record per image used in the Lagrangian ice motion product observations. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
IMAGE_ID ASF image identifier	C16	N/A	N/A	N/A	N/A	N/A
IMAGE_YEAR Image center year	I2	N/A	1995	N/A	N/A	N/A
IMAGE_TIME Image center time	R8	day	1.00	367.00	N/A	N/A
MAP_X Image center x	R8	km	N/A	N/A	N/A	N/A
MAP_Y Image center y	R8	km	N/A	N/A	N/A	N/A

2.3 Lagrangian Ice Motion Product: Gridpoint/Trajectory Description Data

The gridpoint description data contain one record for each gridpoint and its trajectory. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
GPID Grid point identifier	I4	N/A	1	N/A	N/A	N/A
BIRTH_YEAR Birth year of grid point	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of grid point	R8	day	1.00	367.00	N/A	N/A
DEATH_YEAR Death year of grid point	I2	N/A	1995	N/A	N/A	N/A
DEATH_TIME Death year of grid point	R8	day	1.00	367.00	N/A	N/A
N_OBS Number of observations in trajectory	I4	N/A	1	N/A	N/A	N/A
OBS_YEAR_1 Year of first observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_1 Time of first observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_1 X map location of first observation	R8	km	N/A	N/A	N/A	N/A
Y_MAP_1 Y map location of first observation	R8	km	N/A	N/A	N/A	N/A
Q_FLAG_1 Quality Flag of first observation	I2	N/A	N/A	N/A	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
OBS_YEAR_N Year of (N_OBS) observation	I2	N/A	1995	N/A	N/A	N/A

OBS_TIME_N Time of (N_OBS) observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_N X map location of (N_OBS) observation	R8	km	N/A	N/A	N/A	N/A
Y_MAP_N Y map location of (N_OBS) observation	R8	km	N/A	N/A	N/A	N/A
Q_FLAG_N Quality Flag of (N_OBS) observation	I2	N/A	N/A	N/A	N/A	N/A

3.0 Backscatter Histogram Product

Description
This product contains the backscatter histograms of all the grid cells observed within a monthly time period.

Frequency/Size Estimate
The product generation frequency is once per month. Each product file contains the backscatter histograms of the grid cells within this product. The size of a product file is approximately 2.7MB.

3.1 Backscatter Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A

3.2 Backscatter Histogram Product: Backscatter Range Record

Name/Description	Type	Units	Min	Max	Miss	Values
BSR_1 1st backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_2 2nd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_3 3rd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_4 4th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_5 5th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_6 6th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_7 7th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_8 8th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_9 9th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_10 10th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_11 11th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_12 12th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_13 13th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_14 14th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_15 15th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_16 16th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_17 17th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_18 18th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_19 19th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_20 20th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_21 21st backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_22 22nd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_23 23rd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_24 24th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_25 25th backscatter range	CX8	dB	N/A	N/A	N/A	N/A

3.3 Backscatter Histogram Product: Backscatter Histogram Data

The histogram data contain multiple records. Each record contains the monthly observations of a backscatter histogram for a grid cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	MISS	Values
CELL_ID Cell identifier	I4	N/A	1	N/A	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
N_OBS Number of observations of cell	I4	N/A	1	N/A	N/A	N/A
OBS_YEAR_1 Year of first observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_1 Time of first observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_1 Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP_1 Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
CELL_TEMP_1 Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
C_AREA_1 Current cell area	R4	sq km	0	N/A	N/A	N/A
MYFRAC_1 Multiyear ice fraction	I2	N/A	0	N/A	N/A	N/A
OWFRAC_1 Open water fraction	I2	N/A	0	N/A	N/A	N/A
FBSR_1_1 Fractional area in 1st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_2_1 Fractional area in 2nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_3_1 Fractional area in 3rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_4_1 Fractional area in 4th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_5_1 Fractional area in 5th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_6_1 Fractional area in 6th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_7_1 Fractional area in 7th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_8_1 Fractional area in 8th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_9_1 Fractional area in 9th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_10_1 Fractional area in 10th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_11_1 Fractional area in 11th backscatter range	I2	N/A	0.0	1000	N/A	N/A

FBSR_12_1 Fractional area in 12th backscatterrange	I2	N/A	0.0	1000	N/A	N/A
FBSR_13_1 Fractional area in 13th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_14_1 Fractional area in 14th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_15_1 Fractional area in 15th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_16_1 Fractional area in 16th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_17_1 Fractional area in 17th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_18_1 Fractional area in 18th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_19_1 Fractional area in 19th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_20_1 Fractional area in 20th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_21_1 Fractional area in 21st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_22_1 Fractional area in 22nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_23_1 Fractional area in 23rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_24_1 Fractional area in 24th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_25_1 Fractional area in 25th backscatter range	I2	N/A	0.0	1000	N/A	N/A
INC_ANG_1 Incidence angle of first observation	R4	deg	0.0	90.0	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
OBS_YEAR_N Year of (N_OBS) observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_N Time of (N_OBS) observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_N Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP_N Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
CELL_TEMP_N Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
C_AREA_N Current cell area	R4	sq km	0	N/A	N/A	N/A
MYFRAC_N Multiyear ice fraction	I2	N/A	0	N/A	N/A	N/A
OWFRAC_N Open water fraction	I2	N/A	0	N/A	N/A	N/A
FBSR_1_N Fractional area in 1st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_2_N Fractional area in 2nd backscatter range	I2	N/A	0.0	1000	N/A	N/A

FBSR_3_N Fractional area in 3rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_4_N Fractional area in 4th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_5_N Fractional area in 5th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_6_N Fractional area in 6th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_7_N Fractional area in 7th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_8_N Fractional area in 8th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_9_N Fractional area in 9th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_10_N Fractional area in 10th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_11_N Fractional area in 11th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_12_N Fractional area in 12th backscatterrange	I2	N/A	0.0	1000	N/A	N/A
FBSR_13_N Fractional area in 13th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_14_N Fractional area in 14th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_15_N Fractional area in 15th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_16_N Fractional area in 16th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_17_N Fractional area in 17th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_18_N Fractional area in 18th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_19_N Fractional area in 19th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_20_N Fractional area in 20th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_21_N Fractional area in 21st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_22_N Fractional area in 22nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_23_N Fractional area in 23rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_24_N Fractional area in 24th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_25_N Fractional area in 25th backscatter range	I2	N/A	0.0	1000	N/A	N/A
INC_ANG_N Incidence angle of (N_OBS) observation	R4	deg	0.0	90.0	N/A	N/A

4.0 Ice Age/Thickness Histogram Product

Description

This product contains the ice age and ice thickness histograms of the grid cells covering the Arctic Ocean observed during the prescribed month.

Frequency/Size Estimate

The product generation frequency is once per month. Each product file contains the ice age and ice thickness histograms and ridging events of the grid cells within the product. This record is of variable length, depending on the number of ice age ranges, ice thickness bins, and ridging events that are sampled.

4.1 Ice Age/Thickness Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A

4.2 Ice Age/Thickness Histogram Product: Interpolated Thickness Range Record

The interpolated thickness range record describes the thickness interval of each thickness category.

Name/Description	Type	Units	Min	Max	Miss	Values
THICK_STEP The interval of each thickness category	R4	cm	0	N/A	N/A	N/A

4.3 Ice Age/Thickness Histogram Product: Histogram Data

The histogram data contain one record per cell observed. The data pertain to each observation of the cell within the time of the product. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	1	N/A	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
N_OBS Number of observations of cell	I4	N/A	1	N/A	N/A	N/A
OBS_YEAR_1 Year of first observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_1 Time of first observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_1 Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP_1 Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
C_TEMP_1 Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
FDD_1 Accumulated freezing degree days since cell creation	R4	deg C day	0	N/A	N/A	N/A
C_AREA_1 Current cell area	R4	sq km	0	N/A	N/A	N/A
N_AGE_1 Number of age categories up to and including the oldest observation	I2	N/A	N/A	N/A	N/A	N/A
AR_1_1 1st age range (youngest ice)	CX8	days	N/A	N/A	N/A	N/A
AGE_FAR_1_1 Fractional area in 1st age range	I2	N/A	0	N/A	N/A	N/A
FDD_1_1 Accumulated freezing degree days of 1st age range	CX8	deg C day	0	N/A	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .

AR_N_1 (N_AGE_1) age range	CX8	days	N/A	N/A	N/A	N/A
AGE_FAR_N_1 Fractional area in (N_AGE_1) age range	I2	N/A	0	N/A	N/A	N/A
FDD_N_1 Accumulated freezing degree days of (N_AGE_1) age range	CX8	deg C day	0	N/A	N/A	N/A
N_THICK_1 Number of thickness categories up to and including the thickest observation	I2	N/A	N/A	N/A	N/A	N/A
THICK_FAR_1_1 Fractional area in 1st thickness range	I2	N/A	0	N/A	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
THICK_FAR_N_1 Fractional area in the (N_THICK) thickness range	I2	N/A	0	N/A	N/A	N/A
FAR_FYR_1 Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY_1 Fractional area in radiometric MY category	I2	N/A	0	N/A	N/A	N/A
N_RIDGE_1 Number of ridging event records	I2	N/A	0	N/A	N/A	N/A
RIDGE_AR_1_1 Age range of ridging event 1	CX8	days	0	N/A	N/A	N/A
RIDGE_TR_1_1 Thickness range of ridging event 1	CX8	cm	0	N/A	N/A	N/A
RIDGE_FAR_1_1 Fractional area of ridging event 1	I2	N/A	0	N/A	N/A	N/A
RIDGE_FDD_1_1 Accumulated freezing degree days of ridging event 1	CX8	deg C day	0	N/A	N/A	N/A
RIDGE_FLAG_1_1 0 = old ridge, 1 = new ridge	I2	N/A	0	1	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
RIDGE_AR_N_1 Age range of ridging event (N_RIDGE_1)	CX8	days	0	N/A	N/A	N/A
RIDGE_TR_N_1 Thickness range of ridging event (N_RIDGE_1)	CX8	cm	0	N/A	N/A	N/A
RIDGE_FAR_N_1 Fractional area of ridging event (N_RIDGE_1)	I2	N/A	0	N/A	N/A	N/A
RIDGE_FDD_N_1 Accumulated freezing degree days of ridging event (N_RIDGE_1)	CX8	deg C day	0	N/A	N/A	N/A
RIDGE_FLAG_N_1 0 = old ridge, 1 = new ridge	I2	N/A	0	1	N/A	N/A
. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .

OBS_YEAR_N Year of (N_OBS) observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_N Time of (N_OBS) observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_N Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP_N Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
C_TEMP_N Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
FDD_N Accumulated freezing degree days since cell creation	R4	deg C day	0	N/A	N/A	N/A
C_AREA_N Current cell area	R4	sq km	0	N/A	N/A	N/A
N_AGE_N Number of age categories up to and including the oldest observation	I2	N/A	N/A	N/A	N/A	N/A
AR_1_N 1st age range (youngest ice)	CX8	days	N/A	N/A	N/A	N/A
AGE_FAR_1_N Fractional area in 1st age range	I2	N/A	0	N/A	N/A	N/A
FDD_1_N Accumulated freezing degree days of 1st age range	CX8	deg C day	0	N/A	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
AR_N_N (N_AGE_N) age range	CX8	days	N/A	N/A	N/A	N/A
AGE_FAR_N_N Fractional area in (N_AGE_N) age range	I2	N/A	0	N/A	N/A	N/A
FDD_N_N Accumulated freezing degree days of (N_AGE_N) age range	CX8	deg C day	0	N/A	N/A	N/A
N_THICK_N Number of thickness categories up to and including the thickest observation	I2	N/A	N/A	N/A	N/A	N/A
THICK_FAR_1_N Fractional area in 1st thickness range	I2	N/A	0	N/A	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
THICK_FAR_N_N Fractional area in the (N_THICK) thickness range	I2	N/A	0	N/A	N/A	N/A
FAR_FYR_N Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY_N Fractional area in radiometric MY category	I2	N/A	0	N/A	N/A	N/A
N_RIDGE_N Number of ridging event records	I2	N/A	0	N/A	N/A	N/A
RIDGE_AR_1_N Age range of ridging event 1	CX8	days	0	N/A	N/A	N/A
RIDGE_TR_1_N Thickness range of ridging event 1	CX8	cm	0	N/A	N/A	N/A

RIDGE_FAR_1_N Fractional area of ridging event 1	I2	N/A	0	N/A	N/A	N/A
RIDGE_FDD_1_N Accumulated freezing degree days of ridging event 1	CX8	deg C day	0	N/A	N/A	N/A
RIDGE_FLAG_1_N 0 = old ridge, 1 = new ridge	I2	N/A	0	1	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
RIDGE_AR_N_N Age range of ridging event (N_RIDGE_N)	CX8	days	0	N/A	N/A	N/A
RIDGE_TR_N_N Thickness range of ridging event (N_RIDGE_N)	CX8	cm	0	N/A	N/A	N/A
RIDGE_FAR_N_N Fractional area of ridging event (N_RIDGE_N)	I2	N/A	0	N/A	N/A	N/A
RIDGE_FDD_N_N Accumulated freezing degree days of ridging event (N_RIDGE_N)	CX8	deg C day	0	N/A	N/A	N/A
RIDGE_FLAG_N_N 0 = old ridge, 1 = new ridge	I2	N/A	0	1	N/A	N/A

5.0 Ice Deformation Product

Description

This product contains the area changes and ice motion spatial derivatives of all the grid cells within an initial datatake up to the product time.

Frequency/Size Estimate

The product generation frequency is once per month. Each product file contains information of the area changes and ice motion spatial derivatives of the grid cells within the product. Since the product contains all observations up to the product time, the size of each product will vary and will contain approximately 11MB per observation of all 100,000 cells.

5.1 Ice Deformation Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A

5.2 Ice Deformation Product: Area Change and Ice Motion Derivatives Data

The area change and ice motion spatial derivatives data contain multiple records. Each cell contains multiple observations of area change and ice motion spatial derivatives. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	1	N/A	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
N_OBS Number of observations of cell	I2	N/A	1	N/A	N/A	N/A
OBS_YEAR_1 Year of observation 1	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_1 Time of observation 1	R8	day	1.00	367.00	N/A	N/A
X_MAP_1 X map location of observation 1	R8	km	N/A	N/A	N/A	N/A
Y_MAP_1 Y map location of observation 1	R8	km	N/A	N/A	N/A	N/A
X_DISP_1 X displacement of between current observation and previous observation	R8	km	N/A	N/A	N/A	N/A
Y_DISP_1 Y displacement betweem current observation and previous observation	R8	km	N/A	N/A	N/A	N/A
C_AREA_1 Cell area of observation 1	R4	sq km	N/A	N/A	N/A	N/A
D_AREA_1 Cell area difference between current observation and previous observation	R4	sq km	N/A	N/A	N/A	N/A
DTP_1 Time difference between current observation and previous observation	R4	day	N/A	N/A	N/A	N/A
DUDX_1 du/dx ice motion partial of observation 1	R4	N/A	N/A	N/A	N/A	N/A
DUDY_1 du/dy ice motion partial of observation 1	R4	N/A	N/A	N/A	N/A	N/A
DVDX_1 dv/dx ice motion partial of first observation	R4	N/A	N/A	N/A	N/A	N/A
DVDY_1 dv/dy ice motion partial of observation 1	R4	N/A	N/A	N/A	N/A	N/A
. . .	. . .	. . .	. . .	. . .	. . .	. . .
OBS_YEAR_N Year of observation of (N_OBS)	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_N Time of observation of (N_OBS)	R8	day	1.00	367.00	N/A	N/A
X_MAP_N X map location of observation (N_OBS)	R8	km	N/A	N/A	N/A	N/A

Y_MAP_N Y map location of observation (N_OBS)	R8	km	N/A	N/A	N/A	N/A
X_DISP_N X displacement between (N_OBS) observation and previous observation	R8	km	N/A	N/A	N/A	N/A
Y_DISP_N Y displacement between (N_OBS) observation and previous observation	R8	km	N/A	N/A	N/A	N/A
C_AREA_N Cell area of (N_OBS) observation	R4	sq km	N/A	N/A	N/A	N/A
D_AREA_N Cell area difference between (N_OBS) observation and previous observation	R4	sq km	N/A	N/A	N/A	N/A
DTP_N Time difference between (N_OBS) observation and previous observation	R4	day	N/A	N/A	N/A	N/A
DUDX_N du/dx ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A
DUDY_N du/dy ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A
DVDX_N dv/dx ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A
DVDY_N dv/dy ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A

6.0 Area/Open Water Fraction Product

Description

This product contains the area and estimated open water fraction of all the grid cells within an initial datatake at time $T_{s..}$. This product is produced only during the summer.

Frequency/Size Estimate

The product generation frequency is once per month. Each product file contains information of the area and open water fraction of the grid cells within this product, the size of each product being approximately 15MB.

6.1 Area/Open Water Fraction Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A

6.2 Area/Open Water Fraction Product: Area/Open Water Fraction Data

The area/open water fraction data contain multiple records. Each record contains the area/open water fraction estimates for a cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	1	N/A	N/A	N/A
OBS_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
CELL_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
MDD Cumulative melting degree days	R4	deg C day	0	N/A	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
OW_FRAC Open water fraction	I2	N/A	0	N/A	N/A	N/A

7.0 Eulerian Ice Motion Product

Description

This product contains the ice motion on a 5km grid computed from a pair of images.

Frequency/Size Estimate

This product is requested by the user. Each product file is approximately 0.02MB and 0.5MB in size for ERS-1 and RADARSAT, respectively.

7.1 Eulerian Ice Motion Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
APID Image A Product identifier	C20	N/A	N/A	N/A	N/A	N/A
BPID Image B Product identifier	C20	N/A	N/A	N/A	N/A	N/A
ACENTYEAR Scene center year of Image A	I2	N/A	1995	N/A	N/A	N/A
ACENTTIME Scene center time of Image A	R8	day	1.00	367.00	N/A	N/A
BCENTYEAR Scene center year of Image B	I2	N/A	1995	N/A	N/A	N/A
BCENTTIME Scene center time of Image B	R8	day	1.00	367.00	N/A	N/A
A_TL_X Upper left x, Image A	R8	km	N/A	N/A	N/A	N/A
A_TL_Y Upper left y, Image A	R8	km	N/A	N/A	N/A	N/A
A_TR_X Upper right x, Image A	R8	km	N/A	N/A	N/A	N/A
A_TR_Y Upper right y, Image A	R8	km	N/A	N/A	N/A	N/A
A_BR_X Lower right x, Image A	R8	km	N/A	N/A	N/A	N/A
A_BR_Y Lower right y, Image A	R8	km	N/A	N/A	N/A	N/A
A_BL_X Lower left x, Image A	R8	km	N/A	N/A	N/A	N/A
A_BL_Y Lower left y, Image A	R8	km	N/A	N/A	N/A	N/A
B_TL_X Upper left x, Image B	R8	km	N/A	N/A	N/A	N/A
B_TL_Y Upper left y, Image B	R8	km	N/A	N/A	N/A	N/A
B_TR_X Upper right x, Image B	R8	km	N/A	N/A	N/A	N/A
B_TR_Y Upper right y, Image B	R8	km	N/A	N/A	N/A	N/A
B_BR_X Lower right x, Image B	R8	km	N/A	N/A	N/A	N/A

B_BR_Y Lower right y, Image B	R8	km	N/A	N/A	N/A	N/A
B_BL_X Lower left x, Image B	R8	km	N/A	N/A	N/A	N/A
B_BL_Y Lower left y, Image B	R8	km	N/A	N/A	N/A	N/A
PIXEL_SP Pixel spacing	R4	m	0.0	100.0	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
GRID_W_OBS Grid elements with observations	I4	N/A	N/A	N/A	N/A	N/A
NPIX_A Number of pixels across image A	I4	N/A	N/A	N/A	N/A	N/A
NREC_A Number of records down image A	I4	N/A	N/A	N/A	N/A	N/A
NPIX_B Number of pixels across image B	I4	N/A	N/A	N/A	N/A	N/A
NREC_B Number of records down image B	I4	N/A	N/A	N/A	N/A	N/A
AVG_DISP_X Average displacement in x	R4	km	N/A	N/A	N/A	N/A
AVG_DISP_Y Average displacement in y	R4	km	N/A	N/A	N/A	N/A
D_TIME Time separation between images	R8	day	0.00	366.000	N/A	N/A
GRIDSPACE Grid element spacing	R4	km	N/A	N/A	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
ALGO_TYPE Algorithm type	C8	N/A	N/A	N/A	N/A	N/A

7.2 Eulerian Ice Motion Product: Ice motion Vector data

Name/Description	Type	Units	Min	Max	Miss	Values
A_GRID_X Grid point location - x, Image A	R8	km	N/A	N/A	N/A	N/A
A_GRID_Y Grid point location - y, Image A	R8	km	N/A	N/A	N/A	N/A
B_GRID_X Grid point location - x, Image B	R8	km	N/A	N/A	N/A	N/A
B_GRID_Y Grid point location - y, Image B	R8	km	N/A	N/A	N/A	N/A
DISP_X Displacement in x	R4	km	N/A	N/A	N/A	N/A
DISP_Y Displacement in y	R4	km	N/A	N/A	N/A	N/A
ROT_ANGLE Rotation angle	R4	N/A	-180.0	180.0	N/A	N/A
Q_FLAG Quality Flag	BYTE	N/A	1	6	N/A	N/A

8.0 Melt Onset / Freeze Up Product

Description

This product contains the melt onset or freeze up dates of all the grid cells covering the Arctic Ocean.

Frequency/Size Estimate

The product generation frequency is twice per year, one during the spring-summer transition and the other during the summer-fall transition. Each product file is approximately 9MB in size.

8.1 Melt Onset / Freeze Up Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	1	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

8.2 Melt Onset / Freeze Up Product: Transition Data

The transition dates data contain multiple records. Each record contains the date of seasonal transition for a cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
TRANSITION_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
TRANSITION_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A

9.0 Gridded Wind/Temperature/Pressure Fields (50Km Grid)

Description
This product contains the wind, temperature and pressure at all the grid points (50km grid spacing) covering the Arctic Ocean at time T_s.

Frequency/Size Estimate
The product generation is frequency is once per day. Each product file contains wind, temperature and pressure fields over the Arctic Ocean. Each product file is approximately 0.2MB in size.

9.1 Gridded Wind/Temperature/Pressure Fields: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_GRID Number of grid points	I4	N/A	1	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
MET_YEAR Year of the analysis	I2	N/A	1995	N/A	N/A	N/A
MET_TIME Time of the analysis	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

9.2 Gridded Wind/Temperature/Pressure Fields: Data

The meteorological data contain multiple records. Each record contains wind vector, pressure and temperature at each grid point. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
X_MAP Map location of grid point - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of grid point - y	R8	km	N/A	N/A	N/A	N/A
X_WIND x component of wind velocity	R4	m/s	N/A	N/A	N/A	N/A
Y_WIND y component of wind velocity	R4	m/s	N/A	N/A	N/A	N/A
PRESSURE Pressure	R4	mb	N/A	N/A	N/A	N/A
TEMP Temperature	R4	deg C	N/A	N/A	N/A	N/A