EUROPEAN SPACE AGENCY

ESRIN - ERS EXPLOITATION DIVISION

ERS CENTRAL USER SERVICE

DATA STRUCTURES

Document number : ER-IS-EPO-GU-0101-2.0 Issue 2, Rev. 0

Date : 93/12/15

AMENDMENT CONTROL

ISSUE	REV.	DATE	PURPOSE	PAGE NO.	ACTION
Draft	0	88/05/05	First Draft	All	New
1	0	88/11/22	First Issue	All	Revised
1	1	88/12/20	Second Issue	All	Revised
1	2	89/05/25	Changes in Archiving Report items; deleted X_FILE_CODE, X_HDDT_ID and X_ORBIT_ID; added X_FILE_ID; other agreed details modified.	All	Revised
1	3	89/09/28	**Updated:** X_FACILITY_ID, X_FILE_GROUP, X_FILE_ID, X_HDDT_LABEL, X_MEDIUM_ID, X_REPORT_HEADER, X_SCHEDULE_ORIGINATOR. **Added:** X_PASS_NO, X_SPEC_ORDER_PARMS.	4-9,13, 14,16	Revised
1	4	90/01/29	**Updated:**		
			Overview;	1.2	Revised
			X_ADDRESS;	2.2	"
			X_FACILITY_ID;	2.7	"
			X_MEDIUM_TYPE;	2.15	"
			X_PROCESSING_INFO;	2.20	"
			X_SPEC_ORDER_PARMS;	2.34	"
			X_USER_INFO.	2.42	"
1	5	90/10/19	**Updated:**		
			Overview;	1.2	Revised
			X_FACILITY_ID;	2.7	Revised
			X_FILE_NAME;	2.10	New
			X_MEDIUM_ID;	2.15	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SENSOR_ID;	2.31	Revised
			X_SENSOR_MODE;	2.32	Revised
			X_SPEC_ORDER_PARMS;	2.35	Revised
			X_UNP_DATA_PARAMETERS;	2.40	Revised
			X_USER_INFO.	2.43	Revised
1	6	91/11/21	**Updated:**		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_ID;	2.9	Revised
			X_MEDIUM_ID;	2.15	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SENSOR_MODE.	2.32	Revised

1	7	92/11/18	**Updated:**		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_ID;	2.9	Revised
			X_LAT_LONG;	2.14	Revised
			X_PROCESSING_DATA;	2.20	Revised
			X_PRODUCT_COVERAGE;	2.22	Revised
			X_PRODUCT_DESCRIPTOR;	2.23	Revised
			X_SENSOR_PRODUCT_DATA;	2.33	Revised
			X_SPEC_ORDER_PARMS;	2.35	Revised
			X_UNP_DATA_PARAMETERS.	2.40	Revised
2	0	93/12/15	All changes highlighted by a vertical bar. Some changes to align to ERS-1 & ERS-2 Operations.	Some	Revised
			Major changes:		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_GROUP;	2.8	Revised
			X_FILE_ID;	2.9	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SATELLITE_ID;	2.29	Revised
			X_SENSOR_ID.	2.31	Revised

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

bpi	bits per inch
CCT	Computer Compatible Tape
CUS	Central User Service
EECF	ESRIN ERS Central Facility
EPO	Earthnet Program Office
ERS	European Remote Sensing Satellite
ESA	European Space Agency
ESOC	European Space Operations Centre
ESRIN	European Space Research Institute
HDDT	High Density Digital Tape
MMCC	Mission Management and Control Centre
OD	Optical Disk
SAR	Synthetic Aperture Radar
TBC	To Be Confirmed
TBD	To Be Defined
UTC	Universal Time Coordinated

1 INTRODUCTION

1.1 SCOPE

This document contains the detailed description of the low level data structures used in the external interfaces of the ESRIN ERS Central Facility (EECF) and in perticular of the Central User Service (CUS).

Note: Changes from the previous version are highlighted by a vertical bar on the right. ~~The notation "TO BE DELETED" means that the field has been~~ Striked-through text is suppressed and will disappear in the next issue of the document.

1.2 OVERVIEW

The format tables of next section (presented in alphabetical order) contain the following columns:

a)-NO. sequential number of the element (numbers with decimal values identify detail elements);
b)-NAME element name or reference to a lower level item;
c)-OFFST displacement from section start (all the contained formats are considered at their full size);
d)-LENGTH length in Bytes of the element;
e)-TIMES number of times the element occurs;
f)-T element type:

- A = Alphanumeric ASCII field normally including letters and numbers (exceptions are e.g. names, which do not contain numbers). Left aligned; filler = blank.
- B = Binary field following Digital Equipment Corporation notation and convention (used for specific satellite, UTC, orbit data and in some reports from the stations). Filler = binary zero.
- N = Numeric ASCII field including sign and decimal value separator as necessary (the positive sign is optional; leading zeros can be replaced by blanks; range from 0 to highest value [100 for percentages], unless otherwise specified). Right Aligned; filler = ASCII 0 or blank (a zero value must contain at least one right aligned, ASCII 0, digit).

Note: "Reserved" fileds must contain all ASCII blanks.

g)-DESCRIPTION descriptive text.

2 FORMATS

2.1 X_ACQUISITION_PCD

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6013			*** TOTAL BYTES
1.00		0	1		B	HDDR Identifier
2.00	X_UTC	1	8			First Sample Time
3.00		9	4		B	Number of PCD Records
4.00		13	10	600		PCD RECORDS (EACH 2 SECONDS)
4.01		13	1		B	PCD Validity Flag (0 = Valid, 1 = Invalid)
4.02		14	1		B	HR or LR Carrier Lock
4.03		15	1		B	ACG PCD
4.04		16	1		B	Real Time Bit Error Rate
4.05		17	1		B	Playback Bit Error Rate
4.06		18	1		B	HR or LR Q Bit Clock Lock
4.07		19	1		B	HR or LR I Bit Clock Lock
4.08		20	1		B	Real Time Lock
4.09		21	1		B	Playback Lock
4.10		22	1		B	PCD Summary Byte

2.2 X_ADDRESS

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			168			*** TOTAL BYTES
1.0		0	24		A	Organization
2.0		24	24		A	Department and Section
3.0		48	24		A	Street
4.0		72	12		A	Post Box
5.0		84	24		A	Town
6.0		108	24		A	Place
7.0		132	12		A	ZIP Code
8.0		144	24		A	Country

2.3 X_AREA_DEFN

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			624			*** TOTAL BYTES
1.0		0	1		A	Geographical Coverage Type C = Circle P = Polygon
2.0		1	3			Reserved
3.0		4	4		N	Area Diameter (Km)
4.0	X_LAT_LONG	8	12			Centre Lat/Long
5.0		20	2		N	Number of Lat/Long Points
6.0		22	2			Reserved
7.0	X_LAT_LONG	24	12	50		Corner Coordinates (Lat/Long)

2.4 **X_DATE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	4		N	Year
2.0		4	2		N	Month
3.0		6	2		N	Day

2.5 **X_DATE_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			14			*** TOTAL BYTES
1.0	X_DATE	0	8			Date
2.0	X_TIME	8	6			Time

2.6 **X_DAY_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			24			*** TOTAL BYTES
1.0		0	2		N	Day (DD)
2.0		2	1		A	Separator ("-")
3.0		3	3		A	Month (MMM, e.g. JAN)
4.0		6	1		A	Separator ("-")
5.0		7	4		N	Year (YYYY)
6.0		11	1		A	Separator (" ")
7.0		12	2		N	Hours (hh)
8.0		14	1		A	Separator (":")
9.0		15	2		N	Minutes (mm)
10.0		17	1		A	Separator (":")
11.0		18	2		N	Seconds (ss)
12.0		20	1		A	Separator (".")
13.0		21	3		N	Thousands of a second (ttt)

Note: room for all these fields is left in the interface, but the format specifies which fields are used.

2.7 **X_FACILITY_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	FACILITY IDENTIFIER
						ESA FACILITIES:
						CF = Central Telecommunication Facility - TCS
						DC = Distribution Central Facility
						DF = Distribution Facility - Fucino
						DK = Distribution Facility - Kiruna
						DN = Data Dissemination Network Management Centre
						DR = Distribution Facility - Receive Station
						EB = EECF BS
						EC = EECF CUS
						ED = EECF DMOP Facility (PCS)
						EE = EECF (dumping meaning).
						EF = EECF Financial Service
						EG = EECF General Access System
						EI = EECF Interferometry Working Group
						EM = EECF Monitoring of Facilities
						EP = EECF PCS
						EQ = EECF PCS/QA (for special products only)
						ER = EECF PCS ATSR Near Real Time QA
						ET = ESTEC Calibration Computer system
						FT = Fucino Transcription Facility
						MC = MMCC
						MT = MMCC Telex
						QS = EECF Quick-look OPR Server
						US = EECF UIT Server
						ZP = EECF JERS Archiving Report Source Facility
						PROCESSING AND ARCHIVING FACILITIES
						AP = Alaska "PAF" (simulated)
						CP = Central PAF (ESRIN)
						DP = German PAF
						FP = French PAF
						GP = Gatineau "PAF" (simulated)
						IP = Italian PAF
						PP = Prince Albert "PAF" (simulated)
						TP = Tromsoe "PAF" (simulated)
						UP = UK PAF
						ESA GROUND STATIONS
						ES = EPO Station
						FS = Fucino Station
						GS = Gatineau Station (Low Rate)
						KS = Kiruna Station
						MS = Maspalomas Station
						PS = Prince Albert Station (Low Rate)
						NATIONAL AND FOREIGN STATIONS
						AF = Alaska SAR Facility (Fairbanks)
						AS = Alice Springs, Australia
						AT = Atlanta Test Site, USA
						BE = Beijing, China
						CO = Cotopaxi, Equador
						CU = Cuiaba, Brazil
						GH = Gatineau, Canada (High Rate)

(ASs files to CUS (ISS packages to CUS).)

HA = Hatoyama, Japan
HO = Hobart, Australia
IN = Pare Pare, Indonesia
IR = Israel
IS = Islamabad, Pakistan
JO = Johannesburg, South Africa (not baseline)
KU = Kumamoto, Japan
LI = Libreville (German transportable), Gabon
MA = Mar Chiquita, Argentina
MM = Mac Murdo, Antarctica (USA)
NO = Norman, Oklahoma, USA
~~PP = Pari-Pari, Indonesia~~
PH = Prince Albert, Canada (High Rate)
SA = Riyadh, Saudi Arabia
SE = Shadnagar/Hyderabad, India
SG = Singapore, Malaysia
SY = Syowa, Antarctic (Japanese)
TF = Transportable Fern., O' Higgins, (German) Antarctic
TG = Greenbelt, MD USA (not baseline)
TH = Bangkok, Thailand
TO = Aussaguel, (Toulouse) France
TS = Tromsoe Station, Norway
TW = Chung-Li, Taiwan
WF = West Freugh, United Kingdom
NOMINATED CENTRES
HB = Hatoyama, Japan
SC = South Africa Center
SPECIAL STATIONS
PR = PRARE Station
RA = Rutherford Appleton Laboratory

7.11.94 CT: CCTP Facility.

2.8 **X_FILE_GROUP**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	FILE GROUP
						AL = Algorithm
						AS = ATSR
						DB = Data Base
						E = Extracted Data Product
						I = Intermediate Product
						ML = Mail
						MP = Mission Plan
						NSC= Network Supervision Centre Files
						OD = Order
						OP = Operator
						OR = Orbit
						PA = Parameter
						PR = Product
						QA = Quality Assurance
						QR = Quality Report
						QY = Query Files
						RA = Radar Altimeter
						RE = Report

RQ = Request
SH = Schedule
TA = Table
U = User Fast Delivery Product
WS = Wind Scatterometer

2.9 **X_FILE_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		A	File Identifier

EAT1I = Extracted ATSR1 Instrument Header
EAT2I = Extracted ATSR2 Instrument Header
EAT2C = Extracted ATSR2 Calibration Data
EEP__ = Extracted Data Product: Ephemeris Data
EGH__ = Extracted Data Product: General Headers
EGOC_ = Extracted GOME Calibration Data
EGOI_ = Extracted GOME Instrument Header
EIC__ = Extracted Data Product: AMI Image Calibration Data
EII__ = Extracted Data Product: AMI Image Instrument Headers
EMWI_ = Extracted Microwave Sounder Instrument Header
ERAC_ = Extracted Data Product: Radar Altimeter Calibrat. Data
ERAI_ = Extracted Data Product: Radar Altimeter Instr. Headers
EWAC_ = Extracted Data Product: AMI Wave Calibration Data
EWAI_ = Extracted Data Product: AMI Wave Instrument Headers
EWIC_ = Extracted Data Product: AMI Wind Calibration Data
EWII_ = Extracted Data Product: AMI Wind Instrument Headers
IWA__ = Intermediate Product: AMI Wave
MPGM_ = Mission Planning: Ground Station Description-MMCC
MPLD_ = Mission Planning: LBR Area Description
MPLG_ = Mission Planning: LBR Global Activity Plan
MPLO_ = Mission Planning: LBR Area Operation
MPPE_ = Mission Planning: PEP Error Message
MPSG_ = Mission Planning: SAR Global Activity Plan
MPUN_ = Mission Planning: Ground Station Unavailability
NSC__ = Network Supervision Centre files
ODBR_ = Order: Backlog Report
ODGP_ = Order: Global Product
ODMC_ = Order: Medium Copy
ODMR_ = Order: Medium Release
ODOP_ = Order: Message from EECF to EGS
ODPD_ = Order: Product Details
ODPO_ = Order: Product
OPMS_ = Operator Message from EGS to EECF
ORPC_ = Orbit: Precise
ORPD_ = Orbit: Predicted
ORPL_ = Orbit: Preliminary
ORPM_ = Orbit: Predicted
ORRE_ = Orbit: Restituted
ORRM_ = Orbit: Restituted
ORRS_ = Orbit: Restituted
PAAM_ = Parm: Antenna Mispointing
PACC_ = Parameter: Time Correlation Corrected
PADF_ = Parameter: Default Parameters
PAEP_ = Parameter: Engineering (from PCS)
PAGC_ = Parameter: Spacecraft Gravity Centre
PAGM_ = Parameter: Spacecraft Gravity Centre-MMCC
PALC_ = Parameter: Look-Up Tables Update (CCT)
PALR_ = Parameter: Look-Up Tables Read Directory
PALU_ = Parameter: Look-Up Tables (telecommunication)
PAMM_ = Parameter: Antennas' Mispointing-MMCC

(new file 10-1-95 from Kirna)

PARM: Parameter.
Reference Measurement Result

PASC_ = Parameter: Spacecraft Configuration
PATC_ = Parameter: Time Correlation
PATM_ = Parameter: Time Correlation
PATN_ = Parameter: Time Correlation New
PATP_ = Parameter: Template
PAUD_ = Parameter: RA Ultra Stable Oscillator Drift
PAUM_ = Parameter: RA Ultra Stable Oscillator Drift-MMCC
PAWN_ = Parameter: Predicted Wind Fields
PAWN1 = Parameter: Predicted Wind Fields #1
PAWN2 = Parameter: Predicted Wind Fields #2
PAWN3 = Parameter: Predicted Wind Fields #3
PAWN4 = Parameter: Predicted Wind Fields #4
QRCI_ = Quality Report: CCT IWI
QREE_ = Quality Report: EECF_QA enquiry
QRHD_ = Quality Report: HDDT_QA
QROD_ = Quality Report: OD_QA
QRLD_ = Quality Report: LBR Daily (reception at PCS)
QRPP_ = Quality Report: PAF products QA
QRPR_ = Quality Report: PAF_QA response
QYRF_ = Query File: Catalogue Search Result (to UIT)
QYSF_ = Query File: Catalogue Search Request (from UIT)
QYVF_ = Query File: Catalogue Search Request Validation(toUIT)
REAQ_ = Report: Acquisition
REAR_ = Report: Data Archiving
RECO_ = Report: Connection (Telecomm. + DB Access)
REDC_ = Report: DMOP Configuration
REDI_ = Report: Dissemination
REDM_ = Report: Distribution Managanent (BDDN)
REDP_ = Report: DMOP Update
REDS_ = Report: Distribution
REDT_ = Report: Daily Test
REER_ = Report: Misinterpretation Error
REEX_ = Report: Extracted Data
REFS_ = Report: SAR FD Distribution Status
REGA_ = Report: Global Archiving
REGS_ = Report: Global Production Status
REIN_ = Report: Data Ingestion
RELD_ = Report: Look-Up Tables Directory
RELU_ = Report: Look-Up Tables Contents
REMB_ = Report: Missing Packects/Broadcasted Products
REME_ = Report: Missing Packects/ESRIN-Rx
REMM_ = Report: MMCC
REMO_ = Report: Monthly
REPN_ = Report: Production
REPR_ = Report: Processing
REPS_ = Report: Production Status
REPT_ = Report: Daily Test
RERC_ = Report: Reception
RESD_ = Report: Station Description
RESL_ = Report: Station Log
RESM_ = Report: Shipment
RESO_ = Report: SC Activities & Parameter Updates
REST_ = Report: Status Block
REUG_ = Report: Unavailability Groud Station
REUN_ = Report: Unavailability PAF
REUP_ = Report: Unavailability PRARE Station

24.10.94 REDC : distr. Report
REDI : CROPF
REDP : transmission Report.

24.10.94 REMC : Media Contents Report

SHAP_ : Preliminary Acquisition Schedule

TAVR_ : table: User Registration

REYR_ = Report: Yearly
RQST_ = User Request: Status
RQUS_ = User Request: Data Entry
RQVR_ = User Request: Validation Result
SHAQ_ = Schedule: Acquisition
SHDD_ = Schedule: Data Distribution (BDDN)
SHDS_ = Schedule: Distribution BDDN
SHKI_ = Schedule: Kiruna Acquisition
SHOV_ = Schedule: Overrides
SHPA_ = Schedule: PRARE Activity
SHPN_ = Schedule: Production
SHSA_ = Schedule: Spacecraft Activity
SHSM_ = Schedule: Spacecraft Activity
TAMF_ = Table: Meteorological Fields
TATI_ = Table: Terrain Information
TAUA_ = Table: Users' Addresses
UIC__ = User Product: AMI Image Chirp Replica
UIND_ = User Product: AMI Image Noise Stat. & Drift Calibr.
UI16_ = AMI Image 16 bits
UI8__ = AMI Image 8 bits
URA__ = User Product: Radar Altimeter
UROQL = User Product: Radar Altimeter OPR Quick Look (D-PAF)
UWAC_ = User Product: AMI Wave Chirp Replica
UWAND = User Product: AMI Wave Noise Statistics & Drift Calibr.
UWA__ = User Product: AMI Wave
UWI__ = User Product: AMI Wind

2.10 **X_FILE_NAME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			22			*** TOTAL BYTES
1.0	X_FILE_ID	0	5			File Identifier:
1.1	X_FILE_TYPE	0	4			File Type
1.2		4	1		A	Separator = "_"
2.0		5	6		N	File Generation Date; format YYMMDD:
						YY = "00" to "99"
						MM = "01" to "12"
						DD = "01" to "31"
3.0	X_FACILITY_ID	11	2			Originator of the file
4.0	X_FACILITY_ID	13	2			Destination of the file
5.0		15	4		N	Cyclic Counter ("0000" to "9999")
6.0		19	1		A	Separator = "."
7.0	X_SATELLITE_ID	20	2			Satellite/Mission Identifier

2.11 **X_FILE_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0	X_FILE_GROUP	0	2			File Group
2.0		2	2		A	File Code (the second character can be an underscore)

2.12 **X_GEO_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			652			*** TOTAL BYTES
1.0		0	28		A	Area Name
2.0	X_AREA_DEFN	28	624			Area Definition

2.13 **X_HDDT_LABEL**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	4		B	Number of Acquisitions Recorded
2.0	X_MEDIUM_ID	4	8			HDDT Identifier
3.0		12	1		B	Satellite Identifier (1 = ERS-1)
4.0	X_UTC	13	8			Start Time of 1. Pass
5.0	X_UTC	21	8			Stop Time of 1. Pass
6.0	X_UTC	29	8			Start Time of 2. Pass
7.0	X_UTC	37	8			Stop Time of 2. Pass
8.0	X_UTC	45	8			Start Time of 3. Pass
9.0	X_UTC	53	8			Stop Time of 3. Pass
10.0		61	1		B	Station Identifier (1 = KS, 6 = AF)
11.0		62	1		B	Drive on which HDDT was generated (1 for AF; 4 to 7 for KS)
12.0		63	1		B	Demodulator Used in Acquisition (0 to 3)

2.14 **X_LAT_LONG**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES
1.0		0	6		N	Point Latitude (-90.00 to 90.00 in cents of deg; SDD.CC)
2.0		6	6		N	Point Longitude (0.00 to 359.99 in cents of deg; DDD.CC)

2.15 **X_MEDIUM_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0	X_FACILITY_ID	0	2			Facility Identifier
2.0		2	6		A	Unique Identifier:
						Note: this redefinition is applicable to ESA Stations only:
2.1		2	1		A	Medium/Device Identifier
						1,2 = HR HDDR 1,2
						3,4 = LR HDDR 1,2
						5,6,7,8 = Exabyte Drive
						C = CCT
						O,P,Q,R,S,T,U,V = Optical Disk Drive 1,2,3,4
						W,X,Y,Z = Exabytes LRDTF
2.2		3	5		N	Unique Numeric Identifier

2.16 **X_MEDIUM_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	Medium Type C = CCT C1 = CCT 1600 bpi C6 = CCT 6250 bpi CD = Compact Disk (CD-ROM) D3 = 3"1/2 Floppy Disk for IMB PS2 or compatible D4 = 3"1/2 Floppy Disk for Mac Intosh or compatible D5 = 5"1/4 Floppy Disk for IMB PC or compatible E2 = Exabyte 8200 E5 = Exabyte 8500 F = Film H = HDDT (not for end users) O = Optical Disk P = Photo R = Paper S = SUN Streamer T = Telecommunication (not for end users) V = Video Tape

2.17 **X_ORBIT_NO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		N	Absolute Orbit Number (since mission start; new orbit/asc. node)

2.18 **X_PASS_NO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		N	Absolute Orbit Number at crossing of target latitude line (since mission start; new orbit at ascending node)

2.19 **X_PASS_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			1			*** TOTAL BYTES
1.0		0	1		A	Pass Type b = Not Provided (b = blank) A = Ascending B = Both (ascending and descending) C = Crossover D = Descending N = No preference

2.20 **X_PROCESSING_DATA**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			28			*** TOTAL BYTES
1.0		0	1		A	Product Quality Indicator (0 to 9: 0 best quality, 9 worst)
2.0		1	2		A	Complementary Data Flag (default = NA)
3.0		3	20		A	Processing Parameters (default = NA)
4.0		23	5		N	Summary of Product Quality Assessment

2.21 **X_PROCESSING_INFO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	4		N	Software Version Number
2.0		4	2			Reserved

2.22 **X_PRODUCT_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			60			*** TOTAL BYTES
1.0	X_LAT_LONG	0	12			Product Centre Lat/Long
2.0	X_LAT_LONG	12	12	4		Corner Coordinates (Lat/Long) (for Altimeter products the four corner coordinates identify the sub-satellite track).

2.23 **X_PRODUCT_DESCRIPTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			24			*** TOTAL BYTES
1.0	X_UNP_ENTRY_ID	0	16			Raw Data Identifier
2.0	X_PRODUCT_TYPE	16	5			Product Type
3.0		21	1		N	Scene Quadrant (with respect to orbit direction) 0 = Full Scene (all quadrants) 1 = Left Fore Quadrant 2 = Right Fore Quadrant 3 = Right Aft Quadrant 4 = Left Aft Quadrant
4.0	X_FACILITY_ID	22	2			Processing Facility Identifier

2.24 **X_PRODUCT_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			38			*** TOTAL BYTES
1.0	X_PRODUCT_DESCRIPTOR	0	24			Product Descriptor
2.0	X_DATE_TIME	24	14			Processing Date and Time

2.25 **X_PRODUCT_ORDER_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	6		N	Product Sequential Number

2.26 **X_PRODUCT_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		A	Product Name Acronym

IBT = Infrared Brightness Temperatures
CIT = Wave Complex Imagette
EEP = Ephemeris Data
EGH = General Headers
EGM1 = ERS-1 Gravity Model/1
EGM2 = ERS-1 Gravity Model/2
EIC = AMI Image Calibration Data
EII = AMI Image Instrument Headers
ERAC = Radar Altimeter Calibration Data
ERAI = Radar Altimeter Instrument Headers
EWAC = AMI Wave Calibration Data
EWAI = AMI Wave Instrument Headers
EWIC = AMI Wind Calibration Data
EWII = AMI Wind Instrument Headers
FDC = Fast Delivery Copy
GEC = SAR Ellipsoid Geocoded Image
GIM = Radar Incidence Angle Mask
GTC = SAR Terrain Geocoded Image
ION = Ionospheric Refraction Data
IPC = SAR Wave Intermediate Product
IPS = Imagette Precision Spectrum
IWA = AMI Wave Mode Intermediate
IWC = Scatterometer Intermediate Winds Copy
LIR = Land Ice Product
LKE = Lakes Elevation
LPR = Land Product
MBT = Microwave Brightness Temperature
OGE = Oceanic Geoid
OIP = Altimeter Ocean intermediate Product
OPR = Ocean Product
PRC = Precise Orbit
PRI = Precision Image
PRL = Preliminary Orbit: Weekly
PRL_M = Preliminary Orbit: Monthly
PST = Precise Sea Surface Temperature Map
RAW = Annotated Raw Data
RIR = RAW IR Data
RMW = Raw Microwave Data
RTM = Roll-Tilt Mode Image
SIE = Sea Ice Elevation
SLC = Single Look Complex Image
SNT = Sigma-Nought Triplets

SSH = Sea Surface Height
SST = Sea Surface Temperature Map
TOP = Sea Surface Topography
UIC = AMI Image Chrip Replica
UIND = AMI Image Noise Statistics and Drift Calibration
UI16 = AMI Image 16 bits
UI8 = AMI Image 8 bits
UNP = Unprocessed Data
URA = Radar Altimeter
UWA = AMI Wave
UWAC = AMI Wave Chrip Replica
UWAND = AMI Wave Noise Statistics and Drift Calibration
UWI = AMI Wind
VLC = Water Vapour - Liquid Water Content
WAP = Altimeter Wave-form
WDR = Altimeter Wave-form Foundation
WNF = Wind Fields

2.27 **X_RELATIVE_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			10			*** TOTAL BYTES
1.0		0	10			Time since Ascending Node Crossing
1.1		0	6		N	Seconds
1.2		6	1		A	Decimal Point '.'
1.3		7	3		N	Milliseconds

2.28 **X_REPORT_HEADER**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			39			*** TOTAL BYTES
1.00	X_UTC	0	8			Report Generation Date and Time
2.00		8	15			Description of Command that Caused Report
2.10		8	2		B	Command Type
2.20		10	5			Schedule Identifier
2.21		10	1		B	Originator and Source of Update
2.22		11	4		B	Schedule Number (Pass Number * 1000 + Sequential no.)
2.30		15	4		B	Command Number
2.40		19	4		B	Reserved
3.00		23	4		B	Report Identifier
4.00		27	8		B	DPMC Software Description
5.00		35	4		B	Report Size (in Bytes)

2.29 **X_SATELLITE_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	Satellite/Mission Identifier E1 = ERS-1 Satellite E2 = ERS-2 Satellite J1 = JERS-1 Satellite

2.30 **X_SCHEDULE_ORIGINATOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			1			*** TOTAL BYTES
1.0		0	1		A	Schedule Originator U = CUS generated schedule A = Remote Operator to a CUS schedule (Override) B = Local Operator to a Remote schedule K = Local Operator generated schedule D = Local operator to a locally generated schedule J = Local Operator command

2.31 **X_SENSOR_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			3			*** TOTAL BYTES
1.0		0	3		A	Sensor Identifier (or product group) ALT = Radar Altimeter ATS = ATSR GOM = GOME MWS = Microwave Sounder ORB = Orbit PLF = Platform PRA = PRARE SAR = AMI Image SWM = AMI Wave WSC = AMI Wind

2.32 **X_SENSOR_MODE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			3			*** TOTAL BYTES
1.0		0	3		A	Sensor Operation Mode
						SAR:
						NB = Normal Mode, OBRC
						NG = Normal Mode, OGRC
						RB = Roll-Tilt Mode, OBRC
						RG = Roll-Tilt Mode, OGRC
						UNV = Image mode unavailable (*)
						SWM:
						NB2 = Normal, OBRC, 200 Km
						NG2 = Normal, OGRC, 200 Km
						UNV = Wave mode unavailable (*)
						WSC:
						N3 = Normal, 3 beams
						C = Calibration
						UNV = Wind mode unavailable (*)
						ALT:
						I = Ice Tracking
						O = Ocean Tracking
						PI = Preset Ice Tracking (*)
						PO = Preset Ocean Tracking (*)
						UNV = Altimeter unavailable (*)
						ATS-Infrared:
						N1 = Normal 1.6 micro
						N3 = Normal 3.7 micro
						N2 = Normal 1.6/3.7 micro
						N4 = Normal 1.6 micro autoswitch
						UNV = ATSR-Infrared unavailable (*)
						Microwave Sounder:
						N = Normal mode
						UNV = Microwave Sounder unavailable (*)

Note: (*) for ESA use only; not in Archiving Report

2.33 **X_SENSOR_PRODUCT_DATA**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			34			*** TOTAL BYTES
1.0	X_SENSOR_MODE	0	3			Sensor Mode
2.0		3	1		A	Coverage Identifier (L=Land, S=Sea, I=Ice, M=Mixed) (all instr)
3.0		4	3		N	Land Percentage (all instr; default = 000)
4.0		7	9		N	Specific Parameter (SNNNNN.NN; any instr; default = +99999.99): Cloud Coverage Percentage (ATSR) Doppler Ambiguity (Image and Wave) Wind Filed Direction (deg; Scatterometer)
5.0		16	18			Data Product Characterisation Values:
5.1		16	6		N	Average Value (NNN.NN; default = 999.99)
5.2		22	6		N	Maximum Value (NNN.NN; default = 999.99)
5.3		28	6		N	Standard Deviation (NNN.NN; default = 999.99)

2.34 **X_SHIPMENT_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0		0	4		N	Shipment Number

2.35 **X_SPEC_ORDER_PARMS**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			60			*** TOTAL BYTES
1.0		0	60		A	Specific Ordering Parameters (format: keyword1=value1,keyword2=value2,...) BC=A (Byte Coding = ASCII, default PAF value) BC=E (Byte Coding = EBCDIC) BS=D (Byte Sequence = DEC) BS=N (Byte Sequence = no-DEC, default PAF value) DF=C (Dissemination Format = CEOS, default PAF value) DF=N (Dissemination Format = no-CEOS) GS=DD:MM (Grid Spacing in degrees and minutes) PC=SDD.CCDDD.CCSDD.CCDDD.CCSDD.CCDDD.CCSDD.CCDDD.CC (Product Coverage: 4 Lat/Long coverage vertices in clockwise direction, with the area on the right of polygon sides; format: Lat=SDD.CC, Long=DDD.CC) To be noted that PC and GS can cohexist, but cannot be specified with any of the other parameters. All the parameters but PC and GS can cohexist. SQ=N (Scene Quadrant: see X_PRODUCT_DESCRIPTOR) SZ=w*h (Size of photographic products: width and hight in mm)

2.36 **X_STATE_VECTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			32			*** TOTAL BYTES
1.0	X_UTC	0	8			UTC Time
2.0	X_VECTOR	8	12			Geocentric Position Vector (10**-2 m)
3.0	X_VECTOR	20	12			Velocity Vector (10**-5 m/s)

2.37 **X_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	2		N	Hours
2.0		2	2		N	Minutes
3.0		4	2		N	Seconds

2.38 **X_TIME_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			28			*** TOTAL BYTES
1.0	X_DATE_TIME	0	14			Start Date and Time
2.0	X_DATE_TIME	14	14			Stop Date and Time

2.39 **X_TIME_MIN**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0		0	2		N	Hours
2.0		2	2		N	Minutes

2.40 **X_UMP_DATA_PARAMETERS**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			32			*** TOTAL BYTES
1.0		0	1		A	Raw Data Quality Indicator (0 to 9; 0 best quality, 9 worst)
2.0		1	1			Reserved
3.0		2	4		B	Sensing Start Binary Time
4.0		6	4		B	Sensing Stop Binary Time
5.0		10	2		N	Real Time Bit Error Rate Estimate
6.0		12	2		N	Play Back Bit Error Rate Estimate
7.0		14	2		N	Measured Acquisition Bit Error Rate
8.0		16	2		N	Measured Playback Bit Error Rate
9.0		18	4		N	Number of Loss of Synchronizations
10.0		22	4		N	Number of Loss of Lock of Tape Recorder Formatter
11.0		26	2		N	AGC Level (worst case)
12.0		28	4		N	Missing Lines (default = 9999)

2.41 **X_UMP_ENTRY_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			16			*** TOTAL BYTES
1.0	X_SATELLITE_ID	0	2			Satellite/Mission Identifier
2.0	X_SENSOR_ID	2	3			Sensor Identifier
3.0	X_ORBIT_NO	5	5			Start Orbit Number
4.0		10	4		N	Frame Number (0 to 7199, each 0.05 deg. of sub-satellite track)
5.0	X_FACILITY_ID	14	2			Acquisition Facility Identifier

2.42 **X_USER_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	2		A	Country Code (ISO Standard)
2.0		2	2		A	User Code (2 letters, derived from user name initials)
3.0		4	4		N	Sequential User Number

2.43 **X_USER_INFO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			572			*** TOTAL BYTES
1.0	X_USER_ID	0	8			User Identifier
2.0	X_USER_NAME	8	64			User Name
3.0	X_USER_TITLE	72	12			Work Title
4.0	X_ADDRESS	84	168			User Address
5.0		252	2		A	Country Code (ISO Standard)
6.0		254	12		N	Telefone number (excluding Country Prefix)
7.0		266	12		N	Telex number (excluding Country Prefix)
8.0		278	12		N	FAX number
9.0	X_USER_NAME	290	64			Invoice User Name
10.0	X_USER_TITLE	354	12			Incoice User Work Title
11.0	X_ADDRESS	366	168			Invoice User Address
12.0		534	2		A	Country Code (ISO Standard)
13.0		536	12		N	Telefone number (excluding Country Prefix)
14.0		548	12		N	Telex number (excluding Country Prefix)
15.0		560	12		N	FAX number

2.44 **X_USER_NAME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	12		A	Title
2.0		12	4		A	Initials
3.0		16	24		A	Name
4.0		40	24		A	Surname

2.45 **X_USER_TITLE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES (MINIMUM)
1.0		0	12		A	User Title

2.46 **X_UTC**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	4		B	Days since 1st January 1950
2.0		4	4		B	Milliseconds Today

2.47 **X_VECTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES
1.0		0	4		B	X Component
2.0		4	4		B	Y Component
3.0		8	4		B	Z Component

EUROPEAN SPACE AGENCY

ESRIN - ERS EXPLOITATION DIVISION

ERS CENTRAL USER SERVICE

DATA STRUCTURES

Document number : ER-IS-EPO-GU-0101-2.0 Issue 2, Rev. 0

Date : 93/12/15

AMENDMENT CONTROL

ISSUE	REV.	DATE	PURPOSE	PAGE NO.	ACTION
Draft	0	88/05/05	First Draft	All	New
1	0	88/11/22	First Issue	All	Revised
1	1	88/12/20	Second Issue	All	Revised
1	2	89/05/25	Changes in Archiving Report items; deleted X_FILE_CODE, X_HDDT_ID and X_ORBIT_ID; added X_FILE_ID; other agreed details modified.	All	Revised
1	3	89/09/28	**Updated:** X_FACILITY_ID, X_FILE_GROUP,X_FILE_ID, X_HDDT_LABEL,X_MEDIUM_ID, X_REPORT_HEADER, X_SCHEDULE_ORIGINATOR. **Added:** X_PASS_NO, X_SPEC_ORDER_PARMS.	4-9,13, 14,16	Revised
1	4	90/01/29	**Updated:**		
			Overview;	1.2	Revised
			X_ADDRESS;	2.2	"
			X_FACILITY_ID;	2.7	"
			X_MEDIUM_TYPE;	2.15	"
			X_PROCESSING_INFO;	2.20	"
			X_SPEC_ORDER_PARMS;	2.34	"
			X_USER_INFO.	2.42	"
1	5	90/10/19	**Updated:**		
			Overview;	1.2	Revised
			X_FACILITY_ID;	2.7	Revised
			X_FILE_NAME;	2.10	New
			X_MEDIUM_ID;	2.15	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SENSOR_ID;	2.31	Revised
			X_SENSOR_MODE;	2.32	Revised
			X_SPEC_ORDER_PARMS;	2.35	Revised
			X_UNP_DATA_PARAMETERS;	2.40	Revised
			X_USER_INFO.	2.43	Revised
1	6	91/11/21	**Updated:**		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_ID;	2.9	Revised
			X_MEDIUM_ID;	2.15	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SENSOR_MODE.	2.32	Revised

1	7	92/11/18	**Updated:**		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_ID;	2.9	Revised
			X_LAT_LONG;	2.14	Revised
			X_PROCESSING_DATA;	2.20	Revised
			X_PRODUCT_COVERAGE;	2.22	Revised
			X_PRODUCT_DESCRIPTOR;	2.23	Revised
			X_SENSOR_PRODUCT_DATA;	2.33	Revised
			X_SPEC_ORDER_PARMS;	2.35	Revised
			X_UNP_DATA_PARAMETERS.	2.40	Revised
2	0	93/12/15	All changes highlighted by a vertical bar. Some changes to align to ERS-1 & ERS-2 Operations.	Some	Revised
			Major changes:		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_GROUP;	2.8	Revised
			X_FILE_ID;	2.9	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SATELLITE_ID;	2.29	Revised
			X_SENSOR_ID.	2.31	Revised

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

bpi	bits per inch
CCT	Computer Compatible Tape
CUS	Central User Service
EECF	ESRIN ERS Central Facility
EPO	Earthnet Program Office
ERS	European Remote Sensing Satellite
ESA	European Space Agency
ESOC	European Space Operations Centre
ESRIN	European Space Research Institute
HDDT	High Density Digital Tape
MMCC	Mission Management and Control Centre
OD	Optical Disk
SAR	Synthetic Aperture Radar
TBC	To Be Confirmed
TBD	To Be Defined
UTC	Universal Time Coordinated

1 INTRODUCTION

1.1 SCOPE

This document contains the detailed description of the low level data structures used in the external interfaces of the ESRIN ERS Central Facility (EECF) and in perticular of the Central User Service (CUS).

Note: Changes from the previous version are highlighted by a vertical bar on the right. ~~The notation "TO BE DELETED" means that the field has been~~ Striked-through text is suppressed and will disappear in the next issue of the document.

1.2 OVERVIEW

The format tables of next section (presented in alphabetical order) contain the following columns:

a) -NO. sequential number of the element (numbers with decimal values identify detail elements);

b) -NAME element name or reference to a lower level item;

c) -OFFST displacement from section start (all the contained formats are considered at their full size);

d) -LENGTH length in Bytes of the element;

e) -TIMES number of times the element occurs;

f) -T element type:

- A = Alphanumeric ASCII field normally including letters and numbers (exceptions are e.g. names, which do not contain numbers). Left aligned; filler = blank.
- B = Binary field following Digital Equipment Corporation notation and convention (used for specific satellite, UTC, orbit data and in some reports from the stations). Filler = binary zero.
- N = Numeric ASCII field including sign and decimal value separator as necessary (the positive sign is optional; leading zeros can be replaced by blanks; range from 0 to highest value [100 for percentages], unless otherwise specified). Right Aligned; filler = ASCII 0 or blank (a zero value must contain at least one right aligned, ASCII 0, digit).

Note: "Reserved" fileds must contain all ASCII blanks.

g) -DESCRIPTION descriptive text.

2 FORMATS

2.1 X_ACQUISITION_PCD

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6013			*** TOTAL BYTES
1.00		0	1		B	HDDR Identifier
2.00	X_UTC	1	8			First Sample Time
3.00		9	4		B	Number of PCD Records
4.00		13	10	600		PCD RECORDS (EACH 2 SECONDS)
4.01		13	1		B	PCD Validity Flag (0 = Valid, 1 = Invalid)
4.02		14	1		B	HR or LR Carrier Lock
4.03		15	1		B	ACG PCD
4.04		16	1		B	Real Time Bit Error Rate
4.05		17	1		B	Playback Bit Error Rate
4.06		18	1		B	HR or LR Q Bit Clock Lock
4.07		19	1		B	HR or LR I Bit Clock Lock
4.08		20	1		B	Real Time Lock
4.09		21	1		B	Playback Lock
4.10		22	1		B	PCD Summary Byte

2.2 X_ADDRESS

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			168			*** TOTAL BYTES
1.0		0	24		A	Organization
2.0		24	24		A	Department and Section
3.0		48	24		A	Street
4.0		72	12		A	Post Box
5.0		84	24		A	Town
6.0		108	24		A	Place
7.0		132	12		A	ZIP Code
8.0		144	24		A	Country

2.3 X_AREA_DEFN

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			624			*** TOTAL BYTES
1.0		0	1		A	Geographical Coverage Type C = Circle P = Polygon
2.0		1	3			Reserved
3.0		4	4		N	Area Diameter (Km)
4.0	X_LAT_LONG	8	12			Centre Lat/Long
5.0		20	2		N	Number of Lat/Long Points
6.0		22	2			Reserved
7.0	X_LAT_LONG	24	12	50		Corner Coordinates (Lat/Long)

2.4 **X_DATE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	4		N	Year
2.0		4	2		N	Month
3.0		6	2		N	Day

2.5 **X_DATE_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			14			*** TOTAL BYTES
1.0	X_DATE	0	8			Date
2.0	X_TIME	8	6			Time

2.6 **X_DAY_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			24			*** TOTAL BYTES
1.0		0	2		N	Day (DD)
2.0		2	1		A	Separator ("-")
3.0		3	3		A	Month (MMM, e.g. JAN)
4.0		6	1		A	Separator ("-")
5.0		7	4		N	Year (YYYY)
6.0		11	1		A	Separator (" ")
7.0		12	2		N	Hours (hh)
8.0		14	1		A	Separator (":")
9.0		15	2		N	Minutes (mm)
10.0		17	1		A	Separator (":")
11.0		18	2		N	Seconds (ss)
12.0		20	1		A	Separator (".")
13.0		21	3		N	Thousands of a second (ttt)

Note: room for all these fields is left in the interface, but the format specifies which fields are used.

2.7 **X_FACILITY_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	FACILITY IDENTIFIER
						ESA FACILITIES:
						CF = Central Telecommunication Facility - TCS
						DC = Distribution Central Facility
						DF = Distribution Facility - Fucino
						DK = Distribution Facility - Kiruna
						DN = Data Dissemination Network Management Centre
						DR = Distribution Facility - Receive Station
						EB = EECF BS
						EC = EECF CUS
						ED = EECF DMOP Facility (PCS)
						EE = EECF (dumping meaning).
						EF = EECF Financial Service
						EG = EECF General Access System
						EI = EECF Interferometry Working Group
						EM = EECF Monitoring of Facilities
						EP = EECF PCS
						EQ = EECF PCS/QA (for special products only)
						ER = EECF PCS ATSR Near Real Time QA
						ET = ESTEC Calibration Computer system
						FT = Fucino Transcription Facility
						MC = MMCC
						MT = MMCC Telex
						QS = EECF Quick-look OPR Server
						US = EECF UIT Server
						ZP = EECF JERS Archiving Report Source Facility
						PROCESSING AND ARCHIVING FACILITIES
						AP = Alaska "PAF" (simulated)
						CP = Central PAF (ESRIN)
						DP = German PAF
						FP = French PAF
						GP = Gatineau "PAF" (simulated)
						IP = Italian PAF
						PP = Prince Albert "PAF" (simulated)
						TP = Tromsoe "PAF" (simulated)
						UP = UK PAF
						ESA GROUND STATIONS
						ES = EPO Station
						FS = Fucino Station
						GS = Gatineau Station (Low Rate)
						KS = Kiruna Station
						MS = Maspalomas Station
						PS = Prince Albert Station (Low Rate)
						NATIONAL AND FOREIGN STATIONS
						AF = Alaska SAR Facility (Fairbanks)
						AS = Alice Springs, Australia
						AT = Atlanta Test Site, USA
						BE = Beijing, China
						CO = Cotopaxi, Equador
						CU = Cuiaba, Brazil
						GH = Gatineau, Canada (High Rate)

ISS files to CUS (ISS packages to CUS).

HA = Hatoyama, Japan
HO = Hobart, Australia
IN = Pare Pare, Indonesia
IR = Israel
IS = Islamabad, Pakistan
JO = Johannesburg, South Africa (not baseline)
KU = Kumamoto, Japan
LI = Libreville (German transportable), Gabon
MA = Mar Chiquita, Argentina
MM = Mac Murdo, Antarctica (USA)
NO = Norman, Oklahoma, USA
~~PP = Pari-Pari, Indonesia~~
PH = Prince Albert, Canada (High Rate)
SA = Riyadh, Saudi Arabia
SE = Shadnagar/Hyderabad, India
SG = Singapore, Malaysia
SY = Syowa, Antarctic (Japanese)
TF = Transportable Fern., O' Higgins, (German) Antarctic
TG = Greenbelt, MD USA (not baseline)
TH = Bangkok, Thailand
TO = Aussaguel, (Toulouse) France
TS = Tromsoe Station, Norway
TW = Chung-Li, Taiwan
WF = West Freugh, United Kingdom

NOMINATED CENTRES

HB = Hatoyama, Japan
SC = South Africa Center

SPECIAL STATIONS

PR = PRARE Station
RA = Rutherford Appleton Laboratory

7.11.94 CT = CETP Facility.

2.8 X_FILE_GROUP

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	FILE GROUP

AL = Algorithm
AS = ATSR
DB = Data Base
E = Extracted Data Product
I = Intermediate Product
ML = Mail
MP = Mission Plan
NSC= Network Supervision Centre Files
OD = Order
OP = Operator
OR = Orbit
PA = Parameter
PR = Product
QA = Quality Assurance
QR = Quality Report
QY = Query Files
RA = Radar Altimeter
RE = Report

RQ = Request
SH = Schedule
TA = Table
U = User Fast Delivery Product
WS = Wind Scatterometer

2.9 **X_FILE_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		A	File Identifier

EAT1I = Extracted ATSR1 Instrument Header
EAT2I = Extracted ATSR2 Instrument Header
EAT2C = Extracted ATSR2 Calibration Data
EEP__ = Extracted Data Product: Ephemeris Data
EGH__ = Extracted Data Product: General Headers
EGOC_ = Extracted GOME Calibration Data
EGOI_ = Extracted GOME Instrument Header
EIC__ = Extracted Data Product: AMI Image Calibration Data
EII__ = Extracted Data Product: AMI Image Instrument Headers
EMWI_ = Extracted Microwave Sounder Instrument Header
ERAC_ = Extracted Data Product: Radar Altimeter Calibrat. Data
ERAI_ = Extracted Data Product: Radar Altimeter Instr. Headers
EWAC_ = Extracted Data Product: AMI Wave Calibration Data
EWAI_ = Extracted Data Product: AMI Wave Instrument Headers
EWIC_ = Extracted Data Product: AMI Wind Calibration Data
EWII_ = Extracted Data Product: AMI Wind Instrument Headers
IWA__ = Intermediate Product: AMI Wave
MPGM_ = Mission Planning: Ground Station Description-MMCC
MPLD_ = Mission Planning: LBR Area Description
MPLG_ = Mission Planning: LBR Global Activity Plan
MPLO_ = Mission Planning: LBR Area Operation
MPPE_ = Mission Planning: PEP Error Message
MPSG_ = Mission Planning: SAR Global Activity Plan
MPUN_ = Mission Planning: Ground Station Unavailability
NSC__ = Network Supervision Centre files
ODBR_ = Order: Backlog Report
ODGP_ = Order: Global Product
ODMC_ = Order: Medium Copy
ODMR_ = Order: Medium Release
ODOP_ = Order: Message from EECF to EGS
ODPD_ = Order: Product Details
ODPO_ = Order: Product
OPMS_ = Operator Message from EGS to EECF
ORPC_ = Orbit: Precise
ORPD_ = Orbit: Predicted
ORPL_ = Orbit: Preliminary
ORPM_ = Orbit: Predicted
ORRE_ = Orbit: Restituted
ORRM_ = Orbit: Restituted
ORRS_ = Orbit: Restituted
PAAM_ = Parm: Antenna Mispointing
PACC_ = Parameter: Time Correlation Corrected
PADF_ = Parameter: Default Parameters
PAEP_ = Parameter: Engineering (from PCS)
PAGC_ = Parameter: Spacecraft Gravity Centre
PAGM_ = Parameter: Spacecraft Gravity Centre-MMCC
PALC_ = Parameter: Look-Up Tables Update (CCT)
PALR_ = Parameter: Look-Up Tables Read Directory
PALU_ = Parameter: Look-Up Tables (telecommunication)
PAMM_ = Parameter: Antennas' Mispointing-MMCC

(new file 10-1-95 from Kiruna)

PARM: Parameter.
Reference Measurement Result

PASC_ = Parameter: Spacecraft Configuration
PATC_ = Parameter: Time Correlation
PATM_ = Parameter: Time Correlation
PATN_ = Parameter: Time Correlation New
PATP_ = Parameter: Template
PAUD_ = Parameter: RA Ultra Stable Oscillator Drift
PAUM_ = Parameter: RA Ultra Stable Oscillator Drift-MMCC
PAWN_ = Parameter: Predicted Wind Fields
PAWN1 = Parameter: Predicted Wind Fields #1
PAWN2 = Parameter: Predicted Wind Fields #2
PAWN3 = Parameter: Predicted Wind Fields #3
PAWN4 = Parameter: Predicted Wind Fields #4
QRCI_ = Quality Report: CCT IWI
QREE_ = Quality Report: EECF_QA enquiry
QRHD_ = Quality Report: HDDT_QA
QROD_ = Quality Report: OD_QA
QRLD_ = Quality Report: LBR Daily (reception at PCS)
QRPP_ = Quality Report: PAF products QA
QRPR_ = Quality Report: PAF_QA response
QYRF_ = Query File: Catalogue Search Result (to UIT)
QYSF_ = Query File: Catalogue Search Request (from UIT)
QYVF_ = Query File: Catalogue Search Request Validation(toUIT)
REAQ_ = Report: Acquisition
REAR_ = Report: Data Archiving
RECO_ = Report: Connection (Telecomm. + DB Access)
REDC_ = Report: DMOP Configuration
REDI_ = Report: Dissemination
REDM_ = Report: Distribution Managanent (BDDN)
REDP_ = Report: DMOP Update
REDS_ = Report: Distribution
REDT_ = Report: Daily Test
REER_ = Report: Misinterpretation Error
REEX_ = Report: Extracted Data
REFS_ = Report: SAR FD Distribution Status
REGA_ = Report: Global Archiving
REGS_ = Report: Global Production Status
REIN_ = Report: Data Ingestion
RELD_ = Report: Look-Up Tables Directory
RELU_ = Report: Look-Up Tables Contents
REMB_ = Report: Missing Packects/Broadcasted Products
REME_ = Report: Missing Packects/ESRIN-Rx
REMM_ = Report: MMCC
REMO_ = Report: Monthly
REPN_ = Report: Production
REPR_ = Report: Processing
REPS_ = Report: Production Status
REPT_ = Report: Daily Test
RERC_ = Report: Reception
RESD_ = Report: Station Description
RESL_ = Report: Station Log
RESM_ = Report: Shipment
RESO_ = Report: SC Activities & Parameter Updates
REST_ = Report: Status Block
REUG_ = Report: Unavailability Groud Station
REUN_ = Report: Unavailability PAF
REUP_ = Report: Unavailability PRARE Station

24.10.94 distr. Report
REDC : CROPF
RETR : transmission Report.

24.10.94 REMC : Media Contents Report

REYR_ = Report: Yearly
RQST_ = User Request: Status
RQUS_ = User Request: Data Entry
RQVR_ = User Request: Validation Result
SHAQ_ = Schedule: Acquisition
SHDD_ = Schedule: Data Distribution (BDDN)
SHDS_ = Schedule: Distribution BDDN
SHKI_ = Schedule: Kiruna Acquisition
SHOV_ = Schedule: Overrides
SHPA_ = Schedule: PRARE Activity
SHPN_ = Schedule: Production
SHSA_ = Schedule: Spacecraft Activity
SHSM_ = Schedule: Spacecraft Activity
TAMF_ = Table: Meteorological Fields
TATI_ = Table: Terrain Information
TAUA_ = Table: Users' Addresses
UIC__ = User Product: AMI Image Chirp Replica
UIND_ = User Product: AMI Image Noise Stat. & Drift Calibr.
UI16_ = AMI Image 16 bits
UI8__ = AMI Image 8 bits
URA__ = User Product: Radar Altimeter
UROQL = User Product: Radar Altimeter OPR Quick Look (D-PAF)
UWAC_ = User Product: AMI Wave Chirp Replica
UWAND = User Product: AMI Wave Noise Statistics & Drift Calibr.
UWA__ = User Product: AMI Wave
UWI__ = User Product: AMI Wind

2.10 **X_FILE_NAME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			22			*** TOTAL BYTES
1.0	X_FILE_ID	0	5			File Identifier:
1.1	X_FILE_TYPE	0	4			File Type
1.2		4	1		A	Separator = "_"
2.0		5	6		N	File Generation Date; format YYMMDD:
						YY = "00" to "99"
						MM = "01" to "12"
						DD = "01" to "31"
3.0	X_FACILITY_ID	11	2			Originator of the file
4.0	X_FACILITY_ID	13	2			Destination of the file
5.0		15	4		N	Cyclic Counter ("0000" to "9999")
6.0		19	1		A	Separator = "."
7.0	X_SATELLITE_ID	20	2			Satellite/Mission Identifier

2.11 **X_FILE_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0	X_FILE_GROUP	0	2			File Group
2.0		2	2		A	File Code (the second character can be an underscore)

2.12 **X_GEO_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			652			*** TOTAL BYTES
1.0		0	28		A	Area Name
2.0	X_AREA_DEFN	28	624			Area Definition

2.13 **X_HDDT_LABEL**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	4		B	Number of Acquisitions Recorded
2.0	X_MEDIUM_ID	4	8			HDDT Identifier
3.0		12	1		B	Satellite Identifier (1 = ERS-1)
4.0	X_UTC	13	8			Start Time of 1. Pass
5.0	X_UTC	21	8			Stop Time of 1. Pass
6.0	X_UTC	29	8			Start Time of 2. Pass
7.0	X_UTC	37	8			Stop Time of 2. Pass
8.0	X_UTC	45	8			Start Time of 3. Pass
9.0	X_UTC	53	8			Stop Time of 3. Pass
10.0		61	1		B	Station Identifier (1 = KS, 6 = AF)
11.0		62	1		B	Drive on which HDDT was generated (1 for AF; 4 to 7 for KS)
12.0		63	1		B	Demodulator Used in Acquisition (0 to 3)

2.14 **X_LAT_LONG**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES
1.0		0	6		N	Point Latitude (-90.00 to 90.00 in cents of deg; SDD.CC)
2.0		6	6		N	Point Longitude (0.00 to 359.99 in cents of deg; DDD.CC)

2.15 **X_MEDIUM_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0	X_FACILITY_ID	0	2			Facility Identifier
2.0		2	6		A	Unique Identifier: Note: this redefinition is applicable to ESA Stations only:
2.1		2	1		A	Medium/Device Identifier 1,2 = HR HDDR 1,2 3,4 = LR HDDR 1,2 5,6,7,8 = Exabyte Drive C = CCT O,P,Q,R,S,T,U,V = Optical Disk Drive 1,2,3,4 W,X,Y,Z = Exabytes LRDTF
2.2		3	5		N	Unique Numeric Identifier

2.16 **X_MEDIUM_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	Medium Type C = CCT C1 = CCT 1600 bpi C6 = CCT 6250 bpi CD = Compact Disk (CD-ROM) D3 = 3"1/2 Floppy Disk for IMB PS2 or compatible D4 = 3"1/2 Floppy Disk for Mac Intosh or compatible D5 = 5"1/4 Floppy Disk for IMB PC or compatible E2 = Exabyte 8200 E5 = Exabyte 8500 F = Film H = HDDT (not for end users) O = Optical Disk P = Photo R = Paper S = SUN Streamer T = Telecommunication (not for end users) V = Video Tape

2.17 **X_ORBIT_NO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		N	Absolute Orbit Number (since mission start; new orbit/asc. node)

2.18 **X_PASS_NO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		N	Absolute Orbit Number at crossing of target latitude line (since mission start; new orbit at ascending node)

2.19 **X_PASS_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			1			*** TOTAL BYTES
1.0		0	1		A	Pass Type b = Not Provided (b = blank) A = Ascending B = Both (ascending and descending) C = Crossover D = Descending N = No preference

2.20 **X_PROCESSING_DATA**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			28			*** TOTAL BYTES
1.0		0	1		A	Product Quality Indicator (0 to 9: 0 best quality, 9 worst)
2.0		1	2		A	Complementary Data Flag (default = NA)
3.0		3	20		A	Processing Parameters (default = NA)
4.0		23	5		N	Summary of Product Quality Assessment

2.21 **X_PROCESSING_INFO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	4		N	Software Version Number
2.0		4	2			Reserved

2.22 **X_PRODUCT_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			60			*** TOTAL BYTES
1.0	X_LAT_LONG	0	12			Product Centre Lat/Long
2.0	X_LAT_LONG	12	12	4		Corner Coordinates (Lat/Long) (for Altimeter products the four corner coordinates identify the sub-satellite track).

2.23 **X_PRODUCT_DESCRIPTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			24			*** TOTAL BYTES
1.0	X_UNP_ENTRY_ID	0	16			Raw Data Identifier
2.0	X_PRODUCT_TYPE	16	5			Product Type
3.0		21	1		N	Scene Quadrant (with respect to orbit direction) 0 = Full Scene (all quadrants) 1 = Left Fore Quadrant 2 = Right Fore Quadrant 3 = Right Aft Quadrant 4 = Left Aft Quadrant
4.0	X_FACILITY_ID	22	2			Processing Facility Identifier

2.24 **X_PRODUCT_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			38			*** TOTAL BYTES
1.0	X_PRODUCT_DESCRIPTOR	0	24			Product Descriptor
2.0	X_DATE_TIME	24	14			Processing Date and Time

2.25 **X_PRODUCT_ORDER_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	6		N	Product Sequential Number

2.26 **X_PRODUCT_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		A	Product Name Acronym

IBT = Infrared Brightness Temperatures
CIT = Wave Complex Imagette
EEP = Ephemeris Data
EGH = General Headers
EGM1 = ERS-1 Gravity Model/1
EGM2 = ERS-1 Gravity Model/2
EIC = AMI Image Calibration Data
EII = AMI Image Instrument Headers
ERAC = Radar Altimeter Calibration Data
ERAI = Radar Altimeter Instrument Headers
EWAC = AMI Wave Calibration Data
EWAI = AMI Wave Instrument Headers
EWIC = AMI Wind Calibration Data
EWII = AMI Wind Instrument Headers
FDC = Fast Delivery Copy
GEC = SAR Ellipsoid Geocoded Image
GIM = Radar Incidence Angle Mask
GTC = SAR Terrain Geocoded Image
ION = Ionospheric Refraction Data
IPC = SAR Wave Intermediate Product
IPS = Imagette Precision Spectrum
IWA = AMI Wave Mode Intermediate
IWC = Scatterometer Intermediate Winds Copy
LIR = Land Ice Product
LKE = Lakes Elevation
LPR = Land Product
MBT = Microwave Brightness Temperature
OGE = Oceanic Geoid
OIP = Altimeter Ocean intermediate Product
OPR = Ocean Product
PRC = Precise Orbit
PRI = Precision Image
PRL = Preliminary Orbit: Weekly
PRL_M = Preliminary Orbit: Monthly
PST = Precise Sea Surface Temperature Map
RAW = Annotated Raw Data
RIR = RAW IR Data
RMW = Raw Microwave Data
RTM = Roll-Tilt Mode Image
SIE = Sea Ice Elevation
SLC = Single Look Complex Image
SNT = Sigma-Nought Triplets

SSH = Sea Surface Height
SST = Sea Surface Temperature Map
TOP = Sea Surface Topography
UIC = AMI Image Chrip Replica
UIND = AMI Image Noise Statistics and Drift Calibration
UI16 = AMI Image 16 bits
UI8 = AMI Image 8 bits
UNP = Unprocessed Data
URA = Radar Altimeter
UWA = AMI Wave
UWAC = AMI Wave Chrip Replica
UWAND = AMI Wave Noise Statistics and Drift Calibration
UWI = AMI Wind
VLC = Water Vapour - Liquid Water Content
WAP = Altimeter Wave-form
WDR = Altimeter Wave-form Foundation
WNF = Wind Fields

2.27 **X_RELATIVE_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			10			*** TOTAL BYTES
1.0		0	10			Time since Ascending Node Crossing
1.1		0	6		N	Seconds
1.2		6	1		A	Decimal Point '.'
1.3		7	3		N	Milliseconds

2.28 **X_REPORT_HEADER**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			39			*** TOTAL BYTES
1.00	X_UTC	0	8			Report Generation Date and Time
2.00		8	15			Description of Command that Caused Report
2.10		8	2		B	Command Type
2.20		10	5			Schedule Identifier
2.21		10	1		B	Originator and Source of Update
2.22		11	4		B	Schedule Number (Pass Number * 1000 + Sequential no.)
2.30		15	4		B	Command Number
2.40		19	4		B	Reserved
3.00		23	4		B	Report Identifier
4.00		27	8		B	DPMC Software Description
5.00		35	4		B	Report Size (in Bytes)

2.29 **X_SATELLITE_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	Satellite/Mission Identifier E1 = ERS-1 Satellite E2 = ERS-2 Satellite J1 = JERS-1 Satellite

2.30 **X_SCHEDULE_ORIGINATOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			1			*** TOTAL BYTES
1.0		0	1		A	Schedule Originator U = CUS generated schedule A = Remote Operator to a CUS schedule (Override) B = Local Operator to a Remote schedule K = Local Operator generated schedule D = Local operator to a locally generated schedule J = Local Operator command

2.31 **X_SENSOR_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			3			*** TOTAL BYTES
1.0		0	3		A	Sensor Identifier (or product group) ALT = Radar Altimeter ATS = ATSR GOM = GOME MWS = Microwave Sounder ORB = Orbit PLF = Platform PRA = PRARE SAR = AMI Image SWM = AMI Wave WSC = AMI Wind

2.32 **X_SENSOR_MODE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			3			*** TOTAL BYTES
1.0		0	3		A	Sensor Operation Mode
						SAR:
						NB = Normal Mode, OBRC
						NG = Normal Mode, OGRC
						RB = Roll-Tilt Mode, OBRC
						RG = Roll-Tilt Mode, OGRC
						UNV = Image mode unavailable (*)
						SWM:
						NB2 = Normal, OBRC, 200 Km
						NG2 = Normal, OGRC, 200 Km
						UNV = Wave mode unavailable (*)
						WSC:
						N3 = Normal, 3 beams
						C = Calibration
						UNV = Wind mode unavailable (*)
						ALT:
						I = Ice Tracking
						O = Ocean Tracking
						PI = Preset Ice Tracking (*)
						PO = Preset Ocean Tracking (*)
						UNV = Altimeter unavailable (*)
						ATS-Infrared:
						N1 = Normal 1.6 micro
						N3 = Normal 3.7 micro
						N2 = Normal 1.6/3.7 micro
						N4 = Normal 1.6 micro autoswitch
						UNV = ATSR-Infrared unavailable (*)
						Microwave Sounder:
						N = Normal mode
						UNV = Microwave Sounder unavailable (*)

Note: (*) for ESA use only; not in Archiving Report

2.33 **X_SENSOR_PRODUCT_DATA**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			34			*** TOTAL BYTES
1.0	X_SENSOR_MODE	0	3			Sensor Mode
2.0		3	1		A	Coverage Identifier (L=Land, S=Sea, I=Ice, M=Mixed) (all instr)
3.0		4	3		N	Land Percentage (all instr; default = 000)
4.0		7	9		N	Specific Parameter (SNNNNN.NN; any instr; default = +99999.99):
						Cloud Coverage Percentage (ATSR)
						Doppler Ambiguity (Image and Wave)
						Wind Filed Direction (deg; Scatterometer)
5.0		16	18			Data Product Characterisation Values:
5.1		16	6		N	Average Value (NNN.NN; default = 999.99)
5.2		22	6		N	Maximum Value (NNN.NN; default = 999.99)
5.3		28	6		N	Standard Deviation (NNN.NN; default = 999.99)

2.34 **X_SHIPMENT_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0		0	4		N	Shipment Number

2.35 **X_SPEC_ORDER_PARMS**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			60			*** TOTAL BYTES
1.0		0	60		A	Specific Ordering Parameters
						(format: keyword1=value1,keyword2=value2,...)
						BC=A (Byte Coding = ASCII, default PAF value)
						BC=E (Byte Coding = EBCDIC)
						BS=D (Byte Sequence = DEC)
						BS=N (Byte Sequence = no-DEC, default PAF value)
						DF=C (Dissemination Format = CEOS, default PAF value)
						DF=N (Dissemination Format = no-CEOS)
						GS=DD:MM (Grid Spacing in degrees and minutes)
						PC=SDD.CCDDD.CCSDD.CCDDD.CCSDD.CCDDD.CCSDD.CCDDD.CC
						(Product Coverage: 4 Lat/Long coverage vertices in clockwise direction, with the area on the right of polygon sides; format: Lat=SDD.CC, Long=DDD.CC)
						To be noted that PC and GS can cohexist, but cannot be specified with any of the other parameters.
						All the parameters but PC and GS can cohexist.
						SQ=N (Scene Quadrant: see X_PRODUCT_DESCRIPTOR)
						SZ=w*h (Size of photographic products: width and hight in mm)

2.36 **X_STATE_VECTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			32			*** TOTAL BYTES
1.0	X_UTC	0	8			UTC Time
2.0	X_VECTOR	8	12			Geocentric Position Vector (10**-2 m)
3.0	X_VECTOR	20	12			Velocity Vector (10**-5 m/s)

2.37 **X_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	2		N	Hours
2.0		2	2		N	Minutes
3.0		4	2		N	Seconds

2.38 **X_TIME_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			28			*** TOTAL BYTES
1.0	X_DATE_TIME	0	14			Start Date and Time
2.0	X_DATE_TIME	14	14			Stop Date and Time

2.39 **X_TIME_MIN**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0		0	2		N	Hours
2.0		2	2		N	Minutes

2.40 **X_UMP_DATA_PARAMETERS**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			32			*** TOTAL BYTES
1.0		0	1		A	Raw Data Quality Indicator (0 to 9; 0 best quality, 9 worst)
2.0		1	1			Reserved
3.0		2	4		B	Sensing Start Binary Time
4.0		6	4		B	Sensing Stop Binary Time
5.0		10	2		N	Real Time Bit Error Rate Estimate
6.0		12	2		N	Play Back Bit Error Rate Estimate
7.0		14	2		N	Measured Acquisition Bit Error Rate
8.0		16	2		N	Measured Playback Bit Error Rate
9.0		18	4		N	Number of Loss of Synchronizations
10.0		22	4		N	Number of Loss of Lock of Tape Recorder Formatter
11.0		26	2		N	AGC Level (worst case)
12.0		28	4		N	Missing Lines (default = 9999)

2.41 **X_UMP_ENTRY_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			16			*** TOTAL BYTES
1.0	X_SATELLITE_ID	0	2			Satellite/Mission Identifier
2.0	X_SENSOR_ID	2	3			Sensor Identifier
3.0	X_ORBIT_NO	5	5			Start Orbit Number
4.0		10	4		N	Frame Number (0 to 7199, each 0.05 deg. of sub-satellite track)
5.0	X_FACILITY_ID	14	2			Acquisition Facility Identifier

2.42 **X_USER_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	2		A	Country Code (ISO Standard)
2.0		2	2		A	User Code (2 letters, derived from user name initials)
3.0		4	4		N	Sequential User Number

2.43 **X_USER_INFO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			572			*** TOTAL BYTES
1.0	X_USER_ID	0	8			User Identifier
2.0	X_USER_NAME	8	64			User Name
3.0	X_USER_TITLE	72	12			Work Title
4.0	X_ADDRESS	84	168			User Address
5.0		252	2		A	Country Code (ISO Standard)
6.0		254	12		N	Telefone number (excluding Country Prefix)
7.0		266	12		N	Telex number (excluding Country Prefix)
8.0		278	12		N	FAX number
9.0	X_USER_NAME	290	64			Invoice User Name
10.0	X_USER_TITLE	354	12			Incoice User Work Title
11.0	X_ADDRESS	366	168			Invoice User Address
12.0		534	2		A	Country Code (ISO Standard)
13.0		536	12		N	Telefone number (excluding Country Prefix)
14.0		548	12		N	Telex number (excluding Country Prefix)
15.0		560	12		N	FAX number

2.44 **X_USER_NAME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	12		A	Title
2.0		12	4		A	Initials
3.0		16	24		A	Name
4.0		40	24		A	Surname

2.45 **X_USER_TITLE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES (MINIMUM)
1.0		0	12		A	User Title

2.46 **X_UTC**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	4		B	Days since 1st January 1950
2.0		4	4		B	Milliseconds Today

2.47 **X_VECTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES
1.0		0	4		B	X Component
2.0		4	4		B	Y Component
3.0		8	4		B	Z Component

EUROPEAN SPACE AGENCY

ESRIN - ERS EXPLOITATION DIVISION

ERS CENTRAL USER SERVICE

DATA STRUCTURES

Document number : ER-IS-EPO-GU-0101-2.0 Issue 2, Rev. 0

Date : 93/12/15

AMENDMENT CONTROL

ISSUE	REV.	DATE	PURPOSE	PAGE NO.	ACTION
Draft	0	88/05/05	First Draft	All	New
1	0	88/11/22	First Issue	All	Revised
1	1	88/12/20	Second Issue	All	Revised
1	2	89/05/25	Changes in Archiving Report items; deleted X_FILE_CODE, X_HDDT_ID and X_ORBIT_ID; added X_FILE_ID; other agreed details modified.	All	Revised
1	3	89/09/28	**Updated:** X_FACILITY_ID, X_FILE_GROUP,X_FILE_ID, X_HDDT_LABEL,X_MEDIUM_ID, X_REPORT_HEADER, X_SCHEDULE_ORIGINATOR. **Added:** X_PASS_NO, X_SPEC_ORDER_PARMS.	4-9,13, 14,16	Revised
1	4	90/01/29	**Updated:**		
			Overview;	1.2	Revised
			X_ADDRESS;	2.2	"
			X_FACILITY_ID;	2.7	"
			X_MEDIUM_TYPE;	2.15	"
			X_PROCESSING_INFO;	2.20	"
			X_SPEC_ORDER_PARMS;	2.34	"
			X_USER_INFO.	2.42	"
1	5	90/10/19	**Updated:**		
			Overview;	1.2	Revised
			X_FACILITY_ID;	2.7	Revised
			X_FILE_NAME;	2.10	New
			X_MEDIUM_ID;	2.15	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SENSOR_ID;	2.31	Revised
			X_SENSOR_MODE;	2.32	Revised
			X_SPEC_ORDER_PARMS;	2.35	Revised
			X_UNP_DATA_PARAMETERS;	2.40	Revised
			X_USER_INFO.	2.43	Revised
1	6	91/11/21	**Updated:**		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_ID;	2.9	Revised
			X_MEDIUM_ID;	2.15	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SENSOR_MODE.	2.32	Revised

1	7	92/11/18	**Updated:**		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_ID;	2.9	Revised
			X_LAT_LONG;	2.14	Revised
			X_PROCESSING_DATA;	2.20	Revised
			X_PRODUCT_COVERAGE;	2.22	Revised
			X_PRODUCT_DESCRIPTOR;	2.23	Revised
			X_SENSOR_PRODUCT_DATA;	2.33	Revised
			X_SPEC_ORDER_PARMS;	2.35	Revised
			X_UNP_DATA_PARAMETERS.	2.40	Revised
2	0	93/12/15	All changes highlighted by a vertical bar. Some changes to align to ERS-1 & ERS-2 Operations.	Some	Revised
			Major changes:		
			X_FACILITY_ID;	2.7	Revised
			X_FILE_GROUP;	2.8	Revised
			X_FILE_ID;	2.9	Revised
			X_MEDIUM_TYPE;	2.16	Revised
			X_PRODUCT_TYPE;	2.26	Revised
			X_SATELLITE_ID;	2.29	Revised
			X_SENSOR_ID.	2.31	Revised

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

bpi	bits per inch
CCT	Computer Compatible Tape
CUS	Central User Service
EECF	ESRIN ERS Central Facility
EPO	Earthnet Program Office
ERS	European Remote Sensing Satellite
ESA	European Space Agency
ESOC	European Space Operations Centre
ESRIN	European Space Research Institute
HDDT	High Density Digital Tape
MMCC	Mission Management and Control Centre
OD	Optical Disk
SAR	Synthetic Aperture Radar
TBC	To Be Confirmed
TBD	To Be Defined
UTC	Universal Time Coordinated

1 INTRODUCTION

1.1 SCOPE

This document contains the detailed description of the low level data structures used in the external interfaces of the ESRIN ERS Central Facility (EECF) and in perticular of the Central User Service (CUS).

Note: Changes from the previous version are highlighted by a vertical bar on the right. ~~The notation "TO BE DELETED" means that the field has been~~ Striked-through text is suppressed and will disappear in the next issue of the document.

1.2 OVERVIEW

The format tables of next section (presented in alphabetical order) contain the following columns:

a) -NO. sequential number of the element (numbers with decimal values identify detail elements);

b) -NAME element name or reference to a lower level item;

c) -OFFST displacement from section start (all the contained formats are considered at their full size);

d) -LENGTH length in Bytes of the element;

e) -TIMES number of times the element occurs;

f) -T element type:

- A = Alphanumeric ASCII field normally including letters and numbers (exceptions are e.g. names, which do not contain numbers). Left aligned; filler = blank.
- B = Binary field following Digital Equipment Corporation notation and convention (used for specific satellite, UTC, orbit data and in some reports from the stations). Filler = binary zero.
- N = Numeric ASCII field including sign and decimal value separator as necessary (the positive sign is optional; leading zeros can be replaced by blanks; range from 0 to highest value [100 for percentages], unless otherwise specified). Right Aligned; filler = ASCII 0 or blank (a zero value must contain at least one right aligned, ASCII 0, digit).

Note: "Reserved" fileds must contain all ASCII blanks.

g) -DESCRIPTION descriptive text.

2 FORMATS

2.1 X_ACQUISITION_PCD

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6013			*** TOTAL BYTES
1.00		0	1		B	HDDR Identifier
2.00	X_UTC	1	8			First Sample Time
3.00		9	4		B	Number of PCD Records
4.00		13	10	600		PCD RECORDS (EACH 2 SECONDS)
4.01		13	1		B	PCD Validity Flag (0 = Valid, 1 = Invalid)
4.02		14	1		B	HR or LR Carrier Lock
4.03		15	1		B	ACG PCD
4.04		16	1		B	Real Time Bit Error Rate
4.05		17	1		B	Playback Bit Error Rate
4.06		18	1		B	HR or LR Q Bit Clock Lock
4.07		19	1		B	HR or LR I Bit Clock Lock
4.08		20	1		B	Real Time Lock
4.09		21	1		B	Playback Lock
4.10		22	1		B	PCD Summary Byte

2.2 X_ADDRESS

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			168			*** TOTAL BYTES
1.0		0	24		A	Organization
2.0		24	24		A	Department and Section
3.0		48	24		A	Street
4.0		72	12		A	Post Box
5.0		84	24		A	Town
6.0		108	24		A	Place
7.0		132	12		A	ZIP Code
8.0		144	24		A	Country

2.3 X_AREA_DEFN

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			624			*** TOTAL BYTES
1.0		0	1		A	Geographical Coverage Type C = Circle P = Polygon
2.0		1	3			Reserved
3.0		4	4		N	Area Diameter (Km)
4.0	X_LAT_LONG	8	12			Centre Lat/Long
5.0		20	2		N	Number of Lat/Long Points
6.0		22	2			Reserved
7.0	X_LAT_LONG	24	12	50		Corner Coordinates (Lat/Long)

2.4 **X_DATE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	4		N	Year
2.0		4	2		N	Month
3.0		6	2		N	Day

2.5 **X_DATE_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			14			*** TOTAL BYTES
1.0	X_DATE	0	8			Date
2.0	X_TIME	8	6			Time

2.6 **X_DAY_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			24			*** TOTAL BYTES
1.0		0	2		N	Day (DD)
2.0		2	1		A	Separator ("-")
3.0		3	3		A	Month (MMM, e.g. JAN)
4.0		6	1		A	Separator ("-")
5.0		7	4		N	Year (YYYY)
6.0		11	1		A	Separator (" ")
7.0		12	2		N	Hours (hh)
8.0		14	1		A	Separator (":")
9.0		15	2		N	Minutes (mm)
10.0		17	1		A	Separator (":")
11.0		18	2		N	Seconds (ss)
12.0		20	1		A	Separator (".")
13.0		21	3		N	Thousands of a second (ttt)

Note: room for all these fields is left in the interface, but the format specifies which fields are used.

2.7 **X_FACILITY_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	FACILITY IDENTIFIER
						ESA FACILITIES:
						CF = Central Telecommunication Facility - TCS
						DC = Distribution Central Facility
						DF = Distribution Facility - Fucino
						DK = Distribution Facility - Kiruna
						DN = Data Dissemination Network Management Centre
						DR = Distribution Facility - Receive Station
						EB = EECF BS
						EC = EECF CUS
						ED = EECF DMOP Facility (PCS)
						EE = EECF
						EF = EECF Financial Service
						EG = EECF General Access System
						EI = EECF Interferometry Working Group
						EM = EECF Monitoring of Facilities
						EP = EECF PCS
						EQ = EECF PCS/QA (for special products only)
						ER = EECF PCS ATSR Near Real Time QA
						ET = ESTEC Calibration Computer system
						FT = Fucino Transcription Facility
						MC = MMCC
						MT = MMCC Telex
						QS = EECF Quick-look OPR Server
						US = EECF UIT Server
						ZP = EECF JERS Archiving Report Source Facility
						PROCESSING AND ARCHIVING FACILITIES
						AP = Alaska "PAF" (simulated)
						CP = Central PAF (ESRIN)
						DP = German PAF
						FP = French PAF
						GP = Gatineau "PAF" (simulated)
						IP = Italian PAF
						PP = Prince Albert "PAF" (simulated)
						TP = Tromsoe "PAF" (simulated)
						UP = UK PAF
						ESA GROUND STATIONS
						ES = EPO Station
						FS = Fucino Station
						GS = Gatineau Station (Low Rate)
						KS = Kiruna Station
						MS = Maspalomas Station
						PS = Prince Albert Station (Low Rate)
						NATIONAL AND FOREIGN STATIONS
						AF = Alaska SAR Facility (Fairbanks)
						AS = Alice Springs, Australia
						AT = Atlanta Test Site, USA
						BE = Beijing, China
						CO = Cotopaxi, Equador
						CU = Cuiaba, Brazil
						GH = Gatineau, Canada (High Rate)

HA = Hatoyama, Japan
HO = Hobart, Australia
IN = Pare Pare, Indonesia
IR = Israel
IS = Islamabad, Pakistan
JO = Johannesburg, South Africa (not baseline)
KU = Kumamoto, Japan
LI = Libreville (German transportable), Gabon
MA = Mar Chiquita, Argentina
MM = Mac Murdo, Antarctica (USA)
NO = Norman, Oklahoma, USA
PP = Pari-Pari, Indonesia
PH = Prince Albert, Canada (High Rate)
SA = Riyadh, Saudi Arabia
SE = Shadnagar/Hyderabad, India
SG = Singapore, Malaysia
SY = Syowa, Antarctic (Japanese)
TF = Transportable Fern., O' Higgins, (German) Antarctic
TG = Greenbelt, MD USA (not baseline)
TH = Bangkok, Thailand
TO = Aussaguel, (Toulouse) France
TS = Tromsoe Station, Norway
TW = Chung-Li, Taiwan
WF = West Freugh, United Kingdom
NOMINATED CENTRES
HB = Hatoyama, Japan
SC = South Africa Center
SPECIAL STATIONS
PR = PRARE Station
RA = Rutherford Appleton Laboratory

2.8 X_FILE_GROUP

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	FILE GROUP
						AL = Algorithm
						AS = ATSR
						DB = Data Base
						E = Extracted Data Product
						I = Intermediate Product
						ML = Mail
						MP = Mission Plan
						NSC= Network Supervision Centre Files
						OD = Order
						OP = Operator
						OR = Orbit
						PA = Parameter
						PR = Product
						QA = Quality Assurance
						QR = Quality Report
						QY = Query Files
						RA = Radar Altimeter
						RE = Report

RQ = Request
SH = Schedule
TA = Table
U = User Fast Delivery Product
WS = Wind Scatterometer

2.9 **X_FILE_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		A	File Identifier
						EAT1I = Extracted ATSR1 Instrument Header
						EAT2I = Extracted ATSR2 Instrument Header
						EAT2C = Extracted ATSR2 Calibration Data
						EEP__ = Extracted Data Product: Ephemeris Data
						EGH__ = Extracted Data Product: General Headers
						EGOC_ = Extracted GOME Calibration Data
						EGOI_ = Extracted GOME Instrument Header
						EIC__ = Extracted Data Product: AMI Image Calibration Data
						EII__ = Extracted Data Product: AMI Image Instrument Headers
						EMWI_ = Extracted Microwave Sounder Instrument Header
						ERAC_ = Extracted Data Product: Radar Altimeter Calibrat. Data
						ERAI_ = Extracted Data Product: Radar Altimeter Instr. Headers
						EWAC_ = Extracted Data Product: AMI Wave Calibration Data
						EWAI_ = Extracted Data Product: AMI Wave Instrument Headers
						EWIC_ = Extracted Data Product: AMI Wind Calibration Data
						EWII_ = Extracted Data Product: AMI Wind Instrument Headers
						IWA__ = Intermediate Product: AMI Wave
						MPGM_ = Mission Planning: Ground Station Description-MMCC
						MPLD_ = Mission Planning: LBR Area Description
						MPLG_ = Mission Planning: LBR Global Activity Plan
						MPLO_ = Mission Planning: LBR Area Operation
						MPPE_ = Mission Planning: PEP Error Message
						MPSG_ = Mission Planning: SAR Global Activity Plan
						MPUN_ = Mission Planning: Ground Station Unavailability
						NSC__ = Network Supervision Centre files
						ODBR_ = Order: Backlog Report
						ODGP_ = Order: Global Product
						ODMC_ = Order: Medium Copy
						ODMR_ = Order: Medium Release
						ODOP_ = Order: Message from EECF to EGS
						ODPD_ = Order: Product Details
						ODPO_ = Order: Product
						OPMS_ = Operator Message from EGS to EECF
						ORPC_ = Orbit: Precise
						ORPD_ = Orbit: Predicted
						ORPL_ = Orbit: Preliminary
						ORPM_ = Orbit: Predicted
						ORRE_ = Orbit: Restituted
						ORRM_ = Orbit: Restituted
						ORRS_ = Orbit: Restituted
						PAAM_ = Parm: Antenna Mispointing
						PACC_ = Parameter: Time Correlation Corrected
						PADF_ = Parameter: Default Parameters
						PAEP_ = Parameter: Engineering (from PCS)
						PAGC_ = Parameter: Spacecraft Gravity Centre
						PAGM_ = Parameter: Spacecraft Gravity Centre-MMCC
						PALC_ = Parameter: Look-Up Tables Update (CCT)
						PALR_ = Parameter: Look-Up Tables Read Directory
						PALU_ = Parameter: Look-Up Tables (telecommunication)
						PAMM_ = Parameter: Antennas' Mispointing-MMCC

PASC_ = Parameter: Spacecraft Configuration
PATC_ = Parameter: Time Correlation
PATM_ = Parameter: Time Correlation
PATN_ = Parameter: Time Correlation New
PATP_ = Parameter: Template
PAUD_ = Parameter: RA Ultra Stable Oscillator Drift
PAUM_ = Parameter: RA Ultra Stable Oscillator Drift-MMCC
PAWN_ = Parameter: Predicted Wind Fields
PAWN1 = Parameter: Predicted Wind Fields #1
PAWN2 = Parameter: Predicted Wind Fields #2
PAWN3 = Parameter: Predicted Wind Fields #3
PAWN4 = Parameter: Predicted Wind Fields #4
QRCI_ = Quality Report: CCT IWI
QREE_ = Quality Report: EECF_QA enquiry
QRHD_ = Quality Report: HDDT_QA
QROD_ = Quality Report: OD_QA
QRLD_ = Quality Report: LBR Daily (reception at PCS)
QRPP_ = Quality Report: PAF products QA
QRPR_ = Quality Report: PAF_QA response
QYRF_ = Query File: Catalogue Search Result (to UIT)
QYSF_ = Query File: Catalogue Search Request (from UIT)
QYVF_ = Query File: Catalogue Search Request Validation(toUIT)
REAQ_ = Report: Acquisition
REAR_ = Report: Data Archiving
RECO_ = Report: Connection (Telecomm. + DB Access)
REDC_ = Report: DMOP Configuration
REDI_ = Report: Dissemination
REDM_ = Report: Distribution Managanent (BDDN)
REDP_ = Report: DMOP Update
REDS_ = Report: Distribution
REDT_ = Report: Daily Test
REER_ = Report: Misinterpretation Error
REEX_ = Report: Extracted Data
REFS_ = Report: SAR FD Distribution Status
REGA_ = Report: Global Archiving
REGS_ = Report: Global Production Status
REIN_ = Report: Data Ingestion
RELD_ = Report: Look-Up Tables Directory
RELU_ = Report: Look-Up Tables Contents
REMB_ = Report: Missing Packects/Broadcasted Products
REME_ = Report: Missing Packects/ESRIN-Rx
REMM_ = Report: MMCC
REMO_ = Report: Monthly
REPN_ = Report: Production
REPR_ = Report: Processing
REPS_ = Report: Production Status
REPT_ = Report: Daily Test
RERC_ = Report: Reception
RESD_ = Report: Station Description
RESL_ = Report: Station Log
RESM_ = Report: Shipment
RESO_ = Report: SC Activities & Parameter Updates
REST_ = Report: Status Block
REUG_ = Report: Unavailability Groud Station
REUN_ = Report: Unavailability PAF
REUP_ = Report: Unavailability PRARE Station

REYR_ = Report: Yearly
RQST_ = User Request: Status
RQUS_ = User Request: Data Entry
RQVR_ = User Request: Validation Result
SHAQ_ = Schedule: Acquisition
SHDD_ = Schedule: Data Distribution (BDDN)
SHDS_ = Schedule: Distribution BDDN
SHKI_ = Schedule: Kiruna Acquisition
SHOV_ = Schedule: Overrides
SHPA_ = Schedule: PRARE Activity
SHPN_ = Schedule: Production
SHSA_ = Schedule: Spacecraft Activity
SHSM_ = Schedule: Spacecraft Activity
TAMF_ = Table: Meteorological Fields
TATI_ = Table: Terrain Information
TAUA_ = Table: Users' Addresses
UIC__ = User Product: AMI Image Chirp Replica
UIND_ = User Product: AMI Image Noise Stat. & Drift Calibr.
UI16_ = AMI Image 16 bits
UI8__ = AMI Image 8 bits
URA__ = User Product: Radar Altimeter
UROQL = User Product: Radar Altimeter OPR Quick Look (D-PAF)
UWAC_ = User Product: AMI Wave Chirp Replica
UWAND = User Product: AMI Wave Noise Statistics & Drift Calibr.
UWA__ = User Product: AMI Wave
UWI__ = User Product: AMI Wind

2.10 **X_FILE_NAME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			22			*** TOTAL BYTES
1.0	X_FILE_ID	0	5			File Identifier:
1.1	X_FILE_TYPE	0	4			File Type
1.2		4	1		A	Separator = "_"
2.0		5	6		N	File Generation Date; format YYMMDD:
						YY = "00" to "99"
						MM = "01" to "12"
						DD = "01" to "31"
3.0	X_FACILITY_ID	11	2			Originator of the file
4.0	X_FACILITY_ID	13	2			Destination of the file
5.0		15	4		N	Cyclic Counter ("0000" to "9999")
6.0		19	1		A	Separator = "."
7.0	X_SATELLITE_ID	20	2			Satellite/Mission Identifier

2.11 **X_FILE_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0	X_FILE_GROUP	0	2			File Group
2.0		2	2		A	File Code (the second character can be an underscore)

2.12 **X_GEO_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			652			*** TOTAL BYTES
1.0		0	28		A	Area Name
2.0	X_AREA_DEFN	28	624			Area Definition

2.13 **X_HDDT_LABEL**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	4		B	Number of Acquisitions Recorded
2.0	X_MEDIUM_ID	4	8			HDDT Identifier
3.0		12	1		B	Satellite Identifier (1 = ERS-1)
4.0	X_UTC	13	8			Start Time of 1. Pass
5.0	X_UTC	21	8			Stop Time of 1. Pass
6.0	X_UTC	29	8			Start Time of 2. Pass
7.0	X_UTC	37	8			Stop Time of 2. Pass
8.0	X_UTC	45	8			Start Time of 3. Pass
9.0	X_UTC	53	8			Stop Time of 3. Pass
10.0		61	1		B	Station Identifier (1 = KS, 6 = AF)
11.0		62	1		B	Drive on which HDDT was generated (1 for AF; 4 to 7 for KS)
12.0		63	1		B	Demodulator Used in Acquisition (0 to 3)

2.14 **X_LAT_LONG**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES
1.0		0	6		N	Point Latitude (-90.00 to 90.00 in cents of deg; SDD.CC)
2.0		6	6		N	Point Longitude (0.00 to 359.99 in cents of deg; DDD.CC)

2.15 **X_MEDIUM_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0	X_FACILITY_ID	0	2			Facility Identifier
2.0		2	6		A	Unique Identifier: Note: this redefinition is applicable to ESA Stations only:
2.1		2	1		A	Medium/Device Identifier 1,2 = HR HDDR 1,2 3,4 = LR HDDR 1,2 5,6,7,8 = Exabyte Drive C = CCT O,P,Q,R,S,T,U,V = Optical Disk Drive 1,2,3,4 W,X,Y,Z = Exabytes LRDTF
2.2		3	5		N	Unique Numeric Identifier

2.16 **X_MEDIUM_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	Medium Type C = CCT C1 = CCT 1600 bpi C6 = CCT 6250 bpi CD = Compact Disk (CD-ROM) D3 = 3"1/2 Floppy Disk for IMB PS2 or compatible D4 = 3"1/2 Floppy Disk for Mac Intosh or compatible D5 = 5"1/4 Floppy Disk for IMB PC or compatible E2 = Exabyte 8200 E5 = Exabyte 8500 F = Film H = HDDT (not for end users) O = Optical Disk P = Photo R = Paper S = SUN Streamer T = Telecommunication (not for end users) V = Video Tape

2.17 **X_ORBIT_NO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		N	Absolute Orbit Number (since mission start; new orbit/asc. node)

2.18 **X_PASS_NO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		N	Absolute Orbit Number at crossing of target latitude line (since mission start; new orbit at ascending node)

2.19 **X_PASS_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			1			*** TOTAL BYTES
1.0		0	1		A	Pass Type b = Not Provided (b = blank) A = Ascending B = Both (ascending and descending) C = Crossover D = Descending N = No preference

2.20 **X_PROCESSING_DATA**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			28			*** TOTAL BYTES
1.0		0	1		A	Product Quality Indicator (0 to 9: 0 best quality, 9 worst)
2.0		1	2		A	Complementary Data Flag (default = NA)
3.0		3	20		A	Processing Parameters (default = NA)
4.0		23	5		N	Summary of Product Quality Assessment

2.21 **X_PROCESSING_INFO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	4		N	Software Version Number
2.0		4	2			Reserved

2.22 **X_PRODUCT_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			60			*** TOTAL BYTES
1.0	X_LAT_LONG	0	12			Product Centre Lat/Long
2.0	X_LAT_LONG	12	12	4		Corner Coordinates (Lat/Long) (for Altimeter products the four corner coordinates identify the sub-satellite track).

2.23 **X_PRODUCT_DESCRIPTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			24			*** TOTAL BYTES
1.0	X_UNP_ENTRY_ID	0	16			Raw Data Identifier
2.0	X_PRODUCT_TYPE	16	5			Product Type
3.0		21	1		N	Scene Quadrant (with respect to orbit direction) 0 = Full Scene (all quadrants) 1 = Left Fore Quadrant 2 = Right Fore Quadrant 3 = Right Aft Quadrant 4 = Left Aft Quadrant
4.0	X_FACILITY_ID	22	2			Processing Facility Identifier

2.24 **X_PRODUCT_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			38			*** TOTAL BYTES
1.0	X_PRODUCT_DESCRIPTOR	0	24			Product Descriptor
2.0	X_DATE_TIME	24	14			Processing Date and Time

2.25 **X_PRODUCT_ORDER_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	6		N	Product Sequential Number

2.26 **X_PRODUCT_TYPE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			5			*** TOTAL BYTES
1.0		0	5		A	Product Name Acronym

CIR = Corrected IR Data
CIT = Wave Complex Imagette
EEP = Ephemeris Data
EGH = General Headers
EGM1 = ERS-1 Gravity Model/1
EGM2 = ERS-1 Gravity Model/2
EIC = AMI Image Calibration Data
EII = AMI Image Instrument Headers
ERAC = Radar Altimeter Calibration Data
ERAI = Radar Altimeter Instrument Headers
EWAC = AMI Wave Calibration Data
EWAI = AMI Wave Instrument Headers
EWIC = AMI Wind Calibration Data
EWII = AMI Wind Instrument Headers
FDC = Fast Delivery Copy
GEC = SAR Ellipsoid Geocoded Image
GIM = Radar Incidence Angle Mask
GTC = SAR Terrain Geocoded Image
ION = Ionospheric Refraction Data
IPC = SAR Wave Intermediate Product
IPS = Imagette Precision Spectrum
IWA = AMI Wave Mode Intermediate
IWC = Scatterometer Intermediate Winds Copy
LIR = Land Ice Product
LKE = Lakes Elevation
LPR = Land Product
MBT = Microwave Brightness Temperature
OGE = Oceanic Geoid
OIP = Altimeter Ocean intermediate Product
OPR = Ocean Product
PRC = Precise Orbit
PRI = Precision Image
PRL = Preliminary Orbit: Weekly
PRL_M = Preliminary Orbit: Monthly
PST = Precise Sea Surface Temperature Map
RAW = Annotated Raw Data
RIR = RAW IR Data
RMW = Raw Microwave Data
RTM = Roll-Tilt Mode Image
SIP = Sea Ice Product
SLC = Single Look Complex Image
SNT = Sigma-Nought Triplets

SSH = Sea Surface Height
SST = Sea Surface Temperature Map
TOP = Sea Surface Topography
UIC = AMI Image Chrip Replica
UIND = AMI Image Noise Statistics and Drift Calibration
UI16 = AMI Image 16 bits
UI8 = AMI Image 8 bits
UNP = Unprocessed Data
URA = Radar Altimeter
UWA = AMI Wave
UWAC = AMI Wave Chrip Replica
UWAND = AMI Wave Noise Statistics and Drift Calibration
UWI = AMI Wind
VLC = Water Vapour - Liquid Water Content
WAP = Altimeter Wave-form
WDR = Altimeter Wave-form Foundation
WNF = Wind Fields

2.27 **X_RELATIVE_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			10			*** TOTAL BYTES
1.0		0	10			Time since Ascending Node Crossing
1.1		0	6		N	Seconds
1.2		6	1		A	Decimal Point '.'
1.3		7	3		N	Milliseconds

2.28 **X_REPORT_HEADER**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			39			*** TOTAL BYTES
1.00	X_UTC	0	8			Report Generation Date and Time
2.00		8	15			Description of Command that Caused Report
2.10		8	2		B	Command Type
2.20		10	5			Schedule Identifier
2.21		10	1		B	Originator and Source of Update
2.22		11	4		B	Schedule Number (Pass Number * 1000 + Sequential no.)
2.30		15	4		B	Command Number
2.40		19	4		B	Reserved
3.00		23	4		B	Report Identifier
4.00		27	8		B	DPMC Software Description
5.00		35	4		B	Report Size (in Bytes)

2.29 **X_SATELLITE_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			2			*** TOTAL BYTES
1.0		0	2		A	Satellite/Mission Identifier E1 = ERS-1 Satellite E2 = ERS-2 Satellite J1 = JERS-1 Satellite

2.30 **X_SCHEDULE_ORIGINATOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			1			*** TOTAL BYTES
1.0		0	1		A	Schedule Originator U = CUS generated schedule A = Remote Operator to a CUS schedule (Override) B = Local Operator to a Remote schedule K = Local Operator generated schedule D = Local operator to a locally generated schedule J = Local Operator command

2.31 **X_SENSOR_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			3			*** TOTAL BYTES
1.0		0	3		A	Sensor Identifier (or product group) ALT = Radar Altimeter ATS = ATSR GOM = GOME MWS = Microwave Sounder ORB = Orbit PLF = Platform PRA = PRARE SAR = AMI Image SWM = AMI Wave WSC = AMI Wind

2.32 **X_SENSOR_MODE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			3			*** TOTAL BYTES
1.0		0	3		A	Sensor Operation Mode

SAR:
- NB = Normal Mode, OBRC
- NG = Normal Mode, OGRC
- RB = Roll-Tilt Mode, OBRC
- RG = Roll-Tilt Mode, OGRC
- UNV = Image mode unavailable (*)

SWM:
- NB2 = Normal, OBRC, 200 Km
- NG2 = Normal, OGRC, 200 Km
- UNV = Wave mode unavailable (*)

WSC:
- N3 = Normal, 3 beams
- C = Calibration
- UNV = Wind mode unavailable (*)

ALT:
- I = Ice Tracking
- O = Ocean Tracking
- PI = Preset Ice Tracking (*)
- PO = Preset Ocean Tracking (*)
- UNV = Altimeter unavailable (*)

ATS-Infrared:
- N1 = Normal 1.6 micro
- N3 = Normal 3.7 micro
- N2 = Normal 1.6/3.7 micro
- N4 = Normal 1.6 micro autoswitch
- UNV = ATSR-Infrared unavailable (*)

Microwave Sounder:
- N = Normal mode
- UNV = Microwave Sounder unavailable (*)

Note: (*) for ESA use only; not in Archiving Report

2.33 **X_SENSOR_PRODUCT_DATA**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			34			*** TOTAL BYTES
1.0	X_SENSOR_MODE	0	3			Sensor Mode
2.0		3	1		A	Coverage Identifier (L=Land, S=Sea, I=Ice, M=Mixed) (all instr)
3.0		4	3		N	Land Percentage (all instr; default = 000)
4.0		7	9		N	Specific Parameter (SNNNNN.NN; any instr; default = +99999.99): Cloud Coverage Percentage (ATSR) Doppler Ambiguity (Image and Wave) Wind Filed Direction (deg; Scatterometer)
5.0		16	18			Data Product Characterisation Values:
5.1		16	6		N	Average Value (NNN.NN; default = 999.99)
5.2		22	6		N	Maximum Value (NNN.NN; default = 999.99)
5.3		28	6		N	Standard Deviation (NNN.NN; default = 999.99)

2.34 **X_SHIPMENT_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0		0	4		N	Shipment Number

2.35 **X_SPEC_ORDER_PARMS**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			60			*** TOTAL BYTES
1.0		0	60		A	Specific Ordering Parameters (format: keyword1=value1,keyword2=value2,...) BC=A (Byte Coding = ASCII, default PAF value) BC=E (Byte Coding = EBCDIC) BS=D (Byte Sequence = DEC) BS=N (Byte Sequence = no-DEC, default PAF value) DF=C (Dissemination Format = CEOS, default PAF value) DF=N (Dissemination Format = no-CEOS) GS=DD:MM (Grid Spacing in degrees and minutes) PC=SDD.CCDDD.CCSDD.CCDDD.CCSDD.CCDDD.CCSDD.CCDDD.CC (Product Coverage: 4 Lat/Long coverage vertices in clockwise direction, with the area on the right of polygon sides; format: Lat=SDD.CC, Long=DDD.CC) To be noted that PC and GS can cohexist, but cannot be specified with any of the other parameters. All the parameters but PC and GS can cohexist. SQ=N (Scene Quadrant: see X_PRODUCT_DESCRIPTOR) SZ=w*h (Size of photographic products: width and hight in mm)

2.36 **X_STATE_VECTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			32			*** TOTAL BYTES
1.0	X_UTC	0	8			UTC Time
2.0	X_VECTOR	8	12			Geocentric Position Vector (10**-2 m)
3.0	X_VECTOR	20	12			Velocity Vector (10**-5 m/s)

2.37 **X_TIME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6			*** TOTAL BYTES
1.0		0	2		N	Hours
2.0		2	2		N	Minutes
3.0		4	2		N	Seconds

2.38 **X_TIME_COVERAGE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			28			*** TOTAL BYTES
1.0	X_DATE_TIME	0	14			Start Date and Time
2.0	X_DATE_TIME	14	14			Stop Date and Time

2.39 **X_TIME_MIN**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			4			*** TOTAL BYTES
1.0		0	2		N	Hours
2.0		2	2		N	Minutes

2.40 **X_UNP_DATA_PARAMETERS**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			32			*** TOTAL BYTES
1.0		0	1		A	Raw Data Quality Indicator (0 to 9; 0 best quality, 9 worst)
2.0		1	1			Reserved
3.0		2	4		B	Sensing Start Binary Time
4.0		6	4		B	Sensing Stop Binary Time
5.0		10	2		N	Real Time Bit Error Rate Estimate
6.0		12	2		N	Play Back Bit Error Rate Estimate
7.0		14	2		N	Measured Acquisition Bit Error Rate
8.0		16	2		N	Measured Playback Bit Error Rate
9.0		18	4		N	Number of Loss of Synchronizations
10.0		22	4		N	Number of Loss of Lock of Tape Recorder Formatter
11.0		26	2		N	AGC Level (worst case)
12.0		28	4		N	Missing Lines (default = 9999)

2.41 **X_UNP_ENTRY_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			16			*** TOTAL BYTES
1.0	X_SATELLITE_ID	0	2			Satellite/Mission Identifier
2.0	X_SENSOR_ID	2	3			Sensor Identifier
3.0	X_ORBIT_NO	5	5			Start Orbit Number
4.0		10	4		N	Frame Number (0 to 7199, each 0.05 deg. of sub-satellite track)
5.0	X_FACILITY_ID	14	2			Acquisition Facility Identifier

2.42 **X_USER_ID**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	2		A	Country Code (ISO Standard)
2.0		2	2		A	User Code (2 letters, derived from user name initials)
3.0		4	4		N	Sequential User Number

2.43 **X_USER_INFO**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			572			*** TOTAL BYTES
1.0	X_USER_ID	0	8			User Identifier
2.0	X_USER_NAME	8	64			User Name
3.0	X_USER_TITLE	72	12			Work Title
4.0	X_ADDRESS	84	168			User Address
5.0		252	2		A	Country Code (ISO Standard)
6.0		254	12		N	Telefone number (excluding Country Prefix)
7.0		266	12		N	Telex number (excluding Country Prefix)
8.0		278	12		N	FAX number
9.0	X_USER_NAME	290	64			Invoice User Name
10.0	X_USER_TITLE	354	12			Incoice User Work Title
11.0	X_ADDRESS	366	168			Invoice User Address
12.0		534	2		A	Country Code (ISO Standard)
13.0		536	12		N	Telefone number (excluding Country Prefix)
14.0		548	12		N	Telex number (excluding Country Prefix)
15.0		560	12		N	FAX number

2.44 **X_USER_NAME**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	12		A	Title
2.0		12	4		A	Initials
3.0		16	24		A	Name
4.0		40	24		A	Surname

2.45 **X_USER_TITLE**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES (MINIMUM)
1.0		0	12		A	User Title

2.46 **X_UTC**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			8			*** TOTAL BYTES
1.0		0	4		B	Days since 1st January 1950
2.0		4	4		B	Milliseconds Today

2.47 **X_VECTOR**

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			12			*** TOTAL BYTES
1.0		0	4		B	X Component

2.0	4	4	B Y Component
3.0	8	4	B Z Component