



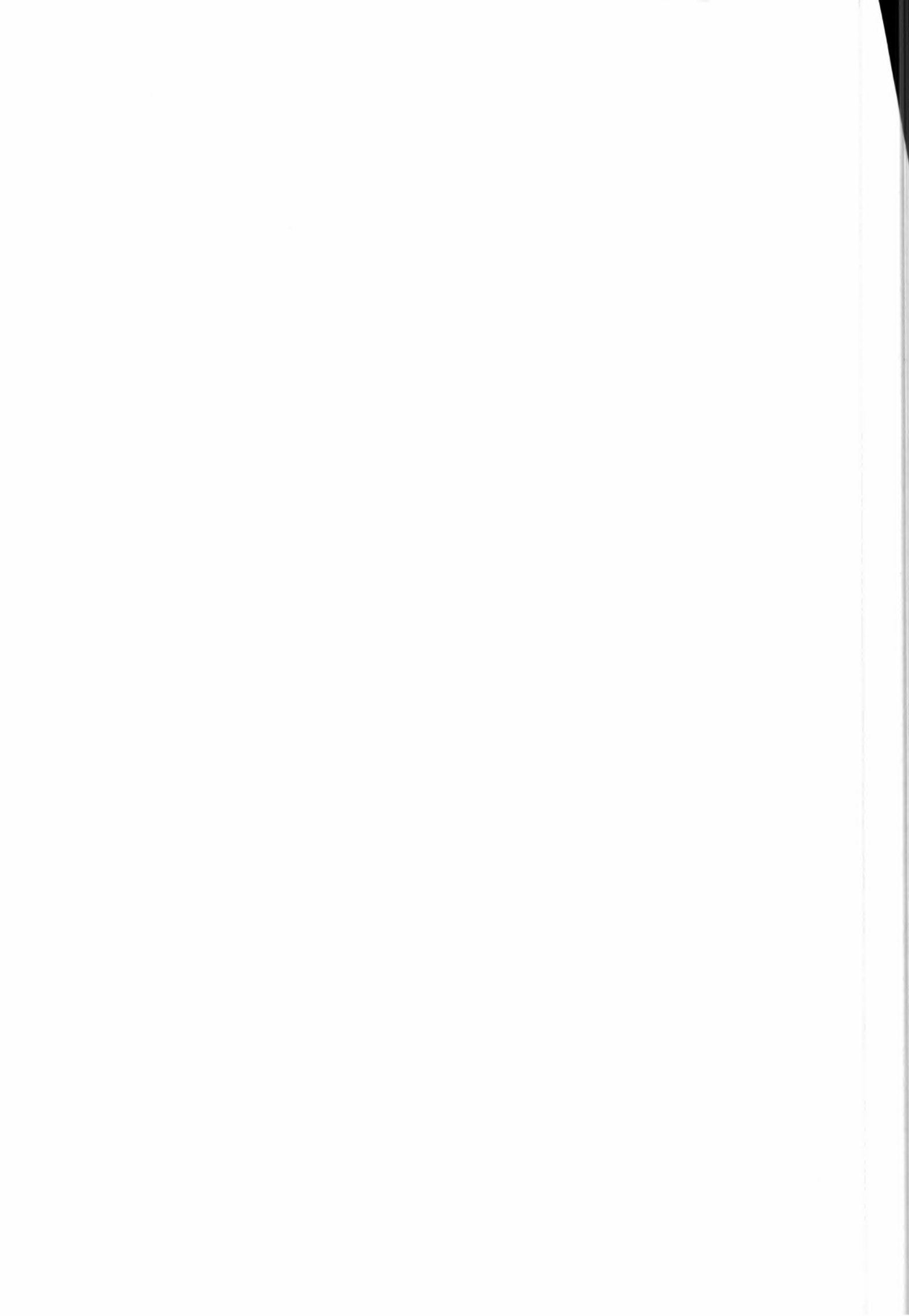
esrin
ERS CENTRAL USER SERVICE
DATA STRUCTURES

EUROPEAN SPACE AGENCY
ESRIN - ERS EXPLOITATION DIVISION

ERS CENTRAL USER SERVICE
DATA STRUCTURES

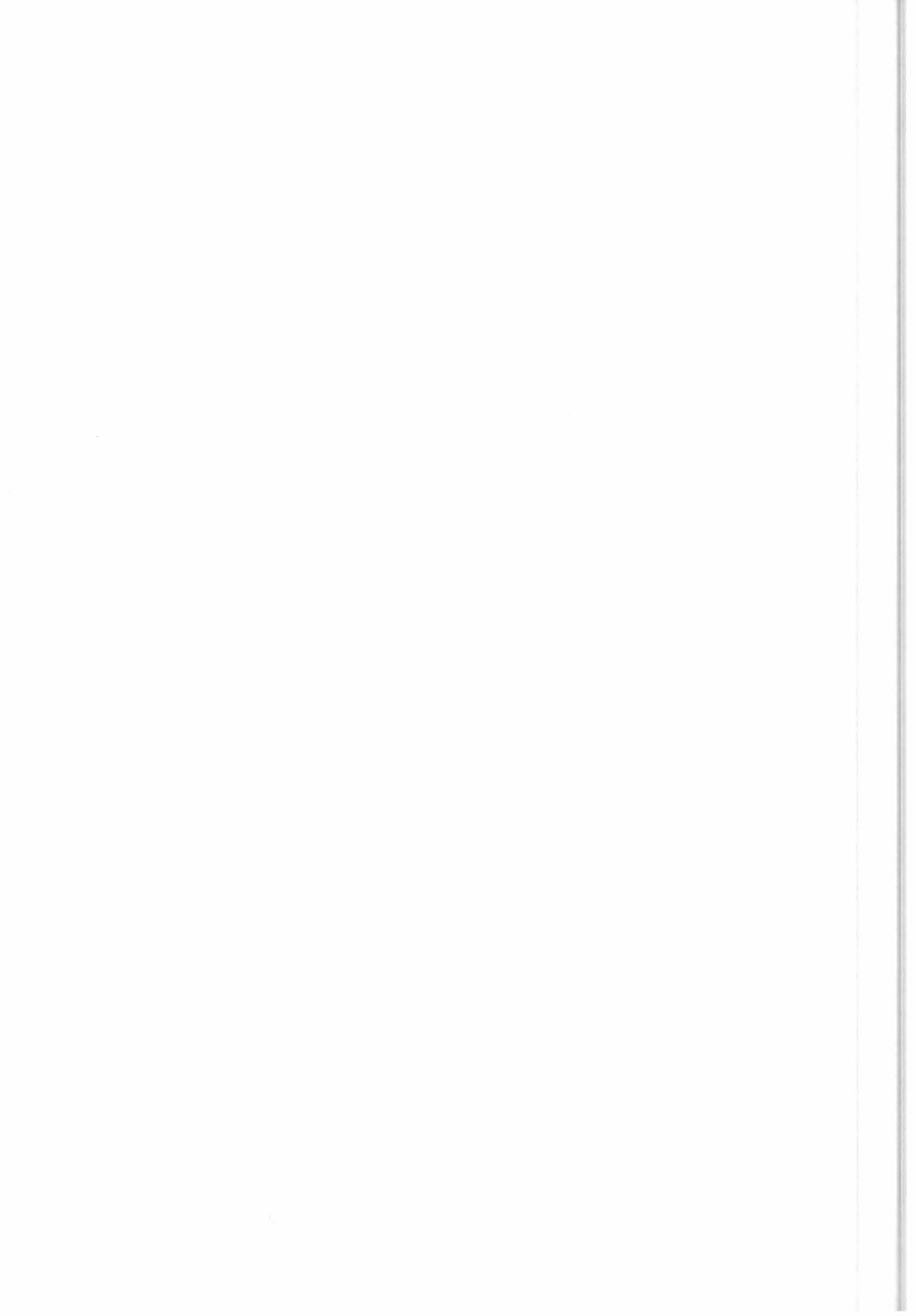
Document number : ER-IS-EPO-GU-0101-2.0 Issue 2, Rev. 0

Date : 93/12/15



AMENDMENT CONTROL

<u>ISSUE</u>	<u>REV.</u>	<u>DATE</u>	<u>PURPOSE</u>	<u>PAGE NO.</u>	<u>ACTION</u>
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; X_ADDRESS; X_FACILITY_ID; X_MEDIUM_TYPE; X_PROCESSING_INFO; X_SPEC_ORDER_PARMS; X_USER_INFO.	1.2 2.2 2.7 2.15 2.20 2.34 2.42	Revised " " " " " "
1	5	90/10/19	Updated: Overview; X_FACILITY_ID; X_FILE_NAME; X_MEDIUM_ID; X_MEDIUM_TYPE; X_PRODUCT_TYPE; X_SENSOR_ID; X_SENSOR_MODE; X_SPEC_ORDER_PARMS; X_UNP_DATA_PARAMETERS; X_USER_INFO.	1.2 2.7 2.10 2.15 2.16 2.26 2.31 2.32 2.35 2.40 2.43	Revised Revised New Revised Revised Revised Revised Revised Revised Revised Revised
1	6	91/11/21	Updated: X_FACILITY_ID; X_FILE_ID; X_MEDIUM_ID; X_MEDIUM_TYPE; X_PRODUCT_TYPE; X_SENSOR_MODE.	2.7 2.9 2.15 2.16 2.26 2.32	Revised Revised Revised Revised Revised Revised



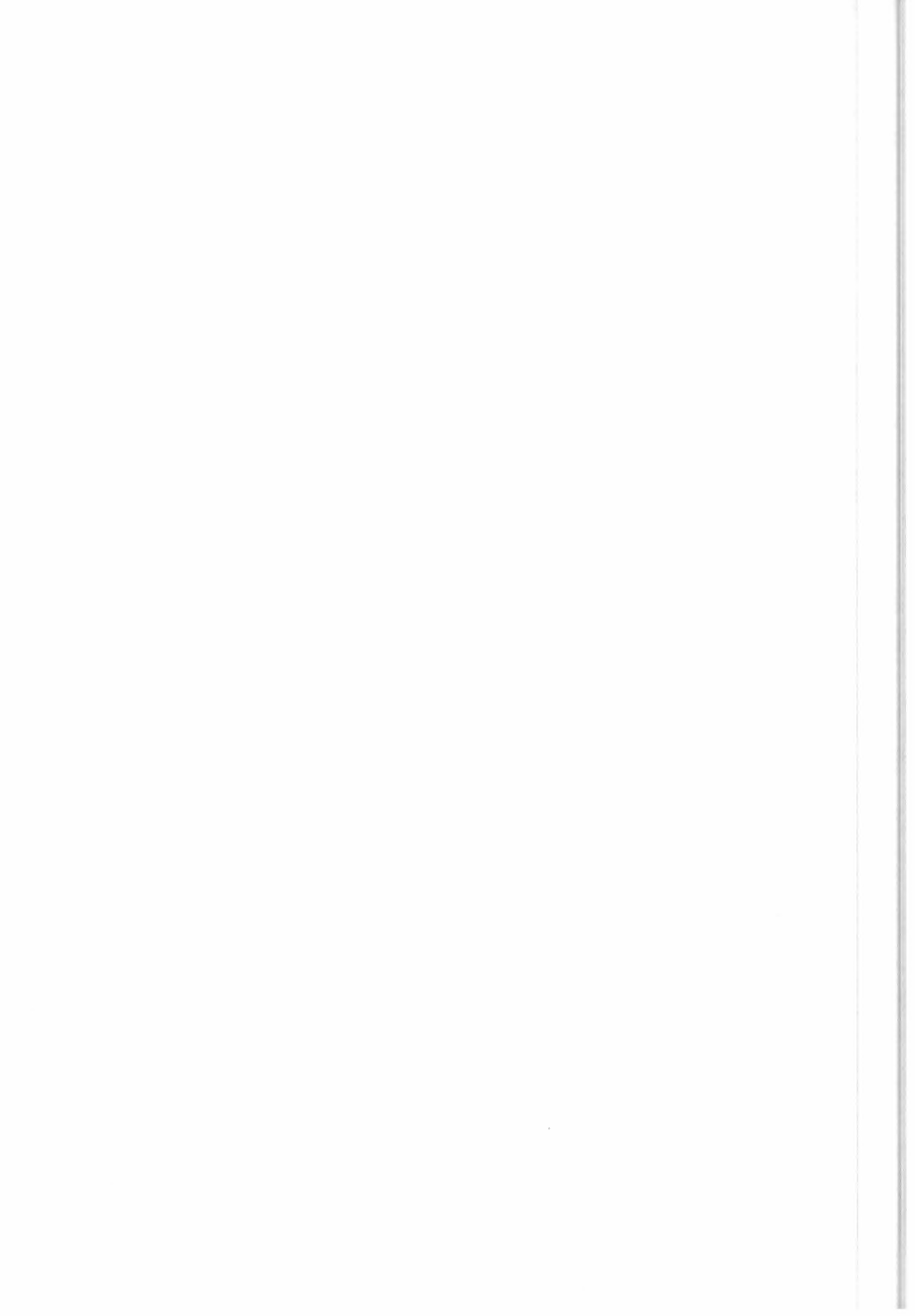
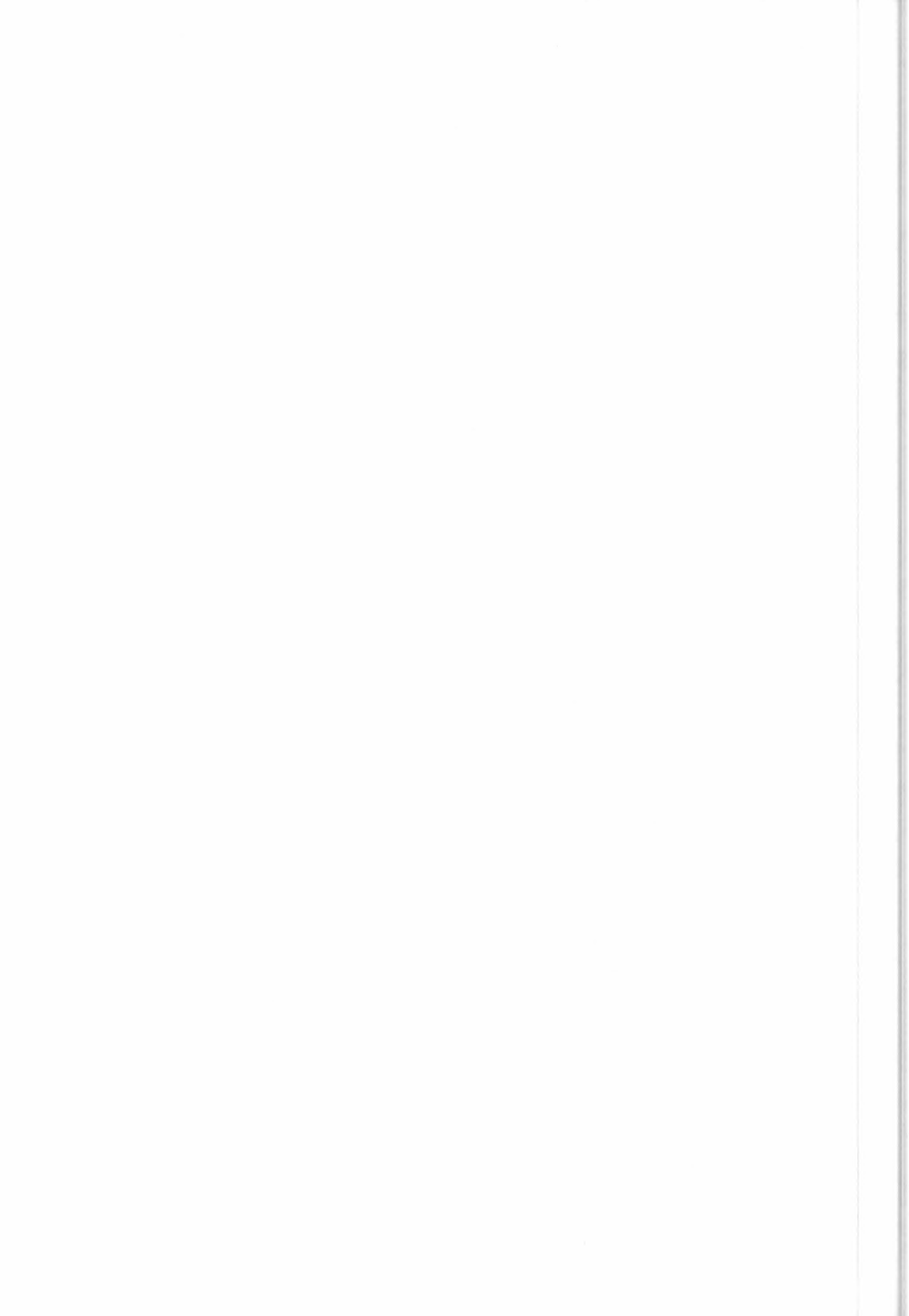
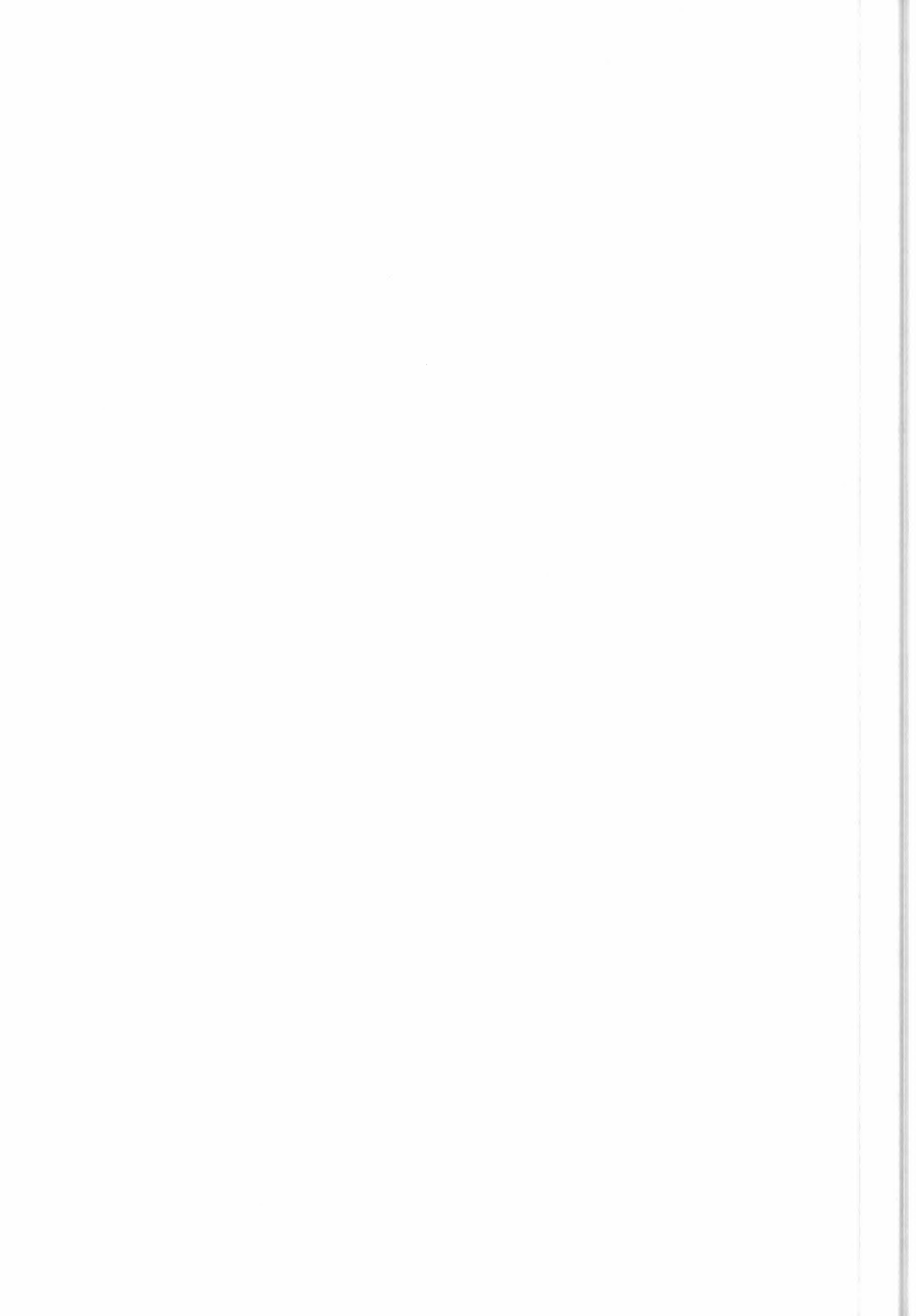


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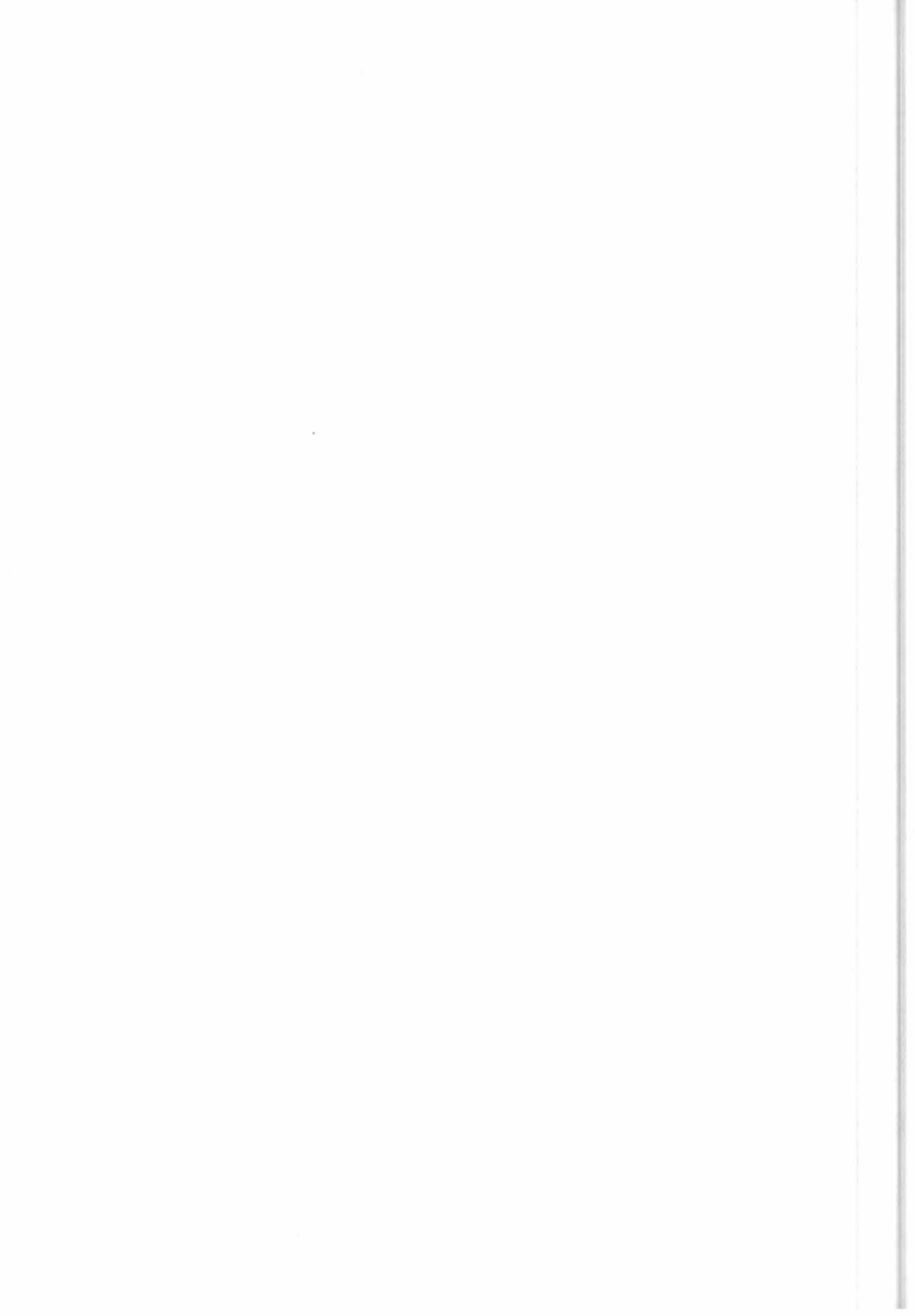


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ACRONYMS AND ABBREVIATIONS

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 particular 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.

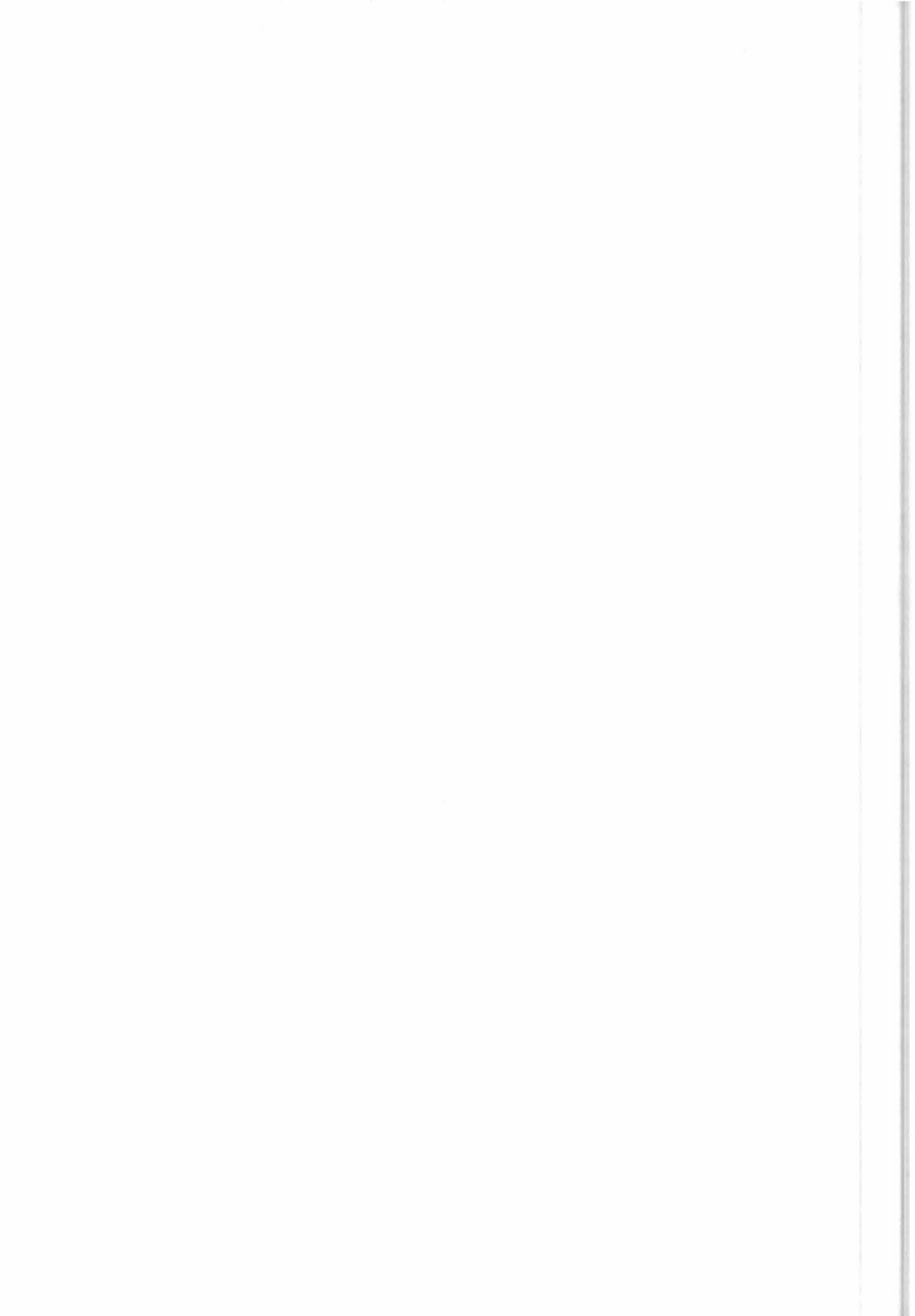
1.2 OVERVIEW

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" fields must contain all ASCII blanks.

- g) -DESCRIPTION descriptive text.



2 FORMATS

2.1 X_ACQUISITION_PCD

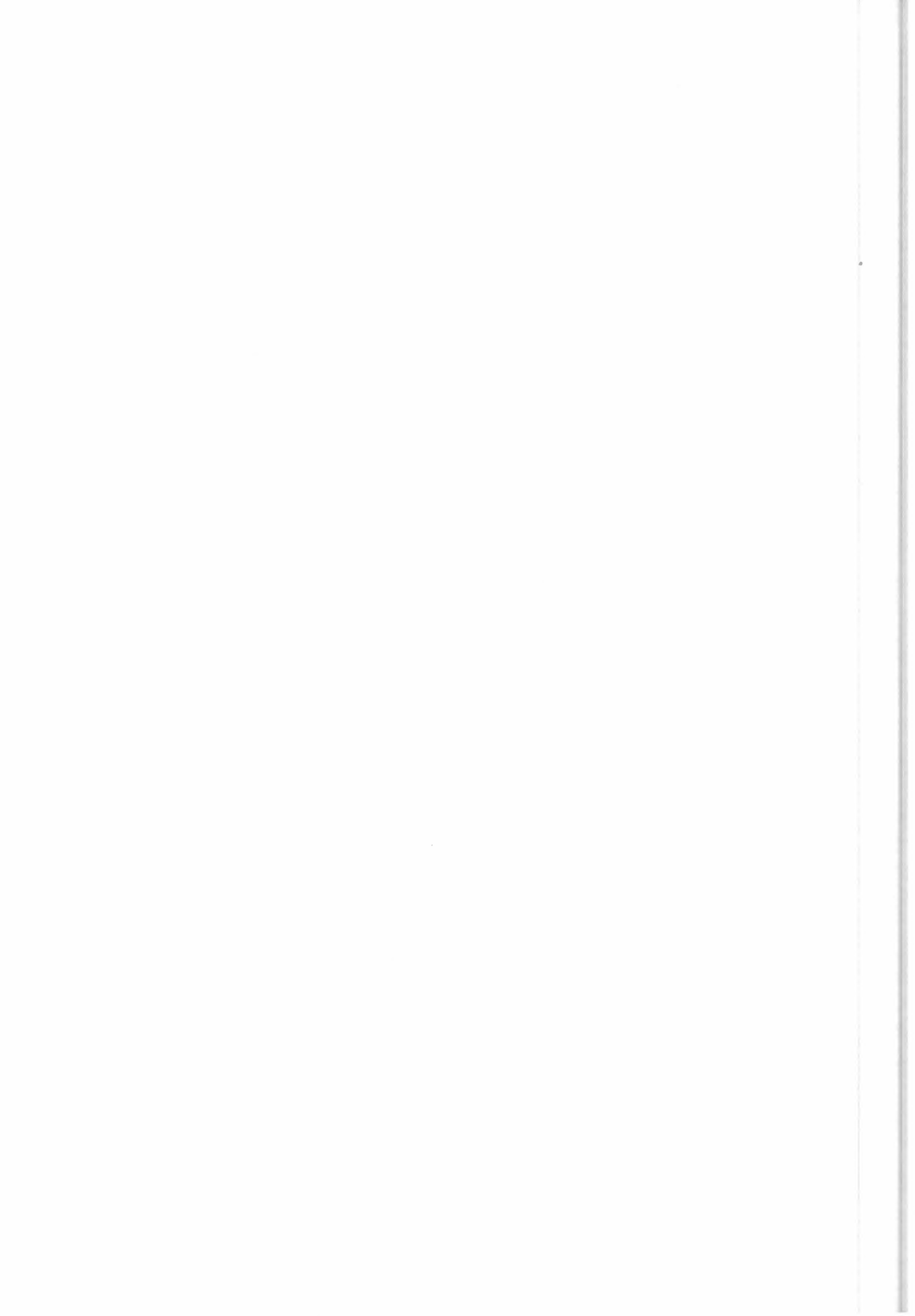
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				6013		*** TOTAL BYTES
1.00		0		1		B HDDR Identifier
2.00	X.UTC	1		8		First Sample Time
3.00		9		4		B Number of PCD Records
4.00		13	10	600		PCD RECORDS (EACH 2 SECONDS)
4.01		13		1		B PCD Validity Flag (0 = Valid, 1 = Invalid)
4.02		14		1		B HR or LR Carrier 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

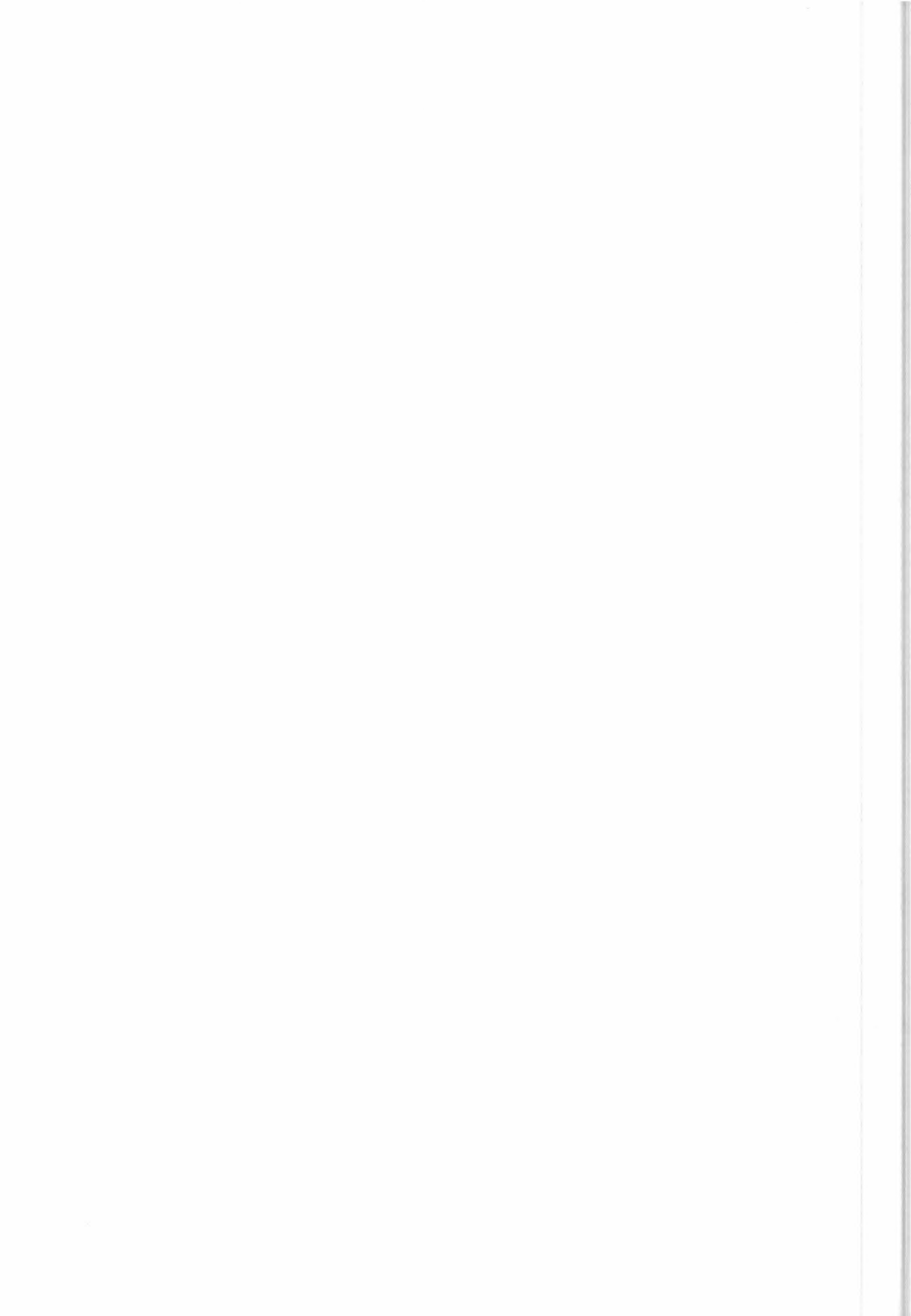
2.5 X_DATE_TIME

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

1.0 0 2 *** TOTAL BYTES
 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 *(decuping 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

*ISS files to CUS
 (ISS package to CUS).*

PROCESSING AND ARCHIVING FACILITIES

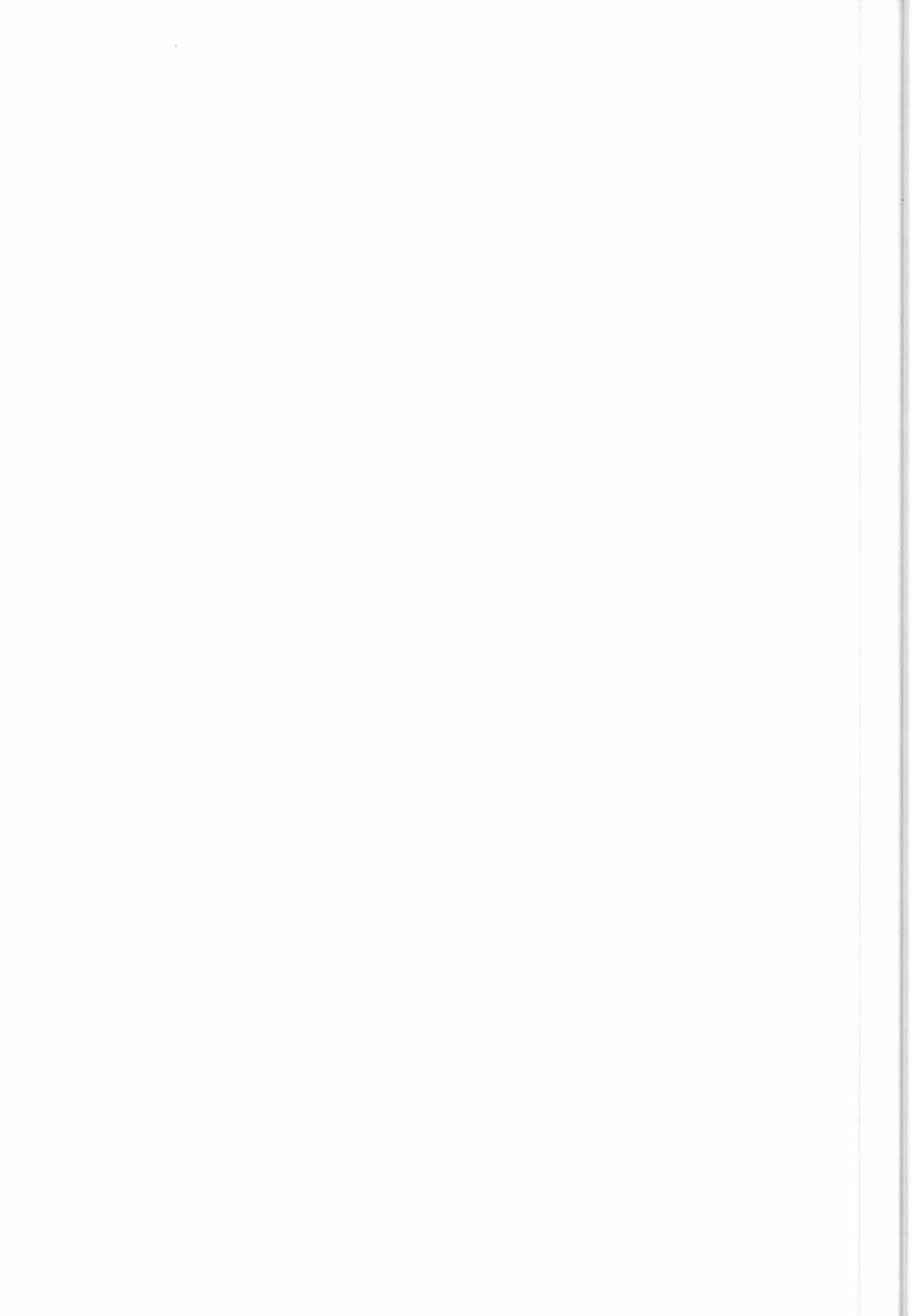
- AP = Alaska "PAF" (simulated)
- CP = Central PAF (ESRIN)
- DP = German PAF
- FP = French PAF
- GP = Gatineau "PAF" (simulated)
- IP = Italian PAF
- PP = Prince Albert "PAF" (simulated)
- TP = Tromsø "PAF" (simulated)
- UP = UK PAF

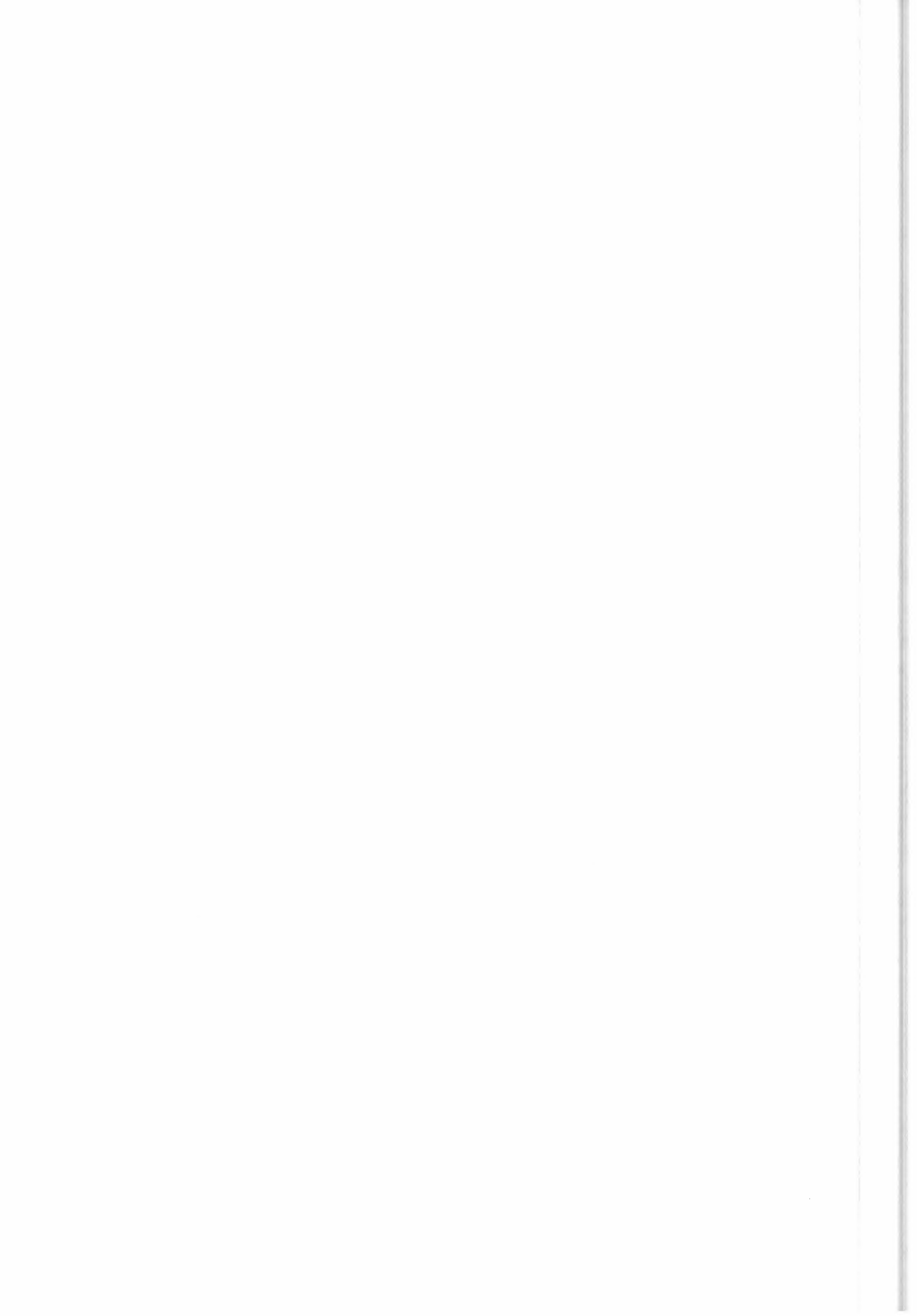
ESA GROUND STATIONS

- ES = EPO Station
- FS = Fucino Station
- GS = Gatineau Station (Low Rate)
- KS = Kiruna Station
- MS = Maspalomas Station
- PS = Prince Albert Station (Low Rate)

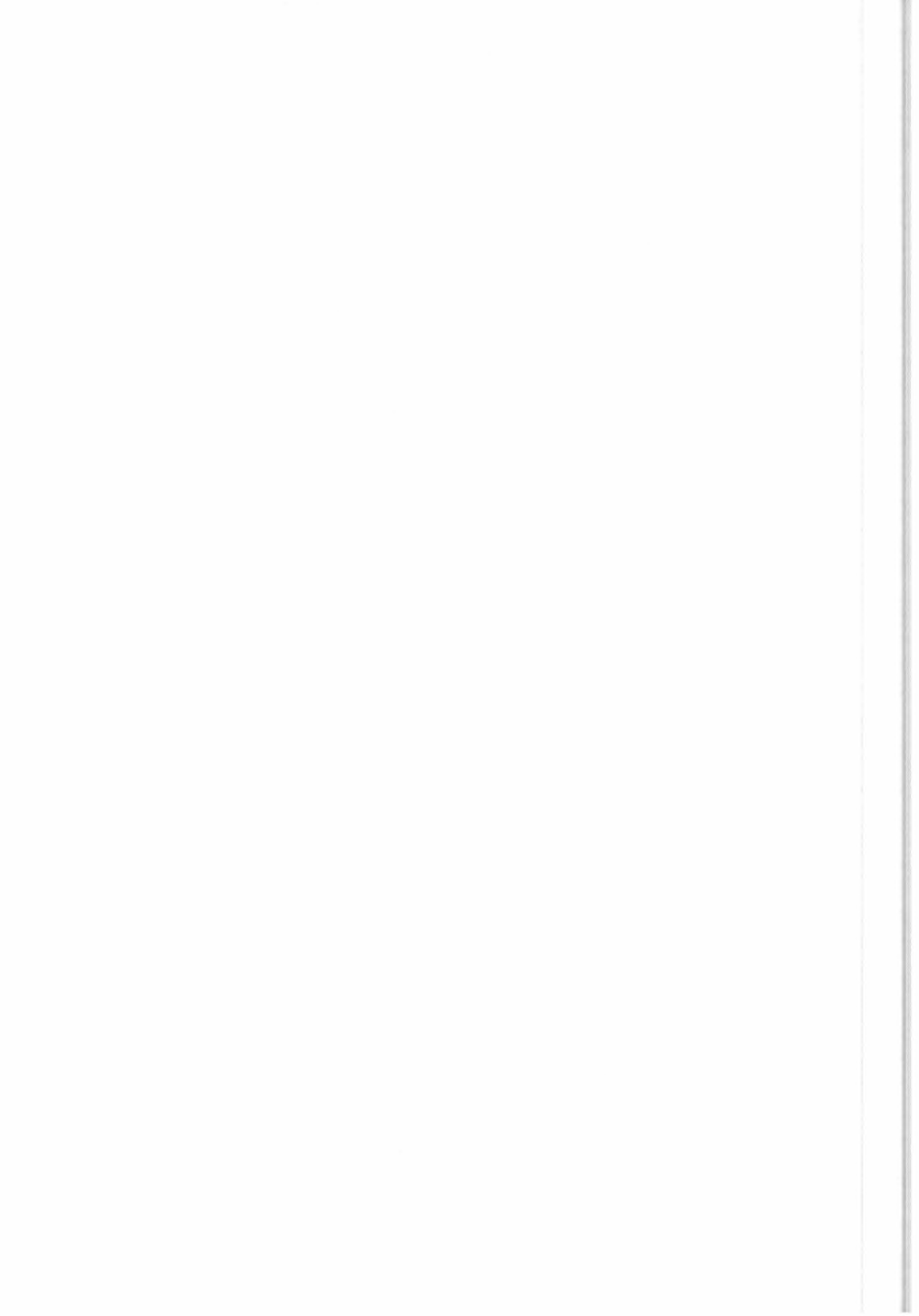
NATIONAL AND FOREIGN STATIONS

- 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)





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



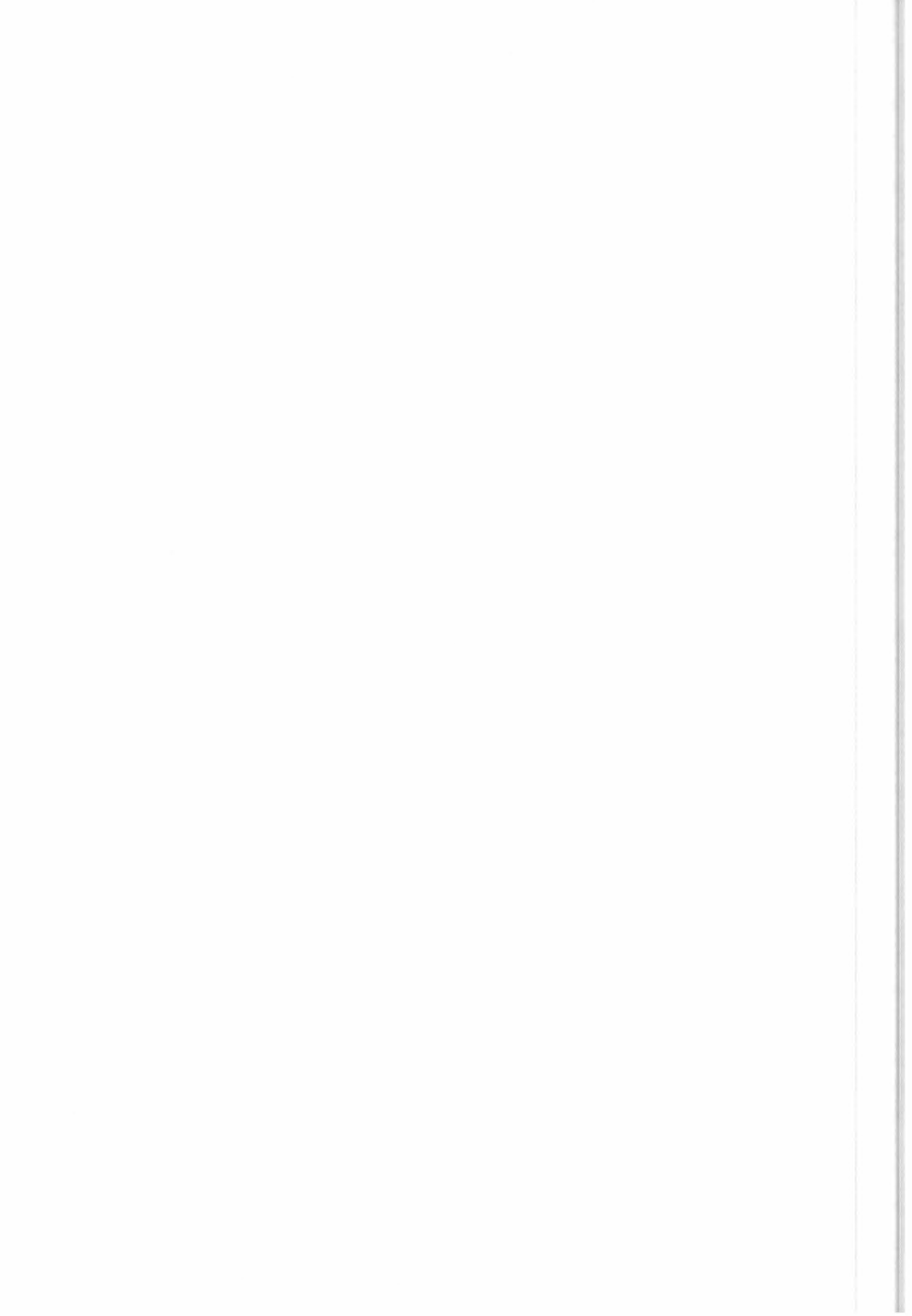
2.9 X_FILE_ID

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0	5	5		*** TOTAL BYTES 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 EWA1_ = 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 MPLQ_ = Mission Planning: LBR Area Operation MPPE_ = Mission Planning: PEP Error Message MSPG_ = 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 Kifano)

*PARM: Parameter.
 Reference Measurement Result*

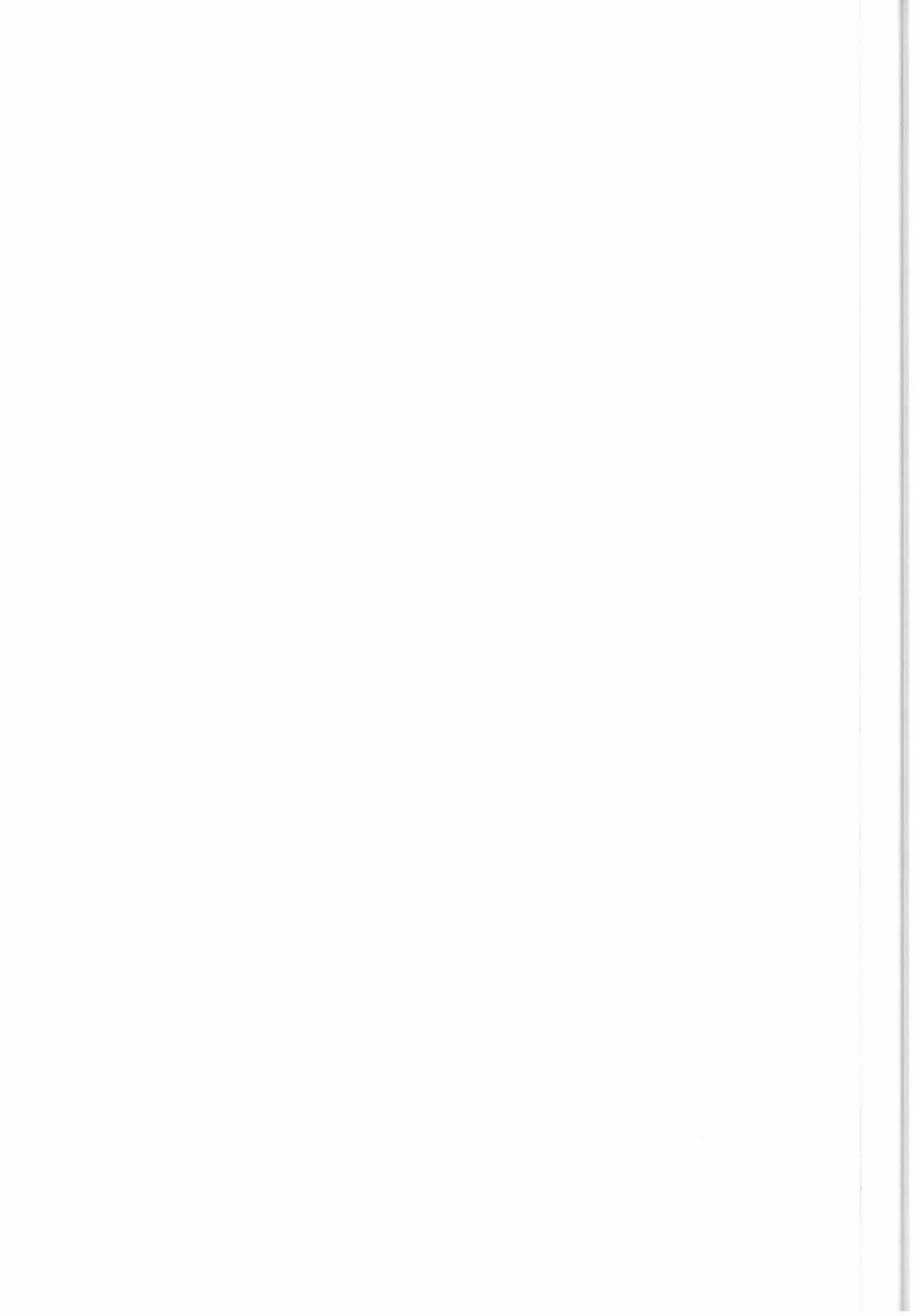




- PASC_ = Parameter: Spacecraft Configuration
- PATC_ = Parameter: Time Correlation
- PATM_ = Parameter: Time Correlation
- PATN_ = Parameter: Time Correlation New
- PATP_ = Parameter: Template
- PAUD_ = Parameter: RA Ultra Stable Oscillator Drift
- PAUM_ = Parameter: RA Ultra Stable Oscillator Drift-MMCC
- 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
- QLRD_ = 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 Management (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 : CROPP
 REDM : transcription
 Report

24.10.94 *REME : Media Contacts Report*



*SHAP - Preliminary
Acquisition Schedule*

TAUR - Table: User Registration

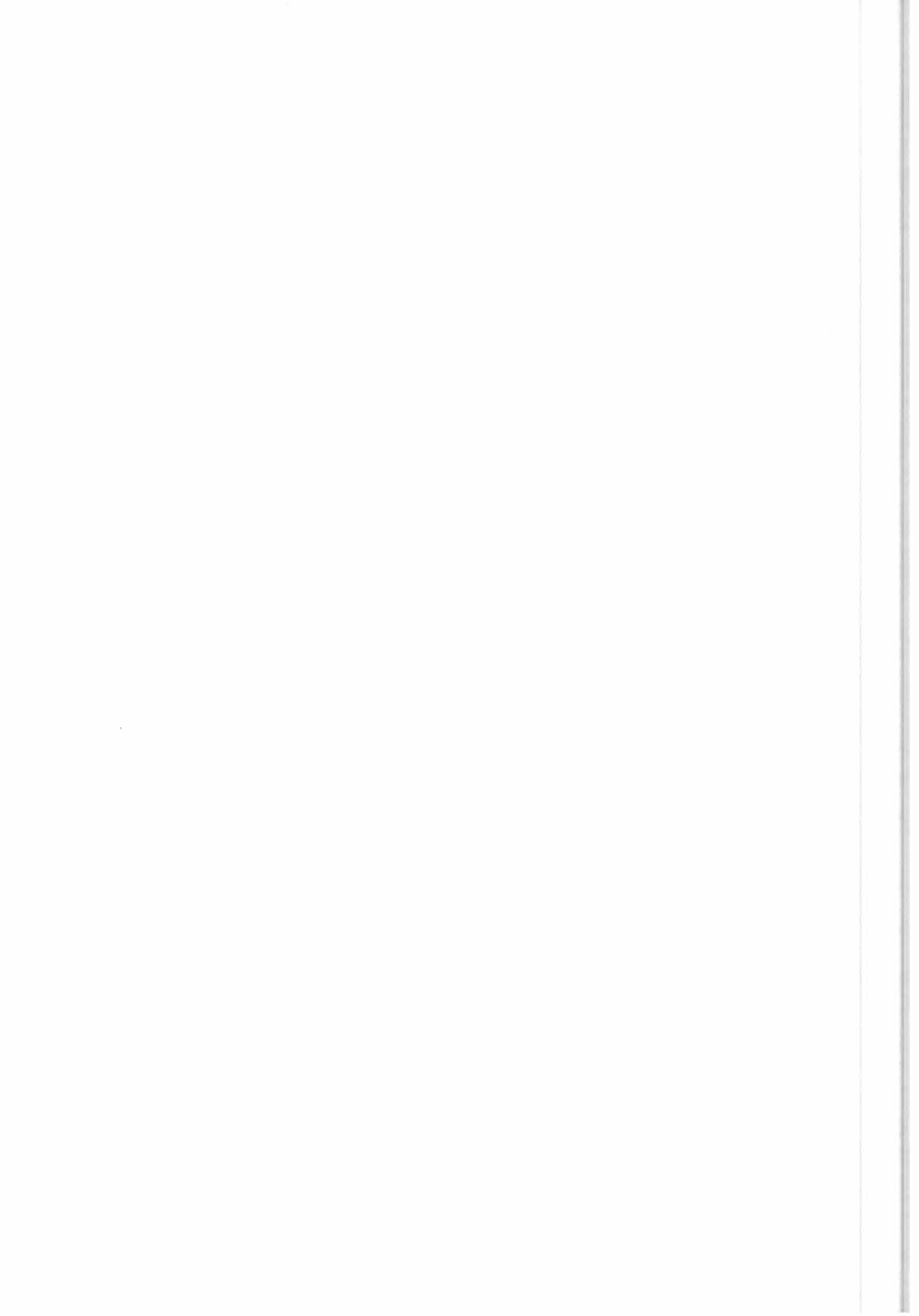
REYR_ = Report: Yearly
 RQST_ = User Request: Status
 RQUS_ = User Request: Data Entry
 RQVR_ = User Request: Validation Result
 SHAQ_ = Schedule: Acquisition
 SHDD_ = Schedule: Data Distribution (BDDN)
 SHDS_ = Schedule: Distribution BDDN
 SHKI_ = Schedule: Kiruna Acquisition
 SHOV_ = Schedule: Overrides
 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

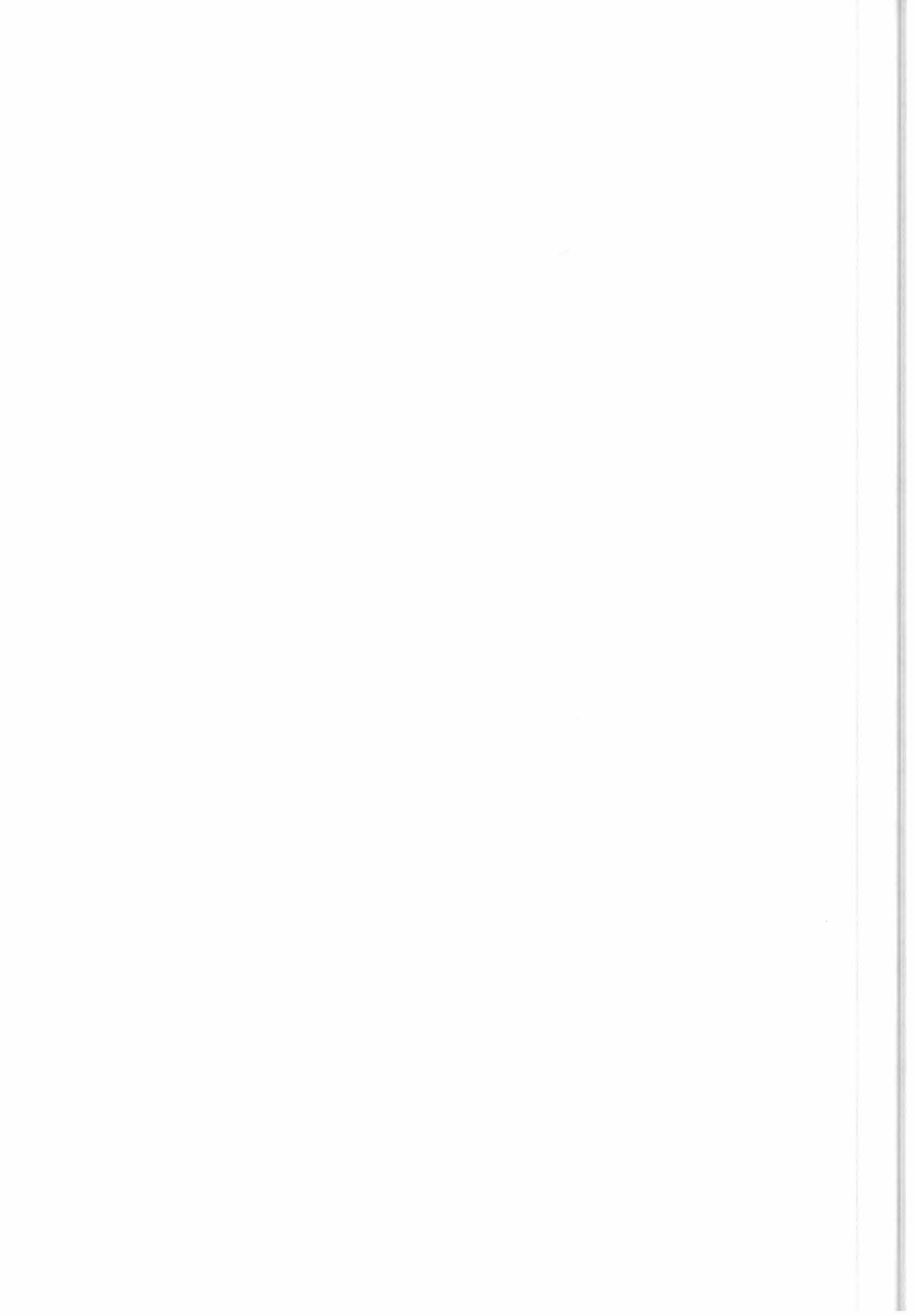
2.11 X_FILE_TYPE

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

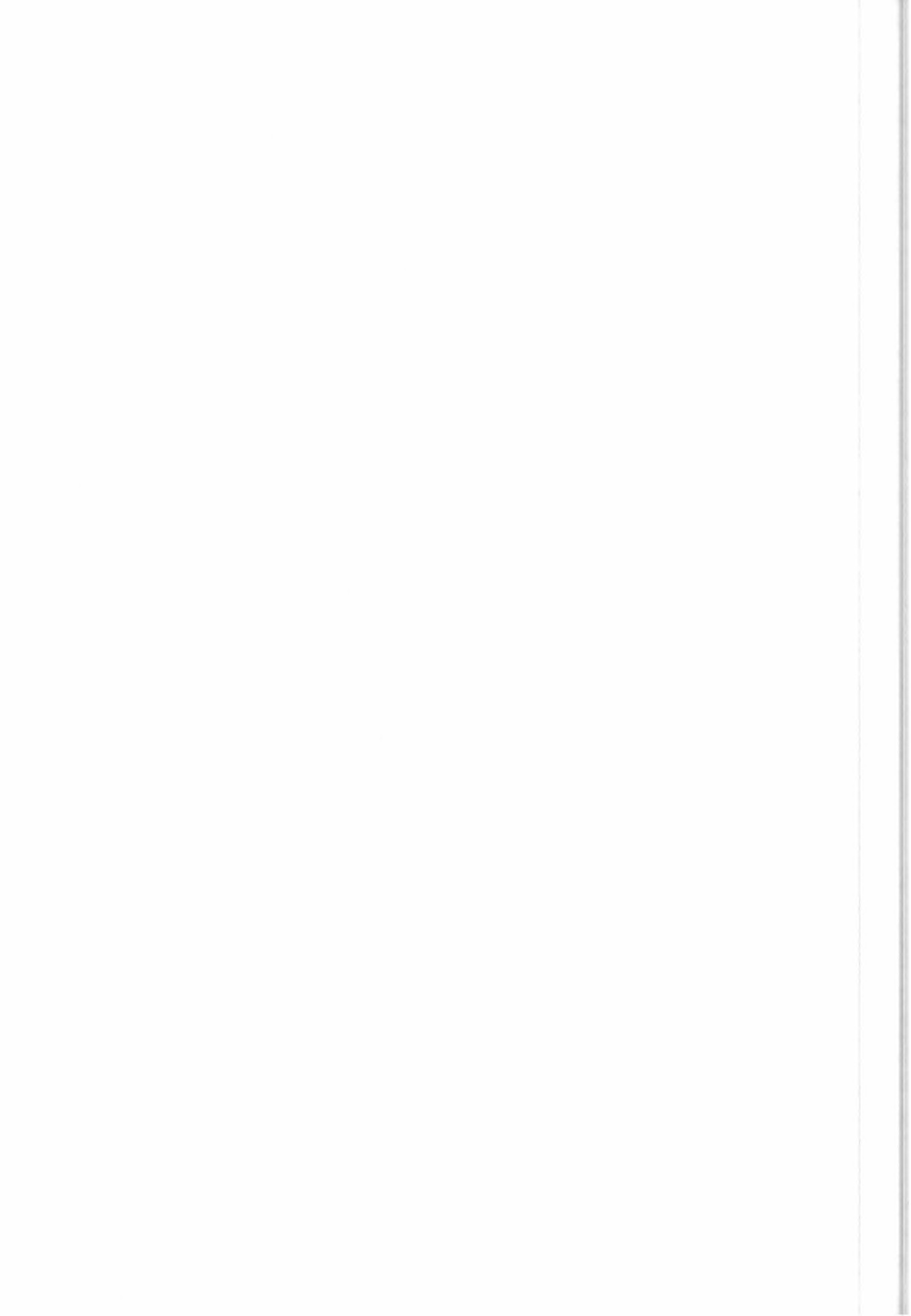
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				64		*** TOTAL BYTES
1.0		0		4		B Number of Acquisitions Recorded
2.0	X_MEDIUM_ID	4		8		HDDT Identifier
3.0		12		1		B Satellite Identifier (1 = ERS-1)
4.0	X_UTC	13		8		Start Time of 1. Pass
5.0	X_UTC	21		8		Stop Time of 1. Pass
6.0	X_UTC	29		8		Start Time 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
1.0		0		2		*** TOTAL BYTES 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

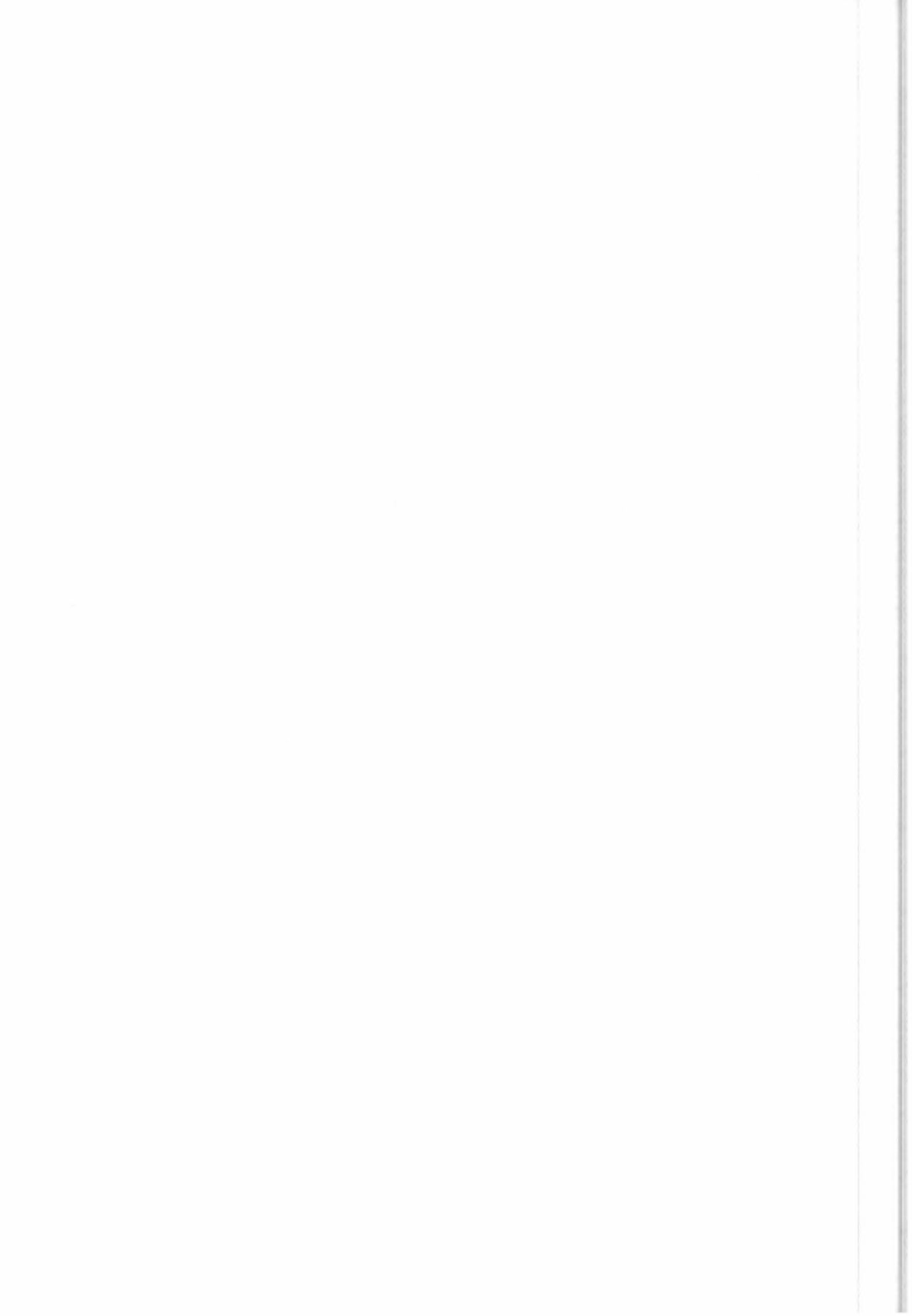
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0		5		*** TOTAL BYTES N Absolute Orbit Number (since mission start; new orbit/asc. node)

2.18 X_PASS_NO

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0		5		*** TOTAL BYTES 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
1.0		0		1		*** TOTAL BYTES 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

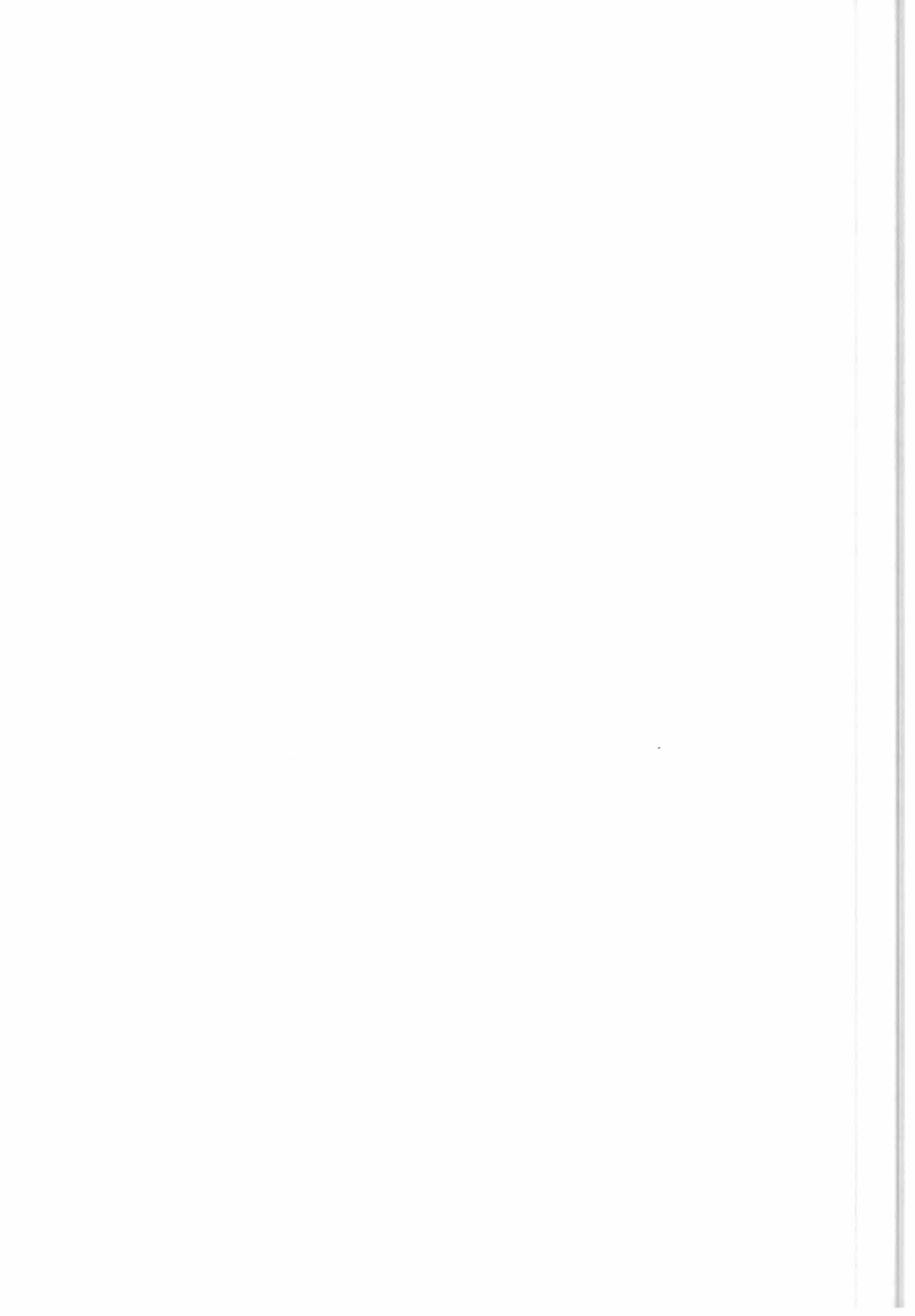
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					60	*** TOTAL BYTES
1.0	X_LAT_LONG	0		12		Product Centre Lat/Long
2.0	X_LAT_LONG	12		12	4	Corner Coordinates (Lat/Long) (for Altimeter products the four corner coordinates identify the sub-satellite track).

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

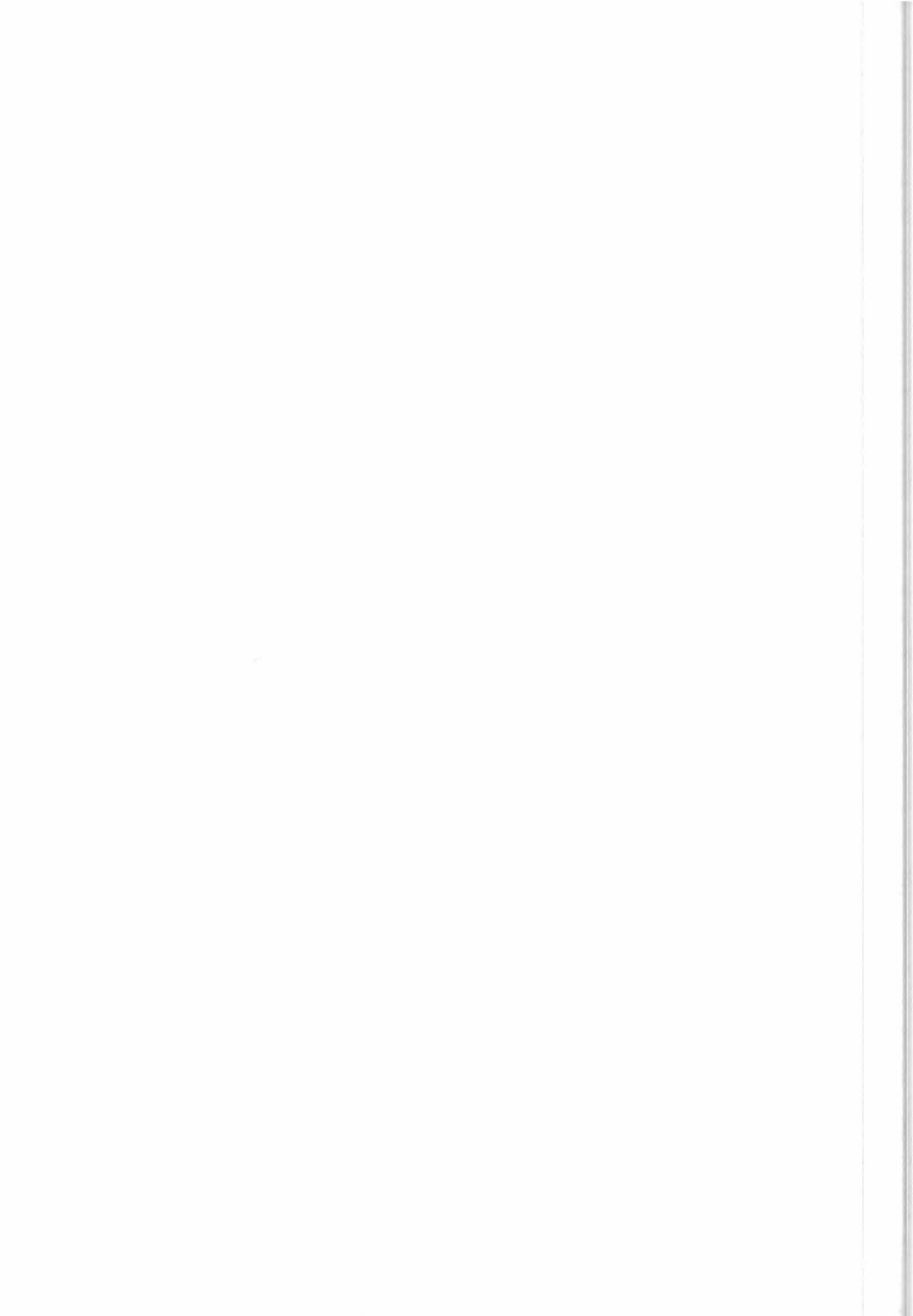


2.25 X_PRODUCT_ORDER_ID

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

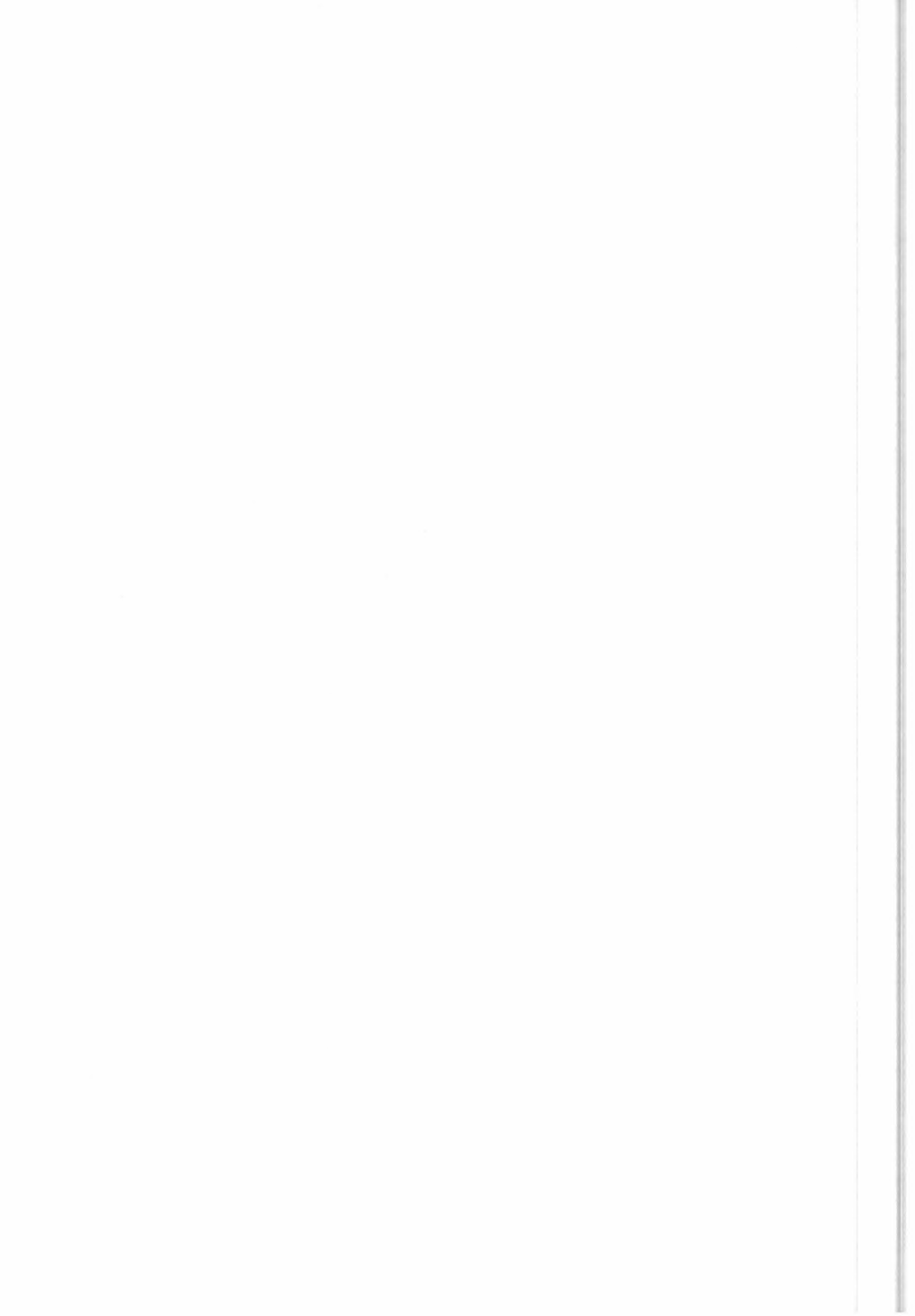
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					2	*** TOTAL BYTES
1.0		0		2		A Satellite/Mission Identifier E1 = ERS-1 Satellite E2 = ERS-2 Satellite J1 = JERS-1 Satellite

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

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

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



2.33 X_SENSOR_PRODUCT_DATA

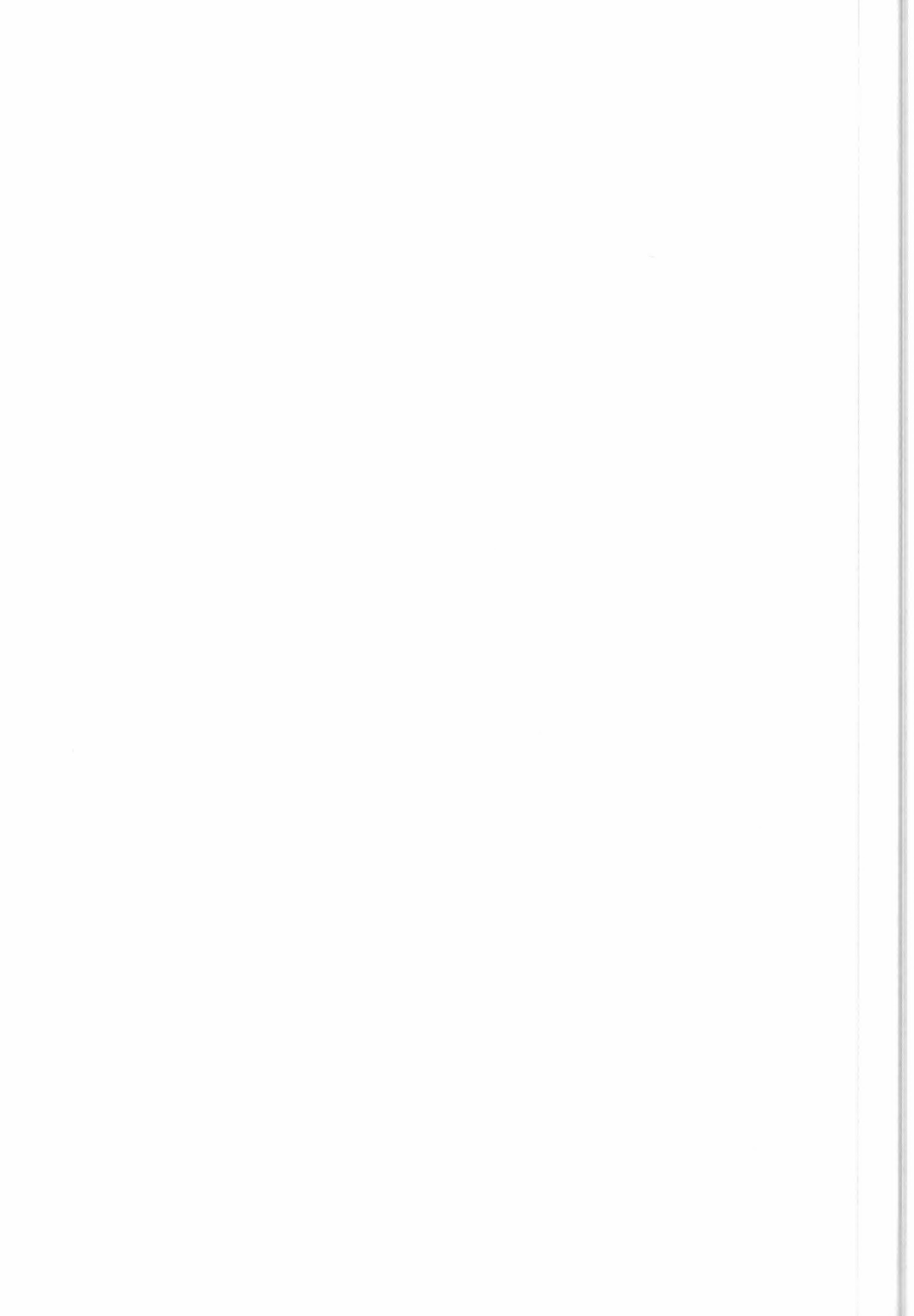
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				34		*** TOTAL BYTES
1.0	X_SENSOR_MODE	0		3		Sensor Mode
2.0		3		1		A Coverage Identifier (L=Land, S=Sea, I=Ice, M=Mixed) (all instr)
3.0		4		3		N Land Percentage (all instr; default = 000)
4.0		7		9		N Specific Parameter (SNNNNN.NN; any instr; default = +99999.99): 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_PARAMS

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				60		*** TOTAL BYTES
1.0		0		60	A	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 coexist, but cannot be specified with any of the other parameters. All the parameters but PC and GS can coexist. SQ=N (Scene Quadrant: see X_PRODUCT_DESCRIPTOR) SZ=w*h (Size of photographic products: width and height 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

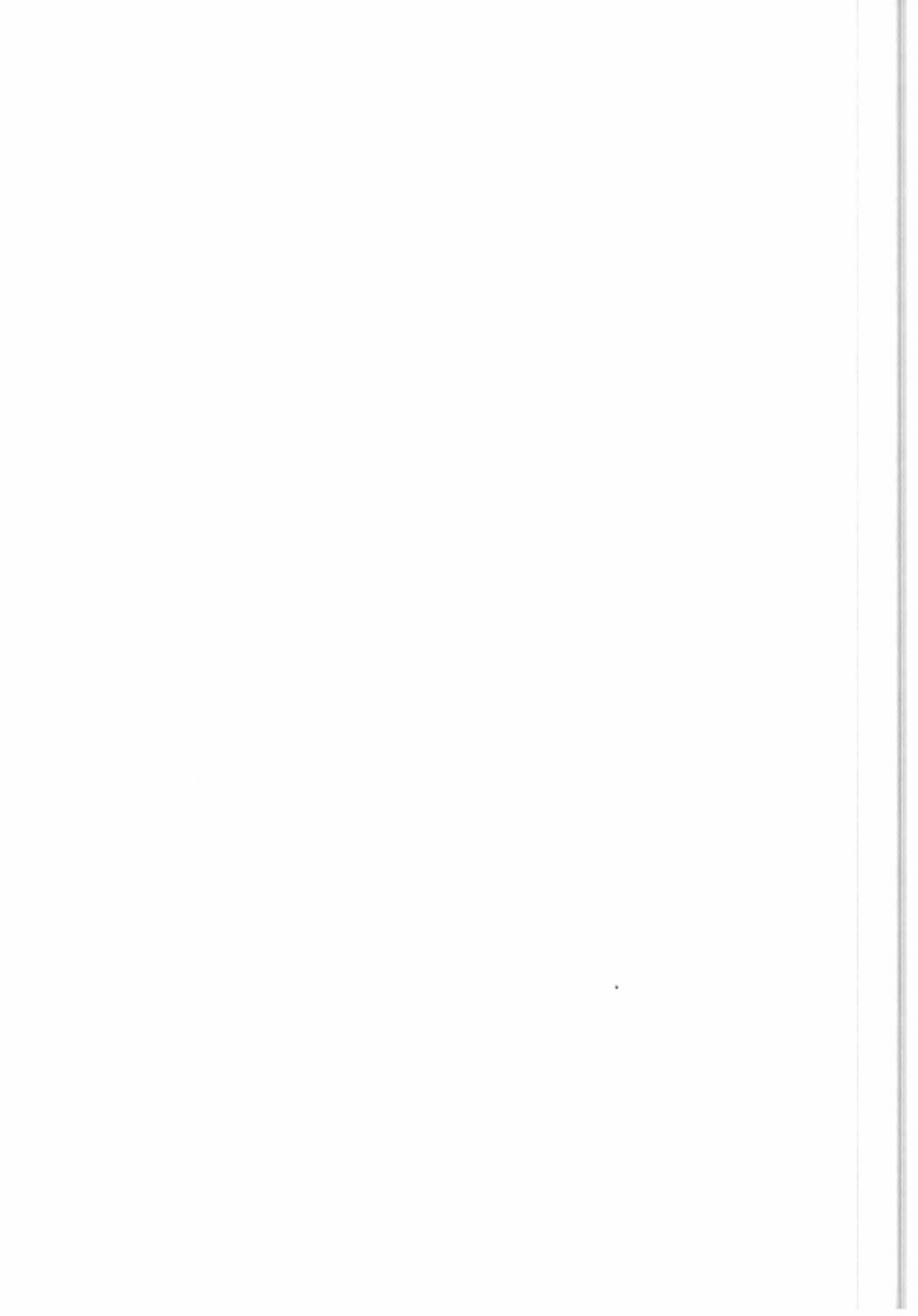
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				6		*** TOTAL BYTES
1.0		0	2			N Hours
2.0		2	2			N Minutes
3.0		4	2			N Seconds

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

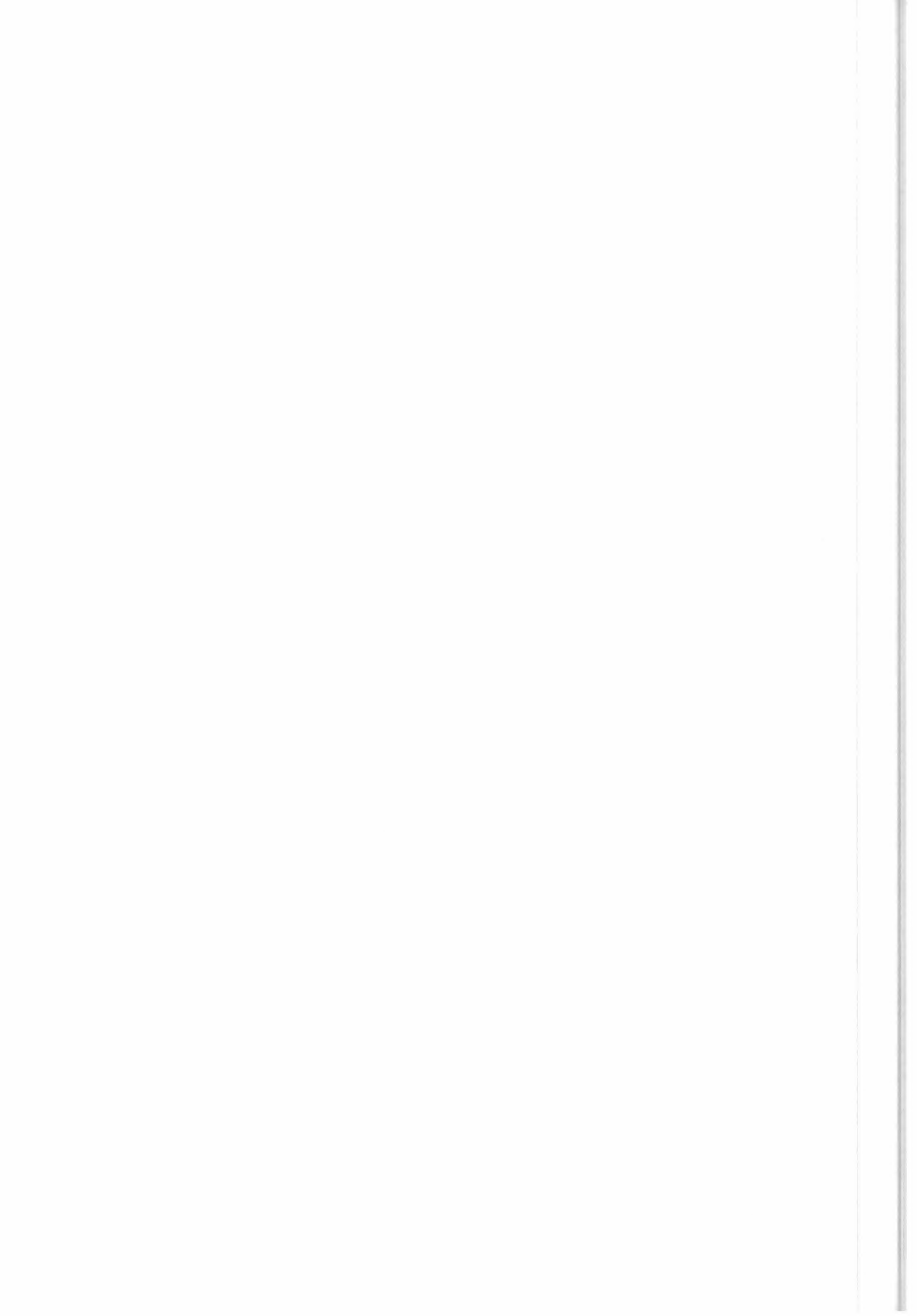
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				32		*** TOTAL BYTES
1.0		0		1		A Raw Data Quality Indicator (0 to 9; 0 best quality, 9 worst)
2.0		1		1		Reserved
3.0		2		4		B Sensing Start Binary Time
4.0		6		4		B Sensing Stop Binary Time
5.0		10		2		N Real Time Bit Error Rate Estimate
6.0		12		2		N Play 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 Telephone 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			Invoice 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 Telephone 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

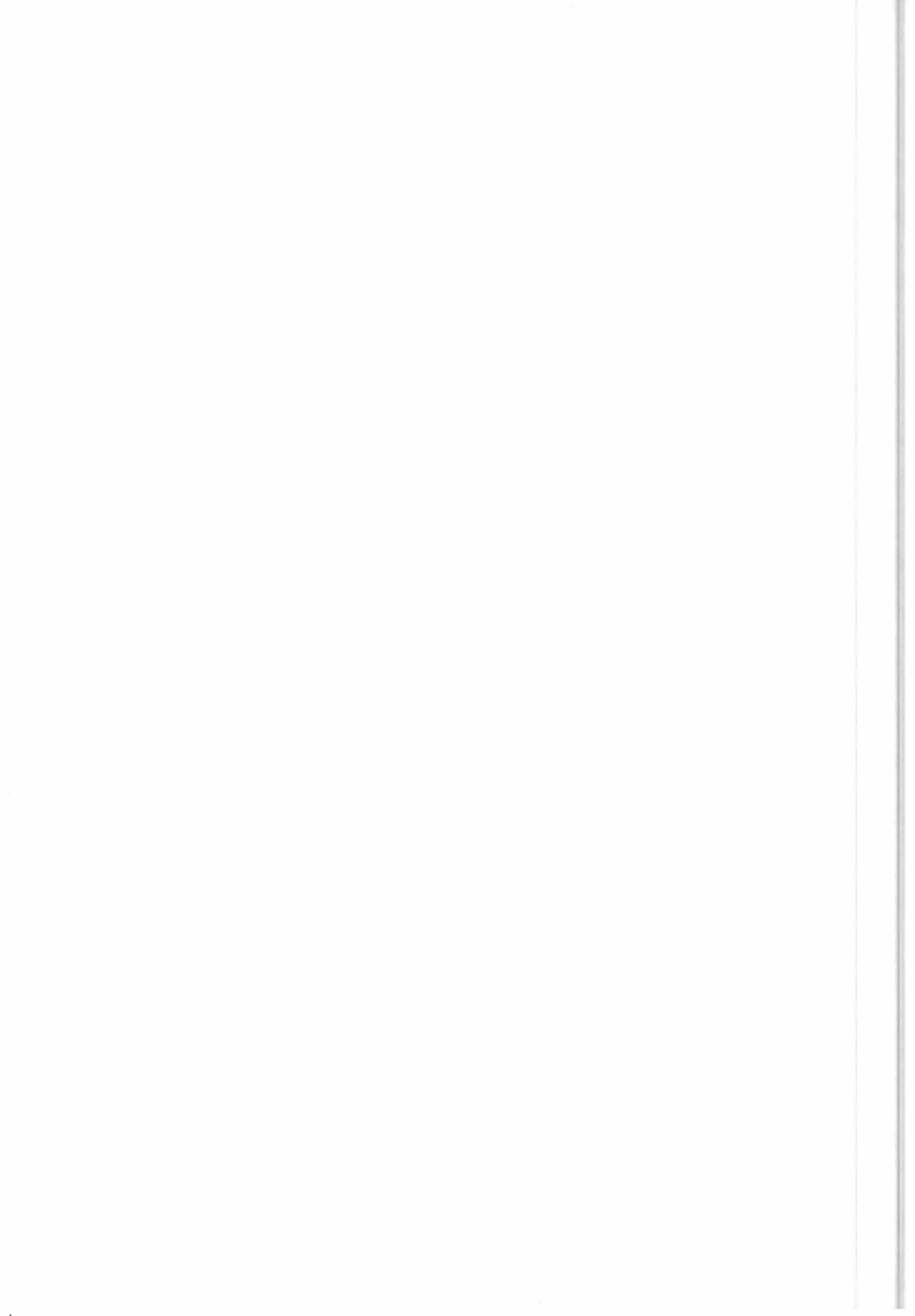
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				64		*** TOTAL BYTES
1.0		0	12			A Title
2.0		12	4			A Initials
3.0		16	24			A Name
4.0		40	24			A Surname

2.45 X_USER_TITLE

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

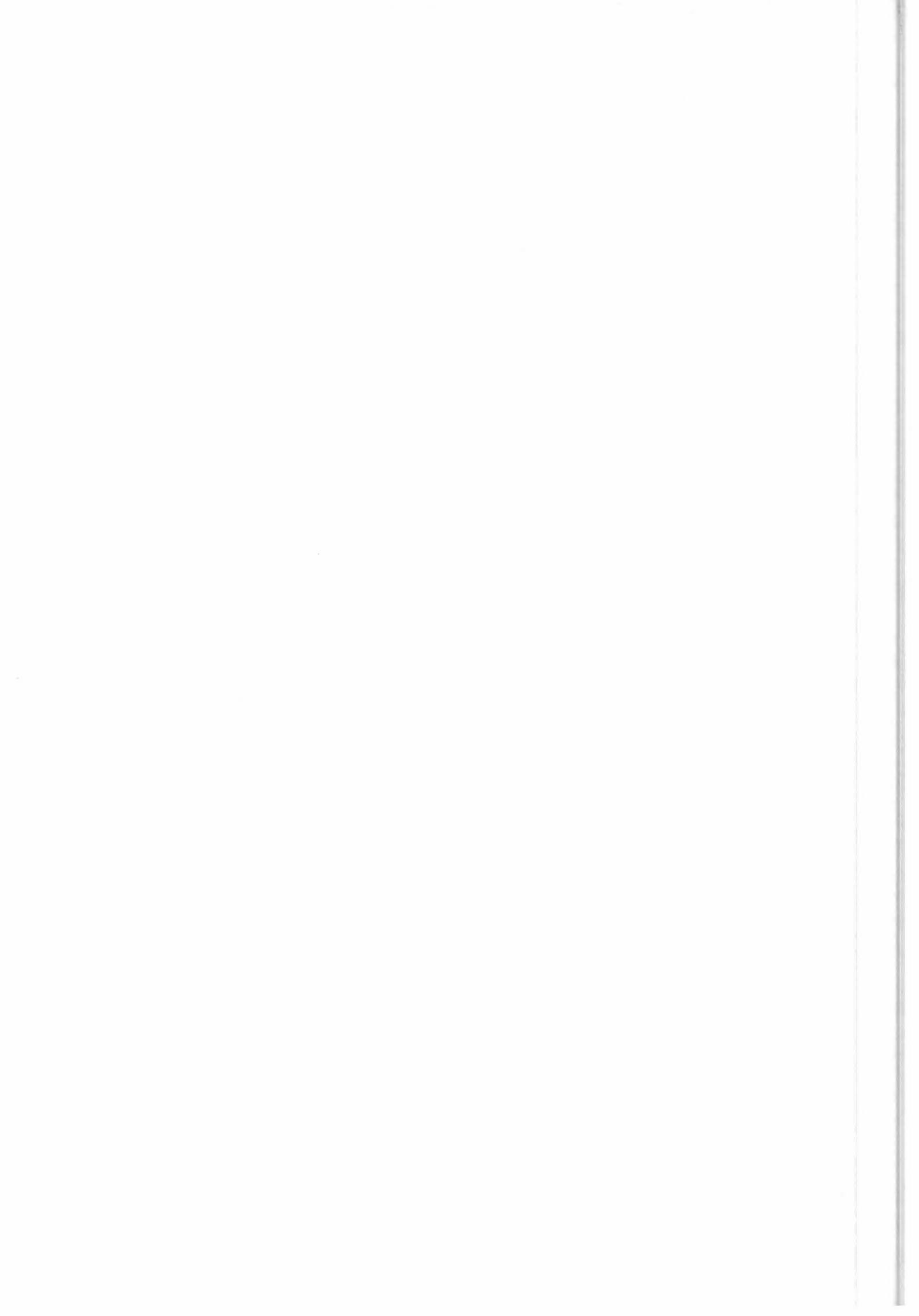
2.46 X_UTC

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	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





esrin
ERS CENTRAL USER SERVICE
DATA STRUCTURES

EUROPEAN SPACE AGENCY
ESRIN - ERS EXPLOITATION DIVISION

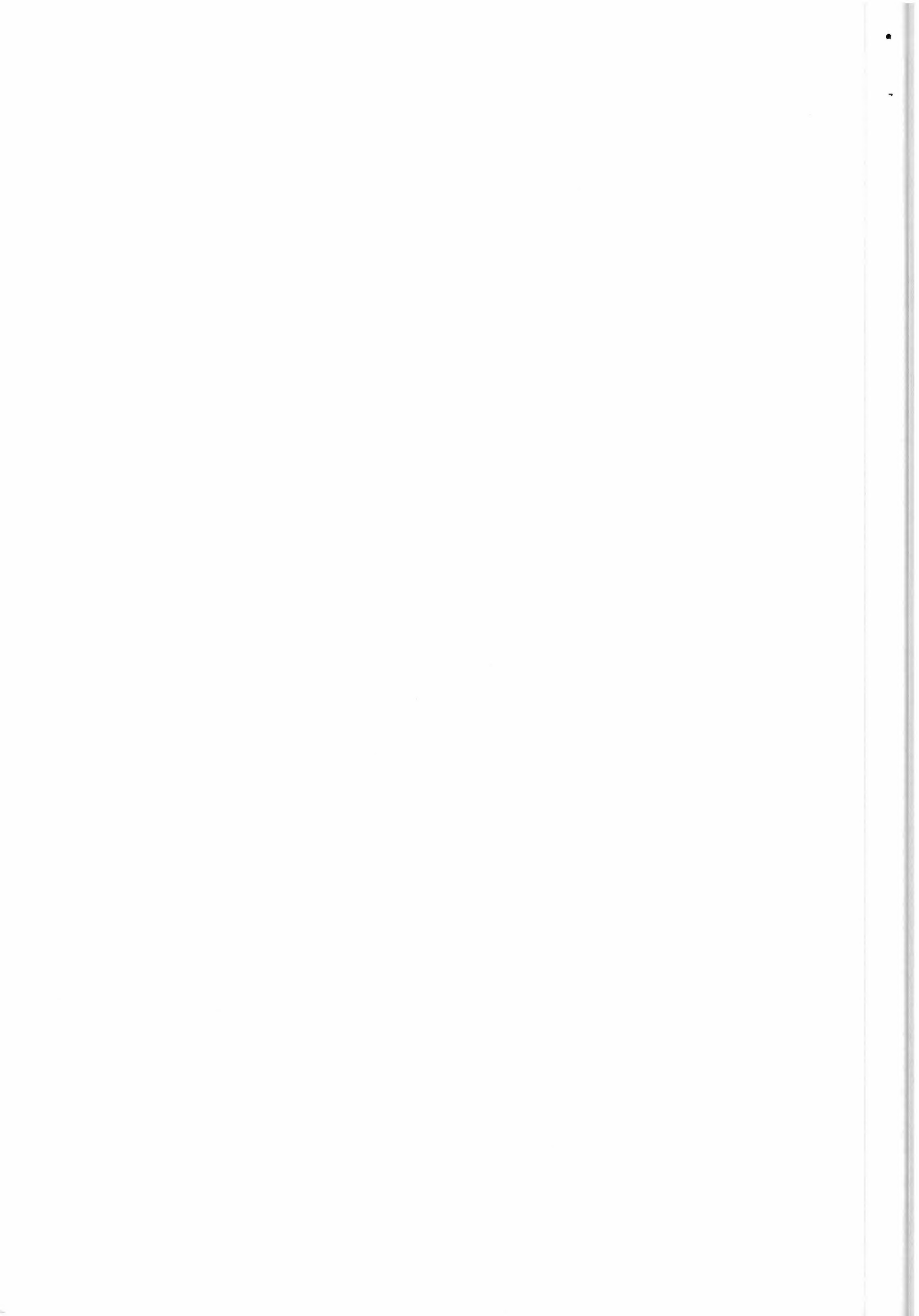
ERS CENTRAL USER SERVICE
DATA STRUCTURES

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

Date : 93/12/15

AMENDMENT CONTROL

<u>ISSUE</u>	<u>REV.</u>	<u>DATE</u>	<u>PURPOSE</u>	<u>PAGE NO.</u>	<u>ACTION</u>
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; X_ADDRESS; X_FACILITY_ID; X_MEDIUM_TYPE; X_PROCESSING_INFO; X_SPEC_ORDER_PARMS; X_USER_INFO.	1.2 2.2 2.7 2.15 2.20 2.34 2.42	Revised " " " " " "
1	5	90/10/19	Updated: Overview; X_FACILITY_ID; X_FILE_NAME; X_MEDIUM_ID; X_MEDIUM_TYPE; X_PRODUCT_TYPE; X_SENSOR_ID; X_SENSOR_MODE; X_SPEC_ORDER_PARMS; X_UNP_DATA_PARAMETERS; X_USER_INFO.	1.2 2.7 2.10 2.15 2.16 2.26 2.31 2.32 2.35 2.40 2.43	Revised Revised New Revised Revised Revised Revised Revised Revised Revised Revised
1	6	91/11/21	Updated: X_FACILITY_ID; X_FILE_ID; X_MEDIUM_ID; X_MEDIUM_TYPE; X_PRODUCT_TYPE; X_SENSOR_MODE.	2.7 2.9 2.15 2.16 2.26 2.32	Revised Revised Revised Revised Revised 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. 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	Some	Revised

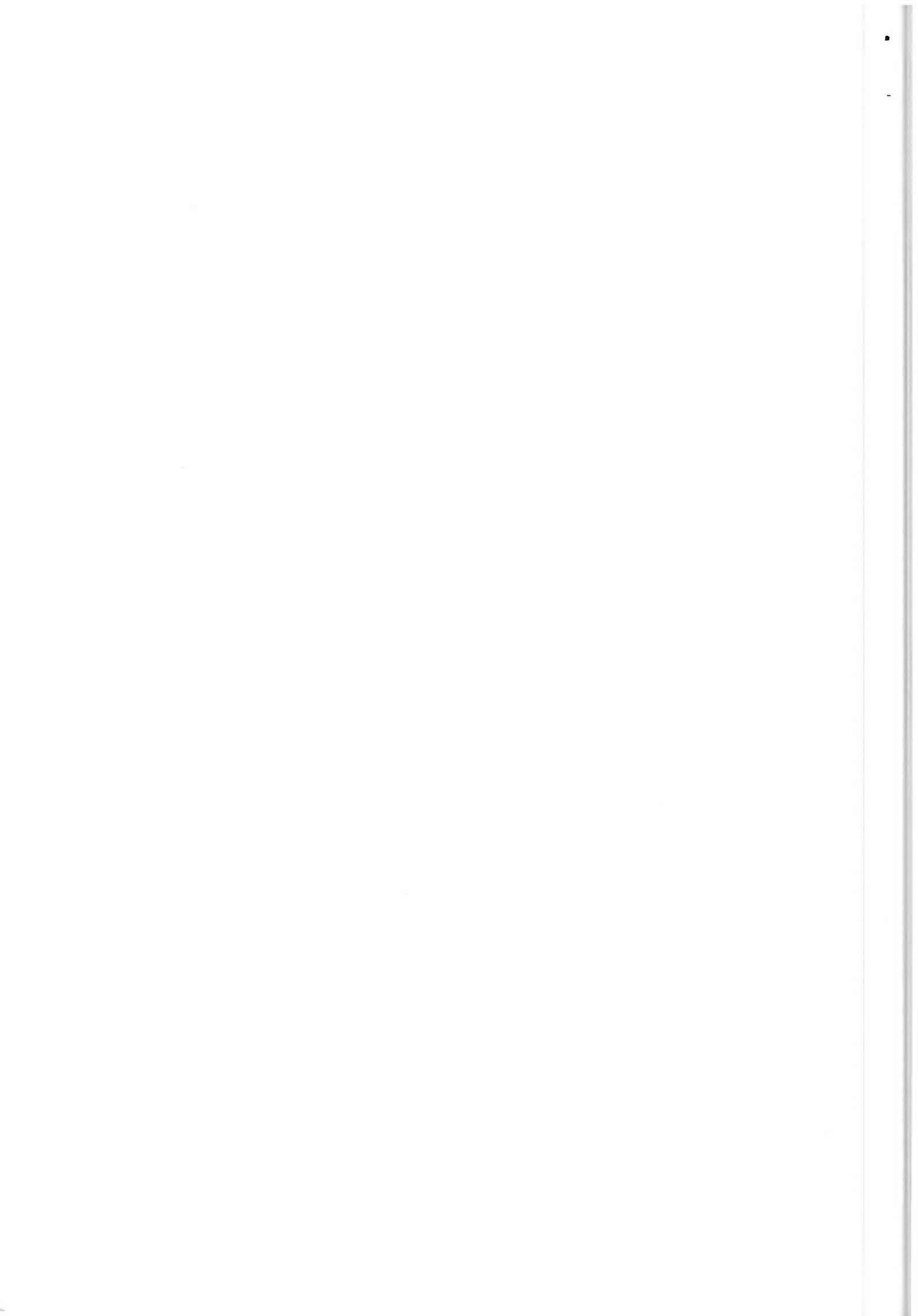
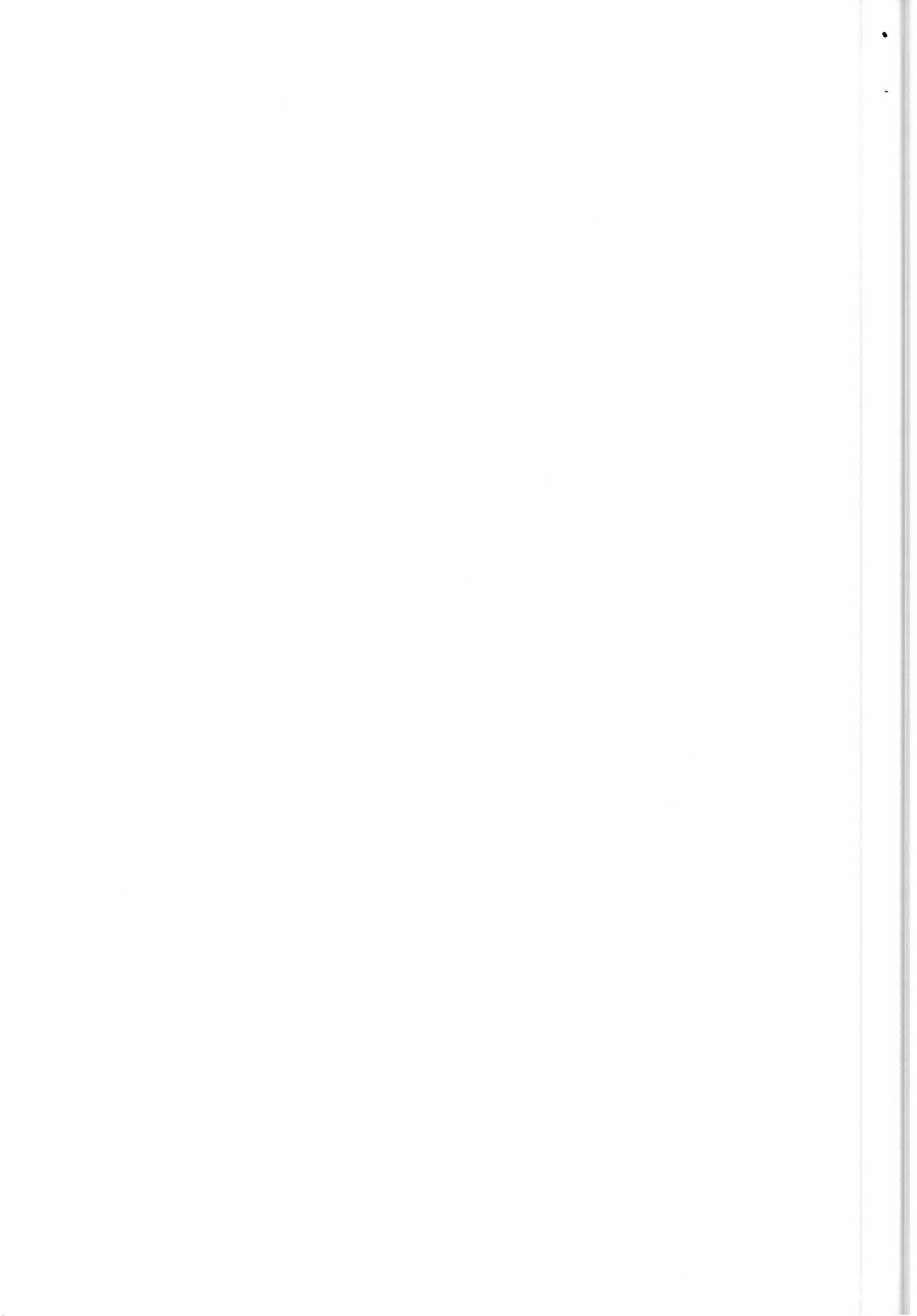
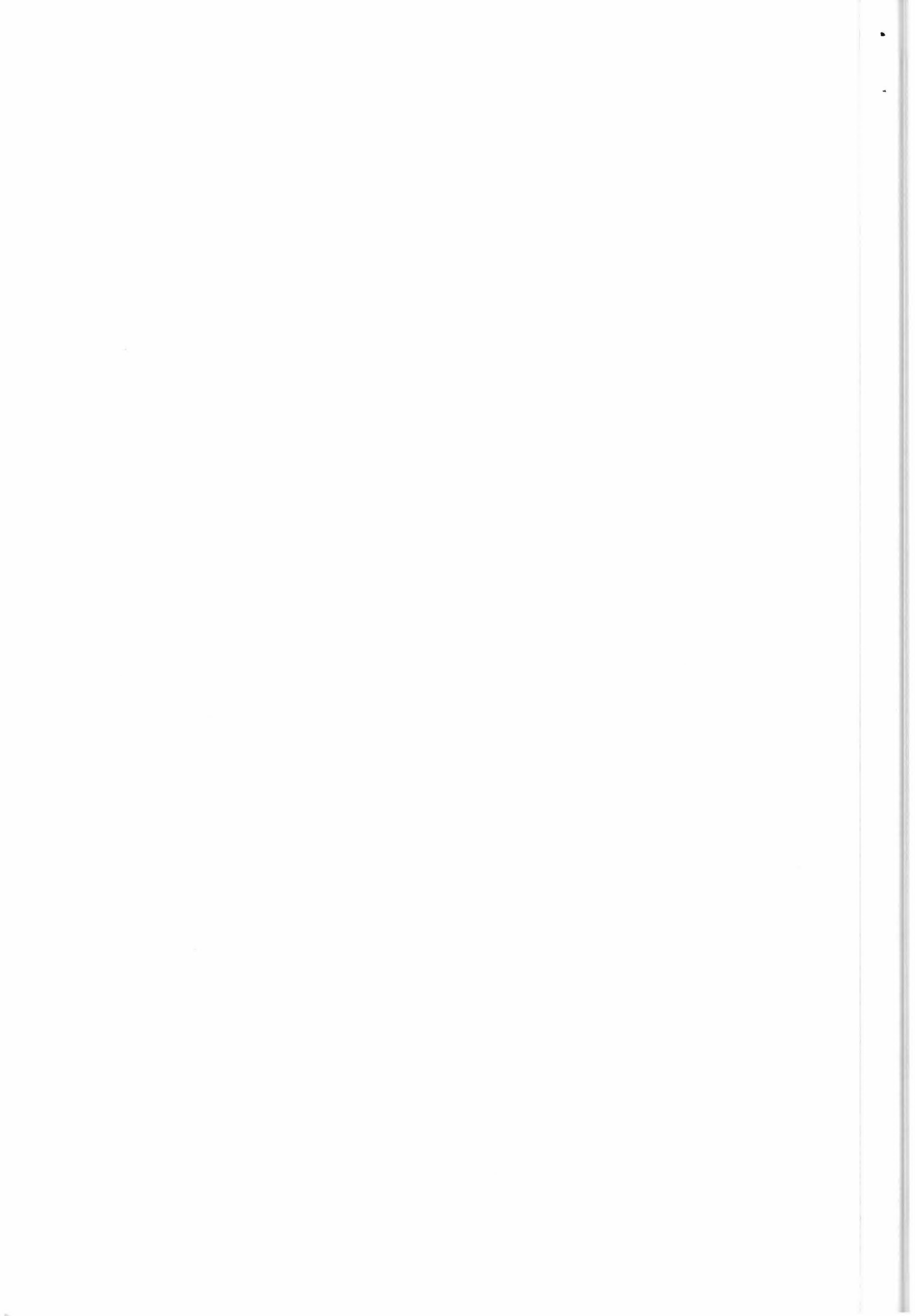


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2.42	X_USER_ID	20

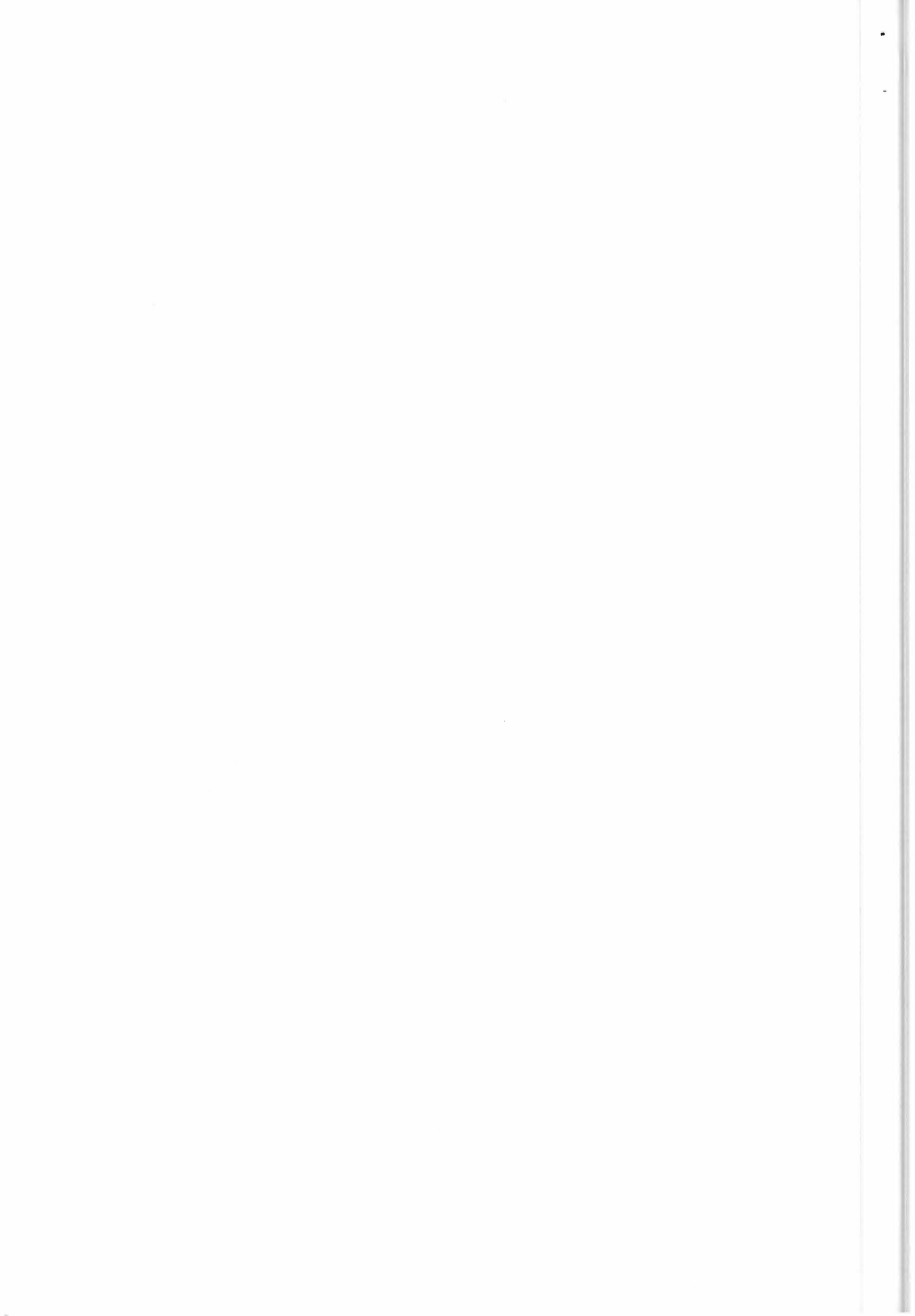


2.43	X_USER_INFO	21
2.44	X_USER_NAME	21
2.45	X_USER_TITLE	21
2.46	X.UTC	21
2.47	X_VECTOR	22



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 particular 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.

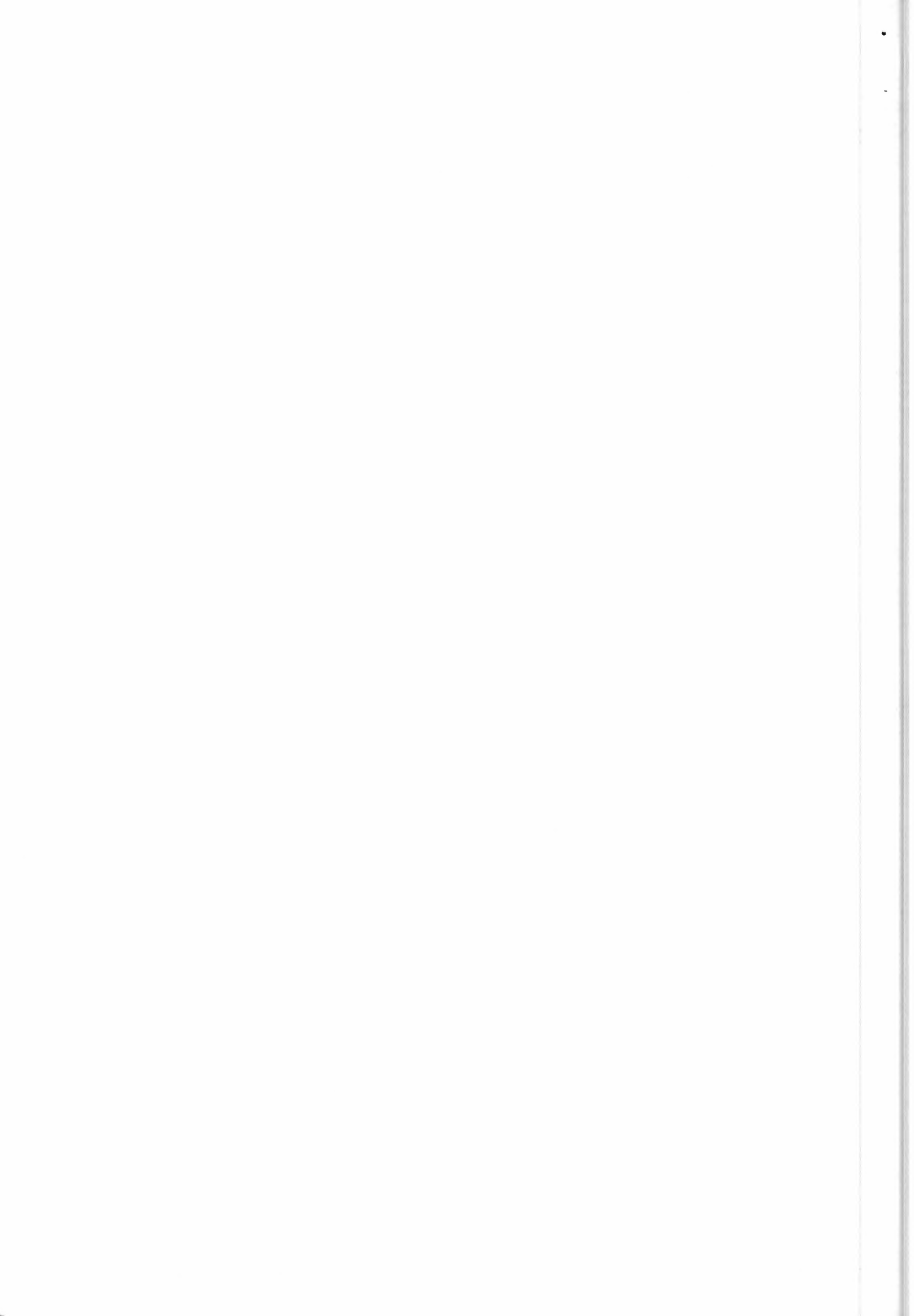
1.2 OVERVIEW

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" fields must contain all ASCII blanks.

- g) -DESCRIPTION descriptive text.



2 FORMATS

2.1 X_ACQUISITION_PCD

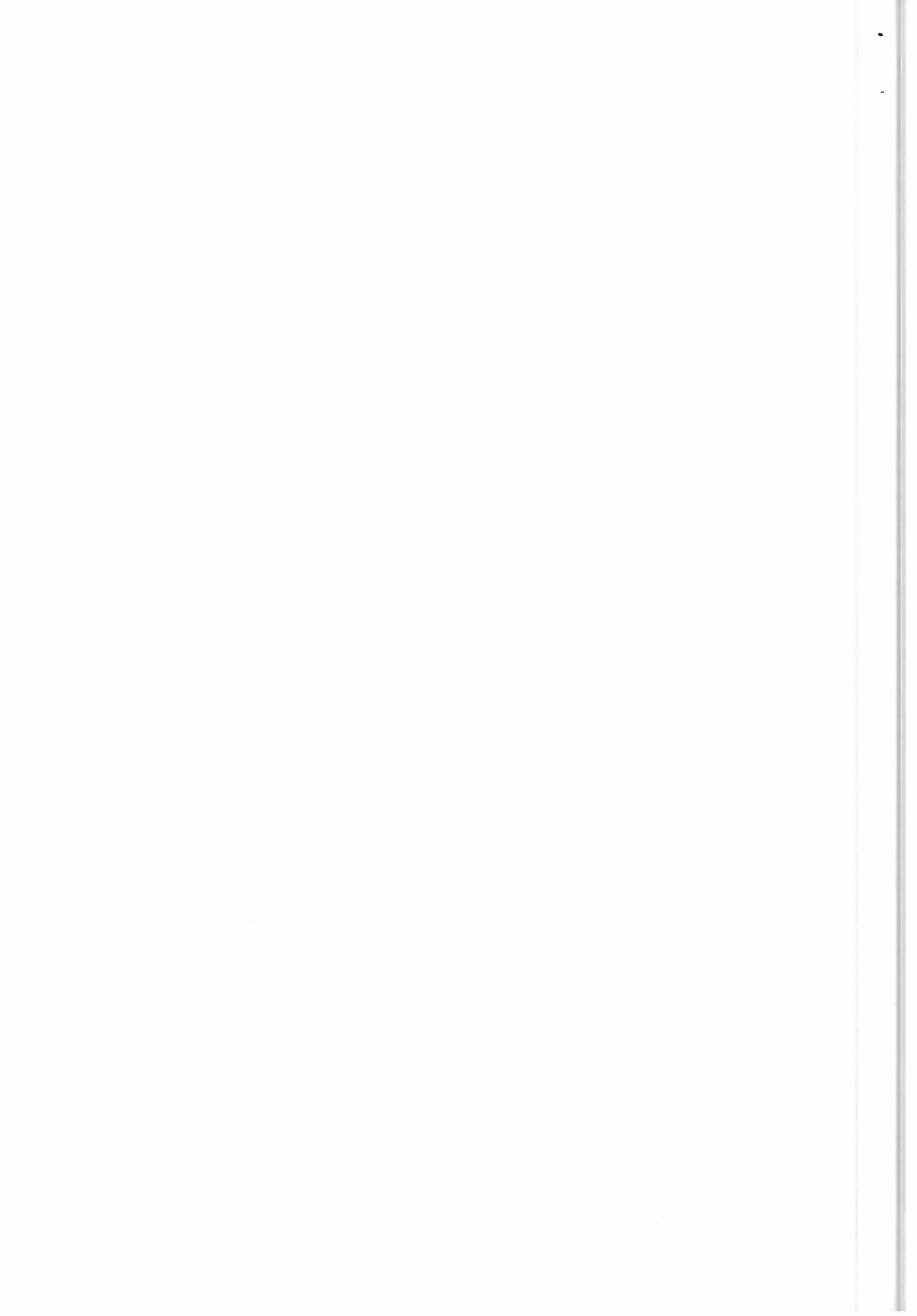
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
		6013		*** TOTAL BYTES		
1.00		0		1		B HDDR Identifier
2.00	X.UTC	1		8		First Sample Time
3.00		9		4		B Number of PCD Records
4.00		13	10	600		PCD RECORDS (EACH 2 SECONDS)
4.01		13		1		B PCD Validity Flag (0 = Valid, 1 = Invalid)
4.02		14		1		B HR or LR Carrier 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

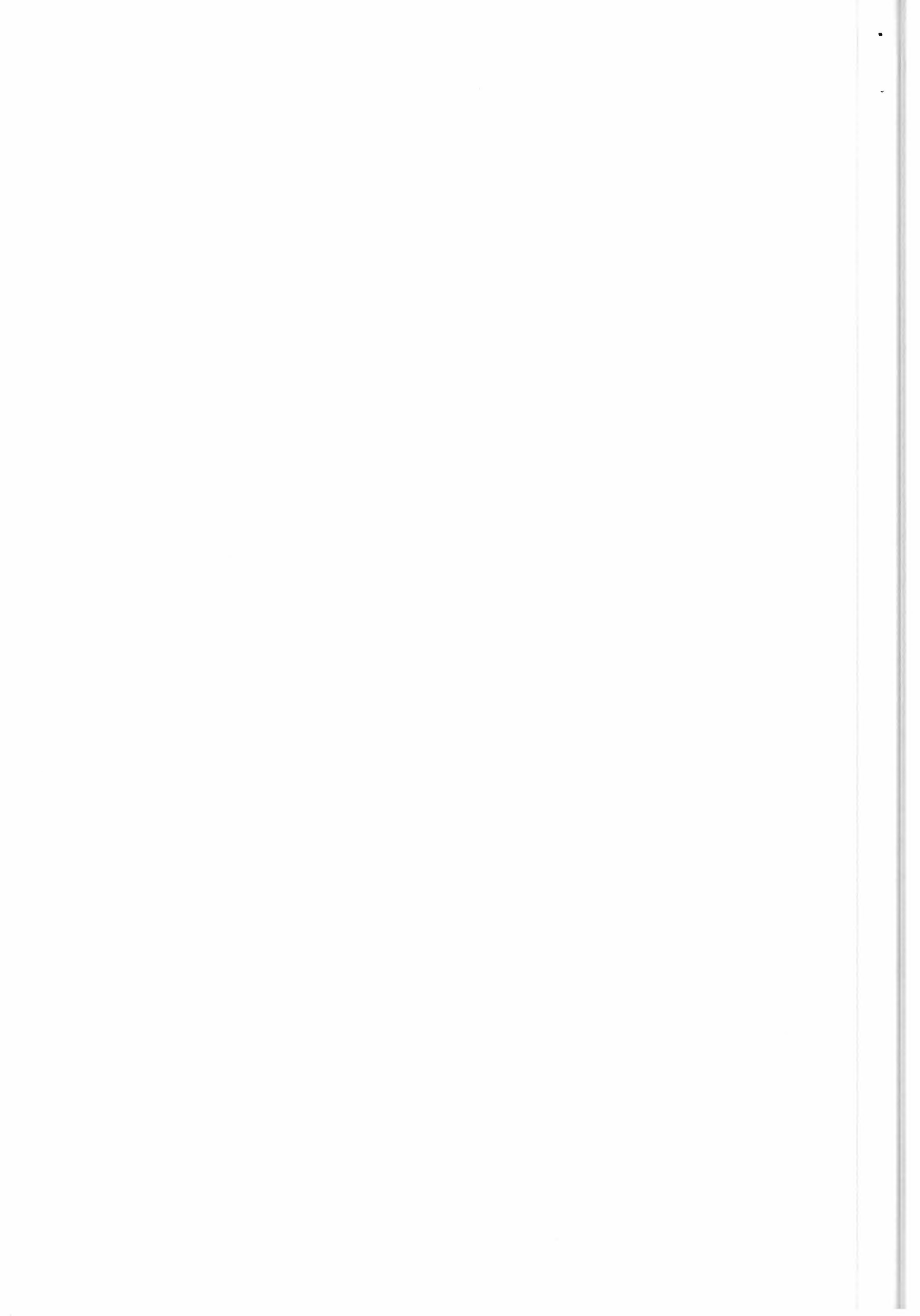
2.5 X_DATE_TIME

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.

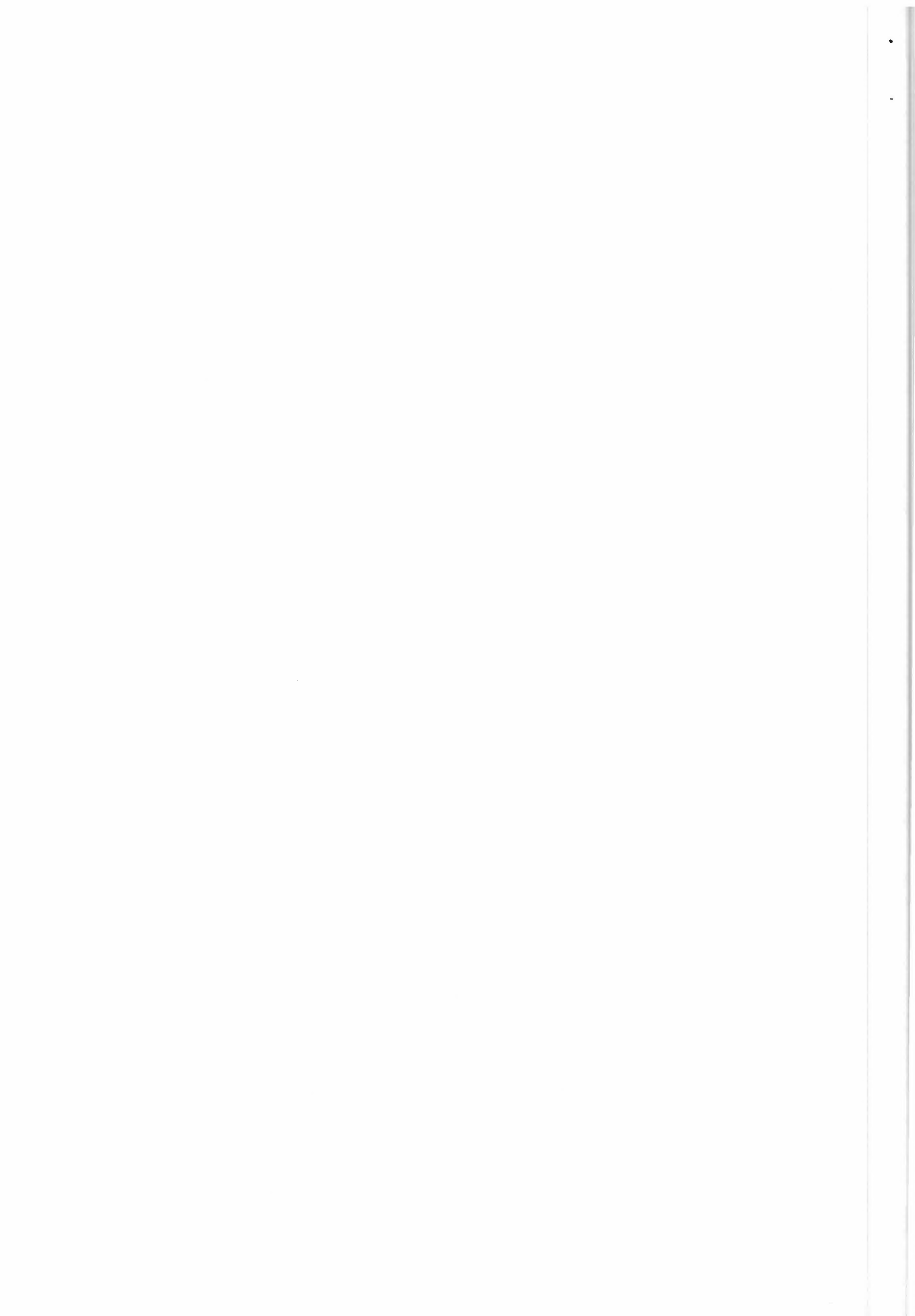


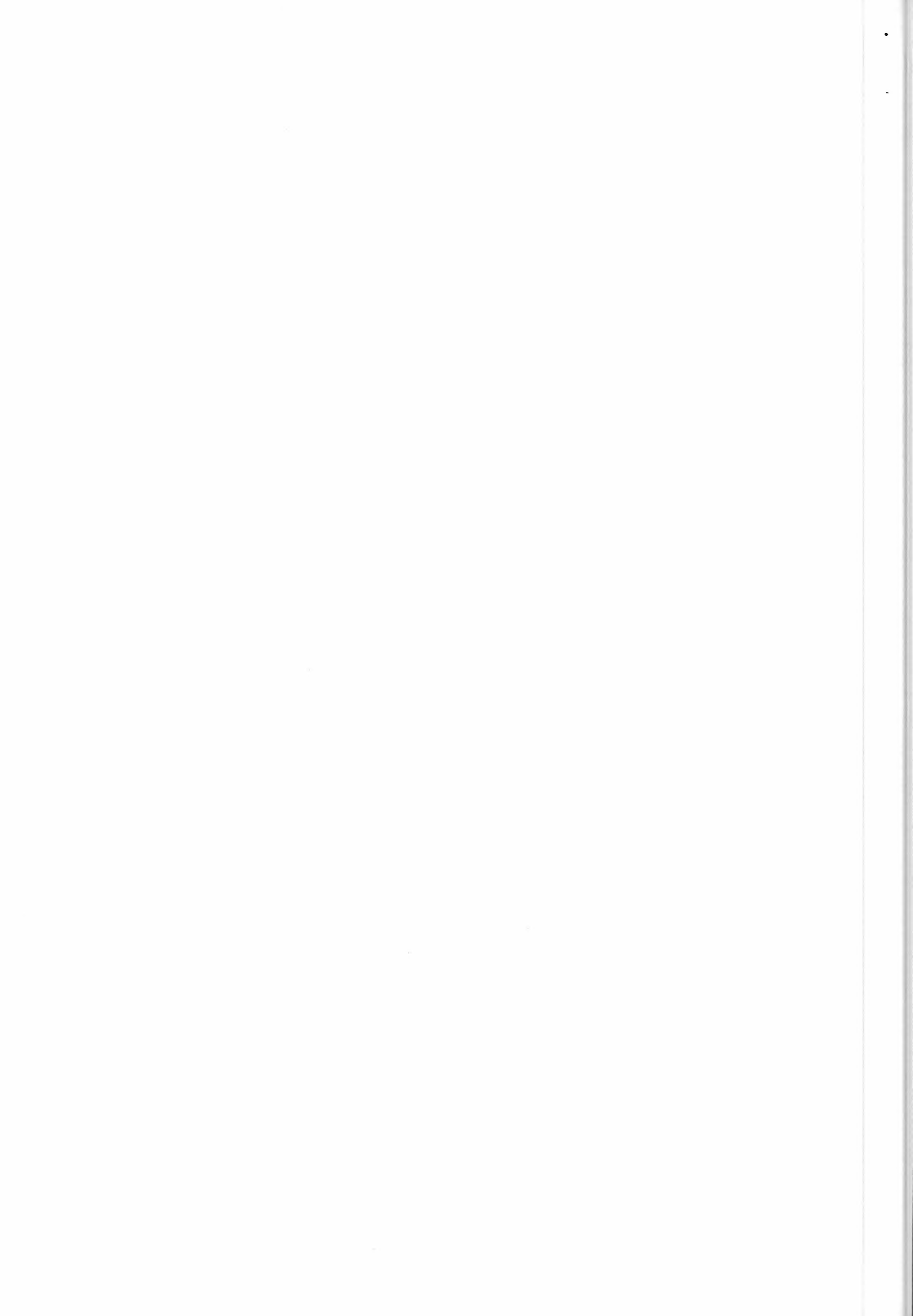
2.7 X_FACILITY_ID

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0	2	2		<p>*** TOTAL BYTES</p> <p>A FACILITY IDENTIFIER</p> <p>ESA FACILITIES:</p> <p>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 <i>(decoupling meaning)</i> 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</p> <p>PROCESSING AND ARCHIVING FACILITIES</p> <p>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 = Tromsø "PAF" (simulated) UP = UK PAF</p> <p>ESA GROUND STATIONS</p> <p>ES = EPO Station FS = Fucino Station GS = Gatineau Station (Low Rate) KS = Kiruna Station MS = Maspalomas Station PS = Prince Albert Station (Low Rate)</p> <p>NATIONAL AND FOREIGN STATIONS</p> <p>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)</p>

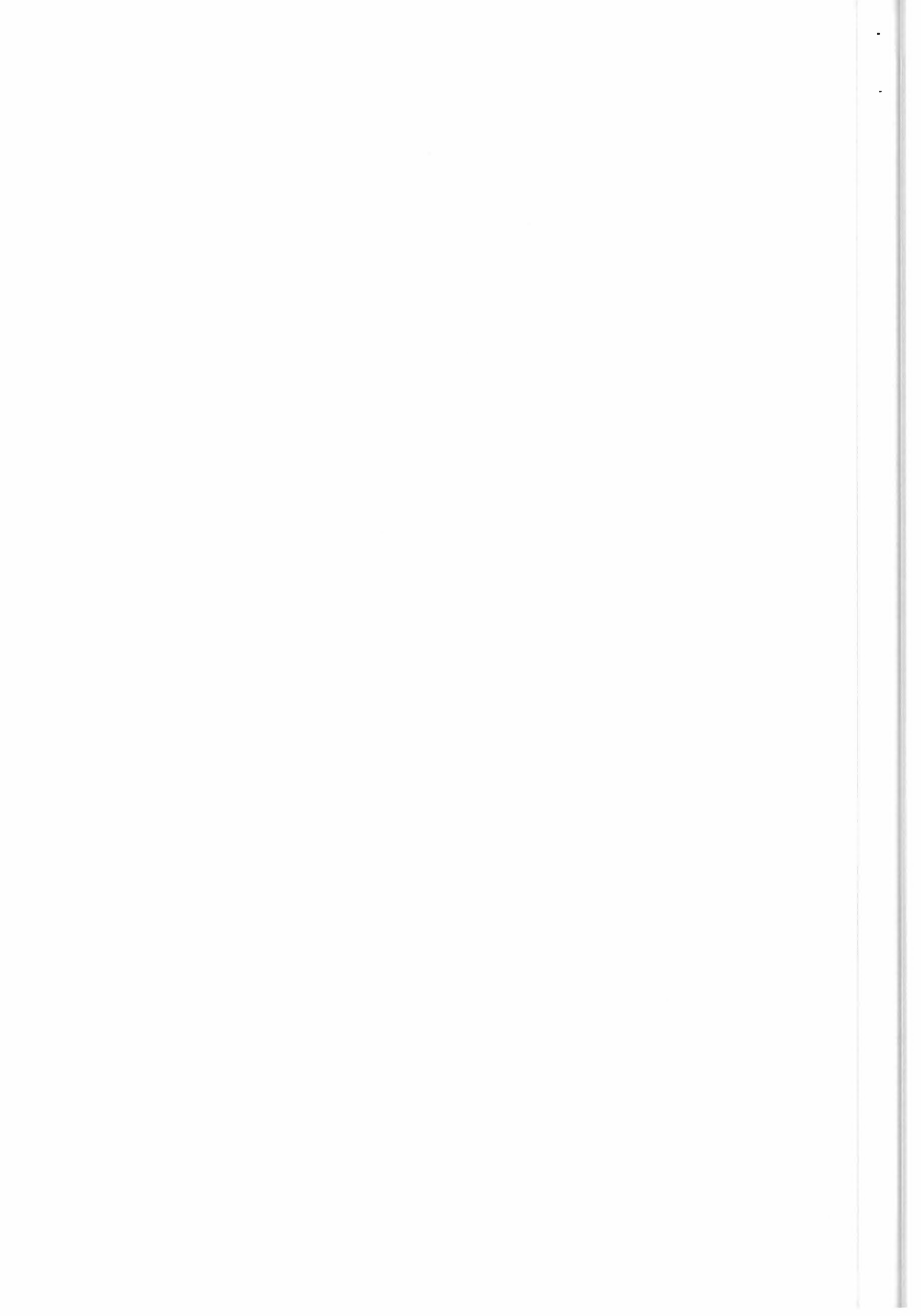
*ISS files to CUS
(ISS package to CUS).*







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



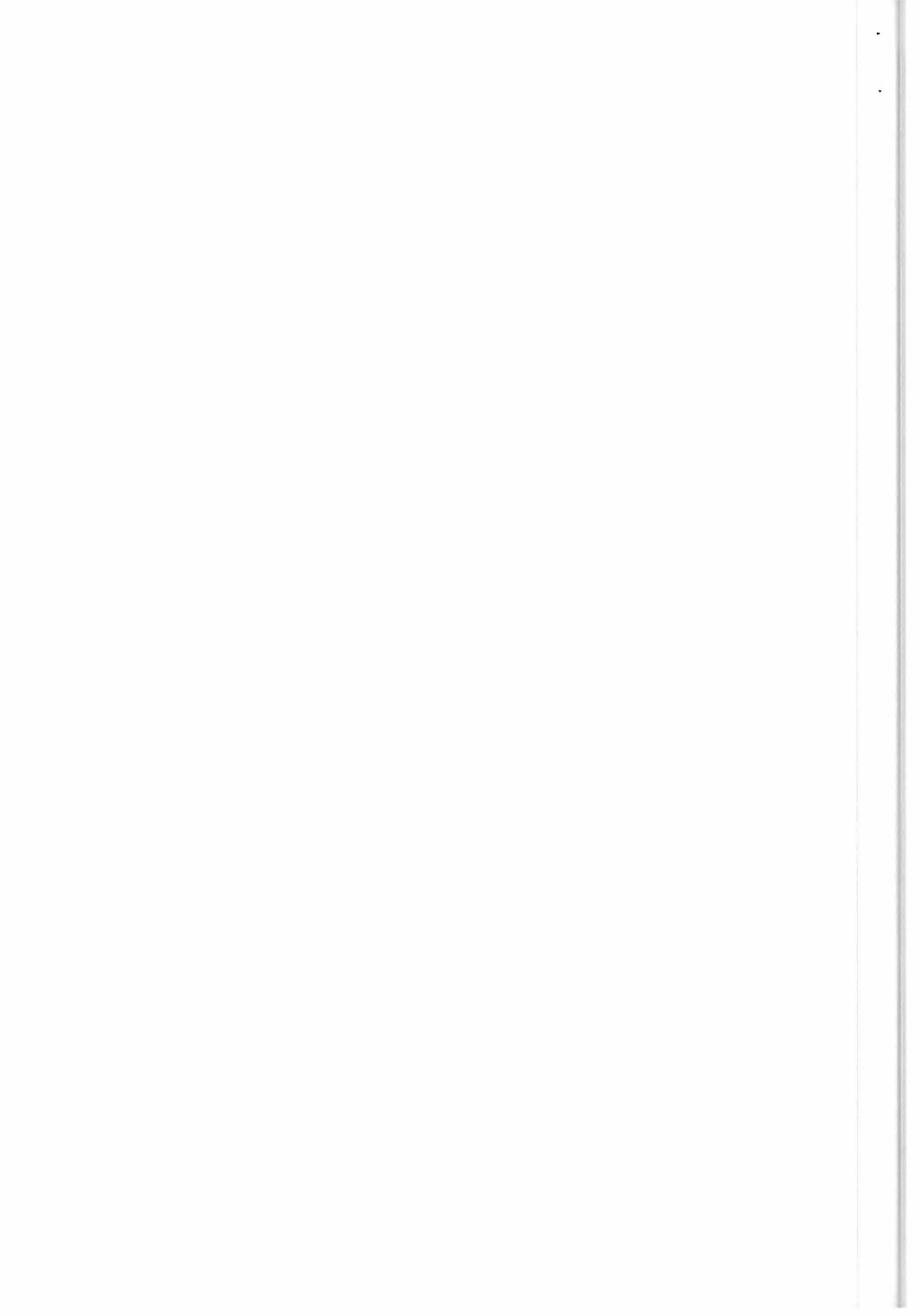
2.9 X_FILE_ID

NO.	NAME	OFFST	LENGTH	TIMES	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
					MPLQ_ = 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
					ODOPO_ = 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)

*PARAM: Parameter
Reference Measurement Result*

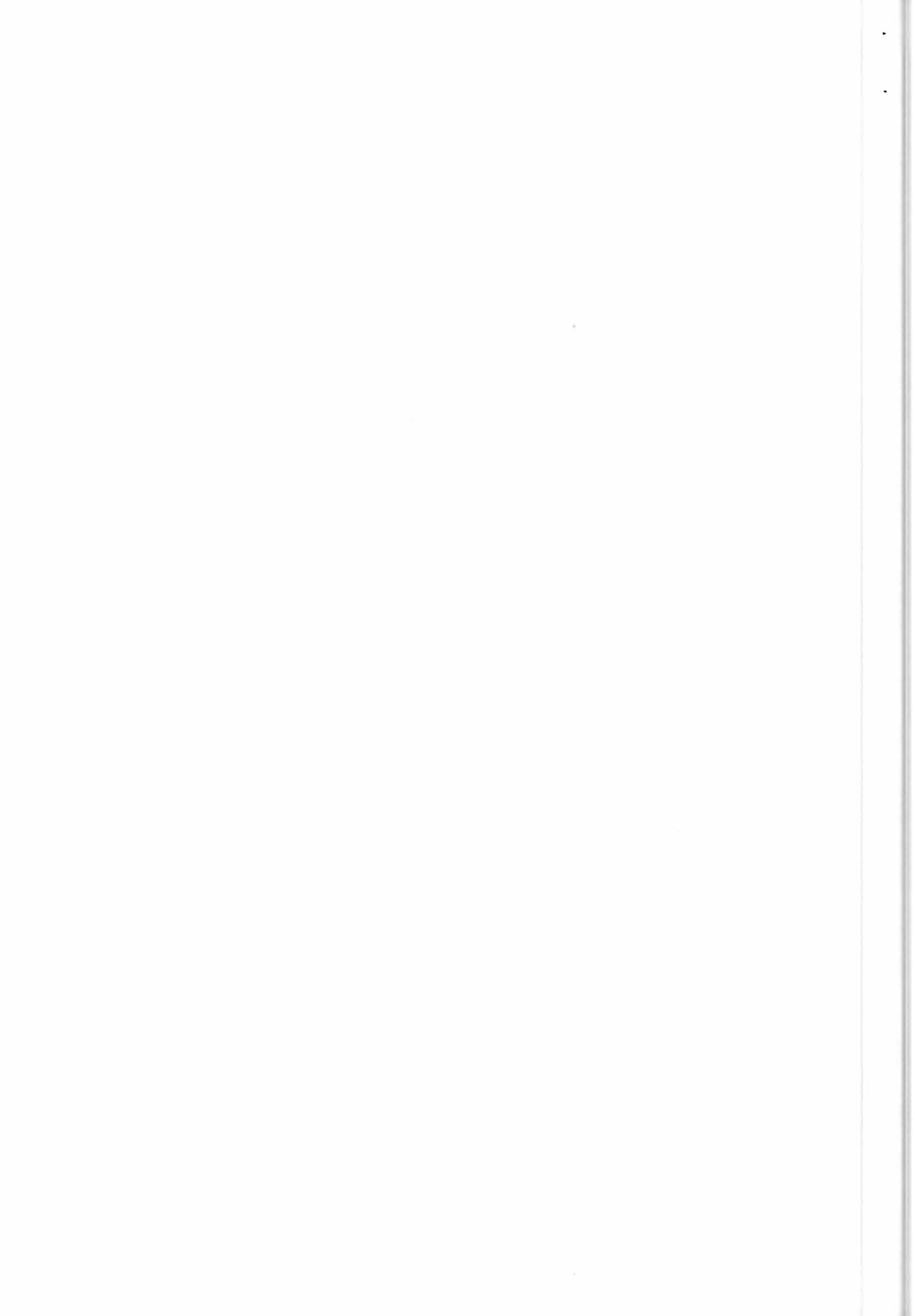




PASC_ = Parameter: Spacecraft Configuration
 PATC_ = Parameter: Time Correlation
 PATM_ = Parameter: Time Correlation
 PATN_ = Parameter: Time Correlation New
 PATP_ = Parameter: Template
 PAUD_ = Parameter: RA Ultra Stable Oscillator Drift
 PAUM_ = Parameter: RA Ultra Stable Oscillator Drift-MMCC
 PAWN_ = ~~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 Packets/Broadcasted Products
 REME_ = Report: Missing Packets/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 *dist. Report*
REDC: CRDPF
RETR: transcription
Report.

24.10.94 *REMC: Media*
Contacts Report



*SHAQ_ : Preliminary
Acquisition Schedule*

TAUR_ : ^{table:} User Registration

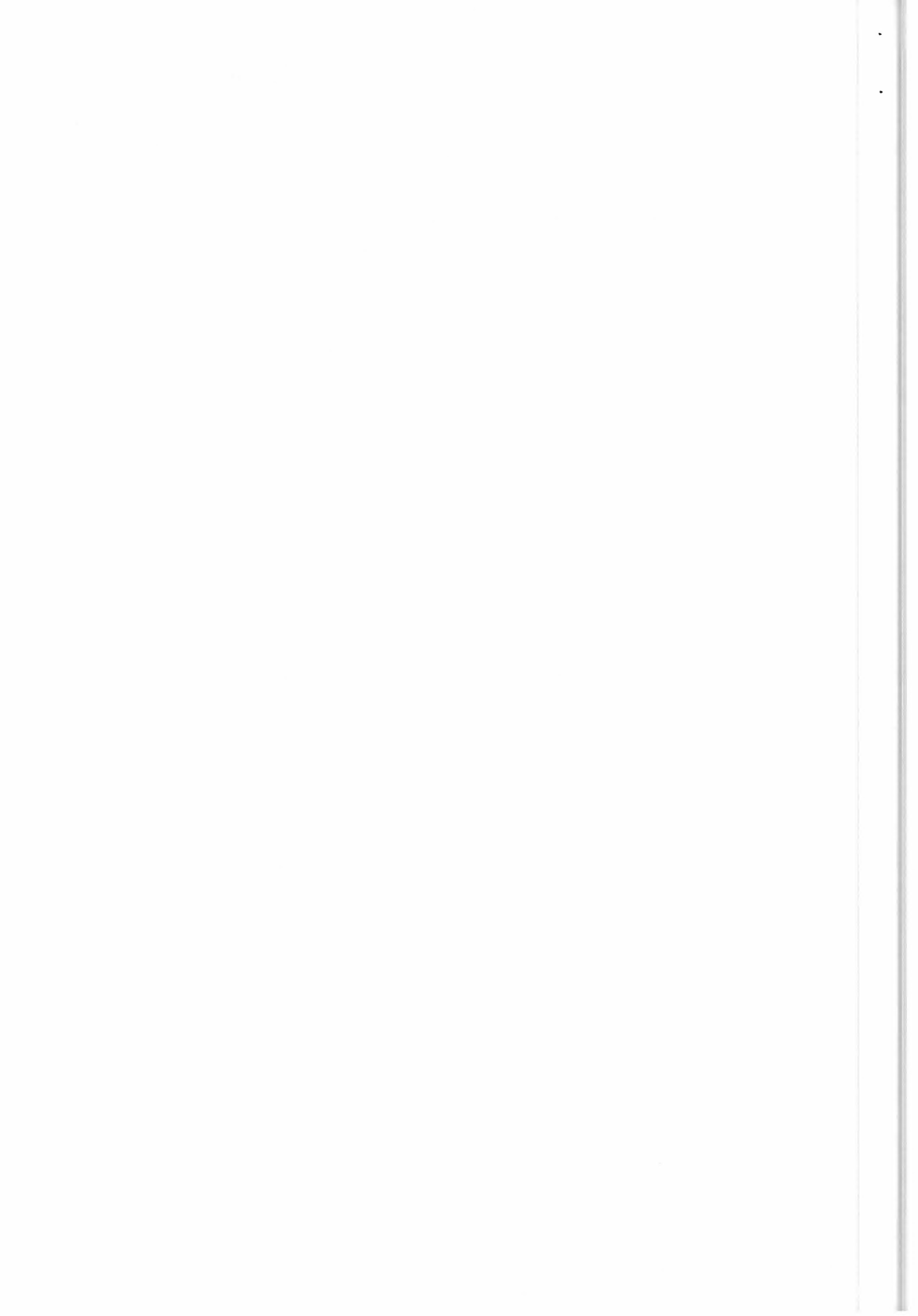
- REYR_ = Report: Yearly
- RQST_ = User Request: Status
- RQUS_ = User Request: Data Entry
- RQVR_ = User Request: Validation Result
- SHAQ_ = Schedule: Acquisition
- SHDD_ = Schedule: Data Distribution (BDDN)
- SHDS_ = Schedule: Distribution BDDN
- SHKI_ = Schedule: Kiruna Acquisition
- SHOV_ = Schedule: 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

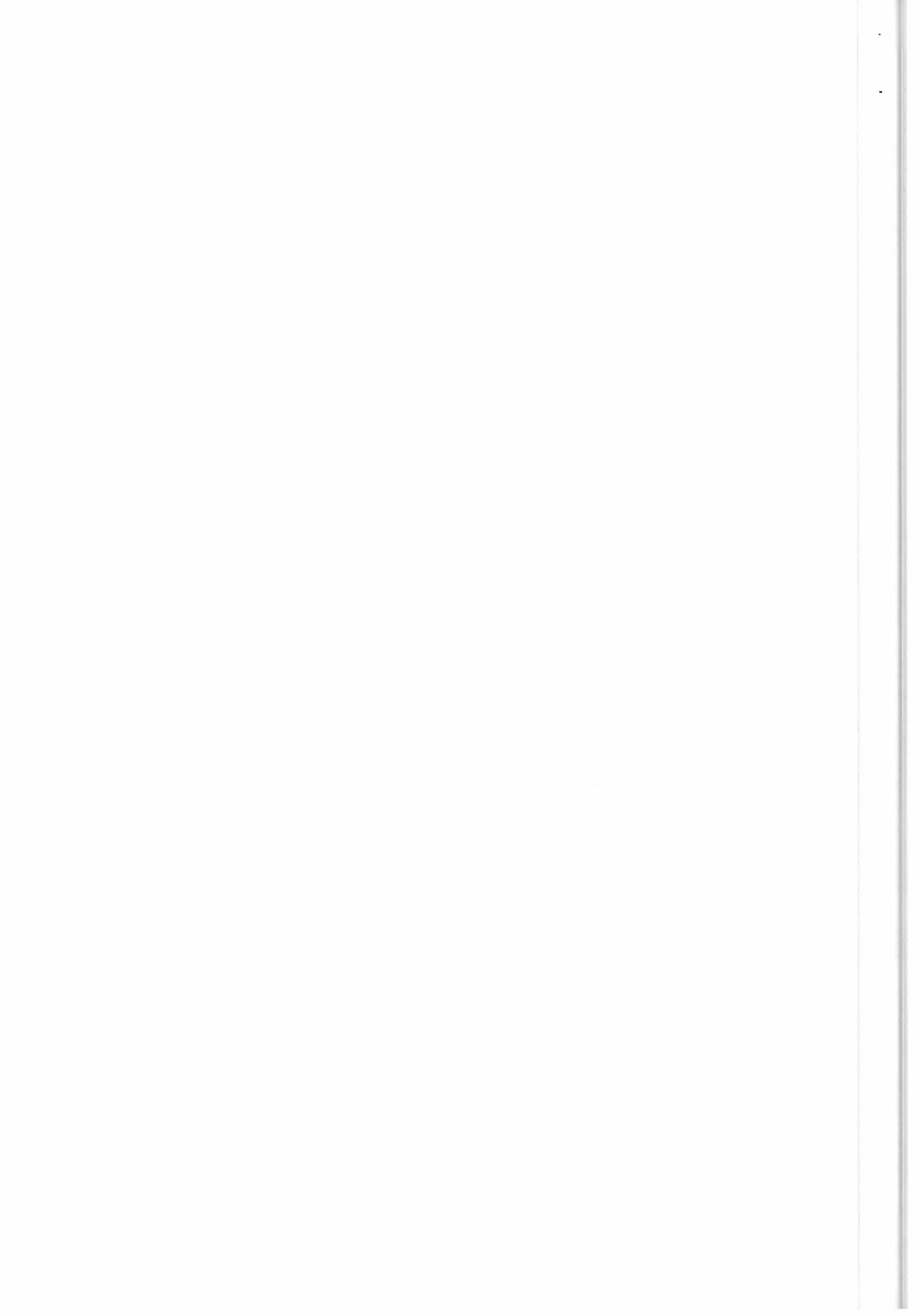
2.11 X_FILE_TYPE

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

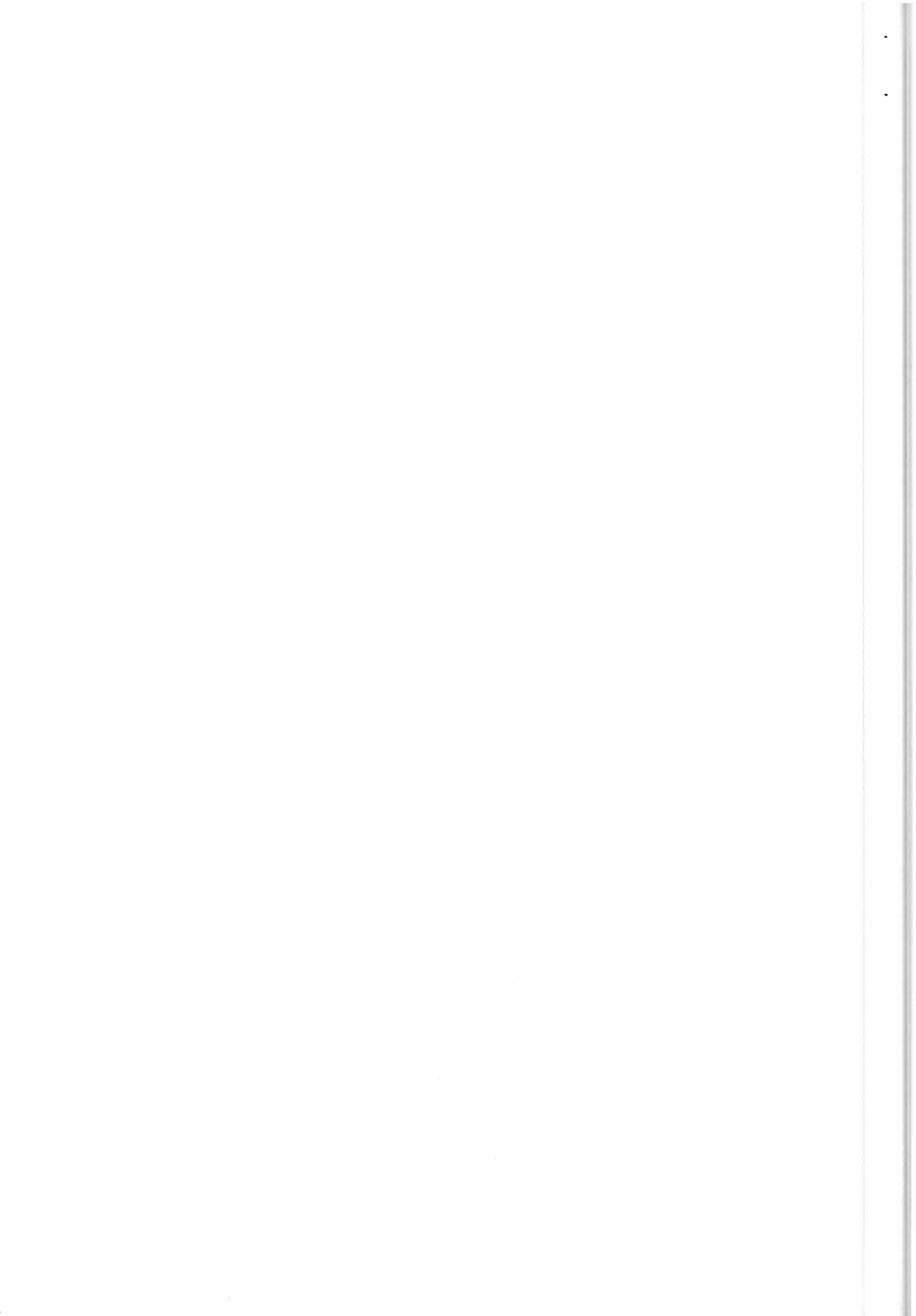
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			64			*** TOTAL BYTES
1.0		0	4			B Number of Acquisitions Recorded
2.0	X_MEDIUM_ID	4	8			HDDT Identifier
3.0		12	1			B Satellite Identifier (1 = ERS-1)
4.0	X_UTC	13	8			Start Time of 1. Pass
5.0	X_UTC	21	8			Stop Time of 1. Pass
6.0	X_UTC	29	8			Start Time 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

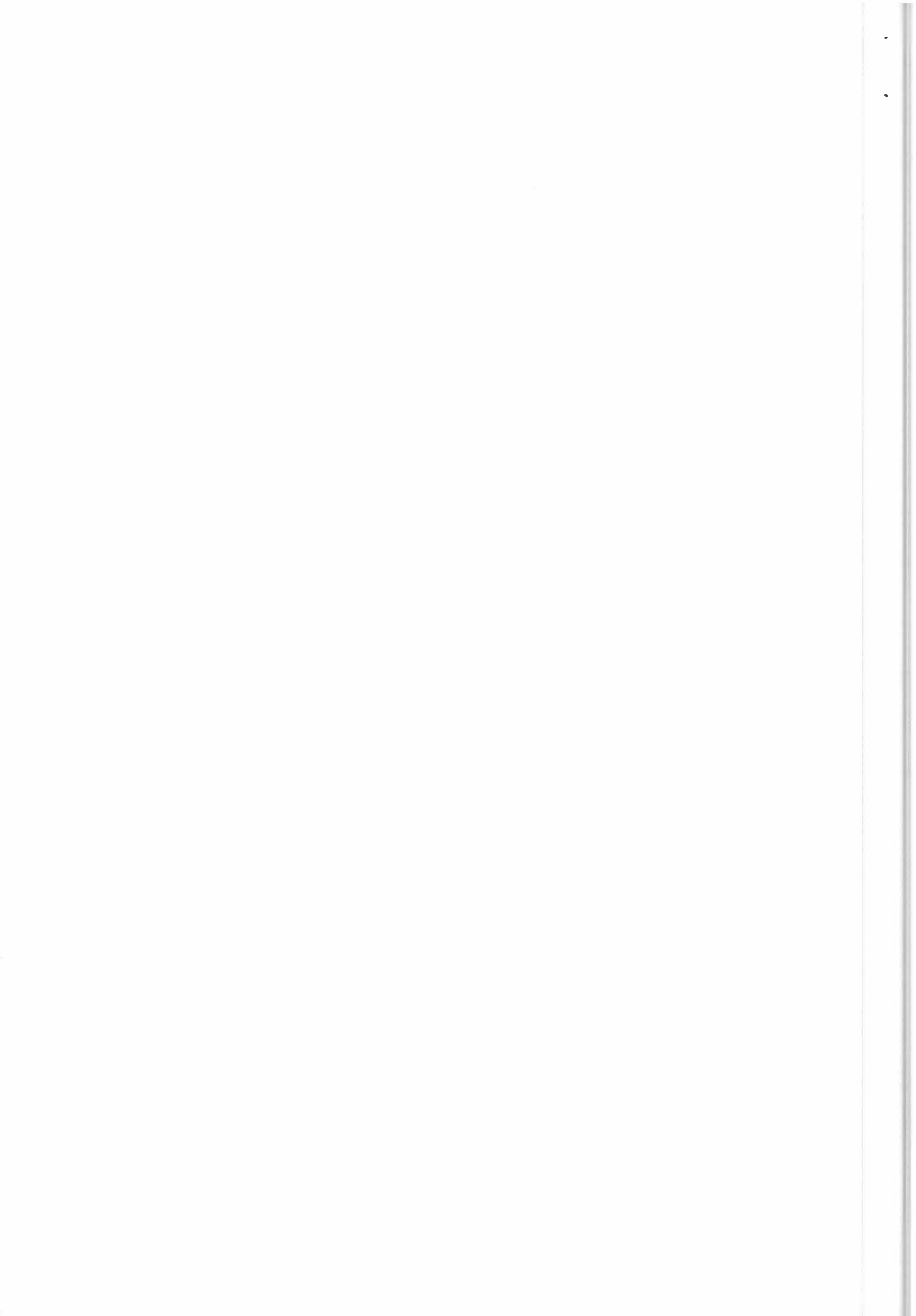
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				5		*** TOTAL BYTES
1.0		0		5		N Absolute Orbit Number (since mission start; new orbit/asc. node)

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

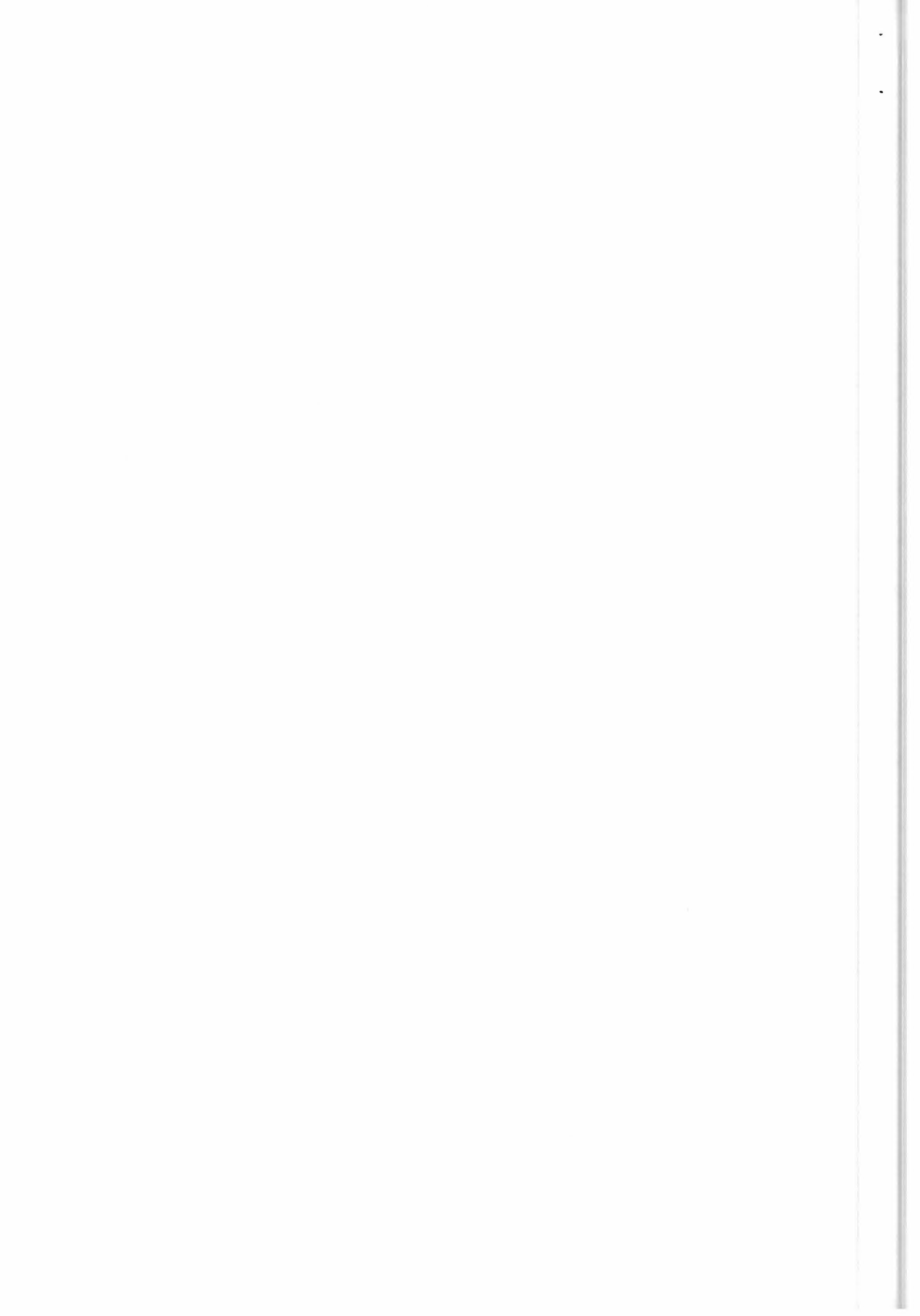
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				60		*** TOTAL BYTES
1.0	X_LAT_LONG	0		12		Product Centre Lat/Long
2.0	X_LAT_LONG	12		12	4	Corner Coordinates (Lat/Long) (for Altimeter products the four corner coordinates identify the sub-satellite track).

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

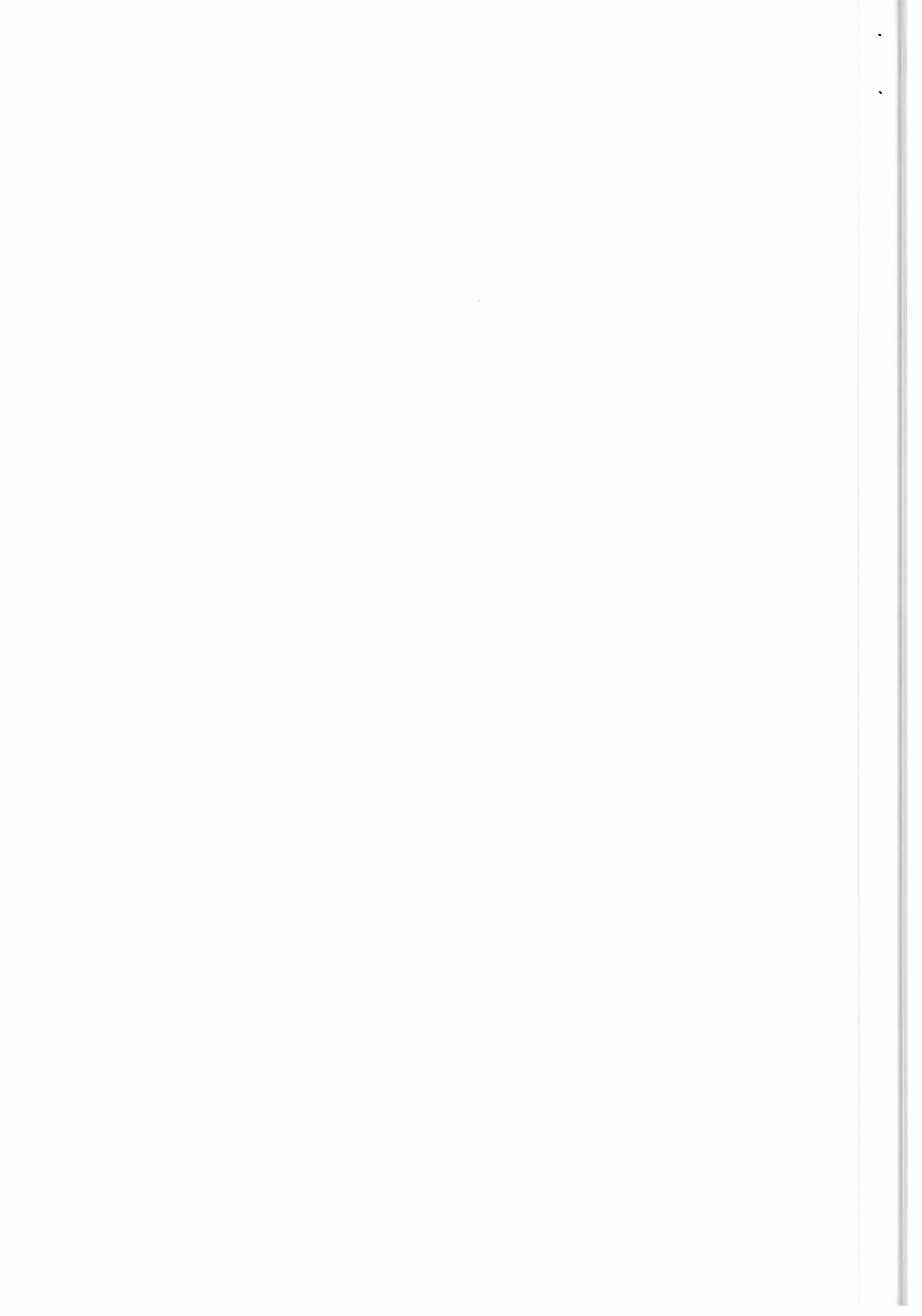


2.25 X_PRODUCT_ORDER_ID

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



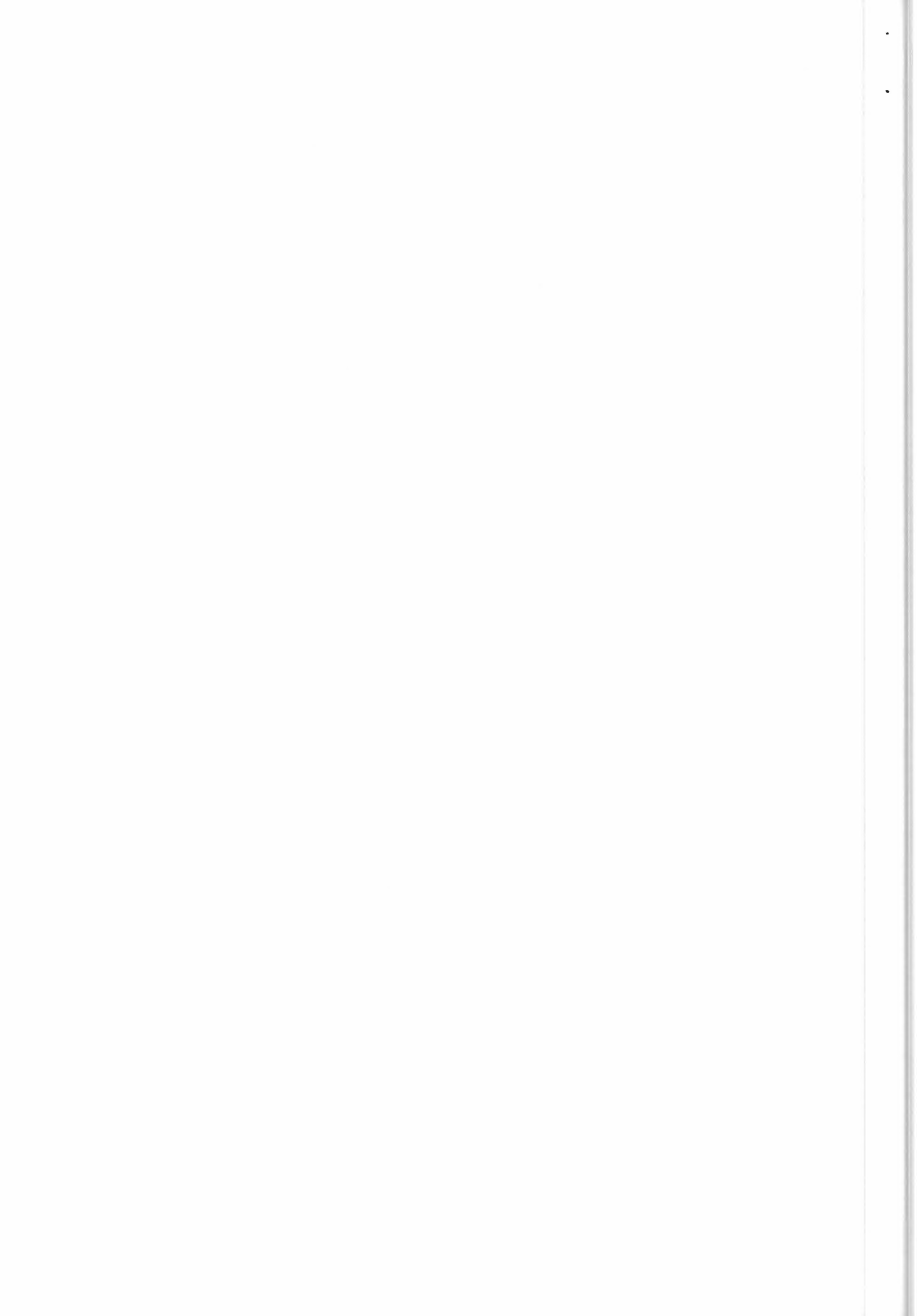
SSH = Sea Surface Height
 SST = Sea Surface Temperature Map
 TOP = Sea Surface Topography
 UIC = AMI Image Chrip Replica
 UIND = AMI Image Noise Statistics and Drift Calibration
 UI16 = AMI Image 16 bits
 UI8 = AMI Image 8 bits
 UNP = Unprocessed Data
 URA = Radar Altimeter
 UWA = AMI Wave
 UWAC = AMI 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

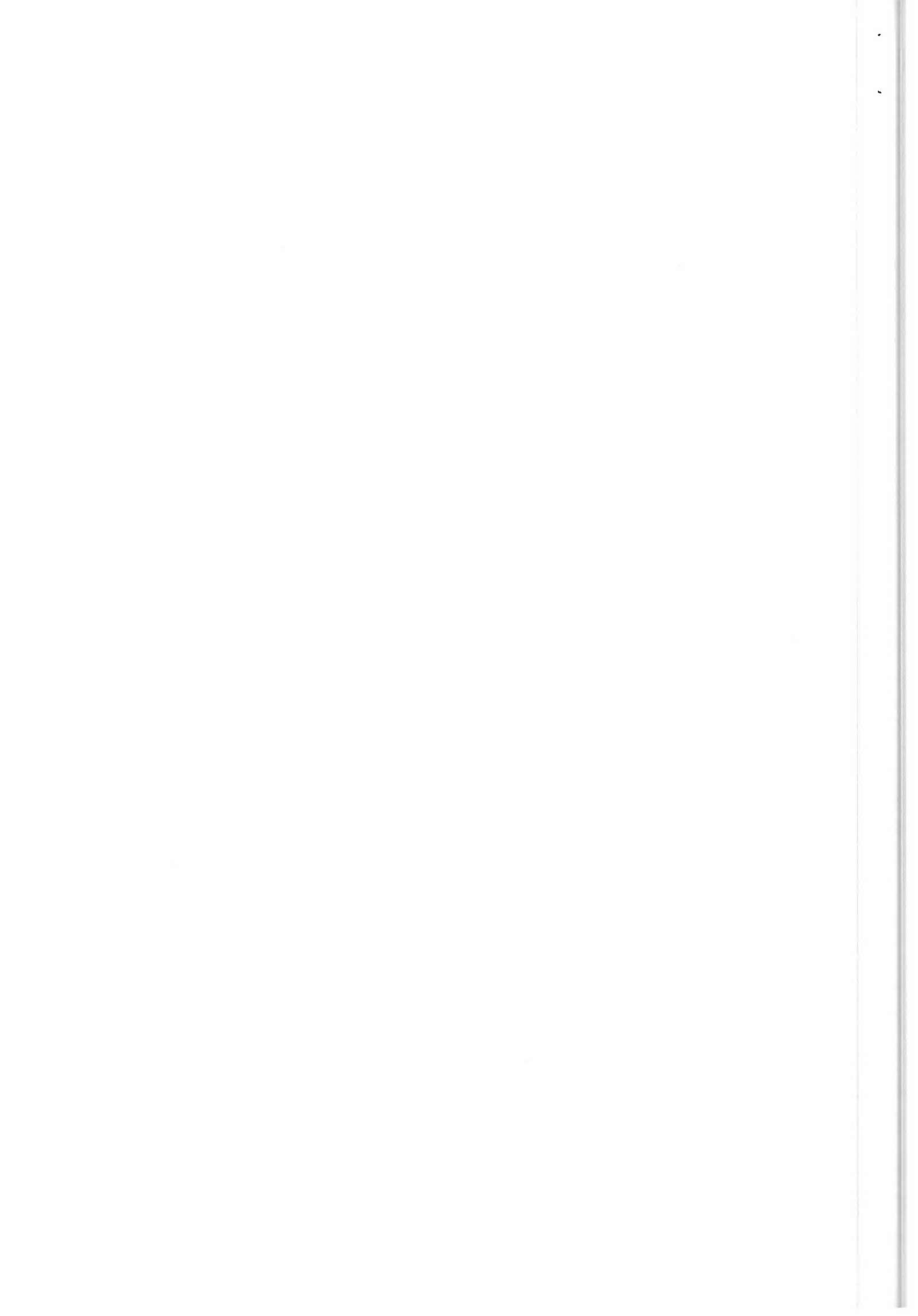
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					2	*** TOTAL BYTES
1.0		0		2		A Satellite/Mission Identifier E1 = ERS-1 Satellite E2 = ERS-2 Satellite J1 = JERS-1 Satellite

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

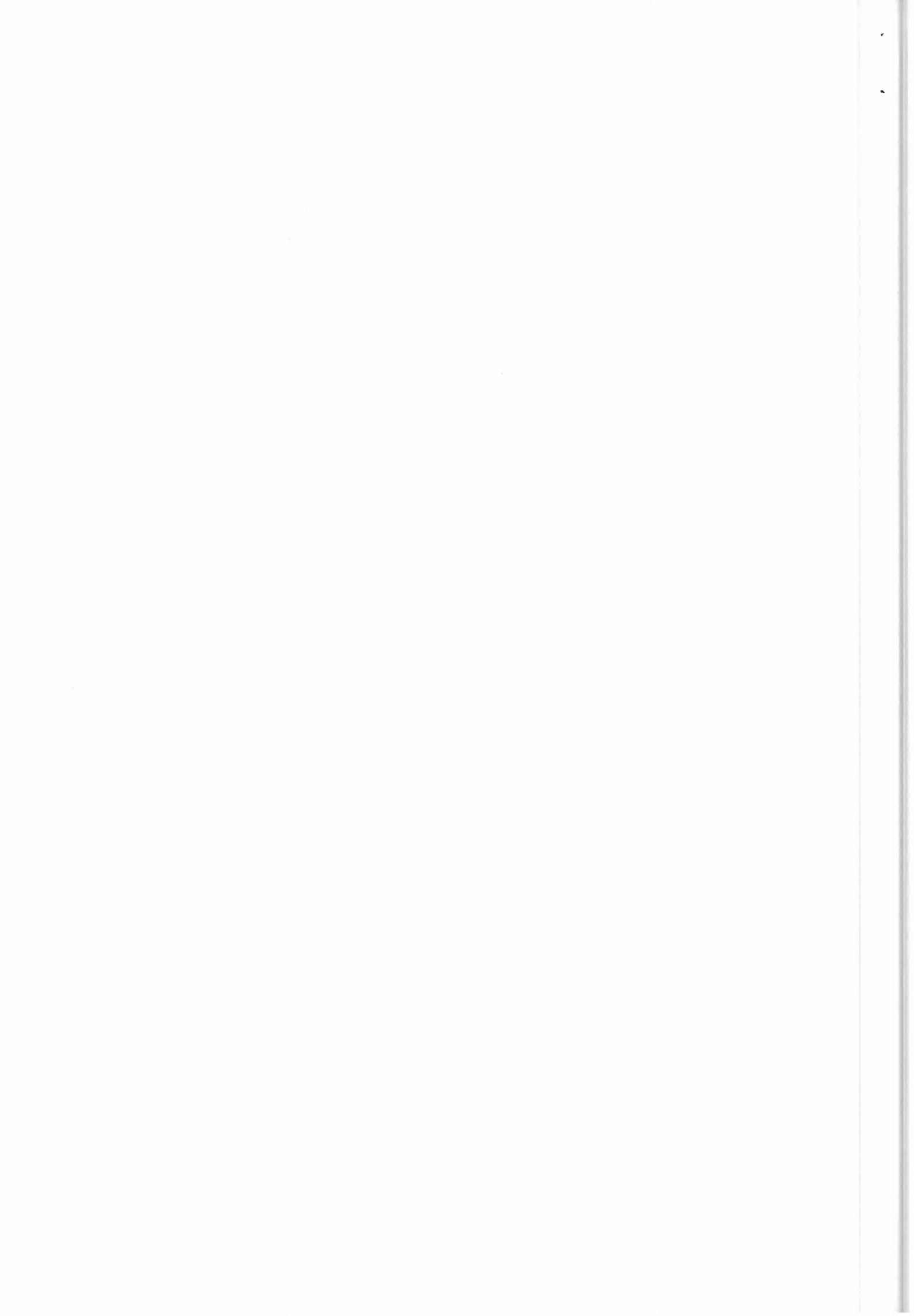
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					3	*** TOTAL BYTES
1.0		0		3		A Sensor Identifier (or product group) ALT = Radar Altimeter ATS = ATSR GOM = GOME MWS = Microwave Sounder ORB = Orbit PLF = Platform PRA = PRARE SAR = AMI Image SWM = AMI Wave WSC = AMI Wind



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

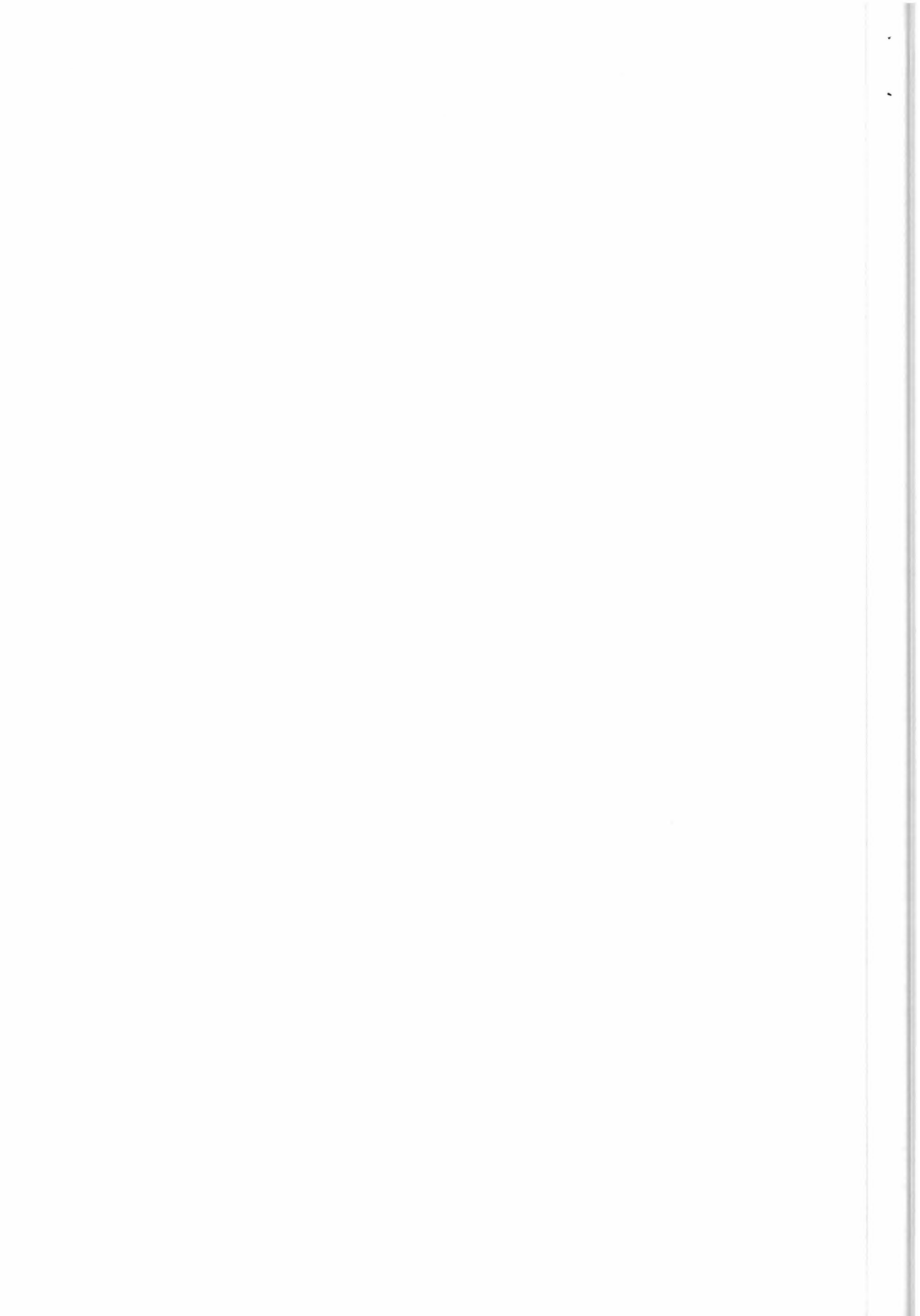
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				34		*** TOTAL BYTES
1.0	X_SENSOR_MODE	0	3			Sensor Mode
2.0		3	1			A Coverage Identifier (L=Land, S=Sea, I=Ice, M=Mixed) (all instr)
3.0		4	3			N Land Percentage (all instr; default = 000)
4.0		7	9			N Specific Parameter (SNNNN.NN; any instr; default = +99999.99): 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_PARAMS

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 coexist, but cannot be specified with any of the other parameters. All the parameters but PC and GS can coexist. SQ=N (Scene Quadrant: see X_PRODUCT_DESCRIPTOR) SZ=w*h (Size of photographic products: width and height 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

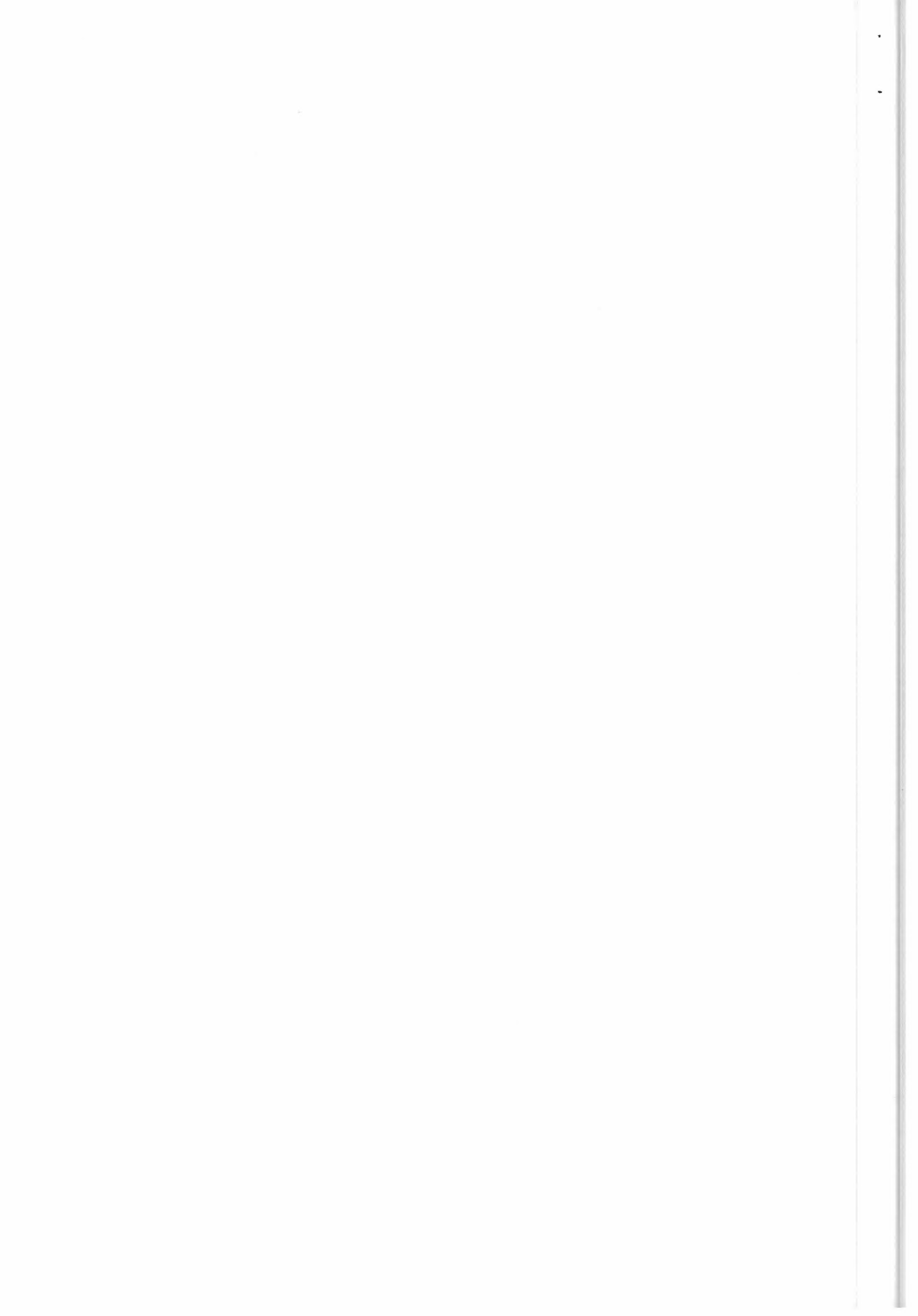
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				6		*** TOTAL BYTES
1.0		0	2			N Hours
2.0		2	2			N Minutes
3.0		4	2			N Seconds

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

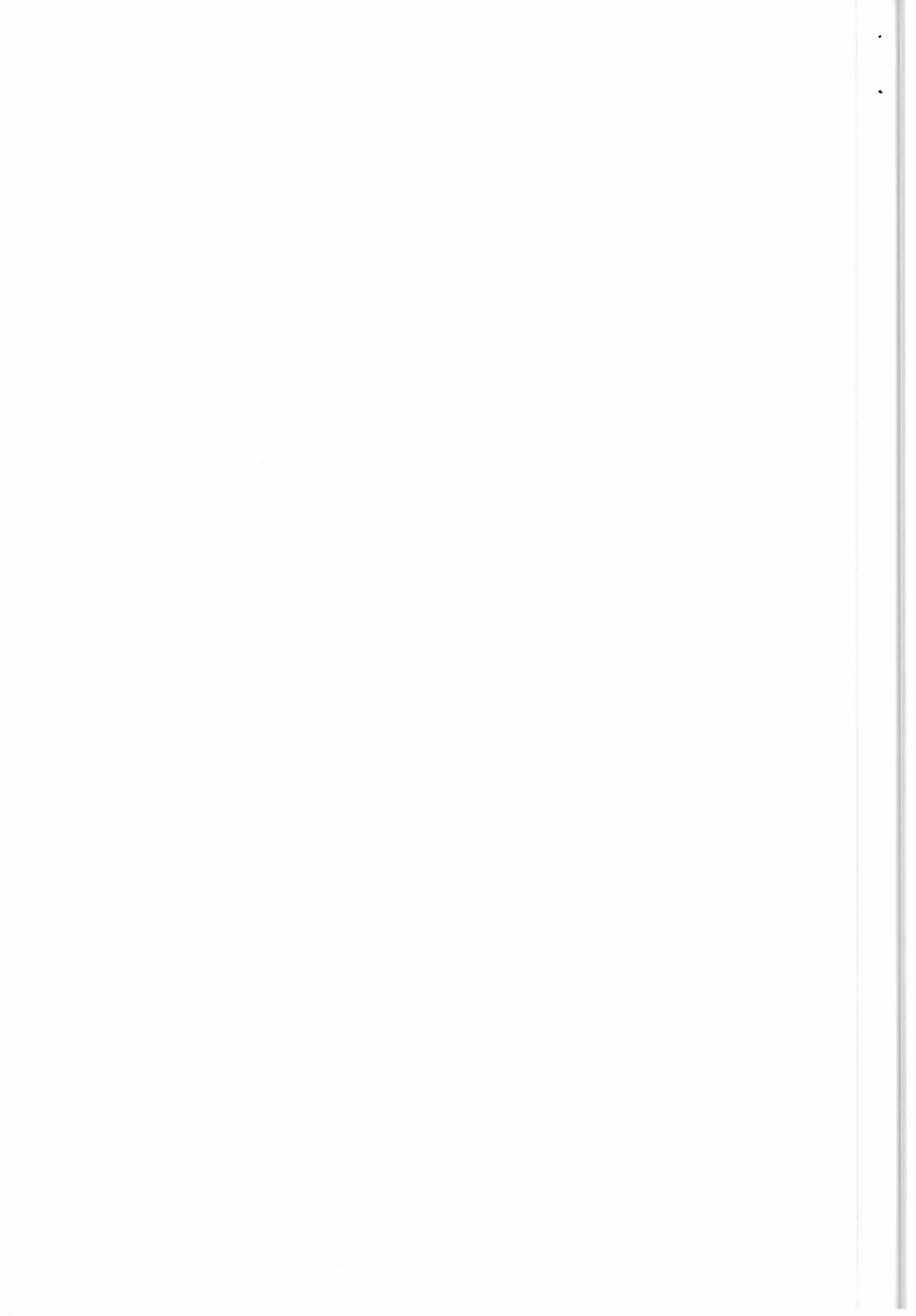
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				32		*** TOTAL BYTES
1.0		0		1		A Raw Data Quality Indicator (0 to 9; 0 best quality, 9 worst)
2.0		1		1		Reserved
3.0		2		4		B Sensing Start Binary Time
4.0		6		4		B Sensing Stop Binary Time
5.0		10		2		N Real Time Bit Error Rate Estimate
6.0		12		2		N Play 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 Telephone 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	Invoice 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 Telephone 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

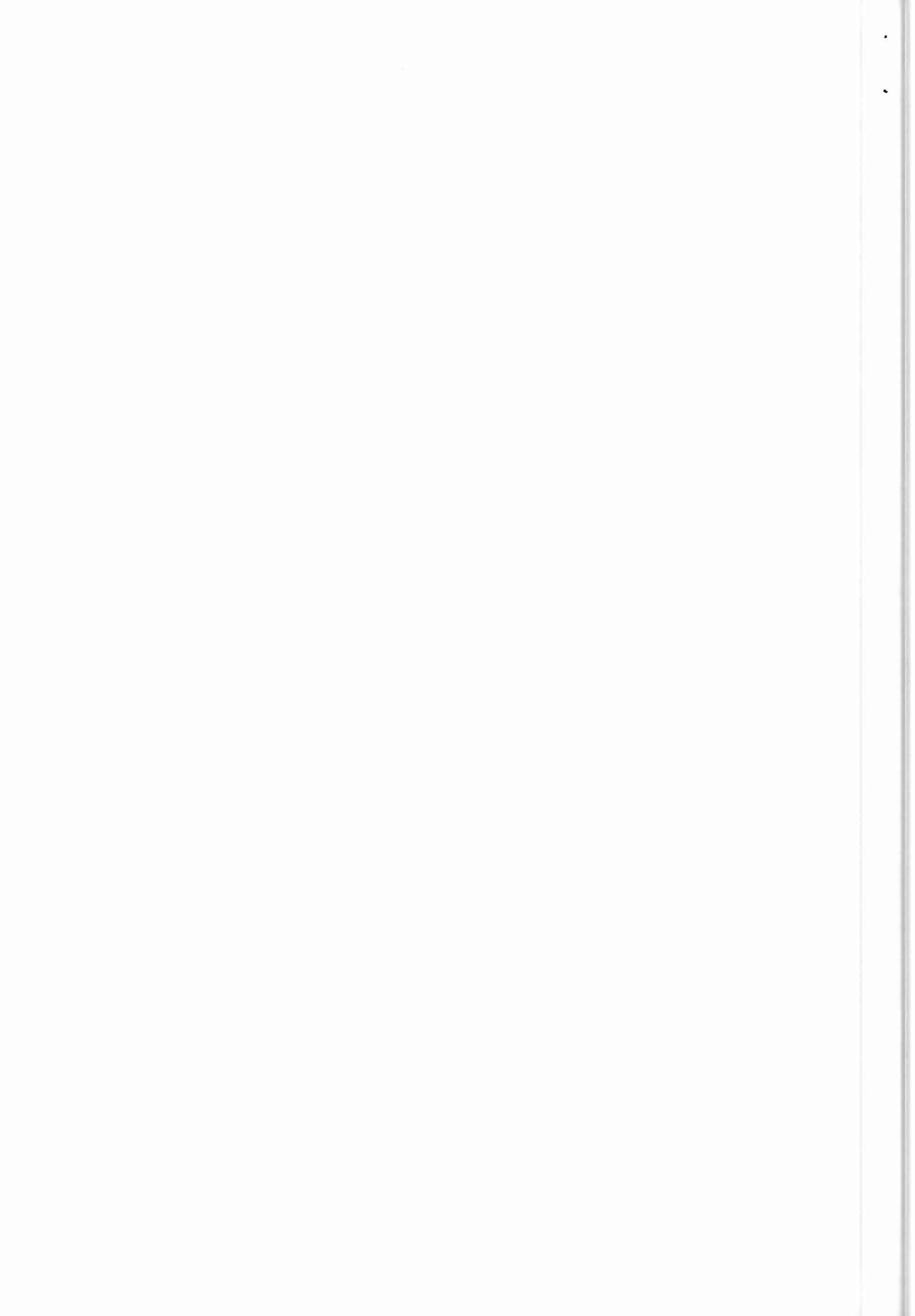
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					64	*** TOTAL BYTES
1.0		0			12	A Title
2.0		12			4	A Initials
3.0		16			24	A Name
4.0		40			24	A Surname

2.45 X_USER_TITLE

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

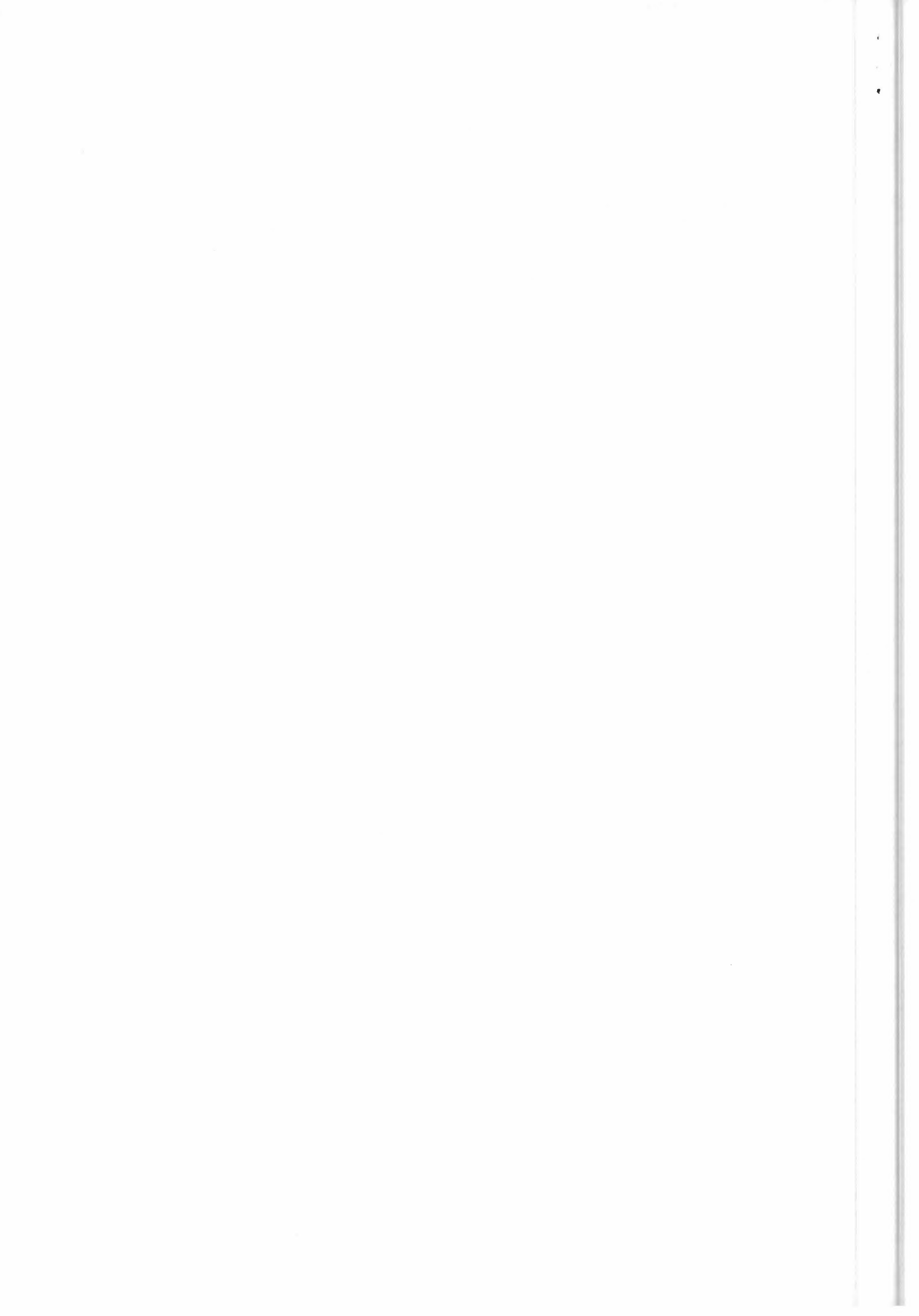
2.46 X.UTC

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	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





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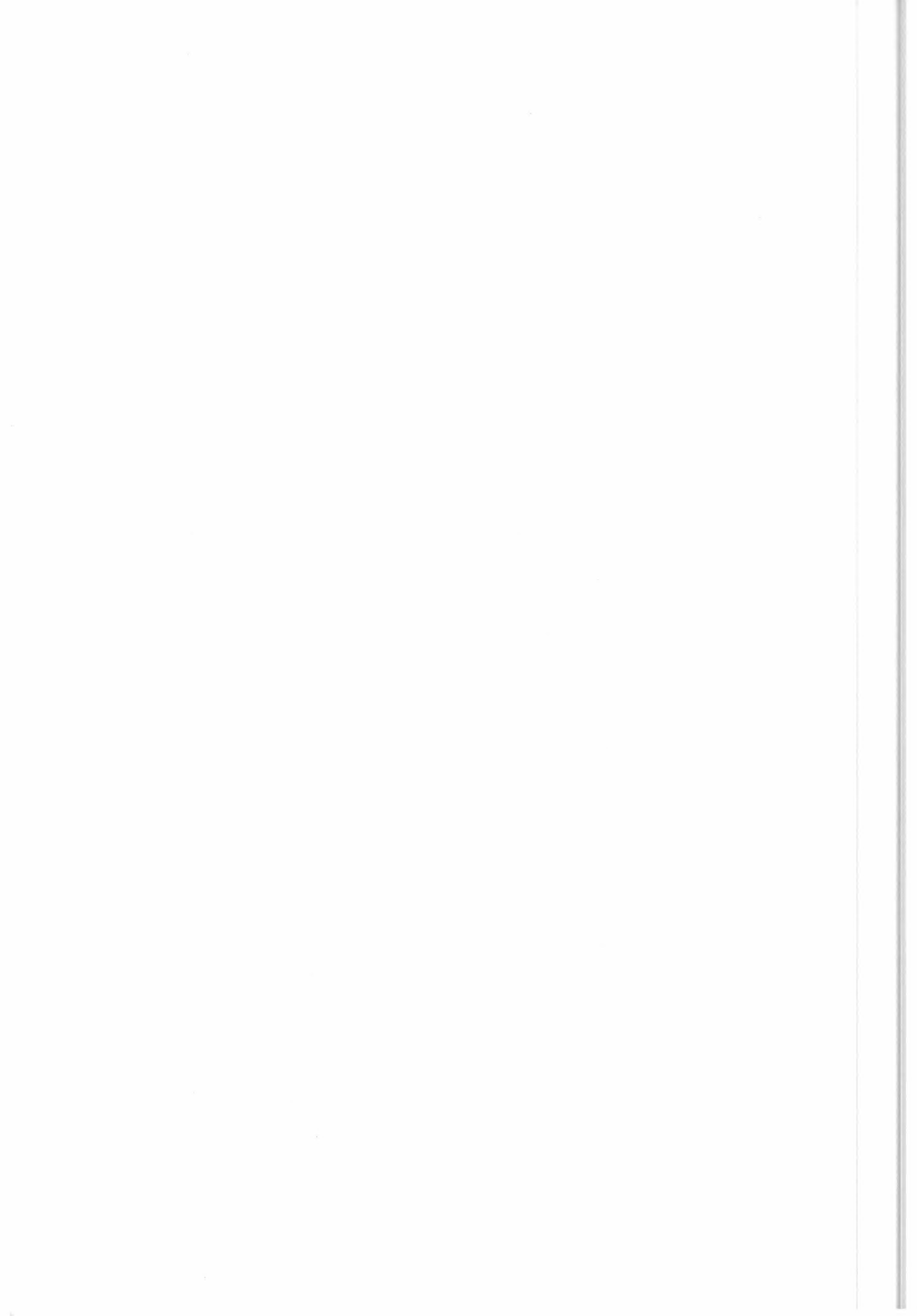
ERS CENTRAL USER SERVICE
DATA STRUCTURES

EUROPEAN SPACE AGENCY
ESRIN - ERS EXPLOITATION DIVISION

ERS CENTRAL USER SERVICE
DATA STRUCTURES

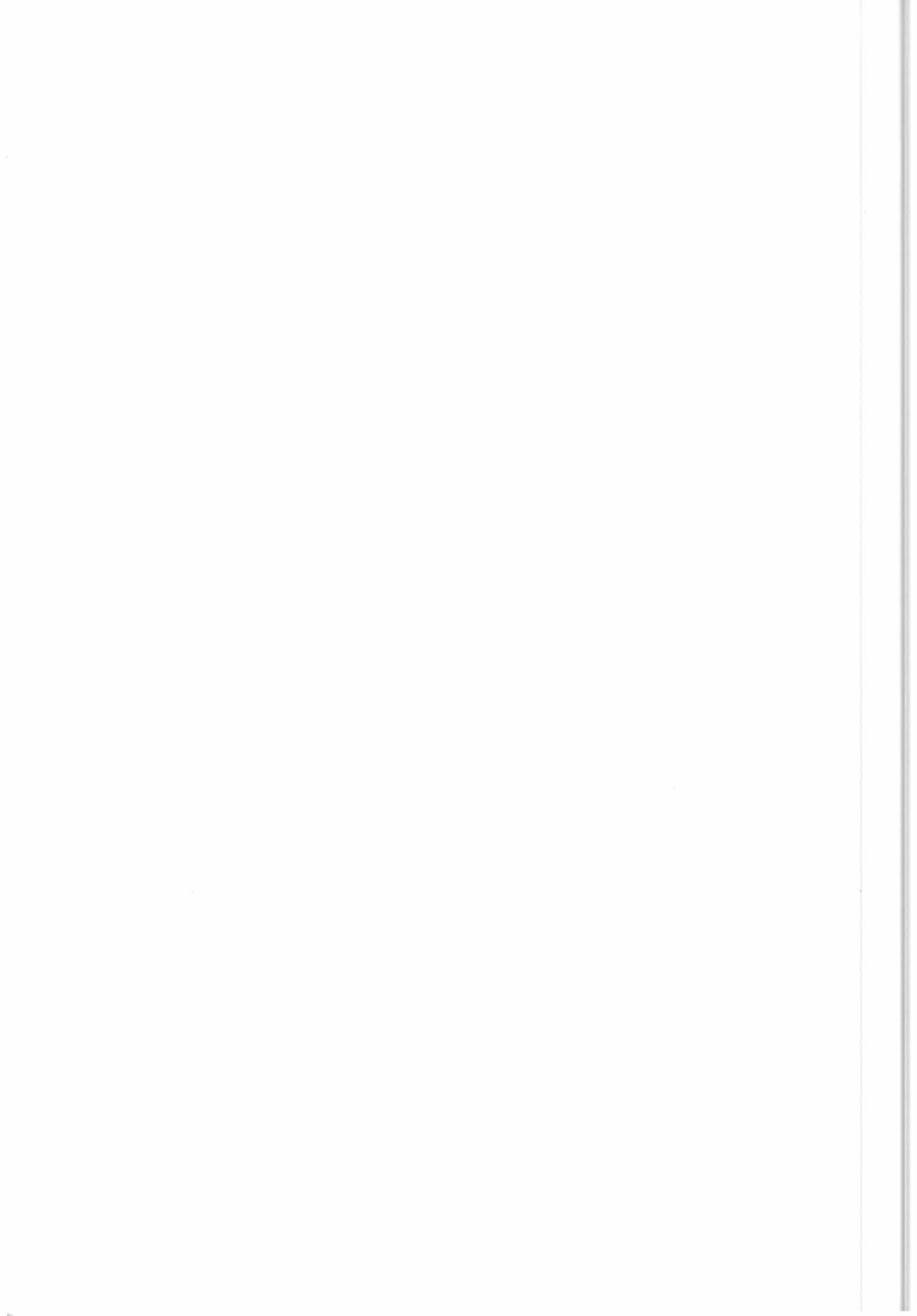
Document number : ER-IS-EPO-GU-0101-2.0 Issue 2, Rev. 0

Date : 93/12/15



AMENDMENT CONTROL

<u>ISSUE</u>	<u>REV.</u>	<u>DATE</u>	<u>PURPOSE</u>	<u>PAGE NO.</u>	<u>ACTION</u>
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; X_ADDRESS; X_FACILITY_ID; X_MEDIUM_TYPE; X_PROCESSING_INFO; X_SPEC_ORDER_PARMS; X_USER_INFO.	1.2 2.2 2.7 2.15 2.20 2.34 2.42	Revised " " " " "
1	5	90/10/19	Updated: Overview; X_FACILITY_ID; X_FILE_NAME; X_MEDIUM_ID; X_MEDIUM_TYPE; X_PRODUCT_TYPE; X_SENSOR_ID; X_SENSOR_MODE; X_SPEC_ORDER_PARMS; X_UNP_DATA_PARAMETERS; X_USER_INFO.	1.2 2.7 2.10 2.15 2.16 2.26 2.31 2.32 2.35 2.40 2.43	Revised Revised New Revised Revised Revised Revised Revised Revised Revised Revised
1	6	91/11/21	Updated: X_FACILITY_ID; X_FILE_ID; X_MEDIUM_ID; X_MEDIUM_TYPE; X_PRODUCT_TYPE; X_SENSOR_MODE.	2.7 2.9 2.15 2.16 2.26 2.32	Revised Revised Revised Revised Revised Revised



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

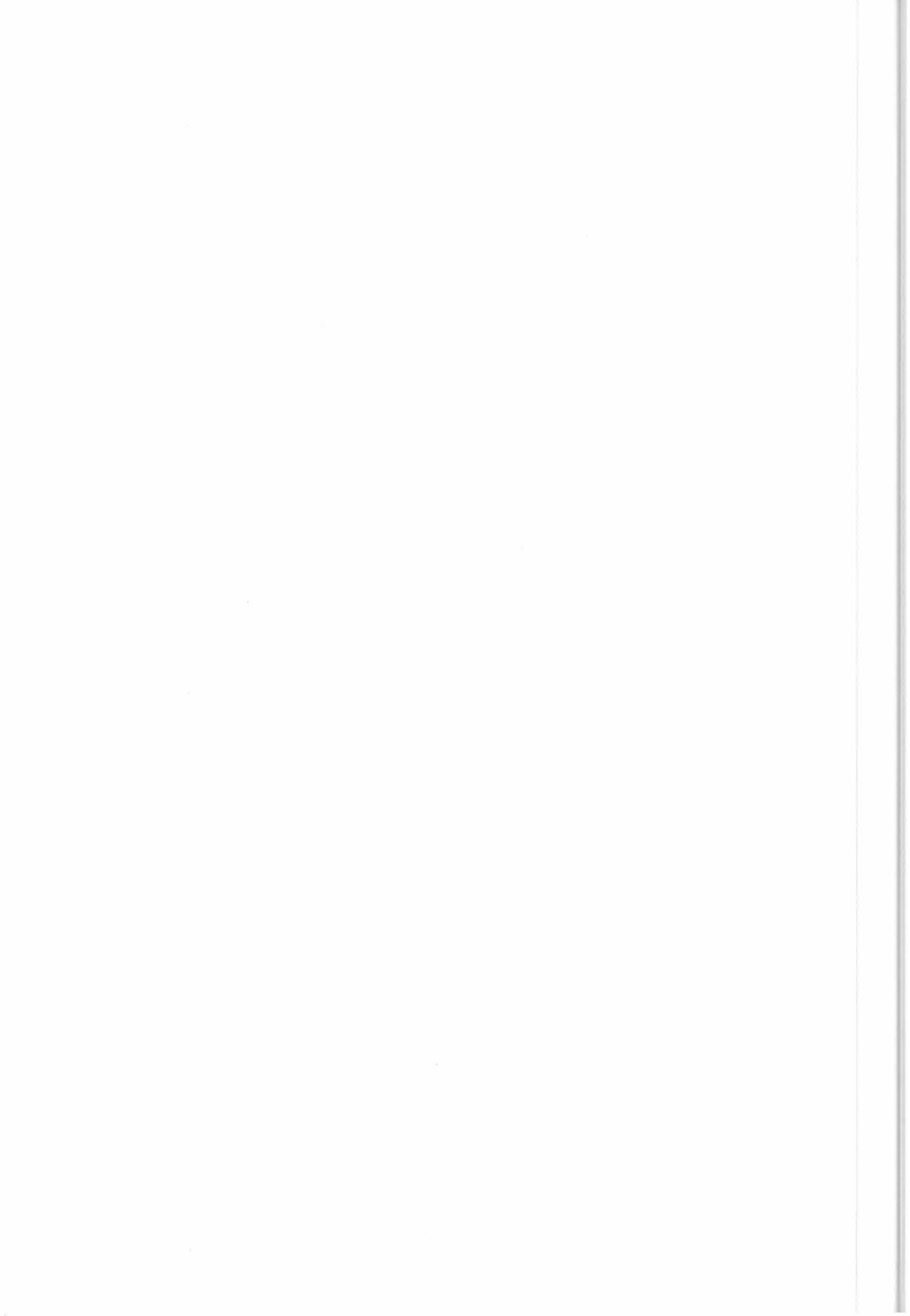


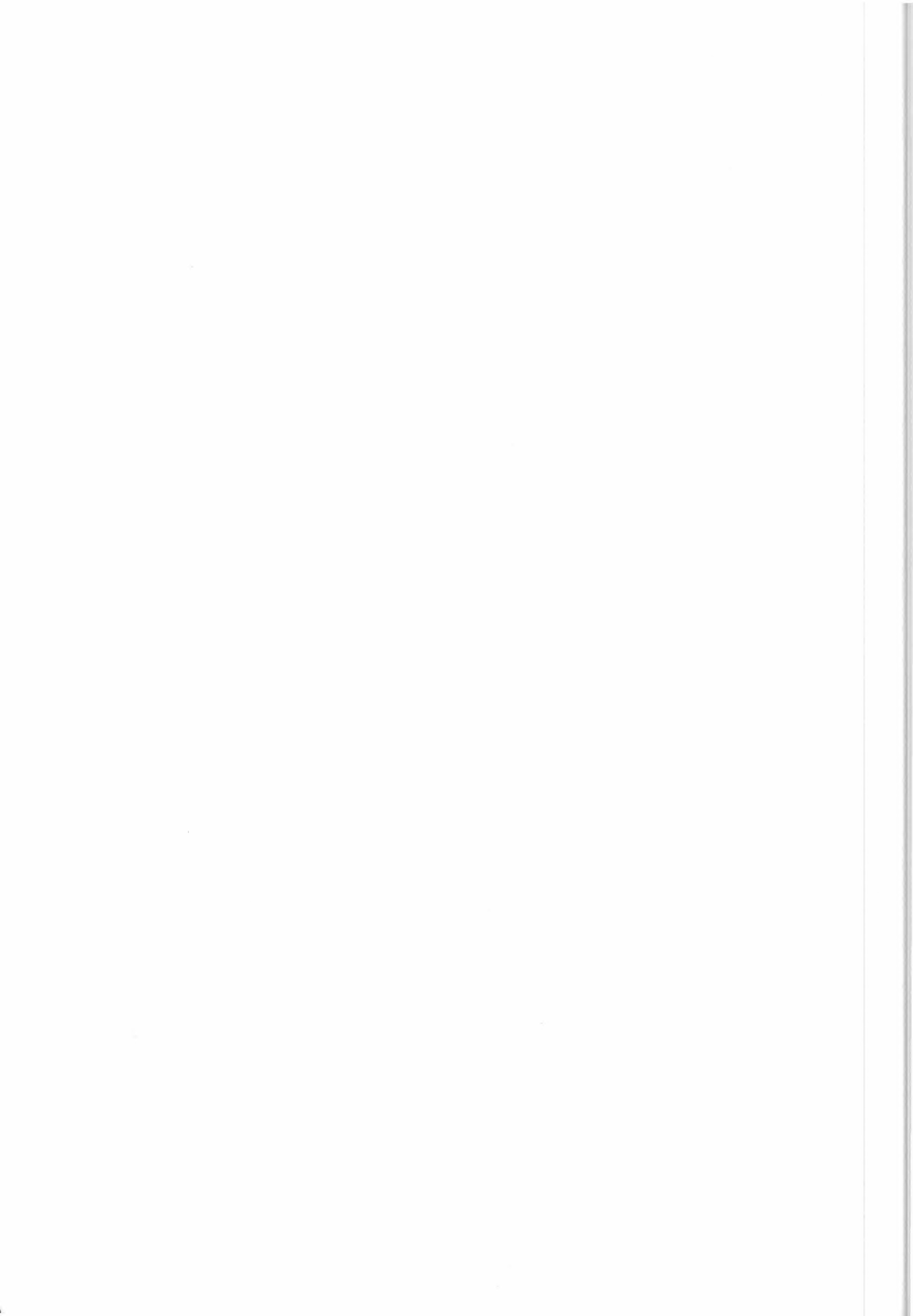
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100

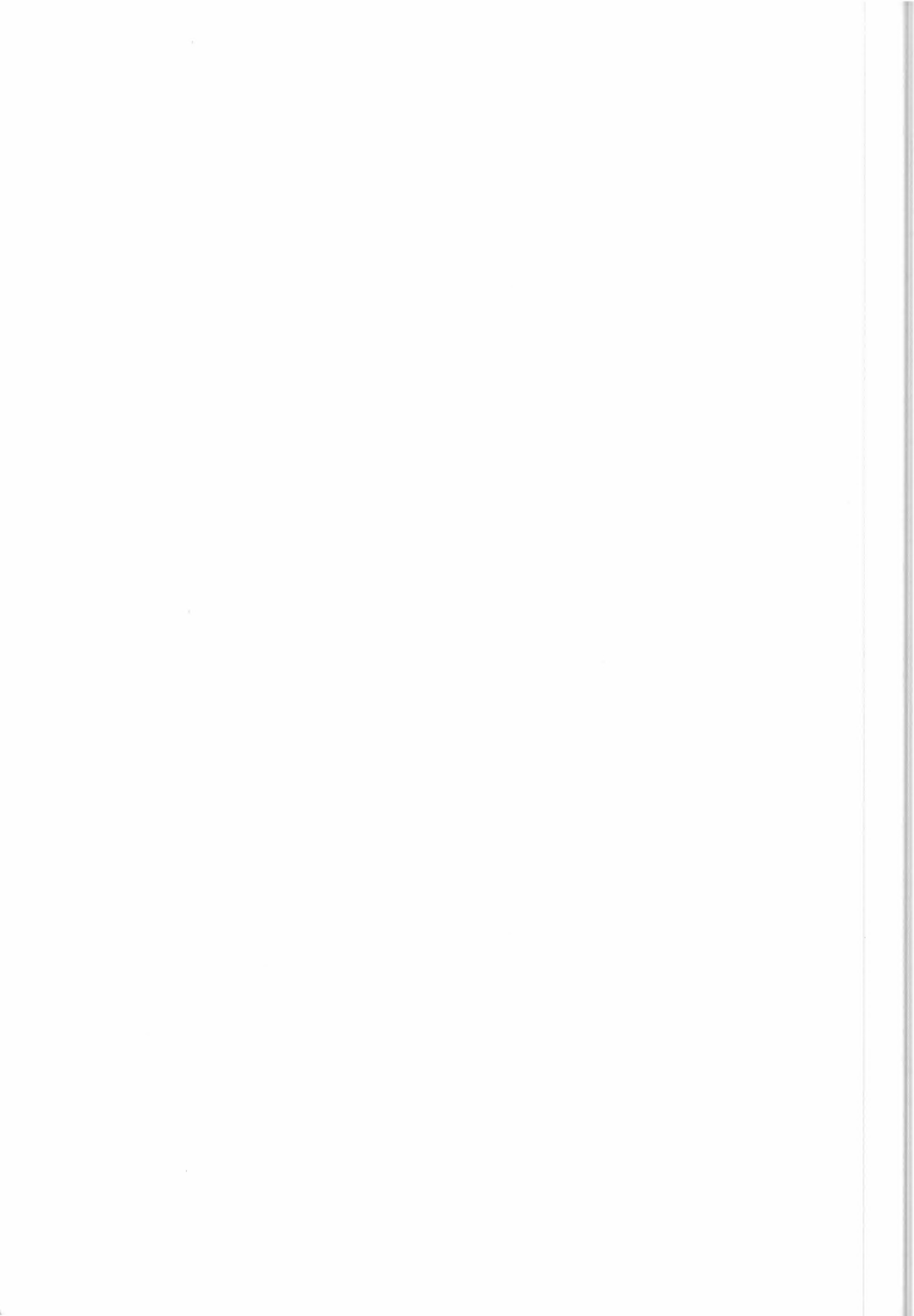
100

2.43	X_USER_INFO	20
2.44	X_USER_NAME	20
2.45	X_USER_TITLE	20
2.46	X_UTC	20
2.47	X_VECTOR	20



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 particular 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.

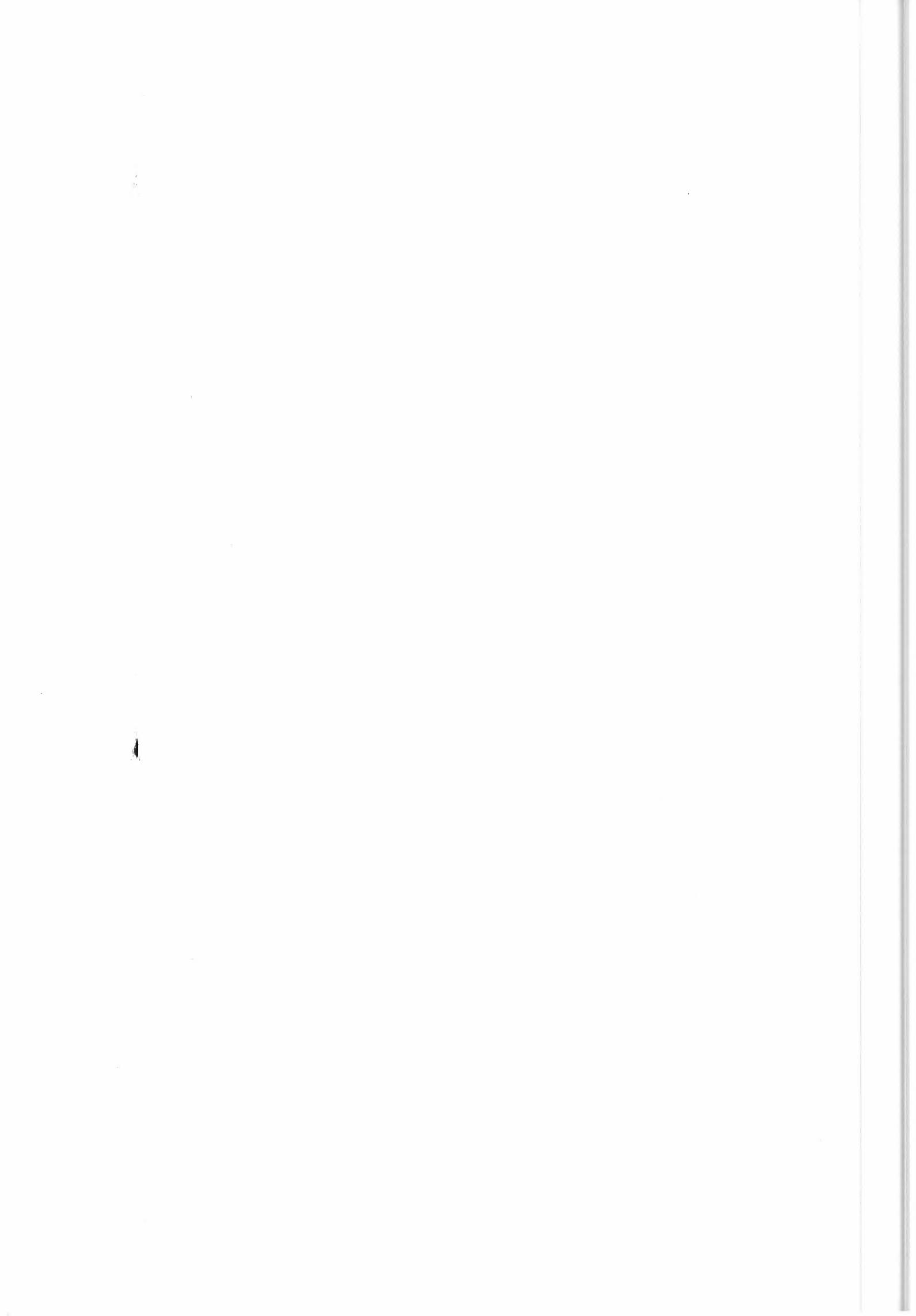
1.2 OVERVIEW

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" fields must contain all ASCII blanks.

- g) -DESCRIPTION descriptive text.



2 FORMATS

2.1 X_ACQUISITION_PCD

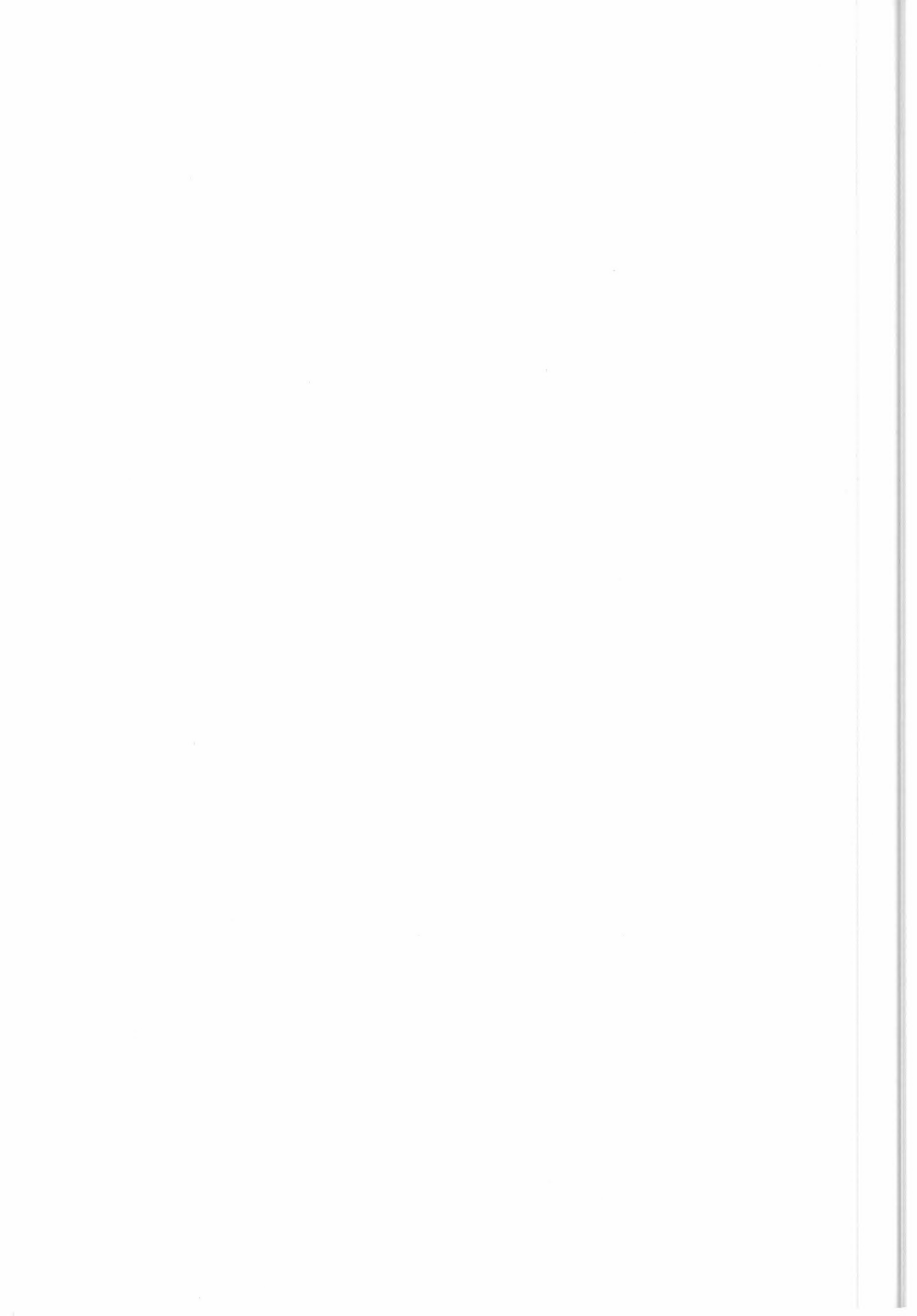
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
			6013			*** TOTAL BYTES
1.00		0		1		B HDDR Identifier
2.00	X_UTC	1		8		First Sample Time
3.00		9		4		B Number of PCD Records
4.00		13	10	600		PCD RECORDS (EACH 2 SECONDS)
4.01		13		1		B PCD Validity Flag (0 = Valid, 1 = Invalid)
4.02		14		1		B HR or LR Carrier 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	4		N Year
2.0		4	2	2		N Month
3.0		6	2	2		N Day

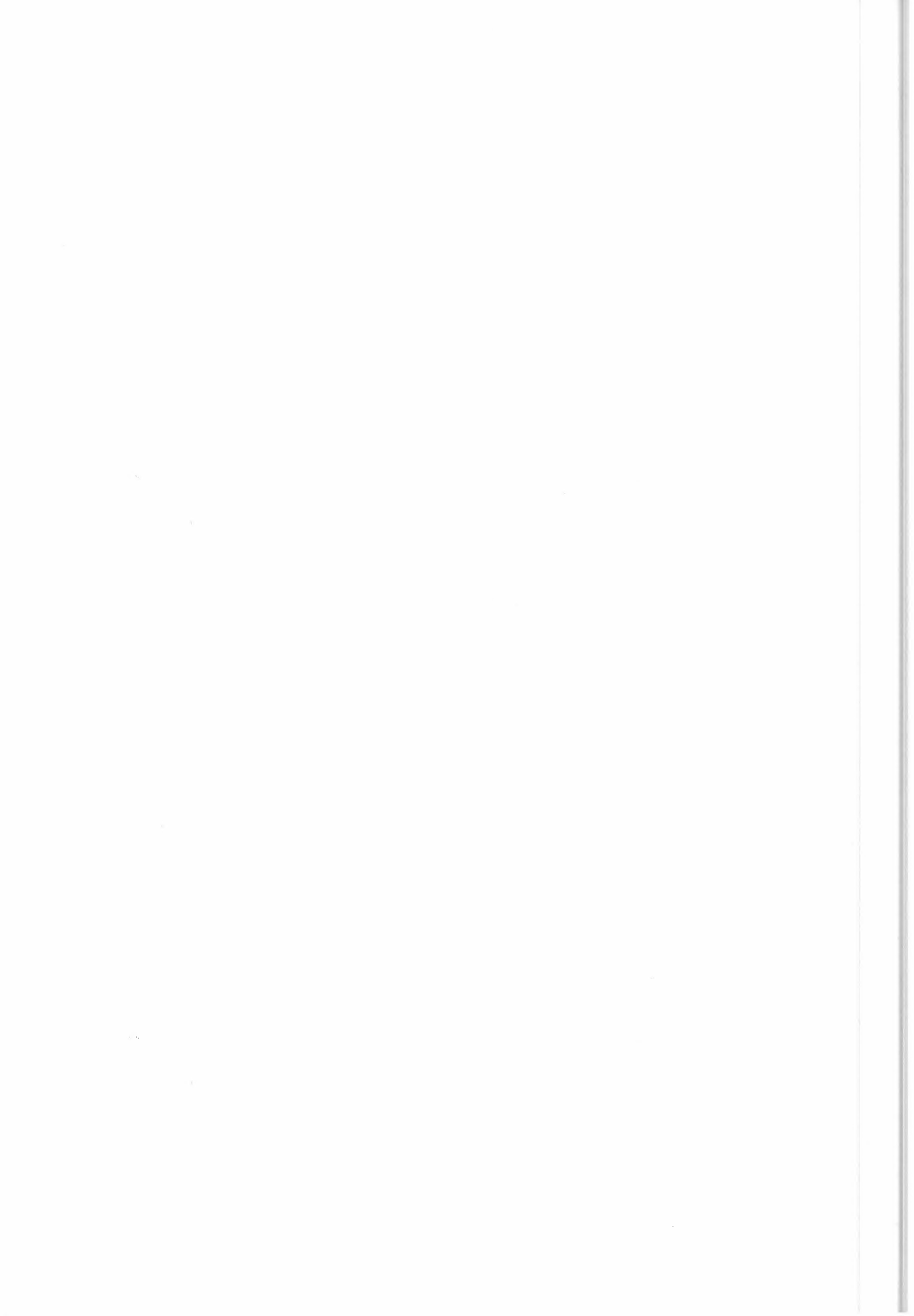
2.5 X_DATE_TIME

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

2.6 X_DAY_TIME

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

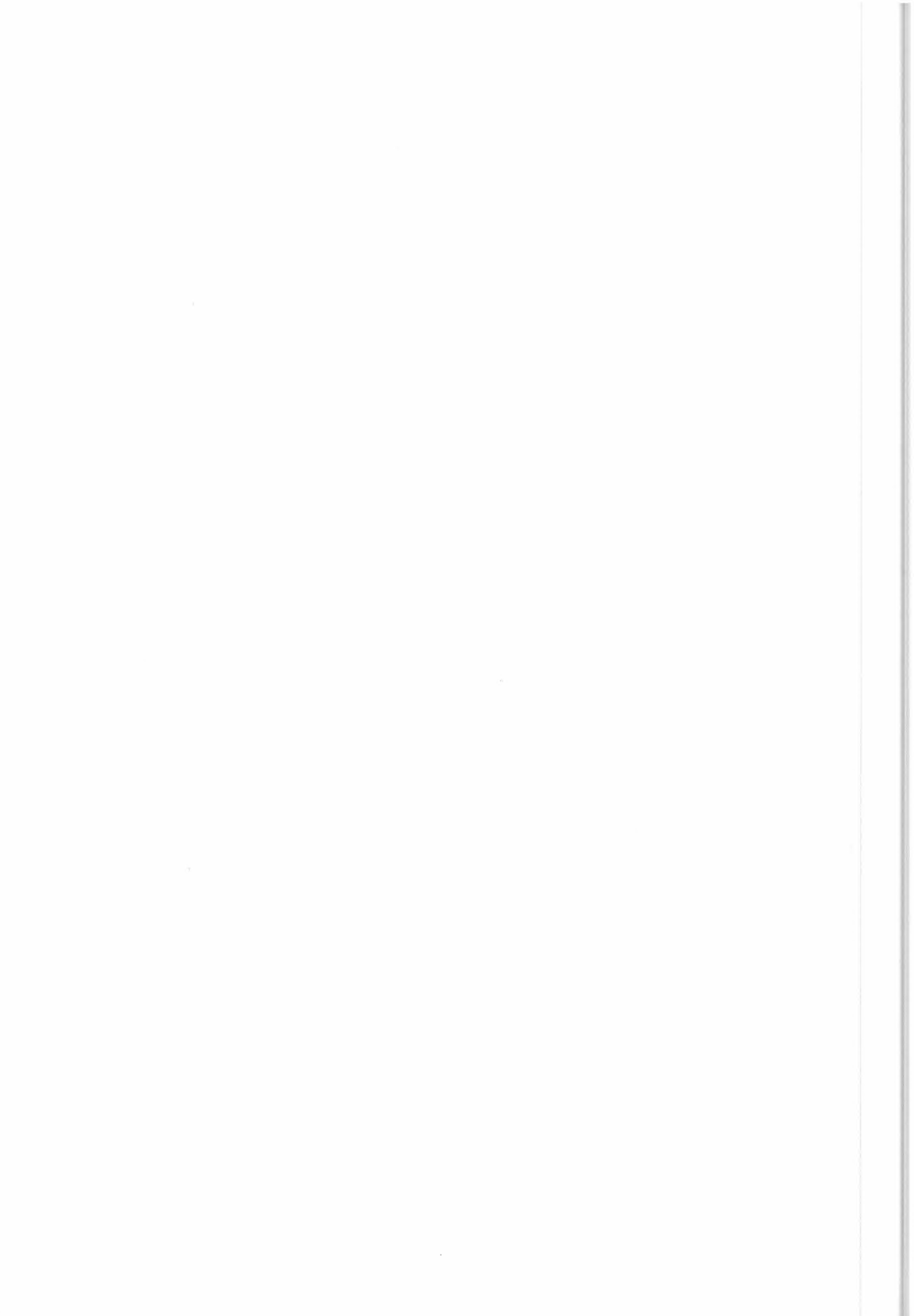
Note: room for all these fields is left in the interface, but the format specifies which fields are used.

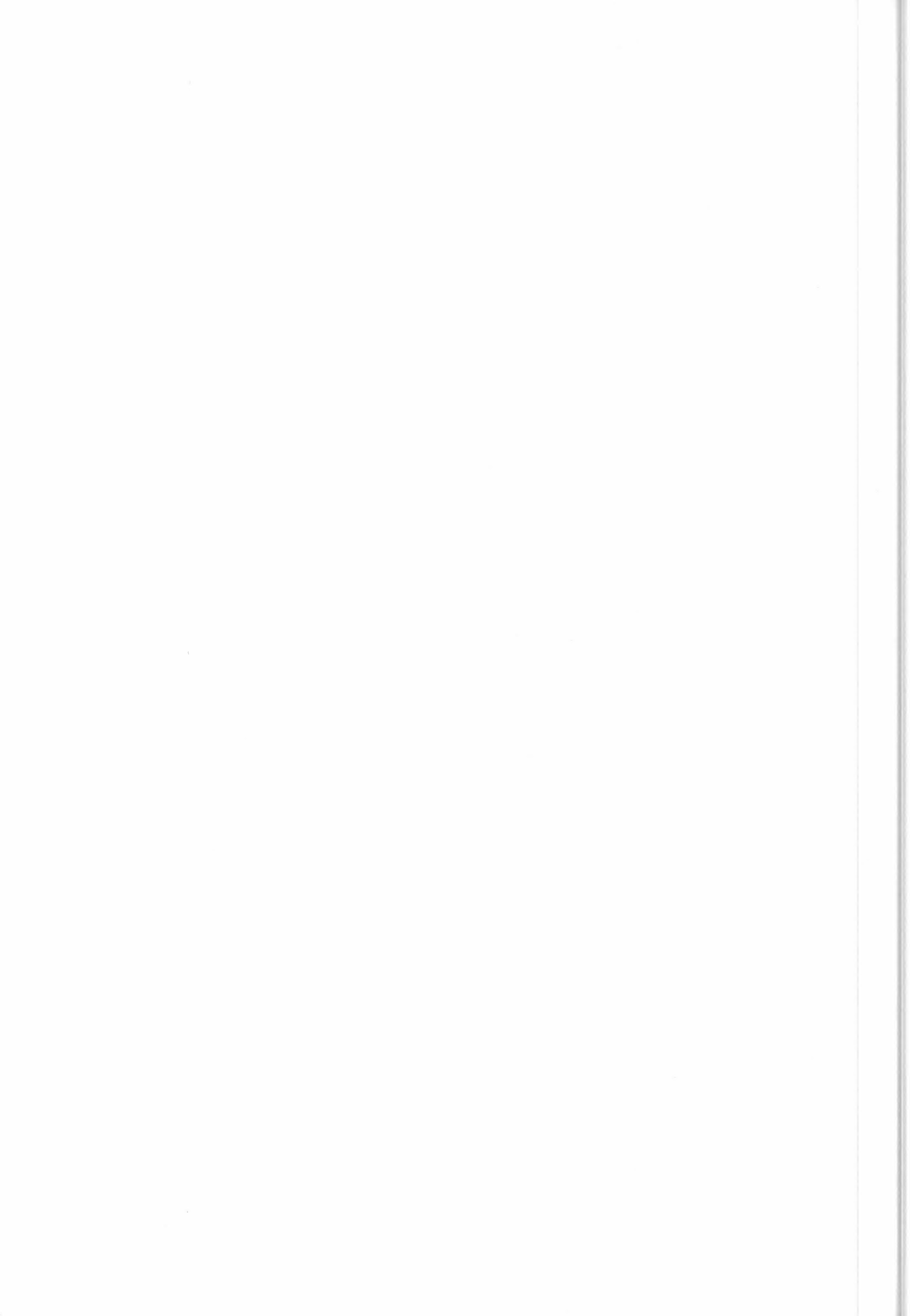


2.7 X_FACILITY_ID

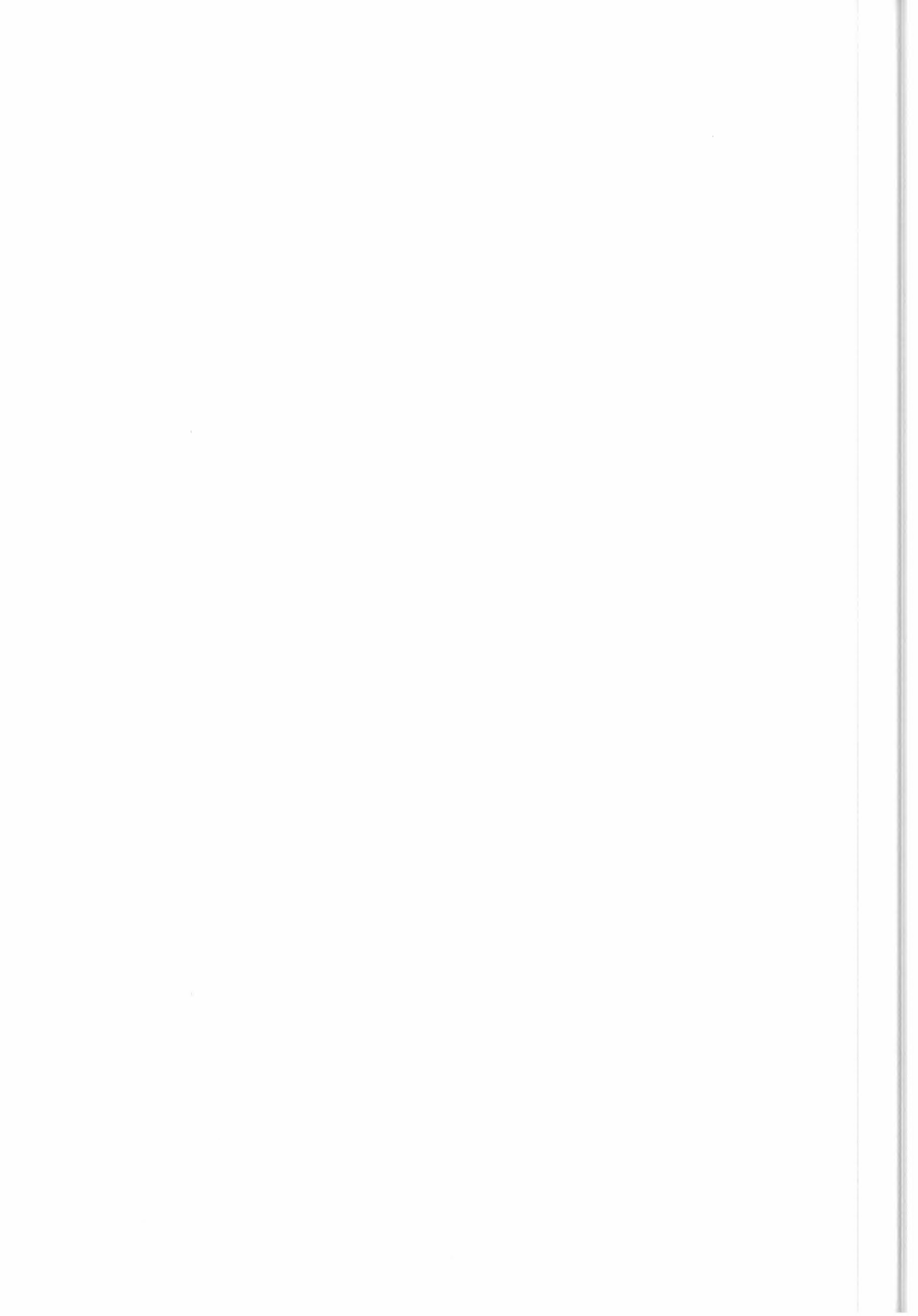
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
-----	------	-------	--------	-------	---	-------------

				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 = Tromsøe "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)



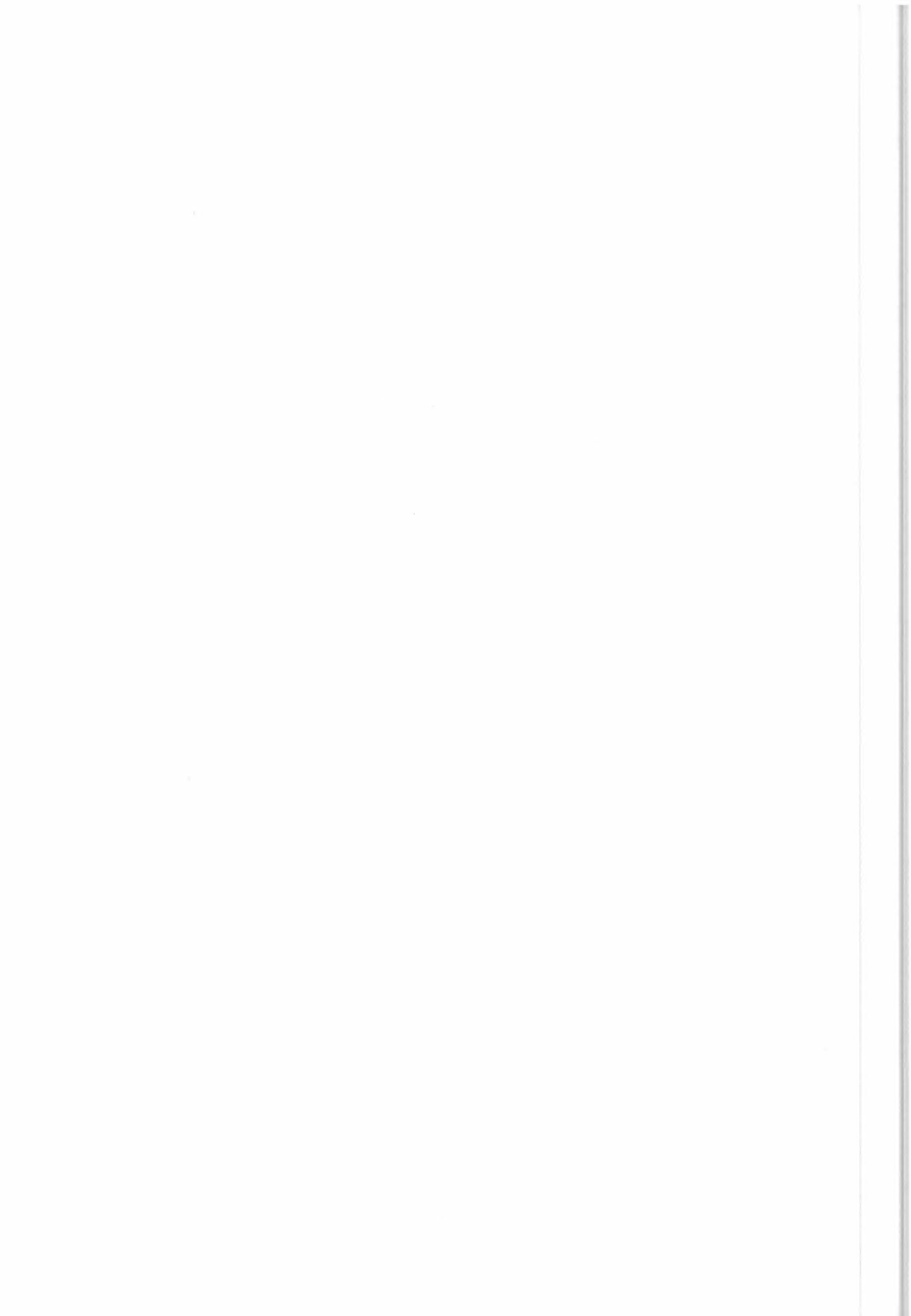


RQ = Request
SH = Schedule
TA = Table
U = User Fast Delivery Product
WS = Wind Scatterometer

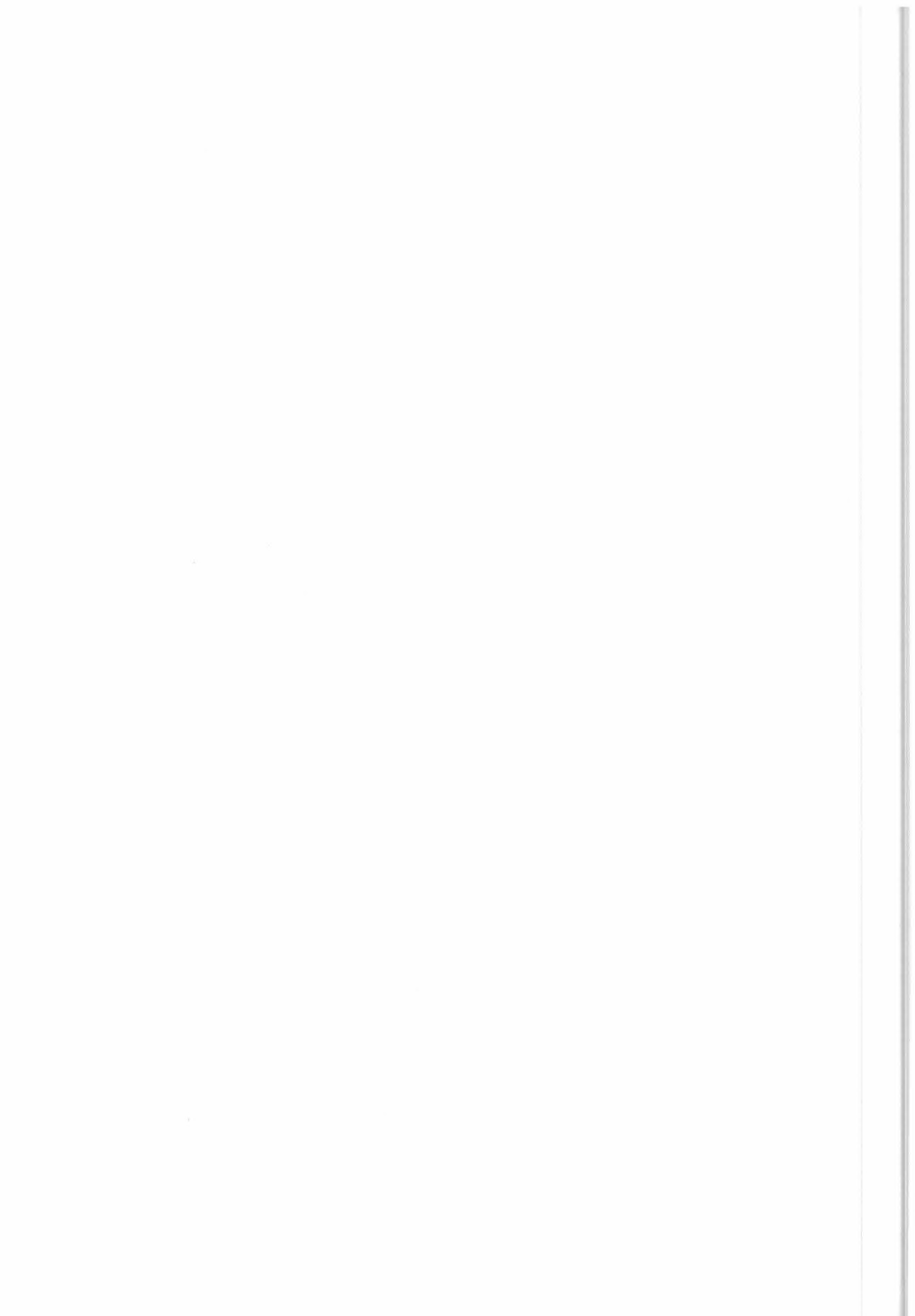


2.9 X_FILE_ID

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
						EET_ = 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



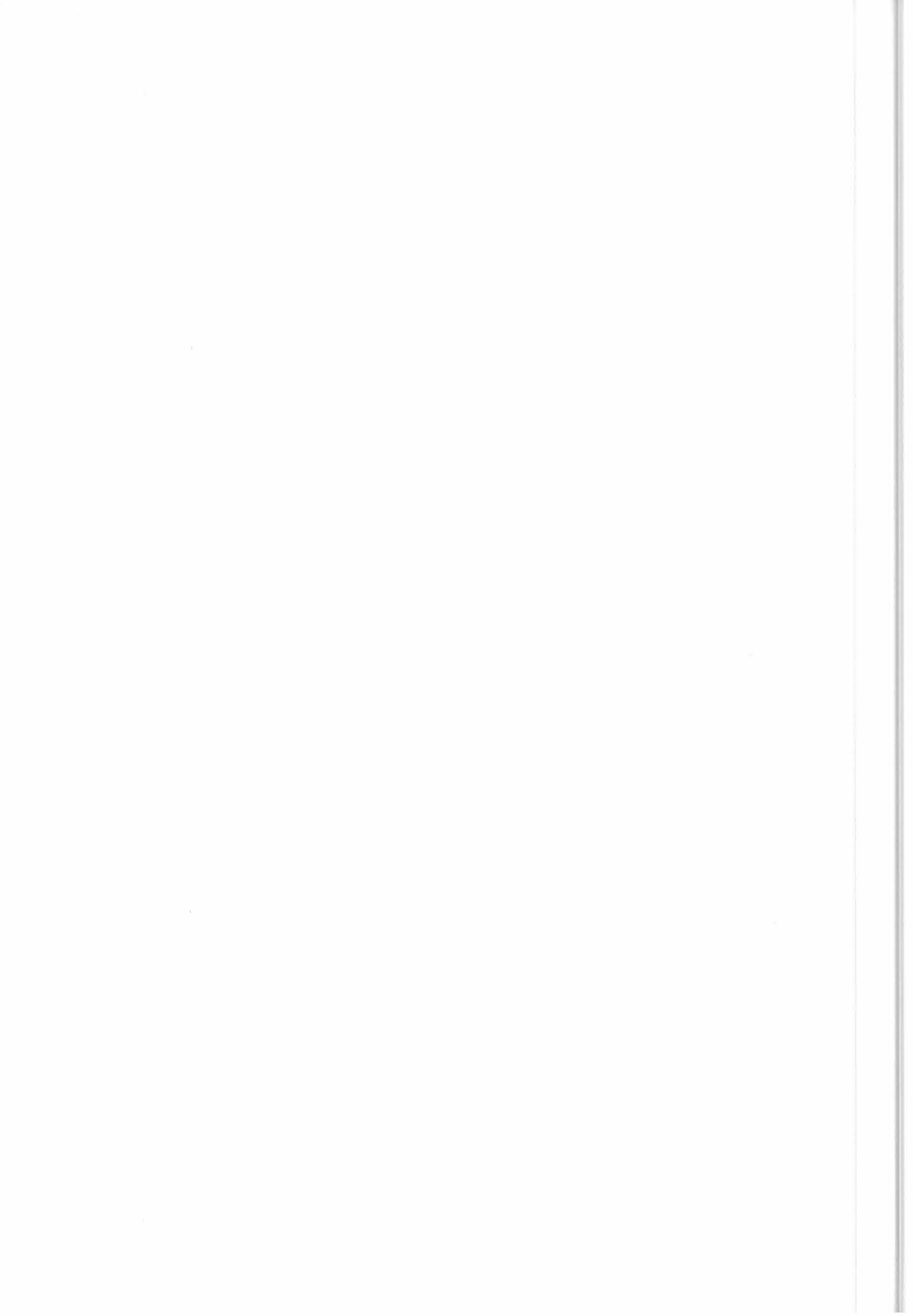
REYR_ = Report: Yearly
 RQST_ = User Request: Status
 RQUS_ = User Request: Data Entry
 RQVR_ = User Request: Validation Result
 SHAQ_ = Schedule: Acquisition
 SHDD_ = Schedule: Data Distribution (BDDN)
 SHDS_ = Schedule: Distribution BDDN
 SHKI_ = Schedule: Kiruna Acquisition
 SHOV_ = Schedule: Overrides
 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
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			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

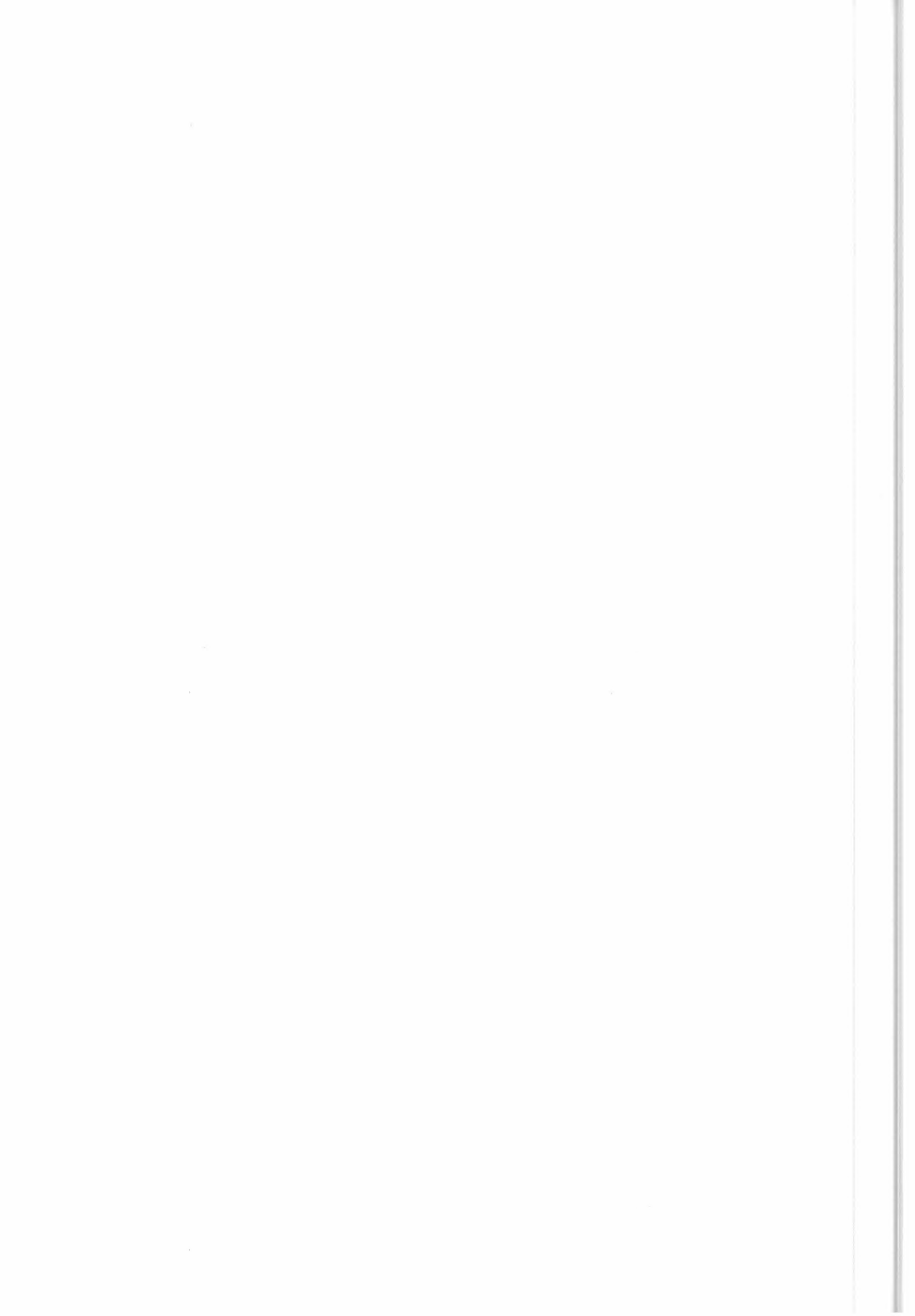
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
-----	------	-------	--------	-------	---	-------------

			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
1.0		0		2	2	<p>*** TOTAL BYTES</p> <p>A Medium Type</p> <p>C = CCT</p> <p>C1 = CCT 1600 bpi</p> <p>C6 = CCT 6250 bpi</p> <p>CD = Compact Disk (CD-ROM)</p> <p>D3 = 3"1/2 Floppy Disk for IMB PS2 or compatible</p> <p>D4 = 3"1/2 Floppy Disk for Mac Intosh or compatible</p> <p>D5 = 5"1/4 Floppy Disk for IMB PC or compatible</p> <p>E2 = Exabyte 8200</p> <p>E5 = Exabyte 8500</p> <p>F = Film</p> <p>H = HDDT (not for end users)</p> <p>O = Optical Disk</p> <p>P = Photo</p> <p>R = Paper</p> <p>S = SUN Streamer</p> <p>T = Telecommunication (not for end users)</p> <p>V = Video Tape</p>

2.17 X_ORBIT_NO

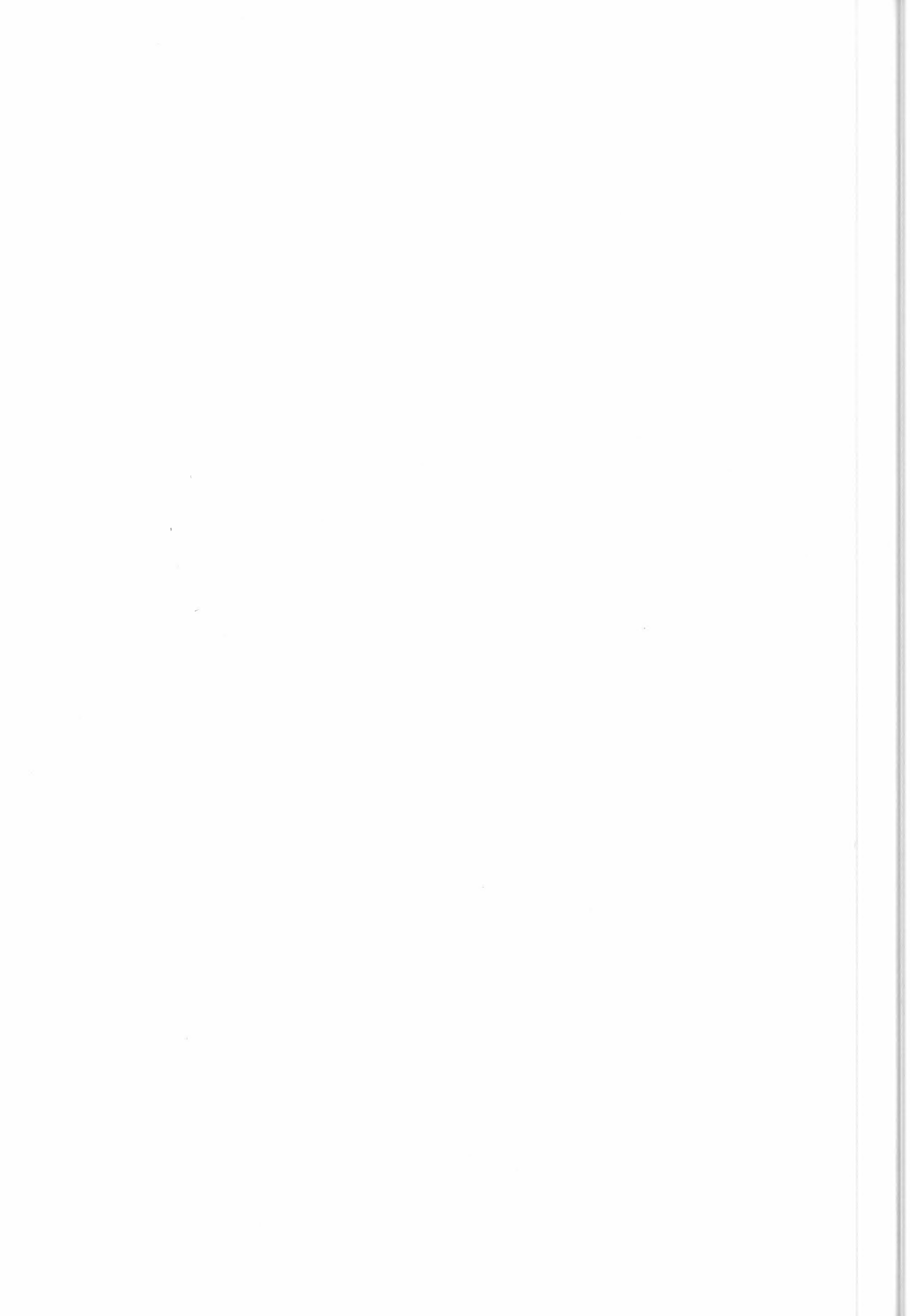
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0		5	5	<p>*** TOTAL BYTES</p> <p>N Absolute Orbit Number (since mission start; new orbit/asc. node)</p>

2.18 X_PASS_NO

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

2.19 X_PASS_TYPE

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



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

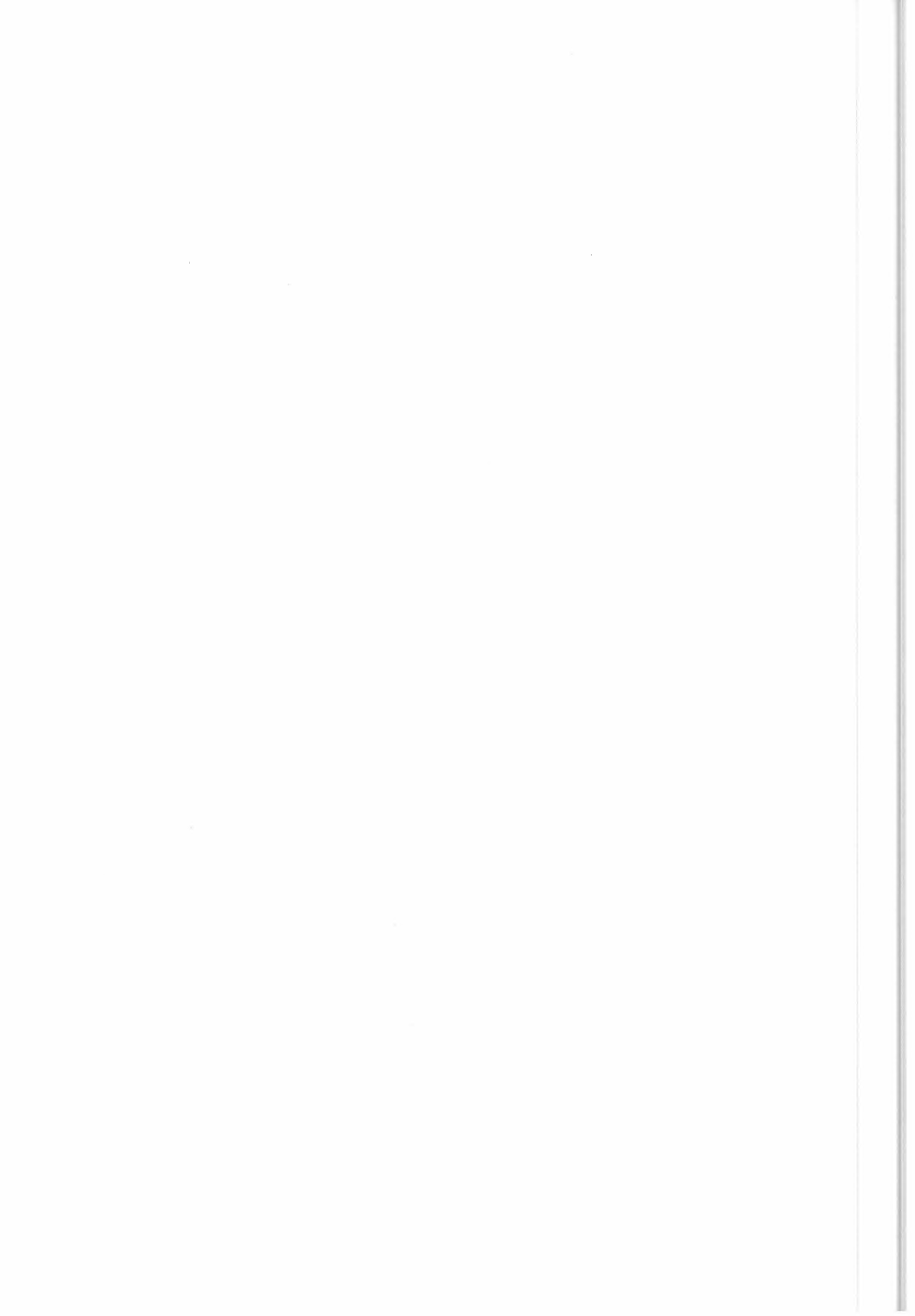
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					60	*** TOTAL BYTES
1.0	X_LAT_LONG	0		12		Product Centre Lat/Long
2.0	X_LAT_LONG	12		12	4	Corner Coordinates (Lat/Long) (for Altimeter products the four corner coordinates identify the sub-satellite track).

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

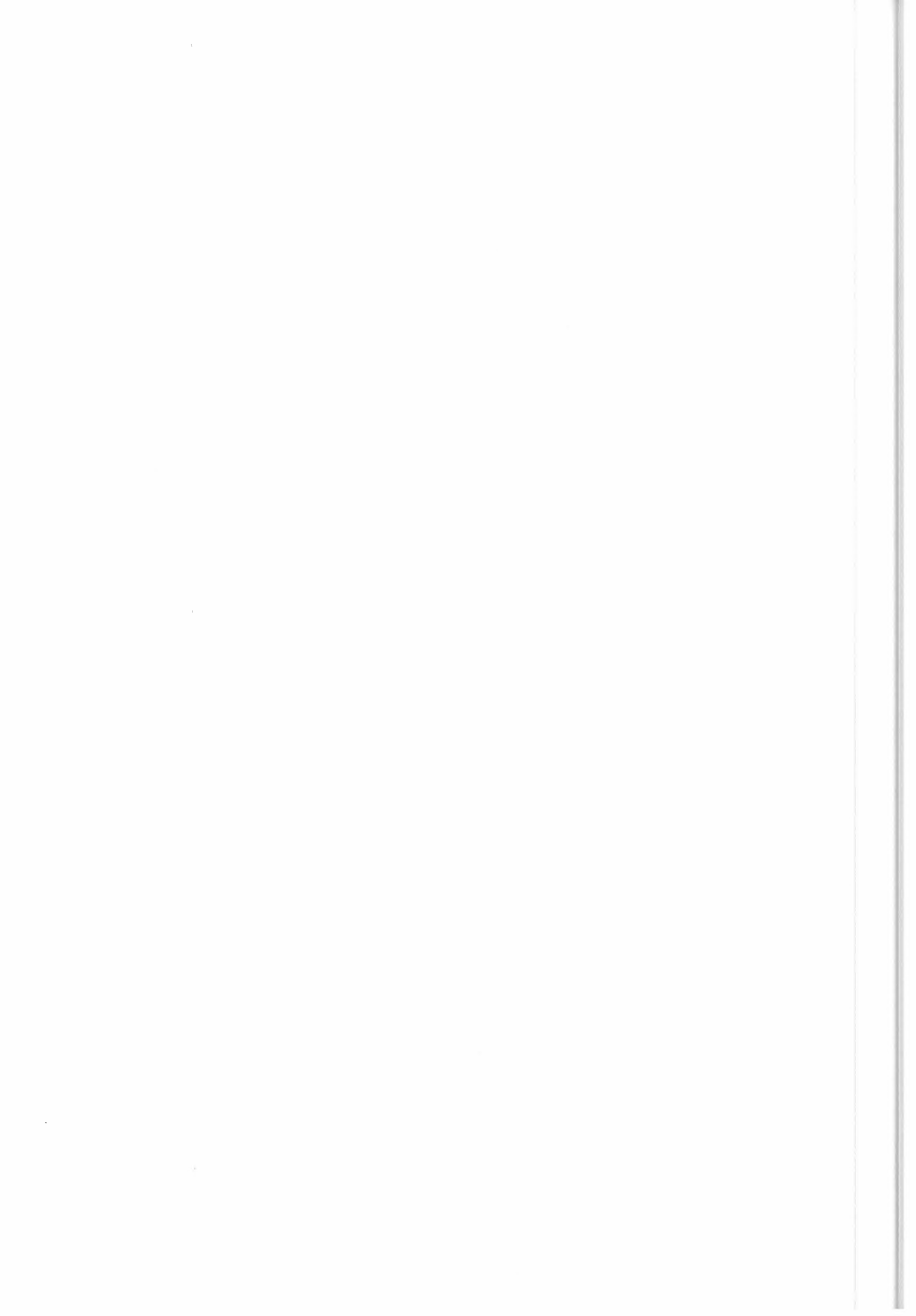


2.25 X_PRODUCT_ORDER_ID

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



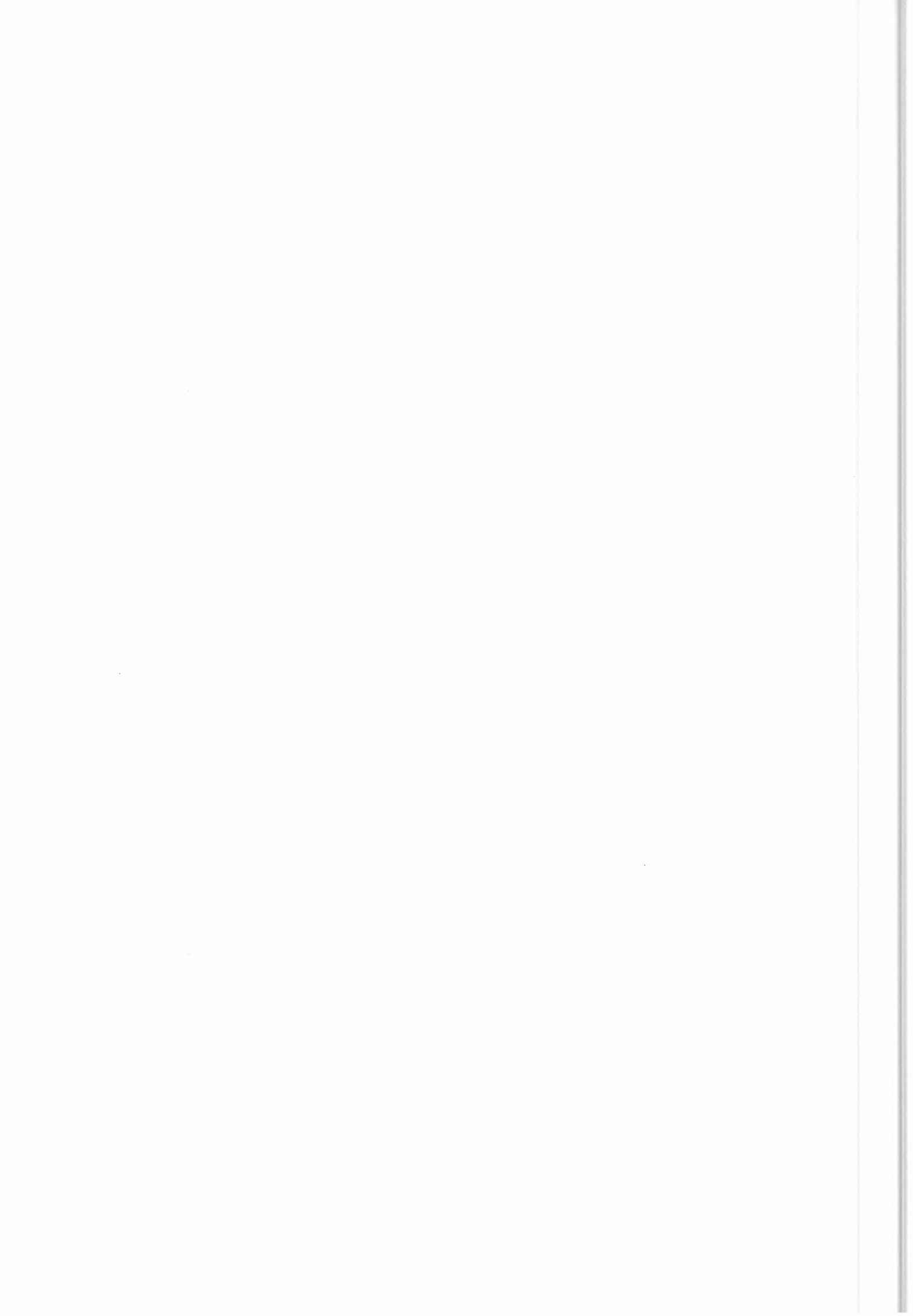
SSH = Sea Surface Height
 SST = Sea Surface Temperature Map
 TOP = Sea Surface Topography
 UIC = AMI Image Chrip Replica
 UIND = AMI Image Noise Statistics and Drift Calibration
 UI16 = AMI Image 16 bits
 UI8 = AMI Image 8 bits
 UNP = Unprocessed Data
 URA = Radar Altimeter
 UWA = AMI Wave
 UWAC = AMI 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

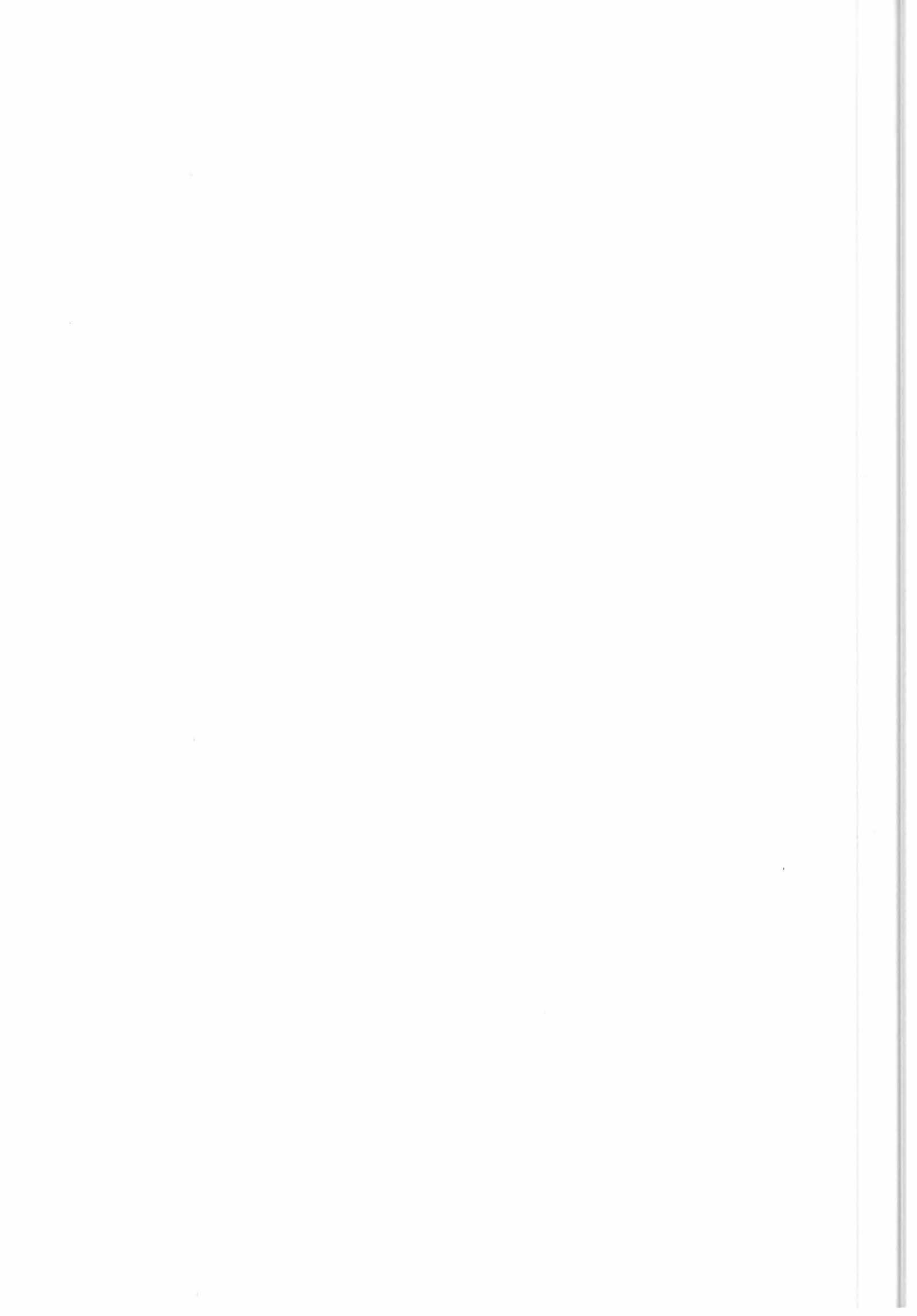
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0	2	2		*** TOTAL BYTES A Satellite/Mission Identifier E1 = ERS-1 Satellite E2 = ERS-2 Satellite J1 = JERS-1 Satellite

2.30 X_SCHEDULE_ORIGINATOR

NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0	1	1		*** TOTAL BYTES 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

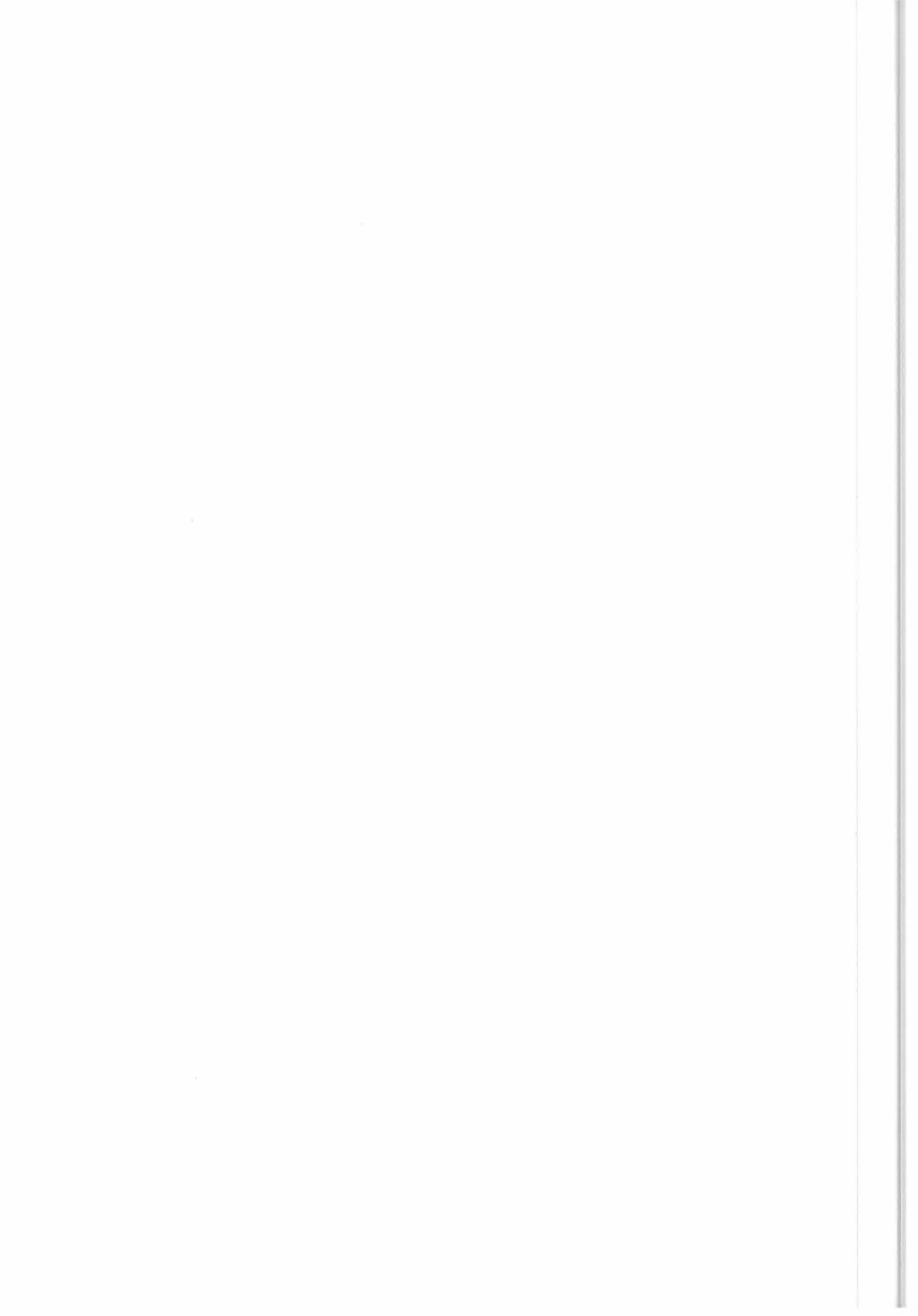
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
1.0		0	3	3		*** TOTAL BYTES A Sensor Identifier (or product group) ALT = Radar Altimeter ATS = ATSR GOM = GOME MWS = Microwave Sounder ORB = Orbit PLF = Platform PRA = PRARE SAR = AMI Image SWM = AMI Wave WSC = AMI Wind



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

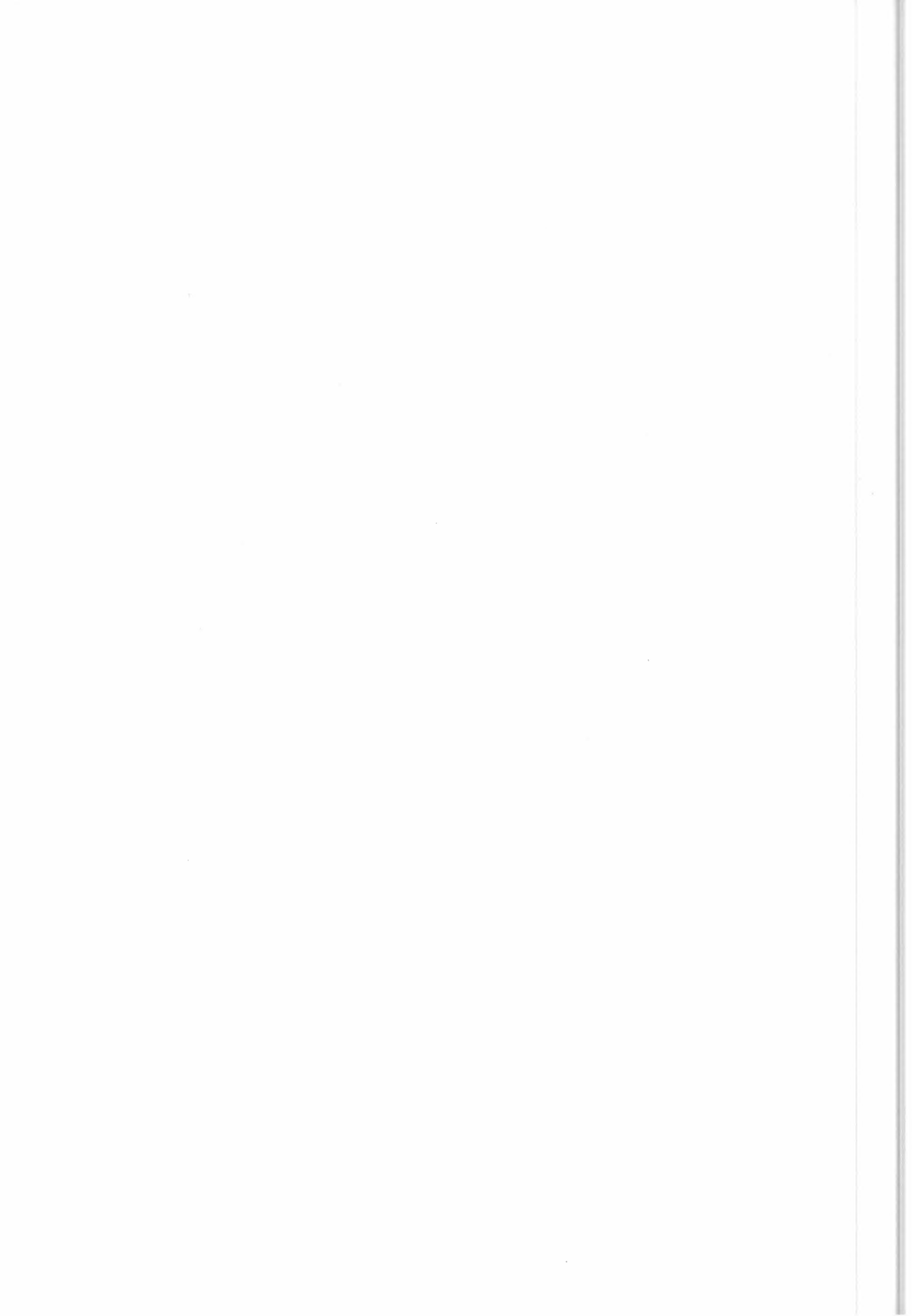
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				34		*** TOTAL BYTES
1.0	X_SENSOR_MODE	0		3		Sensor Mode
2.0		3		1		A Coverage Identifier (L=Land, S=Sea, I=Ice, M=Mixed) (all instr)
3.0		4		3		N Land Percentage (all instr; default = 000)
4.0		7		9		N Specific Parameter (SNNNNN.NN; any instr; default = +99999.99): 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 coexist, but cannot be specified with any of the other parameters. All the parameters but PC and GS can coexist. 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

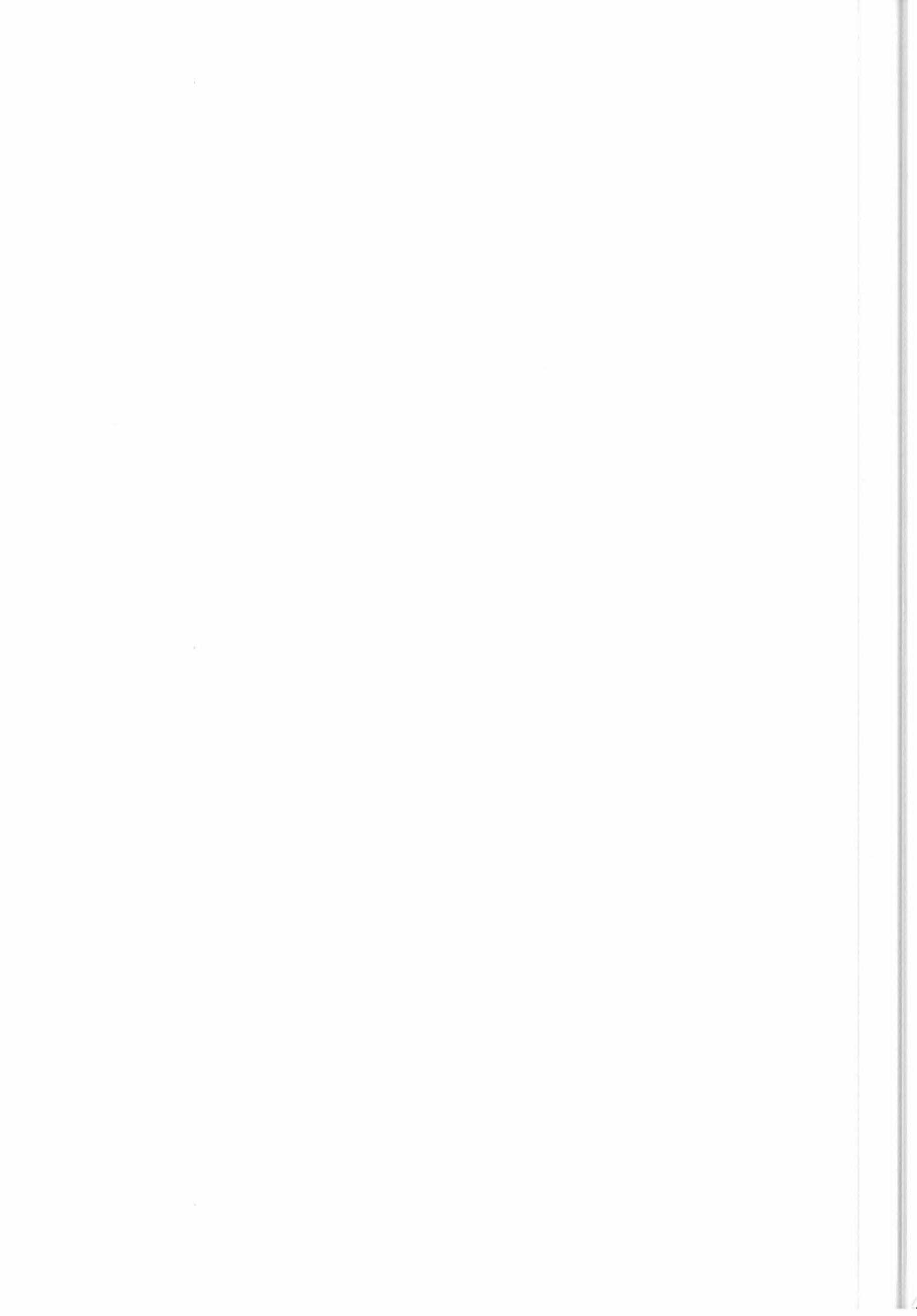
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
					6	*** TOTAL BYTES
1.0		0		2		N Hours
2.0		2		2		N Minutes
3.0		4		2		N Seconds

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

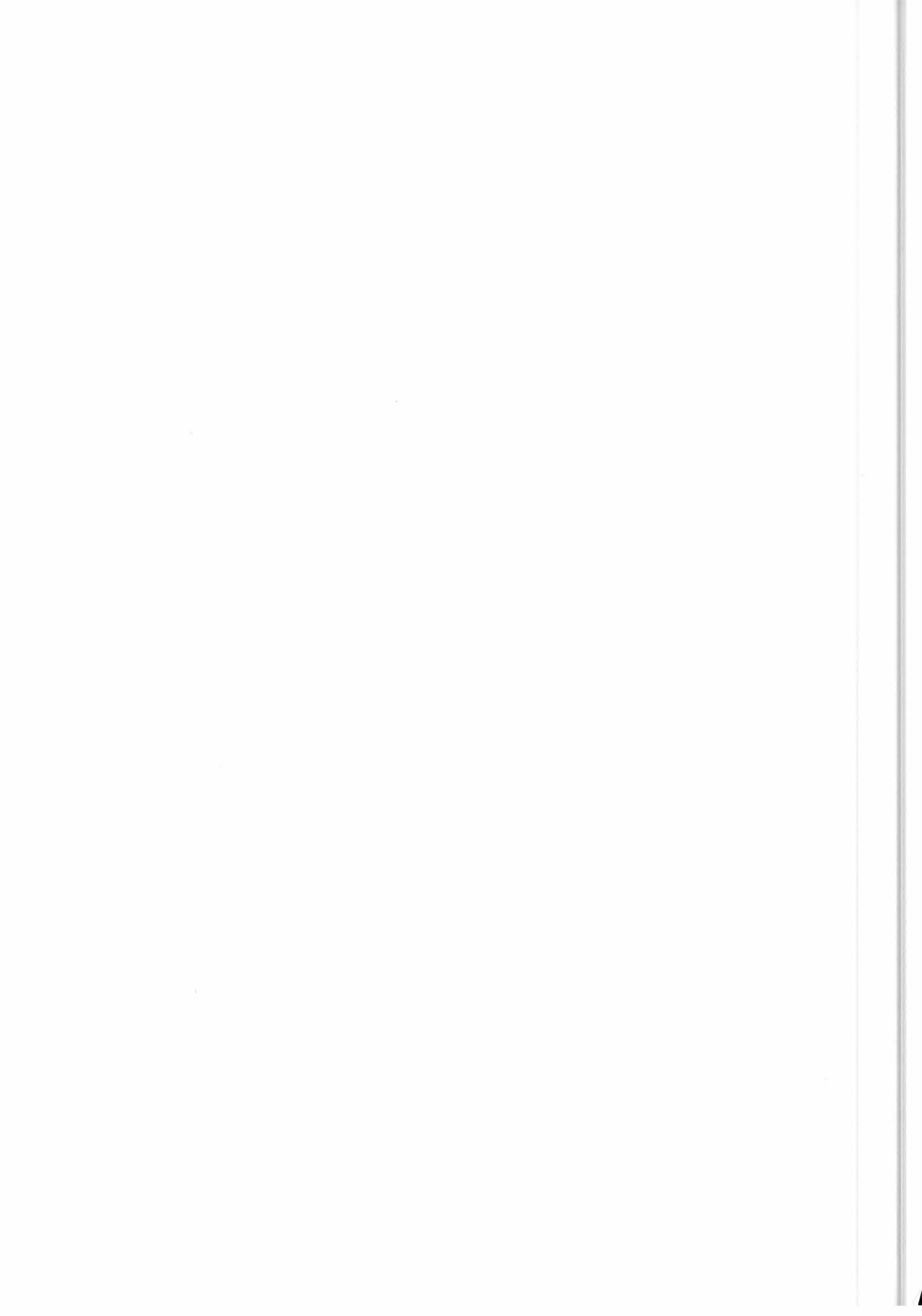
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				32		*** TOTAL BYTES
1.0		0		1		A Raw Data Quality Indicator (0 to 9; 0 best quality, 9 worst)
2.0		1		1		Reserved
3.0		2		4		B Sensing Start Binary Time
4.0		6		4		B Sensing Stop Binary Time
5.0		10		2		N Real Time Bit Error Rate Estimate
6.0		12		2		N Play 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 Telephone 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		Invoice 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 Telephone 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

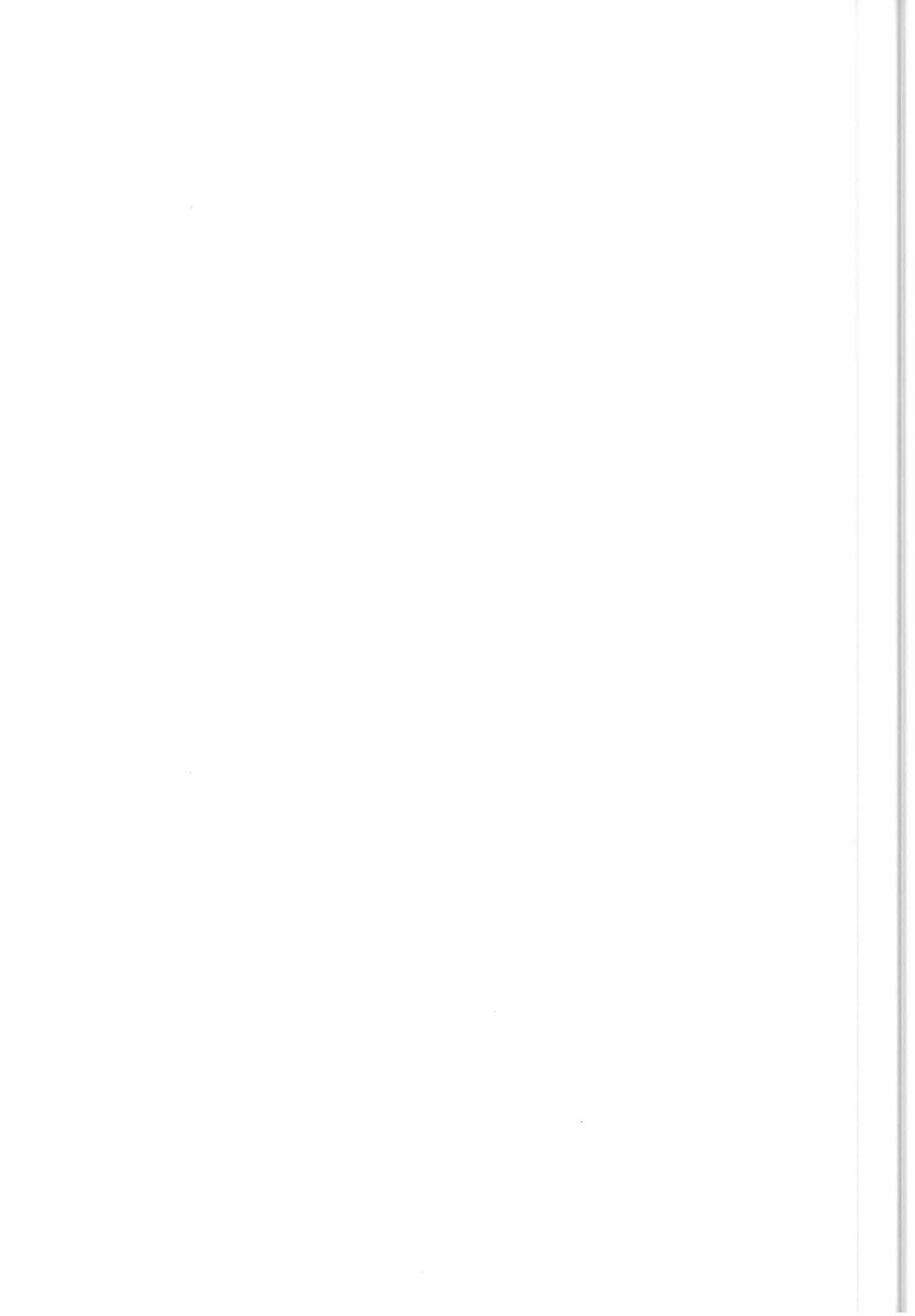
NO.	NAME	OFFST	LENGTH	TIMES	T	DESCRIPTION
				12		*** TOTAL BYTES (MINIMUM)
1.0		0		12		A User Title

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

