Each Sensor providers and foreign ground stations will send operation requests for one week to the MMOFE directory in DDS using an REQQ file, which is an individual use file. Each agency will send this file before 7:00(UTC) on Thursday 2 weeks prior to the beginning of each target week. REQQ covers one week of request from the first path after 0:00 on Wednesday to the last path including 24:00 on Tuesday of the next week.

In case that SeaPAC doesn't need to send any SeaWinds commands for an operation week, REQQ will contain only one "header record" and no "data record". MMO will receive REQQ without data record in order to clarify that there is no network problem and that SeaPAC intend not to send any SeaWinds commands during the operation week.

1. File Structure

Table 1. SeaWinds REQQ File Structure

Header Record
Data Record 1: SeaWinds Operation Request 1
Data Record 2: SeaWinds Operation Request 2
: : : : :
Data Record n: SeaWinds Operation Request n

Notes: 1. The data records are chronologically ordered.
2. All fields are described in ASCII character code.
3. See Table 3-2 for REQQ data coverage.

2. Record Structure

Table 2. REQQ Header Record

No.	Field	Contents Description	Bytes	Byte #
1	File Name	REQQnnnnnn nnnnnn: file sequential number	10	0
2	blank	0x20 (delimiter)	1	10
3	Project Name	XXXXXX 'ADEOS2'(fixed)	6	11
4	blank	0x20 (delimiter)	1	17
5	AO Provider Code (from)	XXXX 'JPL□'(fixed)	4	18
6	blank	0x20 (delimiter)	1	22
7	EOC MMO Code (to)	XXXX 'HMMO'(fixed)	4	23
8	blank	0x20 (delimiter)	1	27
9	File Creation Date	YYYYMMDD date(UTC)	8	28
10	blank	0x20 (delimiter)	1	36
11	File Creation Time	hh:mm:ss time(UTC)	8	37
12	blank	0x20 (delimiter)	1	45
13	Length of Data Record	NNNN '□□74' (fixed)	4	46
14	blank	0x20 (delimiter)	1	50
15	Number of Data Records	NNNNN Number of the data records '□□□□0' in case of no command request	5	51
16	blank	0x20 (delimiter)	1	56
17	Begin Date of Request	YYYYMMDD date(UTC)	8	57
18	blank	0x20 (delimiter)	1	65
19	End Date of Request	YYYYMMDD date(UTC)	8	66
20	blank	0x20 (delimiter)	1	74
21	File Format Version (date)	YYYYMMDD date when the file format is authorized	8	75
22	blank	0x20 (delimiter)	1	83
23	File Format Version (number)	VNN NN: version number	3	84
24	blank	0x20 (delimiter)	1	87
25	Reserved	all blank space (0x20)	39	88
26	Record End	0x0A	1	127
		Sum	128	

Table 3. REQQ Data Record

No.	Field	Contents Description	Bytes	Byte #
1	Operation Request ID	JPLnnnnnnnnn nnnnnnnnn: unique ID number in the entire mission	12	0
2	blank	0x20 (delimiter)	1	12
3	Sensor Name	XXXXXXXXXX 'SeaWinds'(fixed)	10	13
4	blank	0x20 (delimiter)	1	23
5	Sensor Code	XXX 'SEA'(fixed)	3	24
6	blank	0x20 (delimiter)	1	27
7	Operation Command	XXX 'WOM': Wind Observation Mode 'ROM': Receive Only Mode 'CAL': Continuous Calibration Mode 'STB': Standby 'CDS': CDS reset 'MC1': MACRO1 'MC2': MACRO2 'MC3': MACRO3	3	28
8	blank	0x20 (delimiter)	1	31
9	Observation Date	YYYYMMDD date(UTC)	8	32
10	blank	0x20 (delimiter)	1	40
11	Observation Path	□□□PP path number at which the command are executed	5	41
12	blank	0x20 (delimiter)	1	46
13	Argument of Latitude for Cmd. Execution	AAA.AA AL in degree at which the command is executed	6	47
14	blank	0x20 (delimiter)	1	53
15	SMC#1	XXXX If required; otherwise fill with "****".	4	54
16	blank	0x20 (delimiter)	1	58
17	SMC#2	XXXX If required; otherwise fill with "****".	4	59
18	blank	0x20 (delimiter)	1	63
19	SMC#3	XXXX If required; otherwise fill with "****".	4	64
20	blank	0x20 (delimiter)	1	68
21	Checksum	XXXX	4	69
22	Record End	0x0A	1	73
		Sum	74	

REQA is an individual use file prepared by MMO to reply to each REQQ, based on the results of a format check for REQQ submitted. MMO prepares REQA soon after the receipt of REQQ.

1. File Structure

Table 1. File Structure

SeaWinds REQA Header Record
Data Record 1: error record of REQQ 1
Data Record 1: error record of REQQ 2
: : : : : :
Data Record 1: error record of REQQ n

Notes: 1. The data records are chronologically ordered.
2. All fields are described in ASCII character code.
3. For the erroneous REQQ, all of the data records including format errors are reported.

2. Record Structure

Table 2. REQA Header Record

No.	Field	Contents Description	Bytes	Byte #
1	File Name	REQAnnnnnn nnnnnn: file sequential number	10	0
2	blank	0x20 (delimiter)	1	10
3	Project Name	XXXXXX 'ADEOS2'(fixed)	6	11
4	blank	0x20 (delimiter)	1	17
5	EOC MMO Code (from)	XXXX 'HMMO'(fixed)	4	18
6	blank	0x20 (delimiter)	1	22
7	AO Provider Code (to)	XXXX 'JPL□'(fixed)	4	23
8	blank	0x20 (delimiter)	1	27
9	File Creation Date	YYYYMMDD date(UTC)	8	28
10	blank	0x20 (delimiter)	1	36
11	File Creation Time	hh:mm:ss time(UTC)	8	37
12	blank	0x20 (delimiter)	1	45
13	Length of Data Record	NNNN '0000' (fixed: dummy value, the length of the data record is variable)	4	46
14	blank	0x20 (delimiter)	1	50
15	Number of Data Records	NNNNN number of plans or erroneous data records in REQQ	5	51
16	blank	0x20 (delimiter)	1	56
17	Begin Date of Plan	YYYYMMDD date(UTC)	8	57
18	blank	0x20 (delimiter)	1	65
19	End Date of Plan	YYYYMMDD date(UTC)	8	66
20	blank	0x20 (delimiter)	1	74
21	File Format Version (date)	YYYYMMDD date when the file format is authorized	8	75
22	blank	0x20 (delimiter)	1	83
23	File Format Version (number)	VNN NN: version number	3	84
24	blank	0x20 (delimiter)	1	87
25	REQQ File Name	REQQnnnnnn REQQ file name corresponding to this REQA	10	88
26	blank	0x20 (delimiter)	1	98
27	Reserved	all blank space (0x20)	28	99
28	Record End	0x0A	1	127
		Sum	128	

Table 3. REQA Data Record (when format error is included)

No.	Field	Contents Description	Bytes	Byte #
1	Format Check Result	XX 'NG' (fixed): Format errors are found.	2	0
2	blank	0x20 (delimiter)	1	2
3	Format Error	copy of the data record which includes format errors	255	3
4	Record End	0x0A	1	258
		Sum	259	

OPLN is an indivisual use file prepared by MMO to inform each agencies of ADEOS-II operation plan in response to REQQ which each agency submitted. Nine OPLN files are generated simultaneously, and thay are taylored to each sensors, AMSR, GLI, ILAS-II, SeaWinds, POLDER, DCS, TEDA, VMS and DMS. MMO will prepare OPLN before 8:00 UTC on Thursday before the target week. OPLN covers 7 days of operation plan from the first path after 0:00 UTC on Tuesday to the last path including 24:00 UTC on the next Monday.

1. File Structure

Table 1. File Structure

OPLN File Header			
Data Records	Operation Segment	#1	
		Acquisition Segment	#1
		Acquisition Segment	#2
		Acquisition Segment	#l
	Operation Segment	#2	
		Acquisition Segment	#1
		Acquisition Segment	#2
		Acquisition Segment	#m
	Operation Segment	#K	
		Acquisition Segment	#1
		Acquisition Segment	#2
		Acquisition Segment	#n

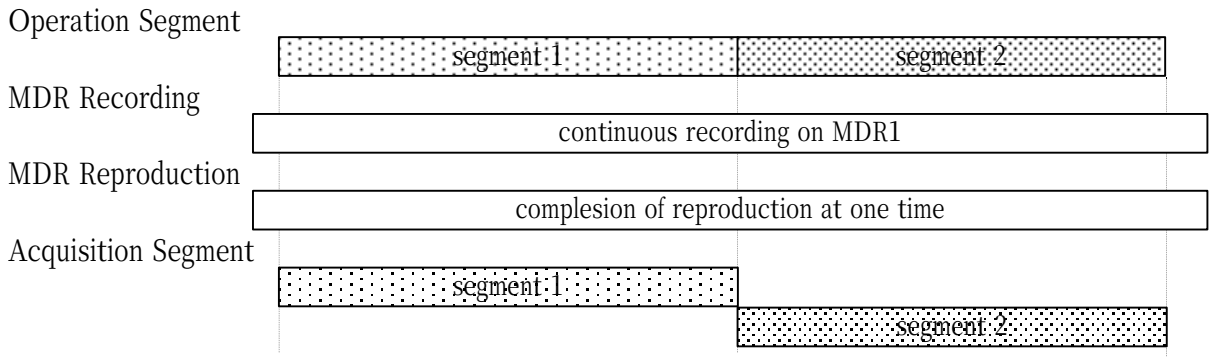
Notes:

1. In the above drawing, l, m and n are generally different.
2. Each "Acquisition Segment" record contains both of the downlink and acquisition segments information.
3. See Table 3-2 for OPLN data coverage

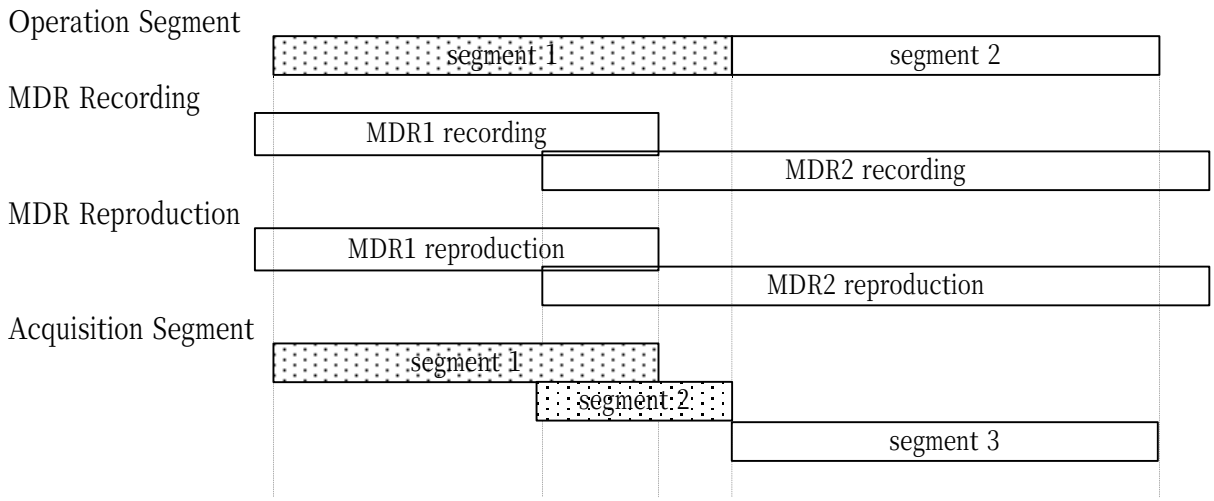
Supplemental explanation

1) Supposed the following operation pattern;

Example 1



Example 2



2) File structure becomes as follows;

Example 1 Operation

Information of Operation Segment 1 Information of Acquisition Segment 1 and Downlink Segment by MDR1
Information of Operation Segment 2 Information of Acquisition Segment 2 and Downlink Segment by MDR1

Example 1 Operation

Information of Operation Segment 1 Information of Acquisition Segment 1 and Downlink Segment by MDR1 Information of Acquisition Segment 2 and Downlink Segment by MDR2
Information of Operation Segment 2 Information of Acquisition Segment 3 and Downlink Segment by MDR2

2. Record Structure

Table 2. OPLN Header Record

No.	Field	Contents Description	Bytes	Byte #
1	File Name	OPLNxxxnnn OPLN: symbol of OPLN file xxx ='SEA' : SeaWinds nnn : sequential number (001 to 999)	10	0
2	blank	0x20 (delimiter)	1	10
3	Project Name	XXXXXX 'ADEOS2'(fixed)	6	11
4	blank	0x20 (delimiter)	1	17
5	EOC MMO Code (from)	XXXX 'HMMO' (fixed)	4	18
6	blank	0x20 (delimiter)	1	22
7	Agency Code (to)	XXXX '****'(fixed)	4	23
8	blank	0x20 (delimiter)	1	27
9	File Creation Date	YYYYMMDD date(UTC)	8	28
10	blank	0x20 (delimiter)	1	36
11	File Creation Time	hh:mm:ss time(UTC)	8	37
12	blank	0x20 (delimiter)	1	45
13	Length of Data Record	NNNN '****'(fixed)	4	46
14	blank	0x20 (delimiter)	1	50
15	Number of Data Records	NNNNN	5	51
16	blank	0x20 (delimiter)	1	56
17	Begin Date of Data(UTC)	YYYYMMDD beginning of acq. seg. of the 1st record	8	57
18	blank	0x20 (delimiter)	1	65
19	End Date of Data(UTC)	YYYYMMDD end of acq. seg. of the last record	8	66
20	blank	0x20 (delimiter)	1	74
21	File Format Version (date)	YYYYMMDD date when the file format is authorized	8	75
22	blank	0x20 (delimiter)	1	83
23	File Format Version (number)	VNN NN: version number	3	84
24	blank	0x20 (delimiter)	1	87
25	Reserved	all blank space (0x20)	39	88
26	Record End	0x0A	1	127
		Sum	128	

Table 3. OPLN Data Record (SeaWinds Operation Information)

No.	Field	Contents Description	Byte	Byte #
1	Operation Segment Number	NSEAddddsss	11	0
2	blank	0x20 (delimiter)	1	11
3	Sensor Name	XXX 'SEA'(fixed)	3	12
4	blank	0x20 (delimiter)	1	15
5	Operation Mode	XXX 'WOM': Wind Observation Mode 'ROM': Receive Only Mode 'CAL': Continuous Calibration Mode 'CDS': CDS reset 'MC1': MACRO1 'MC2': MACRO2 'MC3': MACRO3 'CNT': continue same mode at A.N.	3	16
6	blank	0x20 (delimiter)	1	19
7	Start RSP of Operation Segment	PPPPP□AAA.AA start RSP of operation segment	12	20
8	blank	0x20 (delimiter)	1	32
9	Stop RSP of Operation Segment	PPPPP□AAA.AA stop RSP of operation segment	12	33
10	blank	0x20 (delimiter)	1	45
11	Orbit Total Number for the Start of Operation	NNNNN orbit total number corresponding to #7	5	46
12	blank	0x20 (delimiter)	1	51
13	Orbit Total Number for the Stop of Operation	NNNNN orbit total number corresponding to #9	5	52
14	blank	0x20 (delimiter)	1	57
15	Begin Date of the Operation Segment(UTC)	YYYYMMDD□hh:mm:ss	17	58
16	blank	0x20 (delimiter)	1	75
17	End Date of the Operation Segment(UTC)	YYYYMMDD□hh:mm:ss	17	76
18	blank	0x20 (delimiter)	1	93
19	Time from A.N. for the Start of Operation Segment(sec)	NNNNN	5	94
20	blank	0x20 (delimiter)	1	99
21	Time from A.N. for the Stop of Operation Segment(sec)	NNNNN	5	100
22	Record End	0x0A	1	105
		Sum	106	

Note: SeaWinds will be operated in a given mode longer than the orbital period. Then, its operation segment is determined for each path so that its length doesn't exceed a path. At such a path "CNT" is set in the field #5 "Operation Mode".

Table 4. OPLN Data Record(Acquisition Information)(1/2)

No.	Field	Contents Description	Byte	Byte #
1	Acquisition Segment Number	Sxxxddddsss xxx='SEA': SeaWinds	11	0
2	blank	0x20 (delimiter)	1	11
3	Downlink Path Number	Ｐｄｄｄｄｎｎｓｓｓｓ	11	12
4	blank	0x20 (delimiter)	1	23
5	Downlink Segment Number	Ｄｘｘｘｄｄｄｄｓｓｓ－ｚｚ	14	24
6	blank	0x20 (delimiter)	1	38
7	Start RSP of Acquisition Segment	PPPPP□AAA.AA RSP at the start of acquisition segment	12	39
8	blank	0x20 (delimiter)	1	51
9	Stop RSP of Acquisition Segment	PPPPP□AAA.AA RSP at the stop of acquisition segment	12	52
10	blank	0x20 (delimiter)	1	64
11	Time from AN for the Start of Acquisition Segment(sec)	NNNNN Time is measured from the ascending node.	5	65
12	blank	0x20 (delimiter)	1	70
13	Time from AN for the Stop of Acquisition Segment(sec)	NNNNN Time is measured from the ascending node.	5	71
14	blank	0x20 (delimiter)	1	76
15	Start of the Acquisition Segment (observation time in UTC)	YYYYMMDD□hh:mm:ss absolute time based on predicted orbit data	17	77
16	blank	0x20 (delimiter)	1	94
17	Stop of the Acquisition Segment (observation time in UTC)	YYYYMMDD□hh:mm:ss absolute time based on predicted orbit data	17	95
18	blank	0x20 (delimiter)	1	112
19	Start RSP of Downlink Segment	PPPPP□AAA.AA RSP at the start of downlink segment	12	113
20	blank	0x20 (delimiter)	1	125
21	Stop RSP of Downlink Segment	PPPPP□AAA.AA RSP at the stop of downlink segment	12	126
22	blank	0x20 (delimiter)	1	138
23	Time from A.N. for the Start of Downlink Segment(sec)	NNNNN Time is measured from the ascending node.	5	139
24	blank	0x20 (delimiter)	1	144
25	Time from A.N. for the Stop of Downlink Segment(sec)	NNNNN Time is measured from the ascending node.	5	145
26	blank	0x20 (delimiter)	1	150

Table 4. OPLN Data Record(Acquisition Information)(2/2)

No.	Field	Contents Description	Byte	Byte #
27	Begin Date of Downlink Segment (UTC)	YYYYMMDD□hh:mm:ss absolute time for the start of downlink seg.	17	151
28	blank	0x20 (delimiter)	1	168
29	End Date of Downlink Segment (UTC)	YYYYMMDD□hh:mm:ss absolute time for the stop of downlink seg.	17	169
30	blank	0x20 (delimiter)	1	186
31	Acquisition Frequency Band	XXX 'X1□': X1 band 'X3□': X3 band 'QCH': Qch band 'ICH': Ich band	3	187
32	blank	0x20 (delimiter)	1	190
33	Acquisition Mode	XXX 'GLI' : real-time GLI250m data 'MDR' : MDR reproduction of multiple data 'ODM' : ODR reproduction of multiple data 'ODR' : ODR reproduction of GLI250m data 'MRT' : multiple real-time data capture	3	191
34	blank	0x20 (delimiter)	1	194
35	Station Code	XXXX 'HEOC': NASDA/EOC(Hatoyama) 'ASF□': Alaska SAR Facility 'WFF□': Wallops Flight Facility 'KRNS': Kiruna station	4	195
36	blank	0x20 (delimiter)	1	199
37	Assigned IOCS	NNNNNN 'DRTS-E': via DRTS-E 'DRTS-W': via DRTS-W 'ARTEMS': via ARTEMIS 'DIRECT': Direct Acquisition by DT-X	6	200
38	Record End	0x0A	1	206
		Sum	207	