#720

VOYAGER 2

URANUS CELESTIAL MECHANICS

77-076A-02I

77-076A-02I

VOYAGER 2

URANUS CELESTIAL MECHANICS

THIS DATA SET CONSISTS OF 2 TAPES. THE D TAPES ARE 9-TRACK,6250 BPI,BINARY,AND THE C TAPES ARE 3480 CARTRIDGES. THEY WERE CREATED ON THE UNIVAC WITH A @COPY COMMAND.

THE TAPES HAVE EXTERNAL LABELS JDA85 AND JDA86, THEY HAVE NO INTERNAL LABELS, AND 6 FILES OF DATA. THEIR DD AND DC NUMBERS ALONG WITH THE TIME SPANS ARE AS FOLLOWS:

DD#	DC#	TIMESPANS
D-95304(JDA85)	C-29458	10/24/85-01/02/86
D-95305(JDA86)	C-29459	01/02/86-02/24/86

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JPL

28 April 1989

(1)

Dr. James L. Green
Code 630.2
National Space Science Data Center
NASA - Goddard Space Flight Center
Greenbelt, MD 20771

SUBJECT: Submission of Voyager Celestial Mechanics Data for Uranus Encounter and 1985 Solar Conjunction

REFERENCES:

1. Tyler, G. L., Sweetnam, D. N., Anderson, J. D., Campbell, J. K., Eshleman, V. R., Hinson, D. P., Levy, G. S., Lindal, G. F., Marouf, E. A., and Simpson, R. A., 1986, Science, 233, 79.

2. Anderson, J. D., Campbell, J. K., Jacobson, R. A., Sweetnam, D. N., Taylor, A. H., Prentice, A. J. R., and Tyler, G. L., 1987, Jour. Geophys. Res., 92, 14,877.

3. Anderson, J. D. and 16 others, 1987, Astrophys. Jour., 323, L141.

4. Anderson, J. D., Lau, E. L., Taylor, A. H., Dicus, D. A., Teplitz, D. C., and Teplitz, V. L., 1989, Astrophys. Jour. (in the press).

Dear Dr. Green:

I am mailing two magnetic tapes containing DSN tracking data. The data are being used to obtain results for the Celestial Mechanics Experiment (Ref. 1,2,3,4) on the Voyager Mission. I am a member of the Voyager Radio Science Team with primary responsibility for these data.

The two tapes have external labels JDA85 and JDA86. Data are archived at density 6250 bpi. The 2 tapes are copies of data tapes ATDF (archival tracking data file) delivered to the Voyager Radio Science Team by the DSN. Documentation provided by the DSN is being mailed along with the data tapes. This documentation specifies the ATDF format for the radio metric data. The content and format of the ATDFs generated by the Network Operations Control Center (NOCC), Navigation Subsystem (NAV), are defined in the documentation.

The copies of the ATDFs at 6250 bpi contain several original ATDFs delivered to the Radio Science Team. The tapes have no internal labels. They are created on the UNIVAC 1100/81 computer at JPL in standard 9-track mode with the @COPY command. The following Executive 8 commands can be used to read each tape.

(2)

```
@env,v      351*abs.
@@msg,w     Please mount tape (name) to read.
@asg,tj     tape.,u9s,(name)
@asg,up     file1.,///5000
@copy       tape.,file1.
@asg,up     file2.,///5000
@copy       tape.,file2.
@asg,up     file3.,///5000
@copy       tape.,file3.

  .             .
  .             .
  .             .
@free tape.
```

Some pertinent information for a potential user follows.

Name of data tapes: JDA85 and JDA86

Experiment record: Closed-loop celestial mechanics data for Voyager/Uranus encounter (24 January, 1986) and solar conjunction (10 December, 1985).

Opportunities of interest: Uranus and satellite mass determinations, range fix to Uranus, coronal electron densities, test of General Relativity (Shapiro time delay).

Time interval for data: Day of year (DOY) 297, 1985 to DOY 55, 1986.

Data types: Coherent Doppler, noncoherent Doppler, range.

Band for uplink: S

Band for downlink: X/S

Sample interval: 60 s.

Contents of JDA85:

file #	ATDF tape #	year	inclusive days	# of records
1	C2307	1985	297 - 312	2149
2	A7190	1985	311 - 340	2972
3	N2114	1985	339 - 351	1380
4	N2114	1985	redundant	1925
5	C2310	1985,86	351 - 002	1916
6	C2310	1985,86	redundant	28

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(3)

Contents of JDA86:

file #	ATDF tape #	year	inclusive days	# of records
1	A7191	1986	002 - 022	2421
2	G2116	1986	014 - 020	623
3	C2868	1986	022 - 027	852
4	N2112	1986	023 - 025	1931
5	A7193	1986	026 - 055	2945
6	A7193	1986	redundant	940

If you have any questions regarding this submission, I can be reached at Mail Stop 301-230, FTS 792-3956, NASAMAIL/JDANDERSON.

Sincerely yours,

John Anderson

John D. Anderson

cc: J. K. Campbell
J. E. Hierath
E. L. Lau
D. N. Sweetnam
A. H. Taylor
G. L. Tyler (Stanford University)

John Anderson JPL/CM

6/7/88 REVIEW COPY

TRK-2-25

DSN TRACKING SYSTEM INTERFACES
ARCHIVAL TRACKING DATA FILE INTERFACE

(Insert this module in Document 820-13; Rev. A)

EFFECTIVE DATE: Mark IVA Implementation
Initial Release Date: January 1, 1986

Approved by: _____ (430)

_____ (314)

_____

A. PURPOSE

This module specifies the Archival Tracking Data File (ATDF) format of the radio metric data from the Deep Space Network (DSN). The content and format of the ATDFs generated by the Network Operations Control Center (NOCC) Navigation Subsystem (NAV) are defined herein.

B. REVISION AND CONTROL

Revisions or changes to information contained in this module may be initiated in accordance with the procedures described in Section I of this document.

C. GENERAL INFORMATION

Radio metric data are received by the NAV in the form of Intermediate Data Record tapes (IDRs). These IDRs are processed to generate ATDFs. An ATDF contains all radio metric data received from the Deep Space Communications Complexes (DSCCs). These data include angles, S-, X-, and Ka-band doppler, S-, X-, and Ka-band range, S-, X-, and Ka-band differenced range versus integrated doppler (DRVID), programmed frequency data, pseudo-residuals, and validation data. An ATDF will contain data for a single spacecraft, for one or more stations, and for one or more passes or days.

D. DATA FORMAT

The data on the ATDF are arranged as follows:

(1) File Identification logical record (one only)
(2) Transponder logical record (one only)
(3) Tracking Data logical records (time ordered)
(4) Software end-of-file mark (one only)
(5) Hardware end-of-file mark (one only)

The logical record types are described in detail in Tables 1, 2, and 3.

The ATDF block (physical record) is 2016 32-bit words in length and consists of 28 72-word (2304-bit) logical records.

Note that several items of data have been split into two parts: a Sign Bits field and a Data item. For these items, the leftmost (sign) bit of the Data item has been left-extended to fill another item of information. For always non-negative items, the Sign Bits field will be zero; for items that may be positive, zero, or negative (provided as two's complement numbers), the Sign Bits field will be filled with zeros (non-negative) or ones (negative). The user may extract any specific Data item and sign-extend manually, or may use any portion of the Sign Bits field combined with the Data item to get a signed integer that will fill one word on the user's computer system. For

example, a 22-Sign Bits/14-bit Data item pair may be taken as a 20-bit item to be ignored plus a 16-bit data item, or as a 4-bit item to be ignored plus a 32-bit data item, or as a single 36-bit item of data, etc. This is always true — whether the Sign Bits field is all zero-bits or all one-bits.

E. EXPLANATORY NOTES

The following explanatory notes apply to Tables 1, 2, and 3:

(1) A two-part Length indicator (n/m) specifies a Sign Bits field (n bits in length) plus a Data item (m bits in length). If the Data item is specified to be two's complement, the Sign Bits field may be all zero-bits (non-negative) or all one-bits (negative); otherwise it will be all zero-bits.

(2) H/P = high part = variable / 10^4
L/P = low part = (variable modulo 10^4) x 10^3
Double precision variable = (H/P) x 10^4 + (L/P) / 10^3

(3) Items not applying to a record data type are set to zero for that record.

Table 1. File Identification Logical Record

Item Number	Bit Number	Length (Bits)	Description
1	1-36	29/7	Data Length = 8
2	37-72	29/7	Record Type = 10
3*	73/84	12	Last 2 Digits of Year
4*	85/100	16	Day-of-Year
5*	101-108	8	Hour
6*	109-120	12	Minute
7*	121-128	8	Second
8	129-148	20	0 (not used)
9	149-156	8	Spacecraft ID Number
10	157-164	8	73 (= 'I') or 83 (= 'S')
11	165-172	8	68 (= 'D') or 80 (= 'P')
12	173-180	8	82 (= 'R')
13	181-192	12	32 (= ' ')
14	193-208	16	65 (= 'A')
15	209-216	8	84 (= 'T')
16	217-228	12	68 (= 'D')
17	229-236	8	70 (= 'F')
18	237-252	16	0 (not used)
—	253-2304	2052	Not Used (all zeros)

*File creation time

Table 2. Transponder Logical Record

Item Number	Bit Number	Length (Bits)	Description
1	1-36	29/7	Data Length = 8
2	37-72	29/7	Record Type = 30
3	73-84	12	Last 2 Digits of Year
4	85-100	16	Day-of-Year
5	101-108	8	Hour "On" Time
6	109-120	12	Minute
7	121-128	8	Second
8	129-148	20	0
9	149-156	8	Spacecraft ID Number
10	157-180	24	Reserved (set to zeros)
11	181-192	12	Last 2 Digits of Year
12	193-208	16	Day-of-Year
13	209-216	8	Hour "Off" Time
14	217-228	12	Minute
15	229-236	8	Second
16	237-252	16	0
17	253-288	12/24	Spacecraft Transponder Frequency H/P (Hz x 1000)
18	289-324	12/24	Spacecraft Transponder Frequency L/P (Hz x 1000)
—	325-2304	1980	Not Used (all zeros)

Table 3. Tracking Data Logical Record

Item Number	Bit Number	Length (Bits)	Description
1	1-36	29/7	Data Length = 64
2	37-72	29/7	Record Type 90 = Low Rate Data 91 = High Rate (H/R) Data
3	73-84	12	Last 2 Digits of Year
4	85-100	16	Day-of-Year
5	101-108	8	Hour — Record Time Tag
6	109-120	12	Minute
7	121-128	8	Second
8	129-156	28	Spacecraft ID Number
9	157-164	8	Network ID 2 = Deep Space Network (DSN)
10	165-172	8	Station Number
11	173-180	8	Downlink Frequency Band (Receiver Type) 0 = Not Applicable 1 = S-band 2 = X-band 3 = L-band
12	181-184	4	Data Type Identifier 0 = Old/Unknown 1 = High Rate Doppler 2 = Low Rate Doppler 3 = Angles 4 = DRVID 5 = Range 6 = Ramp 7 = Mixed
13	185-192	8	Ground Mode 0 = No Doppler, No Range, No DRVID 1 = 1-Way Doppler 2 = 2-Way Doppler 3 = 3-Way Doppler 4 = 3-Way Coherent Doppler 5 = 1-Way, No Doppler 6 = 2-Way, No Doppler 7 = 3-Way, No Doppler 8 = 3-Way Coherent, No Doppler
14	193-200	8	Range Type 0 = No Range Data 6 = PLOP 7 = SRM (see item 28) 8 = MU2
15	201-208	8	Angle Type 0 = No Angle Data 1 = Azimuth/Elevation 2 = Hour Angle/Declination

Table 3. Tracking Data Logical Record (Continued)

Item Number	Bit Number	Length (Bits)	Description
15 (Cont)			Angle Type (Cont.) 3 = X/Y (+X is East) 4 = X/Y (+X is South)
16	209-216	8	DRVID Type 0 = No DRVID Data 6-8 = Same as for Range Type (item 14)
17	217-221	5	Doppler Good/Bad Indicator 0 = Good 1 = Bad
18	222	1	Doppler Data Tolerance 0 = In Tolerance 1 = Out of Tolerance
19	223	1	0
20	224-227	4	Doppler Bias (two's complement, MHz)
21	228	1	Reserved (set to zero)
22	229	1	Angle Good/Bad Indicator 0 = Good 1 = Bad
23	230-232	3	Reserved (set to zeros)
24	233-235	3	Reserved (set to zeros)
25	236	1	Receiver Loop Lock Indicator 0 = In Lock 1 = Out of Lock
26	237	1	Transmitter/Exciter On/Off 0 = On 1 = Off
27	238-239	2	Reserved (set to zeros)
28	240-242	3	Source Designation 1 = Deep Space Network (DSN) (34m/64m) 2 = Deep Space Network (26m)
29	243-252	10	Reserved (set to zeros)
30	253-288	5/31	Sample Time (seconds x 100)
31	289-324	12/24	Doppler Count H/P (cycles x 1000)
32	325-360	12/24	Doppler Count L/P (cycles x 1000)
33	361-396	12/24	Range Data Field - Part 1 0 if Item 14 = 0 otherwise, range-at-T_0 H/P (RU x 1000 or NS x 1000)
34	397-432	12/24	Range Data Field - Part 2 0 if Item 14 = 0 otherwise, range-at-T_0 L/P (RU x 1000 or NS x 1000)

Table 3. Tracking Data Logical Record (Continued)

Item Number	Bit Number	Length (Bits)	Description
35	433-452	4/16	Lowest Ranging Component
36	453-524	72	Reserved (set to zeros)
37	525-540	16	DRVID Power/Noise Ratio (two's complement, dB x 10)
38	541-576	17/19	Angle 1 (Azimuth/Hour Angle/X, degrees x 1000)
39	577-612	17/19	Angle 2 (Elevation/Declination/Y, degrees x 1000)
40	613-648	5/31	Doppler Reference Frequency (Hz x 10)
41	649-684	8/28	DRVID (two's complement, RU x 100)
42	685-720	12/24	No. 2 H/R Doppler H/P (cycles x 1000) or 0
43	721-756	12/24	No. 2 H/R Doppler L/P (cycles x 1000) or Round Trip Light Time (seconds)
44	757-792	12/24	No. 3 H/R Doppler H/P (cycles x 1000) or 0
45	793-828	12/24	No. 3 H/R Doppler L/P (cycles x 1000) or $T_{acquisition}$ (seconds past 0-hour)
46	829-864	12/24	No. 4 H/R Doppler H/P (cycles x 1000) or 0
47	865-900	12/24	No. 4 H/R Doppler L/P (cycles x 1000) or T_1 Integration Time Constant (seconds)
48	901-936	12/24	No. 5 H/R Doppler H/P (cycles x 1000) or 0
49	937-972	12/24	No. 5 H/R Doppler L/P (cycles x 1000) or T_2 Integration Time Constant (seconds)
50	973-1008	12/24	No. 6 H/R Doppler H/P (cycles x 1000) or 0
51	1009-1044	12/24	No. 6 H/R Doppler L/P (cycles x 1000) or T_3 Integration Time Constant (seconds)
52	1045-1080	12/24	No. 7 H/R Doppler H/P (cycles x 1000) or 0
53	1081-1116	12/24	No. 7 H/R Doppler L/P (cycles x 1000) or Ref. Voltage (two's complement, millivolts)
54	1117-1152	12/24	No. 8 H/R Doppler H/P (cycles x 1000) or 0
55	1153-1188	12/24	No. 8 H/R Doppler L/P (cycles x 1000) or Quad. Voltage (two's complement, millivolts)
56	1189-1224	12/24	No. 9 H/R Doppler H/P (cycles x 1000) or 0
57	1225-1260	12/24	No. 9 H/R Doppler L/P (cycles x 1000) or Carrier Suppression (two's complement, dB or millivolts)
58	1261-1296	12/24	No. 10 H/R Doppler H/P (cycles x 1000) or 0
59	1297-1332	12/24	No. 10 H/R Doppler L/P (cycles x 1000) or Highest Ranging Component
60	1333-1368	5/31	Doppler Residual (two's complement, Hz x 1000)
61	1369-1404	14/22	Range Residual (two's complement, RU)
62	1405-1422	18	Angle 1 Residual (two's complement, degrees x 1000)
63	1423-1440	18	Angle 2 Residual (two's complement, degrees x 1000)

Table 3. Tracking Data Logical Record (Continued)

Item Number	Bit Number	Length (Bits)	Description
64	1441-1443	3	Uplink Frequency Band and Source ID 0 = S-band, TRK-2-14 1 = S-band, TRK-2-15 2 = X-band, TRK-2-15 3 = C-band, TRK-2-15 ~~7 = S-band, TRK-2-20~~
65	1444-1446	3	Angle Mode 0 = Auto Track 1 = Manual Aided 2 = Computer 3 = Sidereal 4 = Brake
66	1447-1448	2	Conscan Mode 0 = Conscan Off 1 = Closed Loop 2 = Open Loop
67	1449	1	Angle 1 Residual Tolerance 0 = In Tolerance 1 = Out of Tolerance
68	1450	1	Angle 2 Residual Tolerance 0 = In Tolerance 1 = Out of Tolerance
69	1451-1453	3	Doppler Channel Number 1 = S-band, 26-meter DSS 2 = S-band, 34/64-meter DSS 3 = X-band, 34/64-meter DSS
70	1454	1	Frequency Standard Reference 0 = Backup 1 = Prime
71	1455-1458	4	Doppler Receiver Reference 1 = Block III, Receiver 1 2 = Block III, Receiver 2 3 = Block IV, Receiver 1 4 = Block IV, Receiver 2
72	1459-1462	4	Reserved (set to zeros)
73	1463	1	Doppler Residual Tolerance 0 = In Tolerance 1 = Out of Tolerance
74	1464	1	Doppler Noise Tolerance 0 = In Tolerance 1 = Out of Tolerance
75	1465-1494	30	Reserved (set to zeros)
76	1495-1512	18	Total Slipped Cycles During Count (cycles)
77	1513-1530	18	Doppler Noise (Hz x 1000)

Table 3. Tracking Data Logical Record (Continued)

Item Number	Bit Number	Length (Bits)	Description
78	1531-1548	18	Received Signal Strength (two's complement, dBm or volts x 10)
79	1549-1584	5/31	Differential Doppler Phase (two's complement, cycles x 1000): S - 3/11 X
80	1585	1	Range Modulation On/Off 0 = On 1 = Off
81	1586	1	Prime Ranging Channel 0 = S-band 1 = X-band
82	1587	1	Pipelining On/Off 0 = On 1 = Off
83	1588	1	Chopper Frequency On/Off 0 = On 1 = Off
84	1589	1	Reserved (set to zero)
85	1590	1	Range Validity 0 = Good 1 = Bad
86	1591	1	Range Calibration Tolerance 0 = In Tolerance 1 = Out of Tolerance
87	1592	1	Range Configuration Change Flag 0 = Same 1 = Different
88	1593	1	Range Power/Noise Ratio Tolerance 0 = In Tolerance 1 = Out of Tolerance
89	1594	1	Range Residual Tolerance 0 = In Tolerance 1 = Out of Tolerance
90	1595	1	Pseudo DRVID Tolerance 0 = In Tolerance 1 = Out of Tolerance
91	1596	1	Differenced S-X Range Tolerance 0 = In Tolerance 1 = Out of Tolerance
92	1597-1600	4	Receiver Number
93	1601	1	Reserved (set to zero)
94	1602-1603	2	Amplifier Number

Table 3. Tracking Data Logical Record (Continued)

Item Number	Bit Number	Length (Bits)	Description
95	1604-1605	2	Amplifier Type 0 = S-band Maser 1 = X-band Maser 2 = Parametric Amplifier 3 = FET
96	1606	1	Transmitter Power Indicator 0 = Low Power 1 = High Power
97	1607	1	Reserved (set to zero)
98	1608-1620	13	Transmitter Power (kilowatts)
99	1621-1644	24	Range Calibration (RU x 100)
100	1645-1656	12	Range Power/Noise Ratio (two's complement, dB x 10)
101	1657-1692	15/21	Average Doppler Residual (two's complement, Hz x 1000)
102	1693-1728	8/28	Pseudo DRVID (two's complement, RU x 100)
103	1729-1764	14/22	Differenced S-X Range (two's complement, RU x 100) or Ramp Delay Time (two's complement, nanoseconds)
104	1765-1786	22	Z Correction (two's complement, nanoseconds x 100)
105	1787-1800	14	Spacecraft Delay (nanoseconds)
106	1801-1833	19/14	DRVID Noise (RU x 100)
107	1834	1	DRVID Validity 0 = Good 1 = Bad
108	1835	1	DRVID Noise Tolerance 0 = In Tolerance 1 = Out of Tolerance
109	1836	1	DRVID Power/Noise Ratio Tolerance 0 = In Tolerance 1 = Out of Tolerance
110	1837-1872	8/28	Differenced S-X DRVID (two's complement, RU x 100)
111	1873-1877	5	Ramp Controller Indicator 0 = POCA Controller 1 = DCO Controller 2 = New Controller
112	1878-1908	31	Programmed Frequency Ramp Rate (two's complement, Hz x 1000000), or Received Signal Strength (two's complement, dBm or volts x 4096), or Ranging Transmitter Coder In-Phase offset from Sample Timetag (seconds)
113	1909-1944	12/24	Programmed Start Frequency - Part 1 (Hz / 10)

Table 3. Tracking Data Logical Record (Continued)

Item Number	Bit Number	Length (Bits)	Description
114	1945-1980	12/24	Programmed Start Frequency - Part 2 (Hz modulo 10, x 1000000)
115	1981-2124	144	Reserved (set to zeros)
116	2125-2160	5/31	Transmitter/Exciter Frequency (Hz x 10)
117	2161-2304	144	0 (not used)

Hexdump of:
D95304

RECORD 1 OF FILE 1
LENGTH = 8064 BYTES

00000000	80000000	0A056005	40D0182F	00000205	44446020	00415404	44600000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	80000000	1E055012	20003400	00000200	00000064	00010000	00000000
00038110	0001001A	80000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000004	00000000	5A055012	20003400	00000200	22A01201
00000000	20184000	00001770	00000006	800082DB	FF000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	000D1F6F	A0000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000FFF	C36B8300	00000000	00000000	20088000
00000001	FF0F9FFF	984FC180	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	000007FF	5A1DF000	00000000	00000000	00000000	00000000	00000000	00000000
00000D1F	6FA00000	00000000	00000000	00000000	00000000	00000004	00000000	5A055012	20003400
00000200	22A02201	00000000	20184000	00001770	00000006	800082DB	FF000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	000D1F6F	A0000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000009	F86D4400	00000000
00000000	2010C000	00000000	FF00147F	9ACFC180	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	000007FF	5E17F000	00000000	00000000	00000000	00000000
00000000	00000000	00000D1F	6FA00000	00000000	00000000	00000000	00000000	00000004	00000000
5A055012	20003500	00000200	22A01201	00000000	20084000	00001770	0000024A	00007A26	C9000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	000D1F6F	A0000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00023600	00000000	00000000	20088000	00000001	0A0F9FFF	987FD28B	A2BD0000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	000007FF	5A51F000	00000000	00000000
00000000	00000000	00000000	00000000	00000D1F	6FA00000	00000000	00000000	00000000	00000000
00000004	00000000	5A055012	20003500	00000200	22A02201	00000000	20084000	00001770	0000047C
D0005BDA	56000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000D1F6F
A0000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00081E00	00000000	00000000	2010C000	00000001	2900147F	9BAFD28B	A2BD0000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000007FF	5F69F000
00000000	00000000	00000000	00000000	00000000	00000000	00000D1F	6FA00000	00000000	00000000
00000000	00000000	00000004	00000000	5A055012	20003600	00000200	22A01201	00000000	20084000
00001770	00000494	10005EB7	25000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	000D1F6F	A0000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00023800	00000000	00000000	20088000	00000000	1D0F9FFF
98700000	00310000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
000007FF	5A53F000	00000000	00000000	00000000	00000000	00000000	00000000	00000D1F	6FA00000
00000000	00000000	00000000	00000000	00000004	00000000	5A055012	20003600	00000200	22A02201
00000000	20084000	00001770	000008F9	B0002A1D	19000000	00000000	00000000	00000000	00000000

00000000	00000000	00000000	000D1F6F	A0000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	00000000	00000000	00000000	00000000	00082100	00000000	00000000	2010C000
00000000	1B00147F	9B400000	00310000	00000000	00000000	00000000	00000000	00000000	00000000
00000000	00000000	000007FF	5EDFF000	00000000	00000000	00000000	00000000	00000000	00000000
00000D1F	6FA00000	00000000	00000000	00000000	00000000	00000004	00000000	5A055012	20003700
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9B800000	00160000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
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20006CF0	B8000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000D1F6F
A0000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
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