

DATA SET CATALOG #67

MARINER 2  
Magnetometer A

62-041A-03A

1 tape

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## **1. INTRODUCTION:**

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

## 2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

*When printing, special settings may be required to make the text box appear on the printed output.*

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM:

<http://nssdc.gsfc.nasa.gov/nmc/>

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

- a. Associated Documents      To find associated documents you will need to know the document ID number and then click here.  
<http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/>

- b. Core Catalog Materials

MARINER 2

FIELD COMPONENTS

ELECTROMETER NUMBERS

PLASMA PARAMETERS

HOURLY AVERAGES OF VELOCITY

3 HOUR AVERAGE OF PLASMA PARAMETERS

62-041A-03A

62-041A-06B

62-041A-06D

62-041A-06A-D

62-041A-06C

THESE DATA SETS HAVE BEEN RESTORED.  ORIGINALLY IT CONTAINED FIVE 7-TRACK, 556 BPI TAPES WRITTEN IN BINARY.  THERE IS ONE RESTORED TAPE.  THE DR AND DS TAPES ARE 9-TRACK, 6250 BPI.  THE ORIGINAL TAPES WERE CREATED ON A 7094 COMPUTER.  THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN	ID
DR01736	DS01736	D00982	1	08/29/62 - 11/15/62	03A
		D00186	2	08/29/62 - 12/29/62	06A
		D00187	3	08/29/62 - 12/29/62	06B
		D02887	4	08/29/62 - 12/30/62	06C
		D04893	5	08/29/62 - 12/29/62	06D

MARINER I  
FIELD COMPONENTS  
ELECTROMETER NUMBERS  
PLASMA PARAMETERS  
HOUR AVERAGES OF VELOCITY  
3 HOUR AVERAGE OF PLASMA PARAMETERS  
62-041A-03A  
62-041A-06A-D

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DR01736	DS01736	D00982	1	08/29/62 - 11/15/62	03A
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		D00187	3	08/29/62 - 12/29/62	06B
		D02887	4	08/29/62 - 12/30/62	06C
		D04893	5	08/29/62 - 12/29/62	06D

PHILIP

62-091A-03A  
MINALCO

DATA FROM UNIVERSITY OF CALIFORNIA, LOS ANGELES

... tape, density 356 bpi.

The tape called V-8 is in binary form and was created by a FORTRAN IV Program. The output statement was

WRITE (8) KALTIM, B

where KALTIM and B were declared as follows:

DIMENSION KALTIM (21), B (21, 11)

Thus there are 21 data points associated with each record. Each data point consists of an element of KALTIM and eleven other quantities.

For each K (K running from 1 to 21),

B (K, 1) is R (radius)

B (K, 2) is  $\phi$  (colatitude)

B (K, 3) is  $\lambda$  (longitude)

B (K, 4) is  $B_R$  (B radial)

B (K, 5) is  $B_T$  (B tangential)

B (K, 6) is  $B_N$  (B normal)

B (K, 7) N. A.

B (K, 8) N. A.

B (K, 9) N. A.

B (K, 10) N. A.

B (K, 11) is B (the total field) = KTR

KALTIM (K) contains the current time and the IFC information, as follows:

A sign of + means the instrument is calibrating

A sign of - means it is not calibrating

The absolute value of the number is the current time in seconds. This was obtained as follows:

$$\text{time} = 86400 \times \text{day} + 3600 \times \text{hour} + 60 \times \text{minute} + \text{second}$$

There is a point on the tape for every 37 seconds (approximately), except during the gap from day 304 to day 312. At points where no legitimate data is available, a value of 1.0 E32 is assigned to each of the eleven "B" quantities.

The last record on the tape is filled out with zeroes for the B's and a number equal to 400 x 86400 for KALTIM. This is equivalent to "day 400, hour 0, minute 0, second 0."

The legitimate times on the tape range from day 241 to day 319. Thus one can test for "day 400" to find the end of the tape.

The last record is followed by an end-of-file mark.

Programming note: Day, hour, minute, and second can be obtained in FORTRAN IV as follows:

KTIME = IABS (KALTIM (K) )

KDAY= KTIME/86400

KHR = MOD (KTIME/3600, 24)

KMIN = MOD (KTIME/60, 60)

KSEC = MOD (KTIME, 60)

*Flaming point*

*+ = n. Calib  
- = calib*



## MARKER 2

DATA SET NUMBER 62-041A-03A

THIS IS A BINARY TAPE CREATED BY A FORTRAN IV PROGRAM

THE OUTPUT STATEMENT WAS  
 WRITE(6) KALTIM,B  
 WHERE KALTIM AND B WERE DECLARED AS FOLLOWS  
 DIMENSION KALTIM(21),E(21,11)

THERE ARE 21 DATA POINTS ASSOCIATED WITH EACH RECORD.  
 EACH DATA POINT CONSISTS OF AN ELEMENT OF KALTIM AND  
 ELEVEN OTHER QUANTITIES.

## \*\* TAPE DESCRIPTION \*\*

FOR EACH X (K RUNNING FROM 1 TO 21).

KALTIM(K) CONTAINS THE CURRENT TIME AND THE IFC  
 INFORMATION AS FOLLOWS -  
 A SIGN OF + MEANS THE INSTRUMENT IS CALIBRATING  
 A SIGN OF - MEANS IT IS NOT CALIBRATING  
 THE ABSOLUTE VALUE OF KALTIM(K) IS THE CURRENT  
 TIME IN SECONDS.

TIME=00400 X DAY + 3600 X HOUR + 60 X MINUTE +SECOND

E(K,1) - RADIAL *velocity* (K/s)  
 E(K,2) - CCLATITUDE (radians) *0.0*  
 B(K,2) - LONGITUDE (radians) *0.0*  
 E(K,4) - B RADIAL (g/cm)  
 E(K,5) - B TANGENTIAL (g/cm)  
 E(K,6) - B NORMAL (g/cm)  
 E(K,7) - N.A.  
 E(K,8) - N.A.  
 B(K,5) - N.A.  
 E(K,10) - N.A.  
 E(K,11) - B (THE TOTAL FIELD) *g/cm*

THERE IS A POINT ON THE TAPE FOR EVERY 37 SECONDS (APPROXIMATELY), EXCEPT DURING THE GAP  
 AT POINTS WHERE NO LEGITIMATE DATA IS AVAILABLE, A VALUE OF 1.0 E32 IS ASSIGNED TO EACH OF THE E

THE LAST RECORD ON THE TAPE RANGES FROM DAY 211 TO DAY 319.  
 THIS ONE CAN TEST FOR 'DAY 400' TO FIND THE END OF THE TAPE.

THE LAST RECORD IS FOLLOWED BY AN END-OF-FILE MARK.

2

STRAN IV PROGRAM

GLEWS  
111

WITH EACH RECORD.  
AT OF KALIF AND

TC 21).

AND THE IFC

STRUMENT IS CALIBRATING  
NOT CALIBRATING  
ULTIM(K) IS THE CURRENT

X FOUR + 60 X MINUTE + SECCND

BY 37 SECCNDS (APPROXIMATELY), EXCEPT DURING THE GAP FROM DAY 304 TO DAY 312.

IBLE, A VALUE OF 1.0 E3215 ASSIGNED TO EACH OF THE ELEVEN \*E\* QUANTITIES.

FROM DAY 211 TO DAY 319.

IND THE END OF THE TAPE.

END-OF-FILE MARK.

MARINER 2 OCTAL DUMP

FIRST 5 AND LAST 5 RECORDS

BEGINNING OF TAPE

D-00982

DAY 241  
AUGUST 29, 1962  
HOUR 17  
MIN 26  
SEC 51

C-00524

END OF TAPE

DAY 319

NOV 15, 1962  
HOUR 12  
MIN 2  
SEC 49

FILE 0001 REC 0001 04/15/78 6W

0001	000374000001	000117527142	000117527210	000117527255	000117527322	01
0049	000117527546	000117527572	000117527636	000117527703	000117527750	01
0067	000117530174	000117530241	000117530263	000117530330	000117530375	01
0145	234437617206	234437617206	234437617206	234437617206	234437617206	21
0193	234437617206	234437617206	234437617206	234437617206	234437617206	21
0241	234437617206	234437617206	234437617206	234437617206	234437617206	21
0289	201561666123	201561666123	201561666123	201561666123	201561666123	21
0337	201561666644	201561666644	201561666644	201561666644	201561666644	21
0385	601675425613	601675425613	601675425613	601675425613	601675425613	51
0433	601675417225	601675417225	601675417225	601675417225	601675417225	61
0481	601675410342	601675410342	601675410342	601675410342	601675410342	61
0529	601406210370	601406210370	601406210370	601406210370	601406210370	61
0577	603672626502	603672626502	603672626502	603672626502	603672626502	61
0625	603454623132	603454623132	603454623132	603454623132	603454623132	21
0673	20155541242	20155541242	20155541242	20155541242	20155541242	21
0721	202722623502	202722623502	202722623502	202722623502	202722623502	21
0769	203677701293	203677701293	203677701293	203677701293	203677701293	21
0817	203620376300	203620376300	203620376300	203620376300	203620376300	21
0865	203463206433	203463206433	203463206433	203463206433	203463206433	21
0913	203473426555	203473426555	203473426555	203473426555	203473426555	21
0961	211629481531	211629481531	211629481531	211629481531	211629481531	21
1009	211617426654	211617426654	211617426654	211617426654	211617426654	31
1057	353473426555	353473426555	353473426555	353473426555	353473426555	21
1105	200574554742	200574554742	200574554742	200574554742	200574554742	21
1153	603502271655	603502271655	603502271655	603502271655	603502271655	21
1201	603677463701	603677463701	603677463701	603677463701	603677463701	61
1249	603670062762	603670062762	603670062762	603670062762	603670062762	21
1297	202504410214	202504410214	202504410214	202504410214	202504410214	51
1345	576425524660	576425524660	576425524660	576425524660	576425524660	51
1393	203756107426	203756107426	203756107426	203756107426	203756107426	21
1441	204465435210	204465435210	204465435210	204465435210	204465435210	21
1489	204407464414	204407464414	204407464414	204407464414	204407464414	21

FILE 0001 REC 0002 04 1511

0001	000374000001	000117530507	000117530554	000117530621	000117530666	01
0049	000117531111	000117531156	000117531223	000117531270	000117531335	01
0097	000117531561	000117531626	000117531673	000117531740	000117532002	01
0145	234437617206	234437617157	234437617131	234437617103	234437617054	21
0193	234437617206	234437616672	234437616644	234437616616	234437616566	21
0241	234437617206	234437616555	234437616355	201561666355	201561666325	21
0289	201561666123	201561666124	201561666103	201561666053	201561666023	21
0337	201561666644	201561666623	201561666500	201561666550	201561666520	21
0385	601675404454	601675403284	601675402674	601675402064	601675401130	61
0433	601675375571	601675374701	601675374011	601675373121	601675372231	61
0481	601675366571	601675366001	601675365111	353473426555	601675363345	61
0529	602634631464	601700704550	177713071000	177713072200	202660012160	21
0577	202522362344	202522362454	202522361304	202522362670	202660013210	21
0625	353473426555	202660013724	203417309211	203425703357	202760757466	21
0673	202530124652	603614244671	603707066601	602622502621	603675140624	61
0721	603701720241	603705265604	603710515522	602713627255	603672170556	31
0769	203541377437	203476837647	203527077710	203573360201	203596443771	21
0817	377615511312	601657174776	600601217560	602804842115	602463341350	61
0865	602518462567	602525734555	353473426555	602575437174	211622020754	21
0913	211636505310	211644033225	211651361342	211656707357	211664235374	21
0961	211675271165	211676445631	211677622275	211700776742	211701256124	21
1009	211702546247	200576171202	200577621262	200601245003	200602664207	21
1057	200617754713	200623122603	200623244244	2006237013356	200627551467	21
1105	200632400177	200632544065	200632707704	200633053452	203473426555	21
1153	603592542327	603591033060	603414742623	602536457333	601633417347	21
1201	203721756766	203563732152	203700126316	203743305656	203662613561	21
1249	203760150325	353473426555	203723360105	573722534000	174734556700	51
1297	202542561132	202431623211	601766616742	603415100210	601755436551	61
1345	603596634072	602632014242	602577061454	602442153234	602450073477	61
1393	204402066021	204402066430	203735047011	203756603736	203734035671	21

374  
24  
7  
31  
248  
252

21F

117527143	000117527210	000117527255	000117527322	000117527367	000117527434	000117527501
117527572	000117527636	000117527703	000117527750	000117530015	000117530062	000117530127
117530241	000117530263	000117530330	000117530375	000117530442	234437620172	234437620143
437626066	234437620655	234437620010	234437617701	234437620655	234437617716	234437617670
437617413	234437617564	234437617535	234437617507	234437617457	234437617432	234437617417
437617340	234437617312	201561667325	201561667274	201561667244	201561667214	201561667184
561667102	201561667035	201561667005	201561667005	201561667005	201561667005	201561667005
561666613	201561666563	201561666533	201561666517	201561666486	201561666436	201561666406
675424723	601675424033	601675423143	353473426555	601675421363	601675420473	353473426555
675416351	601675415461	601675414571	601675413701	601675413013	601675412122	601675411232
675410014	601675407124	601675405234	601675405344	601406211450	601406211150	601406210670
473426555	577451223740	577451222440	353473426555	603752570416	603677626676	603613314572
572626406	602773105744	603513314222	603613314126	603613314032	602773105164	603454623222
454623042	202574134570	202614314314	202591020012	202521751077	353473426555	20275533501
473426555	201515541242	201745401761	202401164526	201652146264	202443124201	203404201057
430651301	202772627460	202754055202	203501254721	203407750727	202712253403	203703300540
726112651	203723131051	353473426555	203727130420	203454137060	353473426555	20256014115
616167645	203547136676	203503711206	203545674220	202760322441	203426135571	202726252240
560407577	202706732604	203621703541	211643717746	211642523502	211641327237	211640132773
635542264	211634346020	353473426555	211632421602	211631246504	211630052240	211626655774
623470764	211621500220	211617507452	211615516707	211614540217	211612547452	211615112553
611254126	200610457750	200607652477	200607044131	353473426555	200605423734	200604612076
603451174	200603647232	200602031414	200601812466	200600372434	200577170747	200575744320
573342410	200572645012	200571426125	200573073543	200574534555	602554411376	602570345643
516614776	353473426555	602612611723	602562416456	353473426555	603215113321	603607754206
574457212	603636457132	603552201432	603677746370	603732140661	603705673571	603543500075
615695130	603554222206	201523607677	201531141561	200777231526	201426064156	353473426555
454347616	353473426555	603453333140	602736137166	602520274340	602744372466	602662356637
761462064	601624270334	601742416724	577453024370	575646156100	600537516410	601411115432
756110552	203765063342	203765064467	353473426555	204413777074	203752105715	353473426555
460502311	204437674507	204442023150	204434705040	203775776534	204407403615	204427373215
726263123	204436717344	203714236433	204423720541			
117530507	000117530554	000117530621	000117530666	000117530732	000117530777	000117531044
117531156	000117531223	000117531270	000117531335	000117531402	000117531447	000117531514
117531626	000117531673	000117531740	000117532005	000117532051	234437617263	234437617234
437617157	234437617131	234437617103	234437617054	234437617025	234437616776	234437616750
437616671	234437616644	234437616614	234437616566	234437616537	234437616510	234437616462
473426555	234437616356	201561666355	201561666325	201561666274	201561666244	201561666214
561666134	201561665103	201561665053	201561665023	201561665072	201561665042	201561665011
561666631	201561665500	201561665450	201561665420	201561665467	353473426555	201561665407
675403554	601675402674	601675402004	601675401130	601675400240	601675377351	601675376461
675374701	601675374010	601675373121	601675372231	601675371341	601675370451	601675369561
675366001	601675365111	353473426555	601675363345	602773104314	602773104144	602773103764
700704550	177713071000	177713072200	202650012160	201456245440	177713076100	202660012470
522342454	202650013004	202522362670	202660013210	202406600634	203406600674	203406600732
660013724	203417305211	203425703357	202760757466	203442464221	203410516141	203417427450
614256071	603707066601	602622502621	603675140624	602546663553	603724200006	603727114067
705265604	603710515832	603713627255	603672170556	353473426555	603701353766	203546403141
476537647	203527077710	203573360201	203556443771	203545737271	601634401544	602610355277
657174776	600601217560	602504843115	602463361350	602577642450	602527153172	602526357525
625773455	353473426555	602575437174	211622020754	211624364055	211626727155	211631272256
644033325	211651361342	211656707357	211664225374	211671563411	211672740055	211674114521
676445631	211677622275	211700776742	211701256124	211701635307	211702014472	353473426555
576171202	200577621262	200601245003	200602664207	200606077012	200611343222	200614562374
623122603	200626244244	200627013356	200627561467	200630326604	200631072723	200631636046
632544065	200632707704	200633053482	353473426555	200633360041	603563320660	603570124544
541033060	603414742623	602536457333	601633417347	203661425532	203566552462	202503213041
563732152	203700126316	203743305656	203662613561	203726402133	203772250071	203774252244
473426555	203723360105	573722534000	174734556700	576747522400	200610205100	201626024645
431623211	601766616742	603415100210	601755436551	602515023734	602424233661	602661727666
632014242	602577061454	602443153234	602450073477	602417172240	353473426555	60253211353
602066430	203735047011	203756603736	203734035671	203717421214	203616140474	203717015237

FORTRAN PROGRAM USED TO SUPPLY TAPE LISTING

C READ / WRITE MANINA 2  
 DIMENSION B(21,11)

C  
 DIMENSION KALTIM(21)  
 COMMON /DSX/DSI(2),TPID,IREC ,IFILE  
 COMMON /FIDERR/ IERR  
 COMMON /TIME/ MYR,MO,MDA, FMIN,HR,MHR  
 DATA E32/0353473426555/

C  
 99 FORMAT(3A6,2I4)  
 100 FORMAT(1H1, 40X,15HM A R 1 N E R 2 //1CX,14HRECORD NUMBER ,13 //  
 1 2X,12H , 90X, 5HTOTAL/115H YR/MO/DA/HR/MIN/  
 2SEC RADIUS COLATITUDE LONGITUDE B-RADIAL B-TANG 3-NORM N,  
 3A, N,4, N,4, N,4, N,4, FIELD ///

101 FORMAT(1H0, 4(I2,1W), 12,1W,12,  
 \* 1X,E13,9,1 X,F9,7,1 X,2(1X,F9,6),2(1X,F6,3),  
 1 1X,F7,3,1X,F6,4,2(1X,F6,3),1X,F7,4)  
 103 FORMAT(1H0, 4(I2,1W), 12,1W,12,  
 1 20X, 34H LEGITIMATE DATA IS NOT AVAILABLE )  
 104 FORMAT(8H1 IERR = ,18)

C  
 C INITIALIZATION SECTION

C CALL SETHD

C  
 ILINE=56  
 IEFF=0  
 GAP=5  
 MYR=62  
 IREC=0  
 QUITFU=1  
 IFILE=1

C  
 READ(2,99) DSID,TPID  
 CALL TGAP(1,1,1,1,1,1,GAP)

C  
 C PROCESSING SECTION

C 10 READ(5) (KALTIM(I),I=1,21),((D(I,K),I=1,21),K=1,11)

C  
 IREC=IREC+1  
 IF(IERR.NE.0) GO TO 150

C  
 DC 20 I=1,21  
 KTIME=TAGS(KALTIM(I))  
 DA=KTIME/86400  
 CALL TIME'2)  
 IHR=MOD(KTIME/3600,24)  
 MIN=MOD(KTIME/60,60)  
 ISEC=MOD(KTIME,60)  
 IF((I,1).NE.E32 .AND. B(1,11).NE.E32) CALL TGAP(0,MYR,MO,MDA,IHR,  
 1 MIN,CUTPU,GAP)  
 IF(IREC.GT.50) G3 TO 20

C

M A R I N E R 2

RECORD NUMBER 1

YR/MO/DA/HR/MIN/SEC	RADIUS KM	COLATITUDE radius	LONGITUDE radius	B-RADIAL 8	B-TANG 8	B-NORM 8	V. A.
62/ 8/29/17/24/51	150880498E	09 1.4447587	-1.740400	-1.024487	2.970	7.053	419.906 0.7
62/ 8/29/17/25/28	150880458E	09 1.4447584	-1.740394	-1.024484	3.097	6.998	418.653 0.7
62/ 8/29/17/26/ 5	150880405E	09 1.4447580	-1.740387	-1.024482	2.503	7.346	417.421 0.7
62/ 8/29/17/26/42	150880363E	09 1.4447576	-1.740381	-1.024479	2.640	7.300	416.178 0.7
62/ 8/29/17/27/19	LEGITIMATE DATA IS NOT AVAILABLE						
62/ 8/29/17/27/56	150880271E	09 1.4447569	-1.740368	-0.290321	3.982	7.362	413.692 0.7
62/ 8/29/17/28/33	150880229E	09 1.4447565	-1.740361	-0.290319	3.715	6.690	412.449 0.7
62/ 8/29/17/29/10	LEGITIMATE DATA IS NOT AVAILABLE						
62/ 8/29/17/29/30	150880157E	09 1.4447560	-1.740351	-7.667741	1.303	5.752	410.535 0.7
62/ 8/29/17/30/ 6	150880103E	09 1.4447556	-1.740345	-6.918667	1.896	6.258	409.325 0.7
62/ 8/29/17/30/43	150880074E	09 1.4447553	-1.740338	-6.178123	2.010	6.222	408.083 0.7
62/ 8/29/17/31/20	150880015E	09 1.4447549	-1.740332	-6.918659	1.669	5.612	406.840 0.7
62/ 8/29/17/31/57	150879974E	09 1.4447545	-1.740325	-6.918656	2.404	5.061	405.597 0.7
62/ 8/29/17/32/34	150879931E	09 1.4447542	-1.740318	-3.962005	4.065	5.592	403.611 0.7
62/ 8/29/17/33/11	150879889E	09 1.4447538	-1.740312	-6.178109	3.821	3.878	401.626 0.7
62/ 8/29/17/33/48	150879839E	09 1.4447535	-1.740305	-6.178106	4.384	4.347	399.640 0.7
62/ 8/29/17/34/25	150879793E	09 1.4447531	-1.740299	-6.178102	3.959	3.737	397.654 0.7
62/ 8/29/17/34/43	150879777E	09 1.4447529	-1.740296	-3.961994	3.907	4.801	396.688 0.7
62/ 8/29/17/35/20	150879725E	09 1.4447525	-1.740289	-4.659807	5.021	5.752	394.702 0.7
62/ 8/29/17/35/57	150879575E	09 1.4447522	-1.740282	-4.659804	4.124	3.554	397.146 0.7
62/ 8/29/17/36/34	150879534E	09 1.4447518	-1.740276	-4.659801	3.581	6.279	399.590 0.7



LINE 2

									TOTAL
LATITUDE	B-RADIAL	B-TANG	B-NORM	N.A.	N.A.	N.A.	N.A.	FIELD	
33828	4.826657	-0.209	-2.527	402.812	0.7477	3.435	3.397	5.4520	
33822	4.826659	-0.280	-2.520	402.493	0.7473	3.486	3.350	5.4520	
33815	4.826661	-0.474	-3.324	402.173	0.7469	3.627	3.219	5.8794	
33808	4.826663	-0.422	-2.500	401.853	0.7465	3.588	3.258	5.4520	
33802	4.826665	0.254	-2.644	401.534	0.7461	3.089	3.717	5.5090	
33795	4.826667	0.371	-1.849	401.534	0.7461	3.003	3.797	5.1815	
33789	4.826669	-0.109	-3.447	401.534	0.7461	3.356	3.470	5.9324	
33782	4.826671	1.742	-2.308	401.534	0.7461	1.997	4.727	5.6264	
33776	4.826673	0.944	-2.115	401.534	0.7461	2.583	4.185	5.3528	
33769	4.826674	0.603	-2.914	401.533	0.7461	2.833	3.954	5.6704	
33763	4.097624	0.520	-2.930	401.533	0.7461	2.399	3.362	5.0643	
33756	4.826678	0.761	-2.185	402.732	0.7476	2.723	4.057	5.3528	
33750	3.368049	1.760	-3.604	403.930	0.7491	1.004	3.665	5.2373	
33743	3.368051	3.062	-4.349	405.129	0.7506	0.058	4.551	6.2952	
33736	4.097633	2.327	-2.241	406.359	0.7521	1.100	4.522	5.2180	
33730	3.368055	1.853	-3.025	407.558	0.7535	0.953	3.724	4.8915	
33723	4.097637	2.623	-1.659	408.756	0.7550	0.894	4.785	5.1430	
33717	3.358060	2.337	-3.548	408.961	0.7553	0.607	4.054	5.4216	
33710	3.368062	3.352	-3.376	409.171	0.7555	-0.131	4.750	5.8292	
33704	3.368064	3.745	-2.799	409.381	0.7558	-0.415	5.019	5.7621	
33697	3.368066	4.174	-2.246	409.592	0.7560	-0.726	5.314	5.8144	

## MARINER 2

SECOND NUMBER 50

YR/MC/DA/HR/MIN/SEC	RADIUS	CO. LATITUDE	LONGITUDE	B-RADIAL	B-TANG	B-NORM	N.A.
62/ 8/30/ 3/55/35	150833335E	09 1.4443907	-1.733690	3.368068	3.580	-3.007	409.802 0.7
62/ 8/30/ 3/56/12	150833284E	09 1.4443903	-1.733684	2.537931	2.948	-3.734	410.012 0.7
62/ 8/30/ 3/56/49	150833234E	09 1.4443899	-1.733677	1.907201	3.422	-4.352	409.453 0.7
62/ 8/30/ 3/57/25	150833191E	09 1.4443896	-1.733671	3.368075	3.892	-2.765	408.894 0.7
62/ 8/30/ 3/58/ 3	150833141E	09 1.4443892	-1.733664	2.637938	3.765	-3.962	408.336 0.7
62/ 8/30/ 3/58/39	150833099E	09 1.4443889	-1.733658	2.637940	3.654	-4.065	407.792 0.7
62/ 8/30/ 3/59/15	150833049E	09 1.4443885	-1.733651	1.907211	3.537	-4.167	407.233 0.7
62/ 8/30/ 3/59/53	150833006E	09 1.4443882	-1.733645	1.907213	4.062	-3.739	406.674 0.7
62/ 8/30/ 4/ 0/30	150832964E	09 1.4443878	-1.733638	1.907216	3.294	-4.362	406.920 0.7
62/ 8/30/ 4/ 1/ 9	150832913E	09 1.4443874	-1.733631	2.637950	4.052	-2.836	407.172 0.7
62/ 8/30/ 4/ 1/45	150832863E	09 1.4443871	-1.733625	2.637952	1.904	-4.359	407.418 0.7
62/ 8/30/ 4/ 2/22	150832813E	09 1.4443867	-1.733618	2.637954	3.884	-3.062	407.663 0.7
62/ 8/30/ 4/ 2/59	150832771E	09 1.4443864	-1.733612	1.175869	2.643	-2.983	407.909 0.7
62/ 8/30/ 4/ 3/36	150832721E	09 1.4443860	-1.733605	2.637959	-1.782	-3.678	408.154 0.7
62/ 8/30/ 4/ 4/13	150832678E	09 1.4443857	-1.733599	3.368098	1.764	-3.465	407.622 0.7
62/ 8/30/ 4/ 4/50	150832628E	09 1.4443853	-1.733592	1.907233	3.163	-2.779	407.089 0.7
62/ 8/30/ 4/ 5/27	150832585E	09 1.4443849	-1.733585	1.907235	-4.320	-4.527	406.556 0.7
62/ 8/30/ 4/ 6/ 4	150832535E	09 1.4443846	-1.733579	1.907237	-3.395	-4.801	406.023 0.7
62/ 8/30/ 4/ 6/41	150832484E	09 1.4443842	-1.733572	1.907240	-4.571	-4.273	405.491 0.7
62/ 8/30/ 4/ 7/18	150832442E	09 1.4443839	-1.733566	0.443871	-4.692	-4.140	404.958 0.7
62/ 8/30/ 4/ 7/55	150832399E	09 1.4443835	-1.733559	2.637975	-3.018	-4.241	405.058 0.7

R I N E R 2

LONGITUDE	B-RADIAL	B-TANG	B-NORM	N.A.	N.A.	N.A.	N.A.	TOTAL FIELD
-1.733690	3.368068	3.580	-3.007	409.802	0.7563	-0.292	4.906	5.7620
-1.733684	2.537931	2.948	-3.734	410.012	0.7565	-0.333	3.942	5.6399
-1.733677	1.907201	3.422	-4.352	409.453	0.7559	-1.182	3.735	5.8558
-1.733671	3.368075	3.892	-2.705	408.894	0.7552	-0.525	5.120	5.8143
-1.733664	2.637938	3.765	-3.962	408.336	0.7545	-0.937	4.501	5.0691
-1.733658	2.637940	3.654	-4.065	407.792	0.7538	-0.859	4.424	6.0690
-1.733651	1.907211	3.537	-4.167	407.233	0.7531	-1.276	3.810	5.7866
-1.733645	1.907213	4.062	-3.739	406.674	0.7525	-1.662	4.168	5.8410
-1.733638	1.907216	3.294	-4.362	406.920	0.7528	-1.300	3.644	5.7888
-1.733631	2.637950	4.052	-2.836	407.172	0.7531	-1.152	4.696	5.6056
-1.733625	2.637952	1.904	-4.359	407.418	0.7534	0.416	3.227	5.4395
-1.733618	2.637954	3.884	-3.662	407.663	0.7537	-1.027	4.581	5.6055
-1.733612	1.175869	5.643	-2.983	407.909	0.7540	-3.309	4.720	6.4907
-1.733605	2.637959	-1.782	-3.678	408.154	0.7543	3.105	0.703	4.8640
-1.733599	3.368098	1.764	-3.465	407.622	0.7536	1.018	3.663	5.1442
-1.733592	1.907233	3.163	-2.779	407.089	0.7530	-1.004	3.555	4.6225
-1.733585	1.907235	-4.320	-4.527	406.556	0.7523	4.457	-1.559	6.5415
-1.733579	1.907237	-3.395	-4.801	406.023	0.7517	3.783	-0.925	6.1822
-1.733572	1.907240	-4.571	-4.273	405.491	0.7510	4.643	-1.725	6.5414
-1.733566	0.443871	-4.692	-4.140	404.958	0.7503	3.734	-2.875	6.2729
-1.733559	2.637975	-3.018	-4.241	405.058	0.7505	4.006	-0.129	5.8354