

#241

ALOUETTE 1 & 2, ISIS 1 & 2

ORBITAL ELEMENTS

62-049A-00J

65-098A-00G

69-009A-00E

71-024A-00E ✓

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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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

ALOUETTE 1

GSFC ORBITAL ELEMENTS, TAPE

62-049A-00J

This data set has been restored. There was originally one 7-track, 556 BPI tape written in BCD. There is one restored tape written in ASCII. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 7094 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005832	DS005832	D012603	1	10/07/62 - 02/13/72

ALOUETTE 1 & 2, ISIS 1 & 2

ORBITAL ELEMENTS

62-049A-00J
65-098A-00G ✓
69-009A-00E ✓
71-024A-00E ✓

These data sets consist of one tape each. They were created on the IBM 7094 computer and are 556 BPI, BCD, 7-track with one file per tape. These tapes are updated every 6 months. When updated data comes in, the information is punched on three cards and the cards are then put on tape. The formats for these 3 cards are:

<u>CARD</u>	<u>COLUMN</u>	<u>DESCRIPTION</u>
1	1- 6	Date of EPOCH (MO.,DAY,YEAR)
1	7-16	Time of EPOCH (HRS.,MIN.,SEC.)
2	1-13	Semi-major axis of orbit (Earth Radii)
2	14-26	Eccentricity
2	27-39	Inclination of orbit (Radians)
2	40-52	Mean anomaly (at time of EPOCH-Radians)
2	53-65	Argument of perigee (Radians)
2	66-78	Right ascension of ascending node (Radians)
3	1-13	Rate of change of argument of Perigee (Radians/Day)
3	14-26	Rate of change of R.A. of ascending node (Radians/DAY)
3	27-39	Period of orbit (minutes)

The time spans for the data sets are:

<u>D#</u>	<u>C#</u>	<u>NAME</u>	<u>ID</u>	<u>TIME SPAN</u>
D-12603	C-09575	Alouette 1	62-049A-00J	10/07/62 - 2/13/72
D-12601	C-09573	Alouette 2	65-098A-00G	12/05/65 - 10/08/72
D-12600	C-09572	ISIS 1	69-009A-00E	2/07/69 - 10/20/72
D-12602	C-09574	ISIS 2	71-024A-00E	4/08/71 - 11/02/72

MEMO

Purpose: Keypunching data

Data will be obtained in printout form. Not all data need be punched; the significant entries are listed below. The data from each sheet should be punched on three cards in the format shown on the attached coding sheets. Two values are given for some data items; this occurs when there are different units possible (such as radians and degrees). Only one number should be punched for each item.

Orbital Elements

Update according to directions on MEMO sheet. Do 1 EPOCH sheet at a time (code for keypunch). After EPOCH sheets have been keypunched then put cards in order by EPOCH date. Make sure there are no duplicates on any of the EPOCH sheets, then check for duplicates on UPDATE (old cards) cards. After EPOCH sheets have been keypunched and checked for duplicates then dupe the deck (keypunched cards) 3 times. Interspace new cards with old UPDATE cards by EPOCH date, then run the program. Then check output for consistency (see sample output).

Then fill requests (DUBACH), charge time for computer and keypunch to Acq. Agent, send only the latest update cards to:

Jackson	Req. receive- keypunched UPDATE cards,
Warnock	listing of cards and output from the
Becker	program. (Jackson does not receive 3rd card of each set)

Program is run separate for each experiment.

Period of orbit is equal to:

S27 = Alout. 1 = 105.

S27A= Alout. 2 = 120.

ISIS A = 128.

ISIS b = 113.

-044779731	-017200166	105.352854				
081571						
1.158642	00228250	1.4043509	4.18621090	5.1590922	3.83621520	
-044622713	-017125000	105.560575				
082971						
1.158641	00229763	1.4043862	5.50165570	4.5152594	3.59593680	
-044731739	-017159416	105.448674				
092671						
1.158640	00236430	1.4044088	1.82174934	3.2541624	3.11559590	
-044932120	-017259033	105.239828				
101071						
1.158639	00238882	1.4043722	3.11415490	4.6348715	4.67544050	
-044713933	-017163938	105.466449				
102471						
1.158638	00239976	1.4043305	4.39937680	2.0243983	2.35222770	
-044626343	-017129548	105.555825				
110771						
1.158637	00238466	1.4043286	2.69132500	1.4087539	2.39494820	
-044805655	-017212254	105.365670				
112171						
1.158636	00235361	1.4043494	0.70723475	0.7847771	2.15465960	
-044972363	-017285950	105.191406				
120571						
1.158635	00231480	1.4043691	2.02002740	0.1549081	1.91438988	
-044859645	-017231321	105.312361				
121971						
1.158633	00229512	1.4043732	3.34216670	5.7975496	1.67416292	
-044651735	-017135110	105.532017				
010272						
1.158632	00229201	1.4043538	4.67066020	5.1526201	1.433590030	
-044673339	-017147763	105.507296				
01672						

REC	65. LENGTH	84
REC	66. LENGTH	84
REC	67. LENGTH	84
REC	68. LENGTH	84
REC	69. LENGTH	84
REC	70. LENGTH	84
REC	71. LENGTH	84
REC	72. LENGTH	84
REC	73. LENGTH	84
REC	74. LENGTH	84
REC	75. LENGTH	84
REC	76. LENGTH	84
REC	77. LENGTH	84
REC	78. LENGTH	84
REC	79. LENGTH	84
REC	80. LENGTH	84
REC	81. LENGTH	84
REC	82. LENGTH	84
REC	83. LENGTH	84
REC	84. LENGTH	84
REC	85. LENGTH	84
REC	86. LENGTH	84
REC	87. LENGTH	84
REC	88. LENGTH	84
REC	89. LENGTH	84
REC	90. LENGTH	84
REC	91. LENGTH	84
REC	92. LENGTH	84
REC	93. LENGTH	84
REC	94. LENGTH	84
REC	95. LENGTH	84
REC	96. LENGTH	84

1.156531	•00232343	1.4043628	5.99438840	4.5139904	1.19359346	REC	97, LENGTH	84
-•044896803	-•017250602	105.270930				REC	98, LENGTH	84
013072						REC	99, LENGTH	84
1.159530	•00237094	1.4043476	1.02821010	3.8855320	•95322885	REC	100, LENGTH	84
-•044960122	-•017280453	105.204351				REC	101, LENGTH	84
021372						REC	102, LENGTH	84
1.158630	•00240040	1.4043855	2.33762700	3.2624593	•71284258	REC	103, LENGTH	84
-•044763786	-•017184871	105.414923				REC	104, LENGTH	84

ALOUETTE 2
GSFC ORBITAL ELEMENTS, TAPE
65-098A-00G

This data set has been restored. There was originally one 7-track, 556 BPI tape written in BCD. There is one restored tape written in ASCII. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 7094 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005671	DS005671	D012601	1	12/05/65 - 03/21/73

*See 62-049A-00J
for document*

180465-098A A-DUETTE 2

12 505

1.27311769 0.15274425 1.39321910 2.22506839 5.58883297 3.53377780

REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84

121965

1.27311389	0.15265346	1.39323489	2.38160118	5.12642014	3.34056258
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84

1 266

1.27311081	0.15263440	1.39322248	2.54205489	4.66370606	3.14735347
------------	------------	------------	------------	------------	------------

REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84

11656

1.27310599	0.15269860	1.39325659	2.70717779	4.20080531	2.95412338
------------	------------	------------	------------	------------	------------

REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84

13066

1.27309629	0.15282725	1.39331730	2.83078058	3.73861960	2.76056797
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84
REC	14, LENGTH	84
REC	15, LENGTH	84
REC	16, LENGTH	84

21366

1.27308705	0.15288142	1.39328049	3.06504330	3.27708447	2.56781670
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84
REC	14, LENGTH	84
REC	15, LENGTH	84
REC	16, LENGTH	84
REC	17, LENGTH	84
REC	18, LENGTH	84
REC	19, LENGTH	84

22766

1.27307819	0.15287361	1.39323311	3.26106167	2.61503522	2.37462968
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84
REC	14, LENGTH	84
REC	15, LENGTH	84
REC	16, LENGTH	84
REC	17, LENGTH	84
REC	18, LENGTH	84
REC	19, LENGTH	84
REC	20, LENGTH	84
REC	21, LENGTH	84
REC	22, LENGTH	84

31366

1.27307299	0.15282275	1.39321809	3.46620831	2.35327780	2.18143150
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84
REC	14, LENGTH	84
REC	15, LENGTH	84
REC	16, LENGTH	84
REC	17, LENGTH	84
REC	18, LENGTH	84
REC	19, LENGTH	84
REC	20, LENGTH	84
REC	21, LENGTH	84
REC	22, LENGTH	84
REC	23, LENGTH	84
REC	24, LENGTH	84
REC	25, LENGTH	84

32766

1.27306685	0.15281559	1.39316151	3.67799109	1.89133179	1.98822320
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84
REC	14, LENGTH	84
REC	15, LENGTH	84
REC	16, LENGTH	84
REC	17, LENGTH	84
REC	18, LENGTH	84
REC	19, LENGTH	84
REC	20, LENGTH	84
REC	21, LENGTH	84
REC	22, LENGTH	84
REC	23, LENGTH	84
REC	24, LENGTH	84
REC	25, LENGTH	84
REC	26, LENGTH	84
REC	27, LENGTH	84
REC	28, LENGTH	84

41066

1.27306129	0.15282668	1.39314950	3.89695948	1.42928191	1.79496969
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REC	1, LENGTH	84
REC	2, LENGTH	84
REC	3, LENGTH	84
REC	4, LENGTH	84
REC	5, LENGTH	84
REC	6, LENGTH	84
REC	7, LENGTH	84
REC	8, LENGTH	84
REC	9, LENGTH	84
REC	10, LENGTH	84
REC	11, LENGTH	84
REC	12, LENGTH	84
REC	13, LENGTH	84
REC	14, LENGTH	84
REC	15, LENGTH	84
REC	16, LENGTH	84
REC	17, LENGTH	84
REC	18, LENGTH	84
REC	19, LENGTH	84
REC	20, LENGTH	84
REC	21, LENGTH	84
REC	22, LENGTH	84
REC	23, LENGTH	84
REC	24, LENGTH	84
REC	25, LENGTH	84
REC	26, LENGTH	84
REC	27, LENGTH	84
REC	28, LENGTH	84
REC	29, LENGTH	84
REC	30, LENGTH	84
REC	31, LENGTH	84

42466

1.259071	.14985247	1.3932762	4.64711690	5.7501279	.87965974	REC	97. LENGTH	84
- .033386488	- .013972479	120.728631				REC	98. LENGTH	84
091072						REC	99. LENGTH	84
1.269064	.14980372	1.3933097	3.78400720	5.2834623	.68461224	REC	100. LENGTH	84
- .033284998	- .013916697	120.877713				REC	101. LENGTH	84
100872						REC	102. LENGTH	84
1.269038	.14985531	1.3933934	1.49397060	4.3498209	.29454093	REC	103. LENGTH	84
- .033242994	- .013885900	120.959660				REC	104. LENGTH	84

ISIS 1

GSFC ORBITAL ELEMENTS, TAPE

69-009A-00E

This data set has been restored. There was originally one 7-track, 556 BPI tape written in BCD. There is one restored tape written in ASCII. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 7094 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005734	DS005734	D012600	1	02/07/69 - 01/23/75

See 62-049A-005

REC	32	LENGTH	84
-----	----	--------	----

1.32105500	0.17403482	1.54321459	3.91356149	4.37230000	4.61318570	REC	33. LENGTH	84
						REC	34. LENGTH	84
7 469						REC	35. LENGTH	84
1.32104999	0.17475426	1.54319829	4.36472476	3.88561487	4.78026039	REC	36. LENGTH	84
						REC	37. LENGTH	84
71869						REC	38. LENGTH	84
1.32104300	0.17489464	1.54316899	4.82230667	3.39971387	4.73937200	REC	39. LENGTH	84
						REC	40. LENGTH	84
080169						REC	41. LENGTH	84
1.321040	0.17498067	1.5431278	5.28556240	2.9140015	4.73242520	REC	42. LENGTH	84
-0.034781747	-0.001931867	128.287850				REC	43. LENGTH	84
81569						REC	44. LENGTH	84
1.32103695	0.17490272	1.54308135	5.75429749	2.42858189	4.70548207	REC	45. LENGTH	84
						REC	46. LENGTH	84
82969						REC	47. LENGTH	84
1.32102899	0.17493493	1.54305489	6.22909987	1.94286640	4.67046239	REC	48. LENGTH	84
						REC	49. LENGTH	84
091269						REC	50. LENGTH	84
1.321023	0.17489411	1.5430476	4.2602529	1.4568940	4.65143000	REC	51. LENGTH	84
-0.034780300	-0.001937428	128.285480				REC	52. LENGTH	84
092669						REC	53. LENGTH	84
1.321017	0.17486792	1.5430618	0.91357452	0.9708136	4.62430320	REC	54. LENGTH	84
-0.034780334	-0.001936431	128.284600				REC	55. LENGTH	84
101069						REC	56. LENGTH	84
1.32100599	0.17486120	1.54309669	1.40992700	0.48489510	4.59739357	REC	57. LENGTH	84
						REC	58. LENGTH	84
102469						REC	59. LENGTH	84
1.32099099	0.17484107	1.54314910	1.92008780	6.28192288	4.57035059	REC	60. LENGTH	84
						REC	61. LENGTH	84
110769						REC	62. LENGTH	84
1.320971	0.17470070	1.54322190	2.45155980	5.7959832	4.54335560	REC	63. LENGTH	84
-0.034783418	-0.001925340	128.277910				REC	64. LENGTH	84

1.320530	•17460729	1.5438070	4.44202810	1.2119720	2.58425800	REC	97, LENGTH	84
-•034862914	-•001888968	128.190450				REC	98, LENGTH	84
100672						REC	99, LENGTH	84
1.320547	•17459662	1.5436939	•07873807	•2392427	2.53159280	REC	100, LENGTH	84
-•034705310	-•001887070	128.418030				REC	101, LENGTH	84
102072						REC	102, LENGTH	84
1.320545	•17453129	1.5436408	1.04495241	6.0358347	2.50519160	REC	103, LENGTH	84
-•034890325	-•001902191	128.071840				REC	104, LENGTH	84

ISIS 2

GSFC ORBITAL ELEMENTS, TAPE

71-024A-00E

This data set has been restored. There was originally one 7-track, 556 BPI tape written in BCD. There is one restored tape written in ASCII. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 7094 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR004678	DS004678	D012602	1	04/08/71 - 01/23/75

See 62-049A-00J
for format

FATS070 CONTROL CARD TABLE SIZE IS 4096 BYTES

FATAR CONTROL CARDS
1-- ANALYZE BLP
2-- PRINT LF=1,B=ALL,CHAR

DP/DS 004678
71-024A-00E

FATS071 TAPE BUFFER SIZE IS 65535 BYTES

FATS040 TAPEIN IS NOT LABELED - LABELS=NO ASSUMED

CHARACTERISTICS OF THE TAPE TO BE ANALYZED

UNIT SERIAL DEN TRICH
5A9 NC2005 38000

FATAR DETAIL REPORT

BLOCK LENGTH MESSAGE/ NUMBER DISPL BLOCK TYPE 1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
(COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

*** START FILE 1

FATS038 DATA FILE IN ISCI/ASCII - TRANSLATED TO EBCDIC

510471-024A ISIS B

1040471/

1	86	PRINT REQUESTED	1.217800	.00446419	1.5386096	.71950436	2.1770779	5.10213640
2	86	PRINT REQUESTED	-0.43245821	-.002796522	113.716596			
3	86	PRINT REQUESTED	042271					
4	86	PRINT REQUESTED	1.217799	.00450487	1.5386050	3.50042220	1.5920402	5.06289460
5	86	PRINT REQUESTED	-0.43513563	-.002816753	113.416801			
6	86	PRINT REQUESTED	050671					
7	86	PRINT REQUESTED	1.217799	.00447034	1.5386183	.00370260	1.0017257	5.02365840
8	86	PRINT REQUESTED	-0.43465275	-.002811994	113.468805			
9	86	PRINT REQUESTED	052071					
10	86	PRINT REQUESTED	1.217799	.00440435	1.5386433	2.79437070	.4073667	4.98444680
11	86	PRINT REQUESTED	-0.43230491	-.002792421	113.733387			
12	86	PRINT REQUESTED	060371					
13	86	PRINT REQUESTED	1.217799	.00432497	1.5386806	5.59726040	6.0841362	4.94527620
14	86	PRINT REQUESTED	-0.43428633	-.002803779	113.510156			
15	86	PRINT REQUESTED						
16	86	PRINT REQUESTED						

FATAR DETAIL REPORT

BLOCK LENGTH/ MESSAGE/
NUMBER DISPL BLOCK TYPE1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
(COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

267	86	PRINT REQUESTED	1.2178289	.00434087	1.5387446	3.3017746	.08338049	1.3344808
268	86	PRINT REQUESTED	-.043250744	-.0027850046	113.71187			
269	86	PRINT REQUESTED	010775					
270	86	PRINT REQUESTED	1.2178292	.00424376	1.5387106	4.0920647	5.7046942	1.2926259
271	86	PRINT REQUESTED	-.043272406	-.0027895841	113.68659			
272	86	PRINT REQUESTED	012375					
273	86	PRINT REQUESTED	1.2178295	.00420048	1.5386544	2.8457768	4.9921849	1.2479087
274	86	PRINT REQUESTED	-.043558559	-.0028156918	113.36518			
275	86	PRINT REQUESTED	000000					

***** END OF FILE 1 -- FILE CONTAINED 275 BLOCKS

***** START FILE 2

FATS038 DATA FILE IN ISCI/ASCII - TRANSLATED TO EBCDIC

***** END OF FILE 2 -- FILE CONTAINED 0 BLOCKS

FATS020 ANALYSIS TERMINATED AT TAPEMARK SEQUENCE

FILES READ	BLOCKS READ	BYTES READ	FEET READ	TEMP ERRS	PERM ERRS	FILES WRITTEN	BLOCKS WRITTEN
1	275	23650	2	0	0	0	0

FINAL TOTALS

1.217797	•00451033	1.5385727	•12559265	1.8085240	4.007125640	REC	33, LENGTH	84
-•043513725	-•002819990	113.408147				REC	34, LENGTH	84
092371						REC	35, LENGTH	84
1.217797	•00449192	1.5385650	2.91333340	1.2200488	4.003199460	REC	36, LENGTH	84
-•043459634	-•002810298	113.476144				REC	37, LENGTH	84
100771						REC	38, LENGTH	84
1.217797	•00443804	1.5385902	5.70586830	•0269581	4.009272500	REC	39, LENGTH	84
-•043227512	-•002796870	113.736711				REC	40, LENGTH	84
102171						REC	41, LENGTH	84
1.217797	•00435923	1.5386155	2.22579460	•0234806	4.005349080	REC	42, LENGTH	84
-•043425956	-•002809336	113.513501				REC	43, LENGTH	84
110471						REC	44, LENGTH	84
1.217797	•00423812	1.5386563	5.03717680	5.00950072	4.001431230	REC	45, LENGTH	84
-•043536533	-•002813898	113.389370				REC	46, LENGTH	84
111871						REC	47, LENGTH	84
1.217797	•00423432	1.5386925	1.57704981	5.0718647	4.047317830	REC	48, LENGTH	84
-•043272025	-•002791160	113.686205				REC	49, LENGTH	84
120271						REC	50, LENGTH	84
1.217795	•00424323	1.5387254	4.40599220	4.04430362	4.003009310	REC	51, LENGTH	84
-•043328802	-•002792448	113.622722				REC	52, LENGTH	84
121571						REC	53, LENGTH	84
1.214796	•00427661	1.5387193	•94022065	3.8260345	4.009703420	REC	54, LENGTH	84
-•043560690	-•002810095	113.362892				REC	55, LENGTH	84
123071						REC	56, LENGTH	84
1.217795	•00435224	1.5386930	3.2100257	4.0035797940		REC	57, LENGTH	84
-•043359535	-•002797586	113.589077				REC	58, LENGTH	84
011372						REC	59, LENGTH	84
1.217795	•00445134	1.5386629	•27735921	2.00066043	4.001889820	REC	60, LENGTH	84
-•043248834	-•002792051	113.713741				REC	61, LENGTH	84
012772						REC	62, LENGTH	84
1.217795	•00449661	1.5386422	5.07140660	2.0167304	4.027978610	REC	63, LENGTH	84
-•043514703	-•002813542	113.416171				REC	64, LENGTH	84

[illegible]

-043483357	-002797009	113.453318					REC	97, LENGTH	84
071372							REC	98, LENGTH	84
1.217793	00447921	1.5387872	5.35075320	1.0533525	3.81174360		REC	99, LENGTH	84
-043234988	-002780109	113.731624					REC	100, LENGTH	84
072772							REC	101, LENGTH	84
1.217792	00441539	1.5387873	1.86787683	0.4585025	3.77277930		REC	102, LENGTH	84
-043403705	-002792518	113.541430					REC	103, LENGTH	84
081072							REC	104, LENGTH	84
1.217792	00434252	1.5388107	4.67919890	6.1300170	3.73364170		REC	105, LENGTH	84
-043551243	-002801304	113.376132					REC	106, LENGTH	84
082472							REC	107, LENGTH	84
1.217792	00426712	1.5388479	1.21818931	5.5196491	3.69493570		REC	108, LENGTH	84
-043296396	-002779276	113.661374					REC	109, LENGTH	84
090772							REC	110, LENGTH	84
1.217792	00422854	1.5388991	4.04775020	4.8961494	3.65607890		REC	111, LENGTH	84
-043304121	-002775336	113.653255					REC	112, LENGTH	84

1.217798	•00425878	1.5386986	1.46900366	4.2173050	4.62795890	REC	1, LENGTH	84
-043323902	-•002794430	113.028300				REC	2, LENGTH	84
072971						REC	3, LENGTH	84
1.217798	•00432976	1.5386724	4.30099440	3.5971668	4.78884940	REC	4, LENGTH	84
-043558309	-•002814093	113.365591				REC	5, LENGTH	84
081271						REC	6, LENGTH	84
1.217797	•00441502	1.5386309	•82755513	2.9918476	4.74969250	REC	7, LENGTH	84
-043359943	-•002803086	113.587005				REC	8, LENGTH	84
082671						REC	9, LENGTH	84
1.217797	•00448670	1.5385984	3.62197680	2.3902415	4.71049370	REC	10, LENGTH	84
-043252094	-•002797962	113.708623				REC	11, LENGTH	84
090971						REC	12, LENGTH	84
1.217797	•00451033	1.5385727	•12559265	1.8085240	4.67125040	REC	13, LENGTH	84
-043518725	-•002819990	113.408147				REC	14, LENGTH	84
092371						REC	15, LENGTH	84
1.217797	•00449192	1.5385650	2.91333340	1.2200488	4.63199460	REC	16, LENGTH	84
-043459634	-•002816296	113.476144				REC	17, LENGTH	84
100771						REC	18, LENGTH	84
1.217797	•00443804	1.5385902	5.70586630	•6269581	4.59272500	REC	19, LENGTH	84
-043227512	-•002796870	113.736711				REC	20, LENGTH	84
102171						REC	21, LENGTH	84
1.217797	•00435923	1.5386155	2.22979420	•0234806	4.55349680	REC	22, LENGTH	84
-043425956	-•002809336	113.513501				REC	23, LENGTH	84
110471						REC	24, LENGTH	84
1.217797	•00428212	1.5386563	5.03717680	5.6950072	4.51431230	REC	25, LENGTH	84
-043536533	-•002813896	113.389370				REC	26, LENGTH	84
111871						REC	27, LENGTH	84
1.217797	•00423432	1.5386925	1.57704981	5.0718847	4.47517830	REC	28, LENGTH	84
-043272025	-•002791160	113.686205				REC	29, LENGTH	84
120271						REC	30, LENGTH	84
1.217796	•00424323	1.5387254	4.40599220	4.4430362	4.43009310	REC	31, LENGTH	84
-043328802	-•002792448	113.622722				REC	32, LENGTH	84

REC	33. LENGTH	84
121671		
1.214796	REC 34. LENGTH	84
-043560690	REC 35. LENGTH	84
123071	REC 36. LENGTH	84
1.217795	REC 37. LENGTH	84
-043359535	REC 38. LENGTH	84
011372	REC 39. LENGTH	84
1.217795	REC 40. LENGTH	84
-043248834	REC 41. LENGTH	84
012772	REC 42. LENGTH	84
1.217795	REC 43. LENGTH	84
-043514703	REC 44. LENGTH	84
021072	REC 45. LENGTH	84
1.217795	REC 46. LENGTH	84
-043465557	REC 47. LENGTH	84
022472	REC 48. LENGTH	84
1.217794	REC 49. LENGTH	84
-043231429	REC 50. LENGTH	84
030972	REC 51. LENGTH	84
1.217793	REC 52. LENGTH	84
-043424723	REC 53. LENGTH	84
032372	REC 54. LENGTH	84
1.217794	REC 55. LENGTH	84
-043543135	REC 56. LENGTH	84
040672	REC 57. LENGTH	84
1.217794	REC 58. LENGTH	84
-043276916	REC 59. LENGTH	84
042072	REC 60. LENGTH	84
1.217794	REC 61. LENGTH	84
-043315974	REC 62. LENGTH	84
050472	REC 63. LENGTH	84
1.217793	REC 64. LENGTH	84

-043558515	-002799503	113.367999				REC	65, LENGTH	84
051872						REC	66, LENGTH	84
1.217793	00435644	1.5388462	0.43994471	3.44264990	3.96738670	REC	67, LENGTH	84
-043377828	-002785416	113.569856				REC	68, LENGTH	84
060172						REC	69, LENGTH	84
1.217793	00444241	1.5388380	3.24699060	2.8241047	3.92849330	REC	70, LENGTH	84
-043247298	-002775550	113.717450				REC	71, LENGTH	84
061572						REC	72, LENGTH	84
1.217793	00450105	1.5388265	0.04438680	2.2315097	3.88960470	REC	73, LENGTH	84
-043509445	-002796835	113.422357				REC	74, LENGTH	84
062972						REC	75, LENGTH	84
1.217793	00452076	1.5388022	2.55646520	1.6414232	3.85067970	REC	76, LENGTH	84
-043483357	-002797069	113.453318				REC	77, LENGTH	84
071372						REC	78, LENGTH	84
1.217793	00447921	1.5387672	5.35075320	1.0533525	3.81174360	REC	79, LENGTH	84
-043234988	-002780109	113.731524				REC	80, LENGTH	84
072772						REC	81, LENGTH	84
1.217792	00441939	1.5387873	1.86787683	0.4555025	3.77277930	REC	82, LENGTH	84
-043403705	-002792516	113.541450				REC	83, LENGTH	84
081072						REC	84, LENGTH	84
1.217792	00434252	1.5388107	4.67919890	6.1360170	3.73384170	REC	85, LENGTH	84
-043551243	-002801304	113.376132				REC	86, LENGTH	84
082472						REC	87, LENGTH	84
1.217792	00426712	1.5388479	1.21818931	5.5196491	3.69493570	REC	88, LENGTH	84
-043296396	-002779278	113.651374				REC	89, LENGTH	84
090772						REC	90, LENGTH	84
1.217792	00422854	1.5388991	4.04775020	4.8961494	3.65607890	REC	91, LENGTH	84
-043304121	-002775336	113.653255				REC	92, LENGTH	84
092172						REC	93, LENGTH	84
1.217792	00424483	1.5389467	0.59678683	4.2703971	3.61728910	REC	94, LENGTH	84
-043557382	-002769698	113.369645				REC	95, LENGTH	84
100572						REC	96, LENGTH	84

1.217791	•00429337	1.5389774	3.42279520	3.0512499	3.57852530	REC 97, LENGTH 84
-•043399257	-•002775419	113.548577				REC 98, LENGTH 84
101972						REC 99, LENGTH 84
1.217791	•00437526	1.5390035	0.23920460	3.0422230	3.53980650	REC 100, LENGTH 84
-•043239564	-•002761435	113.729130				REC 101, LENGTH 84
110272						REC 102, LENGTH 84
1.217791	•00445266	1.5390047	2.76316400	2.4428100	3.50110000	REC 103, LENGTH 84
-•043489761	-•002779631	113.449274				REC 104, LENGTH 84