[redacted]

#565

AEROS A&B

RETARDING POTENT ANALYZER PLASMA MEASUREMENT

72-100A-02A
74-055A-02A

Table of Contents

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

AEROS 2

RPA PLASMA MEASUREMENT, TAPE

74-055A-02A SPIO-00176

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY FIVE 9-TRACK,1600 BPI TAPES, WRITTEN IN BINARY. THERE IS ONE RESTORED TAPE. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON AN IBM ~~360~~ univax-1100 COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	DD#	FILES	TIME SPAN
DR004178	DS004178	D048922	1	07/20/74 - 10/07/74
		D048923	2	10/12/74 - 12/17/74
		D048924	3	12/17/74 - 03/11/75
		D048921	4	03/11/75 - 05/16/75
		D048925	5	05/16/75 - 09/04/75

AEROS 1

RPA PLASMA MEASUREMENT, TAPE

72-100A-02A SPIO-00082

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a 1100 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
DR005312	DS005312	D054205	1	01/04/73 - 08/03/73

REQ. AGENT	RAND NO.	ACQ. AGENT
GLS	V0164	RNH

AEROS A&B

RETARDING POTENT ANALYZER PLASMA MEASUREMENT

72-100A-02A
74-055A-02A

This data set catalog contains 6 magnetic tapes. One AEROS-A tape and 5 AEROS-B tapes. Each tape is 1600 BPI, Binary, 9-track, and contains one file. These tapes were created on the Univac 1100 computer. To find the 10 digit words, convert the 36 bit octal number using the octal-decimal interger conversion table. The following list the D#'s, C#'s, time span and NSSDC ID#'s of each tape.

D#	C#	TIME SPAN	NSSDC ID#
D-54205	C-22903	01/04/73 - 08/03/73	72-100A-02A
D-48922	C-22904	07/20/74 - 10/07/74	74-055A-02A
D-48923	C-22905	10/12/74 - 12/17/74	74-055A-02A
D-48924	C-22906	12/17/74 - 03/11/75	74-055A-02A
D-48921	C-22907	03/11/75 - 05/16/75	74-055A-02A
D-48925	C-22908	05/16/75 - 09/04/75	74-055A-02A

COSPAR-LANDESAUSSCHUSS
DER DEUTSCHEN
FORSCHUNGSGEMEINSCHAFT
VORSITZENDER: PROFESSOR K. RAWER

Description of magnetic tape KUER2

Results of Ref. Pot. Analyzer Plasma measurements
AEROS-B : mid 1974 - mid 1975 (5 tapes)

1. Tape format: half inch, 9 track, 1600 Bpi, 9 bit/character, odd parity, binary coded, unlabelled, free format, no structure.

2. Blocking: Integer numbers only. Double words of 9 characters per pair, i.e. 4½ per number (36 bit). One block has 3000 words, subdivided into 200 lines of 15 words each. Each line contains all data of one measurement. In decimal writing 10 digits are available per word. Many words are subdivided, see listing below.

DECIMAL DIGIT

WORD-NR.	10	9	8	7	6	5	4	3	2	1	Mode
1	1 (AEROS A) 2 (" -B)	Mess-mode (1,2,3,4)	Solar Zenith Angle [Neugrad / 3]			Orbit - No.					
2	Mean Julian date I [d]					Mean Julian Date II [10^{-6} d]					
3		YEAR		DAY OF YEAR			HOUR (WOZ)		MIN (WOZ)		
4	Mc Illwain's Index L [1/100]					Geom. Local Time H		Min		Sec	
5	$K_p \cdot 10/3$		Covington index			A_p		Zürich Sunspot Nr. R_Z			
6			Magn. Field B [0.01 T]			Satellite Altitude [10 m]					
7	Geodetic Latitude * [10^{-4} Rad]					Geodetic Longitude 0...360 [10^{-4} Rad]					
8	Geomagnetic Latitude * [10^{-4} Rad]					Geomagnetic Longitude [10^{-4} Rad]					
9	Magnetic Inclination (Dip)* [10^{-4} Rad]					Magnetic Declination -/+ [10^{-4} Rad] Field ←					
10	Modified Dip +/- * [10^{-4} Rad] Field →					Invariant Latitude [10^{-4} Rad]					
11	LN(Plasma density/m^{-3}) * 1000										
12	LN(Electron flux) E < 5eV					LN(Electron flux) E < 21eV					1
	LN(Ion density/m^{-3}) * 1000 corrected for screen					LN(Ion density/m^{-3}) * 1000 direct					3,4
13	Electron temperature [K]					LN(Electron flux) E < 10eV					1
						Ion temperature [K]					3
14	LN(Electron flux) E < 12eV					LN(Electron flux) E < 8eV					1
		Light Ions [‰]									3
15	Potential [10 mV]			He+ Ions [‰]			Offset Ion density [10^{-4}]				

* Positive when last digit even

Example Word-Nr. 5: $K_p = 3.75$, Cov. = 100, $A_p = 11$, $R_Z = 35$ } Word-Nr. 5 = 1210011035

DUMP OF TAPE GOUT1

D-4882
07/20/74 - 10/07/74

INPUT TAPE GOUT1 ON MT4
DATA INPUT 09 FL 1 1 1

1/74201/4491 YEAR DAY HR MIN

FILE	1 RECORD	1 LENGTH	1800 BYTES					
(0)	017602741435	020601352624	014765176071	001500132545	006014771612	000220633726	006357742376	005757514102
(48)	013370133602	007477512222	000000000000	022633501261	002034747767	026023761103	035516375400	017602741435
(96)	020601353467	014765176066	001610520160	006014771612	003223055324	006602332144	006206553734	010551666740
(144)	007227304704	000000000000	022667057642	002536420375	026024567635	035516375400	020400322035	020601353576
(192)	014765176066	001624063466	006014771612	000223360250	006632656112	006237706436	010573317244	007245702700
(240)	022150651500	000000000000	002222566040	000000000093	011007621200	021175702435	020601353702	014765176065
(288)	001643270074	006014771612	000223663174	006663202056	006271041144	010615556246	007264300676	022405776300
(336)	022535650625	001223137300	000445340170	000002503542	017604053375	020601354011	014765176064	001662474502
(384)	006014771612	000224471357	006713526022	006323002352	010640015252	007302070172	022444407300	022645124072
(432)	002373566374	026021231742	035516375400	020401433775	020601354116	014765176064	001676040010	006014771612
(480)	000224774303	006743243266	006353326356	010660637056	007320466172	022231521500	000000000000	002225620440
(528)	000000000000	011240276200	021177014375	020601354225	014765176063	001715244416	006014771612	000225277226
(576)	006774375732	006404461064	010722267360	007336255466	012412446100	022543432404	001162605513	000426145400
(624)	000117024602	017604053375	020601354332	014765176063	001734451024	006014771612	000225602151	007024721674
(672)	006435613570	010723717662	007355462166	022457144100	022611242255	003437413130	026017614512	035516375400
(720)	020401433775	020601354441	014765176062	001753655502	006014771612	000226105074	007055245636	006466746276
(768)	010744541466	007373251462	022213732300	000000000000	002241467200	000000000000	011354524600	021177014375
(816)	020601354545	014765176062	001776723211	006014771612	000226410017	007105571600	006520707506	010765363270
(864)	007411040762	022431347240	022561716407	001215052260	000406750640	000002131216	017604053375	020601354654
(912)	014765176061	002016127617	006014771612	000226712742	007136115544	006552042212	011006205072	007427436756
(960)	022473012640	022613466141	003402722567	026015370606	035516375400	020401433775	020601354761	014765176060
(1008)	002041175325	006014771612	000227215664	007165633004	006603174722	011026220174	007445226260	022663441440
(1056)	000000000000	002444041400	000000000000	014111751600	021200126335	020601355070	014765176060	002060401733
(1104)	006014771612	000227520607	007216765444	016635136126	011047041774	007463015554	022445521240	022575070447
(1152)	001207573742	000377252360	000002062161	017605165335	020601355175	014765176057	002103447442	006014771612
(1200)	000230023531	007247311406	006666270636	011067055076	007501413554	022532232340	022621247766	000000061364
(1248)	026037021150	035516375400	020402545735	020601355304	014765176057	002126515150	006014771612	000230326453
(1296)	007277635346	006717423344	011177370176	007517203050	022661215540	000000000000	002444652600	000000000000
(1344)	014111751600	021200126335	020601355410	014765176056	002151562657	006014771612	000230631375	007330161304
(1392)	006750556054	011127133276	007534772350	022452474300	022602346765	001170367272	000302271530	000115340373
(1440)	017605165335	020601355517	014765176055	002174630365	006014771612	000231134317	007360505244	007002517262
(1488)	011146307674	007553370346	022544463700	022560412723	003111410567	025775355412	035516375400	020402545735
(1536)	020601355624	014765176055	002223537245	006014771612	000231437241	007411031200	007033651772	011166322772
(1584)	007571157644	022305721700	000000000000	002246745600	000000000000	011605201600	021201240275	020601355733
(1632)	014765176054	002246604753	006014771612	000231742163	007442163640	007065613200	011205527370	007606747142
(1680)	022467151540	022615407062	001145016247	000276430430	000114673360	017606277275	020601356040	014765176053
(1728)	002275513562	006014771612	000232245104	007471701072	007116745712	011224733766	007625345142	022546101100
(1776)	022544240713	001766331140	025771211026	035516375400	020403657675	020601356147	014765176052	002324422370
(1824)	006014771612	000232550026	007522225030	007150100420	011243331662	007643134442	022340471600	000000000000
(1872)	002254224030	000000000000	011721430200	021201240275	020601356253	014765176052	002353331200	006014771612
(1920)	000233052747	007552550762	007201233130	011261727560	007660115240	022501706340	022632367624	001151771324
(1968)	000257233670	000232233767	017606277275	020601356362	014765176051	002406101106	006014771612	000233355671
(2016)	007603074714	007233174342	011301134152	007676513236	022577233600	022626222700	000000061330	026010415537
(2064)	035516375400	020403657675	020601356467	014765176050	002435007716	006014771612	000233660612	007633420650
(2112)	007264327052	011317532046	007715111236	022310754300	000000000000	002244216340	000000000000	011470753200
(2160)	021202352235	020601356576	014765176047	002467557624	006014771612	000234163533	007664553300	007316270264
(2208)	011336736440	007732700534	022526674500	022651574274	001110631035	000257235640	000115314720	017607411235
(2256)	020601356702	014765176047	002522327534	006014771612	000234466454	007714270532	007347422776	011354525632
(2304)	007750470034	022521416200	022527260135	002343545367	025753725013	035516375400	020404771635	020601357011
(2352)	014765176046	002560740612	006014771612	000234771376	007744614460	007401364206	011373123522	007766257332
(2400)	022311257540	000000000000	000223653040	000000000000	011240276200	021202352235	020601357116	014765176045
(2448)	002613510523	006014771612	000235274317	007775140410	007432516720	011410712712	010004046632	022542240000
(2496)	022664925667	001102240554	000201445630	000000375720	017607411235	020601357225	014765176044	002652121531
(2544)	006014771612	000235274000	011025464334	007464460132	011427310600	010022444630	022651513340	022513106127
(2592)	002751335641	025759963670	035516375400	020404771635	020601357332	014765176043	002710532542	006014771612
(2640)	000235576721	010055201562	007515612646	011444271270	010040234126	022617246700	000000000000	002213672340
(2688)	000000000000	011470753200	021203464175	020601357441	014765176042	002753004650	006014771612	000236101642

(15408)	000620524226	006014771612	000162115551	001026755504	001311422614	002451325702	002375735260	022741035314
(15456)	023146673404	000436065656	000104350716	003515663443	017745270135	020601424110	014765173730	000620524234
(15504)	006014771612	000161612430	000773377066	001255235514	002366231776	002316502372	022715706100	000000000000
(15552)	001533043600	000000000000	035516375400	020542650535	020601424215	014765173730	000614663145	006014771612
(15600)	000161612552	000740020450	001221657114	002300712176	002235632304	025204060200	000000000000	000662374740
(15648)	000000000000	014573103600	021340231135	020601424324	014765173730	000614663153	006014771612	000161307435
(15696)	000704442032	001165472014	002214201072	002155570722	000000065223	024374636723	000000000000	000000000000
(15744)	035516421016	017745270135	020601424431	014765173730	000614663234	006014771612	000161004321	000651063416
(15792)	001132113416	002127467770	002074720640	022713765440	000000000000	001544466440	000000000000	035516375400
(15840)	020543762475	020601424540	014765173727	000614663242	006014771612	000160501207	000615505000	001076535016
(15888)	002042756666	002013242056	025564023640	000000000000	000677052200	000000000000	014573103600	021341343075
(15936)	020601424644	014765173727	000614663253	006014771612	000160501337	000562126362	001042347716	001753213166
(15984)	001727337400	022747122334	023067212017	000427172134	000104463030	003515663500	017746402075	020601424753
(16032)	014765173727	000611022161	006014771612	000160176231	000525741244	001006162616	001665064664	001643434722
(16080)	022576121640	000000000000	001561447140	000000000000	035516375400	020543762475	020601425060	014765173727
(16128)	000611022173	006014771612	000157673124	000472362626	000753412720	001576127664	001560340746	023121374740
(16176)	000000000000	000711607000	000000000000	015504712600	021342455035	020601425167	014765173727	000611022201
(16224)	006014771612	000157673260	000437004210	000717225620	001510610064	001474436274	022731333070	023053646461
(16272)	000502564016	000042232400	003515403502	017747514035	020601425274	014765173726	000611022212	006014771612
(16320)	000157370157	000404234272	000663040520	001421653064	001407725126	022463310440	000000000000	001555302600
(16368)	000000000000	035516375400	020545074435	020601425403	014765173726	000611022220	006014771612	000157370317
(16416)	000350655654	000627462120	001332716064	001322405260	023170622100	000000000000	000677355440	000000000000
(16464)	014342426600	021342455035	020601425510	014765173726	000611022302	006014771612	000157065220	000314470536
(16512)	000574103522	001242343666	001233450214	022715161030	023040303123	000433641750	000007437101	003745647645
(16560)	017750625775	020601425617	014765173726	000611022310	006014771612	000157065363	000261720620	000537716422
(16608)	001152600170	001145321656	022435210340	000000000000	000000000000	000000000000	035516375400	020546206375
(16656)	020601425723	014765173725	000605161221	006014771612	000156562270	000226342202	000503531322	001063034472
(16704)	001057173322	022623110000	000000000000	000660454300	000000000000	015370464200	021343566775	020601426032
(16752)	014765173725	000605161227	006014771612	000156562436	000172763564	000450152722	000772462274	000770236270
(16800)	022725166515	023046370143	000443344174	000003637130	006617277720	017751737735	020601426137	014765173725
(16848)	000605161241	006014771612	000156562605	000137405150	000414574324	000702716576	000701301240	022536073440
(16896)	000000000000	001512525240	026171260700	035516375400	020547320335	020601426246	014765173725	000605161247
(16944)	006014771612	000156562756	000104026532	000360407224	000613153100	000611535514	025451515700	000000000000
(16992)	000606174540	000000000000	015140007200	021344700735	020601426353	014765173725	000605161261	006014771612
(17040)	000156257671	000050450114	000325637324	000521163504	000520354574	023106417026	023233156325	000424746226
(17088)	000003635162	004543204652	017751737735	020601426462	014765173724	000605161267	006014771612	000156260045
(17136)	000015071476	000271452224	000430611310	000430002356	022711541540	000000000000	001467154300	026102020440
(17184)	035516375400	020550432275	020601426567	014765173724	000605161351	006014771612	000156260223	000015374720
(17232)	000236073626	000341045614	000340236642	023204470640	000000000000	000563735540	000000000000	014573103600
(17280)	021346012675	020601426676	014765173724	000605161357	006014771612	000156260403	000050753302	000202515226
(17328)	000250473416	000247664436	023264311466	023377426074	000375534071	000003554343	003150244105	017753051675
(17376)	020601427002	014765173724	000605161371	006014771612	000156260564	000104331666	000147136626	000160121224
(17424)	000160120736	023066321600	000000000000	001474432600	026036737640	035516375400	020550432275	020601427111
(17472)	014765173724	000605161377	006014771612	000156260746	000137101550	000112751526	000066740332	000066740034
(17520)	025337207740	000000000000	000527550440	000000000000	013430617600	021347124635	020601427216	014765173723
(17568)	000605161412	006014771612	000156261132	000172460132	000056564430	000001115276	000001114772	023317061474
(17616)	023434116547	000405236315	000023035640	003745624240	017754163635	020601427325	014765173723	000605161420
(17664)	006014771612	000156261317	000226036514	000024014530	000072276204	000072275702	023107752100	000000000000
(17712)	001547215600	025636606640	035516375400	020551544235	020601427432	014765173723	000605161433	006014771612
(17760)	000156261506	000261415076	000007337270	000162650410	000162650116	023307577640	000000000000	000517543000
(17808)	000000000000	013430617600	021347124635	020601427541	014765173723	000605161511	006014771612	000156261677
(17856)	000314164760	000042715670	000254640020	000254637534	000000063073	023524471173	000000000000	000000000000
(17904)	035516421016	017755275575	020601427645	014765173722	000605161523	006014771612	000156565330	000347543342
(17952)	000077102770	000345212226	000345211754	023233074200	000000000000	001516671600	025505377540	035516375400

FILE 1 RECORD 1091 LENGTH 1800 BYTES

(0)	021310212650	021256165554	014770203077	013756465425	001446651644	000250661002	010321355050	011703642626
(48)	012550766365	010412423400	021363051136	021504556025	001256212547	000175606500	001507660074	017715251650
(96)	021256165663	014770203076	013415423133	001446651644	000251164003	010271637470	011654733666	012542701213
(144)	010377060020	021357132200	022044205144	002010263367	025773433512	035516375400	020512632250	021256165770
(192)	014770203075	013073564353	001446651644	000251467003	010242730606	011625216230	012534614041	010364323140
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(336)	021472627673	001052523156	001116541460	000716207630	017715251650	021256166204	014770203073	012256776456
(384)	001446651644	000251771542	010163475652	011545763152	012520441513	010337031376	021160416400	021343036540
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