UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PRELIMINARY GEOMAGNETIC DATA
COLLEGE OBSERVATORY
FAIRBANKS, ALASKA

JANUARY 1978

OPEN FILE REPORT 78-300A

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THIS REPORT WAS PREPARED UNDER THE DIRECTION OF JOHN B. TOWNSHEND, CHIEF OF THE COLLEGE OBSERVATORY WITH THE ASSISTANCE OF OBSERVATORY STAFF MEMBERS J. E. PAPP, M. J. MOORMAN, AND S. P. TILTON, AND IN COOPERATION WITH THE GEOPHYSICAL INSTITUTE OF THE UNIVERSITY OF ALASKA. THE COLLEGE OBSERVATORY IS A PART OF THE BRANCH OF ELECTROMAGNETISM AND GEOMAGNETISM OF THE U.S. GEOLOGICAL SURVEY.

COLLEGE OBSERVATORY PRELIMINARY GEOMAGNETIC DATA

INTRODUCTION

The preliminary geomagnetic data included here is made available to scientific personnel and organizations, as part of a cooperative effort and on a data exchange basis because of the early need by some users. To avoid delay, all of the data is copied from original forms processed at the observatory; therefore it should be regarded as preliminary. Inquiries about this report or about the College Observatory should be addressed to:

Chief, College Observatory
U.S. Geological Survey
Yukon Drive on West Ridge
Fairbanks, Alaska 99701

Requests for copies of the magnetograms except for the current month should be addressed to:

World Data Center A-NOAA
Environmental Data Service
Boulder, Colorado 80302

GEOMAGNETIC DATA

Normal, Storm, and Rapid Run magnetograms and appropriate calibration data are processed daily at the observatory and are available for analysis or copying. Also available are mean hourly scalings, K-Indices, selected magnetic phenomena reports, and on a real-time basis are recordings from a 3-component fluxgate magnetometer and F-component proton magnetometer.

Magnetic Activity

The K-Index. The K-Index is a logarithmic measurement of the range of the most disturbed component (D or H) of the geomagnetic field for eight intervals beginning 0000-0300, 0300-0600...2100-2400 UT. It is a measure of the difference between the highest and lowest deviation from a smooth curve to be expected for a component on a magnetically quiet day, within a three hour interval.

The Equivalent Daily Amplitude, AK. The K-Index is converted into an equivalent range, ak, which is near the center of the limiting gamma ranges for a given K. The average of the eight values is called equivalent daily amplitude AK. The unit 10 γ has been chosen so as not to give the illusion of an accuracy not justified.

The schedule for converting gamma range to K, and K to ak is as follows:

Gamma Range	K - Index	ak*
0 < 25	0	0
25 < 50	1	3
50 < 100	2	7
100 < 200	3	15
200 < 350	4	27
350 < 600	5	48
600 < 1000	6	80
1000 < 1650	7	140
1650 < 2500	8	240
2500+	9	400 (10 γ)

The Magnetic Daily Character Figure, C. To each Universal day a character is assigned on the basis C=0, if it is quiet; C=1 if it is moderately disturbed; C=2 if it is greatly disturbed. The method used to assign characters at the College Observatory is based on AK as follows:

AK Range	C
0-11	0
11-50	1
50+	2

Routine assignment of C was discontinued at College on January 1, 1976.

OBSERVATORY LOCATION

The College Observatory, operated by the U. S. Geological Survey, is located at the University of Alaska, Fairbanks, Alaska. It is near the Auroral Zone and the northern limit of the world's greatest earthquake belt, the circum-Pacific Seismic belt. Although the observatory's basic operation is in geomagnetism and seismology, it cooperates with other scientists and organizations in areas where the facility and personnel can be of service.

The observatory is one of three operated by the USGS in Alaska. The others are located at Barrow and Sitka.

The position of the observatory site is:

Geographic latitude.....64°51.6'N
Geographic longitude.....147°50.2'W
Geomagnetic latitude.....+64.6°
Geomagnetic longitude.....+256.5°
Elevation.....200 meters

Selected Phenomena & Outstanding Magnetic Effects

Prior to January 1, 1976, the Normal & Rapid Run records were reviewed at the observatory for selected magnetic phenomena and the events identified were forwarded to the IUGG Commission on Magnetic Variations and Disturbances. This was discontinued on January 1, 1976, but a report on Outstanding Magnetic Effects is prepared monthly for this report.

Principal Magnetic Storms

Gradual and sudden commencement magnetic disturbances with at least one K-Index of 5 or greater, which are believed to be part of a world-wide disturbance, are classified as principal magnetic storms. The time of the storm beginning and ending; direction and amplitude of sudden commencements; period of maximum activity; and storm range are reported. Monthly reports of these data are forwarded to the World Data Center A in Boulder, Colorado.

Magnetogram Hourly Scalings

Magnetogram hourly scalings are averages for successive periods of one hour for the D, H, and Z elements. The value in the column headed "01" is the average for the hour beginning 0000 and ending 0100. Note that the values on the scaling sheets are in tenths of mm with the decimal point omitted. The user of these scalings should keep in mind that the tabular values are hourly means and if he is interested in the detailed morphology of the magnetic field, he should refer directly to the magnetograms.

Magnetograms

The normal magnetograms in this report are reproduced at about one-third the size of the originals. Preliminary base-line values and scale values adopted for use with the original magnetograms are included. For days when the magnetic field is too disturbed for the Normal magnetogram to be readable, Storm magnetograms are reproduced.

Absolutes, Base-lines, and Scale Values

To determine the absolute value of the magnetic field from the hourly means or from point scalings the following equations should be used:

$D = B_D + d \cdot S_D$; $H = B_H + h \cdot S_H$; $Z = B_Z + z \cdot S_Z$
where D, H, and Z are absolute values;
 B_D , B_H and B_Z are base-line values;
 S_D , S_H and S_Z are scale values;
and d, h, and z are scalings in millimeters.

NOAA FORM 76-133 (9-72)										U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION										OBSERVATORY COLLEGE, ALASKA									
MAGNETIC ACTIVITY (Greenwich civil time, counted from midnight to midnight)																				MONTH AND YEAR JANUARY 1978									
DATE		K-INDICES								SUM	AK	TIME SCALE ON MAGNETOGRAMS																	
		00-03	03-06	06-09	09-12	12-15	15-18	18-21	21-24			20 mm/hr																	
												SUDDEN COMMENCEMENTS d h m																	
1		1	1	0	1	2	1	1	1	08	03	POSSIBLE SOLAR-FLARE EFFECTS BASED ON INSPECTION OF GRAMS ALONE (WITHOUT REFERENCE TO DATA FROM OTHER SOURCES)																	
2		2	2	2	3	2	0	1	0	12	06																		
3		0	0	0	1	4	4	3	5	17	15																		
4		5	5	6	8	7	8	7	5	51	123																		
5		5	4	5	4	3	3	3	3	30	26																		
6		4	5	4	2	2	3	3	3	26	20																		
7		1	1	2	3	3	5	2	2	19	13																		
8		3	3	2	4	5	6	1	2	26	25																		
9		1	2	6	4	3	5	4	4	29	29																		
10		5	4	5	5	4	5	3	3	34	35																		
11		2	1	2	4	4	3	0	0	16	11	POSSIBLE SOLAR-FLARE EFFECTS BASED ON INSPECTION OF GRAMS ALONE (WITHOUT REFERENCE TO DATA FROM OTHER SOURCES)																	
12		0	1	0	1	0	0	0	0	02	01																		
13		0	1	3	3	3	2	0	1	13	07																		
14		0	0	2	1	0	0	0	0	03	01																		
15		0	0	0	2	2	0	0	0	04	02																		
16		0	0	0	1	6	6	4	3	20	26																		
17		3	2	1	1	2	2	1	1	13	06																		
18		3	3	3	4	3	1	0	1	18	12																		
19		1	1	2	3	3	2	0	0	12	06																		
20		0	0	1	0	1	2	0	0	04	02																		
21		0	0	0	1	0	0	0	0	01	00	POSSIBLE SOLAR-FLARE EFFECTS BASED ON INSPECTION OF GRAMS ALONE (WITHOUT REFERENCE TO DATA FROM OTHER SOURCES)																	
22		0	0	0	2	3	0	0	0	05	03																		
23		0	0	0	0	0	0	0	0	00	00																		
24		0	0	2	2	1	4	1	0	10	06																		
25		0	0	1	4	4	3	2	2	16	11																		
26		3	3	3	4	2	1	0	1	17	11																		
27		0	0	0	3	0	0	0	0	03	02																		
28		0	0	1	2	1	3	3	2	12	06																		
29		2	5	5	7	8	7	5	3	42	86																		
30		3	4	6	8	4	3	2	3	33	53																		
31		2	3	5	6	5	5	4	3	33	36																		

K SCALE USED: LOWER LIMIT FOR K = 9..... CURRENT SCALE VALUE..... LOWER LIMIT FOR K = 9				D 683.8 3.75 2560	H 321.7 7.80 2510	Z 	(mm) (γ/mm) (to nearest 10γ)
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SCALINGS AND COMPUTATIONS HAVE BEEN CHECKED.

APPROVED JOHN B. TOWNSHEND, CHIEF, COLLEGE OBSERVATORY

OBSERVER IN CHARGE

OUTSTANDING MAGNETIC EFFECTS			OBSERVATORY COLLEGE, ALASKA	
			MONTH JANUARY	YEAR 1978
DATE	TIME U.T.	NATURE OF PHENOMENON ¹	REMARKS	
03	11XX	pi2		
07	1917	si		
08	02XX	pc5		
09	1625	ssc*		
19	21XX	pc4		
21	10XX	pi2		
IDENTIFIED BY: JEP			VERIFIED BY: JBT	

1. NATURE OF PHENOMENON: ssc, ssc*, si, si*, b, bp, bs, bps, pc1, pc2 - - - pc5, pg, pi 1, pi 2, sfe.

NOAA FORM 86-500
(11/73)

PRINCIPAL MAGNETIC STORMS
COLLEGE OBSERVATORY, COLLEGE, ALASKA
JANUARY 1978

WDC-A FOR SOLAR-TERRRESTRIAL PHYSICS
ENVIRONMENTAL DATA SERVICE, NOAA
BOULDER, COLORADO 80302 U.S.A.

Data from Individual Observatories:

Obs. 2 letter IAGA code	Geomag. lat.	Commencement			SC - amplitudes			Max. 3 hr - index K			Ranges			UT End	
		day	hr min (UT)	type	D(')	H(Y)	Z(Y)	day	(3 hr - period)	K	D(')	H(Y)	Z(Y)	day hr	
C0	64°6 N	03	11XX	..	..	..	..	04	4, 6	8	556	2640	1600	06 08	
		09	1625	s.c.*	-26	+168	-22	09 10	6 1, 3, 4, 6	5 5	97	810	330	10 23	
		16	12XX	..	..	..	..	16	5, 6	6	172	1060	430	17 04	
		29	04XX	..	..	..	..	29 30	5 4	8 8	558	2590	1450	Feb. 01 05	

JANUARY

1978

NORMAL MAGNETOGRAPH				
COMPONENT	PERIOD		CALIBRATION	
	FROM	TO	SCALE VALUE	BASELINE
D	0000 U.T., 1-1-78	2400 U.T., 1-31-78	1.0/mm	3.88/mm
				27° 47.0 E
H	0000 U.T., 1-1-78	2400 U.T., 1-31-78	7.88/mm	
				127508
Z	0000 U.T., 1-1-78	2400 U.T., 1-31-78	7.88/mm	
				551348

STORM MAGNETOGRAPH				
COMPONENT	PERIOD		CALIBRATION	
	FROM	TO	SCALE VALUE	BASELINE
D	0000 U.T., 1-1-78	2400 U.T., 1-31-78	7.9/mm	29.78/mm
				24° 21.3 E
H	0000 U.T., 1-1-78	2400 U.T., 1-31-78	44.18/mm	
				114978
Z	0000 U.T., 1-1-78	2400 U.T., 1-31-78	48.8	
				540368

RAPID RUN MAGNETOGRAPH				
COMPONENT	PERIOD		CALIBRATION	
	FROM	TO	SCALE VALUE	
D	0000 U.T., 1-1-78	2400 U.T., 1-31-78	0.3/mm	1.08/mm
H	0000 U.T., 1-1-78	2400 U.T., 1-31-78	1.08/mm	
Z	0000 U.T., 1-1-78	2400 U.T., 1-31-78	2.48/mm	

MONTHLY MEAN ABSOLUTE VALUES*		
D	H	Z
28° 16.9 E	130448	553728

* COMPUTED FROM TEN QUIETEST DAYS DURING MONTH.

DAYS USED: JAN 1, 12, 14, 15, 20, 21, 22, 23, 24, 27

NO. 7 FORM 76-106 1-57		MAGNETOGRAM HOURLY SCALINGS (UNIVERSAL TIME)																				U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		OBSEV.	YEAR	MONTH	ELE- MENT
Values are in tenths of mm. and are averages for successive periods of one hour beginning at midnight. Hour 01 of local day (12 M.T.) is hour 11 of the _____ universal day. Shrinkage corrections have been applied. Negative values are in red, with minus signs shown.																						CO	78	JAN	D		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	SUM			
01	260	265	267	292	314	305	295	290	286	288	302	311	319	308	312	330	323	311	341	344	327	263	238	264	7175		
02	264	276	246	242	272	281	300	308	304	300	298	298	318	301	291	299	301	310	319	320	321	310	291	285	7055		
03	275	277	294	301	302	306	309	307	303	300	300	301	313	310	341	346	416	353	350	351	326	301	179	231	7392		
04	251	221	259	406*	311	216*	-22*	97*	454*	120*	454*	430*	359*	906*	851*	525*	445*	864*	-22*	342*	398*	175	130	217	6659		
05	279	296	289	236	291	253	242	278	92	263	240	250	269	292	308	339	354	358	362	378	340	301	268	208	6866		
06	281	262	367	299	280	282	288	306	303	289	292	298	312	302	287	320	310	321	311	210	270	310	278	275	7053		
07	272	261	297	297	303	309	309	306	312	356	302	293	319	289	300	368	247	336	350	337	310	311	287	256	7367		
08	272	259	287	290	297	302	315	316	309	293	302	353	354	366	403	382	359	321	321	310	293	301	241	242	7508		
09	276	297	298	284	300	300	280	332	414*	281	308	337	347	319	303	300	297	131	241	285	259	257	170	214	6850		
10	183	239	292	248	276	251	343	356	223	356	298	302	302	310	387	397	478	410	378	331	280	292	291	281	7504		
11	291	293	289	292	288	309	309	290	310	287	291	336	384	281	319	254	316	328	323	311	299	292	289	282	7263		
12	285	290	296	306	299	301	301	302	298	299	298	298	297	298	296	300	300	308	317	317	299	278	270	260	7113		
13	280	290	282	291	299	308	321	349	312	334	458	351	341	340	371	343	330	356	330	316	282	241	247	230	7622		
14	268	291	300	292	299	300	342	329	288	300	291	310	313	310	307	308	312	320	331	320	312	309	293	281	7326		
15	291	301	303	307	307	303	303	306	302	296	248	312	330	321	320	321	320	326	321	317	303	298	291	287	7334		
16	284	287	290	296	300	301	307	301	295	297	297	308	378	827*	827*	875*	653*	454*	299	268	232	231	245	230	9082		
17	213	249	218	228	270	309	318	322	321	305	300	295	297	292	270	316	312	316	300	297	294	299	286	267	6894		
18	261	244	206	156	190	229	241	214	291	300	277	359	343	362	303	297	303	319	320	312	311	303	300	292	6733		
19	283	280	270	267	280	290	301	298	293	298	351	307	348	338	362	323	299	330	328	324	308	291	280	281	7330		
20	291	298	294	293	294	296	310	290	281	292	290	295	309	311	303	303	309	317	318	317	312	310	301	293	7227		
21	291	291	298	300	303	306	303	301	298	298	313	300	304	300	300	301	302	302	306	310	320	319	307	291	7264		
22	284	285	291	300	299	297	287	282	290	298	311	321	330	311	300	310	309	307	310	317	320	313	299	283	7254		
23	280	255	292	298	300	301	301	300	293	295	297	302	309	300	298	303	309	292	311	313	299	286	277	268	7109		
24	265	268	274	279	290	290	300	282	289	264	270	290	289	323	348	380	500	510	372	321	310	295	288	272	7569		
25	274	280	290	290	289	279	260	269	296	292	271	366	344	350	358	322	406	368	330	280	289	277	286	264	7330		
26	216	187	286	259	261	251	274	300	351	377	332	258	283	297	326	324	339	331	322	306	306	291	287	257	7021		
27	281	283	282	280	279	289	282	285	284	268	239	298	306	301	309	310	313	327	327	322	310	296	278	276	7027		
28	291	287	283	299	294	294	301	300	264	347	279	271	300	311	328	354	363	330	313	283	281	294	270	260	7197		
29	263	264	247	290	242	320*	18*	171	271	431*	526*	150	283	598*	1805*	907*	534*	343*	336	276	238	236	250	279	9278		
30	300	283	274	272	260	320	343	442	342	757*	228*	42*	264	275	349	330	326	350	341	326	312	283	277	258	7298		
31	289	258	259	267	279	262	254	373	237	106*	266	232*	352	405	568	504	556	375	471	317	208	216	260	250	7564		

SCALED BY	SPT, JEP	Preliminary base-line and scale values: Interval Beginning Base-line Value Scale Value	☐ Interpolated ☐ Significant portion of hour interpolated. ☐ No record; or no values available because of faulty record. * Derived from Storm Mph., converted to Normal Mph.	☐ Scaling uncertain because of magnetic storm. <> Record off sheet for part or all of hour; if value is given, curve was estimated for missing part.	MONTHLY SUM	227264
CHECKED BY	JEP, SPT				MONTHLY MEAN	305
SIGNS RE-VIEWED BY	JEP				DATES WITH GAPS:	
PUNCHED BY						

NO. 10-104

U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		OBSY.		YEAR		MONTH		ELEMENT	
MAGNETOGRAM HOURLY SCALINGS (UNIVERSAL TIME)		00		73		24		73	
Values are in terms of γ and are averages for successive periods of one hour beginning at midnight. Hour 01 of box 6, day 1, 73, (M.T.) is hour 11 of the 1973 universal day.		19		20		21		22	
Station: 3100		13		14		15		16	
Values are in terms of γ and are averages for successive periods of one hour beginning at midnight. Hour 01 of box 6, day 1, 73, (M.T.) is hour 11 of the 1973 universal day.		17		18		19		20	
Station: 3100		21		22		23		24	
Station: 3100		25		26		27		28	
Station: 3100		29		30		31		32	
Station: 3100		33		34		35		36	
Station: 3100		37		38		39		40	
Station: 3100		41		42		43		44	
Station: 3100		45		46		47		48	
Station: 3100		49		50		51		52	
Station: 3100		53		54		55		56	
Station: 3100		57		58		59		60	
Station: 3100		61		62		63		64	
Station: 3100		65		66		67		68	
Station: 3100		69		70		71		72	
Station: 3100		73		74		75		76	
Station: 3100		77		78		79		80	
Station: 3100		81		82		83		84	
Station: 3100		85		86		87		88	
Station: 3100		89		90		91		92	
Station: 3100		93		94		95		96	
Station: 3100		97		98		99		100	
Station: 3100		101		102		103		104	
Station: 3100		105		106		107		108	
Station: 3100		109		110		111		112	
Station: 3100		113		114		115		116	
Station: 3100		117		118		119		120	
Station: 3100		121		122		123		124	
Station: 3100		125		126		127		128	
Station: 3100		129		130		131		132	
Station: 3100		133		134		135		136	
Station: 3100		137		138		139		140	
Station: 3100		141		142		143		144	
Station: 3100		145		146		147		148	
Station: 3100		149		150		151		152	
Station: 3100		153		154		155		156	
Station: 3100		157		158		159		160	
Station: 3100		161		162		163		164	
Station: 3100		165		166		167		168	
Station: 3100		169		170		171		172	
Station: 3100		173		174		175		176	
Station: 3100		177		178		179		180	
Station: 3100		181		182		183		184	
Station: 3100		185		186		187		188	
Station: 3100		189		190		191		192	
Station: 3100		193		194		195		196	
Station: 3100		197		198		199		200	
Station: 3100		201		202		203		204	
Station: 3100		205		206		207		208	
Station: 3100		209		210		211		212	
Station: 3100		213		214		215		216	
Station: 3100		217		218		219		220	
Station: 3100		221		222		223		224	
Station: 3100		225		226		227		228	
Station: 3100		229		230		231		232	
Station: 3100		233		234		235		236	
Station: 3100		237		238		239		240	
Station: 3100		241		242		243		244	
Station: 3100		245		246		247		248	
Station: 3100		249		250		251		252	
Station: 3100		253		254		255		256	
Station: 3100		257		258		259		260	
Station: 3100		261		262		263		264	
Station: 3100		265		266		267		268	
Station: 3100		269		270		271		272	
Station: 3100		273		274		275		276	
Station: 3100		277		278		279		280	
Station: 3100		281		282		283		284	
Station: 3100		285		286		287		288	
Station: 3100		289		290		291		292	
Station: 3100		293		294		295		296	
Station: 3100		297		298		299		300	
Station: 3100		301		302		303		304	
Station: 3100		305		306		307		308	
Station: 3100		309		310		311		312	
Station: 3100		313		314		315		316	
Station: 3100		317		318		319		320	
Station: 3100		321		322		323		324	
Station: 3100		325		326		327		328	
Station: 3100		329		330		331		332	
Station: 3100		333		334		335		336	
Station: 3100		337		338		339		340	
Station: 3100		341		342		343		344	
Station: 3100		345		346		347		348	
Station: 3100		349		350		351		352	
Station: 3100		353		354		355		356	
Station: 3100		357		358		359		360	
Station: 3100		361		362		363		364	
Station: 3100		365		366		367		368	
Station: 3100		369		370		371		372	
Station: 3100		373		374		375		376	
Station: 3100		377		378		379		380	
Station: 3100		381		382		383		384	
Station: 3100		385		386		387		388	
Station: 3100		389		390		391		392	
Station: 3100		393		394		395		396	
Station: 3100		397		398		399		400	
Station: 3100		401		402		403		404	
Station: 3100		405		406		407		408	
Station: 3100		409		410		411		412	
Station: 3100		413		414		415		416	
Station: 3100		417		418		419		420	
Station: 3100		421		422		423		424	
Station: 3100		425		426		427		428	
Station: 3100		429		430		431		432	
Station: 3100		433		434		435		436	
Station: 3100		437		438		439		440	
Station: 3100		441		442		443		444	
Station: 3100		445		446		447		448	
Station: 3100		449		450		451		452	
Station: 3100		453		454		455		456	
Station: 3100		457		458		459		460	
Station: 3100		461		462		463		464	
Station: 3100		465		466		467		468	
Station: 3100		469		470		471		472	
Station: 3100		473		474		475		476	
Station: 3100		477		478		479		480	
Station: 3100		481		482		483		484	
Station: 3100		485		486		487		488	
Station: 3100		489		490		491		492	
Station: 3100		493		494		495		496	
Station: 3100		497		498		499		500	
Station: 3100		501		502		503		504	
Station: 3100		505		506		507		508	
Station: 3100		509		510		511		512	
Station: 3100		513		514		515		516	
Station: 3100		517		518		519		520	
Station: 3100		521		522		523		524	
Station: 3100		525		526		527		528	
Station: 3100		529		530		531		532	
Station: 3100		533		534		535		536	
Station: 3100		537		538		539		540	
Station: 3100		541		542		543		544	
Station: 3100		545		546		547		548	
Station: 3100		549		550		551		552	
Station: 3100		553		554		555		556	
Station: 3100		557		558		559		560	
Station: 3100		561		562		563		564	
Station: 3100		565		566		567		568	
Station: 3100		569		570		571		572	
Station: 3100		573		574		575		576	
Station: 3100		577		578		579		580	
Station: 3100		581		582		583		584	
Station: 3100		585		586		587		588	
Station: 3100		589		590		591		592	
Station: 3100		593		594		595		596	
Station: 3100		597		598		599		600	
Station: 3100		601		602		603		604	
Station: 3100		605		606		607		608	
Station: 3100		609		610		611		612	
Station: 3100		613		614		615		616	
Station: 3100		617		618		619		620	
Station: 3100		621		622		623		624	
Station: 3100		625		626		627		628	
Station: 3100		629		630		631		632	
Station: 3100		633		634		635		636	
Station: 3100		637		638		639		640	
Station: 3100		641		642		643		644	
Station: 3100		645		646		647		648	
Station: 3100		649		650		651		652	
Station: 3100		653		654		655		656	
Station: 3100		657		658		659		660	
Station: 3100		661		662		663		664	
Station: 3100		665		666		667		668	
Station: 3100		669		670		671		672	
Station: 3100		673		674		675		676	
Station: 3100		677		678		679		680	
Station: 3100		681		682		683		684	
Station: 3100		685		686		687		688	
Station: 3100		689		690		691		692	
Station: 3100		693		694		695		696	
Station: 3100		697		698		699		700	
Station: 3100		701		702		703		704	
Station: 3100		705		706		707		708	
Station: 3100		709		710		711		712	
Station: 3100		713		714		715		716	
Station: 3100		717		718		719		720	
Station: 3100		721		722		723		724	
Station: 3100		725		726		727		728	
Station: 3100		729		730		731		732	
Station: 3100		733		734		735		736	
Station: 3100		737		738		739		740	
Station: 3100		741		742		743		744	
Station: 3100		745		746		747		748	
Station: 3100		749		750		751		752	
Station: 3100		753		754		755		756	
Station: 3100		757		758		759		760	
Station: 3100		761		762		763		764	
Station: 3100		765		766		767		768	
Station: 3100		769		770		771		772	
Station: 3100		773		774		775		776	
Station: 3100		777		778		779		780	
Station: 3100		781		782		783		784	

FORMAT FOR NORMAL & STORM MAGNETOGRAMS (SAMPLE ONLY)

SEE PRELIMINARY CALIBRATION DATA FOR SCALE VALUES & BASELINE VALUES

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

NORMAL MAGNETOGRAMS

STORM MAGNETOGRAMS

STORM MAGNETOGRAMS